



INSTITUT FÜR ARBEITSMARKT- UND  
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# Coal phase-out in Germany – structural change, adjustment burden and proposed policy responses

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# Tasks of Commission on Growth, Structural Change and Employment

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- Develop a plan for coal phase-out in Germany
- Propose a programme for regional development and new jobs in regions affected by phase-out
- Package of measures that reconciles economic development, structural change, social cohesion, climate protection

# Stock-taking– situation in coal mining regions

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Source: Richwien et al. (2018).

- 3 lignite mining regions
- Structurally lagging regions, especially in East Germany (below average GDP per capita, above average unemployment)
- Spatial concentration of structural change caused by phase-out
- Particular adjustment burden for specific regions and groups of workers

# Stock-taking– situation in coal mining regions

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- Estimated number of jobs affected by phase-out of lignite mining
  - Direct (mining and energy production in coal-mining districts): about 20,000
  - Induced and indirect (consumption, suppliers): approx. 36,000
- Direct effects: primarily skilled workers, well-paid jobs, importance for regional value added and tax revenues
- Capacities for vocational training in lignite plants - significant especially for East German mining regions
- Regional specialization: energy production, co-location of energy-intensive industries
- Significant differences between regions: economic strength, demographic trends, settlement structure, R&D activity and innovation, participation in existing support programmes...

# Policy measures: starting points and principles

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- Different preconditions to cope with structural change  $\Rightarrow$  region-specific strategies, responsibility of regional agents to develop projects/programmes
- Individual level: workers employed in mining/energy sector (supplying industries) losing their job due to phase-out
- Regional level: structural change in mining regions - new jobs and value-added to compensate loss caused by phase-out
- Not restricted to economic policy measures, also support activities of civil society in mining regions – increase social cohesion and acceptance of structural change (phase-out is a controversial issue)
- Funding in addition to existing support programmes: 40 billion euros over next 20 years – provide long-term perspective, independence from short-term decisions

## Individual level – labour market policy/social policy

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- Socially acceptable organization of phase-out  $\Rightarrow$  workers who lose their job in mining/energy sector (similar approach for phase-out of hard coal mining in Germany)
- Use of different measures depending on individual situation (esp. age):
  - Workers aged 58 or older: early retirement, bridge to early retirement (adjustment allowance), compensation of wage/pension loss
  - Younger workers: usual measure of (active) labour market policy  $\Rightarrow$  unemployment benefit, placement, (advanced vocational) training, occupational retraining
- Internal placement: phase-out over period of 20 years  $\Rightarrow$  fill vacancies ( e.g. due to retirement) with workers laid-off at other mines, promote mobility of workers between different plants/regions

## Regional level – labour market policies

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- Maintain existing capacities for vocational training in mining firms (infrastructure, staff) – use in context of regional training networks of SME
- Regional surveys of gap between new job profiles and qualification of workers ⇒ collect information for design of training curriculum
- Learning from past experiences to improve transitions due to structural change – coal phase-out is long-term process
- Analyse employment biographies of laid-off workers: duration of unemployment, industry/occupation changes, migration

## Regional level – regional/structural policy

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- „Jobs to people“ or „People to jobs“ – proposals mainly in line with first approach
- Objective: new jobs and value added in mining regions, provide perspectives in particular for young workers/avoid outmigration
- Focus: new jobs via private investment:
  - improve local conditions: infrastructure investments (transport, digital, research, education, local public infrastructure - e.g. industrial parks)
  - funding for innovation/R&D activity
  - subsidies for private capital investments
- Increase public sector employment (e.g. settlement of public authorities)



## Regional level – regional/structural policy

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- Take advantage of specific economic structure of regions, specialised R&D infrastructure at local universities, qualification of workers  $\Rightarrow$  in particular energy sector
- Investments in renewables, different technologies for energy transition (e.g. power-to-gas/liquid, energy storage,...)
- Model regions/real laboratories for energy transition: bring promising new technologies closer to market launch
- Speed-up of planning and approval processes related to new technologies in mining regions

# Challenges of implementation

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- Importance of management and coordination
- (Local) infrastructure for implementation of regional strategies, need to coordinate various agents at different levels (federal, states, counties, municipalities), different policies (make use of synergies, avoid trade-offs)
- Quality of local institutions affect design and implementation of development strategies (Rodríguez-Pose 2018) ⇒ heterogeneous effects of structural/regional policy
- Policies should respond to structural opportunities, potential and constraints of each place (Iammarino et al. 2017) - avoid „cathedrals in the desert“

# Challenges of implementation

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- Generate new jobs while labour supply is expected to decline significantly in East German regions, availability of qualified workers?
- Need to better combine mutually reinforcing measures of different policies, especially regional policy and active labour market policy: way to increase intensity of aid via accumulation
- Need to reconcile aid for mining regions with EU regulation: restrictions due to EU state aid rules, complementary EU regional policy

# Monitoring and evaluation of projects/programmes

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- Choice of promoted projects according to different criteria: contribution to structural change, expected effects on regional employment/value added,...
- Continuous monitoring of implementation of regional strategies, evaluation of regional programmes, readjustment where necessary
- Use results of previous evaluation of policies (what works)
- Comprehensive review of implementation and effects: 2023, 2026 und 2029 – with respect to: climate targets, development of electricity tariffs, security of power supply, structural change, regional employment...