



Renewable Energy Services in Education and Training

Component
within project:
Decarbonisation
of the Electricity Sector
in the Western Balkans

**ERI
SEE** | Education
Reform
Initiative of
South
Eastern
Europe

Implemented by

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DEUTSCHE ZUSAMMENARBEIT

Edu-Energy Conference: Building Bridges for Sustainable Energy Learning



Path to a sustainable energy future of the Western Balkans

Vedad Suljić, CETEOR

15 March 2024

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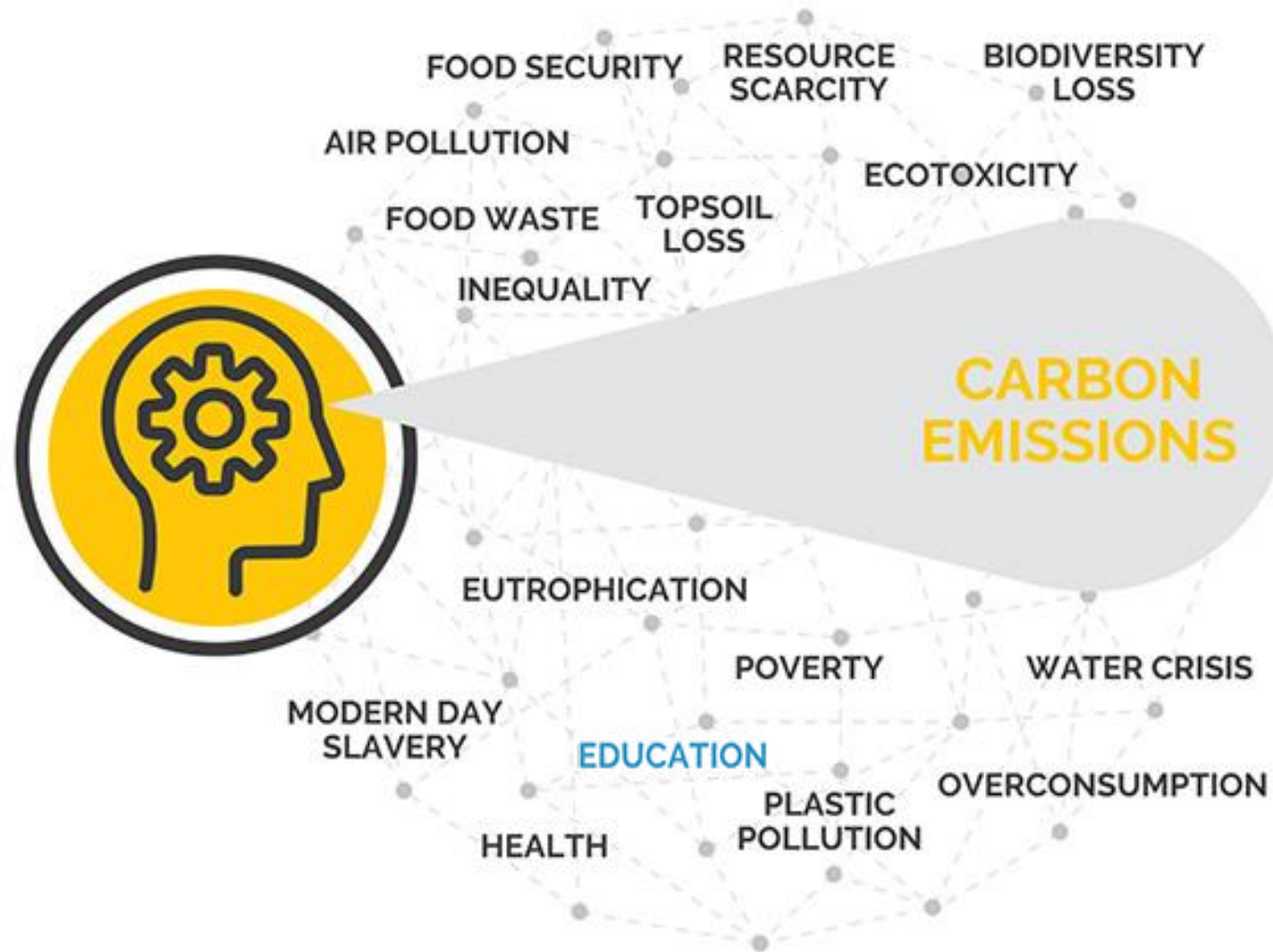
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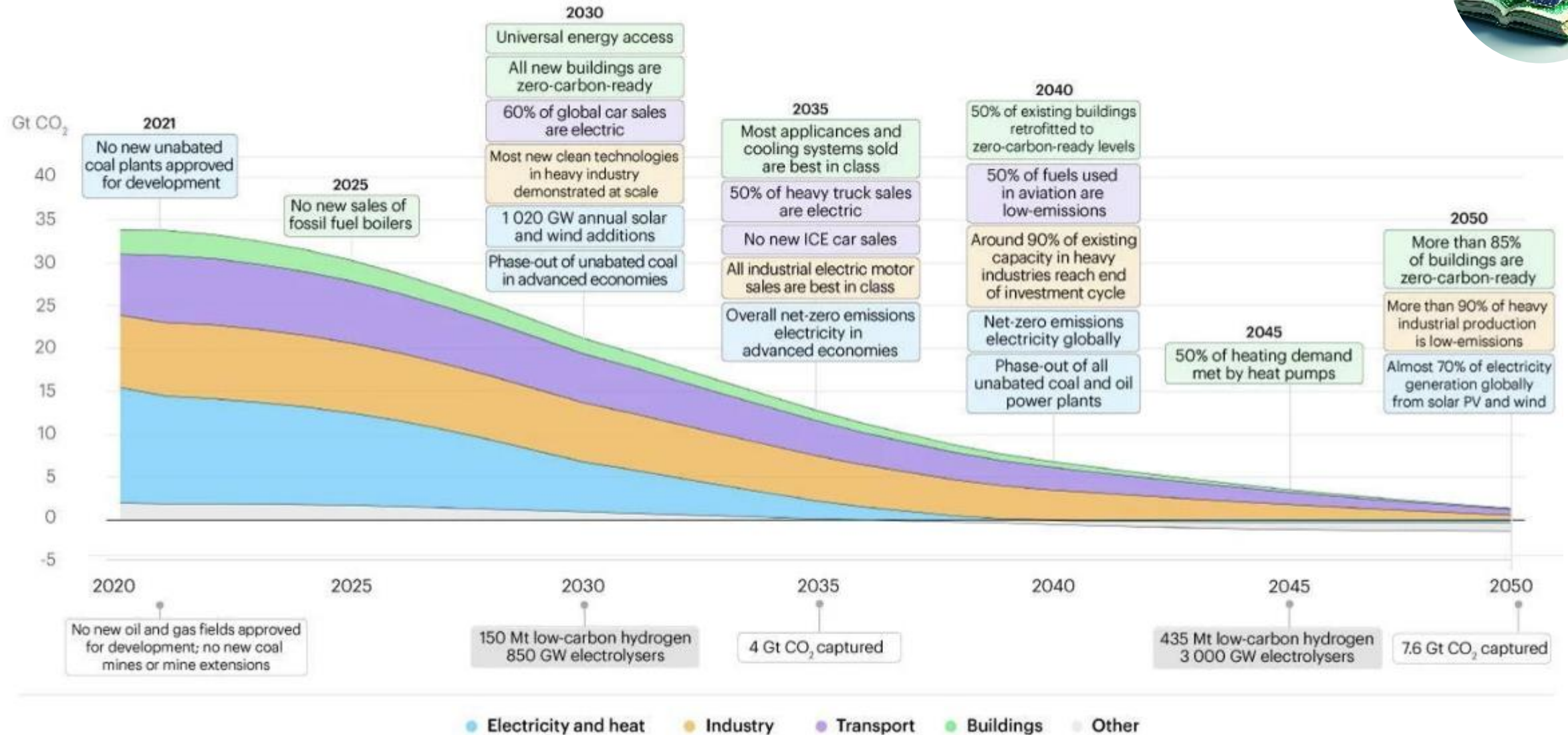
Strategic and regulatory framework



