Call for competition

See your innovative idea come to life!

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Call

This call for competition aims at awarding an innovative idea in the agricultural field which involves the adoption of Industry 4.0 technologies and processes. The competition is promoted by the European project Farmer 4.0.

Industry 4.0 springs from the fourth industrial revolution, a process that will lead to fully automated and interconnected industrial production. The new digital technologies will have a profound impact in the context of four development guidelines. The first concerns the use of data, computing power and connectivity, and means the adoption of big data, open data, Internet of Things, machine-to-machine and cloud computing for the centralization of information and their conservation. The second is analytics. Once data are collected, value must be obtained. Today, only a small percentage of the data collected is used by companies, which could instead obtain advantages starting from "machine learning", i.e. machines that improve their performance by "learning" from data that are gradually collected and analyzed. The third development stream is the interaction between man and machine, which concerns the increasing widespread of “touch” interfaces and augmented reality tools. Finally, the sector dealing with the transition from digital to "real" includes additive manufacturing, 3D printing, robotics, communications, machine-to-machine interactions and new technologies for storing and using energy in a targeted way, rationalizing costs and optimizing performance.

In the key of these technological advances, the project Farmer 4.0 works for the embedding of Industry 4.0 methodologies in the sector of agriculture at European level.

Ideas concerning new or revisited instruments/objects for innovative agriculture are welcome. Inspiration could be taken also from agricultural tools of the past that could be helpful nowadays. Moreover, the participant could consider that these long-term objectives are aimed to be reached:

- environmental sustainability (reduction of water waste in irrigation and polluting emissions)
- economic sustainability (optimization of the work process and minimization of waste of fertilizers and treatments)
- productivity efficiency
- time efficiency
- safety (reduction of risk at work)
- flexibility, i.e. replicability not only in the plains but also in other territorial contexts such as the mountainous and hilly areas with steep slopes where "heroic agriculture" is practiced.

The project idea, which should be thought to be realized in 3D printing, has to be innovative but also complementary to what is existing, so that it is more sustainable at the economic level. Thus, it should not force the farmer to renew other objects of the machine park.

AWARD: