

What a TSO can do and needs for Green Europe in 2050

Enerday Dresden - 9 April 2021

Christian Dobelke

Lead European Regulation, TenneT TSO GmbH

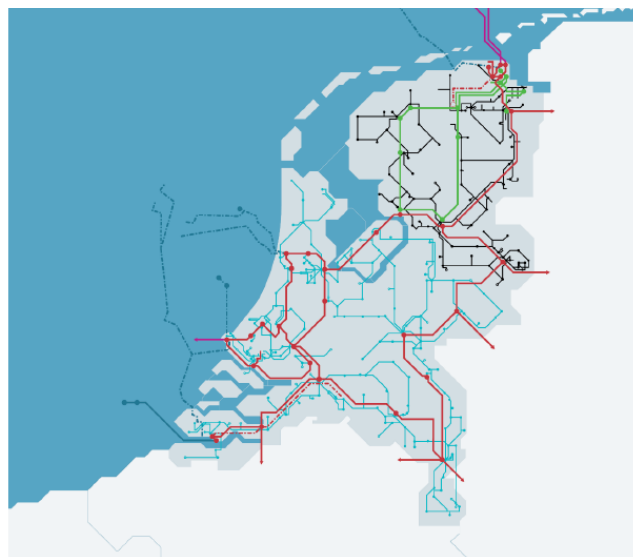


TenneT at a Glance

The Netherlands

Facts & figures

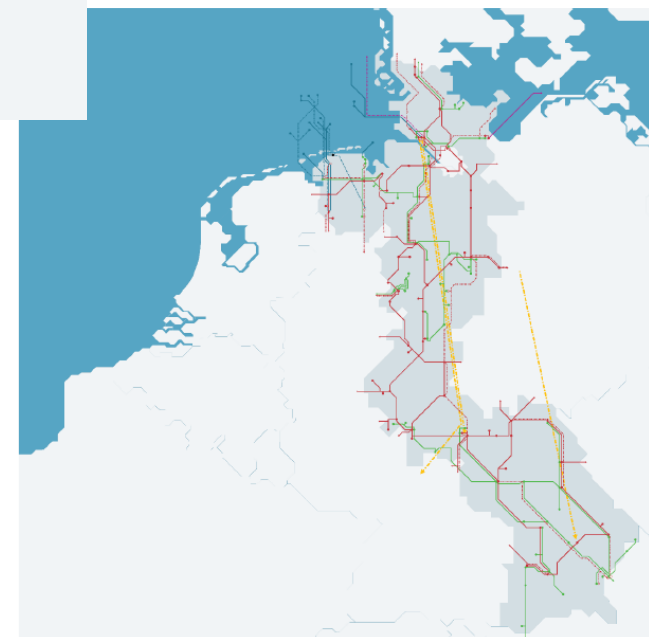
- Employees 2,827
- Assets € 7,790 bn
- Total grid length 10,874 km
- Transformer substations 335
- Number of end-users 17 million



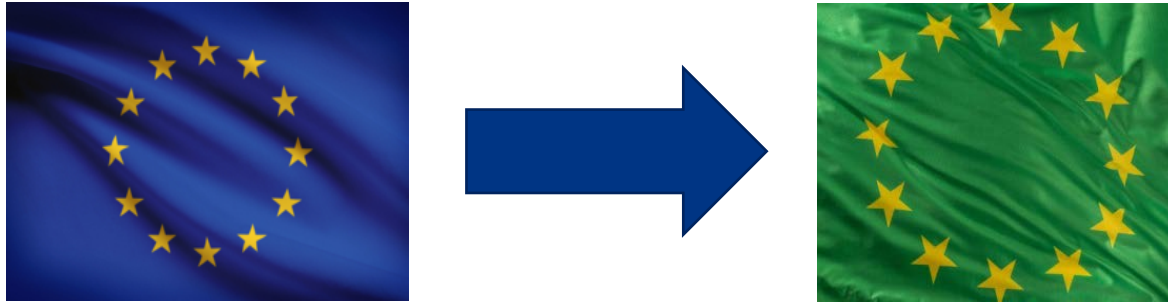
Germany

Facts & figures

- Employees 2,865
- Assets € 19,637 bn
- Total grid length 12,992 km
- Transformer substations 135
- Number of end-users 25 million



