The European Sensor Systems Cluster (ESSC)

European Sensor Systems Cluster – ESSC

Cluster governance

Rudolf Fryček, PhD.

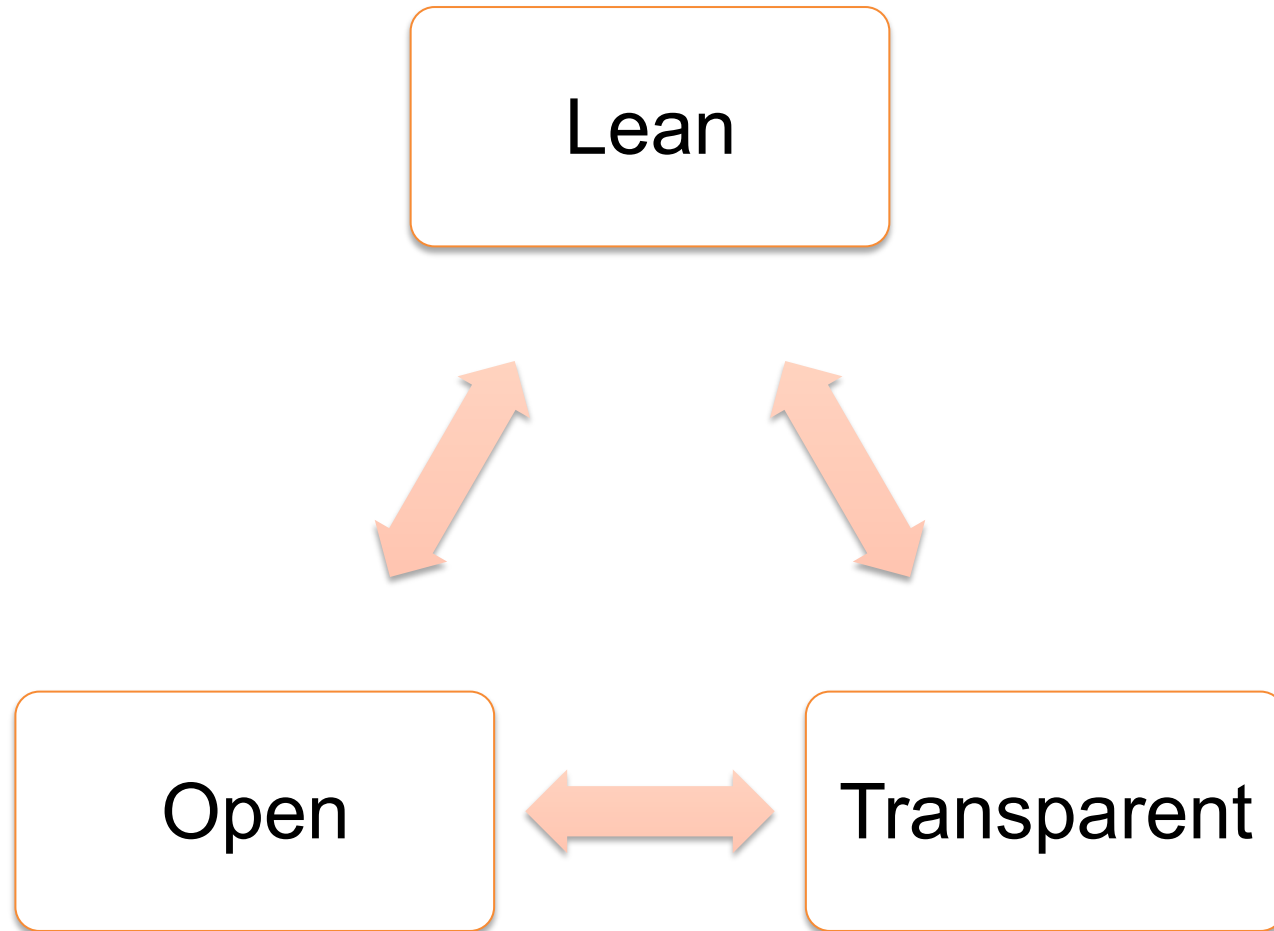**PTA/Coach of the ESSC**

frycek@amires.eu

AMIRES, Switzerland

ESSC governance principles

Lean

Open ⟷ Transparent

The European Sensor Systems Cluster (ESSC)

