

Nuclear Status in Germany

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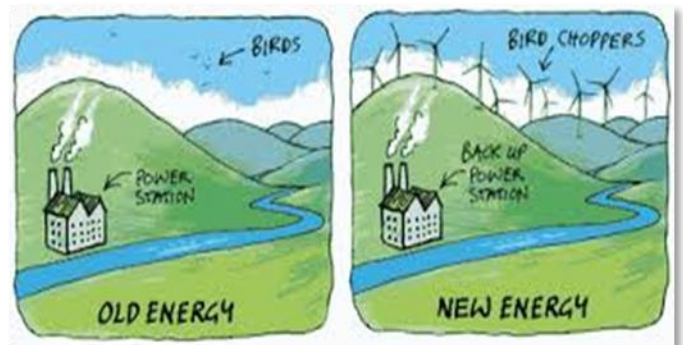
Vice President WiN Germany



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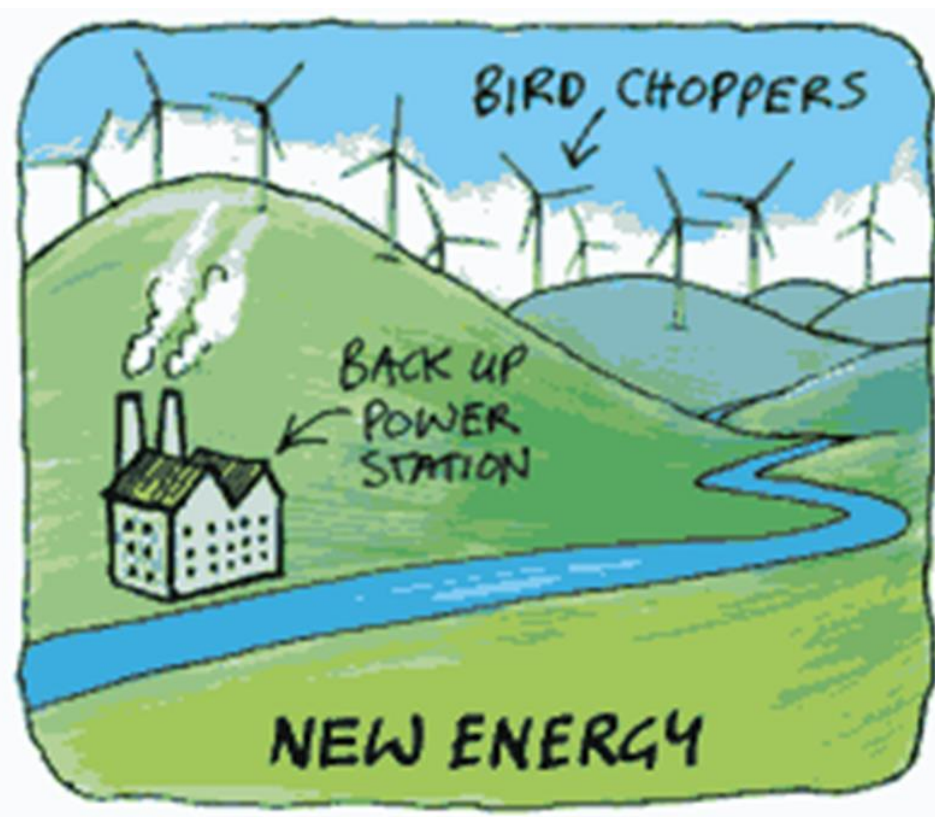
