Underground Green Farming
Switzerland

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Motivation

Underground Green Farming

Advantages of underground farming

• Safe against impacts of climate change
• Closed and controllable environment
• Constant climate conditions
• No impact on the natural ecosystem
• Local production in urban areas
Underground Green Farming

• Interdisciplinary and comprehensive approach
• Development and commissioning of the first UGF prototype
• Sustainable food production by using aquaponics
• Specific research program
• Proof of concept
Aquaponic cycle

Wavelength for plant growth

1. Channel = Leave & length (vegetative growth)

2. Channel = Roots (generative growth)

3. Channel = Flower & taste (generative growth)

New, multispectral approach by pacelum
Impressions of the prototype
Project stakeholders

SCAUT = Project owner

• Innovation platform / partner network
• New concepts and solutions for the use of underground space
• Driven by the industry («applied technologies»)
• Enabler / catalyst
Project stakeholders

SCAUT industry consortium
• Amberg Group (CH)
• AMP Aquaponic Management Project (FRA)
• Pacelum (GER)
• Hagerbach Test Gallery (CH)
Main achievements

- Innovative way of the use of underground space
- Urban food security
- Reduction of the carbon footprint
- UN Global Goals for Sustainable Development
- Awareness campaigns
Outlook

• Industrial food production

• Different food applications

• Use of synergies with other underground applications
Thank you for your attention!

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