



Welcome

# International perspectives and experiences

Platform for Coal Regions in Transition

#CoalRegionsEU

Energy



WHEN THE SUN RISES  
WE WORK HARD TO DELIVER

# Just Energy Transition in Mpumalanga Province in South Africa

## Working Group Platform on Coal Regions in Transition

October 2019



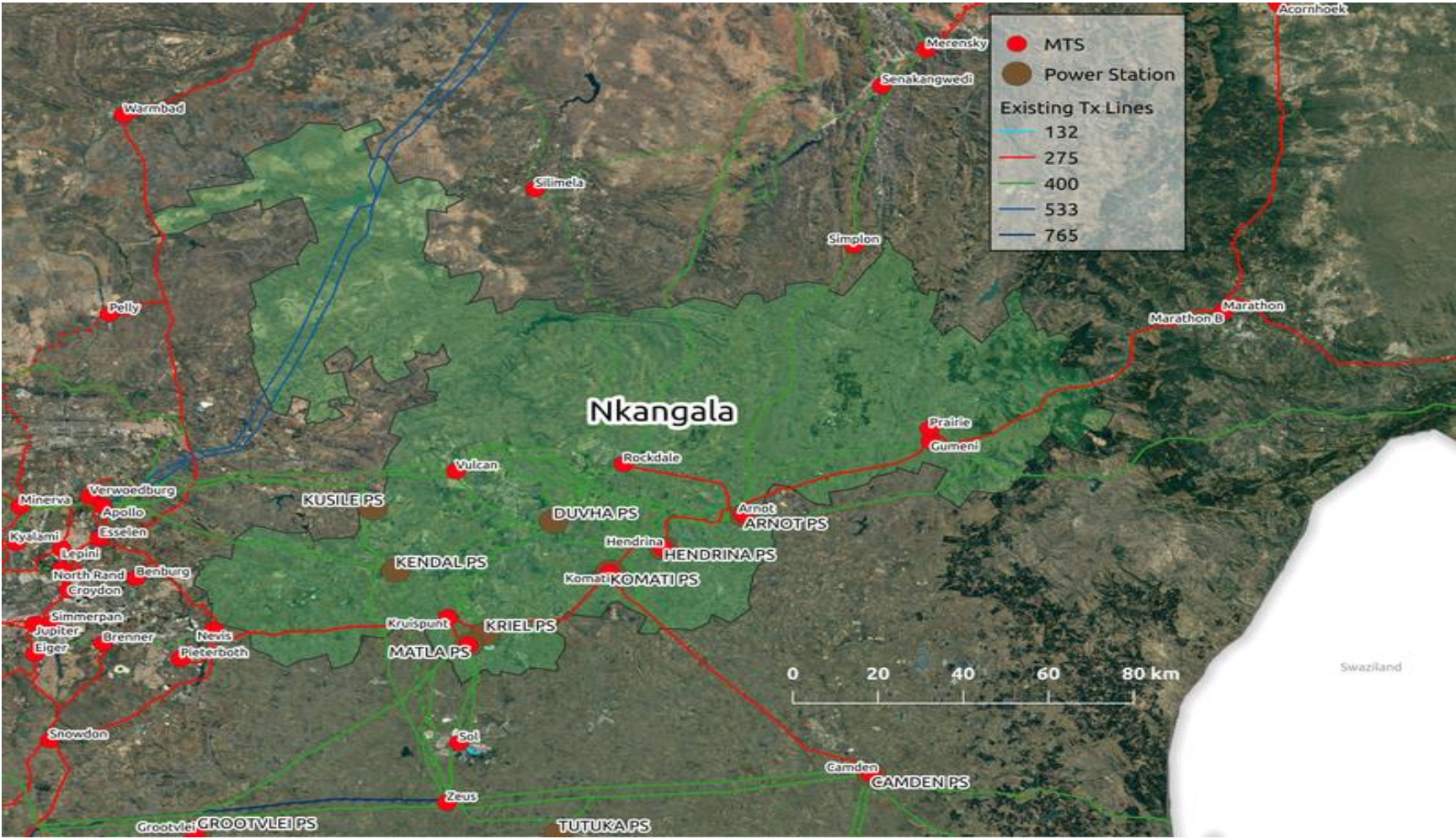
# Legal Framework

- Constitution SA , 1996
- National Development Plan Vision 2030
- Mpumalanga Vision 2030
- Mpumalanga Growth & Development Path
- Mpumalanga Green Economic Development Plan
- Mpumalanga Climate Change Adaptation Strategy
- Mpumalanga Climate Change Mitigation Strategy (in progress)

# Energy Transition Global Trends – 5Ds

- ✓ Decarbonisation
- ✓ Decentralisation
- ✓ Democratisation
- ✓ Digitisation
- ✓ Disruptor Technologies

# Nkangala Economic Baseline Assessment



# Why assess the Nkangala Economic Baseline?

- The Nkangala District region is home the bulk of power stations and coal mines in South Africa. This poses a great threat to the regional economy if these stations were to close due to decommissioning

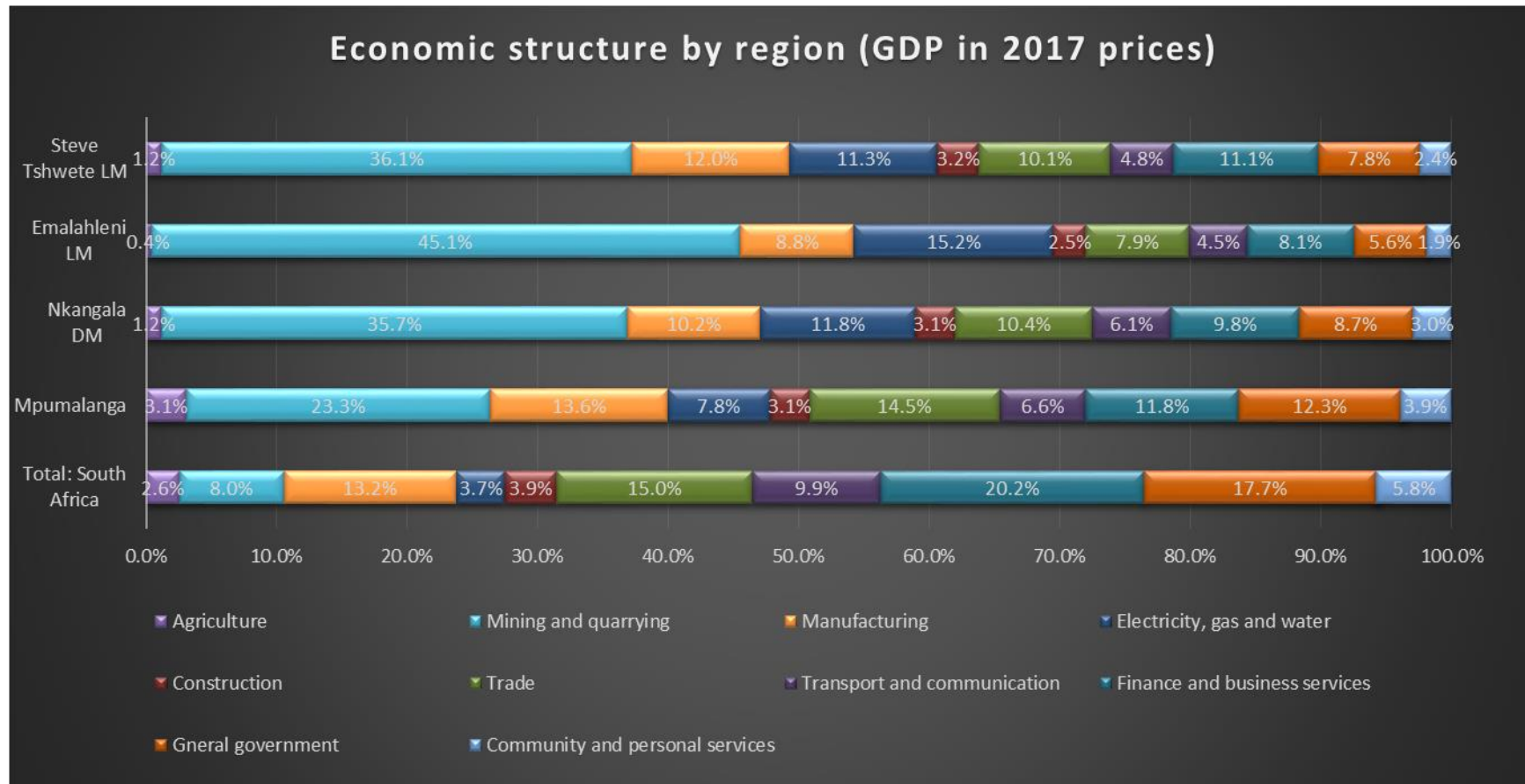
Power station	Technology	Status	Installed capacity MW	Decomissioning date
Arnot	Coal	existing	2220	2025-2029
Duvha	Coal	existing	3480	2030-2034
Hendrina	Coal	existing	1900	2021-2027
Kendal	Coal	existing	3840	2038-2043
Komati	Coal	existing	900	2024-2028
Kriel	Coal	existing	2880	2026-2029
Matla	Coal	existing	3480	2029-2033

