Energy Transition in Romania

Challenges and socio-economic impacts

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Just E-volution 2030

The socio-economic impacts of energy transition in Europe

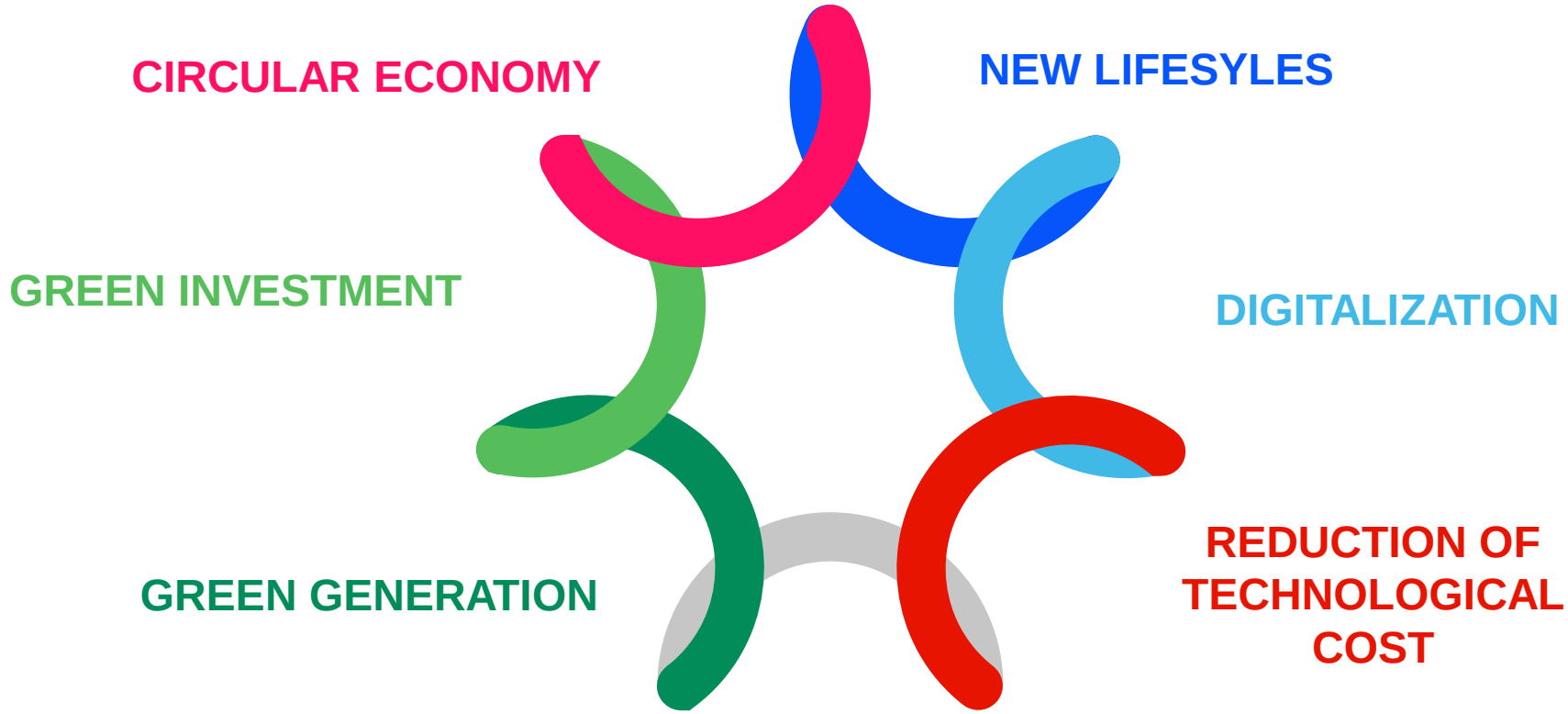
The European House Ambrosetti

enel Foundation

Why?

