ROS-Industrial Community Meeting

June 23, 2020

Welcome

- Agenda
  - 9:00 – Welcome
  - 9:05 – ROS-I Americas Update - M. Robinson & Levi Armstrong, SwRI
  - 9:20 – ROS-I Asia-Pacific Update - Erik Unemyr, ROS-I AP
  - 9:40 – ROS-I EU Update - Christoph Hellman Santos, Fraunhofer IPA
  - 9:55 - Proposing a Cartesian trajectory interface for ROS - Felix Exner, Research Scientist, FZI Research Center
  - 10:10 – Securing Robots for the long term - Adi Singh, Product Manager - Robotics at Canonical
  - 10:35 - ROS2 migration and next-generation ROS features - Henning Kayser - Roboticist, PickNik

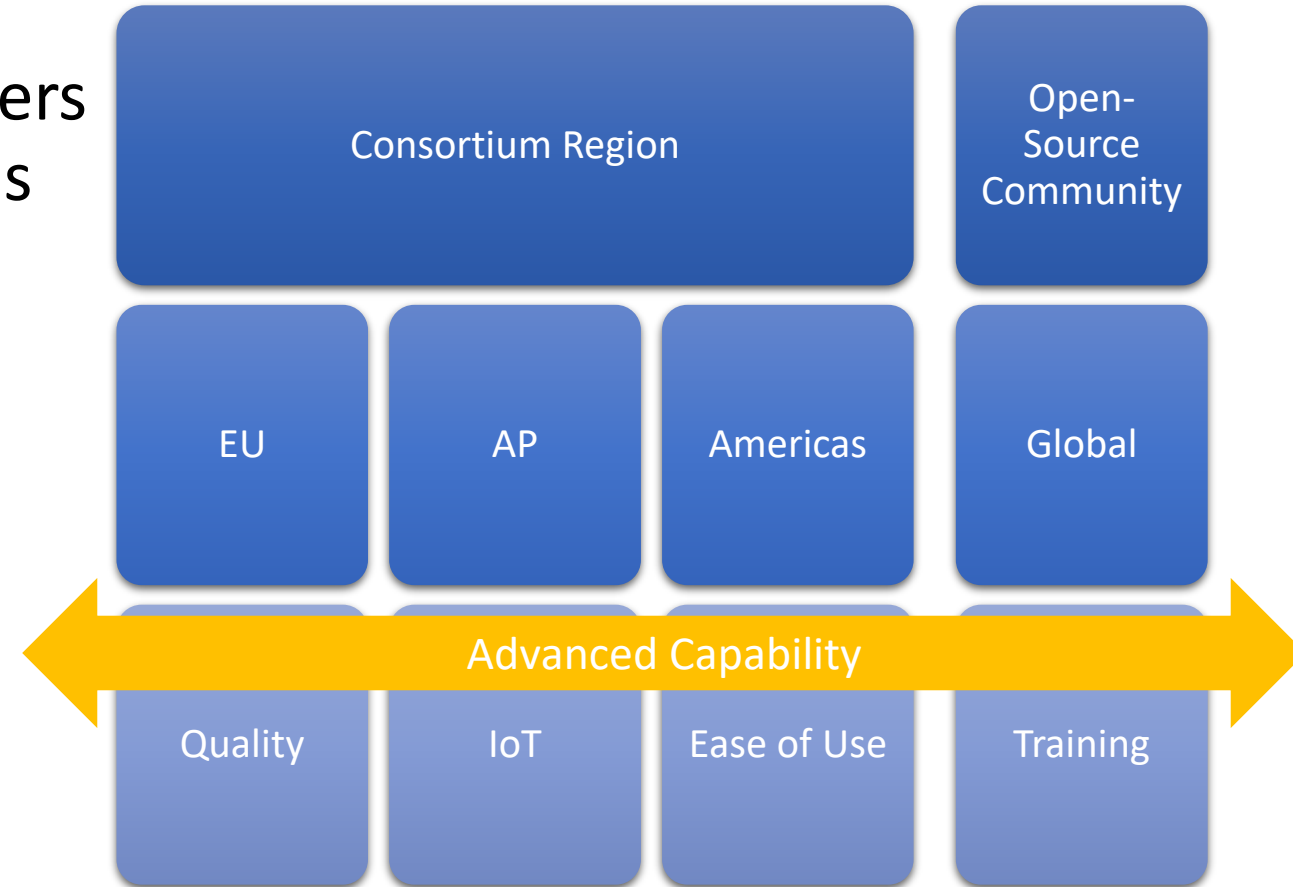# Vision Development for ROS-I High Level/Global

