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D3.4 Report from second Stakeholder workshop

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1. Executive Summary

RICHFIELDS aims to publish the design for a consumer data platform that will collect and/ or connect information about food behaviours from a variety of sources (e.g. consumers, business and research). The project seeks to determine which facilities, resources and services could support research around what we choose to eat, and how and why we make those choices. The business model will outline services provided by RICHFIELDS, and how these will generate revenue to sustain the platform in the longer-term, while a roadmap will outline the steps needed to introduce the platform.

It was apparent from the first stakeholder workshop (Amsterdam Schiphol – NL, 27th September 2016) that the vision for RICHFIELDS, specifically what would be offered in terms of tools and services, was difficult for stakeholders to visualise. Thus, the objectives of this stakeholder workshop were to invite stakeholder reflection and input on the project's scientific aims and vision and the core offering at the minimum viable product level, and identify potential motivators and barriers to future collaboration. The programme tailored carefully to ensure the necessary conceptual and background information was provided to enable stakeholders to understand the vision and provide more focussed feedback.

Overall, the approach was successful and we received insightful feedback from the delegates during the plenary and breakout sessions. Some of key points identified were the need to develop a clear definition of terms, better characterisation of data, links with other research infrastructures, engaging data providers at the highest level, ensuring data are representative of populations of interest, simplify access and support for application, and informed consent. Lessons learned from the first stakeholder workshop also saw dividends in terms of internal stakeholder participation. The meeting received very positive ratings and the majority indicated they would be interested in attending RICHFIELDS stakeholder events in the future. Information collected during this workshop will be used by other WPs to inform ongoing development of the RICHFIELDS Core Offering, and to support decision-making within Phase 3.

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1. RICHFIELDS background

1.1 RICHFIELDS objectives

RICHFIELDS aims to publish technical requirements for a consumer data platform to collect and connect, compare and share information about our food behaviours. The project seeks to determine which facilities, resources, and services could support research activities to learn more about what we choose to eat, and how and why we make those choices, and integrate these from a variety of sources (e.g. consumers, business and research). The business model will outline services provided by the RICHFIELDS consumer data platform, and how these will generate revenue to sustain it in the longer-term, while a roadmap will outline the steps needed to introduce a platform that can serve the whole of Europe.

1.2 Wider scientific landscape: European food, nutrition and health research infrastructure

Many of the challenges undermining food including nutrition and health are inherently inter-disciplinary and multi-sector. The European Union (EU) has a strong track record of coordination amongst Member States' research providers and users, and an important role in delivering research and demonstrating international leadership in innovation for economic and societal benefits through sustainable economic growth and employment, and enhanced health and well-being.

The EU has launched several programmes to encourage joint agenda setting, including development of RIs and transnational collaboration, but there has been growing concern over the lack of RIs able to support the study of food systems, maintenance of health and healthy ageing, and command critical mass (users and providers) since the European Research Infrastructure Landscape (MERIL - http://bit.ly/228cEfs) was first mapped in 2010-2012. FAHRE (FP7) mapped European research systems, describing existing structures, and identified gaps and needs for future food and health research (http://cordis.europa.eu/result/rcn/54693_en.html; McCarthy et al. 2013 10.1016/j.foodpol.2012.12.005), and concluded that better research collaboration and innovation across Europe are essential to improve the efficiency of mainly public research resources and leverage competitive advantage globally.

Likewise, EuroDISH identified the need for RIs in the food and health domain that could advance research within and across the so-called DISH domains, specifically determinants of dietary behaviour (D), intake of foods and components (I), status and function in the body (S), and health and disease risk (H). EuroDISH also described unresolved needs and gaps in a conceptual design as well as a roadmap for implementation (Snoek et al., 2016 submitted). A notable finding was the highly variable nature of existing DISH resources, demonstrating both a practical and strategic need for RIs engaging stakeholders along the food chain.

Stressing the need for world-class research infrastructures, EU Horizon 2020 has provided financial support for RICHFIELDS, which commenced on 1st October 2015 for three years, coordinated by Wageningen Economic Research (WEcR, NL).

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Drivers for a consumer data platform considering determinants include:

Science case

- More accurate and reliable insights in food intake
- Standardisation of measurements of determinant of food intake needed
- Integration of food intake with determinants needed: personal characteristics as well as contextual factors
- Personalised advice requires new approach

Data governance case

- Data stewardship: open access, data procurement,
- Data sustainability: FAIR data
- Privacy and data security: new regulations
- Integrated data: from different sources such as consumer generated data, data generated by research, data generated by the private sector, data generated by health professionals
- Standardised data: standardised tools and methods to collect this data, enabling to align across countries

1.3 RICHFIELDS structure

Sixteen organisations from 12 countries, bring together competences including nutrition, sociology, information management, ICT, business, consumer science, and food processing. The first two phases of RICHFIELDS (Phase 1 WP5-7; Phase 2: WP8-10) are delivering in-depth knowledge about the available consumer-related data and Phase 3 will, based on these outputs, identify the requirements for such a platform (design) (Figure 1, Zimmermann et al., 2017).

