

**Boris Sučić**

# Insights from the preparation of the Slovenian NECP: Energy planning vs SEA

**Workshop on the best practices for NECP and  
SEA development**

24 November 2022  
Vienna, Austria

# Strategic Framework of Slovenian Energy and Climate Policy Development

## Energy Concept of Slovenia

*Resolution – energy policy vision 2040/60*

**Governance  
of the  
energy  
union  
(2018/1999)**



**NECP  
consortium**

**Long-term strategy**  
*GHG scenarios 2050*

**NECP**  
*Action plan 2030 / 2040  
(targets, measures)*

CLIMATE NEUTRAL

EUROPE

2050

#EU2050

**A Clean Planet  
for all**

**Clean energy for  
all Europeans**

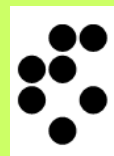
**Common process of preparation - linking  
activities – harmonised goals!**

# Consortium for preparation of energy balances and the first NECP

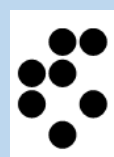
Five dimensions of the  
Energy Union

Leading partner:  Jožef Stefan Institute, Ljubljana, Slovenia  
Energy Efficiency Centre

Decarbonisation



Energy Efficiency



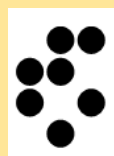
Energy Security



Internal energy market



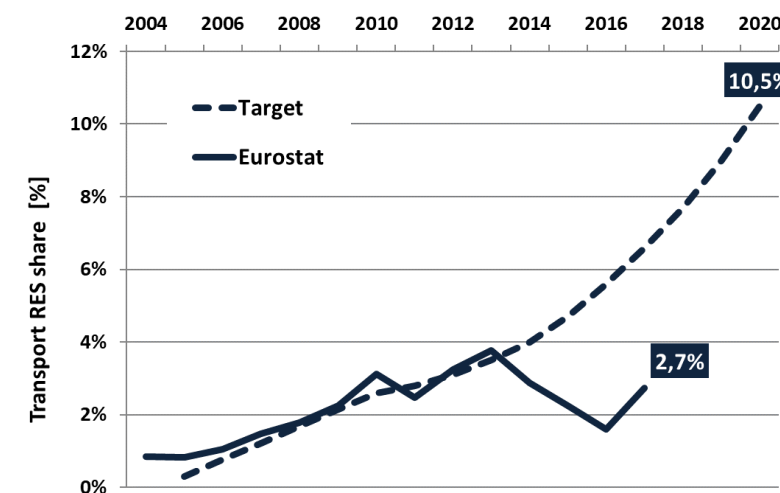
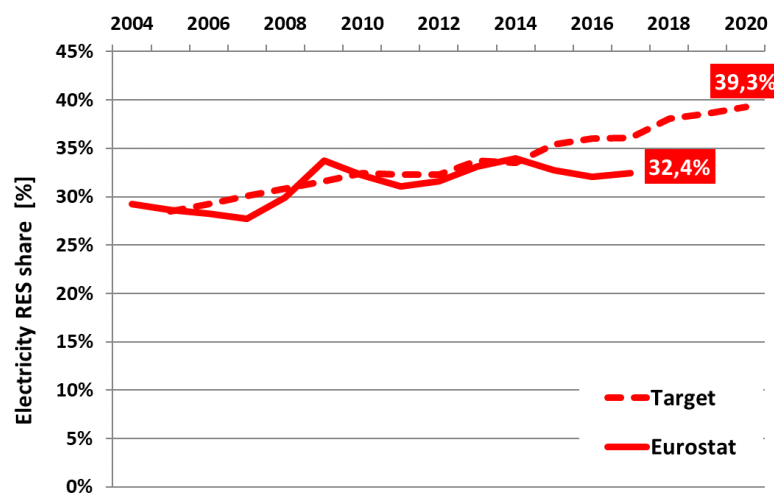
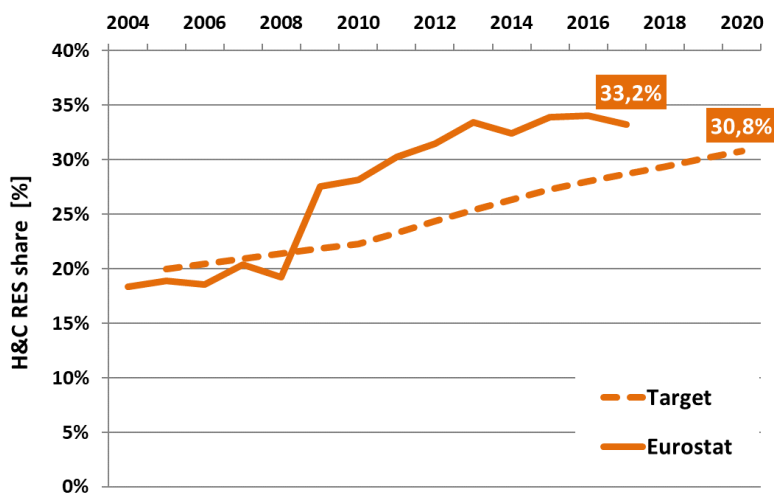
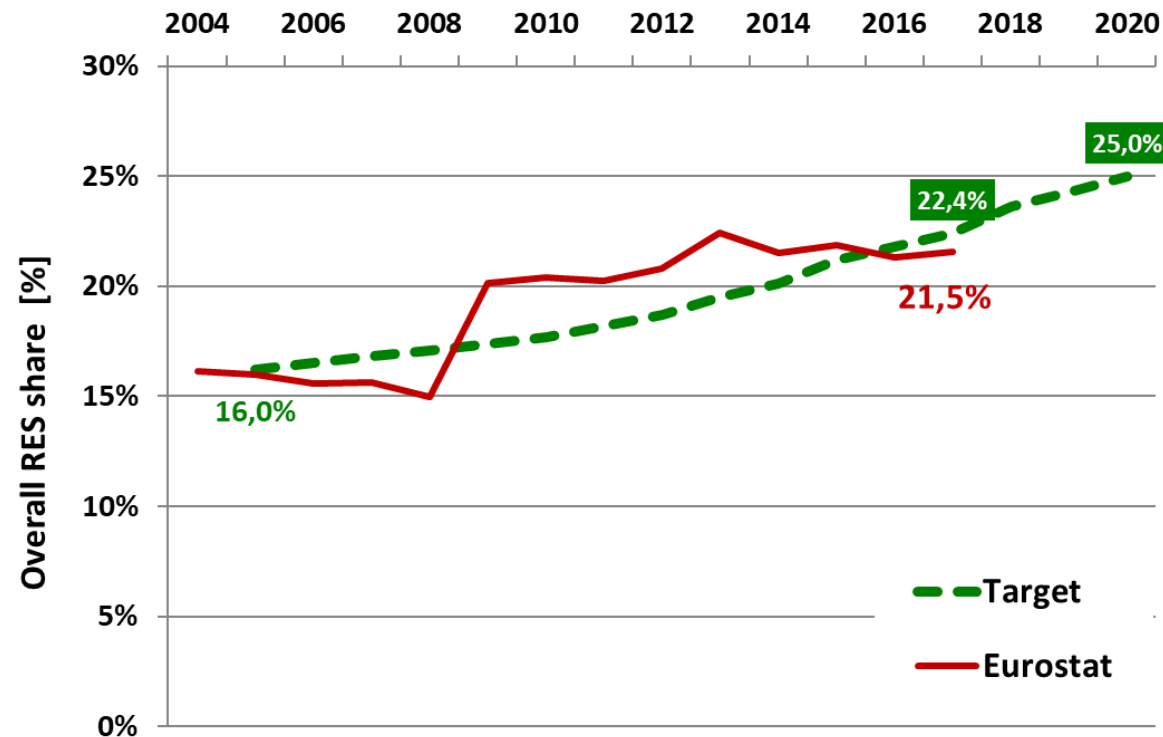
Research, innovation  
and competitiveness



**Consortium** for preparation of new energy balances and update of NECP includes **experts** from policy making, academia, industry, operator of natural gas transmission network and operator of electricity transmission – **without environmental experts**

# RES share – Slovenia past trend

MS with higher starting RES share: more difficult to proceed at the same pace as the other, also in case of higher potentials and available financial resources **as low share of RES in transport requires higher increase share in RES-E and RES-H!**



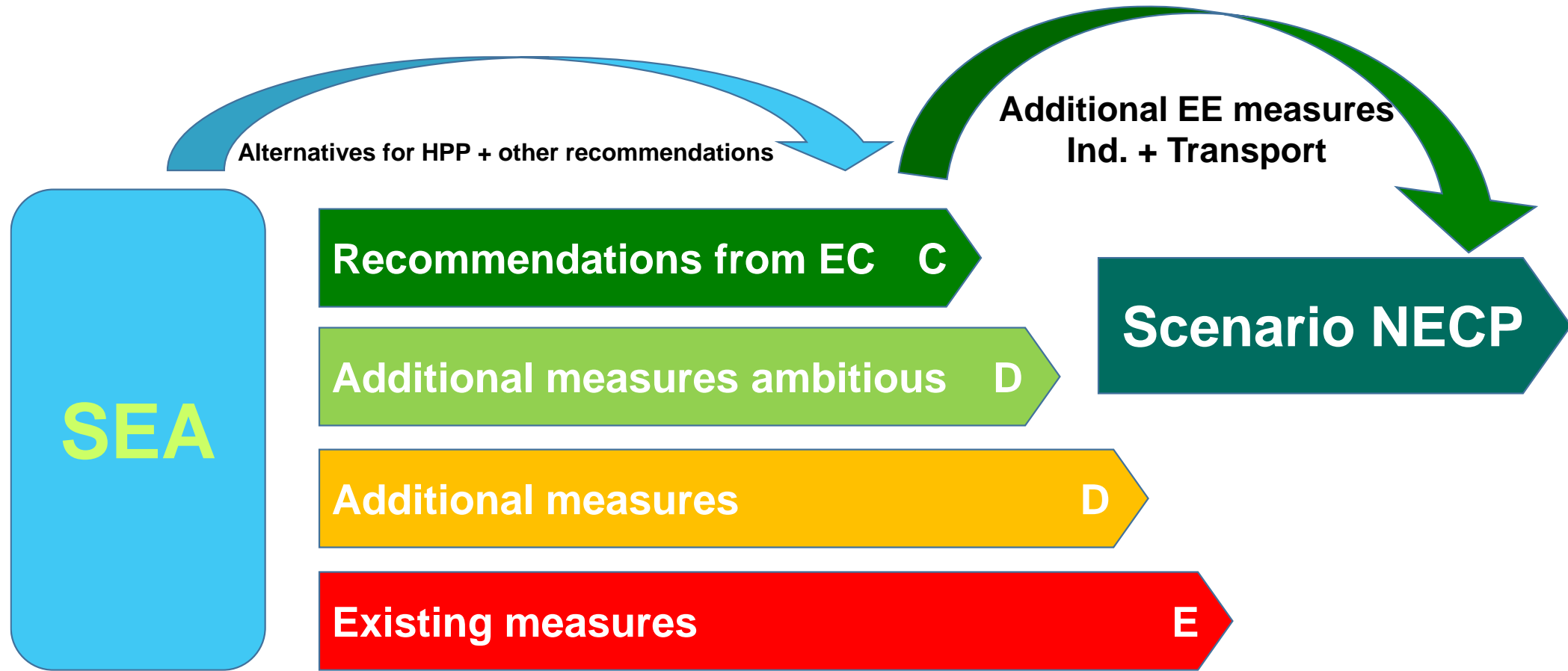
# Nature conservation challenge of Slovenia

Total area under Natura 2000 protection  
**7.681 km<sup>2</sup> 37,5% of SI area**