High Level
Strategic
Goals

Quality, Improved User Experience, Novel Intelligent Capability
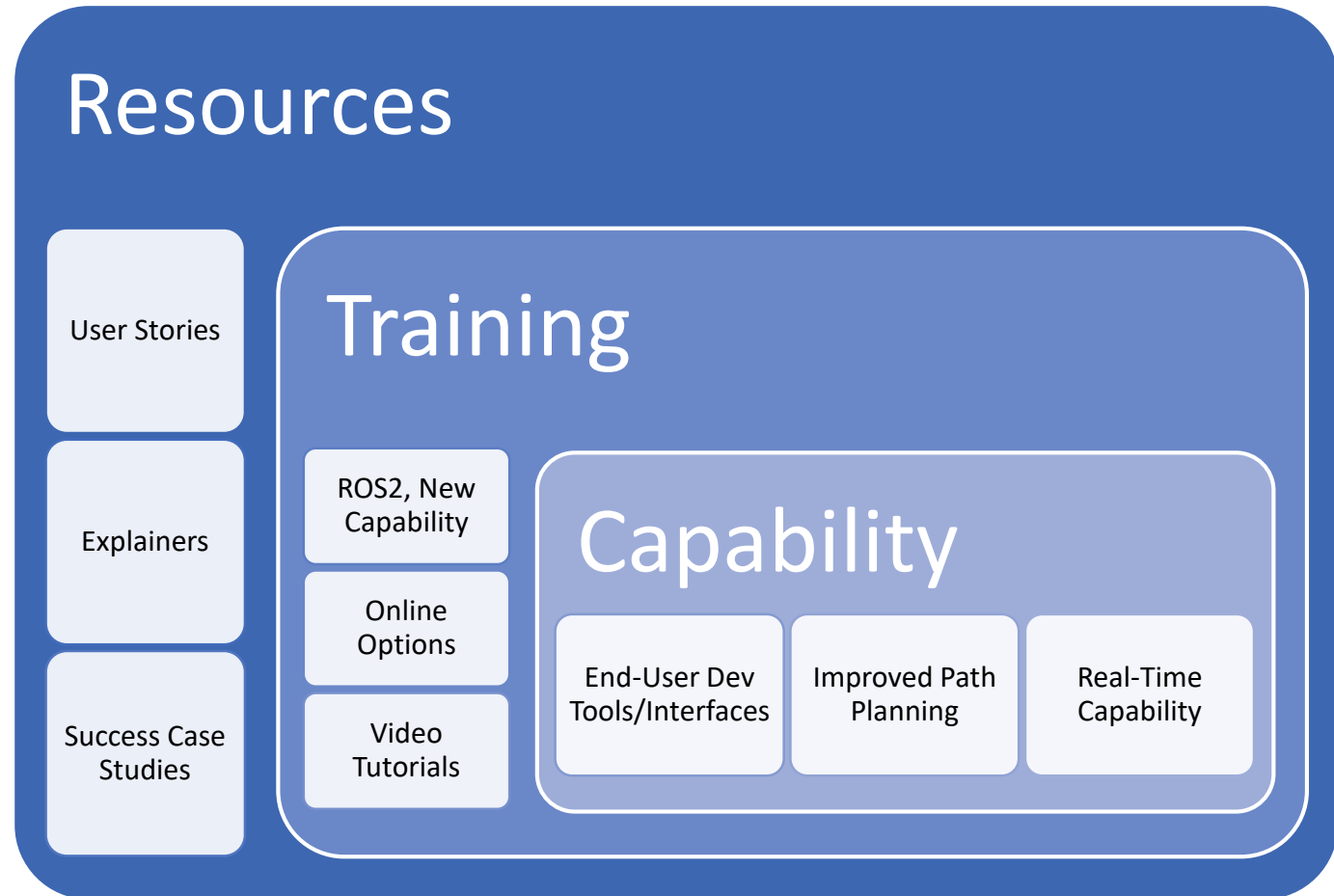
Lower Level
Focus
Areas/Thrusts

Region Focus

- Each region has unique stakeholders and regional funding organizations

- Understand these relationships

- Leverage dollars where they are

- Ensure no duplication of efforts

- All contribute to advancing capability
  - Feed training
  - Leverage Community

Nested Roadmap

- Decision makers see potential but need resources
- Technical capability is continually being developed and released
  - Driven by complimenting funding organizations
- Training emerges to support capability and address ecosystem changes
- As capability and training move forward communicate the successes
- Improved communication tools to enable a more effective feedback loop to synch all ROS-I Consortia & external partners
  - ROSin, ARM Institute, NIST, AFRL, etc