ESSC born from EU projects

Application/ technology	Water pollution	Air pollution/ security	Bio and health	Agriculture	Industrial applications
Organic Electronic		TANOGAPPS (People), E-GAMES (ERC)	iONE-FP7 (NMP) TANOGAPPS (People) LASERMICROFAB (People)		SMARTRONICS (NMP)
Fluorescence and imaging			ENETIC NANOPRO S (People), N Athero P), MOPHOS (N NAN		
Lipid membranes/ cells/biomarkers	AQUAVIR (NMP)	NO OSENSOR (N P)	SMA e), LTN NO	Water4crops (KBBE)	
Plasmonics and nanophotonics (e.g. CMOS, QD)	A P M	A E IPLEAS D MART (ERC), M 3 ERC)		EDISON-GA (People), MERMIG (Space), WIROX (People)
MEMS (e.g MIR by QCLs, light sources AFM)		OR QSense	PROMISING RC), MOS (I T-large)	BIOSENSORS-AGRICULT (People)	
Chemical (covalent) bonding and responsive polymers	SM DE (People), NAPES (N)		SMONDEP (People)		
Existing application clusters (incl. end-users)	WSSTP, nano4watter	EuNetAir, E2B, ama-sensorik, NanoBioNet	ETPN, MNBS		

The European Sensor Systems Cluster (ESSC)

ESSC Governance

- **Chairman of ESSC:** Michele Penza, ENEA, Italy - michele.penza@enea.it
- **Coach of ESSC:** Rudolf Frycek, Amires, Switzerland - frycek@amires.eu
- **EC Observer:** Hans Hartmann Pedersen *(EC Officer)*
  hans-hartmann.pedersen@ec.europa.eu

Application WG	Leader	Institution	Email
Environmental	D. Diamond	Dublin City Uni	dermot.diamond@dcu.ie
Indoor Air Quality	A. Schütze	Saarland Univ.	schuetze@lmt.uni-saarland.de
Health Monitoring and Comfort	P. Galvin	Tyndall	paul.galvin@tyndall.ie
Monitoring of Industrial Processes	T. Mayr	TU Graz	torsten.mayr@tugraz.at
Sensor System Integration and Commercialization	O. Martimort	Nanosense	martimort@nano-sense.com
Dissemination and Outreach	T. Simmons	AMA Sensorik	simmons@ama-sensorik.de

European Commission

The European Sensor Systems Cluster (ESSC)

N.	Name	Institute	Info	Approved	Update
1	Yvonne Joseph	TU Bergakademie Freiberg			
2	Soleimani Manuch	University of Bath, UK			
3	Estrela Pedro	University of Bath			
4	Holger Kappert	Fraunhofer Institute for Microelectronic Circ			
5	Daskal Yelyena	TU Freiberg			
6	BLONDEL Philippe	University of Bath			
7	Jakoby Bernhard	Johannes Kepler University Linz			
8	Stepankova Veronika	Enantis, s.r.o.			
9	Bowen Chris	University of Bath			
10	Bidmanova Sarka	Loschmidt Laboratories, Department of Experim			
11	Lohweg Volker	Institute Industrial IT			
12	Robert Lettow	Mettler Toledo AG			
13	Marcel Bouvet	University of Burgundy			
14	Romano–Rodriguez Albert	Universitat de Barcelona			
15	Reimringer Wolfhard	3S GmbH			
16	Huotari Joni	University of Oulu / Microelectronics and Mat			
17	Wolfgang Dettmann	Infineon Technologies AG			
18	Jerome BRUNET	Institut Pascal – Baise Pascal Universi			
19	Briand Danick	Ecole Polytechnique Fédérale de Lausanne (E			
20	Edith Pajot	INRA			
21	Stefan Köstler	Joanneum Research; Institute for Surface Tech			
22	VITER Roman	Institute of Atomic Physics and Spectroscopy,			
23	Hubálek Jaromír	Brno University of Technology, Research Centr			
24	Michael Maiwald	Bundesanstalt für Materialforschung			

