

# Lessons learned from the coordination of an Initial Training Network (ITN)

“BioTiNet”

Academic-Industrial Initial Training Network on Innovative  
Biocompatible Titanium-based Structures for Orthopaedics

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Thanks to: Jürgen Eckert, Birgit Benz, Annet Gebert, Denise Beitelschmidt,  
Judith Kalkstein, Jana Friebel, Varvara Efimova, BioTiNet Consortium

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[www.ifw-dresden.de](http://www.ifw-dresden.de)

# Project overview

- **Duration** → 48 months → 1.January 2011 – 31.December 2014

- **Budget (EC): 3.5 Mil. €**



496 person months (PM)

12 ESRs + 6 ERs

- **Consortium** → 12 full partners



10 from academia (univ. + institutes)

2 industrial partners

→ 5 assoc. part.

end-users, industry & private comp., hospitals



**11 European countries**



# Why BioTiNet?

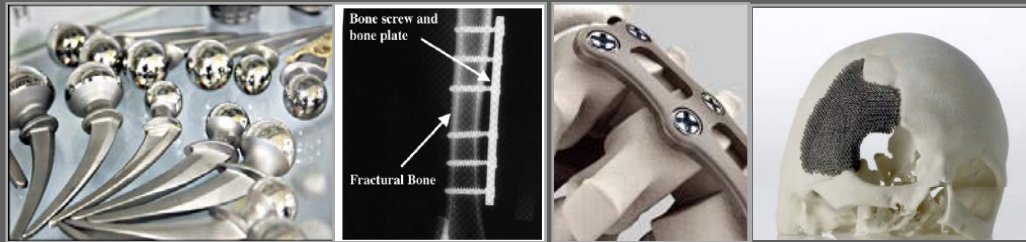
Commercial orthopaedic materials → serious problems of safety and long-term durability in the human body, resulting in repeat surgical operations

medical device industry

clinics

patients

Critical need for reinforcing research in load-bearing orthopaedic implants



Metallic biomaterials with improved performances!

# BioTiNet ITN - Overall goals



## basic principles:

- Focus on the career development of individual researchers
- Support transnational mobility of researchers



- Knowledge-based biocompatible low-stiffness Ti-base materials
- Highly skilled young scientists → biomedical materials field



## BioTiNet interdisciplinarity

- Structural design & physical metallurgy
- Innovative processing
- Material response under mechanical loading
- Functional interfaces between Ti-materials and bone
- Biosystem-metal interactions (biocompatibility stud.)

