

Energy (part 2)

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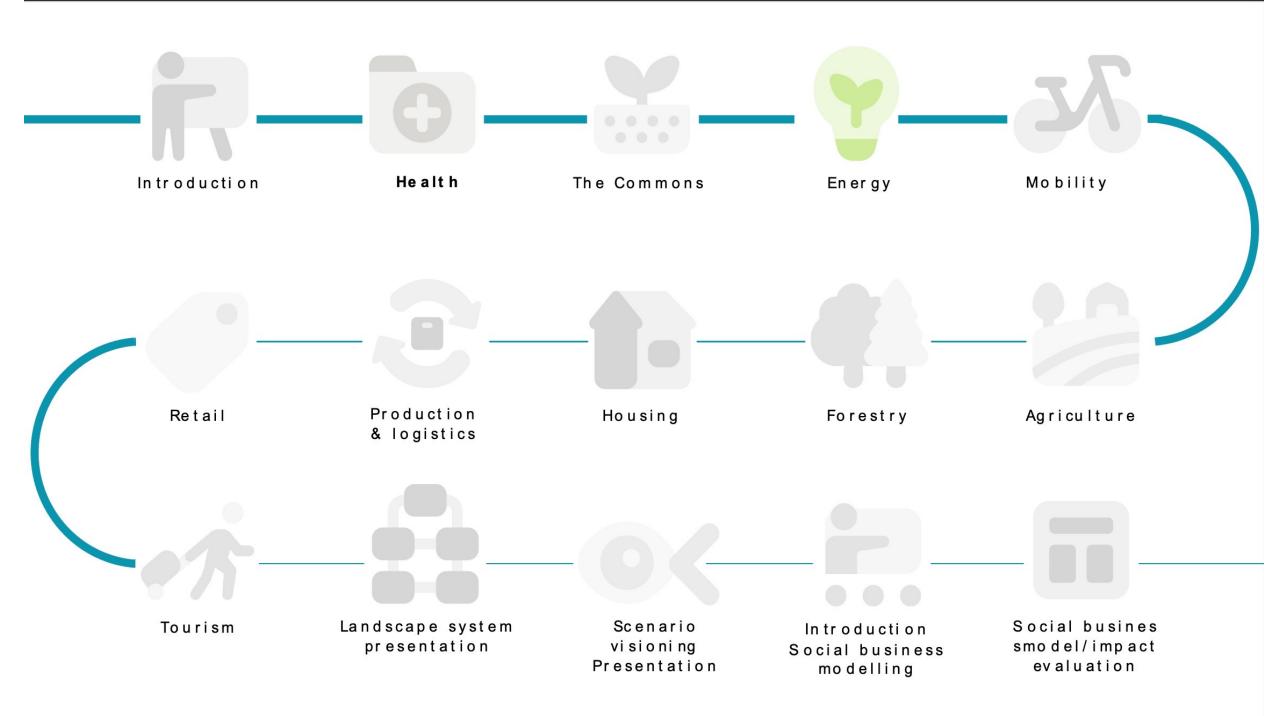




