

Project Consortium

The consortium includes partners from three countries (CH, SI, IT). In each country one vocational education centre is flanked by an institution of the forefront of R&D, and by representatives of the world of work interested in employing skilled operators. These "triplets" cooperate in transfers in two dimensions, within each country and between the three countries. This clustering allows efficient transfer of innovation from R&D through feedback from economy into educational practice.

Switzerland

Zurich University
of Applied Sciences



Slovenia

Univerza v Ljubljani



UNIVERSITÀ
DEGLI STUDI
DI PADOVA



Italy

Stiftung für eidgenössische Zusammenarbeit
Fondation pour la collaboration confédérale
Fondazione per la collaborazione confederale
Fundaziun per la collavuraziun federala



AQUAVET

Introducing Aquaponic in Vocational Education and Training: Tools, Teaching Units, and Teacher Training



Contact

Prof. Dr. Ranka Junge (Project coordinator)
University of Applied Sciences Zurich
Institute of Natural Resource Sciences
P.O. Box, CH-8820 Waedenswil
E-Mail: ranka.junge@zhaw.ch

Aquaponic farmer

Aquaponic is a production method which combines AQUAculture of fish with hydroPONIC cultivation of plants.

This technology will be highly relevant for the future of fish farming, and increasingly in urban farming. It's major benefits are a high production efficiency (efficient use of water and recycling of phosphorus), guaranteed product safety using no antibiotics nor pesticides, compliance with animal welfare and protection of the environment.

Project Goals

Our project aims to:

- develop a new vocation "Aquaponic Farmer"
- transfer aquaponic technology and corresponding teaching units into VET (vocational education and training)
- adapt training resources to support use of Aquaponic in VET curricula
- support the training of VET teachers and trainers for future training of emerging green jobs
- promote inclusive education by adapting training resources to be used in VET of socially vulnerable groups

Curricula for Aquaponic education will be defined, tested, translated and disseminated.

The focus is on practical applications: vocational training for "green jobs".

We will train the teachers in Aquaponic, and transfer the educational resources.

This forward thinking education will enable teachers to equip their students with special skills needed for emerging occupational chances in the field of urban farming and in modern agriculture.

Aquaponic Teaching Systems

GLOBE by UrbanFarmers

As teaching "laboratory", a lightweight modular aquaponic farm (GLOBE) can be used. It combines a real production of edible plants and fish in minitaturized professional systems, and is thus the ideal environment for VET.



Aquaponic model by ZHAW

The exhibition model of Aquaponic demonstrates the interdependence between the purification of wastewater and the production of biomass. Based on this model related topics such as the water cycle and wastewater treatment mechanisms can be addressed. Experiments are also possible.

Floating system by Tech-1A

In addition, a floating system (Tech-IA) will be used as support for plants for natural depuration of water and to create a habitat for fish reproduction.

