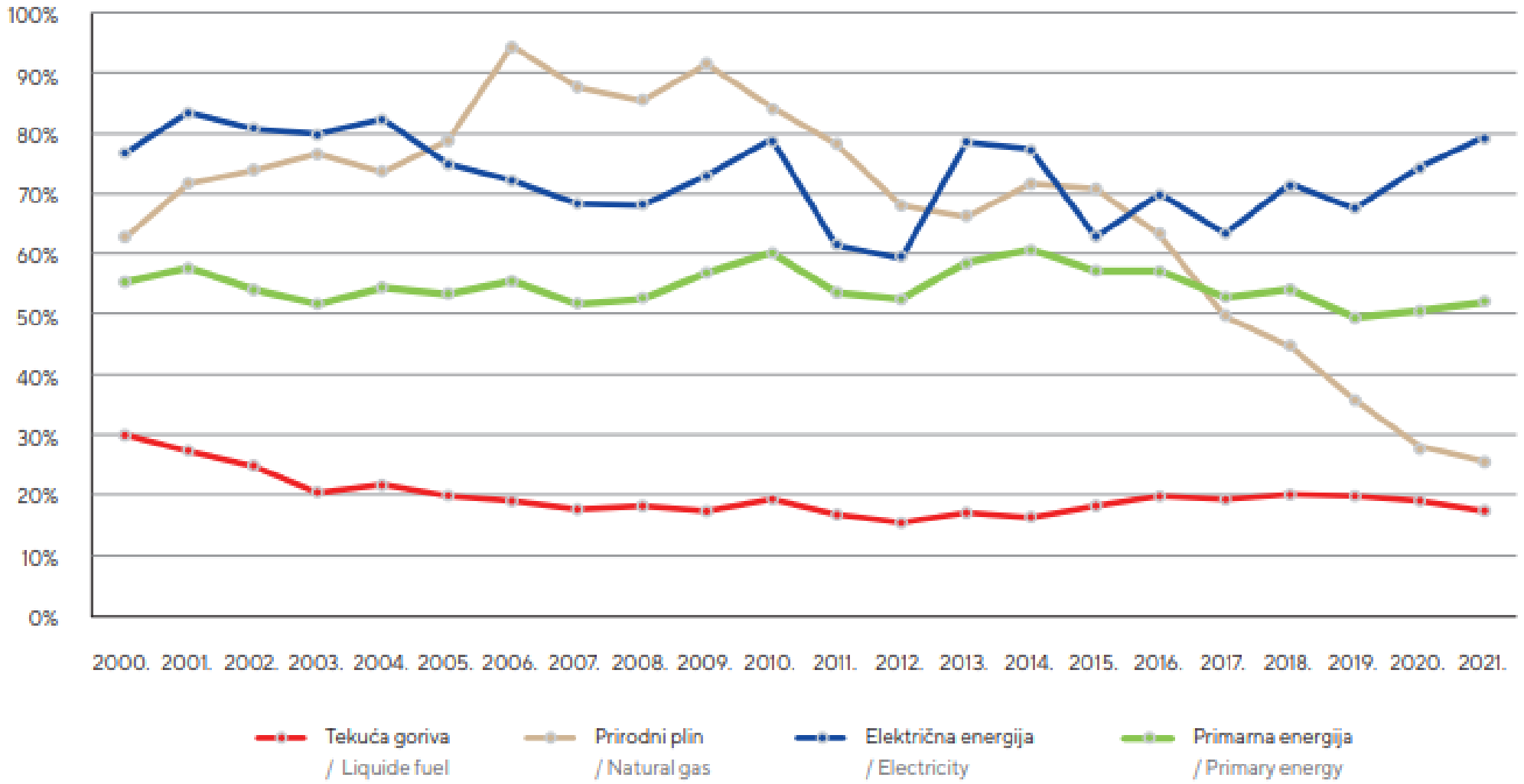
Niskougljični razvoj energetskog sektora Republike Hrvatske

Dubrovnik, 14.4.2023.

