

Ministry of Energy of the Republic of Poland

Tomasz Dąbrowski Undersecretary of State Platform for Coal Regions in Transition

Fifth Plenary and Working Group Meetings

**July 15, 2019, Brussels** 



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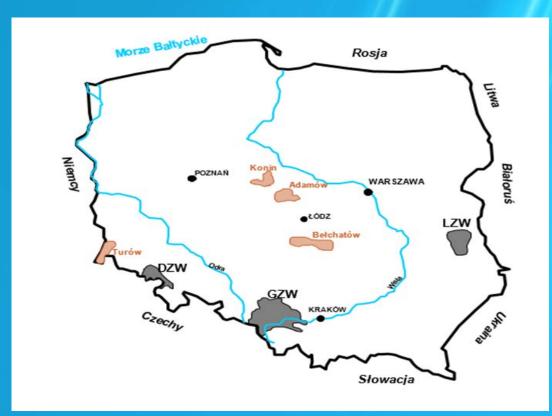
e@me.gov.pl

www.me.gov.pl

#### Location of major Polish hard coal and lignite basins:







#### **Management structure:**

Minister of Energy

Minister of Investment and Development
Energy

Minister of Investment and Development
Energy

Entities supervised by the ME (companies, research institutes, etc ..)

Marshal of the Silesian Region

Marshal of the Greater
Poland Region

Marshal of the Lower Silesia
Region

Cooperation with: municipalities, authority. social, economic zones, municipal companies, etc. (Working groups)



#### **Actions of the Polish Government:**

- 1. 12.10.2017 meeting with representatives of the EC at the Ministry of Energy
- 2. 11.12.2017 official inauguration of the CRiT Platform at the EP in Strasbourg
- **3. 2018-2019** meetings with representatives of the European Commission:
  - during the EEC in Katowice in 2018 and 2019
  - visit of the EC representatives in Silesia
  - 5 meetings of "country team Poland" in Brussels (upcoming 3 on 17.07.2019)
  - active dialogue with representatives of Directorates General at the EC
- 4. effective coordination of activities in Poland at the regional level as well as at the level of central administration:
  - central meetings with representatives of all institutions (ME, MIR)
  - in regions:
    - meetings of Working Groups organized by Marshal Offices of the following Regions: Silesia, Greater Poland, Lower Silesia
    - meetings with beneficiaries of projects.
- 5. Currently, three regions are participating in the initiative: Silesia, Greater Poland, Lower Silesia.



#### **Types of projects submitted by Poland:**

1

restructurisation of mining regions and development of entrepreneurship and develoment of investment areas of liquidated mines

2

supporting the process of employee retraining and creating new jobs

research and development works in the field of clean coal technologies

4

implementation of new "green" technologies

#### Polish projects are part of:

Responsible Development Strategy

Program for the hard coal sector

Program for the lignite sector

Program for Silesia



#### **Project financing:**

- 1. Projects in progress financed from:
  - National Operational Programs
  - National Regional Programs
  - from other EU funds, e.g. the Research Fund for Coal and Steel
  - and from the own funds of the units involved
- 2. EP resolution of 14/11/2018: EUR 4.8 billion for the EU as the *Just energy transition* fund in WRF 2021-2027
- 3. Scale of Poland's needs in the field of energy transformation towards the transition to a zero-emission economy.

#### Results of the projects will include:

Reduction of pollutant emissions through the implementation of projects in the field of:

- construction of solar farms
- geothermal energy
- network heat development

#### GDP growth:

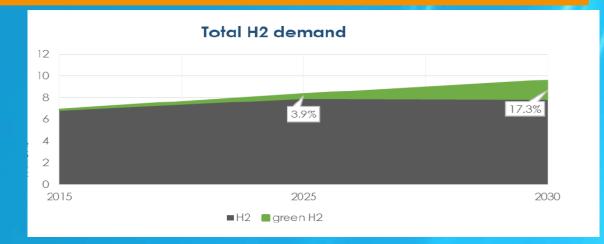
- the mining and non-mining industry generated 5.4% of Poland's GDP in 2017
- Poland counteracts the reduction of GDP in mining regions through the implementation of projects in which workplaces
  match the value of those in the mining and supply industries



#### Examples of projects within the implementation of "green" technologies:

#### 1. Hydrogen from coke-oven gas:

- ➤ Demand for hydrogen in the EU will increase in 2030 by 17.3% to about 10 ml.t.
- ➤ 1 kg of hydrogen = 4 liters of gasoline
- Hydrogen fueling stations in the EU:
  - in 2016 100
  - in 2020 520
  - in 2025 2.000



- ➤ Introduction of hydrogen-powered city buses will reduce emissions of air pollutants in urban agglomerations, and the development of hydrogen refueling infrastructure will improve air quality in regions affected by smog
- The hydrogen separation installation at Koksownia Przyjaźń (JSW S.A.) will allow the production of approx. 8.000 mg/year of hydrogen that will secure annual fuel demand for approximately 700 hydrogen-powered buses



#### Examples of projects within the implementation of "green" technologies:

#### 2. Silesia under the blue sky: (NCBR and Silesia competition)

- > stimulating the economy of the Silesian Region to create solutions to minimize the causes and consequences of negative impact of air pollution in the Silesia Region in the perspective up to 2026 effect: commitment of up to 28 enterprises and 28 implementations of innovative solutions
- ➤ increase in research and development activity in areas aimed at reducing the causes and consequences of negative impact of air pollution in the Silesian Region effect: 38 R&D works, 20 scientific units and 38 enterprises supported in the area of R&D, 21 enterprises cooperating with research centers
- increasing the number of innovations implemented in the field of technologies supported under the program in the perspective of 2026.

#### National Plan for Energy and Climate (KPEiK):

#### Polish CRiT projects fit in with the areas of KPEiK:

- "decarbonisation"
- "energy efficiency"
- "energy safety"
- "internal energy market"
- "research, innovation and competitiveness"

#### **Examples of projects:**

- Construction of a carbon adsorbent plant
- > Hydrogen project
- > Energy storage production of electricity by a pump-storage underground power station
- PV technology generation of electricity within RES
- Designing and launching the production of an electric car



## Jobs: valuation of the cost of replacing a job in mining with an equivalent to a place of work in another sector in Poland:

#### **Costs of replacing jobs in mining:**

Costs of job liquidation

- costs of employee severance
- lowering income and reducing consumption
- lost income to the budget

Costs of creating new jobs

- investment costs
- costs of current operation
- labor costs

**Transformation scenario** (the result is closure of mines with the simultaneous need of investment in new jobs in the automotive industry, construction services, logistics or RES energy):

- the average cost of replacing 1 job in the coal sector: PLN 270,000
- for PGG employees and the mining-related sector (200,000 employees): PLN 54 billion

#### **Liquidation scenario:**

- the average cost of replacing 1 job in the coal sector: PLN 1.2 million
- employees of PGG and the mining-related sector (200,000 employees): PLN 190 bilion

Poland is implementing a transformation scenario, as evidenced by projects submitted to CRiT



Source: University of Economics in Katowice

#### **Future cooperation with the CRiT Platform:**

- coordination and further support from the Government of the Republic of Poland (Ministry of Energy, Ministry of Investment and Development) in managing the initiative in the regions
- 2. active participation in the CRiT Working Group and "Country Team Poland"
- 3. effective cooperation with the Platform Secretariat
- 4. visits of the EC representatives in the regions



Thank you for your attention.

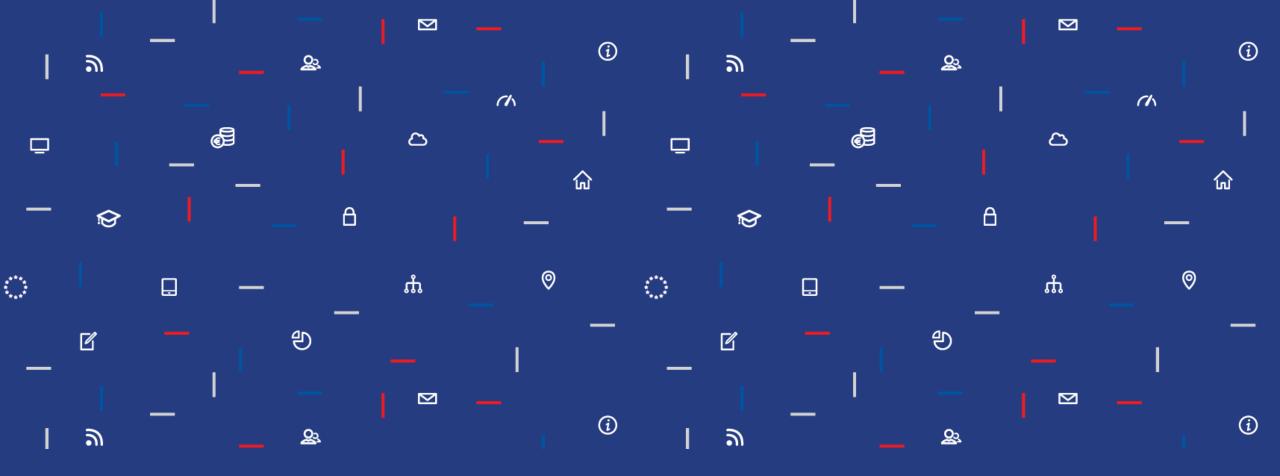
Tomasz Dąbrowski Undersecretary of State in the Ministry of Energy of the Republic of Poland

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Action plan for transition of Upper Nitra coal mining region

Action plan for transition of Upper Nitra coal mining region

Upper Nitra region is industrial region primarily oriented on mining brown coal and related economic activities as power-plant, etc.

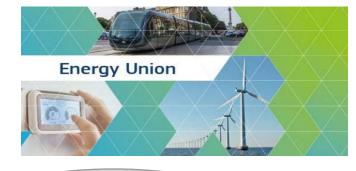
Further important branches:

electrical engineering, chemistry, plastic material producing, shoemaking-trade, textile industry etc.





## PROCESS Of Realization AP



On March 15, 2018, DPMO - established
Working Group for the Preparation and
Implementation of the Upper Nitra
Transformation Action Plan - In accordance
with the principle of partnership and participation -

On 26.-27. in February 2018, in Brussels, with the participation of DPMO and representatives of the Trenčín Self-Governing Region, the 1st Working Groups Meeting on the Coal Regions Initiative took place.

**Highly above standard**, consists not only of the relevant ministries, but all relevant stakeholders such as with representatives of the mines' board, trade unions, representatives of TSR -county, mayors of cities, non-profit sector, entrepreneurs and many other relevant actors

 March 2018: Meeting with SRSS to provide TA to develop Action plan for transition of Upper Nitra coal mining region



Deputy Prime Minister's Office and Trenčín Self-Governing Region met with representatives of the European Commission - General Secretariat - Service to support structural reforms. The EC will provide sources of technical assistance to support the preparation of the Action Plan for the Transformation of Upper Nitra Coal Region.

- March 2018: Working Group for Preparation and Implementation of the Action Plan established by DPMOII
- 7 meetings of the WG in Nováky (03/2018 - 05/2019)

 3 meetings with participation of EC representatives and selected experts on Action Plan preparation

Bratislava, Prievidza, Trenčín,





- 5 public hearings in 2019 to present the Action Plan in Handlová, Bojnice/Nováky, Prievidza, Partizánske
- 2 additional meetings to develop priorities and actions of the Action Plan in Prievidza and Handlová









- Meetings of DPM with Minister of Labour, Social Affairs and Family on the issues of social security of miners
- more than 70 bilateral meetings with individual actors

 Several meetings with MAs on funding possibilities from relevant OPs

 Meetings with socio-economic partners in accordance with the partnership principle

## Study visits

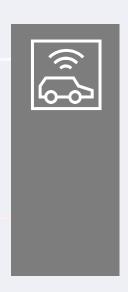
- Germany and Czech republic in February 2019
- Lusatia a Ústí nad Labem regions
- Similarities with the Upper Nitra region
- Coal mining still active, transition process in the initial phase, first steps taken

- Netherlands and Belgium in April 2019
- Limburg region
- Already undergone a transition process

#### Vision

Upper Nitra will become an attractive and self-sufficient region where the economy will develop in symbiosis with a clean environment and a good connection to other economic centers

#### 4 pillars of Action plan



Mobility and connectivity of the region



Economy, business, innovation



Sustainable development



Quality of life and social infrastructure

## Collection of indicative project intents for Upper Nitra

- 180 project intents collected by May 2019.
- Project owner and project partners identified
- Projects mapped to pillars and priorities of the Action Plan
- Indicative project budget and possible funding identified
- Ongoing process, subject to regular revisions

- Innovative production of railway carriage chassis
- Project owner: HBP (mining company)
- Project description: Production of railway carriage chassis utilizing modern and innovative methods
- Building on experience and infrastructure of the existing engineering and machinery division of HBP in cooperation with Tatravagonka (railway carriage producer) and universities.

- Jobs created: up to 600
- Project start: 2020
- Project duration: 24 months
- Indicative budget: 100 mil



- Automotive R&D centre
- Project owner: Brose
- **Project description:** Establishing R&D and testing centre for automotive industry with the aim to transfer new know-how into the Prievidza plant.

- Jobs created: Up to 1000 (incl. R&D)
- Project start: 01/2023
- Project duration: 18 months
- Indicative budget: 125 mil EUR



- ENO Novaky brownfield revitalisation
- Project owner: Slovenské elektrárne (electricity company)
- **Project description:** Revitalisation of the existing brownfield industrial zone of ENO Novaky to a new industrial park, utilizing the existing robust infrastructure in the park, including roads, buildings, electricity, water, rail and IT infrastructure.
- Part of the park can still be utilized for future central district heating.

- Jobs created: 20revitalisation only + 60 restructuring TPP Nováky
- Project start: 2021
- Project duration: 60 months
- Indicative budget: 100 mil EUR



- Research centre for underground
   technologies
- Project owner: GA Drilling + HBP (mining company)
- Project description: Development of research centre for underground technologies (mining, drilling, extraction) using plasma drilling technology, utilizing the engineering capacities of HBP.

- Jobs created: 40 (mostly R&D)
- **Project start:** 01/2020
- Project duration: 24 months
- Indicative budget: 2.5 mil FUR (up to 32 mil FUR later)



- Upper Nitra Education Centre
- Project owner: Trencin Self-governing region
- **Project description:** Establishing an Education centre for Horna Nitra in Prievidza as a reaction to the need of the region to improve educational and workforce capacities.
- The centre will include new healthcare high school, lifelong learning centre, language school, career counselling centre, requalification centre and will offer environmental education.

- Project start: 2019
- Project duration: 36 months
- Indicative budget: 8.2 mil EUR



## **Quick wins**

### Confirmed allocations and projects as part of the coal

- Reallocation of funds from other OPs to Intelligent and better self-governing Nitra, infrastructure Upper in particular:
- Project preparation of sections of R2 highway
- Modernisation of I. class road I/9 between D1 intersection and Mnichova Lehota
- Construction of bypass of Prievidza 1/64)
- Expected allocation ~58 mil EUR

- region (call open):
- To increase the institutional capacities of municipalities in Upper Nitra



## **Quick wins**

Confirmed allocations and projects as part of the coal

- National project for the Transition of Special call for Upper Nitra for the Upper Nitra from OP Human Resources to support soft measures in the labour market, including:
- Analysis of workforce capabilities
- Community work
- Requalifications
- Active cooperation with employers
- Overall budget of 43 mil EUR

- support of SMEs
- Details being discussed, preliminary allocation up to 10 mil EUR



## Latest steps

- May 2019: Informal comment procedure
- mid-June 2019: Inter-ministerial comment procedure
- 1st July 2019: Submission of the material to the Government of the SR
- 3rd July 2019: Approval of the material by the Government

## **Next steps**

- Allocation of ESIF funds for 2014-2020 and 2021-2027 periods for the implementation of the Action Plan
- Identification of funding possibilities outside ESIF for individual measures of the Action Plan
- Elaboration and publication of relevant calls in individual OPs to ensure the implementation of the Action Plan

- Ensuring implementation of the Action Plan by 2023 – development of yearly priorities, definition of specific objectives, tasks and actions, including measurable indicators
- Preparation of new legislation on social security, insurance, pensions and compensations for unemployed miners affected by transition process in the Upper Nitra region

## **Next steps**

- Preparing and submitting for notification the state aid scheme to ensure cover exceptional costs arising from the gradual closure of coal production units in Handlová and Nováky in accordance with the Council Decision 2010/787/EU on State aid to facilitate the closure of uncompetitive coal mines.
- Ensuring the depreciation of coal stock reserves in connection with the gradual closure of coal production units in Handlová and Nováky.

