Welcome to the second issue of the Flourish Newsletter!

This biannual newsletter keeps you updated on the project progress, results, events and activities undertaken by Flourish in precision agriculture and will be available in our project website: [http://flourish-project.eu/](http://flourish-project.eu/)

**Newsletter contents**

In this issue you will find a general description of the Flourish project, all the activities related to the dissemination of the main Flourish progresses and results and finally all the opportunities for project partners and relevant stakeholders to exchange knowledge, experiences and technologies within the consortium or with external audience.
The Flourish Project

Summary

This section provides an introduction to the Flourish project and presents its main goals. The Flourish team is currently carrying out experimentations and tests on two main crops (sugar beet and sunflower) in order to design an efficient robotic agriculture system for precision agriculture.

Flourish project

Flourish is a three-year project on precision farming started on March 2015 and funded by the European Community Horizon 2020 Programme under grant agreement no 644227 and from the Swiss State Secretariat for Education, Research and Innovation (SERI) under contract number 15.0029.

The FLOURISH project is carried out by a consortium made up of seven partners from four European countries (Switzerland, Germany, France and Italy), with highly specialized know-how ranging from robot design to crop management. Read more

Project goals

The aim of the Flourish project is to develop a robotic agriculture system that helps increasing yields to reach the growing food demand and, at the same time, to reduce the amount of applied agro-chemicals pesticides to meet the future pesticide usage requirements of a sustainable and safe food production on the field. Furthermore, the Flourish solutions are expected to contribute to more efficient use of human resources in crop development and to reduce farms emissions.

Read more on Flourish Project on the newsletter 1st Issue
Flourish results are disseminated towards several stakeholders such as scientific experts, agriculture operators and organizations, business sector and policy makers.

This section presents the Flourish main dissemination channels and events.

**Latest news**

**Flourish TV story**

The Swiss TV station 3sat broadcasted a TV story about the Flourish project. The story was also included in an article on the website of the Swiss broadcasting company “Schweizer Radio und Fernsehen”.

Watch the full video (DE) (the part about Flourish starts at 17:20) or the short video (EN)

**“Freestyle across the field” video**

A video presenting an interview to the Freiburg doctoral student Alexander Schaefer has been made by the PR Department of the University of Freiburg.

Watch the video here (EN subtitles)
**Presentations**

In the last months the Flourish project has been presented at several public events, commercial and scientific conferences, workshops and fairs such as the ISPRS International Conference on Unmanned Aerial Vehicles in Geomatics (Bonn, DE), the Techdays Robotics and Agriculture (Paris, FR) and the 5th National Days of Field Crops (Morat, FR).

Several members of the Flourish consortium presented recent Flourish results at the Agritechnica 2017, the leading trade fair for agricultural machinery, that has been held from 12th to 18th November 2017 in Hanover, Germany.

**Publications**

From March 2015 to February 2018, the Flourish team has published around 35 scientific papers, many of them have been published in two of the most prestigious conferences: ICRA (International conference on robotics and automation) and IROS (International conference on robotic systems).

Please find Flourish publications [here](#).

**Social media**

A YouTube channel, a Facebook and a Twitter account have been set up. Videos, activities and results of the projects are available on these media.

Moreover a Flourish project space has been set up in the scientific social networking site “ResearchGate”. The space contains a description of the project, project log, references, and a space for questions. This allows interested people to follow the project and to stay up to date, especially with respect to scientific achievements within the project.
From the beginning of the project 4 integration weeks have been organized to ensure integration of all the individual modules to a working subsystem. Moreover 2 review meetings have been organized to explain to the EC Project Officer and to external experts assisting the EC in the project assessment the work carried out by partners and progress achieved so far.

Recently the consortium met in Bonn (Germany) for the fourth Integration Week in (Sep. 2017) and for the 2nd Review meeting (Oct. 2017). Progress of each Work Package has been presented to the reviewers and field demonstrations have been carried out with the UAV and UGV.

As a result the project has successfully passed the second review. In fact, according to the reviewers, “the project has fully achieved its objectives and milestones for the period. The work carried out over the past period is very good, having both significant scientific value and convincing exploitation potential.”

Get together!

This section presents the main opportunities for project partners to exchange knowledge and experiences and to present the project results and potentialities to the public.

Meetings

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Next events
Next events

A 5th integration week is planned for the period 07-11 May 2018 near Ancona (IT), while the 3rd and last review meeting is scheduled on the 19th of September 2018 in Eschikon, Zurich (CH).

CBA-Workshop 2018 - Workshop for Image analysis in Agriculture - 25 April 2018

ETHZ is organizing in Eschikon (CH) a workshop for Image analysis in Agriculture including a special session for Flourish.

DEMO in Italy - 07-15 May 2018

The Flourish consortium is currently organizing an exhibition to present Flourish results and potentialities to a large general audience.

The Demo will involve researchers and experts working in the precision agriculture (PF) and robotic sectors, potential end-users of the developed technologies, students and other stakeholders. The Demo will take place near Ancona (IT) and will encompass several events and field demonstrations. Read more

DEMO in Italy EVENTS

Workshop on Small UAVs for Precision Agriculture

The workshop, organized by UNIROMA1, will provide a forum for scientific dissemination of the results achieved by the Flourish project and create an exchange opportunity for researchers working on the related technical challenges. The aim of the workshop is to highlight technical and scientific challenges that arise in the deployment of small UAVs in the context of agricultural practices and, more specifically, in precision agriculture. Read more
Performance Evaluation for Small UAVs in Precision Agriculture

The goal of this evaluation, organized by UNIROMA1, is to provide a systematic evaluation of the performance of small UAVs (multi-copters) by means of tests assessing the UAVs’ capability to generate a 3D map of a field and the capability to find and inspect a specific type of object from a close proximity. Read more

Dissemination event

During this event, organized by ASSAM, the Flourish consortium will introduce the PF theme and the Flourish system to a large audience. International key experts will present experiences and knowledge on the PF and robotics areas as well as potential application scenarios for the developed technologies. Field demonstrations will be performed to show Flourish robotic system functionalities and collaboration capabilities.

End-user evaluation

The Flourish consortium will illustrate the overall system and its single components capabilities to a group of potential end-users of PF technologies. The final goal for partners will be to appraise the system functionality and usability from a user perspective.

Workshops with students

ASSAM will involve agricultural high school students in workshops providing an overview of the PF in Europe and in Italy and a presentation of the Flourish project.

ICRA 2018 - Workshop for Robotic Vision and Action in Agriculture - May 2018

UBN and ETHZ are contributing to organize this workshop that will bring together researchers and practitioners to discuss advances in robotics applications and their intersection with agricultural practices. The workshop will also explore the impact of these advances on agricultural practices and how robotics can be used to better manage the crop and environment. Read more

IROS2018 conference - Oct 2018

ETHZ organized a IEEE Robotics and Automation Letters (RA-L) special issue on Precision Agricultural Robotics and Autonomous Farming Technologies with IROS2018 conference option. The Special Issue will be associated with the 2018 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), October 1-5, 2018, Madrid, Spain and accepted articles will be presented at the conference.
The Flourish consortium, led by ETHZ, consists of Universities, a leading technology supplier, a scientific research center and a regional agency for agro-food sector services. Read more on Flourish Consortium [here](#)!