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Economic diversification in the Rhenish Mining area, Germany 德国莱茵矿区经济多元化发展

Strategy and governance approach
战略与治理方法

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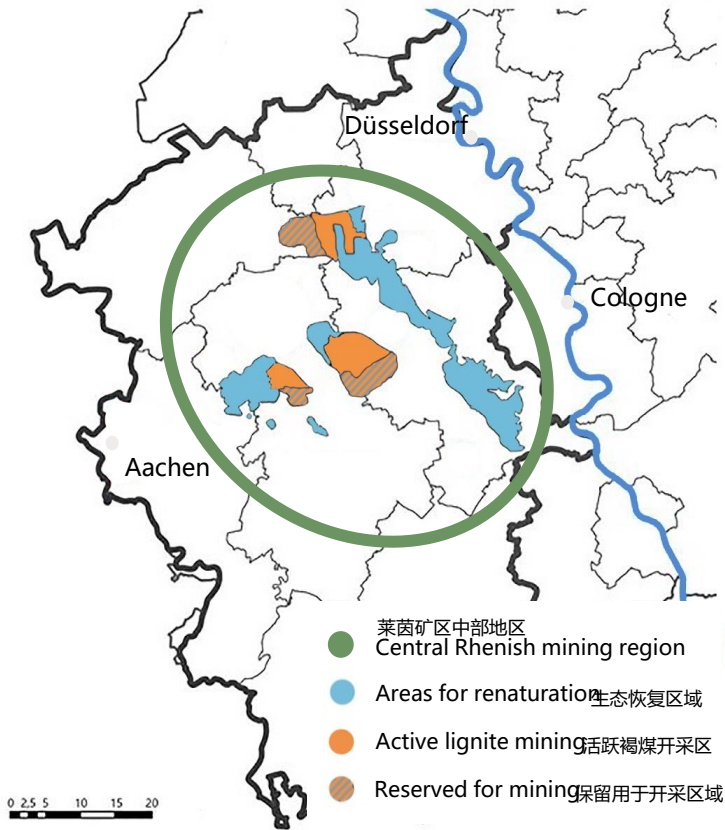
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- Assessment of local resources - advantages and disadvantages 当地资源评估 - 优势与劣势
- Key policies/mechanisms and sources of finance 关键政策/机制和融资来源
- Progress, challenges, and suggestions on next steps 进展、挑战及进一步发展建议
- Implications for other coal regions 对其他煤矿区的启发

Background

Map of the Rhenish Mining area, West Germany 莱茵矿区地图, 西

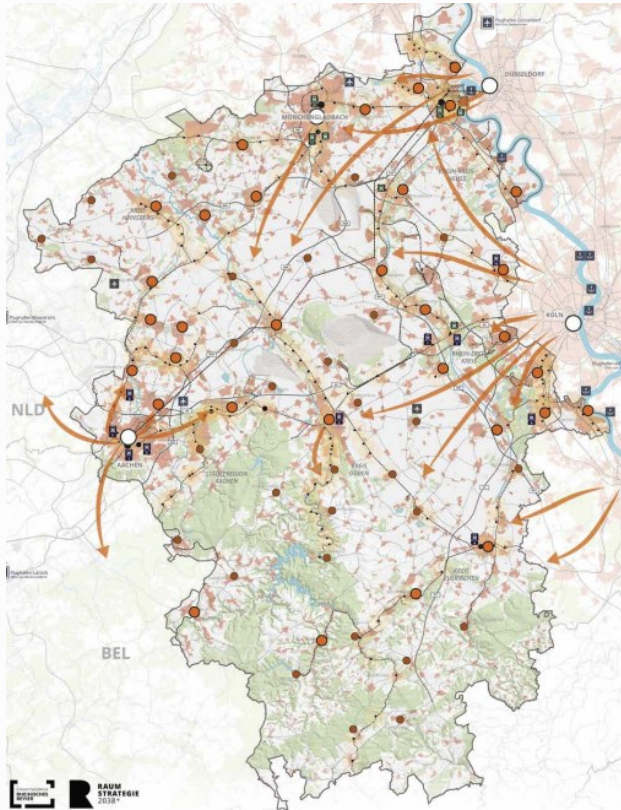


History of coal 煤炭历史

1. The region is gradually phasing out of coal for over 20 years already, purely due to economic reasons 该地区由于经济原因，已经逐步淘汰煤炭超过20年
2. Employment in the coal industry dropped from 26,000 in the 1950s to 8,500 workers in 2023 煤炭行业的就业人数从1950年代的26,000人下降至2023年的8,500人
3. Drivers for transitioning away from coal 转型驱动
4. National commitment to phase out of coal in 2038 (Rhenish area in 2030) 国家承诺到2038年全面淘汰煤炭（莱茵地区目标为2030年）
5. Additional economic pressure from cheaper renewables, increasing carbon tax 更低成本的可再生能源和日益增长的碳税带来的额外经济压力
6. Other facts 其他情况
7. Largest active lignite area in Germany 德国最大的活跃褐煤开采区
8. Strong need for governance coordination due to several involved administrative regions, towns and municipalities 由于涉及多个行政区域、城镇和市政单位，亟需加强治理协调
9. National funding support: EUR 14 billion over the next 20 years 国家资金支持：未来20年内将提供140亿欧元资助