The European Sensor Systems Cluster (ESSC)

To become a member

- Register at: **http://www.cluster-essc.eu**

- Membership approved by SC/WG leader

- **Act proactively** together (primary contact WG leader = coordinating role)

- Members of all stages of value chain needed

- Industry and application end-users are warmly welcome

The European Sensor Systems Cluster (ESSC)

To become a member

The European Sensor Systems Cluster (ESSC)

To become a member

Telephone:

Fax:

Mobile:

Background related to the ESSC (research activities, institute/company profile related to ESSC)

Personal S&T Activities and Team Activities related to the ESSC

Planned contribution to the European Sensor Systems Cluster (ESSC)

Interested Member to (please, sign one box or not more than two):
- ☐ SC Steering Committee
- ☐ WG1 Environmental Sensors
- ☐ WG2 Indoor Air Quality Sensors
- ☐ WG3 Health Monitoring and Comfort Sensors
- ☐ WG4 Monitoring of Industrial Processes
- ☐ WG5 Sensor-Systems Integration and Commercialization
- ☐ WG6 Dissemination and Outreach

Mo	Tu	We	Th	Fr	Sa	Su
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Roadmapping activity

Timing:

- **Phase 1 (April – May 2015)**   **FINISHED**

(Outline and structure) – SC vote

- **Phase 2 (June – August 2015)**   **DRAFT READY**

(Full Roadmap) – all member vote

- **Roadmap will be presented at Eurosensors 2015 and finalized by November 2015**

The European Sensor Systems Cluster (ESSC)

European Commission

The future belongs to those who create it!

THANK YOU FOR YOUR ATTENTION!

ESSC

The European Sensor Systems Cluster

www.cluster-essc.eu

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Support slides

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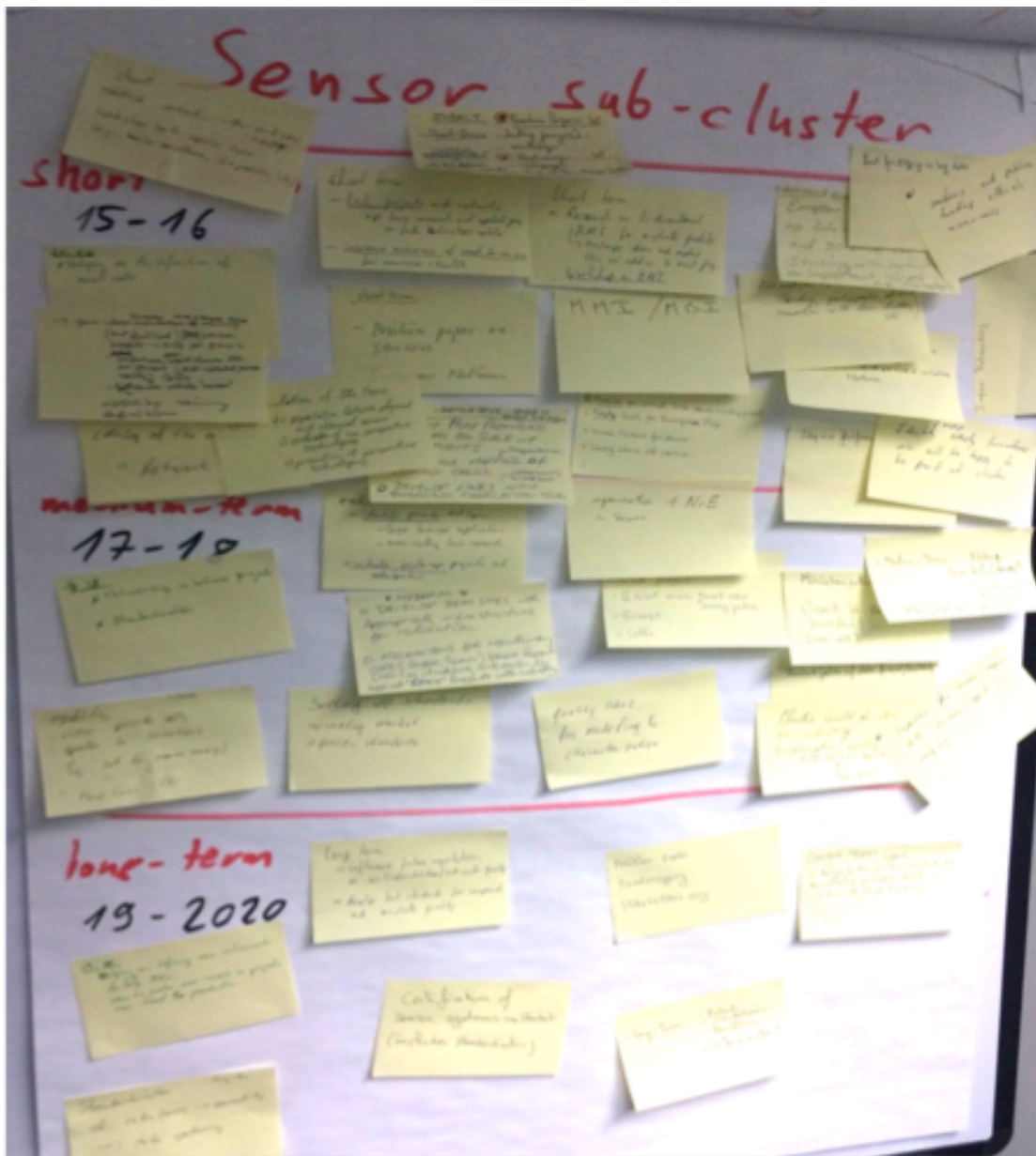
Electronic catalogue of projects/prototypes