**Conflicts with HPP, Wind, ...**

# Scenario NECP

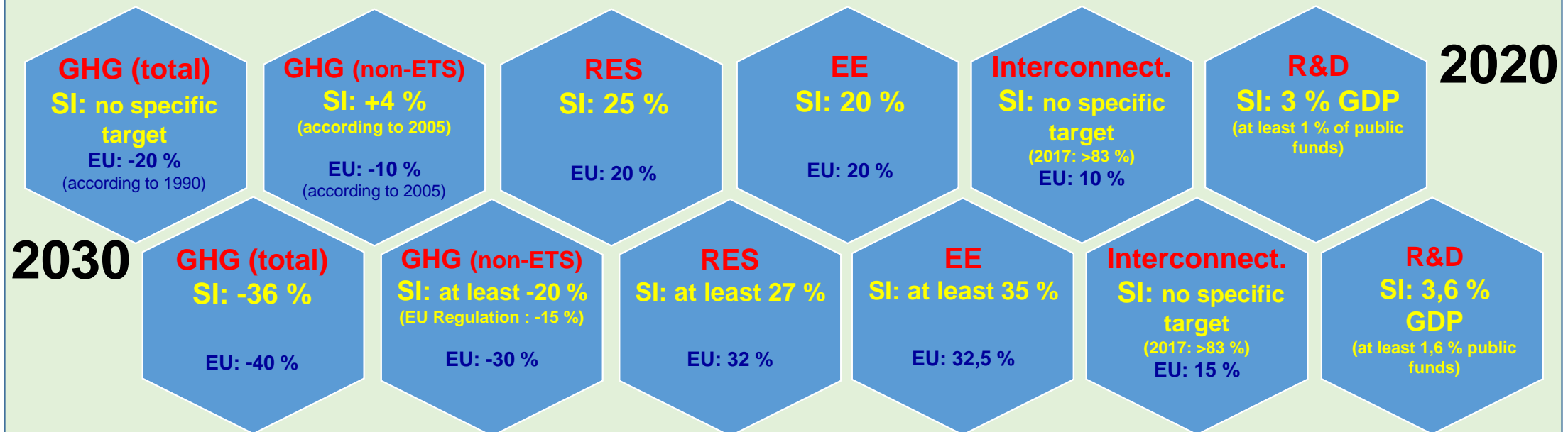


# Lessons learned from NECP scenario development

- **Development of the NECP scenario was enhanced with recommendations from SEA team** – they had important role in identification of key challenges related to the setting targets of the NECP
- The process of SEA showed that the **earlier involvement of environmental experts in the planning process enables faster identification of potential environmental conflicts and more time for dialogue** which leads to a **more successful discussion and more successful search for possible solutions**, which then also facilitates their implementation
- Final set of proposed measures – **result of both teams** (NECP and SEA)
- **Cooperation – culture of dialog!**

# Summary of objectives for all five NEPN dimensions for EU and Slovenia

## Climate-neutral Slovenia and Europe by 2050





# Strategic framework of the NECP update

Climate neutrality by 2050

NECP 2020

ENERGY  
EFFICIENCY» Fit for 55«  
FIRST

European  
Commission  
REPowerEU: Joint European  
action for more affordable,  
secure and sustainable energy

Targets 2030 (2040) – NECP 2024

Scenario NECP 2024

## Key challenges?

- Future development of Slovenia?
- EE, RES - feasibility
- Low- carbon technologies (NE, NG, H<sub>2</sub>)

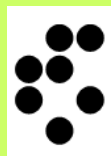


# Consortium for preparation of new energy balances and update of the NECP

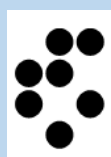
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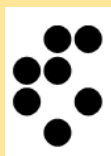
Energy Security



Internal energy market



Research, innovation  
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# Nature conservation challenge of Slovenia

Total area under Natura 2000 protection  
**7.681 km<sup>2</sup> 37,5% of SI area**



**Conflicts with HPP, Wind, ... (project RES Slovenia)**

# Scenario development for the NECP update

Final energy consumption

Energy supply

Existing measures (WEM)

Additional measures (WAM)

