# *DOBBS WORKSHOP*
# *LJUBLJANA 21 MAY 2015*

# *STRENGTHENING PUBLIC PARTICIPATION and TRANSPARENCY in POWER GRID PLANNING*

*ROTRAUD HAENLEIN*
*GERMANWATCH e.V., Berlin, Germany*

GERMANWATCH

BEST GRID
testing better practices

# *GERMANWATCH*

- Independent development and environmental NGO
- Founded in 1991, ~ 600 members, 40 employees in Bonn /Berlin, D
- Motto: Observing. Analysing. Acting. For global equity and the preservation of livelihood

**Core issues:** Climate change, education for sustainable development, corporate accountability, world food, land use and trade


- Improve local public acceptance for grids by applying best practices in participation and transparency in pilot projects
- Speed up permitting procedures while respecting or surpassing environmental protection standards in pilot projects
- Support implementation of best practices in future electricity grid "Projects of Common Interest"

**BESTGRID pilot projects at a glance**

**UK/Belgium,** NemoLink project

**Belgium,** Stevin project

**Belgium,** Waterloo-Braine-l'Alleud

**Germany,** SuedLink project

**Germany,** Project Bertikow-Pasewalk

**Italy,** Test of communication tools for sharing good practice (TSO Terna)

# Public Participation and Transparency in Power Grid Planning

## Recommendations from the BESTGRID Project

Handbook – Part 1

GERMANWATCH

BEST GRID

testing better practices

# ***GERMANWATCH HANDBOOK.*** *OUR APPROACH*

- TRANSPARENCY: Explain the complex planning procedure
- Provide information on ISSUES of CONFLICT, such as
  - Technology (overhead line vs. underground cable; AC/ DC)
  - Electromagnetic fields
  - Compensation
  - Landscape

    → Nature protection: RSPB Birdlife
- RECOMMENDATIONS to
  - Local stakeholders
  - Grid operators
  - (Planning authorities)

GERMANWATCH

BEST GRID
testing better practices

# ***TRANSPARENT POWER GRID PLANNING.*** *Explain the procedure*

| Needs assessment<br>Level 1 | | Corridor/route planning<br>Level 2 (a two-step procedure in some countries) | | Construction and operation |
|---|---|---|---|---|
| **Scenarios** | **Grid development plan** | **Corridors** | **Detailed routes** | **Construction and operation** |
| Scenario development EU / national | Grid or network development plans | Corridors | Detailed determination of routes | |
| What are the likely future developments of electricity generation and demand? | EU (TYNDP)/ national What projects are needed? | In which corridor should the power line be built? | Which route should be determined in detail? Where will pylons (or cables) be built? | |
| | | Spatial planning | Corridor and route planning | |

Source: Germanwatch, based on BNetzA 2015[1]