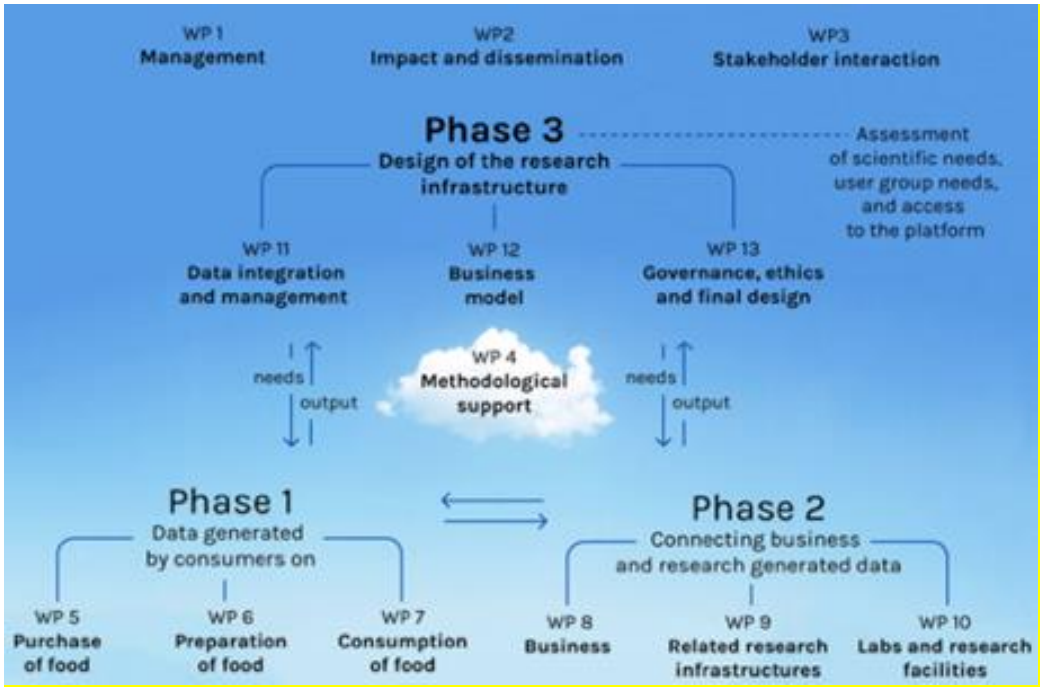

Figure 1. RICHFIELDS structure

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1.4 Phases 1-2: Findings to date

1.4.1 Phase 1

An inventory management system (RIMS) has been created for storage and assessment of an online inventory of tools (e.g., mobile phone applications), which produce consumer generated food and/ or beverage purchase, preparation or consumption data. It is comprised of two parts: (1) a typology categorising the purpose of tools and (2) metadata to enable assessment of data quality, either related to a scientific case (e.g. are the data sufficient to answer a what/ who/ why/ how/ where research question) or whether the data are findable, accessible, inter-operable or re-useable (e.g. legal, governance or technical data management constraints). Information about these is fundamental to developing the architecture and governance structure of the RICHFIELDS platform.

1.4.2 Phase 2

Case studies in WP8-10 allow a more detailed approach to investigate the technical components, interfaces and services necessary for data to be linked to create a functioning RICHFIELDS platform. These case studies include:

- Work package 8: Three case studies addressing business generated data on purchase and procurement: (i) Coop DK, (ii) Statistics DK, (iii) Göteborgs Stad SE
- Work package 9: Four case studies exploring the potential for delivering data and content to the RICHFIELDS platform from existing infrastructures or those currently under development: (i) food composition and food attributes (EuroFIR, FoodExplorer, ePlantlibra, Brandbank, FoodWiz); (ii) Standardised food intake from population based surveys (Globodiet); (iii) Clinical interventions; and (iv) consumer diet, health and lifestyle (PRECIOUS, Quisper).
- Work package 10: Three case studies investigating laboratories and facilities that undertake consumer research on food choice, purchase and consumption: (i) the Fake Food Buffet at ETH Zurich (food choice); (ii) the FoodScape Lab at Aalborg University (food choice, consumption); (iii) Restaurant of the Future at Wageningen University (food choice, purchase and consumption).

1.5 User requirements analysis

An on-going task throughout RICHFIELDS is understanding user requirements. A series of tasks are being performed to characterise RICHFIELDS end-users and stakeholders, and their requirements to ensure the platform is fit-for-purpose. User requirements analyses have and will continue to be conducted alongside the design of the RICHFIELDS platform.

These include to date:

1. Informal interviews with stakeholders at the RICHFIELDS Stakeholder Platform[1]
2. Phase 1-2 research activities including survey, inventories, focus groups and workshop discussions with user and stakeholders
3. All workshops, meetings, etc. as well as the second Stakeholder Platform throughout Phases 1-3

[1] RICHFIELDS Stakeholder Platform (2nd June 2016) - an open meeting for all stakeholders, as compared with the workshops (27th September 2016 [NL] and 4th April 2017 [BE]), which are smaller and by-invitation only. The second RICHFIELDS Stakeholder Platform will be in March-April 2018 (location to be confirmed).

