

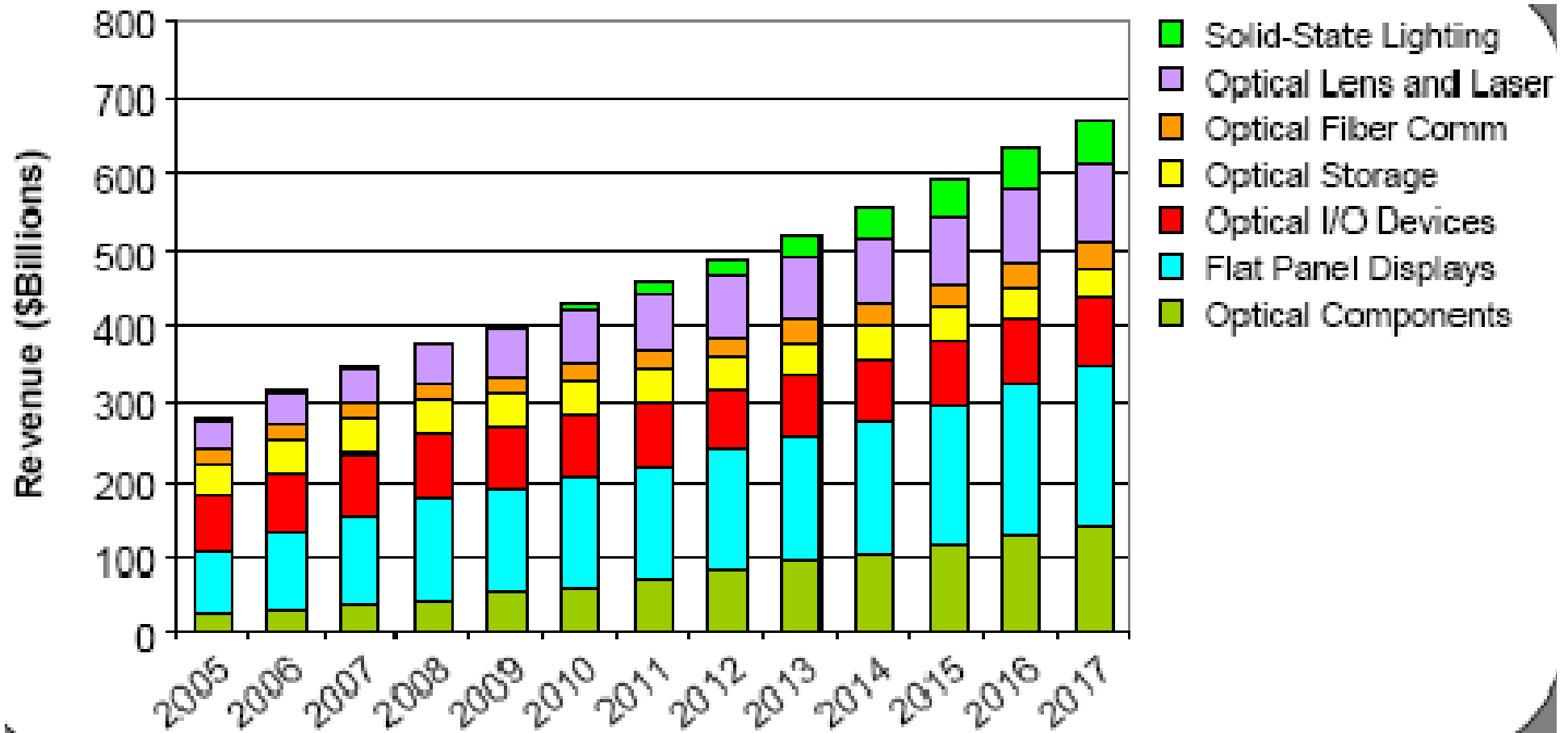
Kick-Off Meeting, Brussels, September 24th 2010

Hugo Thienpont

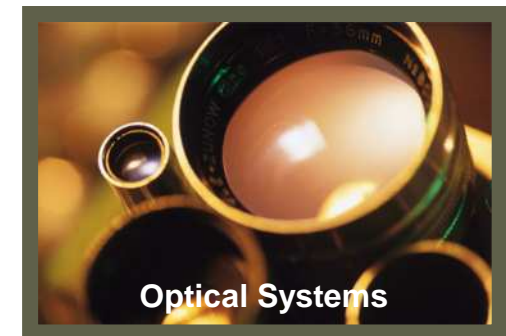
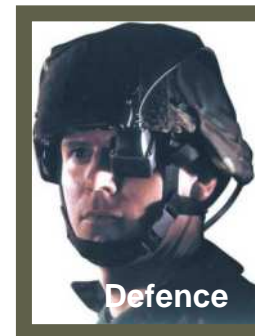
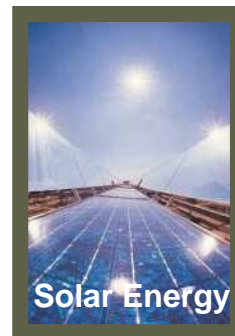
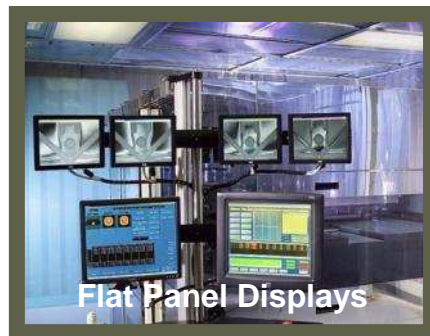
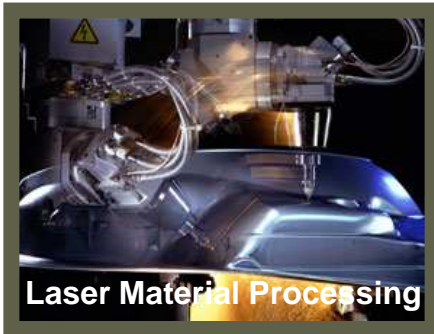


Access to
Micro-Optics
Expertise,
Services &
Technologies

The photonics market is innovation driven.
Worldwide it shows a 15% annual growth.



The EC identified 10 key-innovation and application domains for Europe with photonics as key-enabling technology.



European companies should continue to take a considerable share of the worldwide market through product innovation with photonics technologies. 2 out of 3 is a SME.

- **entreprises*** **> 5000**
(2/3 SME's)
- **turnover*** **> 55 billion €**
(20% of world market € 270 billion)
- **employment*** **> 300.000**
- **key-players in Europe**

ABB, Alcatel, Agilent, AGFA, Barco, Carl Zeiss, HP, Jenoptik, Leica, Osram, Philips, Umicore, Rofin Sinar, Triumph, Melexis, ICOS, ...



SMEs -and to a lesser extent LSCs- are often confronted with “Innovation Barriers” or “Innovation Show Stoppers” in particular when it photonics is concerned.

	SME	LSC
• expertise and specialists are missing in-house to provide dedicated solutions	+++	++
• recruitment of expert-personnel is financially difficult or is seen as irresponsible	++	+
• sustaining an in-house photonics R&D team is too expensive or is seen as an overkill	+++	+
• company in-house facilities do not provide the latest cutting-edge technologies	+++	++
• company in-house feasibility studies are too difficult or not-a-priority	++	+
• regulated foundry processes or standard fabrication procedures do not apply	+++	+++
• a complete and well-aligned supply chain “from design to packaging” is not available	+++	++
• standard design rules or scaling laws cannot be applied	++	++
• dedicated equipment is missing, investment risk is too high	+++	+
• subcontracting feasibility studies that could lead to product innovation is too expensive	+	+
• identification of external experts that can provide a solution is often a shot in the dark	+++	+
• multiple-stop-technology-shopping is very time-consuming and often leads to failure	+++	+
• immediate or short term solutions for innovation are needed or the window of opportunity is missed	+++	+

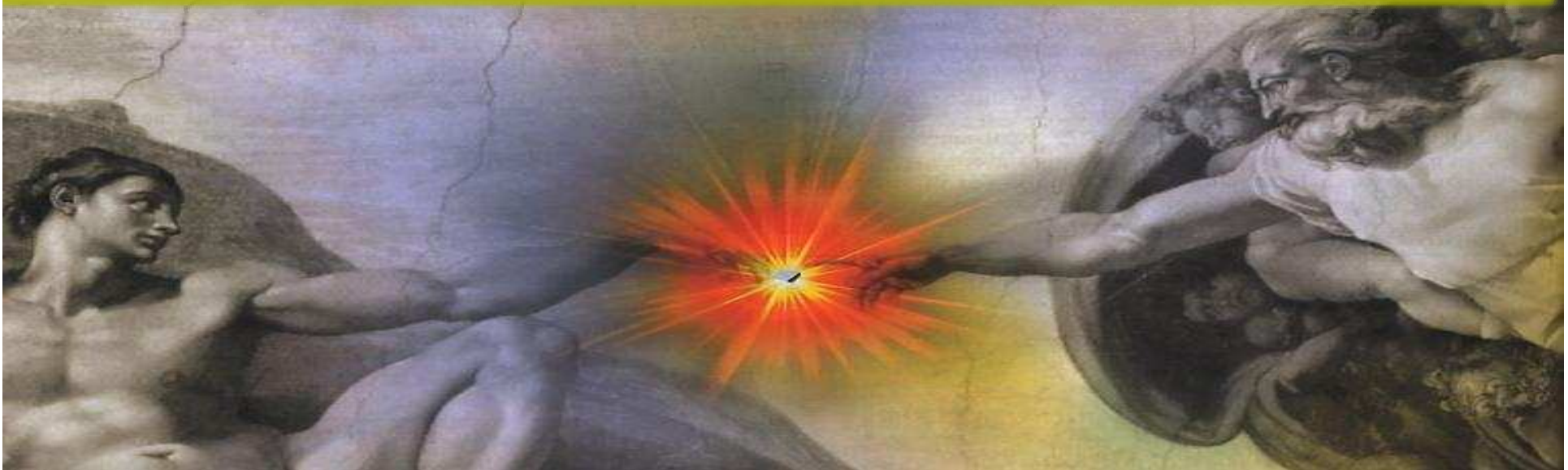


There is a real and urgent need to support the SME's that want to invoke photonics for product innovation.

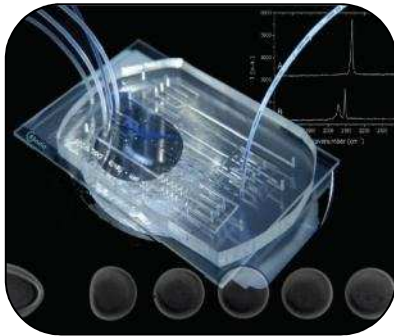
Practical and efficient solutions could be offered by providing:

- swift links to the best expertise and top specialists in the EU that can elaborate dedicated solutions
- dedicated hands-on training for SME staff
- timely, cost effective, risk-free access to the latest cutting-edge technologies
- access to benchmarked instrumentation for e.g. quality control
- a complete one-stop-shop solution supply chain “from design to packaging”
- access to foundry services
- a subsidy model that pro-actively stimulates product innovation as well as the collaboration between European Research Consortia and companies without too much administrative overhead for the companies

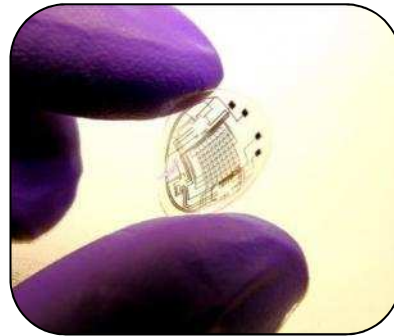
Novel EC funded R&D instruments could create and support such initiatives



ACTMOST: access center for companies to micro-optics technologies
Test case and potential role model for stimulating product innovation
in European companies.



Biophotonic
labs-on-a-chip
Health and Safety



Minimally invasive
biomedical micro-systems



Energy efficient lighting



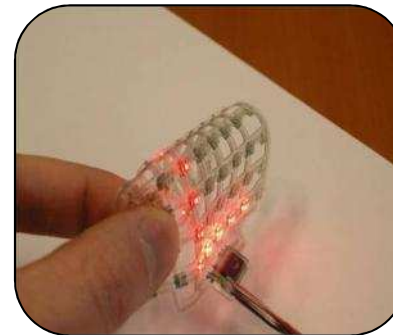
Optical sensor embedded
smart prosthetics
Improving the quality of Life



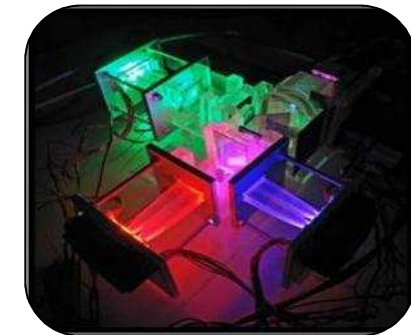
Solar energy
Fighting global warming



Wearable micro-photonics
Ageing society



Micro-photonics interconnects
Ultrafast datacom



Display and projection
Entertainment



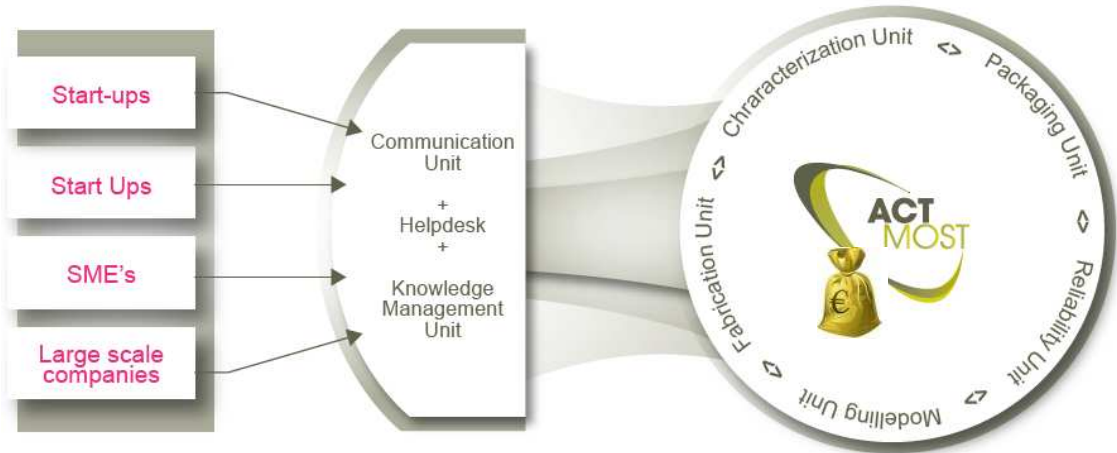
ACTMOST: created as solution provider, novel subsidy model for companies, and innovation facilitator.



- central contact point - fast and reliable information
- consistent and coherent NDA, IPR, and contracts
- top-specialists with a track record in industrial collaboration
- a complete supply chain “from design to packaging”
- benchmarked instrumentation providing only the best equipment
- cutting-edge technologies with low-volume production level capacities
- subsidy possible for feasibility studies under certain conditions
- risk-free – investment free- cost effective for companies



ACTMOST @ work with European SMEs and LSCs



Interface Cell

Micro-Optics Supply Chain

ACTMOST USERS

ACTMOST AS A SOLUTION PROVIDOR

Full-sized follow-up project fully financed by company
10% rule for ACTMOST partners

Exploratory project submitted for subsidy to board
100% of ACTMOST costs waived for SMEs up to 60KEuro
50% of ACTMOST costs waived for LSCs up to 30KEuro

SME STAFF ACTMOST TASK FORCE

- top-specialists with a track record in industrial collaboration
- a complete supply chain “from design to packaging”
- benchmarked instrumentation providing only the best equipment
- cutting-edge technologies with low-volume production level capacities
- central contact point - fast and reliable service
- consistent and coherent NDA, IPR, and contracts

- subsidy possible for feasibility studies under certain conditions
- timely decision at the discretion of the board
- risk-free – cost effective