Don't get stuck in the tunnel vision



Key milestones that IEA says the world should aim for to reach an internationally recognized goal of reducing GHG emissions



EU Green Deal



Strategies

European Green Deal Investment Plan and Just Transition Mechanism (2020)

European Industrial Strategy (2020)

Farm to Fork Strategy (2020)

Biodiversity Strategy (2020)

Strategy for energy system integration (2020)

Hydrogen Strategy (2020)

Chemical Strategy for Sustainability (2020)

Methane Strategy (2020)

Renovation Wave (2020)

Offshore Renewable Strategy (2020)

New EU Strategy on Adaptation to Climate Change (2021)

EU Soil Strategy (2022)

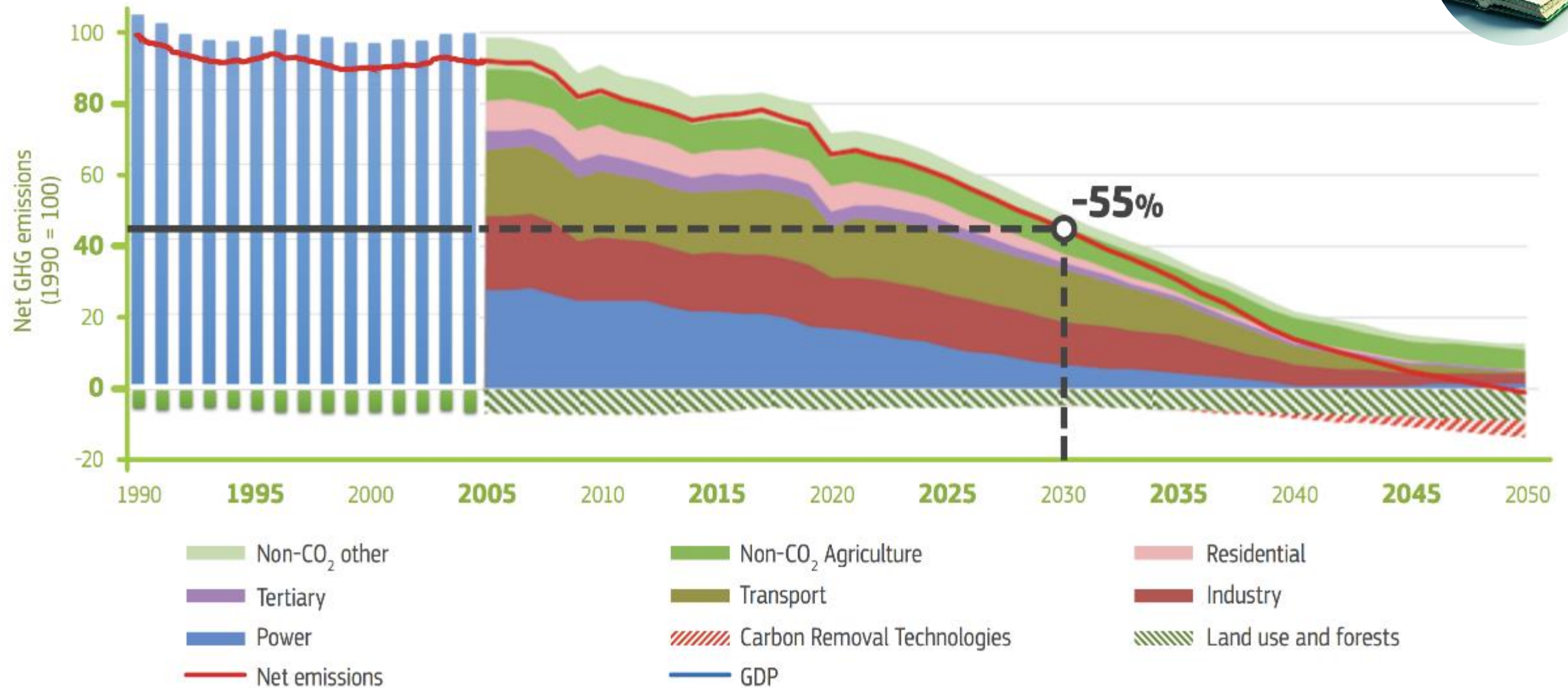
Action Plans

- 2030 Climate Target Plan (2020)
- New European Bauhaus (2021)
- Organic Action Plan (2021)
- Action plan to boost long distance and cross-border passenger rail (2021)
- Zero pollution Action Plan (2021)
- Approach to Sustainable blue economy(2021)
- REPowerEU(2022)
- EU Algae Initiative(2022)
- Energy Transition of the EU Fisheries and Aquaculture sector (2023)
- Green Deal Industrial Plan (2023)

Proposals

- Proposals to stop deforestation (2021)
- Proposals to innovate sustainable waste management (2021)
- Proposals to make soils healthy (2021)
- Proposal for Regulation on Ecodesign for Sustainable Products (2022)
- Proposals to review IED and PRTR (2022)
- Proposals for new F-gases and new ODS regulations (2022)
- Nature restoration law (2022)
