

16th September 2020 |

FGV Webinar – Just Transition and Development Models

Transformations in EU industry inspirations for Minas Gerais?

Timon Wehnert

- Founded 1991
- Think tank dedicated to applied research and sustainability
- 250 staff members



Transition Research:
from problem assessment
to real world experiments

- › **A quick glance at the German Energy Transition**
from a jobs perspective
- › **Phasing-out coal – a historic view on structural change**
- › **Decarbonising Industry in the EU –**
what could this mean for Minas Gerais?

A quick glance at the German Energy Transition

(only looking at jobs)

A change in narrative:

> 5 years ago:

“Renewables are expensive – but they are the future”



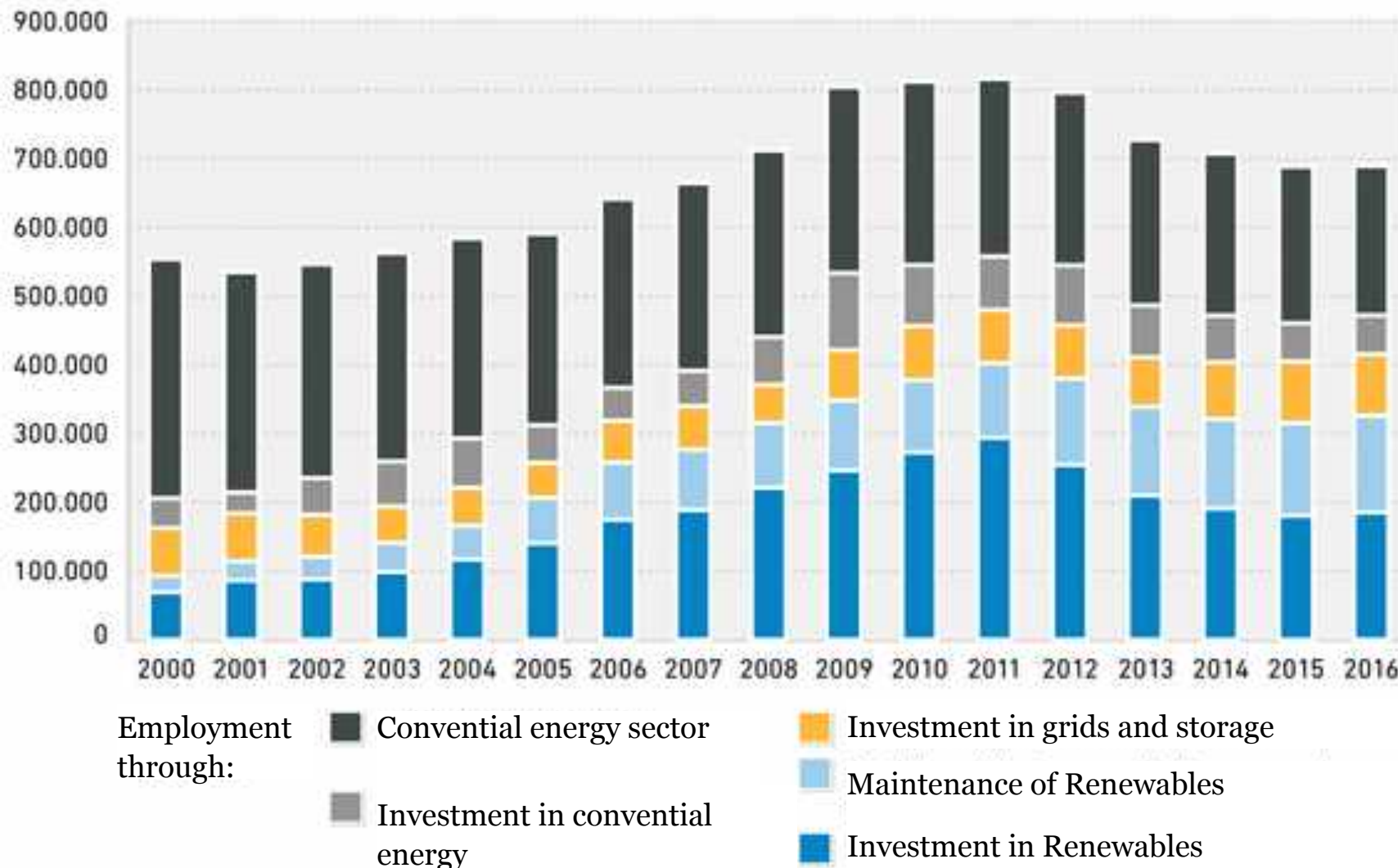
Today:

