

Dezernat Forschung FONA / GSW: Ausgabe vom 3. Juni 2019

# **Forschungsnachrichten** Bereich Geistes- und Sozialwissenschaften

Ausschreibungen | Schwerpunkte | Programme | Stipendien | Preise u.v.m.





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# Arcus Foundation: Great Apes and Gibbons Grants

Fund ID:	S8472
Status:	Open for Applications
Last updated:	Not specified

Funding for projects that promote conservation and international protection of the world's great apes.

#### **Fund Information**

Funding body:	Arcus Foundation
Maximum value:	Discretionary
Application deadline:	None specified

## **Extended Description**

A leading global organisation in its field, the Arcus Foundation is dedicated to the idea that people can live in harmony with one another and the natural world, believing that respect for diversity among humans and in nature is essential to a positive future for the planet and all its inhabitants. The Foundation works with experts and advocates for change to ensure that LGBT (lesbian, gay, bisexual and transgender) people and great apes thrive in a world where social and environmental justice are a reality. Based in New York (USA) and Cambridge (UK) it works globally to support its partners in their pursuit of lasting change.

#### **Great Apes & Gibbons Programme**

Arcus' Great Apes & Gibbons programme strategy is driven by its mission to ensure conservation and respect for the world's gorillas, chimpanzees, bonobos, orangutans, and gibbons, who are under threat in every country where they live.

The foundation's 10-year strategy focuses on priority ape-range landscapes across 18 countries in Africa and Asia, as well as two countries, the US and Kenya, where apes are held in captivity outside of their range. The 2016-2026 strategy aims to:

- Reconcile socio-economic development and conservation activities in priority ape landscapes.
- Build an effective movement of institutions and leadership addressing current and emerging threats to apes.
- Increase respect for the intrinsic value of apes, diminishing their exploitation and ensuring they are provided appropriate care.

Across these landscapes, the Foundation support holistic, collaborative and long-term approaches by a range of actors from the conservation and other sectors to promote behaviour change, including development of policy and legal challenges; strengthening tools, monitoring, and law enforcement; engaging local communities and leaders in improved and sustainable livelihoods; and developing strong public awareness and thought leadership.

## **Eligibility Criteria**

Funding is available for any organisation working in the target area of great apes and gibbon conservation in any country worldwide.

#### **Value Notes**

Grant amounts range from small, one-time contributions to larger, multi-year investments, with the majority falling between \$100,000 and \$150,000 per year.

#### **Restrictions**

The Foundation does not make grants to Individuals, for lobbying purposes, election campaigns or medical research.

#### **Previous Successes**

Previous projects funded by the Foundation include:

- Biotope: 32 months of support to work in the Fouta Djallon region of Guinea, reinforcing the coexistence of humans and chimpanzees by engaging directly with local communities to achieve positive conservation and livelihood outcomes, \$700,000, Meze, France.
- Bristol, Clifton and West of England Zoological Society: One year of funding to aid the Society's work in the conservation of the western lowland gorilla in Monte Alén National Park, Equatorial Guinea, by collecting baseline data to improve global knowledge of ape presence and distribution, \$65,000, Clifton, UK.
- Faculty of Humanities of Leiden University: Three years of support to pursue the One Health initiative as a normative approach to the welfare of great apes living in the wild, \$195,000, Leiden, The Netherlands.
- International Union for the Conservation of Nature and Natural Resources: Support over three years to strengthen IUCN's global policy work and inform conservation policy and practice in West and Central Africa, \$297,000, Gland, Switzerland.

#### **Application Procedure**

The Foundation operates an online grants management system to manage applications.

The application stages are as follows:

- Submit an Initial Funding Concept (IFC) using the online system. The IFC can be **submitted at any time**.
- Submission of a Letter of Inquiry and Full Proposal: If the IFC is accepted the next stage is a Letter of Inquiry and Full Proposal, which includes the submission of additional organisational and project-specific documentation.
- Proposal review and funding determination: The review may include programme officers, directors, vice presidents, the Executive Director and the Board of Trustees. The timeframe varies depending on the size and scope of the proposal. Applicants will be notified as soon as possible of the final decision.

## **Useful links**

Arcus Foundation http://www.arcusfoundation.org/

Arcus Foundation Great Apes & Gibbons Programme <u>http://www.arcusfoundation.org/what-we-support/great-apes/</u>

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Arcus Foundation Arcus UK Office CB1 Business Centre Leda House 20 Station Road Cambridge CB1 2JD UK Tel: +44-1223 653040

## **Berthold Leibinger Project Grants**

Fund ID:	S13350
Status:	Open for Applications
Last updated:	Not specified

Grants are available for scientific, religious, cultural and charitable activities in Germany.

#### **Fund Information**

Funding body:	Berthold Leibinger Stiftung
Maximum value:	Discretionary
Application deadline:	None specified

#### **Extended Description**

The Berthold Leibinger Foundation (Berthold Leibinger Stiftung) is a non-profit organisation that was established in 1992 with the goal to promote science, technology, society and culture. The Foundation supports cultural initiatives, religious communities in need, charitable projects, scientific organisations and research institutions.

In addition to offering project grants, the Foundation also awards research prizes to support innovation in science and foster international research. Since 2011 the Berthold Leibinger Stiftung has endowed a chair at the University of Stuttgart dedicated to researching the interaction between science, technology, society and culture.

The funding activities of the Berthold Leibinger Foundation in the area of science are focused on applied laser technology.

Funding is provided in the form of project grants to support scientific organisations and institutions.

In the past, this included financial support to organise scientific events and publish research results.

#### **Eligibility Criteria**

Eligible for the Berthold Leibinger Project Grants are organisations or institutions whose projects promote scientific, religious, cultural and charitable activities in Germany.

#### Value Notes

There are no minimum or maximum funding levels stated by the funder for this opportunity.

#### Restrictions

Financial support is granted only to organisations and institutions – private individuals cannot receive funding.

No support is given for the following activities:

- Celebrations and anniversaries.
- Stays abroad.
- Conferences.
- Ballet and dance.
- Films.

#### **Application Procedure**

There is no specific deadline for applications.

#### **Useful links**

Berthold Leibinger Foundation (BLS) http://www.leibinger-stiftung.de/en/foundation/mission-statement.html BLS Areas of Support https://www.leibinger-stiftung.de/de/foerderaktivitaeten/

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Berthold Leibinger Stiftung Berthold Leibinger Stiftung Johann-Maus-Str. 2 71254 Ditzingen Germany Tel: +49 7156-303-35201 Fax: +49 7156 303-935205 E-Mail: webmaster@leibinger-stiftung.de

## **BMBF - Quality Developments in Science: Maso-Level Studies**

Fund ID:	S17223
Status:	Open for Applications
Last updated:	Not specified

Funding is provided for research projects which explore and develop approaches and concepts for quality development at institutions of higher education and non-educational research institutions in Germany.

#### **Fund Information**

Funding body:	Bundesministerium für Bildung und Forschung (BMBF - Federal Ministry of Education and Research)
Maximum value:	Discretionary
Application deadline:	12-07-2019

#### **Extended Description**

The present call is part of the German government's overall programme for research on higher education and scientific research (Wissenschafts- und Hochschulforschung, www.wihoforschung.de). The call is issued by the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung - BMBF)

and aims to support research projects which address key areas of impact for the successful development of the research sector in Germany.

On the background of a number of structural and organisational reforms in the higher education sector in Germany, this initiative is designed to encourage critical reflection on a range of recent developments while providing empirically founded insights and impulses for the future development of the sector with the aim of retaining high quality standards.

As part of the overarching programme for research on higher education and scientific research, the BMBF will publish a series of thematically focussed calls. This call on "Quality Developments in Science: Meso Level Studies."

The initiative is divided into four research areas.

Research projects may address one of these areas or combine several areas in one research question.

• <u>Cross-institutional approaches to quality assurance and development in the science system:</u>

Funding is provided for research projects that enhance the effectiveness of quality assurance systems in the context of institutional structures or external assessments.

• <u>Peer review procedures to ensure good scientific practice (publications and conferences):</u>

Funding is provided for research projects on peer review procedures, including questions of suitability and the potential and value of differently designed peer-supported selection processes. Possible topics include discipline-specific requirements and special features as well as the development of alternative selection procedures and/or the identification of indicators correlated with high-impact journals. Projects that look at existing or ongoing procedures and solutions for uncovering predatory journals or pseudo conferences are also supported.

• <u>Reporting Approaches:</u>

Eligible for funding are international comparative studies that allow the adaptation of foreign reporting system to national contexts.

• Success and failure as indicators in science:

Funding is provided for research projects which investigate approaches, models and theories that measure success and failure in research and teaching. Projects that deal with the causes of supposedly successful research publications which are based on manipulated or deliberately false results and findings are also supported.

• <u>Institutional autonomy and quality effects for teaching, research and transfer:</u> Funding is provided for projects which investigate connections between institutional autonomy and research, and teaching and/or transfer quality of individual scientific institutions.

The focus should be on one of the following two aspects:

- Changes in individual autonomy in research, teaching and transfer that may be associated with the strengthening of the upper and middle management levels in scientific institutions as part of governance reforms, and the associated quality effects.
- Prerequisites for success for international research collaborations with scientific institutions that differ in their governance and possible effects of such research collaborations on the respective governance formats.

Based on research results, this funding line offers the possibility to apply for transfer and follow-up projects.

Applicants are advised to refer to the original BMBF call (German only) for further details on each of these research areas.

The initiative is administered by the project management agency DLR on behalf of BMBF.

## **Eligibility Criteria**

The following non-profit institutions in Germany may apply:

- Institutions of higher education (Hochschulen).
- Non university research institutions.

At the time of disbursement of a granted grant, the presence of a body serving the activity of the beneficiary is required in Germany.

Applications are open both for individual as well as collaborative projects which bring together a consortium of research partners. In the case of a research consortium, the partners of the consortium must elect a coordinator and draw up a cooperation contract in line with BMBF guidelines (see BMBF Vordruck Nr 0110). The participation of international partners is also possible but must be supported with a clear presentation of the generated added value for the overall topic.

The promotion of early-career researchers should be an integral part of the project design. Applicants need to provide evidence of relevant experience and expertise in the area of science and HEI research.

The application of junior researcher groups is particularly encouraged. Junior researcher groups may be based at HEI or research institutions and may include one group leader and three additional personnel. Applicants are asked to refer to section 4 of the BMBF call for further details on the conditions for the participation of junior research groups.

The initiative includes supplementary measures which will facilitate networking between the different projects within the programme. In order to be considered, applicants must therefore display the willingness to contribute to these knowledge-transfer measures.

Research institutes which are funded by the government at any level can only receive additional funding through this scheme under exceptional circumstances.

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#### Value Notes

Funding is provided in the form of a non-repayable project grant and may be provided to cover the following types of costs:

- Research personnel costs, including research staff (TV-L 13).
- Travel costs.
- Material & investments costs.
- Publication costs (Open Access).
- Subcontracts and services.
- Costs related to data archiving services, data management or the purchase of data usage rights.

For institutions of higher education as well as research institutions, funding of up to 100% of project-related costs may be provided. For non-economic research projects at higher education institutions, an additional 20% project allowance can be granted.

In the interest of knowledge transfer and networking, funding is also provided for the organisations of workshops and symposia and for related travel expenses.

A number of additional BMBF guidelines apply, including NKBF 2017, NABF and BNBest-mittelbarer Abruf-BMBF (please refer tosection 6 of original call).

#### **Match Funding Restrictions**

In justified cases, third-party funding is supported.

#### Restrictions

The implementation of common quality assurance measures in scientific institutions is not eligible for funding.

#### **Application Procedure**

The scheme comprises a two-stage application process, with an initial call for outline proposals followed by the submission of a full, formal application for successful candidates.

Initial outline proposals must be created via online application tool easy-online.

#### Outline proposals must be submitted by the deadline of 12 July 2019.

Detailed application guidelines are available in the BMBF call (see section 7.2.1).

In the second stage, the research coordinator submits a project outline on behalf of the applicant research consortium by the given deadline and via the online application platform.

## **Useful links**

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BMBF - Quality Developments in Science: Maso-Level Studies (German only) <u>https://www.bmbf.de/foerderungen/bekanntmachung-2440.html</u>

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR - German Aerospace Centre) DLR Projektträger Heinrich-Konen-Straße 1 53227 Bonn Tel: +49 22 83 82 10 E-Mail: <u>contact-dlr@dlr.de</u>

#### Calls and deadlines

Information on future calls is indicative only and may be subject to change.

#### **Outlines Deadline**

Application start date:	30-04-2019
Application end date:	12-07-2019

# <u>BMBF - Resource-efficient Circular Economy: Innovative Product</u> <u>Cycles</u>

Fund ID:	S14565
Status:	Discontinued
Last updated:	Not specified

Funding is provided for collaborative research projects dedicated to developing innovative, and economically viable product cycles, networks and cascade systems.

## **Fund Information**

Funding body:	Bundesministerium für Bildung und Forschung (BMBF - Federal Ministry of Education and Research)
Maximum value:	Discretionary
Application deadline:	None specified

## **Extended Description**

In the context of an impending crisis of scarce resources and waste management in developed and developing countries, this initiative by the German Federal Ministry of Education and Research (Bundesministerium für Bildung und Forschung - BMBF) aims to address urgent needs for higher resource efficiency and a dramatically altered economic model which decouples economic growth from resource consumption.

The initiative's focus is on collaborative research projects in the field of applied and industrial research and development. Research projects must include partners along the entire value chain and display a high level of economic and/or technical risk. Research consortia should take an interdisciplinary and systemic approach to sustainability and also consider the socio-economic context.

The aim of the initiative is the development of solutions, products and services for direct practical application. Projects should be able to overcome obstacles in innovation and application and develop new forms of cooperation. All solution approaches should have model character and should allow for results to be transferable to other contexts. The participation of small and medium-size businesses and enterprises (SME) as well as users and consumers is particularly encouraged.

Each research project should also be accompanied by an analysis of steps for the removal of obstacles for a high quality circular economy such as legal aspects governing eg use of chemicals, waste management, product liability, producer responsibilities, copyrights as well as areas such as user expectations, economic incentive systems or long-term stability of standards and regulations.

Project proposals must address one of the following research areas:

- Design concepts for recirculation of products.
- Innovative business models for a circular economy.
- Circular economy through digital technologies.

Further details about the thematic focus of each of these areas are available in the original BMBF call (point 2, German only).

In addition to these three research areas, the initiative will also provide funding for networking and transfer projects. These projects will connect the different elements of the initiative and provide useful feedback and input for the participating consortia.

The initiative is part of the German government's research programme for sustainable development (Forschung für Nachhaltige Entwicklung – FONA3). It is administered by the project management agency Projektträger Jülich (PtJ) on behalf of BMBF.

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## **Eligibility Criteria**

Eligible for funding are the following types of organisations in Germany:

- Institutions of higher education.
- Non-educational research institutions.
- Commercial businesses and enterprises with research and development capacities.
- Local authority and federal state authority (Länder) bodies.
- Social organisations such as foundations, membership organisations and associations.

Partners based in the EU may also participate but are subject to different funding regulations.

The participation of small- and medium-sized businesses (according toEU definitions) is particularly encouraged.

Publicly funded research institutions that receive their basic funding from the German federal government or its states (Länder) may have to meet additional criteria in order to receive funding of project-related costs.

The partners of a research consortium must elect a coordinator (usually from the industry sector) and draw up a cooperation contract in line with BMBF guidelines.

#### Value Notes

Funding is provided in the form of a non-repayable project grant. The maximum funding period is generally limited to three years.

Funding may be provided to cover the following types of costs:

- Personnel costs.
- Travel costs.
- Material costs.
- Subcontracts and services.
- Investments for equipment.

For institutions of higher education as well as research institutions, funding of up to 100% of project-related costs may be provided. In the case of higher education institutions, an additional 20% project allowance can be granted.

For local authority bodies, funding of all project-related costs may be provided. A cost contribution by local authorities is welcomed but not mandatory.

For commercial business and enterprises funding of up to 50% of project-related costs may be provided. In line with BMBF guidelines, commercial businesses and enterprises are expected to cover at least 50% of their project-related costs. SME may be eligible for additional support.

A number of additional BMBF guidelines apply, including NABF, ANBest-GK, BNBest-BMBF, BNBest-mittelbarer Abruf-BMBF and NKBF 2017 (please refer tooriginal call).

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## **Match Funding Restrictions**

In line with BMBF guidelines, commercial businesses and enterprises are expected to cover at least 50% of their project-related costs.

Applicants should familiarise themselves with the EU Framework for Research and Innovation and should check whether the proposed project, or project elements, is more suitable for full- or co-funding through EU sources. Applicants should include details of enquiries for EU funds with their project application.

#### Restrictions

Excluded from the scope of the initiative are projects focussing primarily on recycling processes of materials for the production of secondary resources.

Funding cannot be provided for investments into construction projects.

#### **Terms and Conditions**

Outline proposals will be reviewed according to the following criteria:

- Compliance with the formal funding requirements.
- Contribution to the overall goals of the initiative (thematic suitability, relevancy of addressed problem).
- Expected impact of project (development of circular economy, increase of reuse and recycle quota, effective conservation of resource, increase of resource productivity, decrease of resource extraction or avoidance of environmental pollution, implementation of innovative business model).
- Level of innovation (originality, quality of approach / technology, novelty of research question and solution approach, research risk, attainability of global leading position).
- Scientific-technical quality of approach (quality and efficiency of methodology, interdisciplinarity, knowledge production, adaptation of findings from different research areas, systemic approach).
- Feasibility and consistency of exploitation plan (expected results, application potential and implementation concept, dissemination of results and transfer).
- Qualification of consortium (profile and capacity of partners, interdisciplinary collaboration, balanced character of consortium, level of participation of partners from the industry.
- Quality and adequacy of work plan, time plan and resource plan.

Once funding has been accepted, recipients agree to participate in the BMBF's review procedures and provide information which will allow for the evaluation of the initiative's overall success.

The BMBF expects that the findings of the projects it funds be made available to the public, ideally though Open Access publishing.

#### **Previous Successes**

The FONA website offers an overview of current research initiatives by the BMBF and the projects it funds (German only).

## **Application Procedure**

The scheme comprises a two-stage application process, with an initial invitation for outline proposals followed by the submission of a full, formal application for successful candidates.

Initial outline proposals must be submitted in German via online submission portal PT-Online.

#### Applications may be submitted until the deadline of 26 April 2018.

In addition to the electronic submission, applicants are also required to post hardcopies of their proposal to the project management agency.

Detailed application guidelines are available in the BMBF call (see section 7.2.1).

Applicants are advised to contact the project management agency prior to submitting their application.

In the case of a positive review, applicants will receive a new deadline for the submission of a full, formal funding application.

#### **Useful links**

FONA Website - Call Overview (German only) https://www.fona.de/de/ressourceneffiziente-kreislaufwirtschaft-innovative-produktkreislaeufe-22710.html

PtJ - Call Information (German only) https://www.ptj.de/projektfoerderung/fona/produktkreislaeufe

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Projektträger Jülich (PtJ - Project Management Jülich) Forschungszentrum Jülich GmbH Wilhelm-Johnen-Strasse 52428 Jülich Tel: +49 30 20199 431 E-Mail: <u>pti@fz-juelich.de</u>

# BMBF Research Initiative - Virtual and Augmented Reality in Vocational Training

Fund ID:	S14444
Status:	Discontinued
Last updated:	Not specified

Funding is provided for research and development projects which address the use of VR and AR for vocational training.

## **Fund Information**

Funding body:	Bundesministerium für Bildung und Forschung (BMBF - Federal Ministry of Education and Research)
Maximum value:	Discretionary
Application deadline:	None specified

#### **Extended Description**

As part of the German government's overall research funding programme "Digital Media in Vocational Training", this initiative by German Ministry of Education and Research (Bundesministerium für Bildung und Forschung - BMBF) aims to support the modernisation of vocational education in Germany in order to strengthen the country's overall economic competitiveness.

The initiative is designed to explore the usefulness of virtual reality (VR) or augmented reality (AR) technologies for teaching and learning in vocational training. It aims to support the development of new concepts while also encouraging reflection on their usefulness and adequacy.

Research projects within the initiative should therefore not only develop new concepts but also investigate the added value VR and AR learning and teaching concepts could generate for this particular kind of education.

The following aspects should be addressed in the development and implementation of VR/AR learning and teaching concepts:

- Didactic-methodological added value of learning and teaching concept.
- Demand-oriented, practical usability and sustainability of concept.
- Design of framework for the implementation of new concepts into practice.
- Development of new concepts on the basis of existing technologies (software and hardware).

Detailed information about each of these different research aspects is available in the original BMBF call (German only).

The initiative is administered by the project management agency DLR on behalf of BMBF.

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## **Eligibility Criteria**

Eligible for funding are institutions working in the research and development of VR and AR technologies and/or in the area of vocational training.

This includes the following types of organisations:

- Institutions of higher education.
- Non-educational research institutions.
- Commercial businesses and enterprises based in Germany, particularly SME.
- Vocational training bodies.
- Chambers and associations.
- Social institutions.
- Media institutions (media developers, media educators, authors).
- Businesses in the software and game industry.
- Technology manufacturers.

The participation of small- and medium-sized businesses (according toEU definitions) is particularly encouraged.

Publicly funded research institutions that receive their basic funding from the German federal government or its states (Länder) may have to meet additional criteria in order to receive funding of project-related costs.

Research consortia should include partners with expertise in the following areas:

- Media didactics
- Media technologies.
- Relevant professional/technical/specialist knowledge.
- Scientific expertise.

Applicants need to provide evidence of relevant experience and qualifications.

The partners of a research consortium must elect a coordinator and draw up a cooperation contract in line with BMBF guidelines (see BMBF Vordruck Nr 0110).

#### Value Notes

Funding is provided in the form of a project grant for a maximum funding period of 36 months.

All applicants are expected to contribute substantially to the overall project costs.

For institutions of higher education as well as research institutions, funding of up to 100% of project-related costs may be provided. In the case of higher education institutions, an additional 20% project allowance can be granted.

For commercial business and enterprises funding of up to 50% of project-related costs may be provided. In line with BMBF guidelines, commercial businesses and enterprises are expected to cover at least 50% of their project-related costs. Funding rates for SME may be higher. For further details please refer to the AGVOguidelines.

The following project-related costs are eligible for funding:

Personnel costs, travel costs (within Germany), costs of technical equipment (hardware and software) which are necessary for development and testing, costs associated with networking and ensuring the demand- and user-oriented nature of developments.

A number of BMBF guidelines apply, including ANBest-P, BNBest-BMBF98, BNBest-mittelbarer Abruf-BMBF and NKBF2017 (please refer tooriginal call).

#### **Terms and Conditions**

Outline proposals will be reviewed according to the following criteria:

- Contribution to the overall improvement of training quality in vocational education.
- Level of innovation of concept, focus on future-oriented learning and teaching approaches.
- Added value provided by VR / AR technology compared to other types of formats.
- Consideration of the thematic focus of the call (see point 2 of BMBF call).
- Information value, simplicity and transparency of outline proposal.
- Quality of evaluation concept for the tracking of the pedagogical added value of the VR / AR setting.
- Composition of consortium in relation to project aim.
- Broad impact of proposed concept.
- Scalability and openness of learning / teaching systems.
- Consideration of the diversity of the target group (gender, cultural mainstreaming, accessibility).

Once funding has been accepted, recipients agree to participate in the BMBF's review procedures and provide information which will allow for the evaluation of the initiative's overall success.

The BMBF expects that the findings of the projects it funds be made available to the public, ideally though Open Access publishing.

#### **Application Procedure**

The scheme comprises a two-stage application process, with an initial invitation for outline proposals followed by the submission of a full, formal application for successful candidates.

Initial outline proposals must be submitted via theonline submissions tool PT-Online. In addition to the online form, a hardcopy version of the proposal must also be submitted to the project management agency by post.

#### All outline proposals must be received by the deadline of 25 March 2018.

Applicants are advised to refer to the BMBF original call (see point 7.2.2.) for detailed application guideines.

In the case of a positive review, applicants will receive a new deadline for the submission of a full, formal funding application. Full, formal applications are submitted via the BMBF online application systemEasy-Online.

#### **Useful links**

BMBF Call for proposals (German only) https://www.bmbf.de/foerderungen/bekanntmachung-1531.html

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Nadja Dietze Deutsches Zentrum für Luft- und Raumfahrt e.V. (DLR - German Aerospace Centre) DLR Projektträger Heinrich-Konen-Straße 1 53227 Bonn Tel: +49 2 28 38 21 10 06 E-Mail: <u>DigitaleMedien@dlr.de</u>

## **CDMRP PCRP Health Disparity Research Award**

Fund ID:	S15418
Status:	Open for Applications
Last updated:	Not specified

Funding to support new ideas for prostate cancer research that have the potential to make an important contribution to reducing and ultimately eliminating disparities in prostate cancer incidence, morbidity, and mortality.

#### **Fund Information**

Funding body:	US Department of Defense - Congressionally Directed Medical Research Programs (CDMRP)
Maximum value:	750,000 USD (€ 670,000)
Application deadline:	27-06-2019

#### **Extended Description**

The US Department of Defense (DoD) Congressionally Directed Medical Research Program (CDMRP) was established in 1992 and is one of the largest funders of clinical research in the United States. CDMRP aims to foster novel approaches to biomedical research in response to the expressed needs of its stakeholders (the American public, the U.S military, and Congress). CDMRP fulfils this mission by funding high impact, high risk

and high gain projects that other agencies may not venture to fund. This is why all of the programmes managed by CDMRP share the common goal of advancing paradigm shifting research, solutions that will lead to cures or improvements in patient care, or breakthrough technologies and resources for clinical benefit.

The aim of the Prostate Cancer Research Program (PCRP) is to support research that will lead to the elimination of death from prostate cancer and enhance the well-being of Service members, Veterans, and all men experiencing the impact of the disease.

All applications for PCRP funding are required to address one or more of the PCRP Overarching Challenges.

The CDMRP PCRP Health Disparity Research Award supports promising research ideas that have high potential to make a significant impact in eliminating disparities in prostate cancer incidence, morbidity, mortality, and survivorship. The PCRP is interested in research that addresses all different aspects that contribute to health disparity in prostate cancer, including, but not limited to, social, cultural, and/or biological contributors. Proposed research ideas should be innovative, but primary emphasis will be placed on the potential impact of the proposed work.

## **Eligibility Criteria**

All organisations, including international organisations, are eligible to apply.

Eligible applicants are:

- Established Investigators: independent investigators at or above the level of Assistant Professor (or equivalent).
- New Investigators: investigators that meet the following criteria at the application submission deadline date:
  - Have the freedom to pursue individual aims without formal mentorship.
  - Have not previously received a PCRP Health Disparity Research Award and/or Idea Development Award.
  - Have completed at least three years of postdoctoral training or fellowship and are within ten years after completion of a terminal degree (excluding residency or family medical leave).

## **Additional Information**

The PCRP Overarching Challenges for 2019 are:

- Improve the quality of life for survivors of prostate cancer.
- Develop treatments that improve outcomes for men with lethal prostate cancer.
- Reduce lethal prostate cancer in African Americans, Veterans, and other high-risk populations.
- Define the biology of lethal prostate cancer to reduce death.

#### Value Notes

The maximum funding is \$750,000 for direct costs (plus indirect costs) for established investigators and \$600,000 for direct costs (plus indirect costs) for new investigators. The maximum duration is three years.

## **Application Procedure**

Application submission is a two-step process. Pre-applications must be submitted through the electronic Biomedical Research Application Portal (eBRAP). Full applications from extramural organisations (ie non-Department of Defense organisations) must be submitted through Grants.gov.

The deadlines for the 2019 Call for Proposals are:

- Pre-Application: 27 June 2019.
- Full Application: 18 July 2019.

#### **Useful links**

CDMRP Prostate Cancer Research Program (PCRP) <u>http://cdmrp.army.mil/pcrp/default</u>

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

#### Enquiries

US Department of Defense - Congressionally Directed Medical Research Programs (CDMRP) 1077 Patchel Street Fort Detrick MD 21702-5024 USA Tel: +1-301-682-5507 E-Mail: <u>help@ebrap.org</u>

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Call for Proposals: Pre-Application Deadline (W81XWH-19-PCRP-HDRA)

Application start date:	07-05-2019
Application end date:	27-06-2019

# Chafea Consumer Programme

Fund ID:	S5290
Status:	Open for Applications
Last updated:	Not specified

The Consumer Programme aims to ensure a high level of consumer protection and the effective application of consumer protection rules.

#### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	04-07-2019

## **Extended Description**

The programme of Community Action in the Field of Consumer Policy will complement, support and monitor the policies of the Member States and contribute to protecting the health, safety and economic and legal interests of consumers, as well as to promoting their rights to information, education and to organise themselves in order to safeguard their interests.

For the period 2014-2020, this will focus on the following areas:

- A single market of **safe products** for the benefit of citizens and as a component of competitive businesses and traders.
- A single market where **citizens are well represented by professional consumer organisations** whose capacity is built to meet the challenges of today's economic environment.
- A market where **citizens are aware and exercise their rights as consumers** so that they contribute to the growth of competitive markets, citizens must enjoy **access to redress mechanisms** in case of problems without needing to resort to court procedures which are lengthy and costly for them and the governments.
- A concrete and effective **collaboration between national bodies** to support the enforcement of consumer rights, support the consumers with advice.

## **Eligibility Criteria**

The Programme is open to the participation of:

- Member states.
- EFTA/EEA countries, in accordance with the conditions established in the EEA Agreement.

• Third countries, in particular countries to which the European Neighbourhood Policy applies, countries that are applying for, are candidates for, or are acceding to, membership of the European Union, and the western Balkan countries included in the stabilisation and association process, in accordance with the conditions laid down in the respective bilateral or multilateral agreements with those countries establishing the general principles for their participation in Community programmes.

Depending on the Action pursued, participation in the programme will involve public bodies, non-governmental and non-profit making organisations and, in some cases, higher education institutions. Further information will be provided with each Call for Proposals.

#### Value Notes

The Consumer Programme 2014-2020 has a total budget of €188.8 million.

Annual appropriations will be authorised by the budgetary authority within the limits of the financial framework.

Financial contributions by the Community shall not exceed the following levels:

- 50% of the costs of actions jointly financed by the Community and one or more Member States, or by the Community and the competent authorities of the third countries participating; except in the case of actions of exceptional utility the Community contribution to the costs of which shall not exceed 70%.
- 85% of the costs of actions intended to develop integrated European Master Degree courses in consumer issues.
- 50% of expenditure for the functioning of European consumer organisations.
- 95% of expenditure for the functioning of European consumer organisations representing consumer interests in the development of standards for products and services at Community level.

Indicative total amounts for individual Calls are given in the Calls for Proposals section.

#### Restrictions

Details of specific exclusions will be notified via Calls for Proposals.

#### **Application Procedure**

Applications are made online via the European Commission Funding and Tenders Portal. Applicants must first create an account by registering with the European Commission Authentication Service (ECAS).

Call documents, including guidelines and submission information can be found on the Portal under each Call for Proposals.

Assistance is available from the CHAFEA Consumer Programme helpdesk, email CHAFEA-CP-CALLS@ec.europa.eu.

#### **Useful links**

Consumer Programme http://ec.europa.eu/chafea/consumers/index\_en.htm

Consumer Programme Calls for Proposals http://ec.europa.eu/chafea/consumers/funding/calls-for-proposals/index\_en.htm

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

# Financial Contributions for Cooperation Between National Authorities Responsible for the Enforcement of the Consumer Protection Laws (CONS-CPC-2019)

Application start date:	07-05-2019
Application end date:	10-07-2019

This call for proposals implements the Objective IV (Enforcement) of the Consumer Programme aiming to support enforcement of consumer rights in particular by strengthening cooperation between national enforcement bodies and by supporting consumers with advice.

The purpose of the call for proposals is to support CPC authorities and other relevant bodies under Regulation (EC) No 2006/2004 and Regulation (EU) 2017/2394 by co-financing measures in one or both of the following priorities:

- Preparing the CPC authorities, other relevant bodies and other stakeholders for the new CPC Regulation (Regulation (EU) 2017/2394).
- Facilitating the activities of national authorities and, where applicable, other relevant bodies, to tackle potential breaches of the laws listed in the Annex of Regulation (EC) No 2006/2004 or Regulation (EU) 2017/2394.

A wide range of activities are eligible to be supported by grants provided that they can be linked to the above priorities. Such activities may include:

- Implementation and exchange of best practices regarding minimum investigation and enforcement powers.
- Preparing stakeholders for the enlarged scope (i.e. extended Annex) of Regulation (EU) 2017/2394.
- Staff training.
- Creation of online interfaces and monitoring tools.
- Development of networking tools including workshops.

- Creation of surveillance, e-enforcement tools, eg to analyse market trends, terms and conditions or check compliance with mandatory information requirements.
- Prepare stakeholders for external alerts.
- Other enforcement capacities, including purchase of equipment for product testing or carrying out activities to implement the 'Framework for selecting and testing of food products to assess quality related characteristics' or to build and gather evidence necessary to detect infringements.

The maximum duration of grant is 36 months. The total amount earmarked for co-financing the actions is €1 million. The financial contribution of the Union shall not exceed 50% of eligible costs or 70% of the eligible costs in case of an action of exceptional utility.

Applicants must be public or private entities established in an EU Member State or an EFTA/EEA country.

#### Links

#### Call for Proposals

#### Grants for Actions with Member States for Capacity Building of the Alternative Dispute Resolution Bodies for Consumer Disputes (CONS-ADR-2019)

Application start date:	07-05-2019
Application end date:	04-07-2019

The aim of this Call for Proposals is to facilitate the consumers' access to alternative dispute resolution entities compliant with Directive 2013/11/EU; including through measures for vulnerable consumers, developing the networking of national alternative dispute resolution entities, promoting monitoring activities on the functioning and the effectiveness of dispute resolution mechanisms.

The expected results:

- Increased accessibility of ADR entities to consumers, including in a cross-border context.
- Improved operational capacity in resolving consumer disputes.

Within these objectives, the following activities are eligible:

- Awareness raising on consumer ADR and the European ODR platform, including ADR networks, bringing knowledge on ADR and ODR to a wider groups of consumers and traders.
- ADR networks support: meetings, conferences, development of common tools and common knowledge.
- Case handling: development of case management systems, including information technology tools, advice and staff training on the relevant European legislation.
- ADR operational capacity: mentoring, study visits and consulting to allow ADR entities to implement working methods and organisational models to better fulfil their mission.

The total amount earmarked for co-financing the actions is €1 million. The maximum co-financing rate for each action is 50% of the eligible costs, within the following ceilings:

- For each selected mono-beneficiary proposal, the minimum grant requested cannot be lower than €10,000, while maximum grant requested cannot exceed €60,000.
- For each selected multi-beneficiary proposal (submitted by a consortium of at least two entities), the minimum grant requested cannot be lower than €20,000, while maximum grant requested cannot exceed €60,000.

The maximum grant amount (EU contribution) for each proposal selected for funding will be determined by applying the co-financing rate to the eligible costs of the action budget submitted by the applicant(s). Nevertheless, the maximum amount of a grant (EU contribution) envisaged for each selected proposal – be it mono-beneficiary or multi-beneficiary - cannot exceed €60,000.

The maximum duration of the action is 18 months.

Only applications from entities established and operating in the following countries are eligible:

- EU Member States.
- Countries of the European Free Trade Association (EFTA) participating in the European Economic Area (EEA).

Links

Call for Proposals

## **Creative Europe - Cross Sectoral Strand**

Fund ID:	S7542
Status:	Open for Applications
Last updated:	Not specified

Creative Europe is the framework programme for the cultural and creative sectors for 2014-2020. The programme targets the needs of the cultural and creative sectors, particularly in terms of promoting jobs and growth potential, and will promote cultural and linguistic diversity.

#### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary

Application deadline:
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### **Extended Description**

Creative Europe is the framework programme for the cultural and creative sectors for 2014-2020. It brings together the 2007-2013 programmes (Culture 2007, MEDIA and MEDIA Mundus) into a single comprehensive framework programme.

The programme takes into account the feedback to the Commission's Green paper 'Unlocking the potential of the cultural and creative industries' (COM (2010) 183), as well as the recommendations made by experts in the context of the culture open method of coordination and structured dialogue with the sector over the period 2008-2010.

Investing in the cultural and creative sectors directly contributes to the Europe 2020 Strategy's aim to promote smart, sustainable and inclusive growth. In 2008, the cultural and creative sectors contributed an estimated 4.5% to EU GDP, and employed some 3.8% of Europe's workforce. Beyond this direct contribution to jobs and growth, these sectors trigger spill-overs in other areas such as tourism, content for ICT and provide benefits for education, social inclusion and social innovation.

Creative Europe consists of the following three strands:

- A Cross-sectoral strand addressed to all cultural and creative sectors.
- A Creative Europe Culture strand addressed to the culture and creative sectors.
- A Creative Europe MEDIA strand addressed to the audiovisual sector.

The general objectives of the Programme are to:

- Foster the safeguarding and promotion of European cultural and linguistic diversity.
- Strengthen the competitiveness of the cultural and creative sectors with a view to promoting smart, sustainable and inclusive growth.

The specific objectives of the Programme are to:

- Support the capacity of the European cultural and creative sectors to operate transnationally.
- Promote the transnational circulation of cultural and creative works and operators and reach new audiences in Europe and beyond.
- Strengthen the financial capacity of the cultural and creative sectors, and in particular small and medium-sized enterprises and organisations.
- Support transnational policy cooperation in order to foster policy development, innovation, audience building and new business models.

## **Eligibility Criteria**

Professionals, organisations, businesses and institutions active in the cultural and creative sectors will be eligible to participate.

The cultural and creative sectors include: architecture, archives and libraries, artistic crafts, audiovisual (including film, television, video games and multimedia), cultural heritage, design, festivals, music, performing arts, publishing, radio and visual arts.

Participation in the programme will be open to Member States, acceding countries, candidate countries and potential candidates benefiting from a pre-accession strategy.

It will also be open for bilateral or multilateral cooperation actions with other non EU Member States on the basis of additional appropriations.

#### Value Notes

A total budget of €1.46 billion is proposed for 2014-2020. 15% of the overall budget will be available to the cross-sectoral strand.

**Creative Europe Desks** - grants will be awarded without a call for proposals on the basis of article 190.d) RAP. Indicative budget: €5.4 million

**Support to Presidency conferences** - grants will be awarded without a call for proposals on the basis of article 190.c) RAP. Indicative budget: Greek Presidency: €200,000; Italian Presidency: €200,000

Benchmarking on cultural diversity in cultural institutions - Indicative budget: €500,000

#### **Match Funding Restrictions**

The percentage of project costs that the grant will cover will be detailed in the Call specification.

In-kind contributions are not eligible match funding. All match funding must be able to be entered in to an accounting system and "cash" must change hands.

#### **Restrictions**

Individuals are not eligible to apply.

#### **Application Procedure**

The Creative Europe programme is managed by the Education, Audiovisual and Culture Executive (EACEA) on behalf of the European Commission. For enquiries and further information, applicants are advised to contact the Creative Europe Desk for their country.

The programme will be implemented through annual work programmes, which will set out the objectives, expected results, method of implementation and the total amount of the financing for each year.

The Annual Work Programme (AWP) will also include information on the actions to be financed, an indication of the amount allocated to each action and an indicative implementation timetable.

For grants, the AWP will include the priorities, the essential evaluation criteria and the maximum rate of cofinancing.

#### **Call for Experts**

Reference: EACEA/2013/1

- Opened: 3 September 2013
- Closes: 31 December 2020

This Call aims to establish a list of experts to assist the Education, Audiovisual and Culture Executive Agency with the management of EU programmes in the field of education, audiovisual, culture, youth, sport, EU aid volunteers, and citizenship or any other programmes delegated to the Agency. Tasks may include evaluating proposals, monitoring projects, studies and analyses, translation etc.

The call for expressions of interest is open for the lifetime of the programmes managed by the Agency.

External expertise may be needed in the following programmes:

- Erasmus+ (education, youth, sport)
- Europe for Citizens
- Creative Europe (MEDIA, culture)
- EU Aid Volunteers

More information is available from the EACEA website.

#### **Useful links**

Creative Europe - Cross-Sector Strand https://ec.europa.eu/programmes/creative-europe/cross-sector

Creative Europe - Funding Calls <u>http://eacea.ec.europa.eu/creative-europe/funding\_en</u>

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

#### **Creative Europe - Culture**

Education, Audiovisual and Cultural Executive Agency (EACEA) Rue Colonel Bourg/Kolonel Bourgstraat 139 1140 Bruxelles/Brussel Belgique Tel: +32 22991111 E-Mail: <u>eacea-info@ec.europe.eu</u>

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Bridging Culture and Audiovisual Content Through Digital (EACEA/06/2019)

Application start date:	29-04-2019
Application end date:	20-06-2019

This Call has been launched to support project(s) at the crossroads between different cultural and creative sectors (including audiovisual), for instance through the use of innovative technologies, including virtual reality. It will also foster innovative cross-sectoral approaches and tools to facilitate access, distribution, promotion and monetisation of culture and creativity, including cultural heritage.