Resources

- User Stories
- Explainers
- Success Case Studies

Training

- ROS2, New Capability
- Online Options
- Video Tutorials

Capability

- End-User Dev Tools/Interfaces
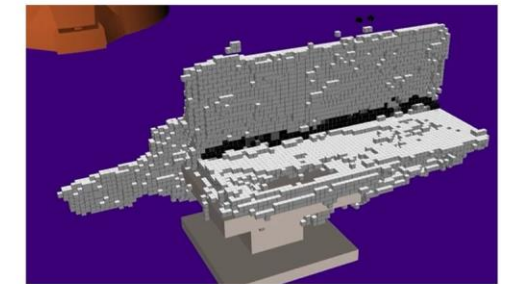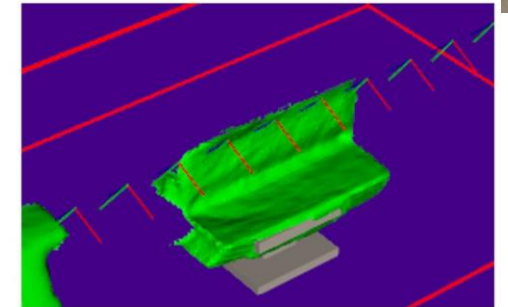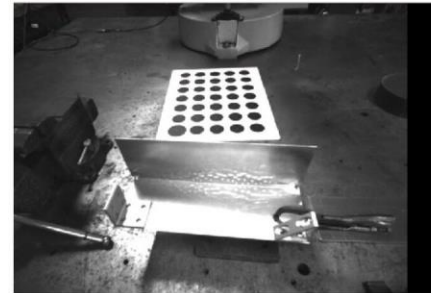- Improved Path Planning
- Real-Time Capability

Events – Americas/Global

- First online training! – July 21-23 – Hosted via AWS EC2 instance. Will focus on Basic ROS2 and intro into path planning – between MoveIt and MoveIt2
  - Registration opening soon
- World ROS-I Day – July 7th - https://rosindustrial.org/events/2020/7/6/world-ros-i-day-2020
- RIA Information Webinar – July 13, 2020 – Introduction to ROS, ROS-Industrial, and the purpose and goals of the Consortium and how the regional relationships work
  - https://www.robotics.org/webinar-detail.cfm/webinars/ros-industrial-an-open-source-approach-to-revolutionizing-industrial-automation/id/114
- AWS Cloud Robotics Summit – August 18th & 19th – Levi Armstrong will be presenting "The hardening of ROS for industrial robotics applications: Key technology & impact" on August 19th

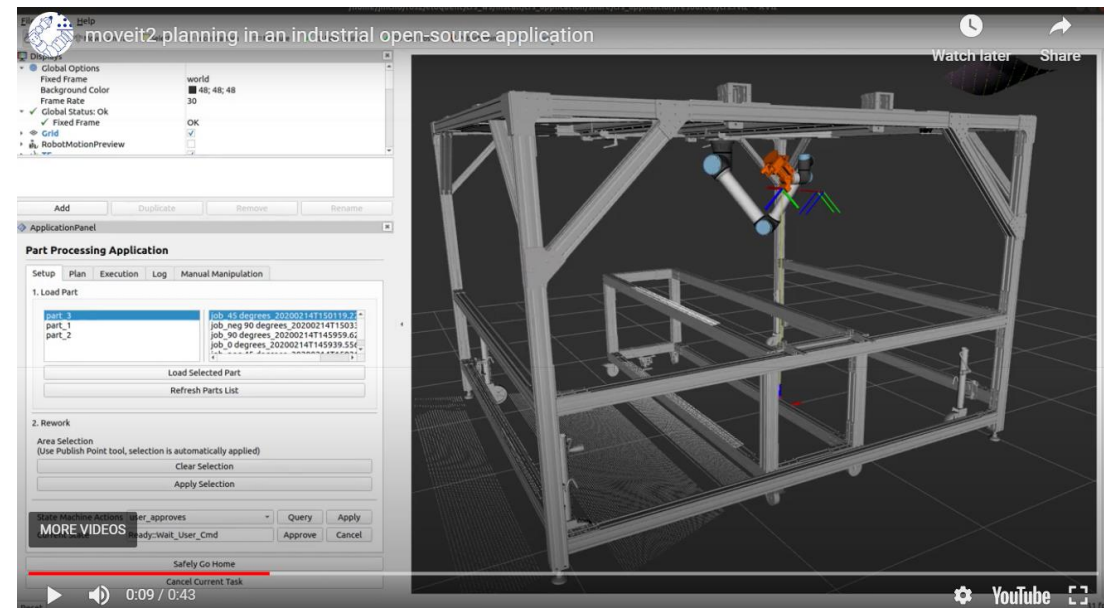# News on Capabilities

- Hybrid Perception Systems for Process Feature Detection
  - Blog Post: https://rosindustrial.org/news/2020/6/11/hybrid-perception-systems-for-process-feature-detection
  - Approach leveraging machine learning on 2D images over-layed on 3D data to drive segmentation for process feature classification

News of Capabilities

- Using MoveIt2 on a Industrial Open-Source Application
  - Blog Post: https://rosindustrial.org/news/2020/4/29/using-moveit2-on-a-industrial-open-source-application
  - MoveIt2 has made significant progress
  - Example implementation as a proof of concept
  - ROSin announced MoveIt2 project

Technical Update