TRIMET
-
Visionärer Sprung

Aluminium-ektrolyse als virtueller Strom-Speicher

Dr. Martin Iffert
6. April 2016

TRIMET – Aluminum is our passion

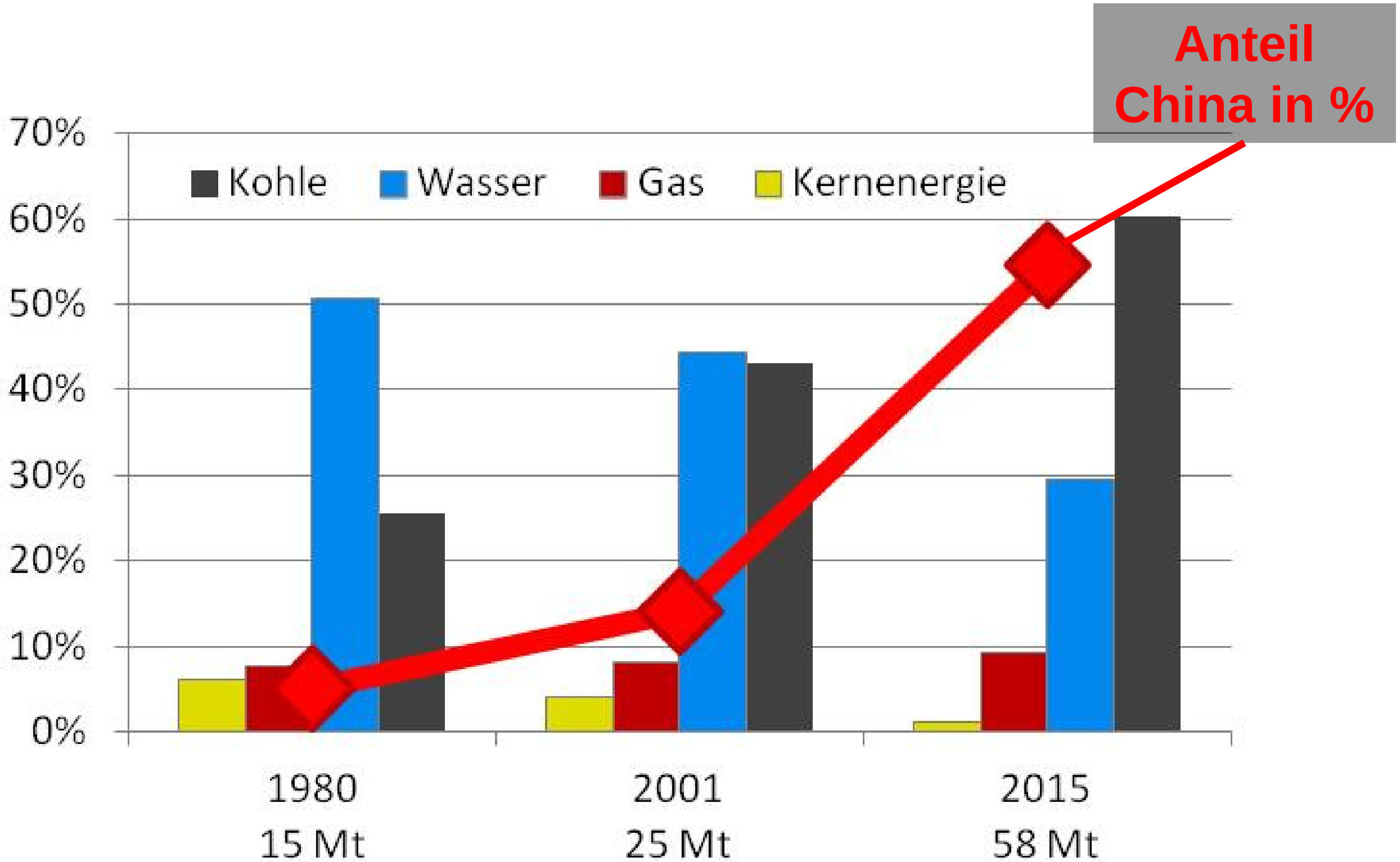
Push the Limits…

trimet