»EEF« +  $RES_{max}$

SEA

Nuclear

100% RES

NECP

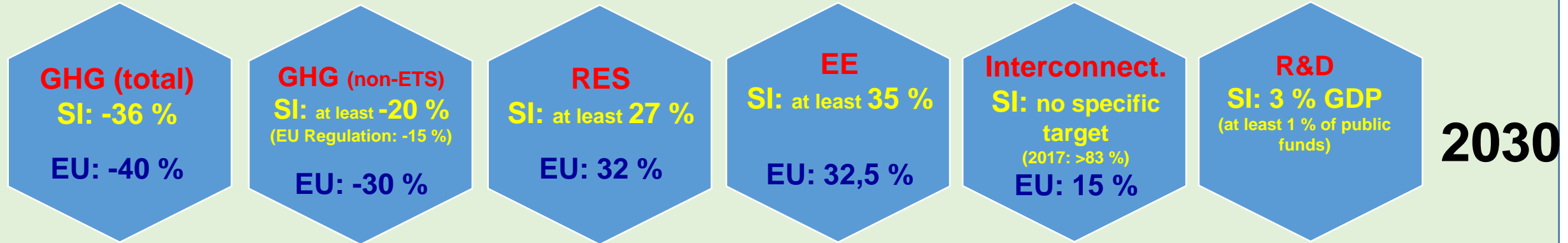
Previously adopted targets do not correspond to the higher energy and climate goals and ambitions at the EU level (Fit for 55 & REPowerEU)

Additional ambitious measures (WAAM)

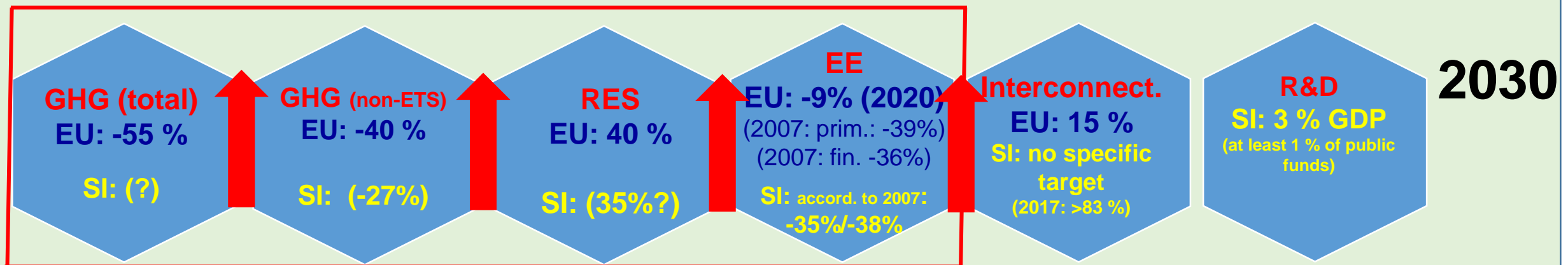
- *Faster fuel switch – NG (ind. & energy sector)*
- *Faster fuel switch – fossil fuels in transport*

