Agricultural Engineering Technology

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Good news for EU research in agricultural technology Opportunities like never before!

This optimistic message is the headline in a press release from Manufuture AET, the Working Group on Agricultural Engineering Technology within the European Technological Platform Manufuture.

The press release concerns the 5th Workshop of the MANUFUTURE AET-community about Agricultural Engineering Strategies for HORIZON 2020 in Hannover 19 November 2011.

The promising perspectives include that by 2013 – before the end of the Seventh Research Framework Programme – a call for proposals is planned for research projects on the topic "Processing and Control Systems for Sustainable Production in Farms and Forests". In addition, HORIZON 2020 has earmarked a budget in the amount of 4.5 billion Euros for the organic production sector. Additionally, at the EU policy level, a European Innovation Programme (EIP) which would support the implementation of the common agricultural policy is currently on the bargaining table.

The press release as well as presentations from the workshop is available from the ICT-AGRI website **ict-agri.eu**.

More information about MANUFUTURE AET is available from **manufuture.org**

Two large-scale integrating FP7 EU projects

Theme: Nanotechnologies, Materials and new Production Technologies
Call: Automation and robotics for sustainable crop and forestry management.

CROPS "Clever Robots for Crops"

CROPS will develop scientific know-how for a highly configurable, modular and clever carrier platform that includes modular parallel manipulators and intelligent tools (sensors, algorithms, sprayers, grippers) that can be easily installed onto the carrier and are capable of adapting to new tasks and conditions. Several technological demonstrators will be developed for high value crops like greenhouse vegetables, fruits in orchards, and grapes for premium wines.

The CROPS robotic platform will be capable of site-specific spraying (targets spray only towards foliage and selective targets) and selective harvesting of fruit (detects the fruit, determines its ripeness, moves towards the fruit, grasps it and softly detaches it). Another objective of CROPS is to develop techniques for reliable detection and classification of obstacles and other objects to enable successful autonomous navigation and operation in plantations and forests. The agricultural and forestry applications share many research areas, primarily about sensing and learning capabilities.

The project started October 2010 and will run for 48 month with a budget of 10,24 m€.
More info: **crops-robots.eu/**

RHEA is focused on the design, development, and testing of a new generation of automatic and robotic systems for both chemical and physical – mechanical and thermal – effective weed management focused on both agriculture and forestry, and covering a large variety of European products including agriculture wide row crops (processing tomato, maize, strawberry, sunflower and cotton), close row crops (winter wheat and winter barley) and forestry woody perennials (walnut trees, almond trees, olive groves and multipurpose open woodland).

This consortium joints a number of multidisciplinary, experienced researchers capable of improving individual scientific knowledge, but a large cooperation project is demanded to sum up the individual efforts in a holistic manner. The success of RHEA could bring a new means of applying automatic systems to agriculture and forestry crops with an important impact in improving the economy and environment as well as in maintaining the sustainability of rural areas by launching new technological jobs.

The project started August 2010 and will run for 48 month with a budget of 8,96 m€.

More info: **www.rhea-project.eu**