



ManagEnergy
Leaders in energy transition

PVMMax project

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About REGEA



Established in 2008

Since its establishment, REGEA has triggered more than 150 M€ of investments in Croatia

Four founders

City of Zagreb, Krapina-Zagorje County, Karlovac County, Zagreb County

Field of expertise

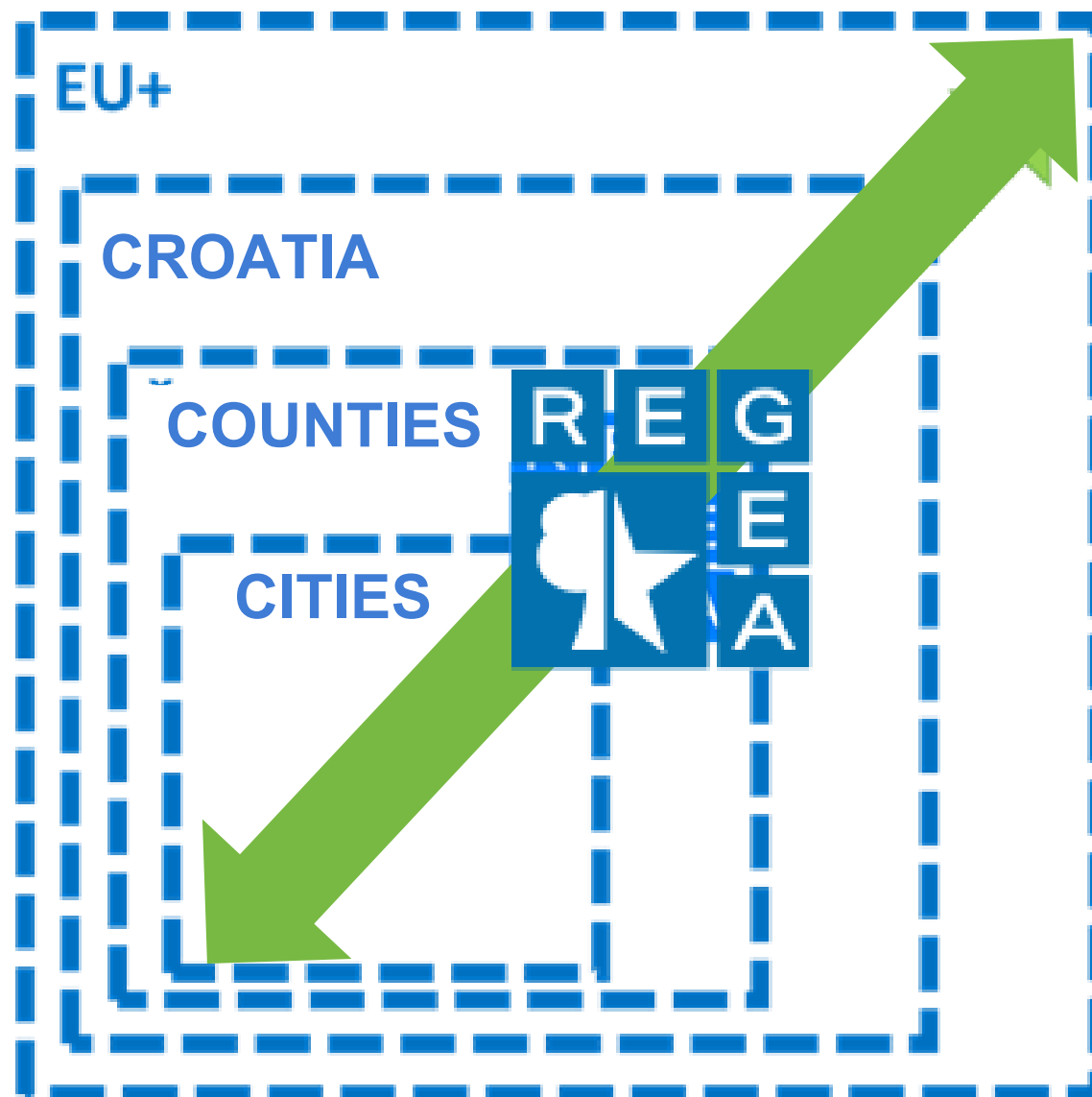
- Energy renovation of (public) buildings
- Public lighting
- Implementation of RES/energy storage
- Climate mitigation and adaptation
- EU projects
- Policy

60+ employees (90%+ engineers)

Currently around 60 active EU projects

Other interesting facts:

- 4 EIB ELENA projects
- National coordinators of EIT Climate-KIC
- Official partner of New European Bauhaus
- Active involvement in FEDARENE



An aerial photograph of a large, multi-story building with a flat roof. The roof is covered with several large, rectangular solar panel arrays. The panels are arranged in a grid pattern, with some larger panels and some smaller ones. The building is surrounded by a parking lot with several cars, and there are green spaces and trees nearby. The overall scene is bright and clear, suggesting a sunny day.