The focus should be on the following aspects:

- Problem solving approach and addressing challenges for the cultural and creative sectors.
- Audiences and the user experience are of paramount importance in scoping the problem.
- Technology is an enabler in addressing key problems, rather than an objective on its own.
- Support innovation as regards the creation, distribution and promotion of creative content, addressing cross-sectoral collaboration as well as the use of enabling technologies is also an objective.

The proposal must be submitted by a consortium composed of at least three legal entities coming from three different countries participating in the Creative Europe Programme and representing a diverse range of expertise across several cultural and creative sectors, including audiovisual. All the members of the consortium must be established in a country participating to the Creative Europe Programme.

Proposals may be submitted by non-profit organisation (private or public); public authorities (national, regional, local); international organisations; universities; educational institutions; research centres; and profit making entities. Natural persons are not eligible except self-employed persons or equivalent (ie sole traders) where the company does not possess legal personality separate from that of the natural person.

# If the United Kingdom withdraws from the EU during the grant period without concluding an agreement with the EU ensuring in particular that British applicants continue to be eligible, UK applicants will cease to receive EU funding (while continuing, where possible, to participate) or be required to leave the project.

The total budget available for the Call is estimated at  $\leq 1.75$  million. The minimum amount awarded to a single project will be  $\leq 150,000$ , up to a maximum of 60% of the total eligible costs of the project. The Agency expects to fund between six and ten proposals. The period of eligibility of costs will start on 1 January 2020 and on 30 June 2021.

#### The deadline for applications is 20 June 2019.

A second Call for proposals will be published once the Work Programme 2020 is adopted.

Links

Call for Proposals

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# **Creative Europe - MEDIA**

Fund ID:	S7543
Status:	Open for Applications
Last updated:	Not specified

The MEDIA Strand of the Creative Europe programme supports the EU film and audiovisual industries in the development, distribution and promotion of their work.

#### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	31-05-2019

#### **Extended Description**

Creative Europe is the EU framework programme for the cultural and creative sectors for 2014-2020. It brings together the 2007-2013 programmes (Culture 2007, MEDIA and MEDIA Mundus) into a single comprehensive framework programme.

The programme takes into account the feedback to the Commission's Green paper 'Unlocking the potential of the cultural and creative industries' (COM (2010) 183), as well as the recommendations made by experts in the context of the culture open method of coordination and structured dialogue with the sector over the period 2008-2010.

Investing in the cultural and creative sectors directly contributes to the Europe 2020 strategy's aim to promote smart, sustainable and inclusive growth. In 2008, the cultural and creative sectors contributed an estimated 4.5% to EU GDP, and employed some 3.8% of Europe's workforce. Beyond this direct contribution to jobs and growth, these sectors trigger spill-overs in other areas such as tourism, content for ICT and provide benefits for education, social inclusion and social innovation.

The revised programme is a single comprehensive framework programme and consists of the following three strands:

• A Cross-sectoral Strand addressed to all cultural and creative sectors.

- A Culture Strand addressed to the culture and creative sectors.
- A MEDIA Strand addressed to the audiovisual sector.

The specific objectives of the MEDIA sub-programme are to:

- Launch projects with a European dimension and nurture new technologies.
- Enable European films and audiovisual works to find markets beyond national and European borders.
- Fund training and development schemes.

The training and market access schemes have a new Mundus dimension under Creative Europe.

## **Eligibility Criteria**

Organisations, businesses and institutions active in the film and audiovisual industries are eligible to participate.

Eligible actors may include:

- Independent production companies.
- Independent audiovisual production companies.
- European cinema/theatrical distributors.
- European entities private companies, non-profit organisations, associations, charities, foundations, municipalities or Town Councils.

Participation in the programme is open to Member States, acceding countries, candidate countries and potential candidates benefiting from a pre-accession strategy.

## Additional Information

Support is provided for the following measures:

- The development of European audiovisual works, in particular films and television works such as fiction, documentaries, children's and animated films, as well as interactive works such as videogames and multimedia with enhanced cross-border circulation potential.
- Activities aiming at supporting European audiovisual production companies, in particular independent production companies, with a view to facilitating European and international co-productions of audiovisual works including television works.
- Establishing systems of support for the distribution of non-national European films through theatrical distribution and on all other platforms as well as for international sales activities; in particular the subtitling, dubbing and audio-description of audiovisual works.
- Initiatives presenting and promoting a diversity of European audiovisual works, including short films, such as festivals and other promotional events.
- Activities aimed at promoting film literacy and at increasing audience's knowledge of, and interest in, European audiovisual works, including the audiovisual and cinematographic film heritage, in particular among young audiences.

#### Single Projects and Slate Funding

Support is available for single projects or a Slate of three to five projects intended primarily for cinema release, television broadcasting or commercial exploitation on digital platforms in the following categories:

- Animation
- Creative documentary
- Fiction

Eligible audiovisual works include:

- Feature films, animations and creative documentaries of a minimum length of 60 minutes intended primarily for cinema release.
- Drama films (one-off or series) of a total duration of minimum 90 minutes, animation (one-off or series) of a total duration of minimum 24 minutes and creative documentaries (one-off or series) of a duration of minimum 50 minutes (in case of series the minimum length per episode is 25 minutes) intended primarily for the purposes of television or digital platform exploitation.

#### **Television Programming**

The audiovisual work must be an independent European television production (fiction, animation or creative documentary) involving the participation of at least three broadcasting companies from several Member States or countries participating in the programme.

#### Distribution Selective Scheme - Support for the transnational distribution of European Films

The aim of this scheme is to encourage and support the wider transnational distribution of recent non-national European films by encouraging theatrical distributors in particular to invest in promotion and adequate distribution of non-national European films. The scheme also aims to encourage the development of links between the production and distribution sector thus improving the competitive position of non-national European films.

Support is for campaigns for the distribution of non-national European films, submitted as part of an eligible grouping of minimum seven distributors coordinated by the sales agent of the film.

The film must have been majority produced by a producer/producers established in countries participating in the MEDIA sub-programme and made with a significant participation by professionals from those countries. The film must be a recent work of fiction, animation or documentary of more than 60 minutes long and from a different country than the country of distribution.

Films from the UK must have a production budget of maximum of €10 million.

#### **Support for Film Festivals**

Audiovisual festivals which contribute to the priorities of the programme, in particular audience development as a means of stimulating interest in and improving access to European audiovisual works. Festivals must also meet the following conditions:

• A minimum of 70% of the eligible programming presented to the public during the festival, or a minimum of 100 feature films (or 400 short films) must originate from countries participating in the

MEDIA Sub-programme, of which, 50% of the films must be non-national and at least 15 of such countries must be represented.

Funding will be targeted at projects which:

- Demonstrate strong efficiency in audience development (especially toward young audience) by implementing activities before, during or after the event including year-long activities and/or decentralisation to other cities (with smaller partner festivals) and/or any efficient outreach activities towards non-core film festival audience.
- Organise initiatives for film literacy (for example film education) in close cooperation with schools and other institutions.
- Place strong emphasis on European films in particular, films from countries of low audiovisual production capacity.
- Place strong emphasis on non-national European programming and geographic diversity of nonnational European programming, demonstrate a concrete, realistic and strategic development in artistic, organisational and financial terms.

#### Value Notes

The MEDIA sub-programme has a budget of approximately €817.6 million (56% of the Creative Europe budget of €1.46 billion).

Maximum grant awards are as follows:

#### Audiovisual Single Projects and Slate Funding

The maximum contribution will be 50% of the eligible costs submitted by the producer subject to the following limits:

The maximum subsidy awarded for Single Project is a lump sum of:

- €60,000 for animation
- €25,000 for creative documentary
- €50,000 for fiction if the estimated production budget is equal/above €1.5 million.
- €30,000 for fiction if the estimated production budget is below €1.5 million

The maximum financial contribution which may be awarded for Slate Funding is between €70,000 and € 200,000.

#### **Television Programming**

- Drama and animation works up to €500,000 or 12.5% of the total eligible costs, whichever is the lower.
- Co-produced TV drama series with an eligible production budget of at least €10 million (consisting of at least six episodes each of a minimum length of 45 minutes) maximum €1 million.
- Creative documentary up to €300,000 or 20% of the total eligible costs whichever is the lower.

#### Support for the transnational distribution of European Films – the Cinema Selective Scheme

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• A lump sum, according to the number of screens outreached, of between €2,800 and €150,000.

#### **Film Festivals**

• A lump sum according to the number of European films in the programming of between €19,000 and €75,000.

### **Match Funding Restrictions**

The percentage of project costs that the grant will cover will be detailed in the Call specification. Applicants must be able to meet the balance of project costs.

In-kind contributions are not eligible match funding. All match funding must be able to be entered in to an accounting system and "cash" must change hands.

## Restrictions

The following restrictions apply:

- Individuals are not eligible to apply.
- The Culture Sub-programme will not support any projects including pornographic or racist material or advocating violence.
- Applicants must not be in a situation that would exclude them from participation and/or from award as defined by the Financial Regulation applicable to the general budget of the EU and its rules of application.
- No grant may be awarded retroactively for projects already completed.

Ineligible Costs:

- Return on capital
- Debt and debt service charges
- Provisions for losses or debts
- Interest owed
- Doubtful debts
- Exchange losses
- Costs of transfers from the Agency charged by the bank of a beneficiary
- Costs declared by a beneficiary in the framework of another action receiving an EU grant. (In particular, indirect costs shall not be eligible under a grant for a project awarded to a beneficiary who already receives an operating grant financed from the EU budget during the period in question)
- Excessive or reckless expenditure
- Contributions in kind
- Deductible VAT

#### **Application Procedure**

The Creative Europe programme is managed by the Education, Audiovisual and Culture Executive (EACEA) on behalf of the European Commission. For enquiries and further information, applicants are advised to contact the Creative Europe Desk for their country.

Applications must be submitted to the Executive Agency (EACEA) using the online application form (eForm).

The eForm is available for individual Calls for Proposals, along with relevant guidance documents, on the MEDIA website.

In order to submit an application, applicants must register their company in the Education, Audiovisual, Culture, Citizenship and Volunteering Participant Portal

The tool also allows applicants to upload different documents related to their organisation. These documents have to be uploaded once and will not be requested again for subsequent applications by the same organisation.

### **Useful links**

Creative Europe - Funding Calls <u>http://eacea.ec.europa.eu/creative-europe/funding\_en</u>

Creative Europe - Media Programme http://ec.europa.eu/culture/opportunities/audiovisual-support/index\_en.htm

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Education, Audiovisual and Cultural Executive Agency (EACEA) Rue Colonel Bourg/Kolonel Bourgstraat 139 1140 Brussels Belgique Tel: +32 2299111 E-Mail: <u>eacea-info@ec.europe.eu</u>

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Support for the Distribution of Non-national Films Call - Second Round (EACEA/28/2018)

Application start date:	24-10-2018
Application end date:	04-06-2019

Funding under this Call will support campaigns for the pan-European distribution of eligible European films, outside their country of origin, coordinated by the sales agent of the film. A minimum of seven different distributors must be attached to the project. Out of the seven distributors: at least three from high/medium capacity countries and at least two from small/very small capacity countries. The film must have been majority produced by a producer/producers established in countries participating in the MEDIA sub-programme and made with a significant participation by professionals from those countries.

The film must:

- Be a work of fiction (including animated films) or documentary with a minimum duration of 60 minutes long.
- Not consist in alternative content (operas, concerts, performances, etc.) or advertising, pornographic or racist material or advocate violence.

The production budget of the film cannot exceed €15 million. For this round, the film must be released between 1 October 2019 and 1 April 2021 and its first copyright must not have been established before 2018.

The total budget available is €9.851.144. A maximum of 25% of the budget will be allocated to films with a production budget over €10 million. The financial contribution from the EU cannot exceed 50% of the total costs. The investment by third parties needs to be estimated in the "revenue part" of the budget.

Support is limited to 50% of the P&A incurred by third parties within the following limits:

- Max €150,000 for FR, UK, ES, IT and DE.
- Max €60.000 for AT, BE, NL, PL.
- Max €30.000 for CZ, DK, FI, EL, HU, NO, PT, SU.
- Max €10.000 for all other territories.

#### Links

Call for Proposals

#### 2019 Distribution Automatic Support Call (EACEA/27/2018)

Application start date:	31-10-2018
Application end date:	05-09-2019

This Call for Proposals offers support for establishing systems of support for the distribution of non-national European films through theatrical distribution and on all other platforms as well as for international sales activities, in particular the subtitling, dubbing and audio-description of audiovisual works.

The Cinema Automatic scheme works in two phases:

- The generation of a potential fund, proportional to the number of paying admission tickets sold during the reference period (2018) for non-national European films in countries participating in the MEDIA Sub-programme, up to a fixed ceiling per film and adjusted for each country.
- Reinvestment: the potential fund thus generated by each beneficiary is to be reinvested in:
  - the co-production of eligible non-national European films;

- the acquisition of distribution rights, for example by means of minimum guarantees, of eligible non-national European films; and/or in
- the release of eligible non-national European films (promotion and advertising, digitisation and transcoding costs).

Applicants must be European cinema / theatrical distributors involved in commercial activity designed to bring to the attention of a wide audience a film for the purpose of exploitation in cinema theatres and whose activities contribute to the attainment of the above objectives. Applicants must be established in one of the countries participating in the MEDIA Sub-programme and owned directly or by majority participation, by nationals from such countries.

To generate a potential fund and to qualify for reinvestment measures, the film must have been majority produced by a producer/producers established in countries participating in the MEDIA sub-programme and produced with a significant participation by professionals from those countries.

The film must be a work of fiction, animation or documentary of more than 60 minutes long and from a different country than the country of distribution. The film must not consist in alternative content (operas, concerts, performances, etc.) or advertising, pornographic or racist material or advocate violence. For the film to be eligible, its first copyright must not have been established before 2015.

The total budget available is €24.35 million. The financial contribution of the Union cannot exceed 60% of the total eligible costs.

#### Links

#### Call for Proposals

#### 2019 Distribution Sales Agent Support Call (EACEA/29/2018)

Application start date:	31-10-2018
Application end date:	07-11-2019

The Sales Agents scheme works in two phases:

- The Generation of a potential fund, which will be calculated according to the performance of the company on the European market during the reference period (2014-2018).
- Reinvestment of the potential fund thus generated by each company is to be reinvested in:
  - Minimum guarantees or advances paid for the international sales rights on eligible nonnational European films.
  - The promotion, marketing and advertising on the market of eligible non-national European films.

The duration of the action is 24 months from the starting date of the action

To generate a potential fund and to qualify for reinvestment measures, the film must have been majority produced by a producer/producers established in countries participating in the MEDIA sub-programme and made with a significant participation by professionals from those countries. The film must be a work of fiction, animation or documentary of more than 60 minutes long and from a different country than the country of

distribution. The film must not consist in alternative content (operas, concerts, performances, etc.) or advertising, pornographic or racist material or advocate violence. For the film to be eligible its first copyright must not have been established before 2014.

Applicants must be European companies acting as an intermediary agent for the producer, who specialises in the commercial exploitation of a film by marketing and licensing a film to distributors or other purchasers for foreign territories and whose activities contribute to the attainment of the above objectives. Applicants must be established in one of the countries participating in the MEDIA Sub-programme and owned directly or by majority participation, by nationals from such countries.

The total budget available is €3.5 million. The financial contribution of the EU cannot exceed 60% of the total eligible costs.

#### Links

#### Call for Proposals

#### 2019 Cinema Networks Call (EACEA/50/2018)

Application start date:	31-10-2018
Application end date:	31-05-2019

This Call is open to parties that were previously awarded a two-year Framework Partnership Agreement in 2018.

#### Links

#### Call for Proposals

#### Bridging Culture and Audiovisual Content Through Digital (EACEA/06/2019)

Application start date:	30-04-2019
Application end date:	20-06-2019

The role of digital technologies for the cultural and creative sector is at the heart of the European Commission's #Digital4Culture strategy. This Creative Europe action will implement project(s) at the cross roads between different cultural and creative sectors.

Support will be given to projects:

- Featuring new forms of creation at the cross roads between different cultural and creative sectors, including the audiovisual sector, and through the use of innovative technologies, including virtual reality.
- Fostering innovative cross sectoral approaches and tools to facilitate access, distribution, promotion and/or monetisation of culture and creativity, including cultural heritage.

The proposal must be submitted by a consortium composed of at least three legal entities coming from three different countries participating in the Creative Europe Programme and presenting a diverse range of expertise across several cultural and creative sectors, including audiovisual. All the members of the consortium must be established in a country participating in the Creative Europe Programme.

Proposals may be submitted by any of the following applicants:

- Non-profit organisation (private or public).
- Public authorities (national, regional, local).
- International organisations.
- Universities.
- Educational institutions.
- Research centres.
- Profit-making entities.

The total budget earmarked for the co-financing of projects under this call for proposals is estimated at €1.75 million. The minimum grant will be €150,000, representing maximum 60% of the total eligible cost of the project. The period of eligibility of costs will start on 1 January 2020 and will end on 30 June 2021 (18 months).

The Agency expects to fund between six and 10 projects.

Links

Call for Proposals

# <u>CREST Call: Research for Understanding, Mitigating and Countering</u> <u>Security Threats</u>

Fund ID:	S9305
Status:	Discontinued
Last updated:	Not specified

Funding is available for a programme of economic, behavioural and social science research to address some of the current threats to UK national and international security.

## **Fund Information**

Funding body:	Economic and Social Research Council (ESRC)
Maximum value:	£ 100,000 (€ 113,000)
Application deadline:	None specified

# **Extended Description**

The Centre for Research and Evidence on Security Threats (CREST) was commissioned in October 2015 by the Economic and Social Research Council (ESRC), with funding from the UK Security and Intelligence Agencies. It was established with the aim of providing world-leading, interdisciplinary research that maximises the value of economic and social science research to countering threats to UK and international security.

Following its successful 2015 commissioning, CREST has released a second Call for Research for Understanding, Mitigating and Countering Security Threats to initiate a programme of economic, behavioural and social science research that will contribute to the understanding of contemporary security threats or enhance the UK's capacity to detect and mitigate such threats.

Proposals are invited from Higher Education Institutions, research organisations, charities, commercial companies, and individuals from the UK and overseas who can demonstrate a capability to deliver a high-quality programme of research.

Research should take the form of one of two kinds of activities: **short projects** (of up to six months); **long projects** (of up to 12 months); and must address one of the following eligible topics:

#### • Behaviour change:

- How are effective security-related behaviour change interventions designed?
- How is the impact of behaviour change interventions within a security context measured?
- To what extent are behaviour change models applicable in non-Western contexts or across cultures?
- Information disclosure in online/virtual environments:
  - What factors are associated with increased and decreased information disclosure?
  - Are people more disposed to providing information online, or less willing because of the anonymity of the question-asker?
  - How do online differences vary across cultures, age groups and other individual differences?
- Information disclosure across contexts:
  - How does context changes peoples' willingness to disclose information about sensitive topics in face-to-face interactions?
  - Contextual differences might be physical location, the presence of others (and those others' roles) or linguistic manipulations.
- Enhancing long-term memory for complex events:
  - How can memory be enhanced for events encoded under a variety of conditions including stress, dual-tasking, or fatigue, or in conditions where one cannot easily use external memory aids?
  - How effective are popular techniques for enhancing long-term memory (for example the Method of Loci, other mnemonic strategies)?
  - How can they be trained and used effectively in the field?
- Assessing the health of a relationship:
  - How is the quality of a relationship between individuals, or between individuals and the groups or organisations to which they belong, assessed?

- Are there behavioural correlates of relational factors such as trust, loyalty, and commitment?
- How can an assessment take advantage of observations over time and across contexts?

#### • Measuring rapport:

- What behavioural correlates could afford effective measurement?
- How can we measure and monitor genuine 'rapport' in short interactions and longer relationships?
- How do you know when you have lost rapport?
- Can you have too much rapport (for example, could it lead to an interviewer losing objectivity)?

#### • Security and discretion:

- What can be learnt from cross-disciplinary research on how people think about, and deal with, secrets?
- What pressures are involved in keeping part of one's life secret from others, including from those close to you?
- What is known about the effects of individual differences, including age, gender, ethnicity?
- Are there particular strategies that help people cope?
- What factors influence the likelihood that someone will keep a secret / secrets?

#### • Investigative decision making under pressure:

- What is the efficacy of existing approaches (including from analogue contexts) for improving investigative decisions?
- How can such approaches best be implemented?
- What decision support tools show promise in security contexts?
- Making decisions about information value:
  - What factors are important when making assessments; what are the most effective techniques for making robust judgements; and what is the best way of training, and then implementing, such techniques?
  - How should an investigator make sense of diverse data points and come to a decision about, for example, the credibility of the information provided?
  - What framework or method would help investigators overcome decision biases?

#### • Scenario planning and prediction:

- How can investigators and policy makers structure approaches to forecasting plausible potential future scenarios more effectively?
- What can be learnt from forecasting and prediction in non-security settings?
- Which structured approaches, tools or techniques have the most robust evidence base?
- How can scenario planning and prediction be taught and how can it be incorporated effectively in day to day work?

#### • Terrorist and counter-terrorist actions and decisions:

- How do counterterrorism measures change terrorists' decision making and actions in terms of target selection, logistics, desired outcome, and ideological justification?
- Is it possible to determine whether a measure is likely to lead to deterrence or displacement?
- How do terrorists learn and adapt to counter-measures, and can this be factored into an assessment?

#### Impact of organisational change on counterproductive work behaviour:

- What determines the success of an organisational change initiative?
- What protective factors reduce the risk of an employee undertaking an insider act?
- Can the impact of change be monitored effectively?

#### • Indirect assessment and risk management:

- What reliable and valid inferences about known individuals are now possible from observable behaviours (in real and virtual environments)?
- How valid judgements about risk made?

- How can investigators effectively and rapidly discount individuals who pose no threat to focus resources on those who pose the greatest risk?
- What are the strengths and limitations of novel automated approaches?
- Individual differences in the adoption and use of new technology:
  - What factors are relevant to the adoption of new technology by different groups, including generations, cultures, and communities?
  - What influences how attractive intended or non-intended functions of new or emerging technology are to different groups?
  - What factors effect decisions to search, or not search, for such functions?
  - How might criminal or terrorist groups adopt or subvert technology for their own ends?
  - Can this risk be predicted and thus mitigated during the design cycle?

# **Eligibility Criteria**

Applications are invited from Higher Education Institutions, research organisations, charities, commercial companies, and individuals from the UK and overseas who can demonstrate a capability to deliver a highquality programme of research.

Collaborations between stakeholders and academic researchers are encouraged, as are applications from researchers who have not traditionally worked in the security domain but believe their expertise may provide insights or new applications to the area.

# Value Notes

A total fund of £900,000 will be made available for this Call to support projects.

All projects will be assessed on an individual basis and grants will be made at 80% full Economic Cost (fEC). The following costs are indicative of the support likely to be awarded for each eligible activity:

- Short Projects: £62,500 at 100% fEC (£50,000 at 80% fEC).
- Long projects: £125,000 at 100% fEC (£100,000 at 80% fEC)..

# **Match Funding Restrictions**

Grant recipients are expected to fund 20% of full Economic Cost (fEC) from their own resources.

#### Restrictions

CREST will not reimburse costs associated with the development or submission of a proposal.

#### **Terms and Conditions**

Applications will be assessed on the following criteria:

- Quality of proposal.
- Track record of applicants.
- Pathways to impact.

• Value for money.

Work proposed under this Call should begin between 1 April 2017 and 1 October 2017.

#### **Previous Successes**

The following ten successful projects received funding under this Call:

- 'The Birkenhead Drill': An Exploratory Study of Expertise and Inertia in Emergency Service Responses -Professor Laurence Alison, University of Liverpool.
- How Does Isis' Online Propaganda Demonstrate Mechanisms of Radicalisation? Assessing Cognitive Mechanisms of Radicalisation With A Quantitative Analysis Of Isis' Online Propaganda Dr Stephane Baele, University of Exeter.
- Differences in the Ability to Spot Rare, Non-salient or Hidden Targets Professor Nick Donnelly, University of Southampton.
- Why do people adopt conspiracy theories, how are they communicated, and what are their risks? Perspectives from psychology, information engineering, political science, and sociology Professor Karen Douglas, University of Kent.
- Learning and unlearning terrorism: The transition from civilian life into paramilitarism and back again during the conflict and peace process in Northern Ireland Professor Neil Ferguson, Liverpool Hope University.
- Applying Criminological Paradigms to Terrorist Decision Making Regarding Security and Risk Dr Paul Gill, UCL.
- Minimal Social Exclusion: A Means to Increased Information Gain in Human Intelligence Interviews? Professor Par Anders Granhag, University of Gothenburg.
- From the Diasporisation to the Transnationalisation of Exile Politics: Understanding When Extremism Gives Way to Moderate Politics The Case of Sri Lanka, 1983-2016 Dr Christopher McDowell, City University London.
- Ethno-national, religio-cultural or anti-Muslim? Investigating Sikh radicalisation in Britain Dr Jasjit Singh, University of Leeds.
- Community Reporting Thresholds: Sharing information with authorities concerning violent extremist activity and involvement in foreign conflict: A UK Replication Study Professor Paul Thomas, University of Huddersfield / Professor Michele Grossman, Victoria University, Australia.

# **Application Procedure**

Applications should be submitted by the closing date of 31 January 2017 (10am).

# **Useful links**

Call for Research: CREST <u>https://crestresearch.ac.uk/commissioning/commissioning-second-broad-topic-solicitation/</u>

CREST website https://crestresearch.ac.uk/ ESRC Call Page for CREST

http://www.esrc.ac.uk/funding/funding-opportunities/research-for-understanding-mitigating-and-countering-security-threats/

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

#### Nicola Ronan Centre for Research and Evidence on Security Threats (CREST) Department of Psychology Lancaster University Lancaster LA1 4YF UK E-Mail: <u>commissioning@crestresearch.ac.uk</u>

# <u>Dan David Prize</u>

Fund ID:	S15982
Status:	Open for Applications
Last updated:	Not specified

International award recognising and encouraging innovative and interdisciplinary research that cuts across traditional boundaries and paradigms.

#### **Fund Information**

Funding body:	Dan David Prize
Maximum value:	1,000,000 USD (€ 893,000)
Application deadline:	30-11-2019

# **Extended Description**

The Dan David Prize is an international award endowed by the Dan David Foundation and headquartered at Tel Aviv University, Israel. It recognises and encourages innovative and interdisciplinary research that cuts across traditional boundaries and paradigms and aims to foster universal values of excellence, creativity, justice,

democracy and progress, and promote scientific, technological and humanistic achievements that advance and improve the world.

The prize covers three time dimensions - past, present, and future - that represent realms of human achievement:

- Past refers to fields that expand knowledge of former times.
- Present recognises achievements that shape and enrich society today.
- Future focuses on breakthroughs that hold great promise for improvement of the world.

Each year one field is chosen within each time dimension. The selected fields for 2019 are:

- Past Macro History.
- Present Defending Democracy.
- Future Combatting Climate Change.

# **Eligibility Criteria**

Nominees may be individuals or organisations anywhere who have made a singular achievement or series of achievements and continues to make a unique, profound contribution to humanity, on a global scale, in one of the selected fields in which the nomination is being made.

The prize is awarded according to merit and without discrimination based on gender, race, religion, nationality, or political affiliation.

#### Value Notes

Three prizes of \$1 million each are awarded.

#### Restrictions

Self-nominations are not accepted.

#### **Previous Successes**

Past winners include:

- Prof. Lorraine Daston (Max Planck Institute for the History of Science) for work on the history of science.
- Prof. Ezekiel J. Emanuel (University of Pennsylvania) for work on bioethics.
- Prof. Carlo M. Croce (Ohio State University) for work on personalised medicine.
- Prof. Svante Pääbo (Max Planck Institute for Evolutionary Anthropology) for work on archaeology and natural sciences.
- Jamaica Kincaid (USA) for work in literature.
- Prof. Neil Gehrels (NASA Goddard Space Flight Center) for work in astronomy.

# **Application Procedure**

Nomination process must be completed online via the Dan David Prize website by the deadline of **30** November 2019.

#### **Useful links**

Dan David Prize http://www.dandavidprize.org/

Dan David Prize Nomination Guidelines https://www.dandavidprize.org/prize/prize-nominations

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Dan David Prize Eitan Berglas Building/119 Tel-Aviv University PO Box 39040 Ramat Aviv Tel-Aviv 6997801 Israel Tel: +972-3-6406614 Fax: +972-3-6406613 E-Mail: <u>ddprize@post.tau.ac.il</u>

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Deadline

Application start date:	-
Application end date:	30-11-2019

# DFH - French-German PhD Track Programmes

Fund ID:	S15995
Status:	Open for Applications
Last updated:	Not specified

Funding is available to establish or expand joint Franco-German postgraduate programmes that combine Master's and PhD degrees.

# **Fund Information**

Funding body:	Deutsch-Französische Hochschule (DFH)
Maximum value:	Discretionary
Application deadline:	30-06-2019

# **Extended Description**

The Deutsch-Französische Hochschule (DFH) is a network of higher education institutions (HEIs) in Germany and France.

The DFH now offers funding for HEIs in Germany and France who want to establish joint PhD track programmes which combine Master's and PhD degrees to one five-year training programme. All disciplines are eligible for funding under this scheme. Applicants may include a third country. Double funding for a joint Master's programme and PhD track programme in the same subject will not be awarded - in this case, only the joint PhD track programme will receive funding.

# **Eligibility Criteria**

The following institutions are eligible to submit joint applications:

- On the French side: One or several Ecole(s) doctorale(s).
- On the German side: All carriers of a structured PhD programme.

#### **Value Notes**

The regular funding amount for expenses relating to infrastructure is €15,000 per year per cooperation (joint French-German funding recipients). Cooperations may apply for this sum to be increased to up to €20,000 to cover students' mobility costs.

Mobility grants for research in the partner country cover:

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- Up to €300 per month for up to 10 months per student per year, during the first years of the programme.
- Up to €600 per month for up to 18 months per PhD candidate during the last three years of the programme.
- Mobility grants for study abroad of up to €1,300 per month for up to 18 months for up to two doctoral students (only under exceptional circumstances).

In addition to infrastructure funds, the DFH grants universities

- €1,000 as mobility grant (for up to two semesters in the partner country or in a third country)
- €500 for each partial mobility grant (for one semester in the partner country or in a third country).

#### **Application Procedure**

Prospective applicants must first submit an expression of interest (EOI).

EOIs must be submitted by **30 June 2019.** 

Full applications must be submitted by **31 October 2019.** 

### **Useful links**

PhD Track Programmes - Funding Announcement https://www.dfh-ufa.org/informationen-fuer/studierende-doktoranden-alumni/doktoranden/deutschfranzoesische-phd-track-programme/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Deutsch-Französische Hochschule (DFH) Kohlweg 7 / Villa Europa 66123 Saarbrücken Germany Tel: +49 681 938 12-100 E-Mail: <u>info@dfh-ufa.org</u>

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 EOI Deadline

Application start date:	-
Application end date:	30-06-2019

# **DFH French-German Doctoral Program**

Fund ID:	S15625
Status:	Open for Applications
Last updated:	Not specified

Funding for higher education institutions with doctoral programmes in Germany and France in order to establish bilateral joint doctoral programmes.

# **Fund Information**

Funding body:	Deutsch-Französische Hochschule (DFH)
Maximum value:	Discretionary
Application deadline:	30-06-2019

# **Extended Description**

The Deutsch-Französische Hochschule (DFH) is a network of higher education institutions (HEIs) in Germany and France. Its aim is to promote research cooperation between the two countries by supporting researcher exchange and binational study programmes or research activities.

In order to encourage networking between scientists and to promote German-French scientific dialogue, DFH offers funding for German and French higher education institutions in order to establish joint PhD programmes between Germany and France for researchers of all disciplines. A third country can be included in the programme. The programme should last for four years.

New applicants can also apply for a preparatory travel grant.

The joint programme should fulfil the following criteria:

- Structured training with a German-French core.
- Innovative character of the cooperation and training programme.

- Quality, feasibility, and added value for the doctoral training, the research programme, and professional integration.
- Module for acquiring methodological, interdisciplinary, and intercultural competencies.
- Quality and added value for scientific cooperation.
- International aspects, eg by giving the opportunity to graduate in two different national PhD programmes such as Cotutelle de thèse, or inclusion of a third country.
- Scientific excellence of the participating researchers.
- Collaboration, coordination, and mobility of the participating researchers.
- Quality of supervision.
- Third party funding and financial contribution from participants.
- The amount of PhD students must be appropriate, especially when it comes to renewal applications.

# **Eligibility Criteria**

Higher education institutions which offer PhD programmes in Germany and France are eligible to apply.

### Value Notes

The financial support covers mobility expenses for scientists and students, as well as the organisation of seminars, conferences, and joint courses. Funding includes:

- An infrastructure lump sum of €12,000 per year per cooperation.
- Mobility grants of up to €600 per month for up to 15 PhD students, and for research stays of up to 18 months in the partner country or third partner country.
- Research abroad stipends of up to €1,300 per month for a maximum of two PhD students for research stays of up to 18 months respectively. This funding is only granted to excellent programmes which have been evaluated and found to be highly innovative and well-structured, and which have applied for foreign research grants.

#### **Match Funding Restrictions**

Apart from the foreign research grants, third party funding is allowed under this scheme.

# **Application Procedure**

This is a two-step application process.

First, applicants must submit an expression of interest by the **30 June 2019**.

Applicants who have missed this initial deadline may still contact the DFH to discuss options for submitting an application.

Applicants who have submitted their expression of interest may then submit their full application by the deadline of **31 October 2019.** 

Information on required material and forms can be found in the funding announcement.

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# **Useful links**

French-German Doctoral Program https://www.dfh-ufa.org/informationen-fuer/studierende-doktoranden-alumni/doktoranden/deutschfranzoesische-doktorandenkollegs/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Deutsch-Französische Hochschule (DFH) Kohlweg 7 / Villa Europa 66123 Saarbrücken Germany Tel: +49 681 938 12-100 E-Mail: <u>info@dfh-ufa.org</u>

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Expression of Interest Deadline

Application start date:	02-05-2019
Application end date:	30-06-2019

# DG Digital Single Market

Fund ID:	S13569
Status:	Open for Applications
Last updated:	Not specified

Support actions to strengthen competiveness and to ensure that any industry in any sector in Europe can make the best use of digital innovations to compete on a global scale, grow and create jobs.

# **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	15-06-2019

#### **Extended Description**

The Directorate General for Communications Networks, Content and Technology of the European Commission (DG CONNECT) works to develop a Digital Single Market in order to generate smart, sustainable and inclusive growth in Europea. The European Commission supports the delivery of the Digital Single Market through a number of funding programmes, which publish competitive Calls for Proposals for projects.

# **Eligibility Criteria**

Available to organisations based in an EU Member State.

#### Value Notes

Co-financing for projects varies between individual Calls.

### Restrictions

Applications will not be considered for a grant if the applicants are in any of the following situations:

- They are bankrupt or being wound up, are having their affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations.
- They have been convicted of an offence concerning professional misconduct by a judgement which has the force of *res judicata*.
- They have been guilty of grave professional misconduct proven by any means which the contracting authority can justify.
- They have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which they are established or with those of the country of the contracting authority or those of the country where the contract is to be performed.
- They have been the subject of a judgement which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation or any other illegal activity detrimental to the Communities' financial interests.
- Following another procurement procedure or grant procedure financed by the Community budget, they have been declared to be in serious breach of contract for failure to comply with their contractual obligations.
- They are faced with a conflict of interest.
- They have been guilty of misrepresentation in supplying the information required or have failed to supply this information.

# **Application Procedure**

Applications are made in response to periodic Calls for Proposals.

# **Useful links**

Digital Single Market <u>https://ec.europa.eu/commission/priorities/digital-single-market\_en</u>

Directorate General for Communications Networks, Content and Technology <a href="https://ec.europa.eu/info/departments/communications-networks-content-and-technology">https://ec.europa.eu/info/departments/communications-networks-content-and-technology</a> en

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 EIP on AHA Call for Twinnings Support Scheme

Application start date:	15-04-2019
Application end date:	15-06-2019

The objective of this call is to facilitate the deployment of large-scale innovative digitally-enabled solutions for health and care delivery for older adults. This initiative therefore contributes to the European Scaling-Up Strategy of the EIP on AHA and to the implementation of the priorities set out in the EC Communication on digital transformation of health and care in the Digital Single Market.

The twinning scheme aims to reduce any risks related to investing in innovative digital ICT solutions. It does so by financing the exchange of knowledge and good practice in digital health solutions that have a high potential for replicability and scaling up.

There are two types of organisations involved:

- The **originator organisation** this is the organisation transferring the innovative practice: the organisation with the experience and know-how developed in a particular intervention.
- The **adoptor organisation** this is the organisation adopting the innovative practice: the organisation that will receive the innovative practice and deploy / implement it on its territory.

Participating organisations can claim up to €5,000 in financial support for each twinning action. This will cover the travel and accommodation of experts from adopting organisations to originator organisations or vice-versa. It will also include expenses incurred by hosting meetings.

The scheme targets regional organisations that actively participate in the EIP on AHA that have made Individual Commitments or Collaborative Commitments to the EIP on AHA. They should also hold Reference Site status.

#### Links

#### Call for Proposals

# Preparatory Action: Application of Web Accessibility Requirements in Web-authoring Tools and Platforms by Default (Web Access by Default) (PAWA-2019)

Application start date:	03-05-2019
Application end date:	28-06-2019

On 1 April 2019, the European Commission adopted a work programme for 2019 for financing Pilot Projects and Preparatory Actions in the field of Communications Networks, Content and Technology. The Web Accessibility Directive establishes common accessibility requirements to make the websites and mobile applications of public sector bodies across the EU more accessible, in particular for persons with disabilities. The reference to the harmonised European Standard EN 301 549 v2.1.2 ('HEN') in support of the Directive was published in December 2018, providing presumption of conformity with the accessibility requirements set forth in the Directive.

Organisations beyond those in the scope of the Directive are also encouraged to follow accessibility best practices and conform to the HEN. By providing online and mobile services in a more accessible way, public sector bodies and private enterprises will reach more citizens and customers, thus reaping the economic and social benefits of web accessibility. Incorporating features in authoring tools or platforms to meet accessibility requirements by default (web access by default) will provide an effective way to support compliance with the Web Accessibility Directive. These features will facilitate the creation and maintenance of accessible websites and mobile applications, thus accelerating the adoption of web accessibility standards.

The objective of this preparatory action is to support the adoption of the accessibility requirements set forth in the HEN when producing content for websites and mobile applications. To that end, grants will be awarded to proposals developing authoring tools or platforms that help authors comply by default with the requirements of the HEN. Priority will be given to open-source or free-to-use solutions and to proposers involving users with disabilities, in particular in the validation process; accessibility of the tools or platforms for authors with disabilities will be considered an asset.

The expected results of this preparatory action are the following:

- (accessible) authoring tools or platforms that help authors produce and maintain accessible content for websites and mobile applications by default, preferably validated by users with disabilities.
- easier production of web and mobile content that complies with the accessibility requirements set out in the HEN, thus facilitating compliance with the Web Accessibility Directive.
- wider take-up of web accessibility resulting from greater awareness of its benefits.
- enhanced competition in the market for authoring tools and platforms with accessibility features.

The solutions supported under this preparatory action should automate as much as possible the features of authoring tools or platforms that provide accessibility by default. Where such automation is not possible, the authoring tools or platforms should minimise the need for technical intervention by the author (eg the tool/platform should trigger an automatic request to type in an alternative text description for a picture).

The proposals must take into consideration:

- other internationally recognised guidelines and the state of the art in industrial practices on how authoring tools should help authors produce accessible content; and
- how to ensure that the user interface of these authoring tools or platforms is in itself accessible.

Only applications from legal entities established in EU Member States; EFTA and EEA countries: Iceland, Liechtenstein, Norway, Switzerland; candidate countries; or countries associated to Horizon 2020 are eligible.

Proposals may be submitted by any of the following:

- Non-profit organisation (private or public).
- Public authorities (national, regional, local).
- International organisations.
- Universities.
- Educational institutions.
- Research centres.
- Profit-making entities.
- Natural persons.

The total budget earmarked for the co-financing of projects is estimated at €600,000. The Commission expects to fund three to five proposals.

#### Links

Call for Proposals

# DG Internal Market, Industry, Entrepreneurship and SMEs - Grant Programme

Fund ID:	S5291
Status:	Open for Applications
Last updated:	Not specified

Annual programme of grants that addresses the objectives of the DG Internal Market, Industry, Entrepreneurship and SMEs - including encouraging entrepreneurship, promoting innovation and optimising the internal market - in a way that is compatible with sustainable development.

### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	15-06-2019

# **Extended Description**

Each year the Directorate General for Internal Market, Industry, Entrepreneurship and SMEs publishes a general notice presenting the objectives of its annual work programme and the indicative grant programme linked to it. It includes a list of planned actions, as well as a list of ad hoc grants for actions that can only be carried out by specific beneficiaries.

