



GLOBAL EDUCATION DIALOGUES  
**The East Asia Series**  
2013-2014

**“The role of triple helix in  
supporting technology  
transfer – Food industry”  
(*Opportunities / Challenges*)**

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With the nation's deep agricultural traditions and abundance of natural resources, Thailand is one of the world's largest and most advanced producers and exporters of processed food products. With technology advancement, Thailand can become a potential global leader in terms of food products. Hence, it is essential to explore potential collaborations, which can manifest both product and process innovation in this industry. This session aims to encourage discussions and come up with initiatives to drive innovation growth in this industry.

AEC will have a big influence on Thai Food Industry

## Agricultural Product Business

Mr. Pornslip Patcharintanakul  
Vice Chairman of The Thai Chamber of Commerce

### Summary

- **The opportunity** of AEC (10 ASEAN countries) is the **market size** getting bigger, **more consumer** and also more competitor.
- Every company and firm must **prepare** and **analyze** their own **strengths** and **weaknesses**. For example, If the product cost in the future are all the same, what to do? If there are no more tariff barriers (import duty rate is 0%), what to do?
- No tariff barrier doesn't mean that you can easily go to sell your product in ASEAN country because there are **non-tariff barriers (NTBs)** in each country, such as quotas, valuation systems, documentation requirements, standard disparities, intergovernmental acceptances of testing methods and standards, etc.
- In the near future, agricultural product will **compete with standard not price**. For example, Thai agricultural standard may not be accepted by other ASEAN countries. Therefore, we have to carefully consider and prepare ourselves before grabbing the opportunity.
- In order to use the same standard, Thailand (Both government and private sector) should take the lead in setting standard and regulation of agricultural product with other ASEAN countries. If ASEAN country use the same standards, it is easy to create "**Contract Farming**" in neighboring countries and generate "**Regional Supply Chain**".
- **The Threat** is **knowledge about AEC**. Most of Thai company, especially medium and small firm, do not understand or realize the impact of AEC.

## Food Business

Mr. Petch Chinnabut

Director of National Food Institute (NFI)

### Summary

- Nowadays, the value of **Thai food** exports is about **9 billion** baht.
- The **strength** of Thai food is **reliability** compared to other ASEAN countries. High quality product of Thailand that well-known such as corn, shrimp, tuna and rice.
- After AEC 2015, The **market size** will **increase** and the important point is “How to manage” our Thai food industry. The government should consider about Thailand **non-tariff barrier** in order not to protect Thai entrepreneurs in losing opportunities in ASEAN market.
- AEC will stimulate more **corporations**. We should look to other ASEAN countries as a **region network not a competitor**. For example, **Best-Practice** and **knowledge sharing** for food industry development.



