The role of science, technology and innovation in ensuring food security by 2030

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On 24 December 1968 whilst orbiting the moon, the crew of Apollo 8 took this iconic photograph the whole Earth. There were 3.5 billion people living on Earth that time and sharing its resources.

In May 2017, nearly 7.5 billion people live on the planet, and they all deserve to drink clean water, have enough to eat, have access to healthcare… to a life worth living!

In May 2017, nearly **800 million people struggle** with debilitating hunger and malnutrition.
For the first time in human history, the knowledge to end hunger exists on Earth.

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We need to find solutions beyond MORE food. Nutritionally sensitive agriculture is essential for global public health and wellbeing.

We are convinced that the solution to closing this unacceptable hunger gap lies within harnessing and opening agriculture and nutrition data.
Open principles in Education are key for Capacity development and empowerment of all

• Open data
• Open standards
• Open access to research publications
• Open education resources
• Open Software
Providing answers to:

- How can we ensure zero hunger for all?
- How can we use open data to help small farmers?
GODAN Local Farming Challenge
2017
Encourage Geo-Innovation Solutions for Zero Hunger
http://eurochallenge.como.polimi.it
Introducing the GODAN Local Farming Challenge 2017

The Challenge is important because:

- **800,000,000 people** – one in nine of the world’s population are hungry and malnourished.
- The challenge is to identify solutions.
- GODAN believes that the information already exists for change to be possible, but it needs to be shared by all – rich and poor.
- Sharing through Open Data could lead to ZERO HUNGER.
Develop an innovative solution to reduce waste and achieve ZERO HUNGER

By bringing together teams of students and researchers to find solutions for local farming in growing cities, using open agriculture and nutrition data.

Teams should use:
- some aspect of the OpenCitySmart Design and
- NASA’s open source virtual globe technology, WebWorldWind as a source of open data.

Details of the open data tools can be accessed through: http://eurochallenge.como.polimi.it
An example of a Food Security Application

The goal of this application is to help FAO (Food and Agriculture Organisation of the United Nations) providing support to national locust operators in Africa and Middle East.

Desert locusts are a huge problem for the population and due to their ability to change their behaviours and habits. These locusts are hard to limit as they form swarms and move rapidly (about 20km/h). Moreover, they can consume (in 1km² swarm) as much food as 35,000 people eat in a single day.

Nicola Dorigatti, Nicola Meneghinii

http://www.trilogis.it/eLocust3D/
Geo For All – Making education and opportunities accessible to all

Let us all join to eradicate extreme poverty and enable shared prosperity for all