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1.6 Information architecture

Information about user requirements is informing the key principles and building blocks for Phase 3 design of the consumer data platform. To support discussions about the design, content and surrounding issues (e.g. governance), RICHFIELDS has developed a 'Core Offering Proposal' summarising the potential content of the platform at the 'Minimum Viable Product' (MVP) level (Figure 2).

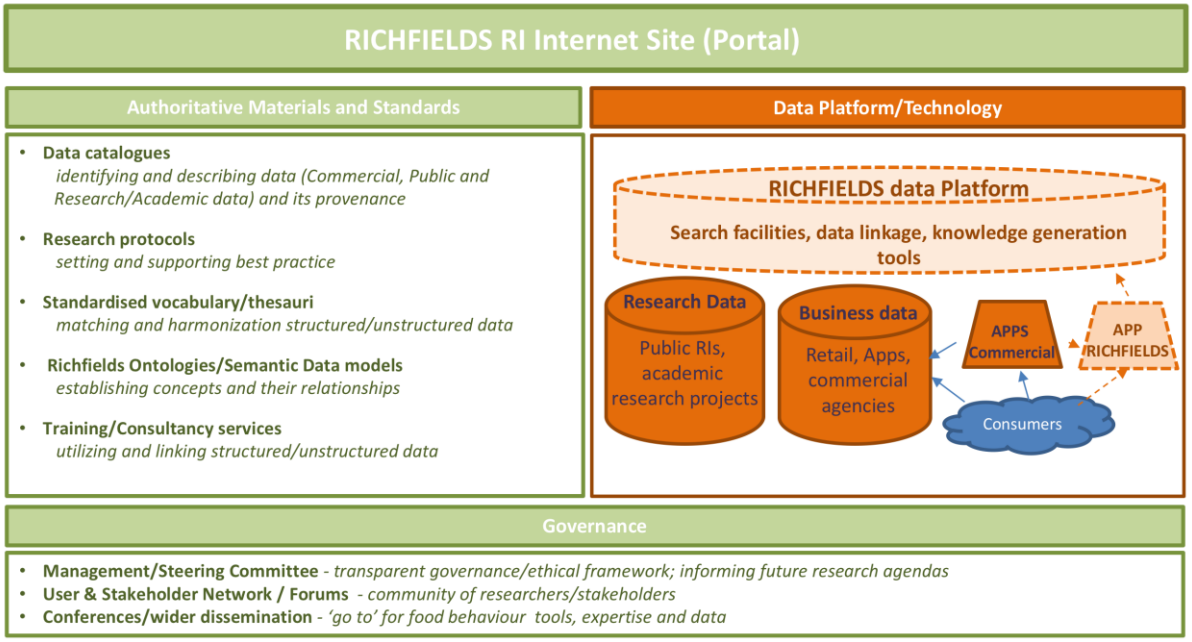

Figure 2: Core offering proposal (at MVP level) (27th March 2017) (**NB**: here, APPS includes all likely sources of consumer-generated data, such as apps, sensors, wearables, consumer-generated big data)

1.7 RICHFIELDS final design

Phase 3 will use the knowledge generated in Phases 1-2 as well as any additional project activities to generate three aspects of the final design:

1. **Semantic model** – this is necessary to encode data and information, and allow the sharing (re-use) of data with various RICHFIELDS end-users or information systems (software agents). WP11 aims to produce an ontology and set of classes to aid the re-use and integration of data, information and knowledge.
2. **Business model** – WP12 will produce different business models dependent on the value proposition (service offered), supply chain configuration (means to deliver services to users) and revenue system (remuneration mechanism for the platform).
3. **Governance model** – will be depend on how governance is defined, i.e. which elements of governance will be included within the design of RICHFIELDS. Issues related to FAIR data, such as data ownership, privacy, intellectual property rights, and ethics will all need to be considered.

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2. Workshop objectives and outputs

2.1 Aims of the workshop

The objectives of this workshop were to invite Stakeholder reflection and input on the RICHFIELDS scientific aims and vision, and work performed thus far, particularly the Core Offering Proposal at the Minimum Viable Product level, and identify potential motivators and barriers to future collaboration with the proposed consumer data platform.

2.2 Output of the workshop

The main aims were to: (1) **obtain s*takeholder feedback, input and or recommendations on the proposed RICHFIELDS consumer data platform, particularly:***

- Scientific aims
- Proposed core offering
- Data governance (ethics)
- Organisational governance (business models)
- ICT & schematic model for the RICHFIELDS consumer data platform

*and **(2) greater understanding of stakeholders' perceptions of collaborating with the RICHFIELDS consumer data platform, as either a data provider or user or both, especially with respect to:***

- Perceived benefits (value propositions) of data and services
- Perceived risks and/or barriers to future collaboration with RICHFIELDS

The outputs will inform future activities and development of the RICHFIELDS consumer data platform design, governance and business model(s).

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3. Workshop methodology

3.1 Recruitment and participants

The aims of the first Stakeholder workshop (Amsterdam Schiphol – NL, 27th September 2016) were to support the on-going work regarding requirements for specifying and characterising the wide range of datasets identified as providing information about consumer behaviour around food choices. The aim of this workshop (Penta Hotel City Centre Brussels – BE, 4th April 2017) was to invite Stakeholders to reflect on and provide input regarding the RICHFIELDS scientific aims and vision, and work performed thus far, particularly the Core Offering Proposal at the Minimum Viable Product level, and identify potential motivators and barriers to future collaboration with the proposed consumer data platform.

