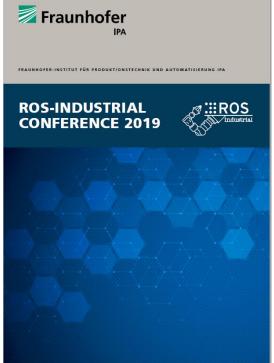
# WELCOME TO THE ROS-INDUSTRIAL CONFERENCE 2019

industrial rosindustrial.org

7 years of ROS events at Fraunhofer IPA







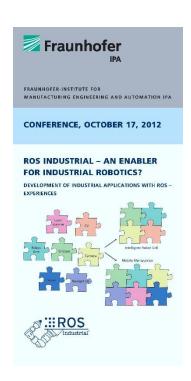


ROS-Industrial Conference November 3 to 4, 2016 Keynote speakers





#### **ROS-Industrial since 2012**



A software platform for industrial robotics & automation, adopted and (ideally) co-developed by its stakeholders.

github.com/ros-industrial

The initiative to pursue this goal, through actions across three regions: ROS-I Consortia North America, Europe, Asia Pacific; ROS-I community.

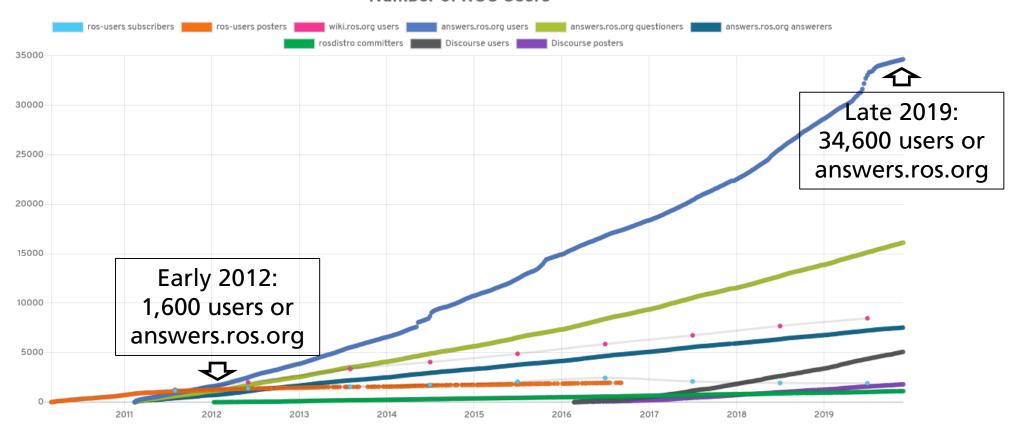
rosindustrial.org

A way to understand how to use open-source, and possibly rethink your practices and business models?



