



Press release

Paris, February 13, 2018

*Smart farming*

## **AUSY and the startup AgreenCulture announce their partnership in responsible agriculture**

As part of the 2018 Centéol Challenge, which wishes to promote smart farming, the AUSY Group, consulting and engineering company in advanced technologies and subsidiary of the Randstad France group, and the Toulouse startup AgreenCulture have finalised a partnership with the objective of developing an autonomous agricultural robot. Mobilising technologies as diverse as geo-positioning, robotics and artificial intelligence (AI), this robot collects data to complete high-precision tasks in agroecology. The AUSY engineers use their expertise to help AgreenCulture face certain challenges in the development of the robot. Initiated by AgreenCulture, the 2018 Centéol Challenge consists of simultaneously using multiple agricultural robots in order to place a 50-hectare plot of corn under total autonomy. It began in October 2017 and will continue all throughout 2018 with a harvest—the final step—planned for October 2018.

### **AUSY and AgreenCulture use their expertise to promote Smart Farming**

- The 2018 Centéol Challenge requires the production of agricultural robots as well as a recharging station capable of filling robot tanks with various inputs like seeds, fertiliser or water. On the software side, it was necessary to establish artificial intelligence that would allow the robots to work on the same surface without them impeding each other and still able to adapt themselves to an agricultural environment.
- In order to complete this task successfully, AgreenCulture looked for companies with the technical capacities to support this project. AUSY wanted to get involved with this innovative Smart Farming project.
- In this project, AgreenCulture faced two problems:
  - The recharging station gantry's mechanical resistance,
  - The sizing of the transmission motor, according to the anchor point stresses and resistance of the robot's tracks' main module.

- As an engineering service company, AUSY was able to provide support on these subjects. AUSY engineers have contributed to the recharging base structure's calculations as well as anchor point stress and resistance calculations of the tracks' main module.

## **The 2018 Cénteol Challenge: Calendar**

- The Centéol Challenge will take place over eight months and involves six key steps:
  - October 2017: Soil analysis- the robot hauls a soil analysis tool every five metres in order to determine its potential and what it lacks. We retrieve a very precise mapping of the area.
  - March 2018: Preparation of crop rows - two robots will only work on the width of the rows in which the grain will be deposited.
  - April 2018: Modulation of seeds and localised fertilisation, three robots operate simultaneously on the same parcel. The first deposits the fertiliser. The two others sow while adjusting the density of the seeds according to the soil characteristics.
  - May 2018: Fertilisation post-emergence - the two robots give the correct dose of nitrogen to the corn.
  - June 2018: Weeding - the two robots weed the cornfield up to 3 times.
  - October 2018: Harvest.
- AUSY will follow the challenge's developments in the coming months.

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### **About AUSY**

A subsidiary of the group Randstad France, AUSY is an international consulting and engineering firm in advanced technologies with a business model based on innovation and complementary services between its 2 core activities: information systems and complex industrial systems. In 2016, AUSY reached a turnover of €460.5 million and employed more than 5,000 personnel at over fifty locations in Europe, the United States and Asia.

AUSY is a key partner for large-scale project steering and a primary support for large international companies. The Group offers a comprehensive service package which combines consultancy and expertise, from the production of applications and systems up to the outsourcing of activity on-and off-site.

Nominated for the Prix de l'Audace Créatrice for the last two years, AUSY brings support to many innovative or humanitarian projects. AUSY operates in various activity sectors: - Health - Telecommunications and media - Aerospace - Space industry - Transportation - Energy - Defence - Banking, insurance, finance - Governmental and European institutions

For further information:

**AUSY** <http://www.ausy.com/>

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## About the Randstad France Group

The Randstad France Group is part of the Randstad Group, the second largest player on the global human resources market, founded in the Netherlands in 1960. In France, it is among the leaders in human resources with a turnover of €3.05 billion in 2015. In 2016, the group (3,600 personnel) will have placed each week 65,000 interim personnel and recruited 42,500 professionals in permanent and fixed-term contracts, relying on its national and local network of 700 branches and offices.

Randstad has held the Professional Equality Label since 2008 and the Diversity Label since 2009. The Randstad France Group has also held the Gender Equality European and International Standard (GEE&IS) since 2011.

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## Press contacts

### AUSY Group

Communication Department

**Didier Lichtensteger** : 01 41 08 65 78

**Marine Fancelli** : 01 79 41 03 89

### Randstad France Group

Communication Department

Tel. 01 41 62 22 10

**Sophie Durand** : 06 37 86 44 00

**Sébastien Buffet** : 06 01 35 25 39

### Wellcom

Tel. 01 46 34 60 60

**Sonia El Ouardi**

[sonia.elouardi@wellcom.fr](mailto:sonia.elouardi@wellcom.fr)

**Julia Guillemeton**

[julia.guillemeton@wellcom.fr](mailto:julia.guillemeton@wellcom.fr)

**Donna Clément**

[donna.clement@wellcom.fr](mailto:donna.clement@wellcom.fr)