In a second step, the planned actions are the object of specific Calls for Proposals, whereby the submission of proposals is only possible upon their publication. All the necessary information to introduce an application is provided in the specific Calls for Proposals.

The Directorate General for Internal Market, Industry, Entrepreneurship and SMEs (DG GROWTH) is responsible for:

- Completing the internal market for goods and services.
- Helping turn the EU into a smart, sustainable, and inclusive economy by implementing the industrial and sectorial policies of the flagship Europe 2020 initiative.
- Fostering entrepreneurship and growth by reducing the administrative burden on small businesses; facilitating access to funding for small and medium-sized enterprises (SMEs); and supporting access to global markets for EU companies.
- Delivering the EU's space policy via the two large-scale programmes Copernicus (European Earth observation satellite system) and Galileo (European global navigation satellite system), as well research actions to spur technological innovation and economic growth.

Its priorities are to:

- Ensure an open internal market for goods and services in the EU.
- Improve the range, quality, and competitiveness of products and services on the internal market.
- Strengthen the industrial base in Europe.
- Provide sector-specific and business-friendly policies.
- Promote industrial innovation to generate new sources of growth.
- Ensure a modernised system for public procurement, which provides better access to public contracts on an EU-wide basis.
- Encourage the growth of SMEs and promote an entrepreneurial culture.
- Support the internationalisation of EU businesses.
- Facilitate access to finance for SMEs.
- Support the free movement of professionals in EU.

- Support the development of global satellite-based navigation infrastructure and services (Galileo).
- Promote the use of EU earth observation-based services (Copernicus).

# **Eligibility Criteria**

Under the Grants Programme, eligible applicants comprise EU Member States, Enterprise Europe Network partners, non-governmental organisations, representative organisations concerned with standards and industry, and competent non-profit making organisations. Applicants may be located in EU Member States and according to the Action, in EU Candidate Countries.

# Value Notes

A number of different contracts and grants are regularly made available for companies or organisations who want to work with the DG, or to apply for funding.

Opportunities for grant funding are invited through Calls for Proposals - invitations for suppliers to submit a proposal on a specific commodity or service.

Grants are a direct financial contribution from the European Commission to support a specific action or project of a non-commercial nature, to cover eligible costs directly incurred by the beneficiaries.

Support is normally available up to 50% of the overall eligible costs of a project. This might vary between particular actions, but is announced in the Call for Proposal issued for all actions that take place. (The work programme comprises 'planned' actions, not all of which are necessarily funded.)

# **Match Funding Restrictions**

Support is normally available up to 50% of the overall eligible costs of a project.

# Restrictions

Exclusions for the various Calls for Proposals that may be issued under this programme will vary according to the Call.

# **Application Procedure**

Applications are made through periodic Calls for Proposals.

Full details of how to apply are given within the Call documents.

# **Useful links**

DG Internal Market, Industry, Entrepreneurship and SMEs <a href="http://ec.europa.eu/growth/index\_en.htm">http://ec.europa.eu/growth/index\_en.htm</a>

# **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Delivering Pilot Training Courses for Students in Secondary/Higher Education Level (303-G-GRO-PPA-19-11225)

Application start date:	02-04-2019
Application end date:	25-06-2019

The objectives of Topic 1 are to support the organisation of training modules/courses to be delivered to young people in a secondary and higher education context using mixed and innovative methods.

This specific action will help:

- Increase the knowledge and awareness among European youth regarding the cooperative business model and values through educational training at both secondary and higher education level.
- Support the acquisition of concrete knowledge by fostering the involvement of cooperatives during the programs (ie internship, apprenticeship schemes, dual education system).
- Spread good practices and tools relating to cooperative entrepreneurship in secondary schools/higher education and in non-formal learning settings.

Actions to be co-financed can include projects such as dedicated courses on cooperative business model and values in schools/educational institutions, (including developing entrepreneurial experience in a European cooperative), dedicated programmes/training in the field with local/regional support organisations. Actions will also include the dissemination of information related to other EU initiatives that boost the development of the cooperative entrepreneurship mindset such as Erasmus for Young Entrepreneurs or the Solidarity Corps.

Applicants are invited to take into consideration the Entrepreneurship Competence Framework when implementing this specific action. The framework develops the 15 competences along an 8-level progression model and proposes a comprehensive list of 442 learning outcomes. The framework can be used as a basis for the development of curricula and learning activities fostering entrepreneurship as a competence.

Activities must have a clear European added – value and should support cross-border cooperation. Projects should be designed and implemented with a clear intention of replication. Results should be publicly shared and available for any actor interested in the cooperative business model and entrepreneurial training.

The maximum budget allocated for EU financing under this call is €1.95 million. The maximum EU financing contribution per project will be €215,000 with a maximum EU financing rate of eligible costs of 90%. The indicative number of grants will be three to five projects per topic (depending on the level of total contribution).

Applications should be submitted by public or private entities, in consortia composed of at least three different entities from at least three different EU Member States, preferably from economically, socially and culturally diverse parts of Europe. Implication of youth organisations in the projects are strongly encouraged.

Applicants must be stakeholders such as business advisory services, chambers of commerce, professional organisations, educational institutions, governmental and non-governmental organisations, co-operatives enterprises organisations.

#### Links

#### Call for Proposals

#### Cross-European Workshops to Share Knowledge and Learn from Practitioners (303-G-GRO-PPA-19-11225)

Application start date:	02-04-2019
Application end date:	25-06-2019

The objective of Topic 2 is to support the design, development and organisation of training modules to be delivered to educators/professors in secondary and higher education.

This specific action will help:

- Stabilise comprehension on the co-operative model in terms of concept, philosophy, principle and legislation and integrate the concept in business management courses.
- Promote the cooperative model also as a cross curricular subject and to develop teaching methods and innovative projects based on it.
- Develop skills and attitudes to enable entrepreneurial learning based on the cooperative model.

Training courses could be delivered in different forms: classroom sessions, seminars, workshops, special working group sessions and other suitable solutions like on-line courses and web-based seminars. Besides traditional training activities, more innovative methods (such as training visits, practical experimentations, coaching sessions) should be used in order to increase the practical dimension of the training courses.

Applicants are invited to take into consideration the Entrepreneurship Competence Framework when implementing this specific action. The framework develops the 15 competences along an 8-level progression model and proposes a comprehensive list of 442 learning outcomes. The framework can be used as a basis for the development of curricula and learning activities fostering entrepreneurship as a competence.

Activities must have a clear European added value and should support cross-border cooperation. Projects should be designed and implemented with a clear intention of replication. Results should be publicly shared and available for any actor interested in the cooperative business model and entrepreneurial training.

The maximum budget allocated for EU financing under this call is €1.95 million. The maximum EU financing contribution per project will be €215,000 with a maximum EU financing rate of eligible costs of 90%. The indicative number of grants will be three to five projects per topic (depending on the level of total contribution).

Applications should be submitted by public or private entities, in consortia composed of at least three different entities from at least three different EU Member States, preferably from economically, socially and culturally diverse parts of Europe. Implication of youth organisations in the projects are strongly encouraged.

Applicants must be stakeholders such as business advisory services, chambers of commerce, professional organisations, educational institutions, governmental and non-governmental organisations, co-operatives enterprises organisations.

#### Links

#### Call for Proposals

# Fostering the Entrepreneurial Mindsets of Young People to Create Cooperative Outside the Educational Environment (303-G-GRO-PPA-19-11225)

Application start date:	02-04-2019
Application end date:	25-06-2019

The objective of Topic 3 is to develop the entrepreneurial mindsets of young people to create cooperative outside the educational environment.

This specific action will help:

- Improve the image of the cooperative model for young people.
- Raise the awareness of the model as a viable career choice.
- Increase the attractiveness of setting up a cooperative in the perception of young people.

Potential projects to be co-financed could include: organising events, workshops and seminars/conferences addressing a large number of young people in regions/cities; promoting the image of cooperatives for young people with the support of youth organisations, youth workers, traditional or new media (internet/newspapers, apps); establishing awards for the best "cooperative entrepreneurial" students; or boosting practical and concrete experimentations on how to manage a cooperative.

The maximum budget allocated for EU financing under this call is €1.95 million. The maximum EU financing contribution per project will be €215,000 with a maximum EU financing rate of eligible costs of 90%. The indicative number of grants will be three to five projects per topic (depending on the level of total contribution).

Applications should be submitted by public or private entities, in consortia composed of at least three different entities from at least three different EU Member States, preferably from economically, socially and culturally diverse parts of Europe. Implication of youth organisations in the projects are strongly encouraged.

Applicants must be stakeholders such as business advisory services, chambers of commerce, professional organisations, educational institutions, governmental and non-governmental organisations, co-operatives enterprises organisations.

Links

Call for Proposals

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# Joint Call with the European Global Navigation Satellite Systems Agency (GSA): Copernicus and Galileo Prizes for 2019-2021 (302/G/GROW/SAT/19/11283)

Application start date:	25-04-2019
Application end date:	15-06-2019

This call for proposals is for the organisation of the Copernicus and Galileo Prizes competition for 2019-2021. The competition aims to promote industrial innovation and the uptake of European Earth Observation and global navigation satellite system (GNSS) technologies downstream across Europe and beyond.

The objectives of the Copernicus and Galileo prizes are:

- To support Copernicus-based start-ups in 2020 and, possibly, in 2021, through the award of a cash or combination of cash and in-kind prize for innovative ideas.
- To support EGNOS/Galileo-based start-ups in 2020 and 2021, through the award of cash or combination of cash and in-kind prizes for innovative ideas. To further support the development of successful EGNOS/Galileo applications, additional Galileo incubation awards of cash or combination of cash and in-kind prizes will be awarded each year in 2020 and 2021.
- To implement a specific Galileo Masters prizes challenge dedicated to three GSA topics of choice and to implement other special prizes requested by the GSA.
- To foster the emergence of a vibrant Copernicus ecosystem and Galileo start-ups in Europe, involving various stakeholders (research centres, universities, small and large companies, etc.), through the organisation of a prestigious awards ceremony.

The winner of this call will be responsible for:

- The organisation of a prize competition, including the promotion, evaluation, selection and the award of the prizes
- The organisation of the award ceremony.
- Reporting to the European Commission.

The maximum EU contribution for this call is €2,306,000. The maximum co-financing rates are:

- 70% for management costs with an overall total ceiling of €400,000 of eligible costs.
- 60% for Copernicus and Galileo prize costs with a ceiling of €10,000 per prize of eligible costs (with the exception of the two European Commission challenges every year, which can be financed up to 100% by the EU).
- 70% for Galileo incubation support costs with a ceiling of €43,000 per incubation.
- 100% for the GSA special and ad-hoc prizes.

Proposals may be submitted by any of the following:

- Non-profit organisation (private or public).
- Public authorities (national, regional, local).
- International organisations.
- Universities.
- Educational institutions.

- Research centres.
- Profit making entities.

Applicants must be natural or legal persons with legal personality in accordance with the laws of an EU country, EFTA country or EEA country. Proposals from applicants in candidate or associated countries may be selected if, on the date of award, agreements have entered into force setting out the arrangements for the participation of those countries in the programme.

Links

Call for Proposals

# **Enterprise Europe Network**

Fund ID:	S5172
Status:	Open for Applications
Last updated:	Not specified

The Enterprise Europe Network (EEN) is designed to be a one stop shop for business and innovation support services. It can help to find business partners, arrange on-site visits and provide advice on a wide range of business issues. It is the largest network in Europe providing expertise and services for business.

### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	None specified

# **Extended Description**

The Enterprise Europe Network was set up in 2008 to provide a one stop shop information service for businesses in Europe, especially small to medium-sized enterprises (SMEs). It succeeded two previous European networks, those of the Euro Info Centres (established in 1987) and of the Innovation Relay Centres (first established in 1995).

The overall objective of the Enterprise Europe Network is to further the European Commission's integrated policy for promoting entrepreneurship and growth of enterprises in Europe.

Entrepreneurship and support for the growth of SMEs are seen as key in providing growth for the creation of jobs and facing the challenges of globalisation. To further these, the Enterprise Europe Network aims to supply business with a one-stop service providing 'business support on the doorstep'.

The objective of the scheme is to provide all SMEs with information and a personalised service tailored to their needs, making best use of modern technologies and from every organisation in the Enterprise Europe Network. In addition, the network will support SMEs from all sectors to take greater advantage of the opportunities of the Single Market.

The Executive Agency for Competitiveness and Innovation (EACI) is responsible for managing the Enterprise Europe Network on a daily basis; this includes training, communication, information, contract management, quality control and reporting.

Each local network partner offers a single point of access for companies and other organisations to obtain information and assistance, especially in cases where they lack either the resources or the skills to find suitable transnational partners for developing their overseas business, exploiting (or acquiring) technological know-how, or setting up joint business or research arrangements across national boundaries in Europe.

# **Eligibility Criteria**

Services are primarily directed at small and medium sized enterprises (SMEs), but can also be accessed by larger companies, research institutes, universities, technology centres and innovation agencies throughout the EU's Member States, EU candidate countries, members of the European Economic Area (EEA) and other participating countries.

The Enterprise Europe Network gives access to business opportunities through partnerships in more than 40 European countries.

# **Application Procedure**

Offices of the Enterprise Europe Network may be contacted within usual business hours.

### **Useful links**

Enterprise Europe Network Webpage <a href="http://een.ec.europa.eu/">http://een.ec.europa.eu/</a>

Funding Opportunities <u>http://een.ec.europa.eu/tools/services/SearchCenter/Search/ProfileSimpleSearch</u>

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Executive Agency for Small and Medium-Sized Enterprises (EASME) EASME B-1049 Brussels

# **EU Aid Volunteers Initiative**

Fund ID:	S8133
Status:	Open for Applications
Last updated:	Not specified

The EU Aid Volunteers initiative brings volunteers and organisations from different countries together to work on humanitarian projects worldwide. The initiative focuses on strengthening the European Union's capacity to deliver needs-based humanitarian aid. Grants are available for technical assistance and capacity building projects.

# **Fund Information**

Funding body:	European Commission
Maximum value:	€ 700,000
Application deadline:	13-06-2019

# **Extended Description**

The Regulation of the European Parliament and of the Council establishing the European Voluntary Humanitarian Aid Corps establishes a framework for joint contributions from European volunteers to support and complement humanitarian aid in third countries. Its objective is to contribute to strengthening the EU's capacity to provide needs-based humanitarian aid.

The programme was launched in 2015.

The EU Aid Volunteers initiative brings volunteers and organisations from different countries together to work on humanitarian projects worldwide.

The initiative focuses on strengthening the European Union's capacity to deliver needs-based humanitarian aid by providing professional support through the deployment of trained volunteers to people in need whilst also benefiting local organisations with capacity-building measures.

# **Eligibility Criteria**

Eligible applicants include non-governmental, not-for-profit organisations; public law bodies of a civilian character; and the International Federation of National Red Cross and Red Crescent Societies.

Applicants must have at least five years of experience of activity within the field of humanitarian aid.

**Technical assistance projects** must involve the applicant and partner organisations from at least three different countries participating in the programme from which:

- At least one partner organisation has been active in the field of humanitarian aid for at least five years.
- At least one partner must have a minimum of five years of experience in volunteer management.

**Capacity building projects** must involve the applicant and partner organisations from at least six different countries from which:

- At least three partners are from third countries.
- All partners from countries participating in the programme must have been active in the field of humanitarian aid for at least five years.
- At least two partners from third countries must be active in the field of humanitarian aid.
- At least one partner from countries participating in the programme must have been active in the field of volunteer management for at least five years.

# Value Notes

The maximum grant will be €700,000 (minimum €100,000) for up to 85% of eligible costs.

# **Match Funding Restrictions**

Co-financing will be needed and can take the form of:

- The applicants own resources.
- Income generated by the action.
- Financial contributions from third parties.

#### Restrictions

Ineligible costs include:

- Retrospective funding.
- Return on capital.
- Debt and debt service charges.
- Provisions for losses or debts.

- Interest owed.
- Doubtful debts.
- Exchange losses.
- Costs of transfer from the Agency charged by the bank of the beneficiary.
- Costs declared by the beneficiary and covered by another action receiving a European Union grant. In particular, indirect costs shall not be eligible under a grant for an action awarded to the beneficiary who already receives an operating grant financed from the EU budget during the period in question.
- Contributions in kind.
- Excessive or reckless expenditure.
- Insurance costs for third country participants to Capacity Building activities within Europe (insurance cover is foreseen within the overall EU Aid Volunteers initiative insurance scheme).

# **Application Procedure**

Applications are made online through the Participant Portal of the Education, Audiovisual and Culture Executive Agency.

Applicants and partners must first register in the Participant Portal and receive a Participant Identification Code (PIC).

Where applicants are submitting projects for both Technical Assistance and Capacity Building they should indicate in their application that they are applying for both actions.

Applications sent by post, fax or email will not be accepted.

#### **Certification Mechanism for Sending and Hosting Organisations**

Applications for Certification for Sending and Hosting Organisations is via an evidence-based self-assessment form which must be completed by the applicant organisation. Forms are available from the EACEA website. Applications should be submitted to the Education, Audiovisual and Culture Executive Agency using the following email address: EACEA-EUAID-VOLUNTEERS@ec.europa.eu

The next deadline for submissions is 30 September 2020.

#### **Useful links**

EU Aid Volunteers Website https://eacea.ec.europa.eu/eu-aid-volunteers\_en

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

# Calls and deadlines

Information on future calls is indicative only and may be subject to change.

#### EU Aid Volunteers - Certification mechanism for sending and hosting organisations

Application start date:	-
Application end date:	30-09-2020

#### Links

#### Call for Proposals

#### 2019 Call for Deployment of EU Aid Volunteers (EACEA/10/2019)

Application start date:	12-04-2019
Application end date:	13-06-2019

The objective of this Call is to deploy EU Aid Volunteers in support of actions that support and complement the provision of humanitarian aid in third countries, that improve the resilience of vulnerable and disaster affected communities, or in support of actions that aim at linking relief rehabilitation and development.

Activities supported under this call must include:

- Selection, preparation and deployment of junior and senior EU Aid Volunteers to humanitarian aid projects in the area of disaster preparedness, disaster risk reduction and LRRD in vulnerable and disaster-affected communities in third countries.
- Communication activities in compliance with the Communication Plan of the EU Aid Volunteers initiative.

Projects are designed and implemented by transnational partnerships involving at least two certified sending organisations from two different countries and two certified hosting organisations. Before submitting an electronic application, all consortium members acting as sending or hosting organisation for volunteers, including affiliated entities having legal or capital link with certified sending organisations, must be certified or must have applied for certification under the EU Aid Volunteers initiative no later than on 13 May 2019.

Projects start at the earliest when the last party signs the grant agreement and can last for a maximum duration of 24 months. Within the project duration:

- Deployment placements of EU Aid Volunteers can range between 1 month as a minimum and 18 months as a maximum.
- In the case of support to emergency operations, deployment of EU Aid Volunteers can range between 2 weeks as a minimum and 3 months as a maximum.
- Apprenticeship placements prior to the deployment of junior volunteers can take up to 6 months in one of the participating EU member states.

A budget of €10 million is available for this Call. Grants will be for between €100,000 and €1.4 million.

Links

#### Call for Proposals

#### EU Aid Volunteers - Technical Assistance and Capacity Building Call 2019 (EACEA/13/2019)

Application start date:	22-05-2019
Application end date:	04-07-2019

The objective of this Call is to strengthen the capacities of sending and hosting organisations intending to participate in the EU Aid Volunteers initiative and to ensure compliance with the standards and procedures regarding candidate volunteers and EU Aid Volunteers.

Projects shall be designed and implemented by transnational partnerships. The call for proposals is open to the following:

Sending organisations:

- Non-governmental not-for-profit organisations formed in accordance with the law of a Member State and whose headquarters are located within the Union.
- Public law bodies of a civilian character governed by the law of a Member State, the International Federation of National Red Cross and Red Crescent Societies.

Hosting organisations:

- Non-governmental not-for-profit organisations operating or established in a third country under the laws in force in that country.
- Public law bodies of a civilian character governed by the law of a third country.
- International agencies and organisations.

Applicants are invited to take into account the results of previous EU Aid Volunteers Capacity Building and Technical Assistance projects and activities. In particular, they should not duplicate projects currently or previously financed under the EU Aid Volunteers initiative.

Eligible activities include:

- Study / scoping visits to refine and finalise needs assessment of the action.
- Activities to build / strengthen capacities.
- Training courses for third country trainers/coaches/mentors/multipliers.
- Seminars and workshops.
- Job shadowing.
- Twinning arrangements and exchange of staff.
- Exchange of knowledge, organisational learning and good practices.
- Study visits.
- Activities to foster partnership building.
- Activities to assist organisations in meeting the Core Humanitarian Standards.

- Activities to strengthen regional cooperation.
- Administrative costs for the development of, and managing online volunteer opportunities that support the activities.
- Coaching/mentoring of key sending organisation paid staff and volunteers (Technical Assistance).
- Making use of online volunteers to support project activities (Technical Assistance).
- Study visits of up to three months for key paid staff or volunteers from third countries to be based in EU applicant/partner organisations (Capacity Building).

Technical assistance projects for sending organisations shall be designed and implemented by transnational partnerships involving:

- At least three sending organisations from at least three different EU Member States; or
- At least two sending organisations from two different Member States and the International Federation of National Red Cross and Red Crescent Societies.

Capacity building projects shall be designed and implemented by transnational partnerships involving:

- At least two sending organisations from at least two EU Member States; or
- At least one sending organisations from one EU Member State and the International Federation of National Red Cross and Red Crescent Societies; and
- At least two hosting organisations from at least two third countries in which humanitarian aid activities and operations as per article (3)(d) take place and which belong to the categories mentioned above.

The total budget earmarked for the co-financing of projects is estimated at €4.6 million. The maximum grant will be €700,000. Each grant will amount to between €100,000 and €700,000. Grant requests below €100,000 will not be considered for funding.

EACEA expects to fund eight proposals.

Links

Call for Proposals

# **EU Third Health Programme (2014-2020)**

Fund ID:	S8189
Status:	Open for Applications
Last updated:	Not specified

This programme aims to support and deliver action aimed at encouraging the uptake of innovation in health, fostering better and safer healthcare, promoting good health and preventing diseases, and protecting citizens from cross-border health threats.

#### **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	10-09-2019

# **Extended Description**

The EU Health Programme (Regulation (EU) No 282/2014) was established on 21 March 2014 and will run from 2014 to 2020. It is administered by the Consumers, Health, Agriculture and Food Executive Agency (CHAFEA) on behalf of the Directorate General Health and Food Safety.

The general objective of the Programme is to work with Member States to encourage innovation in healthcare and increase the sustainability of health systems, to improve the health of the EU citizens and protect them from cross-border health threats.

It focuses on the following four specific objectives:

#### 1 - Contributing to innovative and sustainable health systems

Actions planned under this objective aim, for example, to foster European cooperation on Health Technology Assessment (HTA) and explore the potential of e-Health and ICT for Health, including a dedicated e-Health network and cooperation among electronic patient registries, as part of the implementation of the Directive on patients' rights in cross border healthcare. Actions will also address shortages in the health workforce and assist Member States in reforming their health systems through the pooling and strengthening of expertise on technical evaluation of policy action.

#### 2 - Increasing access to better and safer healthcare for citizens

The Programme will consolidate and continue on-going action to identify, exchange and disseminate good practices in this area. It will increase access to medical expertise by supporting the establishment and setting up of a system of European reference networks defining their criteria and conditions and by developing shared solutions and guidelines for healthcare quality and patient safety across the EU, tackling a range of issues including antimicrobial resistance.

Actions under this objective will also support measures setting high standards of safety, quality and efficacy of blood, organs, tissues and cells, of pharmaceutical products and patients' rights in cross border health care.

#### 3 - Promoting good health and preventing diseases

The Programme will foster best practice in health promotion and cost-effective prevention targeting key health determinants namely smoking, abuse of alcohol and obesity, as well as HIV/AIDS, with a focus on cross border

issues. It will support European cooperation and networking on preventing chronic diseases, including guidelines on quality cancer screening.

Actions under this objective will also support measures which have the objective of protecting public health regarding tobacco products and advertisement.

### 4 - Protecting citizens from cross border health threats

Actions planned under this objective will help develop common approaches to prepare for possible health emergencies, to co-ordinate a response to such health emergencies at European level, and to support national capacity building in preparedness and management of health crises taking into account international initiatives. The aim is to support preparedness planning, including for pandemic influenza, address gaps in risk assessment capacities between Member States and support capacity building against health threats in Member States as well as promoting the capacity at global level to respond to health treats.

Actions will also support measures designed to protect and improve human health against communicable diseases, major cross-border health scourges, measures concerning monitoring, early warning of and combating serious cross-border threats to health.

# **Eligibility Criteria**

Public authorities and public sector bodies in EU Member States, plus Iceland, Norway and Serbia, are eligible to apply, in particular, research and health institutions, universities and higher education establishments.

Grants for the functioning of bodies - operational grants - may be awarded to organisations that are:

- Non-governmental, non-profit-making, independent of industry, commercial and business or other conflicting interests.
- Working in the public health area, playing an effective role in civil dialogue processes at EU level and pursuing at least one of the specific objectives of the Programme.
- Active at the Union level and in at least half of the Member States, and have a balanced geographical coverage of the Union.

Annual Work Programmes will set out the selection criteria applicable to potential beneficiaries.

The Programme will be open on a cost basis to third countries, in particular acceding countries, candidate countries and potential candidates benefiting from a pre-accession strategy.

### Value Notes

The overall budget is €449.4 million over the period 2014-2020.

Grants will be for up to 60% of eligible costs, or up to 80% in cases of exceptional utility, or where the gross national income per inhabitant of the Member state is less than 90% of the EU average.

# **Match Funding Restrictions**

Match funding will be required.

# **Application Procedure**

### Applications to the 2019 Project Grants Call will be open between 21 May and 10 September 2019.

Submissions must be made via the European Commission Funding and Tenders Portal.

# **Useful links**

EU Health Programme http://ec.europa.eu/chafea/health/index\_en.htm

EU Health Programme Operating Grants <u>http://ec.europa.eu/chafea/health/funding/operating-grants/index\_en.htm</u>

EU Health Programme Project Grants http://ec.europa.eu/chafea/health/funding/projects-grants/index\_en.htm

### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

# Calls and deadlines

Information on future calls is indicative only and may be subject to change.

### 2019 Call for Proposals - Rare disease registries for the European Reference Networks (PJ-01-2019)

Application start date:	21-05-2019
Application end date:	10-09-2019

The proposed action aims to support the development of rare disease (RD) registries for the European Reference Networks (ERNs). The main objectives of this Call for projects for RD registries for ERNs are:

• To enable building, upgrading, linking and making interoperable registries covering the diseases and conditions of each ERN, thus linking and making visible patients cohorts at European level in order to follow up the natural course of diseases with sufficient patients data, also by registering all individual RD registries of the ERNs on the EU RD Platform.

- Based on the above registration, to develop a comprehensive approach for rare disease registries covering the respective ERNs following the standards and tools provided by the EU RD Platform.
- Patient registries will also contribute to the ERNs evaluation process foreseen in the ERN implementing decision and to the continuous monitoring and quality improvement system of the networks.
- Proposals for upgrading already established registries are acceptable, as long as the proposal is in line with the objectives and registry policy of the specific ERN and covering the diseases and conditions of that ERN. The Coordinator or the Board of the ERN should approve the proposal and nominate the healthcare provider (a member of the ERN) to be responsible to carry out the action on its behalf and coordinate the project to be implemented with partners, in particular other members of the SRN.

Applicants must be public, non-governmental or private bodies established in an EU Member State or participating non-EU country. Only approved ERNs not having received grants for registries under the related call of the AWP 2016 are eligible for co-funding. Applications by single applicants are allowed.

Applicants participating in a project proposal must have different legal entities (ie be independent from each other) and may be from less than three countries participating in the Health Programme.

The budget for this topic is €3.8 million.

### Links

### Call for Proposals

# 2019 Call for Proposals - Stakeholder actions to implement the EU guidelines on prudent use of antimicrobials in human health (PJ-02-2019)

Application start date:	21-05-2019
Application end date:	10-09-2019

The main objectives of this call for projects (stakeholders actions) are focused on the implementation of the EU guidelines on prudent use of antimicrobials in human health:

- To raise awareness and foster the direct application of the EU guidelines on the prudent use of antimicrobials by healthcare practitioners and members of the stakeholder organisations.
- To change practices on antimicrobial prescription and dispensing amongst members of the stakeholder organisations involved (in the project) in the direction of compliance with the guidelines.
- To reduce of inappropriate use of antimicrobials in human health.

Activities should enable stakeholder organisations to take further action on AMR within the framework of the EU guidelines on prudent use of antimicrobials in human health. The action will engage with professional groups and settings which require specific attention and develop and implement packages of interventions to implement the guidelines adapted to the needs of the job roles and settings (eg hospital, primary care long term care) involved. Deliverables are expected to include adaptations of the guidelines to the local situation, training packages, clinical audit tools, evaluation tools, methods for assessing outcome indicators, tools and methods for providing positive and negative feedback to practitioners and incentive schemes.

The organisations intending to participate in a project should include, but are not restricted to professional associations and scientific societies relevant for the target groups identified in the guidelines – including

prescribers (eg doctors and other clinicians), pharmacists, nurses, infectious disease specialists and those responsible for the management of health systems.

The amount is intended to either support either one large project with 20-30 partners or two or more smaller projects with 5-19 partners.

Project teams should include at least one European umbrella organisation covering a significant part of the health workforce. Ideally partner organisations should include several such organisations and also include partners in individual EU Member States and other countries participating in the EU Third Health Programme.

The total budget for this topic is €2 million.

Links

Call for Proposals

# FEED - Grants

Fund ID:	S12475
Status:	Discontinued
Last updated:	Not specified

Grants provided to advance public education throughout Europe in the field of political economy, with particular regard to evolutionary and institutional approaches to economic theory and policy.

### **Fund Information**

Funding body:	Foundation for European Economic Development (FEED)
Maximum value:	Discretionary
Application deadline:	None specified

### **Extended Description**

The Foundation for European Economic Development (FEED) was founded in 1990 and is a registered Charity in England and Wales. Its mission is to make economics more relevant, less an exercise in mathematical technique for its own sake, and more able to deal with real-world problems. Since its foundation, FEED has funded research and education throughout Europe in broader and more relevant approaches to economics.

Grants are available for proposals consistent with the aims and objectives of FEED: to advance public education throughout Europe in the field of political economy, with particular regard to evolutionary and institutional approaches to economic theory and policy. Preference is given to projects that relate closely to existing networks of evolutionary and institutional economists in Europe.

# **Eligibility Criteria**

There are no limitations set for the eligibility of applicants, but FEED favours applications from organisations for special projects with limited opportunities for funding from elsewhere, rather than applications from individuals.

### **Value Notes**

The size of the grant is determined on a case-by-case basis.

### **Previous Successes**

A list of previously awarded grants is published online here.

# **Application Procedure**

Applications may be submitted to the Foundation for European Economic Development by email at any time. There are no deadlines.

# **Useful links**

FEED - Grants http://www.feed-charity.org/new-page-2.htm

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

### **Geoffrey Hodgson**

Foundation for European Economic Development (FEED) University of Hertfordshire, UK E-Mail: <u>g.m.hodgson@herts.ac.uk</u>

# **Fellowships for Innovation in Higher Education**

Fund ID:	S15012
Status:	Open for Applications
Last updated:	Not specified

Funding for the development and testing of new teaching and exam formats as well as rethinking module structures with the aim of improving the quality of teaching at higher education institutions in Germany.

# **Fund Information**

Funding body:	Stifterverband
Maximum value:	€ 30,000
Application deadline:	12-07-2019

# **Extended Description**

With financial support from the DATEV-Stiftung Zukunft (DATEV-Foundation Future), Stifterverband now offers funding to improve teaching at higher education institutions in all subjects. The following types of fellowships are available:

- Junior Fellowships for doctoral students, post-doctoral students and academic staff.
- Senior fellowships for junior professors, habilitated scientists and professors.
- **Tandem fellowships** for teachers who collaborate with a university didactics teacher, a teaching/learning researcher, or with a lecturer from another field of study, or from another university (also abroad).

Tandem in the sense of this call does *not* include collaborations of university lecturers who work in the same study programme (for example, by specialists and subject didactics in the context of teacher training).

Programme aims are:

- To give incentives for the development and testing of novel types of teaching and examinations (for example, concepts for research or problem-based learning or for the examination of key competences) as well as the redesign of modules and study sections (with regards to the introductory period or practical phases, eg from the point of view of interdisciplinarity or the increasing diversity amongst students).
- To promote exchanges on higher education and increase the dissemination of developed projects through networking among fellows.
- To contribute to a systematic development of teaching in terms of curriculum, didactics and methodology. In addition, to promote the training and personal development of teachers.
- To contribute to the stabilisation of innovative university teaching at the university.

The fellowships can only be awarded to an individual and are not transferrable; this gives the Fellows freedom and resources to plan and implement teaching innovations. Each teaching innovation project can only be funded with one fellowship.

The university is expected to actively support the Fellows (eg by letting them take time off to attend Fellow meetings and teaching or learning conferences). The fellowship should contribute to a lasting, subject-related and/or interdisciplinary discussion to encourage digital university teaching at the university.

# **Eligibility Criteria**

Applicants from all disciplines who work at a public or private university in Germany may receive funding under this scheme. Lecturers are excluded from funding unless they are employed at a musical college.

Applications can only be submitted by the university administration.

### **Additional Information**

There are two Senior Fellowships which are funded by the DATEV Foundation - these two fellowships must be in IT or a related subject.

### **Value Notes**

In total, funding of up to €300,000 is available. Funding values are:

Junior Fellowship: €15,000.

Senior Fellowship: €25,000.

Tandems: €30,000.

### **Application Procedure**

Applications close on **12 July 2019.** 

Five copies of all application materials must be submitted via post. In addition, a digital copy must be submitted via e-mail to the administrator.

Funding may commence after January 2020, at a time that is appropriate for the funded project.

### **Useful links**

DATEV-Stiftung Zukunft (Funder) https://www.datev-stiftung.de/

Fellowships - Funding Announcement <u>https://www.stifterverband.org/lehrfellowships</u>

Stifterverband (Funder) https://www.stifterverband.org/

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Stifterverband Hauptstadtbüro des Stifterverbandes Pariser Platz 6 10117 Berlin Germany Tel: +49 30 3229820 Fax: +49 30 322982515 E-Mail: mail@stifterverband.de

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

### 2019 Deadline

Application start date:	-
Application end date:	12-07-2019

# **FHS Grants for Major Projects**

Fund ID:	S15129
Status:	Open for Applications
Last updated:	Not specified

Funding available to support major long-term or institutional research projects that develop scholarship, research and dissemination of knowledge in the history of furniture and interiors.

# **Fund Information**

Funding body:	Furniture History Society (FHS)
Maximum value:	£ 30,000 (€ 33,900)
Application deadline:	None specified

### **Extended Description**

The Furniture History Society (FHS) was founded to study furniture of all periods, places and kinds, increase knowledge and appreciation of furniture, and assist in the preservation of furniture and its records.

Thanks to the support of its members and a range of funding bodies in response to the Society's 50th anniversary appeal, the Society is able to support major long-term or institutional research projects that develop scholarship, research and dissemination of knowledge in the history of furniture and interiors. The Sociaty considers any aspect of these subjects, both geographical and historical, and can cover restoration and conservation, materials and techniques, or the trade and art markets. There should be an historical perspective to proposals.

# **Eligibility Criteria**

The Society welcomes applications from institutions anywhere that provide opportunities for research or career development of postdoctoral students and young professionals. It will consider longer-term research proposals either from individuals or collaborative partnerships.

### Value Notes

Grants can be offered for amounts up to a maximum of £10,000 annually for up to three years.

# **Application Procedure**

For information on how and when to apply, applicants should contact the Grants Secretary.

# **Useful links**

Furniture History Society https://www.furniturehistorysociety.org/

Grants for Major Projects <u>https://www.furniturehistorysociety.org/grants/grants-for-major-projects/</u>

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Furniture History Society (FHS)

# **GHF Research Project Grants**

Fund ID:	S8485
Status:	Open for Applications
Last updated:	Not specified

Funding to support research projects in the fields of archaeology, art history, historical Islamic studies, history of law, history of science, prehistory and early history.

### **Fund Information**

Funding body:	Gerda Henkel Stiftung (Gerda Henkel Foundation)
Maximum value:	Discretionary
Application deadline:	12-06-2019

# **Extended Description**

The Gerda Henkel Foundation (GHF) promotes science at universities and research institutes, primarily by supporting specific projects in the field of the humanities that have a specialist scope and are limited in time. It is particularly interested in the advancement of postgraduates.

Support is concentrated on the historical humanities, mainly on history, archaeology, the history of art and other disciplines with a historical component. GHF has its headquarters in Düsseldorf, Germany and is active both within Germany and worldwide.

Research Project Grants are primarily provided for the historical humanities, in particular to support research projects in the fields of archaeology, art history, historical Islamic studies, history of law, history of science, prehistory and early history.

A fundamental prerequisite for a grant is that project staff conduct their own research, which is published under their own name. As part of a research project, the costs incurred of visiting (foreign) scholars can also be financed.

# **Eligibility Criteria**

GHF generally accepts applications for research projects made by universities, other research institutes or comparable institutions, as well as by one or several PhDs or scholars who hold a Post Doctoral Lecture Qualification. The applicants must be involved in the research work of the project.

### Value Notes

Depending on the type of project, costs are covered for personnel, travel, materials and/or other costs. Project staff on research projects may only be financed by PhD or research grants.

The payments for Scholarships as part of a research project are:

### PhD Scholarships

- Monthly scholarship award: €1,400
- A monthly family grant may be allocated for childcare
- Monthly endowment for Scholarships abroad: €350
- Travel aid: as required
- Material aid: as required

### **Research Scholarships for Postdocs**

- Monthly scholarship award: €2,000
- A monthly family grant may be allocated for childcare
- Monthly endowment for Scholarships abroad: €500
- Travel aid: as required
- Material aid: as required

### Research Scholarships after Post Doctoral Lecture Qualification

- Monthly scholarship award: €2,700
- A monthly family grant may be allocated for childcare
- Monthly endowment for Scholarships abroad: €675
- Travel aid: as required
- Material aid: as required

Contracts for work may be awarded for smaller research activities. GHF specifies no rates in this regard.

Publishing aid is currently only awarded to especially successful projects already being supported by GHF.

### Restrictions

College/tuition fees and overhead costs cannot be funded.

# **Application Procedure**

Applications for research project funding may be submitted at any time. However, the GHF committees meet twice a year to consider applications. The application deadline for the autumn 2019 meeting is 12 June 2019. If the application is successful, funding can start at the beginning of May 2019 at the earliest.

**The deadlines are not valid for smaller funding amounts** (ie up to €25,000) as they are granted through a simplified procedure with a deliberation time of approximately three to four months.

### **Useful links**

Gerda Henkel Foundation <u>http://www.gerda-henkel-stiftung.de/</u>

GHF Research Project Grants <u>http://www.gerda-henkel-stiftung.de/research\_grants</u>

Online Application https://forms.gerda-henkel-stiftung.de/ghs?kind=forp&lang=en

### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Gerda Henkel Stiftung (Gerda Henkel Foundation) Malkastenstrasse 15 40211 Düsseldorf Germany Tel: +49 (0)211 93 65 24 - 0 Fax: +49 (0)211 93 65 24 - 44 E-Mail: <u>info@gerda-henkel-stiftung.de</u>

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

### 2020 Deadline

Application start date:	-
Application end date:	12-06-2019

# Hamburg-Baltic Sea Funding for International Research Cooperation

Fund ID:	S15650
Status:	Open for Applications
Last updated:	Not specified

Funding provided for research projects that foster international research co-operation between Hamburg and the Baltic Sea region.

# **Fund Information**

Funding body:	Freie und Hansestadt Hamburg (Free and Hanseatic City of Hamburg)
Maximum value:	€ 20,000
Application deadline:	15-10-2019

# **Extended Description**

The Hamburg Research Fund (Landesforschungsförderung) was founded in 2013 by the Senate to support ground-breaking research initiatives at state universities and their partners in Hamburg. Funding is provided by the Free and Hanseatic city of Hamburg and implemented by the Behörde für Wissenschaft, Forschungund Gleichstellung (BWFG-Department of Science, Research and Equality). The main aim of the Hamburg Research Fund is to support the co-ordinated development of existing and new scientific fields in order to contribute to the city's competitiveness in cross-regional as well as international areas.

In line with the Baltic Sea Strategy for Hamburg as a Science Location adopted by the Senate (Drs. 20/10410), the focus of the funding line 'Development of International Research Cooperation' is initially on the Baltic Sea region.. This funding measure is intended to contribute to the intensification of science co-operation between Hamburg and the Baltic region and promote the better networking of Hamburg universities and scientific institutions with their partner institutions in the Baltic Sea region. The resulting networks set up are intended to develop co-operation and joint international research projects that can then apply for funding at EU level (eg Horizon 2020, INTERREG, ERASMUS +) or beyond.

# **Eligibility Criteria**

All state-owned Hamburg universities are eligible to apply.

