

The logo for Tematys features the word "Tematys" in a bold, dark blue, sans-serif font. It is centered between two curved lines: a green line on the left and a yellow line on the right, both curving upwards and outwards.

Tematys

Market Explorer for Photonics Technologies

Optics - Photonics - Sensors - Imaging - Lighting

MENESR - Journée évaluation FET/MSCA 03 novembre 2015

Our activity: make application markets take advantage of Photonic technologies



References

➔ Companies

Act-Light - Adveotec - AIR LIQUIDE - Archimej - Armelio - Aurea - Bioaxial - BERTIN Technologies - CAMBRIDGE Technologies - CASINO - Dreem - Doro - Elcarim Science - ESSILOR - Eureva - Group Fraunhofer - Groupe MAQUET - Hublex - HUTCHINSON - I2S - Indatech - INFINEON Technologies - Innov+ - Ivea - LEICA Microsystems - LMDC - Novoptim - Ocktal-SE - Optopartner - ORANGE - OSRAM - Paramount Technologies - Phasics - Phonoptics - Prestodiag - Probayes - PSA - QUANTEL - RÉSEAU FERRÉ DE FRANCE - REUNICA - SAFRAN/Sagem - Sainte-Lizaigne - SCHOTT - Sensup - SIEMENS - Silltec - SORIN Group - SourceLab - Surfactis - TOPPAN Photomasks Inc. - THALES - Think & Go - XIO Photonics - Yole Développement

➔ Universities & Research Organizations

Alphanov - Association ARMIR - CEA - CNES - CNRS - ECE - FIST - Fraunhofer IAF - Gravit - Institut Langevin - Institut de la Vision - LNCMI - LSCE - Observatoire de Paris - SATT AXLR - SATT IdInnov - SATT Aquitaine Science Transfert - SATT Grand Est - SATT Lutech - SATT Nord - SATT Ouest Valorisation - Supelec - Synerjinov - Télécom Paritech - Université de Bourgogne - Université Joseph Fourier - Université Paris Dauphine (IMRI) - Université Paris-Sud - Université Technologique de Troyes - Welience

➔ Clusters & Public Organizations

Agoranov - BPI France - Bretagne Photonics - DGA - EPIC - Incubateur Descartes - Ministère Industrie/DGE - Medicen - Optics Valley - Optitec

Collaborative Research

- ➔ (EU-H2020) **C3PO: advanced Concept for laser uplink/ downlink CommuniCation with sPace Objects**



- ➔ (France-IA) **é-change : Digital services designed to help the elderly and partially sighted remain autonomous in their daily lives**



- ➔ (France-ANR) **COM'TONIQ: Ultra high data rate quasi-optic phoTONIC-based COMMunications**



- ➔ (France-ANR) **PROBE: Photosensitive oRganic sensOr for fingerprint BiomEtric**



Benoît d'Humières - Experience as an evaluator

➔ FP7-SME (x 2)

➔ H2020-FETOPEN-2014-2015 RIA

H2020-FETOPEN-2014-2015 RIA - Feedback as an evaluator

➔ FETOPEN characteristics (perceived)

- ❑ High level science
- ❑ High risk but clear feasibility
- ❑ High stake
- ❑ High return
- ❑ Short or medium term
- ❑ CONCRETE PATHWAY TO EXPLOITATION

Are those characteristics contradictory ?

H2020-FETOPEN-2014-2015 RIA - Feedback as an evaluator

➔ Experience

- ❑ High diversity of topics
- ❑ No sharing with other evaluators
- ❑ No Consensus meeting
- ❑ Only average scores are retained
- ❑ Importance of ethical and gender issues

H2020-FETOPEN-2014-2015 RIA - Feedback as a candidate

➔ First proposal

- Excellence - 5
- Impact - 4
 - *requested : a more clear vision of the applications and closer contacts with potential candidates for a technology transfer (even with TEMATYS...)*
- Implementation - 4,5

➔ Second proposal - ongoing

Contact

Tell us your needs and objectives



6, cité de Trévisse 75009 PARIS - FRANCE
Tel : +33 6 74 64 52 21 - www.tematys.com

Benoît d'Humières, Partner
Strategy consulting,
Administrative management
bdhumieres@tematys.com
+33 6 74 64 52 21

Jacques Cochard, Partner
Technology transfer &
Research valorization
jcochard@tematys.com
+33 6 89 37 57 88

Thierry Robin, Partner
Product features definition
trobin@tematys.com
+ 33 6 48 08 63 32

Photonic Technologies & Functions

Types of Photonic Systems

Sensing & imaging systems

Communication systems

Screens, displays, projectors, ...