Beyond policy targets…

Seven socio-economic trend, spurring the energy transition



Benefits associated to **energy transition**

Increasing the net industrial production

Preserving European industrial competitiveness

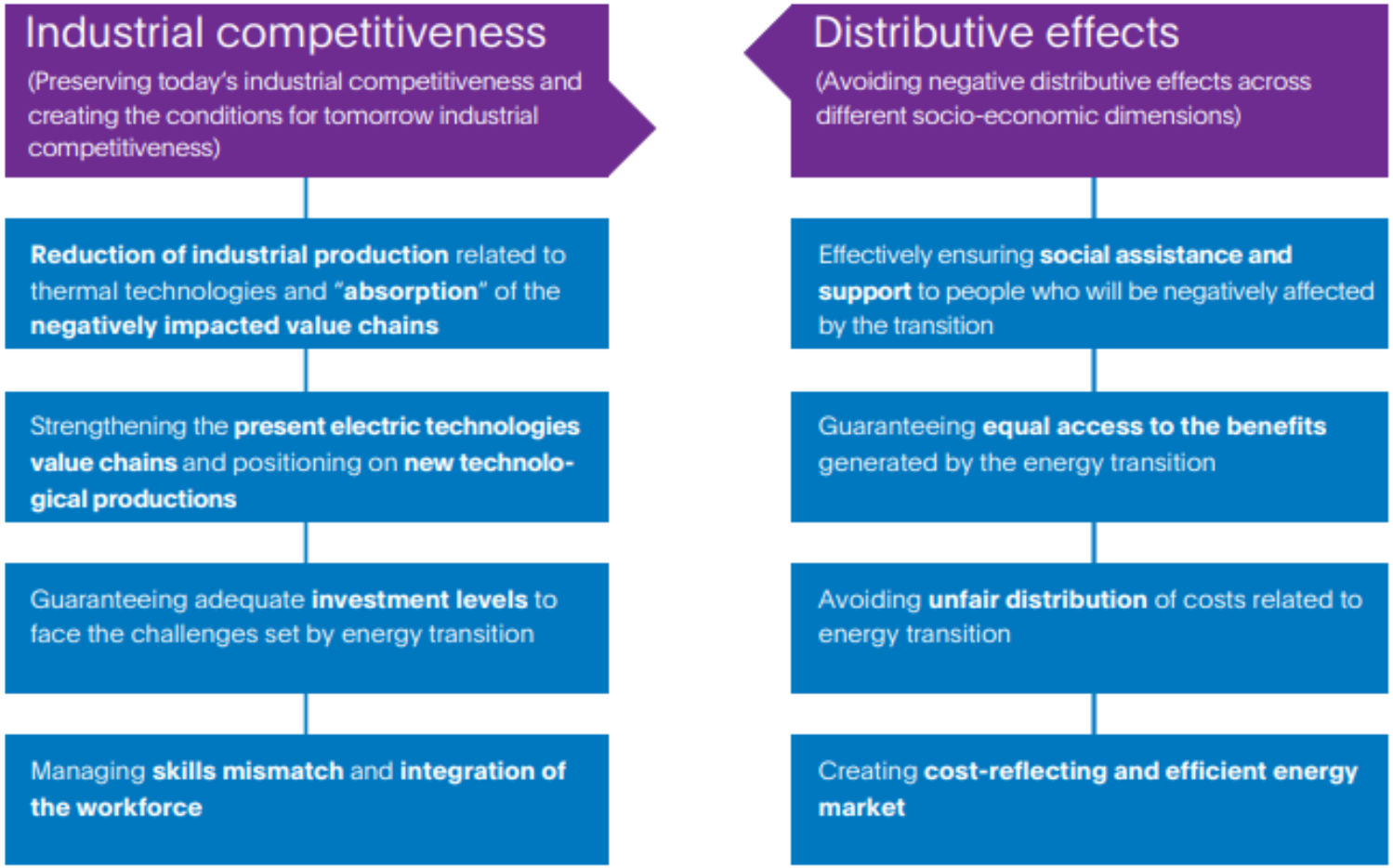
Boosting employment

Reducing air pollution and improving human health

Enabling higher level of resilience and security of supply

What?

Challenges Associated to Energy Transition



SOURCE: THE EUROPEAN HOUSE – AMBROSETTI ELABORATION, 2019.

Three Different Scenarios Embedded in the Analytical Assessment Model

Reference Scenario | EUCO3232.5 | Eurelectric

01

- At least 40% cuts in GHG emissions (vs. 1990 level),
- At least a 27% share from renewable energy sources,
- At least a 27% improvement in energy efficiency (vs. 1990 level).

02

- At least 32% renewable energy in the EU energy mix
- An improvement in energy efficiency of at least 32.5% at EU level.
- The 2030 GHG target of a reduction of domestic emissions is set at least 40%

03

- In the study “Electrify 2030” realized by The European House – Ambrosetti for Enel X and Enel Foundation, the 2030 values have been obtained through a re-elaboration of the intermediate scenario (Eurelectric-2) included in the Eurelectric’s study.