Energetska sigurnost

Samodostatnost za tekuća goriva, prirodni plin, električnu i primarnu energiju



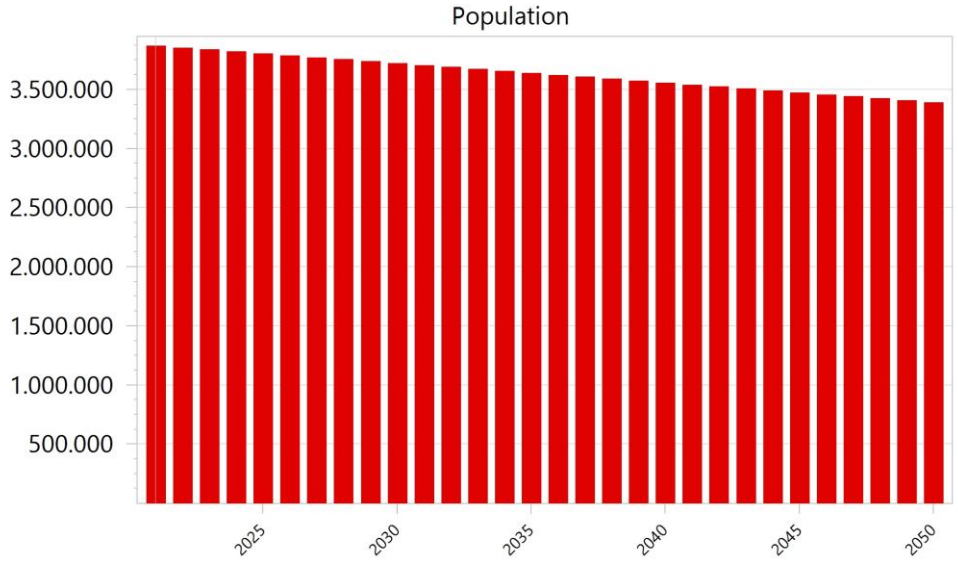
Ciljevi EU – OIE, smanjenje emisija

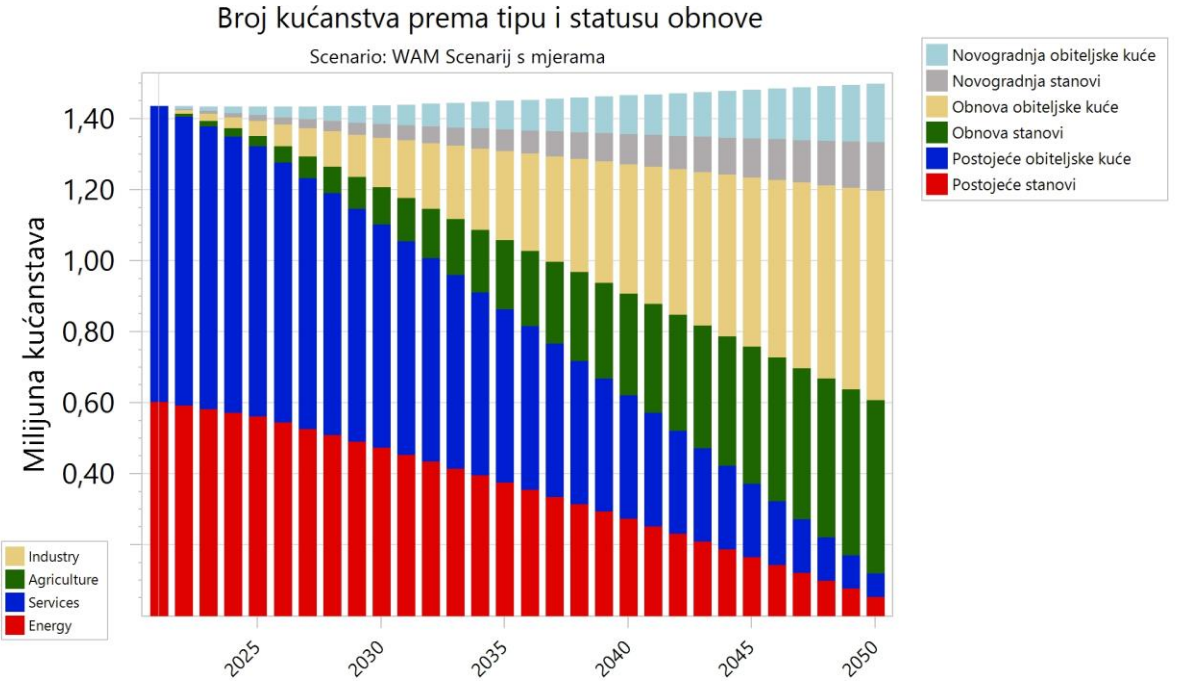
Udio OIE u bruto neposrednoj potrošnji energije – kronologija utvrđivanja cilja