Bilateral project Fully financed by company No EU subsidy



Summary

- we believe ACTMOST could work as a new model to support companies that want to innovate based on micro-phonic technologies

the key-ingredients of this new model are

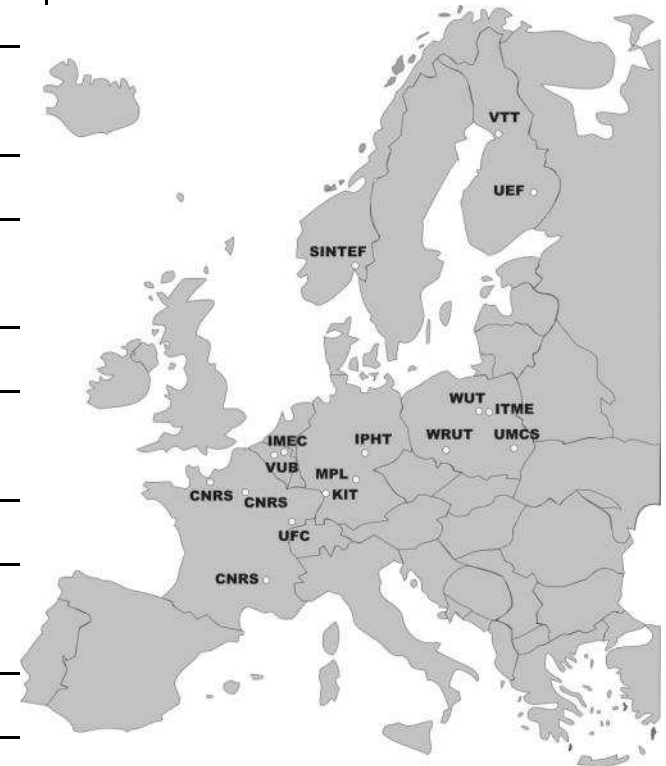
- centralized excellent information and guidance
 - quick and efficient links to a professional distributed access centre staffed with top-experts
 - access to a complete food chain with pre-production scale manufacturing
 - possibilities to subsidize exploratory projects (feasibility studies)
 - low level of administrative overhead and fast response compared to other EU R&D instruments
 - a focus on results, competitiveness of company and time-to-market
-
- we think that this subsidy model might also financially be more efficient than present-day EU R&D instruments that support companies
 - that it is better adapted to the needs of companies, in particular for SME's, that have to innovate at a fast pace
 - in addition it is a real instrument to enhance the collaboration between universities and companies

Photonics Clusters and National Technologies Platforms probably are the best dissemination platforms to create awareness with SMEs and LSCs about these support opportunities.
We are looking forward to working with you and demonstrating the practicality of this model.



ACTMOST partners

1	Vrije Universiteit Brussel	VUB	Belgium
2	Karlsruhe Institute of Technology	KIT	Germany
3	Politechnika Warszawska	WUT	Poland
4	Centre National de la Recherche Scientifique	CNRS	France
5	Technical Research Centre of Finland	VTT	Finland
6	Max Planck gesellschaft zur foerderung der wissenschaften	MPL	Germany
7	University of Eastern Finland	UEF	Finland
8	Interuniversitair Micro-Electronica Centrum	IMEC	Belgium
9	Stiftelsen SINTEF	SINTEF	Norway
10	Institut für Photonische Technologien	IPHT	Germany
11	Université de Franche Comte	UFC	France
12	Wroclaw University of Technology	WRUT	Poland
13	Maria Curie-Sklodowska University	UMCS	Poland
14	Institute of Electronic Materials Technology	ITME	Poland



Work packages



WP1 **Awareness, Exploitation, and Spreading of Excellence** (H.Thienpont)

- Aggressive Press releases, reach out to potential users, video, workshops, business model and subsidy model

WP2 Micro-optics **user projects** through access (J. Mohr)

- 5 open calls for user projects
- Userprojects and services reports
- Follow up reports, consensus reports , “customer satisfaction” feedback

WP3 **Hands-on trainings** through access (M. Kujawska)

- 4 open calls for hands-on trainings
- Hands-on trainings
- Follow up reports, consensus reports , “customer satisfaction” feedback

WP4 General **coordination**, Finances, and Legal Issues (H. Thienpont)

- Consortium meetings, review meetings



Project Flow

Main target :

ACTMOST as an Access center for Micro-Optics technology, must be able to appoint in a very fast and efficient way a project leader and a project team that can support a company and assist with problem solving on a specific micro-optics demand

Once this is defined the company can either opt :

- 1) to work out a project on bilateral or multilateral level with the appointed project leader / team with the goal to rely on its own funding to finance the project.
- 2) to elaborate a project with the project leader/team and to apply for ACTMOST support for user projects (or training)



