Photonics Solutions at Pilot Scale for Accelerated Medical Device Development

Fact Sheet

Project Information

**MedPhab**
Grant agreement ID: 871345

**Funded under**
INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)

**DOI**
10.3030/871345

**Total cost**
€ 17 095 889.46

**EU contribution**
€ 14 995 444.63

**Start date**
1 January 2020

**End date**
31 December 2023

**Coordinated by**
Teknologian tutkimuskeskus VTT Oy
Finland

Project description

Improving use of photonics in healthcare

Photonics is the science and technology of light. Combining optics and electronics, it deals with generating, guiding, manipulating, amplifying and detecting light. The widespread use of photonics technologies in medical applications (from diagnostic devices to instruments for treatment) has given rise to challenges for both end-user companies and manufacturers. The EU-funded MedPhab project will address these challenges. It will serve as Europe’s first pilot line dedicated to manufacturing, testing, validating and upscaling new photonics technologies for medical diagnostics enabling accelerated product launch with reduced R&D costs. The MedPhab
operation process and technology readiness will be validated by upscaling and demonstrating the performance of five innovative medical diagnostics products. A demo case open calls programme will also facilitate the early adoption of the technologies by external users.

Objective

Photonics technologies have become a key enabler in the realization of modern medical devices with applications ranging from diagnostics to surgical tools and therapeutics. Characteristic nature of both photonics and application fields is high diversity. Consequently, the more widespread use of photonics technologies in scattered ecosystems presents major challenges for both end-user companies and manufacturers. In conjunction with highly regulated validation and production, the timespan from the concept phase to product launch takes years. Addressing these challenges, MedPhab will serve as Europe’s first Pilot Line dedicated to manufacturing, testing, validation and up-scaling of new photonics technologies for medical diagnostics enabling accelerated product launch with reduced R&D costs. MedPhab will bring the high-quality infrastructure and extensive know-how within easy reach of the SME’s and other European Industry. Globally unique feature of MedPhab is its operation in medical domain setting requirements to meet regulations. The competitive differentiation is the seamless operation between ISO13485 certified companies and RTOs when single-entry point can serve SMEs operating at different TRLs. Professional customer interface will be operated by staff with extensive experience in the field medical devices. The technology readiness and MedPhab operation process will be validated by:

1) Use Case Validation program, upscaling and demonstrating performance of 5 innovative medical diagnostics products;
2) Demo Case Open Calls program enabling early adoption of the technologies by external user, demonstrating the pilot line services and validating the open access business model.

Programme(s)

H2020-EU.2.1.1. - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT) MAIN PROGRAMME

Topic(s)

ICT-03-2018-2019 - Photonics Manufacturing Pilot Lines for Photonic Components and Devices
Call for proposal

H2020-ICT-2018-20

See other projects for this call

Sub call

H2020-ICT-2019-2

Funding Scheme

IA - Innovation action

Coordinator

Teknologian tutkimuskeskus VTT Oy

Net EU contribution

€ 3 988 426,25

Address

Vuorimiehentie 3
02150 Espoo
Finland

Region

Manner-Suomi > Helsinki-Uusimaa > Helsinki-Uusimaa

Activity type

Research Organisations

Contact the organisation Website Participation in EU R&I programmes H2020 collaboration network

Non-EU contribution

€ 0,00

Participants (18)
UNIVERSITY COLLEGE CORK
National University of Ireland, Cork

Ireland
Net EU contribution
€ 1 658 837,50

Address
Western Road
T12 YN60 Cork

Region
Ireland > Eastern and Midland > Dublin

Activity type
Higher or Secondary Education Establishments

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00

JOANNEUM RESEARCH FORSCHUNGSGESELLSCHAFT MBH

Austria
Net EU contribution
€ 1 205 792,50

Address
Leonhardstrasse 59
8010 Graz

Region
Südösterreich > Steiermark > Graz

Activity type
Research Organisations

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 0,00

INTERUNIVERSITAIR MICRO-ELECTRONICA CENTRUM

Belgium
CSEM CENTRE SUISSE D'ELECTRONIQUE ET DE MICROTECHNIQUE SA - RECHERCHE ET DEVELOPPEMENT

Switzerland
Net EU contribution
€ 1 088 596,25
Address
Rue Jaquet Droz 1
2000 Neuchatel
Region
Schweiz/Suisse/Svizzera > Espace Mittelland > Neuchâtel
Activity type
Research Organisations
Contact the organisation Website Participation in EU R&I programmes H2020 collaboration network
Non-EU contribution
€ 0,00
PHILIPS ELECTRONICS NEDERLAND BV
Netherlands
Net EU contribution
€ 1 181 678,75
Address
High Tech Campus 52
5656 AG Eindhoven
Region
Noord-Brabant > Zuidoost-Noord-Brabant
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 506 433,75

