

Towards sustainable food production

Challenges and developments in The Netherlands and Japan

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Who is Jos Verstegen?

- Farmer son, side jobs in agri+horticulture
- Wageningen University: BSc, MSc, PhD
- Prof Entrepreneurship & Society, Aeres Univ. of Appl. Sci. (MSc Agribusiness Dev.)
- Senior Lecturer Education Studies WU
- Senior Researcher Wageningen Economic Research (Business Innovation)
- Visiting professor at Miyazaki Sangyo-keiei University and at Kochi University



Collaboration with

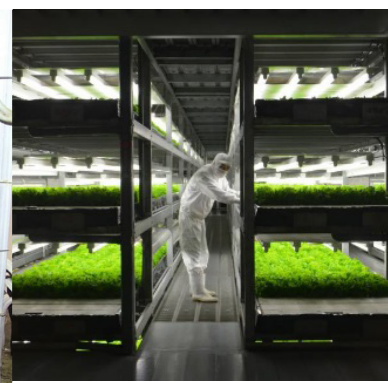


宮崎産業経営大学
Miyazaki Sangyo-keiei University

and



北海道大学
HOKKAIDO UNIVERSITY



農業に生かせ 若者の視点

宮崎産経大アグロポリス構想プロジェクト
遣欧青年使節団選考会

最優秀賞

■テーマ 農業に携わる人を増やすには

「経営感覚、活性化の鍵」

農業は、食料の供給と環境の保全という重要な役割を担っている。しかし、近年は高齢化が進み、後継者が不足している。若者が農業に関心を持ち、経営感覚を持って取り組むことが、農業の活性化の鍵となる。本プロジェクトでは、若者の視点から農業の課題を分析し、解決策を提案している。



最優秀賞を受賞した宮崎県立総合技術学院のチームメンバー



アグロポリス
宮崎県立総合技術学院が、農業と観光を融合させた「アグロポリス」構想を打ち出した。アグロポリスとは、農業と観光を融合させた新しい観光形態を指す。宮崎県立総合技術学院は、この構想を実現するために、若者の視点から農業の課題を分析し、解決策を提案している。

講演
オランダ国ワグeningen大学 教授
ジョス・バース・ステイケン博士

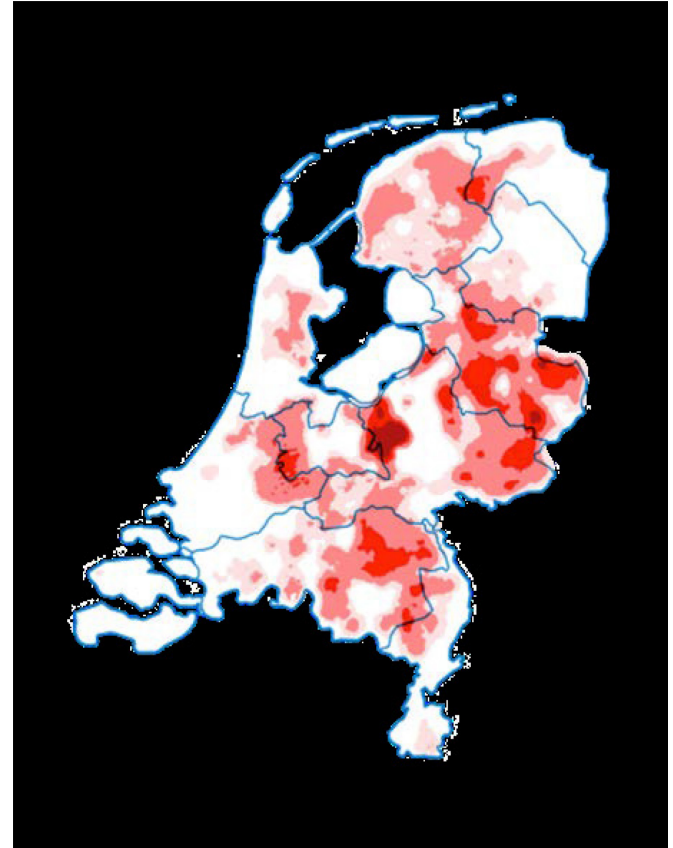
アイデア計り知れない
オランダ国ワグeningen大学 教授
ジョス・バース・ステイケン博士は、農業と観光を融合させた新しい観光形態を指す「アグロポリス」構想について、若者の視点から農業の課題を分析し、解決策を提案している。



Livestock farming in The Netherlands (2021 figures)

- 2.8 million cows (incl. beef / youngstock)
- 11.5 million pigs
- 1.5 million sheep & goats
- 1 million veal calves
- 100 million poultry
- 98,000 - 500,000 horses?