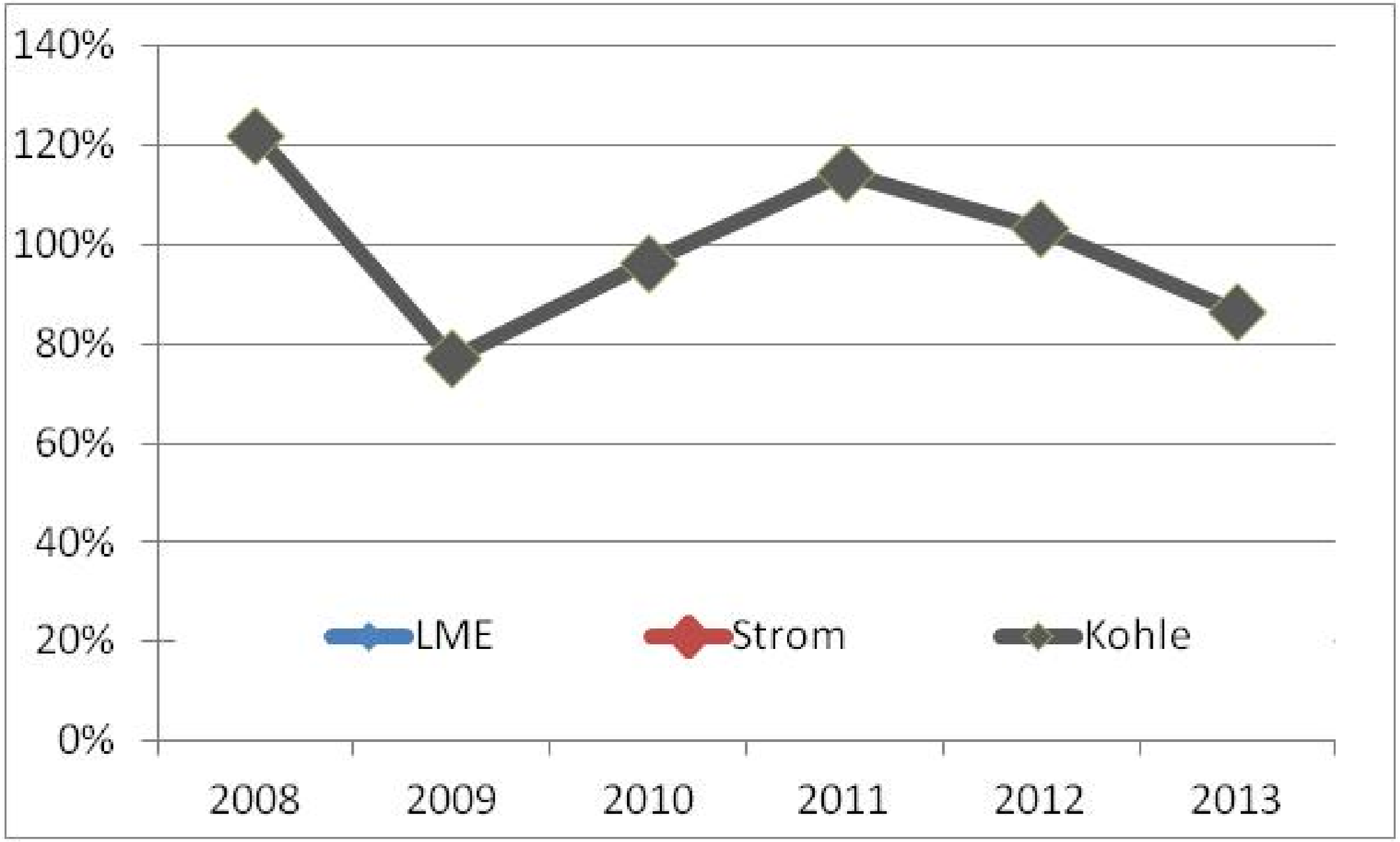
"If everything seems under control, you're just not going fast enough."

Mario Andretti

Stromquellen der Aluminiumproduktion
und China's Produktionsanteil an Weltproduktion