LED, OLED, lamp systems

Photovoltaic systems

Laser & production systems

Photonic Functions

Acquiring information

Transmitting information

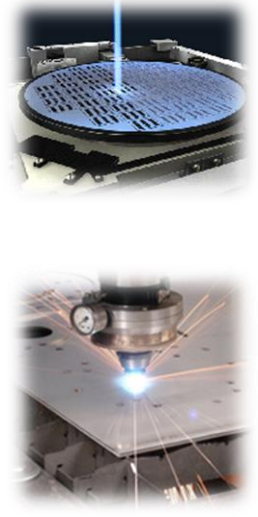
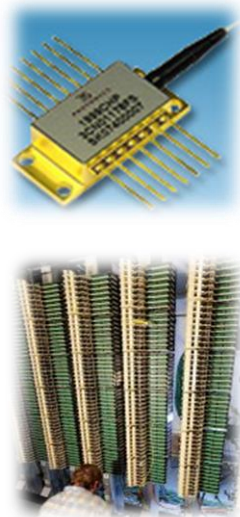
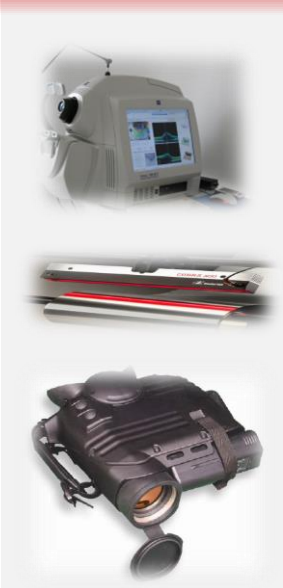
Delivering information

Light providing

Energy providing

Manufacturing

Examples



Photonic Application Markets: *almost every high-tech devices contain at least one photonic component*

<p>Life</p>	<p>Medical Healthcare Biology & Life science Sea and agriculture Environment</p>	<p>Industrial</p>	<p>Materials manufacturers Large machine man. Robotics & process control BtoB Electronics Agri-agro food and beverages Chemistry Fine chemistry & pharm Logistics</p>
<p>Harsh</p>	<p>Defense Security Aeronautics Space Naval Oil & Gas</p>	<p>Consumer</p>	<p>Automotive Media production Printing (including 3D) & publishing White & Brown Goods Computering, mobile & wearable devices, Internet of Things Recreation, Tourism & leisure</p>
<p>Infrastructure</p>	<p>Telecoms & data networks Power Water Land Transport Construction</p>	<p>Science</p>	<p>Large instruments Lab. Instruments Training & education</p>

Why TEMATYS

- ➔ Almost every high-tech devices contain at least one photonic component
- ➔ Photonics is a major key enabling technology for the emergence of most new "smart" systems
- ➔ Most often, a photonic technology can lead to different applications and markets
- ➔ User-needs can often be met by several Photonic technologies. The knowledge of the state of the art in terms of use and ability of each photonic technique is necessary to find the most effective solutions

TEMATYS is a team of highly qualified consultants committed to provide a very comprehensive understanding on trends, markets and use of photonic technologies and their applications.

Our clients

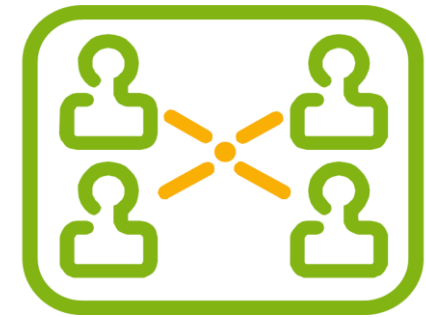
Companies & start-ups



Research centers & Universities



Public institutions & Clusters



➔ What they want:

- Study their markets and elaborate strategies for developing and selling innovative technological products
- Detect, benchmark and assess new technologies that could increase their competitiveness on their markets (life science, defense, aerospace ...)

Services

For laboratories

- Market reports
- Market studies
- Research strategy, exploration of potential applications markets
- Technology transfer strategy
- Collaborative research consortium set-up
- Commercial development for R&D platforms

For companies

- Market reports
- Market studies
- Development strategy & roadmaps
- Diversification
- Pre-commercial development
- User needs - Market Requirements Documents (MRD)

For End-users:

- Photonic technology & product sourcing
- Photonic solution definition