



Positive Energy Districts

A critical review of definitions and characteristics

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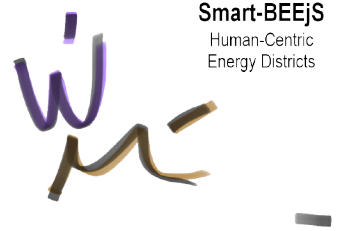
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Research Questions



How do Positive Energy Districts stand out?

How have these concepts evolved?

What are possible common barriers and facilitators?

[1] <https://ec.europa.eu/eurostat/databrowser/view/ten00124/default/table?lang=en>

[2] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics

Methodology

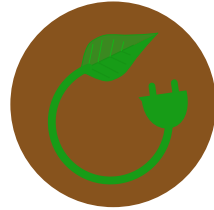
Energy Balance



Environment



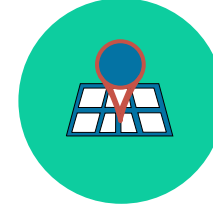
Energy Efficiency



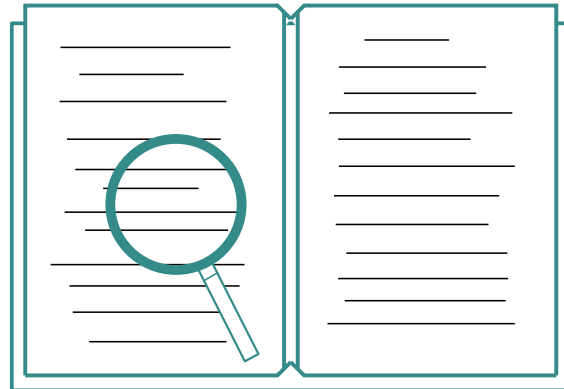
