Grant agreement no.: 223989

ICU

Infrared Imaging Components for Use in Automotive Safety Applications

Small or medium-scale focused research project (STREP)

Deliverable Reporting

WP 8: Dissemination and promotion of project results

D8.2: Initial set of ICU promotional material, comprising a project slide presentation (2/3 slides), a printed (and electronic) project brochure, a project poster and the press release published in month 1 (Month 3).

Start date of project: 1 May 2008
Duration: 30 months

Project coordinator name: Dr. Frank Niklaus
Project coordinator organization name: KTH - Royal Institute of Technology

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In what follows we give an overview of the ICU promotional kit containing

- a project slide presentation
- a project brochure
- a project poster
- the press release and its publications

ICU

Infrared Imaging Components for Use in Automotive Safety Applications

ICU

Kick-off: 1 May 2008
Duration: 30 months

Supported by the European Community, FP7 framework
Information and Communication Technologies Programme

SEVENTH FRAMEWORK PROGRAMME

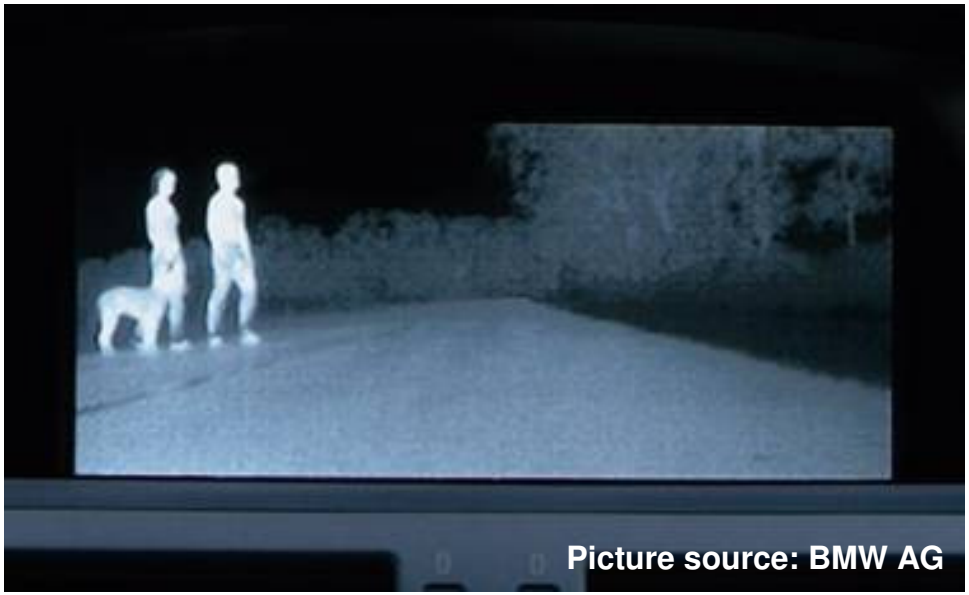
Rationale ICU

ICU

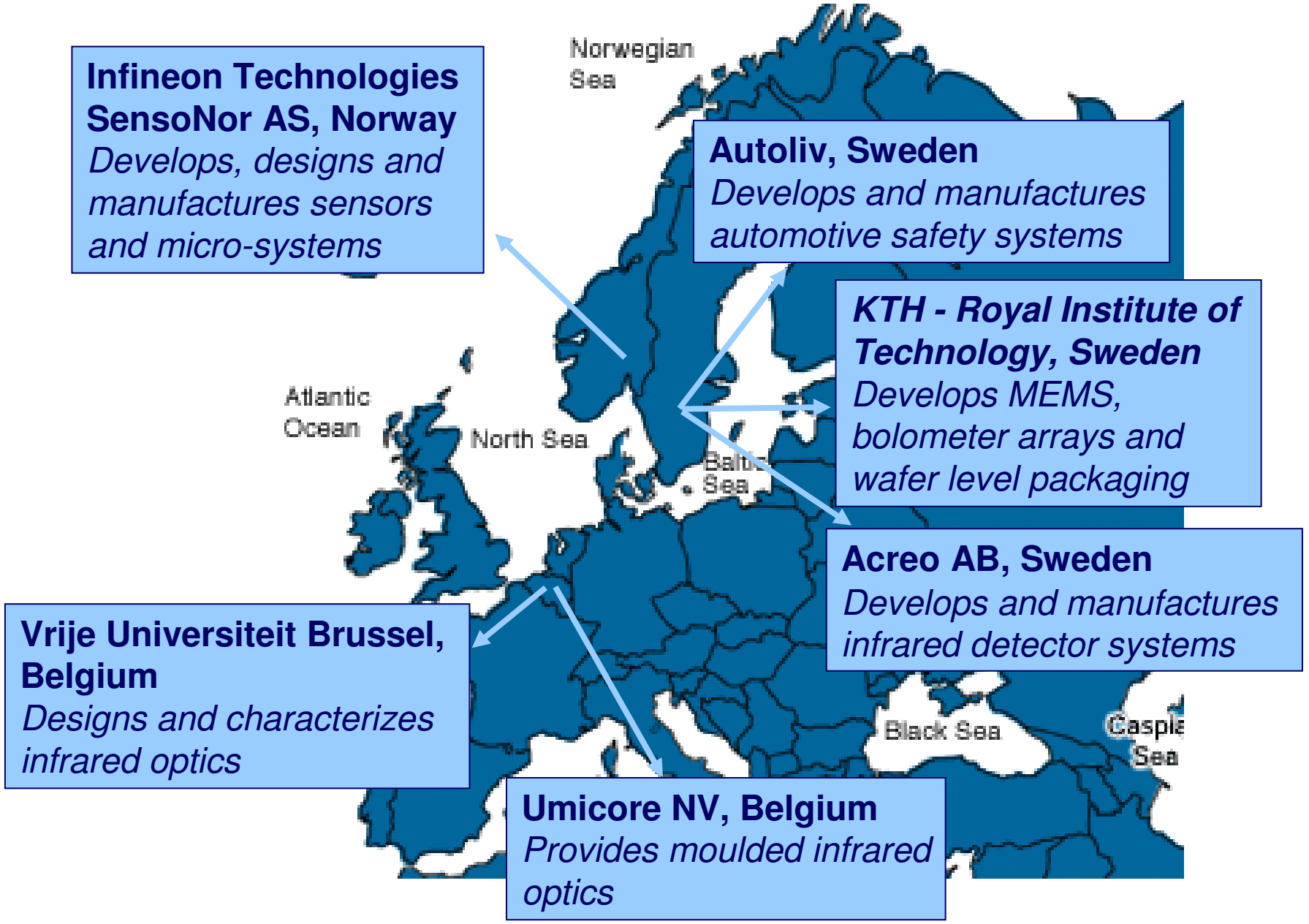
- To prototype a **low-cost high performance far-infrared night vision system** that can resolve a pedestrian or animal on the road

- To provide high contrast images of warm (living) objects **completely independent of ambient light conditions**

Goal:
Increase safety on the roads, reduce accidents



ICU consortium



Infineon Technologies SensoNor AS, Norway
Develops, designs and manufactures sensors and micro-systems

