

Richfields Food | Consumer | Health
Designing a world class infrastructure to facilitate research

Presenter: Bent Egberg Mikkelsen
Occasion: Helsinki, June 19, 2018

A Research Infrastructure for Food, Nutrition & Health?

Lessons learnt from coalition building in Denmark

Abstract: The idea of research infrastructures is an important research policy component both at national and European level. But why we need such infrastructures for Food, Nutrition & Health? This presentation reports on experiences from trying to build an alliance in Denmark in recent years around the idea of a research infrastructure around Food, Nutrition & Health. It reports on experiences from attempts to create consensus between universities and between academia and non academic partners. The presentation is a part of the Nordic Baltic 2018 Food & Nutrition Initiative on how to take advantage of digitization and research infrastructure thinking.

Bent Egberg Mikkelsen, AAU – CPH

Meeting in Helsinki on “The Nordic Baltic 2018 Food & Nutrition Initiative on how to take advantage of digitization and research infrastructure thinking”
June 19, 2018

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Two important drivers

1. From Projects to Permenancy
2. From Research3.0 to Research4.0

Why a RI is a good idea 1

Results has an amazing ability to disappear when projects close

“So you want the original data set?”

“Well thing is that my PhD student has it on his Laptop. He went on a paternity leave and i dont really have access” ☹

Disclaimer: Quote is purely fictional. Any resemblance to actual persons, living or dead, or actual events is purely coincidental

Why a RI is a good idea 2 stakeholder views on Big big food data analytic and “food & the digital”

*“We have so many data we **don't know what to do with them** 😊”*
Chief data analyst, Major Danish Retailer

*“Something **is rotten in the state of the** retail sector. **Its changing but we don't know how.** What we do know is that its digitally driven”*
Major Danish Market Intelligence Bureau with inspiration from Shakespeare

Business Generated Data Case Studies, Richfields D8.1 Bent Egberg Mikkelsen, Kwabena Titi Ofei, Haris Hondo, Erik Kaunisto (2017)

Stakeholders workshop report (2017), Richfields D 8.3. Kwabena Titi Ofei, Bent Egberg Mikkelsen, Haris Hondo, Erik Kaunisto, Sophie Hiele

One thing is for certain Recent policy papers says the same

*The food sector compared to travel tech,
health tech and fintech are lacking behind in
terms of taking advantage of “the digital”*

What is a Infrastructure? Its got 2 dimensions. Hard & Soft

Hard part: labs, devices, machines etc



Soft part: multi source data

- **Lab generated:** experimental behavioral data
- **Bizz generated:** shopping data
- **Consumer generated:** Instagram, Facebook etc
- **Register data:** Socio demographics, weather, health etc



What is smart food labs 3 cases of Laboratory generated data

N=3+2



Most people can see the idea of connecting labs
And to connect to the international

- Behavioral nutrition Lab
- Sensory lab
- Chemical lab
- Product lab

Keep roadmaps apart

- A national roadmap. Runs -2020. Then a new one
- In Denmark its called the FoodHay
- Getting on the road map is not the same as getting money
- Idea: get on the road map. Then annual envelopes can be granted
- The international road map ESFRI requires an alliance between national nodes
- Good question is then: whats the relation between node and "foodhay"
- And dont forget the "approval"

Advice 1: Create YOUR narrative

In DK its all about
connecting FoodLabs

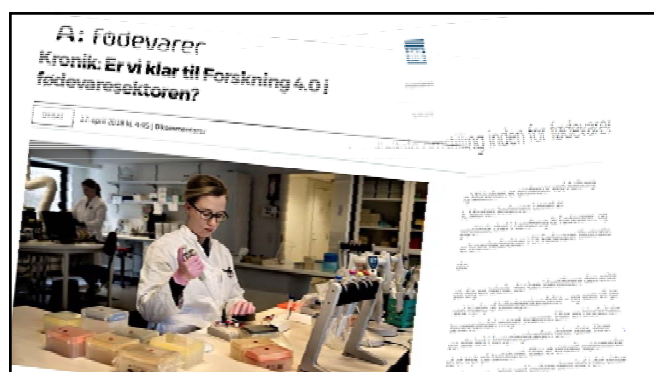


**Danish National Node for
Smart use of data & labs in Food,
Nutrition & Health**

A slow train coming

- Its not a speed train
- But you need to get ready on the station
- Hop on board
- Or stay put
- It gonna run in any case

Should you
involve industry?



Should you sketch some use cases?