1. First contact

- ✓ Simple 'first contact sheet' for each industrial lead
- ✓ All contact info gathered centrally and managed centrally
- ✓ Central contact point (Nathalie Debaes and Johan Vlekken) will directly send depending on the received request the following info :
 - ✓ General info: flier about ACTMOST, with info about the user projects and trainings, invitation for the next workshop
 - ✓ Good-to-know info (or Specific info) about the user projects (incl. different steps, examples, points of attention regarding NDA, contract , finances, timing,..)
 - ✓ Specific info about the trainings (including steps to apply, contract, finances, timing, examples,...)
- ✓ Central contact point will contact company by phone, to ask if the received info was sufficient, clear enough, and to further explain the service ACTMOST is providing to the companies for FREE : identifying the most appropriate project leader/ team for his specific challenge. The Central contact point will also ask for more info to be able to identify the access units that have to be involved (This extra info will be added to the first contact sheet)





2. Appointment of main access unit and the other involved access units

In case the company is interested in a user project :

Appointment of the main access unit and other involved access units by central contact point in consultation with the coordinator.

This info will be added to ‘ the first contact sheet’

At this level the first contact sheet will be made available to the complete Technical Coordination Team (through a notification system)



2. Appointment of main access unit and the other involved access units

In case the company is interested in a user project :

Appointment of the main access unit and other involved access units by central contact point in consultation with the coordinator.

This info will be added to ‘ the first contact sheet’

At this level the first contact sheet will be made available to the complete Technical Coordination Team (through a notification system)

3. Appointment of a Project leader

- Main Access unit leader is responsible to propose a project leader in concert with the other involved access units
- Main access unit leader will contact company if more information is needed in order to make the best choice for the project leader
- If additional information has been received, this info is added to the 'first contact sheet'
- Main access unit leader will consult the other involved unit leaders regarding the proposal of the project leader
- Main access unit leader will contact potential project leader to check if she/he is willing to take up this project
- Proposal of project leader + short motivation is added to 'first contact sheet' + first identification of potential project partners (project team)
- Executive board approves the appointment of the project leader and potential project partners
- The project leader is now in charge of the project



Technical coordination team



Name of the S&T Unit	Unit Leader	Deputy
Unit for Modelling and Design	CNRS: P.Chavel	VUB : Y. Meuret
Unit for Measurement and Characterization	WUT: M.Kujawinska	VUB: H. Ottevaere
Unit for Prototyping, Mastering and Replication	KIT : J.Mohr	VUB: C. Debaes
Unit for Packaging and Integration	VTT: P. Karioja	VTT: M. Karppinen
Unit for Reliability	VUB: F. Berghmans	CNRS: S. Eve

VUB : H. Thienpont

Executive board





Eligibility criteria

- the **European identity** of the potential user being a registered company
- the **pre-competitive character** of the request
- the suitability of the request as **pilot project** for ACTMOST
- the type of support activity (dedicated training, user project involving one or more units of the food-chain, etc) and the **capacity of ACTMOST** to accomplish the request
- the appropriateness of the proposed coordinator, partners and consortium to take on the request and bring it to a successful ending
- the requested **financial support** and whether it is commensurate with the request
- the conformity of the request with the **general objectives of the EC Photonics Unit**, the vision of the Photonics 21 platform, and the thematic areas of the new European Strategic Agenda in Photonics



Evaluation criteria

- the **type** and **size** of the **company** (start-up, SME, large-scale company, etc.)
- the **added value** for ACTMOST as showcase or model user project/training
- the added value of the request for the user in the format of a **business plan** including a market analysis clearly highlighting the future market potential and the expected positive impacts on the company, in particular:
 - the **market description** and its **potential evolution**
 - competitors** and **competing products**
 - the **unique selling point** of the product to be developed (including IPR)
 - the **expected return on investment** (ROI) and financial perspectives
- the likelihood and prospect for a **follow up project** -fully financed by the user- after a successful first user project and the commitment of the user to such follow up project in the proposal in order to reach ACTMOST's sustainability
- the (additional) **financial contribution** of the potential user
- the level of **involvement** and effort (technology, man power, material, etc) brought in by the potential user as a measure for its commitment to the user project
- the quality, value and merit of the **IPR** conditions for the potential user and ACTMOST
- did the potential user receive **support** on a **previous** occasion (priority goes to users that have not received support before)
- the level of potential support to young and dynamic entrepreneurs in Europe
- the relevance of the request to the **quality of life** of the European citizens