Potential participants were selected from those invited to the first Stakeholder workshop, regardless of whether they could attend. This list was elaborated further by a small team comprising representatives from the Project Management Team (PMT), WP3 and WP4, and focussed on those from research and industry as data providers and users, and consumer representatives who are important partners in the development of appropriate governance for the platform. Invitees were also identified from the WP10 list of laboratories and facilitates that might be linked with the RICHFEILDS platform and the WP3 list of existing research infrastructures. 33 individuals representing research were invited along with 23 people representing industry and the biotech sector and 11 consumer representatives. 25 invitations were accepted from external participants and 15 RICHFIELDS beneficiaries attended (see Annex 1: Workshop attendance, A.1 External participants and A.2 RICHFIELDS beneficiaries).

The acceptance rate (ca. 38%) was higher than previously (28%), possibly enhanced by suggestions from those invited originally. Together with the RICHFIELDS beneficiaries, the stakeholders were assigned – based on their broad expertise – to one of three groups, namely (1) research, (2) consumer/ public health and (3) industry/ biotech.

Each group (ca. 9-12 individuals) was led by a facilitator (Group 1/ Researcher: Monique Raats, Group 2/ Consumer: Lada Timotijevic and Group 3/ Industry: Charo Hodgkins) and included a rapporteur (Group 1/ Researcher: Sophie Hieke, Group 2/ Consumer: Golboo Pourabdollahian, Group 3/ Industry: Siân Astley).

The final groups were:

Group 1/ Researchers:

1. Axelos Monique RICHFIELDS Stakeholder
2. Colombani Paolo RICHFIELDS Stakeholder
3. Cowburn Gill RICHFIELDS Stakeholder
4. Finglas Paul RICHFIELDS Partner
5. Glibetic Maria RICHFIELDS Stakeholder
6. Jõeleht Ann RICHFIELDS Stakeholder
7. Kapsokefalou Maria RICHFIELDS Stakeholder
8. Sadler Christina RICHFIELDS Partner
9. Salupuu Kristin RICHFIELDS Stakeholder
10. Slimani Nadia RICHFIELDS Stakeholder
11. Toxopeus Ido RICHFIELDS Stakeholder
12. Westenbrink Susanne RICHFIELDS Stakeholder

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Group 2/ Consumers:

1. Beernaert Hedwig RICHFIELDS Stakeholder
2. Bogaardt Marc-Jeroen RICHFIELDS Partner
3. Canavari Maurizio RICHFIELDS Stakeholder
4. de la Cueva Javier RICHFIELDS Partner
5. Grammatikaki Evangelia RICHFIELDS Stakeholder
6. Müller Heimo RICHFIELDS Stakeholder
7. Spiroski Igor RICHFIELDS Partner
8. Zoani Claudia RICHFIELDS Stakeholder
9. Mantur Angelika RICHFIELDS Partner
10. Goyens Petra RICHFIELDS Stakeholder (did not attend in the afternoon)

Group 3/ industry:

1. Bucher Tamara RICHFIELDS Stakeholder
2. Douglas Frankie RICHFIELDS Stakeholder
3. Koroušić Seljak Barbara RICHFIELDS Partner
4. Lay James RICHFIELDS Stakeholder
5. Mikkelsen Bent Egberg RICHFIELDS Partner
6. O'Kelly Damian RICHFIELDS Stakeholder
7. Pigat Sandrine RICHFIELDS Stakeholder
8. Pijls Loek RICHFIELDS Stakeholder
9. Presser Karl RICHFIELDS Stakeholder
10. Primus Thomas RICHFIELDS Stakeholder
11. Valsesia Armand RICHFIELDS Stakeholder

Zimmermann Karin RICHFIELDS Partner – floated between groups

3.2 Process and materials

Following the welcome and introductory presentations (see A2.1 Workshop agenda and A2.2 Workshop presentations), there were two periods of open discussion (ca. 30 and 45 minutes, respectively). These were used primarily to clarify issues arising from the talks and to discuss the wide research landscape (see Annex 3: Rapporteurs' reporting, A3.1 Notes from main session – unedited). Following lunch, there was a breakout session (see A2.3 Stakeholder Workshop: Breakout Session Discussion Questions) that focussed on the Core Offering Proposal at the Minimum Viable Product level, and:

- How can RICHFIELDS best motivate stakeholders to collaborate/ donate data?
- What the potential barriers to collaboration/ donating data might be?
- What the key requirements for good governance of RICHFIELDS are and why?

Each group was run separately by the facilitators and the discussions captured by the rapporteurs (see Annex 3: Rapporteurs' reporting, A3.2 Notes from breakout groups – unedited). Each group selected an individual to provide feedback to the main session (15:45-16:00), which was led by Charo Hodgkins, Lada Timotijevic and Monique Raats (University of Surrey, UK).