# Coal Fleet Decommissioning Plan

- ✓ The scenarios outlined in the IRP 2018 show little to no investment in further coal fired generation
- ✓ The plan also indicates a decommissioning schedule for the existing fleet due to its age

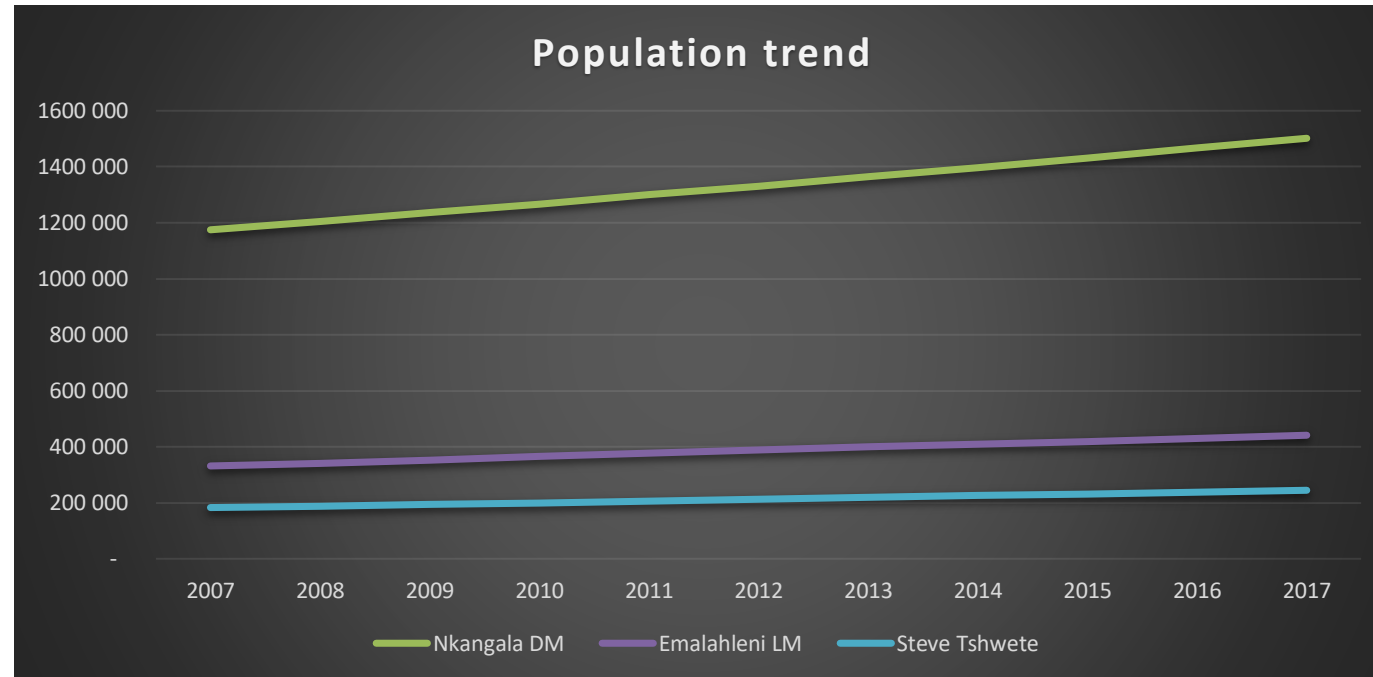
Year	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
MW Decommissioned	900	700	600	400	900	1600	1400	1900	1900	2300

# Baseline profile for Nkangala District Municipality





# Baseline profile for Nkangala District Municipality

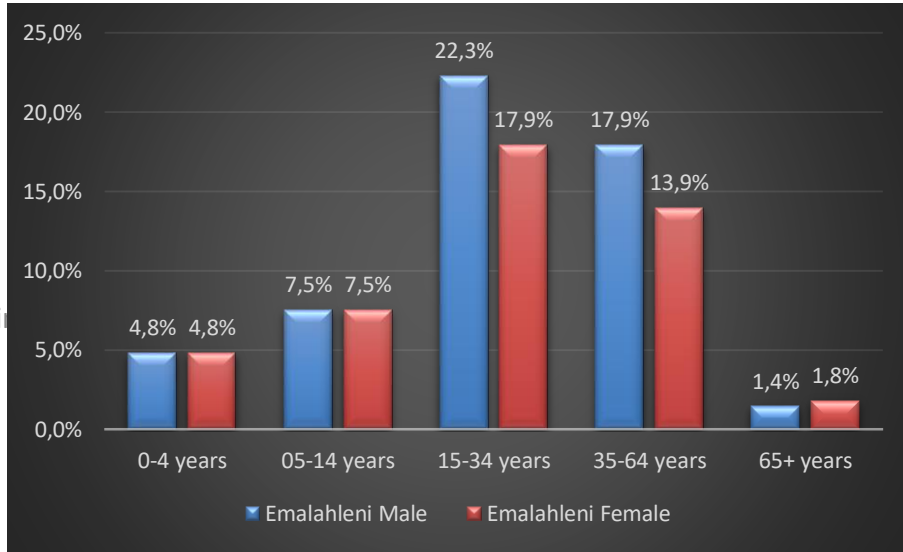
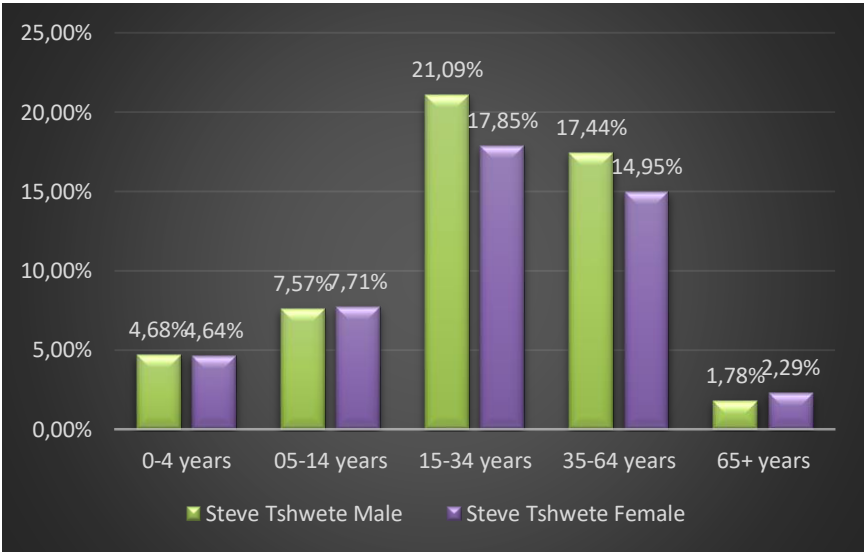


Over 1.5 million people live in the Nkangala District Municipality as of 2017

The district and local municipalities have shown a compound annual growth rate of 2.5% over the period 2007-2017