- Preparation of legislation to ensure the continued operation of the Mining Rescue Service, including the operation of the Main Mining Rescue Station after the end of coal mining activities.
- Elaboration of an implementation report of the Action Plan, identification of new innovative projects and ensuring the implementation of key projects





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Platform for Coal Regions in Transition

## Workers in the clean energy transition

10.00 - 10.30











# RENEWABLE ENERGY & ELECTRICITY DISTRIBUTION SCHOOL OF SKILLS

COAL REGIONS IN TRANSITION PLATFORM JULY  $15^{TH}$  2019









#### RWEA – at the forefront of the energy transition

- RWEA represents an industry that is covering over 12% of the electricity demand of Romania
- The ambition to pave the way for a **sustainable transformation** of the Romanian energy sector
- Modernize **economy**, modernize **society**
- Prepare for structural and technological transition by ensuring a socially-fair development of coal dependent areas
- Winning the hearts and minds moving forward together
- Establish synergies with partners to reach our goals CEZ Romania (Distributie Oltenia), Monsson (RESS), Ministry of Energy and University of Petrosani



Source: Let the wind blow, WindEurope, 2019



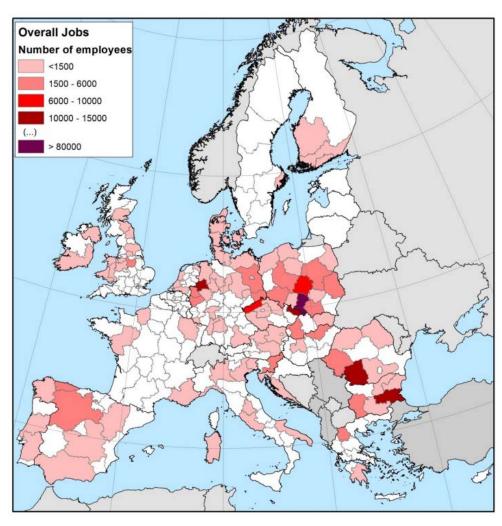






## Valea Jiului Project

- Professional training and reconversion of the coal sector employees
- Transferable skills of the mining sector technicians towards renewable energy and energy distribution
- Provide short-term job security restore confidence
- A model that can be replicated in other European areas
- Part of our ambition to be **energy transition creators**
- Responds to the European challenges of the energy transition
  - **Structural unemployment** social deprivation & burden on public finances no region must be left behind
  - Among the highest number of jobs at risk by 2030 in EU (more than 15000)











### **Project Description**

#### Developing a professional Academy in Valea Jiului

Building on experience of existing RESS center in Constanta:

• graduates work on projects abroad and return monthly to Romania, earning revenues far above the average of their regions of origin.

Training and reconversion courses will allow mining sector technicians to be employed in installing, operation and maintenance of RES projects and energy distribution grids

During the project's implementation period (10 years), we aim to

- retrain up to 800 renewable and energy distribution technicians annually, for a total of up to 8000.
- Including approximately 3000 miners in electricity distribution professionals.















#### **Partners**











#### Goals











- RE-train technical personnel from coal dependent regions in the field of renewable energy sources. Offer training stages and new jobs for up to 500 persons annually;
- Help develop the areas by implementing a long-term program for training and professional reconversion;
- Use highly skilled personnel in the renewable energy field;



- Get actively involved in the life of the communities where the company operates its distribution activity.
- Create new development opportunities for up to 300 professionals currently working in the mining sector to switch to maintenance and operation of medium, low and high voltage distribution grids in the Oltenia region (Dolj, Gorj, Mehedinti, Olt, Arges, Valcea si Teleorman).









#### Deliverables

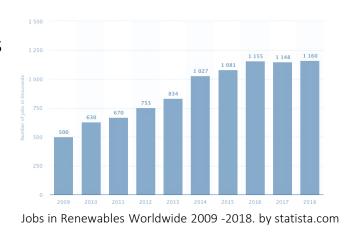








- Infrastructure for the proposed training centers
- Upgrading existing professional legislation to align with existing European certifications
- Partnerships with high schools, colleges and universities from the proposed areas
- "Train the trainer" programs for local professors that will become part of the project
- Establishing an online database with job opportunities
- Facilitating employment in other energy companies

















Build Infrastructure locally

Train them for renewables

Train them for electricity distribution

Make an online database with candidates

Build a career management tool and hire them

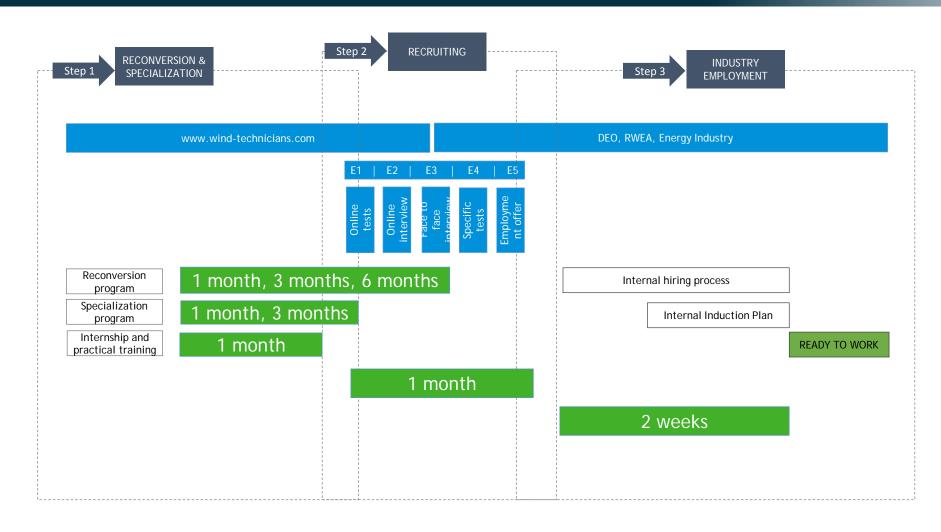








#### A complete plan for training and employment



#### Results









#### Renewable Energy Vocational and Industry Trainings – 500 new jobs / year



- Training programs depending on the specialization 1 month, 3 months and 6 months
- Advanced professional training in the electric, mechanic and hydraulic fields including GWO
- Multiple certifications for installing, operation, service and maintenance of wind turbines and PV parks
- Technical English courses and courses for inspector and operator of renewable energy sources
- On-site qualifications and paid internships in the industry
- 500 new junior and senior wind technicians / year

#### Electricity Distribution Vocational and Industry Trainings – 300 new jobs / year



- Course duration for achieving the goals 1 month, 3 months and 6 months
- Up to 300 participants per year, divided in series
- The electricity distribution curricula will include 30% theoretical training and 70% practical training
- Multiple certifications for construction and installation, exploitation, maintenance of DSO/TSO equipment
- "Train the trainer" programs for the personnel ensuring theoretical and practical training









# Thank you.

Claudia Brandus

RWEA – Chairman of the Board

Sebastian ENACHE

RWEA – Member of the Board



Platform for Coal Regions in Transition

# Transition stories: lessons learned

11.00 - 11.40





# Limburg, transition region in succesfull transformation

Frank Zwerts
CEO *POM Limburg, LOCATE in Limburg* 

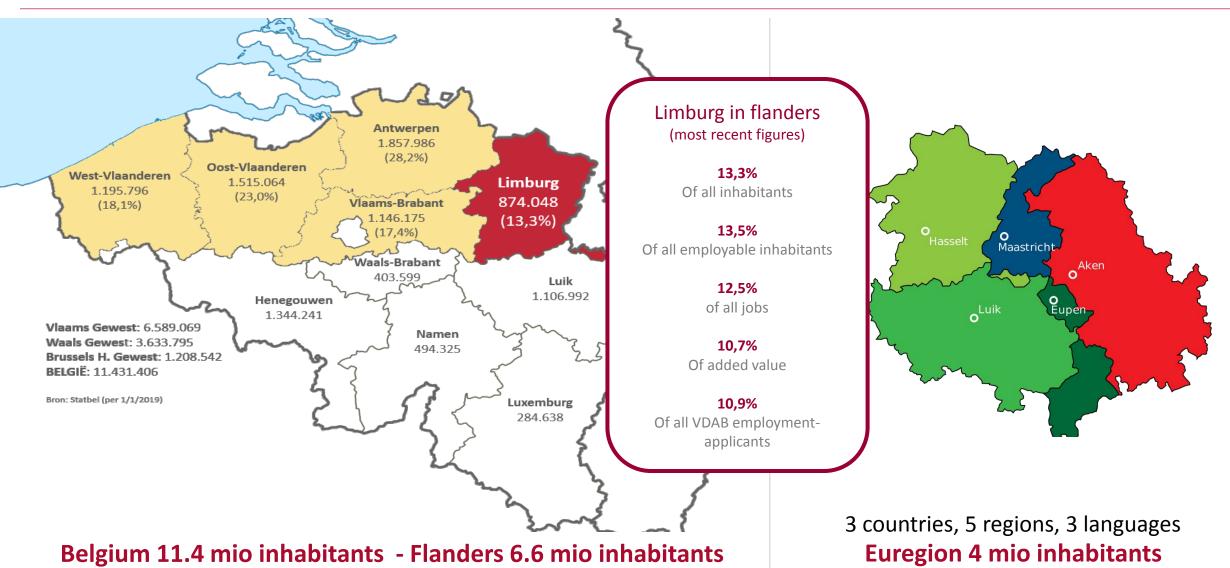




#### Limburg smallest province of Flanders



#### Part of Euregion Maas-Rhijn







**Flanders** 

2 142 006

2 350 595

2 570 819

3 004 831

3 722 706

3 726 456

3 730 206

4 138 973

4 381 921

4 503 394

4 661 787

5 416 583

5 739 736

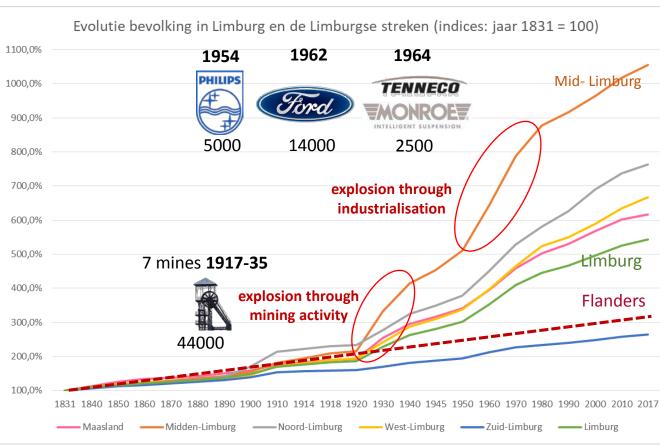
6 251 983

6 516 011

+ 204%

+ 45%

#### Evolution inhabitants Limburg and subregions



								ı
80 1890 1900 1910 1914 1918 1920 1930 1940 1945 1950 1960 1970 1980 1990 2000 2010 2017	2010	118 738	231 575	146 149	152 759	189 284	838 505	
-Limburg —— Noord-Limburg —— West-Limburg —— Zuid-Limburg —— Limburg	2017	121 433	239 864	151 421	160 503	194 192	867 413	
	Evolution since 1831	+ 516%	+ 954%	+ 664%	+ 567%	+ 165%	+ 443%	
	Evolution	+ 95%	+ 132%	+ 119%	+ 115%	+ 41%	+ 94%	I

Middle-

Limburg

22 749

26 998

29 332

32 529

41 272

44 392

47 513

75 919

94 170

103 295

116 044

179 044

208 436

Maasland

19 701

24 913

27 163

29 638

34 751

36 033

37 316

50 239

58 288

62 313

67 111

90 315

104 502

1831

1850

1870

1890

1910

1914

1918

1930

1940

1945

1950

1970

1990

since 1945

North-

Limburg

19 829

23 219

24 970

27 922

42 420

43 966

45 512

55 143

64 486

69 157

75 216

104 771

124 280

West-

Limburg

24 062

28 601

30 384

33 001

41 090

43 402

45 715

58 263

69 179

74 637

81 092

111 924

132 288

South-

Limburg

73 313

82 411

88 181

96 187

112 720

114 428

116 137

124 920

133 354

137 571

142 931

166 493

175 528

Limburg

159 654

186 141

200 030

219 277

272 253

282 223

292 192

364 484

419 477

446 973

482 393

652 547

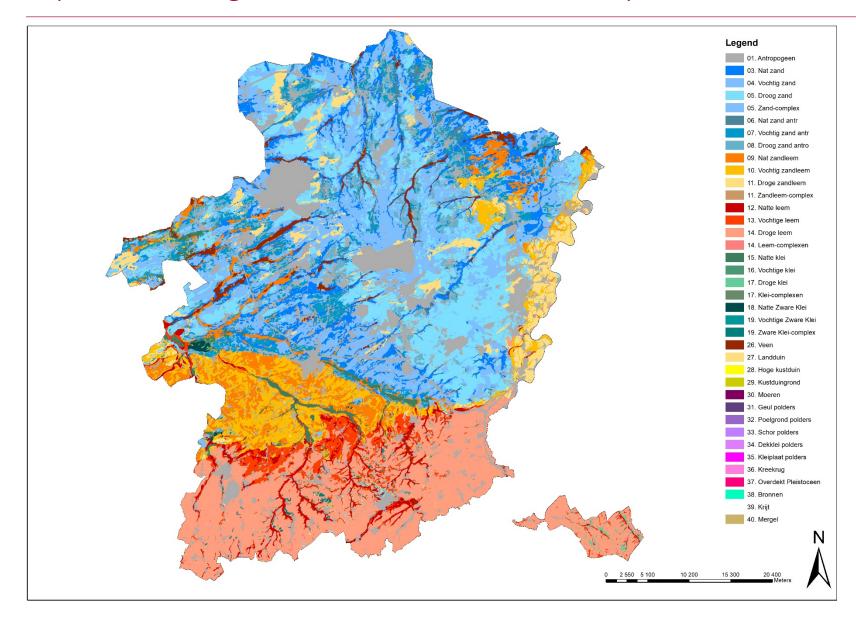
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Bron: FOD Economie