***WHO should be involved WHEN and HOW?***

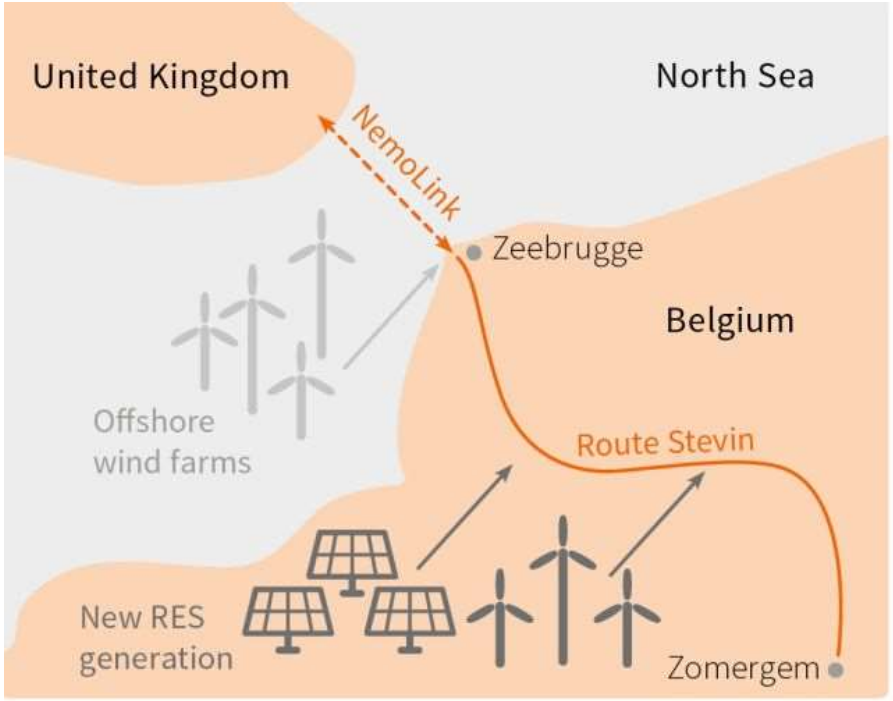
GERMANWATCH

BEST GRID
testing better practices

# ***PLANNING LEVEL I.*** *Needs assessment - project experience*

**Waterloo -Braine l'Alleud (B)**

**Stevin (B)**




Source: Germanwatch, based on Elia 2014

- **Waterloo-Braine l'Alleud**
  Power demand forecast changed and the cable was no longer deemed necessary → NGO learned to ask more intensely whether the line is needed

- **Stevin**
  Round table monitoring the planning procedure shows that even staff of the planning authorities is not fully aware of scale and scope of the Belgian National Grid Development Plan

BEST GRID
testing better practices

Source: Germanwatch, based on TenneT 2014

# ***PLANNING LEVEL I.*** *Needs assessment - project experience*

**SuedLink (D)**


Source: Germanwatch, based on TenneT 2014

## SuedLink

In spring 2014, the government of Bavaria calls for moratorium on any new transmission lines → impacts on SuedLink dialogue

Recommendation for **local** stakeholders:

- **Early engagement:** Find out about public consultations on the need for new power lines and participate early on at the appropriate level of the planning process

Recommendations for **TSOs**:

- **Involve civil society:** Find ways to involve local stakeholders early on in the need debate
- **Political support:** Cooperate with other stakeholders explaining the need (i,e, politicians)

BEST GRID
testing better practices

# **PLANNING LEVEL II.** *Corridor & route planning*

## SuedLink (D) project experience

- > 30 public dialogue events by TSO TenneT in 2014 along the corridor prioritised ("**info-marts**")
- Several changes to the proposed corridor were made based on comments received during the early dialogue
- TenneT was criticised for its pre-selection of a priority corridor
  → 17 representatives of state parliaments demanding to seriously consider alternative route options as well as underground cabling

TenneT info market 2014 / Photo: TenneT

# **PLANNING LEVEL II.** *Corridor & route planning*

## Bertikow-Pasewalk (D) project experience

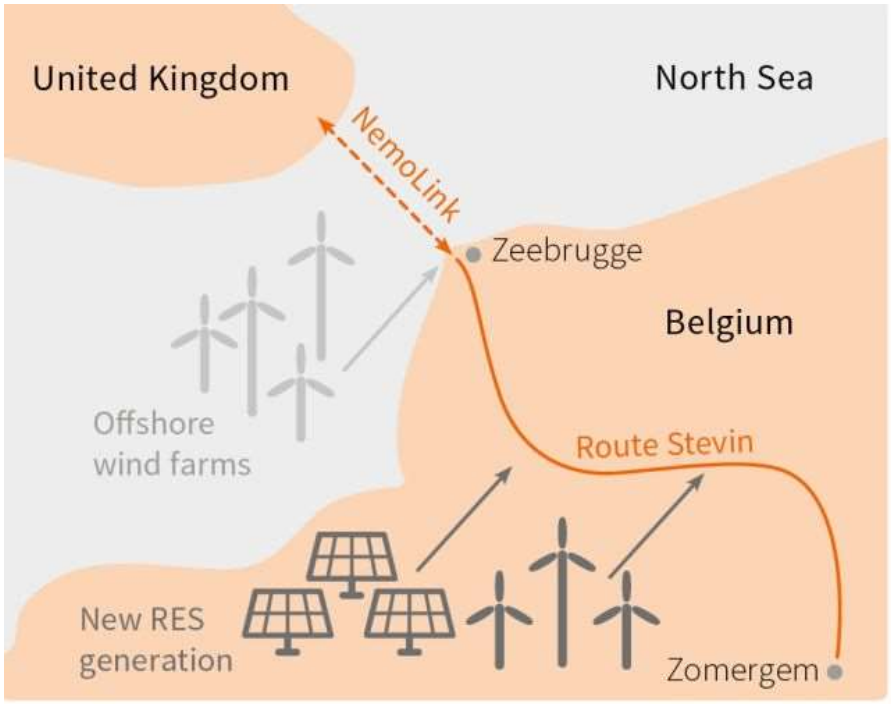
- 50Hertz mobile info bus, 10-days-tour in October 2014 visiting 2 villages a day: very good feed-back
- Accompanied by EMF expert performing on-site EMF measurements underneath existing 220kV line