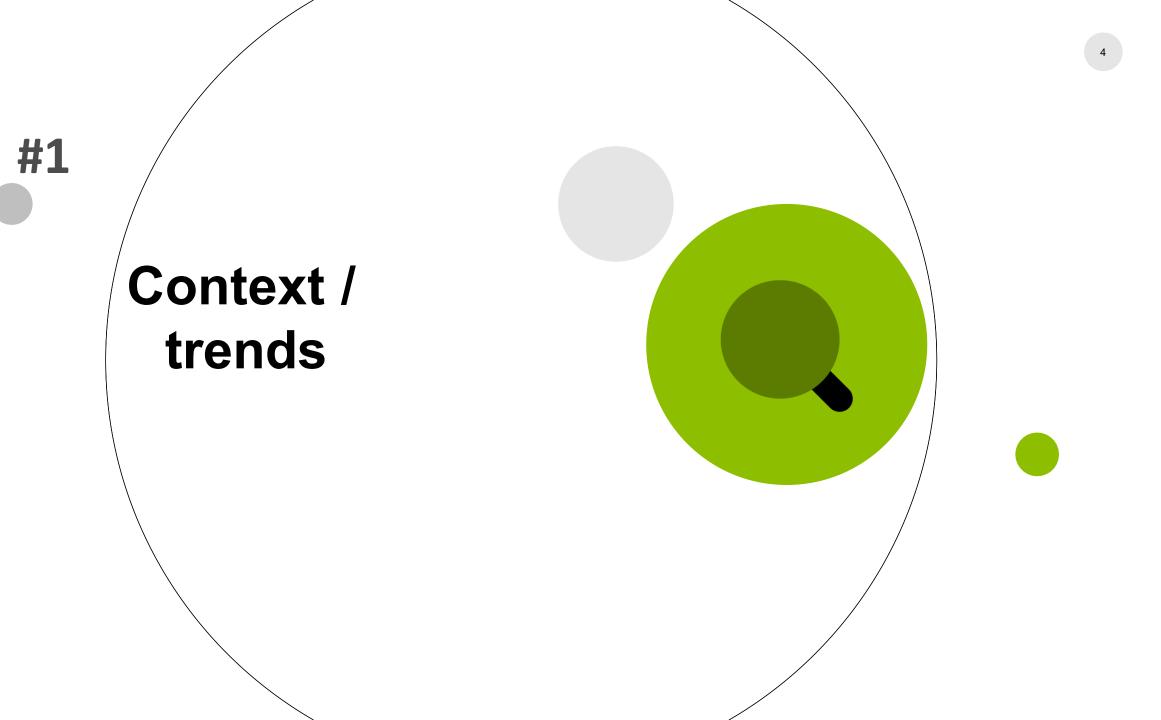












Positive Energy Districts and Neighbourhoods



"Positive Energy Districts are energyefficient and energy-flexible urban areas or groups of connected buildings which produce net zero greenhouse gas emissions and actively manage an annual local or regional surplus production of renewable energy.

They require integration of different systems and infrastructures and interaction between buildings, the users and the regional energy, mobility and ICT systems, while securing the energy supply and a good life for all in line with social, economic and environmental sustainability."