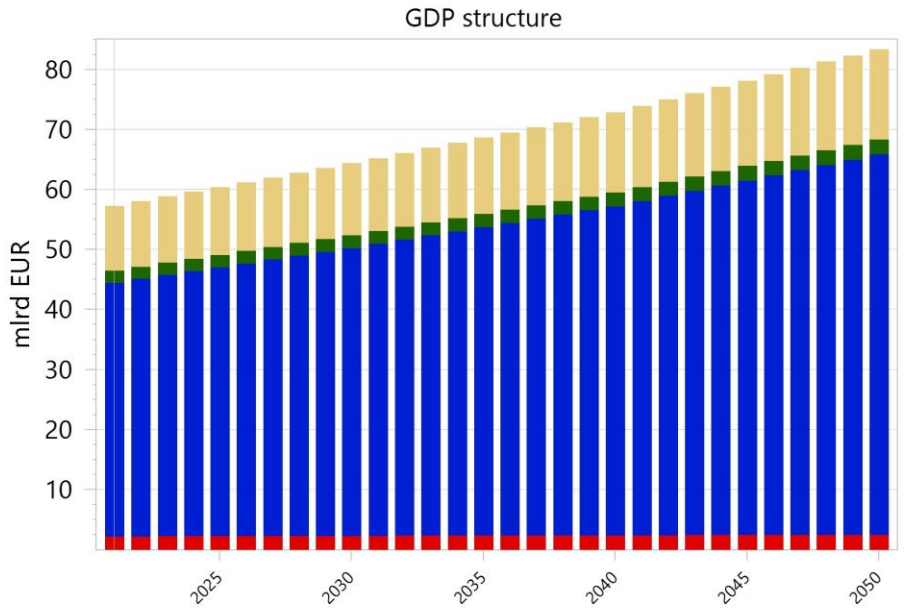
Ciljevi – RED III Direktiva

- Udio OIE u bruto neposrednoj potrošnji energije u 2030. od 40% (RED II – 32 %)
- Udio OIE u grijanju i hlađenju u 2030. – povećanje od 1,1 postotni poen godišnje (1,5 postotnih poena ako se koristi otpadna toplina) (RED II – 1,3 postotna poena)
- Udio OIE u sustavima centraliziranog grijanja i hlađenja – povećanje od 2,1 postotni poen godišnje (RED II – 1,0 postotni poen)
- 49% OIE u zgradarstvu do 2030 - indikativni cilj
- Povećanje OIE od 1,1 postotni poen godišnje u industriji – indikativni cilj

Ulazni parametri za izradu NECP-a







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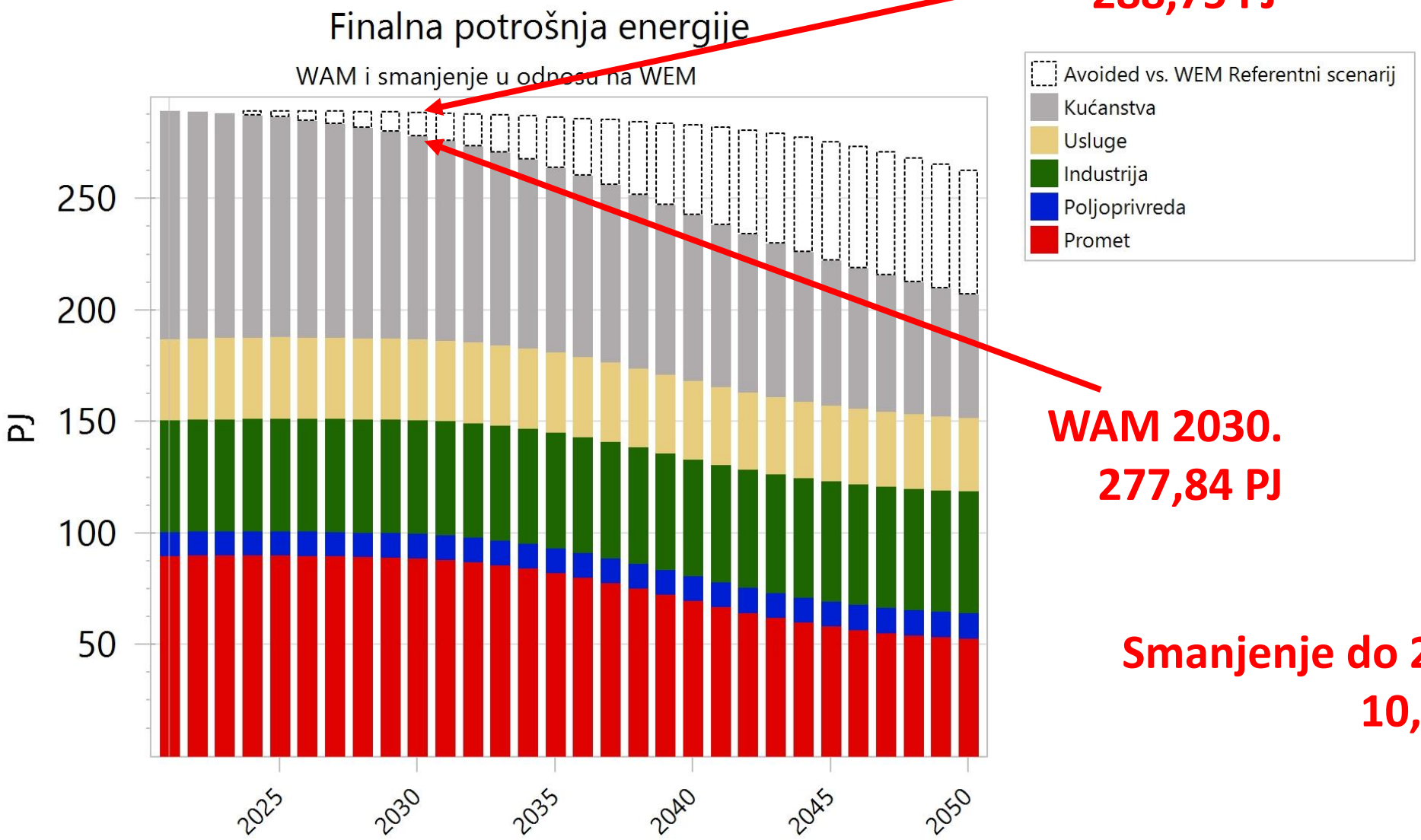
Finalna potrošnja energije