www.EffiBUILDING.eu

- **Market intelligence database of energy efficient products and solutions**
- **48 products, 8 prototypes in sensor category**
- **Features also PV modules, Facades, Windows**
- **Free access!** **for every shared product / prototype**

The European Sensor Systems Cluster (ESSC)

- **Specific workshops**
  - **Pan-European structure (ETP-like)**
- **Engage industry and investors**
  - **EU roadmap**
- **Suggestions/advice to H2020 for business impact**
  - **Include upscaling**
- **Standardization and unified data format**

The European Sensor Systems Cluster (ESSC)

Suggestions for short term actions (2015-2016)	votes
Generate critical mass – (link existing projects) – networking (workshops with specific topic–water, air pollution, HMI, etc.)	7
Initiate EU recognizable structure (like ETP)	4
Identify & engage industry & investors (public and private)	4
European roadmap – position paper	3
Mapping of coming H2020 calls and support in preparation	3
Survey across all partners and partners catalogue	2
Webpage	2
Select most promising platforms for scale up	1
Develop links with emerging fabrication technologies	1
Organization of NoE on sensors	1
Awareness of need for sensors for environmental monit.	1
Tool for sorting big data	1
Formulation of the technical focus of the cluster	1

Suggestions for medium term actions (2017-2018)	votes
Suggestion for H2020 topics with prior business impact analysis or cross boundary programme	5
Involvement of industry, SMEs and start ups – in cluster and projects, incl. scale up projects	4
Standardization of data format – comparable data & selling up standards (market creation)	3
Launch Marie Curie ITN, CSA, ERDF, ERANET	2
Involvement of investors (workshops), cluster as advisors	1
Quality label for modeling & characterization	1
Miniaturization (wearable and smartphone)	1
Networking	1
Develop demosite(s) for validation	1
Maintain support to basic research (ERC-like)	1

Suggestions for long term actions (2019-2020)	votes
Standardization (protocols, certification, regulations) of sensors, systems (e.g. connectivity) and for quality of air and water	4
Legal and regulatory framework for remotely sensed data (security, trust, privacy)	1
Relationship with investors (incl. VCs)	1
Position paper & roadmapping	1
Defining new instruments to help SMEs and support to products	1