

CONFERENCE OVERVIEW



Report and Documentation



SKY BERRIES
conference
ON FOOD SECURITY, URBAN AGRICULTURE AND VERTICAL FARMING



Table of Contents

Session 1	4
Session 2	14
Session 3	24
Session 4	34
Session 5	42
Session 6	52
Session 7	68
Session 8	80
SKYBERRIES Bazar	89
Fieldtrip	90
Impression	94



SKY BERRIES₃ conference

28.02. ● 9:15-10:30

01.03. ○

02.03. ○

SESSION



1

VERTICAL FARMING PAST PRESENT AND FUTURE



This session will provide an overview of the 50-year history of vertical farming; it will show the need for alternative agricultural technologies and give an outlook on the future of our urban food supply.

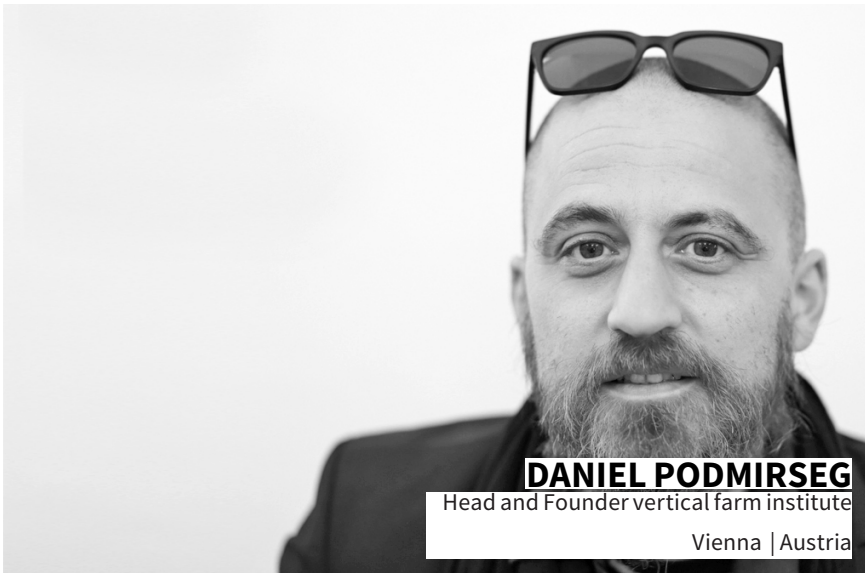


„bite your lips, get up and dance“

verticalfarminstitute.org

diploma dissertation and vfi in the name of the vertical farm

●● 9:15 - 9:35



Daniel is founder of the vertical farm institute and Vertical Farming expert, studied architecture. His dissertation “up!” deals with the potential of vertical farms with regard to the reduction of energy and land consumption. “up!” is considered a standard work and Dickson Despommier assesses the work as the most comprehensive research on Vertical Farming in the world so far.





verticalfarm.com

„the autonomous city“

supporter, source of inspiration and hands-on advisor

9:35 - 9:55



DICKSON DESPOMMIER

Author of „The Vertical Farm: Feeding the world in the 21st century“

New York City | USA

Dickson is microbiologist, ecologist, and emeritus professor of Public and Environmental Health at the Columbia University. In 2010, he published his widely received book: "The Vertical Farm: feeding the world in the 21st Century". Well known for his podcasts, TED Talks and lectures on vertical farming, Dickson also supports the vertical farm institute as Board Member.





conference ●○○○○○○○○

„context and design matters“

agritecture.com

key reference to agtech solutions



9:55 - 10:15



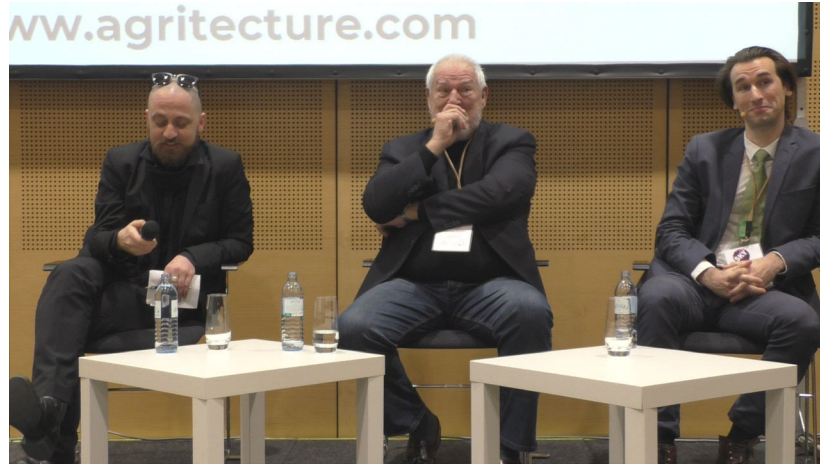
Henry is a sustainability strategist focused on urban agriculture, water issues, and emerging technologies. He is Founder of the popular blog Agritecture.com and a Co-Founder of the Association for Vertical Farming (AVF). Three years ago, Henry launched his company Agritecture Consulting (formerly Blue Planet Consulting), a boutique global urban agriculture advising firm where he helps entrepreneurs with vertical farming feasibility studies, recruiting, and systems design.





Questions and Answers





28.02. ● 11:00 - 12:30

01.03. ○

02.03. ○

SESSION



2

HOW TO SUCCESSFULLY RUN A VERTICAL FARM



The Vertical Farming market of the future demands visionary and long-term strategies, while always retaining an economically realistic perspective. Three case studies of vertical farms will be presented, which will grant exclusive insights into the respective success factors and challenges.





„additional return on investment“

verticalharvest.com

inspiration for alternative business models, social engagement and community inclusion



11:00 - 11:20



NONA YEHIA

CEO, Architect & Co-Founder at Vertical Harvest

Jackson | USA

Nona is uniquely positioned in the Vertical Farming sphere as she is at once a practicing Architect, the Co-Founder, Owner, Designer and CEO of a cutting edge greenhouse, Vertical Harvest of Jackson Hole. This combination has cultivated expertise in both the design, implementation and operation of innovative systems and programs that position Vertical Harvest to be an impact model for communities around the globe.





„connecting leaves to lives in Vienna“

spread.co.jp

world leader in indoor food production

11:20 - 11:40



CHRIS MALCOLM

Assistant Manager for business development at Spread

Kyoto | Japan

Chris is Assistant Manager for business development at Spread, a Kyoto-based company with over a decade of experience operating Japan's largest indoor vertical farm, capable of producing 21,000 heads of lettuce daily for sale nationwide. Born and raised in Canada, Chris has spent the last 10 years working in Japan where he has had the unique opportunity to understand vertical farming's critical role in easing Japan's issues of food security, resource sustainability and its aging farming population.





„sustainable food supply chain ahead“

farmerscut.com

envisioning global network of indoor farms based on sustainable local food chains



11:40 - 12:00



ISABEL MOLITOR

Co-founder and CMO at Farmers Cut

Hamburg | Germany

Isabel is co-founder and CMO at Farmers Cut, an indoor vertical farming company based in Hamburg with the mission to build a global farm network to deliver locally produced, pesticide-free greens from farm-to-fork. Prior to Farmers Cut Isabel lived in New York working in Marketing for a Swiss skincare company. Isabel holds a B.Sc. in Business Administration from the European Business School and a M.Sc. in International Development from from New York University's Center for Global Affairs.





Questions and Answers





28.02. ● 14:00 - 15:30

01.03. ○

02.03. ○

SESSION



3

IMPROVE WHAT WE HAVE. ENERGY, LIGHT AND URBAN FARMING



Light is the key to growing healthy and tasty food. This session will shed light on the potentials for increasing energy efficiency in vertical farms. Energy-optimized buildings with transparent facades are up against the still dominant BlackBoxes of today. Vertical farming will have to focus more than ever on utilizing naturally available resources.



SKY BERRIES
conference



„plant enlightenment“

sanlight.info

**expert in physics, lighting and LEDs, research partner
and supporter of the vfi since the beginning**



14:00 - 14:20



David is an expert in LED-lighting with many years of experience in horticulture. Using his in-depth knowledge of photonics and semiconductor technology, he co-founded five years ago SANlight (as a company and research institute), with the purpose of developing and manufacturing LED illumination systems for commercial greenhouses, special applications and household use. SANlight won the „Born Global Champion“ award in 2016.





SKY BERRIES

conference ○○○○○○○○

„sunlight, power and transparency“
ait.ac.at

developer of building envelopes which fit to the
vision of a transparent vertical farm

14:20 - 14:40



CHRISTOPH MAYR

Head of Competence Unit Photovoltaic Systems, AIT
Vienna | Austria

Christoph is the Head of Competence Unit Photovoltaic Systems at the Austrian Institute of Technology. This Competence Unit provides the future technologies for the next generation of solar cells. Additionally Christoph has a research background in Development of R&D infrastructure for distributed energy technologies.





„Don't grow bigger – grow better!“

cityfarm.wien

Winter comes every year. Low light amount and low temperature. But production will continue.



