The Public-Private Partnership (PPP) in Robotics

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KUKA Laboratories GmbH
Vice-President Industry euRobotics aisbl
[EUROP Executive Board Chair]

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TU Berlin
Berlin, Germany
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## Origins

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<th>EU Frameprogramme</th>
<th>related EU-funded project</th>
<th>Networks / associations</th>
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<td><strong>2014-2020</strong></td>
<td><strong>ROCK eu</strong></td>
<td><strong>PPP Robotics 2020</strong></td>
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<td><strong>2007-2013</strong></td>
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<td><strong>SRA 2009</strong></td>
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<td><strong>2002-2006</strong></td>
<td><strong>CARE</strong></td>
<td><strong>European robotics</strong></td>
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<tr>
<td><strong>1998-2002</strong></td>
<td><strong>NoE EURON I</strong></td>
<td><strong>EUROP</strong></td>
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* KUKA in the lead

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**NoE EURON I**

**SRA 2009**

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**EUROP**

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**NoE EURON II**

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**CARE**

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**ROCK eu**

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**EUROP**

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**SEVENTH FRAMEWORK PROGRAMME**

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**SIXTH FRAMEWORK PROGRAMME**

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**EU Frameprogramme related EU-funded project Networks / associations**
Recent key achievements

- Supported and united EUROP & EURON
- Foundation of euRobotics AISBL
- MoU with EC regarding Public-Private Partnership (PPP)
- New SRA for PPP initiated
Recent key achievements

- Collaborations established with traditional and non-traditional stakeholders, e.g., RoboCom, ManuFuture, EFFRA, euCog, agriculture, …
- European Robotics Forum established 4\textsuperscript{th} edition: 19/03 – 21/03/2013
- European Robotics Week established 3\textsuperscript{rd} edition: 25/11 – 01/12/2013
- European projects @ AUTOMATICA 2012 showcased
- Press Center online
Public-Private Partnership (PPP) …

… means a partnership where private sector partners, the European Union and, where appropriate, other partners, commit to jointly support the development and implementation of a research and innovation programme or activities.

**European Robotics PPP**

**Private Partner - euRobotics aisbl**
- Development of research & development & innovation agenda
- Suggesting call topics, priorities, funding profile

**Public Partner**
- Implementation of R&D&I agenda

*Regular meetings*

*structured dialogue*
The private side: euRobotics aisbl

- non-profit organisation for all stakeholders in European robotics (aisbl = *association internationale sans but lucratif*)
- members from industry and research
- continuing the successful cooperation between the EUROP and EURON networks
- ensuring sustainable development of European robotics
- engaging from the private side in a contractual public-private partnership (PPP) with the European Union as the public side
## Founding members (17 September 2012)

### Industry Members
1. Adele Robots
2. Aldebaran Robotics
3. BlueBotics SA
4. CLAAS Agrosystems GmbH & Co KG
5. Carl Cloos Schweißtechnik GmbH
6. EUnited European Engineering Industries Association – EUnited Robotics
7. Finmeccanica S.p.a
8. Heron Robots S.R.L.
9. IXION Industry & Aerospace S.L
10. KUKA AG
11. PAL Robotics
12. RURobots
13. Shadow Robot
14. Schunk GmbH & Co. KG
15. Siemens AG
16. Spinea
17. Verband Deutscher Maschinen- und Anlagebau VDMA – Robotik
18. Yaskawa Europe
19. ZTS VVU Kosice a.s.

### Research Members
1. CEA Commissariat à l’énergie atomique et aux énergies alternatives
2. ITIA-CNR Consiglio Nazionale delle Ricerche
3. Fraunhofer-Gesellschaft zur Förderung der angewandten Forschung e.V.
4. IK4 Research Alliance
5. INESC
6. INRIA
7. Bonn-Rhein-Sieg University
8. Carlos III de Madrid University
9. CTIT Institute, University of Twente
10. KU Leuven University
11. Miguel Hernandez de Elche University
12. Naples Federico II University
13. University of Oulu
14. University of Southern Denmark
15. Tecnalia
16. Wissenschaftliche Gesellschaft Montage Handhabung und Industrierobotik e.V.
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euRobotics aisbl Membership
as of 17/09/2012

In total 43 members, composed of 20 industry members and 23 research members
Structure of euRobotics aisbl - private side of the Robotics PPP

- **Board of Directors**
  - **euRobotics Industry Board**
    - Representatives from industry
  - **euRobotics Research Board**
    - Representatives from research

- **Board of Directors**
  - **President** (from industry)
  - **Industrial chair and vice president**
  - **Research chair and vice president**

- **General Assembly**
  - **Industrial Membership**
    - Robot Manufacturers
    - Partners (suppliers, integrator, end user, ...)
  - **Research Membership**
    - Research Technology Organisations
    - Higher Education Establishments

