



# Q4 2021 and 2021 Results

**with Georg Hotar, CEO  
and Clemens Wohlmuth, CFO**

Photon Energy N.V.

14 February 2022

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**Business Model**

**Strategy and Outlook**

**Q4 2021 and 2021 Financials**

**Q&A Session**



# **Business Model**

**Strategy and Outlook**

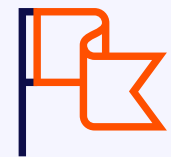
**Q4 2021 and 2021 Financials**

**Q&A Session**

# About Us

We are dedicated to ensuring that everyone has access to clean energy and water

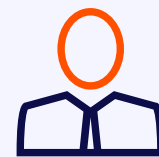
## Photon Energy Group



Founded in  
**2008**



Headquartered in  
**Amsterdam**



**140+**  
Employees



Active in  
**10+ countries**



**Shares traded**  
in PL, CZ and DE



**Sustainability**  
Rating\*

## Solar Business Line

*(Current core activity and strategic area of development)*



**120+ MWp**  
constructed



**~ 310 MWp**  
O&M portfolio



**90.5 MWp**  
proprietary portfolio



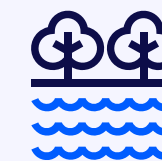
**~ 790 MWp**  
PV project pipeline



**103 GWh**  
produced in 2021

## Water Business Line

*(Strategic area of development)*



**605 ha**  
of lakes and  
ponds managed



**3,500 m** of wells  
drilled, maintained  
or decommissioned

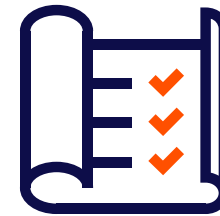


**PFAS**  
patent pending

\* Rating report can be found under <https://www.photonenergy.com/en/photon-energy-group/our-esg-commitments.html>

# Business Model: Solar Services

Our services cover the entire lifecycle of photovoltaic systems.



## Project Development

We acquire projects at all stages of development – from **300 kWp to 300 MWp** – and guide them to completion.



## Operations and Maintenance

We provide a full range of O&M services, including **monitoring** and **inverter maintenance**.



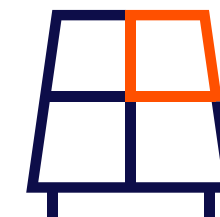
## EPC Solutions

We design and build **on- and off-grid** installations, including **battery storage solutions**.



## Investments

We invest in PV power plants for the **sustainable** production and sale of **solar energy**.

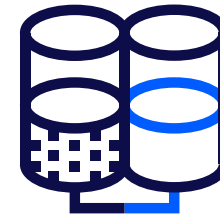


## Technology

We procure and trade **PV components** to fit any project's location, design and budget.

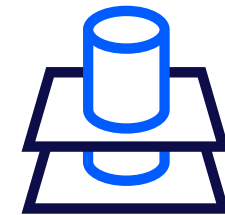
# Business Model: Water Services

Our comprehensive services and solutions help to make clean water accessible to everyone.



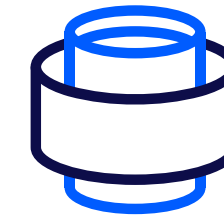
## Treatment

We deliver treatment solutions including potable and wastewater treatment, hazardous liquid waste and industrial water treatment.



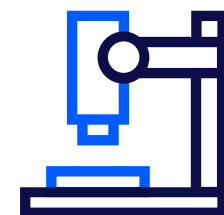
## Remediation

We offer a range of remediation services, including our unique **nanoremediation** solution, to eliminate contaminants from water and soil.



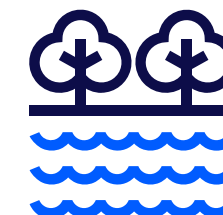
## Wells and Resources

We provide complete services for wells and water resources, from planning and design to maintenance and decommissioning.



## Research and Development

We work with leading academic institutions and participate in governmental research programmes to develop cutting-edge clean water solutions.



## Water Resource Management

We help our customers make the best, most efficient use of their water resources, such as lakes, ponds and industrial water bodies.

# Our Global Presence

## Focus on Europe and Australia

### Project development

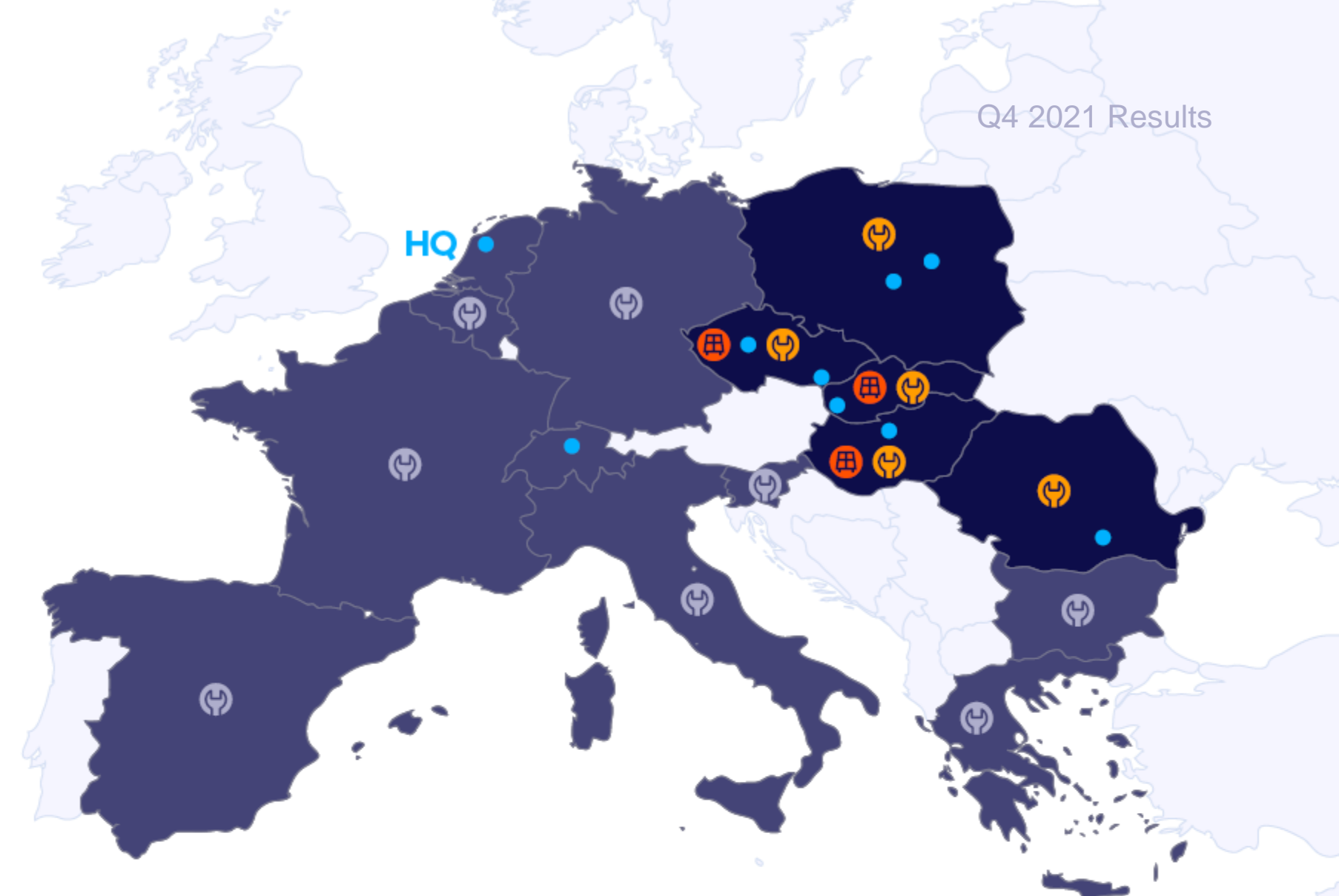
- ▶ Project pipeline with a combined capacity of 790 MWp
- ▶ Focus on Australia, Hungary, Poland and Romania

