# JRC support to the Coal Regions in Transition

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Understanding the magnitude of the challenge: coal infrastructure in place
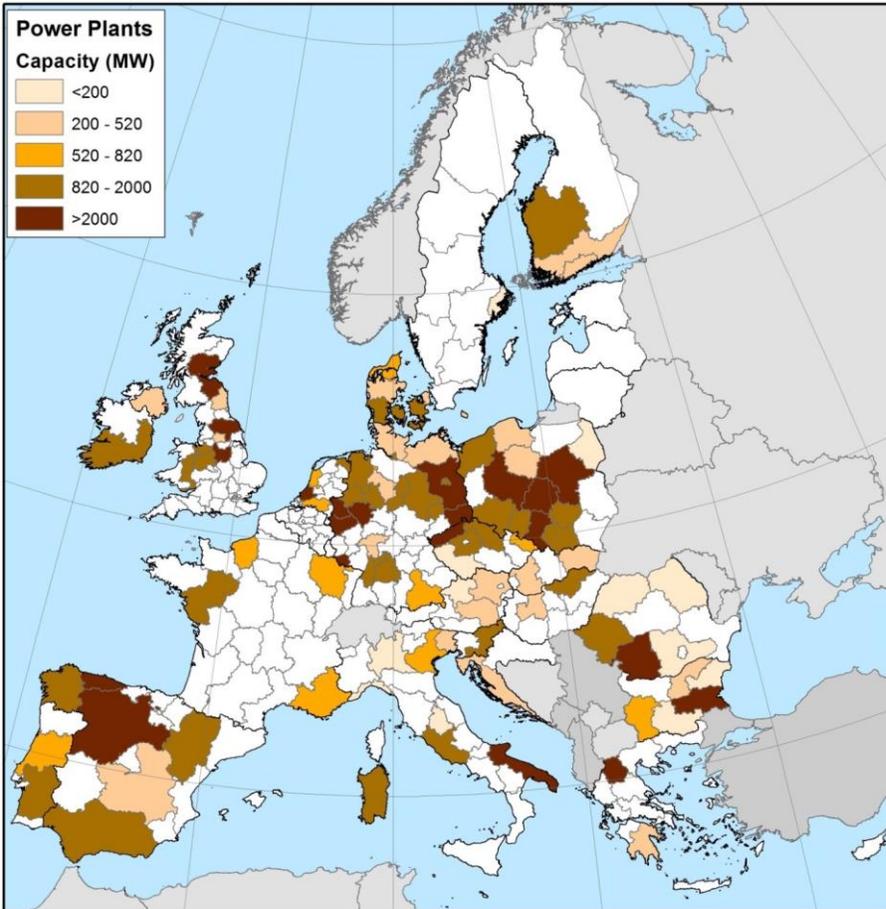

Power plants

- 207 power stations in 21 Member States

- 108 NUTS-2 regions

- Total capacity: 150 GW

Mines

- 157 coal mines in 12 Member States

- 41 NUTS-2 regions

- 500 Mt of coal and lignite

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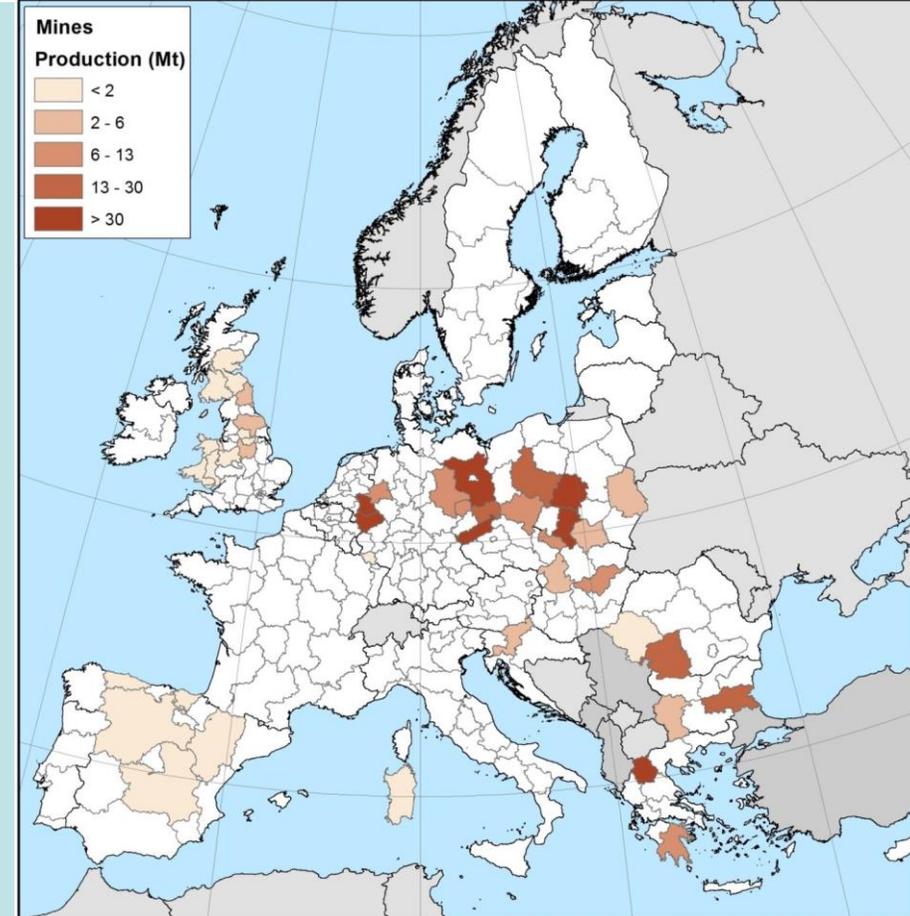
Comprehensive assessments: from economic and social impacts to energy transition and energy supply security

Mapping the current situation

Stakeholders

Data collection

Analysis using established methodologies

Value chain analysis

Energy system model

Power dispatch model

Qualitative and quantitative output of the analysis

Economic and social impacts of closure of coal mines

Implications for the energy transition and the security of energy supply

Alternative investments

Sharing information and good practices

Concrete case: preliminary analysis of Upper Nitra (SK)

Studies could be carried out for regions of all concerned Member States and shared in a common portal

JRC SCIENCE FOR POLICY REPORT

Socio-economic transformation in coal transition regions: analysis and proposed approach

Pilot case of Trenčín region in Slovakia

More info in an open source report:
https://ec.europa.eu/jrc/sites/jrcsh/files/coal_regions_report_jrc_pilot-slovakia.pdf

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Smart specialisation as an instrument for economic transformation in coal regions

I. Political and institutional framework
- Definition of energy policy and energy mix
- Identification of partners and strategic mandates

II. Diagnosis
- Economic, innovative and scientific potential
- Possible solutions (good practices)

III. Stakeholders involvement (Entrepreneurial Discovery Process)

IV. Skills and social transition

V. Smart Specialisation Strategy and Implementation Plan

**Methodological guidance and implementation support**

- **Good practices: experiences from regions in industrial transition**

- **Toolkit for the long-term structural transformation of coal regions and guidance on its application**

Improving air quality in coal regions: Mapping the source of PM2.5

The Urban PM2.5 Atlas, has recently be produced by the JRC to help local and regional policy makers in to air quality planning.
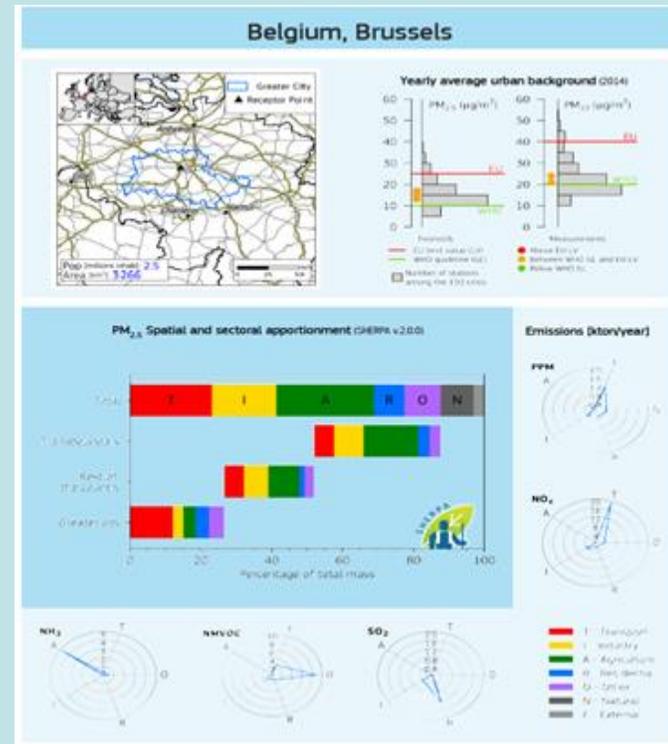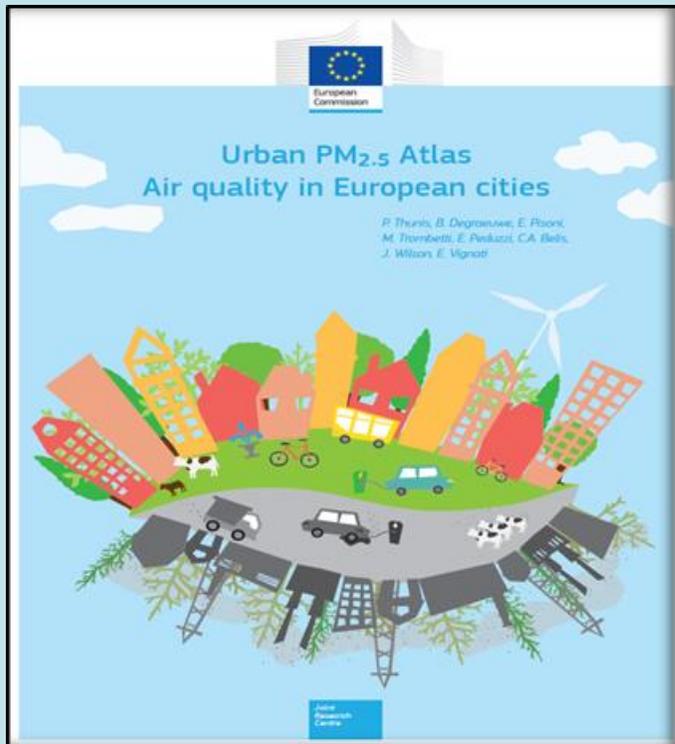
- **Quantify the contribution of coal related activities to poor air quality.**

- **Assess the impact of strategies and/or projects in the area of advanced coal technologies and eco-innovation on air quality and human health.**

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The role of innovation in clean energy technology in the energy transition

- Up-to-date assessments of state of the art for technologies, incl. CCUS, heating and cooling and RES

- Identification of technology development trends and needs

- Techno-economic and market assessments

- Technology barriers to large scale deployment

- Research and development needs and joint planning

- Tracking progress of the energy technology innovation landscape

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Thank you for your attention!
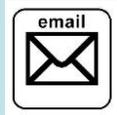
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