WEM 2030.
288,75 PJ

WAM 2030.
277,84 PJ

Smanjenje do 2030:
10,91 PJ

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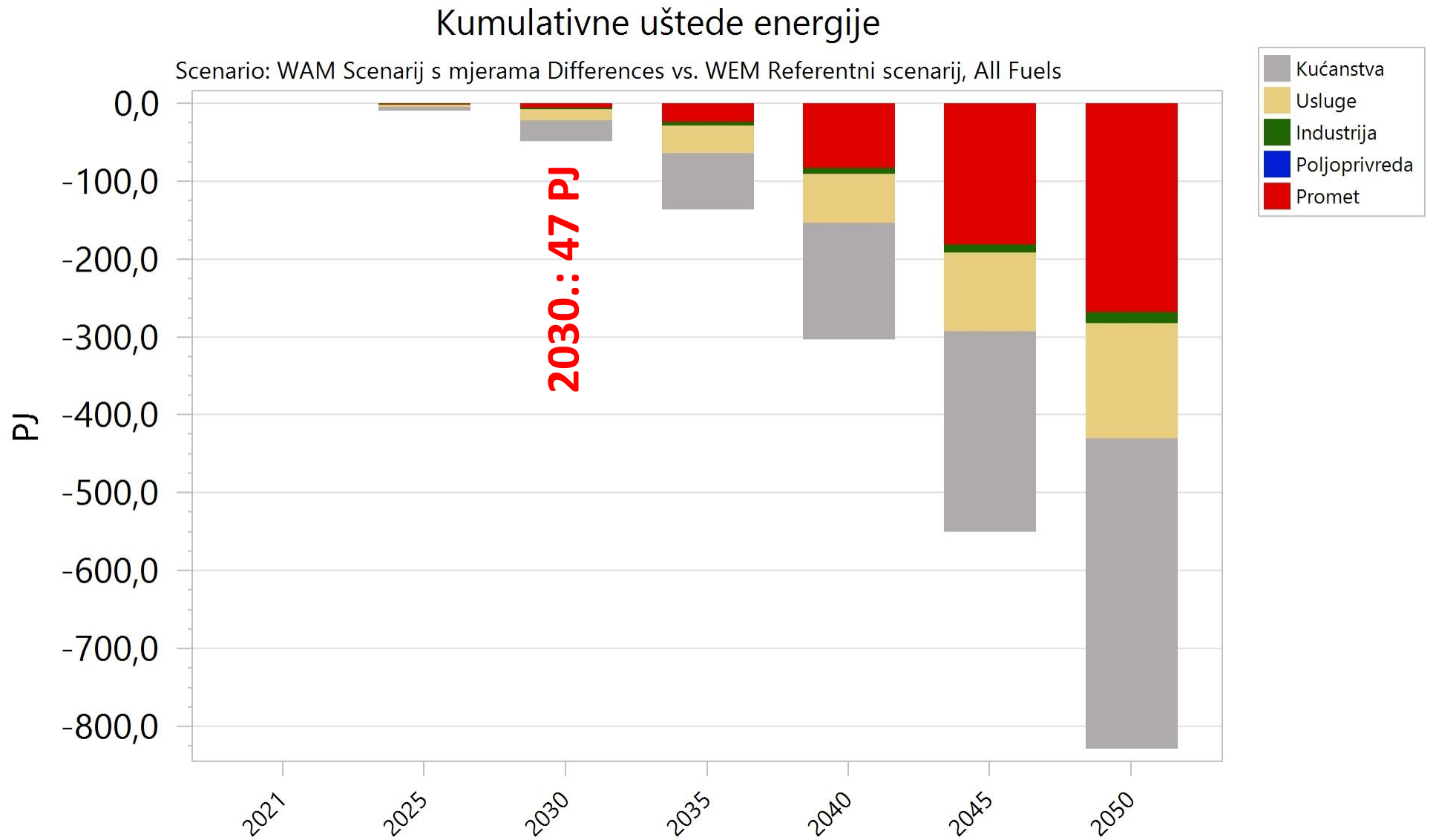
Kumulativne uštede energije



