

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

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Potentials of consumer-, research-& business-generated data

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Aim & Objectives



- Anlayse best practices of **business generated behavioral** data
- Study data collection technologies
- Study opportunities and challenges inter linking datasets suggest recommendations
- Identify and analyse "composition" cases of
 - food composition & attributes;
 - standardised dietary intake for **population-based intake** assessments
 - clinical intervention studies diet, health and lifestyle
- Define **conceptual connection** of these ongoing RIs towards the new RI C
- Conclude on gaps and needs, and to formulate recommendation for the RI
- Identify purpose, structure & technology of food labs & facilities in Europe Highlight challenges & constraints in data access, exchange & linkage across labs RI's/RF
- Point to potential **ethical issues related** to sharing consumer data (e.g., data privacy, ownership rights etc.)
 - Suggest a suitable business model for lab data exchange





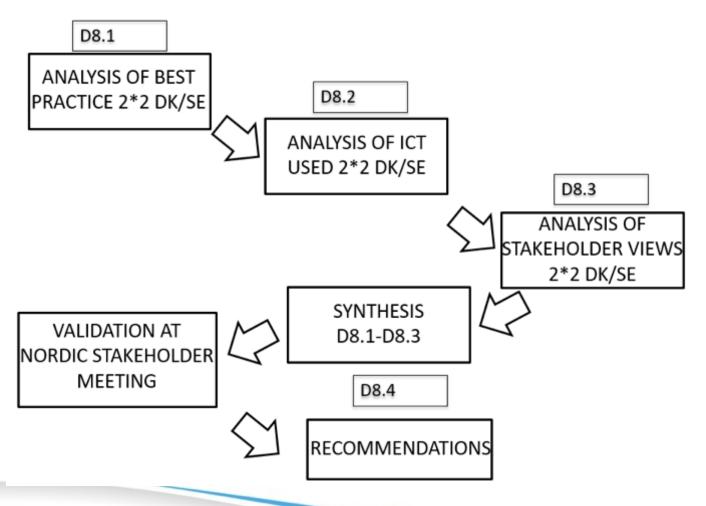
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WP8: Business generated data





WP8: Activities conducted in the WP8 leading to the final recommendations





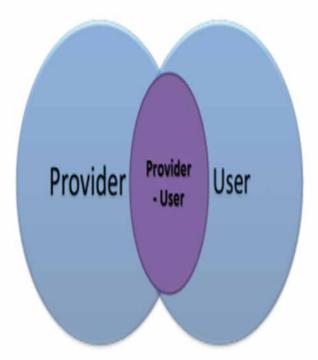
WP8: Data Provider and User Needs

Needs of data providers:

- Generate **feedback to data providers** about when and for what purpose their data is being used.
- Case studies **showing the benefits of data** sharing for businesses could be developed in order to persuade businesses to share their data with the platform.

Needs of data users:

- A **powerful search engine** needed to find relevant data for specific research questions.
- Easy and non-time consuming access to track a cohort of consumers over several years.
- Offers analysis and interpretation services for the data available on the platform.
- Provide information about how the original data was collected by the data provider (METADATA)
- Create added value by exploiting available data and putting data sets together.





WP8: Governance of a research infrastructure

 Data accessible for Policies on data handling, research purposes under data aggregation and the condition that there is disclosure to meet the a mutual benefit from the concerns of data providers collaboration Access Access strategy agreement Access Access permission privacy • Overall EU legislation to avoid • May be simplified negotiating terms and through EU conditions with different data legislation. providers in different countries



WP8: Business models for a research infrastructure.

Need to conceive of different business models in these different cases.

Develop strategies that could help exclude entities and businesses organizations likely to have competitive urge over their counterparts



The WP8 bonus study findings Data Sharing



Most informants do not know if or what kind of data the company collect, but think it is fair that companies collect and use data to brand and improve their business.

Some finds that data collection is fine as long as the customers do not feel that they are being kept under surveillance.

One expressed that if the company would use the data to inform and advice the customers of their diet and chose of purchase, it would be crossing the line.