Techno-Economics



Spatial Aspects



Social Aspects



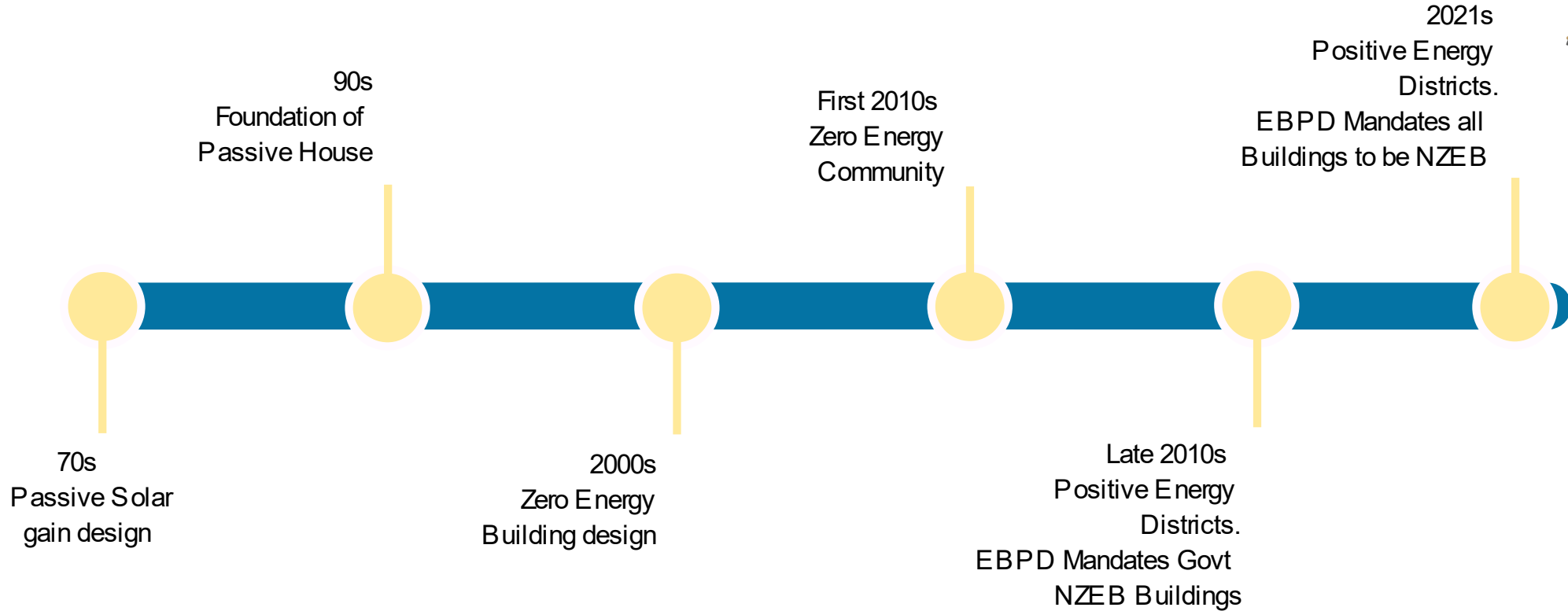
Literature review

- Peer reviewed
- Gray Literature
- Almost 70 documents

[1] <https://ec.europa.eu/eurostat/databrowser/view/ten00124/default/table?lang=en>

[2] https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Renewable_energy_statistics

Positive Energy Districts – History



- Single buildings

- Passive solar gains
- Passive house
- Net ZEB
- Nearly ZEB

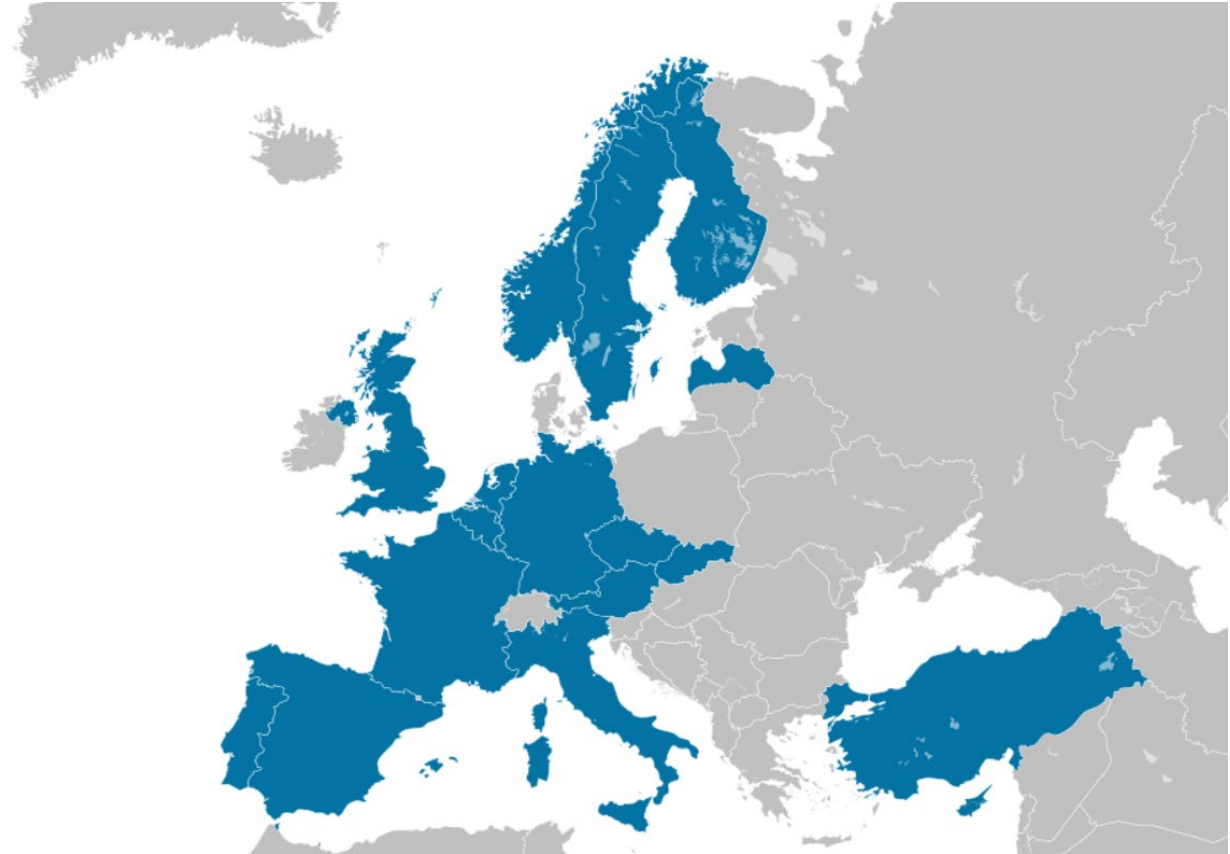
- Neighbourhoods and Districts

- Net Zero Energy Districts
- Plus/Positive Energy Districts

Positive Energy Districts – Background

PED

- Net Positive Energy Balance
- Energy Efficient
- Energy Flexible
- Just Transition