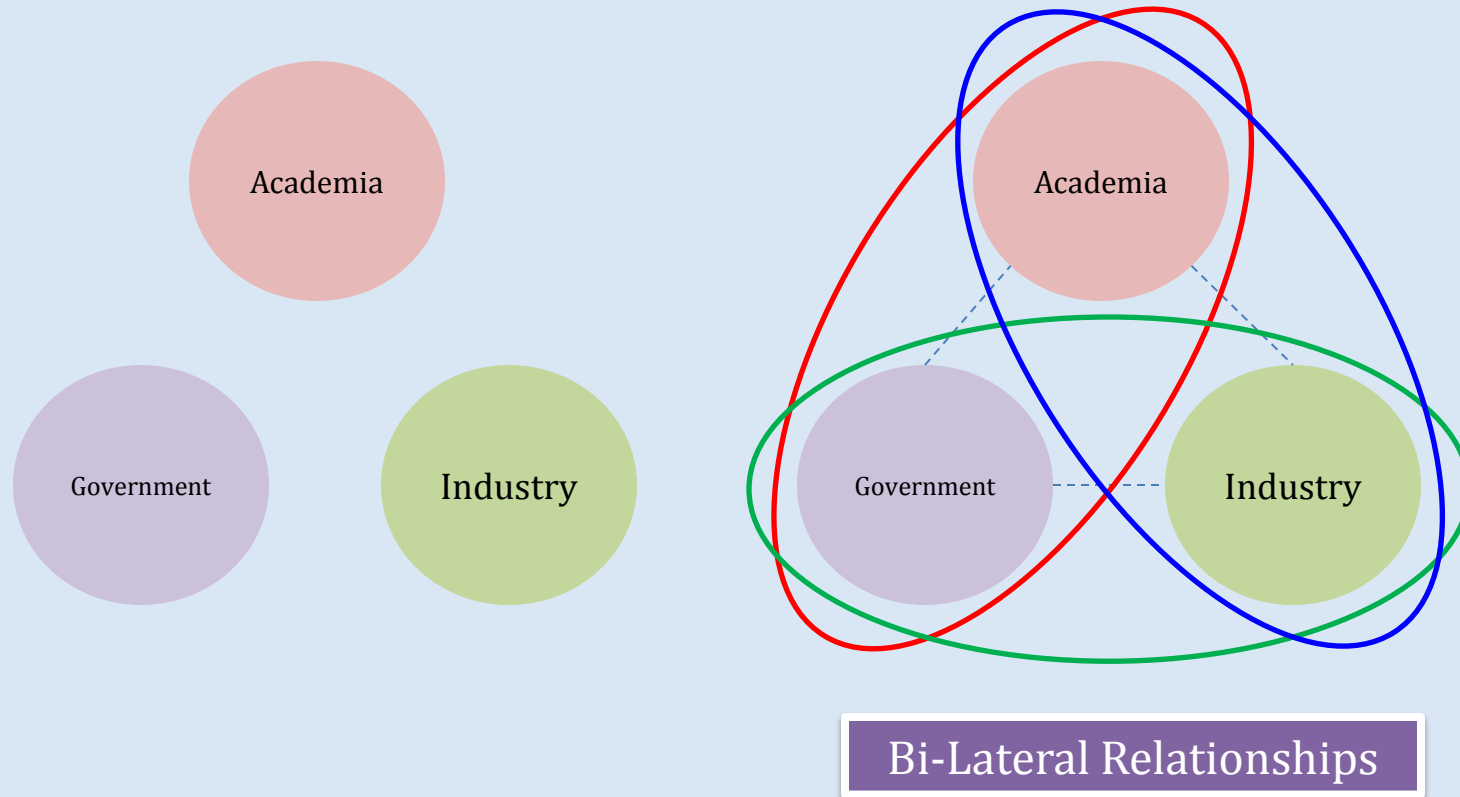
## Food and Beverage Business

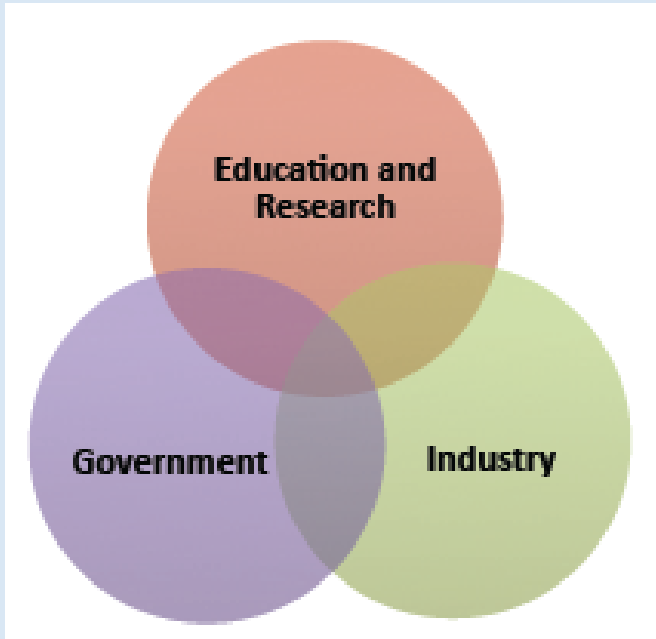
Mr. Thammasa k Jittimaporn

CEO of Green Spot Co.,Ltd. and Director of Thailand Management Association (TMA)