#### Up to 1920 – Agriculture was dominant activity



#### Dominant soil:

- Sand (dry) north
- SandLoam South



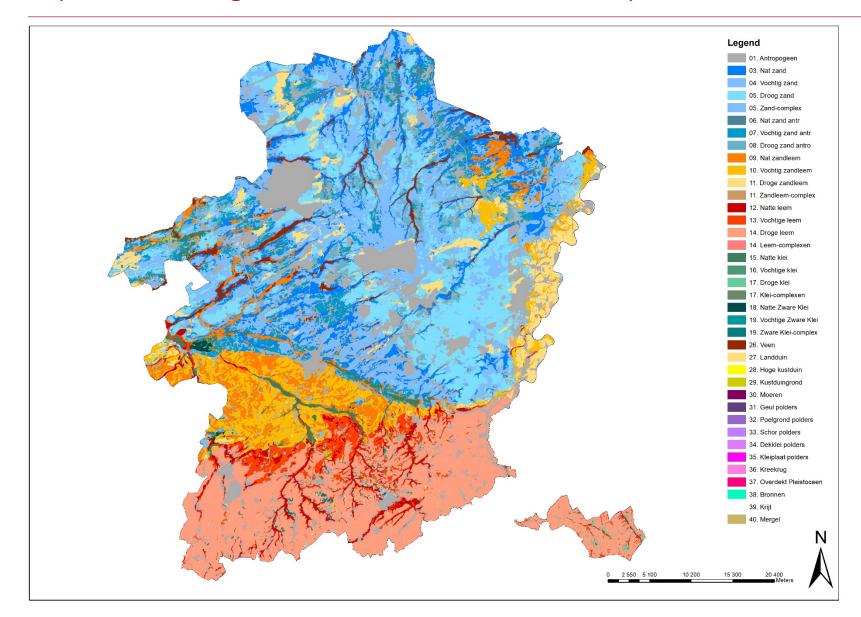








#### Up to 1920 – Agriculture was dominant activity



#### Dominant soil:

- Sand (dry) north
- SandLoam South

1870 Agricultural crisis through cheap US agricultural imports

Limburg – Small manufacturing Sigarfactories, ceramics, building materials

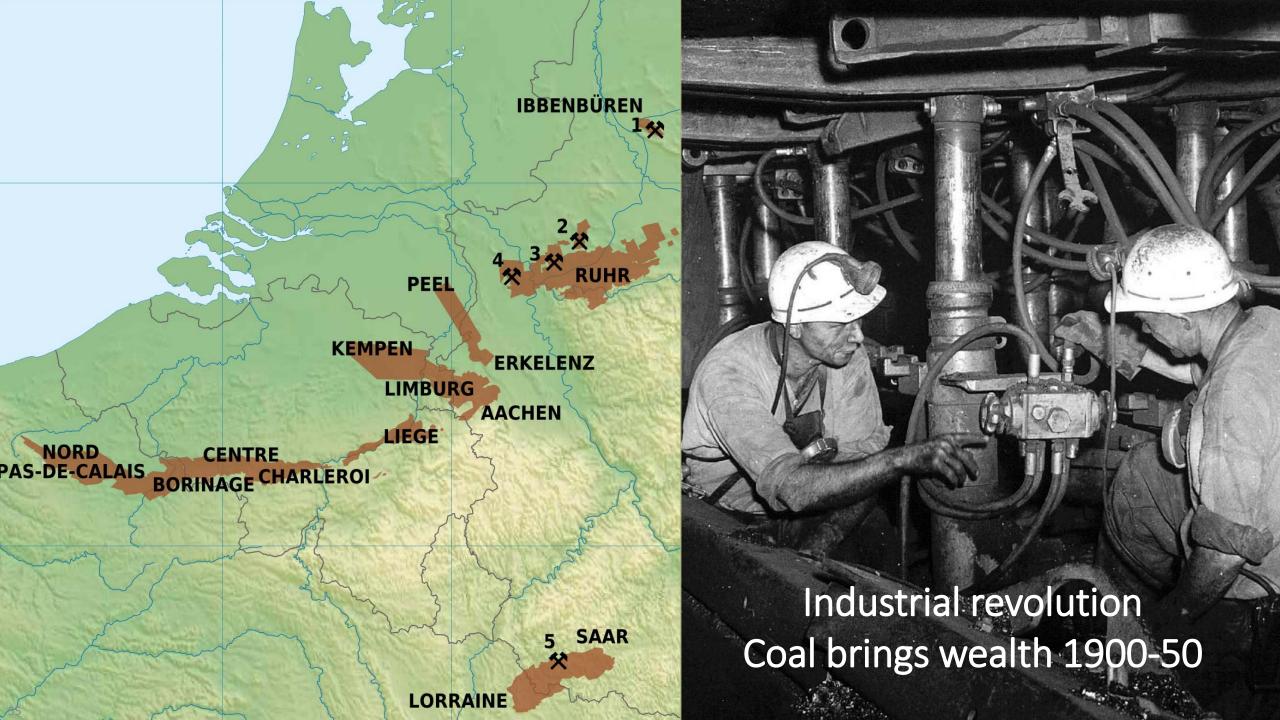
Ferrous and non-ferrous industry (Cheap labor)

Manufacturing to Liège

1901 Discovery of Coal









#### Dealing with set-backs

7 mines **1917-35** 



44.000



Closures in waves 1966 Zwartberg -1972 up to 1986-1992 Final closure Zolder Peak 44.000 employees (WW II) 18.000 upon announcement









#### Dealing with set-backs

7 mines **1917-35** 



44.000



Closures in waves 1966 Zwartberg -1972 up to 1986-1992 Final closure Zolder Peak 44.000 employees (WW II) 18.000 upon announcement



5.000



Closure Philips Hasselt 1954 – announcement 2002 Final closure 2004 Peak 5.000 employees 1.000 upon announcement







#### Dealing with set-backs

7 mines **1917-35** 



44.000



Closures in waves 1966 Zwartberg -1972 up to 1986-1992 Final closure Zolder Peak 44.000 employees (WW II) 18.000 upon announcement



5.000



Closure Philips Hasselt 1954 – announcement 2002 Final closure 2004 Peak 5.000 employees 1.000 upon announcement 1962-2014



14.000



Closure Ford Genk 1962 – announcement 2012 Final closure 2014 Peak 14.000 employees 6.000 upon announcement







#### SALK, an ambitious Strategic Actionplan for Limburg

Ford Motor company announced (24/10/2012) closure of Genk factory on 18 December 2014, 6.000 instant joblosses (Haydays 14.000 employees). Ford celebrated 50 years in Limburg (Nov 1962) Huge impact on whole industrial value chain and local conomy

#### Flemish government launches almost immediately SALK plan

- Expertgroup led by Prof Herman Daems supported by McKinsey
- Immediate ambition to REemploy 3.000 employees → Long-term ambition 10.000 employees
- € 217,5 mio relaunch salk fund (€ 317,5 incl Loan LRM) Period 2013-2019
- JOB Focus on internationalisation, education, infrastructure and mobility
  - Infrastructure : North-South connectivity
  - Tram transport line across Limburg : Spartacus
  - Elevate Albert canal bridges for larger barge throughut
  - Reconversion of the Ford site by locating private redevelopment investors
  - Build an IKEA EDC and retailoutlet
  - Building of a new federal state-level prison
  - T2 campus
  - Various thematic Incubator's
  - Various new Government supporting structures: Exportinitiatives, Innovationcentre, Locate -IPA, ...





#### Spearhead sectors SALK: strengthen – accelerate – develop

# Strengthen (established sectors)

Preserve and extend employment based on creating the right conditions, in particular through **push** for innovation

"Make the sector smarter"

Sector

Goal

- Next-Gen manufacturing
- Logistics & Mobility
- Construction
- Chemistry

# Accelerate (growth sectors)

Preserve and extend employment based on creating the right conditions, in particular through innovation and export, talent development, the availability of capital, active acquisition platform and future-proof infrastructure

"Maximum exploitation of sector growth"

- Innovative Health Care
- Leisure economy

# Develop (promissing sectors)

Accelerate USPs and employment based on creating the right conditions, in particular through stimulaton of entrepreneurship, extended R&D support, innovative infrastructure, talent development, the availability of capital, active acquisition platform

"Creating options for the future"

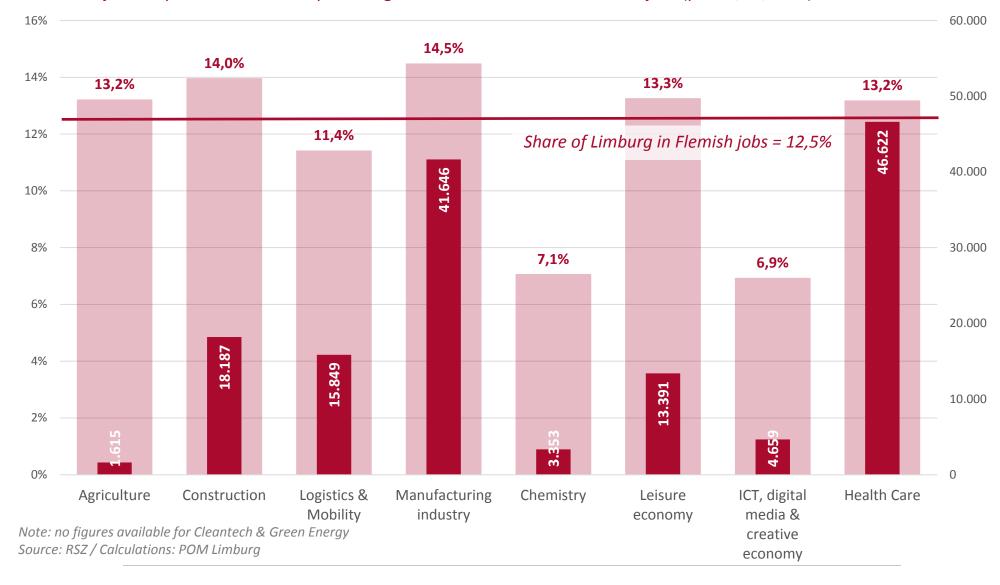
- New ICT, digital media and creative economy
- Cleantech and Green Energy
- > Innovative Agriculture