# Baseline profile for Nkangala District Municipality

## Demographics

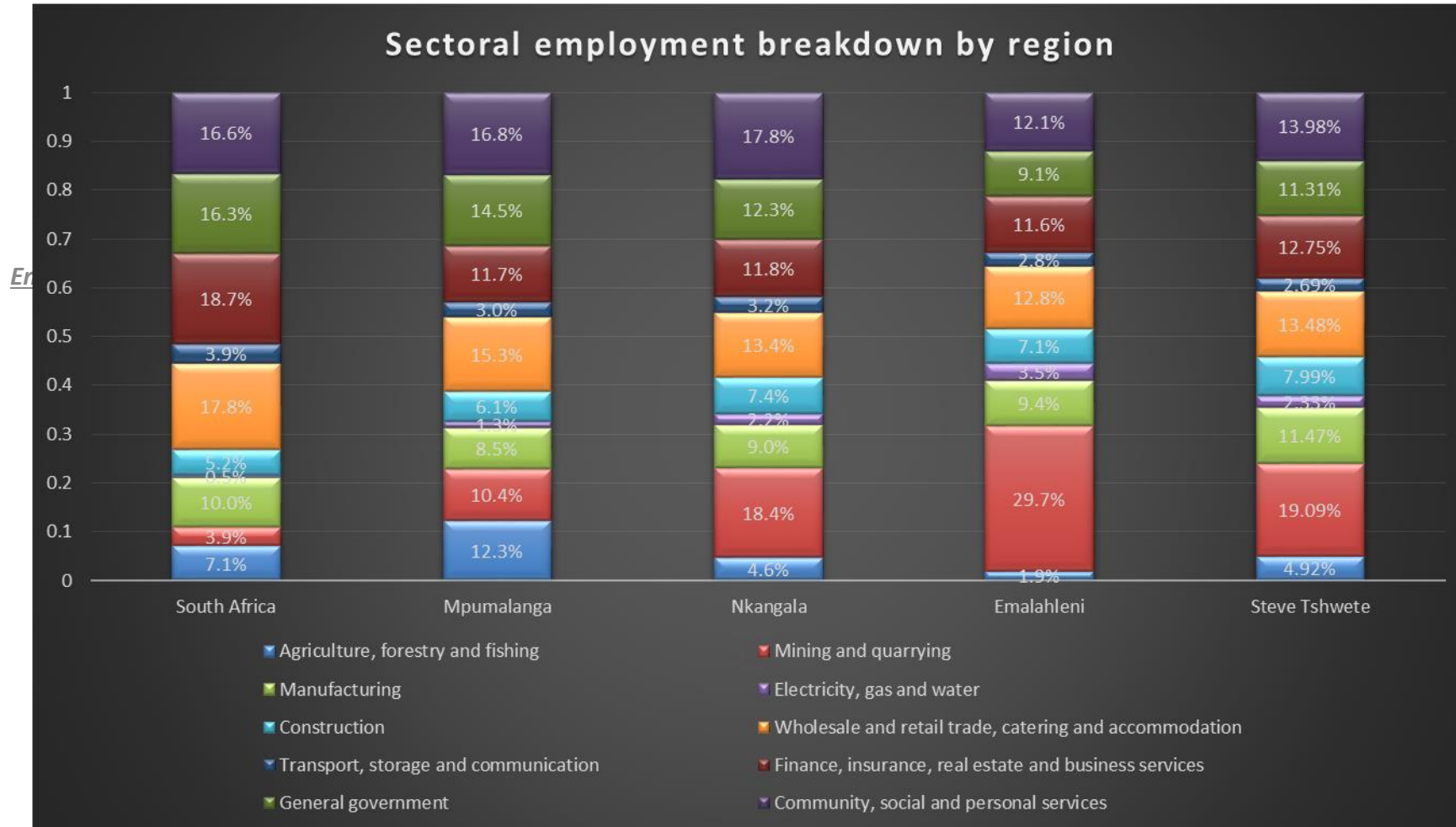


# Baseline profile for Nkangala District Municipality

- ✓ Employment
- ✓ Over 1 million people are of working age and living in the district municipality.
- ✓ About 40% of these individuals are employed in the DM
- ✓ The unemployment rate of the DM stands at 32%
- ✓ The remaining 28% are not economically active
- ✓ The same trend can be seen within the Emalahleni and Steve Tshwete LM's

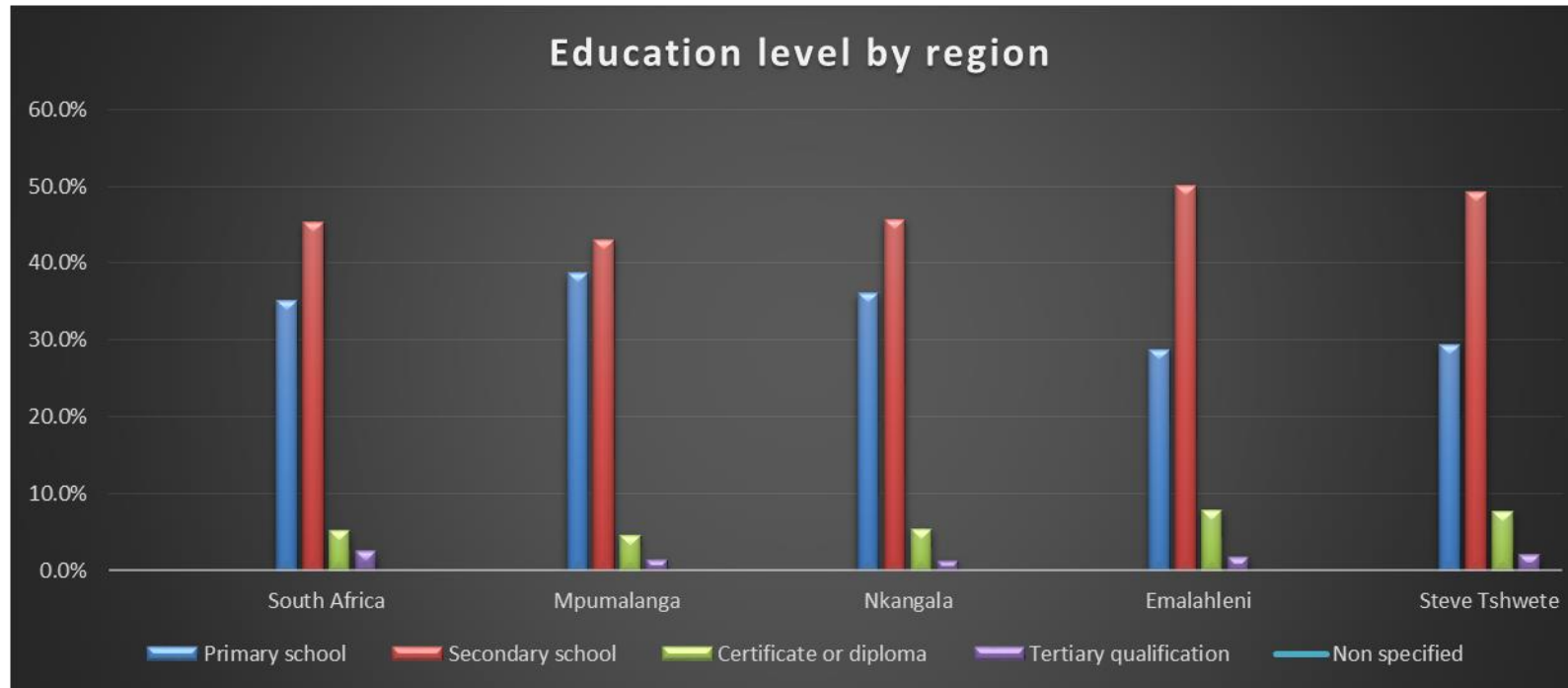
	<b>Emalahleni</b>	<b>Steve Tshwete</b>
<b>Population: Working age</b>	319 437	174 974
<b>Employed %</b>	49 %	54 %
<b>Not economically active</b>	22 %	25 %
<b>Unemployment rate</b>	29 %	21 %

# Baseline profile for Nkangala District Municipality



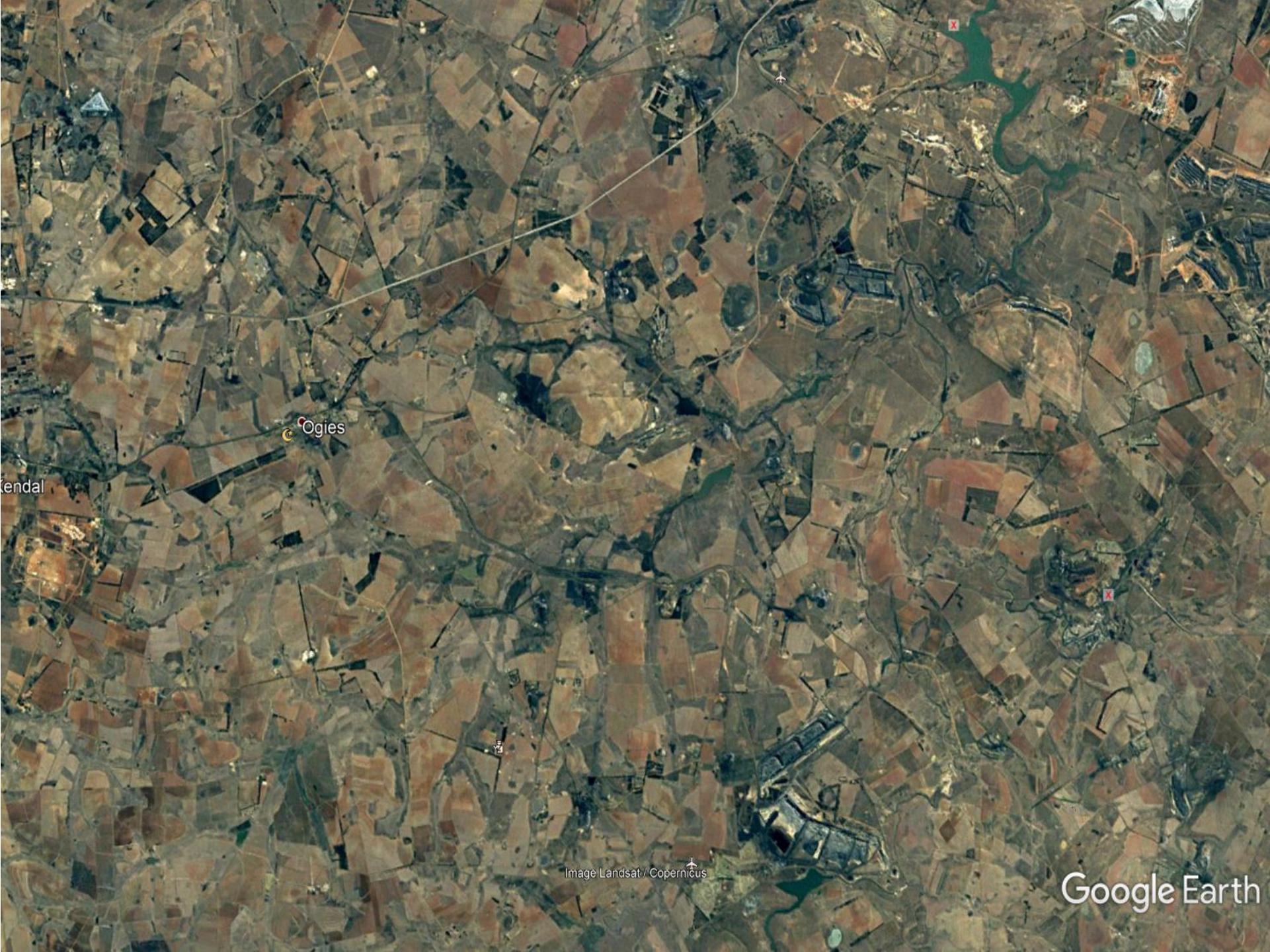
Confidential

# Baseline profile for Nkangala District Municipality



## **Education**

The district and local municipalities have higher levels of secondary and diploma graduates when compared to provincial and national averages