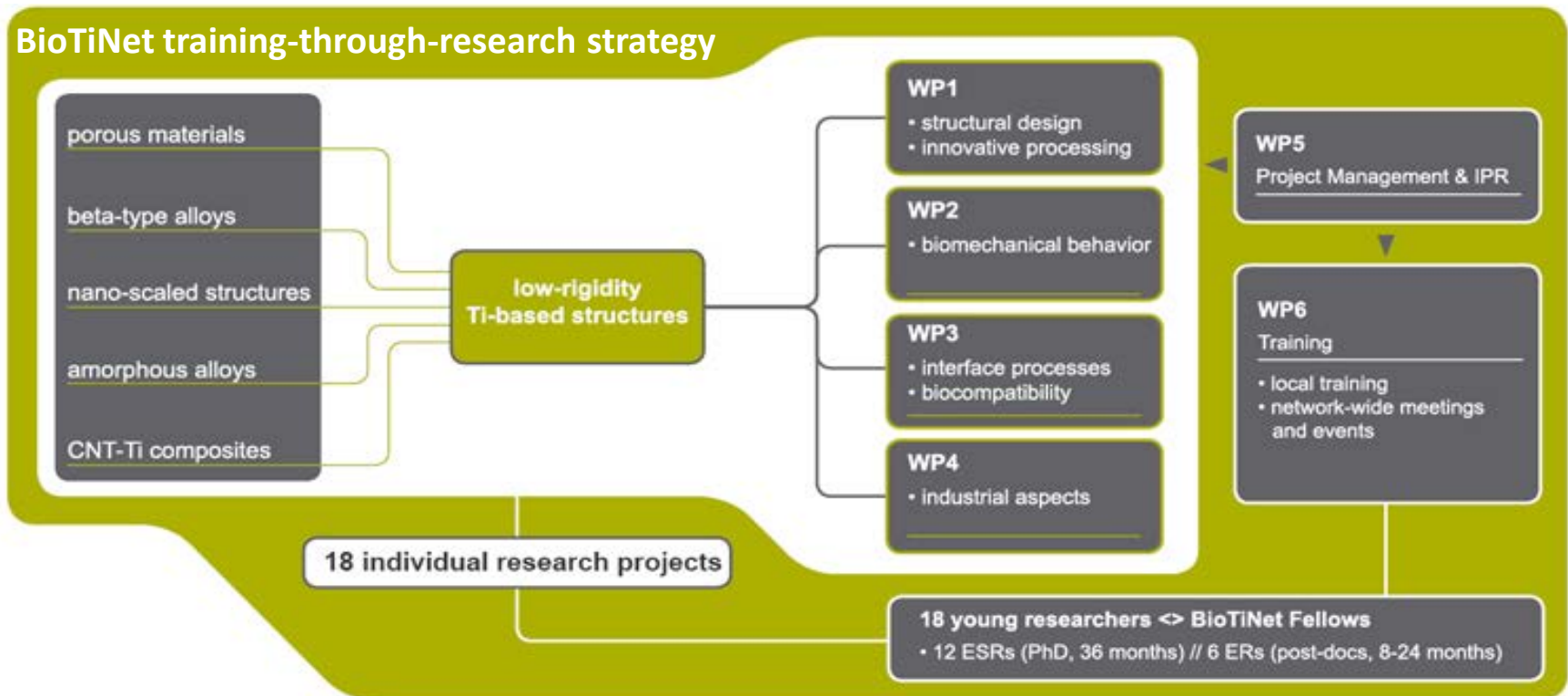


- **Materials Sci. & Eng.**
- **Physics**
- **Chemistry**
- **Mechanical Eng.**
- **Medical Eng.**
- **Microbiology**

# The Work Plan

- 6 Work packages (WP)**
- 4 research WPs → 496 person months → 12 ESRs + 6 ERs
  - 1 management & IPR
  - 1 training

## BioTiNet training-through-research strategy



# Plan your proposal

## Research Idea

- **Select an “interesting” research topic/idea:**

→ be focused on an applied problem  
(...in an specific field, e.g. in medicine...)

- ❖ **Multi-disciplinarity**
- ❖ **Innovative aspect**

- **Read & understand the Call/ITN purpose**

- **Check your topic in the projects data base of EC – funded projects**

→ no overlap with other (already) EC-financed projects

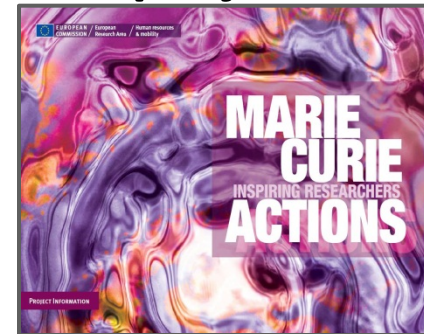
- **Visit (many) websites of other ITNs**

→ get a feeling of ‘project on work’  
→ become familiar with the ITNs

- **Visit the websites of international conferences in your research topic**

→ identify the ‘hot’ topics in the field  
→ look at the ‘sessions’ structure & participants

(multi-disciplinarity, complementarities,....countries, names, institutions...)





# Plan your proposal (contd.)

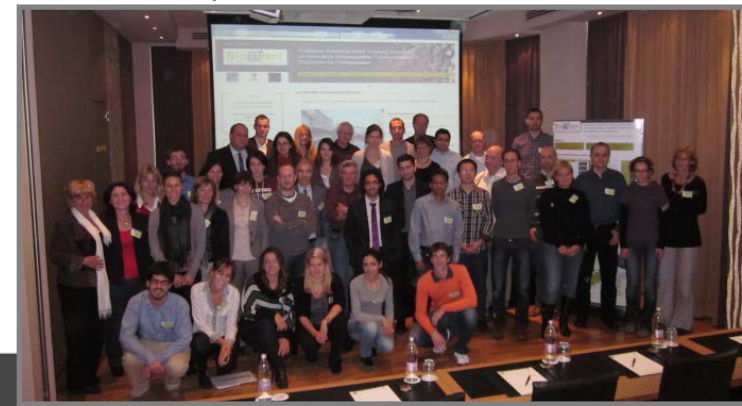
## ■ **‘Hot’ topic / innovative research idea**

→ the proposed work is a progress in the state-of-the-art

## ■ **Partners Selection**

→ quality of the Network is important!

- scientific excellence
- complementarity in research tasks
- different sectors of activity (academia vs industry, public vs. private)
- good geographical & ‘political’ distribution  
(North-South vs East-West; ‘old’ vs ‘new’ EU members)
- experience in EU projects
- existing collaborations between partners
- good gender balance (...PIs)
- max. 10-12 full partners / beneficiaries.



