Organic and large area-electronics (OLAE) technologies and components have experienced a remarkable increase in usage in recent years. From rollable handheld displays to organic photovoltaics, printed electronics offer a solution for devices that need to be thin, power-efficient, flexible and lightweight. However, the manufacturing processes for these devices are difficult to adapt to mass production. The EU-funded MADRAS project aims to boost it with the implementation of material-driven improvements. Specifically, it will establish a high-speed manufacturing methodology.
with the use of specially designed materials and in-mould hybrid printed electronics processes to produce OLAE devices that are more affordable, more durable and have longer lifetimes. In this context, MADRAS will develop and validate the solution through two demonstrators of new generation within a complete supply chain: - A photodetector for persons’ authentification, - A geotracking flexible tag for Industry 4.0 sector.

**Fields of science**

- **engineering and technology**  ▶  **mechanical engineering**  ▶  **manufacturing engineering**
- **natural sciences**  ▶  **chemical sciences**  ▶  **inorganic chemistry**  ▶  **inorganic compounds**
- **natural sciences**  ▶  **chemical sciences**  ▶  **inorganic chemistry**  ▶  **transition metals**
- **engineering and technology**  ▶  **mechanical engineering**  ▶  **vehicle engineering**  ▶  **automotive engineering**
- **engineering and technology**  ▶  **nanotechnology**  ▶  **nano-materials**

**Keywords**

- Printed electronics  
- in mold  
- photosensor  
- printed antenna  
- autonomous devices  
- Smart Tag  
- conductive inks  
- silver nanowires  
- PEDOT  
- tungsten oxide  
- nanocellulose  
- spray coating  
- screen printing

**Programme(s)**

- **H2020-EU.2.1.3.** - **INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies** - **Advanced materials**
- **H2020-EU.2.1.2.** - **INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies** - **Nanotechnologies**

**Topic(s)**

- **DT-NMBP-18-2019** - Materials, manufacturing processes and devices for organic and large area electronics (IA)

**Call for proposal**

See other projects for this call

Sub call

H2020-NMBP-TR-IND-2019

Funding Scheme

IA - Innovation action

Coordinator

FUNDACIO EURECAT

Net EU contribution

€ 1 025 508,82

Address

Avenida universitat autonoma 23
08290 Cerdanyola del valles (barcelona)

Spain

Region

Este > Cataluña > Barcelona

Activity type

Research Organisations

Links

Contact the organisation  
Website  
Participation in EU R&I programmes  
HORIZON collaboration network

Other funding

€ 0,17

Participants (13)
GENES'INK
France
Net EU contribution
€ 477 313,98
Address
39 avenue gaston imbert zi de rousset
13790 Rousset
SME Yes
Region Provence-Alpes-Côte d'Azur > Provence-Alpes-Côte d'Azur > Bouches-du-Rhône
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
Other funding
€ 204 563,13

ARJOWIGGINS FRANCE
France
Net EU contribution
€ 188 830,60
Address
10 rue jean arnaud zone artisanale champfeuillet
38500 Voiron
Region Auvergne-Rhône-Alpes > Rhône-Alpes > Isère
Links
Contact the organisation Participation in EU R&I programmes HORIZON collaboration network
Other funding
€ 80 928,15
UNIVERZITA PARDUBICE

Czechia

Net EU contribution
€ 253 750,00

Address
Studentska 95
532 10 Pardubice

Region
Česko > Severovýchod > Pardubický kraj

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
€ 0,00

CENTRUM ORGANICKE CHEMIE SRO

Czechia

Net EU contribution
€ 355 625,00

Address
Rybitvi 296
533 54 Rybitvi

Region
Česko > Severovýchod > Pardubický kraj

Activity type
Research Organisations

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
€ 0,00
COOLTRA MOTOSHARING SLU
Spain
Net EU contribution
€ 179 593,75
Address
Calle reina cristina, 2 planta 2 puerta 2
08003 Barcelona
SME
Yes
Region
Este > Cataluña > Barcelona
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
Other funding
€ 76 968,75

UWINLOC
France
Net EU contribution
€ 164 456,25
Address
9 rue humbert tomatis
31200 Toulouse
SME
Yes
Region
Occitanie > Midi-Pyrénées > Haute-Garonne
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
NUEVAS TECNOLOGIAS PARA EL DESARROLLO DE PACKAGING Y PRODUCTOS AGROALIMENTARIOS CON COMPONENTE PLASTICA SL

Spain

Net EU contribution
€ 152 862,50

Address
Poligono industrial empresarium c/ romero 12
50720 Zaragoza

SME
Yes

Region
Noreste > Aragón > Zaragoza

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

ASOCIACION ESPANOLA DE NORMALIZACION

Spain

Net EU contribution
€ 86 750,00

Address
Calle genova 6
28004 Madrid

Region
Comunidad de Madrid > Comunidad de Madrid > Madrid

Activity type
Other

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
€ 0,00

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NEERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO

Netherlands

Net EU contribution
€ 664 750,00

Address
Anna van buerenplein 1
2595 DA Den haag

Region
West-Nederland > Zuid-Holland > Agglomeratie 's-Gravenhage

Activity type
Research Organisations

Links
Contact the organisation Website Participation in EU R&I programmes HORIZON collaboration network

Other funding
€ 0,00

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ETICAS RESEARCH AND CONSULTING SL

Spain
Net EU contribution

€ 134,837,50

Address

Calle ferlandina 49
08001 Barcelona

SME ➡ Yes

Region

Este ➡ Cataluña ➡ Barcelona

Activity type

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

Links

Contact the organisation ➡ Website ➡ Participation in EU R&I programmes ➡ HORIZON collaboration network

Other funding

€ 57,787,50

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INFINITYPV APS

Denmark

Net EU contribution

€ 424,197,81

Address

Mollehaven 12a
4040 Jyllinge

SME ➡ Yes

Region

Danmark ➡ Sjælland ➡ Østsjælland

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
F1 PAPERS

France

Net EU contribution
€ 47 794,17

Address
3 boulevard de sebastopol
75001 Paris

Region
Ile-de-France > Ile-de-France > Paris

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

Other funding
€ 20 483,21

APITRAK

France

Net EU contribution
€ 69 387,50

Address
29 chemin du vieux chene
38240 Meylan

Region
Auvergne-Rhône-Alpes > Rhône-Alpes > Isère

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

Other funding

€ 29 737,50

EC signature date 10 March 2020
Last update: 16 June 2023

Permalink: https://cordis.europa.eu/project/id/862492

European Union, 2023