tendal

Ogies

Image Landsat / Copernicus

Google Earth



tendal

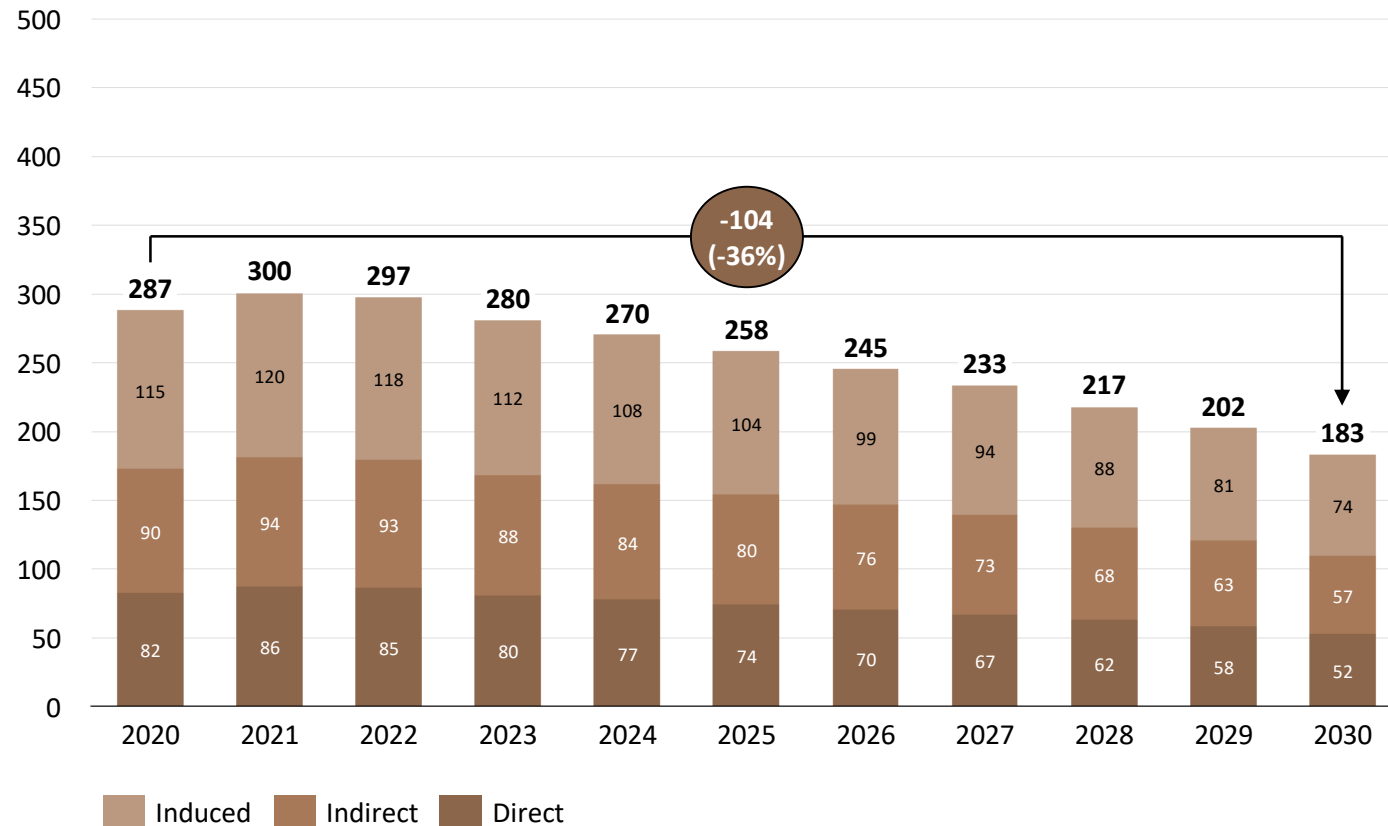
Ogies

Image Landsat / Copernicus

Google Earth

# Net job losses in coal overall of $\approx 100\text{k}$ , direct jobs in coal shifting from $\approx 80\text{k}$ in 2016 to $\approx 50\text{k}$ by 2030

Jobs (net)  
(construction + operations)  
['000]



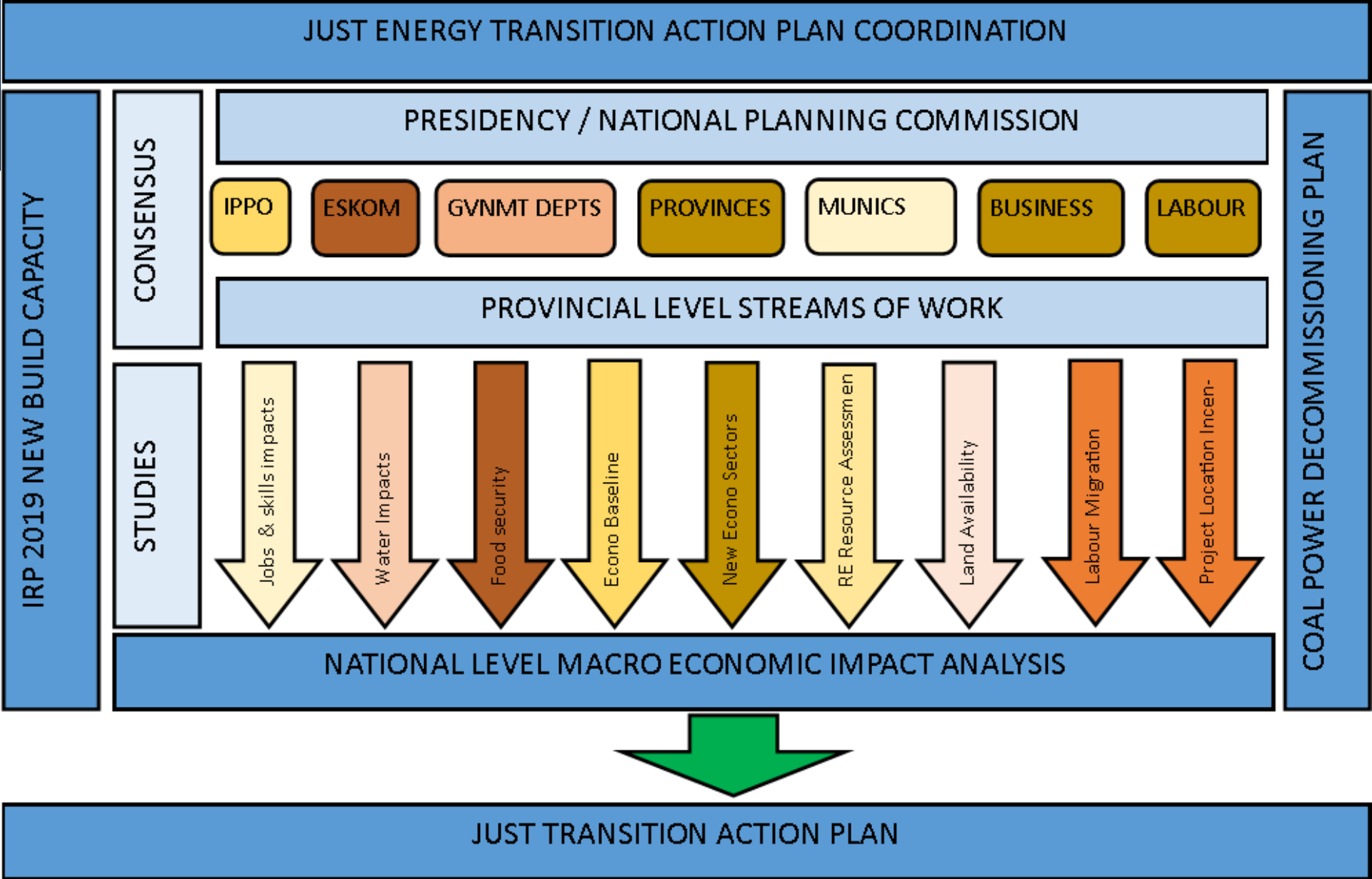
DoE  
Recommended  
Plan (to 2030 only)