- Proposes rules for cleaner air and water (2022)
- Euro 7 standards(2022)
- Proposal on common rules promoting the repair of goods (2023)
- Proposal on common criteria against greenwashing and misleading environmental claims (2023)
- New Regulation for the deployment of alternative fuels infrastructure (AFIR) (2023)
- EU emissions trading system (2023)
- Maritime transport emissions (2023)
- Buildings, road transport and additional sectors (2023)
- Emissions from aviation (2023)
- Carbon Border Adjustment Mechanism (2023)
- SocialClimate Fund (2023)

EU's Pathway to climate neutrality



Navigating the Green Transition in the Western Balkans



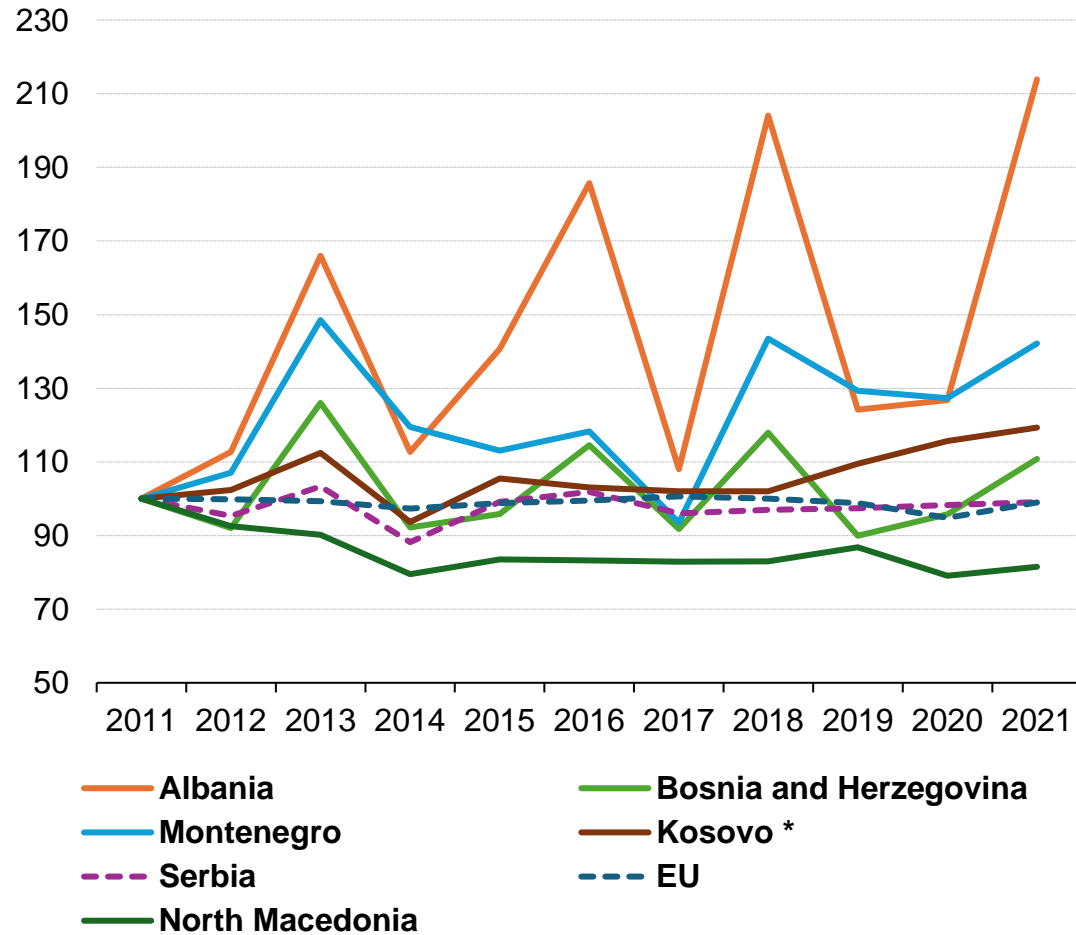
- EnCS IR 2023 (NECP)
 - Serbia 92%
 - North Macedonia 70%
 - Albania 61%
 - BiH 38%
 - Kosovo* 33%
 - Montenegro 29%
- CBAM – Set to impact in 2026, potentially costing the region over €500 million annually.
 - Carbon Pricing Strategy is essential for reducing costs and managing the transition to green energy.
- Seeking EU allowance for gradual implementation of environmental and electricity sector rules by 2030.
- Potential Revenue from Emissions Trading could generate €2,8 billion annually for green energy projects.
- Strategic focus areas relates to emphasizing renewables, infrastructure investment, legal overhauls, and collaboration for investment in green technologies.
- Crucial support required from the EU and international financial institutions to overcome obstacles.