Renewables are cost competitive

and in the long-term the energy transition is beneficial for Germany

however, there are not only winners, but also some losers



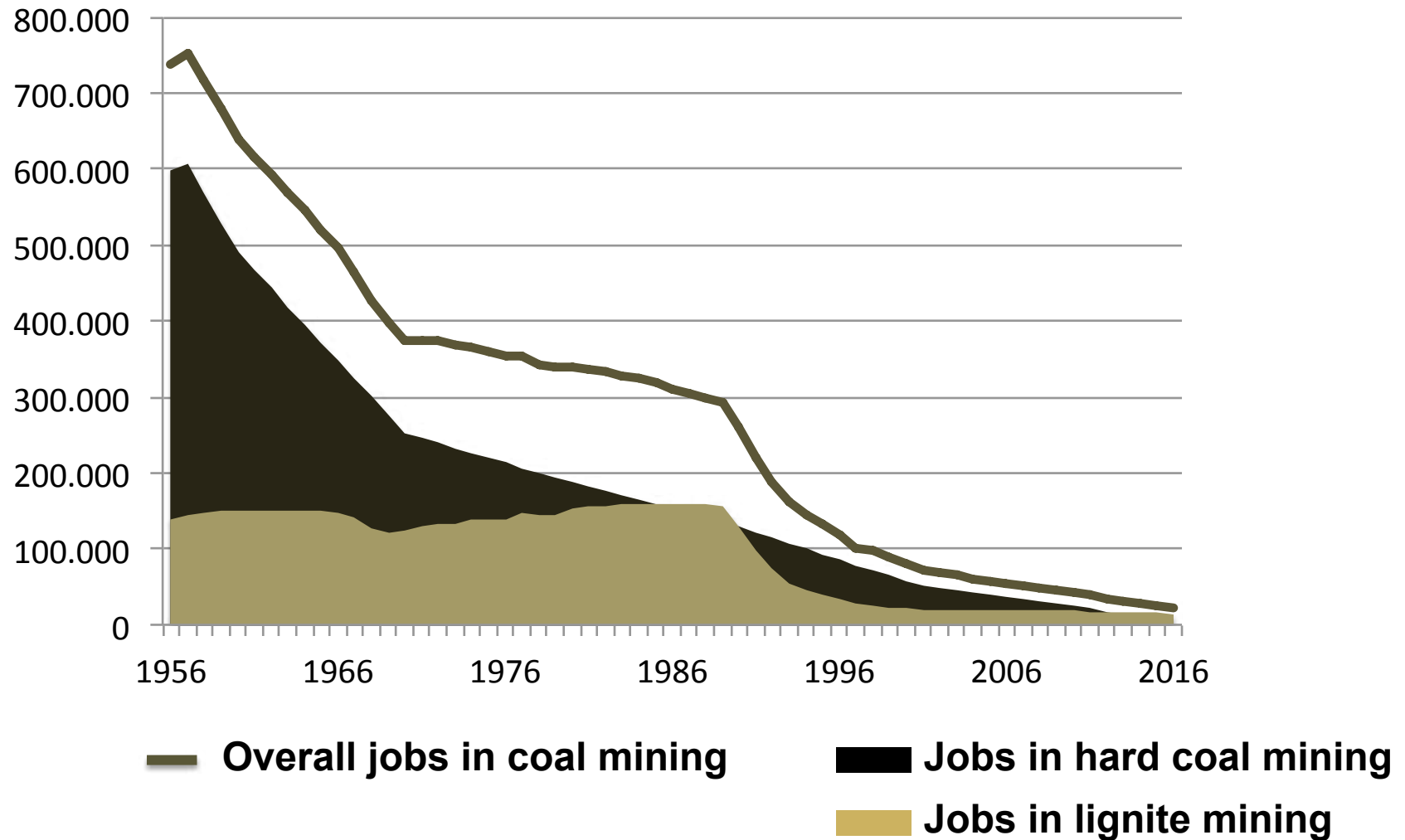


In total: the energy transition has created more new jobs but job losses are difficult for coal mining regions

<https://www.unendlich-viel-energie.de/mediathek/grafiken/entwicklung-der-beschaefigung-in-der-energiewirtschaft-2000-2016>

Phasing-out coal a historic view on structural change

Coal jobs over the time in Germany



Coal mining jobs decreased from over 750,000 to less than 21,000 in 2016. This was driven by purely economic reasons.