Autoliv, Sweden
Develops and manufactures automotive safety systems

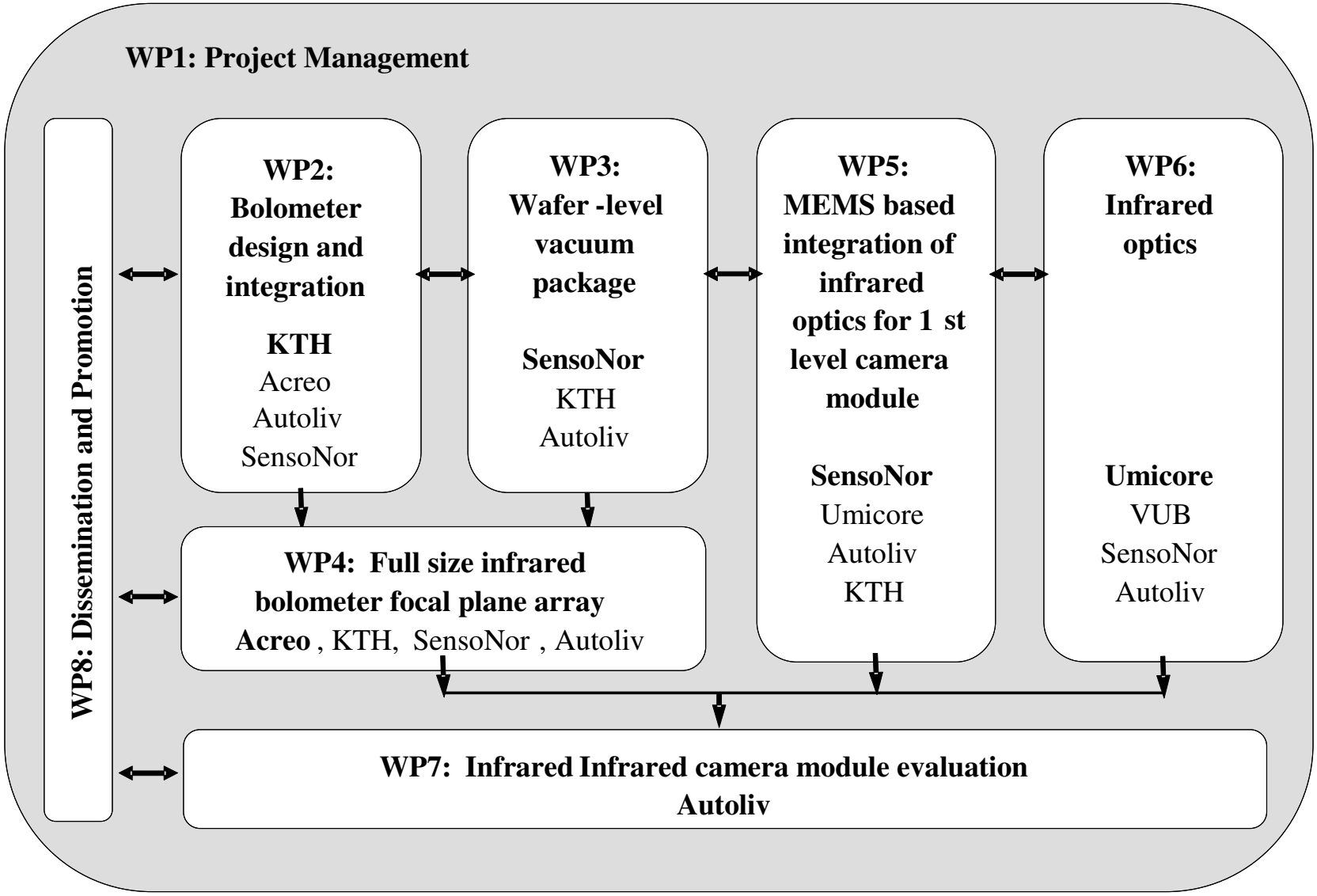
KTH - Royal Institute of Technology, Sweden
Develops MEMS, bolometer arrays and wafer level packaging

