

HOW THE OPEN CALL APPLICATION WORKS



EXPRESSION OF INTEREST To access MIRPHAB services, companies should register directly at the website.

SUBMIT AN APPLICATION The applicant describes the project following a template document.

EVALUATION OF THE SUBMITTED APPLICATIONS Selected applications can be supported with a Grant provided by the Pilot Line subsidizing part of the prototyping costs.

CONTRACTUALIZATION Signature of a contract document between all the relevant parties.

PROJECT EXECUTION & FOLLOW-UP The Chief Technical Contact will coordinate the realization process from design to test.

DELIVERY OF PROTOTYPES AND/OR PRE-SERIES DEVICES

SUBMIT YOUR APPLICATION

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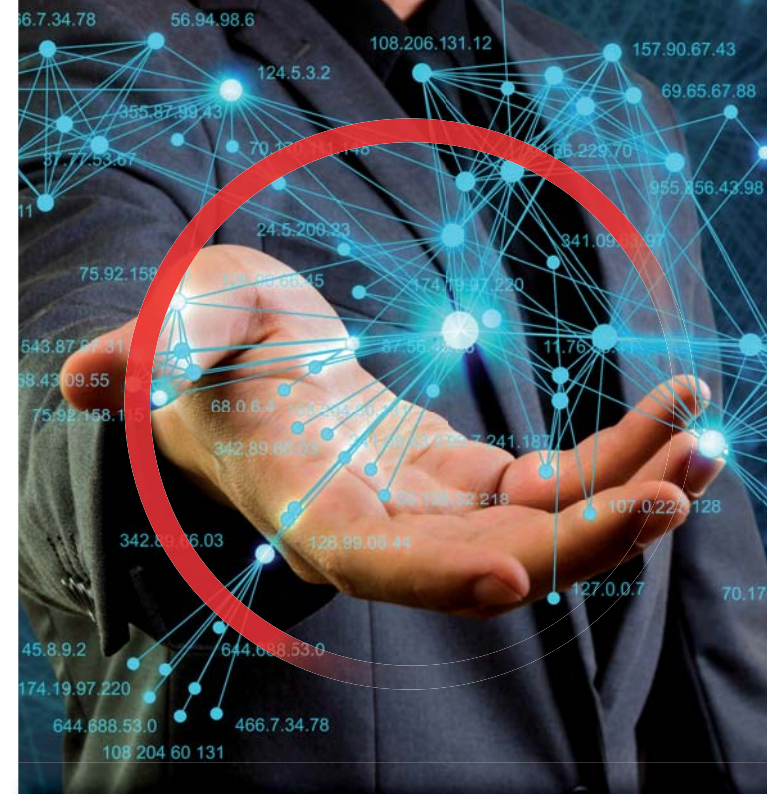
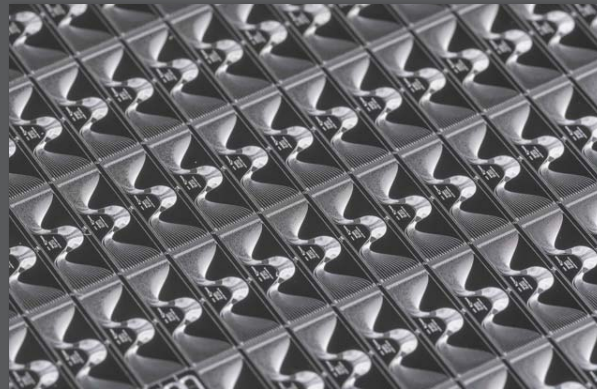
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PHOTONICS PUBLIC PRIVATE PARTNERSHIP

MIRPHAB is an EC funded project, in a public-private partnership with Photonics21, with the ambitious goal of creating a commercially viable pilot line for the fabrication of Mid-IR sensors that is ready for business by 2020. This result will be achieved by setting up and operating a fabrication platform with open access for fast Mid-IR device prototyping to European industry.