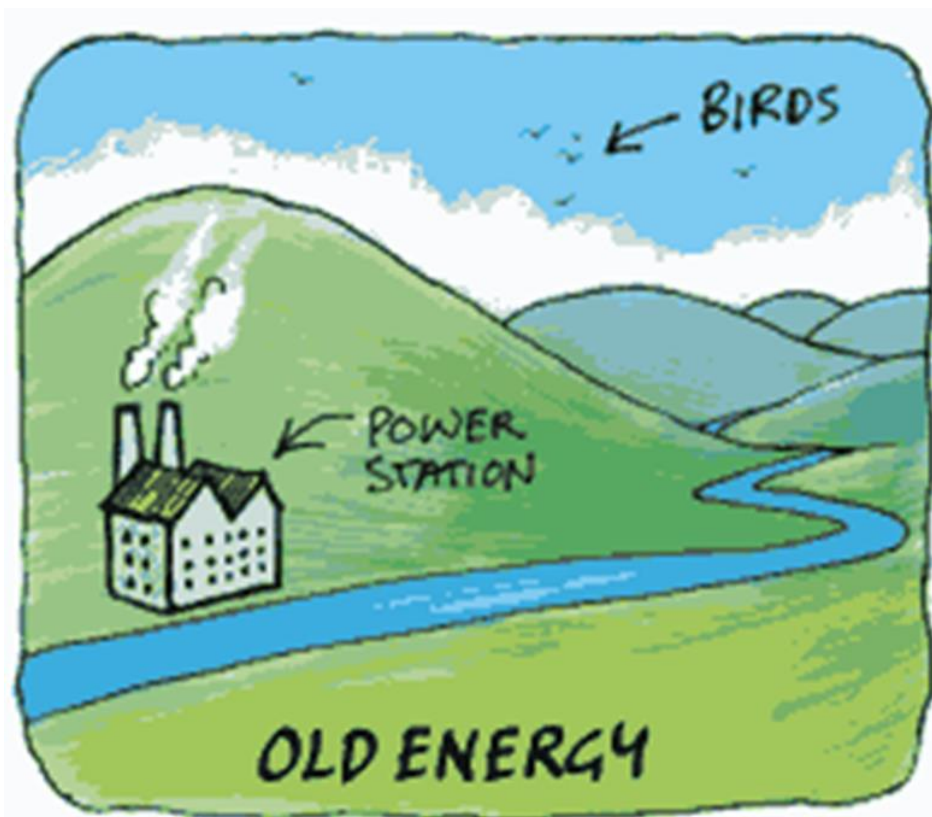
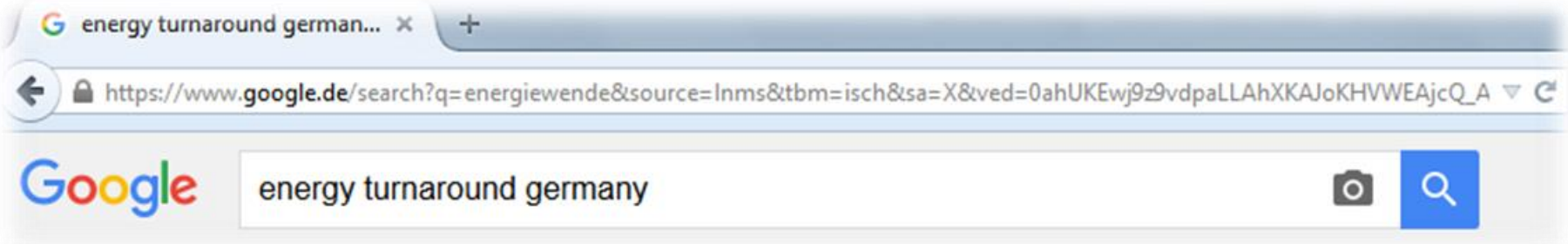
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*...only to remind you:
summary of presentation given in April 2013*