### Summary

- We are going into the **big size market** with **600 million people** in it.
- We can easily acquire raw materials. **Sourcing of raw material** from ASEAN country can **reduce cost** of product and logistic. For example, we can invest or corporate with neighboring country in growing soybean in stead of buying from America zone.
- The lack of **skilled workers** in Thailand can be reduce by using worker from neighboring country.
- **Non-tariff barriers** usually come from **different standards and regulations** in each country. These differences can cause **disadvantage of competitive**. For example, Thai FDA disallow to use “Non-GMO” logo on packaging while FDA in other countries allow. Therefore, The government should negotiate with other ASEAN countries and find the solution for this problem.
- **The huge market size does not guarantee success**. For example, Indonesia is very attractive market for VITAMILK because a population of 230 million people, but the sales volume of VITAMILK is not good because of people **consumption habit or pattern**. Moreover, a larger market size meaning there are **lots of competitors** too.
- To maintain and develop **competitive advantage**, Thai entrepreneurs must **improve manufacturing process** in order to **increase efficiency**. **Market research** and **new product development** are also important.
- **Traceability** is another **quality issue** that need to be concern. For example, the ability to follow products through all stages of the agri-food chain from production to retail.





Source: Info Etkowitz & Leydesdorf (2000)  
(Design: Delin & Pettersson, 2012)

The Triple Helix is the composition of government, industry and academia where the interaction between them creates a platform helping them bring new solutions by improving and enforcing innovation and the environment for R&D (Gibbons et al., 1994)

- *Universities provide advanced research and bright students and eventually technology transfer*
- *Companies provide real-world problems, commercialization opportunities and seed funding*
- *Governments usually provide funding, tax incentives and real estate*



Blurring boundaries to strengthen identities:  
*challenges & opportunities in the Triple Helix model*

The Triple Helix model has brought some of the most successful enterprises over the last few decades. However, to have this model reach its full potential, all partners must recognize *the challenge it bring.*

*Visionary government*

*Dictating*

*IP matter*

*Translational vs Basic research*

*R&D as low priority*

*Contract research vs Strategic partnership*

*Poor management*

*Academia's role in society*

*Long term collaborations*

*Incentives in academia*

*Risk of failure to deliver impactful outcomes*

*Government: the often forgotten third strand*

## Food R&D in the Netherlands



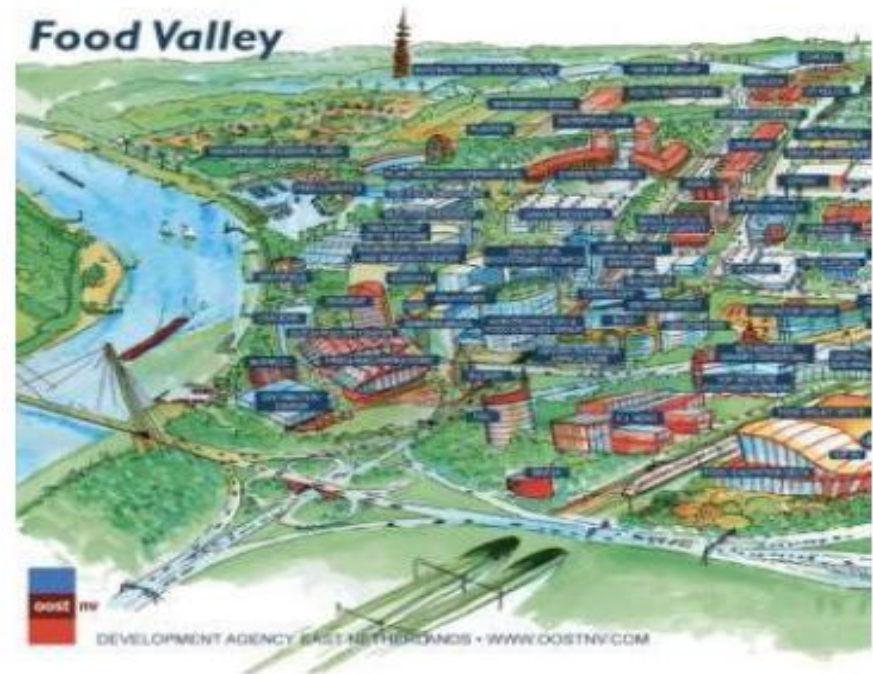
### Food Valley region

- 7,500 scientists
- 1440 food related companies
- 70 science companies
- 20 research institutes
- HQ Wageningen University & Research Centres
- Supporting facilities, e.g. for start-ups
- EU hotspot