14:40 - 15:00



WOLFGANG PALME

Head of Dept. Vegetable Growing, Hort. College + Research Inst. Schönbrunn

Vienna | Austria

Wolfgang is head of Department Vegetable Growing at Horticultural College and Research Institute in Schönbrunn – Vienna. In his research work he develops alternative vegetable production systems that are seasonal, regenerative and ecological, but nevertheless abundant. In 2012 he founded the City Farm Schönbrunn as a garden of diversity where urban people enjoy growing their own vegetables.



SKY BERRIES conference ○○○○○○○○



Questions and Answers





SKY BERRIES

conference ○○○○○○○○



28.02. ● 16:00 - 17:30

01.03. ○

02.03. ○

SESSION



4

VERTICAL FARMS IN THE CONTEXT OF CITY PLANNING



The external nature of our global food supply has an enormous effect on our cities. In this session, political decision makers will be discussing the hurdles and potentials of urban food production. Solutions for the food supply of the resilient city will be the topic of discussion.



„political directives to positive impact“

wien.gv.at/stadtentwicklung

a political advisor taking care of urban and vertical food production spaces



16:00 - 16:20



ISABEL WIESHOFER

Head of Section Landscape- and Open Space Planning, City of Vienna

Vienna | Austria

Isabel is the Head of the Section Landscape and Open Space planning for the Department of Urban Planning at the City of Vienna. Before this she took the lead on the European Union project “URBAN SMS”, collaborating with cities across Europe this project focussed on urban soil management. At the same time she was involved in the area of “Nature Conservation” in the city of Vienna Department of Environmental Protection. Isabel has an extensive academic background in research regarding nature preservation in urban environments



„resell urban areas to farmers“

wur.nl

developing various matrixes to implement urban food production

16:20 - 16:40



Jan Willem has a background in business studies from Rotterdam School of Management, Erasmus University. He graduated on the decline of the International Coffee Agreement and did PhD research on the ability of marine resource users to self-govern their use of common pool resources. In recent years Jan Willem focussed on innovative short food supply chains and urban agriculture, the role of city region food systems in bringing about a more sustainable food system. Jan Willem is active in the board of several urban agriculture start-ups such as GROWx vertical farm in Amsterdam.



Questions and Answers





28.02. ○
01.03. ● 9:00-10:30
02.03. ○

SESSION



5

THE IMPACT OF VERTICAL FARMING ON FOOD JUSTICE



An increase in urban food production is accompanied by a range of issues like that of ownership, social acceptance, and changes in the individuals' behavior. These and similar issues will be at the core of the session.



„vertical farming to support SDG“

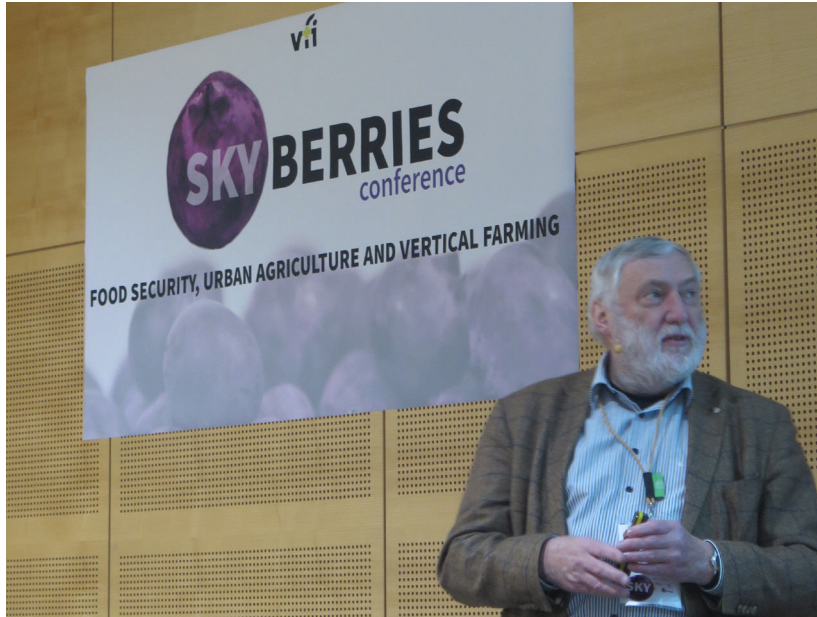
franz-fischler-consult.co.at

enabling the discussion to what extent vertical farming can support the reachment of the second sustainability goals

●● 9:00 - 9:20



Franz became widely known and much respected both domestically and internationally when he was EU commissioner. Between 1995 and 2004, the future of European agriculture was in his hands. Franz Fischler implemented his vision of modern agriculture in far-reaching reforms of European farming policies, rural development and fisheries. Since December 2015 he is president of the Institute for Advanced Studies in Vienna, since 2012 president of the European Forum Alpbach.