# Fit for 55: New context for creation of scenarios for NECP update

## Energy and climate goals of Slovenia for 2030 (existing NECP)

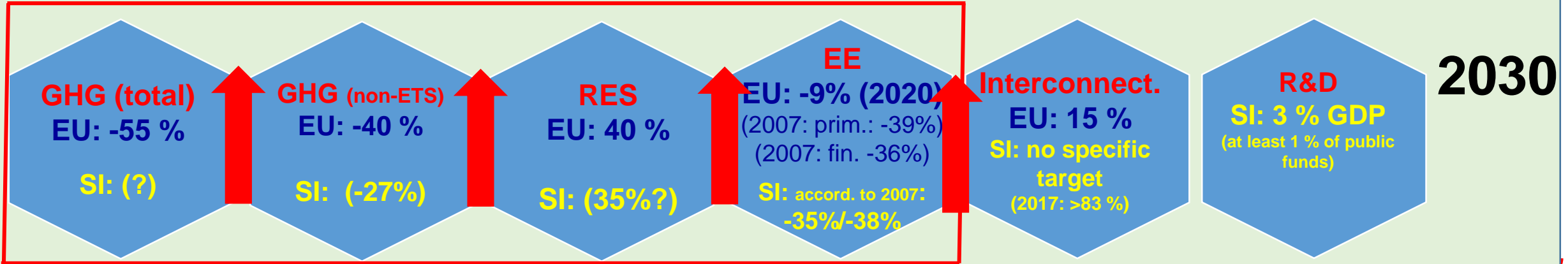


## Higher energy and climate goals of Slovenia for 2030 (existing NECP + Fit for 55)

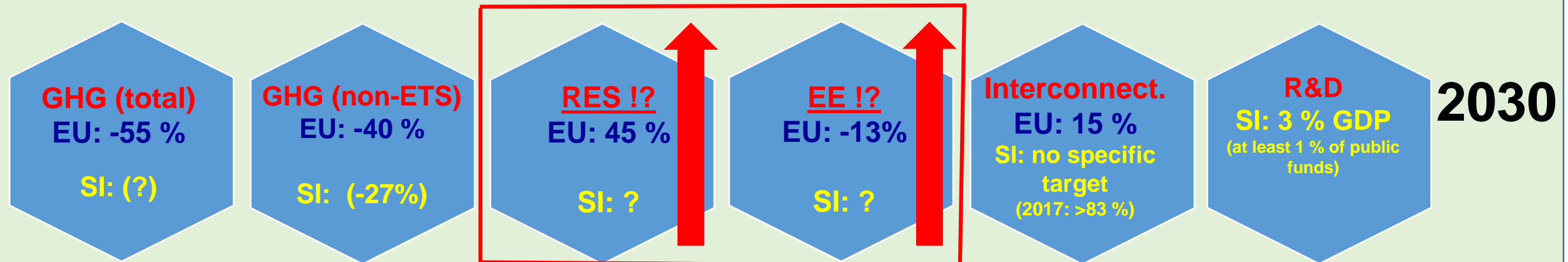


# Fit for 55 + REPowerEU: New context for creation of scenarios for NECP update

## Higher energy and climate goals of Slovenia for 2030 (existing NECP + Fit for 55)



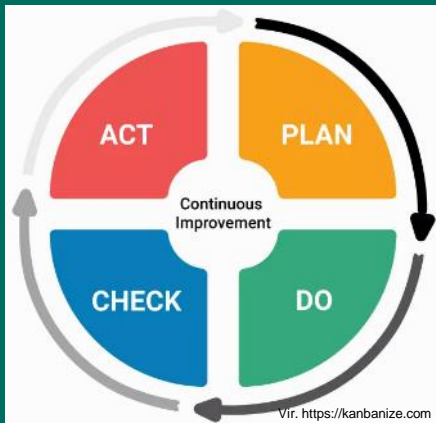
## Higher EU targets for RES and EE (“REPower EU“)





## NECP 2024

Enhancing  
implementation  
(measures)  
NECP



Energy and  
resource  
efficiency



Transition  
from fossil  
fuels  
↓  
Domestic RES  
and low-  
carbon energy  
sources

Capacity  
building,  
networking,  
sector  
coupling,  
cooperation,  
research and  
innovation

**Security, stability, reliability and  
competitiveness of energy supply**

# Future of natural gas and alternatives

**Alternative sources and supply routes for NG in EU**

**Decarbonisation of supply**  
*H<sub>2</sub>, biomethane, SNG, e-gas*

**Green transition in industry**  
*Realistic time and financial framework, future development*

**Sector coupling**  
*District heating and cooling, excess heat, CHP, storage*

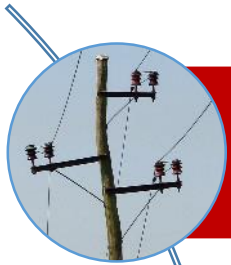
***Transformation and long-term role of natural gas infrastructure!?***



Vir: [www.plinovodi.si](http://www.plinovodi.si)



# Decarbonisation of the electricity generation and supply



**Future development of the electricity distribution – huge challenges (Smart grids and digitalisation, PV & e-mobility, etc.)**



**Coal phase-out – alternatives?**



**Scope and role of RES - acceptability, storage, grid**



**Perspectives of nuclear energy – technologies, feasibility**

# Conclusion

- ***Copy-paste*** planning – **the most frequent mistake!**
- **Promotion of energy and environmental awareness** requires significant amount of time, efforts and experience – **two main barriers resolved (fear of change and the process is so complicated)**
- **Cooperation** instead of **conflict** between energy and environmental experts – **honest relationship and communication**
- Multidisciplinary **must be** in the heart of both teams
- **Don't forget – you need sufficient amount of time for the proper implementation of all activities (NECP and SEA)**

**Boris Sučić**

**Thank you for your attention**

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