Some key energy stats in the WBs

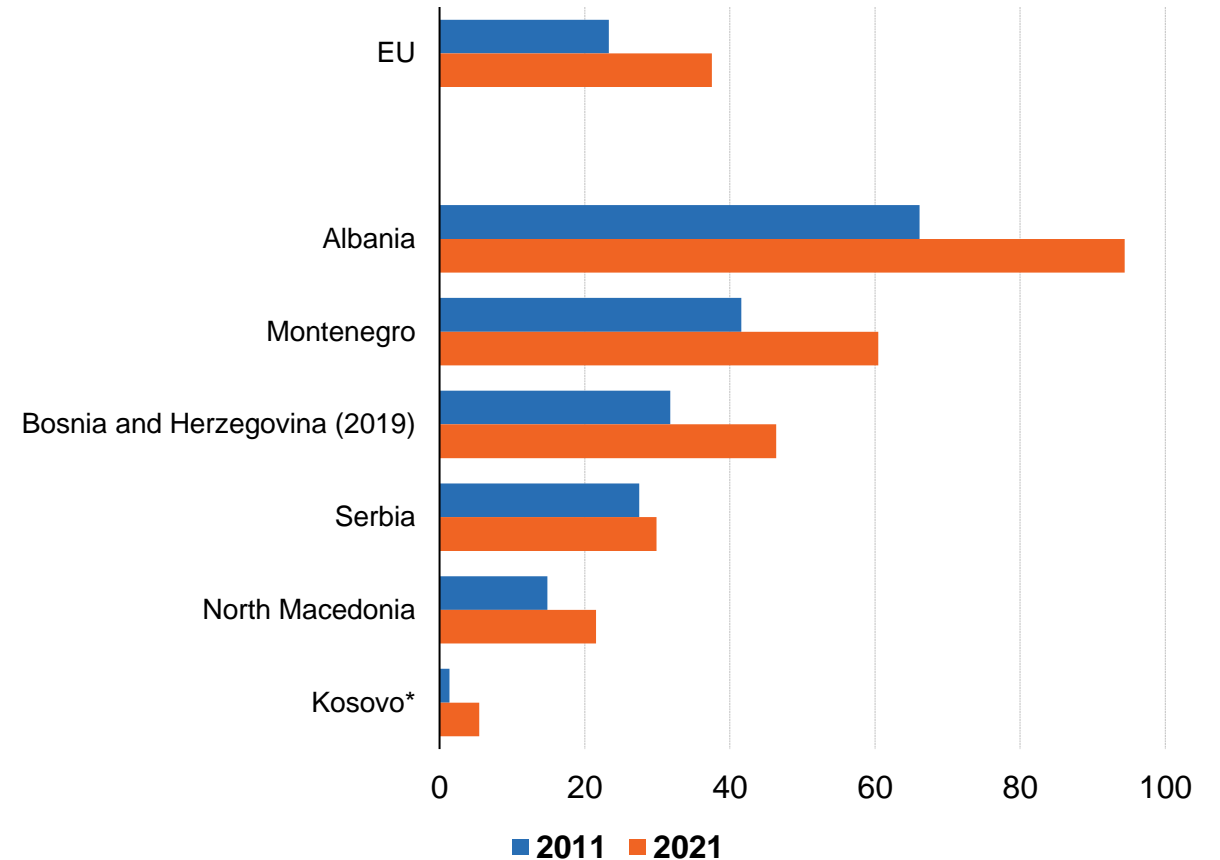




Gross electricity generation (2011=100, based on Gigawatt-hour)



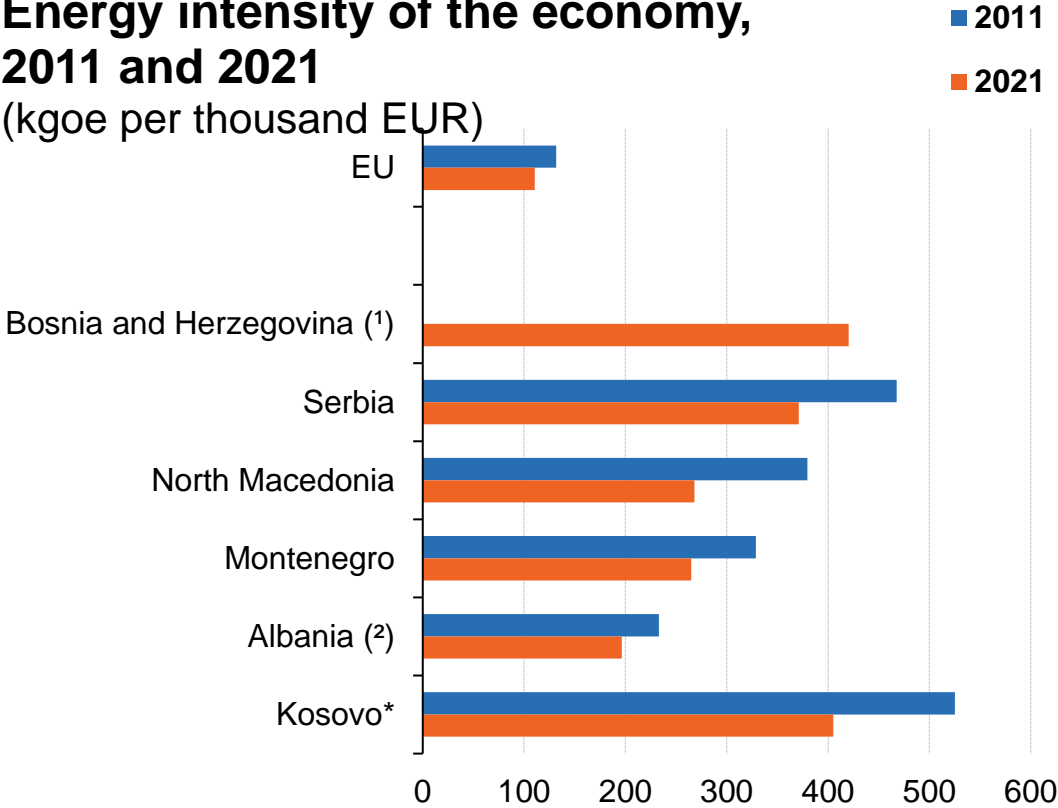
Electricity generated from renewable energy sources (% of gross electricity consumption)