EIB ELENA

— PVMax project

**A story on
investments in
integrated PV systems**

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Main Facts



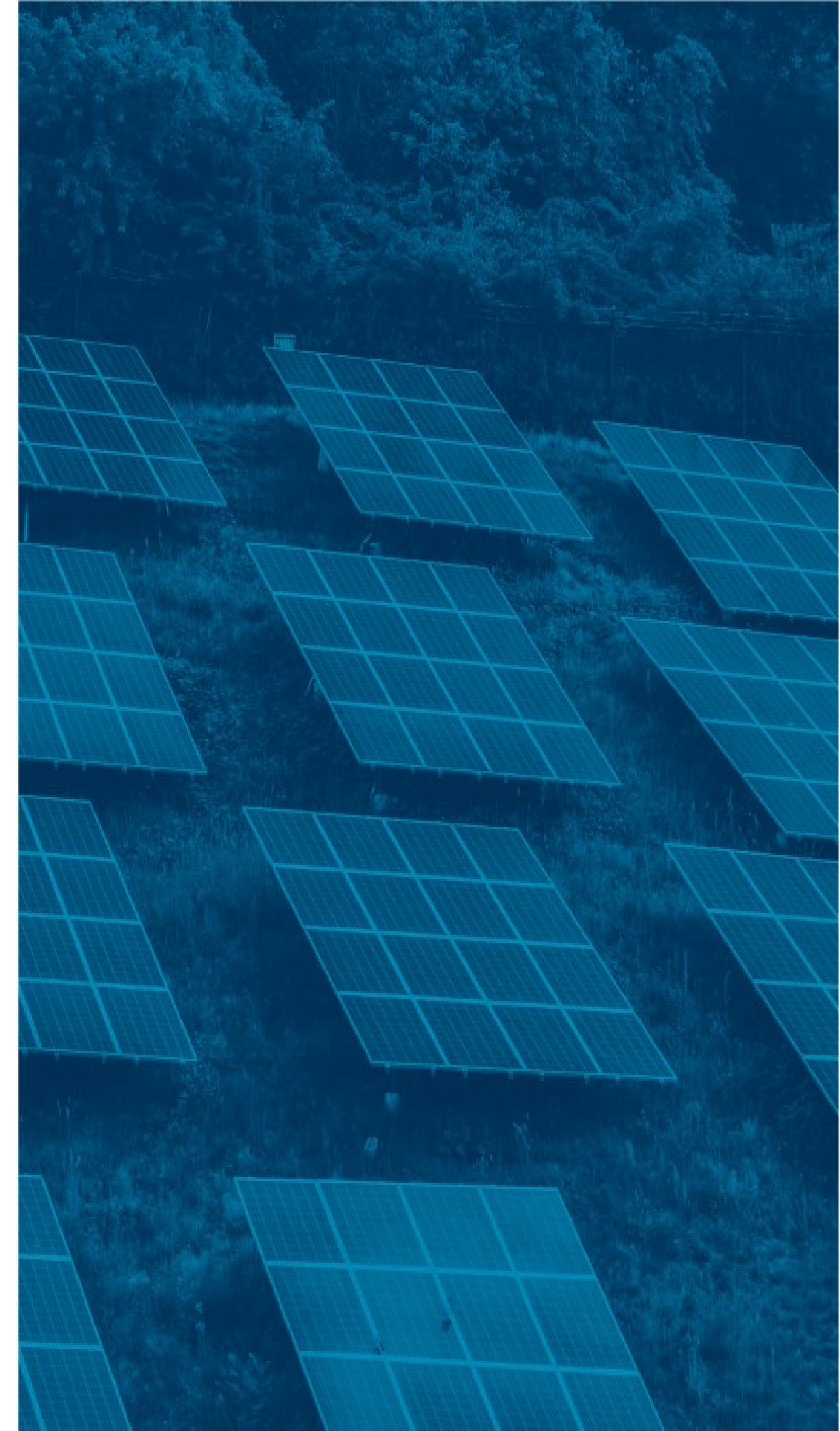
Why the focus on
PV systems?



What do we
actually do?