Sources: Draft IRP 2018; CSIR Energy Centre analysis  
Note: Job potential includes direct, indirect and induced jobs



# Challenges on Energy Transition

- ✓ Losses on Region Economic activities
- ✓ Losses in jobs and opportunities in mining and power sectors
- ✓ Labour migration
- ✓ Negative socio-economic impacts
- ✓ Losses of existing skills and lack skills required for new industry
- ✓ Lack of change of policies to include Renewables
- ✓ Limited Economic Diversification





THANK YOU  
DANKIE  
REA LEBOHA



NDOLIVHUAA  
ENKOSI

HI NKHENSILE  
SIYATHOKOZA  
SIYABONGA



# Transformation of coal regions: Recommendations for national authorities

Kostiantyn Krynytskyi

Ecoaction

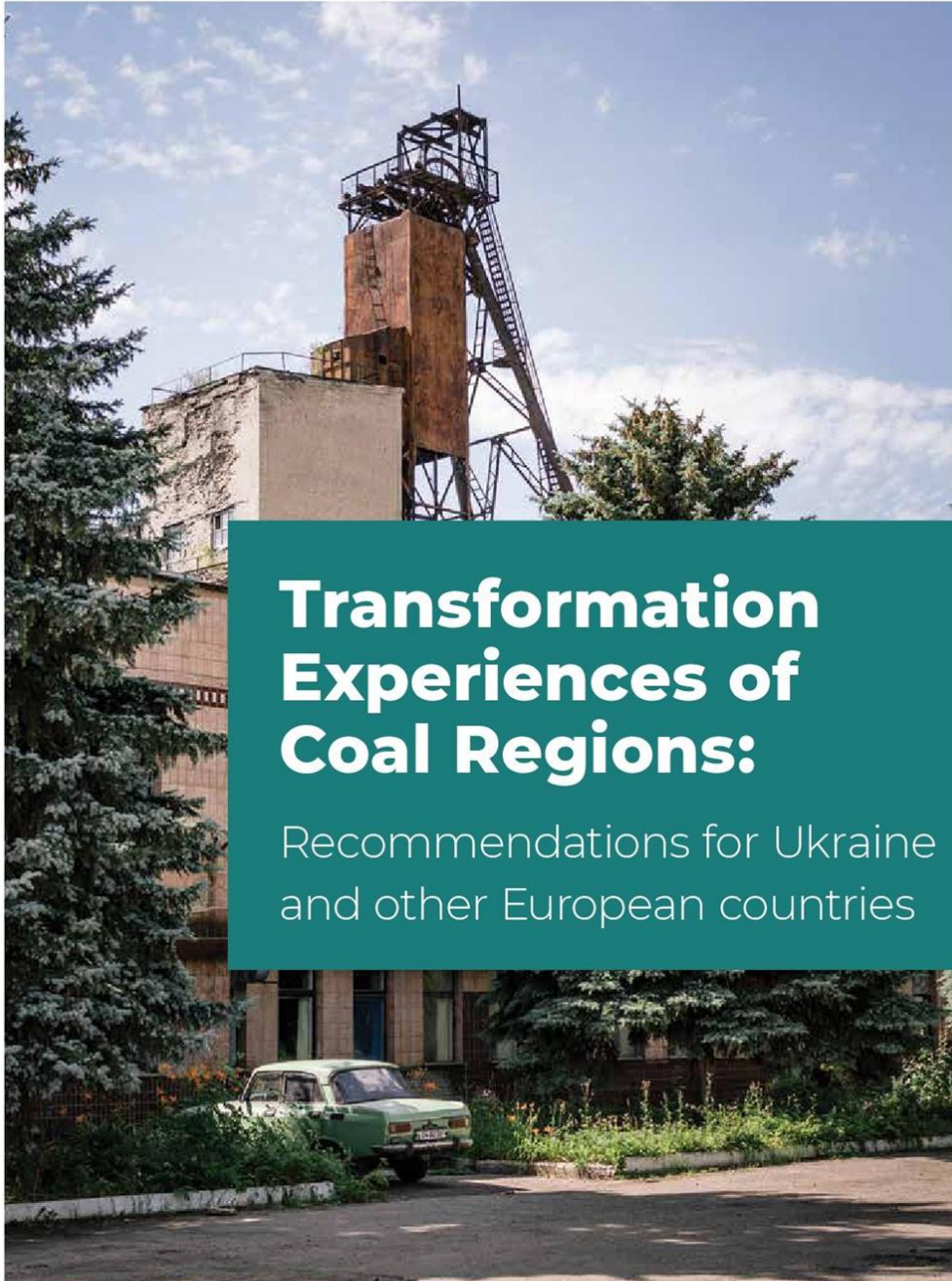
Brussels, October 16th 2019

# Structure

1. Study
2. Findings: National level
3. Discussion

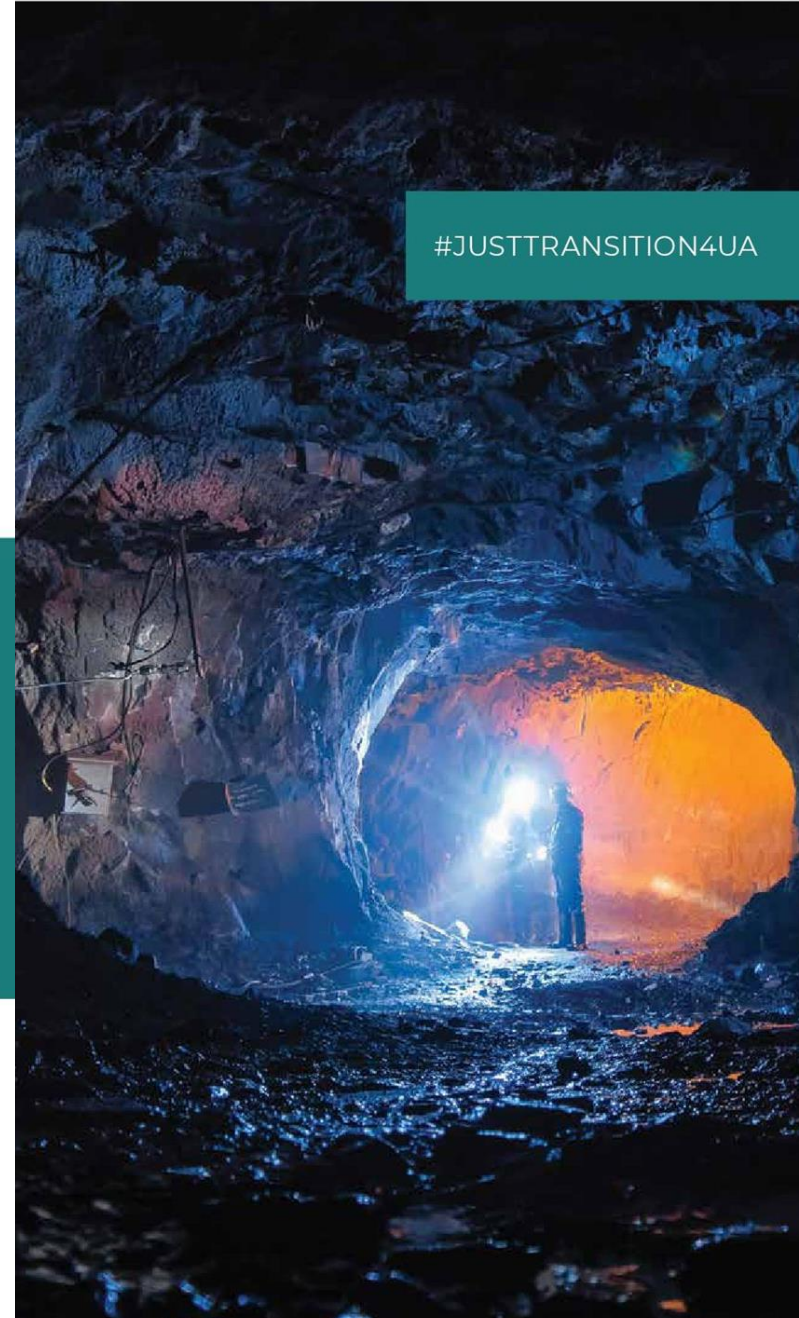


**Study**



# Transformation Experiences of Coal Regions:

Recommendations for Ukraine  
and other European countries



#JUSTTRANSITION4UA

# Study

## ✓ 4 countries

- Czech Republic
- Germany
- Romania
- Ukraine

## ✓ Analysis of

- national policies
- concrete regional cases (coal regions)

✓ **authors** from academia, consulting, expert community

✓ **recommendations**, check-lists for national, regional and local authorities

Part of project "New energy, new possibilities for Donbas", funded by BMZ



With funding from the







- ✓ Interested in the executive summary? You can get your copy from me / or download it here:

<http://bit.ly/transformation-coal-summary>

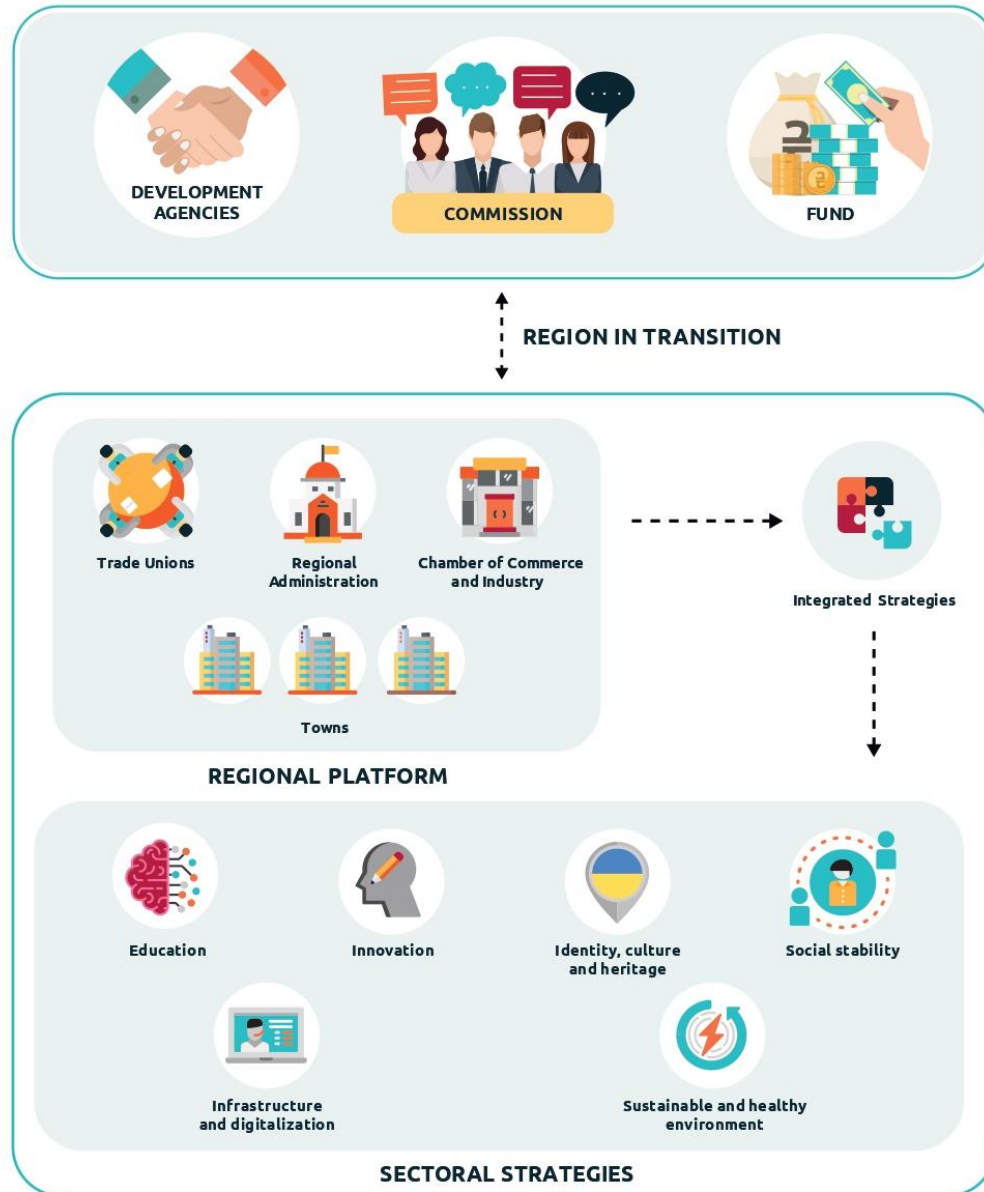
- ✓ Interested in the full study? You can download it here:

<http://bit.ly/transformation-coal>



## Findings: National level

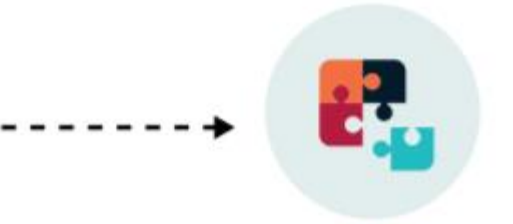
## SUCCESSFUL STRUCTURAL TRANSFORMATION. OVERVIEW OF THE PROCESS







**REGIONAL PLATFORM**



**Integrated Strategies**



**SECTORAL STRATEGIES**

# Findings: National level

1. Establishment of a **Commission for Structural Changes**
2. Setting a **coal phase-out date** for the energy sector
3. Creation of a **Restructuring plan** based on the Commission's recommendations
4. Early cooperation with the affected regions - **local needs, interests and ownership first!**

5. Creation of various **Restructuring Funds** (Economic diversification, Infrastructure development, Pension, Education etc.) aimed at innovative solutions
6. **Terminating** allocation of direct and indirect **subsidies** to the coal industry
7. Creation of **national employment** and **requalification programs**, employment agencies, public programs for job creation in other economic sectors

8. **Overhaul** of the existing **pension system**, finance **early retirement** of coal miners
9. Establishment of **one entity/foundation covering environmental damage issues** and perpetual mine management obligations
10. Creation of **new research and innovative centers**, adapting (upper) secondary and higher education to new business, innovation and job opportunities



# Thank you for your attention!

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# INTERNATIONAL PERSPECTIVES

## WORLD BANK'S GLOBAL EXPERIENCE ON ENERGY TRANSITION IN COAL REGIONS

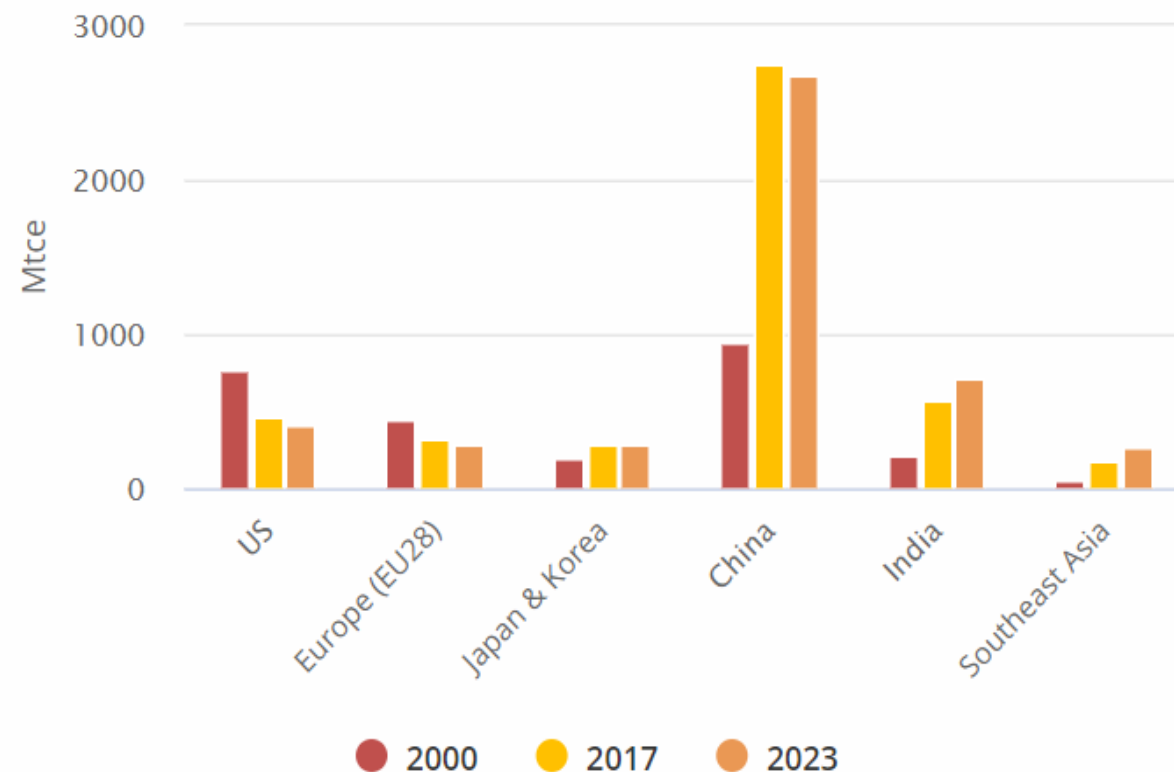
PLATFORM FOR COAL REGIONS IN TRANSITION | 6<sup>TH</sup> PLENARY & WORKING GROUP MEETINGS  
WORLD BANK ENERGY AND EXTRACTIVES DEPARTMENT – GLOBAL PRACTICE  
BRUSSELS, BELGIUM | OCTOBER, 2019



# Global Outlook for Coal

- **Global coal demand is forecast to remain stable over the next five years**, as declines in Europe and North America are offset by strong growth in India and emerging Southeast Asia
- Risks associated with global climate policy, potentially stranded assets, local opposition and the memories of the last downturn **have cooled investors' appetite to invest in new production**
- **Coal transition in Europe exhibits three trends:** accelerated coal exit in some EU member states, recent phase out declarations in some Western Balkans states and no foreseeable phase out plans in other European countries.

Coal demand in select countries/regions in 2000, 2017, and 2023



Source: IEA Coal 2018 report

# World Bank Engagement

**Serbia:** Managing social impacts to workers and communities; repurposing land and assets in Resavica (\$500,000)

**Greece:** Managing the transition in coal regions of Western Macedonia (€500,000)

**Morocco:** Early stage discussion on phasing out of coal fired power plants

**South Africa:** Early stage discussion

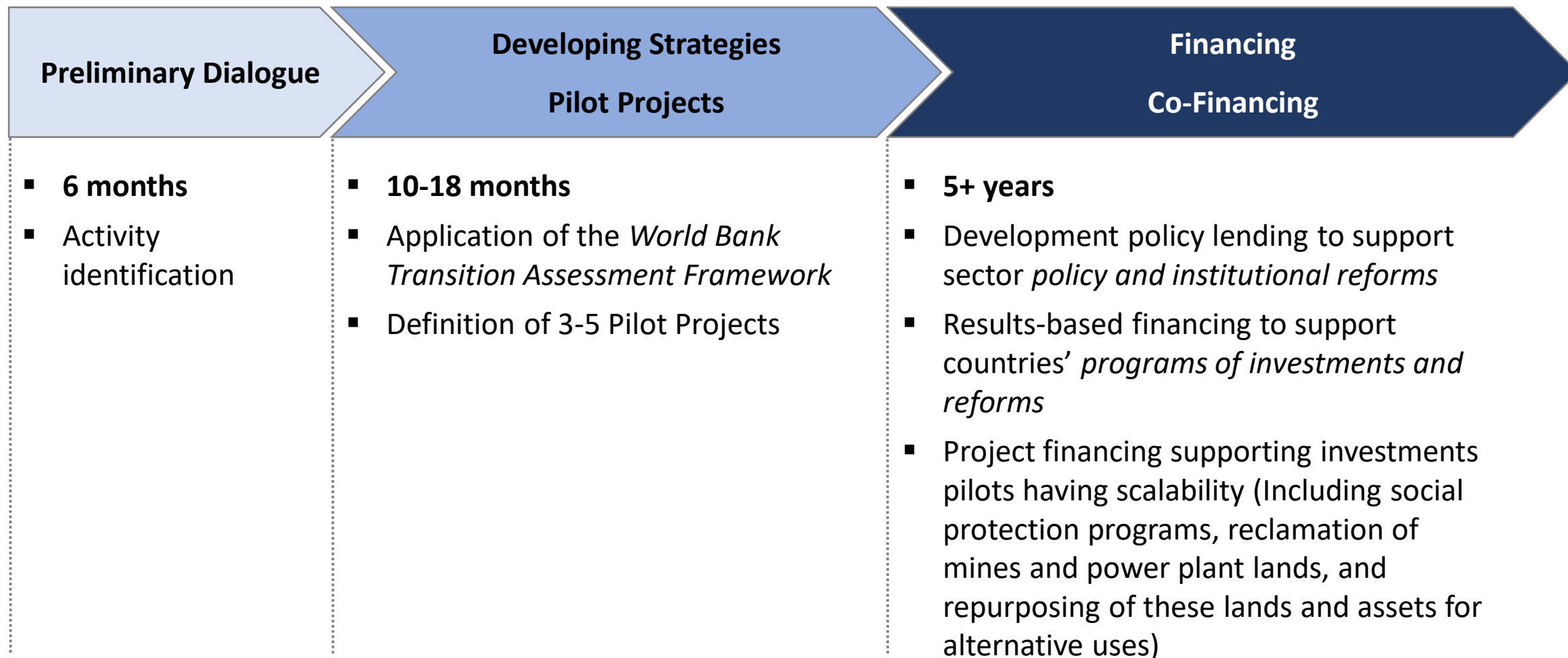
**Western Balkans and Ukraine:** World Bank-EC collaboration to develop a regional platform for coal regions in the Western Balkans and for Ukraine

**China:** Shanxi Energy Transition and Green Growth Development Policy Operation as part of China's energy revolution (\$300 million)

## Observations from conversations in coal regions

- **Many coal-dependent countries are pursuing alternative energy transition programs** but which operate almost in a vacuum to efforts to address coal. There is therefore a need for more comprehensive, national level power system planning exercises to bring these two sides of the energy question together.
- **Employment diversification** in coal-dependent regions is the most critical concern of all stakeholders, and this question is linked to the need for **regional economic transition strategies**.
- **Repurposing of former mining lands and their assets** presents one of the most strategic economic opportunities for immediate transition as it unlocks development potential and can create significant jobs
- There are considerable **key knowledge gaps** which could provide tangible guidance to countries and regions, such as: capturing successful socio-economic transition cases; country (and region)-specific jobs analysis to understand supply and demand; what types of governance arrangements respond best to specific political contexts; maximizing reskilling to retain labor in former coal mining areas, etc.
- **Learning by doing**, through pilot projects, will only add further value to the discussions and exchanges
- In the last six months there has been **considerable expansion of interest to support coal regions by a range of international partners**. Coordination, collaboration and where possible, cooperation will be critical for ensuring best use of financial and technical resources.

# World Bank Programmatic Support



## Being Strategic About Our Assistance

- **Demand will only increase for planning and implementation assistance** as further countries and their regions transition
- Rather than individual technical assistance to regions and their countries, a **Coal Regions in Transition Academy** could provide knowledge and training to key decision-makers and transition planners
- Planning exercise will create **considerable financial demand for implementation resources** in the second phase
- **Transition Pilot Projects can serve as a first intervention, even in parallel to planning, to build momentum:**
  - ✓ Pilot projects for economic transition
  - ✓ Pilot projects for vocational training for reemployment
  - ✓ Pilot projects for repurposing of land and assets
- With the increase in interest to support coal regions by a range of international partners, a **preparation facility** should be envisaged with necessary resources (managerial, technical, social and environmental safeguard, communications, etc.) to finance the necessary pre-feasibility and feasibility studies required to get programs off the ground, and at the same time provide a one-stop-shop for financing for a select number of projects or transition programs

**THANK YOU**

PLATFORM FOR COAL REGIONS IN TRANSITION | 6<sup>TH</sup> PLENARY & WORKING GROUP MEETINGS  
WORLD BANK ENERGY AND EXTRACTIVES DEPARTMENT – GLOBAL PRACTICE  
BRUSSELS, BELGIUM | OCTOBER, 2019







# REGIONAL DEVELOPMENT AND COAL TRANSITIONS

Chris McDonald  
Project Co-ordinator – OECD Mining Regions and  
Cities Initiative  
Centre for Entrepreneurship, SMEs, Regions and  
Cities, OECD  
16<sup>th</sup> October 2019