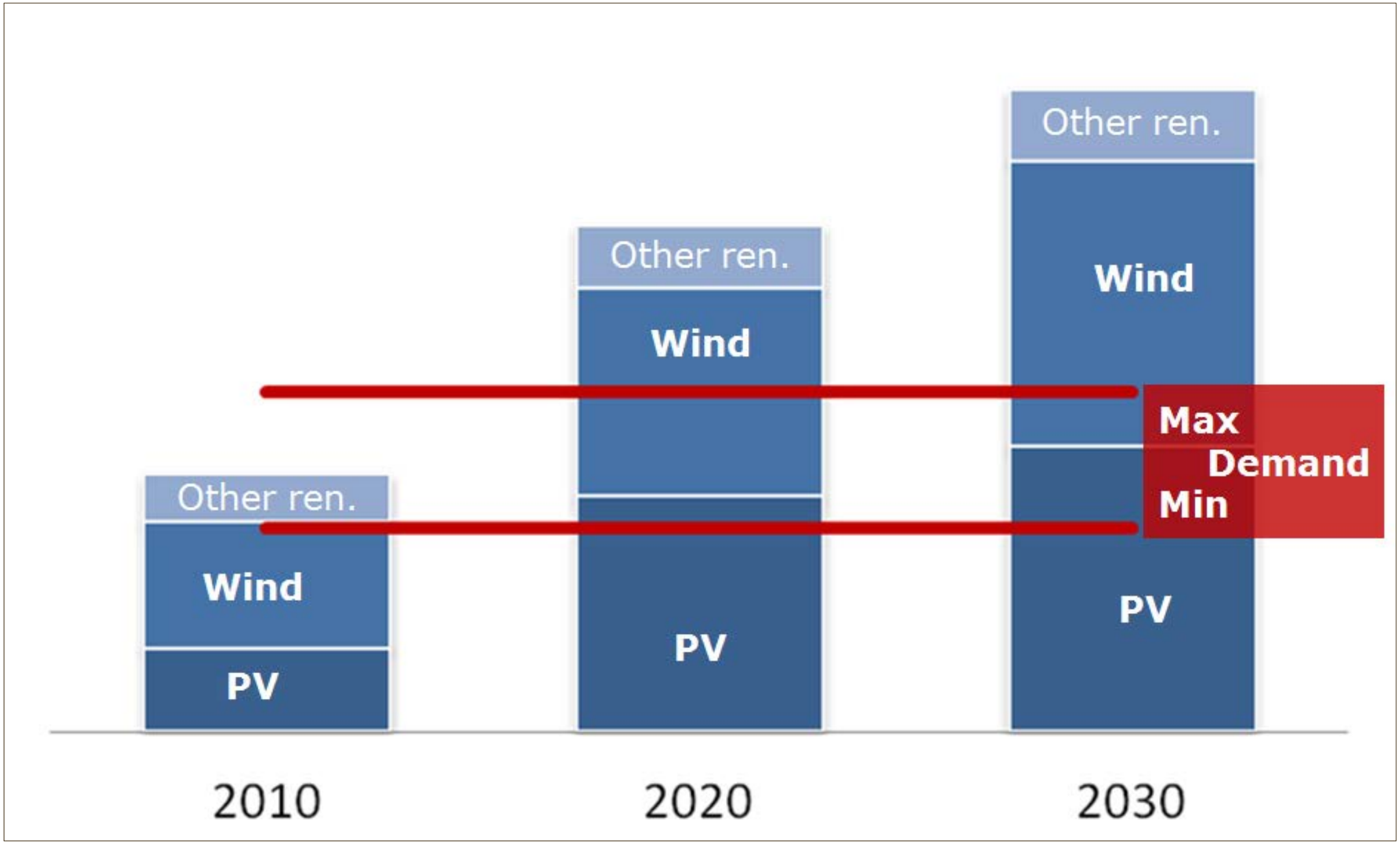
Korrelationen Rohstoffmärkte (2008 – 2013)