Acreo AB, Sweden
Develops and manufactures infrared detector systems

Vrije Universiteit Brussel, Belgium
Designs and characterizes infrared optics

Umicore NV, Belgium
Provides moulded infrared optics

Project organization



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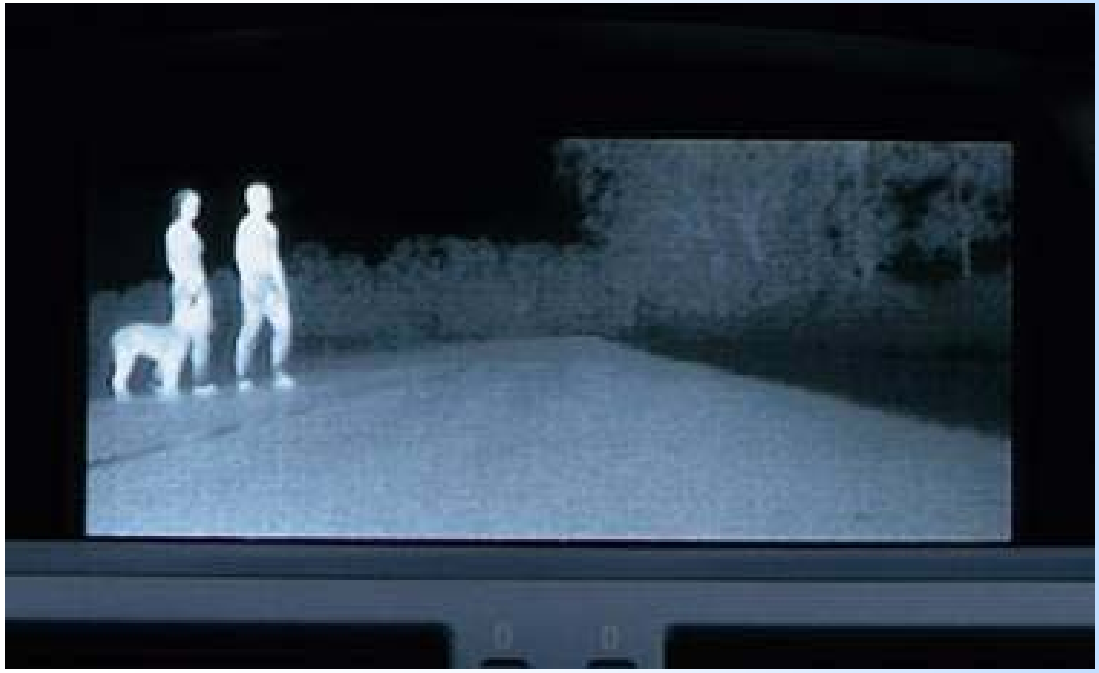
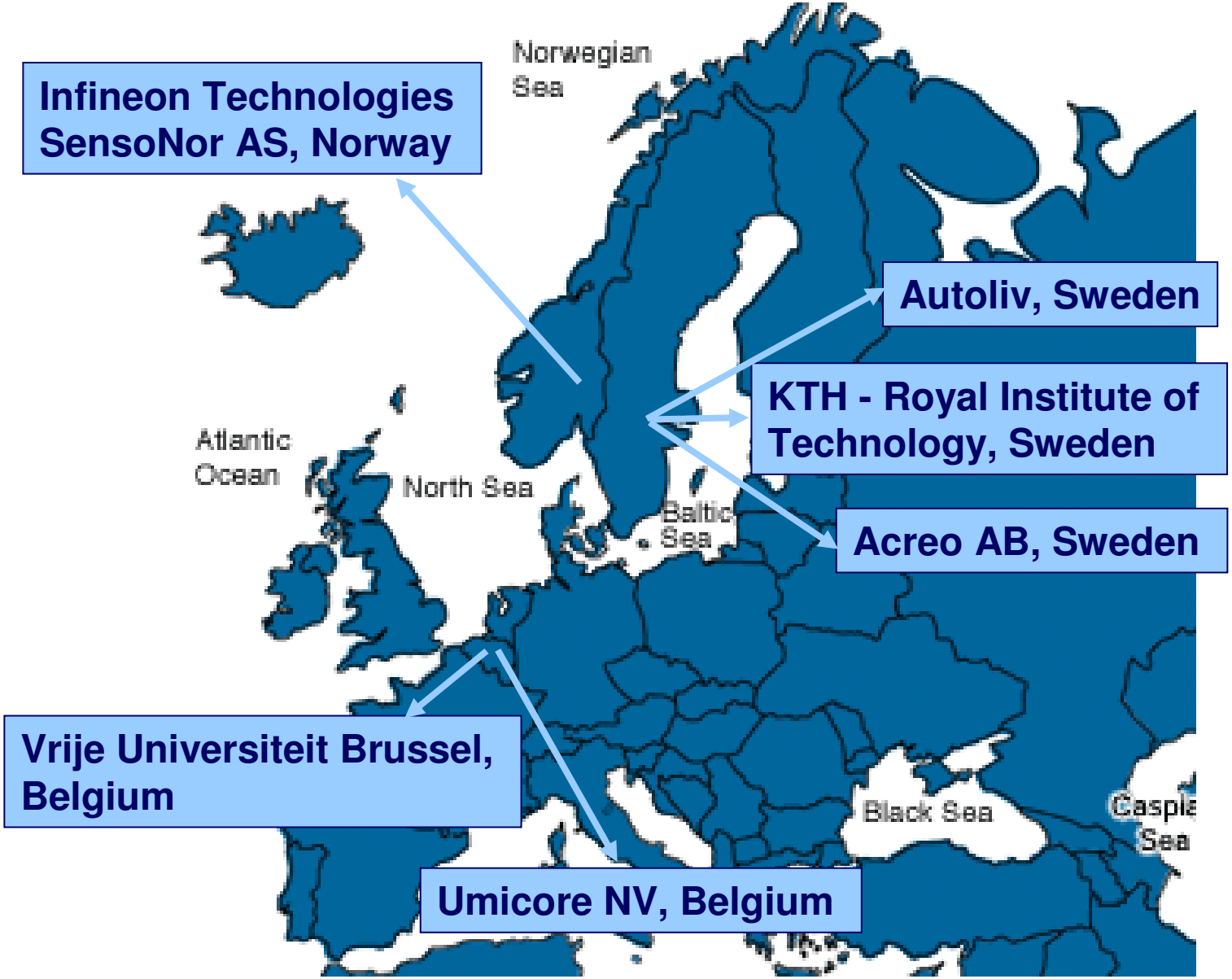
Low Cost Far Infrared camera for Vision enhancement and Injury mitigation



The most important challenge is to achieve optimum performance at the lowest cost, such that the infrared imaging module is affordable for everyone and it thereby becomes possible to integrate in high volumes.