Source: own calculations based on Statistik der Kohlenwirtschaft e.V. (2016a, 2016b, 2017)

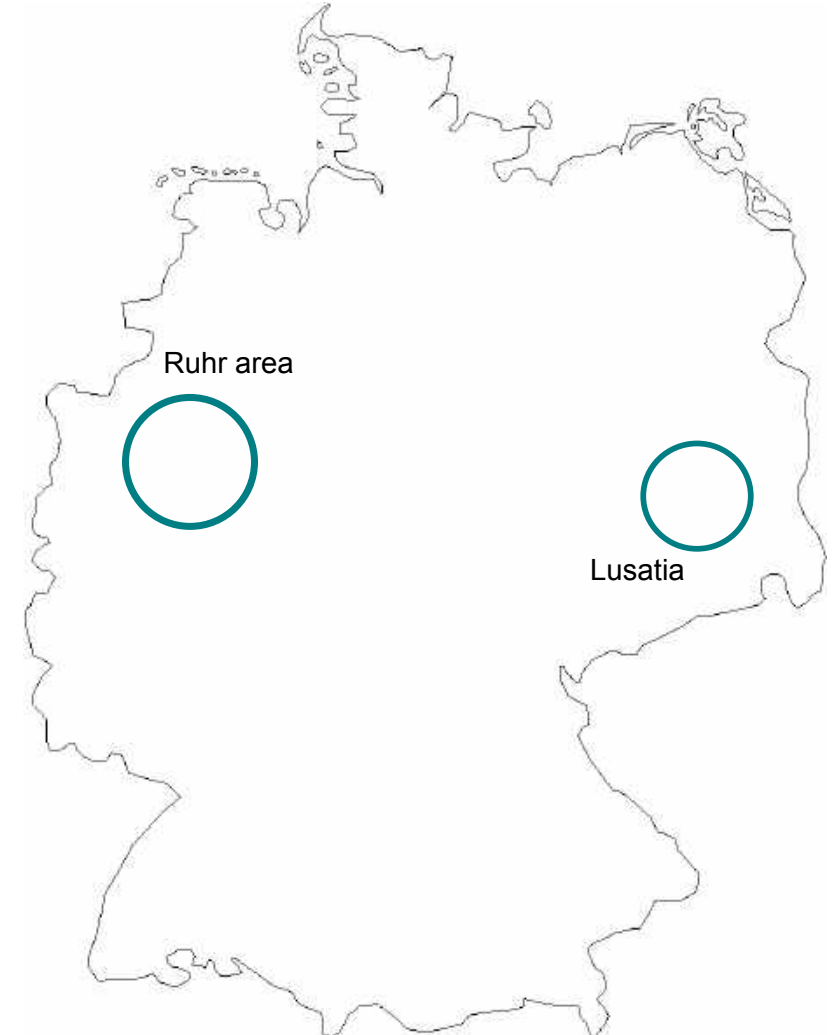
Two Examples of Coal Regions in Germany

Ruhr Area

- Biggest urban agglomeration in and industrial heart of Germany
- Hard coal-mining phased out in 2018

Lusatia

- Rural open-cast lignite mining area
- Energetic centre of the GDR
- Strong decline in industry and coal mining after re-unification