Kohlepreis beeinflusst EEX-Strompreis und Aluminiumpreis in hoher Korrelation

Erneuerbare Energien

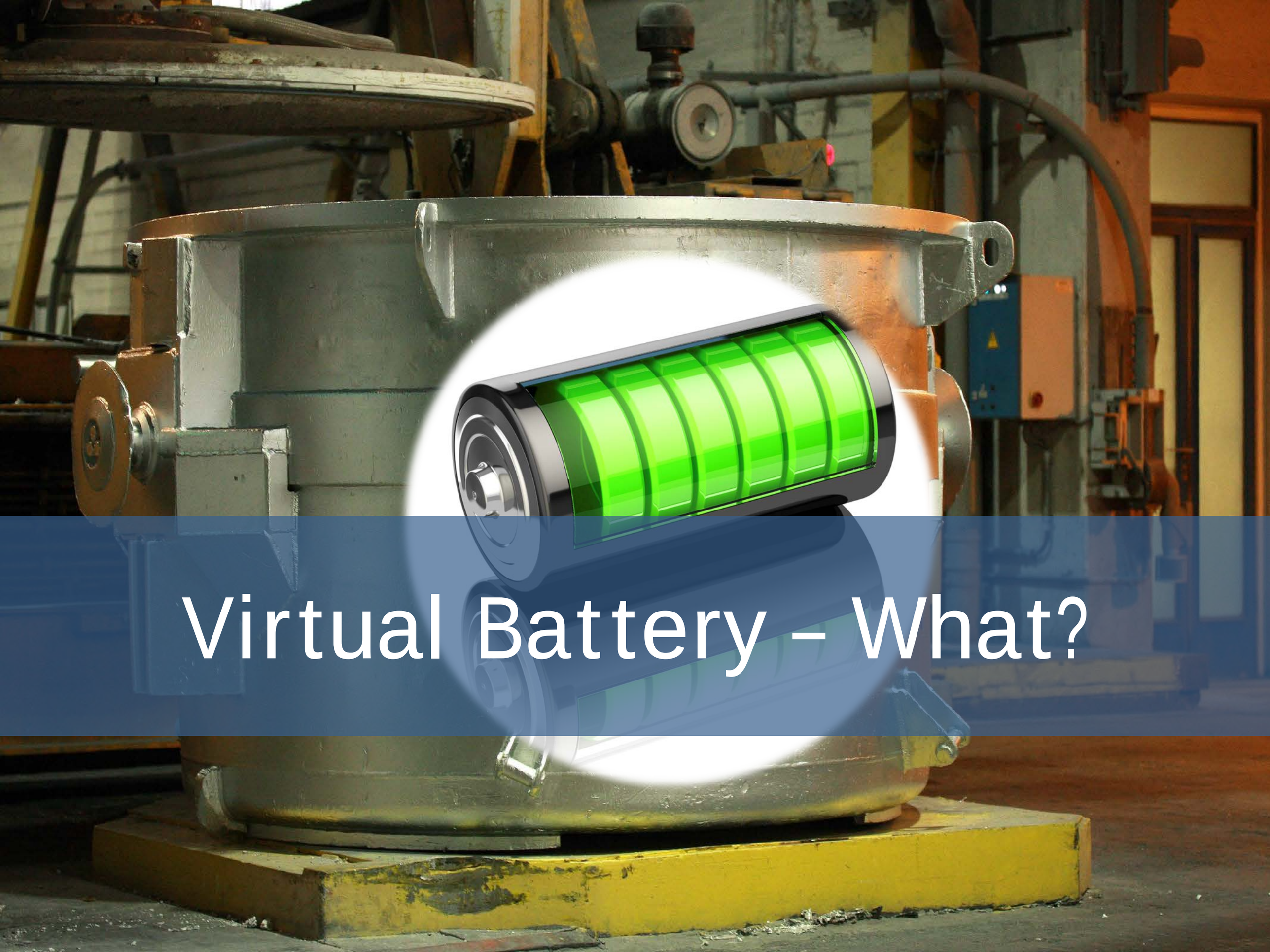
installierte Kapazitäten in Deutschland



The Biggest Challenge:

How to keep the power grid stable?

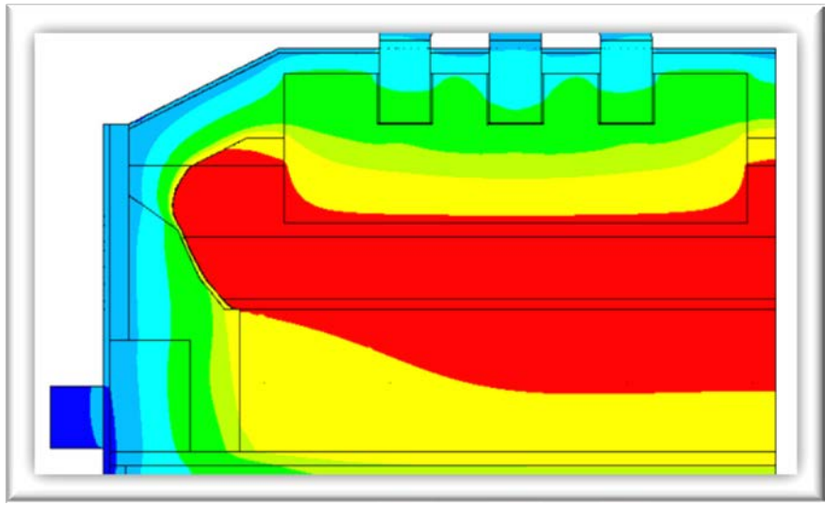
Crisis = Weiji



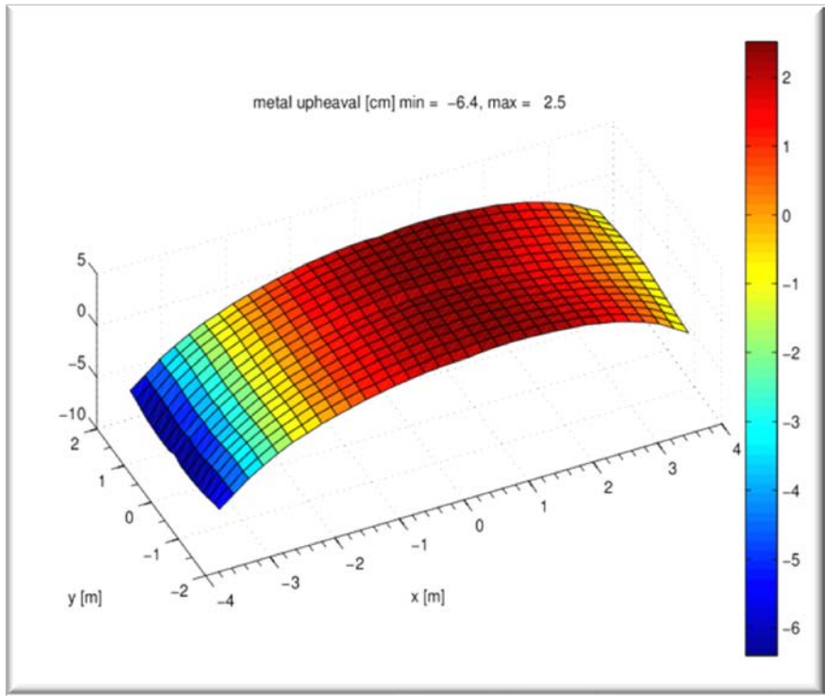
Virtual Battery – What?