50Hertz mobile info bus, 2014 / Photo: 50Hertz

# PLANNING LEVEL II. *Corridor & route planning*

**Stevin (B) project experience**

- Many public objections demanding use of underground technology
  → government decision: underground cable for 10 km out of 47 km despite Elia' s objection;
  **Problem**: dense population prevents realising a route without spanning some buildings




Source: Germanwatch, based on Elia 2014

GERMANWATCH

BEST GRID
testing better practices

# **PLANNING LEVEL II.** *Corridor & route planning*

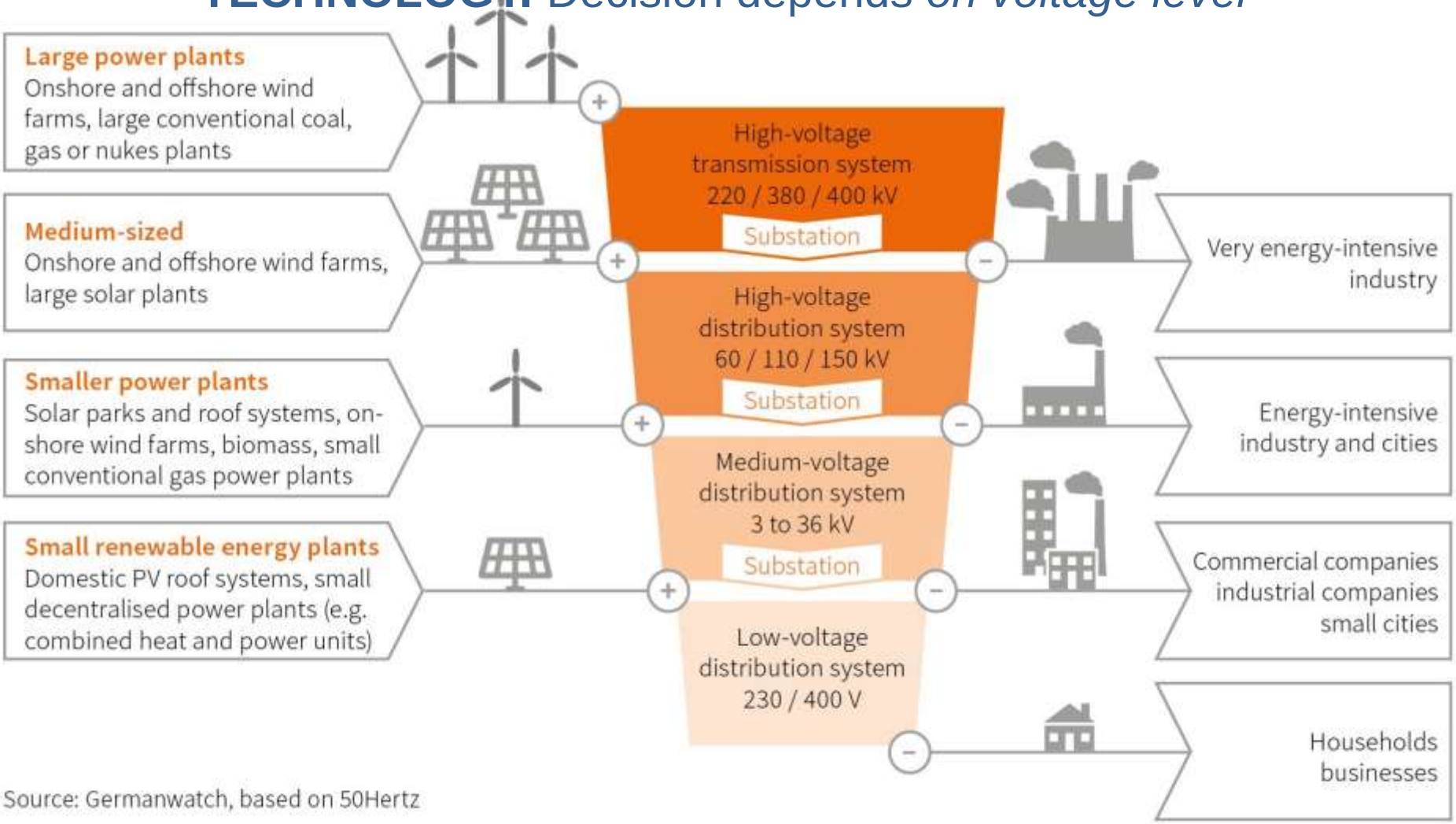
## Recommendations for **local** stakeholders:

- **Formal planning procedure:** Find out if you have the right to participate or object in the formal planning procedure and act accordingly. Try to co-ordinate with other stakeholders. Be aware there are strict deadlines for objections.
- **Informal stakeholder engagement:** Ask for additional dialogue events accompanying the formal planning process. Seize opportunities for early participation.
- **Route alternatives:** Get in touch with TSO and authorities and engage in the debate about the route finding.
- **Organise local interests**

## Recommendations for **TSOs**:

- Explain transparently what will be decided when
- **Corridor alternatives:** Give a clear explanation of the criteria used for the corridor and / or alternatives and discuss those using appropriate participation tools such as round tables
- Get directly in touch with local people

# **TECHNOLOGY.** Decision depends *on voltage level*




Source: Germanwatch, based on 50Hertz

GERMANWATCH

BEST GRID
testing better practices

# **TECHNOLOGY.** *Overhead line or underground cable?*

## Use of cable technology depends on voltage level

- **400kV (transmission grid):** Standard overhead lines
  (technical constraints and substantially higher cost at 400kV level)
  Exceptions: subsea cables and pilot projects up to 20 km length
  Less technical restrictions for underground cable technology with DC technology
- **110/150 kV (distribution network):** Mostly overhead lines, less technical restrictions, underground cables depending on soil conditions ~ double costs
- **medium / low voltage (distribution network):** In some European countries mainly underground cable, similar costs, no technical restrictions for cables

## Recommendation for **local** stakeholders:

- **Overhead lines / cables**: Find out which technology options are technically feasible and legally applicable to the project of your concern and why.

## Recommendation for **TSOs**:

- **Transparent criteria:** Explain the reasons for the technology option(s) you chose and help developing transparent criteria for the use of (partial) underground technology

GERMANWATCH

BEST GRID
testing better practices

# *LANDSCAPE & NATURE.*

*ISSUES of CONFLICT*

- Overhead lines: danger to birds
- Local concerns
  - Emotions not relevant during the planning procedure

T-pylon / Photo: National Grid

Recommendation for **local** stakeholders:

- **Reduce impact**: Get involved in the informal and / or formal planning procedure and help identify the most convenient corridor or rout e alternative

Recommendation for **TSOs**:

- **Technology**: Examine  bundling / alternative technology options to reduce visual impacts

GERMANWATCH

BEST GRID
testing better practices

# IMPRESSIONS

GERMANWATCH

BEST GRID
testing better practices

## *UP FOR DISCUSSION*

- TRANSPARENCY in POWER GRID PLANNING: How to explain the complex planning procedure?
- PROTECTION of LANDSCAPE, RESIDENTIAL AREAS and NATURE CONSERVATION: conflicting interests?
- POWER GRID PROJECTS  in SLOVENIA: Similar issues of conflict?

*DOBBS-WS*
*LJUBLJANA 21 MAY 2015*

*ROTRAUD HAENLEIN*
*GERMANWATCH e.V., Berlin, Germany*

GERMANWATCH

BEST GRID
testing better practices


GERMANWATCH


BEST
GRID
testing better practices

# ***RENEWABLES GRID INITIATIVE (RGI),*** *launched in 2009*

**Focus of electricity grid operators:**

„We need to build power grids without delay“

**Focus of NGOs:**

„We need renewable energies – whithout negative impact on nature and people“


“We want a grid built in time and in line with environmental objectives and with people’s concerns”

GERMANWATCH

BEST GRID
testing better practices

# *BEST GRID. EARLY TSO-NGO COOPERATION*

- Early advise on nature environment issues by local NGO
- Local NGOs contribute to “nature environment” stakeholder mapping
- Early roundtables with authorities and environmental stakeholders
- “Special” feature on different projects, e.g.
  - Joint authority, NGO, TSO site visit
  - NGO give input on strategic corridor management

GERMANWATCH

BEST GRID
testing better practices

# FUTURE RENEWABLE ELECTRICITY.

Recommendations for **local stakeholders**

- Keep up to date with the big picture
- How will your area be affected?