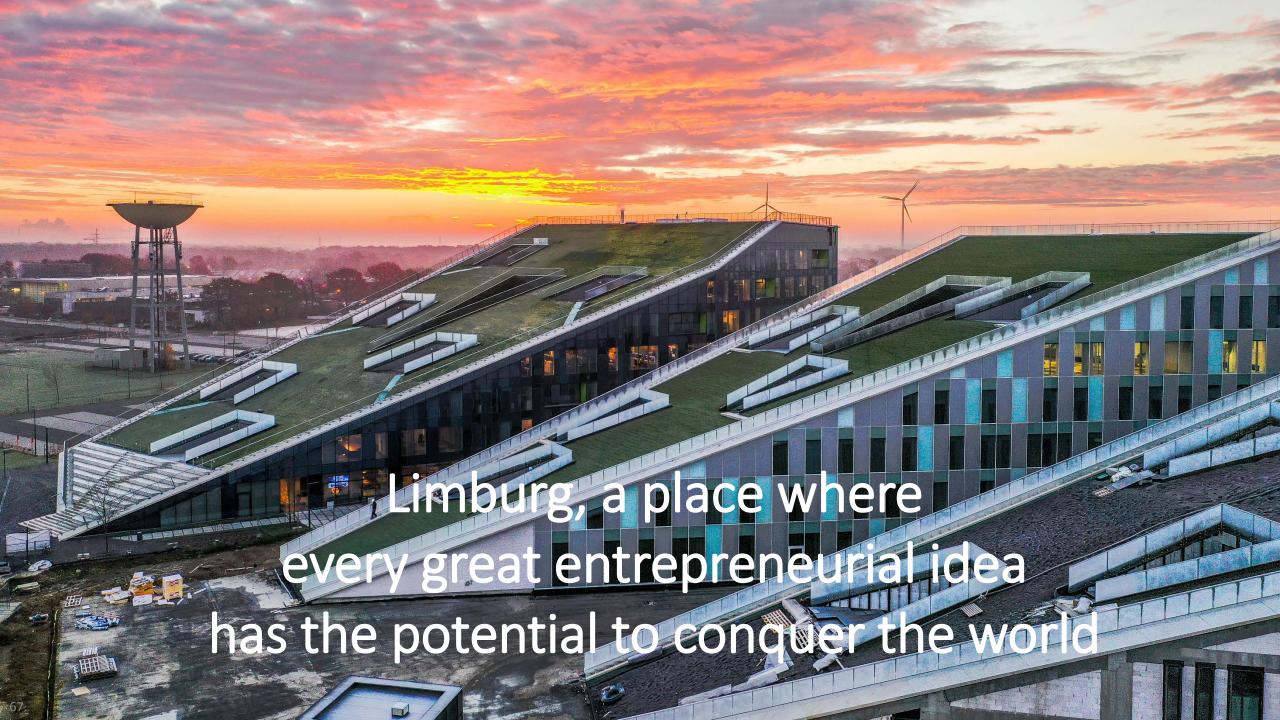
#### Jobs in Limburg spearhead sectors



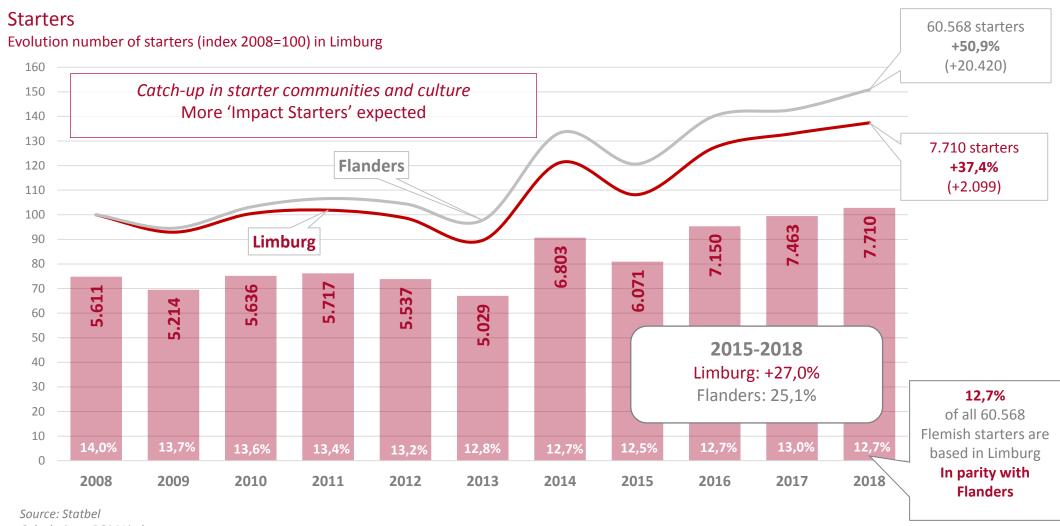








#### Record number of starters, Catch-up in start-up Communities and Culture

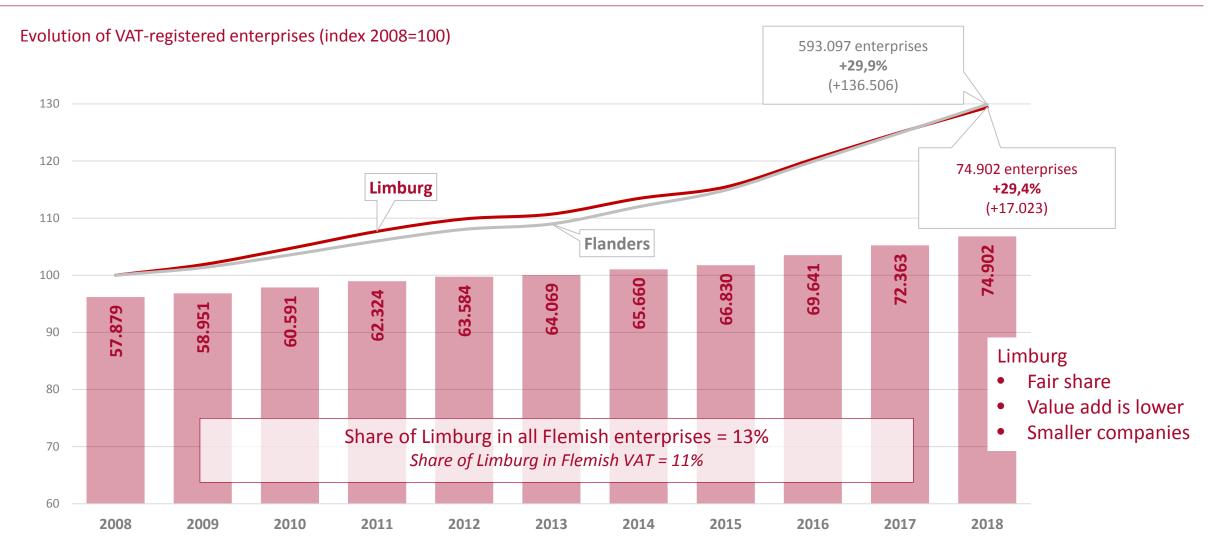


Calculations: POM Limburg





#### Number of Enterprises – Limburg in flanders



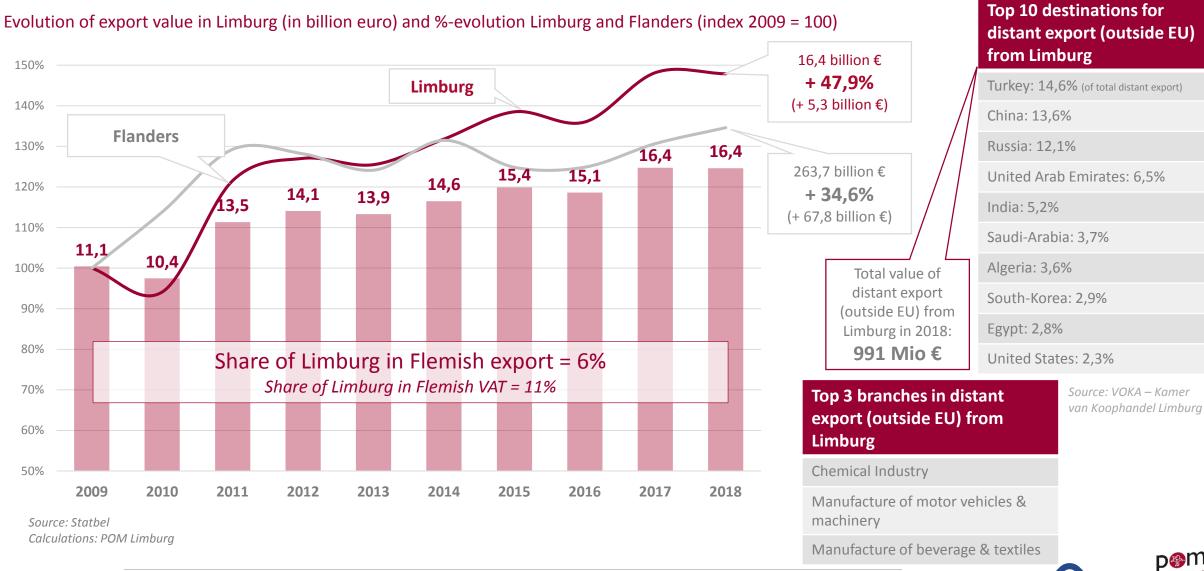
Source: Statbel

Calculations: POM Limburg



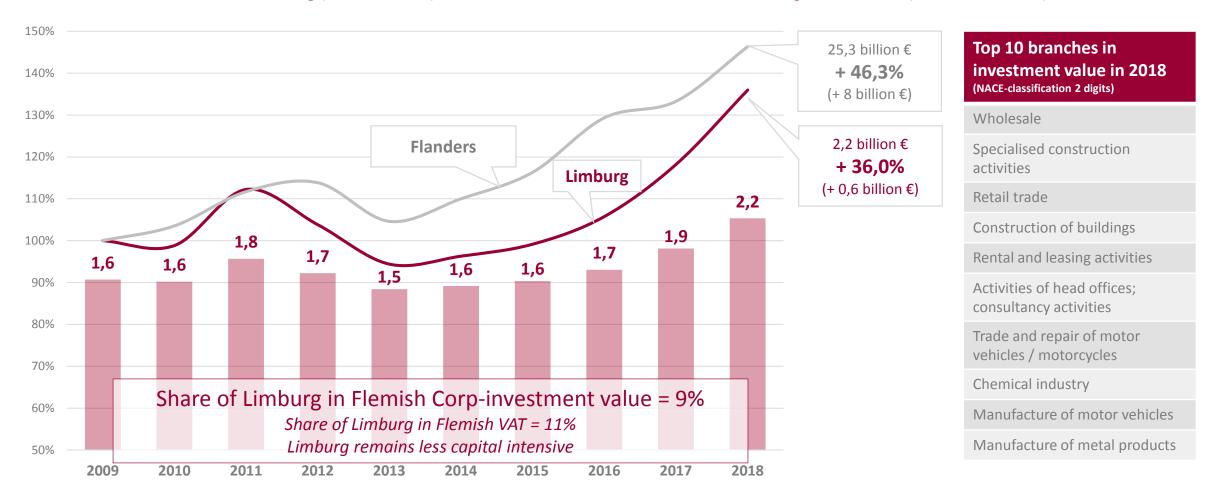


#### Export increases faster (Salk and Economic boom), but 6% remains low



#### Corporate Investments set record in 2018, but still low versus Flanders

Evolution of investment value in Limburg (in billion euro) and %-evolution of investment value in Limburg and Flanders (index 2009 = 100)



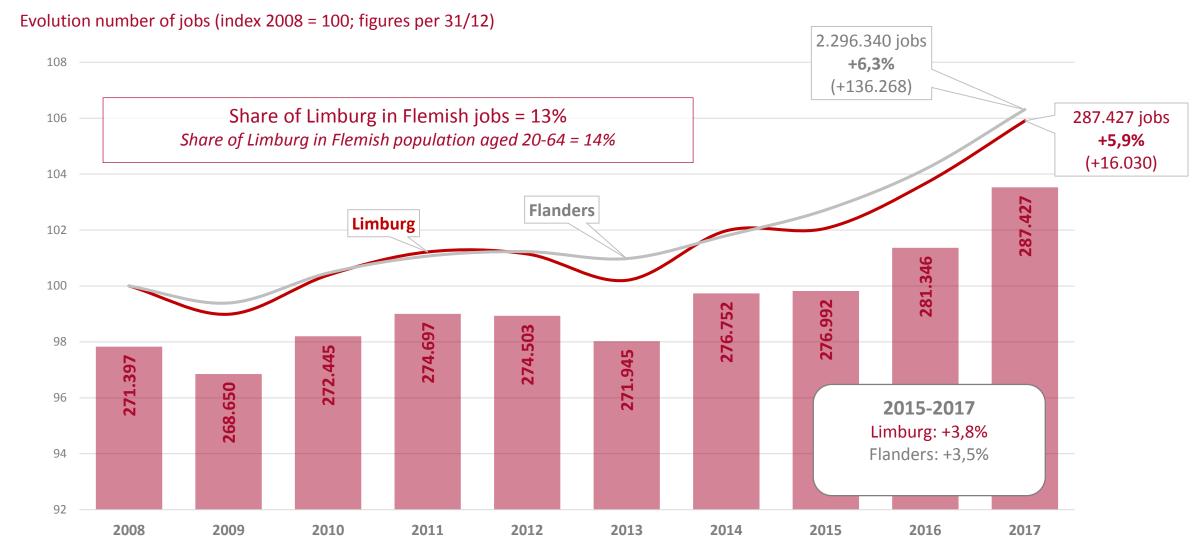
Source: Statbel

Calculations: POM Limburg





#### Number of jobs in Limburg increases



Source: RSZ

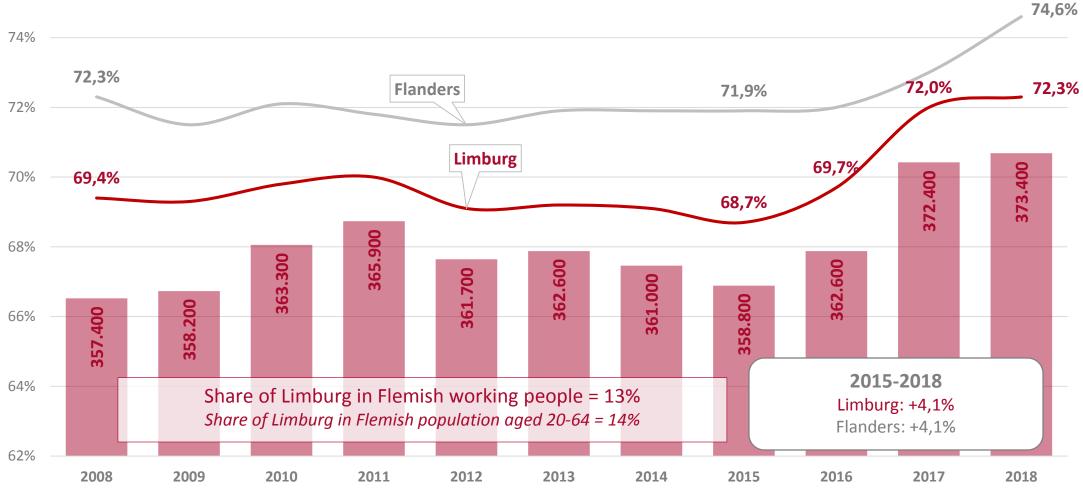
Calculations: POM Limburg





#### More locals at work





Source: Statbel - LFS Calculations: POM Limburg

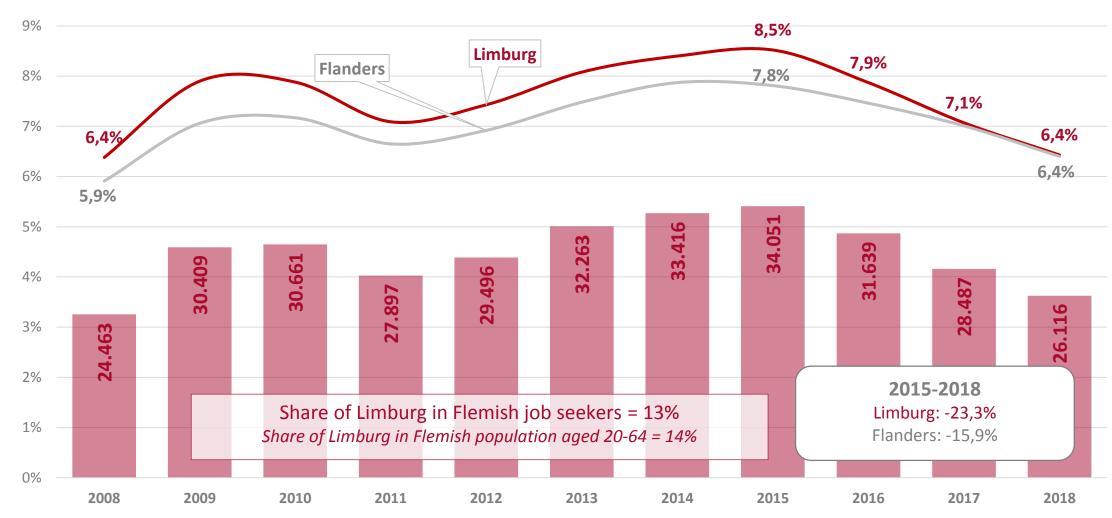
Note: break in time series in 2017 as a result of changes in methodology





#### Unemployment rate in Limburg below Flemish level

Evolution of job seekers & unemployment rate (% unemployed persons of the labour force)



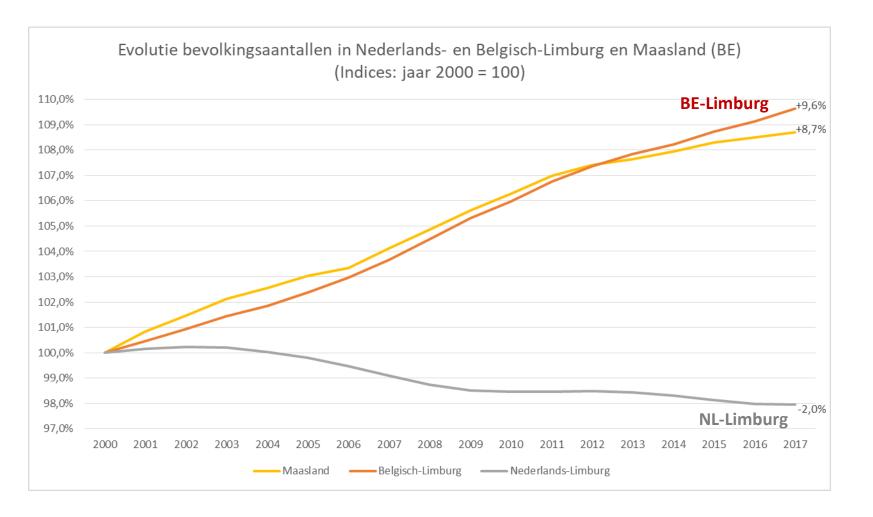
Source: VDAB - Arvastat Calculations: POM Limburg







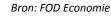
## Evolution Limburg (Belgium versus The Netherlands)



<u>Inhabitants recent</u> <u>evolution 2000 - 2017</u>

Nederlands-Limburg: 1.116.903 (- 2%)

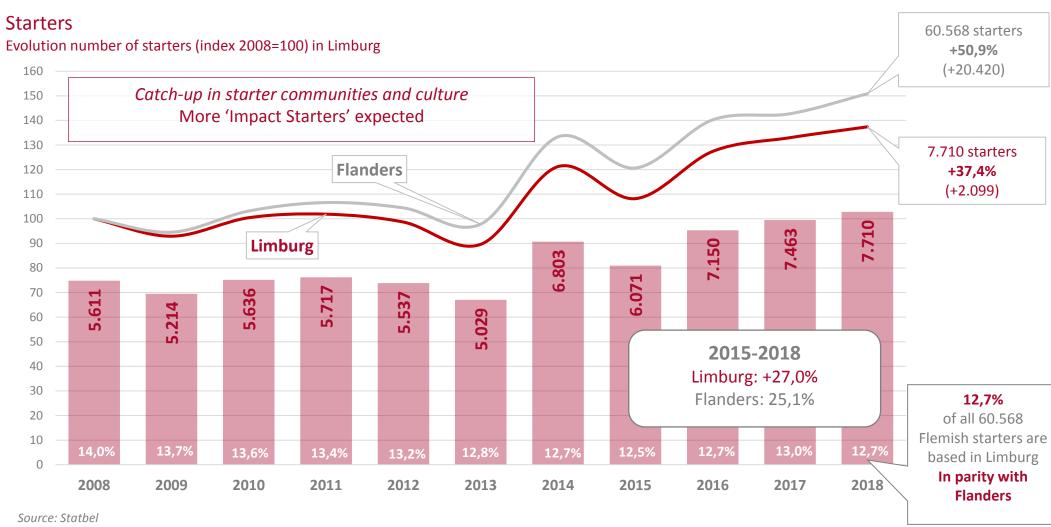
Belgisch Limburg: 867.413 (+9,6%)