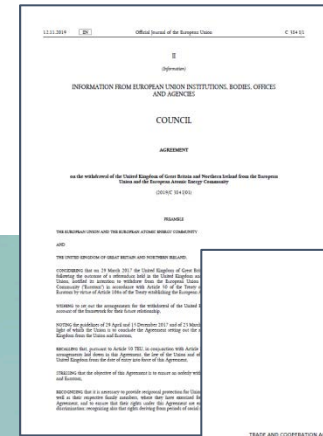
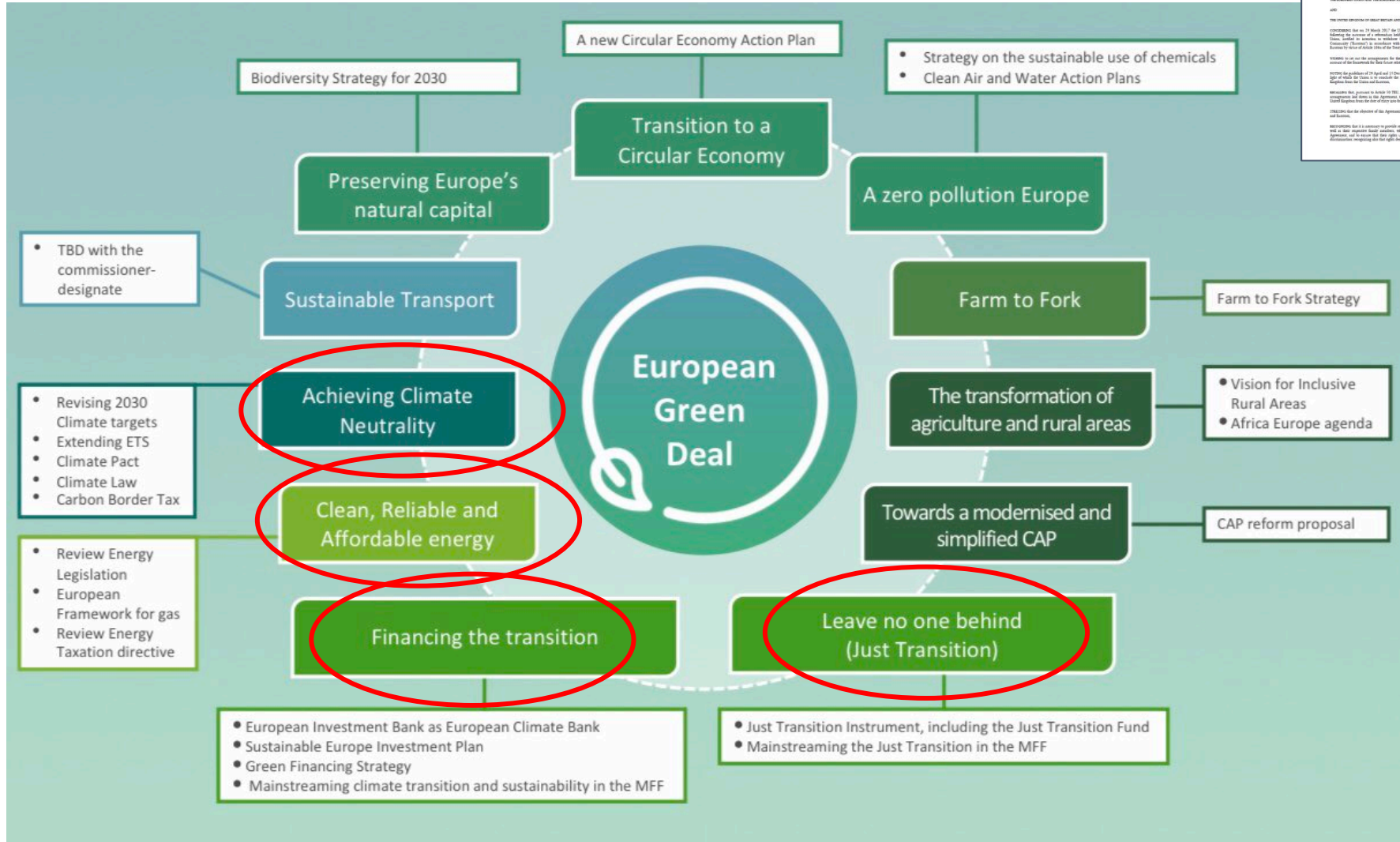
The European Green Deal



- **CO₂ reduction** not only 40%, but **55%** until 2030 (based on 1990)
- **Zero net CO₂ emissions in year 2050** (EC on 11 Dec 2019)
- **Green Deal is a policy agenda**
- **Green Deal implementation is amending of existing laws and regulation.**