„where’s our food coming from?“

thurnfilm.de

director of documentaries which highlight the biggest challenges of future food production

9:20 - 9:40



VALENTIN THURN

Journalist and director of documentaries

Cologne | Germany

Valentin is director and producer of more than 50 television documentaries and reports on social, developmental, environmental and educational issues. His shooting and lecture tours have taken him to over 50 countries on all continents. For his films, he received a number of prizes and awards. „Taste the Waste“ was a box office hit in 2011/12, and “10 Billion – What’s on your plate?” was the most successful German cinema documentary in 2015. He is chairman of the association “Taste of Heimat”, board member of the association “Foodsharing Germany” and co-Founder of the International Federation of Environmental Journalists (IFEJ).





„encouraging local policy makers“

saskiasassen.com

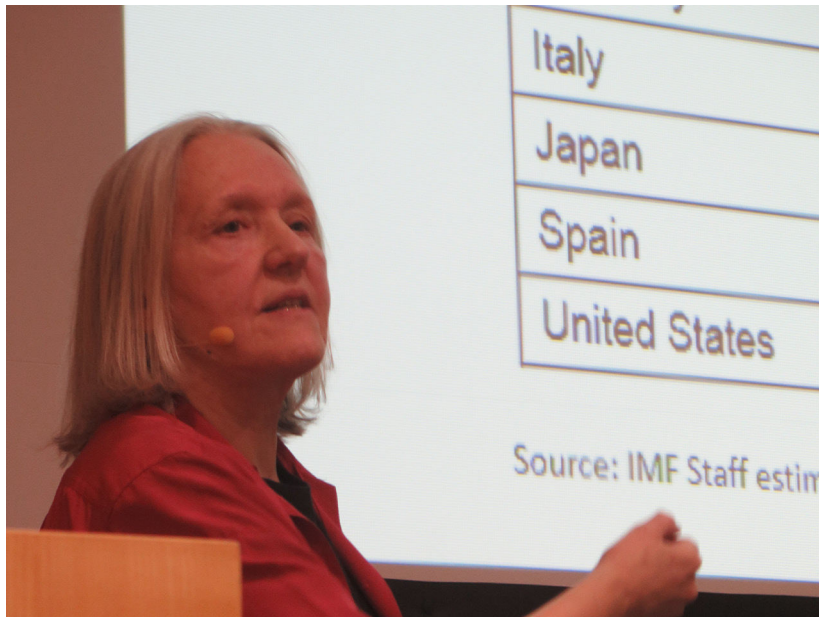
Who owns the vertical farm? Which economic system guarantees the resilient city?



9:40 - 10:00



Saskia is the Robert S. Lynd Professor of Sociology and member of The Committee on Global Thought, Columbia University. Her latest book is *Expulsions: Brutality and Complexity in the Global Economy* (Harvard University Press 2014) now out in 18 languages. She is the recipient of diverse awards, including multiple doctor honoris causa, the Principe de Asturias 2013 Prize in the Social Sciences, and made a Foreign Member of the Royal Academy of the Sciences of Netherland.