#### Starters remain underserved

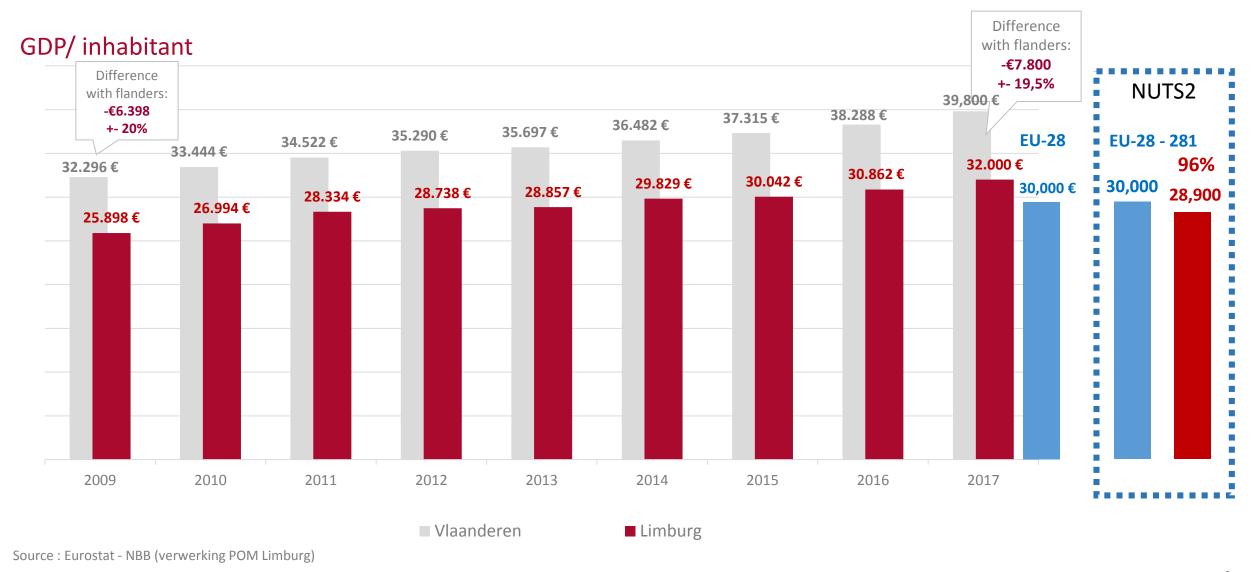


Calculations: POM Limburg





## GDP / Limburger is €7.800 less than flanders – Transition region status 2021-27







#### Transition region status confirmed 2021-27



#### Since Mine closures:

- Capex € 2 Bio 2000 projects
- 800 Mio flow to Limburg (EFRO and ESF) of which latest

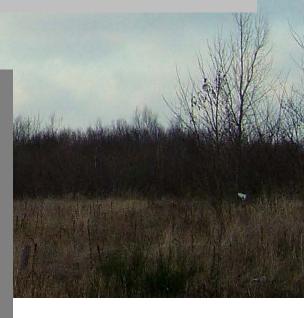
- 2000-2006: € 62 mio
- 2007-2013: € 71 mio
- 2014-2020: € 77 mio

- 2021-2027: € 137 mio (Est) - Smarter and Greener Europe



## Big take-aways

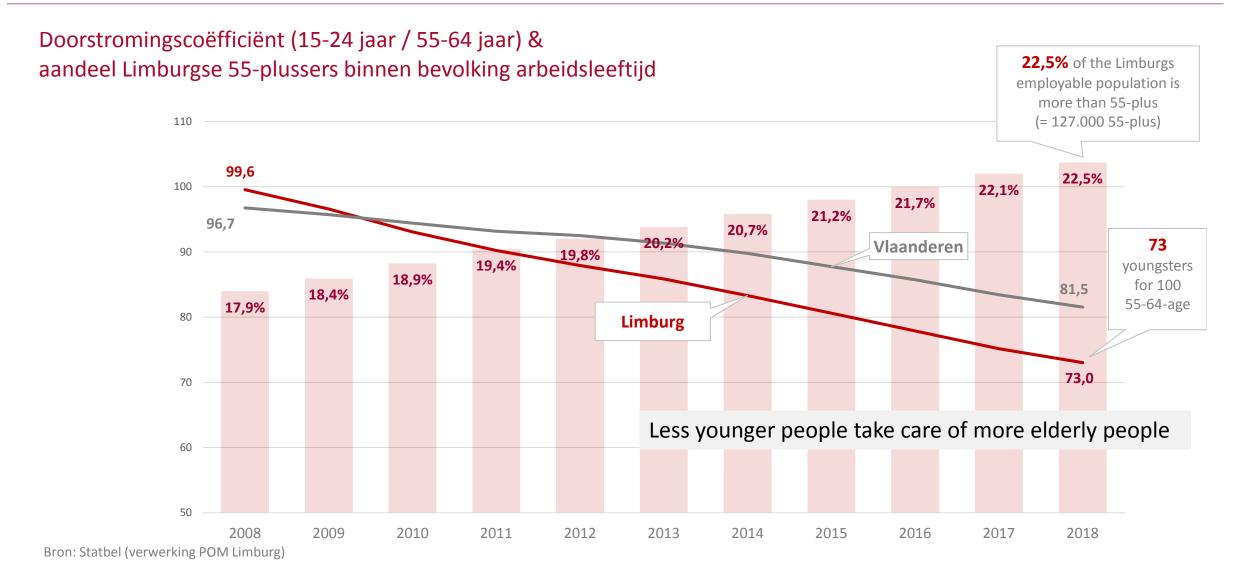
- Unite all socio-economic players
- Unite around big identifying and impact projects
- Monitor progress by valid KPIs
- Scattering of projects will be your biggest failure







#### Ageing population

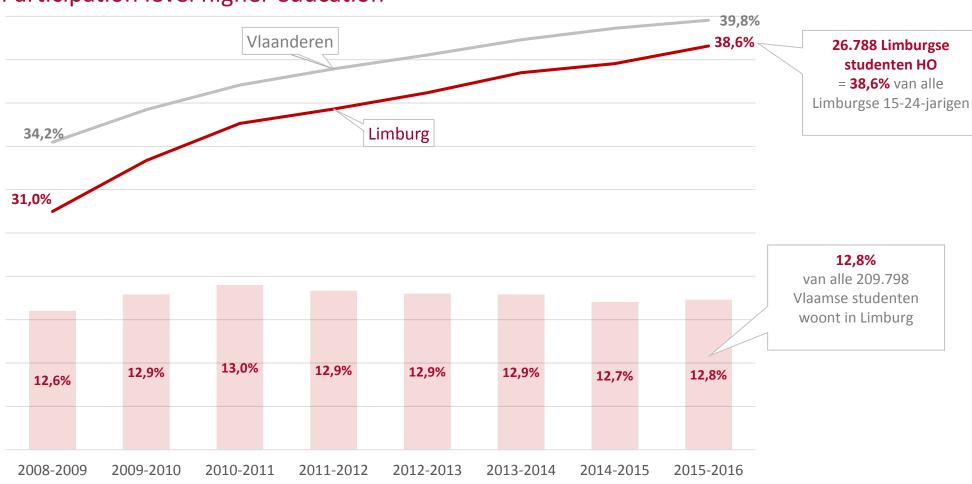






#### More students in higher education, but gap with flanders remains



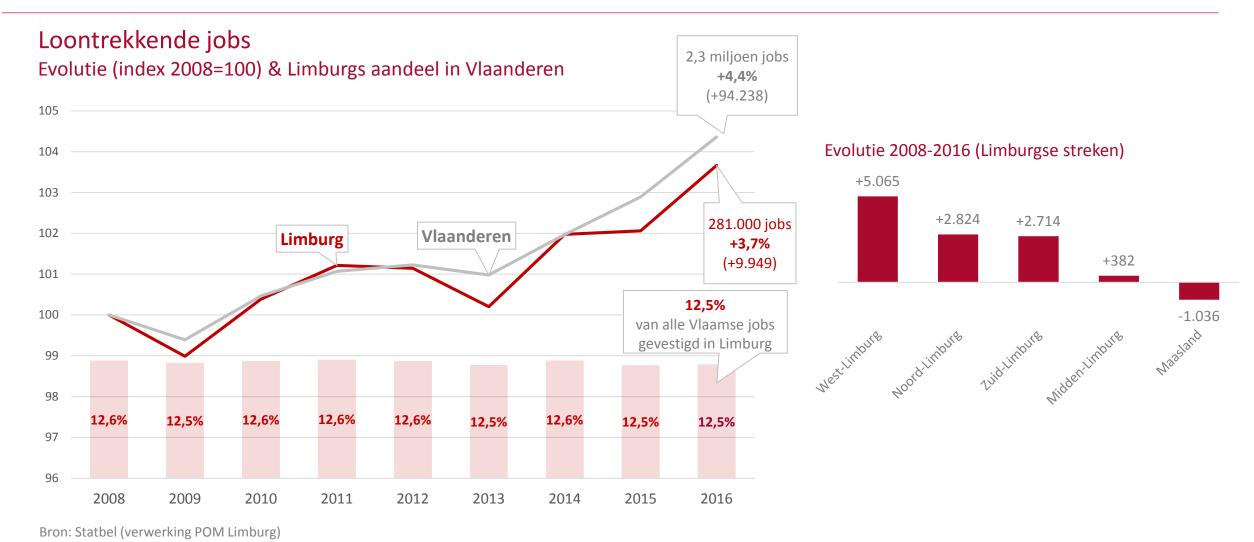


Bron: Statbel (verwerking POM Limburg)





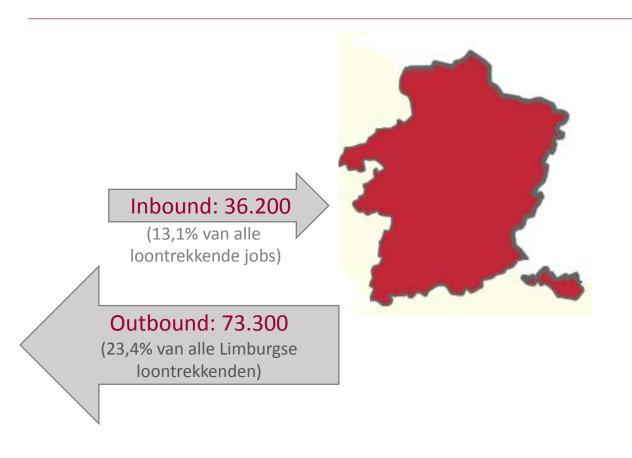
#### Record number of jobs, but not everywhere across Limburg



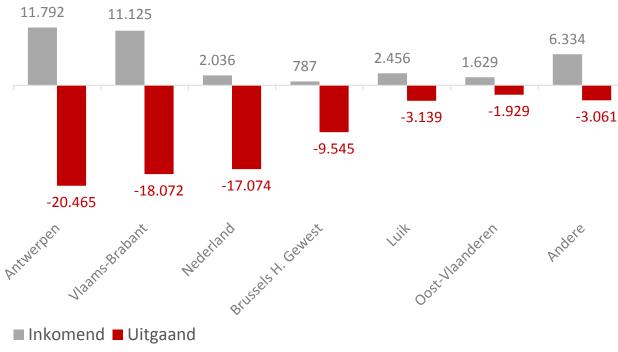




#### Outbound commuters double the size of inbound



#### Largest inbound and outboundcommunters

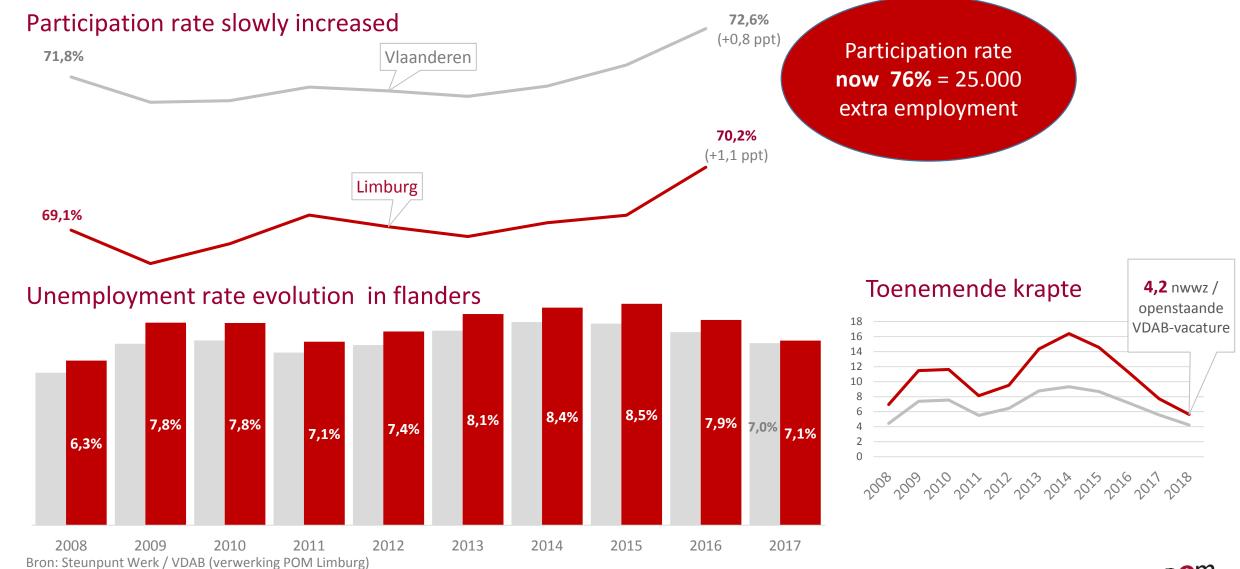


Bron: Steunpunt Werk; cijfers voor 2016 (verwerking POM Limburg)