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4. Results from the workshop

4.1 Workshop content and delivery

It was apparent from the first stakeholders' workshop (Amsterdam Schiphol – NL, 27th September 2016) that the vision for RICHFIELDS, specifically what would be offered in terms of tools and services, was difficult for stakeholders to visualise. The programme (presentations and breakout session) for this, the second, stakeholder workshop was, therefore, tailored carefully to ensure that the attendees had sufficient information about concept and background to facilitate better understanding of the vision and promote more focussed feedback from potential data provider and users.

Overall, the approach was successful and we received insightful comments and reflections from the delegates, both during the main plenary sessions and during the breakout session. The meeting was rated positively by the delegates (see Annex 4: Feedback from participants, Q4) and the majority indicated they would be interested in attending stakeholder events in the future (see Annex 4, Q24).

4.2 Workshop feedback

Feedback from this workshop can be viewed unedited in Annex 3: Rapporteurs' reporting. However, some of the key questions and feedback points are summarised below:

4.2.1 Understanding RICHFIELDS

- Need to develop a clear definition of terms (e.g. "Access to high quality integrated data"; "bringing data together", "data quality", "data donation/ sharing/ providing")
- Better characterisation of data is essential to understand more about determinants, e.g. shop at a household level but eat at an individual level; over a third of what is purchased ends up in the bin; eating out of home; consumption data much less available than purchase; apps are used by a discrete group of people with distinct behaviours and goals
- At the moment, the name 'RICHFIELDS' has no meaning/ is not intuitive for potential users. An alternative might need to be developed to communicate the purpose of the platform more readily

4.2.2 RICHFIELDS's eco-system

- Links with other RIs (e.g. EuroFIR, ECRIN) should be well-defined
- Should be awareness that government and commercial organisations not only collect data but also use other's, which has implications for governance of the platform (i.e. claims of transparency)
- Need to engage those who have the power to influence release of data (e.g. CEO and Board level rather than developers)
- Support ICT developers to come up with viable offerings for users, making RICHFIELDS valuable for them
- Incentives for researcher engagement needs to be related to measure of merit (i.e. potential for saving time and effort by providing standardised data and knowledge)
- There is a risk that data from consumers (i.e., those using wearable like Fitbits or apps for shopping and cooking) are not those research is trying to understand better and, hence, the data collected are unrepresentative of populations of interest (e.g. consumers who are "at risk" or belong to vulnerable groups)
- Willingness to share data is a more normal culture within ICT, thus it might be interesting to explore how this came about and whether it can be replicated more widely across the research community

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4.2.3 Core Offering

- Could provide software and analysis tools, data catalogues, research protocols, standardisation or trainings on vocabulary and ontology; setting standards is a key (e.g. ranking best practices)
- Use of ISO for RICHFIELDS standards might be helpful
- "Knowledge generation" is where RICHFIELDS could provide added value-making sense of the available information
- Characterisation of data (see Understanding RICHFIELDS – above)
- Connecting data instead of just cataloguing sources, i.e. RICHFIELDS connect information and link with other data sources including existing RIs to offer a new level of (added) value
- RICHFIELDs needs to simplify access and support application to be of value to users, and develop case studies with success and unsuccessful examples of accessing data from different sources
- Disciplines approach similar topics in very different ways and use different methodologies. One option might be to work with policy-makers to ensure standards find their way into policy, which would open-up exchange amongst research, business and policy and could be reinforced by policy-makers 'pushing' users to collaborate with RICHFIELDS, share data, standardise their protocols etc.

4.2.4 Governance:

- Funding – how might independence from State including EU support be achieved?
- Distinguish between the different data providers/sources (e.g. cohort studies)
- Open Access, enforced by the EC, will change the data sharing landscape (e.g. Horizon 2020 regulations on generated data, repositories etc.)
- Informed consent, and how it is embedded in mobile technologies, is a major issue that cannot be overcome readily but does nonetheless need to be dealt with in detail
- Simple access (i.e. one log in, support in application) is essential to be of value to users
- Traceability also impacts negatively privacy, leading to a trade-off between the two with the consumer often unaware their data have inherent value
- Transparency – consumers want more information about how their data might be used
- Reproducibility – researchers require high quality data and fear fake data
- Governance model preferred: leading organisation
- Clear contract and regulation for core offering

4.2.5 Feasibility of the delivery:

- Focus on small steps that can be delivered incrementally
- Demonstrate added value (i.e. clear value proposition for all stakeholders)
- "*Now is the right time to approach the food industry*" with a view to sharing information because of governmental pressures on them to reduce weight gain, obesity and unhealthy lifestyles
- Commercial organisations could be motivated by the value of data capturing behaviours and choices, as these offer commercial advantage in delivery and uptake
- RICHFIELDS could seek to expand its reach following a demand-driven approach
- Developing the consumer data platform is a long-term process that could put off companies that provide data and perceive no outcome, resulting in increased reluctance to share information. However, if RICHFIELDS can be demonstrated that there is a purpose, it should gather momentum.

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4.2.6 Ownership of the activities at a consortium level

One concern during planning of the first stakeholder workshop was the extent of buy-in, at the consortium level, and engagement with development of the content, objectives and outputs.