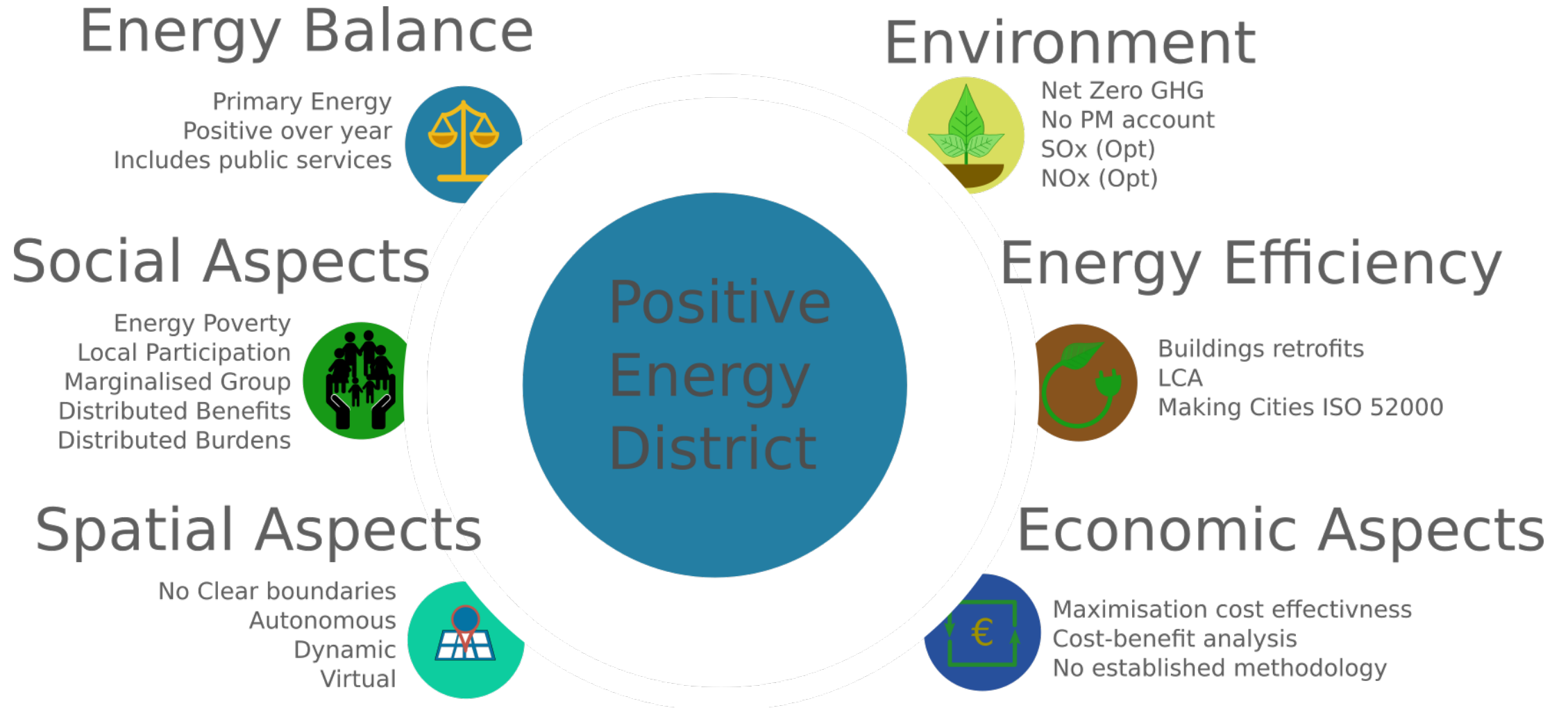
[3][4]

[3] https://commons.wikimedia.org/wiki/File:Blank_map_of_Europe_cropped.svg

[4] SET-Plan Working Group, “Europe to become a global role model in integrated, innovative solutions for the planning, deployment, and replication of Positive Energy Districts,” *SET-Plan Action No 3.2 Implement. plan*



Defining Positive Energy Districts



Thank you for your attention!

Smart-BEEjS
Human-Centric
Energy Districts



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