### Electricity production (90.5 MWp)

- ▶ 11 proprietary power plants in the Czech Republic (15.0 MWp), 11 in Slovakia (10.5 MWp), 62 in Hungary (50.4 MWp) and 3 in Australia (14.6 MWp)

### O&M (~310 MWp)

- ▶ Full Operations and Maintenance services in the Czech Republic, Slovakia, Romania, Hungary and Australia (~250 MWp)
- ▶ Specialised technical services for PV inverters in other European countries (~60 MWp)



-  Power Plants Owned by Photon Energy Group
-  O&M Services for Power Plants
-  Inverter Maintenance Services
-  Photon Energy Group Offices







Business Model

# Strategy and Outlook

Q4 2021 and 2021 Financials

Q&A Session

# Electricity Prices in our Key Markets

## Increasing energy prices and declining LCOE

Key Figures	Current spot price / daily average 27.01.2022	Forward price 2023E	Current Photon's LCOE excl. balancing
Romania	~259 EUR per MWh	~146 EUR per MWh	~44 EUR per MWh
Poland	~110 EUR per MWh	~132 EUR per MWh	~60 EUR per MWh
Hungary	~257 EUR per MWh	~146 EUR per MWh	~51 EUR per MWh
Czech Republic	~240 EUR per MWh	~143 EUR per MWh	~54 EUR per MWh
Slovakia	~188 EUR per MWh	~145 EUR per MWh	~54 EUR per MWh
Australia**	~36 EUR per MWh	n/a	n/a

**Increasing energy prices and declining LCOE** give a chance of operating on mentioned PV markets **independently of support schemes** – similarly to conventional energy sources through „**market approach**”. This fact may significantly boost further development of local solar markets.

# Key Strategy Drivers

## Expansion of recurring revenue streams to increase Group value:

- I. **Investments: Develop pipeline of projects**, in-house or through co-development, to expand our PV proprietary portfolio and increase stable revenues from clean electricity generation and grid support services.
- II. **EPC: Design and construct customized, decentralized clean energy generation solutions** using the Group's integrated approach, cutting edge PV technology and **energy storage solutions**.
- III. **O&M: Maximise the energy generation output of proprietary and clients' PV power plants** and optimise the useful life of PV assets.
- IV. **Technology: Utilise existing economies of scale to generate additional trading revenues** from PV modules, inverters, batteries and other components.
- V. **Water: Become a leading worldwide player in the PFAS remediation industry** and grow the share of the water activity to a material scale.



# Photon Energy: targets for our solar business in 2024E

## Our medium term targets and KPI's include





- ▶ **Proprietary portfolio:** at least 600 MWp
- ▶ **Additional projects in pipeline:** ~1.5 GWp
- ▶ **Portfolio under O&M\*:** at least 1.0 GWp
- ▶ **EBITDA growth from 2020:** ~5x + additional upside from targeted roll-out of the nanoremediation technology
- ▶ **Equity ratio:** >25%

*\* Includes both the internal and the external portfolio*



# Project Development

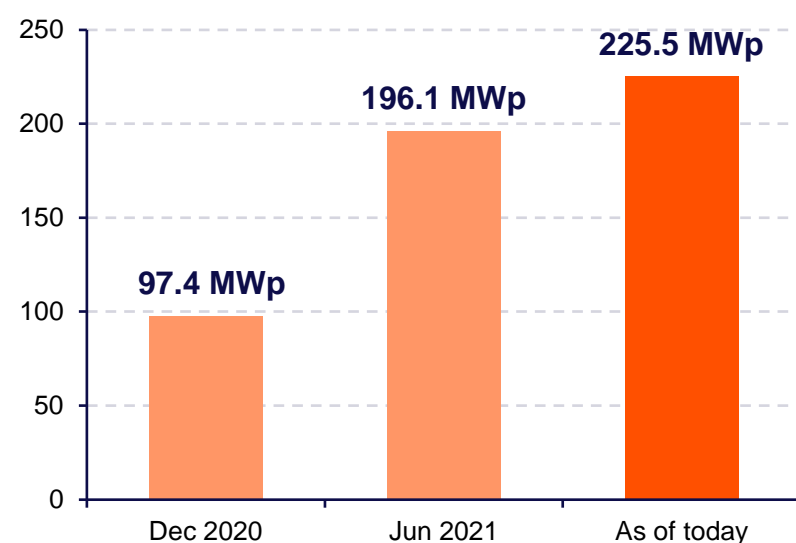
## Pipeline in development (in MWp)

Country	1. Feasibility	2. Early development	3. Advanced development	4. Ready-to-build technical	5. Under construction	Total in MWp
 Romania	33.8	98.5	93.2	-	-	<b>225.5</b>
 Poland	145.2	24.1	-	-	-	<b>169.3</b>
 Hungary	68.0	23.1	2.7	-	1.4	<b>95.2</b>
 Australia	-	300.0	-	-	-	<b>300.0</b>
<b>Total pipeline</b>	<b>247.0</b>	<b>445.7</b>	<b>95.9</b>	<b>-</b>	<b>1.4</b>	<b>790.0</b>

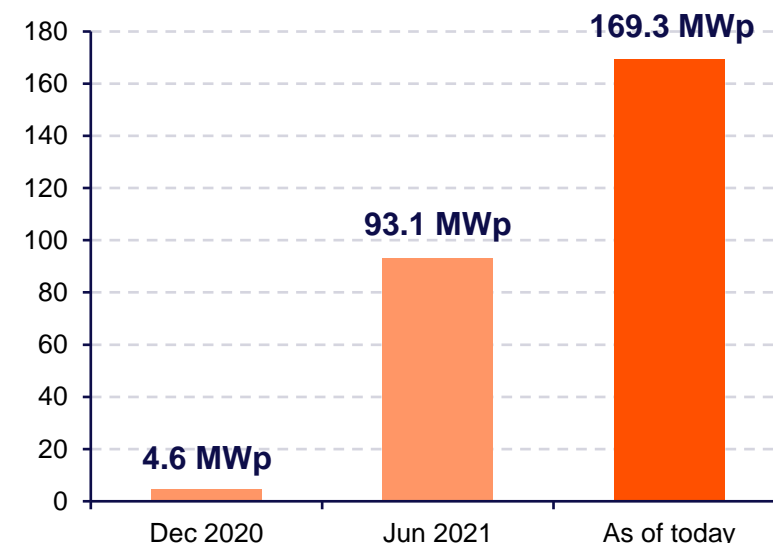
## Pipeline development

- ▶ The typical development period of new PVPPs is 12–24 months and the construction period – additional 6–12 months.
- ▶ European projects under development expected to be launched in years 2022/2023, subject i.a. to availability of financing.
- ▶ After achieving Ready-to-build stage the Company has an option to sell the project rights, reporting capital gains and raising funds to finance new projects with a greater potential of value creation.
- ▶ New developments in Australia to be analysed, prepared and carried out using the innovative PV technology and energy storage system provided by RayGen, a Company in which the Group has a minority equity investment of 9.0%

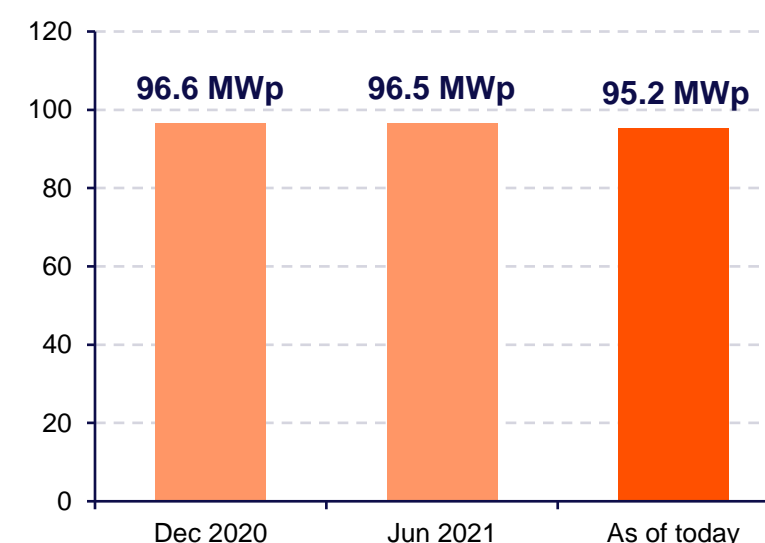
### Romania



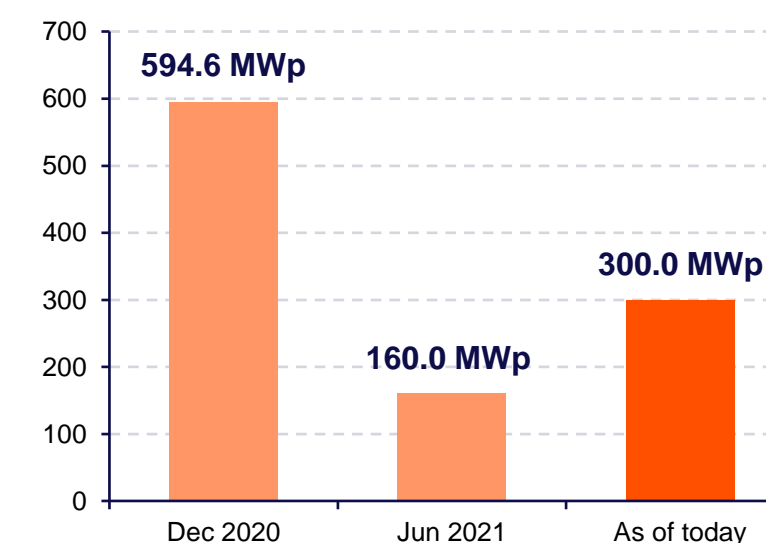
### Poland



### Hungary



### Australia



# Innovative PV technology and energy storage system



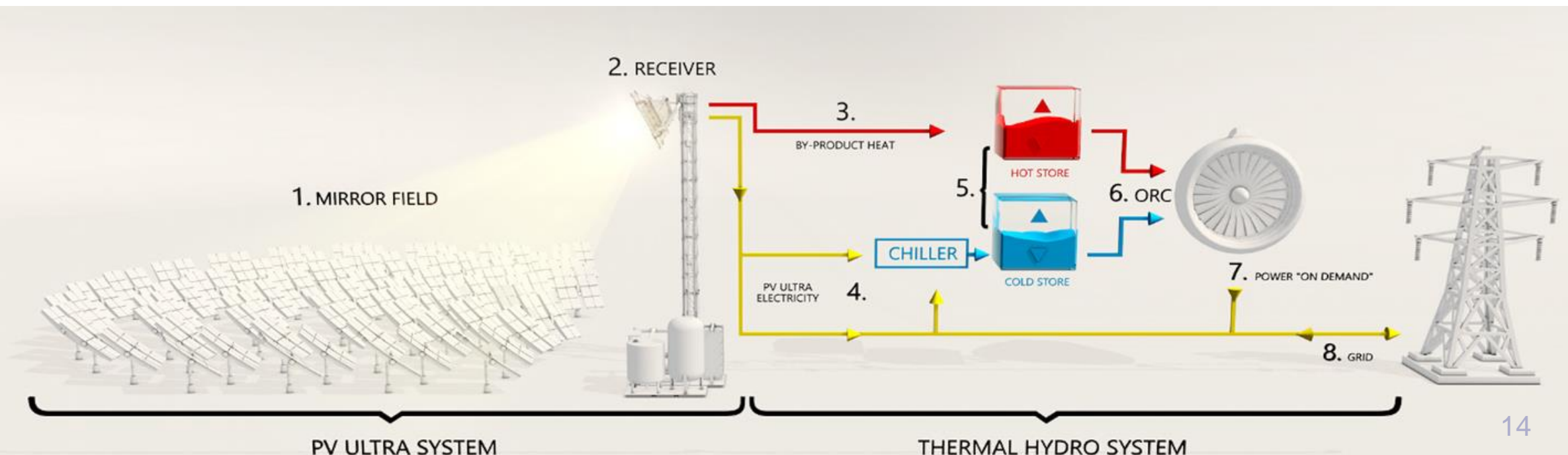
We have partnered with RayGen to develop projects using the Melbourne-based company's innovative solar-plus-storage technology.

## About the partnership

- ▶ Photon Energy will act as a project developer and EPC contractor and a potential equity investor.
- ▶ Photon Energy made a minority equity investment in the company in April 2020 and participated in second financing round with AGL, Schlumberger, Chevron and others in April 2021.
- ▶ We are currently working on the development of a 300 MWp / 3.6 GWh solar-plus-storage project.