This issue was addressed successfully through the lessons learned previously:

- The role of WP3, to ensure the RICHFIELDS platform design is optimised for a range of users through building and maintaining effective interaction with stakeholders throughout the life of the project and beyond, was emphasised at project meetings and during planning of subsequent activities
- The objectives of WP3, to establish a vibrant and active stakeholder Platform to engage with the project and work proactively with stakeholders through a series of related workshops, and how these activities are intended to help guide beneficiaries in the RICHFIELDS platform design was promoted proactively amongst internal stakeholders (i.e. WP-leaders, phase-leaders, project management board)
- Benefits for were addressed directly with WPs 5-13 WP-leaders
- The project management board was engaged directly to support development of the content alongside individual WPs
- Activities and proposed content for discussion of second stakeholder workshop were presented at the consortium meeting in March 2017 to encourage involvement and increased perceived value

5. Conclusions

Data collected from the stakeholders during this (second) workshop will be used to inform the on-going development of the RICHFIELDS 'Core Offering Proposal' (D4.4) and support Phase 3 decision-making with respect to platform design. Indeed, Phase 3 has already engaged with these outputs at their recent two-day workshop (3rd-4th May 2017, The Hague - NL) where it proved to be extremely helpful, focussing on issues to be addressed within key areas of Governance, Business Models and Technical Capabilities. The next step will be to develop the programme and identify potential delegates for the third and final WP3 Stakeholders' Workshop, to be held in Eastern Europe during late 2017, and the second Stakeholder Platform meeting in Spring 2018.

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Annex 1: Workshop attendance

A1.1 External participants

Monique Axelos
National Institute for Agricultural Research (FR)

Monique is a physico-chemist at INRA, where she is the adviser for European strategy for the scientific direction Food and Bioeconomy, and a specialist in nanoscience on biopolymers (gelling polysaccharides, protein aggregation and interfacial properties) and structural determination using neutron and X-ray scattering. Between 2008 and 2016, she was the head of the Science and Engineering of Agricultural Products division (500 tenure track), and, 2009-2013, the coordinator of the EU-funded project DREAM, which sought to develop realistic, physical and mathematical food models to facilitate development of common approaches to risk assessment and nutritional quality for food research and industry. Since 1985, Monique has conducted research on fractal aggregation, biopolymer gelation and phase separation, stability of foams and emulsions, using the potential of small angle scattering. She has more than 110 publications (h index 33).

Paolo Colombani
Independent consultant (CH)

Paolo is a nutrition scientist. He studied food engineering at the ETH Zurich (MSc) and did his PhD on nitrogen metabolism in endurance athletes at the same university (1993-1998). For 15 years Paolo lectured and carried out research projects in the areas of physical activity, nutrition and health and was head of the Swiss food composition database for six years. He was partner of the FP6 Network of Excellence EuroFIR and president of EuroFIR AISBL. In 2010, Paolo started delivering scientific support in nutrition as an independent consultant to the food industry, top management of different industries including banks, elite athletes, Swiss Olympic, Antidoping Switzerland and many more. Today, he is self-employed and continues to deliver scientific support in food and nutrition. He founded the Swiss Sports Nutrition Society and he is his current president. As a partner of an US based technology start-up, he is also strongly involved in the field of personalised/precise recommendations across different health areas.

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Gill Cowburn, *University of Oxford (UK)*

Gill is a registered nutritionist (public health) with an interest in research and policy aspects of promoting health and nutrition. She has a particular interest in structural and environmental influences on dietary behaviour and the prevention of overweight and obesity. Gill is a senior researcher at the Centre on Population Approaches for Non-Communicable Disease Prevention, Nuffield Department of Population Health at the University of Oxford. Recently, she completed her DPhil Public Health studies, which used qualitative and novel methods to explore the front of pack nutrition information panel and consumer decision making during routine supermarket shopping. Previously, she has been involved in identifying factors that determine the success or failure of multi-level intervention approaches in the prevention of obesity in Europe. She has also been involved in investigating the role of local government in promoting health and exploring how local environment influences food purchases for adolescents on journeys to and from school. Gill has worked as an independent consultant and within general practice. She has experience in evaluation, working with clients around eating behaviour change and in professional development.

Maurizio Canavari, *University of Bologna (IT)*

Maurizio holds the Laurea degree (5-year program) in Agricultural Sciences, awarded by the Faculty of Agriculture, University of Bologna (IT), and got his Doctoral Degree in Appraisal and Land Economics from the University of Padua. He was enrolled as researcher at the Alma Mater Studiorum University of Bologna in April 1998, and from October 2005 served as Associate Professor; he is now faculty at the Department of Agricultural Sciences. Maurizio has dealt with many subjects across the agricultural economics disciplines, such as environmental evaluation and land appraisal, farm and agri-food economics and management, quality management in the agri-food industry, agri-food marketing, consumer behaviour, food supply networks, ICT in agriculture. Current research interests include agri-food marketing and marketing research, with specific topics regarding non-market and market valuation methods, consumer preference for quality food specialties, e-commerce, and wine business. He has published about 200 works including peer-reviewed journal articles, book chapters, books and conference papers. He is a member of several professional associations, such as the International Association of Agricultural Economists IAAE, the European Association of Agricultural Economists EAAE, the Italian Society of Agri-food Economics SIEA. Maurizio is co-editor of the academic journal Economia agro-alimentare, and a member of the Editorial Board for the Journal of Food Products Marketing, the International Journal on Food System Dynamics, and the International Journal of Food and Beverage Manufacturing and Business Models as well as previously (2012-2015) the Canadian Journal of Agricultural Economics. He is Director of the University of Bologna International Summer School "Experimental Auctions: Theory and Applications in Food Marketing and Consumer Preferences Analysis".