### Value Notes

Maximum funding per project is €20,000. Funded are material costs (eg travel expenses, workshops) and staff costs (eg student assistants). Maximum project duration is 24 months.

### **Match Funding Restrictions**

Projects are only partially funded and applicants are expected to make significant own contributions.

### **Previous Successes**

A list of previously funded projects can be found here.

### **Application Procedure**

Applications must be submitted by the deadline of **15 October 2019**.

### **Useful links**

BWFG-Department of Science, Research and Equality (German only) <u>http://wissenschaft.hamburg.de/</u>

Hamburg Grant for International Research Cooperation (German only) <u>https://www.hamburg.de/bwfg/landesforschungsfoerderung-hamburg/</u>

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Behörde für Wissenschaft, Forschung und Gleichstellung (BWFG-Department of Science, Research and Equality) Hamburger Str. 37 22083 Hamburg Tel: +49 040 42863-3154 E-Mail: <u>info@bwfg.hamburg.de</u>

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

### 2019 Second Deadline

Application start date:	-
Application end date:	15-10-2019

# **Hertie Foundation Research Grants**

Fund ID:	S11997
Status:	Open for Applications
Last updated:	Not specified

Funding is available to institutions in Europe for innovative research programmes within the fields of education on democracy, neuroscience and European integration.

# **Fund Information**

Funding body:	Gemeinnützige Hertie-Stiftung
Maximum value:	Discretionary

Application deadline:	None specified	
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# **Extended Description**

The Gemeinnützige Hertie Foundation (GHS) provides funding for research within the areas of neuroscience, democracy training and European integration. Within these fields the foundation invests in people and develops projects that serve as sources of inspiration, role models and disseminators.

The GHS provides support for defined projects in the areas of neuroscience, European integration and education for democracy, for a maximum of five years. Support is provided only for exemplary and innovative projects and may be operating or promotional support, with a focus on start-up projects. Activities are prioritised in accordance with the Executive Board's strategic decisions on GHS' programmatic orientation. Only projects whose results are accessible to the public can be supported under this scheme.

# **Eligibility Criteria**

Grants can typically only be awarded to institutions and bodies, not to individuals. The institution or agency should have a seat or a permanent establishment, or at least one representative in the European Union.

# Value Notes

Eligible project expenses are:

### **1. Personnel Costs**

Authorised personnel funds are used for employee compensation including non-wage labour costs (e.g. employer contributions to statutory social insurance). For each person hired, an employment or service contract has to be drawn up. The grantee has all the rights and obligations arising from the employment or service contracts. Fees are to be paid out from material resources.

### 2. Travel Expenses

Project-related trips are to be financed from funds approved for this purpose. For domestic and international travel, the day and overnight rates are generally settled according to the Federal Travel Expenses regulations for civil servants.

### **3. Material Assets**

Material assets are to be used for the acquisition of necessary equipment and mobile assets in addition to consumable supplies. The purchase of a device or multiple functionally connected devices of a value of more than  $\leq$  5,000 are to be listed separately at the application stage or approved later provided approval is obtained before purchase.

As a rule, procurement must at least be based on two offers. Equipment and tangible goods that are purchased with granted funds shall become the property of the grantee. Proper accommodation and maintenance of equipment is to be ensured. On-going costs of the equipment (operating costs) such as maintenance, repair,

spare parts, etc. are assumed by GHS only within the scope of the approved budget. Fees, allowances and scholarships are also to be financed from material resources.

### **Match Funding Restrictions**

In accordance with the purposes of the foundation, projects with domestic and foreign charitable institutions and project operators can be supported.

The applicant must indicate whether the respective grant application has also been presented to another institution for decision, including the name(s) of the other institution(s).

### Restrictions

The following general requests are excluded from eligibility unless they are associated with a specific funding programme sponsored by GHS:

- Grants for printing costs of publications
- Translation work
- Bridging budget gaps
- Requests for reimbursement of individuals participating in congresses, conferences and training
- Acquisition, completion or maintenance of collections of all kinds
- Preservation of monuments and construction
- Individual grants outside GHS' own scholarship programmes

### **Application Procedure**

Applications may be submitted **at any time**.

Applications may only be submitted in writing. The application process is informal unless special provisions are provided for individual priorities and GHS programmes. The latter is especially true for scholarship programmes and research funding.

# **Useful links**

Funding Announcement https://www.ghst.de/foerdermittelrichtlinie/

Gemeinnützige Hertie Stiftung (Funder) http://www.ghst.de/#\_

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Gemeinnützige Hertie-Stiftung Grüneburgweg 105 DE-60323 Frankfurt a. M. Germany Tel: +49 (0)69 66 07 56-0 Fax: +49 (0)69 69 66 07 56-999 E-Mail: <u>infoghst.de</u>

# Horizon 2020 - Excellent Science - European Research Council (ERC) Advanced Grants

Fund ID:	S9120
Status:	Open for Applications
Last updated:	Not specified

ERC funding scheme open to active, well established researchers of any nationality who wish to carry out their frontier research, in any field or subject, in the EU Member States or associated countries.

### **Fund Information**

Funding body:	European Commission
Maximum value:	€ 3,500,000
Application deadline:	None specified

# **Extended Description**

The European Research Council (ERC) provides attractive, long-term funding to support excellent investigators and their research teams to pursue ground-breaking, high gain and high risk research. The ERC is a key component of Horizon 2020 and complements other European research and innovation platforms, such as those of the national research funding agencies.

The ERC operates four main grant programmes to support projects, and investigators, at progressive stages of development: this Advanced Grant, plus the Proof of Concept Grant, Starting Grant and Consolidator Grant.

Research funded by the ERC is expected to lead to advances at the frontiers of knowledge and to set a clear and inspirational target for frontier research across Europe. It operates using an 'investigator-driven' approach to solicit new opportunities and directions in any field of research, as identified by researchers themselves, rather than support priorities set by parties outside of the research community. This attitude to research funding ensures that support is aimed primarily at new and promising opportunities, with a greater degree of flexibility.

Running in parallel with its research funding support objectives, the ERC also aims to fortify and shape the European research system, piloted by high quality peer review, the establishment of international benchmarks of success, and the provision of up-to-date information on who is succeeding and why.

Overall, the ERC aims to:

- Support the best of the best in Europe across all fields of science, scholarship and engineering.
- Promote wholly investigator-driven or 'bottom-up' frontier research.
- Encourage the work of the established and next generation of independent top research leaders in Europe.
- Reward innovative proposals by placing emphasis on the quality of the idea rather than the research area.
- Raise the status and visibility of European frontier research and the very best researchers of today and tomorrow.

# **Eligibility Criteria**

Principal Investigators of any nationality may apply to carry out research in a host institution established in an EU Member State or Associated Country. Public or private institutions, including universities, research organisations and undertakings can host the Principal Investigator.

The researcher may be residing in any country in the world at the time of application, but the host institution must be in an EU Member state or Associated Country. The grant is awarded to the institution that engages and hosts the Principal Investigator.

In certain conditions team members may be based outside of the EU or an Associated Country.

The following specific eligibility criteria apply:

• **Advanced Grant** - applicants are expected to be active researchers and to have a track record of significant research achievements in the last 10 years.

Researchers with different levels of experience are advised to consider applying to one of the following funding streams:

- Starting Grant The Principal Investigator should have been awarded his/her first PhD more than two years, and less than seven years prior to the Call for Proposals. Applicants are expected to have produced at least one important publication without the participation of their PhD supervisor.
- Consolidator Grant The Principal Investigator should have been awarded his/her first PhD more than seven, and less than twelve years prior to the Call for Proposals. Applicants are expected to have produced several important publications without the participation of their PhD supervisor.

Additionally, ERC administers Proof of Concept Grants, which are open to all Principal Investigators in an ERC frontier research project that is either ongoing or has ended less than 12 months before the publication date of a Call for Proposals. These grants are intended to fund further work (ie activities which were not scheduled to be funded by the original ERC frontier research grant) to verify the innovation potential of ideas arising from ERC funded projects.

### Value Notes

The indicative fund value for 2019 is €391 million. Individual grant levels vary as follows:

- Up to a maximum of €2.5 million for a period of five years.
- Additionally, up to €1 million can be requested to cover:
  - Eligible start-up costs for Principal Investigators moving to the EU or an Associated Country from elsewhere as a consequence of receiving the ERC grant.
  - Purchase of major equipment.
  - Access to large facilities.

### **Previous Successes**

Notable previously funded proposals include the following:

- **1stProposal**: An alternative development of analytic number theory and applications
  - Recipient: University College London, United Kingdom
    - o Grant Amount: €2.01 million
- **ABCvolume**: The ABC of Cell Volume Regulation
  - Recipient: Rijksuniversiteit Groningen, Netherlands
  - o Grant Amount: €2.25 million
- **CANCERBIOME**: Characterization of the cancer-associated microbiome
  - Recipient: European Molecular Biology Laboratory, Germany
  - o Grant Amount: €2.23 million
- **IONACES**: Understanding ion transport in nanoporous carbons; application to energy storage and sustainable development
  - Recipient: Universite Paul Sabatier Toulouse Iii, France
  - o Grant Amount: €1.49 million

A full list of funded projects is available at the ERC website.

# **Application Procedure**

### Applications to the 2019 Call should be submitted by 29 August 2019.

Applications are made online through the European Commission Funding and Tenders Portal. A Guide for Applicants is published for each Call for Proposal which describes in detail how the electronic forms should be completed.

Proposals are submitted by the Principal Investigator who has scientific responsibility for the project, on behalf of the host institution. A single submission of the full proposal will be followed by a two-step evaluation. The evaluation will be conducted by high level peer review panels. Applicant Principal Investigators can request during the electronic proposal submission that up to three specific persons should not act as a peer reviewer in the evaluation of their proposal.

# **Useful links**

Advanced Grants https://erc.europa.eu/funding/advanced-grants

European Research Council <u>http://erc.europa.eu/</u>

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

### ERC National Contact Point Helpdesk (UK)

European Commission Directorate General for Research and Innovation UK Research Office (UKRO) Rue du Trône, 4 1000 Brussels Tel: 0032 2289 6121 E-Mail: <u>erc-uk@bbsrc.ac.uk</u>

### **European Research Council**

European Commission Directorate General for Research and Innovation ERC Executive Agency COV2 [Office nr] BE-1049 Brussels

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

### Deadline for ERC Advanced Grant 2019 (ERC-2019-ADG)

Application start date:	21-05-2019
Application end date:	29-08-2019

### Links

Call Details

# <u>Horizon 2020 - Societal Challenges - Smart, Green and Integrated</u> <u>Transport</u>

Fund ID:	S6583
Status:	Open for Applications
Last updated:	Not specified

Flagship European funding programme to support research actions capable of contributing to a European transport system that is resource-efficient, climate and environmentally-friendly, safe and seamless for the benefit of citizens, the economy and society.

# **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	29-08-2019

# **Extended Description**

Horizon 2020 is the EU's programme for research and innovation. It will run from 2014-2020 and is the successor to the Seventh Framework Programme (FP7).

Horizon 2020 brings together all existing European Union research and innovation funding, including the Framework Programme for Research, the innovation related activities of the Competitiveness and Innovation Framework Programme and the European Institute of Innovation and Technology (EIT).

Designed to support the Innovation Union - Europe 2020 Flagship Initiative, the basic principle of Horizon 2020 is to adopt a much more strategic approach to research and innovation.

The specific programme Horizon 2020 will consist of the following parts:

- Part I Excellent science
- Part II Industrial leadership
- Part III Societal challenges
- Part IV Non-nuclear direct actions of the Joint Research Centre (JRC)

There are also dedicated budgets for 'Spreading Excellence and Widening Participation' and 'Science With and For Society'. Additionally, a number of cross-cutting priorities will be addressed across and within all three pillars. These include:

- Gender equality and the gender dimension in research.
- Social and economic sciences and humanities.
- International cooperation.
- Fostering the functioning and achievement of the European Research Area and Innovation Union, as well as contributing to other Europe 2020 flagships (eg the Digital Agenda).

The '**Smart, Green and Integrated Transport**' funding programme is a part of the Societal Challenges pillar of Horizon 2020, which focuses on bringing together a critical mass of resources and knowledge in order to address specific challenges. Activities cover the full cycle from research to market, with a focus on innovation related activities, such as piloting, demonstration, test-beds, support for public procurement, design, end-user driven innovation, social innovation and market take-up of innovations.

The programme is structured in four broad lines of activity:

- **Resource efficient transport that respects the environment.** The aim is to minimise transport systems' impact on climate and the environment (including noise and air pollution) by improving its efficiency in the use of natural resources, and by reducing its dependence on fossil fuels.
- **Better mobility, less congestion, more safety and security.** The aim is to reconcile the growing mobility needs with improved transport fluidity, through innovative solutions for seamless, inclusive, affordable, safe, secure and robust transport systems.
- **Global leadership for the European transport industry.** The aim is to reinforce the competitiveness and performance of European transport manufacturing industries and related services including logistic processes and retain areas of European leadership (eg such as aeronautics).
- Socio-economic and behavioural research and forward looking activities for policy making. The aim is to support improved policy making which is necessary to promote innovation and meet the challenges raised by transport and the societal needs related to it.

# **Eligibility Criteria**

Any legal entity may participate in an action provided that the conditions laid down in the Rules of Participation have been met as well as any conditions laid down in the relevant work programme or work plan.

The Joint Research Council may participate in actions with the same rights and obligations as a legal entity established in a Member State.

### **Conditions of participation**

The following minimum conditions will apply:

• At least three legal entities shall participate in an action.

- Each of the three shall be established in a Member State or associated country.
- No two of the three may be established in the same Member State or associated country.
- All three legal entities shall be independent of each other.

### **Eligibility for Funding**

The following participants are eligible for funding from the European Union:

- Any legal entity established in a Member State or associated country, or created under Union law.
- Any international European interest organisation.
- Any legal entity established in a third country identified in the work programme.

In the case of a participating international organisation or in the case of a participating legal entity established in a third country, neither of which are eligible for funding, funding from the European Union may be granted provided that at least one of the following conditions is fulfilled:

- The participation is deemed essential for carrying out the action by the Commission or the relevant funding body.
- Such funding is provided for under a bilateral scientific and technological agreement or any other arrangement between the Union and the international organisation or, for entities established in third countries, the country in which the legal entity is established.

### Associated Third Countries

Horizon 2020 shall be open to the association of:

- Acceding countries, candidate countries and potential candidates, in accordance with the general principles and general terms and conditions for the participation of those countries in Union programmes established in the respective framework agreements and decisions of association councils or similar agreements.
- Selected third countries that fulfil all of the following criteria:
  - Have a good capacity in science, technology and innovation;
  - Have a good track record of participation in Union research and innovation programmes;
  - Have close economic and geographical links to the Union;
  - Are European Free Trade Association (EFTA) members or countries or territories listed in the Annex to the Regulation establishing a European Neighbourhood Instrument.

International cooperation with third countries and international organisations shall be promoted across and within Horizon 2020 to achieve, in particular, the following objectives:

- Strengthening the Union's excellence and attractiveness in research and innovation as well as its economic and industrial competitiveness.
- Tackling effectively global societal challenges.
- Supporting the Union's external and development policy objectives, complementing external and development programmes.

# **Additional Information**

For the period 2018-2020, the work programme for this part of Horizon 2020 will be guided by the following priorities:

- Towards an integrated, sustainable and robust transport system.
- Technologies transforming the transport system.
- Global leadership, competitiveness, business models and markets.
- Accounting for the people: demand, needs and behaviours; inclusion and access.

### Value Notes

For 2019, the total budget is €315.51 million for 2019, with €330.86 million for 2020.

# **Match Funding Restrictions**

Grants awarded under Horizon 2020 may reach a maximum of 100% of the total eligible costs, as specified in call documents. Grants shall be limited to a maximum of 70% of the total eligible costs for the following actions:

- Actions primarily consisting of activities such as prototyping, testing, demonstrating, experimental development, piloting, market replication.
- Programme co-fund actions.

### Restrictions

The European Commission does not explicitly solicit the use of human embryonic stem cells. The use of human stem cells, be they adult or embryonic, if any, depends on the judgement of the scientists in view of the objectives they want to achieve and is subject to stringent Ethics Review.

No project involving the use of human embryonic stem cells will be funded that does not obtain the necessary approvals from the Member States. No activity will be funded that is forbidden in all Member States. No activity will be funded in a Member State where such activity is forbidden.

The following fields of research shall not be financed:

- Research activity aiming at human cloning for reproductive purposes.
- Research activity intended to modify the genetic heritage of human beings which could make such changes heritable.
- Research activities intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including by means of somatic cell nuclear transfer.

# **Application Procedure**

Applications are made via the European Commission Funding and Tenders Portal.

There are various formats for application, and this will be specified on a per-call basis:

- **Continuously open calls:** Submissions can be made at any time, although there may be cut-off dates when proposals are evaluated, and there may be a second application stage.
- **One-stage calls:** For most calls, a full proposal must be submitted by the given deadline.
- **Two-stage calls:** Some calls have a two stage submission procedure, as follows:
  - Submit an outline proposal (maximum 20 pages). This is evaluated against criteria set out in the call/topic.
  - If the proposal passes stage one, the applicant will be invited to submit a full proposal within a given period. If required by the relevant work programme, applicants will also receive the stage one evaluation summary report (ESR).

### **Rejected proposals**

If a proposal does not pass stage one, the applicant will be informed of this in writing.

### **Useful links**

European Commission - Home Page <u>http://ec.europa.eu/index\_en.htm</u>

Horizon 2020 - Home Page <u>http://ec.europa.eu/programmes/horizon2020/</u>

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

**European Commission** 

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

### Digitalisation and Automation Principles for ATM (SESAR-ER4-01-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Increasing the Automation in ATM is considered as a key to significantly improve ATM performance. However, ATM is a continuous 24-7 set of services where the complexity of the ATM system, its fallback modes and necessary recovery steps has proved to be a major challenge for the introduction of further automation, and this has consequently slowed down the advancement of automation in ATM, especially in the most congested areas of Europe. The latest progress in the domain of Artificial intelligence and in particular Machine Learning may open new possibilities for further automation in ATM in high-density operations and some new applications have already been developed in SESAR. The application of Machine Learning for Automation in ATM also comes with new challenges, including sound assurance arguments that need to be solved to avoid a

negative impact. In particular safety, business continuity and cyber security issues need to be proposed at an early stage of development of the automation concept.

Proposals should select a specific ATM operational environment, present a vision of a higher level of automation in this operational environment (which may include the delegation of control to the automation) and address one or more of the specific challenges above that hinder the application of machine learning methods for the further automation of ATM (e.g. Transparency, Generalization). Proposals should aim at providing a better understanding of this challenge(s) and investigate innovative methods to address the(se) challenge(s) in ATM. Proposals may make assumptions about the availability of technology and/or operations enablers (e.g. data link), but need to state them clearly. This topic covers ground and airborne automation that impacts ATM.

Projects addressing the Transparency of automated systems incorporating machine learning methods required for cooperative human machine systems should identify which information needs to be provided to enable the human operator to cooperatively work together with the automation. Based on the identified information requirements, the project should select or develop and assess suitable machine learning methods for ATM automation that are able to provide these kind of information and assurances. The project may investigate the applicability of methods from the domain of Explainable Artificial Intelligence (XAI).

Projects addressing the Generalisation and the adaptation of the algorithms to changes in the operational environment, should investigate methods to estimate and increase the ability of an automated systems to handle a situations that were not foreseen during the development and training. These methods should enable automation to adapt to changes of the environment, like the change of behaviour of some actors (e.g. modification of operational procedures), the entrance of new actors or unforeseen traffic or weather situations. Projects may explore the possibility to apply algorithms able to learn during operation in order to adapt to optimise operations based on changes in the environment. Projects may also investigate the effects of uncertainty added to operations by these new methods.

The total budget for Strategic Area of Operation #1 – Provide Strategic Steering for the SESAR Programme is €15.5 million.

The SESAR JU considers that proposals addressing topics in Area 1 can request a contribution from the EU between  $\leq$ 500,000 minimum and  $\leq$ 1 million maximum and should end no later than Q4 2022 (including six months for dissemination activities after delivering final results). These conditions are intended to allow the specific challenges to be addressed appropriately and if additional EU contribution is requested this must be strongly justified in any proposal.

### Links

#### Call for Proposals

#### Cognitive Support (SESAR-ER4-02-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

According to the SESAR vision outlined in the European ATM Master Plan, advancing the automation in ATM is the key to significant performance improvements across many aspects of ATM and development and

implementation of higher levels of automation will enable handling the predicted increase in air traffic demand and contribute significantly to achieving the SES High-Level Goals.

The ATM system is currently designed to rely upon relatively high levels of human intervention to manage the air traffic safely and efficiently. This role of the human is being challenged and it is expected to change towards more of a supervisory role yet also maintaining the human as a critical and an integral element of the ATM system. Experience from ATM and other domains shows that increased dependence on automation makes it important to consider automation failure scenarios, system resilience and the challenge of maintaining a skilled and competent workforce. There will be a need to assess the human performance issues for ATC in a similar way to those that are known to affect flight-crew performance in the glass cockpit. These include the need to prevent the risks associated to moving the human operator into a monitoring role: stress, lack of attention, loss of situational awareness and de-skilling.

A promising approach to preventing these issues is to progressively evolve the ATM system into a Joint Human Machine Cognitive System following an integrated design that optimises the collaboration of actors in view of optimising system performance. Development and implementation of higher levels of automation will require careful consideration of the strength of human and automation systems as well as the identification of new human roles in parallel with the development of ATM concepts and use of technology.

Proposals for research in this area should target an ATM system with a medium to high level of automation in which the human operator is working cooperatively with advanced automation as a digital assistant. Both, ATM-related airborne and ground systems are in scope.

Research may address human performance aspects related to higher levels of automation (i.e. stress, lack of attention, de-skilling, complacency...) and resilience, e.g. by developing new approaches for defining suitable task allocation strategies enabling a cooperation of ATCOs and/or other ATM actors and automation. This may include the use of adaptable or adaptive automation concepts. Projects may in particular focus on potentially required hand-overs between automated systems and human operators as well as handovers between human-human and machine-machine in normal and degraded modes of operation. These new approaches may build upon the existing legacy and SESAR solutions in the pipeline, or they could take a clean-sheet approach to automation. These proposals should validate the proposed design of ATM systems automation, focusing of expected future roles and procedures. They may consider approaches focusing on the front-end of automation and using a human to operate the automation in the background (e.g. Wizard-of-Oz approach) or even use a predefined reaction of the automation.

Proposals may also address the implications of the expected future role of the human and the foreseen introduction of new support tools on training requirements and develop appropriate training concepts. Projects are encouraged to take into consideration the opportunities enabled by the current advancement of technology for the design and delivery of training.

Proposals may also focus on specific aspects of these new systems. For example, proposals may investigate the application of psychophysiological measurements like neurometrics or the detection of facial expressions for applications like stress management systems, fatigue declaration, new training techniques or adaptive automation. Proposals may also consider to investigate potential application of activity trackers available on the consumer market. Proposals planning to investigate the application of psychophysiological measurements need to propose a specific application within the ATM system.

Proposals addressing this topic should not only consider normal operating situations but also take into account system failures and degraded modes of operation. This requires identification of system failure states and definition of appropriate procedures.

Proposal addressing this topic should take into consideration the results of SESAR WP-E projects, in particular HALA!, and ER1 projects (AUTOPACE, MINIMA, STRESS). Under this topic, there is also substantial scope for learning from other transportation modes and other industries and it is expected that proposals will build upon an established body of knowledge and apply this into the challenges of ATM.

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### Links

### Call for Proposals

### Complexity and Data Science for ATM Performance (SESAR-ER4-03-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Due to the rapidly developing techniques of data science it is possible to analyse large data sets and to detect new correlations and relationships. In fact, data science techniques are already having a huge impact in many application areas. The application of innovative methods of data science in the ATM domain could provide new insights to measure and improve the performance of the ATM system.

Proposals should select data-driven methods that allow to identify so far unknown patterns, correlations or even cause-effect relationships in ATM data or allow for improved predictions on different levels (e.g. trajectories, sectors, and network). Proposals may suggest to use model-based approaches as a complement to data-driven methods, including a 'data-twin' representing reality.

Research activities should consider potential sources of uncertainty (e.g. partial observations, inaccurate information, incomplete knowledge inherent random nature, etc.) and their impact on the potential conclusions. Research activities may aim to provide improvements to the whole data workflow including data acquisition, cleaning, processing, and analysis.

Research activities addressing this topic should aim at providing new insights into the performance of the ATM system and investigate how the findings can be used to support strategic or real-time decision making in order to improve ATM performance. They should develop specific case studies and aim to identify actionable indicators or develop innovative visualisation techniques for complex data to support decision making.

As a part of their activity, projects may also define and make available standardised data-sets for training statistical models and a 'gold standard' (e.g. best theoretical classification of input data).

For example, proposals could offer to study how data science can be used to provide new insights into optimising airspace management (e.g. sector design and configuration, demand and capacity balancing, separation management), for example by studying delay sinks and amplifiers.

In case research activities investigate safety critical applications, potential safety issues (determinism, certifiability, etc.) raised by the selected method must be addressed.

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### Links

#### Call for Proposals

### Digital Information Management (SESAR-ER4-04-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Due to the increasing Digitalisation of ATM, more and more data is being recorded and even more data will be recorded in the future. This data could be used to improve operations e.g. by creating a common situation awareness among stakeholders and support their collaborative decision making towards measuring and communicating about ATM performance attributes, safety, security etc. and contribute more efficient organisation of the entire mobility system. Additionally, data can be used for research and development purposes, like comparing new concepts with current operations. However, there is historically some technical barriers and reluctance to make data available to other stakeholders for various reasons, e.g. concerns regarding the costs of making data available, insights into business decisions that may be revealed or lack of knowledge how data can be shared while protecting privacy.

The challenge is to overcome the barriers for the benefit of stakeholders and the ATM system as a whole.

The total budget for Strategic Area of Operation #1 – Provide Strategic Steering for the SESAR Programme is €15.5 million.

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### Links

### Call for Proposals

### Environment and Meteorology for ATM (SESAR-ER4-05-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Air traffic management has an important role to play in reducing the environmental impact of aviation, in addition to the improvements to be derived from new aircraft and engine technologies. Research is needed to better understand the ways in which ATM can help reduce the impact of aviation on the environment, considering not only fuel burn but other aspects such as CO and NOx and contrails.

Also, over the last few years important improvements in observational (e.g., satellites, LIDARs) and numerical weather prediction (NWP) models in the atmospheric sciences have taken place leading to improved meteorological products, however they are not in systematic use by ATM actors. Increasingly weather is becoming a significant causal factor for delay, in the Network Operations Report for 2017 (issued by the Network Manager) it is stated *"A great number of en-route weather events combined with capacity and staffing issues in some ACCs accounted for much of the delay in 2017. En-route weather delay increased by 30% compared to 2016 and was the double of 2015 weather delay. Airport ATFM delay decreased by 3.6% in 2017. Airport capacity and weather contributed to 83.9% of the total airport delays".* Global and/or long-term phenomena such as climate change, the frequency and severity of extreme weather may even further increase this effect in the future.

Proposals may investigate innovative operational changes to ATM aiming at reducing the environmental impact from aviation. These activates should considered different aspects of environmental impact, e.g. climate impact through CO2 and other emissions, local air quality and noise and the effect this will have in the context of global

and/or long-term phenomena such as climate change, global warming, and changes in the frequency and severity of extreme weather or ash-cloud formation on ATM operations.

Also proposals may research to secure the proper integration of existing and possible new meteorological products into ATM for example to reduce the vulnerability of the ATM system to local weather phenomena and to improve the prediction of 4D Trajectories and network forward planning to enable a minimisation of consequential weather-related delays.

Research activities may focus on the development of a concept for using very high-resolution, very short-range forecasts using numerical weather prediction models and observational data assimilation, and assess the need of new MET data/products. The incorporation of ensemble weather information into decision-support tools, adapted for different ATM stakeholders may also to be investigated.

With respect to the local (airport) operations, the accurate prediction of weather conditions (e.g. visibility, glidepath wind) influencing airport arrival and departure operations along with a consolidated climate risk assessment methodology may be investigated.

This topic is linked to ACARE Challenge 3.

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### Links

#### Call for Proposals

#### Safety and Resilience (SESAR-ER4-06-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Safety is inherent to ATM, so safety of operations has always been the highest priority and consequently ATM has reached a very high level of safety. However, research is necessary to maintain or increase this level in the future while capacity and cost-efficiency are also being increased. Additionally, upcoming challenges like increased digitalisation and the foreseen increase of automation can change the way organizations deliver services and thus could impact upon safety and resilience. A better understanding of this influence/impact is necessary to support the design of a safe and resilient future ATM system.

As safety is the result of the complex interaction between processes, technology and people working together, the introduction of automation can have more implications on safety than just technical reliability. Proposals can research how increasing the level of automation in ATM could affect the delivered safety levels and develop guidelines for organizations and their respective interactions as well as research and development activities on

future automation. These research activities should take into account the state of art on the research on High Performance and High Reliability Organisations and related disciplines.

Proposals may also aim at identifying future research needs related to safety by analysing performance or safety recordings, in which case proposals must demonstrate that they have access to this data. In particular, research activities may aim to identify safety challenges through a large scale analysis of accident and incident data. These activities should evaluate how well identified safety challenges are expected to be addressed by existing SESAR solutions or candidate solutions and, if necessary, may propose at the end of the project new potential SESAR solutions to address the identified and not yet covered safety challenges.

Proposals may also address the increasing need to consider resilience during system design and take into account the three complementary resilience capacities: absorptive capacity, restorative capacity and adaptive capacity. Projects working in this area should analyse the resilience of today's ATM system and assess how envisioned changes might impact its resilience in the future. In today's system, humans are a key element for system resilience through team-work, coordination and learning. The expected increase of automation is likely to impact the role that humans are able to play in supporting resilience, thereby requiring an evolution. As there is a huge potential to learn from other sectors (e.g. public safety, banking), projects are encouraged to investigate how resilience, in particular disruption management, is addressed in these domains and to identify approaches and asses their potential for transferring them to ATM to address current or future needs. Projects may consider multiple possibilities and compare and benchmark them against each other and todays ATM systems and procedures. Modelling and simulation might be used for assessing the resilience of selected approaches.

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#### Links

#### Call for Proposals

### Accelerating Change in ATM (SESAR-ER4-07-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Due to growing demand, new regulations, the emergence of new market entrants and innovation in business models there is an increasing market pressure and a need for increasing operational resilience and agility with continued pressure on Europe-wide cost efficiency for aviation and air traffic management. New technology advancements could provide the necessary improvements but the process from innovation to deployment in ATM is currently slow. Research is need to better understand the economic barriers and to identify mechanisms (including, but not limited to, regulations) to accelerate the Research and Innovation (R&I) lifecycle.

The range of research that could be covered in this topic is broad and topics mentioned here are only indicative. Research proposals may target and challenge existing SES economic, regulatory and legal frameworks within the timeframes set-out in the Flightpath 2050 vision document.

Research activities should study potential measures to speed up/shorten the R&I lifecycle. This includes changes driven by regulation or derived from natural or forced economic incentives. As introducing new ATM operational improvements often requires the deployment of enabling ground and airborne technology, the adoption of novel technologies in ATM is also determined by the pace of ground system and avionic updates cycle. In particular, proposals may investigate how to accelerate the avionics update cycle. Research activities should study the state of the art practices in ground system and avionics update cycle, explore potential benefits of moving to shorter cycles and identify and evaluate mechanisms to speed-up the spread and adoption of novel technologies or accelerate and lighten any certification and/or approval processes. Proposals may, for example, investigate the feasibility and the potential impact of introducing best equipped or best performing – best served rules through case studies and extract lessons learned.

Proposals may also explore ideas and measures to shorten the R&I lifecycle by focusing on the gap between R&D and deployment. For example, projects may analyse case studies of previous successful or unsuccessful deployment experiences in order to extract lessons learned and develop innovative ways for aligning technology investment and business needs that could help reducing the time between these two phases. Projects may also analyse the challenges associated to the deployment of a specific SESAR solution, be it an already mature solution or one that is still in the research phase.

Proposals may investigate the feasibility of setting up a framework for assessing the impact that regulations will have in practice (e.g. via pilot projects or regulation restricted to a limited area). Although models and simulations are available to assess the effect of policy decisions and regulations in advance, the validity of these approaches remain limited and policy decision still have to be made under high levels of uncertainty regarding their effects. A regulatory testbed should allow to test policy decisions while limiting their potential negative impact. Projects investigating this possibility may analyse the state-of-the-art and best practices in other domains and assess their applicability to the ATM domain.

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Links

Call for Proposals

### Behavioural Economics in ATM (SESAR-ER4-08-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The application of economic models supports well targeted policy making. However, current economic models applied in ATM are often normative, thus making a number of assumptions about agent rationality that have been demonstrated not to work in practice in several cases. This is because real decision are often not fully rational. An assessment of novel ATM concepts using behavioural economics in ATM at an early design stage could help to predict the actual behaviour of ATM stakeholders and inform decisions about the specific design of the concepts and policy decision making related to their introduction.

Proposals and their research activities may investigate the application of behavioural economics to improve economic models in ATM by integrating an improved prediction of actual stakeholder behaviour. These activities should provide insights into how to incentivise desirable behavioural change and enable better decisions though incentives, policies, etc. Proposals should suggest a specific application and justify their selection by explaining the expected benefits of applying behavioural economics for this application.

For example, proposals may investigate suggested business changes that are expected to bring significant benefits to the ATM network and analyse how their introduction may impact the behaviour of stakeholders. The research activities are expected to provide new insights on the expected benefits and recommendations for investigated business changes. In particular proposals may, for example:

- Investigate the introduction of new types of legal contracts and changes to regulations required by the concept of the trajectory broker which foresees an evolution of the Network Manager offering trajectory products to Airspace Users and ordering capacity from Air Navigation Service Providers. These projects should cover the relationship between Network Manager and Air Navigation Service Providers and between Network Manager and Airspace Users.
- Aim at improving demand forecast models at network or local level by predicting passenger behaviour more accurately, for example by analysing how the modal choice is impacted by airport access time or environmental considerations.
- Study existing capacity provision strategies of ANSPs and their impact on airline route choices in order to develop improved demand prediction models or capacity provision strategies. Furthermore, projects could aim at providing a better understanding of perceived fairness and equity of potential upcoming regulations making it possible to plan how to better implement new policies.
- Perform a comparative study of existing controller rostering policies, including shift entry and exit times and sector rostering during a particular shift of different ANSPs, analyse their correlation to the capacity offered by the ANSP and provide recommendations for changes. Research activities must consider human performance aspects of controller rostering, as well as the psychological, cognitive, emotional, cultural and social aspects.

These examples are indicative and proposal may suggest to apply behavioural economics to other decision processes if this can be duly justified.

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### Links

### Call for Proposals

### Legal and Regulatory Challenges of Higher Levels of Automation (SESAR-ER4-09-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The introduction of advanced automation in ATM is not only a technical challenge, before this technology can be deployed questions of responsibility and liability have to be answered. Additionally, procedures and methods are required for the approval and/or certification of advanced automation. Additional challenges are presented by more advanced automation that applies novel methods like machine learning to learn and adapt its behaviour (in real time) during operation as the exact behaviour of the automation cannot be predicted in advance.

Proposals and their research activities may address issues related to the means of approval/certification of novel ATM-related airborne and ground systems that enable higher levels of automation. Proposals may in particular focus on systems based on machine learning techniques. Proposals should follow a holistic approach and consider legal and regulatory aspects including privacy as well as the technical aspects (architecture, system performance, reliability, etc.) of the approval/certification jointly to ensure that the different disciplines are aligned. On the one hand, the research activities could investigate and evaluate approaches that can potentially be applied for the approval and/or certification of automation and that allow to demonstrate the safety of automation during normal, impaired operation and recovery phases of continuous and safe service provision. On the other hand, these research activities could aim at providing guidelines for developing advanced automation in order to simplify approval/certification. Of particular interest is to show how safety can be ensured even if not all situations and variations of parameters can be anticipated during the design phase. Research activities may apply Uncertainty Quantification to address this issue and also cover the specific challenges of certification of automation that can adapt is behaviour to changes of the environment over time.

Research activities shall take into account other initiatives developing safety of life systems that may have different approaches to certification and review their applicability to ATM.

Please note that EASA is developing an Artificial Intelligence (AI) Roadmap planned to be released by mid-2019 which aims at identifying the opportunities, challenges and impact of this emerging technology and to propose a corresponding action plan. Proposals should plan effort to analyse how their research is positioned with respect to the EASA roadmap.

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### Links

### Call for Proposals

### ATM Role in Intermodal Transport (SESAR-ER4-10-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Air Traffic Management (ATM) and Air Transport are part of an intermodal transportation system. In an intermodal transportation system, a passenger's journeys consists of a succession of different transport modes, which depends on transport availability, but also on individual preferences regarding travel time, comfort, environmental impact and other criteria. Considering ATM as an integrated part of an intermodal transportation system will make it possible to optimize the performance of the overall transportation system and the complete door-to-door journey, instead of optimizing the individual modalities.

Seeing air transportation at the heart of an integrated, seamless, energy efficient, diffused intermodal system, Flightpath 2050 set the goal to allow travellers to reach their target destination within Europe within a maximum door-to-door time of four hours. Passengers should experience a seamless journey with full connectivity. In order to be able to reach these ambitious goals, a close collaboration between different transportation modes is required. A better understanding is needed on how ATM can better contribute to improve passenger's intermodal journeys and how to increase the performance of the overall transportation system.

Research activities should explore the connection and dependence between ATM/Air Transportation and other transport modes. Proposals should address the main barriers and identify how Air Transport, in particular urban and extended urban mobility, can evolve by efficiently connecting information and services with other transport modes to achieve the 4hr door to door ACARE goal and a seamless journey.

Proposals may investigate how sharing ATM information with other transportation modes or taking into account information from other transportation modes in ATM decision making could improve the individual journeys and the overall transportation systems.

Research activities may also investigate the legal feasibility and potential impact of introducing regulations aiming at optimizing the overall transportation system and allowing passengers to make informed choices, e.g. by proving more information on the environmental impact (carbon footprint, other emissions and noise) or by introducing a route charging scheme taking into account environmental criteria and the availability of other transportation modes for this route for defining the route charges.

Further, research activities may also study the feasibility of considering multimodal aspects (like the availability of modal choices) during all three phases of Air Traffic Flow and Capacity Management (ATFCM) activities and analyse the potential impact on the performance of the overall transportation and passengers door-to-door journeys.

Proposals may explore the possibility of involving passengers in playing an active role in co-designing door-todoor services and generating data to incrementally define and improve new interconnected services following the approach of "participatory design".

Proposals need to demonstrate their complementarity to activities launched by the European Commission and potentially other transport areas (i.e. rail, road, water) to ensure interoperability and delivery of harmonised services to realise cross-modal performance.

Activities are linked to ACARE action areas 1.1 (low carbon transport systems), 1.2 (design and implement an integrated, intermodal transport system) and 1.3 (door to door targets).

This topic is also linked with topic SESAR-ER4-25-2019 (ATM Performance) which aims at defining ATM performance indicators better capturing the ATM contribution to the performance of the transportation system.

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The total budget for Strategic Area of Operation #1 – Provide Strategic Steering for the SESAR Programme is €15.5 million.

The SESAR JU considers that proposals addressing topics in Area 1 can request a contribution from the EU between €500,000 minimum and €1 million maximum and should end no later than Q4 2022 (including six months for dissemination activities after delivering final results). These conditions are intended to allow the specific challenges to be addressed appropriately and if additional EU contribution is requested this must be strongly justified in any proposal.

# Links

### Call for Proposals

# CNS for ATM (SESAR-ER4-11-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Communication, Navigation and Surveillance (CNS) is one of the fundamental enablers of ATM as it supports locating and identifying air vehicles, and exchanging information with them.

The CNS services are currently delivered based on a network of technologies based on techniques which, for some of them, have been developed several decades ago and may not be as efficient as technologies being currently researched or in use in other domains.

Quality of services provided by the CNS network may suffer degradations (e.g. due to technical failures, external effects (e.g. solar storms), software issues, intentional or non-intentional disruptions (e.g. cyber-attacks)). As an example, availability is currently managed through redundancies which can have a significant cost.

The challenges to be addressed is to identify new technologies and/or configurations capable to provide the CNS services while also maintaining or improving the integrity, availability, performance and quality of these services whilst avoiding unnecessary cost and the perception of over-engineering the solutions.

More modern techniques and technologies which are under research in contexts other than aviation shall be investigated to consider their relevance for ATM communication, surveillance or navigation domains or to combination of these domains as they may have the capabilities to unlock unforeseen possibilities.

Intelligent network management solutions shall also be investigated to ensure that the required quality of service by applying powerful network management techniques leading to cost-effective solutions.

During the research, it shall be considered that the population of air vehicles in the considered timeframe will drastically change integrating new types of flying objects (unmanned, orbital vehicles, flying cars) which all need to be considered as "clients" of the CNS services.