Use case 1: Know now or in 5 years? Get realtime answers on food intake

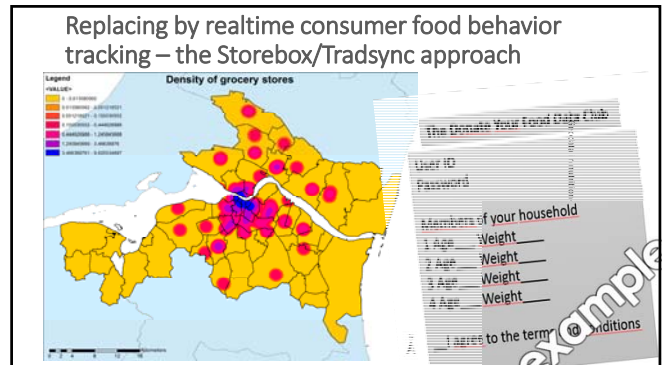
- 7 day food record
- High drop out rate
- Primarily resource full respondents
- Labor intensive data cleaning
- Five years before reporting
- Customer generated
- Card based (loyalty, credit etc)
- Directly interface to TradeSync
- Realtime sourced
- Based on DonateYourData/sharing economy

*"Your idea of a digital data platform is the future but **you need** to come back in 2 years."*, Deputy director, DK Government Food Agency

Use case 1: Get realtime answers on food intake



Replacing by realtime consumer food behavior tracking – the Storebox/Tradysync approach



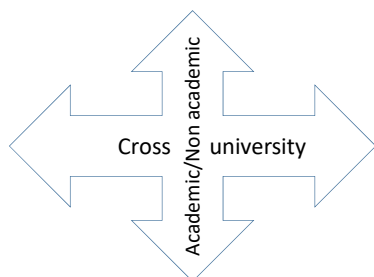
More steps

- Creating an alliance?
- Getting on the national roadmap
- Become a national node?

Non academic

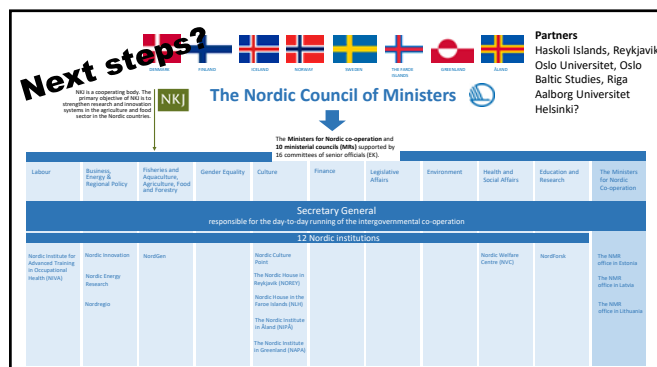
- Confederation of Danish Food industries (Fødevareindustrien)
- Food Agri Council (Landbrug & Fødevarer)
- Food Agency/Food Ministry
- Danish Trade (Dansk Erhverv)
- Horesta
- Danish Dietetic Assoc (Kostforbundet)

Two dimensions of alliance building



Take home

Step	Do what	Why?	Remarks
1	Study the ESFRI and the parallel national RI agenda	They are governing all decisions and grants	Don't let the paperwork and the complexity scare you
2	Attach to the "food and the digital" agenda	AI, IoT and BCT is nonsense to most people in the sector	Consider develop and test use cases along with industry such as Food Hackathons etc.
3	Read and cite recent EU and national policy papers and strategies	Be surprised how many of them speak about digitization, AI, BCT, IoT etc	Note how few food companies have experiences here
4	Start working with Science ministry	They prioritise RI grants both EU wise and nationally	In Sweden Vetenskapsrådet. Use the Danish and Dutch experiences where relevant
5	Emphasize that RI has both a soft side ("the Big data") as well as a hard side ("the labs" and the "small sensors")	The digital agenda can create growth also in the ICT industry	"Big science" RI's as ESS and Max IV are good examples of "hard" mode RI's
6	Develop "techplomacy" among actors in food system	Few people know what is a Research Infrastructure	Spend time on "relations management" by coffee drinking
7	Take advantage of the fact the food sector is lacking behind in terms of digitization	Point is that private sector can benefit if food science take the lead in digitization	Most food companies/organisations know that "something digital" is going on. Only they understand completely what
8	Work on alignment between food universities	Most people will understand that future science is too complex for uni's NOT to cooperate	Most people can understand the "prospects". Fewer tends to react in lack of "permanency"
9	Create consensus among other actors of food system: industry, retail and foodservice	The food sector KNOWs that its an slow adoptor compared to FinTech, EduTech etc	Most people can understand the need to recycle and share data. Its all about circular and sharing economies
10	Go public as soon as an alliance is created	Public support is crucial for the food RI agenda	Universities and research might in addition benefit from strengthened



Pre CPH Food Summit training course



På gensyn i sommer København