Assessment of local resources 当地资源评估

Map of urban spillover effects as part of a spatial analysis 城市溢出效应地图，作为空间分析的一部分



Advantages 优势

Highly developed, good prospects for the transition 高度发达、转型前景十分乐观

1. Existing industries (paper, chemical, metal, food) 现有产业体系（造纸、化工、金属以及食品业）
2. Local university and research facilities 当地高校和科研设施
3. Positive spillover effects from nearby cities 周边城市的积极溢出效应
4. Overall low unemployment 总体失业率较低
5. Disadvantages 不足
6. Young people leave the region, lack of skilled workforce 人才流失问题
7. Lack of capacity of local administrations to govern complex system transformation 地方政府面对复杂系统转型时，缺乏有效的管理和应对策略
8. No integrated development approach for the coal region 煤炭产业区域缺乏一体化的发展方案

Key policies/mechanisms and sources of finance

关键政策/机制及资金来源

The region 's long term strategy 该地区的长期战略



Key policies/mechanisms in response to the advantages and disadvantages 针对优势与不足的关键政策/机制

1. National framework for structural change in coal regions 国家层面煤炭区域结构转型框架
2. Economic and Structural Programme 1.1, plus sub-strategies 经济及结构转型计划1.1及其子战略
3. Coordinating Body: Future Agency Rhenish Region (ZRR) 协调机构：莱茵地区未来机构 (ZRR)
4. Funding support from different levels (EU, MDBs, national, provincial, municipal, etc) 多方资金支持 (欧盟、多边开发银行、国家、省、市等)
5. Access to EU funding (Just Transition Mechanism, Cohesion Funds, EFRE, Horizon) 获取欧盟资金支持 (公正转型机制、凝聚力基金、欧洲区域发展基金、地平线计划)
6. National structural funds 国家级基金
7. Private investments by existing companies such as the energy company RWE 现有公司 (如能源公司莱茵集团, RWE) 的私人投资

Progress 进展情况

1. Identification of focus areas for economic development 确定经济发展着重点
2. Each focus area is also a working group, tasked to develop sub-strategies and suggest quick response measures 每个重点领域同时设立为一个工作组，负责制定子战略，并提出快速响应措施
3. The strategy defines what kind of projects can be funded under the national funding schemes for coal regions 该战略明确了哪些项目可依据国家煤炭区域资助计划获得资金支持

Focus areas defined in the strategy 战略中明确的重点领域



Progress 进展情况



Project examples 项目实例

Setup Food Strip 构建食品产业带

- › Regional network for agriculture and food industry 打造区域农业与食品工业互联网络
- › Test area for agricultural innovation projects near Jüchen 于兴（德国莱茵的一个镇）周边的农业创新项目试验区
- › Objective: Supporting the diversification of the agricultural and food industry + closer alignment with regional markets 目标：推动农业与食品工业多元化发展，并强化其与区域市场的紧密联系
- › Funding: EUR 200,000 资金：20万欧元
- › <http://www.foodstrip.eu/>

Brainenergy Park Jülich 尤利希智慧能源园区

- › intermunicipal business park on 52 hectares 占地52公顷的跨市工业园区
- › Objective: stimulate new business settlements and synergies between research, industry and start-ups in the field of energy, digitalization and agricultural technology 目标：激发能源、数字化及农业技术领域的新企业入驻热潮，并促进科研、工业及初创企业间的协同合作与优势互补
- › Funding: EUR 6.3 million 资金：630万欧元
- › <https://www.brainergy-park.de/>

Implications for other coal regions 对其他矿区的启发

Lessons learnt 经验

1. ZRR as coordinating institution reduced competition among municipalities 区域复兴计划（ZRR）作为协调机构，有效地减少了各市政当局之间的竞争
2. Development strategy is based on extensive analysis of regional strengths 发展战略基于对本地区域优势的全面深度分析
3. Policy strategy focus on the support of innovation in green technologies with 政策战略核心在于扶持绿色技术创新
4. Stakeholder inclusion has been key to success and to reduce opposition to the plans 利益相关方的参与是成功的关键所在，同时有效降低了计划遭反对的风险
5. Spatial planning can be used as a “transition coherence check” 空间规划是确保转型过程保持一致性的重要工具



Tools and resources 参考文献

- Wuppertal Institute (2023) JT:READY Just Transition Readiness Evaluation Tool <https://coaltransitions.org/tools/jtready/>
- CIF (2023) Just Transition planning toolbox <https://cif.org/just-transition-toolbox/home>
- Wuppertal Institute (2022) Just Transition Toolbox <https://www.coaltransitions-toolbox.org/>
- EU Smart Specialisation Strategy (S3) <https://s3platform.jrc.ec.europa.eu/>