Reference Scenario

In line with the EU 2030 Climate & Energy Framework targets, meaning

EUCO3232.5 Scenario

As part of a group of EUCO scenarios that have been derived from the EU Reference Scenario, the legislation introduced, under the European Commission's Clean Energy for all Europeans package, the EUCO3232.5 Scenario for 2030

Eurelectric Scenario

The Eurelectric Scenario is based on the evolution curve elaborated by Eurelectric in the 2018 study “Decarbonization pathways” and originally it is referred to 2050.

Methodology

3,745 products and technologies representing the overall European manufacturing industry, in 2017, have been considered

SOURCE: THE EUROPEAN HOUSE – AMBROSETTI ELABORATION, 2019.

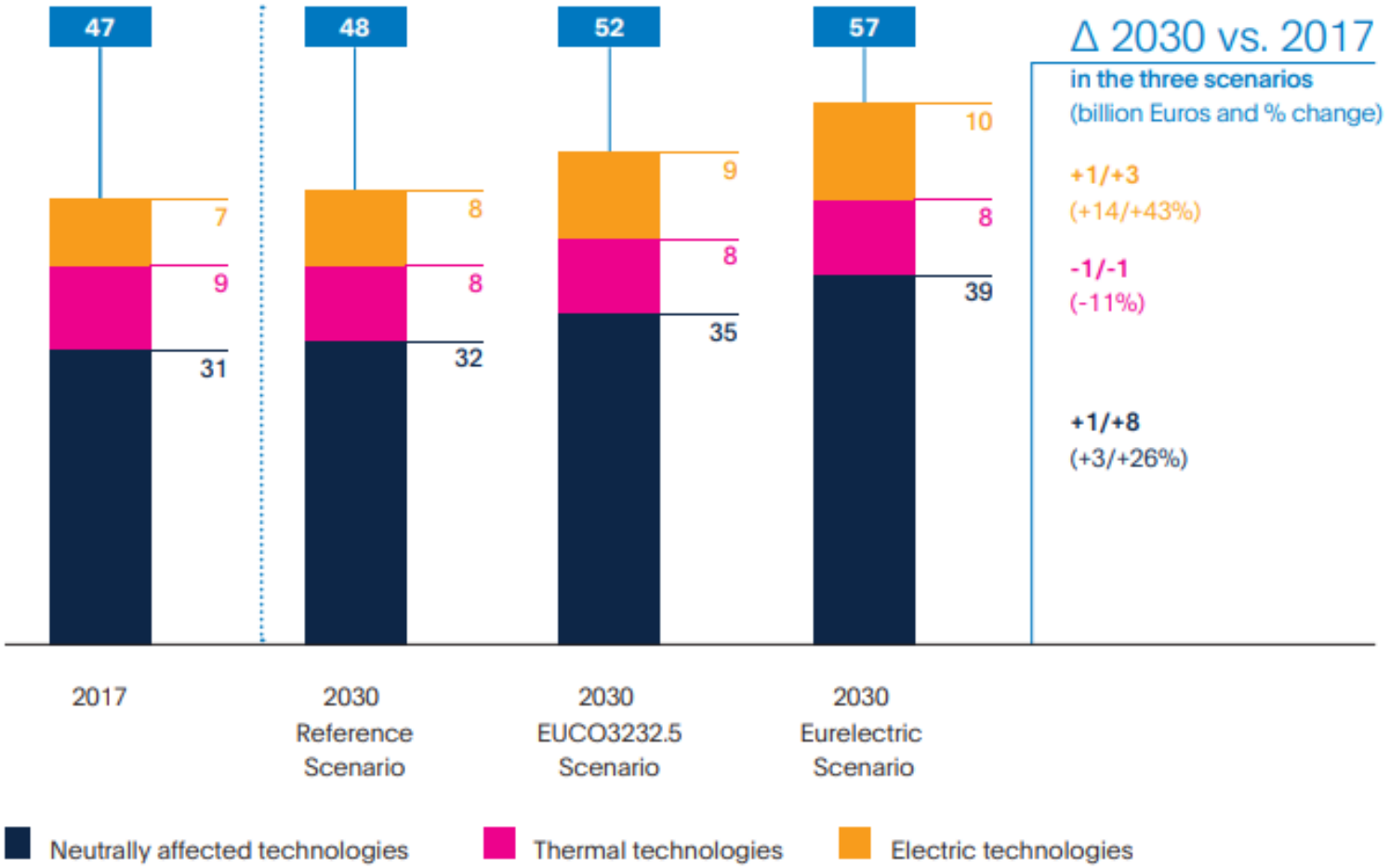
Then, the products and technologies involved in and potentially impacted by the energy transition enabled by electrification have been identified, resulting in 977 products and technologies.