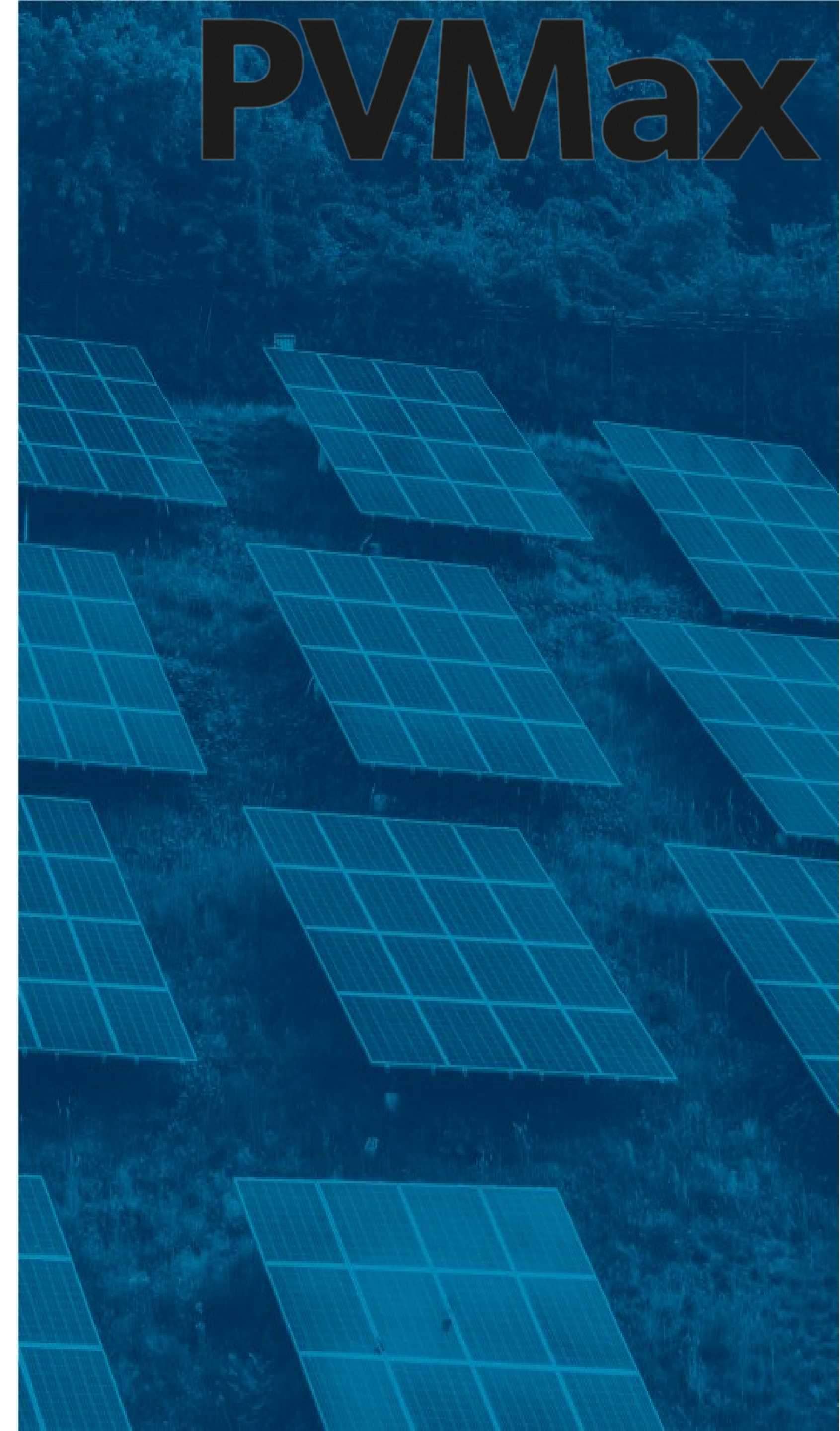
Implementation
and results





Main Facts

- Project start: July 2021
- Project duration: 36 months (June 2024)
- Programme: ELENA (European Investment Bank)
- Beneficiary: REGEA
- Total Budget: 1.980.000 eur
- Main Goal: Achieve investment in PV building integrated systems and EE electricity measures of over 80 M€





Why to focus on PV systems?



Current situation

- Total PV capacity in Croatia (end of 2019): 69 MW (app. 17 W/cap)
- Among the lowest per capita in EU countries
- Investment costs in PVs decreased drastically over last 5 years (700-1000 eur/kW)
- PVs are financially feasible even without subsidies

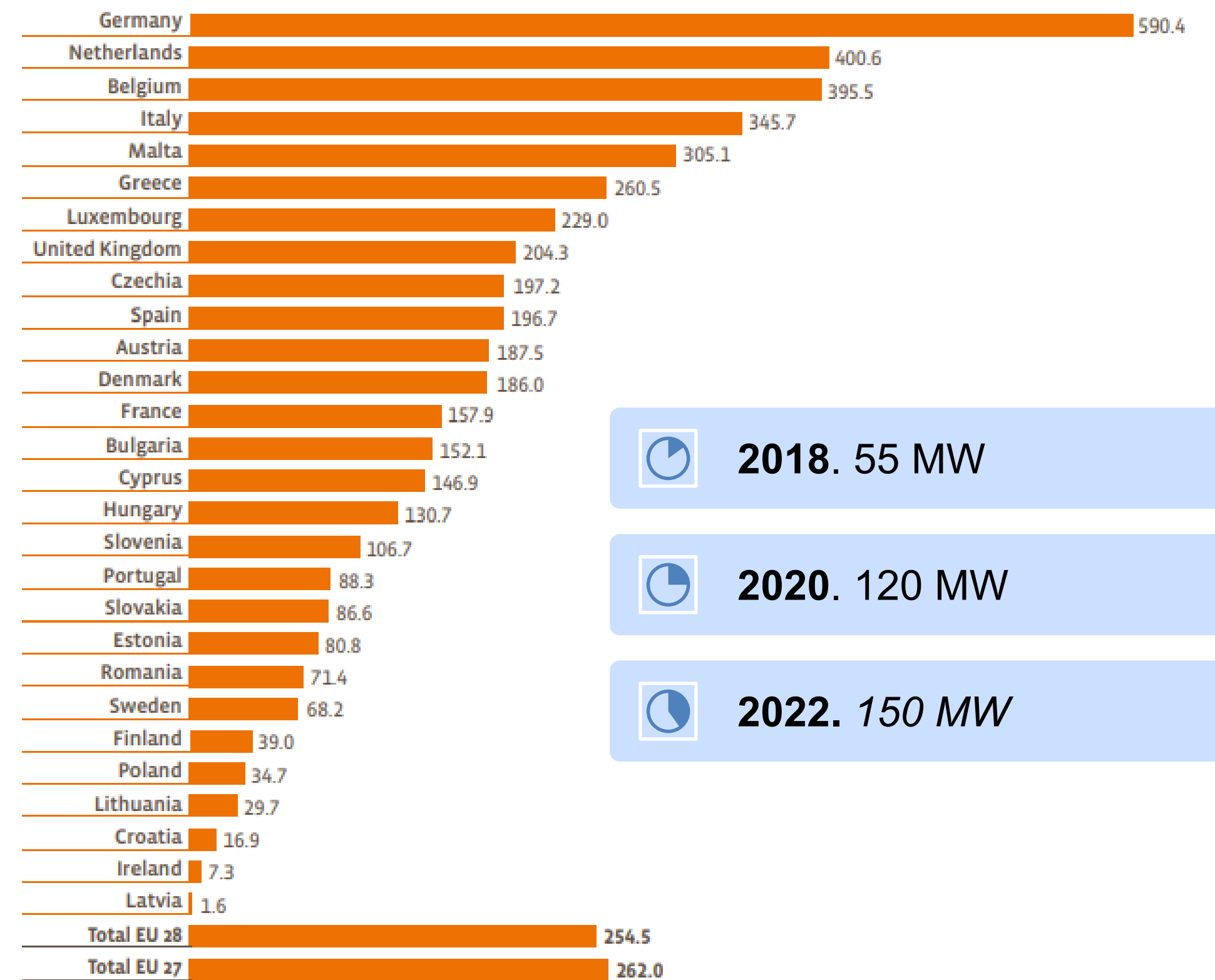
Obvious market failure in Croatia!

- Legal barriers - new Law on Electricity Market, Law on Renewables
- Lack of projects in pipeline
- Sensitive market and very high dependance on foreign companies
- High grants/subsidy "addicton"!

