ROSIN: ROS-I as an EU Digital Industrial Platform for Robotics

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ROSIN in a nutshell

• ROS and subprojects are here to stay
  – Worldwide adoption, hundreds of millions €/$ already in it
  – Arguably the de-facto standard for “modern robotics”

• The EU cannot afford to be left behind
  – Huge public spending in R&D: put it in ROS and contribute to its development. Don’t miss this train!

• ROSIN: 4-years, ~8 million EUR H2020 project
  – Aims to aggregate the (many) EU-based ROS activities
  – Builds upon what exists, can be continued after it ends
The ROSIN project will make **ROS-Industrial the Open-Source industrial platform** for robotics and factory automation, and will put Europe in a leading position within this global initiative.

**OSS for automation**
Fact: Open-Source is highly suitable for infrastructure work (think Linux, Android)

“New” robots follow this: service robots run on ROS

Can we do it also on “old” robots (factory automation)?

**ROS-Industrial: a worldwide initiative**

50+ organizations
Industrial deployments

**The EU can impact it!**
EU already has a big share: tech co-lead @ TU Delft, 20+ members Cons. @IPA

“Sweat equity”: in OSS, dev work buys you a say in it!

EU funding will provide the needed “boost”
The ROSIN approach

Make ROS-I **better** (in terms of software quality) **business friendly** (components, licensing) **accessible** (widely taught, easy for everybody)

**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

**New components + path for exploitation**

3+ Million € available to third parties for ROS-Industrial development

Develop missing components or improve existing ones

Commercial release template (licensing, etc)

**Education**

Educate students: summer schools

Train professionals: ROS-I academy

**Open Call** to fund your ROS education initiative

16 May 2017 Global ROS-I Community Meeting
Making ROS-Industrial an EU Digital Industrial Platform for robotics: an Open-Source Infrastructure for users and providers of automation

Deployed on the factory floor

50+ ROS-Industrial based deployments on the factory floor and real products will prove its technical viability

Financially sustainable

100 members in the ROS-Industrial Consortium Europe will ensure support after ROSIN terminates

A channel for European talent

1000 engineers trained in ROS-Industrial and a self-sustained education pipeline will grow ROS-I expertise
More on FTPs

• Any entity with a legal seat in EU and associated country is eligible

• We cover 1/3 of the development costs (up to 100k), in exchange for:
  – Your commitment to cover the remaining 2/3
  – The results to be (ultimately) open sourced

• Teams from 1 organization up: if >1, an FTP champion will be identified

• Your personnel costs are refundable!

• Call is open: rosin-project.eu/ftps
Example topics

- **HW-related components** (e.g., drivers, configuration tools)
- **REPs**, (akin to, e.g., an IEEE standard with a reference implementation of a working system)
- **Algorithms** (reference implementations): e.g., a SLAM algorithm which currently exists only as a MATLAB implementation
- “**Application templates**” driven by concrete use cases
- **Improvement of existing components**, e.g., Rviz, navigation stack
- **Process related work**, e.g., audit- or build-related
How do I know more?

• Applicants guide: http://rosin-project.eu/ftps
• Info session to be held at Fraunhofer IPA (Stuttgart), on July 19, 2017 -> to be announced soon on rosin-project.eu and rosindustrial.org
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The project consortium

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