

**Association for  
Vertical Farming**

"Taking Urban Agriculture to New  
Heights around the World".  
The impact of Vertical Farming

“ It's clear that agriculture,  
done right, is the best  
means the world has today  
to simultaneously tackle  
food security, poverty and  
environmental  
degradation!”

Irene Rosenfeld



# Global and local Challenges

- Continuing population growth and urbanization 2.5 Billion more by 2050
- Most of this in Asia and Africa
- Increase of global **food** production of 70 percent by **2050**, an additional quantity of nearly 1 billion tons of cereals and 200 million tons of meat.
- We have again a rising hunger problem



HOW are we going to sustainably produce  
enough food in the future ?

HOW do we feed our citizens?

# Why Vertical Farming?

- Climate change
- Urbanization
- Population Growth
- Resource finiteness
- Ecological destruction
- Unsustainable agriculture







# Urban Agriculture for a Better Livelihood

## Facts

FAO: 15 to 20 percent of the world's food is produced by about 800 Mio people in cities.

- ◉ Growing urban poverty
- ◉ Need for safe healthy food

## Problems

- ◉ In many countries, urban agriculture is still informal and illegal
- ◉ Unsafe water
- ◉ Uncontrolled contamination

# Indoor/ Vertical Farming

Soilless – no arable land

Pesticide free

Independence from  
weather

98% less water

60 % less nutrients

Safe healthy produce





# PASONA O2 – JAPAN









— How many VF?

- Japan, with more than **200** plant factories
- Taiwan 120 (2015)
- China 20+
- North America approx 50+
- Europe 40 +

— What kind of products?

Salads, vegetables, herbs, berries, microgreens, peas, radish, melons, tomatoes, cucumbers, eggplants, figs, mushrooms, rice field, insects etc

# Different reasons, local adaptation

## UNITED STATES

Startups  
Innovations  
Non  
GMO

## EUROPE

Local  
Production  
Traceability

## JAPAN

Space  
saving  
Independency  
Climate

## AFRICA

Local  
Production  
Innovation  
Safe, healthy  
Food

## SINGAPORE

Food security  
Independency

## CHINA

Air and soil  
pollution

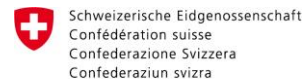


# Thanks!

ANY QUESTIONS?

You can find me at

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