She also stressed that data sharing should be transparent and easy to opt in and out of for the customer.

One claimed that data sharing about purchases, diets and background knowledge is fine as long as it does not involve collecting bank account informations or not keeping them safe.

"R: I don't really know what kind of data they have on me.
I: No, I'm just thinking about data like 'what you have bought..."
R: Ohh, yes. I think it is fine. It is quite fair that they get to know something and use it as well. Because it helps them to run a better business."

- Johanne, 25 years, lives with friend in rental apartment



The WP8 bonus study findings Data Sharing



Few informants can relate to the idea of actively use purchase data to feed back advice to consumer about diet or food habits since consumption is limited to specail occasions

None of the informants monitor their intake of food with apps or instruments

Collecting and using data for scientific purposes are deemed more acceptable then for corporate purposes.

"I don't really know whether I'll take advantage of it. It is a bit like McDonalds; 'with this meal you get that amount of calories, carbohydrates..." I is an overkill. I don't know, it might be over the top."

Anne, 35 years, lives with partner and two children in private household



Training services important

- Extension services/practitioners industry
- Doctoral level for research purposes
- Graduate level at consumer and food studies
- Mix of lecturing, exercises, excursions, student assignment
- Could be co-arranged by more universities



WP9: Science delivered data

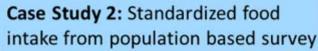
Exploring how to deliver data and content to the RI Consumer Data Platform

What data is available?

How is the data stored? How can it be linked?

Ethnical and ownership issues when linking to the data

Design of future data structures/interfaces Case Study 1: Food composition and food attributes



Case Study 3: Clinical interventions

Case Study 4: Consumer diet, health and lifestyle











D	Deliverable
10.1	Laboratories and research facilities in
	the field of food and health consumer
	behaviour and lifestyle
10.2	Facility to collect purchase behaviour
	data: Restaurant of the Future (RoF)
10.3	Facilities to collect food choice and
	consumption data (FoodScapeLab &
	Fake Food)



- 1) What do the purpose, structure, technology/devices used and data storage of various laboratories and facilities in Europe look like?
- 2) Are there ways (and interest) to offer **data access, exchange and linkage** to external research infrastructures, like RICHFIELDS?
 - ➤ What would be the challenges and constraints?
- 3) What are potential **ethical issues** related to sharing consumer data (e.g., data privacy, ownership rights etc.)?
- 4) Is there a suitable **business model** to manage data exchange (e.g., user and access rights, fees, governance of data usage for different purposes)?











- Case studies on three facilities (Fake Food Buffet, FoodScape Lab, Restaurant of the Future)
- Food choice, purchase and consumption

Step 2

- Mapping additional facilities across Europe (private and public)
- Expert interviews in selected facilities (commercial and public-private institutions)

Step 3

- Stakeholder workshops to discuss these insights
- Synthesis of findings and recommendations



Case study 1



Fake Food Buffet ETH Zurich

University of Konstanz, DE University of Newcastle, AUS Queens University, Belfast, NIR

"food choice"

Case study 2



FoodScape Lab
Aarlborg University

"food choice, consumption"

Case study 3



Restaurant of the Future Wageningen University

"food choice, purchase & consumption"



Some challenges

- Validation
- Business models
- Calibration
- Maintenance
- Updatings

Some advantages

- Smart specialisation
- Easy one stop shopping access
- Common experimental protocols
- Increase exchange & mobility
- Facilitate innovation and market solutions





To conclude

interest & potentials

- On the overall and general level:
- Business are interested and can see the potentials
- Universities are interested and can see the potentials
- Government
 agencies are
 interested and can
 see the potentials

- But
- Quality issues are crucial
- Regular Updating as well
- Agreed standards for exchanging data too
- A distinction is important
- A RI is dual in nature: Both hard and soft
- Hard: Labs are key to "devices" ("tangibles")
- Soft: just a "wireless" connection to data ("intangibles")
- Interest is related to the fact that non academic actors dont go round thinking about RI but they are kept awake by the potentials of studying consumer behaviour the digital way



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