

Best practices in lignite production: public participation in the planning and the rehabilitation of lignite sites to win acceptance

10th Coal Dialogue
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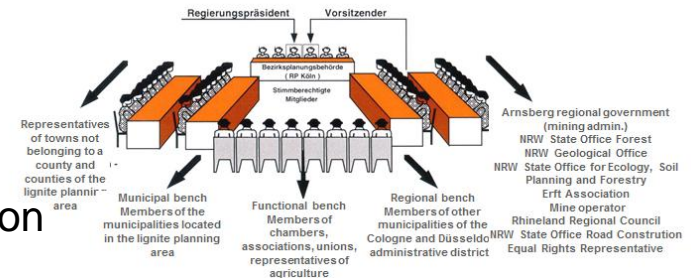


Holistic opencast mining concept

1 Lignite's necessity for energy supply

2 Complex approval procedures

- Overall concept approved by Lignite Commission
- Individual aspects and details under mining, water and public law
- Public participation, stakeholder dialogue, information



3 Mining process meets high standards



...from start

...to finish

- Technical: emission control
- Ecological: recultivation
- Social: resettlement

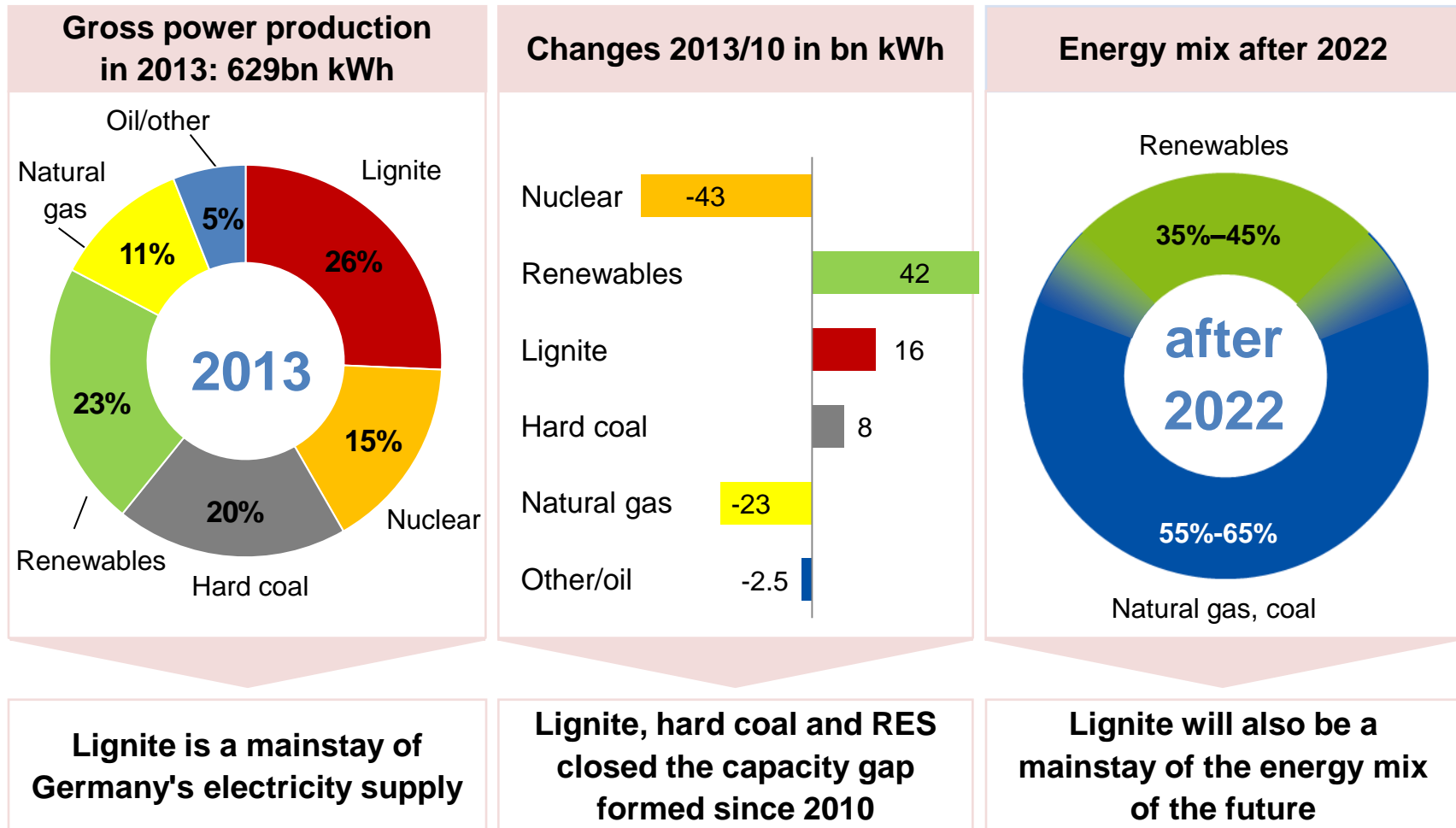


4 Diverse activities to ensure public acceptance

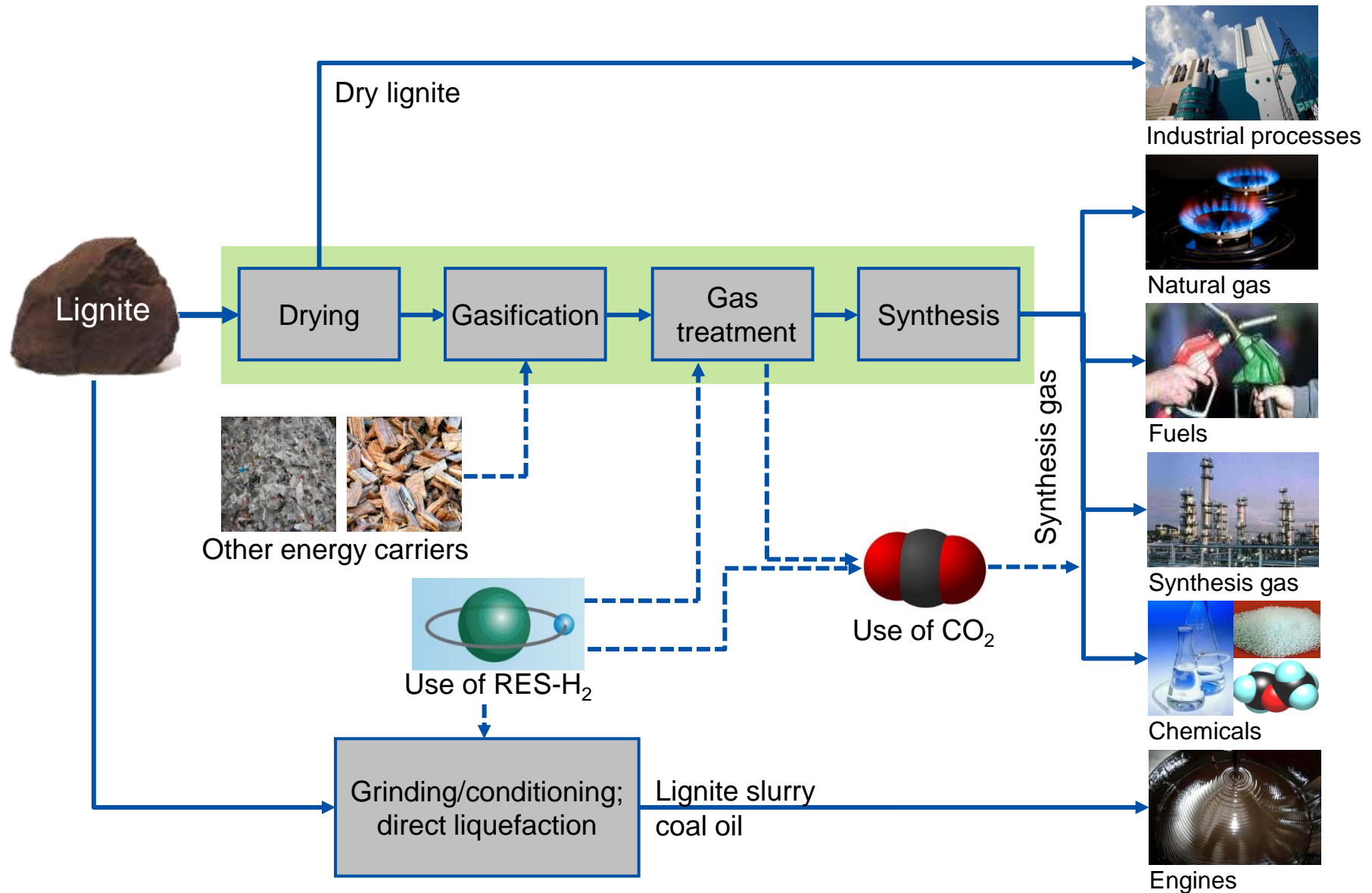
- Public acceptance depends on dialogue at all levels
- Highly visible projects and activities support the development in the region