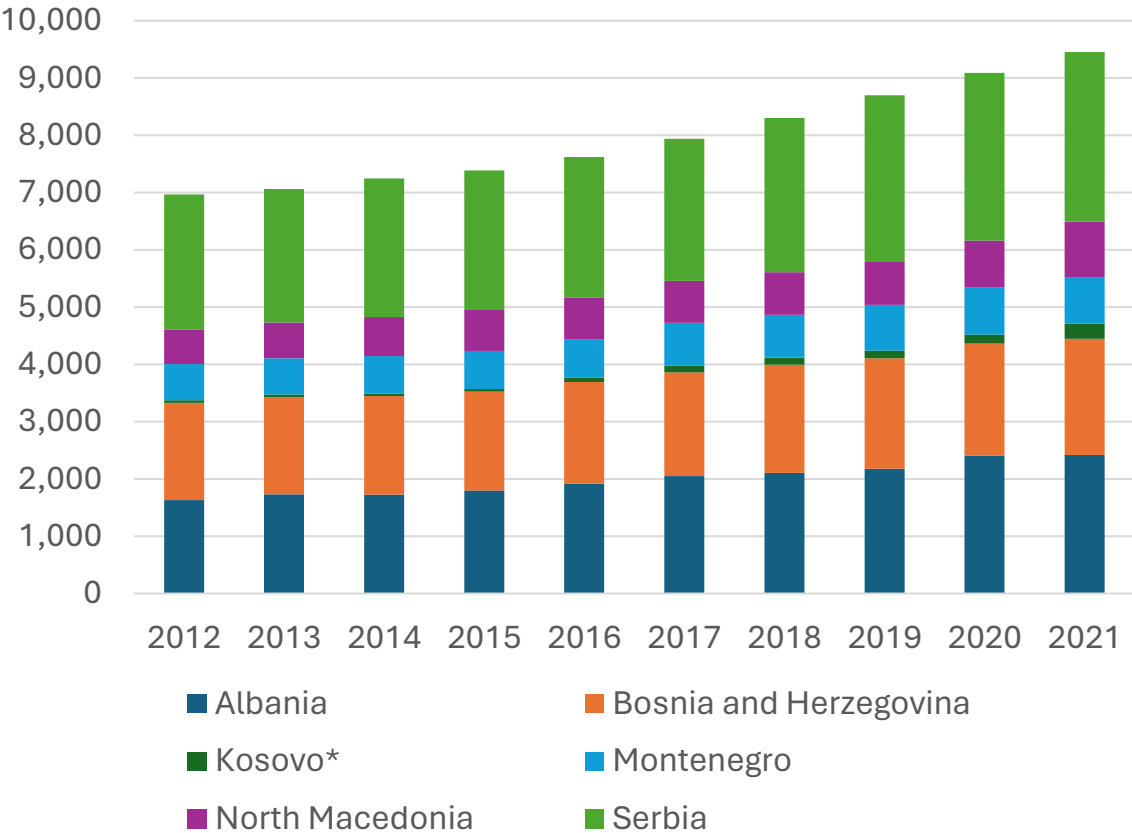
Still high energy intensity in the WBs, particularly in BiH, Kosovo and Serbia
Significant decrease in energy intensity across the WBs from 2011 to 2021