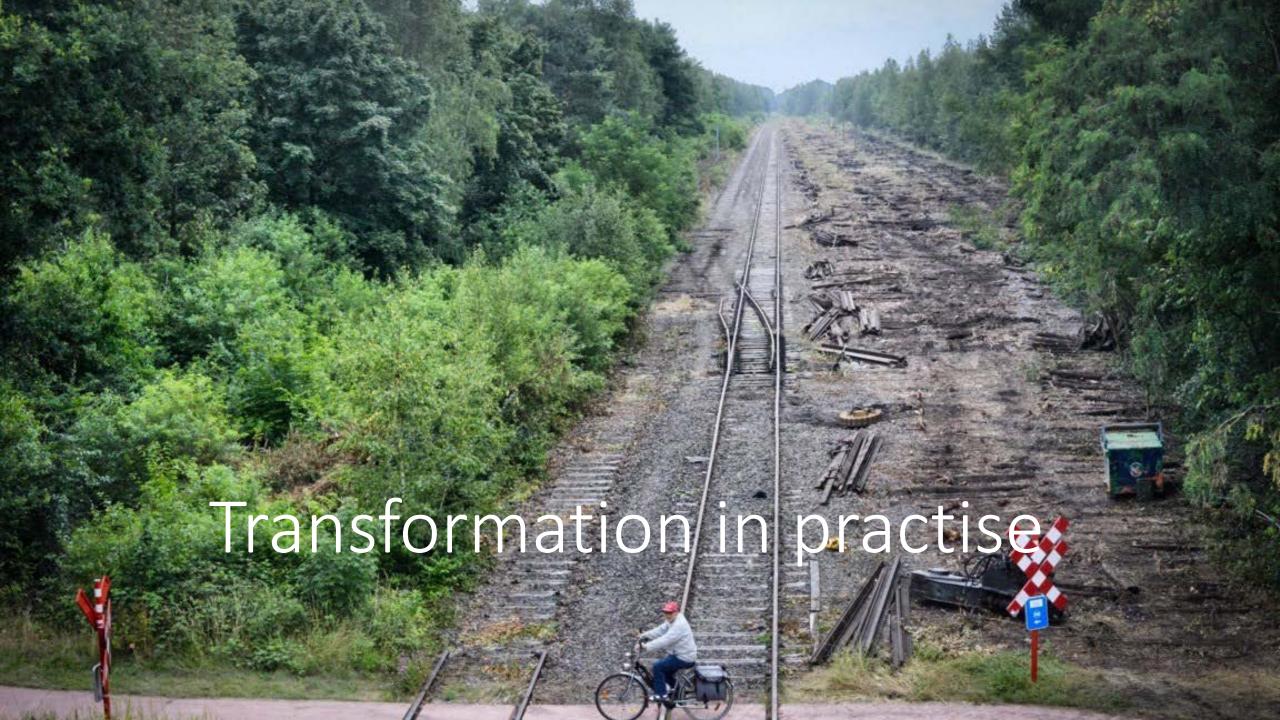


#### Participation rate (Werkzaamheid), Unemployment rate















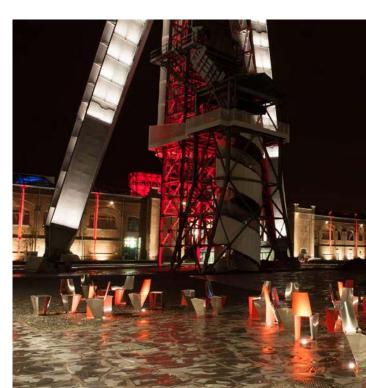








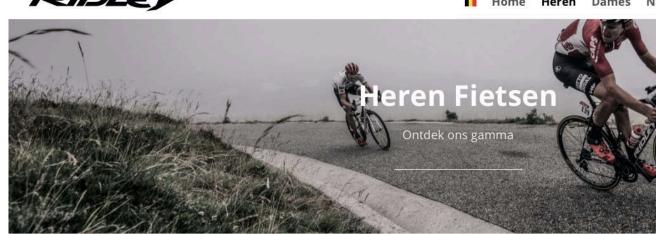












ALL ALLROAD CYCLOCROSS EEN CUSTOMIZER CONCEPT: PURE LINE HYBRID MTB ROAD/AERO ROAD/ENDUS







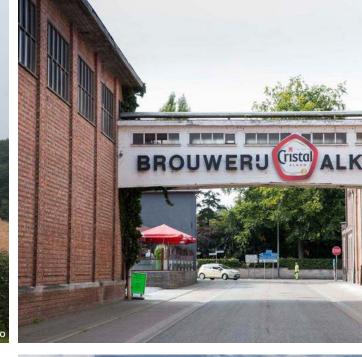


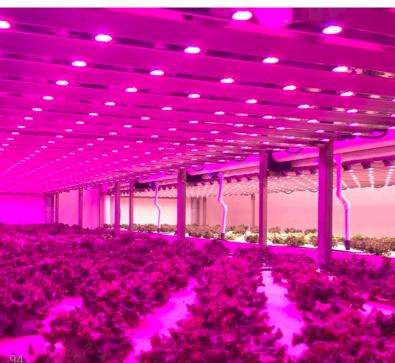
















#### Building of State-of-the art thematic Incubators

State-of-the-art
Science parks,
incubators in
inspiring
environments



C-MINE CRIB
Creative industry



ENERGYVILLE
Sustainable energy & intelligent energy systems



FLANDERS' BIKE VALLEY
Bicycle industry



DRONE PORT
Drone industry



GREENVILLE CleanTech



CORDA CAMPUS
Technology, high-tech, IT 8 media



BIOVILLE
Life sciences 8 medical technology



AGROPOLIS
Innovative agriculture and horticulture

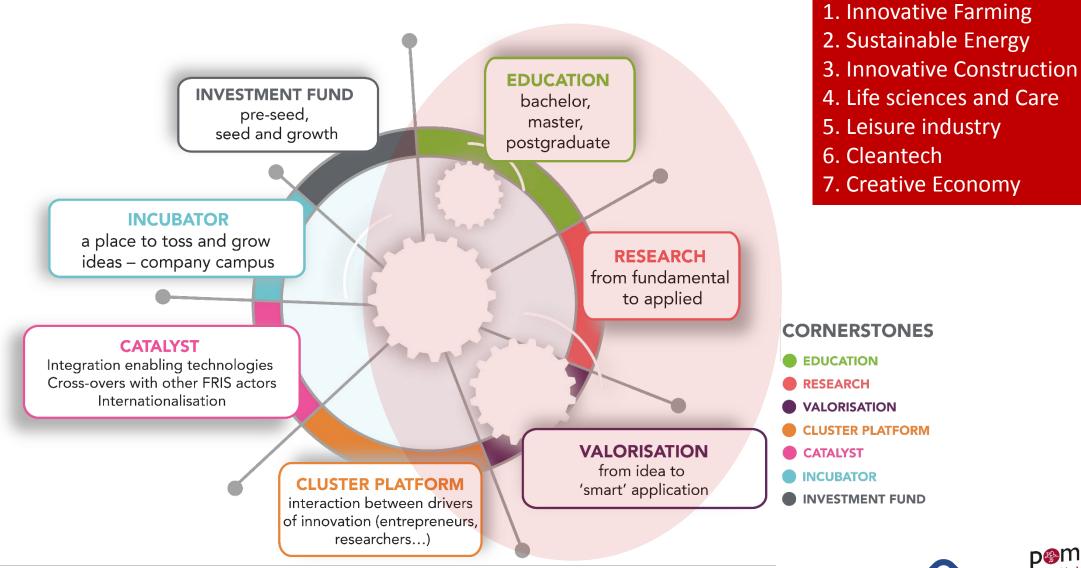


MODE- INCUBATOR
Innovative fashionable wearables



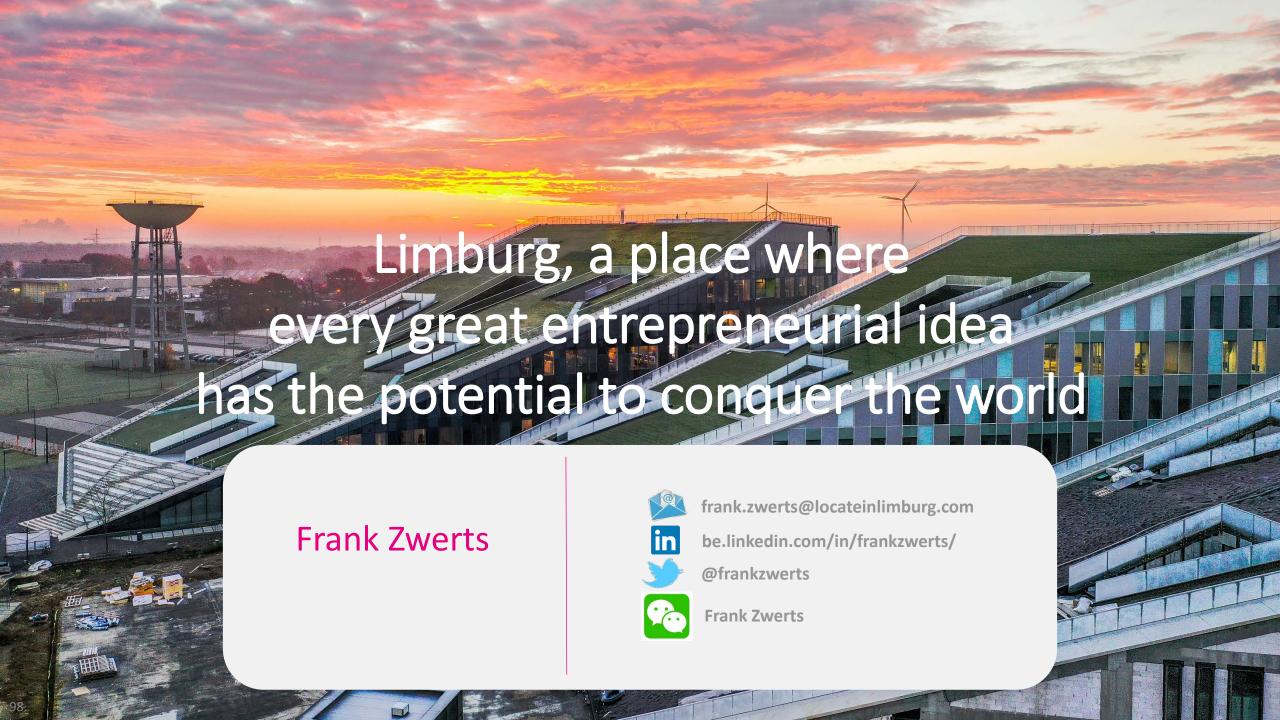


## FRIS model – Full Regional Innovation System





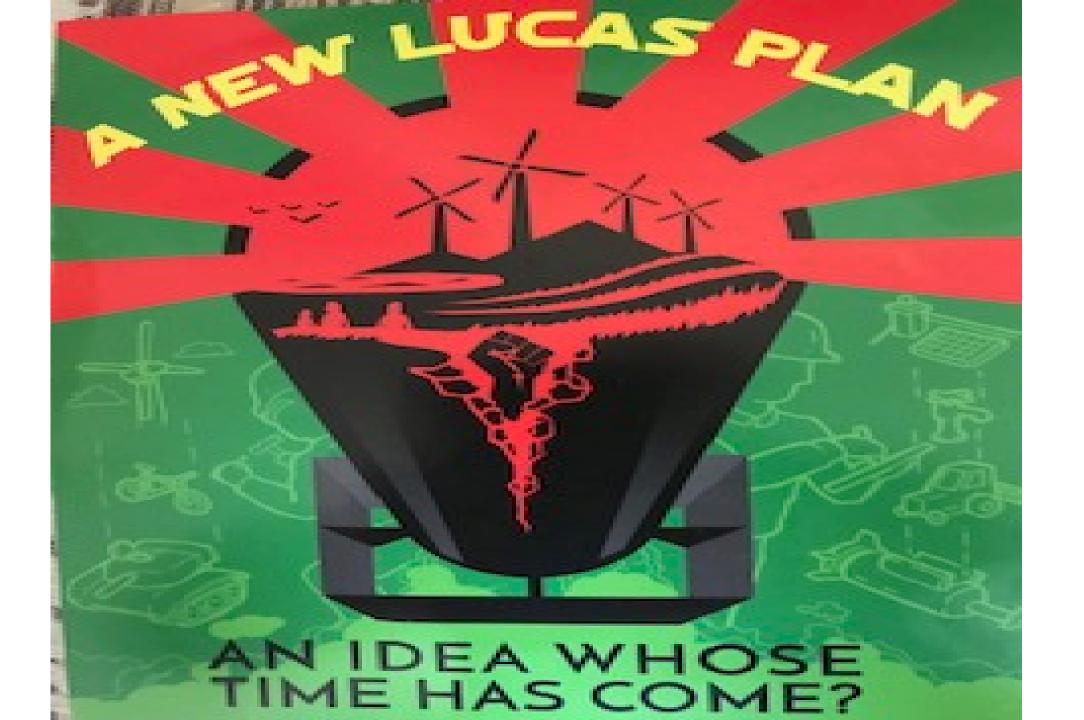












# International initiatives and

Platform for Coal Regions in Transition

perspectives

11.40 - 13.00



## INTERNATIONAL INITIATIVES AND PERSPECTIVES

WORLD BANK'S GLOBAL EXPERIENCE AND ENGAGEMENT

PLATFORM FOR COAL REGIONS IN TRANSITION | 5<sup>TH</sup> PLENARY & WORKING GROUP MEETINGS WORLD BANK ENERGY AND EXTRACTIVES DEPARTMENT — GLOBAL PRACTICE BRUSSELS, BELGIUM | JULY 15-16, 2019





#### **Disruption in the Coal Sector Globally**

#### Global coal demand is expected to be stable through 2023 Global coal demand in the next five years is expected to be Demand stable, with declines in Europe and United States offset by growth in India and other Asian countries. China, the main player in the global coal market, will see a gradual decline in demand Tighter markets are driving price increases Chinese coal imports grew 15 Mt, while most other large **Prices** importers, including Brazil, Chinese Taipei, Korea, Malaysia, Mexico, Morocco, Philippines, Pakistan, Turkey and Viet Nam, had record imports. Europe was the shrinking market. But higher prices are not triggering new investments. Risks associated with climate policies, potentially stranded assets, local opposition, and the memories of the last downturn Investment have cooled investors' appetite to invest in new production. Banks, insurance companies, hedge funds, utilities and other operators in advanced economies are exiting the coal business. In many parts of the world, growing opposition to

coal projects has provided strong disincentives for investors

#### By Region:

- Each progressing according to local socio-economic conditions, according to their own time line;
- Few have comprehensive transition roadmaps & concrete pilot projects
- Strong variations in coal transition activities;
- Preparation, planning and budget resourcing is being left too late (not taking advantage of early industry consolidation phase)

One out of every four tons of coal used in the world is burned to produce electricity in China. However, "Winning the battle for blue skies" is now the policy priority in China

#### Regions

Hence, coal's fate largely rests on the Chinese power sector. The rebound in electricity use in China since 2016 underpins the global growth of coal use. Environmental policies, and in particular clean-air measures, constrain coal demand. China's coal demand has entered a slow but structural decline

The period of coal power generation growth in India is set to continue, although slowly

With the Indian economy expected to grow over 8% per year to 2023 and the electrification process continuing, power demand is forecast to rise by more than 5% per year over the period. The large-scale ongoing renewable expansion and the use of supercritical technology in new coal power plants will slow coal demand growth, which will grow by less than 4% per year through 2023, compared to over 6%

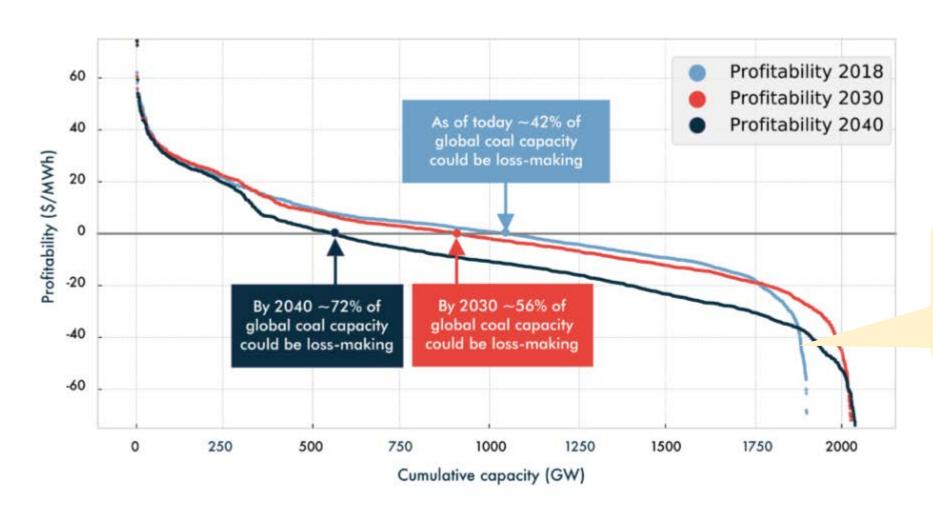
South and Southeast Asia are the second engine of growth.

Indonesia, Pakistan, Bangladesh, Philippines and Viet Nam combined have more than 800 million people, with an average annual per capita electricity consumption of just over 800 kWh, one-seventh that of EU28. Increasing coal power generation, supported by new coal plants under construction, will be the main driver of coal demand growth in those countries.

Source: IEA Coal 2018 report

## One Outlook of Global Gross Profitability of Thermal-Power Coal Capacity

#### Global gross profitability curve of coal capacity existing and under construction



Downward pressures on installed thermal-coal capacity is exerting downward pressure on the coal value chain – coal mining.