Main challenges

1. Thermal
   i. Short term changes ☺
   ii. Long term changes ☹

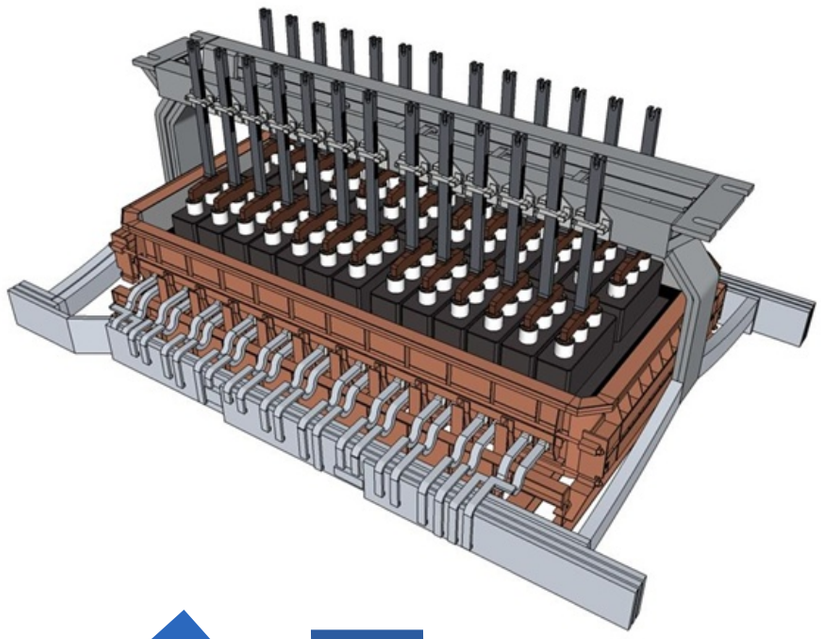


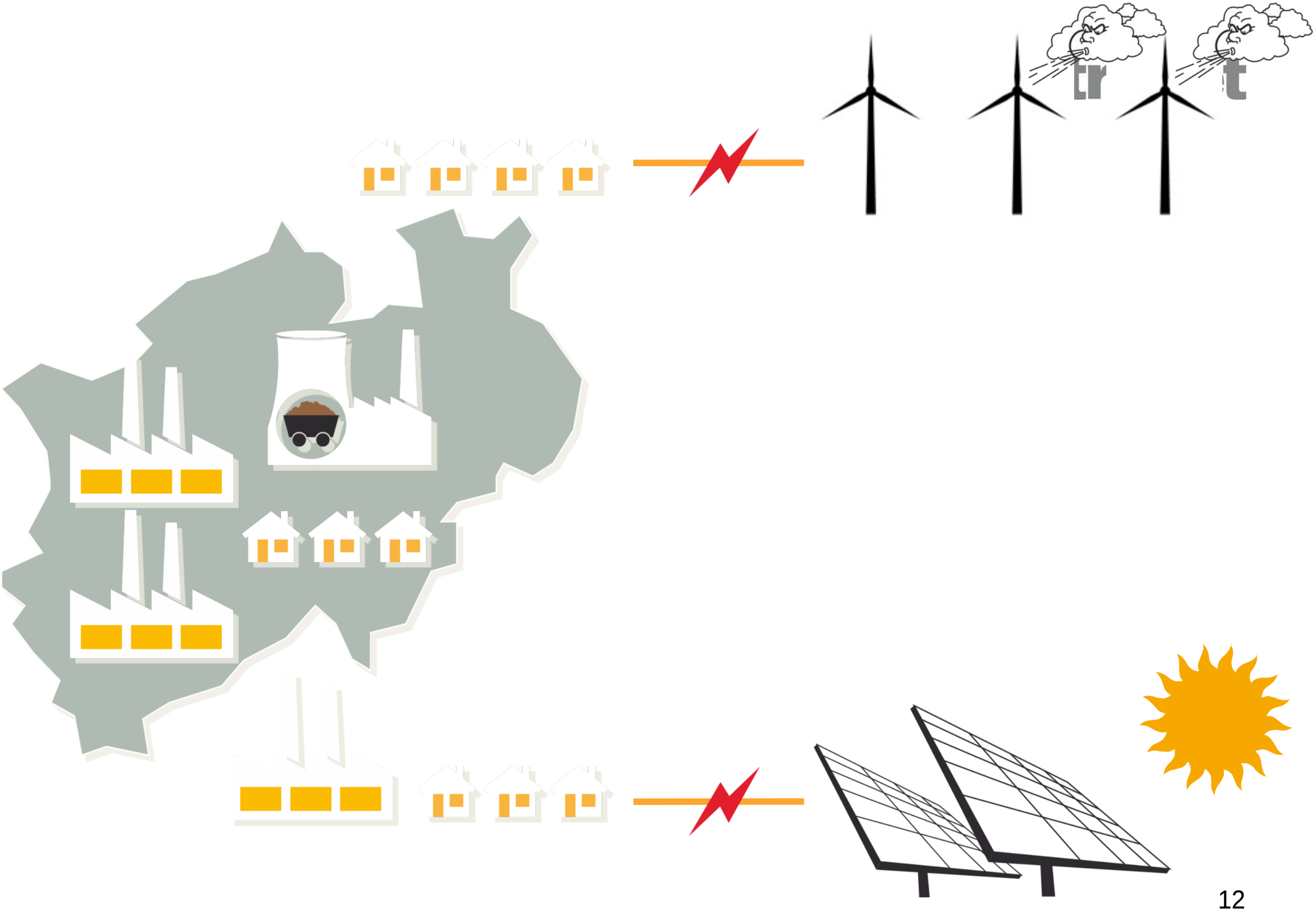
2. Magnetic
   i. Short term changes ☹
   ii. Long term changes 😐