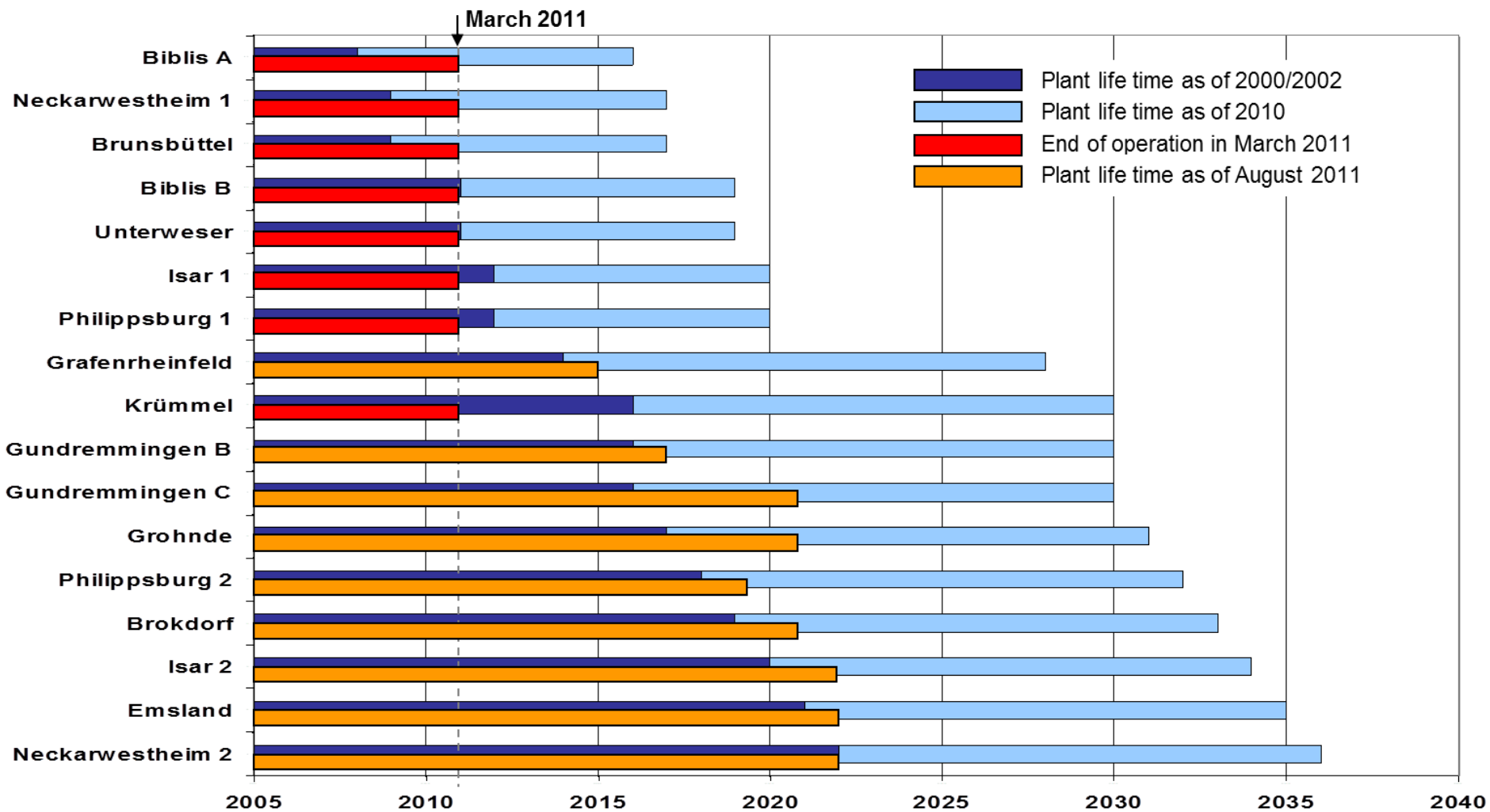
1. Development of the German Energy Policy from 2002-2011