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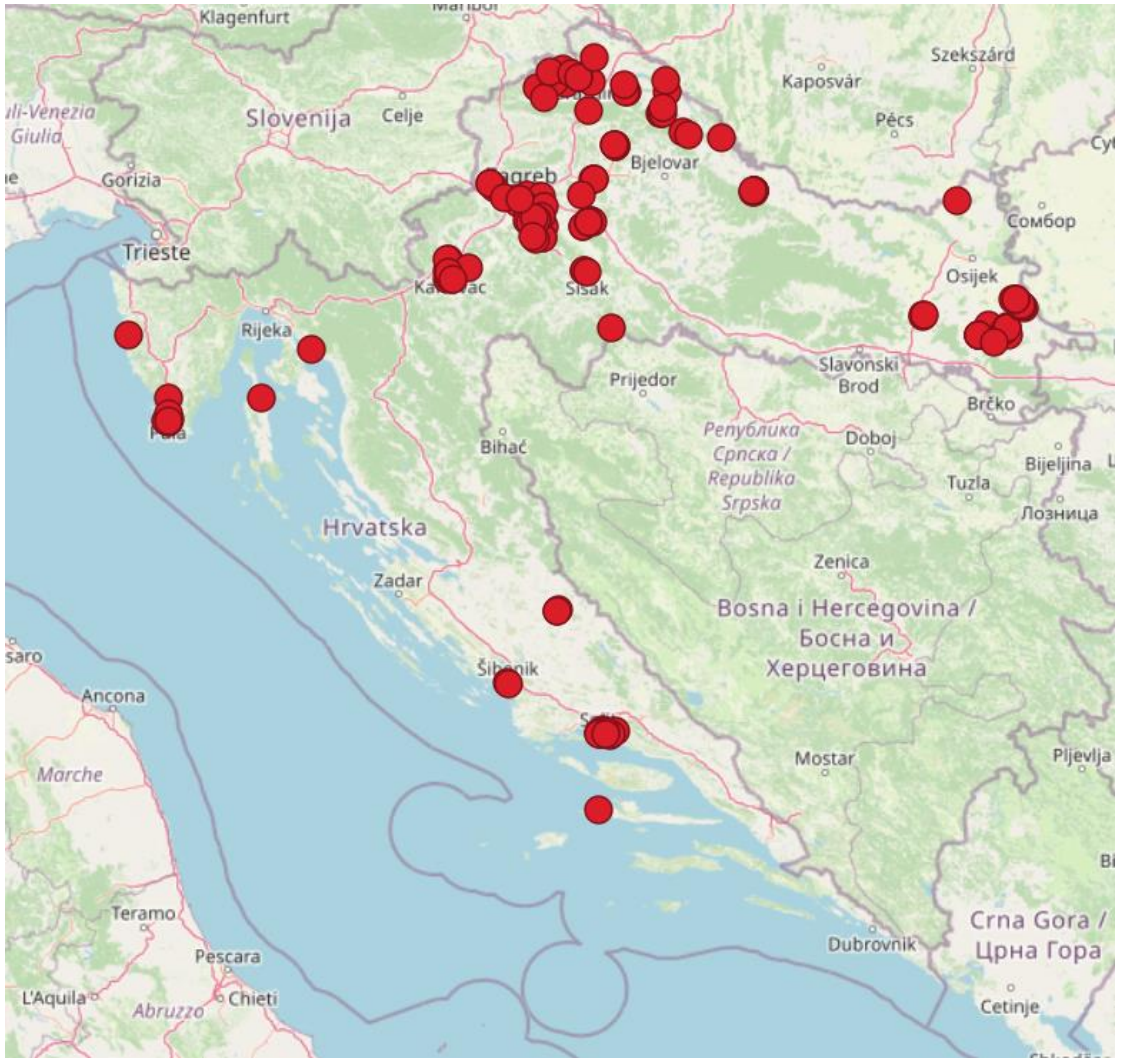
Program energija i klimatske promjene