Pressconference





SKY BERRIES

conference



28.02. ○
01.03. ● 11:00 - 12:30
02.03. ○

SESSION

○ ○ ○ ○ ○ ● ○ ○

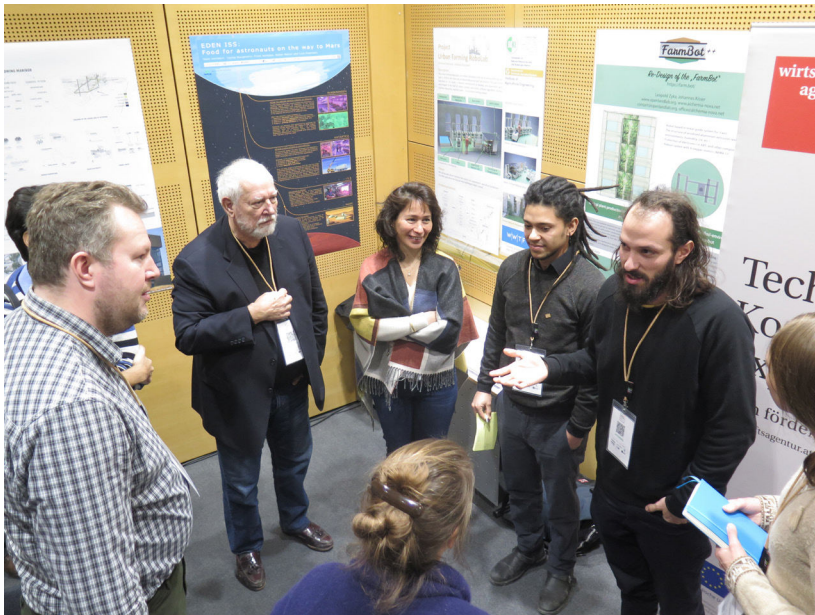
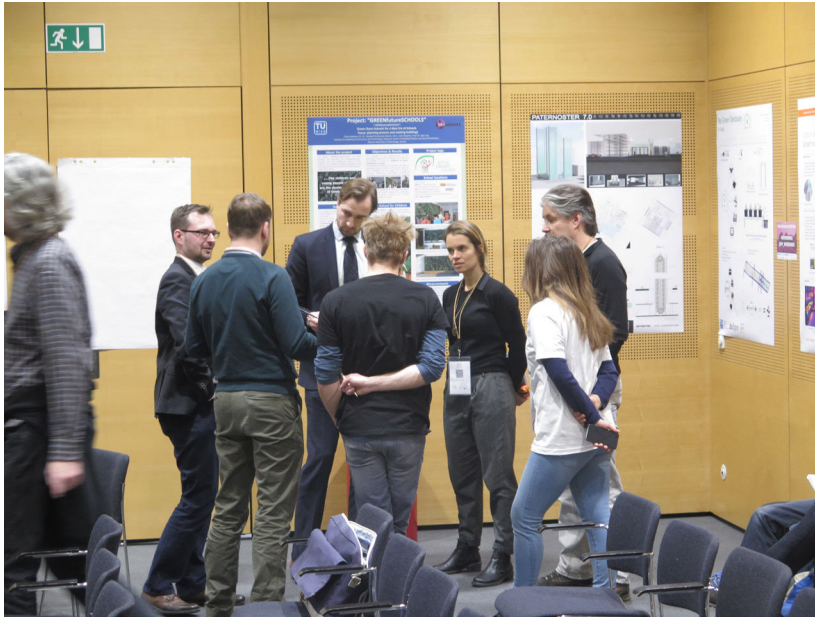
6

INTERACTIVE SESSION



This interactive workshop session brings you together with our speakers from different fields of expertise to come up with proposals for the future city.





„fullfilling crop needs“

www.boku.ac.at

integrity between cultivation- and production methods and crop choice

●● 11:00 - 12:30



NORBERT KEUTGEN
Professor at Division of Vegetables and Ornamentals, BOKU
Vienna | Austria

Anna is the head of the Division of Vegetables and Ornamentals at the BOKU in Vienna. Her research focuses on quality aspects of horticultural products under several cultivation systems (e.g. hydroponic, aquaponics, vertical farming), environmental influence, stress factors, storage and processing systems; pre- and postharvest physiology of horticultural plants, crop plant and stress physiology, evaluation and improvement of nutritive and economic values of horticultural products as raw and processed food for human health.



„cultivation in extremes“

eden-iss.net

cultivated food in the Antartica until last week

11:00 - 12:30



CONRAD ZEIDLER

Journalist and director of documentaries

Cologne | Germany

Conrad made his diploma in industrial engineering, specialized in space technology. Since 2012 scientific member of the Institute of Space Systems (DLR) in Bremen, Germany. Member of the EDEN ISS project, which focuses on ground demonstration of plant cultivation technologies and their application in space. EDEN ISS develops safe food production for on-board the International Space Station (ISS) and for future human space exploration vehicles and planetary outposts.





„the city as spaceship“

liquifer.com

vertical farming between biosphere and space



11:00 - 12:30



BARBARA IMHOF

Co-Founder and Managing Director, Liquifer

Vienna | Austria

Barbara is an internationally active space architect, design researcher and educator. Barbara Imhof is the co-founder and CEO of LIQUIFER Systems Group, an interdisciplinary team comprising engineers, architects, designers and scientists. Her projects deal with spaceflight parameters such as living with limited resources, minimal and transformable spaces, resource-conserving systems; all aspects imperative to sustainability. Since the 2000s Barbara is also involved in biomimetic designs for architectural structures.