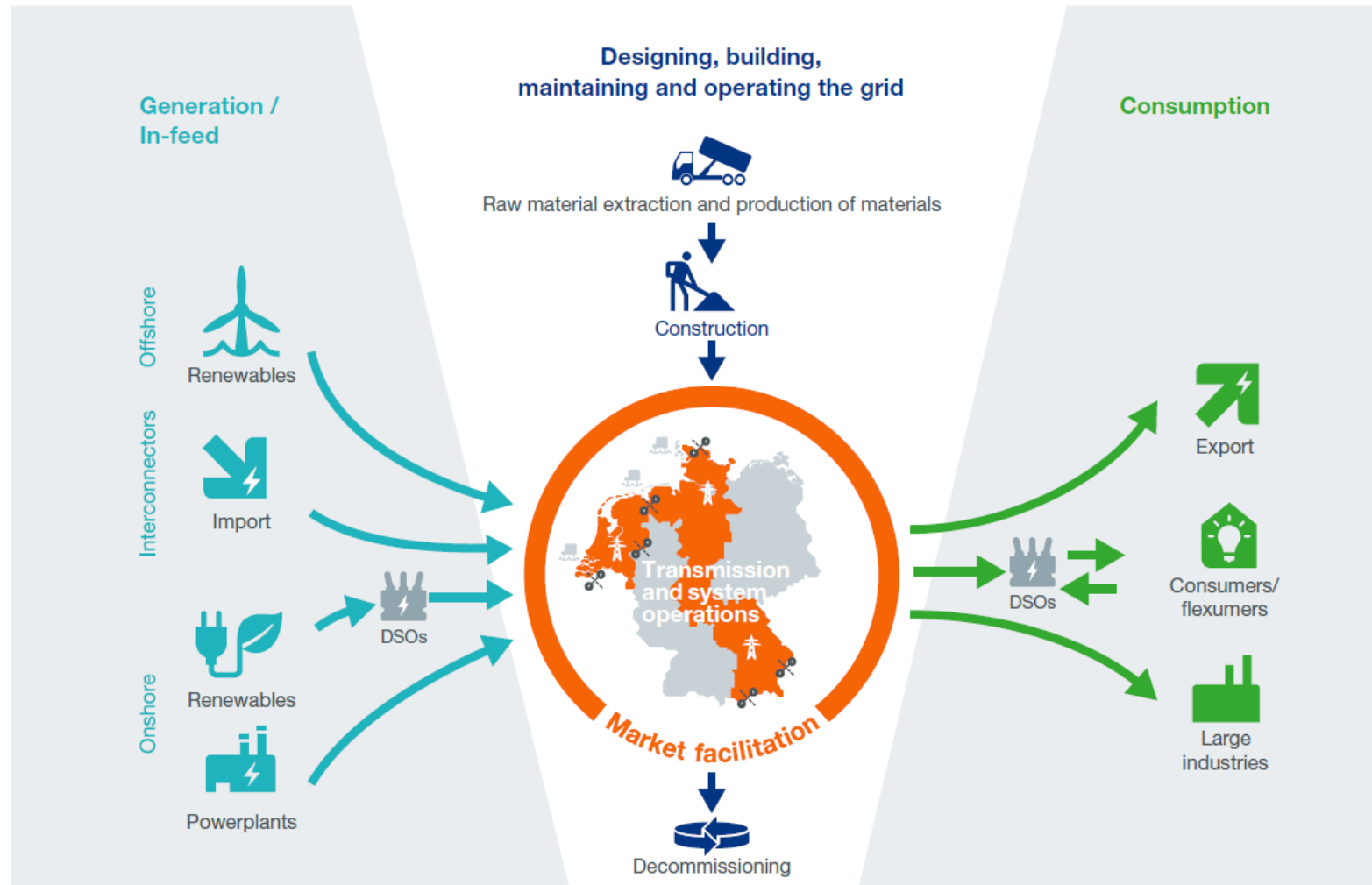


The European Green Deal – What's in it?