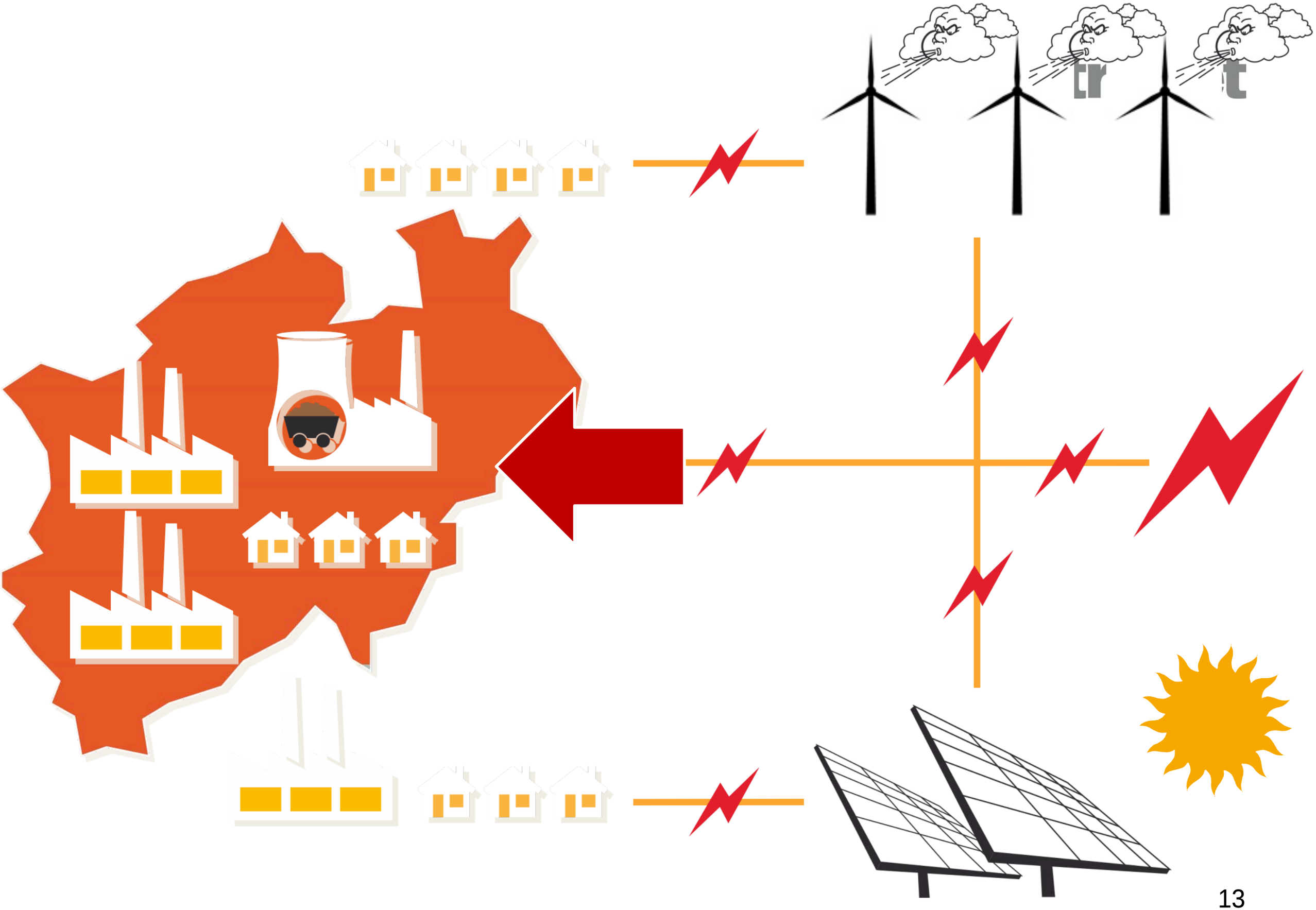


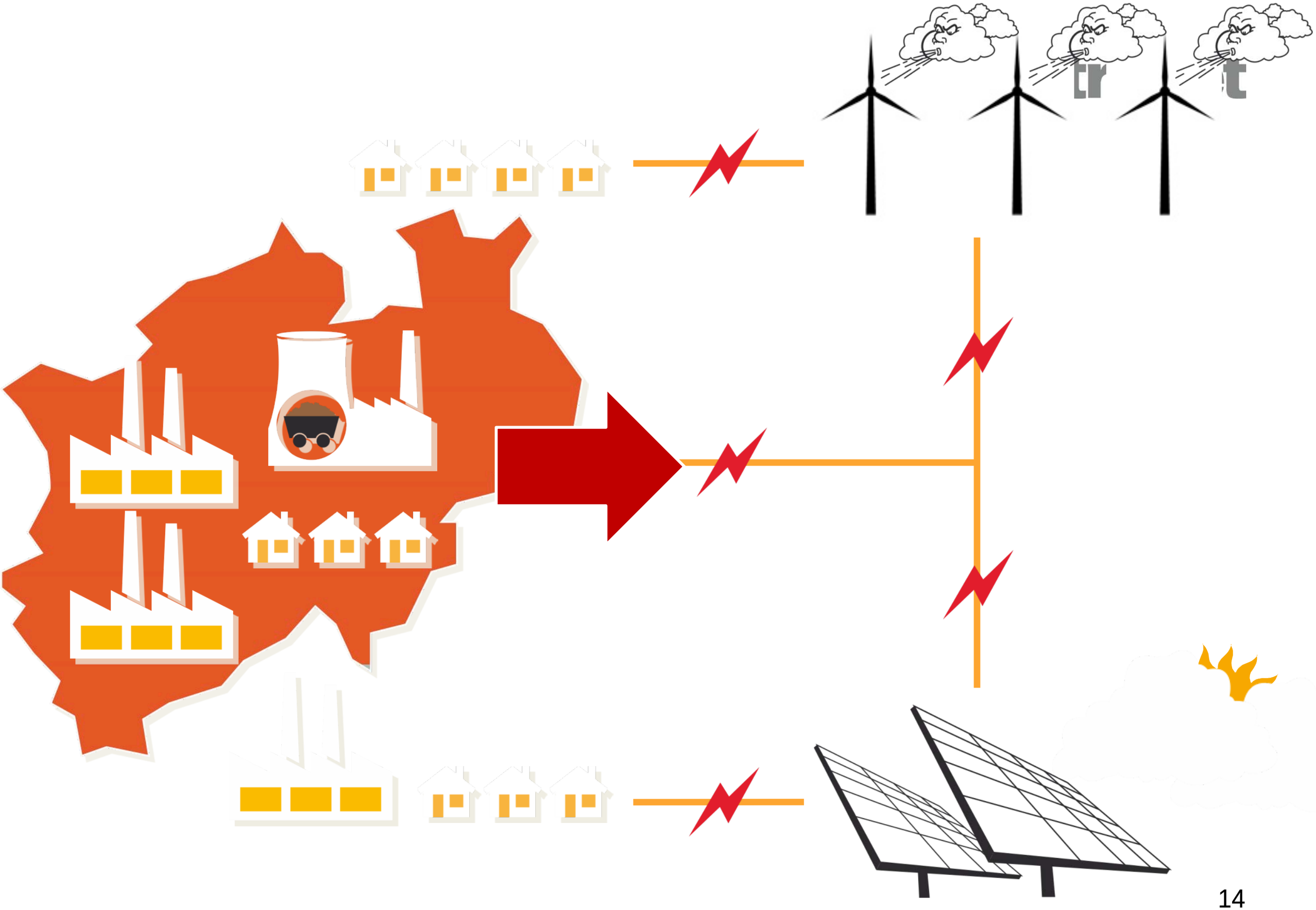
Energy storage

Energy-intensive industry as a buffer between volatile energy generation & variable demand

