

« GROWTH BELOW » - UNDERGROUND GREEN FARMING SHORT MOVIE WINS TOP EMERGING IDEAS AWARD AT UN-HABITAT BETTER CITIES FILM FESTIVAL – WORLD URBAN FORUM 2020

The short movie « *Growth Below* » about Underground Green Farming presented by the International Tunnelling and Underground Space Association Committee on Underground Space (ITACUS) has won the « Best Emerging Ideas » Award at the UN-HABITAT Better Cities Film Festival during the 10th World Urban Forum held in Abu Dhabi.

Among 143 finalists, the award was discerned to the ITACUS Committee, which works closely with ISOCARP and UN-HABITAT to help building a global vision of an urban and sustainable underground future.



« GROWTH BELOW » : BEHIND THE MOVIE, A GROUNDBREAKING IDEA

The initiative shown in « Growth below » addresses issues of climate change and the UN global goals of sustainable development such as 'zero hunger' by using subterranean spaces, both existing and new ones. The ITA Committee on Underground Space (ITACUS) has launched this initiative, as part of their Next Level Program, with the Swiss Centre of Applied Underground Technology (SCAUT).

Inside a mountain R&D facility in Switzerland (Hagerbach Test Gallery), less than one hour from Zurich and close to Davos and Vaduz, vegetables are being grown together with fish in a prototype facility that goes one step up from a similar initiative already producing greens below the streets of London.

It relies on creating a prototype underground green farm which produces vegetables and fish using aquaponics. The aim is to link this up with an underground data center, using the heat produced by the servers to warm the water in the fish ponds in the near future. The initiative is to demonstrate the way forward in finding circular solutions. These solutions are to tackle challenges of food security and additionally reduce the carbon foot print by integrating into urban data centers that are needed for the internet of things. By effectively combining new technologies, food can be consumed locally, where it is produced.

For **Han Admiraal** and **Antonia Cornaro**, ITACUS Co-Chairs, it is one of the ways to ensure future survival. Admiraal states : **"The world faces unprecedented challenges and we need to make bold moves. As futuristic as it may sound, survival could lie in part in our ability to use the space beneath our feet."**

“We urgently need to change our ways of thinking. By repurposing existing underground spaces into innovative pilot schemes, we can make a quick start, but we should also create more planned, customized underground facilities to foster sustainable initiatives like this.” adds Cornaro.

AN AWARD TO RAISE AWARENESS AMONG INTERNATIONAL LEADERS

The World Urban Forum is one of the most inclusive global forums that operates as an open-ended think tank for collaboration and awareness of urban issues. The tenth session of the World Urban Forum (WUF10) carried the theme of « *Cities of Opportunities: Connecting Culture and Innovation.* » For the first time, culture, creativity and innovation were at the center of the global conversation in regard to human settlements.

This win highlighted a rising awareness from many international political leaders and decision makers, which involved meetings and exchanges on underground solutions and opportunities. The ITACUS teams have engaged discussions with : Zimbabwe (Minister of Housing and Social Amenities) ; Sri Lanka (Ministry of Urban Development) ; Democratic Republic of the Congo (Ministry of Construction, Housing and Urban planning) ; Nigeria (Ministry of Niger Delta Affairs) ; Mali (Ministry of Housing and Urban Affairs), Malawi (Ministry of Housing and Urban Development), senior governmental representatives of Oman, Sudan, Bangladesh, India, Israel and also the Food and Agriculture Organization of the United Nations.

It was also the occasion to meet the ITACUS partners who help the committee evolve and develop new programmes all over the world : ISOCARP, the international society of City and Regional planners, and UN-HABITAT, the United Nations programme almost entirely dedicated to the promotion of seven levers of sustainable urbanization : urban land, legislation and governance, planning and design, economy, basic services, housing and slum upgrading, risk reduction and rehabilitation as well as research and capacity building. Ties with strategic partner ICLEI were refreshed as well to tie in to each other's initiatives in dealing with cities' adaptability to climate change.





More information:

Han Admiraal and Antonia Cornaro are co-authors of a book on urban underground space and co-chairs of ITACUS. Antonia, an urban strategist and project developer works for Amberg Engineering in Zurich and is a lecturer on underground space at ETH Zurich, Switzerland. Han, a thought leader on urban underground space is owner of Enprodes consultancy based in Delft, the Netherlands.

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