

PUTTING OPEN SCIENCE INTO ACTION



PIONEERING RESEARCH



OPEN SCIENCE



CITIZEN SCIENCE

GRECO pilots the integration of **Open Science** and other **Research & Innovation (RRI) practices** within a **H2020** engineering project for the development of **cutting-edge photovoltaic products**

INNOVATIVE SCIENTIFIC APPROACHES

GRECO demonstrates how **knowledge coalitions** comprising researchers, civil organisations, citizens, governments, industry and non-profit organisations may adopt RRI approaches such as Open Science. Specifically, GRECO fosters the uptake of six innovative **socially acceptable solutions** for photovoltaic products.



GRECO will set a framework where **Citizens will actively participate in the process of research, development and innovation** both in the **design of new PV solutions** and in the **provision of data**.

Open Science in a whole dimension is explored. GRECO will follow **Open Access** and **Open Data** policies, but at the same time **Open Software, Open Notebooks** or **Innovative Open Metadata** will be produced as a part of a **new way of doing science**.

Within the framework of the project, GRECO researchers will develop

6 cutting-edge photovoltaic products:

- 1. in-situ repair methodology** saves the cost of replacing defective modules, thus supporting the idea of Circular Economy.
- 3. a more sustainable solution for irrigation** pursues cost reduction and widespread use of renewable energy in agriculture.
- 5. a novel system of modules** provides energy to buildings up to 8 storeys high.

- 2. ageing model for photovoltaic modules** improves the estimation of energy production of PV plants and increases investor confidence.
- 4. cheaper and more efficient solar cells** increase societal acceptance.
- 6. improved PV heat-pump systems** enable renewable sources in daily life.



MISSION POSSIBLE !

In the summer of 2020, the GRECO team will release a **guide for implementing RRI and Open Science concepts in research projects**, incorporating the practical learnings from GRECO. The guide aims at helping future research projects to smoothly integrate the RRI approach.

All the research products will be developed through a whole RRI approach. This includes **Ethics, Gender, Public Engagement, Governance, Science Education and Open Science practices**. Regarding the last ones, GRECO researchers will adopt **Open Access** and **Open Data** policies. Moreover, they will implement **Open Notebooks**, among many others, and share their experiences. **This should encourage other researchers to apply RRI policies within a real project - mission possible!**