## About the technology

- ▶ RayGen has combined its proprietary solar technology, **PV Ultra**, with its unique storage system, **Thermal Hydro**.
- ▶ The PV Ultra system generates both electricity and heat by focusing sunlight onto tower-mounted PV receivers.
- ▶ Thermal Hydro uses hot- and cold-water reservoirs to store the thermal and electrical energy generated by PV Ultra.
- ▶ The storage system can then be used to drive a heat-to-power engine, which provides reliable, on-demand power.





Business Model

Strategy and Outlook

**Q4 2021 and 2021 Financials**

Q&A Session

## Recent Highlights

- ▶ Our Two utility-scale power plants with **14.6 MWp in Leeton commissioned in August 2021** mitigated the seasonality of our business in Q4.
- ▶ **First merchant power plant in Europe**, built and commissioned in Tolna, Hungary with a 1.4 MWp capacity in December.
- ▶ **291 MWp added to pipeline** during 2021 in the key markets Hungary, Poland and Romania.
- ▶ Development of a **300 MW / 3.6 GWh RayGen solar storage project** in Australia.
- ▶ In November, the 6.50% **Green Bond 2021/27** was successfully placed through a public offering and the maximum amount of **EUR 55 million** was oversubscribed at a price of 100%; strong demand from the Company's existing bondholders who subscribed to **EUR 21 million** in the exchange offer as well as from numerous institutional and private investors including EBRD.
- ▶ Bond was awarded as "**Best Issuer of Green SME Bonds in 2021**" by Bond Magazine.



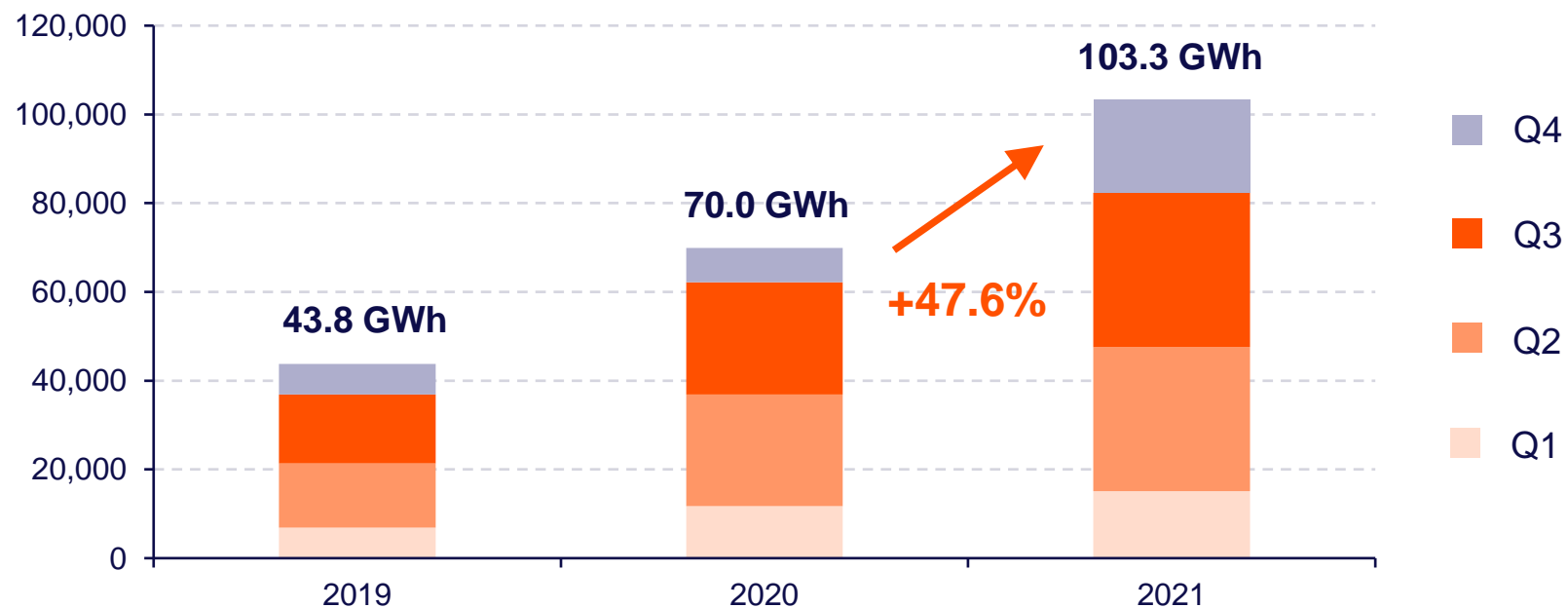


# Business Development in 2021

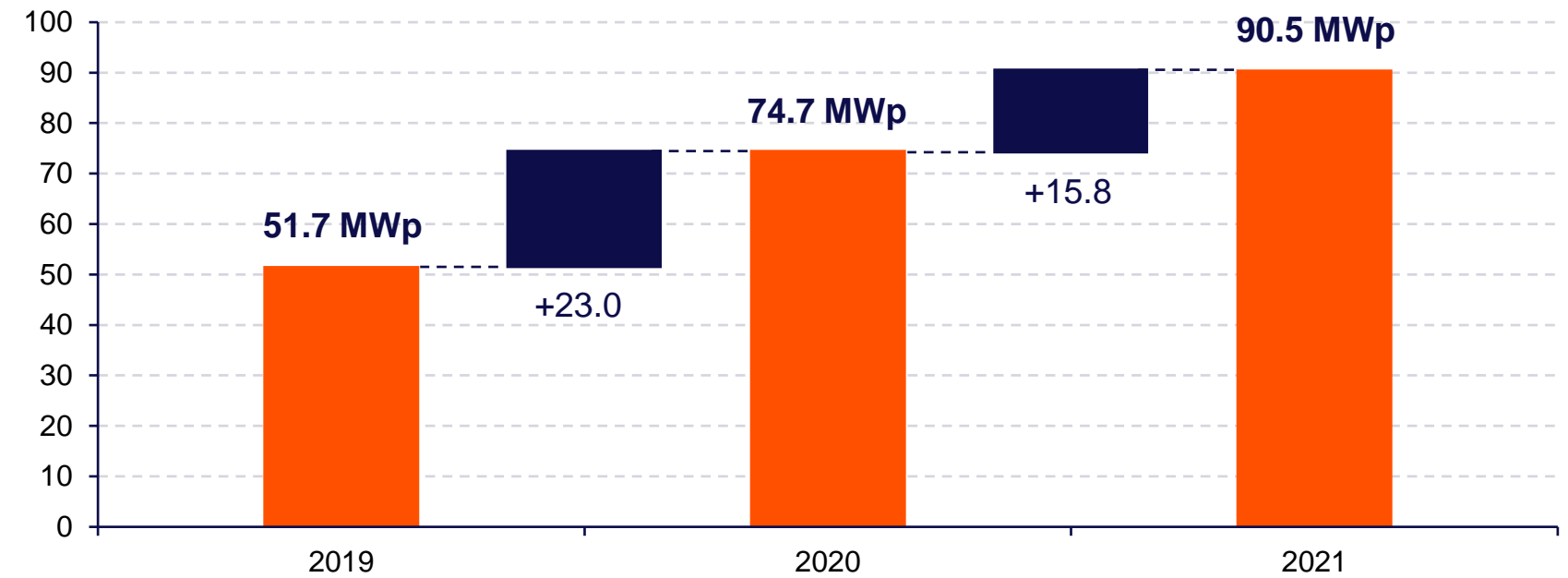
## Continued progress across all segments

- ▶ **103 GWh of electricity (+47.6% YoY) generated** by our proprietary power plant portfolio in 2021:
  - **20.9 GWh**, generated in Q4 (+172.9% higher YOY).
  - **70.0 GWh** generated in 2020.
- ▶ Connection of **14.6 MWp in Leeton, Australia** in August, our first fully merchant projects
- ▶ Connection of **1.4 MWp in Hungary** in December the Group's first project in Europe that will be fully merchant.

