

NEWS

SCAUT consortium launches innovative 'Underground Green Farming' prototype using Aquaponic technology

Flums, Switzerland – On Wednesday, February 06th 2019 a SCAUT consortium commissioned an innovative 'Underground Green Farming' prototype for a sustainable food production by using aquaponics.

Aquaponic systems combine aquaculture with hydroponics in a symbiotic environment. The system works in a cycle: water from the fish ponds is fed to a hydroponic system and then recirculated back to the aquaculture system.



The SCAUT prototype is situated in the Hagerbach Test Gallery in Flums, Switzerland and is composed of three parts – fish, vegetables and biofilters. The fish are grown in two water tanks. For vegetables, hydroponic gutters and tidal table systems are installed. The processing of the fish water is done by means of a mechanical filtration followed by biological filters converting the ammonia excreted by fish into nitrate well assimilated by plants. For growing vegetables and fruits underground, an optimized lighting installation is provided. Furthermore, a biological waste treatment will be executed to run the prototype in a circular system.



The prototype installation is now used for R&D works according to a specific research program. In parallel, a SCAUT Concept study is elaborated to develop a modular generic underground aquaponic system including an economic assessment, marketing strategy and business model generation.

The SCAUT consortium working on 'Underground Green Farming' consists of the following industry partners: Amberg Group, AMP Aquaponic Management Project, Biomim Innovation, Pacelum, Relux Informatik and Upcycle.



With Underground Green Farming, SCAUT together with industry partners offers a solution that provides an alternative for the lack of arable land through degradation of soil and contributes to providing food security; i.e. a stable 'local' provision of food independent of time and location; in specific addressing the world protein shortage. The systems are based sustainable closed re-circulated technologies with the lowest CO₂ footprint and non-recyclable waste.

As of now, live demonstrations of the prototype are shown at the Hagerbach Test Gallery (booking: info@scaut-association.com or <http://www.hagerbach.ch/fuehrungen.php>). In addition, the concept of 'Underground Green Farming' is presented by the SCAUT consortium to various interested clients worldwide as well as at special events.

