



REMIX

Interreg Europe



European Union
European Regional
Development Fund

Region Of Sterea Ellada, Greece:
The trailhead in integrating the Industry 4.0
throughout the Raw Materials sector's value chain



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Region of Sterea Ellada (Central Greece)

The Greek Smart and Green Region of Remix

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The Greek Partner of Remix

National Technical University of Athens



- ✓ Mining Matters
- ✓ The Mining Regions Matter



7th Peer Review Meeting, Oct 2018, Delphi, Greece

European Commission

European Innovation Partnership (EIP) on raw materials

Raw Materials: Study on Innovative Technologies and Possible Pilot Plants

European Rare Earths Competency Network

Third Trilateral EU-US-Japan Conference on Critical Materials

Official Journal of the European Union

Mine Waste Directive (MWD), 2006/21

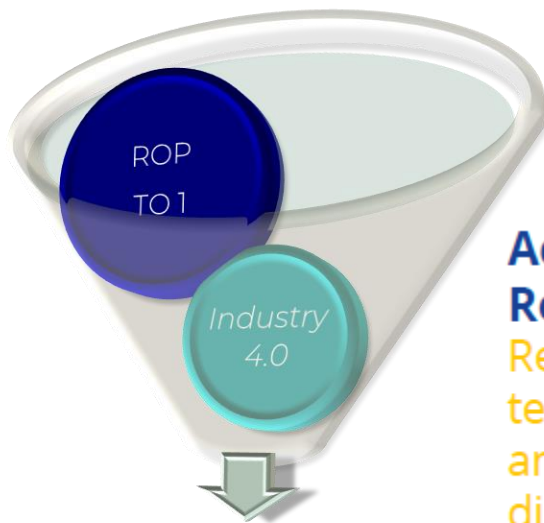
The Greek Action Plan

Identification

“Regional Operational Programme of The Region of Central Greece”, Thematic Objective 1: “Enhancing research and innovation infrastructure and development capacities of excellence in research and innovation and promoting centers of competence, in particular European interest centers”.

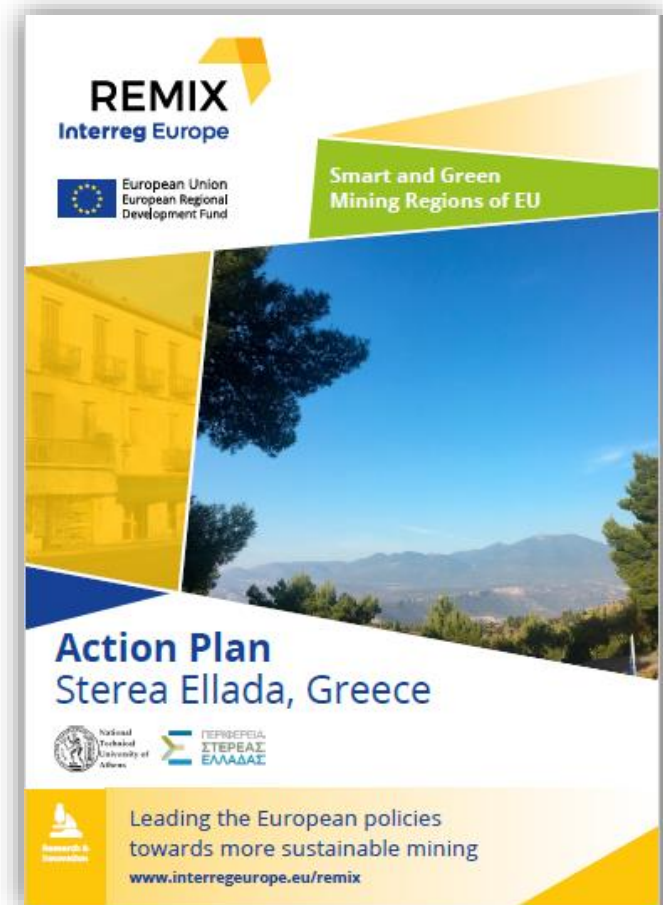
Objectives

Link the current policy instrument with Industry 4.0.