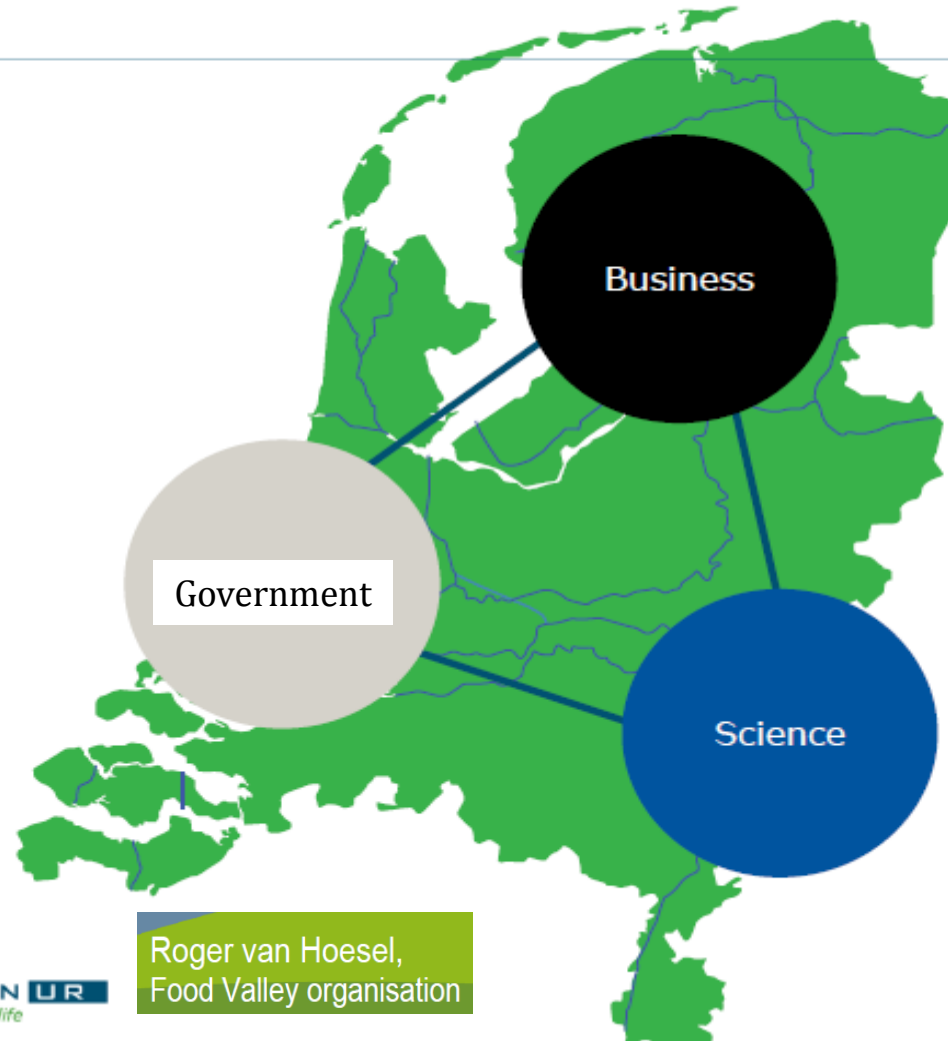
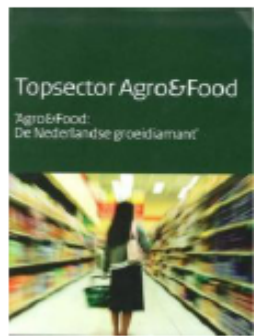
## Embedded in FoodValley



- A great network
- Close collaboration:
  - Business
  - Education & research
  - Government
  - Partnerships
- Aiming at innovation
- Facility sharing



## The "Golden Triangle"



## Managing the triple helix

### Academia

- Fundamental scientists
- Applied (contract) researchers
- Private consultants
- Vocational training

### Industry

- Multinationals
- SMEs
- Tech starters
- Foreign companies

### Academia

### Industry

### Government

### Government

- Ministries of Economic Affairs, Agriculture, Health
- Provinces
- Municipalities
- European Union

## What do we do?

- **Match**                      **companies & knowledge institutes**
- **Support**                **innovation projects**
- **Stimulate**            **development spin-offs & start-ups**
- **Coordinate**          **projects**
- **Promote**              **Food Valley, European centre of knowledge in agrifood**

