

RobDREAM – Step Changes in robotic technology and ability

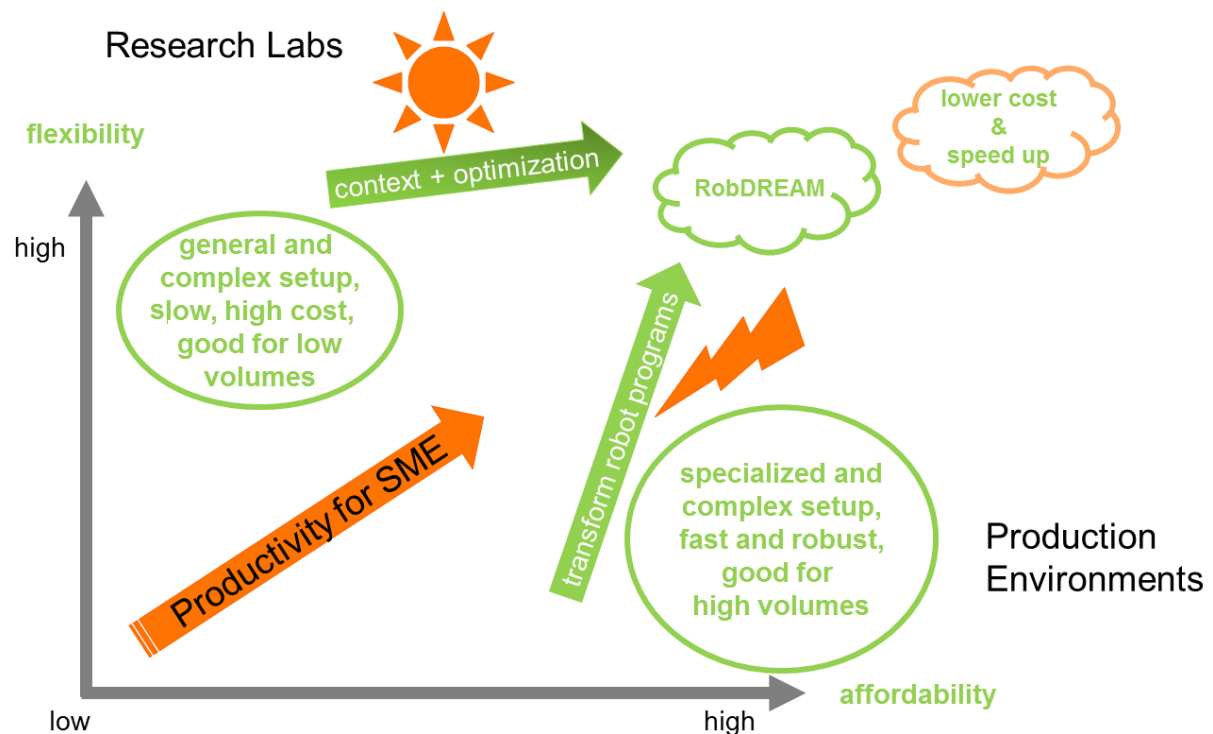
State-of-the-art robotic solutions are
EITHER flexible OR affordable

Main abilities: motion,
manipulation, perception

Main technologies:
perception, navigation,
manipulation and grasping

Key idea:

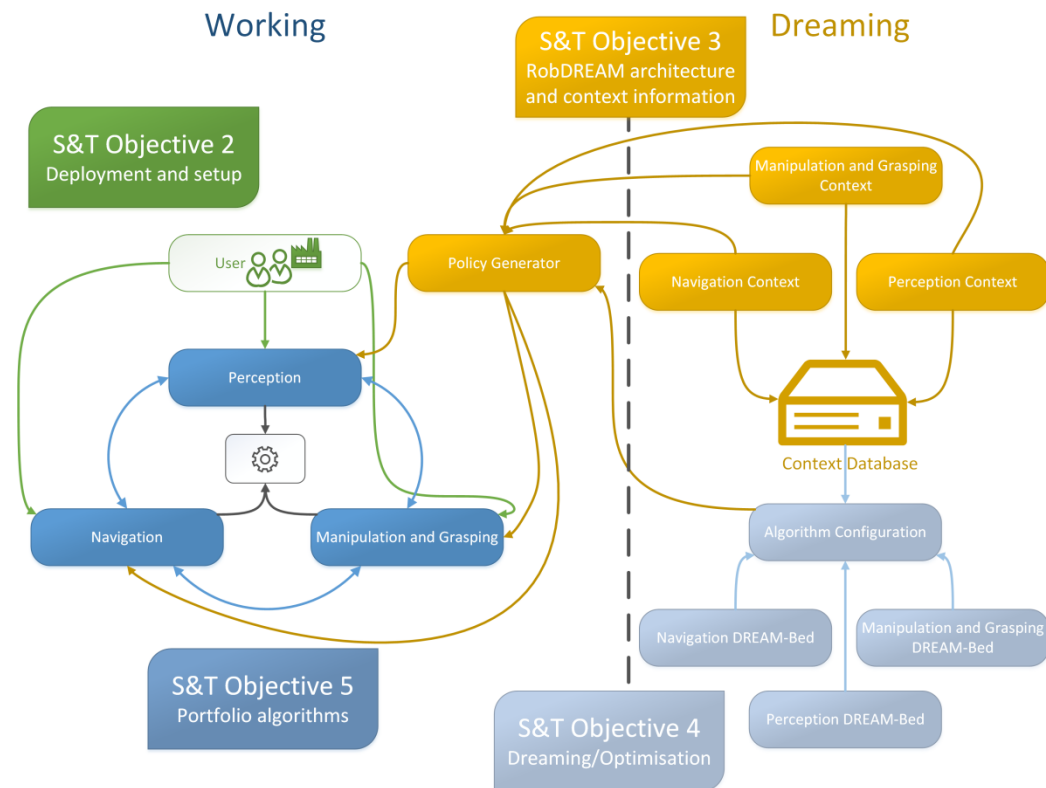
- User selects (non-ideal) algorithms
- Robot optimizes parameters tries different algorithms in idle phases.



RobDREAM – a unique approach

Six steps towards improved performance:

- (1) Requirements Analysis
- (2) Deployment and Setup
- (3) RobDREAM architecture and context information
- (4) Dreaming/Optimisation
- (5) Portfolio of Algorithms
- (6) Iterative Testing and Validation/Tech Transfer and Dissemination



RobDREAM – Impact on the application domain – manufacturing

Major contributions to the SRA objectives:

- a) Increasing Europe's market share in mobile manipulators (industrial, professional service and domestic service robotics)
- b) Improving the competitiveness of Europe's manufacturing sector
- c) Increasing industry-academia cross-fertilisation
- d) Deploying robotics technologies in new application domains
- e) Improving Technology Readiness Levels of robotics technologies (perception, navigation, manipulation and grasping)
- f) Improving performance evaluation and certification of new robotic systems
- g) Creating and maintaining world class research in Europe
- h) Ensuring wider use of shared resources