Their prevailing nature with regard to the energy transition:

- **neutral** (the ones which should not be affected by the electrification process),
- **electric** (the ones more closely related to the electric technologies and expected to be potentially positively affected by the energy transition)
- **thermal** (the ones more closely related to traditional fuel or other thermal technologies and expected to be potentially negatively affected by the energy transition) technologies.

Production value of electric, thermal and neutral technologies in Romania

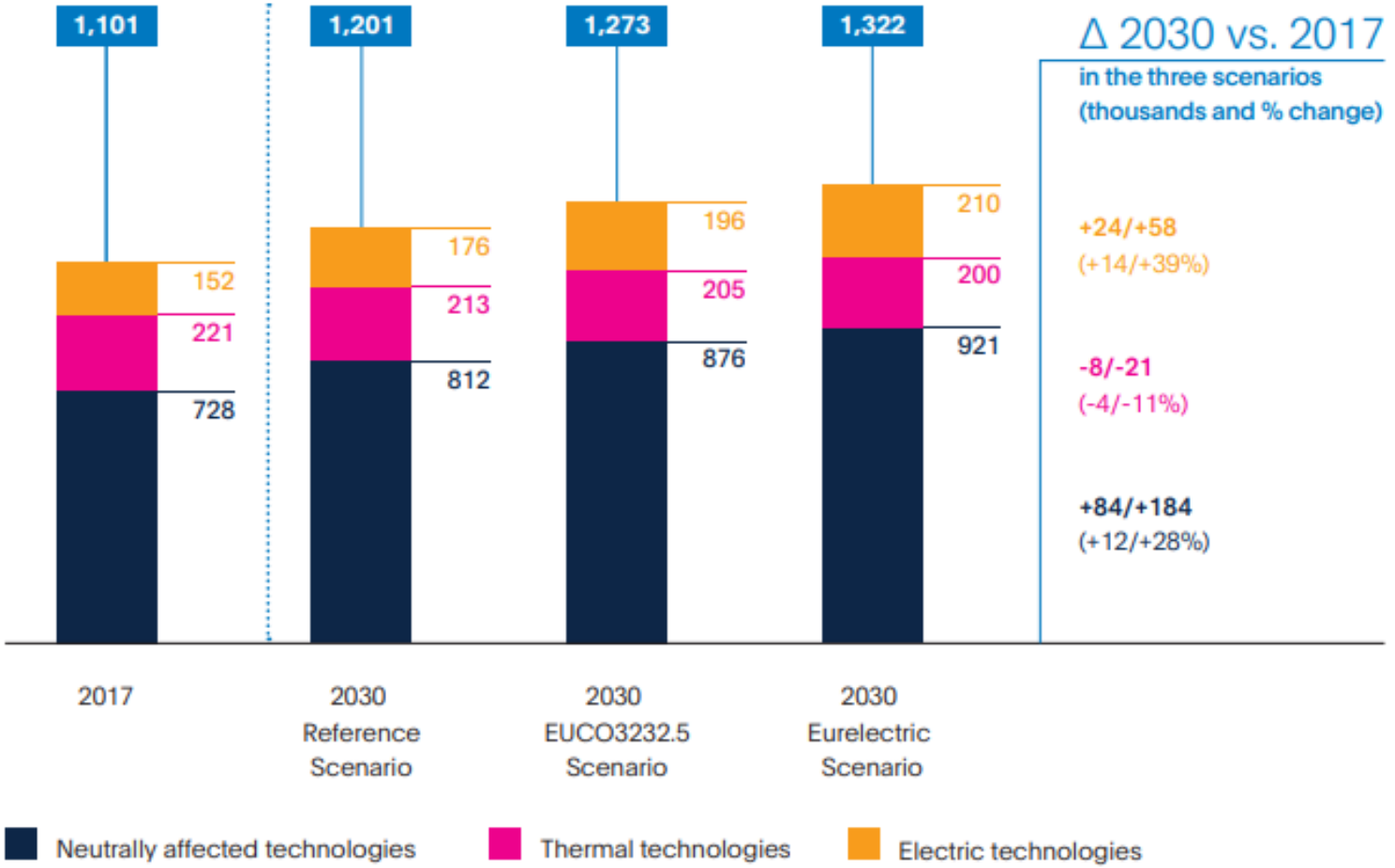
2017 vs. 2030 (Billion Euros)



SOURCE: THE EUROPEAN HOUSE – AMBROSETTI ELABORATION ON PRODCOM AND EUROSTAT DATA, 2019.