JABIL CIRCUIT AUSTRIA GMBH
Austria
Net EU contribution
€ 468 750,00
Address
Gutheil Schoder-gasse 17
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Region
Wien > Wien
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
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Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 200 892,85

SCREENTEC OY
Finland
Finland

Net EU contribution
€ 264 250,00

Address
Konekuja 2
90620 Oulu

SME
Yes

Region
Manner-Suomi > Pohjois- ja Itä-Suomi > Pohjois-Pohjanmaa

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

Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 113 250,00

III-V LAB

France

Net EU contribution
€ 563 466,75

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1 Avenue Augustin Fresnel Campus Polytechnique
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Region
Ile-de-France > Ile-de-France > Essonne

Activity type
Other

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 241 485,75
STRYKER EUROPEAN OPERATIONS LIMITED

Ireland

Net EU contribution
€ 504 000,00

Address
Ida Business & Technology Park, Carrigtwohill Co. T45HX08 Carrigtwohill

Region
Ireland > Southern > South-West

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

Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 216 000,00

POLAR ELECTRO OY

Finland

Net EU contribution
€ 841 225,00

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Professorintie 5 90440 Kempele

Region
Manner-Suomi > Pohjois- ja Itä-Suomi > Pohjois-Pohjanmaa

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

Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 360 525,00

RADISENS DIAGNOSTICS LIMITED
RADISENS DIAGNOSTICS LIMITED

Ireland

Net EU contribution
€ 442 271,63

Address
Units 1-3 Westpoint Buildings Link Road Ballincoll
IP31 HF29 Cork

SME Yes

Region
Ireland > Southern > South-East

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

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 189 544,98

ANTELOPE DX

Belgium

Net EU contribution
€ 187 250,00

Address
Industriepark Zwijnaarde 7C
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SME Yes

Region
Vlaams Gewest > Prov. Oost-Vlaanderen > Arr. Gent

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

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 80 250,00
GENSPEED BIOTECH GMBH
Austria
Net EU contribution
€ 192 062,50

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4261 Rainbach Im Muhlkreis

SME
Yes

Region
Westösterreich > Oberösterreich > Mühlviertel

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

Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 82 312,50

VIENNALAB DIAGNOSTICS GMBH
Austria
Net EU contribution
€ 107 625,00

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

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Participation in EU R&I programmes
H2020 collaboration network
STICHTING HET NEDERLANDS KANKER INSTITUUT-ANTONI VAN LEEUWENHOEK ZIEKENHUIS

Netherlands

Net EU contribution

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Region

West-Nederland > Noord-Holland > Groot-Amsterdam

Activity type

Research Organisations

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution

€ 0,00

EUROPEAN PHOTONICS INDUSTRY CONSORTIUM

France

Net EU contribution

€ 407 500,00

Address

Rue Hamelin 17
75116 Paris 16

Region

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

Activity type

Other

Contact the organisation
Website
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 0,00

MIRES SRO
Czechia
Net EU contribution
€ 93 275,00
Address
Stavitelska 1099/6
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SME
Yes
Region
Praha ➔ Hlavní město Praha
Activity type
Private for-profit entities (excluding Higher or Secondary Education Establishments)
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network
Non-EU contribution
€ 39 975,00

AMIRES THE BUSINESS INNOVATION MANAGEMENT INSTITUTE ZU
Czechia
Net EU contribution
€ 169 225,00
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Stavitelska 1099/6
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Praha ➔ Hlavní město Praha
Activity type
Other
Contact the organisation
Participation in EU R&I programmes
H2020 collaboration network

Non-EU contribution
€ 23 650,00

EC signature date: 6 December 2019
Last update: 28 April 2022
Record number: 226498

Permalink: https://cordis.europa.eu/project/id/871345

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