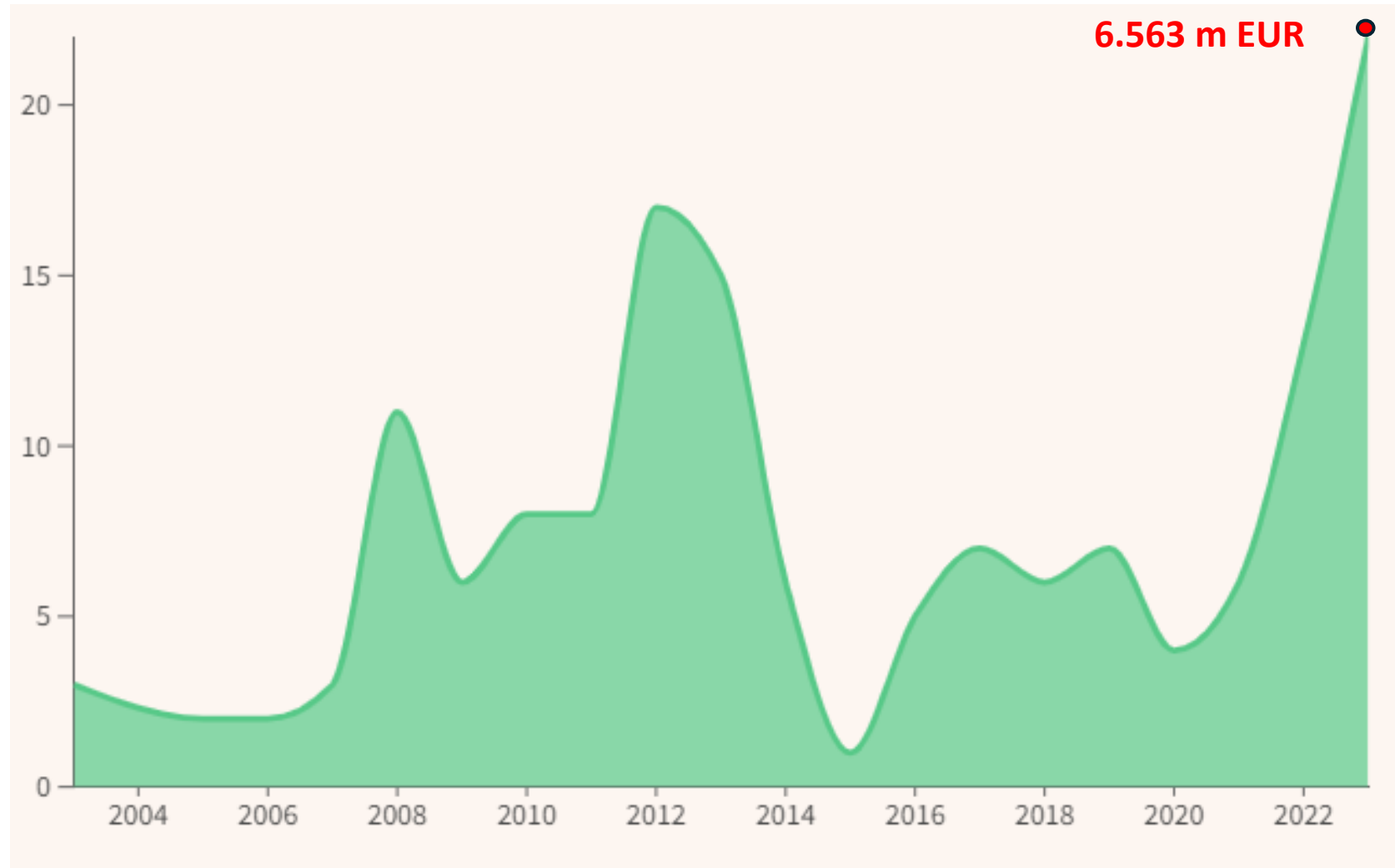
Energy intensity of the economy,
2011 and 2021
(kgoe per thousand EUR)



RES installed capacity (in MW)



Renewables developers have flocked to the Western Balkans after contract for difference (CfD) auctions



