



ANNUAL REPORT 2022

PV CYCLE aisbl

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INTRODUCTION

Photovoltaic panels are an incredible product which not only generates green electricity with a product guarantee of ten years and performance guarantee of 20 years, but on top prevent waste and costs for the society for many years.

With the 15.994 tons collected in 2022, we reach a total of 77.514 tons since PV CYCLE began collecting in June 2010.

This total collected tonnage of the past 12 years represents 1.3 GW. When one consider that 210 GW of photovoltaic panels are installed on the European market by the end of 2022, this shows that photovoltaic panels are a sustainable product. Moreover, it results in a return rate of 0.006% waste.

In order to best serve the interests of our members, the PV CYCLE teams are constantly questioning the way of working. An evolution in parallel with the needs necessary to maintain our position as market leader not only within a regulated environment such as the European Union but also globally by proposing solutions adapted to local regulations or in the absence of any regulation.

Our industry also devotes a great deal of energy to prevention of waste, informing and acting upstream to ensure that the products we put on the market are as sustainable as possible.

While it is important to thank the members of PV CYCLE for their trust and support, nothing would be possible without the dedication of our teams. The challenges ahead are numerous and I am proud to stand by the teams to face them.

Jan Clyncke
CEO of PV CYCLE aisbl

OPERATING REPORT

During the year 2022, PV CYCLE processed **18.898 tons** waste generated from photovoltaic power systems, of which 2.904 tons of batteries and other WEEE in Italy. This is a little less than last year, which was an exceptional year in which we carried out a major one-off collection in Germany.

The majority of the photovoltaic panels treated in 2022 were silicon-based.

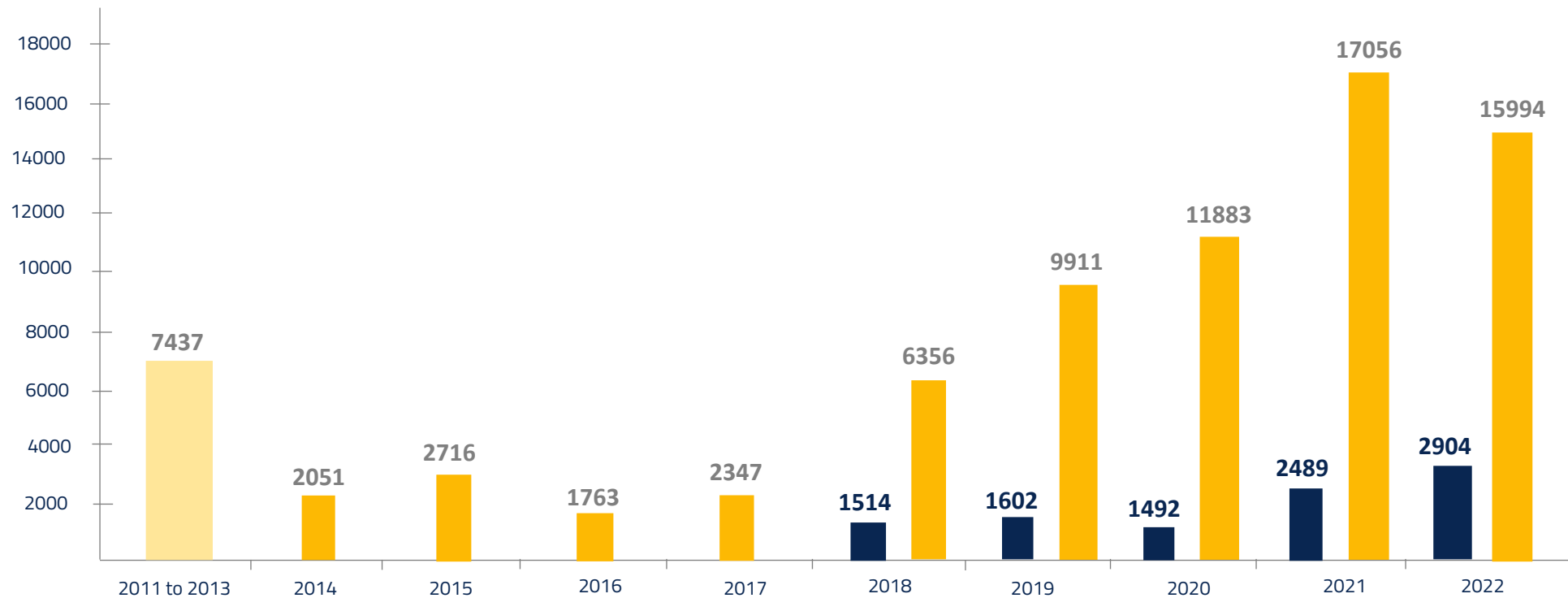
These figures are significant, and demonstrate that renewable energies are here to stay, and will continue to grow.

2022 was also the year in which the Circusol R&D project came to an end in November after 4,5 amazing years. We have been able to contribute to it, keeping the circular economy at the heart of our interests.