SUNCE: 172 integrirane fotonaponske elektrane i 1 baterijski spremnik energije, ukupne snage 11,58 MW (12,37 MWp)

MORE: 3 sustava korištenja morske vode za potrebe grijanja i hlađenja (Dubrovnik, Rijeka i Rovinj)

GEOTERMA: 4 lokacije spremne za izvođenje bušotina, 6 lokacija sa postojećim bušotinama spremno za eksploataciju geoterme, 1 nova bušotina, 2 web-aplikacije s bazama podataka duboke i plitke geoterme



Lokacije sunčanih elektrana sufinanciranih EEA grantovima

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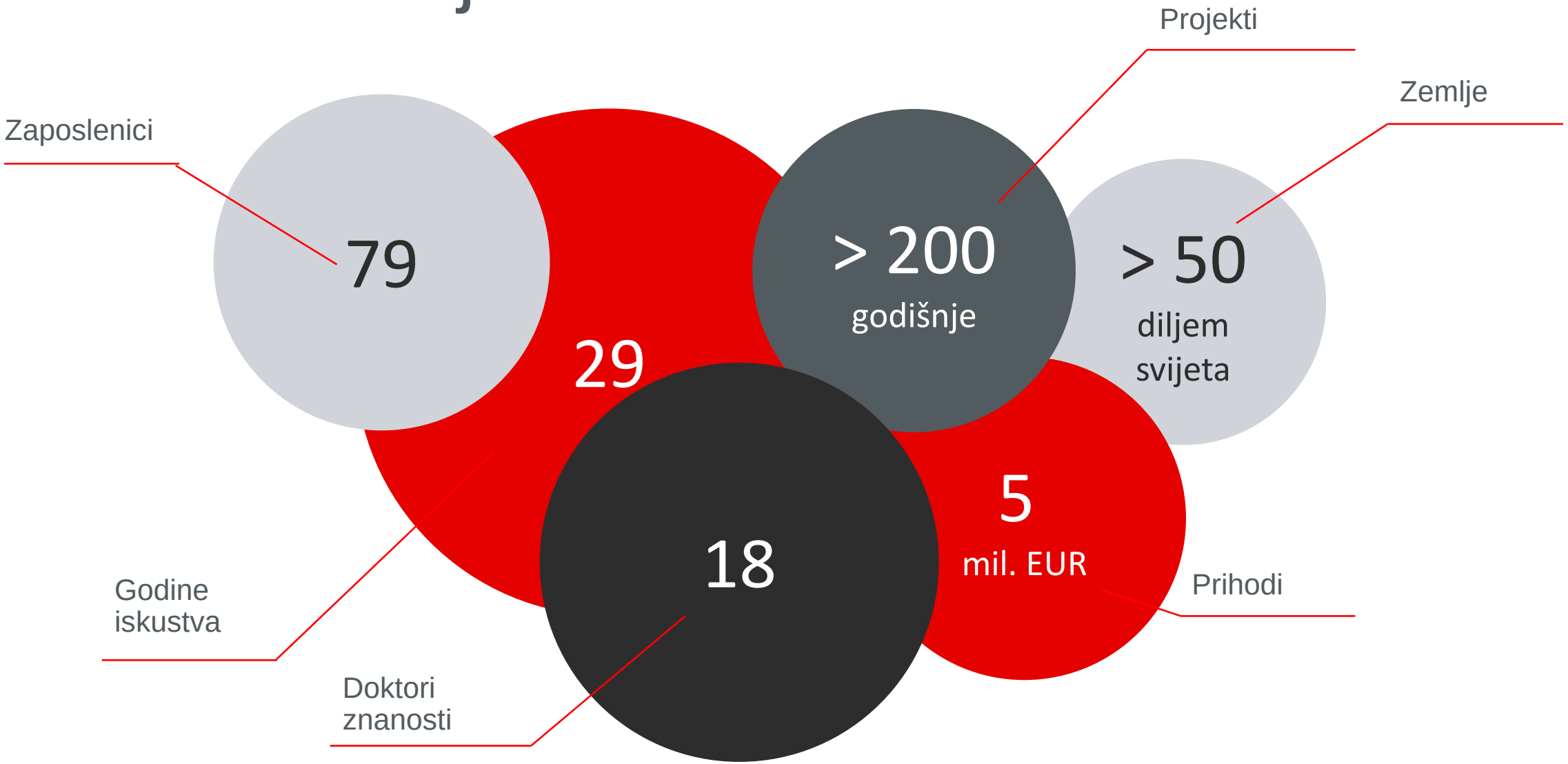
EIHP u brojkama