Picture source: BMW AG

ICU consortium



Partner description

ICU

Autoliv

Autoliv develops and manufactures automotive safety systems for all major automotive manufacturers. Autoliv has developed an infrared vision enhancement which is in production with BMW.

Contact person:

Dick Eriksson
Autoliv Development AB
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Tel:+46 322 626306
Email: dick.eriksson@autoliv.com

infineon

Infineon Technologies SensoNor AS has leading expertise in development, design and manufacturing of Micro Electro Mechanical Systems (MEMS), including key competence in wafer level bonding in controlled environments.

Contact person:

Anders Elfving
Infineon Technologies SensoNor AS
Norway
Tel: +47 33035157
Email: anders.elfving@sensonor.no

Partner description

Umicore is a materials company active in applications such as solar cells, car catalysts, batteries and infrared optics. Umicore is market leader in moulded infrared optics for volume applications.

Contact person:

Tom Krekels
Umicore Electro-Optic Materials
Belgium
Tel: +32 14 24 5305
Email: tom.krekels@umicore .com

KTH is one of the foremost technical universities in Europe, devoted to world high-class research. The Microsystem Technology Group at KTH has a very strong track-record in MEMS and photonic research.

Contact person:

Frank Niklaus (Project Coordinator)
KTH
Sweden
Tel: + 46 8 790 9332
Email: frank.niklaus@ee.kth.se

Partner description

Acreo AB is a research institute working In the fields of electronics, optics and communication technology. Acreo has a long history of developing and manufacturing infrared detector systems and contributes to the project with its expertise in sensor materials, microsystem manufacturing technology and ASIC design.

Contact person:

Per Ericsson
Acreo AB
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Email: per.ericsson@acreo.se

Vrije Universiteit Brussel

The Department of Applied Physics and Photonics (TONA) is a research group within the Faculty of Engineering of the Vrije Universiteit Brussel. The group is internationally recognized for its basic, strategic, and applied research in the field of "micro-optics" and “micro-photonics”, and is also uniquely involved in industrially-oriented research projects.

Contact person:

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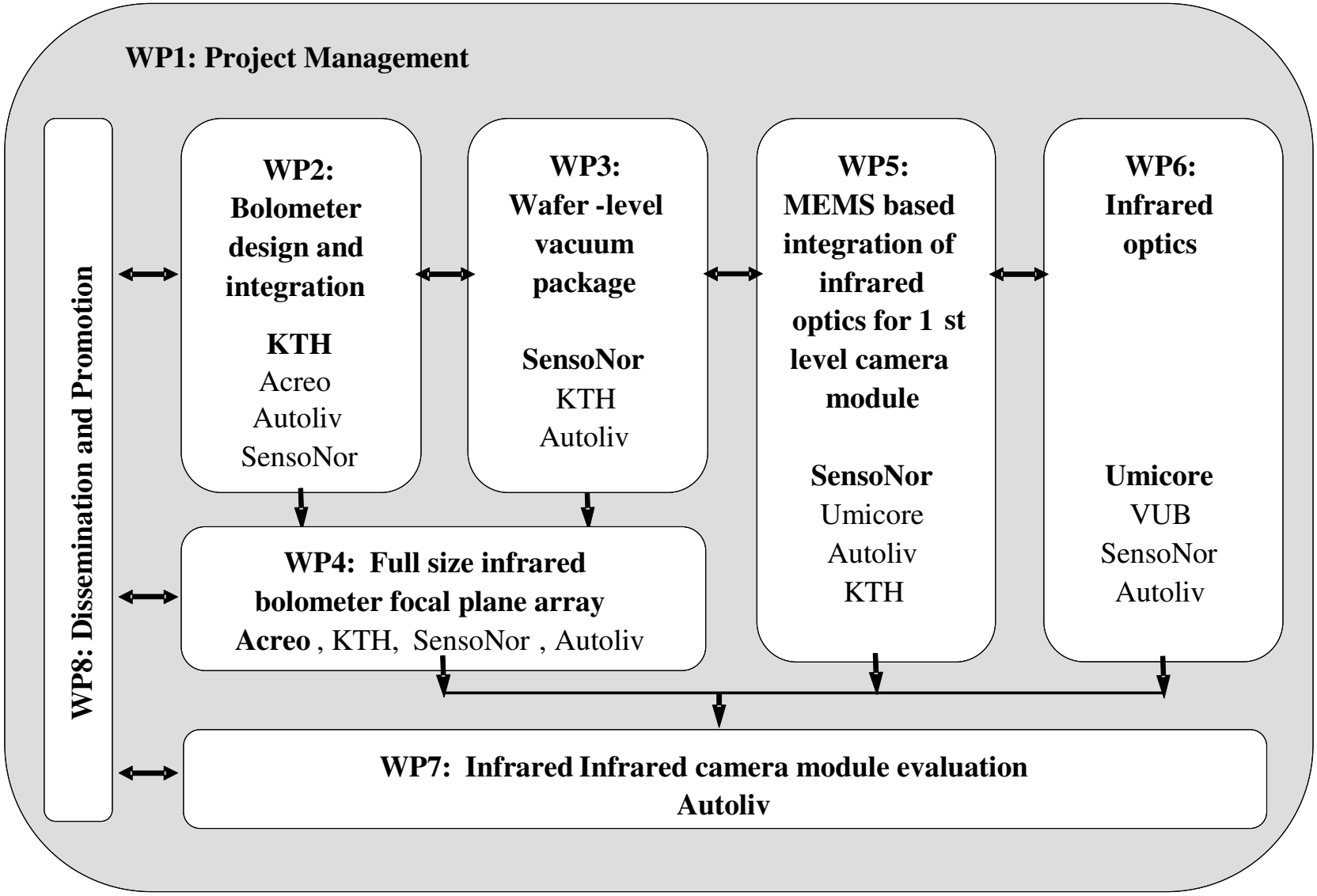