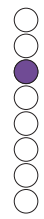




vfi
SKY BERRIES
conference
TY, URBAN AGRICULTURE AND VERTICAL FARMING

BARBARA
LIQUIFER Systems Group
SPEAKER
vfi

SKY BERRIES
conference



„include the community“

mcts.tum.de

considering the sensitivity of the community regarding verticalised food production

11:00 - 12:30



MASCHA GUGGANIG

Postdoctoral Researcher, Munich Center for Technology in Society (MCTS)

Munich | Germany

Mascha Gugganig is the principal investigator of the EIT Food (European Institute of Innovation & Technology) project „Cultivating Engagement: a citizen participation forum on vertical farming“ partnering among others with PlantLab and EUFIC (European Food Information Council). As trained anthropologist, at the MCTS research group Innovation, Society & Public Policy she researches the socio-cultural, ethical, and political dimensions of how food, land, agriculture and technoscience intersect.





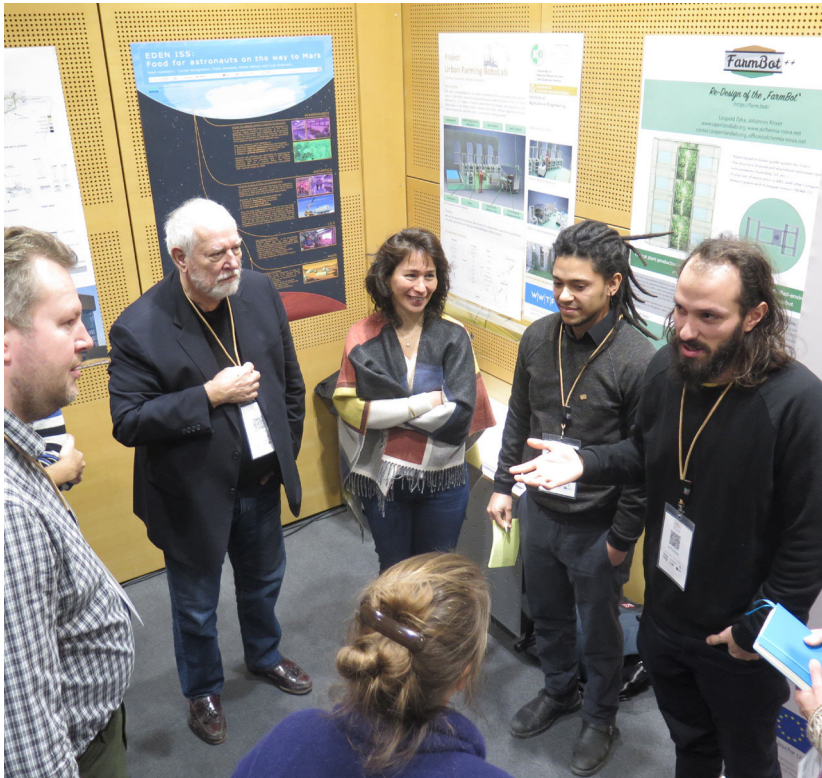
Interactive Session





Interactive Session





SKY BERRIES

conference



Interactive Session





SKY BERRIES

conference ○○○○○○○○



28.02. ○
01.03. ● 14:00 - 15:30
02.03. ○

SESSION



7

THE MARKET FOR VERTICAL FARM PRODUCTS



An increase in urban food production is accompanied by a range of issues like that of ownership, social acceptance, and changes in the individuals' behavior. These and similar issues will be at the core of the session.



„internalise externalities!“

fao.org

increases food production in desert zones

●● 14:00 - 14:20



JOSEF SCHMIDHUBER

Deputy Director, Trade and Markets Division, FAO

Rome | Italy

Josef is the Deputy Director in the Trade and Markets Division of the UN's Food and Agricultural Organization (FAO). His work has been published in numerous books, peer reviewed journals, or as documents of international organizations such as the OECD, the IPCC, and the FAO. His areas of interest include commodity market analysis and outlook, trade and investment in agriculture, global food and nutrition issues, climate change, as well as links between bioenergy and agricultural markets. He holds a M.Sc. degree in agricultural economics and a Ph.D. in economics from the Technical University of Munich.





„invest in sustainable products“

markbuckley.earth

agent of a young but succesful belgium company

14:20 - 14:40



Marc is a serial entrepreneur, he has been involved in many companies as well as several international family businesses: indeed he comes from five generations of German organic farmers and three generations of European Hydroponic Agronomists. Marc has spoken internationally on climate change food reform and green business in many events worldwide in the last past years. His speaking topics include: Impact Innovations and Innovations for Purpose, Reversing Global Warming, Systems Thinking, Vertical Farming, Closed Environmental Agriculture, how to reform Food Industry, Future of Food, and much more.



