



# Leave no waste behind – increasing circularity of solar energy components

## Challenge Collaborator – Who is behind this Challenge

Bayerische Landesbank (BayernLB) is a publicly regulated bank based in Munich, Germany and one of the six Landesbanken (State Bank). It is 75% owned by the Free State of Bavaria. With a balance of €220 billion and over 8,000 employees in the group, it is the seventh-largest financial institution in Germany. BayernLB has a portfolio exclusively targeted at corporate clients.

### Introduction

The BayernLB Group is one of the largest investors in renewable energies in Germany and the EU. However, so far the focus of investments are in projects of installing new renewable energy modules and plants. In the future, the aim is to direct financial investments to all life stages of renewable energy components – with a focus on increasing the circularity of these products.

## **Problem Definition**

One aspect that has not been sufficiently discussed in the area of renewable/solar energies so far is the recycling and reusing of solar panels and photovoltaic plants.

#### What is the waste challenge

Solar energy is one aspect of a future with renewable energies as main energy source. However, currently, there is little information on the life cycle stages of solar energy components. The challenge is to investigate, how can as little waste as possible be generated from innovative solar panels and photovoltaic plants. How can we improve the circularity of these products?

- How are solar panels/photovoltaic plants recycled?
- How are these products disposed of so far? How can they be disposed of more sustainably? How high is the risk of associated environmental damage?
- How can circular processes be set up around the recycling of solar panels/photovoltaic plants?
- To what extent can solar panels/photovoltaic plants be reused?

## Desired Impact of Challenge

The aim of this challenge is to get an overview of how solar energy components are currently disposed of, recycled and reused.

Subsequently, it can be analyzed how the recycling and reusing of solar energy components can be set up more sustainably and in the sense of circular processes.

As BayernLB we are committed to financing innovations with a sustainability focus. Therefore, we are interested in the opportunities for investments in more circularity of solar energy components. Is there any financial potential in increasing the circularity of solar energy components?





## Skills needed/recommended

- Previous knowledge in sustainability research
- Previous knowledge in engineering
- Interest in investments opportunities for financing sustainability projects

## Relevant considerations for the challenge / theme:

- Short- and midterm focus for potential and current innovations
- European and North American geographical scope to align with BayernLB's markets
- Consider European and German political focus for future investments (e.g. Green Deal)

#### Relevant links:

- <u>Responsibility (bayernlb.com)</u>
- Energy sector expertise (bayernlb.com)
- <u>Energy and the Green Deal (europa.eu)</u>
- Home Solar Waste / European WEEE Directive
- Europe Solar Panel Recycling Market Forecasts from 2021 to 2026 (researchandmarkets.com)