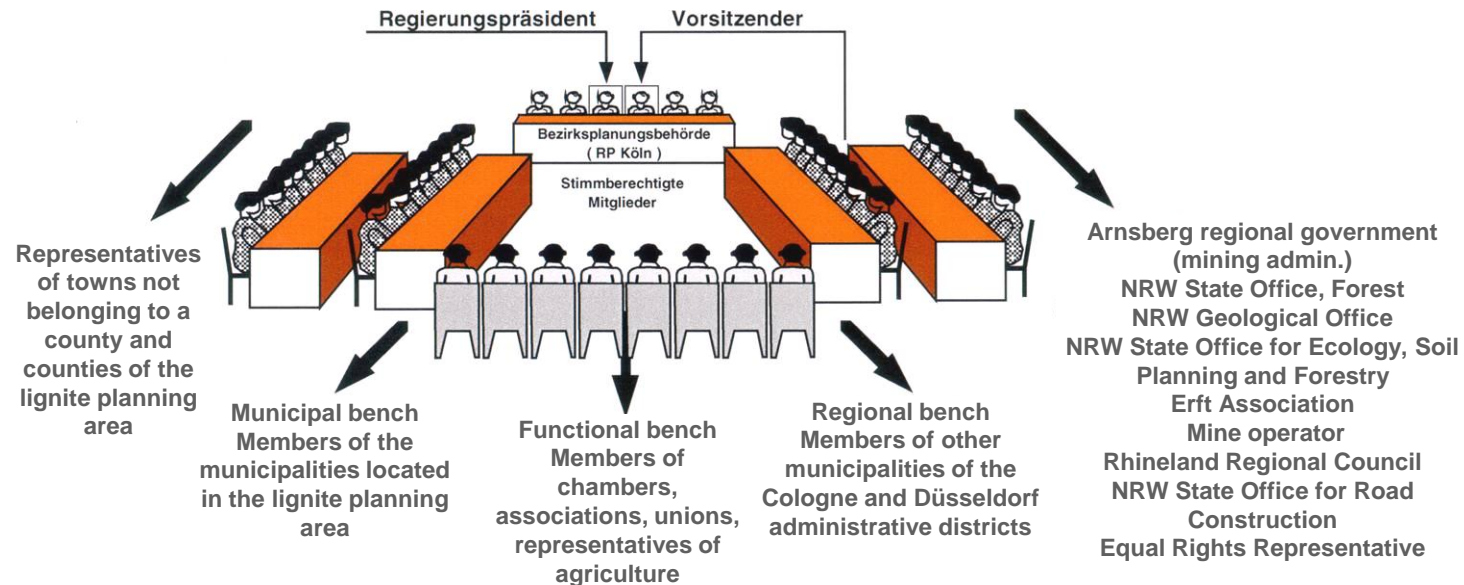
Lignite makes a crucial contribution to security of supply and price control in Germany's energy mix



Ways to make use of lignite



Lignite Commission as a committee of experts and policymakers for overall lignite planning



The Lignite Commission acts in collaboration with stakeholders from the region and specialist representatives and draws up a Lignite Mining Plan incl. environmental and social impact assessments