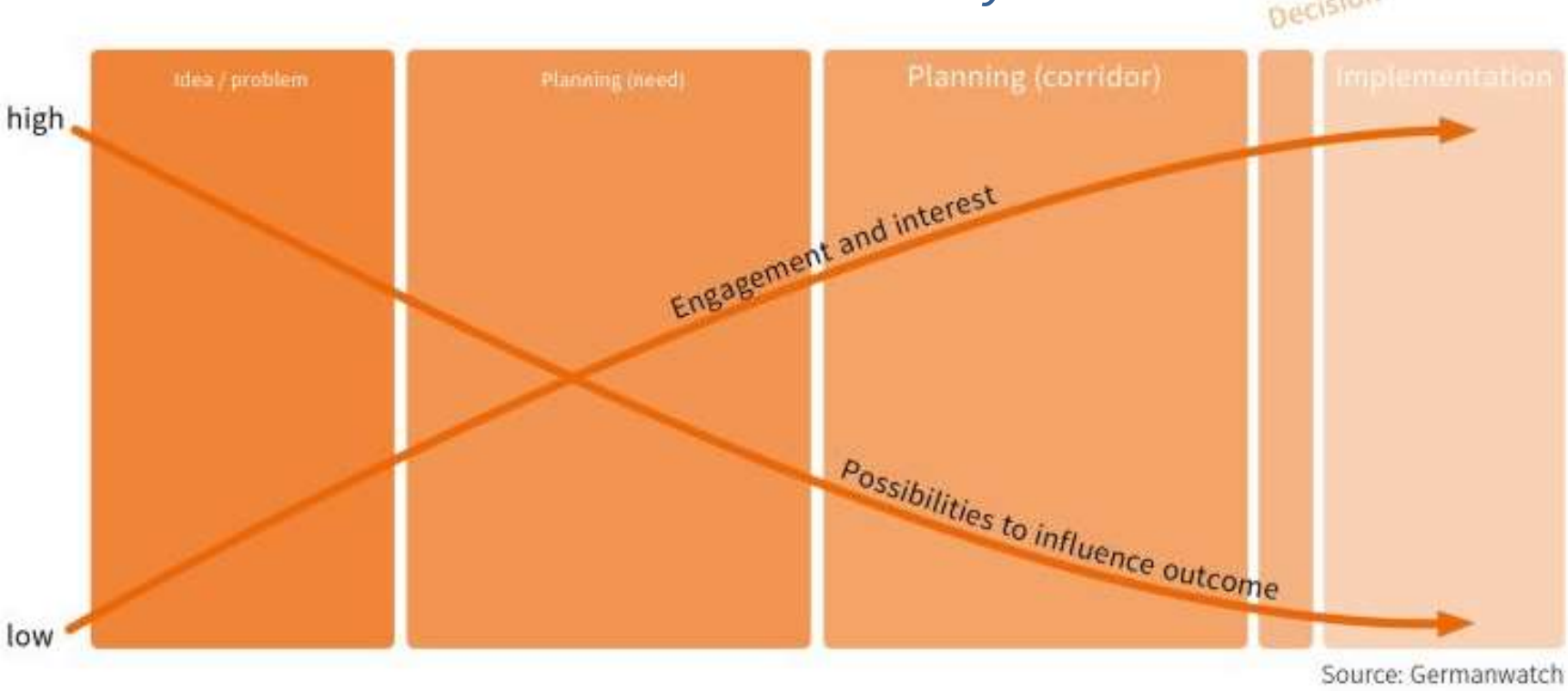
Recommendation for **TSOs**

- Transparency: Share your expertise and assumptions about the need for new power lines

GERMANWATCH

BEST GRID
testing better practices

# **PARADOX of PARTICIPATION.** *Why is it so difficult?*




Recommendation for **local** stakeholders:

- Find out how the formal procedure works and whether and when you have the right to participate. Ask for informal discussions preceding or accompanying the formal procedure

Recommendation for **TSOs**:

- Involve civil society and local stakeholders early on in the planning procedure

GERMANWATCH

BEST GRID
testing better practices

# *AGENDA*.

- GERMANWATCH, the RENEWABLES GRID INITIATIVE and BESTGRID
- STAKEHOLDER ENGAGEMENT in POWER GRID PLANNING:
  The challenge
- GERMANWATCH HANDBOOK , Part 1
  Public Participation and Transparency in Power Grid Planning

GERMANWATCH

BEST GRID
testing better practices

Renewables Grid Initiative

## EUROPEAN GRID DECLARATION

On Electricity Network Development and Nature Conservation in Europe

Renewables Grid Initiative

## EUROPEAN GRID DECLARATION

On Transparency and Public Participation

The following Declaration is an extension of the „European Grid Declaration on Electricity Network Development and Nature Conservation in Europe", signed on 10 November 2011.

GERMANWATCH

BEST GRID
testing better practices

# *THE CHALLENGE.*

The Great Transformation

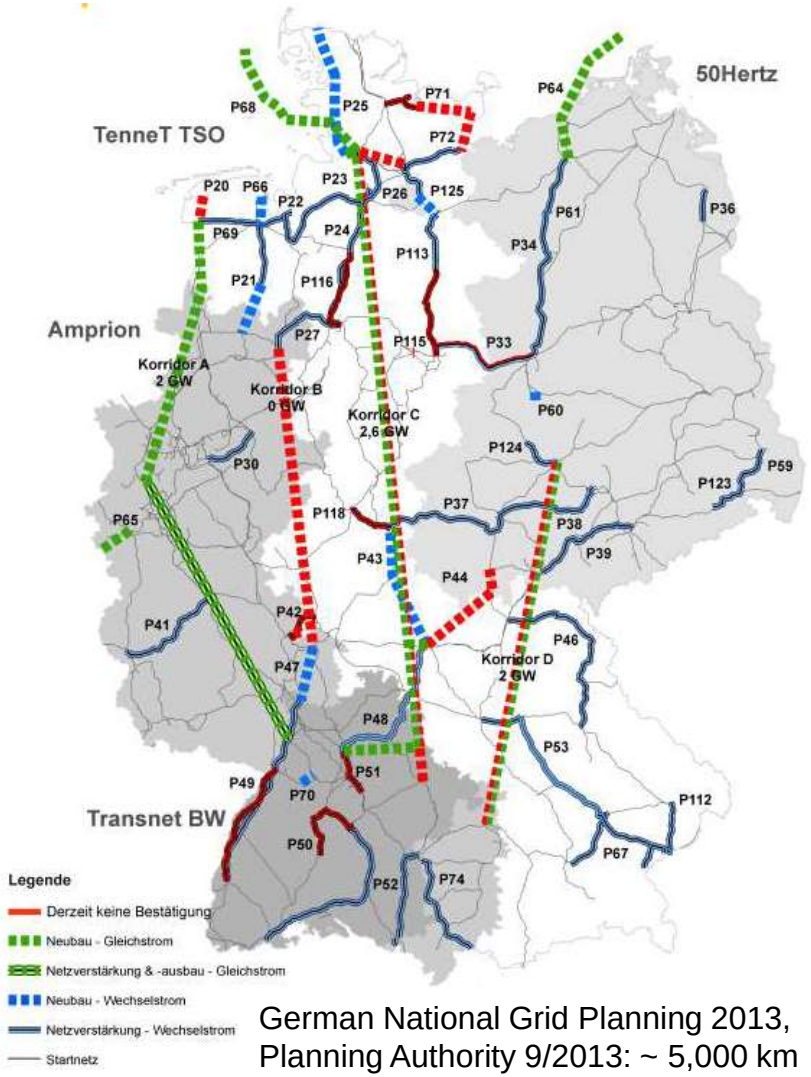
- Building a low-carbon electricity system based on an increasing share of fluctuating renewable electricity sources (RES)
- The future renewable electricity system needs strong power lines

GERMANWATCH

BEST GRID
testing better practices

# *PLANS for POWER GRID DEVELOPMENT in the EU / GERMANY.*


TYNDP 2012, S. 13: 100 Bottlenecks in Europe 2020




German National Grid Planning 2013, Planning Authority 9/2013: ~ 5,000 km

GERMANWATCH

BEST GRID
testing better practices

## *STAKEHOLDER ENGAGEMENT. A 5-STEP APPROACH*

1. STAKEHOLDER MAPPING
2. TAILOR-MADE and TRANSPARENT PUBLIC PARTICIPATION STRATEGY

   Need planning / corridor finding
3. IMPLEMENTATION of the STRATEGY
4. PRESENTATION and DISCUSSION of the OUTCOME
5. EVALUATION

KEY QUESTION.

***<u>WHO</u> should be involved <u>WHEN</u> and <u>HOW</u>?***

GERMANWATCH

BEST GRID
testing better practices