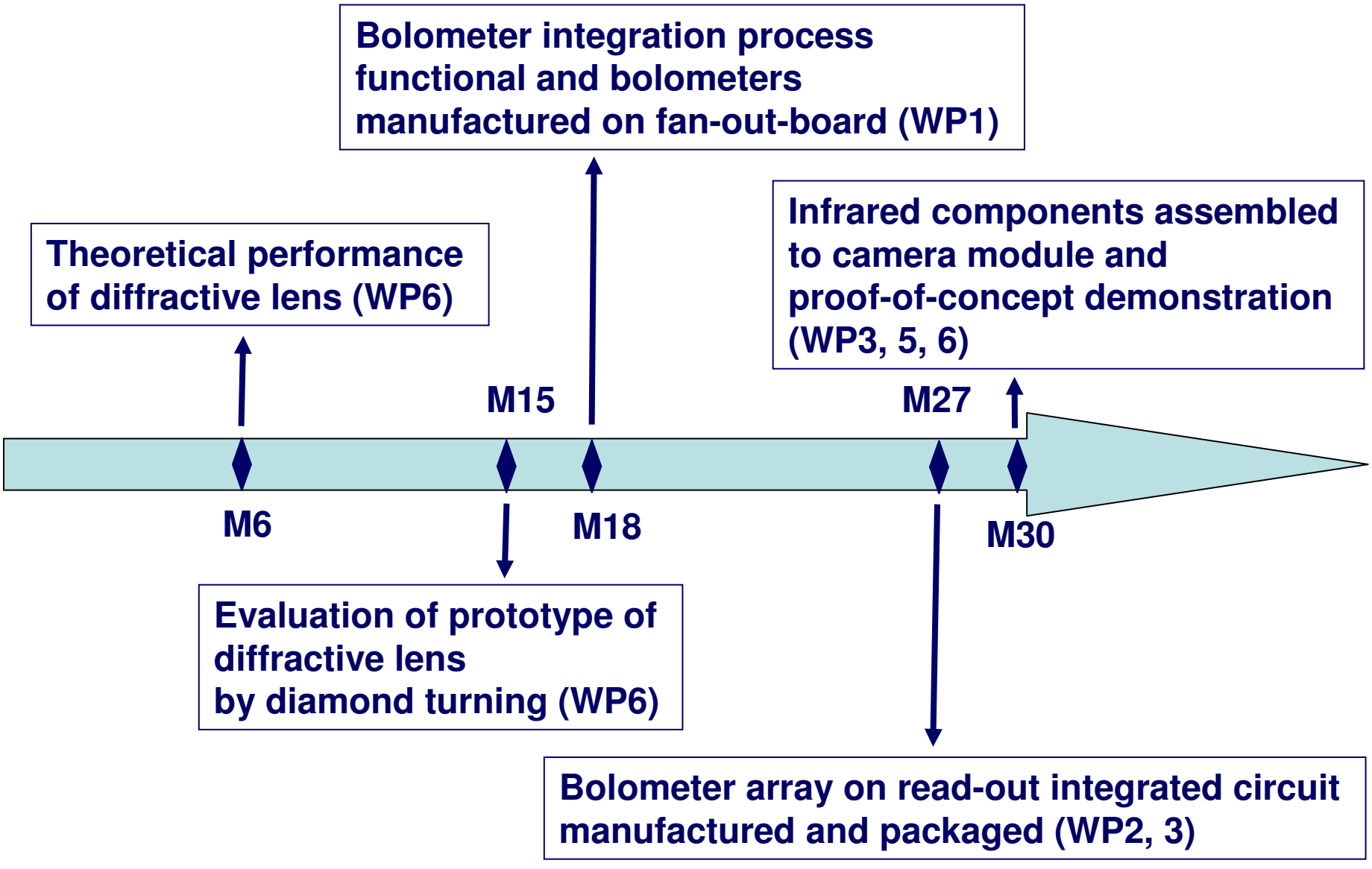
Email: hthienpo@vub.ac.be

