

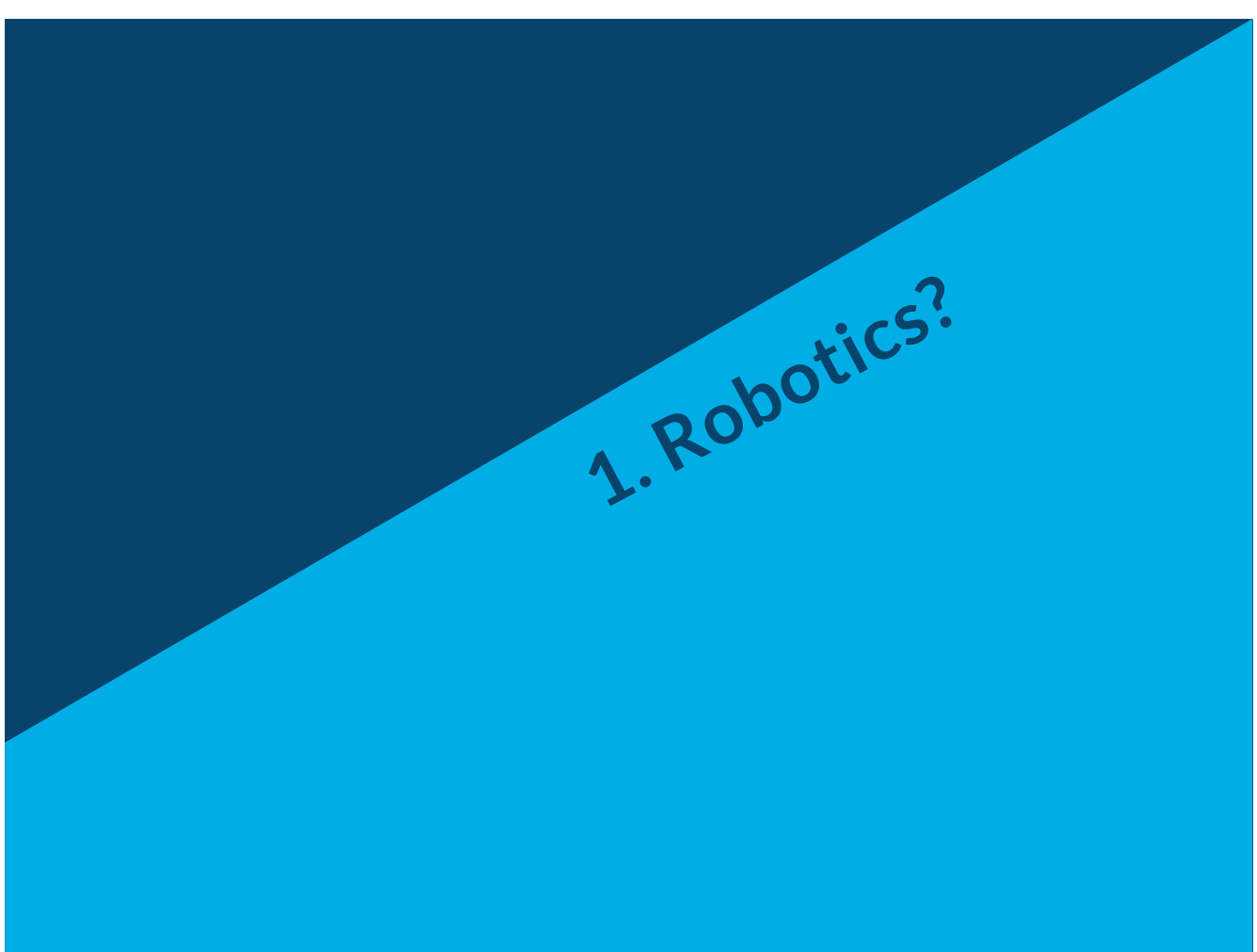
SPARC

The Road to Robotics

Uwe Haass
Secretary-General, euRobotics AISBL



SPARC
The Partnership
for Robotics in
Europe



1. Robotics?

From repetitive automation to “cognitive” behaviour



Examples of different robots



Work: robot as
“companion” of
human workers
(ABB)

Health:
robots support
logistics in
hospitals
(Bluebotics)



Civil Applications



Safety: Fire Extinguishing Robot

(Robocluster Denmark)



Services: Cleaning

(Siemens)

Robots in Transport and Logistics



Transport: automatic driving and parking

(ETH Zürich)

Logistics: loading/unloading of a container with mixed objects

(UAS Reutlingen)



Robots for Waste Disposal and Decommissioning



Waste Disposal

(City of Peccioli, SSSA)

Decommissioning

(Snake Arm Robots of OC Robotics dismantle pipes)



Robots under Water and on Fields



Underwater Robot to prevent accidents off-shore

(subsea 7)

Robot for Precision Farming

(Bosch, Amazone)



2. What is SPARC?

Robotics – a pivotal technology



Growth in world market:

- worldwide revenues today €22bn, doubled by 2020.