- 17,5 million people on a “Kyushu-size area”, and growing steadily





Challenges in The Netherlands

- Biodiversity loss
- Poor quality of groundwater and surface water
- Air quality (NH₃, but especially NO_x and fine dust)
- EU: Loss of derogation → high costs
- EU: Nature protection, ~ recovery, ~expansion
- Civil concerns (license to produce)
- Lack of successors → scale enlargement
- Farmland needed for houses, industry, infrastructure, nature



Six dilemmas

(WUR perspectives on agriculture, food and nature, October 2023)

1. Produce for NL, EU or for the global market? 
2. Livestock farming only with grass and rest products? 
3. May we exploit animals for food, and if yes, how?
4. How many nature and climate goals do we want to meet?
5. Will we separate or intertwine agriculture and nature?
6. Do we restrict consumers' choice for climate, nature, environment?

Dealing with the dilemmas: Kipster



Kipster

- The world's most friendly chicken farm for animals, humans and the environment
- Modules of 24,000 laying hens (can be scaled up to 96,000)
- Animal protection agency awarded 3-star Better Live Mark



Kipster

- Poultry professor, poultry farmer, and two private (sustainability) investors
- **Leftovers, rest products feed**
- White laying hens (white eggs)
- > 1,000 solar panels per farm
- Welfare status
- Dust filters for clean air
- Male chickens (roosters) are kept alive till slaughtering
- Five years sales contract with LidL

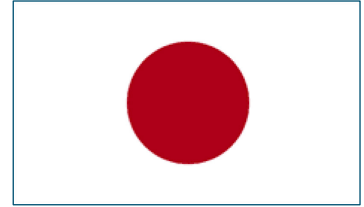


What competences are needed?

- Efficient production
 - Analysing: Conceptual competences
 - Pursuing: Commitment competences
- Successfully introducing a niche concept
 - Networking: Communication competences
 - Relational competences (you need others very much!)
 - Organisational competences
 - Pursuing: Even more commitment and self-efficacy needed

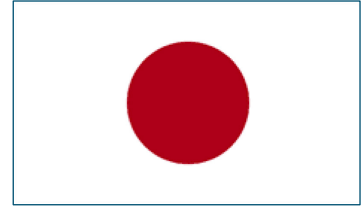
Challenges in Japan

- Ageing population
- People move to the city
- Lack of farm successors
- Inefficient production
- Abandoned land
- A vicious cycle is driving Japan further down in self-sufficiency, despite the great technology that is developed (innovation paradox)