Reference framework definition for PED/PENs, JPI Urban Europe

by

2020

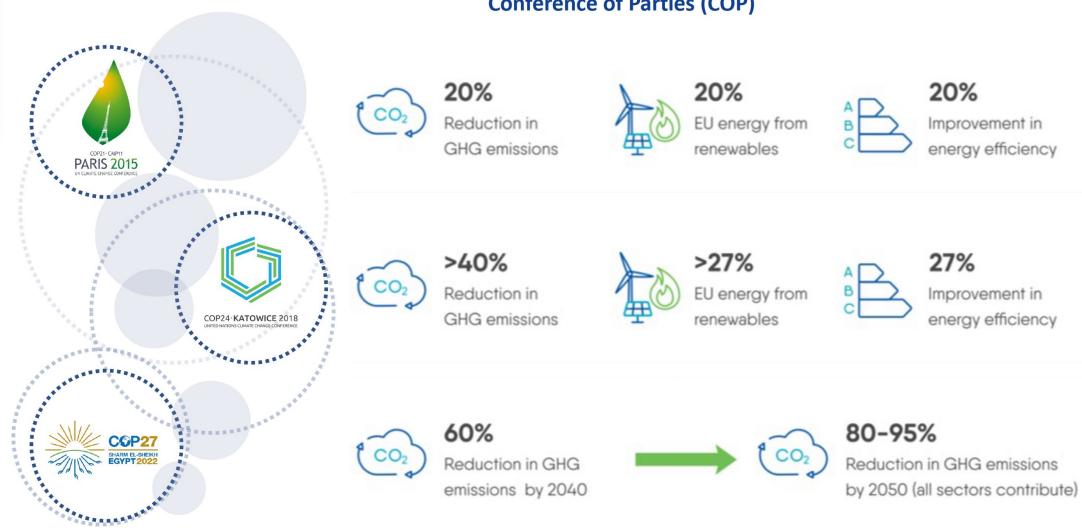
by

2030

by

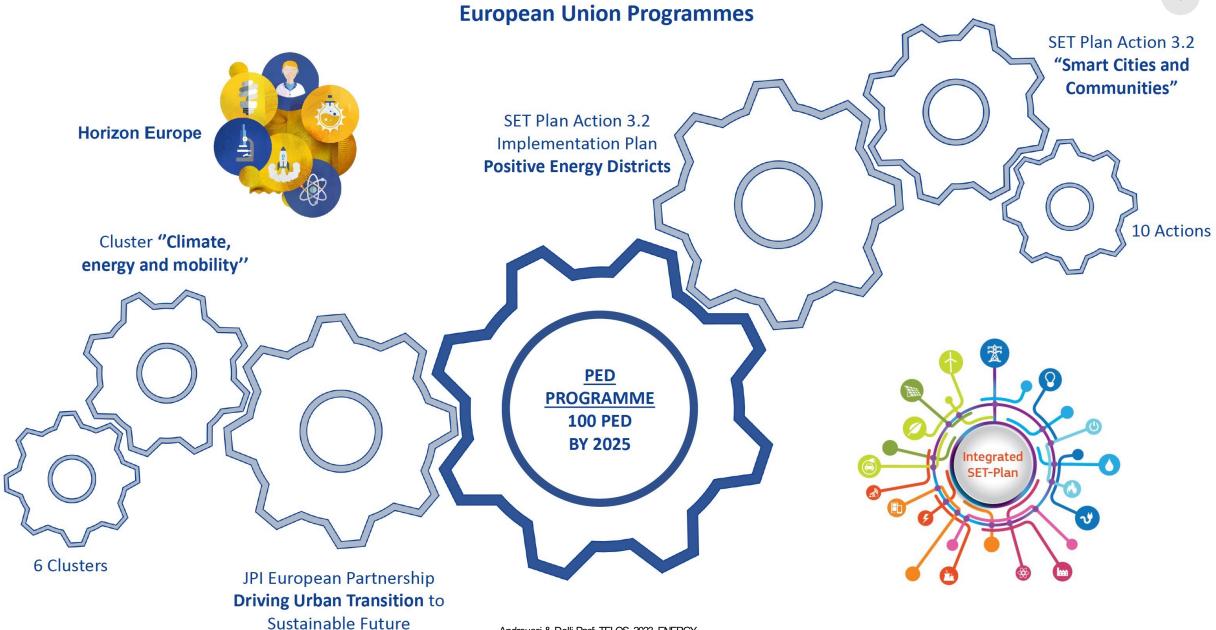
2050

Conference of Parties (COP)