nZEB(N)

1975.

ZG Modernity

Energy class F
Begining of thermal insulation
Glazing without shading
DHC, window type DX AC

2001.

1. Energy refurbishment

Energy class B / F
Add. TI, DHC, heat pump with ice bank, BMS, Mechanical resistance and stability

2023.

nZEB + smart

Energy class A / A+
Building envelope class A
Geothermal heat pump
BIPV and batteries
E-mobility
Fully digitalized
Mechanical resistance and stability

2030.

nZEN + smart

Zero emission neighbourhood?

2050.

Smart city

ZG?

01 02 03 04 05

Nacionalni nZEB trening centar

MODUL 1

Koncepti i strategije za nZEB

MODUL 2

Kako postići nZEB - iskustva iz provedbe

MODUL 3

Upotreba naprednih materijala

MODUL 4

Sustavi opskrbe energijom u nZEB-u

MODUL 5

Ocjena otpornosti i ranjivosti zgrada

MODUL 6

Kolaborativni BIM za postizanje nZEB-a

MODUL 7

Energetsko modeliranje zgrade

MODUL 8

nZEN - od zgrade do susjedstva

EIHP

Energetska obnova kvartova

Interreg CENTRAL EUROPE

Co-funded by the European Union

ZEB4ZEN

Zero energy buildings for zero energy neighbourhoods

Star-shaped cities of the Renaissance

CHALLENGE:

Low-carbon solutions aimed at modernizing historic centres while protecting their historical heritage.

OBJECTIVES:

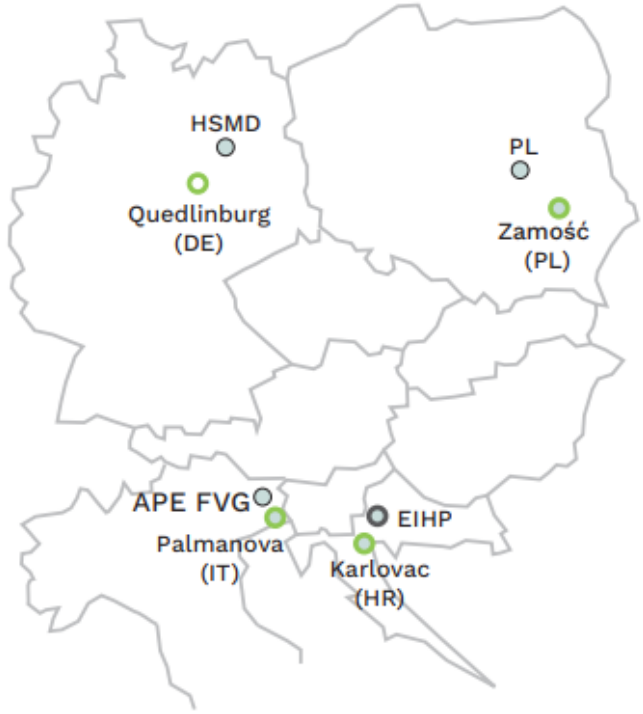
Development of a methodology and definition of action plans for achieving zero emission neighbourhoods based on the experience of pilot activities and investments in well-known city neighbourhoods that were historically recognised as the ideal star shaped cities of the Renaissance.

POSITIVE IMPACTS OF ZERO EMISSION NEIGHBOURHOODS:

ENVIRONMENTAL
Positive impact on climate change reducing greenhouse gas emissions.

ECONOMIC
Sustainable energy projects investments. Tackling energy poverty.

SOCIAL
Better living and working conditions as well as creating new opportunities for triggering community energy projects.