Impact on manufacturing

- competitiveness, re-industrialisation of Europe:
goal: value added manufacturing 20% of GDP by 2020

Societal impact:

- demographic change, health and well-being, food production, transport and security

→ Europe should stay No. 1 in both industrial and service robots

Launch of “SPARC” on 3 June 2014



- 700 M EUR from EC
- 2.1 B EUR from EU Industry
- 2014 - 2020
- Largest civilian robotics programme in the world
- Robotics will have a very positive impact on European economy and society

http://europa.eu/rapid/press-release_SPEECH-14-421_en.htm

Lisbon 20 Oct 2015

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SPARC

- ... is the partnership of euRobotics AISBL in Brussels with the European Commission

SPARC: European Robotics PPP



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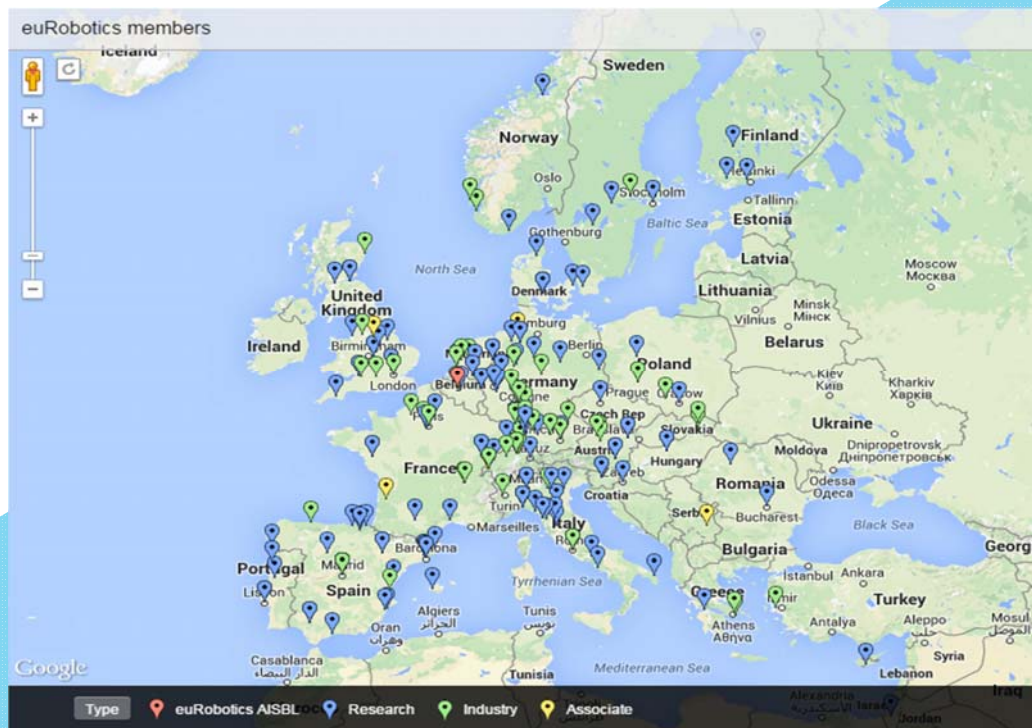
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euRobotics Association:
members develop the
Roadmap for Robotics in
Europe
and recommends
action plan to Commission

EU Commission
implements the action
plan into Workprogramme,
selects projects, monitors
projects

248 euRobotics Member Organisations



2 Documents members produce with support from the whole community



- High level document
- “SRA”