Total solar potential in Croatia = 7 GW

Graph. n° 1

Photovoltaic capacity per inhabitant (W/inhab.) for each EU country in 2019



2018. 55 MW



2020. 120 MW



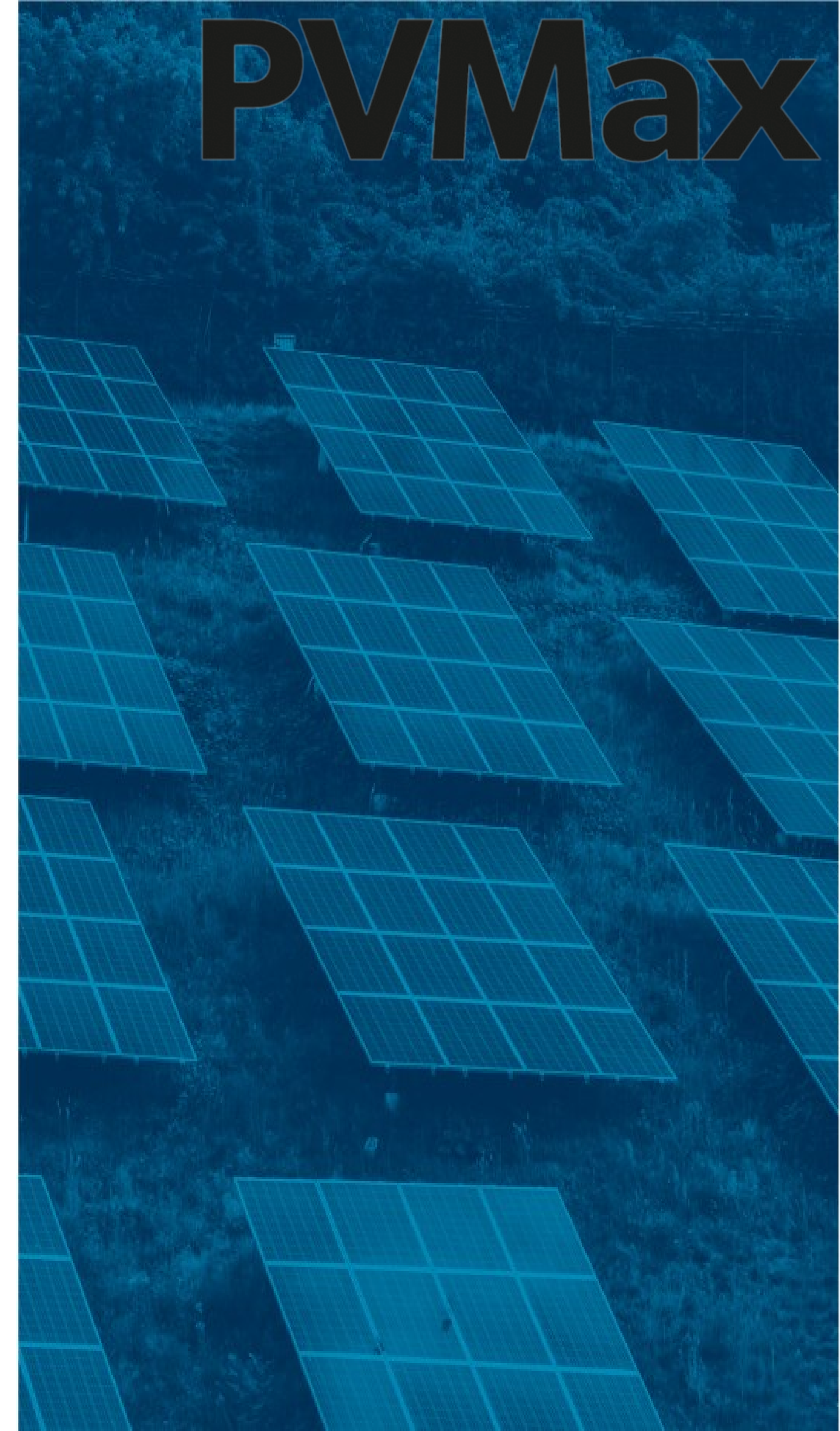
2022. 150 MW

* Estimation Source: EurObserv'ER 2020



What do we actually do?