### Research area 1: Application of new techniques and new technologies to provide CNS services

Communication, Navigation and Surveillance are not exclusively an ATM subject; they are also being researched and used in other domains.

The objective of this research area is to consider the relevance of new and innovative techniques and technologies, being researched outside the ATM, which could support localisation of air vehicles, acquiring their position and allowing exchange of information while maintaining, as overarching principles, the upmost level of integrity and safety. A technique could support one or several CNS domains.

The research should address any potentially innovative technologies without limiting the research to technologies which are specifically being researched for the CNS/ATM; as a matter of example technologies such as laser could be explored or any other innovative techniques. In particular, the usage of techniques operating outside the spectrum currently used by aviation is encouraged.

Research shall address the integration, interoperability and openness of proposed solutions for the long term, exploiting synergies, reducing costs and optimising spectrum usage.

#### **Research area 2: Intelligent CNS network**

The objective of this research area is to address new ways of managing the CNS network through intelligent network management principles. In particular advanced techniques such as Artificial Intelligence, Artificial Neural network, etc. that could enable the network to reorganise or reconfigure in case the demand for service

would significantly change in specific circumstances (e.g. a sudden increase in traffic in a specific region) or in case one or several components of the network are suffering deficiencies (e.g. technical failures, non-intentional adverse conditions (e.g. solar storm) or cyber-attacks).

The total budget for Strategic Area of Operation #1 – Provide Strategic Steering for the SESAR Programme is €15.5 million.

The SESAR JU considers that proposals addressing topics in Area 1 can request a contribution from the EU between  $\in$ 500,000 minimum and  $\in$ 1 million maximum and should end no later than Q4 2022 (including six months for dissemination activities after delivering final results). These conditions are intended to allow the specific challenges to be addressed appropriately and if additional EU contribution is requested this must be strongly justified in any proposal.

### Links

### Call for Proposals

### Automation of Airport Operations (SESAR-ER4-12-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Airports remain one of the most significant bottlenecks in ATM. At capacity constrained airports, traffic demand can exceed the airport capacity (either at the runway, taxiway or apron) and, with the expected rapid growth in air traffic in the coming years, there will be an increasing number of capacity-constrained airports for significant periods of each day. This situation will become even more critical under adverse weather conditions. As a consequence, there is a need to find solutions to improve the efficiency of airport operations and their resilience in visually and/or challenging meteorological conditions. One of the potential areas of improvement aims at increasing the level of automation for supporting ATCOs and flight crews during the execution of their tasks. This would allow ATCOs to manage higher levels of airport throughput while at least keeping (if not improving) safety levels and to also allow flight crews to execute their tasks more efficiently. The research activities under this theme support of the Airports Council International (ACI) vision for the digital transformation of the airport business.

The scope of this topic covers the following aspects:

### Application area 1: Advanced HMI interactions for tower controllers

This application area covers the development of new human machine interface (HMI) interaction modes and technologies in order to minimise the load and mental strain on the Tower controllers (especially under high traffic density situations, low visibility conditions, etc.).

The proposed applications shall go beyond or be complementary to those that are being addressed in Industrial Research (IR) solutions PJ.16-04 (Wave 1): multi-touch input (MTI) devices, use of in-air gestures, automatic speech recognition (ASR), attention guidance (AG), user profile management systems (UPMS) and use of virtual and augmented reality in different means and tracking labels. The output of PJ.16-04 is expected to be made public at the end of 2019; proposals for work in this area should plan effort to review this output and plan to incorporate it in their research if it is relevant. Note that it is expected that IR work continues as part of IR Wave 2 activities (Wave 2 candidate solution PJ.05-W2-97). Proposals should demonstrate how their work goes beyond the scope of the work planned for IR Wave 2 as described in the IR Wave 2 technical specifications.

Proposals must identify a specific improvement to operations and propose a plan to undertake its initial validation. The proposals must identify the technical enablers that are required for the proposed improvement. The work to be undertaken may include the development of the technical enabler, but cannot be limited to it, i.e. the research must include work towards the validation of how the enabler will be used. The operational validation needs to involve ATCOs.

The SJU has identified the following innovative HMI elements of interest:

- The potential use of already developed technologies (e.g. for remote towers) in towered airports as well as the required adaptations to the specificities of these environments e.g. how to present to ATCOs tracking labels superimposed to their out-the-window view while avoiding information clutter;
- The application of technologies in order to better integrate different information sources to reduce switching between head-up and head-down in the tower environment;
- The potential application of emotion recognition, facial expressions, etc., in support of the optimization of human performance;
- The integration of artificial intelligence (AI) and machine learning algorithms for the intelligent data provision to the controllers on the HMI (providing instead of "raw data", information with context to ensure it is clear why data is being shown and what should be done based on the information presented, while avoiding information overflow). If addressing AI/machine learning, the research shall address the interaction, interplay, division, etc. of tasks and responsibility between ATCOs and algorithms as well as the deviations of ATCOs decisions from those suggested by the automated means e.g. AI.

The above list is not intended as prescriptive. Proposals for work in areas other than those listed above are welcome provided they include adequate background and justification.

Note that the proposed improvements may be applicable to current operations and/or to future operational concepts still under development by industrial research activities in SESAR.

The proposals must indicate the potential applicability of the proposed improvements in terms of categories of airports i.e. a given feature may be required for a major airport but not for a smaller one.

The proposals shall take into consideration relevant exploratory research projects such as MOTO, RETINA, etc.

#### Application area 2: Automation support to help flight crews on the airport surface

This application area addresses potential applications to improve the flight-crew performance during surface operations at the airport. In particular, this includes the development of on-board automation in support of a better integration with air traffic management for surface operations at the airports, such as:

- Applications to inform the flight crew before the non-compliance takes place on the surface e.g. if approaching an intersection at high speed, etc. The warning/alert could be based upon different means e.g. input to aircraft controls, etc. Note that the aim of this application oriented concept is not conformance monitoring (covered in the following point);
- Applications alert flight crews when they have deviated from ATC instructions (e.g. cleared route), from ATC procedures and/or from the airport configuration (AUO-0614 in the ATM Master Plan. This

includes the autonomous generation of the appropriate conformance monitoring alerts by the onboard system on the basis of discrepancies detected between aircraft position and Airport Map Data Base and between aircraft position and clearances/instructions provided by ATC. Note that the ATM Master Plan operational improvement AUO-0614 is currently under research in IR by PJ3b, whose results are expected to be made publicly available at the end of 2019. Proposals for work in this area should explain how the proposed work would go beyond the IR scope, and plan effort to review the output of PJ3b and incorporate it in their work.

- Enhanced arrival runway occupancy time thanks to efficient runway turn-off (AUO-0705 in the ATM Master Plan). The research shall address the combination of existing optimized braking to vacate solutions at a pre-selected runway exit with new applications for assisting the flight crew for achieving an efficient turn-off until aircraft has left runway protected area on the runway exit. This results in a reduced and more predictable arrival ROT. The expected reduced ROT and improved ROT predictability is relevant in good visibility conditions but it is even more so in low visibility conditions (especially in AUTO-LAND mode in CAT IIIb & c), where the observed arrival ROT is generally larger than in good visibility conditions. Proposals for work in this area must describe how they will go beyond previous SESAR 1 research in this area, referring in particular to the output of SESAR 1 project 06.08.02. The concept may be limited to the reduction, include an element of increased predictability of arrival ROT by ATC in the planning phase (e.g. equipped aircraft to indicate equipage or even prediction in seconds in flight plan), or even include an element of Coordination with ATC in the execution phase (e.g. by aircraft downlinking predicted ROT to ATC around TOD or during the approach).
- Enhanced departure runway occupancy time thanks to efficient line-up and take-off (AUO-0706 in the ATM Master Plan. The research shall address potential on-board applications to assist the flight crew of a departing aircraft for a more efficient (fast, accurate, reliable and safe) line-up and take-off. This optimised ROT, will result in a reduced and more predictable ROT at departure. The concept may be limited to the reduction of ROT, include an element of increased predictability of arrival ROT by ATC in the planning phase (e.g. equipped aircraft to indicate equipage or even prediction in seconds in flight plan), or even include an element of coordination with ATC in the execution phase (e.g. by aircraft downlinking predicted ROT to the tower ATC).
- The integration of artificial intelligence (AI) and machine learning algorithms for the intelligent data provision to the flight crew (providing instead of "raw data", information with context to ensure it is clear why data is being shown and what should be done based on the information presented, while avoiding information overflow) in support of reduced flight crew workload and increased safety during surface operations. If addressing AI/machine learning, the research shall address the interaction, interplay, division, etc. of tasks and responsibility between flight crew and algorithms as well as the deviations of flight crew decisions from those suggested by the automated means e.g. AI.

The above list is not intended as prescriptive. Proposals for work outside of these areas are welcome provided they include adequate justification and background.

The proposals shall assess the role of automation and its implications upon the role of the flight crew.

### Application area 3: Automated apron and ground control

This research area aims at developing the operational concept for a highly automated apron management and manoeuvring area control at the airport. It shall address ground movement advisory service (apron) and/or control service (manoeuvring area). It is expected that clearance to enter/cross a runway, take off or land will still be delivered by a controller in all cases.

The research will work towards introducing a high-level of automation (corresponding to a Sheridan level of automation of 7 or more) for some or all of the following tasks:

- Start-up approval;
- Automatic push-back management;
- Ground operations e.g. taxing, guidance from the gate to the runway, etc.; and/or
- Detection of aircraft or vehicle movement, as well as of all other relevant objects, e.g. birds and debris on the runway, in order to ensure that the automation system has a situational awareness equivalent to o superior to what the human controller has in current operations, under all weather conditions, including low visibility;

The project may assume that the communication segment is solved by datalink or use voice communication (ATCO instructions sent using a combination of text-to-speech technology, pre-recorded messages, etc., and voice recognition to process incoming pilot communications). The research shall clearly identify their assumption in terms of datalink technologies and wireless communications.

The research must address fallback solutions in case of failure in the fully automated system. If the fallback requires human intervention, the relevant automation challenges must be considered (human-machine symbiosis).

The environment could be limited at small airports with less complex surface operations, and/or focused on airport with Remote Tower operations, but it could also be focused on increasing levels of automation at large airports (e.g. automatic start-up approval).

Proposals must explain how their research is positioned with respect to previous SESAR exploratory research projects in this domain MOTA, TACO and AUTOPACE, etc., but may choose a completely different approach provided they include adequate justification and background.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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### Links

### Call for Proposals

### Innovation in Airport Operation (SESAR-ER4-13-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The airport is at the heart of the air traffic management system and any improvement in the airport operations will likely have positive results throughout the network. The specific challenge under this topic is exploring innovative ideas that help improving the following aspects:

- Airports have been generally considered as pure air traffic management transportation nodes but there is a need to fully place them within their context as intermodal nodes in a larger multimodal transportation network. The transformation of the airport into an interchange node within a wider network imposes environmental, safety, security and financial challenges which differ from those of a single-mode node;
- With the expected rapid growth in air traffic in the coming years, there will be an increasing number of capacity-constrained airports for significant periods of each day. There is a need to explore innovative solutions in order to deliver additional airport capacity. However, this must be done paying particular attention at maintaining the airports' environmental sustainability.
- The increasing number of drones is causing safety and security concerns within the aviation industry, in particular at the airports. A number of incidents involving drones at big airports in Europe have been already reported, and this number will likely increase in the coming future if nothing changes.

The research fully supports the vision for the digital transformation of airports put forward by ACI, contributing in particular to the evolution of processes and services to deliver a better experience to all passengers and customers, by adopting and implementing new technologies and integrating them with existing ones.

The following non-exhaustive list of application areas of interest has been identified by the SJU:

# Application area 1: Incorporation of Autonomous and Non-Autonomous Engine-off Taxiing into surface operations

The research shall propose potential solutions to incorporate autonomous and non-autonomous engine-off taxiing into surface operations and thus reduce fuel consumption and emissions and increase safety.

Taxi-out and Taxi-in phases can be done through:

- Non-autonomous engine off taxiing (AUO-0806 in the ATM Master Plan) used from the gate to the holding point before line up (i.e. for push back and taxi out) and from the runway exit to the gate (i.e. for taxi in to in block). This may be realised with the aircraft using other external means to taxi (e.g. towing trucks, taxibot).
- Autonomous engine off taxiing (AUO-0805 in the ATM Master Plan) used from the gate to the holding point before line up (i.e. for push back and taxi out) and from the runway exit to the gate (i.e. for taxi in to in block). This may be realised thanks to e.g. electric motors added to the main landing gear and drawing power from either the Auxiliary Power Unit or from an alternative cleaner power source (replacing the APU or being complementary to it) with central control from the cockpit.

The research shall provide an operational concept description and required operational procedures for performing autonomous and non-autonomous engine-off taxiing operations. Please note that the research must be focuses on the ATM aspects; non-ATM aspects of green taxi are covered by Clean Sky research. Important aspects that need research are the following:

• For non-autonomous engine-off taxi, development of an operational concept, which must include the management of the tow fleet, including the parking space at the airport and the procedures to manage

their operations, including communications between the tow vehicle's management centre, ATC and the flight crews, and communication with the tow vehicle's drivers in the case of manned tow vehicles.

- For autonomous engine-off taxi, development of operational procedures for engine start-up during the taxi-out phase and shut-down during the taxi-in phase, development of minimum performance requirements for engine-off taxi, e.g. speed and acceleration required for smooth airport operations, quantification of the impact on airport operations of autonomous engine-off taxi, e.g. slower taxi operations, procedures for ATC to update the take-off clearance time during taxi-out for flight crews to be able to optimise engine start-up time, etc.
- The research should not focus on providing initial quantitative benefits of the performance improvements related to environmental sustainability e.g. reduction of fuel consumption, decrease in CO2 and NOx emissions, reduced noise, improved safety, reduction of noise impact around the airport and safety (most FOD and blast damages are typically in the area close to the gate and engine off taxi could eliminate both risk), because these already exist. Instead, the research must provide a refinement of the previous estimates of benefits based on their work, for example:
- Comparison of the airport and ATC costs of autonomous vs. non-autonomous engine-off taxi, e.g. by modelling costs in a particular airport.
- Estimation of the impact of different potential safety and performance requirements on the benefits (e.g. requiring faster taxi performance would require more powerful on-board engines for non-autonomous engine-off taxi, engine start-up procedures requiring changes to airport lay-outs and slower taxi-out phase...
- Impact on the benefits of the quality of the prediction of the ATC prediction of the take-off clearance time for engine start-up in autonomous engine-off taxi.

Note that the development of the technical means to perform engine-off taxiing operations e.g. towing trucks, taxibot, electric motors, etc. is out of the scope of the research topic. However, the research may work in the development of ATC system support for enabling engine-off taxi operations in the ATC side. However, the main focus of the research should not be the development of automation support, but the definition of the operational concepts for AUO-0805 and/or AUO-0806, in order to pave the way for their introduction in Industrial Research in the future if the research so justifies it.

### Application area 2: Land-behind without runway vacated

The research shall address the development and validation of a European land behind without runway vacated concept.

Today, in the case of long runways, landing aircraft are allowed to use the runway simultaneously under certain circumstances, or the clearance to land may be delivered before the previous aircraft has crossed the threshold (similar to the FAA land behind clearance).

Note that this is not strictly a reduced wake separation concept, but a way to make it possible to take full advantage of reduced wake separation concepts for arrivals (the closer the arrivals are, the more constraining it is to require that the previous aircraft has landed before the next can be cleared to land).

The research shall take into consideration the work performed on reduced wake separation concepts for arrivals in Industrial Research (IR) solutions PJ.02-01 (Wave 1) and PJ.02-W2-14 (Wave 2).

### Application area 3: Airport contribution to multimodality

The aim is to increase the efficiency of the overall transport chain by improving the interoperability of different modes of transport, addressing in particular the contribution of airports to multimodality to increase the environmental sustainability, to make more efficient use of the existing infrastructures and improve the passenger's experience.

The research shall address the definition and development of an integrated intermodal process for passengers / baggage / freight w.r.t time efficiency, predictability, seamlessness, resilience, security, convenience, accessibility) in a door-to-door environment building on customer expectations. This may include:

- The feasibility and potential benefits of connecting the schedules/time tables of public transport modes with access to the airport e.g. train, bus, metro, taxi with flight schedules. This should include the whole airport catchment area. Proposals could research the potential benefits of establishing standard coordination processes between airports scheduling and other public transportation modes e.g. bus, train, etc.
- The improvement of knowledge regarding pax location and demand, incl. airport access and dwell times, thus ensuring a better and dynamic knowledge of passenger airport densities and delays;
- The definition of the required technology and standards, information exchange requirements and data management technology to support integrated multimodal (passenger / baggage / freight) concept and process management;
- The identification of infrastructure requirements for supporting multimodal processes for passengers / baggage / freight;
- The identification of required regulations and policies regarding multimodal aspects of passenger / baggage / freight process (e.g. customs, security);
- The development of innovative technologies and services for safe, efficient, frequent, comfortable airport access (last mile only or supporting catchment areas e.g. short distance individual air vehicles);
- The development of intelligent systems and better multimodal planning, management and integration (e.g. aps), incl. under disruption (e.g. re-booking onto HSR);
- The improvement of improved aircraft wait/no-wait rules so AUs make better use of last-minute capacities and pax re-accommodation;
- The identification of airborne pax connectivity requirements (links to ground services and pax tools);
- The assessment of the Impact of multimodal pax rights and personal data security.

The research shall take into consideration the digital citizen perspective:

- Assess the benefits for the traveller of an integrated planning/monitoring of multi-modal traffic flows at the airport (or the region) where the airport is considered as a node connecting traffic flows to/from other means of transport (e.g. rail, bus, etc.);
- Provide advance warning of incidents impacting the traveller and propose alternative options to mitigate the disruption for the traveller plan.
- Note that many of the aspects listed above are intentionally at the boundary of the scope of ATM. The proposals must justify how the proposed research will contribute to improve ATM or contribute to improve multimodal mobility by using ATM related information.
- Proposals should explain how their research is positioned with respect to related previous and ongoing projects (e.g. BigDATA4ATM, DATASET2050, Mobility4EU and CAMERA and initiatives from other sectors contribution to multimodality (e.g. Shift2Rail Innovation Programme 4).

# Application area 4: Protecting the airport from drones.

The research shall propose and assess potential solutions for ensuring the protection of the aircraft and airport (runway and ground) operations from intruder drones, which may be either intruding by mistake or through malicious intent. The performance objectives are related to improvements in safety and security

The research activities may address the following features:

- The detection of any potential / actual intrusion by cooperative and non-cooperative drones in the airport environment and its vicinity e.g. approach area or any threat to the aircraft;
- The tracking of the intruders' flight path;
- Issuing the corresponding advisory, caution and warning alerts e.g. in case there is an intruder for the ATCO, in case active measures are needed to ensure safety, and for the airport authority, to allow them to initiate remedial action, as required (Note that the provision of warnings and alerts directly to the pilot of a manned aircraft is not in scope). Research should consider the different levels of alerts. For example, warning alerts could be triggered when the drone enters a critical zone while advisory and caution may be triggered when the drone enters a buffer area beyond the critical one (in case of a known, unintentional intrusion the drone operator could also receive an alert so he/she can take the relevant corrective action, either directly or through an appropriate U-space service provider);
- Procedural issues to enable all stakeholders to work together to resolve the situation in a timely and coordinated fashion. Such stakeholders must include, as a minimum: the airport operator; ATC; U-space service provider(s); and the emergency and security services.

The research shall explore potential architectural and design alternatives that could include the following options (the list is not exhaustive):

- The definition of how critical and any buffer areas are designed and warnings/alerts managed, within the wider context of aeronautical information management and airport operations management;
- Sensors able to detect non-cooperative intruding drones and issue the relevant alert. Note that the development of such sensors is outside the scope of this Call, but research should consider the performance, system and interface requirements of such systems;
- Use of geo-awareness to support the prediction and detection of unauthorised intrusions and to support the resolution of such intrusions and the identification of transgressing drone operators.
- The scope of this application area does not include the development of the technologies (there are already technologies in the market that can be used for this purpose). The research must focus on the definition and initial validation of the operational integration of the system. The proposal must include the initial validation of the proposed operational concept in the airport environment. The proposed concept must include the integration with ATM, and the proposed validation activities must address the integration with TWR ATC. The research must include both a safety and a security assessment of the proposed solution to the level appropriate for the target maturity level, and also make a preliminary regulatory assessment.

Research may investigate the possibility of the employment of systems to disable, or bring down the drone, but the development of such systems themselves is explicitly outside of the scope of the project. Where such systems are considered, the safety of the airport environment, other aircraft and people and property on the ground must be assured. Consequently, the following factors must be taken into account:

• The use of airport jammers or spoofers for the GNSS signal or other signals used for aviation purposes, or other devices such as lasers that have already been classified as dangerous by ICAO close to airports (since reflections can never be fully controlled), can only be considered if a detailed evaluation is also conducted showing how their employment can be deemed safe;

• The potential use of such devices by law enforcement will need to follow specific procedures, and will require advance warning to appropriate aviation actors (ATM, pilots, etc...). This stipulation covers any device transmitting on aviation safety-of-life frequencies in the vicinity of an airport, or in an area where such use could interfere with aviation operations or systems.

The above list of applications areas is not intended to be exhaustive. Proposals addressing alternative application areas are welcome, provided adequate justification and background is included in the proposal.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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### Links

#### Call for Proposals

# Meteorology at Airports (SESAR-ER4-14-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Weather has a significant impact on airport operations: snow, sleet, and freezing rain, which along with strong winds, low clouds, and reduced visibility may create dangerous conditions at or around an airport. These weather conditions can result in major disruptions in air traffic management, leading to delays and cancellations of hundreds or thousands of flights, thus affecting the plans of millions of travellers. Continuous development of weather forecasting solutions and technologies is paramount if airports are to cope with the rising passenger demand.

The scope of this topic covers the following aspects:

### Application area 1: From Runway Visual Range (RVR) to Slant Visual Range (SVR).

The Runway Visual Range (RVR) is the distance over which a pilot of an aircraft on the centreline of the runway can see the runway surface markings delineating the runway or identifying its centre line. RVR (normally expressed in feet or meters) and has been in use for decades. By providing RVR information, pilots can appraise aerodrome visibility conditions and in particular determine whether these conditions are above or below the company, aircraft or aerodrome operating minima. RVR does not take into consideration important variables e.g. reduced visibility from other factors such as rain on the windshield of the aircraft.

The objective is to conduct research on what is necessary to complement the RVR with the Slant Visual Range (SVR), also known as Slant Runway Visibility. SVR is defined as the slant distance to the farthest high intensity runway edge light or approach runway light which a pilot will see at an altitude of 100 ft. (decision height) on the approach path or, if larger, the slant distance which would have a constant transmittance of 5.5 percent.

The research shall investigate the potential operational benefits of providing a measured SVR to pilots in support of their own visual assessment of the visibility conditions, with the objective of improving safety and reducing the number of missed approaches caused by unexpected low visibility and/or the number of unnecessary diversions in borderline meteorological conditions. The research may assess the advantages and disadvantages of different technical means to provide SVR e.g. use of the information from LIDAR installed along the glide path, monostatic acoustic radars, etc., provided that the development of technical means to measure SVR is justified by the operational need.

The proposal may include data collection campaigns, in which the SVR measurements obtained by one or more technical solutions are compared against what a pilot actually sees during the operations, etc. In this case, the analysis of the data must include an estimation of the number of prevented missed approaches and unnecessary diversions, as well as an assessment of the impact on safety.

# Application area 2: Windshear and turbulence data prediction on approach:

The research objective is to define and perform initial validation of a concept to share from ground to cockpit predictions of windshear and turbulence on approach (with a focus on final approach) based on pilot reports, ground measurements, or a combination of both. The research must provide an initial analysis of the potential safety benefits of the concept, as well as of its cost.

Note that SESAR solution #21 "Airport operations plan (AOP) and its seamless integration with the network operations plan (NOP)" includes already technical specifications for the ground WX monitoring system for airports, and SESAR solution #35 "Meteorological information exchange" covers technical specifications for observation systems for significant low level turbulence and windshear. Proposals for work in this area must explain how their work would fit within and complement these two solutions.

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### Links

### Call for Proposals

### Increased Levels of Automation for the ATM Network (SESAR-ER4-15-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The network is not sufficiently robust or resilient to react to significant perturbations e.g. meteo, industrial actions, etc.; this imposes unplanned/additional costs on airlines, which have a huge impact on airlines' annual revenue. Airspace users' full participation through their flight operations centres (FOC/WOC) into ATM collaborative processes is essential to minimise impacts of deteriorated operations for all stakeholders,

including airspace users themselves. An improved recovery process offering more flexibility to accommodate AUs' changing business priorities and equity in the ATM system is therefore needed.

As an applications oriented research topic, proposals must describe a specific improvement to operations and explain how it is proposed to undertake an initial validation. The improvement to operations can be either a new operational improvement or a new technical enabler (e.g. an improvement to traffic prediction and execution of the plan that would improve the performance of current network operations without changing the current network management procedures).

Proposals must demonstrate how their work would go beyond what is currently under research in IR in Wave 1 (PJ07, PJ08 and PJ09) and in Wave 2.

The scope of this sub-work area covers the following aspects:

### **Application area 1: Digital Network Management Operations**

The research activities shall explore improvements to the Network Management (NM) function based on digital technologies such as:

- The potential use of new data sources (big data), machine learning algorithms (including neural networks), AI based decision support tools, behavioural economics, improved market modelling, complexity science, etc. to support network operations e.g. models and methods for improving demand, flow and complexity forecasting and resolution;
- The use of Big data analysis, machine learning and digital-twin techniques for better planning the actors (controllers, FMPs, AUs) reactions to potential operational improvements based on the emerging trends (e.g. incentives, etc.);
- The development of methodologies to analyse, quantify and manage the effects of weather and other uncertainties on the network for all phases of flights and in particular on:
  - Trajectory planning (including MET forecasts evolving over time), aircraft performance, etc.;
  - Storm avoidance (including reduction of thunderstorm prediction uncertainty);
  - Sector demand and capacity balancing using the best available plan of action.
- The better consideration of airport events in network traffic prediction that minimises network disruption;
- Better consideration of the diversity in data quality from different ATC centres/airports and identify where improvements would bring the biggest gain for operations;
- Innovative DCB resolution algorithms, e.g. using radically different algorithms to what is used today, e.g. building on previous exploratory research project OPTIFRAME or using alternative approaches, or working on fine-tuning today's methods, e.g. by considering additional inputs.
- The use of machine learning for:
  - The identification and prediction of: major traffic flows, complexity assessment, calibration of airspace/sector capacity, flight delays, estimated arrival and overflight times, etc. with the objective of reducing NM capacity buffers;
  - To improve the handling of AU priorities/preferences;
  - To improved disruption management;
- The use of machine learning and/or advanced visual analytics for DCB decision support tools and automation e.g. hotspot resolution;
- The adaptation of applications that use models/techniques that are already applied for uncertainty management in other domains.
- The development of probabilistic approaches based on historical data mining techniques.

# Application area 2: Improved Integration of Airline Operations into the Network

The research shall address potential improvements of airline operations based on the use of advanced digital technologies, e.g. big data, machine learning algorithms, AI, IoT, behavioural economics, improved market modelling, complexity science, etc. such as:

- The potential use of new data sources (big data), machine learning algorithms, Al based decision support tools, etc. to support airline decision making in disruption scenarios in order to improve the resilience of the system;
- The development of new tools for improving the integration of airline operations into the network, in order to mitigate the impact of disruptions on the overall ATM network and/or improving operations in nominal conditions (e.g. earlier update of TTOT, better adherence to TSAT, more accurate turn-around time planning, more accurate 4D trajectory calculation for the eFPL by using AI to improve predictions, etc.).
- The identification of innovative applications to improve the collaboration between AOCs and Network management function and ATC, e.g. to support the involvement of AOC's that track flights in trajectory revision, in particular for long-haul flights, or to facilitate the inclusion of airline preferences and priorities in the DCB processes or sequencing processes beyond what is already covered in IR Wave 1 and the scope of IR Wave 2 (candidates solutions 38, 39 and 40).

The research may build on previous SESAR ER projects using complexity science to better understand delay propagation (e.g. NEWO, TREE) or use entirely new approaches.

#### **Application area 3: CASA Evolution**

The Computer-Assisted-Slot-Allocation (CASA) algorithm is used by the Network Manager to allocate departure slots. The Airline Operator (AO) files a flight plan and requests a slot. NM takes into account all the regulation requests from FMPs and allocates some aircraft a delay for entering the regulated area based on the principle of 'First Planned - First Served'. On this basis, the system calculates the Calculated Take-Off Time (CTOT), which is transmitted to the concerned AOCs and to the control tower at the aerodrome of departure. On top of this basic process, there are a number of compensation mechanisms that take into consideration modifications to the flight plan, late received flight plans, etc., as well as for the cases when a flight crosses more than one regulated area.

Proposals shall include activities that propose areas for the evolution of the current CASA and constraints reconciliation algorithm and slot allocation processes in order to improve efficiency and reduce the adverse impact of multiple regulations affecting the same flight or flows, e.g. by finding less constraining ways to handle flights that cross several regulated areas than the current most penalising regulation criterion., or facilitating a more collaborative approach between ANSPs by better allocating CASA delay minutes between ANSPs in the case of regulations that are not formally linked.

Proposals must demonstrate in-depth knowledge of the CASA baseline and explain how they plan to assess the potential benefits of the proposed evolutions against it; the use of a non-regulated scenario as reference for comparison is not acceptable.

The research may include the use of big data and machine learning to identify best practices regarding regulation strategies for particular traffic load patterns based on historical data. The analysis of historical data on regulation strategies should be complemented by the results from network simulations to develop optimized strategies for the most frequent traffic load situations in the European ATFCM network.

The research may build on previous SESAR ER research (e.g. OPTIFRAME) or propose entirely new approaches. Please note that PJ09 results are expected to become publicly available at the end of 2019. Projects planning to work in this area must reserve effort for analysing PJ09's output and incorporate it in their research. Please note also that proposals must show how they go beyond the IR Wave 2 scope of candidate solution 47.

### Application area 4: More automated ATFCM

The research shall identify mechanisms to allow the introduction of higher levels of automation in the coordination of DCB actions at the pre-tactical and tactical levels.

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#### Links

#### Call for Proposals

#### Innovation in Network Management (SESAR-ER4-16-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

This topic covers innovative network management application concepts that aim at responding to emerging business needs that can only be addressed by the increased collaboration between stakeholders that is made possible by implementation of new technologies.

Proposals for this topic must propose an innovative improvement to operations and a plan to undertake its initial validation. The analysis of data without proposing an improvement to operations is out of scope for this topic.

The following potential application areas of interest have been identified by the SJU:

# Application area 1: Improvement of ATFM processes by including the consideration of convective weather information

The post-operations analysis of re-routing choices made by flight crews or airline operations (when flightplanning) when the weather situation is non-nominal (e.g. convective weather) may provide valuable information for improving how similar convective weather events are managed in the future. The objective is to anticipate the changes in demand in non-nominal weather situations, and to define scenarios and CDM processes for the management of similar situations. Proposals proposing to work in this area must demonstrate that the research activities will have access to sufficient historical information of re-routing choices to perform the initial validation of the concept.

# Application area 2: Increasing the use of middle airspace

The "middle airspace" (approximately between 15.000 ft. and 25.000 ft.) is for the most part not used for cruising, except by aircraft with gas-turbine-powered propellers (turboprops), which represent a relatively low proportion of the fleet. The research should identify the extent to which the use of the middle airspace would provide benefits in terms of reducing ATFM delay minutes at ECAC level, and make an assessment of the business case for providing ATFM slots for flights in the middle airspace considering the potential increased fuel and environmental impact against the savings in terms of delay minutes. The research may propose changes to the route charging scheme in support of the business case, as well as other incentivization methods to encourage the use of turboprop vs. jet engines for the busiest routes. The impact that incentivizing the use of aircraft with smaller capacity on routes with high demand in airport operations must be considered (more flights needed to move the same number of passengers).

# Application area 3: Innovation in route-charging schemes

Previous exploratory research in SESAR (projects COCTA and SATURN) has shown the potential of new trajectory pricing schemes to support a more flexible distribution of the demand. Proposals addressing this area may build on these previous research, or propose additional innovative schemes, e.g. lower charges in periods of low demand, discounts for early flight planning with route commitment (in order to promote the SESAR SBT concept and enable better ANSP resource planning), overcharge for changes after filing flight plan, etc. Research may also look into charging schemes that consider environmental penalties or rebates, e.g. higher charges for flights filing flight-plans with longer routes than necessary.

# Application area 4: Consideration of airport departure slots in ATFM

This application area looks into the development and initial validation of a concept for the consideration of airport departure and/or arrival slots as an input parameter to the network TT and slot allocation processes, beyond the indirect consideration of airport arrival slots what is enabled through the AOP participation in TT

allocation processes. Proposals must demonstrate awareness of previous research in this area and the reasons why previous concepts did not progress to implementation. As well as changes to the ATFM processes to improve the consideration of airport slots, the research may propose the refinement of the airport slot allocation concept and/or associated monitoring processes in order to increase their relevance to ATFM (e.g. consideration of TMA capacity in slot allocation processes, addition of tolerance values associated to airport slot compliance, detection of unrealistic planning of departure and arrival times resulting in non-compliance of airport slots, etc.).

# Application area 5: Development of a trajectory broker concept

Proposals should describe a trajectory broker concept and propose a plan for the initial validation of the potential benefits. The objective is to add a brokering layer to make better use of available capacity in all phases of ATFM operation (strategic, pre-tactical, tactical) and in all areas (airport, TMA, en-route). Proposals should not only look at the technical aspects but also take into account necessary regulatory/organisational changes. The concept should either build on previous Exploratory Research in project COCTA or propose alternative approaches. Proposals for research that does not build on COCTA should explain how they diverge from COCTA and provide adequate justification and background.

The above list of application areas is not intended as prescriptive; bids proposing to work in other areas are welcome, provided adequate background and justification are provided in the proposal.

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### Links

### Call for Proposals

### Network Capacity Increase from Fully Dynamic Airspace (SESAR-ER4-17-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

In today's operations, the available airspace configuration options are limited and not necessarily able to manage the traffic demand efficiently. If the ACCs cannot cope with the demand, then additional sectors are opened. In addition, due to the uncertainty in traffic demand, ACCs normally keep a capacity buffer to be able to safely manage traffic above the expected demand. Airspace configurations are selected with a focus on the local benefit rather than considering the network as a whole. The current airspace organisation is not yet fully optimised to network flows and makes limited use of cross-FIR cooperation.

The challenge is to develop a fully dynamic and cross-border airspace management concept that will take into consideration all capacity/demand aspects and constraints in one seamless process, with a higher level of

modularity and flexibility up to the execution phase all supported by automated tools. The outcome of this will be a process that is able to take all the available inputs into consideration (predicted workload/complexity, airspace reservations, ATCO availability, etc.) and calculate the optimum configuration.

The research in this area contributes to the vision put forward in the Airspace Architecture Study (AAS).

This area of work is complementary to the work of PJ07 and PJ08 in SESAR IR Wave 1 and to the work covered by Wave 2 candidate solution 44, Dynamic Airspace Configuration, and is of special interest for the realisation of the vision put forward in the Airspace Architecture Study (AAS). Proposals must demonstrate awareness of the work covered in IR, and show how their work would go beyond. Projects must reserve effort to analyse and incorporate into their work the output of PJ07 and PJ08, which is expected at the end of 2019.

The following potential areas of application beyond IR have been identified by the SJU:

# Application area 1: Dynamic Mobile Areas (DMA) Type 3

The concept of an ARES that moves along with the military aircraft whose mission requires an airspace reservation (DMA Type 3, AOM-0209) is part of the European ATM Master Plan. The original DMA Type 3 high-level concept was based on a pre-departure agreement of the DMA Type 3 4D dimensions during the planning phase. The concept is currently under initial development in IR Wave 1 by PJ.08-02, but due to the low maturity of the concept it has been decided that more ER is needed before IR can continue, and therefore DMAs type 3 will not be addressed in IR Wave 2.

The SESAR concept has evolved as a result of R&D and the possibilities opened up by advanced digital technologies. Advanced automation will allow a more dynamic and flexible management of air traffic, thereby making penalising pre-departure agreements less necessary. The challenge is to define how the original DMA Type 3 objective can be fulfilled in this more dynamic context. The expectation is that some military missions can be managed by defining a volume of protected airspace around the moving military aircraft operating under Operational Air Traffic rules (OAT), instead of requiring an ARES. The size of the protected volume would be specific for each aircraft type and mission (e.g. fighter, tanker, re-fuelling, formation...). The research should investigate the potential of this concept to reduce the need for ARES in the busy European airspace, by providing an in depth assessment of the types of military missions that may be handled in this way and quantify if there are potential benefits in further pursuing the DMA Type 3 concept.

Proposals for work in this area must demonstrate access to military stakeholders and describe how they plan to gather information to answer the research question. The output of the research should be a recommendation to either discard the DMA Type 3 concept or recommend its inclusion in the ATM Master Plan with a new refined definition. Proposals should include effort to review the output of PJ.08-02 (expected to be publicly available at the end of 2019) and incorporate it in their work.

### Application area 2: Fully Dynamic Airspace beyond Industrial Research

Dynamic Airspace Configurations is currently in the scope of Wave 1 IR PJ08, and it is expected to continue in Wave 2 (Wave 2 candidate SESAR solution 44). Proposals may address DAC aspects beyond the scope of Wave 2 IR, for example:

• Explore the integration in the DAC process of areas that are potentially unsafe due to weather phenomena that can evolve in four dimensions (moving hazard zones). The research shall explore the possibility to extend these hazard areas due to other phenomena such as volcanic ash, etc.

- Define the required mechanisms to build adequate airspace configurations all along tactical operations (the IR scope is currently focused mainly on the planning phase).
- Moving hazard areas.

Proposals in this application area should plan effort to review and integrate the output of PJ.08-02 (expected to be publicly available at the end of 2019) and incorporate it in their work.

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### Links

#### Call for Proposals

#### Automation and CWP (SESAR-ER4-18-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Increasing the level of automation in air traffic control is a key enabler for the realization of the Master Plan vision. This topic explores automation applications for air traffic control beyond what is currently covered by the Industrial Research programme.

The exploratory research challenge is to bring new automation applications for air traffic control towards the maturity level required for their inclusion in the industrial research programme. Bids should describe their proposed application and outline a plan for the project to undertake its initial validation, with the objective of at the end of the research activities being able to make a recommendation to either propose its inclusion in the European ATM Master Plan or discard it.

Proposals submitted for this topic should clearly describe an automation application concept for the en-route or TMA air traffic control position and describe what the expected benefits are and how they will undertake its initial validation. Please note that applications for the automation of air traffic management tasks other than the air traffic control position (e.g. Flow Management Position, improvement of traffic prediction algorithms for flow management purposes) are out of the scope of this topic. Applications for the air traffic control positions used to improve controller training are in scope.

The following non-exhaustive list of potential candidate application areas has been identified as being of interest by the SESAR Joint Undertaking:

# Application area 1: Advanced automation support for en-route and TMA

Advanced automation support currently under development in the Wave 1 SESAR industrial research programme include use of multi-touch inputs, use of speech recognition to reduce the amount of typing for entries into the ground system required from controllers, attention control elements to measuring the level of attention (e.g. by measuring eye movement) and use of User Profile Management Systems (UPMS) for controller identification that use iris, speech recognition, finger print authentication or face recognition. Results of this research are expected to become publicly available at the end of 2019, and more research is planned for the Wave 2 IR programme (candidate SESAR solution 96). Proposals for work in this topic must demonstrate how they go beyond the scope of the work planned for Wave 2 IR. Examples of potential areas for exploratory research are: exploration of the use of machine learning to model and be able to anticipate controller behaviour and pre-fill entries into the ground system or CPDLC messages, advanced context-sensitive information presentation concepts, use of 3D representations, etc.

### Application area 2: On-screen presentation of MET data to ATCOs

Combining ground-based meteorological radar information with data downlinked from aircraft's on-board weather radar can provide high-quality weather information with granularity in both the vertical and the horizontal domain. This information would be very useful for controllers, because it would make it possible to anticipate how aircraft are likely to be requesting deviation from their horizontal or vertical route to avoid areas of weather activity. However, the on-screen presentation to controllers of detailed weather information is challenging, due to the need to avoid screen clutter and information overload on screen. The research may explore information presentation concepts, which may be context dependent, e.g. present only information relevant to the traffic that the controller is handling, or even present only an indication of which aircraft are likely to deviate and offer alternative courses to controllers, e.g. for vectoring arrivals and departures around weather activity in the TMA. Research in this area must be focused on the definition of the operational application; it should define the high-level requirements of the meteorological prediction process needed to support it. Bids on this topic proposing to work focused on improvement of the meteorological prediction processes rather than on its operational application are out of scope.