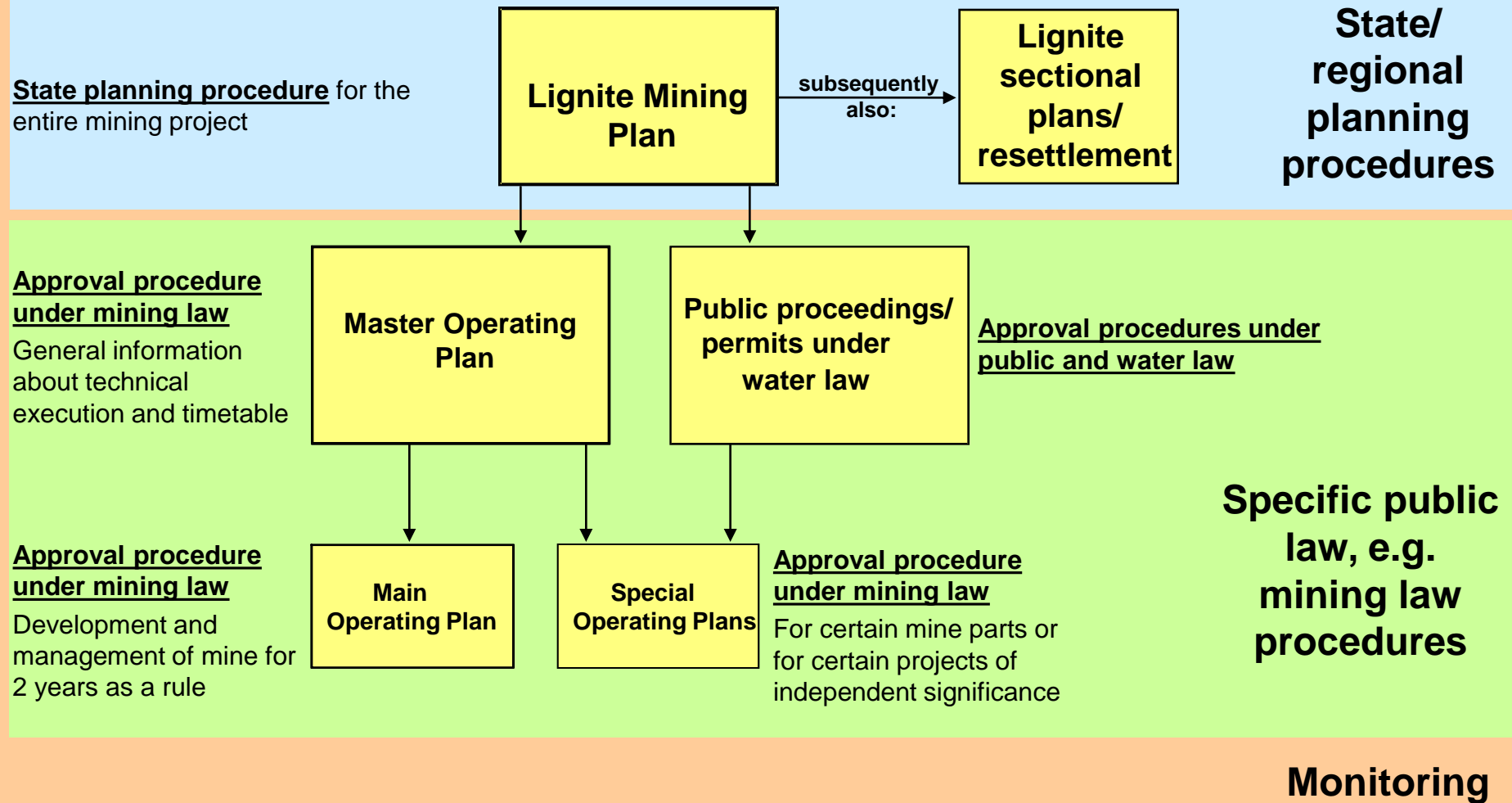
Further individual aspects and details are reviewed under mining, water and public law in subsequent procedures





Jointly developed regional planning decision:

Scope of action for the region
AND improved long-term planning and investment reliability for the mining company by committing municipalities