7 Project partners
Lead partner: EIHP

4 Energy action plan
Energy planning using VR environment

3 Concrete pilot investments
- Palmanova (IT) - Solar Energy Community
- Zamość (PL) - Optimization of the thermal insulation system of historical tenement houses
- Karlovac (HR) - Green and digital neighbourhood transformation

WHY COOPERATION?

Sine the topic is relatively new and unexplored, significant benefits come from trasnational cooperation and exchange of knowledge and experiences. This also contributes to devising a multi perspective which takes into account different sets of challenges linked to different cultural and social traits.

DURATION: 36 months BUDGET: 2.041.426 € ERDF funding: 1.633.141€





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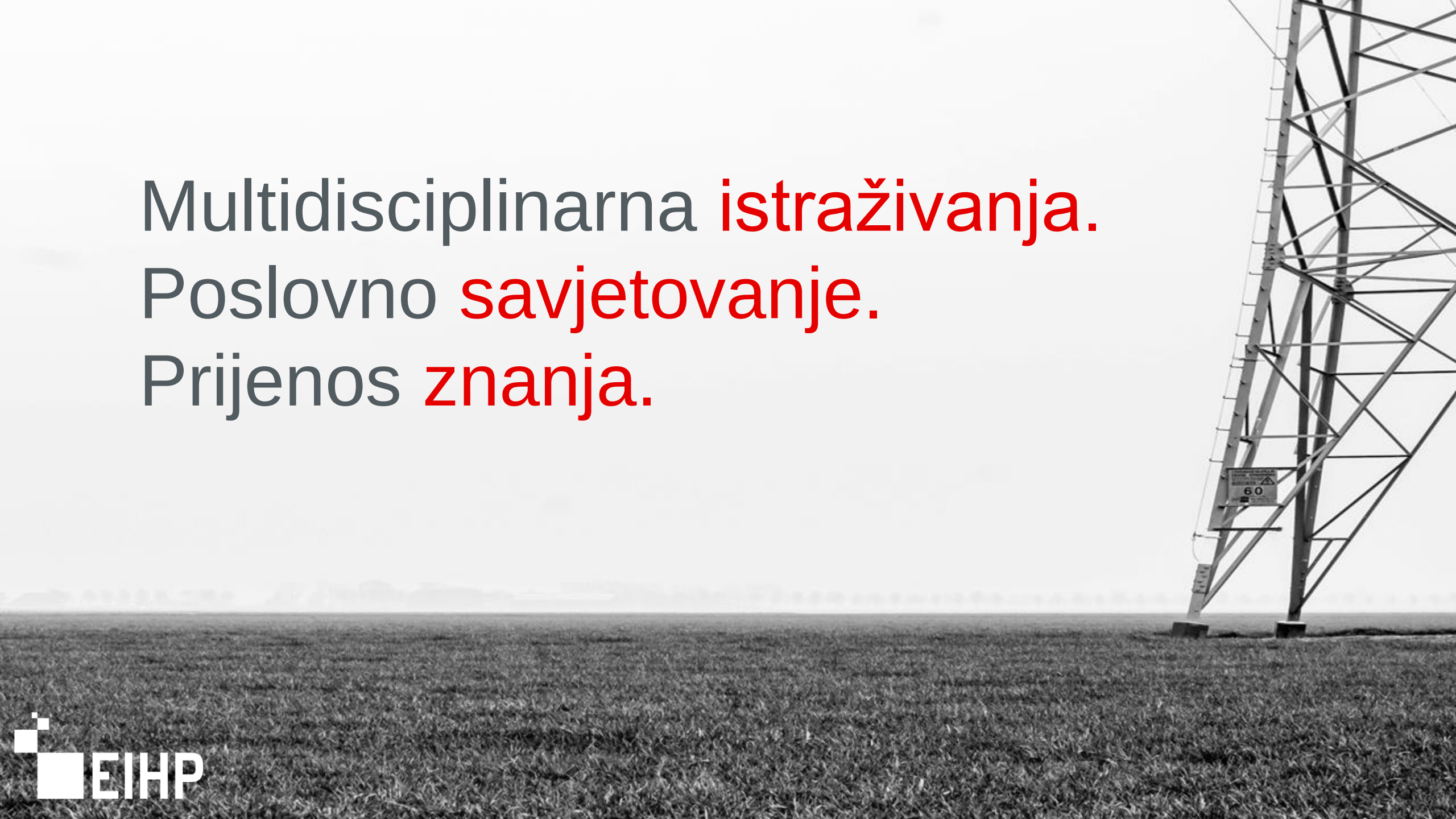
Multidisciplinarna istraživanja.
Poslovno savjetovanje.
Prijenos znanja.



EIHP