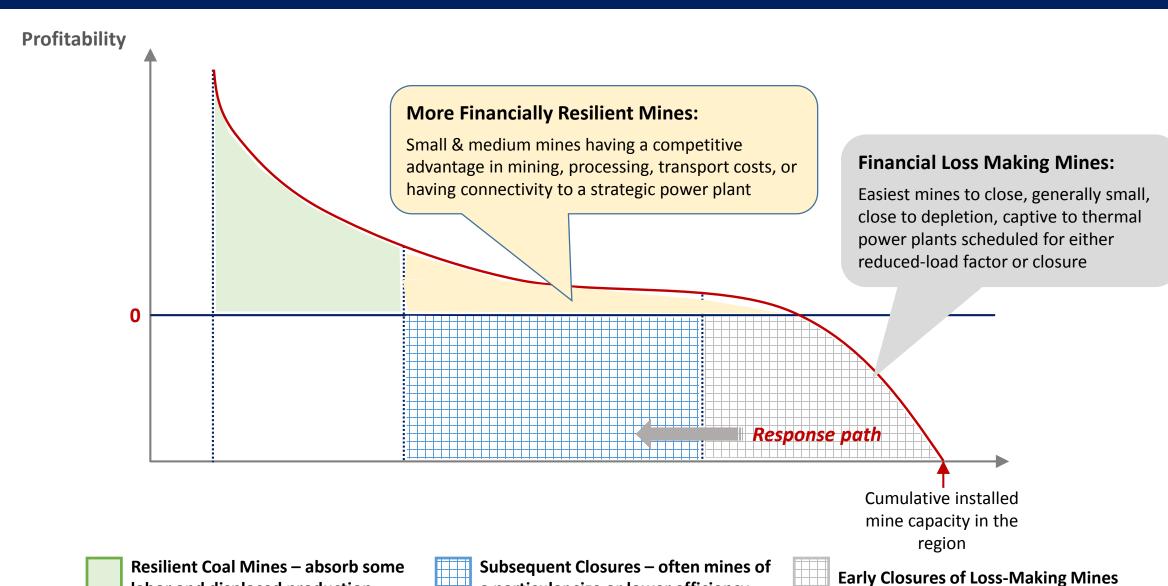


Source: Carbon Tracker analysis

#### **Global Coal Mining Response to Market Disruption**

labor and displaced production

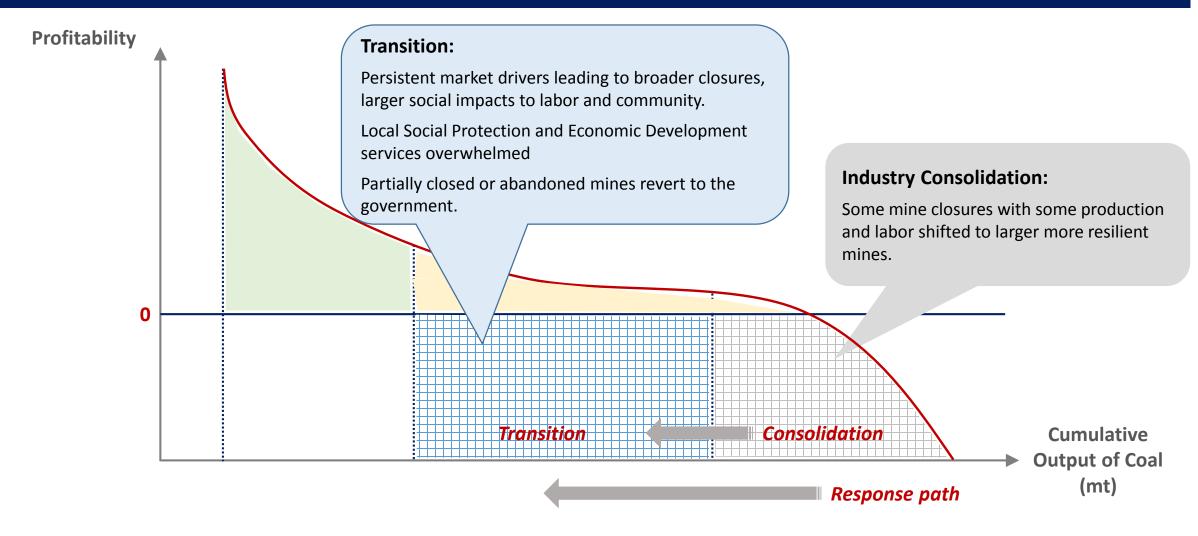


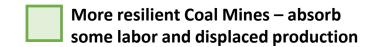


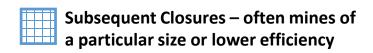
a particular size or lower efficiency

#### From Industry Consolidation to Decarbonization





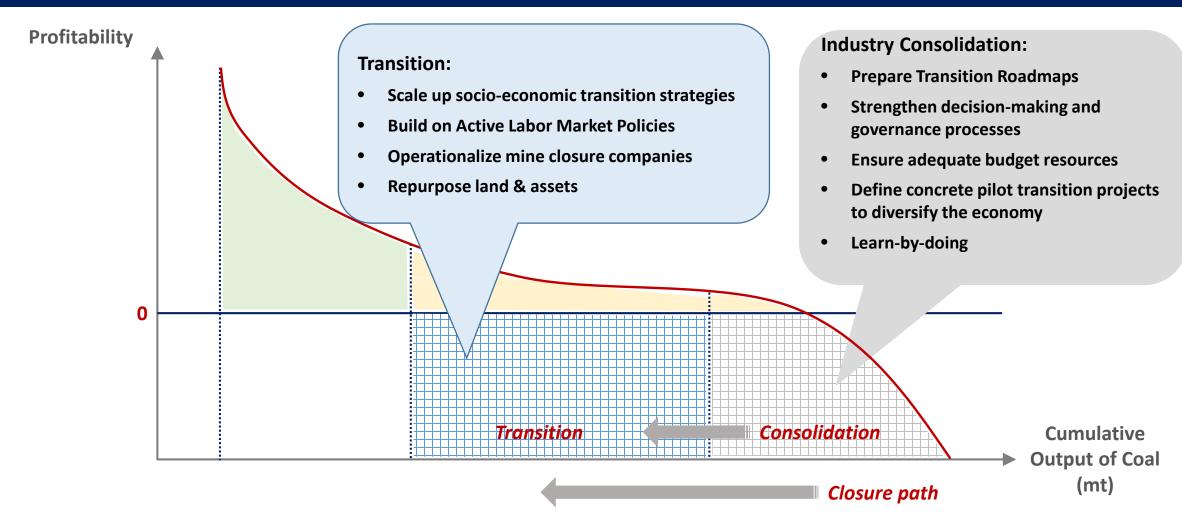


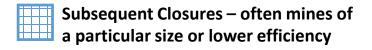




#### **From Consolidation to Decarbonization**







#### Additional Resources Needed: Global Support Provided by World Bank

### **Component 1 Preliminary Client Dialogue**

- Supports early-stage dialogue with clients in coal-dependent regions or countries who recognize the sector is in consolidation or transition and are deliberating upon measures to be taken.
- Uses dialogue, workshops, analysis

   (and potentially other knowledge
   exchange fora) with interested
   clients and other stakeholders to
   present best practices on approaches
   and frameworks to transitioning coal
   sector

### Component 2 Country Level Engagements

- Supports client coal-regions (and countries) who have taken the decision to reduce coal production.
- Develop a comprehensive road map for coal sector transition:
  - i. Institutional arrangements
  - ii. Stakeholder engagement and communications strategy
  - iii. Regional development strategy
  - iv. Measures to consider beyond national labor protection policies
  - v. Master Plan for repurposing land and assets

### Component 3 Global Knowledge

- Closes global knowledge gaps on approaches and measures to implement coal sector transitions:
  - i. Case studies on socio-economic transition
  - ii. Future of jobs: case for reskilling, mobility and market demand
  - iii. Repurposing of land and other assets: a toolkit for implementation
  - iv. Compendium on people and communities from CEM10
  - v. Mitigation of AMM and CMM
  - vi. Examining gendered impacts of coal mine closure

Regional Platforms modeled after EC Coal Regions in Transition Platform



#### **World Bank Engagements and Initiatives**

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

**Greece**: coal sector fair transition road map in lignite religions of Western Macedonia (€500,000)

**South Africa**: early stage discussions on planning for a coal sector transition as part of broader energy sector transition

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)



#### **THANK YOU**

PLATFORM FOR COAL REGIONS IN TRANSITION | 5<sup>TH</sup> PLENARY & WORKING GROUP MEETINGS
WORLD BANK ENERGY AND EXTRACTIVES DEPARTMENT — GLOBAL PRACTICE
BRUSSELS, BELGIUM | JULY 15-16, 2019
MICHAEL STANLEY | EXTRACTIVES LEAD | MSTANLEY@WORLDBANK.ORG



### Powering Past Coal Alliance

Platform for Coal Regions in Transition 15 July 2019

> Dr Matthew Webb Business, Energy and Industrial Strategy UK



### Overview

- UK's Domestic Journey
- The Global Context
- The Powering Past Coal Alliance



## International Perspectives on Coal





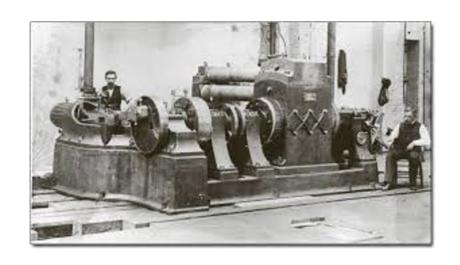




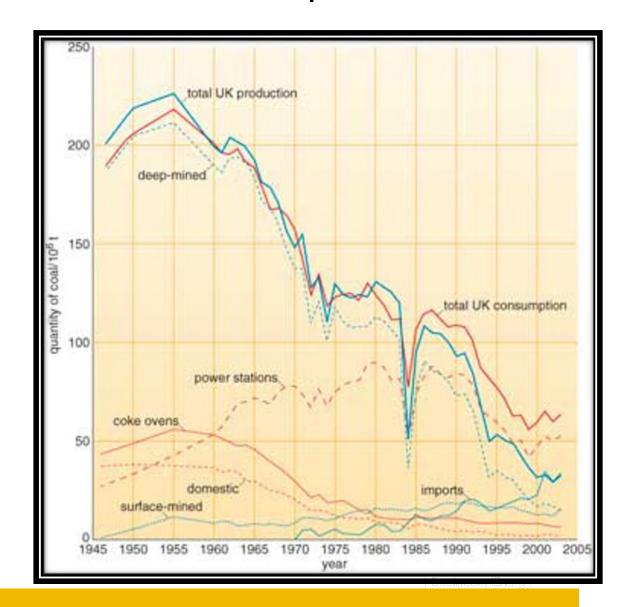




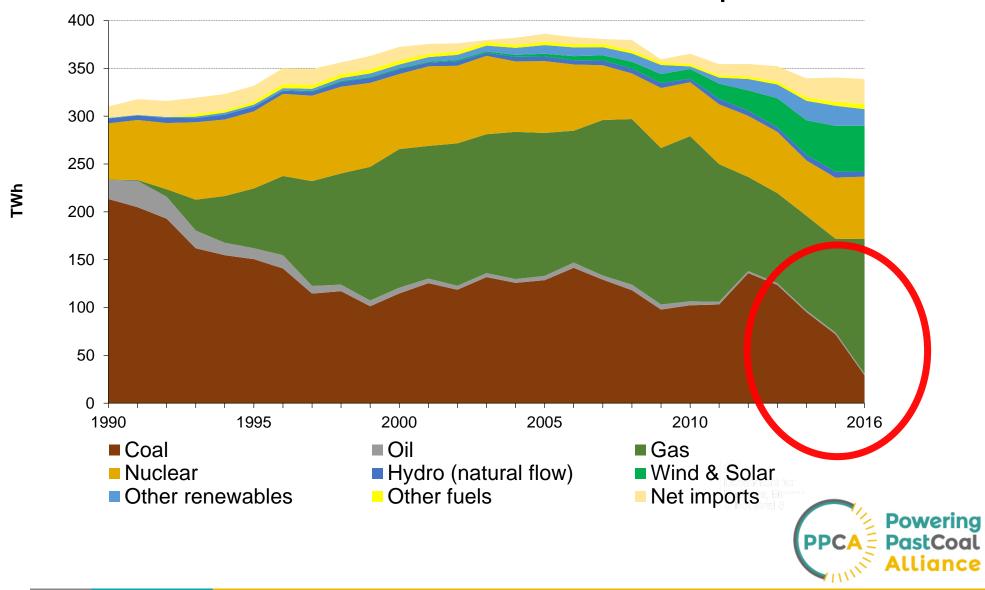
# UK's transition from coal fired power





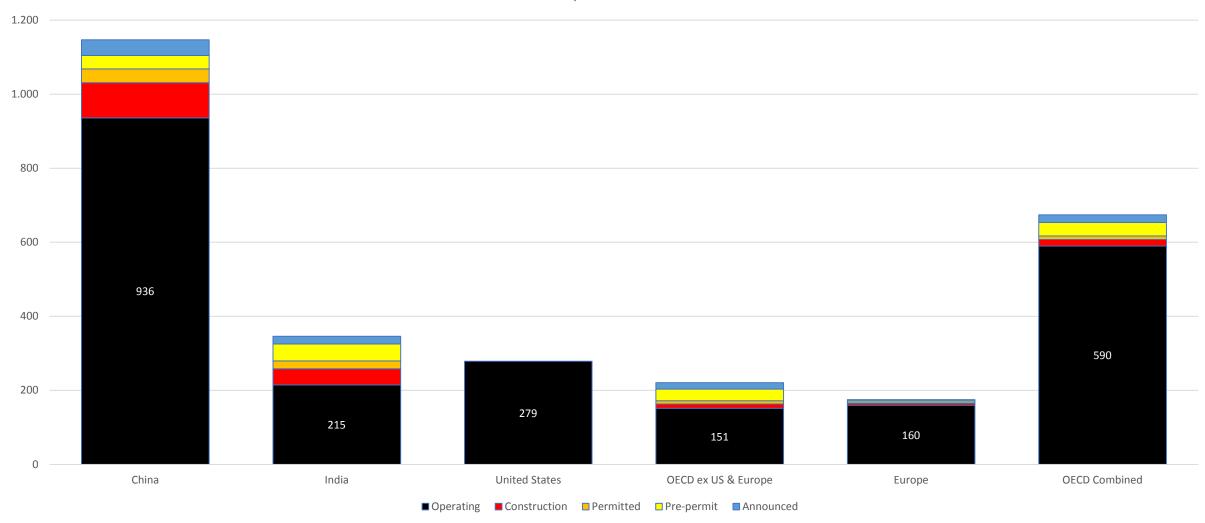


## UK's transition from coal fired power



### Global coal use (2000 existing +300 planned GW)

China, India & OECD



Source: Global Coal Plant Tracker and E3G



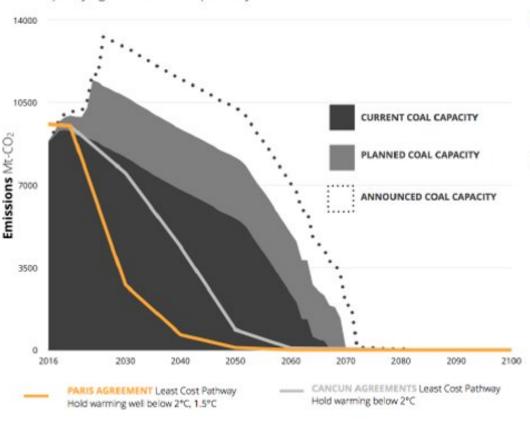
# Current coal plants far exceed Paris compatible levels..