MIRPHAB

CHEMICAL SENSING AND SPECTROSCOPY

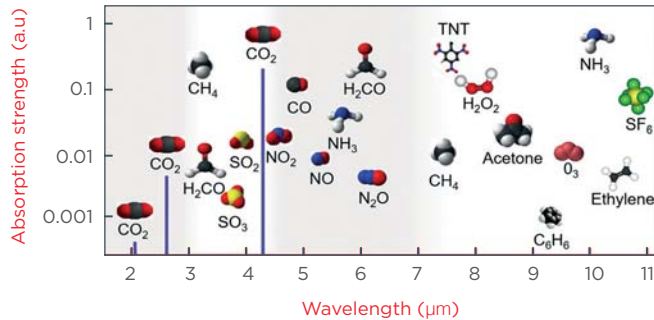
PROVIDES YOUR COMPANY WITH ALL THE SERVICES FOR PROTOTYPING MID-INFRARED SENSORS

MIRPHAB is a Pilot Line for prototyping and production of Mid-IR chemical sensing devices able to operate in gas, liquid, and solid media.

Apply for matching funding to develop your prototype.

HOW A MID-IR SENSOR WORKS

Mid-Infrared light has strong interaction with molecular vibrations. In MIR, each molecule presents a unique absorption spectrum allowing simple solutions for sensing.



ADVANTAGES OF USING MID-IR SENSORS

- SMALL SIZE
- SIMPLICITY
- FAST ANALYSIS
- LOW COST



IDEAL CANDIDATES TO BE INTEGRATED INTO EXISTING EQUIPMENT

IN-LINE/
ON-LINE DETECTION

ASSEMBLY OF BUILDING BLOCKS

The aim of the **MIRPHAB** Pilot Line is to provide each customer with a unique chemical detector spectroscopic system by combining sources, photonic circuits and detectors in a standard packaging.

LASERS

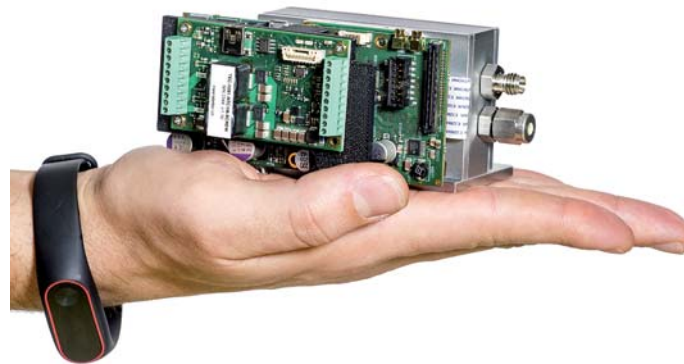
ICLs, QCLs.

PHOTONIC INTEGRATED CIRCUITS/MICROOPTICS

SOI, SiGe/Si and Ge/SiGe waveguide technologies.

DETECTORS

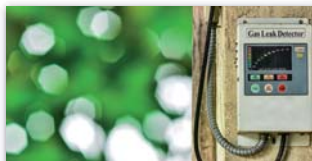
Type-II In/As/GaSb superlattice (T2SL), InAsSb QCD and photoacoustic cells.



APPLICATIONS OF MID-IR SENSORS



Monitoring the quality of gas or oil during the extraction process.



On-line warning detection systems for leaks in gas distribution networks.



Protecting transport systems require products to detect explosives or drugs.



More stringent environmental regulations will require cost efficient detection tools.



The future of diagnosis; non-invasive blood test, breath analysis and in-vivo imaging.



Vehicle embedded sensors will effectively control engine emissions.

MIRPHAB PARTNERS

The project brings together 20 leading organisations from 9 European countries and is coordinated by CEA-Leti, France.

LASER TECH 	PIC CIRCUITS & MICROOPTICS 	DETECTORS
DEMONSTRATION ACTIONS 		
BROKERAGE ACTIVITIES 		