Employment in electric, thermal and neutral technologies in Romania

2017 vs. 2030 (thousands)



SOURCE: THE EUROPEAN HOUSE – AMBROSETTI ELABORATION ON PRODCOM AND EUROSTAT DATA, 2019.

How?

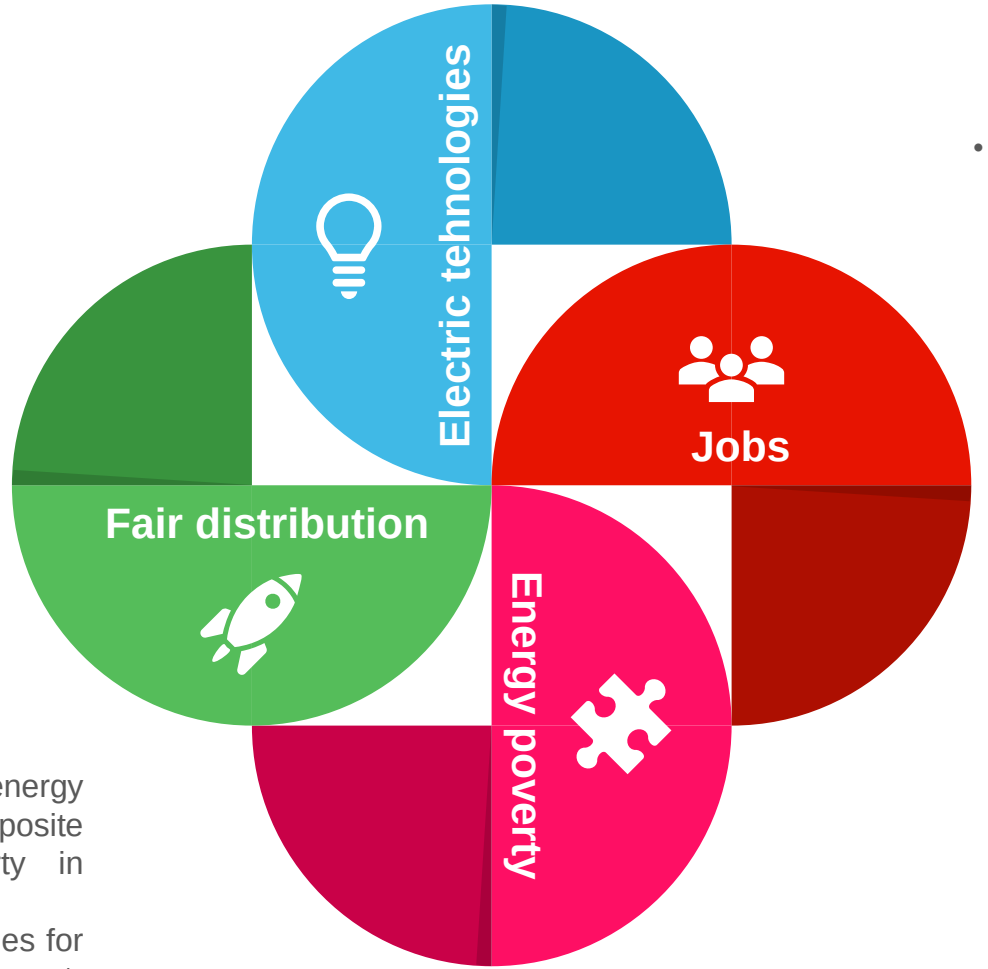
Policy Recommendations

Fair distribution of costs associated to the energy transition

- Revising cost items within the electricity bill by transferring the policy costs from electricity bills to public Finance.
- Discharging the electricity bills from unproper taxes and levies

Addressing the issue of energy poverty

- Agreeing on a common definition of energy poverty, introducing an official composite index for measuring energy poverty in Member States.
- Fostering social tariffs or energy subsidies for low-income households, maintaining cost-reflective tariffs



Deployment of electric technologies

- Supporting the deployment of electric technologies by promoting an effective value chains conversion toward electric technologies along the overall value chain

Managing job losses and increasing job opportunities

- Managing job losses, increasing job opportunities and addressing the issue of re-skilling and up-skilling.

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