### **Application area 3: Applications of physiological measurements**

Previous SESAR exploratory research work (projects STRESS, NINA, 6th SENSE, MINIMA) has shown that there is a potential for applying physiological measurements to air traffic control, e.g. measuring of brain waves to assess the level of attention, use of speech recognition combined with physiological measurements to monitor stress, correlation of eye-movement patterns with the occurrence of events that are potentially safety relevant. Please note that this is an applications-oriented topic, and consequently bids must propose a specific application. Bids may build on previous SESAR exploratory research or propose entirely new applications. All bids, whether proposing applications new to SESAR or building on previous SESAR research, must provide adequate background information in their proposal.

#### Application area 4: Automated ATC in low-density en-route airspace

Previous research shows the potential of using supervised learning to model some of the functions of an air traffic controller and can be used for training and task analysis purposes. IR solution PJ.16-04 is also developing ATCO task modelling in support of advanced HMI applications for ATC, and their results are expected to become publicly available at the end of 2019. This application area should explore if it is possible to build on this idea and develop and perform preliminary validations (TRL0 to TRL1) of a concept to automate ATC for high-level en-route sectors.

This concept may foresee that controllers have to intervene in certain situations, e.g. when two aircraft are anticipated to get closer than a pre-defined distance or below a certain flight level, but controllers can't be expected to be able to be able to safety intervene if requests to intervene are for last-minute critical situations that can't be handled by the automatic system. The role of the human would need to be carefully assessed in order to ensure that it is fully consistent with human capabilities. In particular, it is expected that in this application the controller should not be required to monitor the automated system, because this may create a safety issue; instead, the monitoring task must also be automated. Adaptable and adaptive automation concepts may be useful in support of optimised human performance and safety. Additionally, high automation may lead to the potential risk associated to monotony and boredom, and the concept should foresee measures to address this risk.

The research must address fallback solutions in case of failure in the fully automated system.

The concept would need to take into consideration the take-over procedure by the ATCO (automatic ATC-tohuman ATC transfer process). ATC system–pilot communications may need to be adapted for this application, e.g. it might be necessary to notify pilots that the flight is being handled under automatic ATC, and a special call mechanism to require human controller intervention might be needed. The role that voice communications should play must be established (i.e. should the automatic ATC always send clearances via datalink, or would it be appropriate that some clearances be sent using synthetic voice?).

It is anticipated that voice communications check-in would still be necessary for all flights to ensure that they are immediately contactable via R/T at all times. The concept should determine whether the check-in on R/T would need to be handled by a human controller or it could also be handled by the automatic system. The concept may consider current datalink performance and messages or define more advanced datalink requirements.

It is expected that the R&D and eventual implementation of such an application may not have significant benefits in itself, but would provide invaluable operational experience in support of future more ambitious developments in ATC automation. Proposals should plan effort to analyse whether It may be possible to realise

benefits in the short to medium term from this research though related concepts, e.g. though applications in ATCO training.

#### Application area 5: Clear air turbulence data consideration

According to IATA, turbulence is the leading cause of injuries to airline passengers and crews globally. Flight crews routinely report clear air turbulence to controllers, who, workload permitting, relay turbulence reports with aircraft that will be overflying the same area. However, controller workload may not always allow for controllers to properly relay this information. In order to overcome this limitation, the IATA turbulence Aware Platform allows this information to be automatically shared between pilots and AOCs. However, this initiative does not include the sharing of information with ATC, while turbulence information is also relevant for controllers, e.g. because it can support proactive management of level change requests or raise awareness of potential speed changes. An application could be developed to either connect ATC to an ongoing sharing initiative or to develop a complementary system for sharing turbulence reports between aircraft and ATC. The research must consider how controllers would be presented the information and how they would use it. New system support concepts may be proposed to assist controllers in effectively taking into consideration clear air turbulence information. The output of this project should be the definition of a concept for inclusion in the ATM Master Plan, with one or more operational improvements and enablers.

# Application area 6: Standardization of ATCO procedures and more generic en-route controller validations

The amount of training required for en-route controllers to get endorsed in a sector is a limiting factor for controller mobility; in addition, the number of hours that are required to stay current in a sector limits the number of sectors that they can be endorsed for, which makes the controllers' work more tedious (always working on the same sectors, same callsigns, etc.), and also makes efficient rostering harder for the ANSP. Applications to provide on-the-job support to controllers on local knowledge may alleviate this situation and support the controllers in accepting delegation of airspace as outlined in the Airspace Architecture Study (Airspace Architecture Study (AAS) (virtual centre / delegation of airspace / capacity on demand). Some basic applications are already locally implemented today, e.g. applications that check transfer conditions against LOAs or provide on-demand AIP information on the screen. However, the local knowledge required to control a sector includes a lot more than remembering AIP information. In particular, the exploratory research challenge is to provide difficult to define information items, e.g. information that would make a controller recognize a situation as unusual even though it is not against the established procedures, like unusual incoming or outgoing transfer condition, unusual vertical profile, etc. This type of information is an important part of what controllers learn during sector-specific on-the-job training and it may evolve with time. Bids may propose applications to capture this type of soft sector-specific rules and display it to controllers when it is relevant, e.g. using machine learning for detection of unusual situations that a controller who is inexperienced in a sector should be warned about, analysis of recordings of training sessions where veteran controllers are taught how to work in a new sector (i.e. they are learning the sector rather basic air traffic control skills), etc. Special care to avoid information overload must be taken.

Please note that applications outside these areas may also be proposed provided adequate justification and background is provided in the proposal.

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### Links

### Call for Proposals

### Enabling Performance by Innovation in Air Traffic Services (SESAR-ER4-19-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

This topic looks at the development of innovative concepts air traffic services with the objective of enabling the extension of air traffic services beyond what is possible today.

The evolution of demand for new kind of operations made possible by new technologies requires air traffic services to evolve accordingly. This topic develops applications to cater to emerging challenges and opportunities, like the advent of very-high level operations, the need to respond to the demand for civilian formation flying, or the reduced dependence on the magnetic compass for navigation.

The objective is for the exploratory research projects to support the development of the concept of operations, rather than the enablers required to support it. The link to the European ATM Master Plan must be addressed.

The following two innovative areas of interest have been identified by the SESAR Joint Undertaking:

### Application area 1: 'Higher airspace' operations

Demand for use of very high-level airspace has increased in the last years, and this trend is expected to gain momentum in the coming years. ICAO has provisionally adopted the term 'higher airspace' to refer to that volume of airspace between airspace where ATM provides services (typical upper level of FL600) and the boundary between airspace and space (approximately 100 km). AU operating in this airspace are sometimes referred to as 'New Entrants', and have many different operating characteristics, such as unmanned HALE vehicles providing internet coverage or surveillance over large areas and Unmanned Free Balloons (UFB), as well as manned sub-orbital flights for leisure or scientific purposes (e.g. experiments, films or tourism at zero gravity) and supersonic or hyper-sonic passenger aircraft. This volume of airspace will, therefore, be used by all classes of air vehicle, from static, barely manoeuvrable unmanned balloons, through high-speed passenger aircraft to rapidly-climbing rockets.

Although State and commercial space launchers will transit this volume of airspace, space operations, or 'space traffic control', are not in the scope of this topic. However, research should reflect that higher airspace is capable of allowing such operations to proceed without undue hindrance to them, and without adversely affecting the safety of higher-airspace vehicles.

The management of higher airspace is only just being considered by ICAO, and even its vertical boundaries are, as yet, undefined. The exploitation of space is a politically very sensitive issue and so research into this topic, at

the boundary with space, should consider, inter alia, political sensitivities, operational concepts and CNS issues, while performing a thorough, global analysis of operational and business needs.

Proposals need to plan effort for:

- Ad-hoc participation in the European Commission New Entries working group.
- Developing the European Concept of Operations for Higher-Airspace operations, or supporting its development if such an initiative has already commenced in the context of the European Commission New Entries working group.
- Addressing the link with the European ATM Mater Plan and the SESAR Concept of Operations.

Proposals addressing this application area must plan the following milestones:

- A public deliverable should be delivered to the SJU 12 months after the start of the project describing the current global demand for higher-airspace operations, how States and businesses are addressing it, and their interface with space agencies and operations, with the aim of generating a detailed picture of demand, barriers, opportunities and possibilities. This deliverable should be presented in a public event with the objective of collecting feedback on how this demand can be best addressed.
- A public deliverable with the report of the project's analysis of the feedback collected during the event with recommendations for further work in the area should be delivered 14 months after the start of the project.

The work in the last ten months of the research activities should be focused on developing or supporting the development of the European Concept of Operations for Higher-Airspace operations, potentially including indepth concept development to address one or more of the challenges that are specific to high-level operations.

### Application area 2: Moving from magnetic to geographic bearings

Even though the magnetic compass is not as essential to navigation as it used to be, magnetic bearings are still the main reference in aeronautical charts and runway markings, and all aircraft feature magnetic deviation plates, and changes of deviation require periodic update of charts, plates and runway markings. It has been suggested that moving to geographic bearings may enable significant cost savings, and also be advantageous for operations in polar routes, for which demand has already increased and is expected to continue to do so. The research challenge is to investigate whether this would be a feasible alternative in the medium- to longterm future, and if so identify the operational changes that would be required and perform an initial high-level identification of the potential benefits.

Please note that this list of innovative areas is not intended as prescriptive; bids addressing alternative areas of innovation in air traffic services are welcome, provided adequate justification and background are provided in the bid.

Proposals must demonstrate operational knowledge of current operations, familiarity with the aspects of the SESAR concept of operations that will be impacted by the innovative concept and an understanding of the innovative concept and the related state-of-the-art.

It is expected that the development of the new concept of operations will need to start with an in-depth analysis of the state-of-the-art through literature review and interviews to relevant experts, followed by workshops with experts and stakeholders to discuss the future operational concept. The conduct of modelbased simulations should neither be the main objective of the project nor take most of the effort, limited model based simulations may be used if adequately justified, e.g. to support quantification of benefits of formation flying.

The output of the project must be a high-level concept of operations describing an innovative air traffic service application. The objective of the concept of operations is to provide a vision of how the innovative concept will work within the current system and how it will change the operations from the point of view of all stakeholders. By its nature, the final concept of operations deliverable must be public. It is expected that intermediate deliverables supporting the development of the concept of operations (e.g. literature reviews, reports of workshops or interviews) will usually also be marked as public unless there is a specific reason for not doing so. Proposal including any deliverables as confidential are strongly advised to provide adequate justification for the need for confidentiality.

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# Links

### Call for Proposals

# ADSB-in Applications (SESAR-ER4-20-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

ADS-B-in equipage delivers precise information of the surrounding traffic in the cockpit. Airlines have already starting equipping their fleets with ADS-B-in in order to take advantage of the initial applications that are already operational (ATSAW and Oceanic ITP). A number of additional ADS-B-in applications are currently under research in the Industrial Research Programme. The objective of this topic is to investigate additional applications beyond what is covered in IR to leverage ADS-B-in equipage.

The SESAR concept of operations is ground-based, but even in a ground-based concept ad-hoc delegation of separation responsibility from controllers to pilots may bring benefits. Airborne Spacing – Interval Management (ASPA-IM) and CDTI Assisted visual separation (CAVS) are currently under research in the Industrial Research Programme. In addition, the industrial research programme also consider use of ADS-B-in capabilities by airborne safety nets, SURF-A and ACAS X (extended hybrid surveillance). Bids in this topic should propose a new ADS-B-in application and propose a plan to develop a high-level concept of operations and an initial validation (from TRL0 to TRL2) with the objective of assessing whether there would be value in including it in the ATM Master Plan.

The following two innovative applications of interest have been identified by the SJU:

# Application area 1: Formation flying

In formation flying operations, an aircraft is positioned in a specific area closely behind another aircraft on the same route, where the wake vortices generated by a leading aircraft push air upwards, so the follower aircraft can benefit from this lift and therefore reduce the engine thrust and, at the same speed, significantly reduce the fuel consumption (initial estimate is that savings for the follower aircraft can be up to 8-12%), with the associated reduction in CO2 emissions. A positive impact in terms of increased airspace capacity (more aircraft in the same portion of airspace) may also be possible. It is envisaged that the concept will allow the creation of strings of aircraft, each benefitting from the wake of the previous aircraft. Fuel savings are realised in the follower aircraft, and the concept has neither a negative nor a positive impact on the operational performance of the aircraft being followed.

The avionics requirements for the follower aircraft are ADS-B-in with a station keeping capability for the follower aircraft to allow it to maintain the prescribed separation with the aircraft ahead. It is expected that the development of the station keeping capabilities will leverage previous SESAR research on airborne spacing, which already enabled a follower aircraft to stay a specified time or distance behind a leader. The leader aircraft does not require any equipage other than ADS-B-out, which is already a requirement by the regulation.

Management of the rendezvous, formation-flying phase and split of military formations is already routine in European skies, but the concept is not directly applicable to civil formations. There is a need to develop a high-level concept of operations of how to manage civilian formation flying. The concept may include some strategic planning (e.g. to allow reduced fuel upload requirements for a flight that is planned to take advantage of formation flying) or be exclusively tactical (i.e. controllers identifying opportunities for formation flying to equipped aircraft that have reported that they are looking for a leader for fuel savings purposes, potentially with the support of the ATC ground system). Like in military formation flying, the concept must include the delegation from controllers to the flight crew of the responsibility for separation between leader and follower.

# Application area 2: Use of ACAS logic for separation

In the current SESAR concept of operations, aircraft can manoeuvre based on their picture of the traffic obtained from SSR or ADS-B-in only for collision avoidance when in an ACAS manoeuvre. Previous SESAR ER project AGENT [52] has examined the possibility of aircraft manoeuvring earlier, in the separation provision

layer rather than in the collision avoidance layer, with clear criteria being established for allocating separation responsibility to either air or ground agents. Projects working in this application area may build on AGENT's approach, or take a different approach, e.g. a ground-based concept with ad-hoc ground-to-air delegation of separation responsibility.

Please note that this list of innovative areas is not intended as prescriptive; bids addressing alternative ADS-B-in applications are welcome, provided adequate justification and background are provided in the proposal.

The output of the project must include a high-level concept of operations describing an innovative ADS-B-in application. The objective of the concept of operations is to provide a vision of how the innovative concept will work within the current system and how it will change the operations from the point of view of all stakeholders. By its nature, the final concept of operations deliverable must be public. It is expected that intermediate deliverables supporting the development of the concept of operations (e.g. literature reviews, reports of workshops or interviews) will usually also be marked as public unless there is a specific reason for not doing so. Bidders for this topic marking any deliverables as confidential in their bid are strongly advised to provide adequate justification for the need for confidentiality in the bid.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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### Links

#### Call for Proposals

### Long-term Evolution of Air/Ground Synchronisation (SESAR-ER4-21-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Automatic air-ground trajectory synchronization is a cornerstone of the SESAR vision. This topic explores the evolution of the operational concept of air-ground synchronisation concept beyond what can be achieved with ATN B2.

The automatic sharing of data between the airborne systems and the ATM ground systems in the Industrial Research programme is limited to what is possible with the ATN B2 standard; it includes the downlink of the Extended Projected Profile (EPP) and the interrogation/reply related to the ETA min/max window over a waypoint, as well as the data that are downlinked via SSR Mode-S. The evolution from ATN B2 and current Mode-S will further extend the scope of automatic air/ground data exchange. This could include, for example:

• Automatic update of the FMS trajectory with the ATC ground plan when a clearance is not yet possible, allowing the airborne systems to better optimise against that plan (e.g. more efficient descent profiles thanks to the information on the ground expected clearance).

- Automatic uplink and update of the AMAN planned times, so that the flight crew can be aware at all times of what the arrival time that ATC has planned for them, and optimise the flight accordingly.
- Automatic uplink and update of the relevant arrival and departure sequence, to increase the situational awareness of the flight crew (so that they know who their flights preceding and succeeding them on the sequence are) and facilitate ADS-B-in applications (no need for the controller to give aircraft-to-follow callsign).
- Automatic "instantaneous" (e.g. via Mode-S or ADS-B) downlink of the flight-mode (managed-• manual/selected), to improve the interpretation by the ground-system of the EPP information, e.g. for the ground to be able to predict the next level-off.
- Evolution of the EPP standard, e.g. to include the vertical constraints that have been entered in the FMS, selected approach procedure, planned stabilisation speed (in support of compression management on final approach).

The main output of this project must be a high-level "Automatic air-ground trajectory synchronization CONOPS", which must be included together with its supporting documentation in a deliverable marked as open for public dissemination. The "Automatic air-ground trajectory synchronization CONOPS" will be used as an input to the SESAR concept of operations, and also as an input for the future industrial research projects working in these areas.

The exchange of information that is not directly related to the ATC plan for the flight or to the trajectory itself is out of scope, e.g. downlink of aircraft as a sensor information is out of scope.

The project team must include both technical and operational expertise. Bids must demonstrate basic awareness of the future A/G communication infrastructure (which is supported by LDACS, Satcom and AeroMACS operating under a multilink approach) and which will support the future A/G voice and Data Link communications.

There is a dependency between this CONOPS and the controller-pilot communications CONOPS, which will be developed by a project in this call awarded under topic 23 Proposals addressing this topic should plan effort to coordinate with projects potentially awarded under topic 23. The project must also plan effort to bring the output of their research to ICAO as part of the dissemination of their work.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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### Links

### Call for Proposals

### Digital Evolution of Separation Minima in En-route and TMA (SESAR-ER4-22-2019)

Application start date:

30-04-2019

Keeping aircraft separated from each other is one of the core functions of ATM. In the SESAR concept, ground automation supports air traffic controllers in their task of providing separation management. Separation management starts by strategically limiting the density of potential separation conflicts (i.e. limiting traffic density and traffic complexity), but is ultimately ensured tactically by keeping aircraft separated at or above the pre-defined separation minima. The RECAT and Time Based Separation (TBS) activities in SESAR have made it possible to update the separation minima between successive aircraft on final approach, thereby increasing runway throughput and safety. Further refinement of separation minima between aircraft on final approach (Pair Wise Separation RECAT-2) and between departures is ongoing in SESAR 2020 Wave 1 solution PJ.02.01, with important results expected to become publicly available at the end of 2019. However, in en-route and TMA, the tactical separation minima are essentially the same as they were decades ago.

Previous research SESAR exploratory research (R-WAKE project) has developed an initial concept for updating the wake separation minima scheme applicable in en-route and TMA (except where RECAT applies), and a new operational improvement is in the process of being added to the European ATM Master Plan. The objective of this topic is to build on R-WAKE's work to progress on the definition and initial validation of this concept.

It is anticipated that this work will support the development of a future SESAR solutions that will make it possible to move away from 'pre-determined' one-size-fits-all minima that are in use in current operations towards a more dynamic view of separation minima, whereby ATC separates aircraft to an assured minimum risk (dynamically determined for each pair of aircraft depending on the aircraft types, the geometry of the encounter and the atmospheric conditions) rather than a defined distance standard'.

The new separation scheme may include the consideration of reduced vertical separation minima, potentially including the possibility of using a minimum vertical separation of 500 ft. from the ground to unlimited, which may allow the use of intermediate flight levels, e.g. 275, 285, 295, 305.... This reduced vertical separation scheme is referred to as RVSM 2.0, and would dramatically increase airspace capacity both in en-route and the TMA. The new separation scheme may also consider the use of combined separation minima (i.e. XXX feet vertical *and* YY NM horizontal) in order to increase flexibility and make maximum use of airspace capacity.

In the current environment, the 1.000 ft. or 5NM separation minima prevent most wake encounters, but wake encounters are still possible between aircraft that are separated above the prescribed minima. The new separation scheme may also increase the separation minima above what is applied today (e.g. to 1.500 ft. instead of 1.000 ft.) in certain cases in order to reduce the instances of wake encounters between aircraft that are correctly separated above the minima, thereby increasing safety.

It is anticipated that the development and implementation of new separation minima for en-route will follow a similar step-wise approach to RECAT, in which at first the new minima would be dependent on static aircraft characteristics, and in the future it may be possible to define dynamic minima dependent on dynamic aircraft characteristics (weight, atmospheric conditions, etc.). It is expected that the new static minima would be dependent on the geometry of the encounter and the wind and other atmospheric characteristics (e.g. height of the tropopause).

This concept presents key human performance challenges and for this reason the human performance aspects related to the applicability of a new separation scheme will need to be considered. Like for RECAT-2, it is expected that ATCOs will need support tools in order to be able to apply a more complex separation scheme. It is expected that RECAT EU and RECAT-2 experience and lessons learned in human performance and development of Optimised Runway Delivery (ORD) tools will be useful.

Proposals shall consider altimetry requirements, potentially considering the use of GNSS based geometric altimetry in combination with barometric altimetry to support the reduction of vertical separation minima.

Although the key objective is the redefinition of the wake minima, there is also the need to start researching the potential for reduction of MRS, because where the newly defined minimum wake separation (MWS) is lower than the applicable minimum radar separation (MRS), the new reduced wake minima will only be applicable if MRS can be safely reduced. For this reason, the reduction of the radar separation minima scheme is also in the scope of this topic. This may need to consider minimum surveillance performance requirements, and vertical navigation performance requirements. The new MRS may also be geometry dependent (e.g. reduced separation when in-trail) or include combined separations (e.g. 500 ft. *and* 1 NM).

The consideration of separation minima between IFR RPAS or between IFR RPAS and manned aircraft is out of scope for this topic.

It is anticipated that the development and implementation of a new separation scheme will be a lengthy process. The solution may develop an interim concept to predict encounters where two aircraft that are separated above the current minima will cross with a geometry where preliminary research results indicate that there is an increased risk of a wake encounter. The research of such an interim concept may need to evaluate the emerging legal/liability aspects.

It is anticipated that the research may require live data collection, big data analysis and use of machine learning.

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#### Links

#### Call for Proposals

### Increased Capacity for High Density Operations by Evolution of Controller/Pilot Communication (SESAR-ER4-23-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

This topic explores the evolution of controller/pilot voice and datalink communication concept beyond what is currently covered by the industrial research programme.

In the area of voice communications, the current controller-pilot voice communications concept of operations is a de facto result of the way of working and of the performance of the legacy system (i.e. mainly the analogue DSB-AM VHF radio system). In the area of datalink, the current CPDLC is applicable only above FL285.

The research challenge is to develop the high-level global A/G communication concept of operations addressing how voice and data will be combined in the future to support the future ATM concept, what will be the role of voice exchanges and how they will be managed, and the concept of operations for the extension of datalink below its current scope.

The output of this project must be the future global A/G communication concept of operations (CONOPS). The future controller-pilot global A/G communications CONOPS shall cover both the future voice and the extension of datalink communications below FL 285. This CONOPS will be used as an input to the SESAR concept of operations, and also as an input for the future industrial research projects working in these areas.

It is anticipated that the development of the voice and datalink concept of operations will require the involvement of technical experts external to the consortium (e.g. through technical workshops), with the consortium's main role being that of providing the background information, the operational view and framework, and facilitating the workshops and consolidating the results to produce concept or concepts of operations as the final technical deliverable of the project.

It is expected that the following SESAR Wave 2 industrial research solutions will contribute experts to the CONOPS:

- Solution 8, "Dynamic E-TMA for Advanced Continuous Climb and Descent Operations and improved Arrival and Departure Operations";
- Solution 21, "Digital evolution of integrated surface management";
- Solution 56, "Improved vertical profiles through enhanced vertical clearances";
- Solution 57, "RBT revision supported by datalink and increased automation".
- Solution 73, "Flight-centric ATC and Improved Distribution of Separation Responsibility in ATC"; and
- Solution 77, "FCI Services".

The integration of the technical and operational point of view is essential for the success of this project. The consortium must therefore have both operational and technical expertise, and the proposal must demonstrate how the work plan will ensure the continuous coordination between operational and technical experts.

Proposals are expected to first define the global A/G communication concept of operations considering voice and datalink working in combination in the long term (i.e. beyond 2030+), addressing all phases of flight. The research activities will assess how exchanges between pilots and controllers will be performed including which types of exchanges will use voice medium and which types of exchanges will use Data Link medium (i.e. CPDLC services and its future evolutions of CPDLC or equivalent services), in which circumstances each medium will be used and how datalink and voice will be combined in different environments.

Once the global A/G communication concept will be clarified, the project is expected to define in more details the A/G voice (sub-) concept of operations and will provide insight into the following operational questions:

- How the future A/G voice communications will be managed (e.g. will they still operate under a broadcast principle? Is the party-line effect still required (like as provided by the current VHF system)? Or future A/G voice communication will be under a point-to-point principle and in which case how a communication will be established? Would A/G communications be a mix of broadcast and point-to-point? Would pilot to pilot voice communication be a requirement?
- What will be the performance requirements (e.g. latency, continuity)?
- How current and future voice "technologies" will be mixed during transition periods so that it is transparent to pilots and controllers (e.g. within the same areas when transitioning from legacy to new; between two areas (equipped and not yet equipped); supporting a mix of aircraft equipage)?
- Which level of security will be required (e.g. encryption, authentication)?
- What are the wide-area communications needs (e.g. should voice communication sessions be maintained during a flight between a pilot and the "in-charge" controller in case the flight centric concept would be applied)?
- Which are the future automation needs connected to voice communications (e.g. speech recognition, handover, priority call...) and which operational requirements they would support?

Proposals will also address the extension of datalink (including below FL285 and considering the global A/G communication concept of operations as addressed at project start) and how it will make possible to maximise the benefits of many of the concepts currently being researched in the industrial research programme, e.g. dynamic uplink of custom or standard instrument departures (SID) during taxi, dynamic uplink of custom or standard instrument departures (SID) during taxi, dynamic uplink of custom or standard arrival routes when the aircraft has already initiated descent, uplink of enhanced vertical clearances with one or multiple vertical constraints along the way for aircraft flying at any level. However, important challenges have been identified in this area, e.g. increased head-down time for pilots, need for lower latency in the more dynamic lower airspace and airport environment, etc.

The CONOPS for the extension of datalink should provide insight into the following operational questions:

- How can the increased flight-crew head-down time be mitigated (e.g. autoload clearances only, HMI improvements, voice-recognition, reduced number of technical/system messages...)?
- What would be the acceptable performances (e.g. latency) in the different environments?
- Which level of automation should be further introduced? E.g. should in some environments hand-over between different ATSUs become seamless from the flight crew point of view (e.g. connected to ATC, with hand-over being transparent to ATC no new log-on required when going from one ATSU to another)? Should coupling between Data Link and voice be introduced (e.g. change of voice "channel" be induced through datalink commands)?

Proposals must demonstrate awareness of the future A/G communication infrastructure (which is supported by LDACS, Satcom and AeroMACS operating under a multilink approach) and which will support the future A/G voice and Data Link communications. The selected team will work with A/G communication IR solutions (e.g. Solution 77 which will be the interface with other technical solutions e.g. LDACS) to consider the technical feasibility and technical impact that the choice of the concept of operation choices and each of the operational requirements would have on the future A/G communication architecture. The common operational and technical assessment will consider reducing requirements on aircraft configuration (e.g. reducing the number of or completely removing legacy avionics when installing avionics supporting new concepts).

Bids must demonstrate access to operational data related to the current datalink implementation in higher airspace in Europe and/or the US. A task should be planned earlier in the project to produce a report with the lessons learned from the implementation in the higher airspace and an analysis of what they may need to take into account in the datalink extension. Please note that the analysis of lessons learned should be restricted to the operational aspects (technical lessons-learned are explicitly out of the scope of this topic).

Proposals must also demonstrate awareness of the previous SESAR research in the area of extension of datalink. In particular, the output of the ATC Full datalink (AFD) demonstration project must be considered.

For the voice concept of operations, all operational environments where ATC is provided must be considered, including: en-route in high and low density (including both day and night shifts with band-boxed sectors), oceanic, polar, tower, TMA and approach. Both traditional ATC service based on geographical sectors and flight-centric (sector-less) ATC must be considered.

For the datalink extension concept of operations, all the operational environments of interest must be considered. The operational environments of interest are en-route airspace below flight level 285, TMA and approach and airport surface for operations at the apron after push-back and on the manoeuvring area. Use of datalink for clearance delivery while the aircraft is still at the gate (before push-back) shall also be considered.

Proposals must plan effort to bring the output of their research to ICAO as part of the dissemination of their work.

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#### Links

#### Call for Proposals

### Innovation in CNS to Enable Digitalised Operations (SESAR-ER4-24-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Communication, Navigation and Surveillance (CNS) is one of the fundamental enablers of the ATM as it supports locating and identifying air vehicles, and exchanging information with and between air vehicles. The research and development for the evolution of the legacy Integrated communications, navigation and surveillance systems to a new integrated approach (iCNS) is already under way in the SESAR IR programme. The iCNS will bring ATM to the next level, with a resilient architectural design that combines satellite and ground-based services. The exploratory research challenge is to develop applications that complement or further develop the work under way in IR, with a particular focus on making it possible for a wider AU community (including GA, drones and the military) to access the most advanced iCNS services. There is also a need to plan how to ensure that the future increased demand for connectivity can be fulfilled.

The full range of research that could be covered in this topic is broad; the application areas mentioned here are merely indicative. Projects may target implementation in the mid-term or could address timeframes up to those of the Flightpath 2050 vision document.

Please note that this is an application-oriented research topic. Proposals for this topic must describe a concrete new CNS enabler for ATM or a new CNS use for ATM of an existing enabler and describe how they will undertake its initial validation, with the ultimate goal of either proposing its inclusion in the ATM Master Plan for further development or discarding it.

The SJU has identified the following application areas of interest:

# Application area 1: Low cost alternative Position, Navigation and Timing (A-PNT) for General Aviation and drones

The research aims at defining, developing and validating a concept of alternative positioning, navigation and timing (A-PNT) for small aircraft (GA, Ultra-Light (UL) Aircraft, Very Light Aircraft (VLA), Remotely Piloted Aircraft Systems (RPAS) or Unmanned Aerial Vehicles (UAV)) to meet the requirements in PBN/RNP operations in case of a GNSS degradation or outage. This standard and low-cost A-PNT concept and system would allow the integration of these airspace users in an efficient and non-discriminatory manner while ensuring safety and security levels and the desired performance gains in terms of resilience and cost efficiency.

The research may address, for example:

- The assessment of innovative technologies such as inertial systems, low cost atomic gyroscopes and accelerometers and radio altimeters that allow consolidating the on-board computed position as well.
- The development of Innovative new vision based navigation system for these AUs consisting of image processing algorithms and their potential combination with GNSS to increase access.
- The potential civil-military interoperability and synergies. The potential use of low-cost on-board solutions that meet PBN requirements, on the basis of the reutilisation or adaptation of currently available capabilities, is of utmost importance for State aircraft operations;
- The specific requirements for auto land for smaller independent on ILS system, based on GPS, inertial positioning and other sensors to increase the vertical accuracy e.g. radar tracker, LIDAR, radio altimeters or vision based navigation. This shall take into consideration work under WG-105.

This research in this application area may build on previous SESAR ER project NAVISAS or propose alternative approaches. Proposals for work in this area must explain how their work is positioned.

#### Application area 2: Improving security and resilience against GNSS threats

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For the medium and long term, it is expected that Global Navigation Satellite System (GNSS) will become the primary means of aircraft navigation. However, satellite navigation receivers are vulnerable to intentional or not-intentional threats/interferences (especially to jamming and spoofing) which may cause the total loss of navigation with the subsequent implications for the navigation services based on GNSS (or its augmented derivatives).

The research shall:

- Propose solutions to improve security and enhance resilience against these threats;
- Develop a new concept for the GNSS interference air navigation threat's management, based on implementing detection and localization of jamming and spoofing on-board the aircrafts.
- Assess and validate the proposed algorithms to detect and localize the interference.

The research shall take into consideration the work and results GATEMAN is expected to provide up to the end of 2019.

#### Application area 3: Improving cybersecurity on CNS services

In anticipation of future more secured performance based CNS, there is a need to make CNS services more secure and resilient against cyber-threats. The research may propose effective and automated solutions for intrusion detection and identify security controls and associated security requirements. The research shall also propose potential mitigation measures in case CNS services are breached.

The solution shall consider (if applicable) the work performed by SESAR solutions on cyber-security as an input to the study and consolidate their analysis on existing and future vulnerabilities.

The scope of the work may be limited to a few selected services e.g. PBN services, surveillance service, etc. and shall complement the top-down vision as defined in Industrial Research activities e.g. PJ.14-01-01 and PJ.14-W2-76.

#### Application area 4: Manned and un-manned aircraft protection from non-cooperative targets

The increasing number of drones is causing safety and security concerns within the aviation industry. A number of collisions between aircraft and drones have been already reported worldwide, and this number will likely increase in the coming future if nothing changes. This research area covers the development of non-cooperative detection. Proposals for work in this area must demonstrate knowledge of the state-of-the-art in sensors for non-cooperative detection, propose an innovative detection application, and describe how they will undertake its initial validation. The proposals must explain the high level performance requirements they will validate their innovative against and how they relate to an operational need. The work plan must include the derivation of lower level operational requirements and the initial validation of the application. The validation of the scope for this CNS topic.

Please note that SESAR has previous ER work in this area by project PercEvite, which is ongoing. Proposals for work in this area should review PercEvite's publicly available material and explain how their proposal is positioned with respect to PercEvite. The proposed work should either build on PercEvite's work or be complementary to it, but should avoid the repetition of PercEvite's work. Proposals for work taking a completely different approach from PercEvite are welcome.

#### Application area 5: Use of 5G for ATM purposes

5G technology is one of the areas that have been more rapidly evolving; it may represent a game changer for connectivity if applied to ATM. Ground-based 5G can release the full potential of satellite based communications, while satcom has also useful properties for 5G in terms of security, resilience, coverage and delivery of broadband. Proposals for work in this application area must propose a satellite and/or ground based 5G application for ATM.

The research in this application area must take into consideration the work done by PJ.14-02-05 on LTE/4G/5G for General Aviation in industrial research and project DroC2om that is working on 4G/5G (and Satcom) in the framework of UAVs. Results from both PJ.14-02-05 and DroC2com are expected at the end of 2019. Projects working in this application area are expected to plan effort to analyse their results and consider how they relate to their work.

Please note that the above list of application areas is not intended as prescriptive. Proposals for work in alternative application areas are welcome, provided adequate justification and background are included in the proposal.

All proposals for work in this topic must consider the top-down iCNS view that is being defined in SESAR's Wave 1 Industrial Research activities e.g. PJ.14-01-01, whose final publicly available deliverables are expected at the end of 2019, and PJ.14-W2-76. Projects should reserve effort to analyse the output of these IR projects and incorporate them in their research.

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#### Links

#### Call for Proposals

#### Measuring and Managing ATM Performance (SESAR-ER4-25-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The objective of SESAR is to improve the performance of the ATM system. This topic is aimed at the development applications that improve the assessment and management of the performance of ATM in operations beyond what is already covered by the IR programme. The improvement of the assessment of the performance of ATM concepts during the full R&D cycle is also in scope.

The exploratory research challenge is to propose an improvement to the assessment or to the management of performance in ATM and undertake its initial validation. All proposals must consider how their proposed improvement relates to both the current SESAR Performance Framework and the SES performance scheme.

Proposals submitted for this topic should clearly describe an ATM performance assessment or an ATM performance management concept and describe what the expected benefits would be and how they will undertake its initial validation. Proposal should take previous work into account, in particular.

The following non-exhaustive list of potential candidate application areas has been identified as being of interest by the SESAR Joint Undertaking:

#### Application area 1: Development of digitalization indicators for ATM

SESAR contributes to the EC's digitalization objectives by bringing digitalization to ATM, in accordance with the Aviation Strategy for Europe. The challenge is to propose and validate digitalization indicators that are relevant for ATM and can be used to assess progress. The research must consider how the proposed ATM digitalization indicators compare to those used by other industries, as well as to the more cross-industry generic indicators and to the ATM digitalization indicators that will be proposed in the next ATM Master Plan (publication expected during 2019).

#### Application area 2: Improved consideration of resilience by the SES/SESAR performance framework.

Resilience can be defined "as the capacity of a system to absorb disturbance and re-organize while undergoing change so as to still retain essentially the same function, structure, identity and feedback". The consideration of resilience is part of the SESAR safety reference material, but the consideration of resilience beyond safety in SESAR is limited to the measuring of resilience to capacity (as percentage of capacity loss in non-nominal situations), which is used by projects working on concepts that support disruption management. Delay, fuel efficiency, punctuality and predictability indicators are the same for nominal and non-nominal situations, and SESAR ambitions and validation targets are set based on average values measured in real operations, where outliers may have a disproportionate impact. Likewise, the SES performance scheme sets targets against average values, without differentiating between nominal and non-nominal situations and/or targets for nominal and non-nominal situations, and undertake an initial validation (e.g. show how the assessment of performance would be more meaningful with their proposed methodology). The indicators should be able to capture the three the three complementary resilience capacities: absorptive capacity, restorative capacity and adaptive capacity. Proposals for work in this area must describe how their work is positioned with respect to the research project RESILIENCE 2050.

#### Application area 3: Development of multi-modal performance indicators and ambition

The Flightpath2050 has set a goal for a maximum of four hours of door-to-door travel time in Europe by the year 2050. There is a need to better understand how to work towards the achievement of this ambition, by breaking down the total travel time indicator between different modes of transport and different phases of travel within each transport mode (e.g. for air travel total travel time could be broken down into check-in time,

baggage collection time, in-airport walking time, travel time to and from the airport...), and then benchmark each of the phases and set ambitions for each of them. Proposals must focus on measurements that affect air transport, but may include the consideration of other modes of transport if their relevance to ATM is justified in the proposal (e.g. travel to and from the airport, travel times in other modes of transport for comparison with flight-times and potential consideration by ATFM or for the route charging scheme). The consideration of the trade-offs in performance between passenger travel time and transport mode travel time is also in scope for this topic, e.g. to consider when an aircraft waits for delayed connection passengers (arriving by air or by another transport mode) the trade-off between the increased delay of the flight and the decreased delay of the passengers (compared to whether the flight had not waited for them and they had had a longer wait until the next flight).

Proposals in this area must plan effort for coordinating with projects awarded under topic - Innovation in Airport Operations" - working on the improvement of airport operations in contribution to multimodality and projects awarded under topic - "ATM Role in Intermodal Transport".

#### Application area 4: Development of environmental indicators

The objective is to further develop the assessment of the impact on the environment of aviation, measuring noise, air quality and pollution beyond what is currently considered by the SES regulation and the SESAR performance framework. Indicators may assess, for example, noise impact from traditional aviation and/or drones, NOX, contrails and their impact, local air quality, etc. Projects working in this area should consider how their proposed approach compares to the approach by Clean Sky and refer to the European Aviation Environmental Report.

The research activities may also review the interrelation of the environmental targets set by the SES Performance Scheme for the second reference period (RP2), the PRB Advice to the Commission in the setting of Union-wide performance targets for RP3, the environmental ambition in the ATM Master Plan for 2035, the SESAR Programme validation targets and the environmental ambitions set by Flightpath2050 ACARE for 2050 in order to provide insight on how they complement each other and how the metrics used in SESAR may evolve to best support the achievement of all the aforementioned ambitions and targets.

# Application area 5: Further development of the concept of unconstrained reference trajectory against which to calculate additional track-miles or flight-time in the TMA

For the calculation of additional arrival flight-time in the TMA, the current SES regulation uses as a reference the unimpeded trajectory from a distance of 40NM around the airport, which is calculated as the statistical minimum for each aircraft category. For en-route, the reference trajectory is the great circle distance.

The objective of the research is to study potential evolutions of the current SES indicator in order to overcome some of the current limitations, for example:

- Limitations due to the reference a trajectory in the TMA being calculated statistically, which may result in situations where an average improvement in track miles counts as a decrease in performance and vice versa.
- Limitations due to the great circle not considering the ARES demand that affects the trajectory, which may result in an increase in ARES demand resulting in a decrease of the performance of the ANSP.
- Limitations due to the additional time in the TMA not considering departures.
- Limitations of the one-size-fits-all 40NM limit between en-route and TMA used in the SES not being tailored for each airports.

#### Application area 6: Development of arrival delay indicators and targets

From the point of view of the passenger, "on-time" arrival is a key performance ambition, Arrival predictability is also considered key for the efficient management of airport resources. However, neither the SES performance scheme nor the ATM Masterplan, SESAR performance framework or the SESAR Validation Targets include arrival delay metrics, ambitions or targets. Measuring arrival delay is challenging, because of the difficulty of finding a valid reference (e.g. airline schedules often include buffers). Moreover, limiting the number of flights arriving outside a certain interval is more relevant than measurements of mean or variability, but the interval of interest may be different depending on the stakeholder (e.g. from the passenger perspective, arriving a few minutes early is not a problem, but early arrivals may disrupt airport operations). Improvements to the predictability of the in-block time may not only come from aircraft flying closer to their planned trajectory, but also from improvements in the planning that make it more realistic (e.g. planning that considers the SID or the STAR, planning that consider how their proposed approach compares to the FAA's fifteen-minute delay criterion (where aircraft arriving earlier than fifteen minutes after their scheduled time are considered to be on time). In order to cater for different stakeholder needs and priorities, multiple indicators and targets may be proposed and validated.