Importance of transforming the energy sector



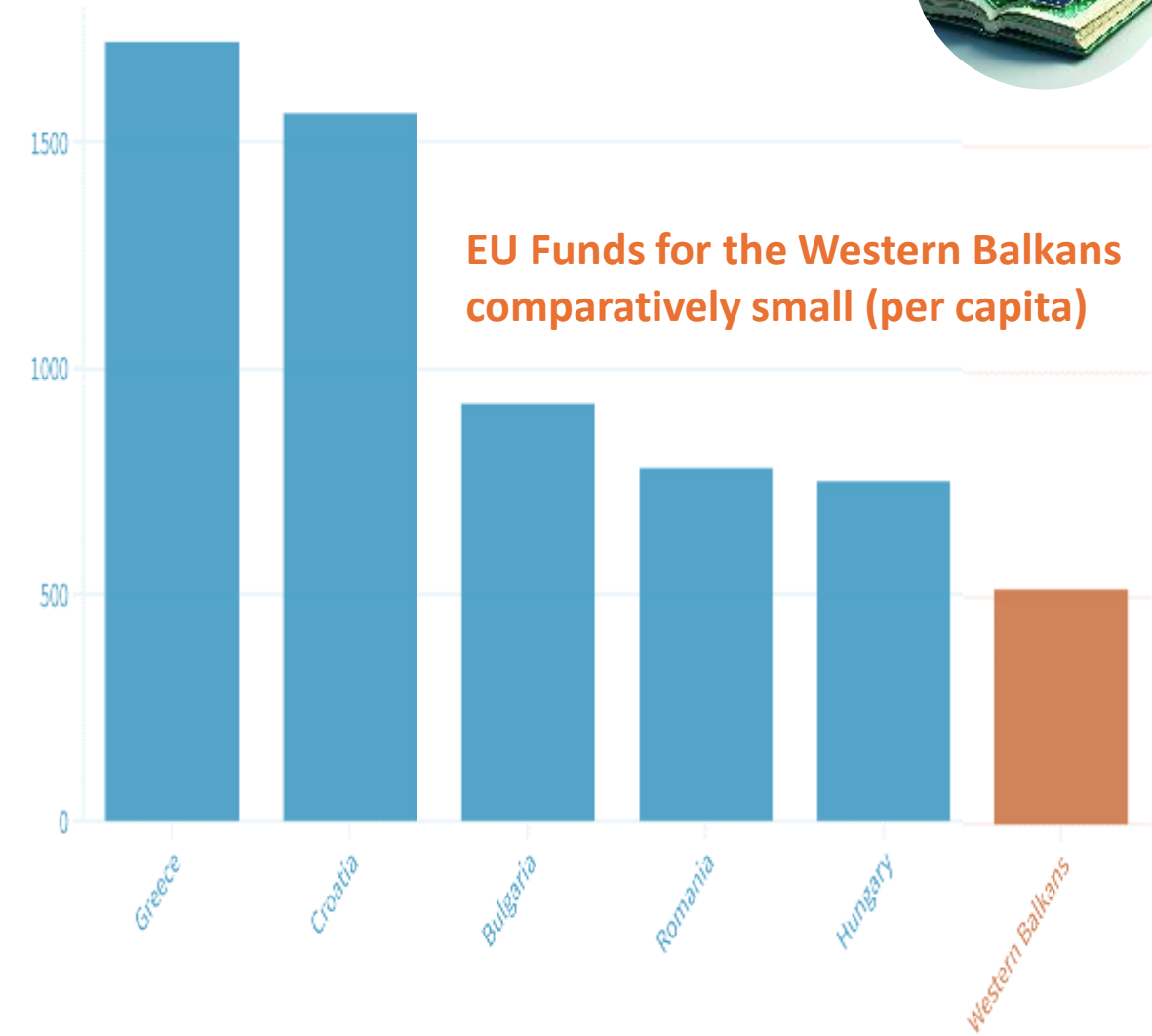


- Energy Sector at a crossroads
 - Ageing infrastructure and high fossil fuel dependence.
- Shift to Renewable Energy
 - Commitment to accelerate decarbonization, reducing public subsidies, pollution, and energy costs.
- NDC Revision and Ambition
 - Increased mitigation ambition with updated National Climate Pledges under the Paris Agreement.
- Collaborative Efforts
 - Serbia and Bosnia and Herzegovina lead by example, adopting new technologies and fostering just, gender-responsive green transformation.

Renewable Energy Transition in the Western Balkans



- Albania and Montenegro
 - Significant reliance on HP; over 40% of Montenegro's electricity from HPP
- Hydropower Expansion
 - 490 new sHPP since the 2010s
- Shift to Solar and Wind
 - Serbia awards contracts for 400 MW of wind and 11,6 MW of solar capacity.
- Legislative Changes across WB
 - New laws on RES to phase out feed-in tariffs
- North Macedonia
 - Aims for 46% electricity from renewables by 2025, with a notable 10 MW solar farm project.
- Kosovo's Ambitious Plans
 - Targets 1,600 MW of renewable capacity by 2031, moving beyond coal dependency.
- Western Balkans lag in financial support for green transition compared to EU member states, highlighting the need for increased EU backing.

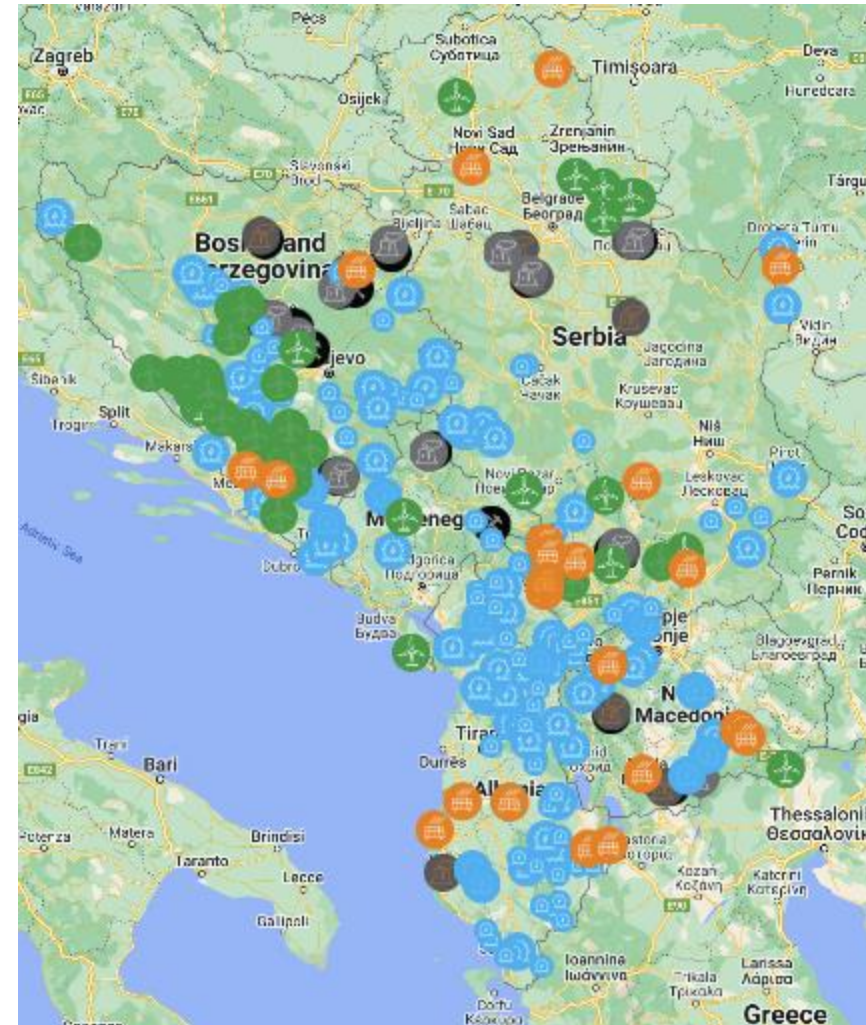


Power plants in the WB (existing, planned, abandoned)