Operational efficiency & productivity in mining /metallurgy industrial ecosystems

Action Plan for the Region of Sterea Ellada:
Reinforcement of research, technological development and innovation through digital metamorphosis



The Greek Action Plan

1. Mobilization of policy makers on Regional and National level
 - *Smart Specialization Platform for Industrial Modernization, Mining Industry and global Value Chains Partnership.*
2. Mapping of skills (digital literacy)
 - *Extended survey conducted with input from NTUA, RoCG and Hellenic Federation of Enterprises*
3. Activities for the promotion of industrial interest (including SMEs) for digitalization and funding opportunities
 - *Greek Mining Enterprises Association official recommendations on 2019 Activity Report*
4. Collaboration with EIT RawMaterials HUB-Regional Center Greece
 - *Escalation of the matter from Regional to National level: 4th Greek Raw Materials Community Dialogue “Raw Materials Industry transition to the Digital Era” (Dec2019)*



Region of Central Greece: ID & Progress of the RoCG with regards to SDGs

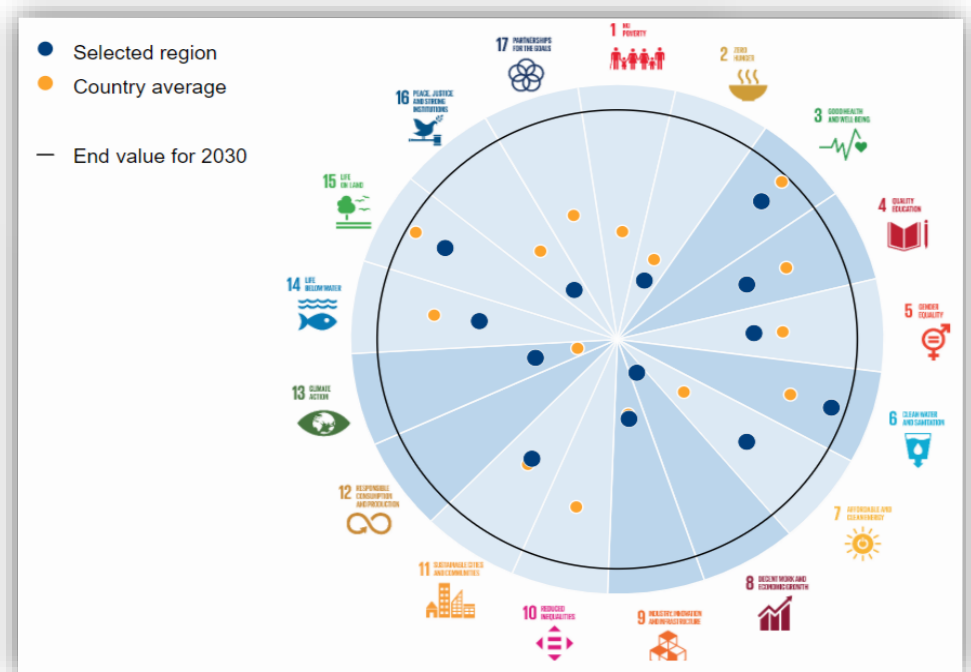
- ❑ 555,000 Inhabitants
- ❑ GDP/capita in PPS: €19,300
- ❑ EU28 average 31,000; *Eurostat 2020*



The RIS3 Pillars for RoCG

- Mining Industry
- Tourism
- Agrifood
- ICT

(<https://s3platform.jrc.ec.europa.eu/home>)



Region of Central Greece:

Metal Industry and Advanced Materials value chain, incl. supply chain

Active companies in RoCG (aluminum, copper, steel & iron-nickel):

- ✓ 2.4% of the total
- ✓ 9.2% of the total secondary sector of the region,
- ✓ employ 6.11% of its workforce
- ✓ 41.4% of manufacturing workers.



EU Digital Europe Program: **to alleviate the imbalances**

Indicative example: metal industry & derivatives, only **6% digitized**

RoCG's digital transformation of metal value chain < 10%

REMIX & smaller-scale /research pilot projects can:

- ✓ Facilitate collaboration across regions, research institutes & companies for DBDM
- ✓ Develop skills & training schemes
- ✓ Improve companies' human assets
- ✓ Extend safety
- ✓ Boost profitability



Region of Central Greece:

Metal Industry and Advanced Materials value chain, incl. supply chain

Triple helix schemes for digitization of metal industry:

- ❑ IT transformation of the legacy procedures
- ❑ Automated interactions
- ❑ Capitalizing on new technologies through R&I/R&D



Desired axes for operation of metallurgy & companies in metal value chain:

- technological specializations training,
- transfer of know-how,
- networking of stakeholders,
- pre-investment testing
- support of investing in **industry innovation**
- circular economy development.

What about beyond the REMIX project's lifespan?

- ❖ IT, R&D, BATNEECs, sharing of best practices
...plus collaboration,
- ❖ R&I, shaping of consortia, RIS3, Digital Europe program,
- ❖ EU resources, European Regional Development Fund



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Thank you for your attention!



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