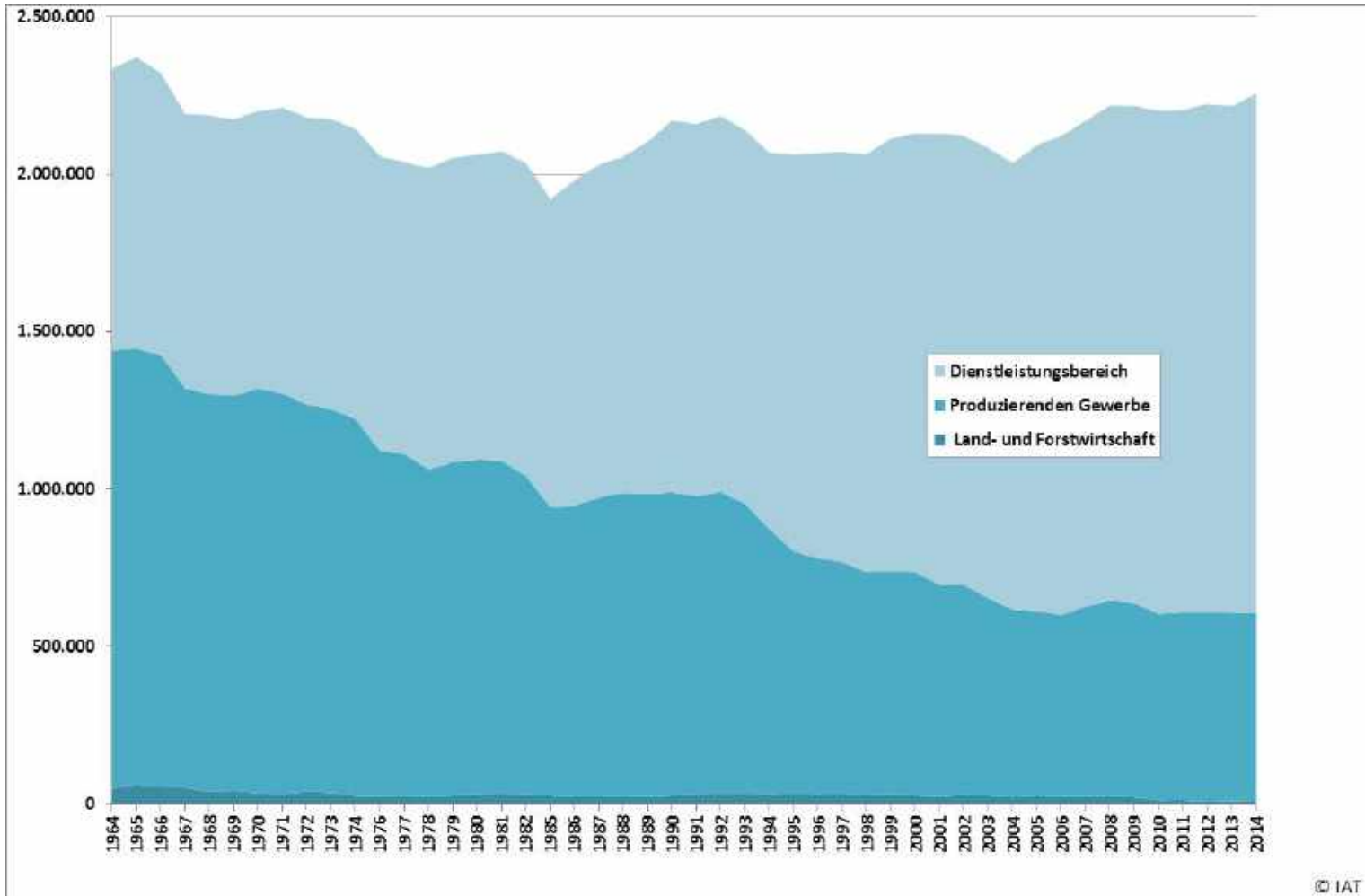
Transforming the Ruhr area



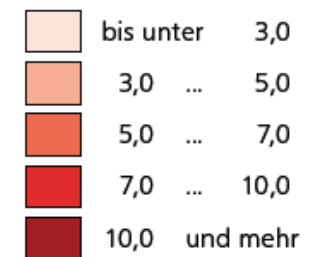
Transforming the Ruhr area



Employment by sector: 1964-2014



Unemployment



Quelle: Statistik Regionalverband Ruhr, Darstellung: IAT



Steel Plant Phoenix – East in Dortmund

- 150 years of steel production
- Shutdown in 2001
- Disassembly of the site and sale of facility to steel company in PR China (Zhangjiagang)

Example: Site Conversion in Dortmund



- Soil removal, artificial lake, „Phoenix-Lake“
- Living and working at the waterfront
- Functional mix, passive house standard



Zeche Zollverein

Preserving the cultural heritage



**Building on coal related knowledge:
Fraunhofer UMSICHT research center**



Founded in 1980 - Initial concept: use knowledge related to coal mining (e.g. water, air and soil management / treatment) for other purposes