- ▶ *2000 Renewable Energy Act*
- ▶ *2002 Atomic Energy Act*
- ▶ *2009 Federal Election that led to an extension of remaining lifetimes*
- ▶ *2010 New Energy Concept → new Atomic Act signed in December*
- ▶ *2011 March 11th*

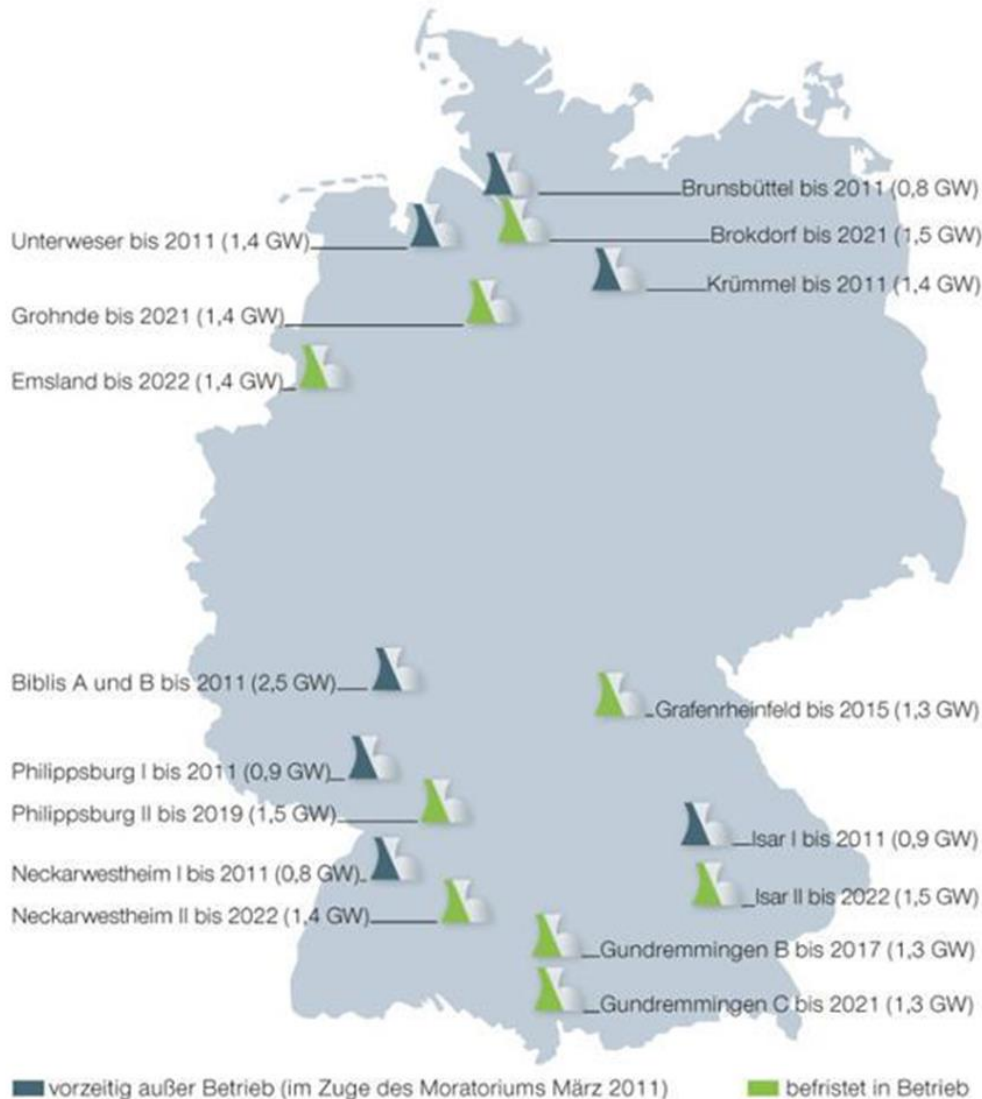
2. Today's status of the German Energy Policy

- ▶ *Energy turnaround & targets*
- ▶ *Problems to be solved*

The German Phase out



Nuclear today







- **8 NPP still in operation**
 - Next shutdown in 2017 (Gundremmingen B)
 - Grafenrheinfeld shut down six months early in 2015: lack of competitiveness (low wholesale power prices, fuel tax)
 - Complete phase-out in 2022
- **Still unlimited approval for other nuclear facilities**
 - URENCO, Gronau (uranium enrichment)
 - ANF, Lingen (fuel production)
 - Research reactors

Remaining Nuclear Topics: Dismantling and Final Repository

- **No real perspective for nuclear in Germany, but:**
 - export approvals still granted for nuclear projects abroad
 - ECA financing possible for dismantling and safety measures abroad (but not for new builds!)
 - nuclear research granted for decommissioning, dismantling, repository
 - Germany is part of Generation IV research in international cooperation and contributes to FUSION research!
- **No final repository solution yet:**
 - 2013: search started with a “white map” after originally researched repository site “Gorleben” was ended for political reasons
 - Final Storage Commission is currently discussing new options
 - Decision for site shall be made by 2031 (!!)
 - Final repository ready for use no earlier than 2050 (!!)
 - Interim storage at the NPP sites