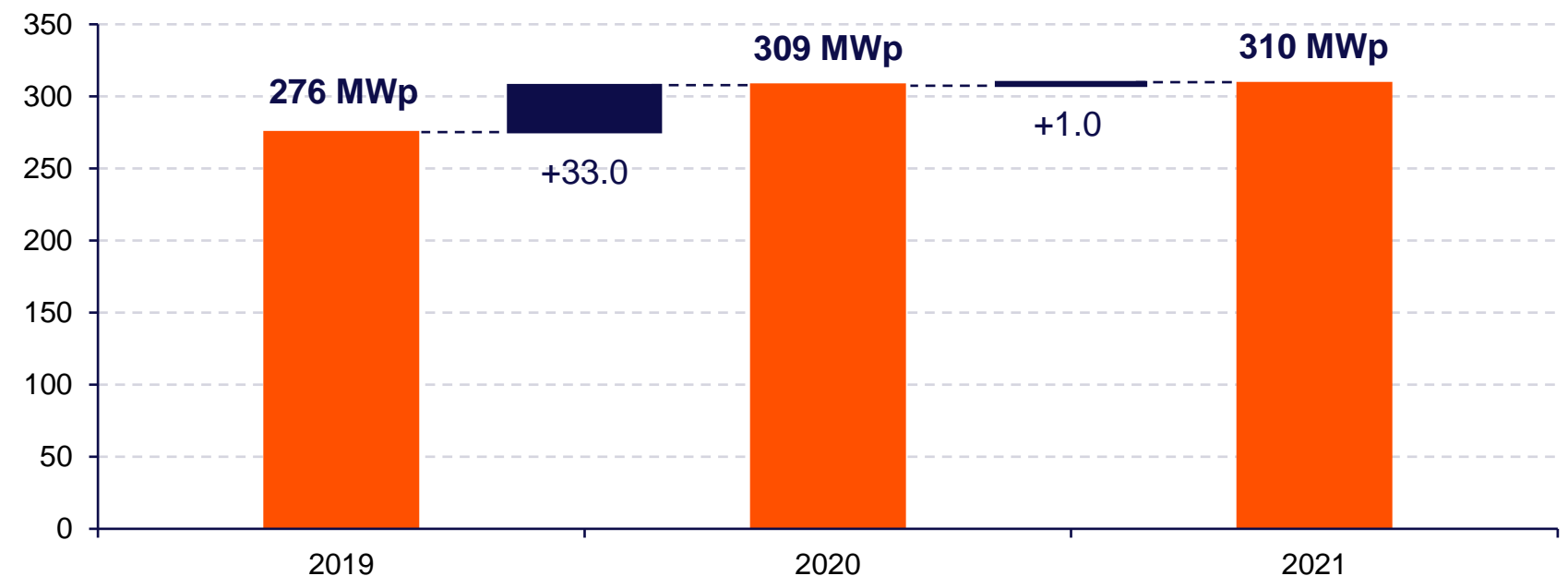
## Electricity generation total portfolio



## Proprietary portfolio, cumulated (MWp)



## Assets under O&M, cumulated (MWp)



# Q4 2021 and FY 2021 Financial Results

## Income Statement

In thousand EUR	Q4 2020	Q4 2021	Change in %	FY 2020	FY 2021	Change in %
<b>Total revenues</b>	<b>5,096</b>	<b>11,734</b>	<b>130.3%</b>	<b>28,258</b>	<b>36,359</b>	<b>28.7%</b>
<i>of which from electricity generation</i>	1,695	3,008	77.5%	16,449	19,402	18.0%
EBITDA	-1,026	1,030	nm	<b>8,440</b>	<b>9,584</b>	<b>13.6%</b>
EBIT	-2,877	-771	nm	-142	-862	nm
Net profit/Net loss	-4,361	-871	nm	-8,693	-6,313	nm
Other Comprehensive Income (OCI)	5,283	2,179	-58.7%	10,776	8,740	-18.9%
<b>Total comprehensive income (TCI)</b>	<b>922</b>	<b>1,308</b>	<b>41.9%</b>	<b>2,084</b>	<b>2,427</b>	<b>16.4%</b>

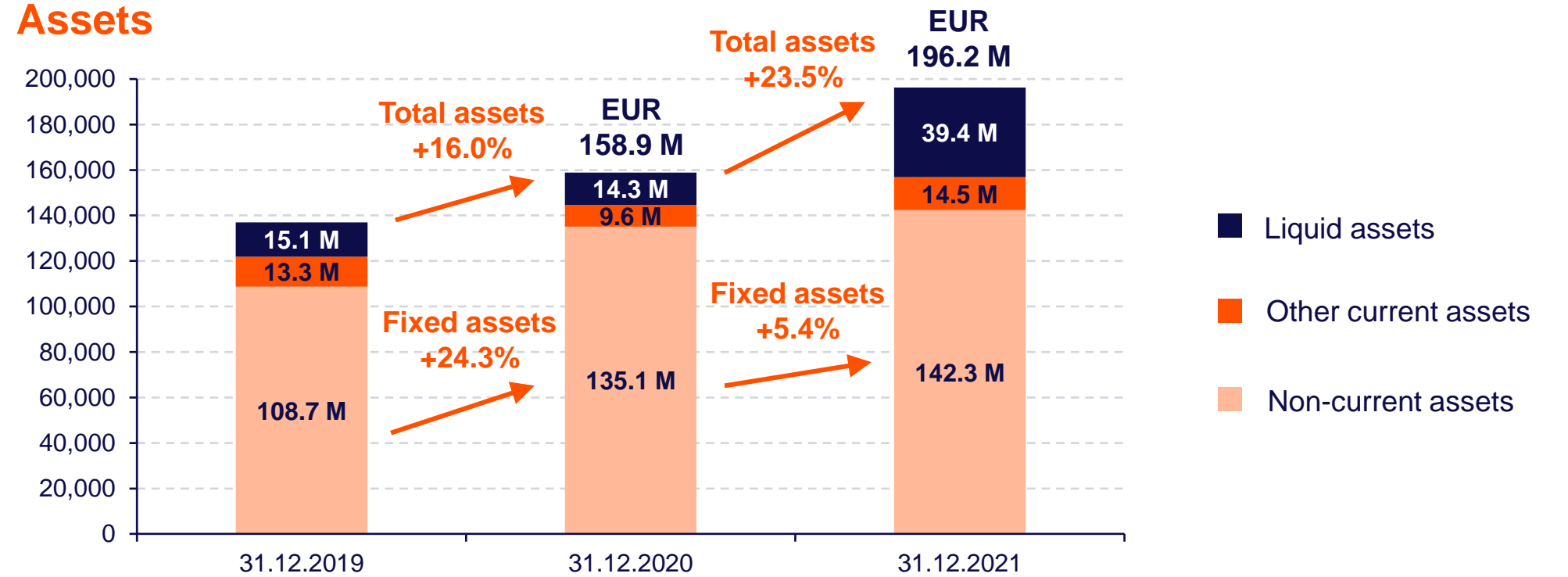
- ▶ Continuous strong **increase in revenues** from electricity generation due to additional installed capacity, and high growth in other revenues (EPC and Technology sales).
- ▶ **Improved EBITDA** despite higher business development costs.
- ▶ **Increased financial expenses** linked to financing of growing proprietary PV portfolio, our Green bond placement, offset by a positive revaluation of derivatives.
- ▶ **Recurring positive total comprehensive income;** FY 2021, mainly influenced by revaluation of newly connected Australian and Hungarian projects which were partially offset by the negative revaluation of the Czech portfolio, revaluation of the participation in RayGen and positive foreign currencies valuations.