Project organization



Project Timeline



Infrared Imaging Components for Use in Automotive Safety Applications

1) Rationale

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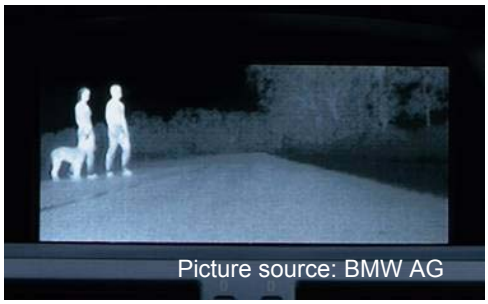
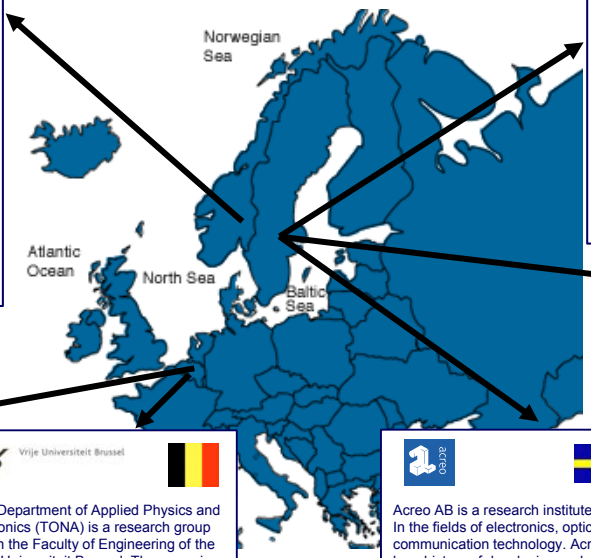


Application fields:
Automotive, security, surveillance, process automation, thermography, retail and smart buildings