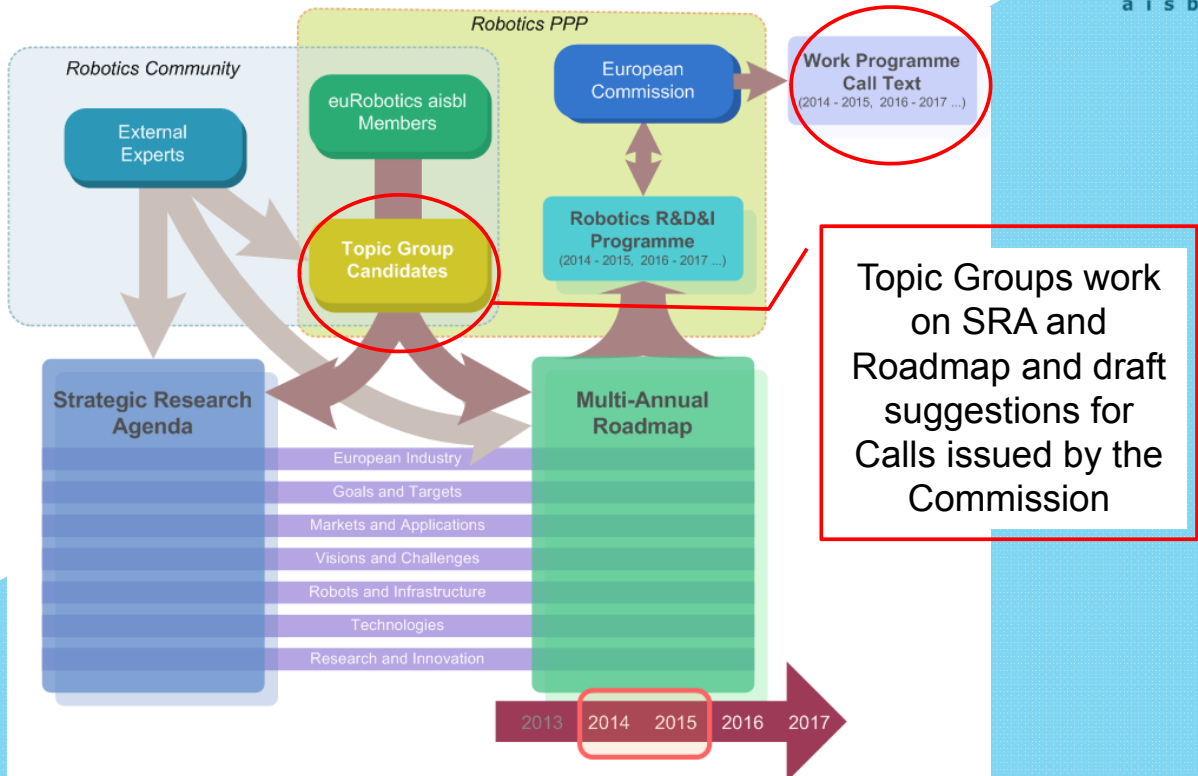


- Technical detail, updated each year
- Multi-annual Roadmap, “MAR”



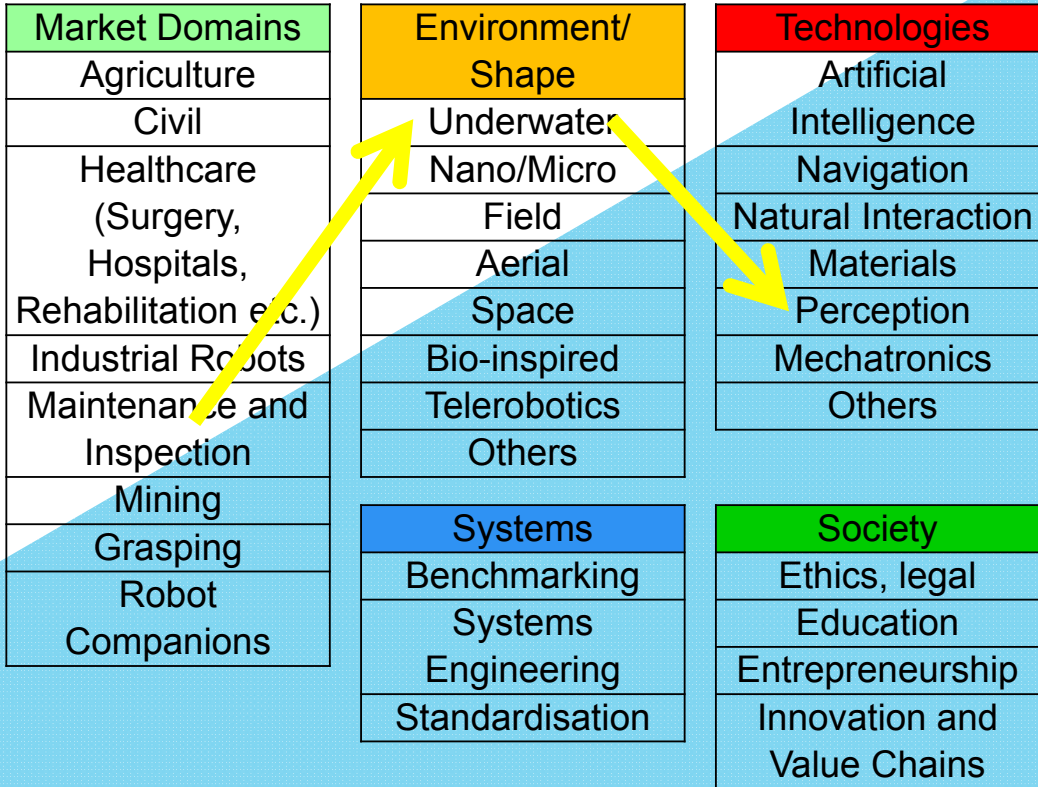
17 Sept. 2012, Leuven – Roadmapping Workshop