# Q4 2021 and Q1–Q4 2021 Financial Results

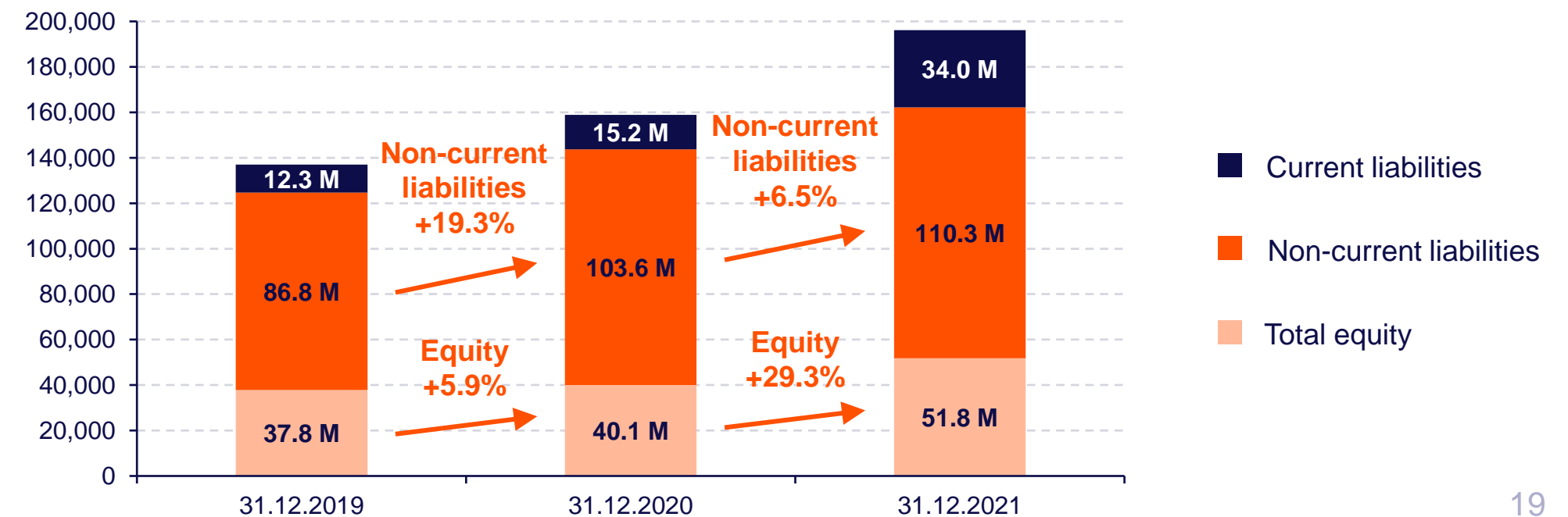
## Balance Sheet

- ▶ Increase in fixed assets mainly connected to our **expansion of Hungarian & Australian portfolio**, and our investments in **Raygen & Lerta**.
- ▶ Equity increase reflecting the **TCI** for the period and the sale of existing **treasury shares** for EUR 7.7 million bringing our **adjusted equity ratio to 28.8%**.
- ▶ Long-term liabilities increase resulting from draw downs in line with **long term project refinancing** of our project additions in **Hungary** and our **green bond placement** reduced by early repayment of loans for the **Czech** portfolio.
- ▶ **Reclassification of our 2017/22 EUR bond** to Current liabilities since due within one year.
- ▶ Negative impact of **regulatory measures** in Czechia and Slovakia with **EUR 2.9 million below expectations** of up to **EUR 4.0 million** on consolidated equity in 2021.