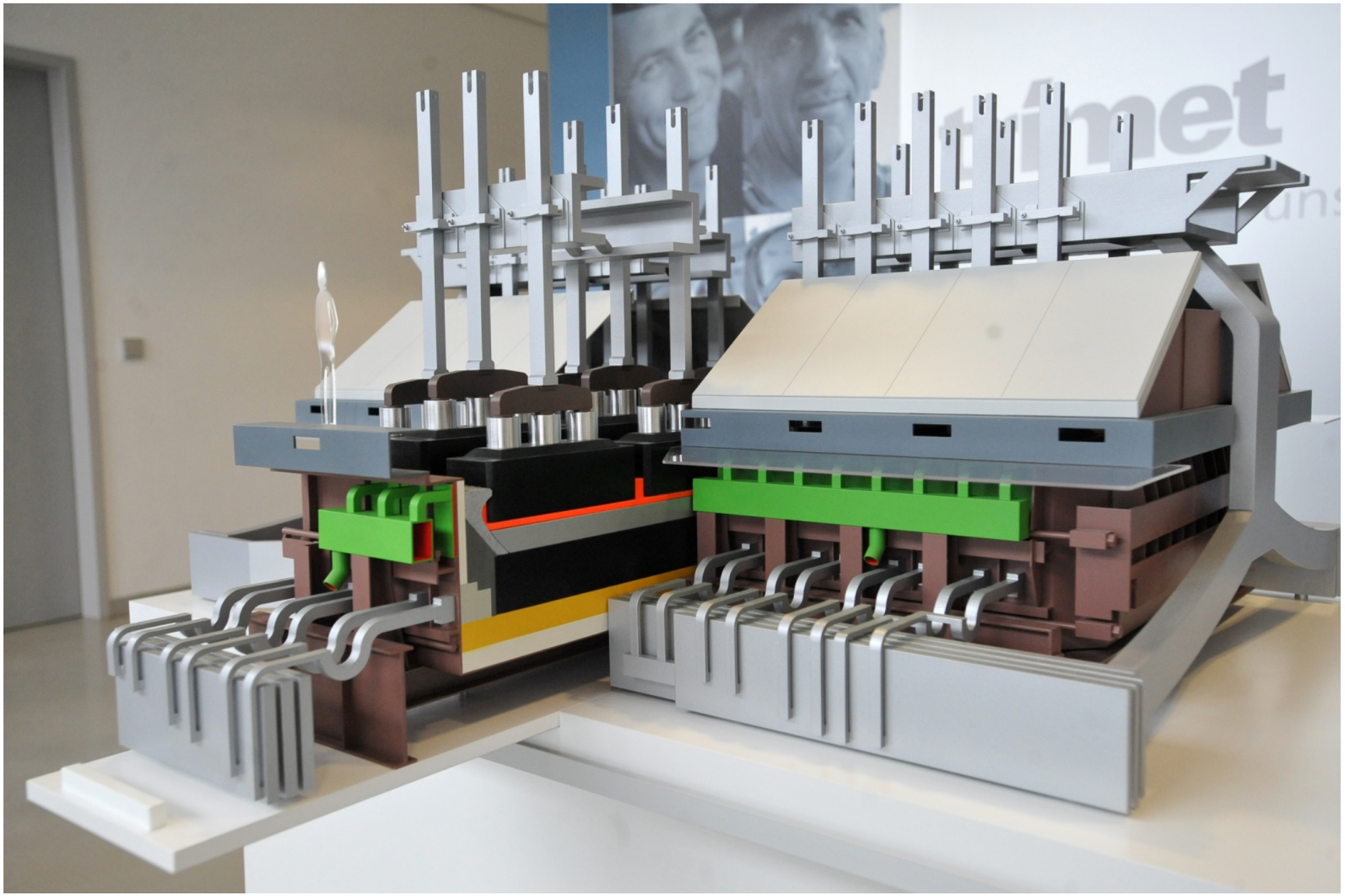








The „Virtual Battery“



Pilotprojekt gefördert durch das Land NRW mit Mitteln aus dem europäischen Programm zur CO2 Reduktion

cht-Athleten

Fototermin mit zwei Alu-Rennern vor fünf Tonnen glühendem Leichtmetall: Der brandneue Audi R8 begegnet seinem Vorfahren dem legendären Auto Union Typ C

Foto: Nils Hendrik Müller