OPERATIONS OVERVIEW 2022

TOTAL COLLECTED TONS YTY

■ PV collected
■ Other E-Waste collected



Total collected tons PV Panels 2011 – 2022 : 77.514 tons

+/-1,3 GW

PV CYCLE IN THE WORLD

Only in 2005, we have seen the first big deployment of photovoltaic panels in Germany. Since 2014, photovoltaic panels are under the scope of Extended Producer Responsibility legislation in Europe. After 20 years, there might be a first wave of old photovoltaic panels returning from the market and already today, waste treatment and recycling solutions exist for the very small amount of post-usage photovoltaic panels waste.

However, with increasing awareness of environmental issues, many countries are promoting and supporting the development of waste treatment lines or plants for our products, despite the challenging when exactly and how much tons of photovoltaic panels annually shall return.





PV CYCLE IN THE WORLD

Preventing waste is the number one spot in the waste hierarchy and is barely rewarded by Extended Producer Responsibility (EPR) regulations. On the contrary, EPR focuses on for example collection and recycling targets as EPR is developed for mainly fast-consuming products or consuming electricity products but has never considered that investment products or long lifetime products might be under the scope of EPR as well.

Despite this challenging environment where millions of photovoltaic panels were put on the market and only a few thousands of photovoltaic panels came out of the market, the waste treatment and recycling lines or plants are today in their start-up phase because the challenge is to build capacity, foresee enough supply of photovoltaic panels waste and at the same time not creating too much capacity for a product with an average lifetime of 15 years.

PV CYCLE IN THE WORLD

Recycling techniques have improved due to technological advancements, allowing for more efficient recovery of valuable materials, such as the glass, the silicon, the aluminium and the ferrous and non-ferrous metals.

Waste treatment lines or complete installations for photovoltaic panels ramp up today in many countries including in Europe, United States and Brazil.

These facilities use processes like shredding, sorting, and purification or pyrolysis to separate the different materials of the panels and reintegrate them into new applications.





PV CYCLE IN THE WORLD

Recycling rates for photovoltaic panels are increasing all the time, but they are already reaching high recycling rates compared to other products under EPR such as e-waste, portable batteries, packaging waste or end-of-life vehicles.

Overall, the evolution of photovoltaic panel recycling reflects the growing commitment to sustainability and the energy transition worldwide.

FINANCIAL REPORT



Below you find the consolidated financial statement of the PV CYCLE Association.
Our financial report has been audited and approved by Baker Tilly Belgium.

ASSETS (€'000)	486
- Intangible assets	377
- Tangible assets	2
- Financial assets	87
- Amounts receivable > 1 year	20
CURRENT ASSETS	9168
- Cash in bank & at hand	5345
- Amounts receivable < 1 year	3809
- Deffered charges and accrued income	13
TOTAL ASSETS	9654

EQUITY (€' 000)	7058
Capital and Reserves	5582
Exchange Translation Adjustment	
Consolidated result of the year	1476
AMOUNTS PAYABLE	2596
- Amounts payable < 1 year	2425
- Amounts payable > 1 year	48
- Accrued charges and deffered income	123
TOTAL LIABILITIES	9654

FINANCIAL REPORT

SUMMARY 2022 P&L (€' 000)

- Turnover	13318
- Services and miscellaneous goods	-11044
GROSS OPERATING MARGIN	2274
- Remuneration, social security and pension (-)	-437
- Depreciation intangible and tangible fixed assets (-)	-137
- Amounts written off stocks; contract in progress and trade debtors (+) (-)	
- Provisions for liabilities and charges (+) (-)	
- Other charges (-)	-30
OPERATING RESULTS	1671
- Financial income (+)	66
- Financial charges (-)	-259
- Result for the period before taxes (+)	1479
- Income taxes (+) (-)	-3
RESULT FOR THE PERIOD (+)	1476

PV CYCLE & SOCIETY

Representing our members' end-of-life commitment towards society and the authorities, PV CYCLE also invests in public awareness campaigns and speaks at numerous European and international events every year.

2022 sounded a bit like a recovery, at last! We've had the opportunity to meet our customers and partners once again, and to get a feel for how things are evolving from exhibitors at various exhibitions.

We were present at INTERSOLAR, CLEANTECH INITIATIVE, INTERSOLUTION, IRENA (Public private dialogue), ONS TRUST, SOLAR STORAGE LIVE.

In addition, we continue to communicate without frontiers via our Youtube channel with instructional videos.

In 2022, we had our follow-up ISO 9001 & ISO 14001 certification. We are obviously proud to be able to continue working according qualitative and environmental standards.

Regarding the topic of reuse of photovoltaic panels, we highlight towards the society that in 2022, PV CYCLE continued alone to finance the costs of the Coordinator preparing the Technical Report within the IEC Standardization organization with the objective of having one day an accountable standard for the reuse, reusability of photovoltaic panels.



PV CYCLE a.i.s.b.l.
Boulevard Brand Whitlock 114/5 – Floor 6
1200 Brussels – Belgium
VAT BE 0893.027.827
T : +32 (0)2 880 72 50