## Elements of success: way of working

To ask <sub>is</sub> to work

Co-operation stimulates innovation

Narrow-mindedness <sub>is</sub> history

Support <sub>small & large</sub> innovative challenges

Innovation means to experiment

International value <sub>by</sub> co-operation



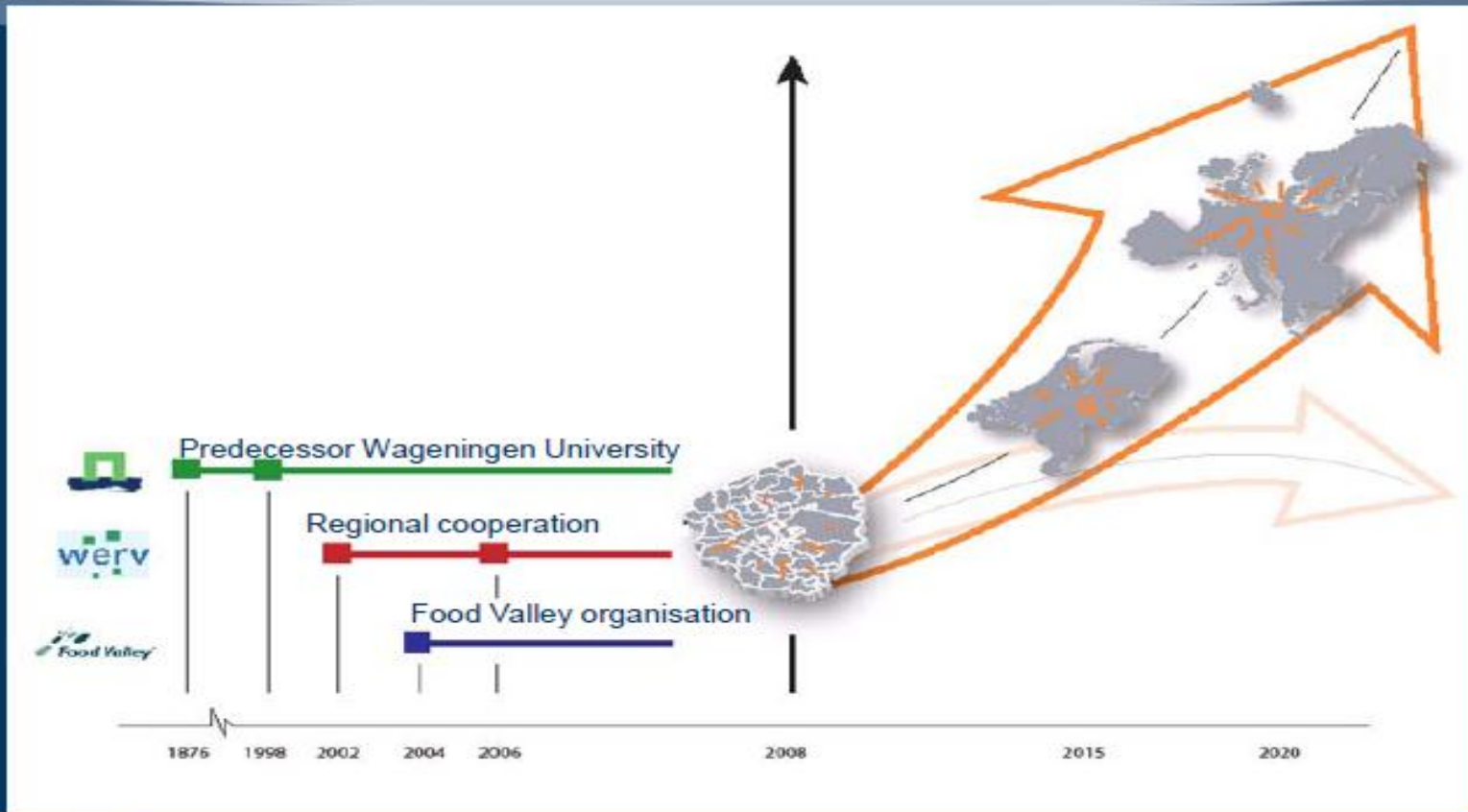
## (Unique) features of Food Valley

- Various technology domains
- Size: big and small
- Open attitude towards co-operation
- Active networks
- No government dominance
- Adequate innovation programs
- Connectivity is considered crucial