# ROS in numbers: users on answers.ros.org

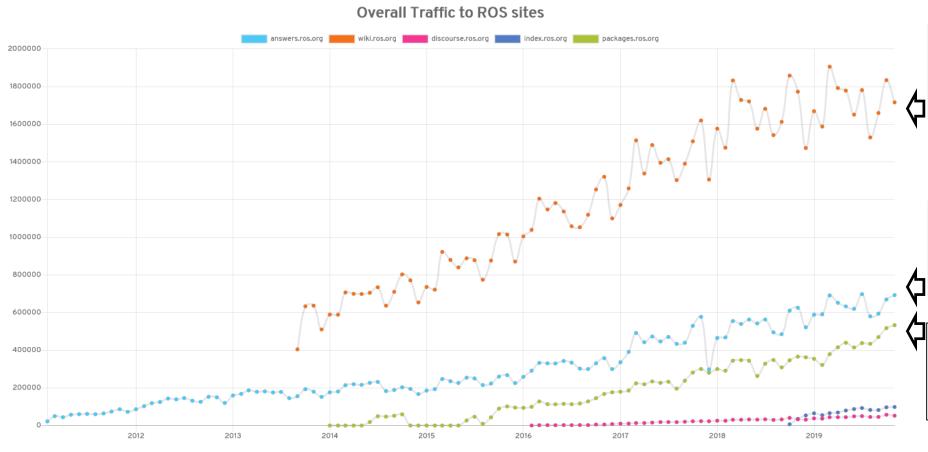
#### **Number of ROS Users**



Source: <u>metrics.ros.org/index.html</u>



## **ROS** in numbers: downloads



November 2019: 1,716,602 page views on wiki.ros.org

November 2019: 692,631 page views on answers.ros.org

November 2019: 533,054 page views on packages.ros.org

Source: metrics.ros.org/analytics pageviews.html



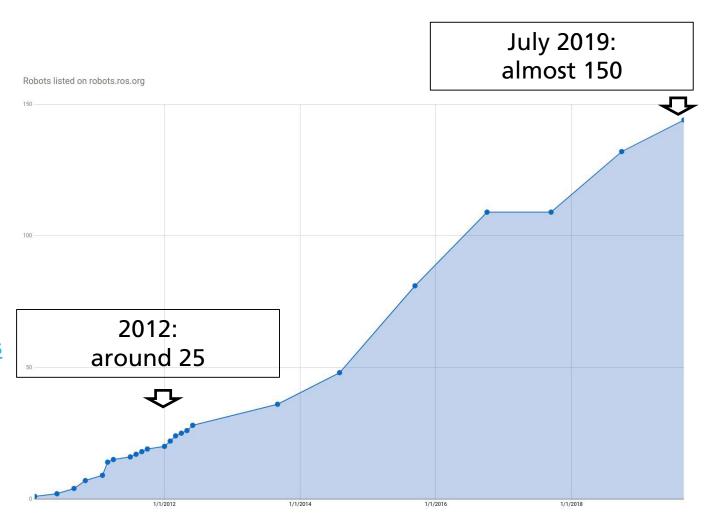
## **Documented ROS Robots**

Robots listed on robots.ros.org

The number of different types of robots available to the community with ROS drivers

#### Source:

http://download.ros.org/downloads/metrics/metrics-report-2019-07.pdf





## **ROS-Industrial in 2019**



























































































































































## **ROS-Industrial Conference 2019**



 $\mathbf{T} \cdot \cdot \mathbf{Systems} \cdot$ 



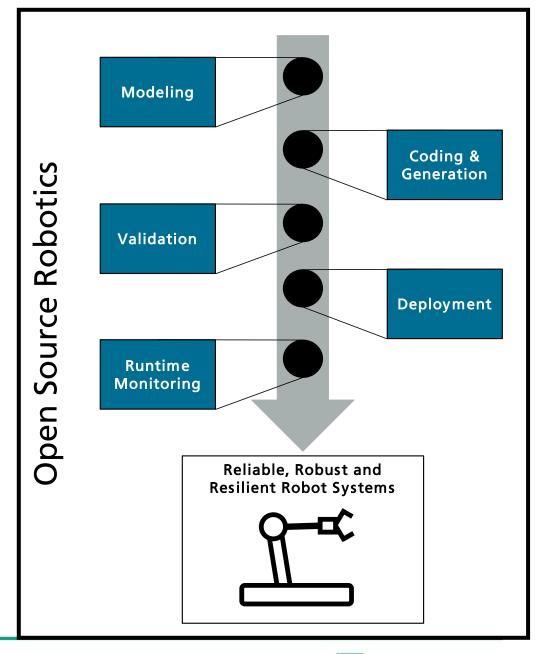
# 326 – Software Engineering and System Integration



#### What do we do?

#### Some of our activities:

- Manage the ROS Industrial Consortium Europe
- Software development lifecycle for robot systems
- Runtime monitoring for robot systems





## **Current research projects**



MINISTERIUM FÜR WIRTSCHAFT, ARBEIT UND WOHNUNGSBAU

RoboShield (Jul 2018 – Dec 2019)

Kognitive Robotik (Okt 2019 – )

Gefördert durch:



aufgrund eines Beschlusses des Deutschen Bundestages Digitale Technologien für die Wirtschaft (PAiCE)

SeRoNet (Mar 2017 - Feb 2021)

GEFÖRDERT VOM



Technik zum Menschen bringen

»Photonik für die flexible, vernetzte Produktion – Optische Sensorik«. ARAIG (Oct 2017 - Sept 2020)

SeHer (Mar 2019 – Feb 2022)





ScalABLE 4.0 (Jan 2017 – Dec 2020)

ROSIN (Jan 2017 - Dec 2020)

agROBOfood (Jun 2019 – Mai 2023)