**WORLD** potential CO<sub>2</sub> emissions from existing and planned coal capacity against least-cost pathways.



Source: IIASA/Joeri Rogelj, GCPT, own calculations



- ✓ Coal phase-out by 2050
  - By 2030 OECD
  - By 2040 China
  - By 2050 Rest of World
- No new capacity can be installed and operated over its full economic lifetime anywhere
  - Great risk of stranded assets
  - Current plans in many regions not in line with Paris Agreement

Climate Analytics, 2016



### What is the Powering Past Coal Alliance?



PPCA Launch at COP23



## What is the Powering Past Coal Alliance?

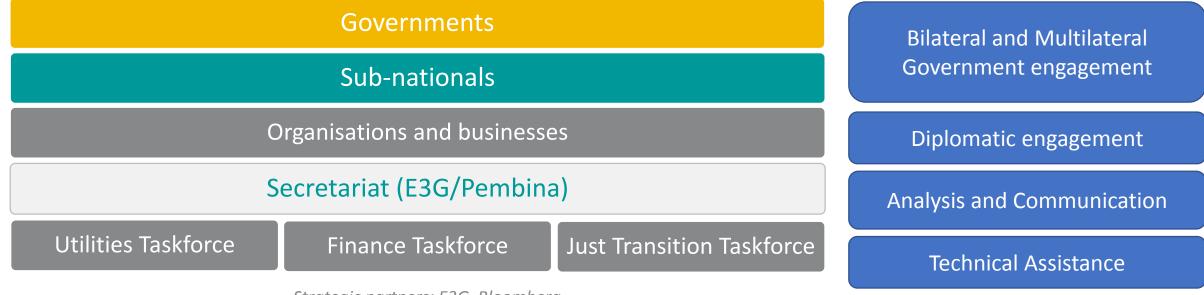


### Key objectives of the Alliance

- Continue to grow the alliance with new members, plus amplifying and accelerating phase out commitments by members
- Influence proponents of new coal, domestically and internationally to switch support to clean energy alternatives [Supply]
- 3. Engage and provide support for major coal economies to consider the transition from coal [Demand]



### Alliance structure and workstreams



Strategic partners: E3G, Bloomberg

**UK** provided £20M to the World Bank's **Energy Sector Management Assistance Program** (ESMAP), a global knowledge and technical assistance program administered by the World Bank. This funding will provide financial, technical and advisory support for developing countries that have decided to transition away from coal and accelerate the uptake of cleaner sources of energy.

**Canada** has pledged up to CAD \$275 million to fund the Energy Transition and Coal Phase-Out Program. This funding will help developing countries in Asia to slow coal production, while scaling up energy efficiency and low-carbon energy alternatives.

# SCALING UP JUST TRANSITION IN THE COAL REGIONS

July 2019

Gianpiero Nacci Deputy Head, Energy Efficiency and Climate Change



#### Agenda



- Introduction to the EBRD and the Green Economy Transition Initiative
- Why is EBRD interested in the required transition?
- 3 EBRD approach to supporting the transition
  - How we see increased action towards this objective

#### What is the EBRD





#### The Green Economy Transition



The GET is the EBRD strategy to increase the share of Bank's business represented by projects which have beneficial impacts on the environment or in terms of climate change. These can be found across all sectors financed by the Bank.



- Renewable energy
- Water efficiency
- Resilience to climate change
- Waste minimisation and material efficiency
- Pollution control and environmental compliance







#### GET financing results from 2006 - 2018



**FINANCED** 

1,650+

green projects

1,200+ directly financed projects with green components, and

450+ credit lines to local financial institutions for onlending to smaller projects.

**SIGNED** 

€29.6 billion

of green financing

For projects with a total value of €170 billion

Since 2016 green financing has represented 37% of EBRD's total business.

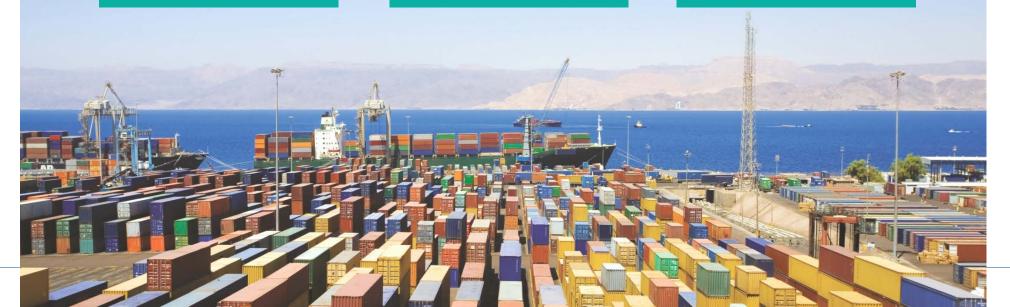
AVOIDED

#### 95 million

tonnes of CO<sub>2</sub>/year

More than the annual energy use related emissions of Romania

+ since 2013, helped reduce 330 million m³ in water consumed /year = almost half of London's annual water use.



#### Why is EBRD interested in the required transition?



- The green economy transition can adversely impact certain economic sectors and regions. One third of crude oil, half of natural gas, and over 80% of global coal reserves will have to stay in the ground
- This issue is pertinent for a number of countries and sectors in the EBRD region, where there is a prevalence of high-carbon energy sources of fossil fuel reserves
- Negative impacts could manifest in a variety of different ways, including GDP decline, job losses in certain industries (e.g. coal mining), general increase of unemployment and increased social vulnerability
- Given this context, the EBRD has the following objectives:
  - Help economic sectors, regions and countries with a high concentration of potentially stranded assets diversify the economic base towards a more sustainable economic model
  - Support workers and communities linked to those stranded assets and regions accommodate to those changes, with an emphasis on re-skilling and improved economic opportunities.

# EBRD's approach to supporting the transition



The EBRD's approach to supporting the **transition of the coal regions** is anchored in:

- EBRD's **Green Economy Transition** Approach
- The **Energy Sector Strategy:** one of the core priorities is to "engage with countries of operations with significant coal dependence to develop strategies to support a transition away from coal that addresses issues of air quality, retrenchment and energy security"
- The **core EBRD mandate** to **foster systemic change** and build a market economy which is:
  - o Competitive: promoting private sector led initiatives and job creation
  - o **Green**: supporting investments in a low-carbon economy
  - Resilient: supporting long-term economic development and economic diversification
- The Bank's commitment to align its financial flows with the Paris Agreement, which includes a reference to 'Just Transition'

#### Core areas of MDBs Paris Alignment





4

### **Engagement and policy development support**

Develop new services to support clients put in place long-term strategies for lowemissions and climateresilient development while ensuring consistency with SDGs.

# How we see increased action towards this common objective



- To achieve the required scale of investments, an integrated approach is needed. Similar approaches in several EBRD programmes including:
  - o **Green Cities** framework, which provides a holistic approach to identify, structure and finance climate related investments in the cities' infrastructure and services
  - Nuclear decommissioning funds, which are used to manage the development of commissioning strategies / plans, EIAs, and to finance related infrastructure investments (e.g. physical protection systems, decontamination and dismantling works)
- Financing and technical assistance should be channelled to:
  - Early retirement of coal-fired power plants and accelerated decarbonisation of carbon intensive industrial assets
  - Environmental and social remediation actions, including initiatives that alleviate the effects of asset closure i.e. vocational training and development of skills
  - Paris aligned economic activities.

#### Contacts



#### **Gianpiero Nacci**

Associate Director Deputy Head of Energy Efficiency and Climate Change

Email: NacciG@ebrd.com

For more information on EBRD's Green Economy Transition projects and initiatives:

https://www.ebrd.com/what-we-do/get.html





# Platform for Coal Regions in Transition

15 July 2019

Regional Development Division
Environment and Territorial Development
Department of the Projects Directorate





#### The EIB: the EU bank







### The EIB at a glance

#### Our operational basis:

- We raise our funds on the international capital markets
- We provide favourable borrowing conditions to clients

#### In 60 years, over € 1.2tn invested:

- More than 12 000 projects in over 160 countries
- Crowding-in bank: mobilising up to € 3 trillion of overall investment

#### Headquartered in Luxembourg:

- Around 3 400 staff: In addition to finance professionals, there are engineers, economists and socio-environmental experts
- 50 local offices around the world





### Our priorities



EIB Group financing signed in 2018









#### **EIB Energy Lending**

- ▶ EUR 13.5Bn PA over last five years (15% ExEU)
- Since 2013, transitioned to a very large extent to clean energy finance
- A significant source of energy infrastructure financing but also for small projects
- Variety of financing channels as well as provision of technical/financial advisory to strengthen preparation and implementation
- Policy (response to the Clean Energy for All Package). Submissions received and draft policy expected to be published soon
- https://www.eib.org/en/about/partners/cso/consultations/item/public-consultation-energy-lending-policy.htm





#### EU ETS Directive and the EIB

- Innovation Fund The EIB is a member of the Innovation Fund Expert Group (IFEG) which advises on preparation of the investment rules.
- Modernisation Fund discussion ongoing, EIB role will include eligibility check for priority projects and due diligence on non-priority projects, member of the Investment Committee, monetisation, execution of payments.
  - The priority projects include, among others, the projects "to support a just transition in carbon-dependent regions in the beneficiary Member States, so as to support the redeployment, re-skilling and up-skilling of workers, education, job-seeking initiatives and start-ups, in dialogue with the social partners" (ETS Directive).





"Improving coalfield areas and tackling the deep seated structural and social problems requires a joined-up, multi-agency approach. It needs to bring together a range of local and national partners, to develop an integrated local programme approach."

A Review of Coalfields Regeneration UK Coalfield Regeneration Review Board, 2010





Examples of EIB integrated multi-sector urban/regional development projects







# EIB Framework Loans - suitable instrument to finance integrated territorial development/transition strategies

- flexible instrument to finance multi-sector and multischeme operations
- enables the Bank financing smaller schemes (some only 100k)
- intermediation possible to reach smaller promoters
- programme-oriented instrument
- individual sub-projects may not be known at appraisal





#### What kind of schemes are financed?

- Sustainable transport
- Broadband infrastructure
- Urban mobility
- Urban schemes
- Water supply and wastewater treatment infrastructure
- Waste management
- Energy efficiency
- Healthcare infrastructure
- Education infrastructure
- Cultural heritage
- Environmental protection









Originated within integrated, multi-sector and multi-dimensional deploying territorial development strategies, which are climate-proof, embed spatial & environmental planning guidelines, based on local priorities and needs



all that is needed for sustainable transition and development



#### Recent Silesian cases

- Long track record in wider Silesia territory, lending c.
   EUR 205m in Katowice since late 1990s
- Recently signed Loans (totaling EUR 170M) with each of the Municipalities of Legnica, Zabrze and Czestochowa
- EUR 14M EFSI loan to support Walbrzych's urban revitallisaton plans





#### Recent cases - Others

- Brandenburg Project (c. EUR 200m) Financing business infrastructure, combined with financing SME development (complement to the LMBV Project)
- Pais Vasco Project (200m) financing EE, flood protection, sewerage and drinking water networks, RDI, SMEs
- Co-financing alongside EU funds in Castilla La Mancha, Castilla y Leon and Moravia-Silesia in support of economic restructuring/ diversification





# Examples of EIB support for large environmental remediation projects





#### Rehabilitation of brownfield areas in East Germany

- > 70% of the energy supply in the GDR was originated from the lignite mining
- → 300 million t/yr, lignite mining had an impact on the environment.
- ▶ LMBV (1994), reclamation and restoration of the open-pit mining facilities
- LMBV's area of responsibility is 107,000 hectares of the mining areas in Germany



#### Rehabilitation of brownfield areas in East Germany

- LMBV invested over EUR 10 billion of National and Federal State money
- Reclaimed 23,000 ha of agricultural and forest areas
- Established 10,200 ha of new forest plantations
- Replenished the ground water and created 12,000 ha of lakes









#### Rehabilitation of brownfield areas in East Germany

- EIB supports, LMBV's (2013-2017) programming period in the German Federal State of Brandenburg
- Project components include; basic rehabilitation and ground stabilization; flooding of former pits and groundwater management; and reclamation activities
- Primary objective is Environmental Protection and Natural Resource Efficiency
- Project cost: EUR 561.6 M
- EIB Finance: EUR 200 M







#### A fresh re-start for the Emscher river ecosystem

- one of Europe's largest environmental infrastructure projects
- colossal attempt to restore an entire river and its surroundings in the industrial Ruhr region
- Loans totaling EUR 900m are helping to give the people of the region their river back and improve their quality of life.







Technical/financial advisory for preparation and implementation







# EIB's integrated package approach for more impact

LENDING	BLENDING	ADVISING
• Loans Investment Loans for single schemes	<ul> <li>Combining EIB finance with EU budget (EIB + European Structural and Investment Funds</li> </ul>	<ul> <li>Advisory and technical assistance to prepare and implement projects</li> </ul>
Framework loans for multiple small schemes which may not be known at time of appraisal  But also:	Operational Programmes)  • Higher risk projects for innovation (European Fund for Strategic	<ul> <li>Build up the capacity of national or regional partners (like managing authorities or national promotional institutions)</li> </ul>
Guarantees & Equity participation	<ul> <li>Investments )</li> <li>More complex financial products like investment platforms</li> </ul>	<ul> <li>Support to improve access to finance</li> </ul>
Attracting FUNDING for long-term growth		





**Investment Plan for Europe** 

Support investment in the real economy

**Advisory Hub** 

and the European Investment Project Portal

rough improvements of the

European regulatory

Advisory Hub

through the European Fund

for Strategic Investments

#### The EIB advisory offer

- First point of access via the one stop shop European Investment Advisory Hub
- Technical and financial advice at upstream, preparation and implementation, including fund structuring
- Example: JASPERS recent experience
  - preparation of Zamosc's ESIF-backed urban strategy with a view to economic diversification and energy transition
  - Supporting <u>Krakow Metropolitan Area</u> on preparing an ESIFbacked metropolitan area strategy that explicitly reflects the transition away from coal-based economy.
- Example: PASU (Project Advisory Services Unit)
  - Implementation support for major projects, tendering, contracting and operational sustainability (currently RO/BG)





#### Wrapping up

- EIB Energy Lending Policy to be finalized later this year
- New initiatives coming online (IF, MF)
- Already significant levels of related EIB activity in the regions across all sectors assisting different dimensions of coal transition
- EIB can support coal regions in preparation of strategies and identification of projects, financing environmental remediation of sites, eligible schemes of all sizes in support of regeneration and structural transformation/economic diversification
- ▶ EIB is a flexible partner for coal regions and can accommodate a region's evolving needs in terms of their integrated territorial development strategies.





#### **Contact**

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#### Annex





## EIB project cycle

We support sound and sustainable projects







# Benefits of an EIB loan

- Attractive interest rates
- Large amounts
- Broad range of currencies
- Long maturities
- Catalyst for participation of other banking or financial partners





# **Overview - EIB Financing Tools**

Instrument	Key Features
Investment loans	<ul> <li>Direct loan for a specific investment project or programme</li> <li>Usually &gt; EUR 100m project cost, minimum 50m</li> <li>All investment components identified / appraised up front</li> </ul>
Framework loans (FL)	<ul> <li>Loan to a region/city, programme cost &gt; EUR 100m</li> <li>Finances a 3-5 year investment programme</li> <li>Multi-sector investments (usually small projects) meeting defined criteria but not finally prepared at time of signing</li> </ul>
Structural programme loan (SPL)	<ul> <li>Framework loan, co-financing EU Structural and Investment Funds</li> <li>Pre-fund national contribution</li> </ul>
Intermediated loan	<ul> <li>Facility for financing smaller regions/municipalities</li> <li>Relies on a good intermediary (e. g. public or commercial bank) which applies financing criteria agreed with EIB</li> </ul>
Equity funds	<ul> <li>Investment e. g. into a regional/urban development, infrastructure fund or brownfield fund</li> <li>Targeted investment criteria leading to new investment</li> </ul>





# Key thresholds

- EIB's loan cannot finance more than 50% of the overall investment programme (possible exceptions)
- EIB+EU financing cannot together exceed **90% of the total investment programme** in transition and less developed regions and **70%** in developed regions (possible exceptions)
- Individual projects financed cannot be more than 50% physically complete by the time of the EIB appraisal
- The term of the loan shall not exceed the economic life of the assets





#### EIB excluded sectors

#### Excluded activities:

- Ammunition and weapons, military/police equipment or infrastructure
- Projects which result in limiting people's individual rights and freedom, or violation of human rights
- Projects unacceptable in environmental and social terms
- Ethically or morally controversial projects
- Activities prohibited by national legislation