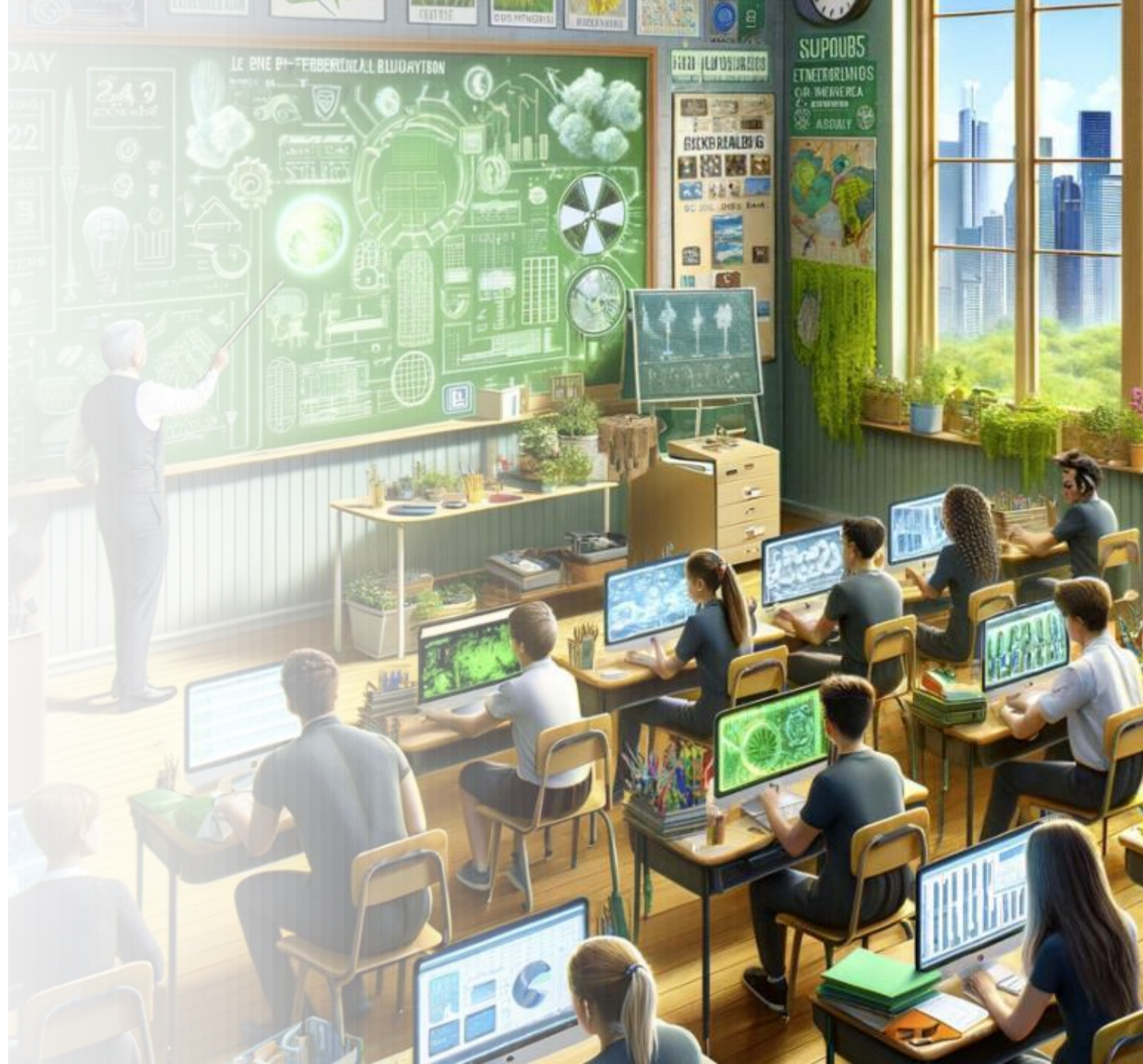


- Existing Coal mines 18
- Existing TPP 17
- Planned TPPs
 - 17, out of which, 3 cancelled and 2 under construction
- Existing HPPs – 62 + 84 SHPPs
- Planned / Under construction HPPs – 15
- Existing and planned WPPs – 17 | 35
- Planned WPPs – 35
- Existing SPP – 22

Plese note that this is data from 2019!!!



Call to action





- Emphasis on the need for VET institutions to collaborate with green sector companies to design relevant training programs.
- Moderate level of current curricula alignment with green sector needs; highlighting the importance of adaptability to evolving industry demands.
- Variable provision across countries; Albania showing higher involvement, while Bosnia and Herzegovina, and Montenegro indicating a need for more opportunities.
- Identified need for more comprehensive education in sustainable agriculture, green finance, and green construction practices.
- Overall, a lack of sufficient research into green sector needs and trends to inform VET curricula updates.

Integrating pre-tertiary education with green sector needs



- Importance of introducing sustainability and green practices in pre-tertiary education to build foundational awareness and skills.
- How businesses, governments, NGOs, and universities can contribute to curriculum development that includes green sector needs.
- Examples from the Western Balkans:
 - In Montenegro, partnerships between schools and local environmental NGOs to offer workshops on renewable energy.
 - Albania's pilot programs integrating environmental science into primary and secondary school curricula.
 - Bosnia and Herzegovina's vocational schools collaborating with green businesses for practical training sessions.



- Need for education systems in the Western Balkans to align strategically with national and regional green objectives and market demands.
- Involving industry experts, environmental scientists, and policy makers in the curriculum development process to ensure relevance and applicability.
- Success stories and potential models:
 - Serbia's national strategy for green growth, including educational reforms to support green skills development.
 - The Energy Community Secretariat's support for cross-border educational programs focusing on energy efficiency and renewable energy in the Western Balkans.

Example projects in the WBs



The Academy for Transitional Skills in the Build Environment aims at updating vocational skills ecosystems in the

construction sector to the emerging needs in the area of green and digital skills. The project will develop a BuildEnrichedSkills methodology and a procedure to support VET Centres to adapt their teaching offer more quickly to the **twin transition**. The project will create a **Certification framework** for the recognition of skills and competences responding to emerging needs for twin transition, which aims to serve as a world-class reference for improvement and certification of VET provision.

Project Aims:

- revolutionize the construction sector by addressing the challenges posed by the **GREEN AND DIGITAL TRANSITION**
- **UPDATE AND ADAPT THE VET SERVICES** offered to the emerging new needs in the field of green and digital skills
- **OFFER TRAININGS** related to the real needs of the labor market when applying the “lifelong learning” approach, incl. through reskilling and upskilling
- create a pan-European **CERTIFICATION FRAMEWORK** to represent an umbrella certification for recognizing and validating course content on transitional skills and competences provided by VETs on an EU level
- bridge **CERTIFICATION GAPS** between Member States



Duration: 48 months



Start date: 1 June 2023



End date: 31 May 2027



www.buildskillsacademy.com



Target groups:

- VET centres
- Educational institutions
- Industry
- Policy makers
- Trainees



Thank you!

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Renewable Energy Services in Education and Training



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