SKY BERRIES
conference



„be passionate about your work“

infarm.de

**accelerate
urban vertical food production**



14:40 - 15:00



DANIEL KATS

Global Head of Sales, Infarm

Berlin | Germany

Daniel is a business pro (MBA) and having gathered tech and nutrition experience at Foodora (Rocket Internet), Daniel is currently leading the Sales and Key Account Management at INFARM, ready to revolutionize where, what and how we grow. INFARM is a pioneering on-demand farming service, providing urban communities with fresh, nutritious products by distributing smart vertical farms across the city, directly where people live and eat.





SKY BERRIES

conference ○○○○○○●

„the farm as an urban planning entity“

aerofarms.com

from the farm to the urban network



15:00 - 15:20



Stefan is Chief of Staff at AeroFarms, a high-tech, data driven vertical farming company that is revolutionizing agriculture. A passionate advocate for all things ag-tech, Stefan brings with him a background in agriculture, technology, government relations and international affairs. AeroFarms has been recognized as a Circular Economy 100 company, won the World Technology Award for most impactful Environmental Company and received the 2016 New Jersey Governors Award for Environmental Excellence.





vfi



SKY BERRIES

conference ○○○○○○○○●





28.02.
01.03. 16:00 - 17:30
02.03.

SESSION

8

VERTICAL FARMING AWARD

16:00 - 16:20 

The winner of our call for project represents the need for engagement, education and inspiration to make the future city resilient.







VISION STATEMENT

16:20 - 17:00

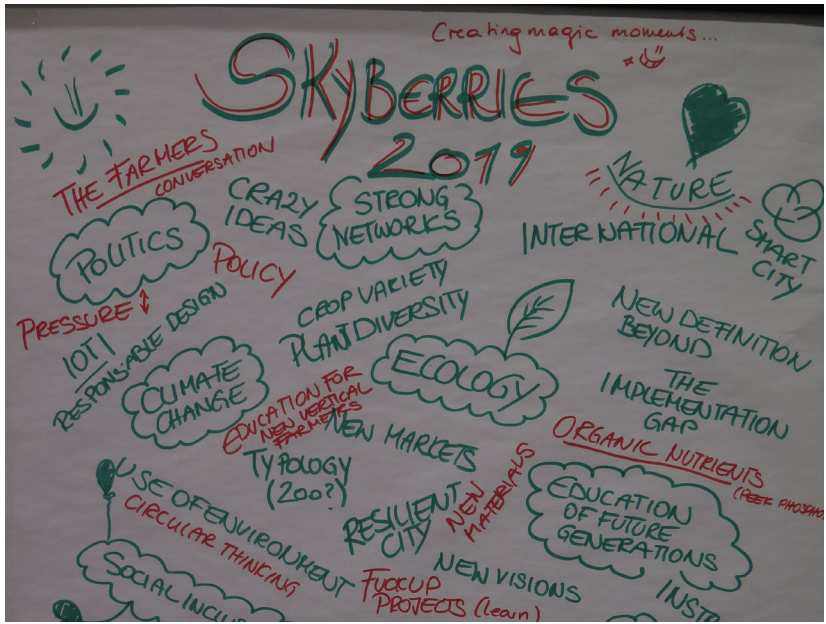
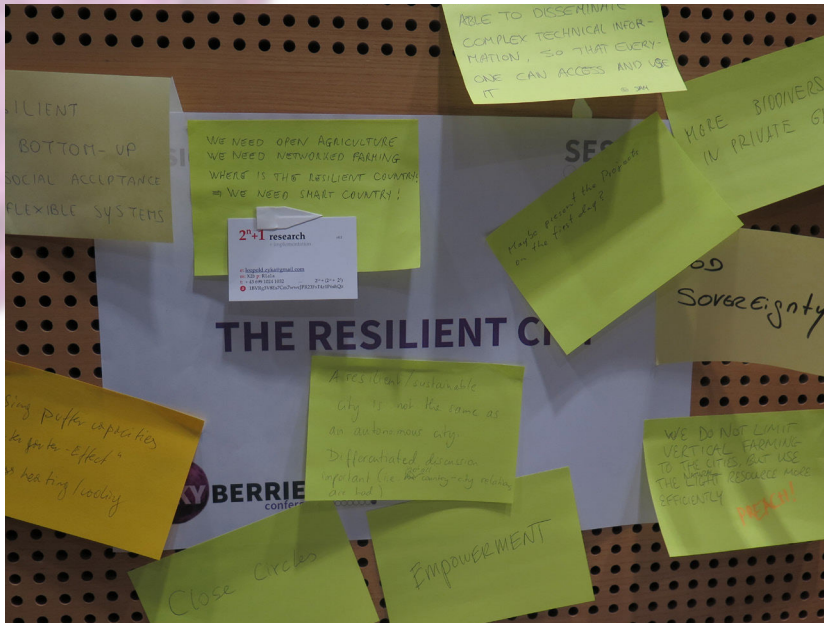
We will hybridise the workshop outputs of the participants with the next steps of our efforts to intensify urban vertical food production. Key focus of the next years is to develop a deeper understanding of the implementation gap.