- **Communication with the EC**

- **Treasurer**
- **Secretary-General (Secretariat)**

**Choose / Employ**

**Election**
Industry BoD members

- Rainer Bischoff, KUKA, Germany, **Vice-President Industry**
- Giovanni Barontini, Finmeccanica, Italy, RM-L, **Treasurer**
- Geoff Pegman, RURobots, UK, RM-SME
- Nicola Tomatis, BlueBotics, Switzerland, RM-SME
- Rodolphe Gelin, Aldebaran, France, RM-SME
- Björn Matthias, ABB, Sweden, RM-L
- Hans-Peter Grothaus, Claas, Germany, RM-L
- Georg von Wichert, Siemens, Germany, P
- Christopher Parlitz, Schunk, Germany, P
- Renaud Champion, Robolution Capital, France, P
- Thilo Brodtmann, EUnited Robotics, Belgium, P
- N, NN, P end user

Elected at General Assembly
Lyon, March 20, 2013
Research BoD members

Elected at General Assembly
Lyon, March 20, 2013

HES:
- Herman Bruyninckx, KUL, Belgium, HES, Vice-President Research
- Dario Paolo, Scuola Superiore Sant'Anna, Italy, HES
- Bruno Siciliano, University of Naples, Italy, HES
- Juha Röning, University of Oulu, Finland, HES
- Asfour Tamim, KIT, Germany, HES
- David Lane, Heriot Watt University, UK, HES

RTO:
- Jon Agirre Ibarbia, Tecnalia, Spain, RTO
- Martin Hägele, Fraunhofer IPA, Germany, RTO
- Alin Albu-Schäffer, DLR, Germany, RTO
- López de Vallejo Irene, IK4 Tekniker, Spain, RTO
- Giorgio Metta, IIT, Italy, RTO
- Irene López de Vallejo; IK4 Tekniker; RTO
Robotics PPP MoU Signature Event

- Concert Noble, Brussels, 18 September 2012

Press release of European Commission, 18 September 2012
The way towards the Robotics PPP

- PPP Info Day for Industry: 12.06.2012
- euRobotics aisbl Founding event: 17.09.2012
- PPP Application: 13.06.2013
- 2012-2013: Regular meetings structured dialogue
- 2013: EUROP
- 2014: EURON
Goals of the Robotics PPP

The European Robotics PPP will …

1. develop strategic goals of European robotics and foster their implementation
2. improve industrial competitiveness of Europe through innovative robotic technologies
3. position robotic products and services as key enablers for solving Europe’s societal challenges
4. strengthen networking activities of the European robotics community
5. promote European robotics
6. reach out to existing and new users and markets
7. contribute to policy development and addressing ELS issues
From SRA 2009 → SRA 2020

- Reasons for update:
  - Creation of the PPP
  - Horizon 2020
  - New strategic role for SRA
    - provides source for Call texts

- Two documents:
  - SRA 2020
    - high-level document
    - broad readership
    - strategic overview
  - Roadmap 2020
    - technical detail
    - priorities and impact
    - updated annually

SRA 2009 (incl. appendices)
www.robotics-platform.eu/sra
SRA review process and timeline

- Process is inclusive, but decisions and priorities are a matter of euRobotics aisbl members and the EC
- Feedback via email and web survey
- Limited number of physical meetings

- Driven by the Horizon 2020 time line
  - Jan 2014 expected start
  - Mid 2013 call text preparation start

- SRA time scale:
  - Jan 2013: first public draft (SRA and Roadmap)
  - March 2013: ERF consultation
  - April 2013 (after ERF) Roadmap for PPP application
  - August 2013 Roadmap release

http://robotics2020.wikispaces.com
Robotics PPP Timeline

- PPP application was filed on June 13, 2013
  - Four key elements of the application:
    - Vision
    - Research and innovation strategy (updated SRA)
    - Expected impacts
    - Governance
  - Annexes: list of members, statutes of private side, draft SRA

- Next:
  - July/August: Evaluation of all PPP proposals followed by an EC communication about successful PPPs
  - Sept./Oct.: Negotiation with successful PPP consortia for an agreement which will have the character of an MoU
  - End 2013/beginning of 2014: ceremonial signing of the agreement
Robotics PPP Roadmapping

- Input to SRA and multi-annual road map
- Strategic input + direction
- Working document + evaluations
- Policy Advice

- PPP Advisory Group
- Board of Directors
- EC Robotics Representatives

- DG INFSO
- EU

European Robotics Community

Topic Groups

Independent Experts
Topic Groups

- Key instrument for community-driven R&D&I

- Organisation/structure of the association:
  - Board of Directors creates **Task Forces** to solve temporary organisational problems, e.g.:
    - Statutes and Bylaws; membership advocacy; web presence; ERF organisation;…
  - **General Assembly** makes final decisions

- R&D&I Contents of the PPP roadmaps:
  - **Topic Groups**: instrument to provide content to the Research, Development and Innovation (R&D&I) roadmap of our organisation.

