

HORIZON
2020

Transparent and flexible conductive polymers to boost the photovoltaic industry in Europe

Fact Sheet

Project Information

OHMIO

Grant agreement ID: 816252

[Project website](#)

DOI

[10.3030/816252](https://doi.org/10.3030/816252)

Project closed

EC signature date

24 April 2018

Start date

1 May 2018

End date

30 September 2018

Funded under

INDUSTRIAL LEADERSHIP - Innovation In SMEs

Total cost

€ 71 429,00

EU contribution

€ 50 000,00

Coordinated by

INTENANOMAT SL



Spain

Objective

Thin-film photovoltaic cells (TFPV) are highly dependent on transparent conductive polymers. The product developed by Intenanomat is a transparent conductive polymer which can be easily coated on a thin layer over different surfaces. OHMIO is a transparent conductive layer used as an HTM (hole transport material) for TFPV. OHMIO is the only HTM that is flexible enough to fit TFPV cells, achieving higher efficiencies because of their higher layer transparency in the IR range, reducing

production costs and avoiding the use of corona treatment or similar. OHMIO will solve main current problems related to HTM: water severely damage the organic material layers (OHMIO is formulated without water), strong acid compositions reduce the TFPV shelf life (OHMIO is formulated in a liquid with selected additives and solvents) and high manufacturing costs (OHMIO will reduce the production process costs of an electronic device by up to 80%). OHMIO will involve savings of up to 200% in raw materials and several reductions of the carbon footprint. Additionally, OHMIO is easy to scale-up due to its manufacturing process does not need additional investment if the application changes.

Intenanomat is a company managed by a highly qualified team of professionals with over 15 years of experience in the synthesis of different types of nanomaterials. They have created a new business unit to develop and commercialize OHMIO (patent registered P201730735).

Intenanomat expects to achieve a market of 123,490 solar panels across Europe (37 MW of installed capacity) by 2025. They estimate a total sales volume will reach €11 million with an expected profit of €4.3 million, generating 20 new direct jobs and a NPV of €4.69 million and an IRR of 64% up to 2025.

Fields of science (EuroSciVoc)

[engineering and technology](#) > [mechanical engineering](#) > [manufacturing engineering](#)

[natural sciences](#) > [chemical sciences](#) > [polymer sciences](#)

[engineering and technology](#) > [nanotechnology](#) > [nano-materials](#)

[natural sciences](#) > [chemical sciences](#) > [inorganic chemistry](#) > [metalloids](#)

[engineering and technology](#) > [environmental engineering](#) > [energy and fuels](#) > [renewable energy](#) > [solar energy](#) > [photovoltaic](#)



Programme(s)

[H2020-EU.2.3. - INDUSTRIAL LEADERSHIP - Innovation In SMEs](#)

MAIN PROGRAMME

[H2020-EU.3. - PRIORITY 'Societal challenges](#)

[H2020-EU.2.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies](#)

Topic(s)

[EIC-SMEInst-2018-2020 - SME instrument](#)

Call for proposal

[H2020-EIC-SMEInst-2018-2020](#) 

[See other projects for this call](#)

Sub call

H2020-SMEInst-2018-2020-1

Funding Scheme

[SME-1 - SME instrument phase 1](#)

Coordinator



INTENANOMAT SL

Net EU contribution

€ 50 000,00

Total cost

€ 71 429,00

Address

CALLE CATEDRATICO JOSE BELTRAN 2

46980 Paterna

 **Spain** 

SME 

Yes

Region

Este > Comunitat Valenciana > Valencia/València

Activity type

Private for-profit entities (excluding Higher or Secondary Education Establishments)

Links

[Contact the organisation](#) 

[Participation in EU R&I programmes](#) 

[HORIZON collaboration network](#) 

Last update: 4 September 2022

Permalink: <https://cordis.europa.eu/project/id/816252>

European Union, 2025