## Growth path of Food Valley



## Wageningen UR as your partner

- Co-funding collaborations with public and private partners

- Bilateral projects (contract research)

*Services offered in cooperation by academic and CRO research groups both inside and outside Wageningen UR*

- Technology transfer
- Co-development of knowledge and IP

## Bilateral projects (contract research)

### ■ Consultancy

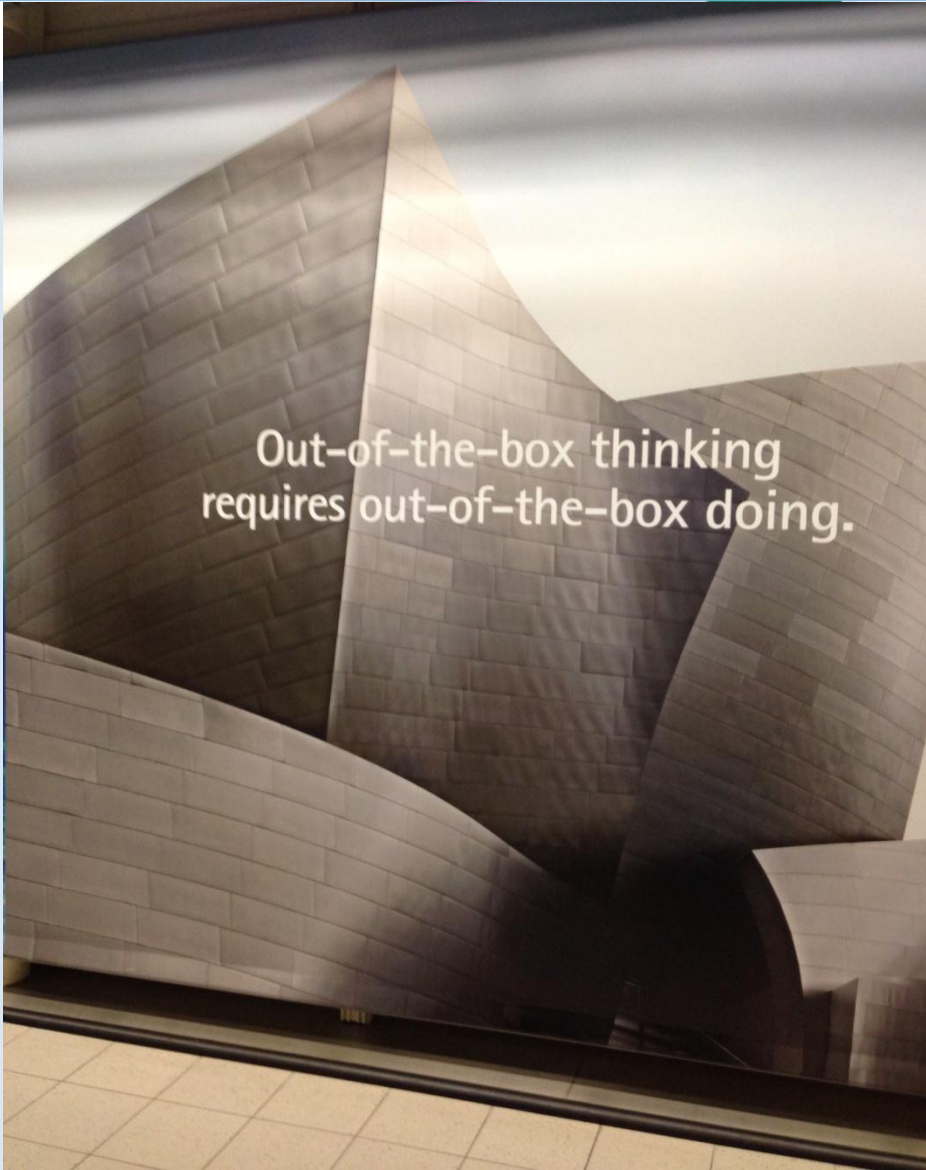
- Feasibility (science, regulations)
- Strategy
- Dossier preparation
- Project management

### ■ Experimental contract studies

- Process technology and characterization
- Screening and mechanistic studies *in vitro* and *in vivo*
- Pilot and pivotal human intervention trials
- Product development and consumer perception

## partnership





Out-of-the-box thinking  
requires out-of-the-box doing.





Thank you  
for your  
attention  
krub