# Plan your proposal (contd.)

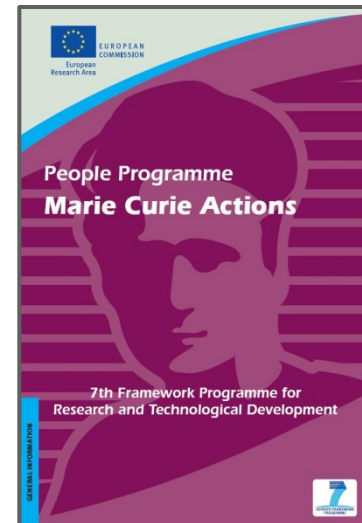
...but 'great science' alone is not enough...

## ■ Why should your proposal be funded?

...who needs your research effort/work?...insert your 'hot' research idea into the **EU research landscape**.....know the industries that can be positively impacted by this work...connection with **European society needs** ...official EU documents & statistical data ... **added value for the EU**)

## First steps...

- Write 1-2 page draft with the proposal research strategy to send to potential partners to win them for the project
- Explain why & how teams will complement each other
- Make sure you agree early who will contribute what to the proposal
- One contact person per partner → avoid chaotic exchange of info
- Ideally, set up a timetable and have everyone agree it.





# Proposal preparation & writing

Be sure that you are working with the actual documents of the Call  
(Call Fiche, Guide for Applicants, Work programme)

## ■ Part B → ITN proposal

- follow strictly the guidelines (chapter structure, contents, font size, requested tables, etc.)

## ■ Clear, self-explainable proposal title

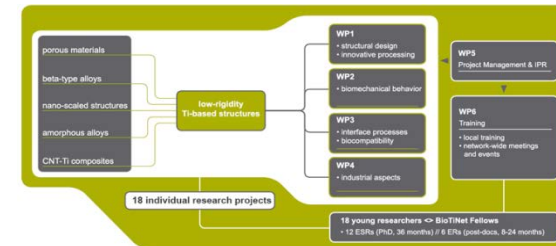
## ■ First 1-2 pages of Part B → make clear from the beginning what's about in your proposal

- main objectives, research areas, who needs your research effort, why this Network
- some statistics, concrete evidence stating why the problem needs to be solved
- underline the inter-disciplinary aspects → excellent for training young scientists

## ■ S & T Quality

- clearly formulate the problem and put it in context of contemporary scientific and theoretical debates → the proposed research work is a progress in the state-of-the-art
- give references stating that the problem addressed in the proposal needs to be solved
- add relevant 'nice' figures, diagrams, schemes
- 'convincible' list of references (including partners' publications).

# Proposal preparation & writing (contd.)



## ■ Research plan

- Innovative, ambitious, but realistic
- Contains experimental and theoretical components
- Not too many WPs → multi-partner WPs, inter-disciplinarity, complementarity
- Keep the plan simple and clear (objectives, tasks, partners involved, milestones, individual projects of fellows, person-months, supervising arrangements... )

## ■ Training

**You have to clearly demonstrate the training capacity of the Network!**

- Separate WP → Good match between Research and Training program
- Key skills vs. complementary skills (give examples.... table form)
- Convincible, credible, well structured and organized
- Explain how partners will complement each other, role of associated partners
- Network-wide and local training events → give as many details as possible: training event title/topic, organizer, place, period, draft agenda, participants (table form)

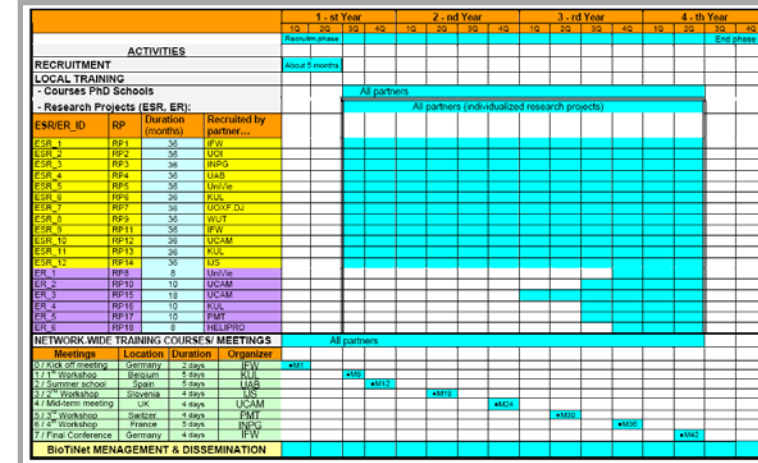
**... No need to reinvent the wheel!...visit the websites of other ITNs**