#### Application area 7: Further development of civil-military cooperation and coordination indicators

Civil military cooperation and cooperation indicators in the SESAR performance framework allow a limited assessment of the improvement of civil-military coordination concepts in terms of increased civil and military flight efficiency, as well as of the effectiveness of the coordination processes (by measuring the volume of reserved airspace that is not used) and the effectiveness of the process from the military mission perspective (for optimizing the ARES volume). There is a need to further develop these indicators, as well as to research into the interaction between the impact of the demand of reserved areas on the achievable flight efficiency. In addition, there is a need to understand the apportionment of SESAR ambition to increase flight efficiency between projects working on the improvement of civil-military coordination processes and projects working in other areas.

#### Application area 8: Development of flexibility metrics, ambitions and targets

The flexibility KPA has indicators aims at measuring the flexibility of the ATM system, e.g. measuring the delay for late-filing flights or flights which request a change over their original plan, or allocation of airspace reservation at short notice. There is a need to further develop flexibility metrics and targets. Research in this area should identify demands for flexibility among stakeholders, propose and validate relevant metrics and perform a preliminary benchmarking.

This list of potential application areas is not prescriptive; proposals addressing application areas beyond those listed above are welcome, provided adequate background and justification are provided in the proposal.

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#### Links

#### Call for Proposals

#### ATM Validation for a Digitalised ATM (SESAR-ER4-26-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Although the European Operational Concept Validation Methodology (E-OCVM) has been successfully applied in industrial research activities in SESAR, there is a need to explore potential improvements to the methodology in order to ensure a more flexible and adaptable approach that could facilitate a rapid development and progress towards the future ATM. The vision for this future ATM considers significantly higher levels of connectivity and automation than today and this may need adaptations in the current human performance methodologies to be able to address these challenges.

The scope of this topic covers the following aspects:

#### Application area 1: Macro-modelling applied to Air Traffic Management

A macro-model is a theoretical or conceptual model that is able to reproduce the behaviour/trends of the whole system, rather than that of its individual elements, and that aims at addressing large-scale, global and/or systemic factors.

Research activities shall develop potential solutions that are able to use in practice the knowledge on emergent behaviour detection and overcome the limitations in this area of the current E-OCVM. In particular, the research may address the following areas:

- Investigate new methodologies and techniques/tools for macro modelling and assess their feasibility and applicability to ATM identifying main advantages and limitations.
- Develop a macro-model of the ATM system (using techniques/tools identified above) and demonstrate:
  - The model capability to assess the potential performance impact of future concepts/solutions (still under validation in Industrial Research, under Exploratory Research, or new ones) at ECAC level The proposal shall describe the reference scenario (ATM system without implemented solutions) and the solution scenario(s) (ATM system with implemented solution(s)) that are intended to be used as test cases to validate the model and demonstrate its capabilities.;
  - The model capability to address trade-offs between alternative concepts/solutions, between KPAs and stakeholders;
  - $\circ$  The model capability to support the decision making process.

• The capability to address emergent behaviour analysis, in order to allow analysis of impact of new concepts on all stakeholders at the same time, and macro-safety cases based on the emergent behaviours that are detected with the new methodology.

Relevant simplifications and assumptions made for building the macro model should be documented and be delivered with the modal.

- Assess the potential use of models (e.g. agent-based models) in order to consider how uncertainty can impact the output of R&D activities: Run model-based simulations to quantify potential rare event instances (in particular for non-nominal situations) and consider how this can be used in the development cycle in order to identify where uncertainty must be reduced to obtain the target safety level;
- Align to key reference material from SESAR programme i.e. SESAR Performance Framework and SESAR Solutions catalogue (e.g. if the solution is already under development in ER or IR, the proposal shall be aligned to the latest applicable solution description or document any deviation with respect to that baseline). The research may deviate from these references but any deviation shall be documented and its impact on the results evaluated;
- The proposal shall build on the results and work under exploratory projects such as Domino, evoATM, and VISTA, etc. where relevant.
- The technical proposal shall facilitate an iterative and incremental approach towards the objectives, to allow (if required) re-orientation or adaptation of scope, objectives, etc.

# Application area 2: Evolution of European Operational Concept Validation Methodology (EOCVM) for ATM

The research aims at performing a critical review of the European Operational Concept Validation Methodology (E-OCVM) and propose concrete improvements to the methodology. These improvements should be well detailed in order to facilitate the transfer, integration and training activities.

In particular the research shall:

- Consider the applicability to ATM of other validation methodologies (that may be used in other domains) e.g. principles of agile development for reducing the duration of R&D phase in ATM, facilitate the identification of emerging solutions that could quickly progress from low maturity levels (V0/V1, typically under the scope of exploratory research) to higher maturity levels (V2/V3, typically under the scope of industrial research) and then towards deployment;
- Critically assess the E-OCVM case based approach, and in particular the safety case, and propose the required improvements so through the application of the methodology it would be possible to identify as soon as possible any safety issue that if un-detected may imply important costs at a later stage e.g. deployment;
- Review the roles and responsibilities in the validation methodology e.g. between development and validation roles;
- Propose ideas to better integrate technical validation of technological solutions (enablers) and technology readiness levels (TRL) into E-OCVM;
- Review the SESAR maturity criteria and propose improvements to the list of criteria and the means of compliance;
- Address the analysis of differences between the validated results e.g. performance benefits at the end of the validation cycle (V3/TRL6) and what happens when solutions are finally implemented and in operations, and extract lessons learnt that could help to improve the E-OCVM and the validation process in general;

• Explore how pilot implementation projects could be used to collect operational data and detect emergent behaviours that could be used to provide feedback to solutions/concepts at lower level of maturity.

#### Application area 3: Evolution of Human Performance Assessment methodology

This research area aims at developing and validating concrete improvements to the SESAR Human performance Reference Material that can be input in the next cycle of Industrial research, in particular considering environments with higher degrees of automation. Note that Human performance is not only linked to safety but also related to training needs, cost efficiency and workload and that is why this is kept separated from the previous application area. The improvements could cover, for example:

- less invasive techniques for collection of HP data; large-scale data collection of impact of automation on HP;
- innovative use of human performance data collection techniques e.g. speech recognition, brain wave measurements, eye-tracking, etc.;
- human behaviour modelling, e.g. for Fast Time Simulation Fast Time simulation (FTS).

The research shall address the potential use of more advanced HP assessment tools in future R&D work. The research may consider as well behavioural sciences.

Note that the research shall take into consideration both SES performance scheme and SESAR performance framework, and latest applicable version of the SESAR Human Performance Reference Material (HPRM) as the "as-is" reference.

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#### Links

#### Call for Proposals

#### Future ATM Architecture (SESAR-ER4-27-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

The future ATM architecture is distributed, and will make extensive use of digital technologies to enable a more efficient organisation of the entire mobility system. The implementation of this model provides opportunities for increased efficiencies through the consolidation of services, and increased resilience by increasing the flexibility in the design of fall-back solutions but will face challenges that need to be addressed e.g. cyber security. Securing the confidentiality, integrity and availability of all ATM operations, in particular in the face of

rapidly increasing cyber security risks, will be an inherent and collaborative element for civil and military stakeholders in the design, development, deployment, operations and maintenance of ATM capabilities.

Proposals must describe a specific application supporting the improvement of the ATM architecture, with a particular focus on adapting it to better support digital technologies. Proposals must also describe a work plan to undertake the initial validation of their proposed improvement.

The following application areas of interest have been identified by the SJU:

#### Application area 1: ATM cyber-crisis management

The cybersecurity requirements of the ATM data systems are very high, but it is nevertheless necessary to ensure that if a cyberattack were to be attempted, the system would be ready to ensure the safety of the system at all times, and resume normal operations as soon as possible. Bids must propose one or more cybercrisis management strategies that include the whole crisis lifecycle (readiness, response and recovery), and a plan to validate them. It is expected that the network analysis models used in other industries can be useful for ATM. Projects working in this area must consider the business aspects of their proposed applications.

#### Application area 2: ATM data management

The decentralization of the ATM system will bring with it the distribution of data management responsibilities among multiple actors. There is a need to establish requirements that ensure that the data are correctly stored and that the transmission of data is carried out in a secure and fully traceable way. Bids should describe a specific ATM data management challenge and hypothesize one or more novel ways to store and transmit ATM data so that the security and traceability is improved above what is considered in IR (with the SWIM profiles), and propose a plan to validate their hypothesis. It is expected that the generic data encryption solutions that are in use in other industries (e.g. block-chain, smart contracts, quantum-based cryptography, etc.) will be useful for ATM.

#### Application area 3: Collaborative cybersecurity awareness

The concept of the aircraft downlinking to the ground CNS cybersecurity status information (e.g. jamming, spoofing) is included in the scope of IR Wave 2 (Candidate Solution 110). Bids could propose additional applications that extend this concept, e.g. aircraft sharing cybersecurity status with other aircraft rather than the ground, or to a commercial cybersecurity monitoring service (not necessarily the ATM system).

#### Application area 4: Interaction between cybersecurity management and safety management in ATM

Similarly to what is done through safety management systems in the area of safety, there is a need to share cybersecurity information in order to ensure that the information and lessons learned from previous incidents is used for the continuous improvement of the system. However, unlike for safety, access to cybersecurity-related information needs to be controlled in order to avoid that sensitive information ends up in the hands of potential attackers. In addition, in the aviation there is a need to consider the trade-off between security measures and safety requirements, e.g. an encrypted ADS-B-in may be more secure if used by the ground, but may become unusable by other aircraft for ADS-B-in applications. Bids should elaborate on one or more of the challenges posed by the interaction between cybersecurity and safety in ATM, hypothesize one or more potential solutions and describe a plan to validate their hypotheses. The output of the project should be a public deliverable with detailed guidance material on how to address these issues.

The above list of potential applications is not intended as prescriptive; bids addressing applications not listed above are welcome, provided adequate background and justification are provided in the bid.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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#### Links

#### Call for Proposals

#### Control of IFR RPAS in the TMA (SESAR-ER4-28-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Even though the remote pilot of an IFR RPAS may be located anywhere in the world, control from a ground station that is not in direct radio line-of-sight will generally increase communication latency, which may require ATC to apply extended separation buffers for RPAS, especially during approach, take-off and landing, where ATC is more dynamic, or it may even render TMA operations impossible. The challenge is to integrate IFR RPAS in the busy TMA and airport environments, beyond the level that is currently being research in the industrial research programme.

The industrial research programme is researching the accommodation and integration of IFR RPAS in the airspace and at the airport, with a focus on accommodation and integration of the demand expected in the 2025-2035 time-frame. Research being conducted in Wave 1 by PJ.10-05 and the awarded scope of work in Wave 2 are expected to be publicly available at the end of 2019. This comprises almost exclusively IFR RPAS that operate from either military bases or dedicated airfields, where the remote pilot can control the aircraft via a radio line-of-sight C2 link. For take-off and landing, it is expected that large separation buffers may be required. The research that will be carried out in this exploratory research topic will pave the way for IFR RPAS to be able to fly to and from any airport in full integration with manned aircraft, i.e. eliminating or greatly reducing the separation buffers.

The aim of the research is to establish high-level requirements to allow the control of IFR RPAS for flight in the TMA, take-off and landing to allow enough flexibility for the IFR RPAS to safely operate in busy environments, even if some separation buffers above those applicable for manned aircraft are applied. The research must include the consideration of all the instructions that are usually issued by ATC in a busy airport (considering in particular take-off and landing clearances) and TMA environment (e.g. headings, speed control, approach take-off and landing clearances, stop-take-off instruction after take-off roll has been initiated, missed approach clearances, late go-around clearances, etc.).

C2 latency is always a key consideration for the integration of IFR RPAS in any airspace, because it has an impact on how quickly an ATC instruction can be implemented. In order to get low-latency control during take-

off and landing, the traditional split operations concept requires the command and control for take-off and landing to be carried out by a local flight-crew using a line-of-sight C2 link. This system poses limitations to where the IFR can fly (a flight-crew and their supporting infrastructure must be line-of-sight from the departure and destination airports). The research could explore the possibility of establishing a C2 gateway at the airport to enable that the C2 communications be routed from a pilot located anywhere in the world via ground-ground communications into the airport RPAS C2 gateway, from which they would be routed through a line-of-sight radio link. This will enable the control of the aircraft from take-off at one airport to landing at another airport from a single ground control station, while enjoying line-of-sight C2 at both ends.

The research may also research the impact of RPAS using automatic take-off and/or landing systems, i.e. which added buffers may be needed for IFR RPAS that are untethered (no human-in-the-loop) during routine take-off and landing, but where a human may be available to intervene in non-nominal cases.

Research into DAA and RWC is out of the scope for this topic.

The output of this project must include the high-level operational requirements to support the operation of IFR RPAS in the (busy) TMA environment in integration with manned aircraft, and include performance quantification and a proposed technical architecture.

Consortia bidding for this topic must have both technical RPAS C2 expertise, operational RPAS expertise and air traffic control expertise. The research may include mock-up simulations/demonstrations involving controllers and remote pilots.

The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

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#### Links

#### Call for Proposals

#### Remain Well Clear for IFR RPAS Integration in Class D-G Airspace (SESAR-ER4-29-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

SESAR industrial research is working on the accommodation and integration of IFR RPAS in airspaces A-C, where the separator is always ATC. This topic explores the integration in airspaces D-G, where for IFR aircraft the separator may not always be the controller.

The aim is to provide the technical capabilities or procedural means to allow IFR RPAS to operate in airspace Class D to G where not all traffic may be known to ATC and/or where VFR traffic operates with less predictability (i.e. even if they are known their intentions may be unknown).

For an IFR RPAS to be able to safely operate in airspace classes D-G, cooperative and non-cooperative Detect and Avoid (DAA) systems are required for avoidance of other traffic, but there is no need to consider obstacles or weather, as these are covered by normal IFR provisions. The research must be focused on the development of the DAA functions that are required for IFR RPAS to be able to fly among manned VFR aircraft but are not required to fly among manned IFR aircraft.

Collision-avoidance work shall cover both cooperative and non-cooperative conflicts, including, where appropriate, interoperability with ACAS-Xu and TCAS. Research should consider the relay of resolution advisories to the remote-pilot station, as well as the possibility for the system to implement such advisories without reference to the remote-pilot station. In both cases, all aspects concerning system and link performance should be researched, as well as the technical and human implications of greater degrees of automation.

The capability that needs to be developed is the Remain Well Clear (RWC) function for IFR RPAS. RWC aims at allowing IFR RPAS to execute RWC manoeuvres to maintain separation against cooperative and potentially non-cooperative traffic. It must be noted that this RWC function is neither a safety net aimed at last-minute collision avoidance nor a mere display of the surrounding traffic for situational awareness, but an operational concept to allow IFR RPAS to self-separate from other aircraft just like VFR pilots separate from other aircraft based on their out-the-window view.

EUROCAE has published an operational concept [83] for how the RWC function for IFR RPAS will use these capabilities in airspaces D-G. Proposals must describe how their project will undertake the initial validation and refinement of the concept in EUROCAE document. The role of autonomous decision-making and the system performance requirements, including end-to-end requirements for the link (RLP), must be considered.

Please note that the RWC function addressed in this topic is not aimed at allowing the pilot to discharge the responsibility for the safety of its own aircraft described in ICAO Annex II, which refers to collision avoidance only and display of surrounding traffic information (also referred to as RWC, but not allowing the remote pilot to manoeuvre unless it is for collision avoidance purposes). The ICAO Annex II responsibilities for IFR aircraft are fully discharged with the collision avoidance solution is expected to be developed in IR Wave 2 (candidate solution 111) being developed, which are being researched in the SESAR Industrial Research programme.

The research must consider how the European concept will be impacted by the existing difference between Europe and the USA concerning the responsibility of IFR pilots when operating with unknown VFR aircraft in class E. Both rotary-wing and fixed-wing RPAS must be considered.

The research may consider the definition of a new framework with different airspace classes for which there are different non-cooperative detection requirements, e.g. depending on the requirements for equipage for manned aviation or for non-IFR drones. Special considerations may be needed to accommodate drones that may transition from IFR flight rules to non-IFR rules to fly using U-space services or vice versa.

Development of non-cooperative detection is out of the scope of this solution (it is in the scope of topic 24, CNS)

The relevance of previous research undertaken in SESAR in the area of ASAS and CAVS will be considered.

The research will need to develop minimum performance requirements for non-cooperative detection, and may need to develop enablers that meet those requirements.

The project must consider the following references: EUROCAE WG-105 documentation, EUROCAE WG-75 documentation, documentation from EDA projects MIDCAS, DASA and RPS, JARUS documentation and ICAO RPAS Panel. The output of this project should propose a refinement of the WG-105 DAA for airspaces D-G CONOPS (EUROCAE ED-258).

The project is expected to reserve effort to participate to standardization and ICAO working groups as part of their communication and dissemination activities.

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#### Links

Call for Proposals

#### RPAS for Manned Flight Contingency Management (SESAR-ER4-30-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

Research in this topic will develop the procedures for the management of the contingency of an aircraft flown by a single pilot needing ground control support. The concept will contribute to the safety of the operations currently conducted with two crew members that are expected to be conducted by one crew member only, and also enhanced the safety of those flight operations that are today conducted by a single crew member.

It is anticipated that the reduced crew operations contingency management concept will require the ATM system accommodation of flights transitioning from a routine manned flight to a flight with limited on-board human action and the management of the flight thereafter. The research must address the management of the transition from manned flight to a (completely or partially) remotely piloted flight from the air traffic management perspective, and the management of the flight until it lands safely in a dedicated aerodrome as soon as possible, rather than on mission completion.

The research should consider how concepts, procedures and technologies from development in RPAS integration could support this activity. Different levels of airborne support function (human monitoring, alerting, crosscheck/confirmation management, auto-emergency aircraft control) may be considered.

Consortia submitting proposals(s) for this topic must have human factors in the cockpit expertise and air traffic control human factors expertise. The research may include mock-up real-time simulations involving pilots, remote pilots and controllers. The research must focus on the ATM aspects only and in the manned to ground-managed contingency management only; research into the wider reduced crew operations concepts is explicitly excluded (note that this is considered in all projects researching the future ATM system).

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#### Links

#### Call for Proposals

#### U-Space (SESAR-ER4-31-2019)

Application start date:	30-04-2019
Application end date:	29-08-2019

It is expected that the introduction of new delivery technologies such as drones, and mobility as a service will alter mobility which will result in large improvements in the quality of urban living. These unmanned aerial systems (UAS) require new kind of services. U-space services provide services to UAS flying without services from ATM, but may take place in airspace shared with manned aviation, some of which may be receiving ATC services. This exploratory research challenge refers to the development of new U-space services (especially in the more advanced U3 and U4 service levels), as well as to the linked regulatory challenges.

Proposals must include research activities leading to further development of the U-space concept. The following non-exhaustive research areas of interest have been identified by the SJU:

#### Application area 1: use of U-space services by general aviation

The objective is to research if U-space services that are being developed for drones may also be useful for manned aviation, including general aviation. This could include access to local weather information, dynamic obstacle data bases, information on planned or active drone activity, geo-fenced volumes or additional services provided to the drone community via a ground-based data communications network.

#### Application area 2: Common altitude reference

UAS must be able to keep clear of each other, and of manned aircraft using the same airspace. To ensure vertical separation from these aircraft, it is essential that they use the same altitude reference. They must also be able to keep clear of objects on the ground - buildings, cranes, trees, etc. - and of course people and property in general. Their pilots (or their on-board flight controllers) need, therefore, to be able to understand their height above the ground in an unambiguous way, to be able to relate this to databases of objects and terrain, and to the declared altitude of other aircraft.

EUROCONTROL and EASA have published a discussion paper and describes potential solutions, while identifying areas for additional research. Work under this topic should examine the EUROCONTROL/EASA discussion paper and augment its analysis in the light of additional investigation. It should also present final conclusions that propose a justified and tested solution to the common altitude reference issue.

#### Application area 3: Urban airspace rules

The largest concentration of drones is expected over large populated areas. This has led to the proposal that airspace above urban areas (e.g. up to 1000 ft. above) be declared drone-only airspace, where rules of the air do not apply (because there are no manned flights). Manned flights would still be possible (e.g. security forces, emergency services), but they would need special authorization, and proposals should be described about how this could safely be done without adversely affecting priority manned aviation. There are important challenges associated to this concept, both from the operational point of view and from the societal point of view (noise impact, acceptable accident rate). Research should also cover urban-specific issues such as, *inter alia*, C2 performance in a heavily built-up area, GNSS performance and the potential impact of micro-climates. Finally, models for the design and management of drone trajectories – fixed or otherwise – should be proposed and analysed to support potentially large numbers of simultaneous drone operations. Bids should review the existing literature and describe how their proposed work would address the existing challenges.

#### Application area 4: flight-planning and demand and capacity balancing for drones

As demand for drones over populated areas explodes, there will be a need for limiting the density of flights. Research should explore the initial U-space DCB concept, which may require drones to flight-plan and get approval before departure.

#### Application area 5: U-space separation management service

With increasing numbers of drones in flight, there may be a need to ensure that they remain separated from each other and from manned aviation. Note that this is distinct from the requirement to avoid collisions; this topic considers a formal process whereby drones are separated from other drones and manned aviation according to agreed concepts and minima, equating to the ICAO second layer of conflict management for manned aviation: separation provision. This research topic should consider under what circumstances separation provision will be necessary, and how it could be implemented. There is a need to establish who will be the separator (the drone itself or the U-space service), what the separation minima will be, and what the separation management processes will be. There is also a need to define when separation will be procedural (e.g. two drones on different routes can be deemed separated without needing to check their positions in real time), and when tactical separation will be applied (in which case the surveillance tracks must be separated beyond defined separation minima). For tactical separation, it is necessary to establish who will take the role of the separator (the U-space service or the drone), and what are the performance requirements needed by communications, navigation and surveillance systems to support the provision of tactical separation. For procedural separation, navigation performance requirements will need to be developed. The research should also consider how such separation services should behave when airspace is shared with manned aviation, with and without ATC. Finally, it should consider how separation services relate to complementary collisionavoidance technologies and procedures.

#### Application area 6: Drone traffic management for airports

It is expected that large airports will operate fleets of drones in support of airport operations, e.g. for runway and lighting inspection. Research will develop an airport drone management concept that ensures that airport drones can perform their function without posing a risk to operations at the airport.

The research should assess the feasibility and potential benefits of large airports operating fleets of drones in support of airport operations (e.g. for transporting spare parts or high value cargo, for runway and lighting inspection, etc.)

In particular, the research must develop of how airport service drones could be managed, de-conflicted, in order to smoothly move around their allocated areas in a safe and efficient manner.

Please note that the development of geofencing aspects are out of the scope of this research topic (they are already covered by GEOSAFE I). However, proposals in this area may develop geofencing requirements specific for airport service drones if they deem them necessary.

The U-space research areas described above do not constitute a prescriptive list; proposals addressing research outside of the research areas on the list are welcome, provided adequate justification and background are provided in the bid.

Projects working in this area must be willing to share information with one another and reserve effort for coordination with other projects in this area and with SJU activities that bring together all U-space research efforts (e.g. U-space demonstrations).

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The total budget for Strategic Area of Strategic Area of Operation 2: Deliver Exploratory Research (ER) is €23,064,361.

The SESAR JU considers that proposals addressing topics in Area 2 can request a contribution from the EU between  $\leq 1$  million minimum and  $\leq 2$  million maximum and should end no later than Q4 2022 (including six months for dissemination activities after delivering final results). These conditions are intended to allow the specific challenges to be addressed appropriately and if additional EU contribution is requested this must be strongly justified in any proposal.

Links

Call for Proposals

# **ICA PCOM Project Funding**

Fund ID:	S12706
Status:	Open for Applications
Last updated:	Not specified

Funding available for archives and records management projects that support the strategic objectives of the International Council on Archives (ICA).

# **Fund Information**

Funding body:	International Council on Archives (ICA)
Maximum value:	€ 30,000
Application deadline:	None specified

# **Extended Description**

The Programme Commission (PCOM) of the International Council on Archives (ICA) funds and endorses archive and records management projects that support the ICA's professional programme, strategic objectives (digital recordkeeping, good governance, preservation and emergency planning, access and outreach) and business plan. PCOM encourages individual projects that are innovative, creative and meet a real professional need, such as those that:

- Produce products, tools and other activities that will be widely used by other ICA Branches, Sections, Expert groups, and members, or the global archive community and its users, and/or promote archives and archives and records management professionals.
- Are multi-disciplinary, involving collaboration with other professions; and/or
- Adapt existing products or tools for different audiences or promote ICA and its goals in areas where the network is not strong

Funded activity could involve, for example:

- Projects that introduce or adapt an existing ICA product to a group of organisations or entire branch (eg a workshop that introduces the use of the ICA REQ standard or the PARBICA recordkeeping for good governance toolkit).
- Projects or meetings that build the ICA network in a region where the network is not strong (eg a regional seminar that includes non-members in order to promote membership and participation in future activities).
- Projects or meetings that promote the archival profession (in its broadest sense) worldwide.

Applicants are also encouraged to explore options for publicising their project and deliverables, especially where the audience is different to that of the ICA.

# **Eligibility Criteria**

Applicants need to be a member of the ICA or partnered with a member of the ICA.

# Value Notes

PCOM considers funding applications for:

- Conferences, seminars and workshops to a total of €3,000 per year for meeting arrangements spanning one to two years.
- Projects spanning one to three years, generally up to €10,000 per year. Applications for funding over more than one year should reflect annual funding of up to €10,000 per year in the application, project planning and dates and deliverables.

# **Match Funding Restrictions**

Applicants are expected to secure funding or in-kind support to cover between 25 and 50% of project costs.

# Restrictions

PCOM does not support applications which:

- Do not meet the application criteria; or,
- Include the normal activities and operations of an organisation (eg digitisation projects).

Also, projects and meetings that are only endorsed by PCOM do not receive PCOM funding.

### **Previous Successes**

Examples of funding include:

- A series of workshops held by an ICA Branch using materials developed by another ICA Branch.
- A project to develop workshop materials and conduct a series of workshops.

# **Application Procedure**

Application forms and guidelines, in English, French and Spanish, are available from the ICA website.

Completed applications should be submitted by email. Applications may be submitted at any time and are assessed by the PCOM team within six weeks of the application submission.

### **Useful links**

International Council on Archives <u>http://www.ica.org/en</u>

PCOM Project Funding <u>http://www.ica.org/en/invitation-apply-pcom-project-funding-and-endorsement</u>

# **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

#### Enquiries

International Council on Archives (ICA) 60 rue des Francs-Bourgeois 75003 Paris France Tel: 33 (0)1 40 27 63 06 Fax: 33 (0)1 42 72 20 65 E-Mail: <u>programme@ica.org</u>

# LIFE Programme for the Environment (2014-2020)

Fund	ID:

S7356

Status:	Open for Applications	
Last updated:	Not specified	

The Environment sub-programme of LIFE 2014-2020 is the main EU funding mechanism for projects in the area of the environment. The sub-programme focuses on the priority areas of environment and resource efficiency, nature and biodiversity and environmental governance and information.

# **Fund Information**

Funding body:	European Commission
Maximum value:	Discretionary
Application deadline:	12-06-2019

# **Extended Description**

The LIFE Programme is the EU's funding instrument for the environment and climate action. It is intended to be complementary to other EU funding programmes, including the European Regional Development Fund, the European Social Fund and Horizon 2020. In particular, the LIFE Programme will encourage the uptake of environmental and climate-related research and innovation results of Horizon 2020. The objective of the Programme is to be a catalyst for promoting implementation and integration of environmental and climate objectives in other policies and in Member State practice.

The general objectives of the LIFE Programme are to:

- Contribute to the shift towards a resource-efficient, low-carbon and climate-resilient economy, to the protection and improvement of the quality of the environment and to halting and reversing biodiversity loss, including the support of the Natura 2000 network and tackling the degradation of ecosystems.
- Improve the development, implementation and enforcement of EU environmental and climate policy and legislation, and to act as a catalyst for, and promote, the integration and mainstreaming of environmental and climate objectives into other EU policies and public and private sector practice, including by increasing the public and private sector's capacity.
- Support better environmental and climate governance at all levels, including better involvement of civil society, NGOs and local actors.
- Support the implementation of the 7th Environment Action Programme.

The Sub-programme for Environment covers the priority areas of:

#### **Nature and Biodiversity**

Priority under this thematic area will generally be given to pilot and demonstrative projects, unless otherwise stated. The specific objective of this priority area is 'to contribute to the development and implementation of EU policy and legislation in the area of nature and biodiversity, including the EU Biodiversity Strategy to 2020, and Directives 92/43/EEC and 2009/147/EC, in particular by applying, developing, testing and demonstrating approaches, best practices and solutions'.

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LIFE Nature and Biodiversity will focus on Natura 2000 to ensure full delivery of the commitments concerning target 1 of the Biodiversity strategy. At the same time, it will promote Biodiversity projects mostly aimed at testing and demonstrating new ways to address wider biodiversity concerns.

The thematic priorities are:

- Nature: activities for the implementation of Directives 92/43/EEC and 2009/147/EC, in particular:
  - Activities aimed at improving the conservation status of habitats and species, including marine habitats and species, and bird species, of EU interest.
  - Activities in support of the Natura 2000 network bio-geographical seminars.
  - o Integrated approaches for the implementation of prioritised action frameworks.
- Biodiversity: activities for the implementation of the EU Biodiversity Strategy to 2020, in particular:
  - Activities aimed at contributing to the achievement of Target 2.
  - Activities aimed at contributing to the achievement of Targets 3, 4 and 5.

#### **Environment and Resource Efficiency**

All projects under this priority area will be either pilot or demonstrative projects. The specific priority is 'to develop, test and demonstrate policy or management approaches, best practices and solutions'. This includes the development and demonstration of innovative technologies to environmental challenges which are suitable to be replicated, transferred or mainstreamed.

Priority will be given to projects that put into practice, test, evaluate and disseminate actions, methodologies or approaches that are new or unknown EU wide.

The thematic priorities are:

- Water, including the marine environment: activities for the implementation of the specific objectives for water set out in the Roadmap for a Resource-Efficient Europe and the 7th Environment Action Programme, particularly:
- Integrated approaches for the implementation of Directive 2000/60/EC.
- Activities for the implementation of the Directive 2007/60/EC of the European Parliament and of the Council.
- Activities for the implementation of the programme of measures of the Directive 2008/56/EC with a view to achieving good environmental status of marine waters.
- Activities to ensure safe and efficient use of water resources, improving quantitative water management, preserving a high level of water quality and avoiding misuse and deterioration of water resources.
- Waste: activities for the implementation of the specific objectives for waste set out in the Roadmap for a Resource-Efficient Europe and the 7th Environment Action Programme, particularly:
  - Integrated approaches for the implementation of waste plans and programmes.
  - Activities for the implementation and development of EU waste legislation, with particular emphasis on the first steps of the EU waste hierarchy (prevention, re-use and recycling).
  - Activities for resource efficiency and lifecycle impact of products, consumption patterns and dematerialisation of the economy.
- Resource Efficiency, including soil and forests, and green and circular economy: activities for the implementation of the Roadmap for a Resource-Efficient Europe and of the 7th Environment Action Programme that are not covered by other thematic priorities, particularly:

- Activities for industrial symbiosis and knowledge transfer, and development of new models for the shift towards a circular and green economy.
- Activities for the Soil Thematic Strategy (Commission Communication of 22 September 2006 entitled Thematic Strategy for Soil Protection) with special emphasis on mitigation and compensation of soil sealing, and improved land use.
- $\circ$   $\;$  Activities for forest monitoring and information systems, and to prevent forest fires.
- Environment and Health, including chemicals and noise: support activities for the implementation of the specific objectives for environment and health set out in the 7th Environment Action Programme, in particular:
  - Support activities for the implementation of Regulation (EC) No 1907/2006 of the European Parliament and of the Council (REACH) and Regulation (EU) No 528/2012 of the European Parliament and of the Council (Biocidal Products Regulation) to ensure a safer, more sustainable or economical use of chemicals (including nanomaterials).
  - Support activities to facilitate the implementation of Directive 2002/49/EC of the European Parliament and of the Council (Noise Directive) in order to achieve noise levels that do not give rise to significant negative impacts on and risks to human health.
  - Support activities for avoiding major accidents in particular facilitating the implementation of Directive 2012/18/EU of the European Parliament and of the Council (Seveso III Directive).
- Air quality and emissions, including urban environment: support activities for the implementation of the specific objectives for air and emissions in the Roadmap for a Resource-Efficient Europe and the 7th Environment Action Programme, in particular:
  - Integrated approaches to the implementation of Air quality legislation.
  - Support activities to facilitate compliance with EU air quality and related air emissions standards including Directive 2001/81/EC of the European Parliament and the Council (National Emissions Ceilings Directive).
  - Support activities for the enhanced implementation of Directive 2010/75/EU of the European Parliament and of the Council (Industrial Emissions Directive) with a special emphasis on improving BAT definition and implementation process, ensuring easy public access to information and enhancing the contribution of the IED to innovation.

#### **Environmental Governance and Information**

The specific objective of this thematic priority is 'to promote awareness raising on environmental matters, including generating public and stakeholder support of EU policy-making in the field of the environment, and to promote knowledge on sustainable development and new patterns for sustainable consumption'.

The thematic priorities are:

- Environmental Governance and Information:
  - Information, communication and awareness raising campaigns in line with the priorities of the 7th Environment Action Programme.
  - Activities in support of effective control process as well as measures to promote compliance in relation to EU environmental legislation, and in support of information systems and information tools on implementation of Union environmental legislation.

# **Eligibility Criteria**

Eligible applicants are likely to include:

- National, regional and local authorities.
- International organisations.
- Non-governmental organisations active in the field environment and/or climate action.
- Private bodies including small and medium-sized enterprises (SMEs).

### Additional Information

#### **Brexit Update**

Following the decision by the United Kingdom to withdraw from the European Union, all EU primary and secondary law will cease to apply to the UK from the withdrawal date and the UK will then become a third country.

Until the UK leaves the EU, EU law continues to apply to and within the UK, when it comes to rights and obligations. This includes the eligibility of UK legal entities to participate fully and receive funding under the LIFE programme. However, the eligibility criteria must be complied with for the entire duration of the grant.

If the UK withdraws from the EU during the grant period without concluding an agreement with the EU ensuring, in particular, that UK applicants continue to be eligible, UK participants will cease to be eligible to receive EU funding (while continuing, where possible, to participate) or be required to leave the project on the basis of the relevant Articles of the grant agreement.

#### Types of Projects

The following types of projects are supported:

- Pilot projects projects that apply a technique or method that has not been applied or tested before, or elsewhere, and that offer potential environmental or climate advantages compared to current best practice.
- Demonstration projects projects that put into practice, test, evaluate and disseminate actions, methodologies or approaches that are new or unknown in the project's specific context, such as geographical, ecological, socio-economic, and that could be applied elsewhere in similar circumstances.
- Best practice projects projects that apply appropriate, cost-effective, state-of-the-art techniques, methods and approaches taking into account the specific context of the project.
- Integrated projects projects implementing in a sustainable manner, on a large territorial scale, in particular, regional, multi-regional or national scale, environmental or climate strategies or action plans required by specific environmental or climate Union legislation, pursuant to other Union acts or developed by Member States' authorities.
- Technical assistance projects projects aimed at supporting the preparation of integrated projects.
- Capacity-building projects projects providing support to the activities required to build the capacity of Member States, including LIFE national or regional contact points, with a view to enabling Member States to participate more effectively in the LIFE Programme.
- Preparatory projects projects in support of specific needs for the implementation and development of Union environmental or climate policy and legislation.
- Information, awareness and dissemination projects projects aimed at supporting communication, dissemination of information and awareness raising in the fields of the sub-programmes for Environment and Climate Action.

# Value Notes

There is a proposed allocation of €3.4 billion for the LIFE Programme over the period 2014-2020. This will be divided as follows:

- Environment €2.6 billion
- Climate Action €800 million

The sub-programme for the Environment has a budget of approximately €1.2 billion for the period 2018-2020. The allocation for each priority area is as follows:

- Environment and Resource Efficiency €444 million
- Nature and Biodiversity €632 million
- Environmental Governance and Information €143 million

LIFE Nature and Biodiversity will continue to focus its financial resources on Natura 2000 to ensure full delivery of the commitments concerning the Biodiversity Strategy to 2020.

There is no fixed minimum size for Traditional Project budgets. While large ambitious projects (ie over €5 million total costs) have been financed several times in the past, small projects (ie below €500,000 total costs) have seldom succeeded due to the limited output and consequently the low added value.

The maximum EU co-financing rate for Traditional Projects is 55% of the total eligible project costs. An exception is made for Traditional Projects in the priority area Nature and Biodiversity for which the EU co-funding rate can go up to 60%, or 75% in specific cases.

The total indicative budget for Integrated Projects under Environment sub-programme of the 2019 Call is €97 million.

There is no fixed minimum size for Integrated Projects; however, proposals for Integrated Projects are expected to be large and ambitious with a substantial budget. It is expected that the programme would contribute, on average, €10 million to each Integrated Project, with the total project budget being around €17 million.

# **Match Funding Restrictions**

#### **Co-financing rate**

Up to 60% of eligible costs are available for all projects in the first four years of the Programme, and up to 55% for all projects the final three years of the Programme with the following exceptions:

- Up to 60% of eligible costs for integrated projects, technical assistance projects and preparatory projects for the entire duration of the programme.
- Up to 75% of eligible costs are available for projects funded under the Environment sub-programme priority area Nature and Biodiversity that concern priority habitats or species for the implementation of Directive 92/43/EEC or the species of birds considered as a priority for funding by the Committee for Adaptation to Technical and Scientific Progress set up pursuant to Article 16 of Directive 2009/147/EC when necessary to achieve the conservation objective.
- Up to 100% of funding for capacity building projects.

# **Application Procedure**

The application procedure varies depending on the project type.

- Traditional projects applications are submitted using the eProposal web tool available via the LIFE web page.
- Integrated projects application forms are provided in the application guide for submission of concept notes and full project proposals. Proposals and any necessary attachments must be submitted in electronic format (on CD-ROM, DVD or USB stick) and sent by post or hand delivered. Concept notes are also required to be submitted by email.
- Preparatory and technical assistance projects application forms are available in the application guide. There is a single stage procedure. The proposal and necessary attachments must be submitted in an electronic format (CD-ROM or DVD) and should be sent by post or hand delivered to the address indicated in the application guide.

#### 2019 Call - opened 4 April 2019

#### Call Timetable for **Traditional Projects**

- Deadline for submission of concept notes:
  - Environment & Resource Efficiency 17 June 2019
  - o Nature & Biodiversity: 19 June 2019
  - Environmental Governance & Information: 29 June 2019
- Shortlisted applicants informed and invitation to submit full proposals: October 2019
- Deadline for full proposals: 11 February 2020

#### Call timetable for Integrated Projects

- Deadline for submission of concept notes: 5 September 2019
- Applicants informed and invitation to submit full proposals: November 2019
- Indicative deadline for full proposals: 14 March 2020

#### Call timetable for **Technical Assistance Projects**

• Deadline for submissions: 8 June 2019

#### Call timetable for **Preparatory Projects**

• Deadline for submissions: 24 September 2019

Detailed information on how to apply is given in the Call documents, once the Call is open.

### **Useful links**

LIFE Programme Home Page http://ec.europa.eu/environment/life/

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

#### **LIFE National Contact Point**

Executive Agency for Small and Medium-Sized Enterprises (EASME) EASME B-1049 Brussels E-Mail: <u>easme-life@ec.europa.eu</u>

# **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Deadline for Traditional Projects - Environment and Resource Efficiency

Application start date:	04-04-2019
Application end date:	17-06-2019

#### This deadline is for concept notes.

#### Links

#### <u>2019 Call</u>

#### 2019 Deadline for Traditional Projects - Nature and Biodiversity

Application start date:	04-04-2019
Application end date:	19-06-2019

#### This deadline is for concept notes.

#### Links

#### <u>2019 Call</u>

#### 2019 Deadline for Traditional Projects - Governance and Information

Application start date:	04-04-2019
Application end date:	19-06-2019

#### This deadline is for concept notes.

#### Links

#### <u>2019 Call</u>

#### **Deadline for Integrated Projects**

Application start date:	04-04-2019
Application end date:	05-09-2019

#### Links

#### <u>2019 Call</u>

#### **Deadline for Technical Assistance Projects**

Application start date:	11-04-2019
Application end date:	12-06-2019

#### Links

#### 2019 Call

#### **2019 Call for Preparatory Projects**

Application start date:	24-05-2019
Application end date:	24-09-2019

Under the 2019 call, proposals may be submitted only to address the following four specific needs:

- Carbon farming schemes to reward farmers and foresters for the delivery of climate public goods (maximum EU co-financing €1,015,000)
- Supporting sustainable textiles through innovative solutions to collection and recycling (maximum EU co-financing €180,000)
- Natural capital based environmental accounting and reporting standards (maximum EU co-financing €600,000)
- Private Land Conservation (maximum EU co-financing €1,000,000)

Links

<u>2019 Call</u>

# **Mercator Foundation Grant**

Fund ID:	S8627
Status:	Open for Applications
Last updated:	Not specified

Stiftung Mercator (Mercator Foundation) provides grants to external projects that have capacity to achieve tangible results in support of the foundation's four thematic clusters: European cohesion; reduction in educational inequality in Germany; climate change; and cultural education within the German school system.