→ All members of euRobotics AISBL are expected to become active in these Topic Groups!
Examples for possible Topic Groups

- domains “inherited” from Strategic Research Agenda 2009: industrial, professional & domestic service; security, space;
- **medical** robotics;
- **safety** standards and safety controllers for robotic systems;
- best **experimental practices** and **benchmarking**;
- **software, systems and knowledge engineering**, functionality repositories, development tools, interface standards;
- **agricultural** and food processing robotics
- **Education and Training**: Georges Giralt PhD Award, curricula, course material, Summer Schools.
- Factory of the Future cooperation;
- robot-robot and robot-machine cooperation and control.
Membership in euRobotics aisbl

<table>
<thead>
<tr>
<th>Membership types and sub-categories</th>
<th>Voting Rights</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Industry membership</strong></td>
<td></td>
</tr>
<tr>
<td>Companies pursuing research, design, development and / or manufacturing of robots in Europe</td>
<td>✓</td>
</tr>
<tr>
<td>Companies having a partnership relationship to the robotics industry, as supplier / customer.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Research membership</strong></td>
<td></td>
</tr>
<tr>
<td>Research Technology Organisations (RTO)</td>
<td>✓</td>
</tr>
<tr>
<td>Higher Education Establishments (HES), such as universities.</td>
<td>✓</td>
</tr>
<tr>
<td><strong>Associate membership</strong></td>
<td></td>
</tr>
<tr>
<td>comes without voting rights. It is open to all stakeholders in robotics not falling into the categories above, such as trade unions, non-governmental organisations, and regional clusters</td>
<td></td>
</tr>
</tbody>
</table>

- Applications for Membership shall be addressed in writing to the Association’s Secretary-General.
Membership in the euRobotics aisbl

- Annual membership fee based on robotics-related turnover / budget

<table>
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<th>Companies: turnover</th>
<th>Annual Fee</th>
<th>Free registrations to the European Robotics Forum</th>
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<tr>
<td>RTOs and HES: budget*</td>
<td>950 Euro</td>
<td>1</td>
</tr>
<tr>
<td>&lt;= 2 Mio Euro</td>
<td>950 Euro</td>
<td>1</td>
</tr>
<tr>
<td>2-10 Mio Euro</td>
<td>2,500 Euro</td>
<td>2</td>
</tr>
<tr>
<td>10-50 Mio Euro</td>
<td>5,000 Euro</td>
<td>3</td>
</tr>
<tr>
<td>50-100 Mio Euro</td>
<td>10,000 Euro</td>
<td>4</td>
</tr>
<tr>
<td>&gt; 100 Mio Euro</td>
<td>15,000 Euro</td>
<td>5</td>
</tr>
</tbody>
</table>

* maximum fee for RTO and HES members is 5,000 Euro

** minimum membership fee only valid for:
- very small companies (start-up companies)
- small research groups from RTOs and HES (new groups in phase of establishment)
- research groups from new EU member states or associated countries
Membership Statistics – 14/06/2013

- Research: 72
- Industry: 43
- Associate: 2
Membership: Countries of Origin

- A; 4
- B; 4
- CH; 4
- D; 28
- DK; 5
- ES; 15
- F; 9
- FI; 3
- GR; 1
- HU; 2
- HR; 1
- I; 19
- NL; 4
- PT; 4
- SE; 3
- SK; 2
- UK; 8
Membership Applications

euRobotics AISBL foundation

European Robotics Forum, Lyon

---|---|---|---|---|---|---|---|---
45 | 10 | 5 | 1 | 10 | 20 | 15 | 5 | 1

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Membership: Distribution of Turnover/Budget

- 0 - 200k
- 200k - 2M
- 2M - 10M
- 10M - 50M
- 50M - 100M
- over 100M

- Associate
- Industry
- Research
Membership: Distribution of Fees (Counts)
Membership: Distribution of Fees (Value)

0 € - 250 €
950 €
2.500 €
5.000 €
10.000 €
15.000 €

Associate
Industry
Research
Origin of Membership Fees*

*depending on consolidation of robotics-related turnover/budget category

- Research: €125,950
- Industry: €185,550
Member benefits for all members

- **Strategic benefits:**
  - being visible as (active, representative) member of the European robotics community
  - build up of a strong European robotics community
  - being represented on high political levels
  - great networking opportunities (meeting, exchanging and building up relations with all representatives of the European robotics community)
  - ability to inform EC on industrial and academic needs, to shape the R&D&I agenda and to take part in the preparations of calls, the setting priorities and the definition of EC work programmes
  - business development; market intelligence
Thank you! – Questions?

Thank you for your attention!
Questions?

Join euRobotics and benefit from membership!

Rainer.Bischoff@kuka.com

www.eu-robotics.net