-summer schools, workshops, events organized by the industrial partners-

# Proposal preparation & writing (contd.)

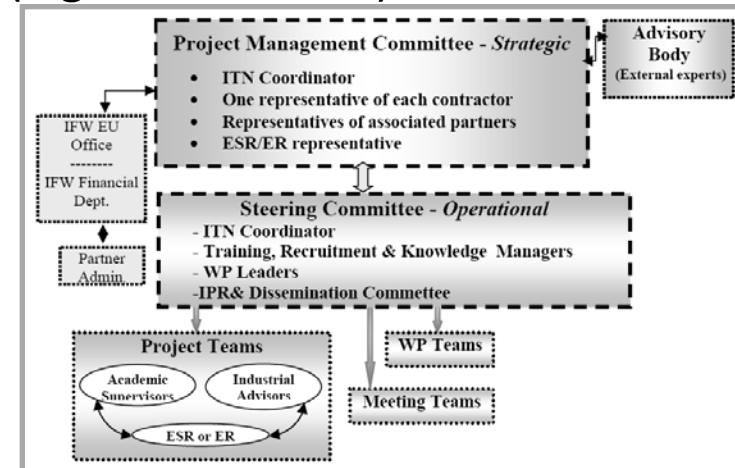
## Implementation

- Careful Planning of WPs, deliverables, milestones (table form)
- Ganutt diagram
- Underline the complementarities and synergy among partners



## Organisation & Management structure

- Separate WP (including IPR management and dissemination)
- Clear and convincing management structure (Fig. + table form)
- Identify any sensitive issues or potential problems which need to be addressed (risk management plan)
- IPR & Knowledge management
- Dissemination plan
- Explain the recruitment strategy
- Good gender balance



# Proposal preparation & writing (contd.)

## ■ Organisation & Management structure (contd.)

- Plan carefully the budget → agree a budget (Person Months) early on (this avoids misunderstandings later)
- Make sure the proposal text reflects the budget and vice versa
- Experience in EU project management of the coordinating institution  
→ support & help from the **EU office of IFW Dresden**: B. Benz., J. Kalkstein, J. Friebel  
→ make use of the help you're being offered from the **Contact National Point**

## ■ Impact

→ very important, often underestimated!

- Overall impact of the proposal
- Benefits to the ITN fellows
- Benefits to participating institutions
- Benefits to the European level and European Research Area



## ...instead of Conclusions...

- **ITN proposals are extremely time consuming** → Start drafting the proposal even before *the Call* is published (info from **National Contact Points, EU offices at your own institution**)
- Partner selection → scientific excellence, complementarity
- Check carefully the evaluation criteria
  - Follow rigorously the guidelines and templates (max no. of pages, indication of length of sections, recommended font size, tables...) → These requirements are inflexible!
  - Some preparatory measures and administrative work (on-line forms in the *Participant Portal*) are required → fill in the admin. forms well in advance
  - Avoid chaotic exchange of information within Consortium → Involve the partners for certain proposal's sections → use templates to make your life 'easier' and give deadlines
- Do not be focused on the technical part (science) only
- Keep the research & training plan simple and clear
- Make the proposal 'attractive' → clear and concise structured, well organized, containing 'eye catchers' (figures, diagrams, schemes...)
- Make it easy for the evaluators to find the information in the proposal
- Do not submit the proposal too close to the deadline!





[www.biotinet.eu](http://www.biotinet.eu)

**NEWS**

- **BioTiNet Winter School**  
25.02.-01.03.14  
in Austria
- **4th BioTiNet Workshop**  
26.-28.06.13  
in Switzerland

[Recent updates >](#)

**VACANCIES**

All positions are currently filled.

**Welcome to BioTiNet**

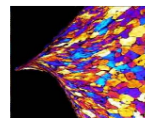
**BioTiNet** is a Marie Curie Initial Training Network (ITN) for early-stage researchers (ESR) and experienced researchers (ER) funded by the European Commission under the FP7 - "People" Programme. The start date for the 4-year project is January 1. 2011 (G.A. no. 264635).

The project provides [research](#) and [training](#) opportunities for [18 young researchers/fellows](#) in the field of biomedical materials, with special emphasis on the development of advanced low-rigidity Titanium-based structures for orthopaedic use. This involves both multi-disciplinary scientific training, secondments in both academia and industry, and courses in complementary ("soft") skills.

**BioTiNet** conducts its own research, which addresses high-level questions in the area of Materials Science and Engineering, Nanostructures, Laser-Assisted Rapid Manufacturing, Skeletal Surface Science and Microbiology.

This Network comprises [12 Full Partners](#) and [5 Associated](#) (Germany, France, Belgium, Austria, UK, Poland, Greece, Slovenia).

Questions regarding the **BioTiNet** project can be addressed here.



**Thank you!**