### **Fund Information**

Funding body:	Stiftung Mercator
Maximum value:	Discretionary
Application deadline:	None specified

# **Extended Description**

The Mercator Foundation (Stiftung Mercator), one of Germany's largest foundations, initiates and funds projects that promote better educational opportunities in schools and universities with a special focus on the idea of open-mindedness and tolerance through intercultural encounters.

The foundation's grant programme is designed to support research projects that help achieve the sociopoliticalobjectivesthe foundation has set in thematic clusters and fields of activity. About 20 percent of projects are implemented by the foundation itself, while around 80 percent are funded as external projects. In the funded projects, the foundation and its project partners work towards jointly defined objectives. The funding goes beyond financial support, as grant recipients will receive advice on many questions of project and financial management, on the preparation and staging of events and on issues relating to strategic public relations.

The four thematic clusters and associated priorities are:

- **Europe:** to strengthen Europe's cohesion and ability to act, to ensure that the values that result from the European idea are preserved and strengthened and to generate and make available ideas for a discussion of a better Europe and to ensure that people understand why European cohesion is necessary.
- **Integration:** to reduce by 2025 the inequality in Germany in terms of school and university qualifications based on the 2005 level by 70 percent for people of migrant origin and aged 15-30 (with a short term target to reduce the discrepancy by 30 percent by 2015).
- **Climate Change:** to reduce the human-caused emissions of greenhouse gases included in the Kyoto Protocol by 40 percent in Germany by 2020 and by at least 80 percent by 2050, measured against the 1990 levels.
- **Cultural Education:** to firmly anchor cultural education in the school systems of Germany's federal states as an equally important part of general education. To this end, the foundation is committed to formulating quality criteria for cultural education within the education quality framework and to achieve this in at least four federal states by 2015 and in all federal states by 2025.

In addition to the four thematic areas, the foundation also funds projects in selected fields of activity:

#### • Centre for Science and Humanities:

- o The science-policy interface
- Institutional cooperation between universities in the Ruhr region
- **Centre for Education and Centre for Integration**: projects within the framework of the thematic clusters, focusing on the following:
  - Supporting a culture of teaching and learning that fosters individuals
  - Language tuition
  - Networks of educational institutions
- Centre for International Affairs: research concentrated solely on two regions:
  - Europe/Turkey
  - o China

# **Eligibility Criteria**

Eligible are institutions and organisations with headquarters in Germany that are formally recognised as non-profit-making or subject to public law (eg universities, charitable associations and NGOs).

Organisations with headquarters abroad may be eligible for funding if they meet all the requirements of German non-profit law.

Germany-based organisations may apply for funding for a project outside Germany.

Project proposals must fulfil several thematic and strategic requirements listed here.

### Value Notes

The funding amount depends on the approved project. Further compensation for travel expenses is provided.

# Restrictions

The following will not be supported:

- Individual grants outside the foundation's owngrant programmesand fellowships.
- Profit-oriented enterprises.
- Printing grants for publications.
- Projects requiring funding commitments which are unlimited in time.
- Funding to cover public budgetary shortfalls.
- Non-project related institution personnel and administration costs.
- Construction projects.
- International projects with no discernible relevance to Germany.
- Simulation exercises for schools and students.
- In the Integration cluster: projects not aimed at improving school and university qualifications and with no clear relevance to the issue of educational participation.
- In the Climate Change cluster: projects focusing solely on educating young people about the environment.
- In the Cultural Education cluster: projects that have no direct relevance to the goals in this area (for example individual practical projects, non-school projects, projects concerned solely with art).

# **Application Procedure**

#### Applications can be submitted at any time.

# **Useful links**

Programme Website <a href="https://www.stiftung-mercator.de/en/our-foundation/grants/information-for-applicants/">https://www.stiftung-mercator.de/en/our-foundation/grants/information-for-applicants/</a>

Theme Cluster https://www.stiftung-mercator.de/en/our-themes

# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Stiftung Mercator Huyssenallee 46 45128 Essen Tel: +49 201 24522 0 Fax: +49 201 24522 44 E-Mail: <u>info@stiftung-mercator.de</u>

# **Newton Researcher Links Workshop Grants**

Fund ID:	S8894
Status:	Open for Applications
Last updated:	Not specified

Funding for workshops involving a UK and partner country cohort of early career researchers, intended to address global research challenges in innovative, collaborative ways.

# **Fund Information**

Funding body:	British Council
Maximum value:	Discretionary
Application deadline:	31-05-2019

# **Extended Description**

Founded in 1934, the British Council is both a registered charity and the UK's official international organisation for cultural relations and educational opportunities. With representation in six continents and over 100 countries, the British Council is tasked with providing international opportunities for the people of the UK and other countries, and building trust between them worldwide.

The British Council's Researcher Links Workshops are intended to bring together early-career researchers from the UK and selected partner countries to allow them to make international connections that can improve the quality of their research.

Individual calls under this scheme will specify which countries are eligible to take part, and the fields of endeavour for which the call is intended.

All Researcher Links Workshops have the following three overarching objectives:

- **Support international development-relevant research:** Workshops are intended to support research areas relevant to the economic development and welfare of partner countries.
- **Contribute to capacity building of early career researchers:** Proposals must include a description of how the workshop will contribute to the personal and professional development of the participants.
- Establish new research links or significantly develop existing links, with the potential for longer term sustainability: Workshops should aim to stimulate longer term links between the UK and partner countries. They should also explore any potential longer term benefit that might arise, thinking about who might benefit and how they might benefit.

# **Eligibility Criteria**

Applications are accepted from early career researchers working at UK universities and non-profit research institutions, in partnership with a counterpart in another country. Eligible partner countries are specified on a per-call basis.

Each workshop will be coordinated by two leading researchers, one from each country, and will focus either on a specific research area or on an interdisciplinary theme. The workshop should take place outside of the UK.

### Value Notes

A condition for accessing UK funds is that matched funding is secured from partner countries. In most participating countries, this matched funding comes from national agencies. The grant contribution given to support the organisation of the Researcher Links workshops is calculated using a combination of flat unit rates per person and accountable costs.

Payment of the grant contribution to Researcher Links workshops will be processed in two instalments: a 90% pre-financing payment, and 10% post-workshop payment or recovery of the balance.

# **Match Funding Restrictions**

The partner country is required to provide match funding.

# **Terms and Conditions**

Under this programme, research relevant to economic development and social welfare of the partner country can fall in one or more of the following research challenge areas:

- Agriculture (eg irrigation, crop yields)
- Climate and environment (eg climate change, green technology, sustainable development, ecosystem services, resource scarcity)
- Sustainable energy for all
- Education research for development
- Economic growth (eg equitable growth, financial sector development, private sector development)
- Health (eg HIV/AIDS, malaria, tuberculosis, neglected tropical diseases, child mortality, maternal health)
- Water and sanitation
- Food and nutrition (including food security)
- Demographic change and migration
- Rural and urban development
- Infrastructure (including civil engineering, information and communication technologies, big data for social and economic development)
- Humanitarian disasters and emergencies, disaster risk reduction
- Resilient and connected communities
- Governance, society and conflict (eg transparency, accountability, effective institutions, land and natural resource rights, poverty alleviation, social development, structural inequalities, violence and security, peace building, civil society)
- Development-relevant data collection, quality and access

### **Previous Successes**

Around 53% of applications to the previous application call were funded.

# **Application Procedure**

Applicants must submit a completed online application form.

Successful applicants will be notified approximately three months after the call deadline, unless specified otherwise.

# **Useful links**

British Council http://britishcouncil.org/

Calls for Proposals <u>https://www.britishcouncil.org/education/science/current-opportunities/international-research-workshops</u>

### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

#### **Researcher Links**

British Council Bridgewater House 58 Whitworth Street Manchester M1 6BB E-Mail: <u>UK-ResearcherLinks@britishcouncil.org</u>

### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Low-Carbon Heating and Cooling Technologies

Application start date:	-
Application end date:	31-05-2019

#### Links

Call for Proposals

#### Urban Vulnerability, Risks, Safety and Security

Application start date:	-
Application end date:	31-05-2019

#### Links

#### Call for Proposals

#### **Promoting Social Embeddedness of New Biotechnologies**

Application start date:	-	
Application end date:	16-06-2019	

#### Links

#### Call for Proposals

#### UK-Brazil workshop on financing urban climate-resilient development

Application start date:	-
Application end date:	16-06-2019

#### Links

#### Call for Proposals

# The UK-Israel Call for Symposia in Nanoscience, Neuroscience, Agri Science, Water Science, Cyber and Antimicrobial Resistance

Application start date:	-
Application end date:	16-06-2019

#### Links

# NIH Bench-to-Bedside Program

Fund ID:	S17187
Status:	Open for Applications
Last updated:	Not specified

Funding from the National Institutes of health (NIH) to support research teams seeking to translate basic scientific findings into therapeutic interventions for patients, and to increase understanding of important disease processes.

# **Fund Information**

Funding body:	National Institutes of Health (NIH)
Maximum value:	150,000 USD (€ 134,000)
Application deadline:	31-05-2019

# **Extended Description**

The National Institutes of Health (NIH), part of the US Department of Health and Human Services, is America's medical research agency that aims to make important discoveries that improve health and save lives. The NIH is the largest source of funding for medical research in the world and is made up of 27 Institutes and Centres, each focusing on a different part of the health industry.

NIH runs the Bench-to-Bedside (BtB) Program to support small/pilot research projects that seek to translate basic scientific findings into therapeutic interventions for patients, and increase understanding of important disease processes. The fund seeks to address barriers, such as the traditional silos between basic and clinical researchers in biomedical research, that can hinder progress toward finding new therapeutics for patients in need.

BtB teams will be made up of basic and clinical researchers, often from different NIH Institutes and Centers. As of 2006, the scheme expanded to foster collaborative work between intramural and extramural NIH researchers. Intramural science here refers to research that takes place on an NIH campus under the auspices of federal employees, while extramural research is funded by NIH but conducted by investigators and institutions outside of NIH. In this way, the extramural community gains access to the Clinical Center's unique resources, and the intramural community can pursue innovative research with extramural investigators.

Funding is available for up to two years, and proposals can fall into one of six funding categories aligned with NIH's donor office partners:

- AIDS.
- Behavioural and social sciences.
- Dietary supplement.
- Minority health.
- Rare diseases.
- Women's health projects.

All proposals not supported by the donor offices will receive consideration for support in the General category, supported by the Stable Funds provided by the NIH Director.

# **Eligibility Criteria**

Intramural investigators in all institutes/centers are eligible to serve as project leaders on proposals. At least one intramural investigator on the project must have responsibility for scientific and budgetary oversight (eg, the investigator must have a budget/assigned CAN and resources).

All BtB teams should involve an intramural investigator and one or more investigators from another NIH institute and/or one or more extramural partners. The team must include at least one basic scientist and one clinical researcher.

Both intramural and extramural NIH investigators will be able to initiate applications for BtB research projects, although only intramural investigators can submit LOIs or applications through proposalCentral. Extramural principal investigators (PIs) with an existing NIH grant (eg, researchers at CTSA or AIAMC sites) are invited to initiate proposals in one of two ways:

- Extramural investigators may seek an intramural partner at NIH who would function as the project leader and serve as the point of contact. To identify an intramural collaborator, extramural investigators may consult a number of NIH resources:
  - NIH's database of all current intramural research;
  - Intramural Principal Investigator Directory;
  - o Search the Studies website to identify investigators on relevant protocols; or
  - Extramural investigators may also consult the Bench-to-Bedside Program Office for assistance in identifying intramural partners.
- Extramural investigators may initiate proposals and serve as project leaders. In this role, extramural principal investigators will develop letters of intent and if approved, may develop full proposals. In this scenario, extramural investigators are required to identify an intramural collaborator on the project. On behalf of the lead extramural PI, the intramural investigator will be responsible to submit both the letter of intent and full proposal electronically using proposalCentral.

## Value Notes

Each BtB award provides up to \$150,000 a year for two years.

The extramural investigators cannot receive all project funds, and at least some funds must be directed to the intramural investigators.

#### **Previous Successes**

A list of currently funded projects is available here. Previously funded projects can be seen here.

To date, approximately 800 principal and associate investigators have collaborated on 238 funded projects with approximately \$53 million distributed in total Bench-to-Bedside funding. The introduction of extramural collaborations in 2006 has resulted in 157 partnerships at 90 institutions. Ninety-seven percent of BtB awards spanning the three most recent review cycles have involved extramural partners.

International partnerships have previously been held with the following institutions:

- Hospital A. C. Camargo, Brazil
- Hospital for Sick Children, Canada
- Imperial College London, UK
- International Agency for Research on Cancer, France
- Makerere University, Uganda
- Sackler School of Medicine, Israel
- University of New South Wales, Australia
- University of Toronto, Canada
- University of Oxford, UK
- Zaria, Nigeria

## **Application Procedure**

# The first step in the application process requires the intramural investigator to submit a letter of intent (LOI) electronically via proposalCentral by the 31 May 2019 deadline.

Extramural investigators may initiate proposals and serve as project leaders. In this role, extramural principal investigators will develop letters of intent and if approved, may develop full proposals. In this scenario, extramural investigators are required to identify an intramural collaborator on the project. On behalf of the lead extramural PI, the intramural investigator will be responsible for submitting both the letter of intent and full proposal electronically using proposalCentral.

LOIs are reviewed by the Scientific Director for each intramural investigator on a project. The intramural investigator submitting the LOI will be notified via email whether the LOI is approved. If it is, they then submit a full proposal in proposalCentral.

## **Useful links**

NIH - Bench to Bedside Homepage https://www.cc.nih.gov/ccc/btb/index.html

NIH - BtB Deadlines https://www.cc.nih.gov/ccc/btb/deadlines.html

NIH - BtB FAQs https://www.cc.nih.gov/ccc/btb/faq.html NIH - BtB Guidelines https://www.cc.nih.gov/ccc/btb/programguidelines.html

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

National Institutes of Health (NIH) 9000 Rockville Pike Bethesda Maryland 20892 USA Tel: 301-496-4000 E-Mail: <u>NIHinfo@od.nih.gov</u>

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Letter of Intent Deadline

Application start date:	30-04-2019
Application end date:	31-05-2019

# **Paul Mellon Centre Digital Project Grants**

Fund ID:	S10153
Status:	Open for Applications
Last updated:	Not specified

Fellowships are available for individuals studying within the field of British art and architectural history from the medieval period to the present.

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## **Fund Information**

Funding body:	Paul Mellon Centre for Studies in British Art
Maximum value:	£ 40,000 (€ 45,200)
Application deadline:	30-09-2019

#### **Extended Description**

As an educational charity committed to supporting original research into the history of British Architecture and Art from all periods, the Paul Mellon Centre for Studies in British Art is the sister institution to the Yale Centre for British Art. Based in London, the centre is a research hub which offers a supportive, professional environment for scholarly work, hosts a varied programme of academic events and provides a library of archival resources.

Individuals and institutions can apply for Digital Project Grants to support digital research projects or research that will lead to a digital or online project. Research projects employing digital technologies including 3-D scanning or modelling, online catalogues and collections, archives and online exhibitions or digital projects relating to British art or architectural history would all be relevant to this award. The Centre also welcomes applications from institutions and individuals who aim to provide open access to collections and resources.

# **Eligibility Criteria**

Both individuals and organisations are eligible to apply for an award.

Applicants must be studying within the field of British art and architectural history from the medieval period to the present.

Applications to support part time researchers are welcome.

## Value Notes

A maximum of £20,000 is available per year, for up to a maximum of two years. (The centre does not pay full economic costs.)

## **Match Funding Restrictions**

Applicants are required to provide details of funding that is expected or being sought from other sources as well as any financial support that is already in place.

## Restrictions

The organisation does not offer fellowships and grants in the fields of archaeology, the current practice of architecture or the performing arts.

# **Application Procedure**

Candidates should submit applications via the online application system by the deadline of **30 September 2018.** 

Applicants will be informed of the outcome of their application within three weeks of the Advisory Council meeting.

#### **Useful links**

Application Procedure <u>http://www.paul-mellon-centre.ac.uk/fellowships-and-grants/procedure</u>

Digital Project Grants http://www.paul-mellon-centre.ac.uk/fellowships-and-grants/opportunities/digital-projectgrants/season/autumn-2016

Homepage http://www.paul-mellon-centre.ac.uk/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

#### **Grants Administrator**

Paul Mellon Centre for Studies in British Art 16 Bedford Square London WC1B 3JA Tel: 020 7580 0311 Fax: 020 7636 6730 E-Mail: <u>grants@paul-mellon-centre.ac.uk</u>

## **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Deadline

Application start date:	-
Application end date:	30-09-2019

# Stockholm Water Prize

Fund ID:	S7355
Status:	Open for Applications
Last updated:	Not specified

A prize to recognise nominated individuals or organisations who have made outstanding contributions to the sustainable use and protection of the world's water resources.

## **Fund Information**

Funding body:	Stockholm International Water Institute (SIWI)
Maximum value:	1,000,000 SEK (€ 93,300)
Application deadline:	30-09-2019

## **Extended Description**

The Stockholm International Water Institute (SIWI) is a Stockholm-based policy institute that generates knowledge and informs decision-making towards water wise policy. Founded in 1991, SIWI performs research, builds institutional capacity and provides advisory services.

SIWI runs the annual Stockholm Water Prize (SWP), first presented in 1991, which honours outstanding achievements in the sustainable use and protection of the world's water resources. This annual prize aims to provide its winners (laureates) with global acknowledgement and visibility.

Laureates should have made outstanding achievements of proven impact or great potential that provide stimulation for further important work relating to the conservation and protection of water resources and to improved health and well-being of the planet's inhabitants and ecosystems. Achievements can be within the fields of science, technology, education, public policy, or practice related to sustainable use and protection of the world's water resources.

Candidates must be nominated for the competition and have contributed significantly to one or more of the following two categories:

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- Policy and Practices, including:
  - Human rights, conflict resolution, influence on policies and international cooperation with application in the water sector.
  - Sustainable and safe management of water resources.
  - Provision of water supply and sanitation services.
  - Development and application of appropriate technologies.
  - Development and improvement of economical, legislative, institutional or administrative principles for efficient, equitable and sustainable water management and service provision.
- **Research**, to develop new knowledge of and scientific leadership in:
  - Natural, physical and/or technological processes.
  - The functioning of complex systems.
  - Development or improvement of economical, legislative, institutional or administrative principles for efficient, equitable and sustainable water management and service provision.

Candidates may qualify for the prize based on contributions to more than one category. For both categories, achievements in outreach and awareness raising are also taken into account. This could include activities such as the education and training of students, water professionals or communities as well as the dissemination of information to and awareness raising of decision-makers and the general public.

The winner will be named Laureate and receive their prize at the Royal Stockholm Water Prize Ceremony at Stockholm City Hall during UN World Water Week.

# **Eligibility Criteria**

Nominations can be made by anyone. Eligible nominees are individuals or organisations from any country who have:

- Made outstanding contributions of lasting significance for the sustainable use and protection of the world's water resources.
- Achieved work of proven impact and/or great potential within the fields of science, technology, education, public policy, or practice related to sustainable use and protection of the world's water resources.
- Provided stimulation for further important contributions to the conservation and protection of water resources and to improved health and well-being of the planet's inhabitants and ecosystems.

Over the years, prize laureates have represented a broad range of water-related activities, professions and scientific disciplines from all over the world. The prize strongly encourages the nomination of female candidates.

#### Value Notes

Laureates receive a prize of SEK 1 million and a specially designed sculpture, as well as global recognition and the opportunities this brings.

## Restrictions

Nominations cannot be made by individuals that have direct professional or family ties to the nominee. Selfnominations are not allowed.

#### **Previous Successes**

Previous laureates include:

- 2019: **Dr Jackie King**, South Africa For contributions to global river management and scientific understanding of water flows, including assessment methods and tools used by decision-makers when managing or developing river systems.
- 2018: **Professor Bruce Rittmann and Professor Mark van Loosdrecht**, USA and The Netherlands -The Laureates have revolutionised microbiological-based technologies in water and wastewater treatment by demonstrating the possibilities to remove harmful contaminants from water, cut wastewater treatment costs, reduce energy consumption, and recover chemicals and nutrients for recycling.
- 2017: **Professor Stephen McCaffery**, USA For his contribution to the evolution and progressive realisation of international water law.
- 2016: **Professor Joan Rose**, USA For her contributions to global public health in assessing risks to human health in water and creating guidelines and tools for decision-makers and communities to improve global health.
- 2015: **Mr Rajendra Singh**, India For his innovative water restoration efforts, improving water security in rural India, and for showing extraordinary courage and determination in his quest to improve the living conditions for those most in need.
- 2014: **Professor John Briscoe**, South Africa For his contributions to global and local water management.
- 2013: **Dr Peter Morgan**, Zimbabwe For his work to protect the health and lives of millions of people through improved sanitation and water technologies.
- 2012: International Water Management Institute (IWMI), Sri Lanka For pioneering research that has served to improve agriculture water management, enhance food security, protect environmental health and alleviate poverty in developing countries.
- 2011: **Professor Stephen R Carpenter**, USA His ground-breaking research has shown how lake ecosystems are affected by the surrounding landscape and human activities. His findings have formed the basis for concrete solutions on how to manage lakes.
- 2010: **Dr Rita Colwell**, USA Her pioneering research on the prevention of waterborne infectious diseases has helped protect the health and lives of millions of people.

# **Application Procedure**

The nomination process is in two stages. Firstly, nominators should complete (in English) the online nomination form on the SIWI website.

#### Initial nominations for the 2020 Prize must be submitted by 30 September 2019.

Nominators of shortlisted candidates will be invited to submit a detailed nomination that includes references. The Nominating Committee then reviews submitted full nominations in order to recommend a laureate to the SIWI Board for approval.

The SWP Laureate of the year is normally announced on 22 March each year, in conjunction with the UN World Water Day.

# **Useful links**

Stockholm Water Prize http://www.siwi.org/prizes/stockholmwaterprize/

Stockholm Water Prize FAQs http://www.siwi.org/prizes/stockholmwaterprize/faq/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Stockholm International Water Institute (SIWI) Stockholm International Water Institute Linnégatan 87A Box 101 87 100 55 Stockholm Sweden Tel: +46 8 121 360 00 Fax: +46 8 121 360 01 E-Mail: <u>siwi@siwi.org</u>

## Calls and deadlines

Information on future calls is indicative only and may be subject to change.

#### Nomination Deadline for 2020 Prize

Application start date:	-
Application end date:	30-09-2019

# **Terra Foundation Academic Workshop and Symposium Grants**

Fund ID:	S11856
Status:	Open for Applications
Last updated:	Not specified

Funding available for workshops, symposia, and colloquia that advance scholarship in the field of American art (circa 1500–1980) that take place in Chicago or outside the United States, or in the United States and examine American art within an international context and include a significant number of international participants.

## **Fund Information**

Funding body:	Terra Foundation for American Art
Maximum value:	25,000 USD (€ 22,300)
Application deadline:	17-06-2019

# **Extended Description**

The Terra Foundation for American Art was established in 1978 by businessman, art collector and cultural ambassador Daniel J. Terra. It has offices in Chicago and Paris and it supports worldwide study and presentation of historical art of the United States through its grants, initiatives, partnerships, art collection and other resources.

The Foundation's Academic Workshop and Symposium Grants are intended to support in-person exchanges, eg workshops, symposia, and colloquia, that advance scholarship in the field of American art (circa 1500–1980) that take place:

- In Chicago or outside the United States, or,
- In the United States and examine American art within an international context and include a significant number of international participants.

Additionally, the Foundation welcomes applications for international research groups. Such groups should involve two to four faculty members from two or more academic institutions, at least one of which must be located outside the United States. Groups should pursue specific research questions that will advance scholarship and meet in person two or more times.

# **Eligibility Criteria**

The Foundation only accepts proposals from institutions with United States 501(c)(3) status or the international equivalent.

## Value Notes

Grants are typically capped at \$25,000 with exceptions made only for unusual circumstances.

## Restrictions

All visual art categories are eligible except architecture, performance art, and commercial film/animation. The Foundation favours programmes that place objects and practices in an art historical perspective.

Grants are not made to individuals and public programmes, travel grants, fellowship programmes, research databases, programmes designed for non-academic audiences, capital expenditures, and programmes focused on architecture, conservation, or film are not eligible for funding.

## Terms and Conditions

Applications will be assessed on criteria such as objectives of proposed project and need and audience it addresses.

#### **Previous Successes**

Awards already made include:

- St. Louis University for 'Cold Atlantic: cultural war, dissident artistic practices, networks, and contact zones at the time of the Iron Curtain'.
- University of St. Andrews for the two-day conference 'In and out of American art: between provincialism and transnationalism'.
- Loyola University of Chicago for 'Framing justice: modernism and social advocacy in American visual arts and dance', a symposium focusing on social justice as a theme in American visual art and dance of the 1930s and 1940s.
- Maria Curie-Skłodowska University for 'Wordstruck: American artists as readers, writers, and literati', a conference focused on the literary and intellectual accomplishments of American artists working over many generations.
- Universität Bern for the conference 'Kunsthallen: architectures for the continuous contemporary in Europe and the US'.

## **Application Procedure**

Before submitting a formal proposal, prospective applicants submit a letter pf inquiry by the closing date of **15** March 2019.

The final deadline of submitting proposals is **17 June 2019.** 

After reviewing letters of inquiry, the Foundation may invite the submission of a formal proposal. Formal grant proposals then undergo a review process before final decisions are made by the Foundation's Board of Directors.

# **Useful links**

Academic Workshop and Symposium Grants <u>https://www.terraamericanart.org/what-we-offer/grant-fellowship-opportunities/academic-program-grants/</u>

Terra Foundation for American Art <u>https://www.terraamericanart.org/</u>

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# Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

Terra Foundation for American Art 120 East Erie Street Chicago Illinois 60611 USA Tel: +1 312 664 3939 Fax: +1 312 664 2052 E-Mail: <u>contact@terraamericanart.org</u>

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Fall 2019 Awards

Application start date:	-
Application end date:	17-06-2019

#### Summer 2020 Award

Application start date:	-
Application end date:	06-03-2020

# **UBS Optimus Foundation Grants**

Fund ID:	S11335
Status:	Open for Applications

Last updated:	Not specified
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Funding available for organisations and institutions to deliver projects focusing on three core areas for children: health, early education and child protection.

## **Fund Information**

Funding body:	UBS Optimus Foundation
Maximum value:	Discretionary
Application deadline:	None specified

## **Extended Description**

The UBS Optimus Foundation is an independent non-profit philanthropic organisation established by UBS AG in 1999. It supports high-quality, innovative, impactful projects around the world focusing on three core areas for children: health, early education and protection.

Applications for the Foundation's grants should address child health, education and/or child protection in at least one of its priority countries: Brazil, Mexico, Peru, Sierra Leone, Ghana, Ivory Coast, Liberia, South Africa, Bangladesh, China (including Hong Kong), India, Indonesia, Nepal, the Philippines, Switzerland, Germany and/or the United Kingdom. Applications should also fit with its funding focus in the areas of child health, child protection, education and/or early childhood development.

## **Eligibility Criteria**

Any organisation or institution anywhere is welcome to apply, including organisations and researchers involved in education, public health, nutrition, and the reduction of violence against children.

Applications that involve partnerships between organisations of different disciplines, and between nongovernmental organisations and universities or other research institutions are strongly encouraged.

## Value Notes

Prospective applicants should contact UBS Optimus for information about levels of funding.

## Restrictions

The Foundations does not support projects that:

- Focus solely on service or product delivery, running costs, construction, maintenance of infrastructure or equipment except as needed for the project.
- Focus solely on stand-alone scholarships, tuition, stipends, events, exhibitions, publications, films or photos except as needed to strengthen local capacities, change behaviours and/or disseminate evidence to influence policymakers and practitioners.
- Support religious or political initiatives, or promote religious and or political views.

The following topics are unlikely to be funded where the sole focus is on:

- Injury or non-communicable diseases such as diabetes, cancer, or inherited, mental health and cardiovascular conditions.
- Improving access to education.
- Child labour, child trafficking, child soldiering, or treatment and rehabilitation of violence and abuse victims.

#### **Application Procedure**

Applicants must complete the first section of the application toolkit checklist before developing a proposal. Applicants should submit proposals (in English) using the standard project application forms. Applications can be submitted at any time.

#### **Useful links**

UBS Optimus Foundation https://www.ubs.com/microsites/optimus-foundation/en.html

UBS Optimus Foundation Grants <u>https://www.ubs.com/microsites/optimus-foundation/en/driving-change/our-impact.html</u>

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

UBS Optimus Foundation Augustinerhof 1 P.O. Box CH-8098 Zürich Switzerland Tel: +41-44-237 2787

# Vaughan Williams Charitable Trust Grants

Fund ID:	S12407
Status:	Open for Applications
Last updated:	Not specified

Funding available to support the advancement anywhere in the world of the education of the public in the knowledge, understanding and appreciation of the life and works of the composer Ralph Vaughan Williams.

#### **Fund Information**

Funding body:	Vaughan Williams Charitable Trust
Maximum value:	Discretionary
Application deadline:	None specified

## **Extended Description**

The Vaughan Williams Charitable Trust was established by the composer's widow and became active in 2008. Its primary object is to promote knowledge about and appreciation of the life and works of Ralph Vaughan Williams and his widow, Ursula Vaughan Williams.

The Trust provides grant support in the following areas:

- Publication of hitherto unpublished works of VW or the origination by existing publishers of new scores and performing material for works already published.
- Performance of works by VW, either where they are rarely performed (particularly the operas) or where the context is special, eg local music societies or festivals.
- Recording of neglected VW works, especially the creation of DVDs of the operas.
- Research into the music of VW.
- Acquisition by public institutions of VW research material, eg autograph manuscripts or original correspondence.

# **Eligibility Criteria**

Organisations or individuals anywhere undertaking projects falling within the Trust's policy can apply.

#### Value Notes

No award values are given and applicants should contact the Trust regarding this.

## **Application Procedure**

Applications covering the areas of information indicated on the grant webpage should be sent to Hugh Cobbe, Director of the Trust. Trustees' meetings normally take place twice a year, in June and December, however most applications for grants can be dealt with soon after receipt.

Applicants are informed of the decision on their application as soon as possible.

## **Useful links**

Vaughan Williams Grants http://www.vwct.org.uk/grants.html

Vaughan Williams Charitable Trust http://www.vwct.org.uk/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

Vaughan Williams Charitable Trust Fox House North End Newbury Berkshire RG20 0AY Fax: 01635 253191 E-Mail: <u>vwct@hughcobbe.com</u>

# Visegrad Standard Grants

Fund ID:	S8416
Status:	Open for Applications
Last updated:	Not specified

Funding available to support research into developing and promoting cooperation between the Visegrad Group (V4) countries - Czech Republic, Hungary, Poland and Slovakia - and strengthen ties among peo-ple in the region and other countries, especially in the Western Balkan and Eastern Partnership regions.

## **Fund Information**

Funding body:	International Visegrad Fund
Maximum value:	Discretionary
Application deadline:	01-06-2019

# **Extended Description**

The International Visegrad Fund was formed in 2000 to advocate the devel-op-ment of closer coop-er-a-tion among the Visegrad Group (V4) countries - namely Czech Republic, Hungary, Poland and Slovakia - and to strengthen the ties among peo-ple in the Western Balkan and Eastern Partnership regions.

Visegrad grants support regional partnerships among NGOs and civil society organisations, public institutions and municipalities, private companies and non-profit organisations as well as education and research centres that contribute to co-operation in the Visegrad region. Projects must address one of the objectives of the grant programme from one of seven focus areas eligible for funding which are:

- Culture and common identity.
- Education and capacity building.
- Innovation, R&D, entrepreneurship.
- Democratic values and the media.
- Public policy and institutional partnership.
- Regional development, environment and tourism.
- Social development.

## **Eligibility Criteria**

Applications are invited from individuals and organisations worldwide such as non-governmental and civil soci-ety orga-ni-sa-tions (NGOs and CSOs), munic-i-pal-i-ties, universities, schools and other pub-lic insti-tu-tions.

Projects must develop meaningful co-operation and active participation of organisations from at least three V4 countries. Cross-border projects between two neighbouring V4 countries qualify for support but must develop co-operation of organisations from two V4 countries.

#### **Value Notes**

Grants can cover up to 100% of project budget with 15% for overheads. Maximum duration of project implementation is 18 months.

## **Match Funding Restrictions**

Applicants are strongly encouraged to find additional support such as own or partner financial contributions or in-kind contributions.

#### Restrictions

State administration institutions cannot apply, nor can they be con-sid-ered valid project partners, for example: insti-tu-tions of state administration, ministries, embassies or cul-tural insti-tutes.

#### **Previous Successes**

A list of previously funded grants is available from the website. Examples include:

- Communicating Europe Making the EU understandable.
- Stronger Voices for Independent Media in the Eastern Ukraine.
- Urban climate in Central European cities and global climate change.
- Pragmatism and Democracy in the V4 Countries.
- Visegrad Festival of Literature.
- Empower society for strengthening good governance.

#### **Application Procedure**

Applicants can submit project proposals via My Visegrad which opens 30 days before the deadlines of **1 February, 1 June and 1 October each year.** 

#### **Useful links**

Visegrad Fund Homepage <u>http://visegradfund.org/home/</u>

Visegrad Grants http://visegradfund.org/grants/standard-grants/

#### Addresses and contacts

For further information on how to obtain this grant locally, please contact the following:

International Visegrad Fund Hviezdoslavovo námestie 9 811 02 Bratislava Slovakia Tel: +421 259 203 803/807/810/812/814/816 Fax: +421 259 203 805 E-Mail: <u>visegradfund@visegradfund.org</u>

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Second 2019 Application Deadline

Application start date:	-
Application end date:	01-06-2019

#### Third 2019 Application Deadline

Application start date:	-
Application end date:	01-10-2019

# Visegrad Strategic Grants

Fund ID:	S12269
Status:	Open for Applications
Last updated:	Not specified

Funding available to individuals or institutions from all the Visegrad Group (V4) countries to support research in line with the current strategic priorities.

#### **Fund Information**

Funding body:	International Visegrad Fund
Maximum value:	Discretionary
Application deadline:	01-06-2019

## **Extended Description**

The International Visegrad Fund was formed in 2000 to advocate the devel-op-ment of closer coop-er-a-tion among the Visegrad Group (V4) countries - namely Czech Republic, Hungary, Poland and Slovakia - and to strengthen the ties among peo-ple in the region especially in the Western Balkan and Eastern Partnership regions.

Visegrad Strategic Grants support projects addressing annual strategic priorities of the Visegrad Group. Strategic priorities are announced annually by the V4 country holding the rotating presidency over the group.

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The strategic priorities are:

- Sustainability of ideals from 1989
  - Projects focusing on V4 experiences with transformations to democracies and market economy; and on developments in V4 30 years after the fall of the Iron Curtain in Central Europe, including the development of V4 cooperation.
- 15+ Years of the V4 in the EU
  - Projects focusing on positive contributions of the V4 to the future of the EU.
- New impetus to the Eastern Partnership and EU enlargement (Western Balkans)
  - Projects focusing on transferring the V4 experiences to the EaP and WB regions; particularly on V4 support to the enlargement policy and pro-enlargement sentiment in the EU and in the WB region.

# **Eligibility Criteria**

Applications may be made by experienced individuals and organisations worldwide such as non-governmental and civil soci-ety orga-ni-sa-tions (NGOs and CSOs), munic-i-pal-i-ties, universities, schools and other pub-lic insti-tu-tions. Projects must develop meaningful co-operation and ensure active participation of organisations from all V4 countries.

#### Value Notes

Grants cover up to 100% of project budget with 15% for overheads. Maximum duration of projects is 36 months, minimum 12 months.

## Match Funding Restrictions

Projects can be funded up to 70% of its total cost. Applicants are encouraged to find the remaining 30% from other financial sources, such as own or partner financial contributions or in-kind contributions.

#### Restrictions

State administration institutions cannot apply, nor can they be con-sid-ered valid project partners, for example: insti-tu-tions of state administration, ministries, embassies or cul-tural insti-tutes.

#### **Previous Successes**

Approved project proposals include:

- Information warfare in the Internet. Exposing and countering pro-Kremlin disinformation in the CEEC.
- Central Values Common Heritage in Contemporary Central European Design.
- V4NIEM: Visegrad Countries National Integration Evaluation Mechanism.
- V4+ Security- Strengthening the Eastern Frontier of the V4.
- The migration through the lens of gender and art.
- Visegrad Heritage on the Horizon.

# **Application Procedure**

Applicants can submit project proposals via My Visegrad which opens 30 days before the deadlines of **1 February**, **1 June and 1 October each year**.

#### **Useful links**

Visegrad Fund Homepage <a href="http://visegradfund.org/home/">http://visegradfund.org/home/</a>

Visegrad Strategic Grants http://visegradfund.org/grants/strategic-grants/

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

International Visegrad Fund Hviezdoslavovo námestie 9 811 02 Bratislava Slovakia Tel: +421 259 203 803/807/810/812/814/816 Fax: +421 259 203 805 E-Mail: <u>visegradfund@visegradfund.org</u>

## **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### Second 2019 Application Deadline

Application start date:	-
Application end date:	01-06-2019

#### Third 2019 Application Deadline

Application start date:	-
Application end date:	01-10-2019

# WADA Social Science Research Grant Programme

Fund ID:	S5609
Status:	Open for Applications
Last updated:	Not specified

Support for social science research projects that will inform more effective doping prevention strategies within the field of sports.

## **Fund Information**

Funding body:	World Anti-Doping Agency (WADA)
Maximum value:	Discretionary
Application deadline:	14-07-2019

## **Extended Description**

The World Anti-Doping Agency (WADA) is an international independent agency composed and funded equally by the sport movement and governments of the world. Its key activities include scientific research, education, development of anti-doping capacities, and monitoring of the World Anti-Doping Code.

As increasing and enhancing research-led anti-doping education is one of WADA's strategic priorities, WADA's Education Committee is tasked with identifying relevant areas of social science research in the field of antidoping to inform more effective doping prevention strategies. WADA-supported research requires that antidoping education programmes and initiatives are grounded in scientific knowledge and evidence. Proposals are invited for research that specifically 'measure the effectiveness of existing anti-doping strategies and interventions for athletes and support personnel'.

WADA seeks to expand the portfolio of social science research to include a diverse range encompassing, amongst other things, work based on single social science disciplines, research which combines disciplinary approaches, research focused on advancing scientific theory, and research aimed principally at developing practical applications. Proposals that demonstrate partnerships and collaboration between research institutions and anti-doping organisations are looked on favourably and interdisciplinary proposals drawing from multiple social science fields (eg sociology, psychology, law, economics, and management science) are

encouraged. Research projects that examine cultural differences and/or regional perspectives are particularly appealing. Extra weighting is also given to projects involving more than one country. WADA is keen to support research that is ambitious and has the potential for high impact in preventing doping in sport.

# **Eligibility Criteria**

Applications are invited from organisations of all types (universities, businesses, not for profit organisations etc).

#### Value Notes

WADA is willing to award funding in excess of \$100,000 where applications can clearly demonstrate that the research project builds on an established programme of research.

Applicants can request funding for a period of up to three years.

# **Match Funding Restrictions**

Projects partly funded from other sources will be viewed favourably.

#### Restrictions

Projects already receiving funds from any other research grant programme may not submit expenses already submitted under such other programmes.

#### **Previous Successes**

Projects funded include:

- Digital pathways to Doping: an innovative netnographic approach on the use of untested supplements and the underlying cheating culture.
- Enhancing Attention and Recall of Doping Prevention Messages by Testing the Influence of Adolescent Athletes' Perceived Vulnerability to Doping.
- Gender Outcomes in Using Brief Motivational Interventions (BMIs) on Shaping Beliefs and Attitudes towards Doping for Athletes in Secondary Schools.
- Examining the Role of Personal Ethics in Athlete and Stakeholder Perceptions of Anti-Doping.
- Understanding and influencing global coach anti-doping education through the development of an International Framework.
- Using the influence of coaches, parents, and peers on adolescent elite athletes' doping cognitions to enhance doping prevention effectiveness.

## **Application Procedure**

Proposals must bes ubmitted online by the closing date of **14 July 2019**.

# **Useful links**

Social Science Research Programme https://www.wada-ama.org/en/social-science-research

WADA Grants Application Webpage <u>https://grants.wada-ama.org/education/home</u>

World Anti-Doping Agency (WADA) <u>http://www.wada-ama.org/en/</u>

#### **Addresses and contacts**

For further information on how to obtain this grant locally, please contact the following:

World Anti-Doping Agency (WADA) Stock Exchange Tower 800 Place Victoria (Suite 1700) P.O. Box 120 Montreal (Quebec) H4Z 1B7 Canada Tel: +1 514 904 9232 Fax: +1 514 904 8650

#### **Calls and deadlines**

Information on future calls is indicative only and may be subject to change.

#### 2019 Application Deadline

Application start date:	-
Application end date:	14-07-2019

#### Kontakt

TU Dresden Dezernat Forschung 01062 Dresden

www.tu-dresden.de/forschung-transfer

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