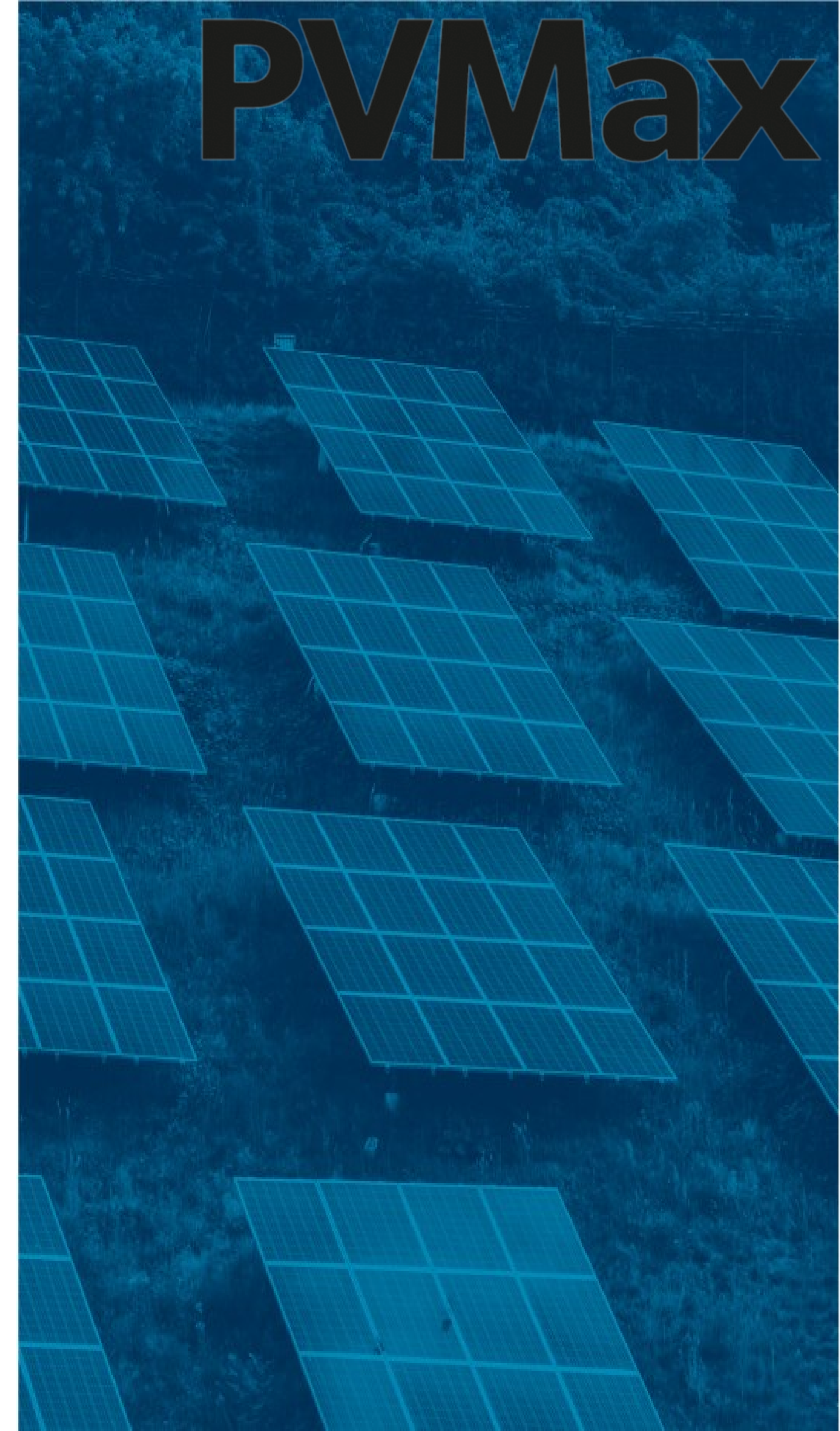
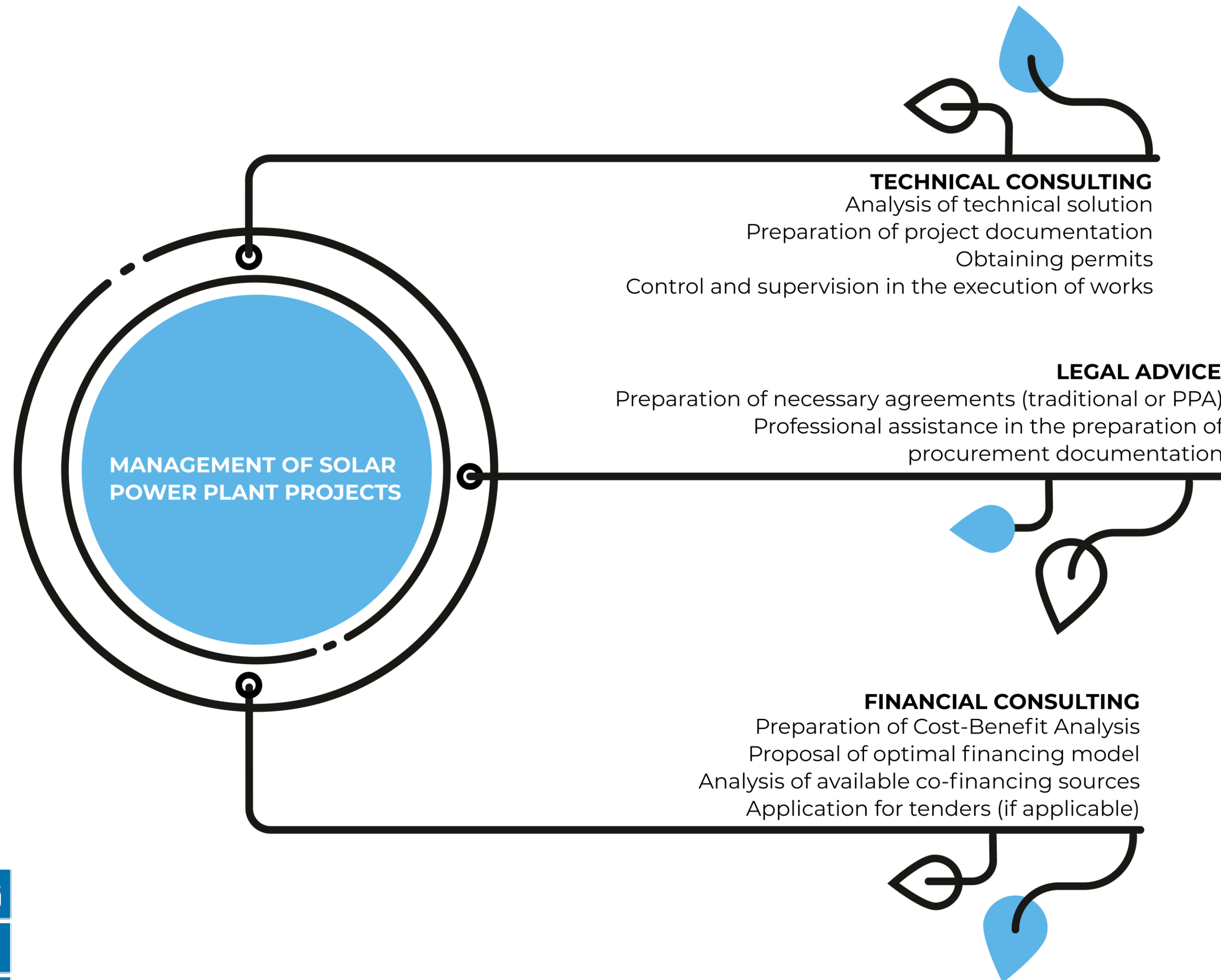
- Open call from 1 Sep 2021 to 31 Dec 2022 – gathering of clients
- Clients:
 - 1) Public Sector
 - 2) Private Sector
- Investors in PV building integrated systems anywhere in Croatia
- All necessary preparatory activities
 - Technical consulting
 - Financial consulting
 - Legal advice
- Technical assistance free of charge under the condition that investment must be realized/started
- Technical assistance costs coverage: 90% EIB ELENA, 10% REGEA





What do we actually do?