Approval procedure in brief



Public participation at several stages of the planning procedure

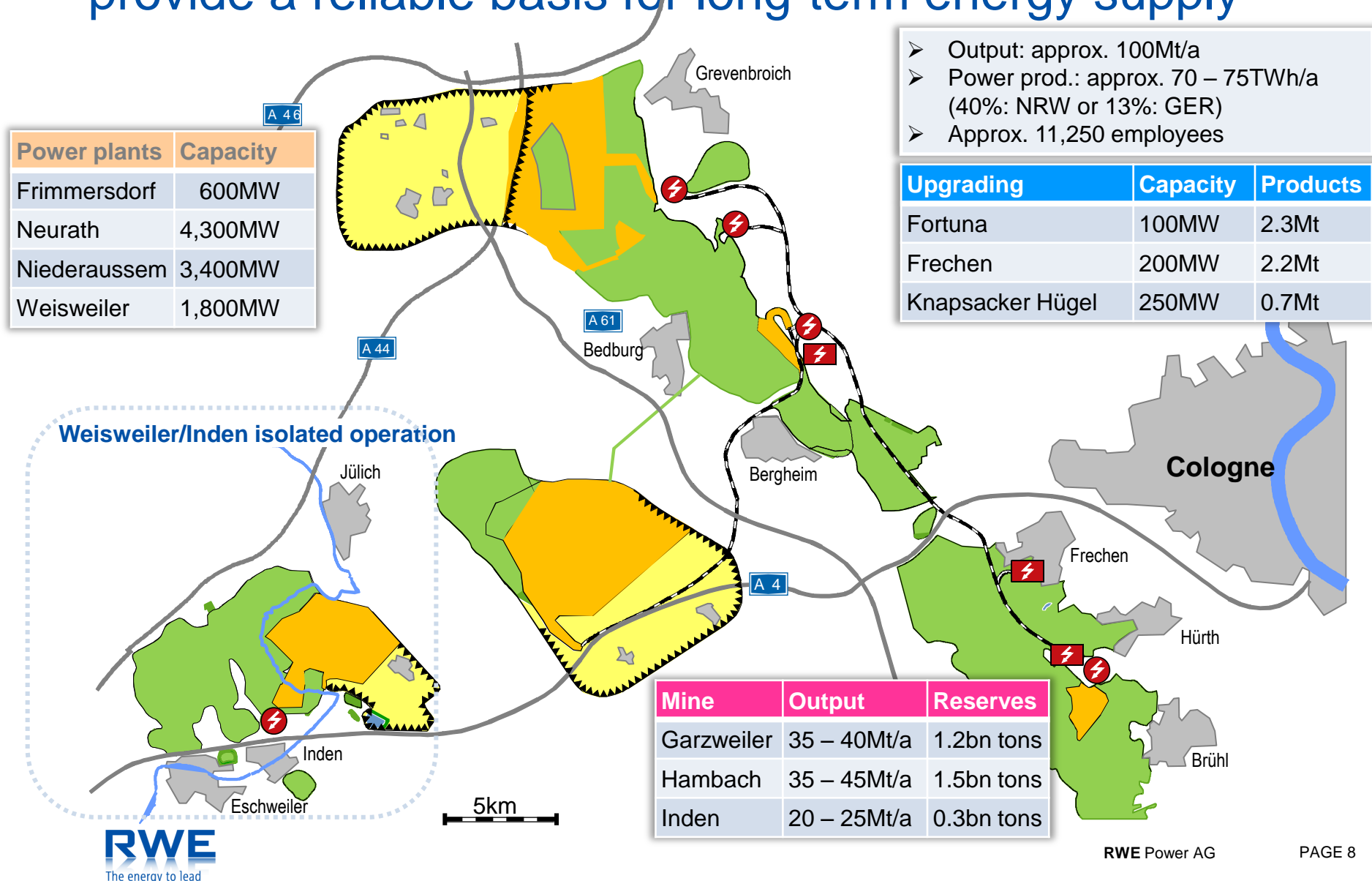
Informal participation	E.g. replanning of recultivation (Inden residual lake)	
Formal participation	Lignite Mining Plan	
	Master Operating Plan (resettlers, owners)	
	Special Operating Plan (species protection)	
	Participation of resettlers in workshops	