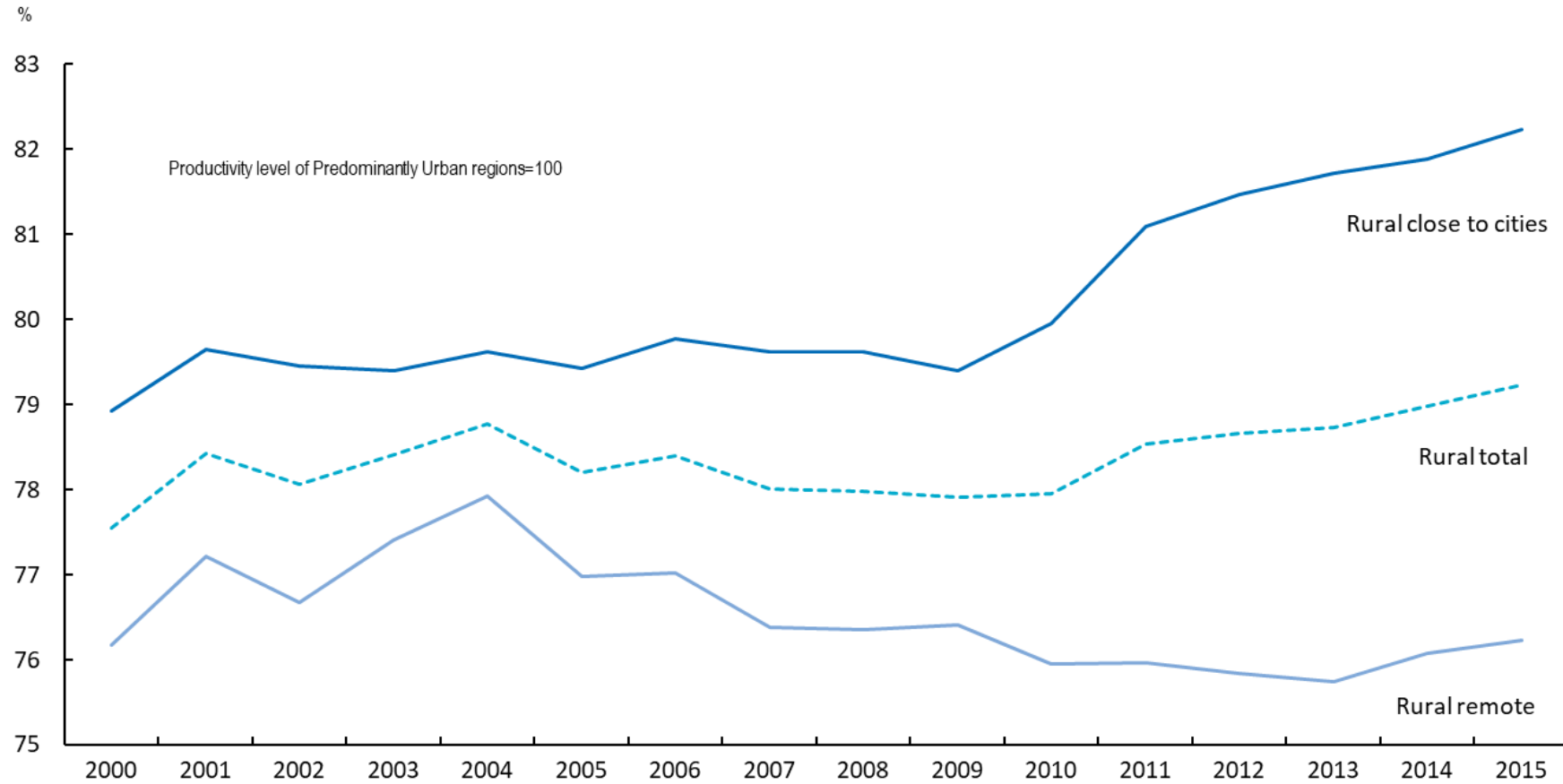
## Presentation outline

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1. OECD approach to regional and rural development
2. Considerations for coal regions in transition



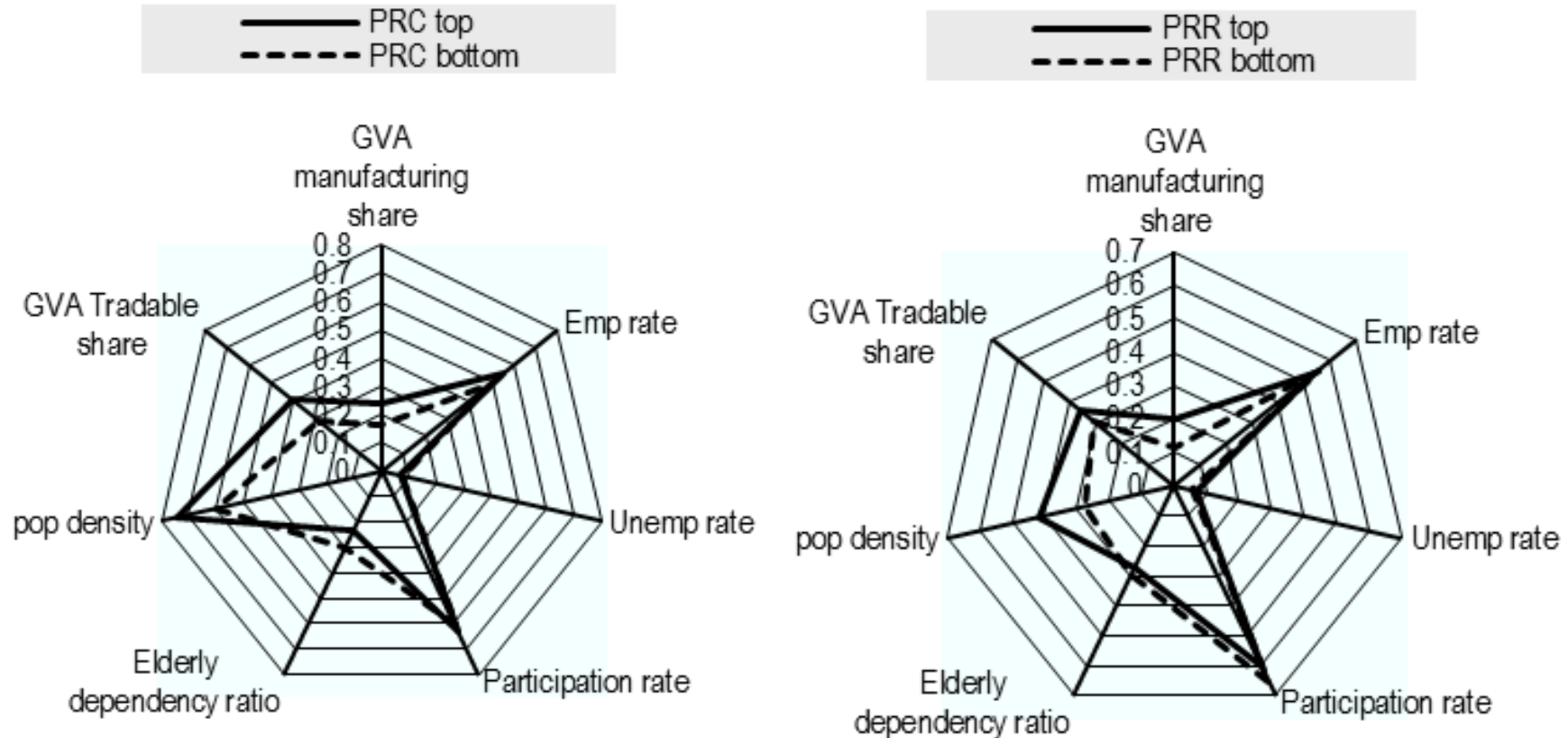
# Productivity growth in rural regions (2000-2015)





# What are the key drivers of productivity growth in rural regions?

## Determinants of productivity growth before the crisis (2000-2008)



- **Tradable activities** are key for rural close to cities and remote rural
- A minimum level of **density** is key for economies of scale/scope and delivery of goods and services.



# An Evolving OECD Rural Paradigm

## Rural Policy 3.0

	Old Paradigm	New Rural Paradigm (2006)	Rural Policy 3.0 –Implementing the New Rural Paradigm
Objectives	Equalisation	Competitiveness	Well-being considering multiple dimensions of: i) the economy, ii) society and iii) the environment
Policy focus	Support for a single dominant resource sector	Support for multiple sectors based on their competitiveness	Low-density economies differentiated by type of rural area
Tools	Subsidies for firms	Investments in qualified firms and communities	Integrated rural development approach – spectrum of support to public sector, firms and third sector
Key actors & stakeholders	Farm organisations and national governments	All levels of government and all relevant departments plus local stakeholders	Involvement of: i) public sector – multi-level governance, ii) private sector – for-profit firms and social enterprise, and iii) third sector – non-governmental organisations and civil society
Policy approach	Uniformly applied top down policy	Bottom-up policy, local strategies	Integrated approach with multiple policy domains
Rural definition	Not urban	Rural as a variety of distinct types of place	Three types of rural: i) within a functional urban area, ii) close to a functional urban area, and iii) far from a functional urban area



## Transition in resource-based economies

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- Underlying policy approach from national government e.g. staged restructuring, shock, proactive support
- Strength of local institutions – distributed leadership, consensus, linkages
- Other areas of absolute and competitive advantage (resource endowments, food production, amenities, access to markets)
- Level of integration between mining and extractive operations and the local economy
- Size and skills-base of the local population that influences the diversification of the economy and its capacity to adjust to shocks



## Coal regions: other opportunities in the tradeable sector

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- Utilizing ex-mining sites for renewable energy production (taking advantage of the transmission infrastructure)
- Working with SMEs in the value chain (engineering, construction, logistics, maintenance) to develop new markets
- Identifying new resource exploitation opportunities (gas, other uses for brown coal, minerals and metals) – including pilot projects and R&D
- Developing research and services around mine rehabilitation
- Developing niche tourism offers based on industrial heritage



## Policy options

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1. **Local institutional arrangement** to coordinate and manage the transition process
2. Investment in **economic infrastructure and land use reforms** to facilitate transition
3. Facilitating the availability of small scale grants and credit to **SMEs and start-ups** coupled with capacity building and technical advice
4. Investing in **digital technologies and broadband access** to improve access to services and markets
5. Investing in **energy related R&D and education and training** within coal regions
6. Targeted labour market transition support:
  - a) Implementing **proactive support** (training, employment pathways, entrepreneurship) for workers affected by mining closure and transition
  - b) Active labour market policies and local entrepreneurship **population groups that face barriers** to economic participation (e.g. youth leaving education and training).





THANK YOU FOR YOUR  
ATTENTION

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REGIONS.HTM](http://WWW.OECD.ORG/CFE/REGIONAL-POLICY/MINING-REGIONS.HTM)