4th Stuttgart ROS Meet-Up
Agenda

- Introduction
- Short Welcome by ROS-Industrial Consortium Europe
- Presentation by Jacob Perron (Open Robotics) on what's new in Eloquent and forthcoming in Foxy & discussion
- Ad-hoc Presentation or Lightning Talks by the audience
- Networking [Coffee & Code]

- Time 13:30 – 15:00
Fraunhofer IPA
Technology consultant and innovation driver since 1959

- One of the largest institutes of the Fraunhofer-Gesellschaft
- 70.8 mil EUR budget, 25.8 from industry
- More than 1,000 employees

New technical center “Gebäude D” in Stuttgart

Note: key figures for 2016: IPA Stuttgart including locations in Rostock, Mannheim, Bayreuth and Vienna
Fraunhofer IPA
Robot and Assistive Systems

- Department (320 - Dr. Werner Kraus) 70 researcher in 7 groups, with focus on:
  - Handling and Intralogistics (321 – Richard Bormann)
  - Welding and machining (322 – Johannes Stoll)
  - Mobile Robotics (323 – Dr. Kai Pfeiffer)
  - Service Robotics (324 – Dr. Birgit Graf)
  - Robot Control (325 – Frank Nägele)
  - Software Eng. and System Int. (326 – Christoph Hellmann)
  - Assembly Automation (327 – Ramez Awad)

- And a number of spin-offs, established and in the making, incl. Mojin Robotics and drag&bot
Tech transfer in industrial robotics: ex. robot end-effector developments since 1973 (>150)

→ "Milestones of robotics" exhibition at IPA
ROS-Industrial from 2012 - 2019

Relevant audience

- Piloting with SwRI the ROS-Industrial concept (2012)
- Managing ROS-I EU (~80 organizations worldwide)
What is ROSin?

- Horizon2020 EU-project ROSIN supports EU’s strong role within ROS-Industrial
- Fostering Europe’s expertise in advanced manufacturing
- 4 years, ~ 8 million EUR funding (01.01.2017 – 31.12.2020)
  - Builds upon what exists; sustainable results after its completion
  - Key actions to make ROS better, business friendlier, more accessible
  - (Extra goal:) cluster other publicly funded activities using ROS like RobMoSys, OFERA, or SeRoNet

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## Key actions to make ROS:

### better

**Software Quality**

ROS-I best practices and tools: continuous integration, unit testing, code reviews

ROSIN further improves on them with code scanning, automated test generation, model-in-the-loop testing

[rosin-project.eu/software-quality-assurance](http://rosin-project.eu/software-quality-assurance)

### business friendlier

**New components + path for exploitation**

3.5 Million € available to third parties for ROS-Industrial development

Develop missing components or improve existing ones

Commercial release template (licensing, etc)

[rosin-project.eu/ftps](http://rosin-project.eu/ftps)

### more accessible

**Education**

Educate students: summer schools

Train professionals: ROS-I academy

Open Call to fund your ROS education initiative

[rosin-project.eu/education](http://rosin-project.eu/education)
3rd Stuttgart ROS Meet-Up