INDUSTRYSUPPO
RT



USER PROJECTS
with SME's or LS
companies

SERVICE
REPORTS

HANDS ON
TRAININGS

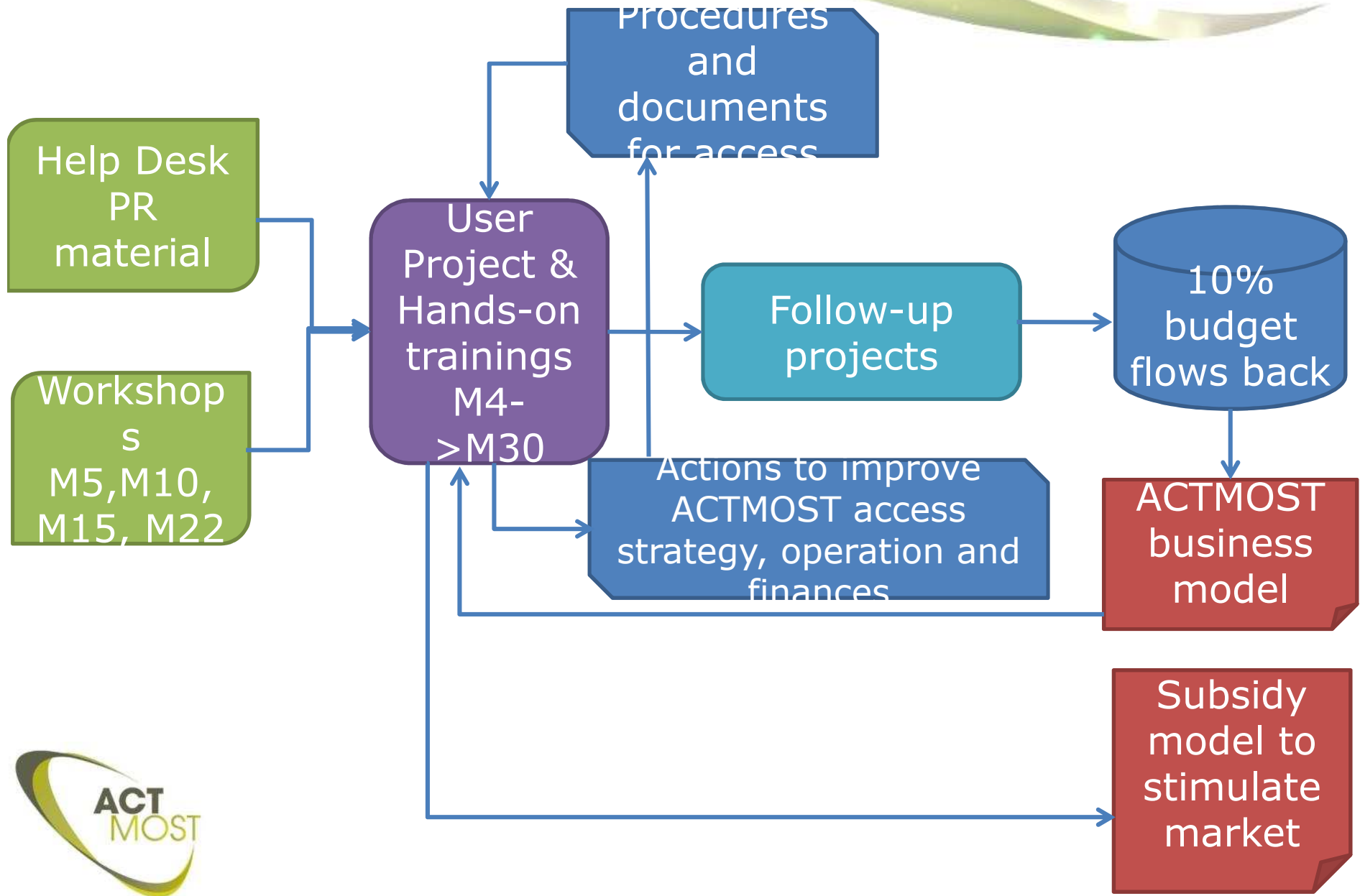
450.000€

22.500€

135.000€

WP 2





Multiplication factor

