Summary

Robot-based production is an essential part of the industrial manufacturing backbone of Europe, but is lacking transformability to respond to fluctuating demands.

TAPAS aims to optimise European production and to prevent manufacturing jobs from migrating to low wage economies by breaking new ground in robot-based automation and logistics.

TAPAS is thereby paving the ground for a new generation of transformable solutions to automation and logistics for small and large series production.

Future factories will be enabled to engage in more effective and streamlined production, economically viable and flexible, regardless of changes in volumes and product type.

START: October 2010
DURATION: 42 months
TOTAL BUDGET: €5.2 million

EU SUPPORT: €3.4 million

EU-GRANT ID: FP7-ICT-260026
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Robotics-enabled logistics and assistive services for the transformable factory of the future

PARTNERS:









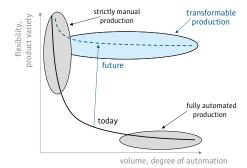




TAPAS vision

TAPAS aims at boosting robot-based automation and logistics as the backbone of a transformable factory of the future in Europe by:

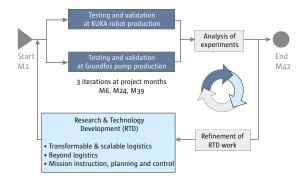
- developing new logistics and automation solutions as key components of a transformable production
- pushing the European RTD base in ICT for more robust and complete services
- creating sustainable solutions for new applications of robots
- facilitating robust implementations of transformable automation



Approach

To fulfil this vision, TAPAS will focus on the following tasks:

- creation of mobile robots with manipulators based on existing robotic prototypes (KUKA omniRob, Aalborg Little Helper) to make logistic tasks more flexible
- automation of assistive tasks which naturally build on logistical tasks, such as preparatory and post-processing work
- iterative testing and validation to analyse the gap between user needs and offered solutions



Benefits for end users

End users benefit from:

- robots that can be used by non-robot experts
- transformable solutions to automation and logistics
- more effective and streamlined production, regardless of changes in volumes and product type
- prompt reaction and efficient response to continuously changing markets and consumer demands for high value added goods