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Frankie Douglas, *Nutritics (IE)*

Frankie recently joined Nutritics as the regulatory affairs officer. She is a public health nutritionist with a background in nutrition-related food law. Frankie has four years' experience working as the technical executive in public health nutrition for the Food Safety Authority of Ireland. Frankie was the primary researcher involved in the development of MenuCal (a calorie calculator and allergen management system designed to support SME food businesses in Ireland) and was the permanent Irish representative on European working groups relating to nutrition and health claims and foods for specific groups. She has extensive experience working in the areas of business development and management within the food industry in Ireland. Frankie's research publications are in the areas of public health nutrition and nutrition related food legislation.

Maria Glibetic, *Institute for Medical Research (RS)*

Maria, Director and vice-President (IMR - RS) of EuroFIR AISBL, is head of the Centre of Research Excellence in Nutrition Research at the Institute for Medical Research in Belgrade (RS). She is involved in a wide range of activities around food and nutrition sciences, research into food bioactives and health effects, food composition and analysis, dietary intake assessment, nutritional intervention human studies and impact on health. Maria has considerable experience of coordinating both national and international projects, and has participated in 10 EU-funded projects. Maria and her team were responsible for creation of first online national food database in Serbia. She also has extensive experience in scientific publishing with 120 publications and, currently, is also an editor for Elsevier's online Food Module.

Roel van der Heijden, *University Medical Center Groningen (NL)*

After obtaining my MSc. in Medical Biology at the Radboud University Nijmegen, Roel continued his metabolic studies at the University of Groningen Medical Center (UMCG) where he obtained his PhD studying the role of diet-induced systemic inflammation in obesity and linked micro- and macro vascular pathologies. Having left the lab, currently, he works at UMCG's Center for Development and Innovation as innovation officer Food & Health. In this role, he is brokering between UMCG researchers and industrial parties in launching innovative projects in different EU funding schemes (EIT-Health, H2020). At the national level UMCG is coordinator of the Dutch node for DISH-RI, aiming to establish a food and health research infrastructure in the Netherlands under the DISH-RI EU umbrella coordinated by the WUR. For RICHFIELDS especially, the expertise present in Groningen at the level of consumer science (citizens and patient) and large research and data infrastructures could be of major interest.

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Evangelia (Eva) Grammatikaki, *Joint Research Centre (Ispra – IT)*

Eva worked for several years at Harokopio University (GR) where she designed, implemented and evaluated epidemiological and clinical studies across the life span. In 2011, she moved to Belgium to manage the EURRECA Network of Excellence, which aimed to align the methodology for the development of micronutrient recommendations in Europe and worldwide. Later, she moved to UNICEF (New York, US) where she led the work on child overweight and worked with other UN agencies towards scaling up efforts to address non-communicable diseases in low- and middle-income countries. At the moment, Eva is part of the Nutrition and Health team within the Health in Society Unit of the Joint Research Centre (JRC) in Ispra (IT) where she carries out and co-ordinates scientific and technical tasks in the field of nutrition and public health.

Ann Jõeleht, *National Institute for Health Development (EE)*

Ann is manager of the web-based NutriData food composition database and NutriData data input platform for the Department of Surveillance and Evaluation at National Institute for Health Development (EE). She is responsible for both the compilation of food composition data and the technical development of the modules. Ann has been working in the field of public health nutrition for nine years, and has a MSc in food technology and product development from the Tallinn University of Technology.

Maria Kapsokefalou, *Agricultural University of Athens (GR)*

Maria Kapsokefalou is an Associate Professor in Human Nutrition and the Deputy Rector on Student Affairs, Academic Collaborations and Outreach. She is a member of the National Council for Research and Innovation and the Scientific Advisory Board of the Hellenic Food Safety Authority of the Ministry of Rural Development and Food, the Hellenic Pasteur Institute and the National Committee on Nutrition Policy of the Ministry of Health. Her research activities aim to promote Public Health through better nutrition. She is investigating health benefits of bioactive compounds and novel and functional foods, linking nutritional sciences and food science. Activties include evaluating dietary intake in the general adult population and in children, pregnant women and older adults but she has also conducted studies on food, beverages and water intake in various population groups and the socioeconomic factors that affect food intake. Maria has also studied food aid models and food policy measures that aim to alleviate food insecurity in vulnerable populations, such as school lunches, food packages, food banks etc. Her scientific interests include outreach programmes on the sustainable development of the agro-food sector in Greece. She is also the mother of three daughters.

