EUROPEAN COMMISSION

Community Research

Robot Fleets for Highly Effective Agriculture and Forestry Management

NMP2-LA-2010-245986

Agenda of the final demo and review meeting (Madrid-5)

May 21, 2014
Madrid, Spain
(CSIC)

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*PU – Public, PP – Restricted to other programme participants (including the Commission Services), RE – Restricted to a group specified by the consortium (including the Commission Services), CO – Confidential, only for members of the consortium (including the Commission Services).
**R – Report, P – Prototype, D – Demonstrator, O – Other.

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Wednesday, May 21, 2014

FINAL REVIEW/FINAL DEMO - *May 21, 2014*		
Time	**Activity**	
08:00-08:30	**Meeting point:** Instituto de Ciencias Agrarias (ICA) – *Institute of Agricultural Sciences* C/ Serrano 117, 28006 Madrid (Metro: Republica Argentina, Line 6) (See street map in RHEA-2014 Final Programme)	
08:30-09:00	**Trip to CSIC facilities in Arganda by bus** Address: Centro de Automatica y Robotica (CSIC) Ctra. CAMPO REAL km 0,2 28500 Arganda del Rey Latitude: 40° 18' 47.1702"; Longitude: -3° 29' 5.3478"	
09:00-09:45	**RHEA FINAL REVIEW (1)** (at CSIC-CAR) (EC representatives, RHEA partners, Conference attendees)	
09:00-09:35	• **Welcome** • **Project objectives and role of partners** Including a statement from each of the partners on what the partners have gained (or not gained) by being part of this project and consortium compared with their expectations • **Executive summary and impact of the project in the precision agriculture domain** *By the Project coordinator*	
09:35-09:45	• **Description of the demos** *By the group leader in charge of crop fields*	
09:45-10:00	Moving to Experimental farm (CSIC-ICA)	
10:00-13:15	**RHEA FINAL DEMONSTRATION** (at CSIC-ICA) (Coffee served during the demo)	
	DEMO 1::PATCH SPRAYING IN WHEAT	
10:00–10:20 *10:20–10:30*	**1.1 - Aerial mission and weed mapping** The objective is to show how the Mission Manager/GUI, the aerial fleet and the perception system (weed mapping) work to the EC representatives. As the analysis of the whole field takes a long time, a reduced mission will be conducted. The demo will start with the AMUs and GMUs deployed on the field and ready to work. This activity should be carried out in parallel with the first review session (from 08:30 to 10:00) Activities: • Short aerial mission taking images of a small area • Image mosaicking, weed mapping, and analysis	AR, IRSTEA, UPM-EII, CSIC-IAS, CY, CSIC-ICA, CSIC-CAR
10:30–10:45	**1.2 - Measurement/assessment of the aerial units, remote perception system and weed mapping**	
10:45–11:05	**1.3.- Patch spraying in wheat** The objectives are to check how the Mission Manager/GUI, the ground fleet and the patch spraying work as well as to show the results to the EC representatives. Activities: • Mission with the 3 GMUs. GMU-3 carrying the boom sprayer along the whole wheat field will apply the treatment; the other 2 GMUs will fake to apply the treatment. The mission will be based on the information provided by an aerial mission performed the day before (weed map) and fully computed (it takes several hours)	SAP, BL, FTW, CNH, CSIC-ICA, CY, CSIC-CAR
11:05–11:15	**1.4. - Demo on the safety system**	CNH, UPM-EIA,

	The objective is to show and assess how the safety system works. The activities will be performed at the end of the mission 1.3. and without mission interruption. Activities: • Safety system based on the Laser • Safety system based on the obstacle detection system NOTE: As the tuning of the safety system is the same for both the boom-spray system s and the flaming system, we will perform the safety tests in this system and the test to show the manual safety system will be shown during the flaming system mission	CogVis, CSIC-CAR
11:15–11:30	**1.5. – Assessment of the Patch spraying in wheat**	WP leaders, CSIC-ICA (field) and SAP (implement)
	DEMO 2:: PHYSICAL WEED CONTROL IN MAIZE	
11:30–11:55	**2.1. – Physical weed control in maize** The objectives are to check how the Mission Manager/GUI, the ground fleet, ground perception system and the physical weed control system work as well as to show the EC representatives the results. Activities: • All three GMUs will move to the maize field in autonomous mode • Mission with the 3 GMUs. GMU-1 carrying the physical weed control system along the whole maize field will apply the treatment; the other 2 GMUs will fake to apply the treatment. The physical weed control (weed treatment) as well as the GMUs navigation will be based on the information provided by the ground perception system in real time	UP, UCM, BL, FTW, CNH, CSIC-ICA, CY, CSIC-CAR
11:55–12:00	**2.2- - Demo on the safety system** The objective is to show and assess how the safety system works. The activities will be performed at the end of the mission 2.1. and without mission interruption. Activity: • GMU manual safety system NOTE: The safety tests regarding this system are the same performed in the boom-spray system	UPM-EIA, CV, CNH
12:00–12:15	**2.3. - Measurement/assessment of the physical weed control in maize**	WP leaders, CSIC-ICA (field) and UP (implement)
	DEMO 3::CANOPY SPRAYING IN OLIVE	
12:15–12:35	**3.1. – Canopy spraying in olive** The objectives are to check how the Mission Manager/GUI the ground fleet and the canopy spraying system work as well as to show the EC representatives and the consortium the results. Activities: • All three GMUs will move to the olive grove in autonomous mode • Mission with the 3 GMUs. GMU-2 carrying the canopy spraying along the whole maize field will apply the treatment; the other 2 GMUs will fake to apply the treatment. The canopy spraying behavior will be based on the information provided by the implement sensor system in real time • Measurement/assessment of the canopy spraying	UF, BL, FTW, CNH, CSIC-ICA, CY, CSIC-CAR
12:35–12:45	**3.2. - Demo on the safety system** The objective is to show and assess how the safety system works. The activities will be performed at the end of the mission 3.1. and without mission interruption. Activities: • Safety system based on Laser • Safety system based on obstacle detection system NOTE: The safety tests regarding this system are the same performed in the boom-spray system	CNH, UPM-EIA, CogVis, CSIC-CAR

12:45–13:00	**3.3. – Assessment of the canopy spraying system**	WP leaders, CSIC-ICA (field) and UF (implement)
13:00-13:15	**Time to meet the media** Mass media will be invited to attend the demo and they will deserve some time	All
13:15-13:30	Back to CSIC-CAR	
13:30-14:30	Lunch	
	RHEA FINAL REVIEW (2) (at CSIC-CAR): For EC representatives and RHEA partners only	
14:30 -18:30 (break 16:00-16:15)	• **Technical Review (Technical Work Packages)** – Project results (what has come out of the project) and how they compare with the expected ones – Exploitable results generated by the project – Further activities in this direction foreseen beyond the project lifetime *By RHEA WP leaders, RHEA participants* • **Plan For using/Disseminating Knowledge** – Dissemination activities during and beyond the project lifetime – How the results will be used beyond the project lifetime (plan for use and dissemination of the foreground-PUDF) *By RHEA equipment developers* • **Management Aspects and finances** *By RHEA Project coordinator* • **Conclusions** *By EC representatives*	
18:30	(Social event: Visit to Chinchon (nearby Madrid) and RHEA dinner (CSIC-ICA) *For EC representatives, RHEA partners,* Conference attendees)	
Around 22:30	(Trip back to Madrid by bus)	