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Implementation and results

Pipeline of 300+ projects

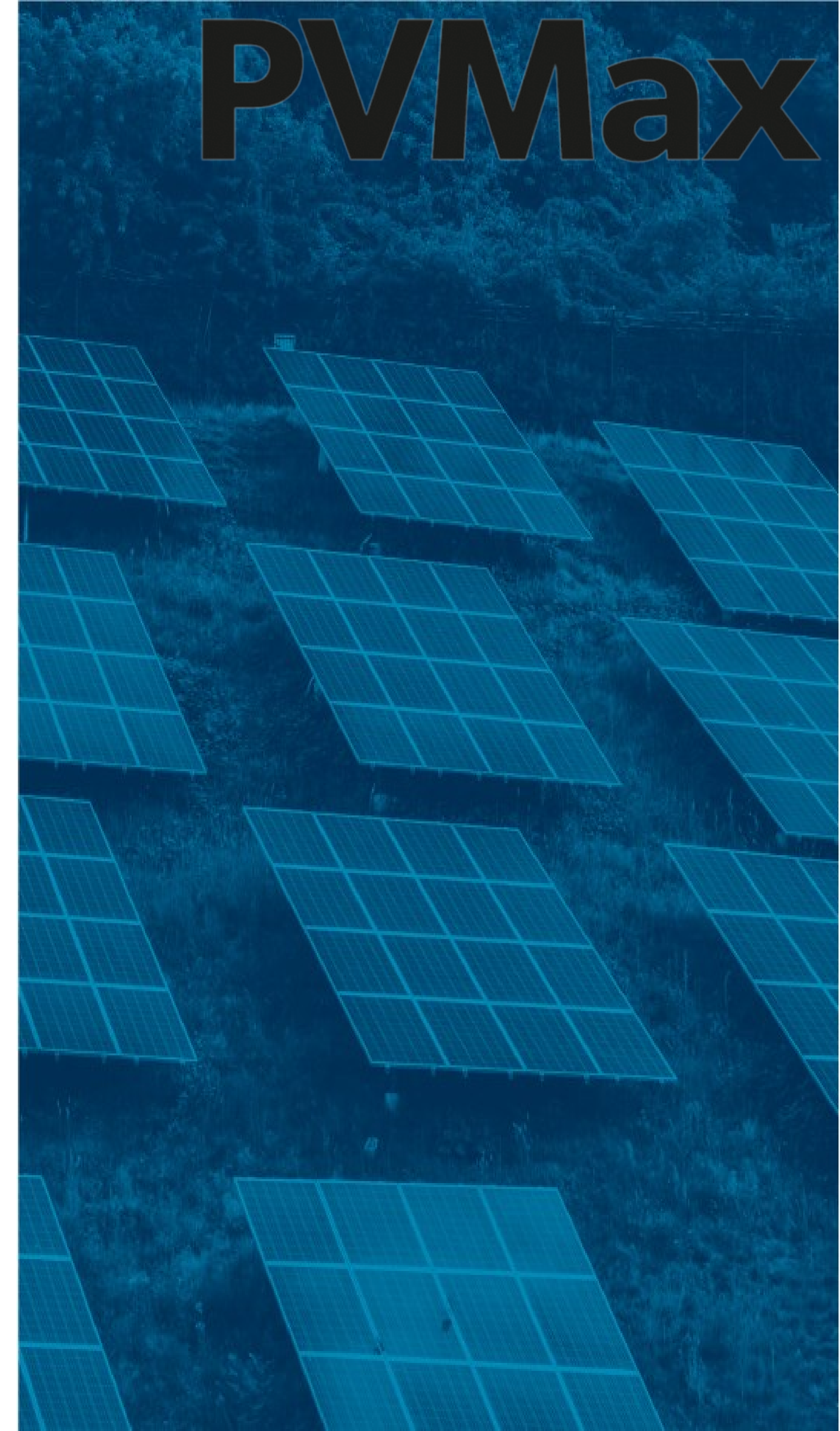
- Total capacity 100+ MW, all through public call
- Signed MoU with clients

Realized projects

- 106 Investments realized (26.5 MWp)
- Mixed financing, but in favour of traditional models (own funds / credit loans / grants)
- Mixed contracting – Build / Design & Build / Design & Build & Finance



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Implementation and results

Fine-tuning and testing of contract documentation

- Design, Design&Build, Design&Build&Finance / PPA
- All models includes strict contract documentation which put clients first!