### Assets



### Total liabilities and equity



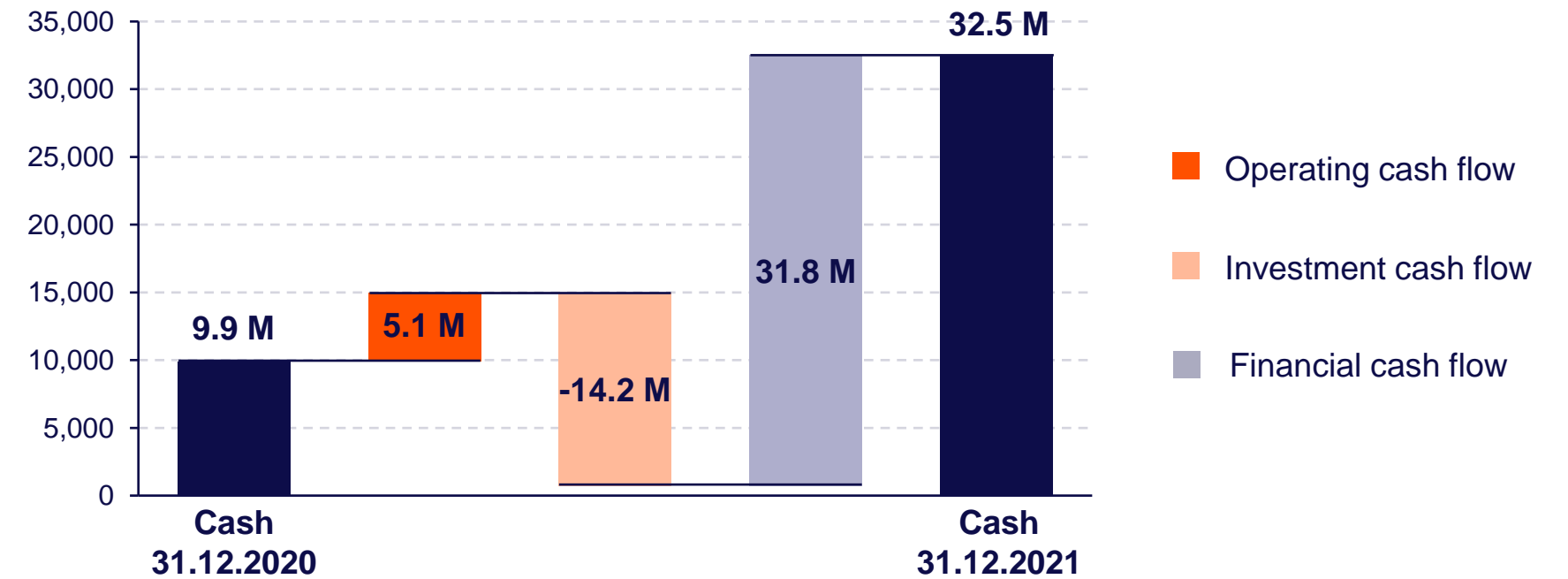
# Q4 2021 and FY 2021 Financial Results

## Cash Flow Statement

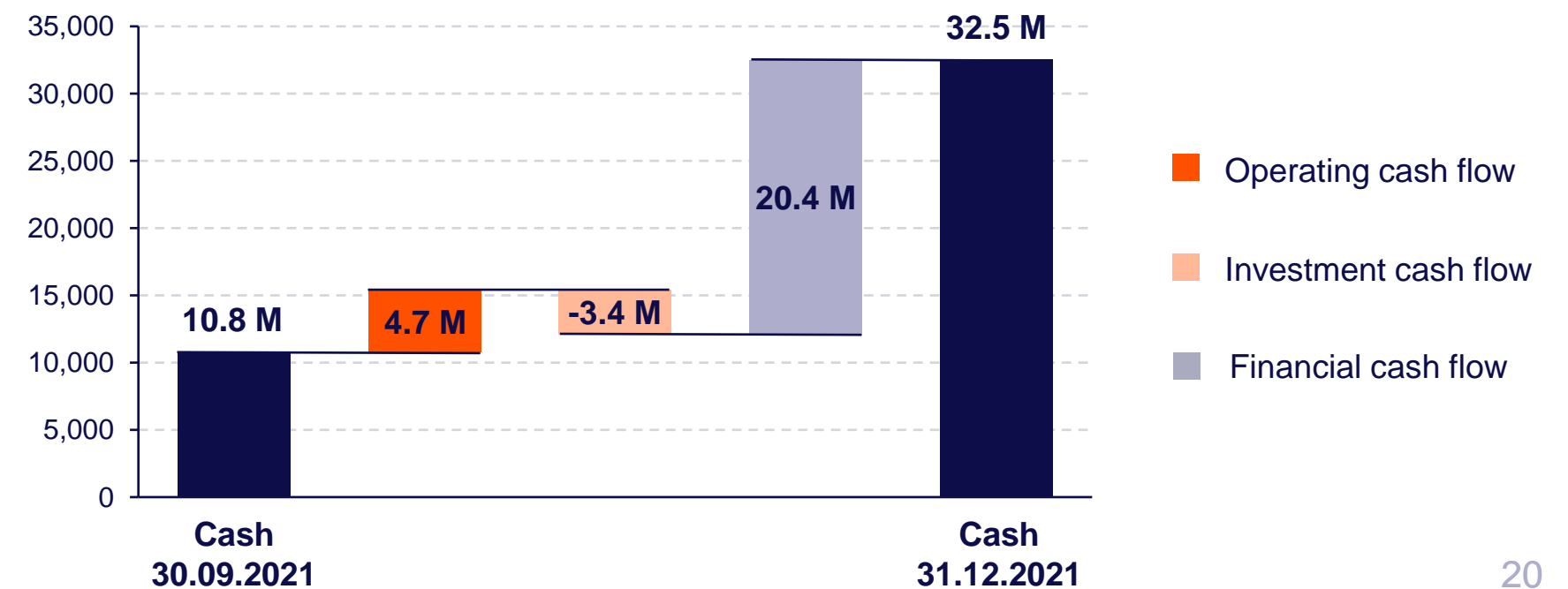
<i>In thousand EUR</i>	FY 2020	FY 2021
Operating cash flow	5,562	5,073
Investment cash flow	-20,171	-14,233
Financial cash flow	12,097	31,773
<b>Net change in cash</b>	<b>-2,512</b>	<b>22,613</b>

- ▶ **Stable operating cash flow** on an annual basis. FY 2021 impacted by an improved profitability and a decrease in working capital.
- ▶ **Investment cash flow** mainly into proprietary portfolio (Hungary & Australia), participations and the sale of the Maryvale project.
- ▶ **Strong financial cash flow** from **sale of existing shares** for EUR 7.7 million in June, additional **project finance drawn-down** in February, the **early repayment** of our Czech portfolio financing, and our **green bond placement**.

