

Challenge@PoliTo_ *By Firms*

CRICKETS IN THE SPACE

_By Italian Cricket Farm

October 2020 – January 2021

CALL for IDEAS

From 2013, FAO begins to sustain the diet based on insects (Entomophagy), as one of the sustainable alternative to global proteins production. On one hand, insects need only about 1.5 kg of feed to produce 1 kg of edible product. On the other hand, cows require 8 kg of forage to produce 1 kg of meat. The metabolic efficiency of the Hexapods used for this purpose, translates into an alternative agro-food system that reduces the impact on the environment, if compared to the traditional farms.

The technologies' development, related to this trade, are led by the same key concepts, such as: energy sustainability, nutritional quality, ease and production efficiency.

Starting from these considerations, in 2017, near the town of Pinerolo, the biggest Italian insects farm at the moment was born, the Italian Cricket Farm S.r.l..



Challenge:

The breeding characteristics and the great nutritional potentiality can increase the adoption of this type of food in critical environments such as the space.

The Challenge purpose is to carry out a technical and theoretical feasibility study of this solution. Teams will:

- Evaluate all system inputs and outputs, both with respect to material and energy;
- Evaluate the impact of a 0-gravity environment on the insects breeding;
- Study the technical feasibility of an automated realization of this type of breeding;
- Evaluate cost/benefit feasibility of the whole project.

This activity will be recognized within your educational plan with 8 CFU credits.

Check your institutional email, look for 'Challenge@PoliTo' and read the regulation carefully.

SIGN UP NOW! Places are limited!

For any questions, write to clik@polito.it



**POLITECNICO
DI TORINO**

Technology
Transfer
System



CONNECTION LAB AND
INNOVATION KITCHEN

Partner



Italian Cricket farm