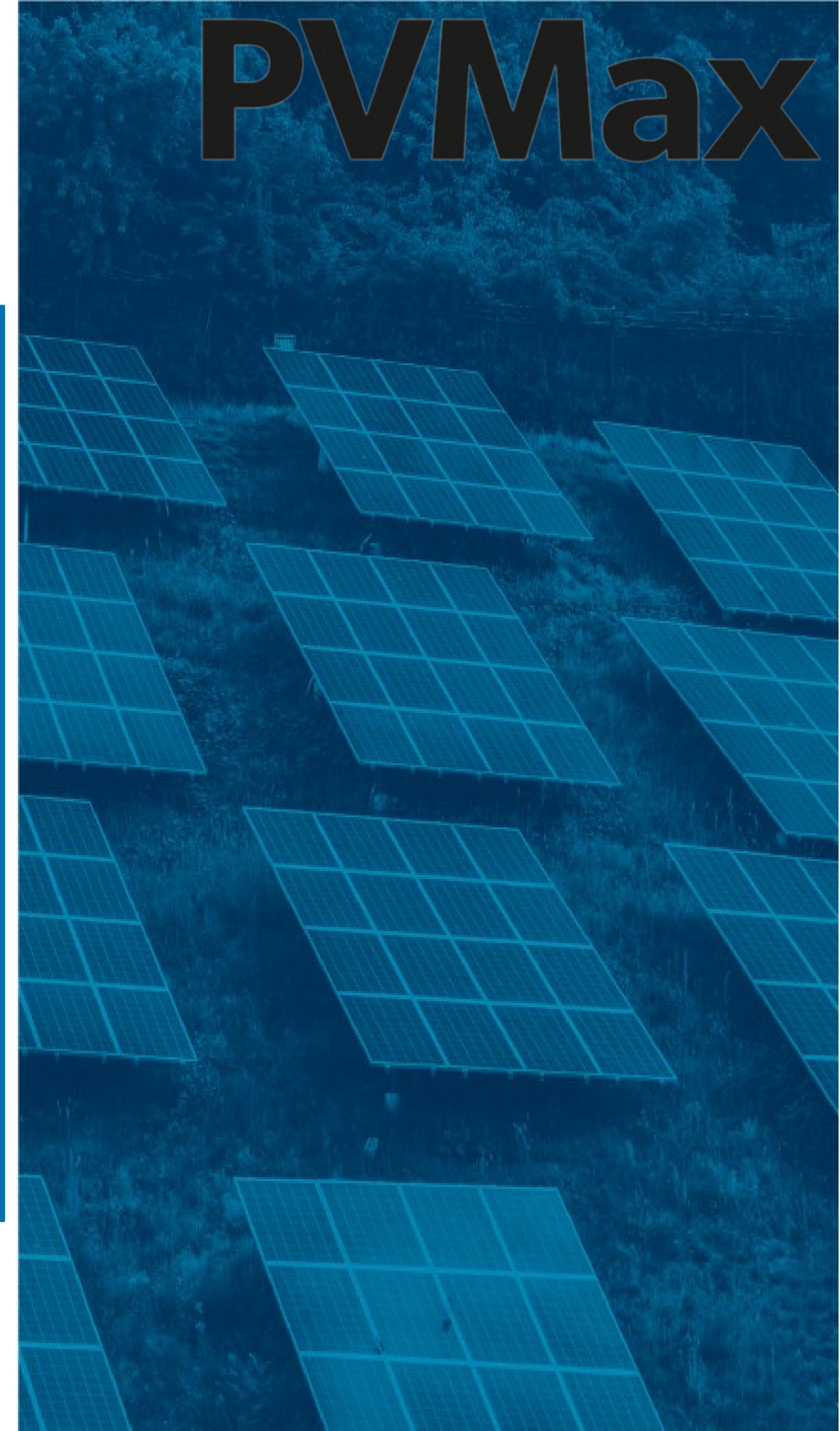
Insisting of "above-standard" practice in technical aspects of PV systems

- High-level minimum technical requirements for all components of PV system
- Adoption of Slovenian technical design requirements (especially regarding fire safety)
- Main project design must include static analysis of roof, fire safety measures,...
- Big focus on proper operation and maintenance

"Creation" of new pathways in cooperation

- Assistance in application on different available national/EU funds
- Coupling with battery energy storage systems / heat pumps / EV chargers...
- Aggregation...
- Virtual power plants...

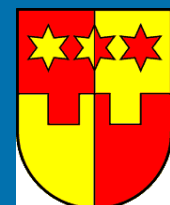
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Implementation and results

Public sector



Large corporations

KONZUM

BELJE
1697

Jamnica

ZVIJEZDA

m san
GRUPA

PODRAVKA

Financial sector / insurance companies

PBZ

Raiffeisen
BANK

CROATIA
OSIGURANJE

Notable clients

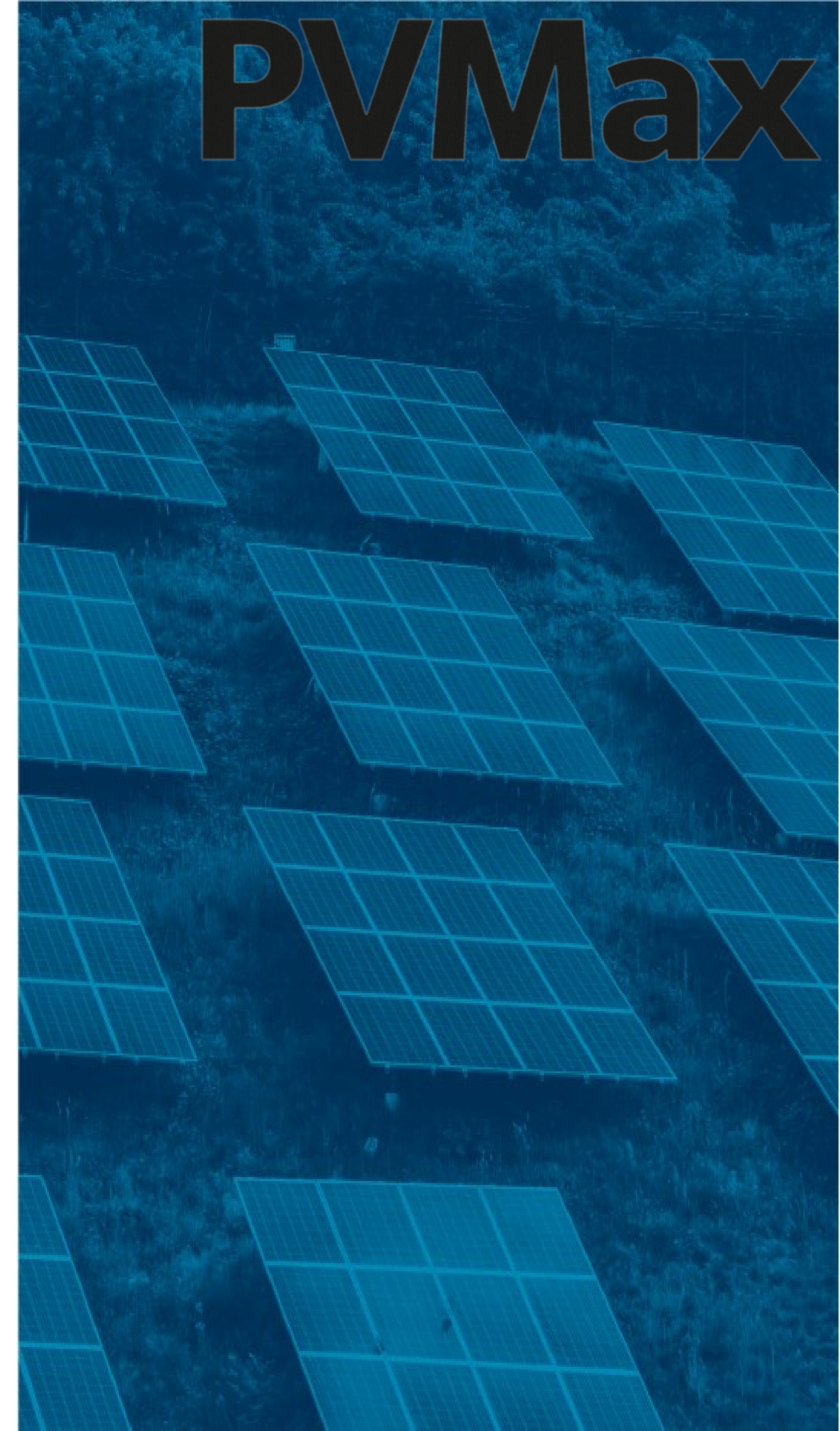
nexe
GRUPA

RIMAC
AUTOMOBILI

PRIMO
Real Estate

Kaufland

PVMMax





Implementation and results

Zagreb Solar Roofs Program 2022-2024

- City Assembly of City of Zagreb - 28 October 2021 – official adoption
- Main goal: 50+ MW of building integrated PVs
- All building types (public, residential, commercial)
- All financing models (traditional, PPA, Premium price, CF, Energy communities,...)
- PV systems for self-consumption and for direct selling to the grid

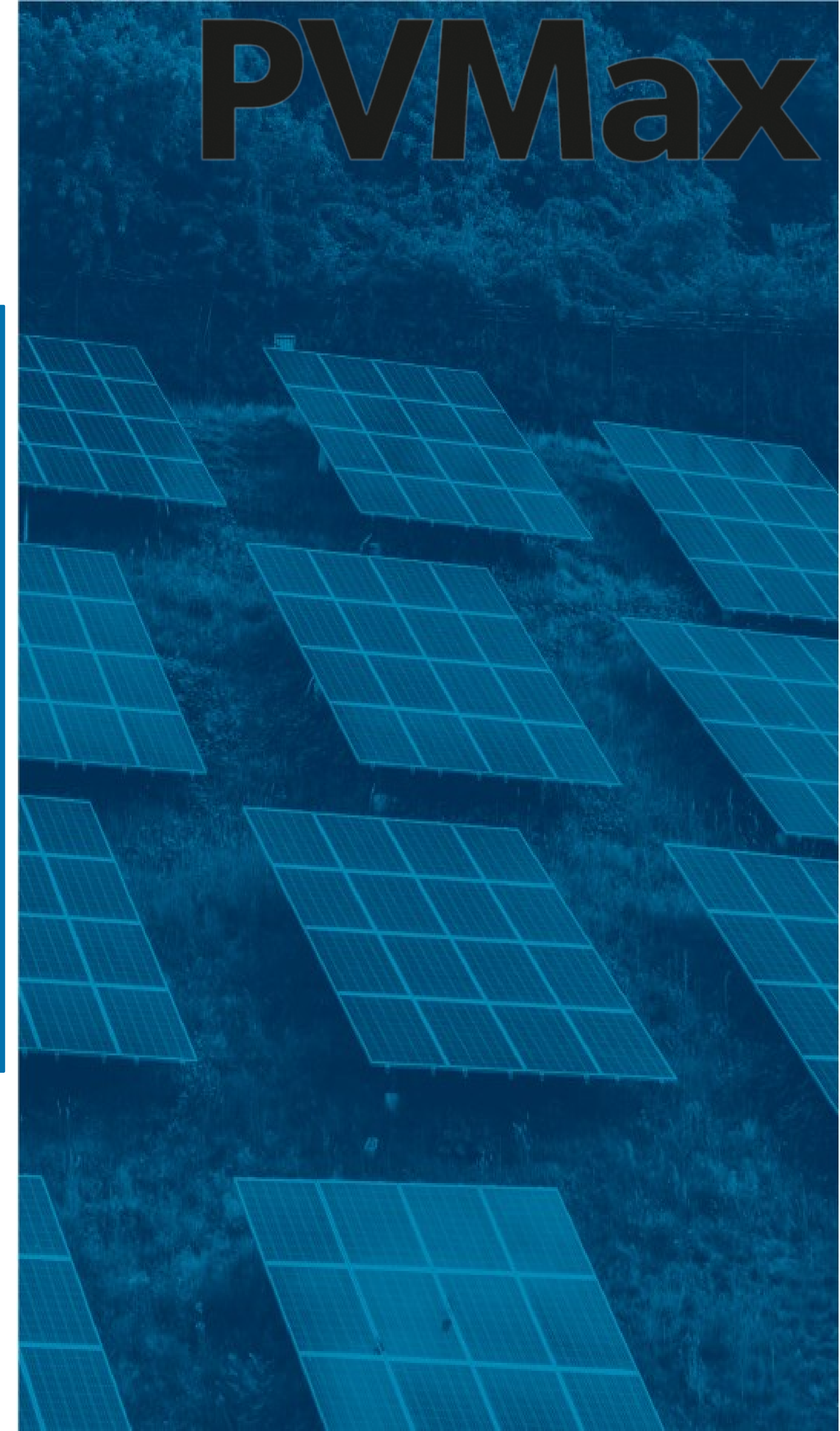
Latest achievement

- Public tender – PV systems for self-consumption – 16 locations – 1.6 MW, PPA
- Average price of electricity for 15 years: 0.105 €/kWh

Future plan

- New EIB ELENA project incoming – focused only on the city of Zagreb 😊

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Thank you for the attention!

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