### Cash flow profile in FY 2021



### Cash flow profile in Q4 2021





**Business Model**

**Strategy and Outlook**

**Q4 2021 and 2021 Financials**

**Q&A Session**

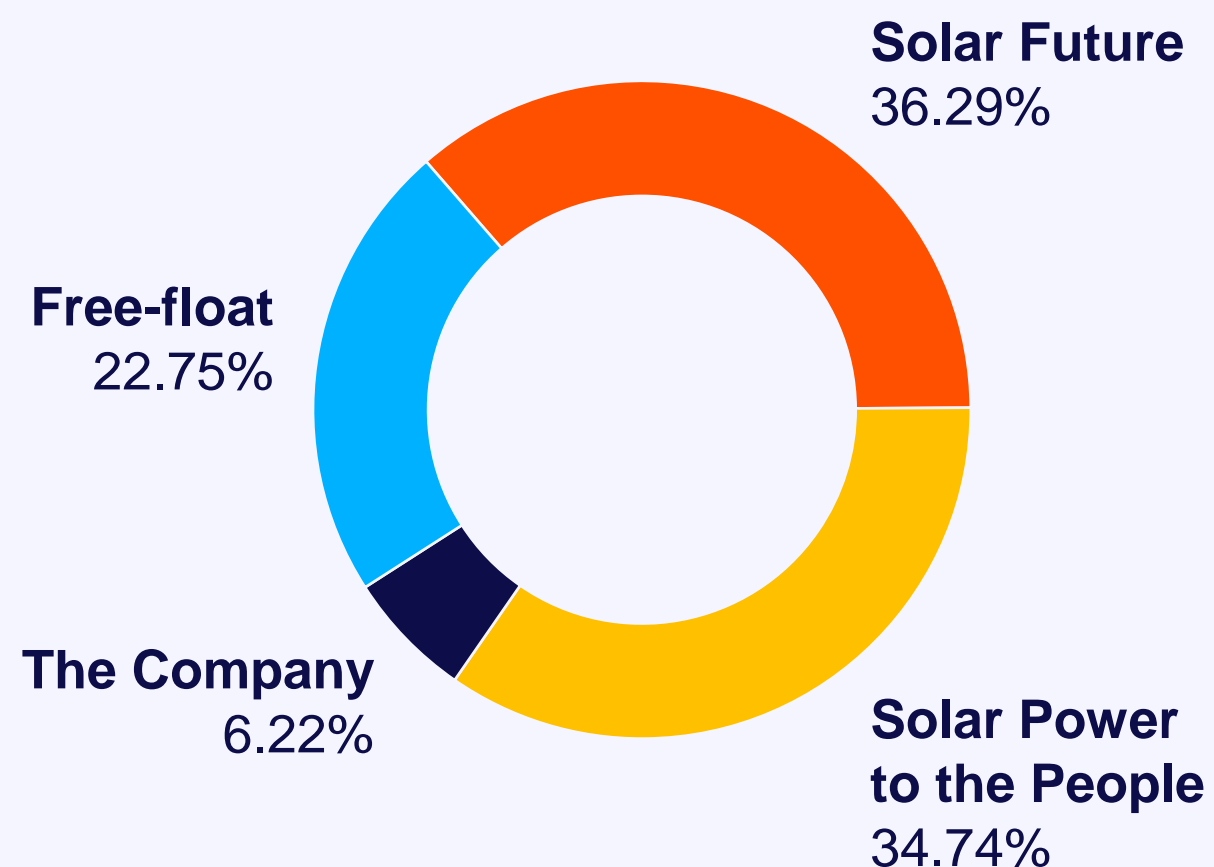


**Annex**



# Our Shares

## Shareholding Structure



Solar Future and Solar Power to the People are controlled by the co-founders of Photon Energy N.V.

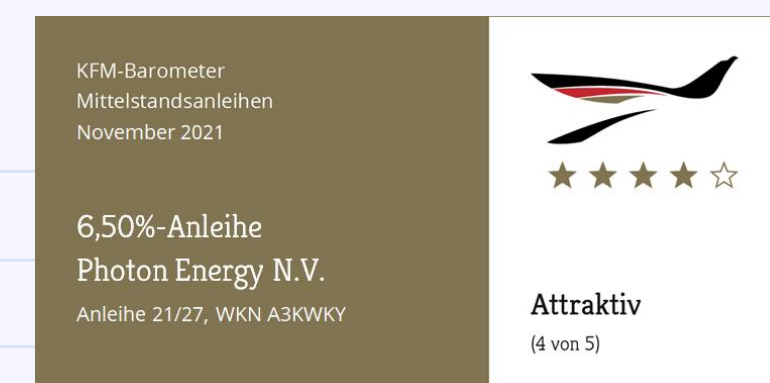
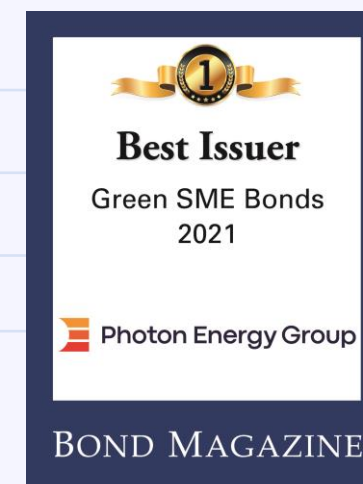
## Shares

ISIN	NL0010391108
Shares outstanding	56,266,594
Free-float shares	13,648,144
Market cap 11.02.2022	EUR 88,146 thousand
Net debt 31.12.2021	EUR 90,481 thousand
Enterprise value 12.02.2022	EUR 178,628 thousand

- ▶ Photon Energy is listed on the **regulated markets of Prague and Warsaw Stock Exchanges**.
- ▶ Additionally, it is listed on the **Frankfurt Quotation Board** and in alternative system of trading on stock exchanges in Berlin, Munich and Stuttgart
- ▶ Photon Energy is following the Dutch **Corporate Governance Code** and the Best Practices of the Warsaw Stock Exchange.

# EUR Bond 2017/22 & New GREEN Bond 2021/27

Bond	EUR Bond 2017/2022	New GREEN EUR Bond 2021/2027
Volume	EUR 23.7 million outstanding	EUR 55 million
Coupon	7.75% p.a., quarterly payment	6.50% p.a., quarterly payment
Initial offering	27 October 2017	23 November 2021
Ratings/Awards	KFM Barometer 4,5 of 5 stars	<ul style="list-style-type: none"> <li>▶ IMUG   rating – <u>second party opinion</u>,</li> <li>▶ KFM Barometer 4 of 5 stars</li> <li>▶ Best Issuer Green SME Bonds 2021</li> </ul>
Segment	Secondary market: traded on Open Market of the Frankfurt Stock Exchange since 27 October 2017	Secondary market: trading on Open Market of the Frankfurt Stock Exchange since 23 November 2021
Covenants	<ul style="list-style-type: none"> <li>▶ Dividend restriction</li> <li>▶ Group Equity ratio <math>\geq 25\%^*</math></li> <li>▶ Cross default</li> <li>▶ Negative pledge</li> <li>▶ Pari passu – Equal seniority of existing and future unsecured claims</li> <li>▶ Change of Control-Clause</li> </ul>	<ul style="list-style-type: none"> <li>▶ Dividend restriction (max 50% if EBITDA/ICR &gt; 2)</li> <li>▶ Group Equity ratio <math>\geq 25\%^*</math></li> <li>▶ Cross default</li> <li>▶ Negative pledge</li> <li>▶ Pari passu</li> <li>▶ Change of Control-Clause</li> <li>▶ Transparency clause</li> </ul>
Denomination	EUR 1,000	EUR 1,000
Term / Redemption	Five years / 27 October 2022 at par	Six years / 23 November 2027 at par
ISIN	DE 000A19MFH42	DE 000A3KWKY4



\* The Group defines and calculates adjusted equity ratio as total equity divided by the sum of interest-bearing debt and equity.



# Management



## **Georg Hotar**

**CEO and Co-founder**

Georg co-founded Photon Energy in 2008. He has extensive knowledge of the solar energy industry and international finance. In 2000 he established Central European Capital, a regional finance and strategy advisory boutique. He has also held various positions in financial services in London, Zurich and Prague.



## **Michael Gartner**

**CTO and Co-founder**

Michael developed one of the first large PV installations in the Czech Republic before co-founding Photon Energy in 2008. He relocated to Australia in 2011 to start Photon Energy Australia, and is now instrumental in driving Photon Energy's off-grid and solar-hybrid power solutions.



## **Clemens Wohlmuth**

**CFO**

Clemens joined Photon Energy in 2012 and is responsible for the group's overall financial strategy and direction. He brings many years of experience in financial management, having started his career in Ernst & Young in Austria and worked as CFO for Telekom Austria in the Czech Republic.