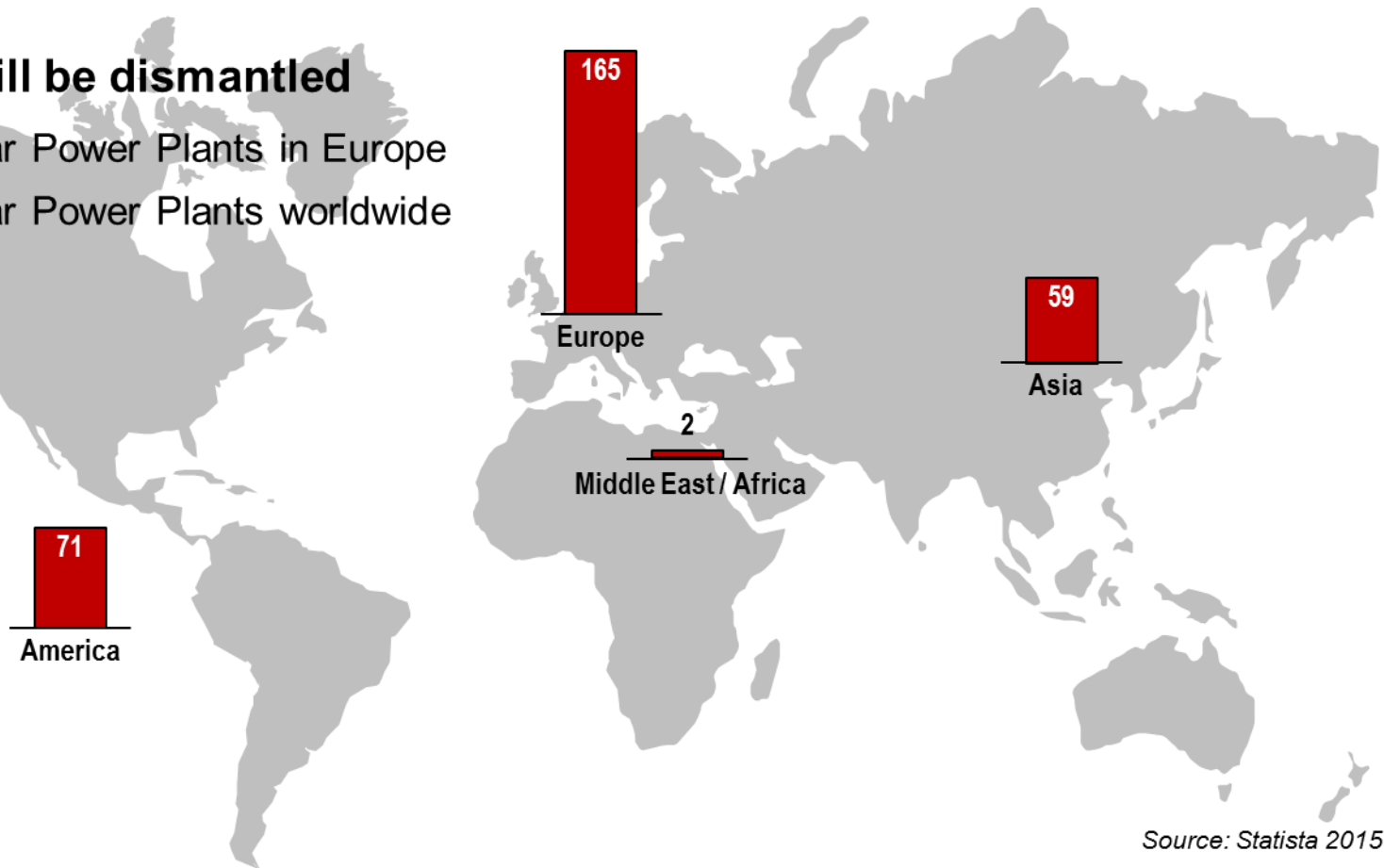
Repository Sites

	Site	Geological formation	Current status
	Morsleben	Former salt-mine, final repository of the GDR for Low and Intermediate Level Radioactive Waste (LILRW)	To be closed
	Asse	Former salt-mine and research repository for LILRW	Waste to be retrieved
	Schacht Konrad	Former iron ore mine	Licensed as final repository for LILRW. Significant delays: no operation before 2022
	Pilot mine Gorleben	Untouched salt dome	Political consensus in 1960: salt as host-rock for HLW. Chosen amongst 140 salt-domes. In scientific exploration since 1979 ⇒ all results to date attest potential suitability

International Outlook until 2030

▶ Until 2030 will be dismantled

- ◆ 165 Nuclear Power Plants in Europe
- ◆ 297 Nuclear Power Plants worldwide



Source: Statista 2015

Dismantling develops into a growing market for decades !