Today a leading German research center working on mechanical and chemical engineering

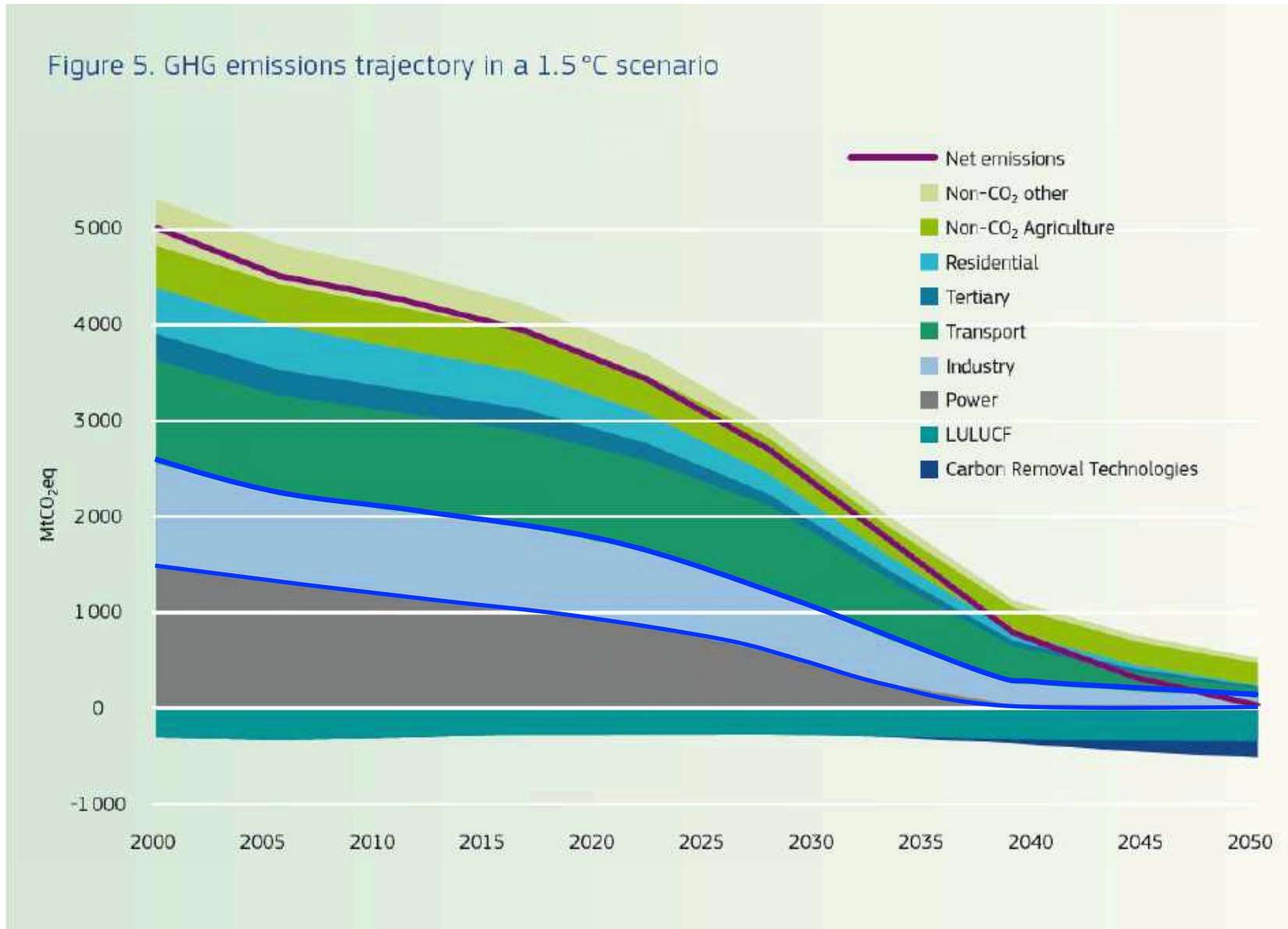
**Flexible production processes –
to prepare for high shares of renewable power supply**

The aluminium smelter as “virtual battery”



Decarbonising Industry

The EU climate target climate neutral by 2050



The BMW Group Looks to Reduce CO₂ for Full Vehicle Lifecycle

Volkswagen is pursuing the goal of becoming balance sheet CO₂-neutral by 2050.

