



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 **ambition**



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





The ROSIN impact



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 (uo 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?

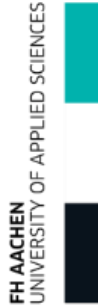


- Applicants guide: <http://rosin-project.eu/ftps>
- Info session to be held at Fraunhofer IPA (Stuttgart), on July 19, 2017 -> to be announced soon on rosin-project.eu and rosindustrial.org
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The project consortium



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