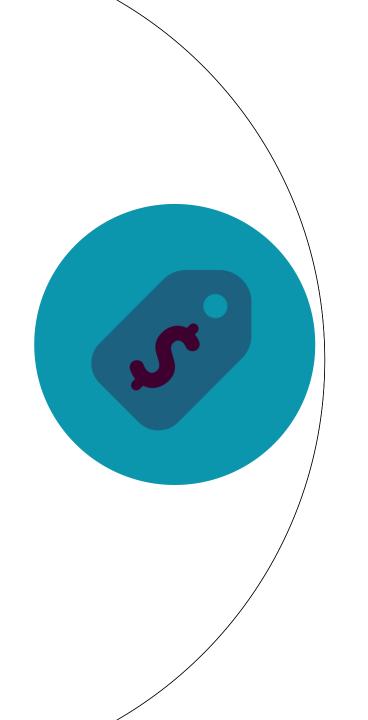
International Policies and initiatives



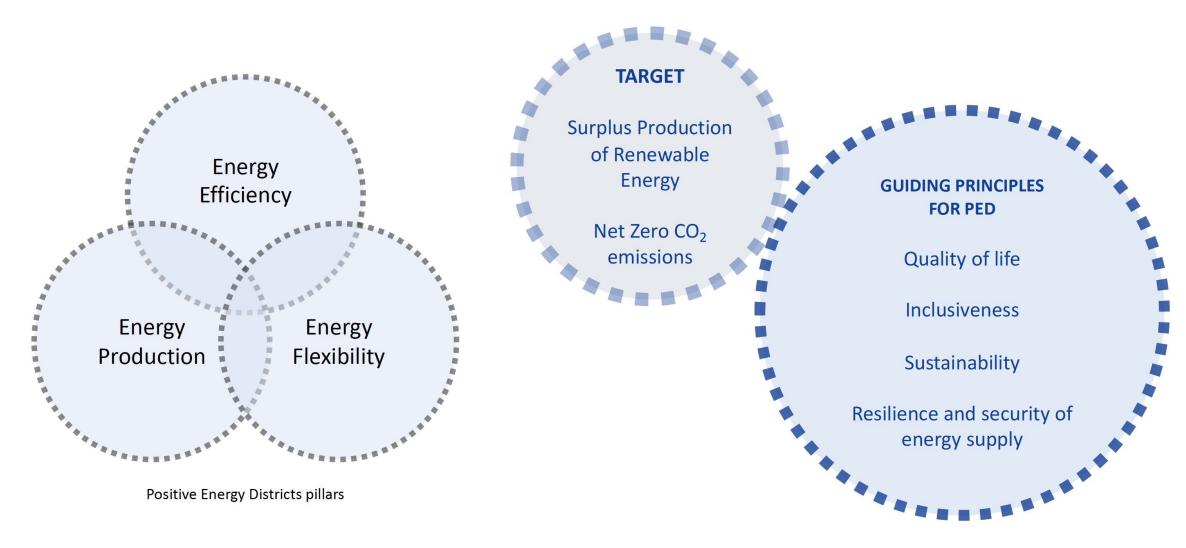


Andreucci & Delli Paoli_TELOS_2023_ENERGY

#2 **Key social** economic dimensions



Positive Energy Districts and Neighbourhoods

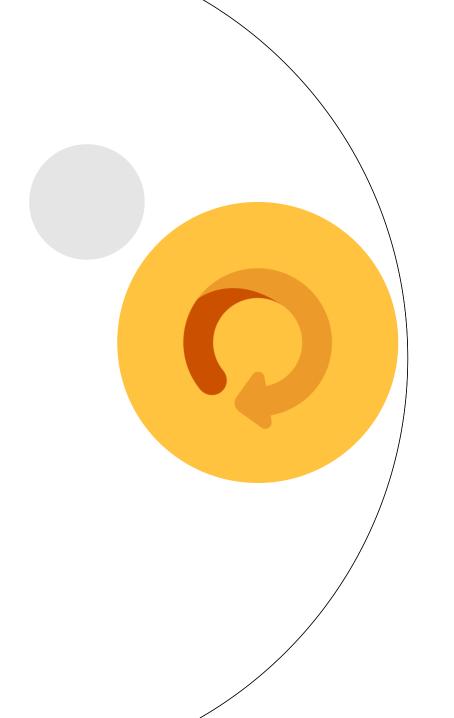


Geographical Locations with High Capacity of RES in EU

Southern Europe, particularly the Iberian Peninsula and the Mediterranean Solar PV Finland, Sweden, Norway, Estonia, **Biomass** Latvia, Austria, Bulgaria, Croatia, power Slovenia and Slovakia plants Concentrating Southern Europe, particularly the Iberian solar power Peninsula and the Mediterranean **RES** Geothermal Italy **Energy Onshore** Along the coast of the Atlantic Sea and the Baltic Sea as well as coastal areas in Croatia and inland areas in wind France, Germany and Poland power EU countries with the most hydropower per capita: Offshore The Northern Atlantic (especially Sweden (6.6 kWh); Austria (4.7 kWh); Finland (2.6 kWh); Hydropower wind the North Sea), the Baltic Sea, the Slovenia (2.1 kWh); Croatia (1.7 kWh); Latvia (1.5 kWh); Gulf of Lyon and the Aegean Sea power Portugal (1.2 kWh) EEA 2022

#3

Key challenges / requirements for deploying PEDs



Key Challenges and Requirements for Deploying PEDs

Regulatory Societal framework, Integrated **New Energy** innovation, social certification markets and and entrepreneurship and innovative innovative and citizen standardisation technologies funding participation for PEDs instruments Business Co-creation, Capacity-Replication, models for open building, upscaling and implementation innovation, education, and mainstreaming and operation public sector training of PEDs innovation and procurement







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PED-EU-NET

The COST Action Positive Energy Districts
European Network (PED-EU-NET) aims to
mobilise researchers and other relevant
stakeholders across different domains and
sectors to drive the deployment of Positive
Energy Districts (PEDs) in Europe through
open sharing of knowledge, exchange of
ideas, pooling of resources, experimentation
of new methods and co-creation of novel
solutions.

www.cost.eu/actions/CA19126

ACTION DETAILS

Grant Holder

Department of Planning, Design, Technology of Architecture, Sapienza University of Rome

Start of Action: 10 September 2020 End of Action: 09 September 2024 CSO approval date: 24/03/2020