Company News 02.07.2019 15:00

thyssenkrupp sets clear targets: Group aims to be climate neutral by 2050 – 30 percent emissions reduction planned for 2030

September 10, 2019 - Mercedes-Benz is taking the next step towards "Ambition 2039" climate-neutral mobility and pursues the realisation of the goal consistently together with its suppliers and partners.

..... will need a climate neutral supply chain

My personal vision:



“Sustainably mined in Minas Gerais”
becomes an internationally acknowledged trademark
for highest social and environment standards in mining.

Contact

*Wuppertal Institut – Büro Berlin
Neue Promenade 6
10178 Berlin, Germany*

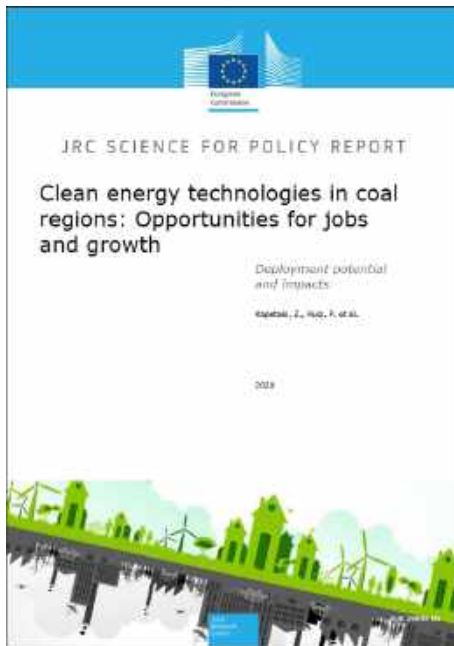


Timon Wehnert

+49 30 2887458-19

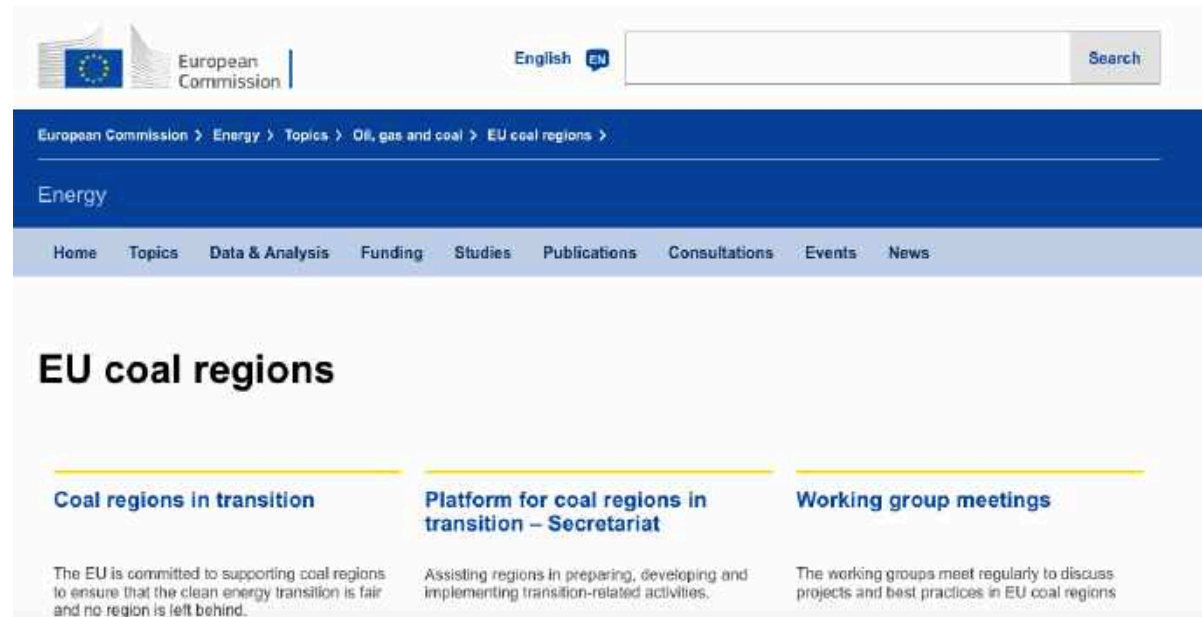
timon.wehnert@wupperinst.org

JRC Report: Clean energy jobs in coal regions



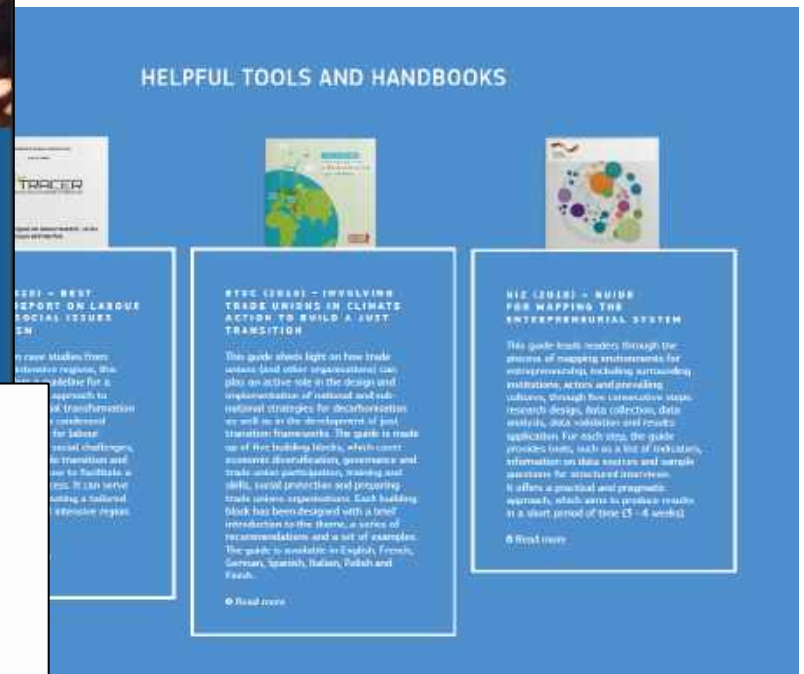
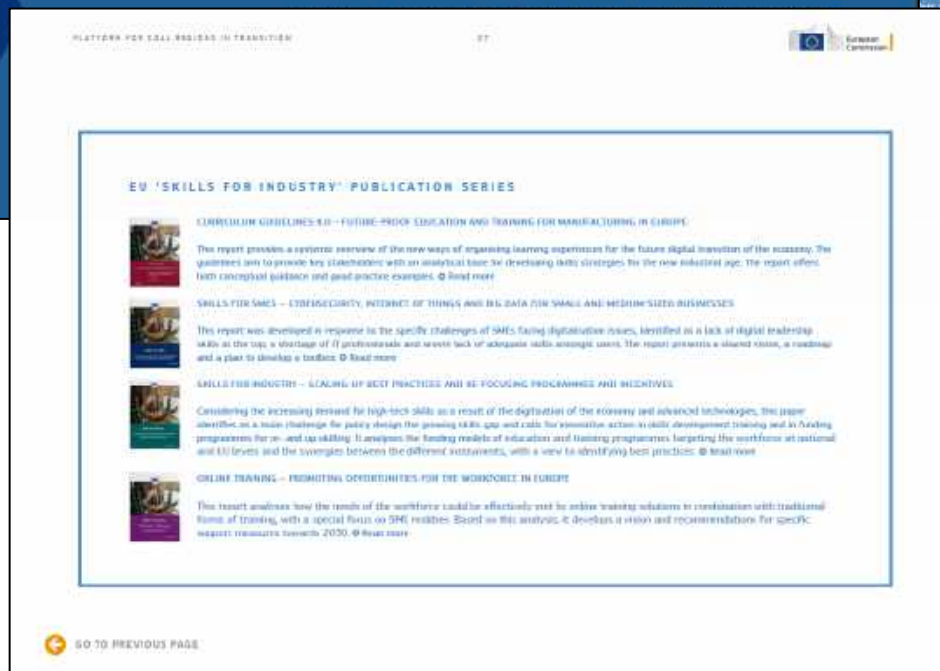
<https://publications.jrc.ec.europa.eu/repository/handle/JRC117938>

EU Coal Regions in Transition Platform



<https://ec.europa.eu/energy/en/topics/subtopic/97>

Dedicated toolkit on employment in coal regions available



Including references to many other existing handbooks,

visit: ec.europa.eu/coal-regions-in-transition