SKY BERRIES

conference







Project: "GREENfutureSCHOOLS"

Research on the effects of climate change on growing process and existing buildings.

#1

1

PATERNOSTER

#1

2

My Green Sanctuary To Rent

#3

3

Light is advancing Smart horticulture solutions

#3

4

#3

5

URBAN PRODUCTION: SMART ROOFTOP GREENHOUSES ON FACTORIES

The aim of this poster is to present the results of a feasibility study for a smart rooftop greenhouses (SRG).

#3

6

DFG

Edible Cities - A Nature-Based Solution for the Resilient City?

#4

7

THE GREEN CITY

GROWTH DELIMITER FOR IVY AND WILD WINE ALLOWS LARGE SURFACE GREENING IN TOWNS

PETER BOOGAERTS | GSGREEN

#5

8

GROWING HARBOR

#5

9

EDEN ISS: Food for astronauts on the way to Mars

#6

10

Project Urban Farming Robotlab

#7

11

TeamDoo

Re-Design of the "Leontide"

#7

12

slot Nr.

CALL FOR PROJECT :: NOMINEES :: SKYBERRIES AWARD

- | | | |
|----|----|--|
| #1 | 1 | GREENfutureSCHOOLS , Maria Soledad Penaranda Moren, Azra Korjenic, TU Wien, Faculty of Civil Engineering, Institute of Building Construction and Technology, Vienna, Austria |
| #1 | 2 | PATERNOSTER 7.0 , Nina Alisa Habe, Bsc, TU Graz, Graz, Austria |
| #3 | 3 | My Green Sanctuary - to Rent , Anna-Maria Tazreiter, TU Wien, Vienna, Austria |
| #3 | 4 | Light is advancing – Smart Horticulture Solution , Sebastian Olschowski, OSRAM GmbH, München, Germany |
| #3 | 5 | URBAN OASIS , Mag. arch. Markus Jeschaunig, Agency in Biosphere, Graz, Austria |
| #3 | 6 | SMART ROOFTOP GREENHOUSE (SRG) – Feasability Study, Martin Reisinger, Fraunhofer Institute for Manufacturing Engineering and Automation IPA, Institute for Energy Efficiency in Production, Stuttgart, Germany |
| #4 | 7 | EDIBLE CITIES - A NATURE BASED SOLUTION FOR THE RESILIENT CITY? , An Integrative Assessment Framework, Dr. Martina Artmann, Leibniz Institute of Ecological Urban and Regional Development (IOER), Andernach, Haar, Munich, Germany |
| #5 | 8 | THE GREEN CITY – GROWTH DELIMITER FOR IVY AND WILD WINE ALLOWS LARGE SURFACE GREENING IN TOWNS ; Peter Boogaerts, GGGreen (Ground based gable greening) – SME, Paris – Antwerp – Mechelen, France – Belgium |
| #5 | 9 | GROWING MARIBOR , Tajda Potrč Obrecht, ZAG, (formerly TU GRAZ), Maribor, Slovenia |
| #6 | 10 | EDEN ISS: Food for astronauts on the way to Mars , MSc Luuk Graamans, Wageningen University & Research, Wageningen, the Netherlands |
| #7 | 11 | URBAN FARMING ROBOLAB , DI Christian Aschauer, University of Natural Resources and Life Sciences (BOKU), Vienna, Austria |
| #7 | 12 | Farmbot++ , Mag. Theresa Heitzlhofer, Leopold Zyka, 2expnplus1, alchemia-nova GmbH, Vienna, Austria |





SKYBERRIES BAZAR

During the first two days of the conference that took place at the Messe Wien, we organised an exhibition space. This area was designated for our partners to showcase their work.



SKY BERRIES
conference





FIELD TRIP

FIELD TRIP RUTHNER TOWER

It was a great honour that we were able to visit the Ruthner-Tower, one of the very first vertical farms in the world. Finishing the conference with visiting this vertical farm was a good step to get an impression of past endeavours in order to set a conscious step into the bright future together.

RUTHNER TOWER

During the first two days of the conference that took place at the Messe Wien, we organised an exhibition space. This area was designated for our partners to showcase their work.







SKY BERRIES
conference



IMPRESSION

The following section will present an overall impression, accompanied with pictures.



MESSE WIEN

These pictures are meant to give a general feeling for the venue in which the SKY-BERRIES conference took place.



SKY BERRIES
conference