3 billion tons (2014) of approved deposit reserves provide a reliable basis for long-term energy supply

- Output: approx. 100Mt/a
- Power prod.: approx. 70 – 75TWh/a (40%: NRW or 13%: GER)
- Approx. 11,250 employees

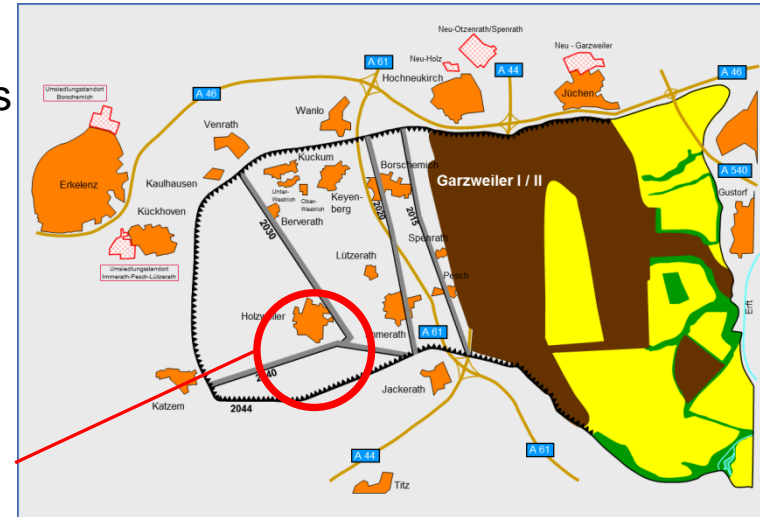
Upgrading	Capacity	Products
Fortuna	100MW	2.3Mt
Frechen	200MW	2.2Mt
Knapsacker Hügel	250MW	0.7Mt

Mine	Output	Reserves
Garzweiler	35 – 40Mt/a	1.2bn tons
Hambach	35 – 45Mt/a	1.5bn tons
Inden	20 – 25Mt/a	0.3bn tons



Update on the situation of Garzweiler II

- In its judgement of 17 December 2013 the Federal Constitutional Court (*BVerfG*) confirmed the constitutionality of the Garzweiler II opencast mine as legitimate public interest objective; crucial for power generation
- In March 2014, the state government reaffirmed the necessity of extracting lignite from all three opencast mines.
- Restriction: The 4th resettlement section of the Garzweiler II opencast mine, required for extraction after 2030, is to be dispensed with.
- A guideline decision is to be elaborated until 2015.
- This would fundamentally alter basic assumptions underlying the Garzweiler II Lignite-Mining Plan, so that it would have to be amended.
- This declaration of the state government as early as today comes as a surprise; it is important that this process will be well-ordered and free from premature decisions.
- We adhere to the approved extraction boundaries; still, it is necessary that we deal with possible consequences – particularly as regards planning required in future and additional costs.
- We also assess the chances for success of an action.



High technical standards: emission control – continuous development and adjustment



- Operation in a densely populated area requires numerous planning, technical and organisational mitigation measures

High ecological standards: biodiversity-protection measures and diversified recultivated landscape



- In the Rhenish mining area, over 20,000ha have been recultivated to date
- Compared with pre-mining land use:
 - fewer industrial surfaces,
 - fewer settlements and roads,
 - more new, attractive leisure and recreation areas
- 2,200 animal and > 700 plant species identified after recultivation [incl. 429 endangered "red-listed" species]



High social standards: resettlement follows individual and shared tangible and intangible values

Social compatibility

- Civic participation
- Joint resettlement
- Optimisation of infrastructure

Transparency

- Compensation declaration applicable to the entire Rhenish mining area
- Evaluation by district government and Lignite Commission
- Mediation body