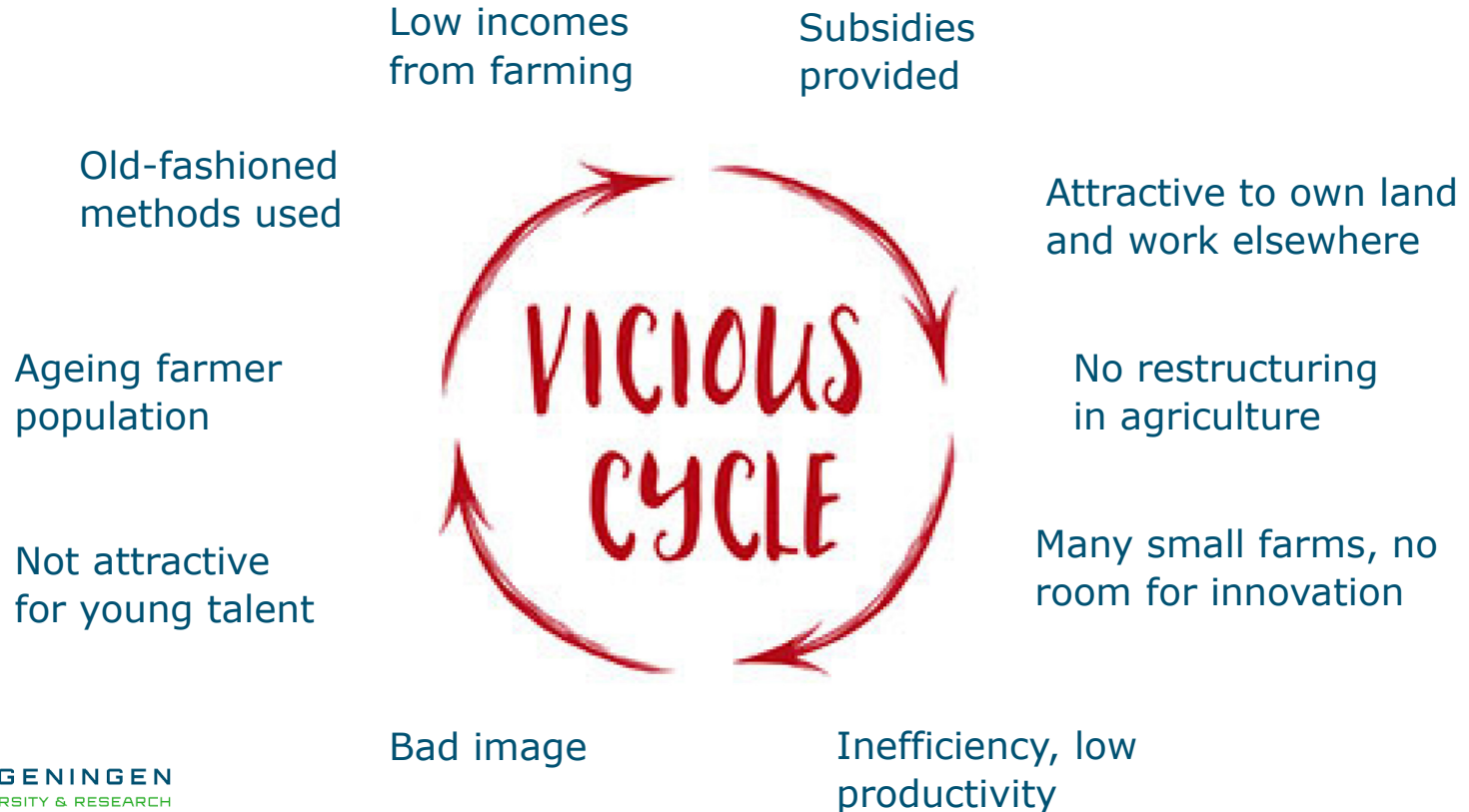


My impression

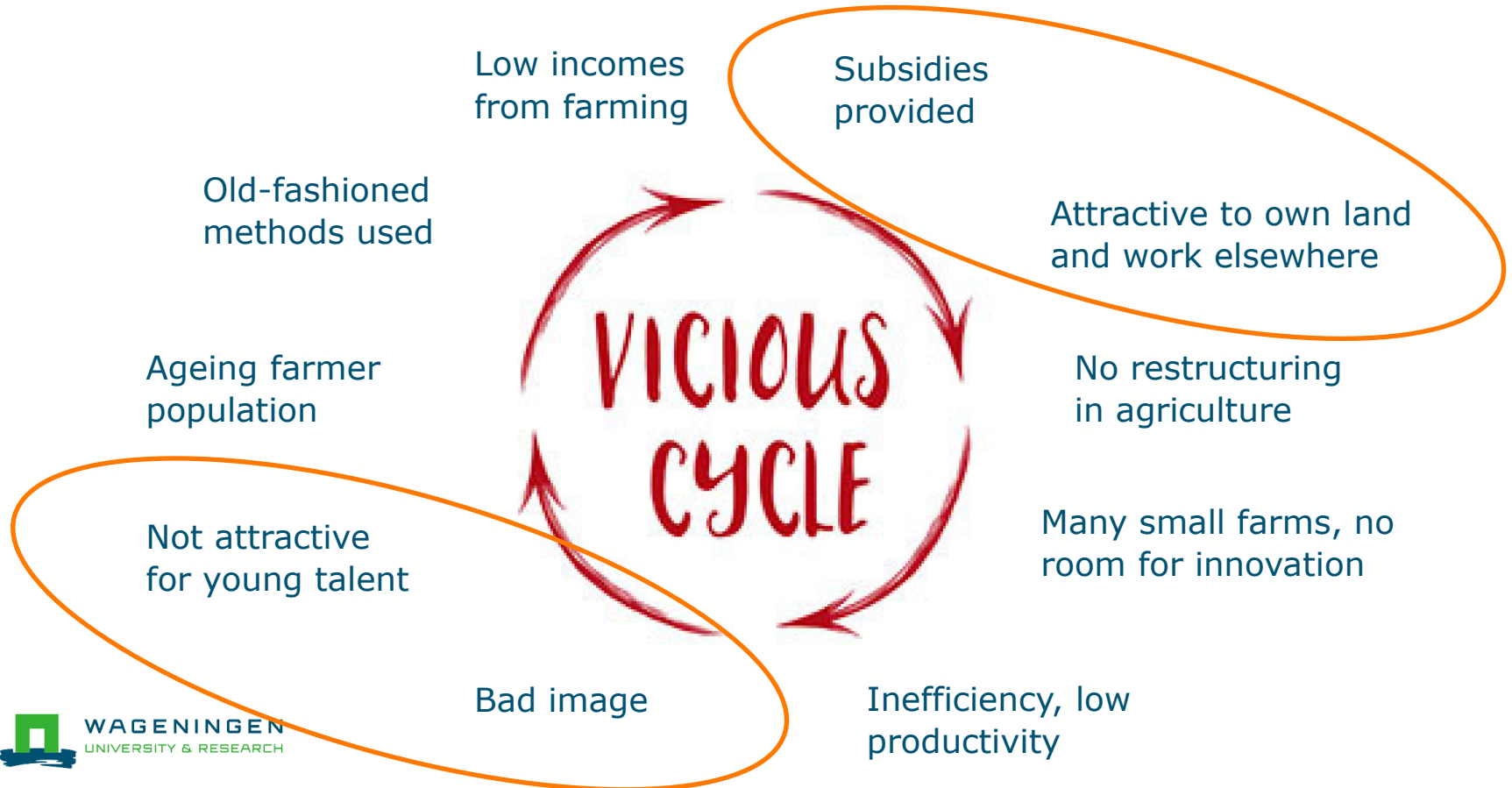
- Lots of efforts are put to improve agricultural productivity
- With little effect due to cultural and political inertia



The vicious cycle in Japanese agriculture



The vicious cycle in Japanese agriculture



How to break through the vicious cycle?

- Decouple subsidies from land ownership
- Attract and keep young talent for farming
- Agricultural education and exchange programs are key:
 - Improve curriculum (level, management, entrepreneurship, 21st century skills), show the high-tech
 - Bring role model farmers in the classroom (masterclasses)
 - Employ teachers who are enthusiastic about agriculture and provide them with cases
 - Get students and young farmers inspired by international exchange

Thanks for your
attention!
よろしくお願ひします

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10 reasons to exchange between NL and JP (1)

1. The Netherlands can learn from the Japanese sublime technology
2. Japan can learn from the highly productive European agriculture
3. Both Japan and The Netherlands have high welfare standards that we should try to preserve
4. Global (agri)business plays an increasingly important role in new agrifood developments and governments need to respond on this
5. Both The Netherlands and Japan must deal with aging populations

Ten reasons (2)

6. Both the EU and Japan have to deal with the issue of depopulated rural areas
7. Big data platforms from the USA (Google, Amazon, Uber) are quite dominant in both The Netherlands and Japan
8. Big data platforms from China (Alibaba, WeChat) and Korea (Line) are quite dominant in Japan and increasingly in the EU
9. Those platforms increasingly enter 'our' domains of agriculture, agribusiness, food, and health
10. Because we shouldn't move commodities across the globe (on a regular basis)