2) Partners and their role



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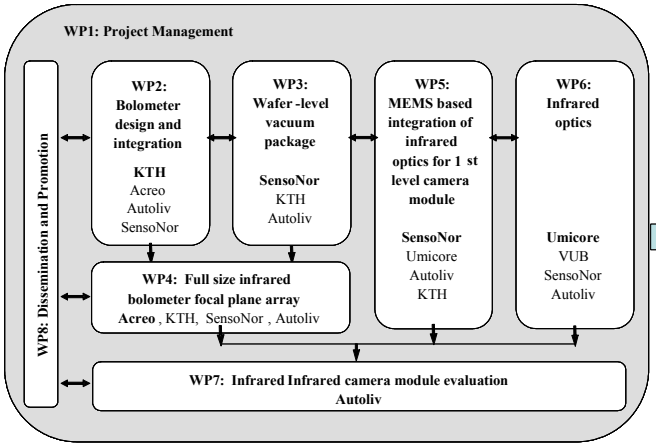
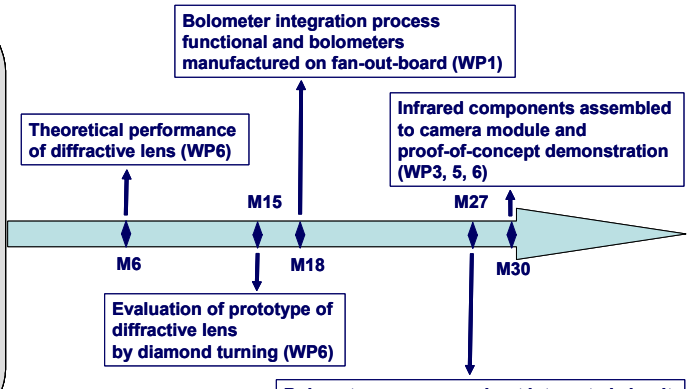
3) Project organization and timeline





***** *Press Release ICU Project* *****

Europe joins R&D forces to develop Low-cost Infrared Night Vision System for the Automotive reducing the number of accidents on the road

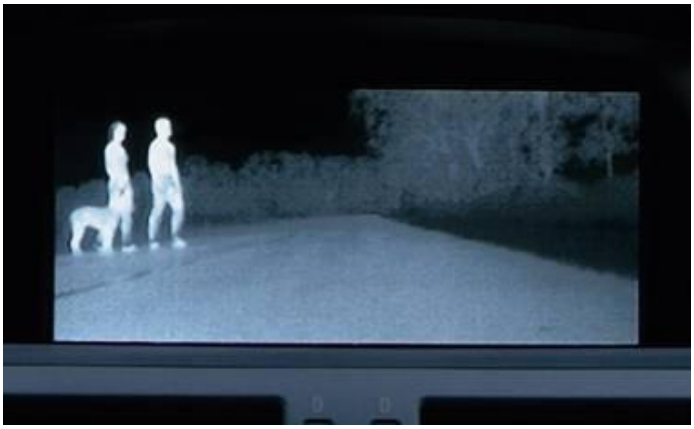
Release date: Wednesday, 2 July 2008

Brussels, Belgium - Six of Europe's leading companies and research establishments have joined forces in the strategic research project "**I**nfrared Imaging **C**omponents for **U**se in Automotive Safety Applications **ICU**". ICU aims at prototyping a low-cost infrared night vision system that can resolve a pedestrian or animal on the road. The infrared imaging system will be developed to provide high contrast images of warm (living) objects completely independent of ambient light conditions and is expected to considerably increase safety on the roads. In particular if we get such a system within a few years in our cars it will reduce accidents involving pedestrians, cyclists and animals thereby reducing the death toll and the number of seriously injured. "Besides applications in the automotive, the infrared imaging system will also find use in security, surveillance, process automation, thermography, retail and, smart buildings" says Tom Krekels from Umicore.

The infrared night vision system will be composed of several sub-components. The development will focus on the two main cost drivers, the infrared bolometer sensor array and the infrared lens system. Each of these components individually, their co-development, and their assembly represent a considerable scientific and technological challenge. "The most important challenge of all, however, is to achieve optimum performance at the lowest cost, such that the infrared imaging module is affordable for everyone and as such can be integrated in high volume applications", said Frank Niklaus from KTH and ICU project coordinator. "Low cost infrared components will enable wide spread use of infrared technology in automotive safety applications such as pedestrian and animal detection", Dick Eriksson of Autoliv said.

The European consortium which will develop this new photonic system involves 6 companies or research institutes, all key-role players in infrared photonics. The industrial partners in ICU are market leaders in automotive safety systems (Autoliv Development AB, Sweden), in automotive component manufacturing (Infineon Technologies SensoNor AS, Norway), and in high-volume infrared optics (Umicore NV, Belgium). The universities or research institutes that will participate in the project (Acreo AB, Sweden; KTH Royal Institute of Technology, Sweden; and Vrije Universiteit Brussel, Belgium) all have a strong track record in research and development of photonic components and technologies.

The ICU project is supported by the European Community in the framework of the FP7 Information and Communication Technologies Programme (2007-2013, see http://cordis.europa.eu/fp7/ict/home_en.html). The ICU project kicked off in Brussels on May 27th and will run for two and a half years until October 2010.



Source: BWM AG

Partner description and contact persons:

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