Where a TSO can act towards Green Europe in 2050

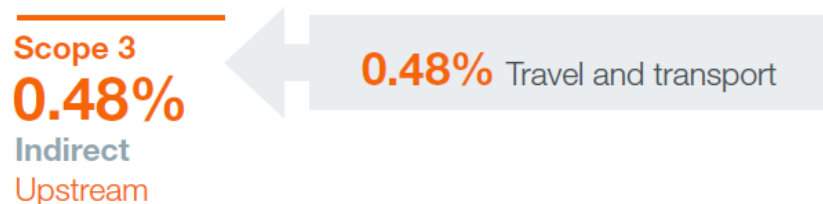
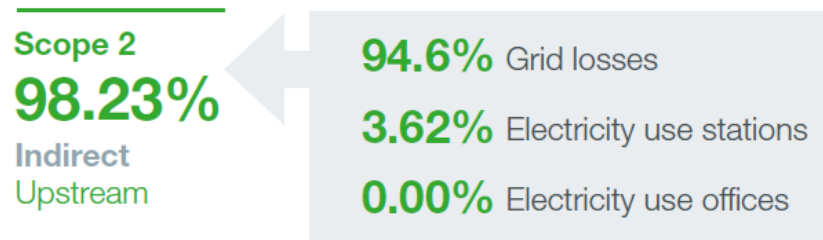
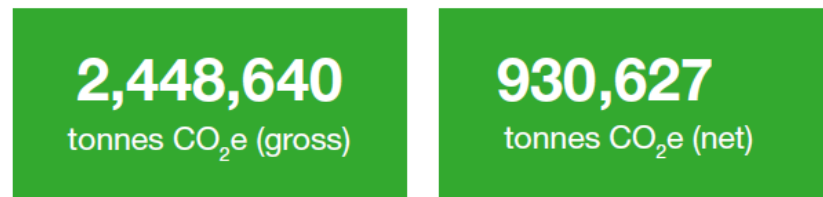
TenneT in the supply chain



A range of direct and indirect possibilities along the supply chain

Our Direct Influence

Carbon footprint



Our performance in 2020

Climate	Performance	Target	Status
	CO ₂ footprint of our substations, offices and mobility (net emission in tonnes of CO ₂)	Climate neutral in 2025 ^{1,2}	
Circularity	Performance	Target	Status
	<ul style="list-style-type: none"> Reduction of virgin copper use Reduction of non-recyclable waste 	25% reduction in 2025 ^{3,4}	
Nature	Performance	Target	Status
	<ul style="list-style-type: none"> (Net) impact on nature Environmental incidents 	Zero impact on nature in 2020	

Source: Annual Report 2020

The Broader Picture – and the Greater Influence

- Build transport infrastructure for CO₂ – free energy: link regions and countries, on- and off-shore (savings: 9.8MT/y in ‘green portfolio’)
- Support and drive the technical and market opportunities to have more flexibility in the grid, thus integrating more intermitting energy infeed
- Suggest improvements of legal and regulatory framework, including changes of paradigm – make CO₂ the currency of the future
- Design the future energy system notably on system integration / sector coupling and hydrogen
- Develop green finance market via i.e. green bonds – help others invest in green projects



In a Nutshell (and from a Regulatory View): What a TSO needs for Green Europe in 2050

- Close international cooperation
- Regulatory system that rewards innovation
- Stable regulatory framework with appropriate remuneration

**Thank you very much for your
attention!**

christian.dobelke@tennet.eu



Disclaimer

This PowerPoint presentation is offered to you by TenneT TSO B.V. ('TenneT'). The content of the presentation – including all texts, images and audio fragments – is protected by copyright laws. No part of the content of the PowerPoint presentation may be copied, unless TenneT has expressly offered possibilities to do so, and no changes whatsoever may be made to the content. TenneT endeavours to ensure the provision of correct and up-to-date information, but makes no representations regarding correctness, accuracy or completeness.

TenneT declines any and all liability for any (alleged) damage arising from this PowerPoint presentation and for any consequences of activities undertaken on the strength of data or information contained therein.

TenneT is a leading European grid operator (Transmission System Operator, TSO). We design, build, maintain and operate the high-voltage electricity grid in the Netherlands and large parts of Germany and facilitate the European energy market. We are committed to providing a secure and reliable supply of electricity, today and in the future, 24 hours a day, 365 days a year and to playing our role in driving the energy transition. We transport electricity over a network of approximately 23,500 kilometres of high-voltage connections, from wherever and however it's generated, to over 42 million end-users while keeping electricity supply and demand balanced at all times. With close to 5,000 employees, we achieve a turnover of 4.1 billion euros and a total asset value of EUR 23 billion. TenneT is one of the largest investors in national and international onshore and offshore electricity grids. TenneT makes every effort to meet the needs of society. This will require us all to take ownership, show courage and connect with each other.

www.tennet.eu