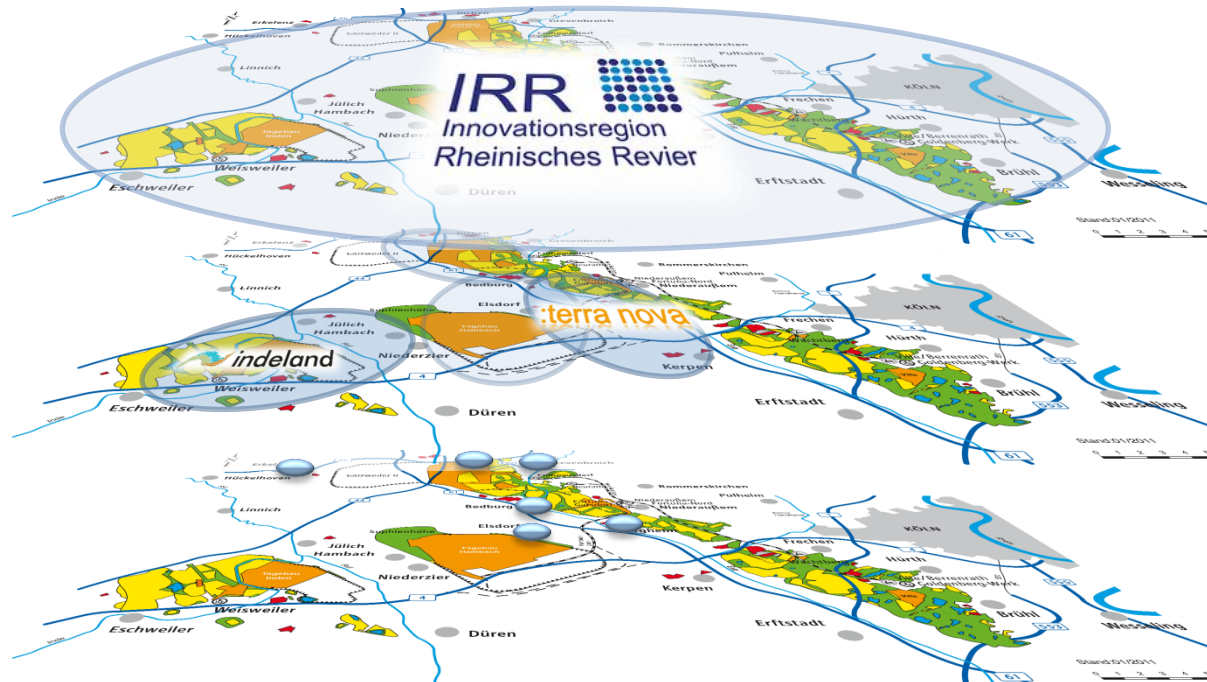
Sustainability

- Innovative energy concepts
- Resource-preserving construction methods



Lignite acceptance –

Partnership-based cooperation on several levels



*Innovationsregion
Rheinisches Revier
(Innovation region
Rhenish mining area)*

Inter-municipal planning
associations *Indeland*
and *:terra nova*;
in future: initiatives in the
environs of Hambach
and Garzweiler

Framework agreements at
local-government level

Examples of inter-municipal planning associations



:terra nova – Regionale 2010

New kinds of recultivation and promotion of structures

Forum :terra nova multi-purpose building as meeting place, information centre and viewing platform on the rim of the Hambach opencast mine



Recultivation Careful rehabilitation enables re-use for leisure, nature, agriculture and forestry

A former conveyor belt route has been turned into a wide path for walkers, cyclists and inline skaters



Industry and SME

Promotion of industrial and SME structures by relocation of jobs
Laying of foundation stone for a logistics centre offering 750 jobs (Hammer GmbH & Co. KG)



Renewable energies in the Rhenish mining area

Development of wind and solar projects

Bedburg-Königshovener Höhe wind farm
(21 turbines; 67.2MW of installed capacity)

Upshot: sustainable long-term lignite mining balances energy mix and avoids supply and price risks



Lignite's necessity for energy supply

- Lignite will be a mainstay of the energy mix of the future
- Lignite does not require any subsidies and ensures price control and security of supply



Complex approval procedures

- From state/regional planning to mining law and other specific law procedures
- Public participation takes place at several stages of the planning and approval procedure



Mining process

- High technical standards: emission control
- High ecological standards: biodiversity-protection measures and recultivation
- High social standards: resettlement



Diverse activities to ensure public acceptance

- Partnership-based cooperation at several levels