

The most environmentally friendly and efficient PV technology

## The Project

The energy transition requires tens of TW of installed PV worldwide in the coming decades. This must be done with minimum damage to our ecosystem.

Our concentrating photovoltaic (CPV) technology has only half the CO<sub>2</sub> footprint than state-of-the-art Silicon PV technology and is easily recyclable. 1000-fold concentration of sunlight minimizes the use of energy intensive semiconductors. Due to the use of high efficiency space solar cells, we reach two times higher power output per module area. Scaling up production capacity requires lower capex than state-of-the-art. Once scaled to GW/year production volumes, the technology will be fully cost competitive, especially in sun-rich countries.

The CPV technology is fully developed at Fraunhofer and has an established supply chain in Germany and Europe.

## The Team

**Location:** Fraunhofer Institute for Solar Energy Systems ISE, Freiburg

**Members:** Frank Dimroth, Juan Martinez, Patrick Schygulla, Henning Helmers, Maike Wiesenfarth

## The Business Model

**Unique Selling Proposition:** Lowest CO<sub>2</sub> footprint PV technology, (quickly scalable, diversification from mainstream Chinese Si, EU value chain)

**Unfair Advantage:** Some protected IP

**Revenue Model:** Installed CPV systems and renewable electricity sales as well as green hydrogen commercialization

## Venture Readiness Level



## Technology Readiness Level



## The Side Facts

**Customer Focus:** Electricity utilities, hydrogen consuming industries

**Searching For:** Investors, commercialization partners, support with building finance models

**Industry Tags:** Energy, industrial goods and services, technology hardware and equipment, utilities

**Technology Tags:** Circular economy, clean tech, energy harvesting,