Roadmapping: From Members to Call Text



Topic Groups of euRobotics AISBL

Example of Communication between Topic Groups



Roadmapping is a *weighted* process between markets, shapes, technologies

→ weighted to maximise objectives of SPARC



Driver of SPARC is euRobotics:

- ✓ 248 members and still growing
- ✓ \approx 25 Topic Groups: very active
- ✓ growing relations with other EC units
- ✓ building relations with key-MEPs
- ✓ Robotics and Regions
- ✓ Robotics and Jobs
- ✓ Networking
- ✓ information to Media/ General Audience

3. Call 2016

ICT-25 Advanced robot capabilities research and take-up

a. Research & Innovation Actions

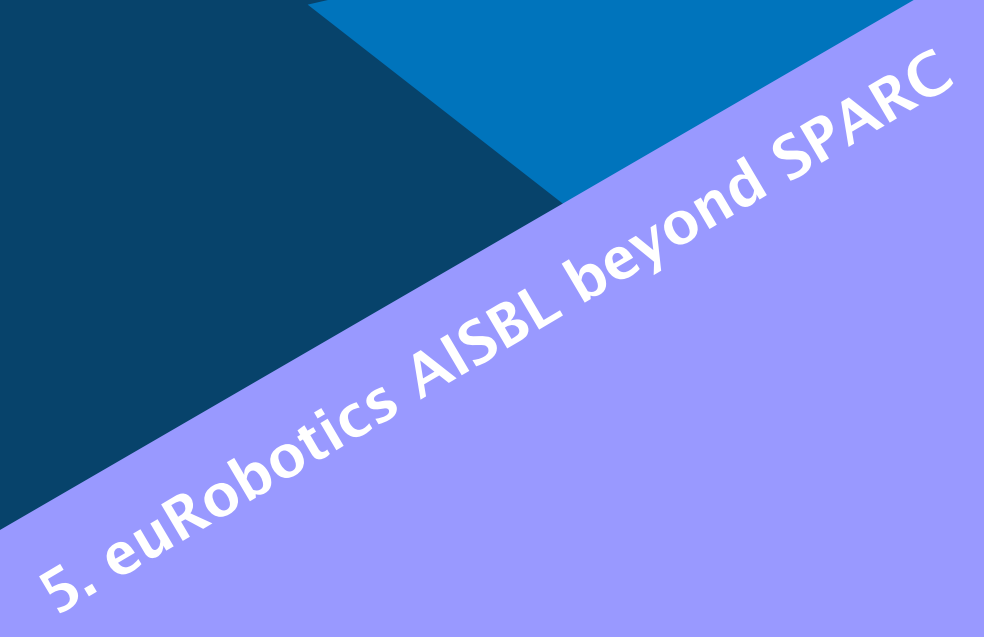
- I. Open, generic forward-looking research into novel technical advances
- ii. Technology research and development to achieve step ..systems development, human-robot interaction, mechatronics, perception, navigation and cognition.

b. Innovation Actions driven by end users

- III. Improving the deployment prospects through end user-driven application developments
- IV. Filling technology or regulatory gaps through end user-driven innovations

ICT26: System abilities, development and pilot installations

- a. Research & Innovation Actions on system abilities
- b. Research & Innovation Actions on multiple-actor systems
- c. an Innovation Action on systems development technology
- d. Innovation Actions on pilot installations for robot testing

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euRobotics AISBL – beyond SPARC: supports a growing network



2014:

- > 500 events
- in 26 countries
- >60,000 people



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Thanks. More? Ask!



Dr. Uwe L. Haass,
(Acting) Secretary-General
Uwe.Haass@eu-robotics.net



SPARC
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Robotics in Europe

Networking Discussion Groups

1. Impact on industry, economy and jobs
2. Ethics and Legal Aspects in Europe
3. How to accelerate innovation?
4. Regions and Robotics
5. Education and Robotics