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James Lay, *Food Angels UK Ltd. (UK)*

James is Managing Director of Food Angels UK Ltd., a partner of the Institute of Food Research on the EU-funded project QuaLiFY, which examined the eating habits of adolescents. Food Angels wrote the software and provided the database for an app, similar to MyFitnessPal. James has a background in sales and marketing and is a Fellow of the Institute of Sales and Marketing.

Heimo Müller, *Medical University of Graz (AT)*

Heimo studied Mathematics in Graz and Vienna, concluding with a thesis on data space semantics. He worked on data visualisation at Joanneum Research, participated as document editor in ISO/IEC SC24 and SC29 and was a Marie Curie fellow at the Vrije Universiteit Amsterdam. Within the preparatory FET flagship proposal IT Future of Medicine (ITFoM) Heimo Müller was responsible for the ICT aspects of the medical platform. At present he works in the areas big (medical) data and provenance modelling in several national and EC funded projects (RD-Connect, BBMRI-LPC, B3Africa) and is the PI of the BIBBOX (bibbox.org, demo.bibbox.org) an open source platform for life science software hosted by the BBMRI-ERIC research infrastructure.

Damian O'Kelly, *Nutritics (IE)*

Damian O'Kelly is CEO and co-founder of Nutritics, a nutrition analysis software system developed specifically for nutrition professionals. Having completed a BSc in Exercise Science and Health in 2008 and MSc in Sports Nutrition in 2011, Damian has used countless nutrition software programmes, and became frustrated that none could deliver what he needed to work with his clients most effectively. Damian's mission is to facilitate practitioner led delivery of effective, efficient, and evidence based dietary interventions. Nutritics' award winning software platform has been used by over 25,000 nutrition professionals in 120 countries since its launch in 2013.

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Sandrine Pigat, *Creme Global (IE)*

Sandrine, originally from Luxembourg, completed her Bachelor's degree in Ecotrophology and Master's in Nutritional Sciences at Justus-Liebig-University Giessen (DE). Previously, she has worked in nutrition counselling in private as well as clinical settings. For the last seven years, she has been working for Creme Global, as a leader in predictive intake modelling, where she is delivering training, scientific support and data to leading customers from industry, government and academia, using probabilistic intake models, food data analytics and software models. She also leads scientific projects in the same area as well as well as EU-funded projects.

Loek Pijls, *Loekintofood GCV, Director*

Loek runs Loekintofood-gcv (www.loekintofood.com), which addresses questions around how what we eat impacts our health, and seeks to apply such understanding to improve our health. Previously, Loek was the Global Director Nutrition Innovation for Coca-Cola. For Nestlé Health Science, Loek was Regulatory Affairs Manager for Benelux as well as at the corporate level; he also led a Group that guided, worldwide, the substantiation of health claims. Loek was also a senior scientist at ILSI Europe and Director of the EU-funded EURRECA Network of Excellence. Before this, he worked in at the Dutch Health Council, Vrije Universiteit Amsterdam, National Institute for Public Health and Wageningen University, and the Ethiopian Nutrition Institute. He has an MSc from Wageningen University and PhD from Vrije Universiteit Amsterdam. He is also certified at PhD level in Nutritional Sciences and in Epidemiology, and as a Project Management Professional.

Karl Presser, *ETH Zurich and Premotec GmbH (CH)*

Karl is the founder of Premotec GmbH and works as a senior scientist in the Department of Computer Science at ETH Zurich (CH) in the Global Information Systems Group. He trained as a computer scientist and earned his doctoral degree at ETHZ investigating data quality on food composition data focusing on basic principles of data quality and how a computer system can support users to manage data quality; he also created of FoodCASE in which some of his research work is incorporated. After his computer science studies, he worked for four years in an SME as database designer, creating a relational database to store and calculate timetables for universities and secondary schools using artificial intelligence in evolutionary algorithms.

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Kristin Salupuu, *Tervise Arengu Instituut (EE)*

Kristin works for National Institute for Health Development as a project manager and compiler for the Estonian Diet and Nutrition Information System: NutriData. She is also a certified nutritional consultant.

Nadia Slimani, *International Agency for Research on Cancer (FR)*

Nadia is a senior scientist from the Nutrition and Metabolism section at IARC. She has an MSc in Cellular Biology and Physiology and a post-graduate Diploma in Nutrition in Developing Countries. She got her PhD degree in Nutritional Epidemiology at Wageningen University (NL). Nadia has long standing experience in developing, validating and implementing standardised dietary assessment methodologies in international nutritional epidemiological and surveillance settings (i.e. EPIC and EU-Menu/GloboDiet networks). The data generated are used for descriptive and diet-disease association studies (incl. cancer and other NCDs) through different projects as well as existing consortia, partnerships and leaderships. She is the coordinator of the EPIC nutrition Working Group and has been (co-) principal investigator, (co-) work package leader and partner in several international funded projects (e.g. EPIC, EFCOVAL, PANACEA, INTERACT, EuroFIR-Nexus, EMP-PANEU, PANCAKE, BBMRI-LPC, EuroDISH, JPI-DEDIPAC). Nadia lead the launch of the Global Nutrition Surveillance -GloboDiet initiative, in close collaboration with WHO, and she is a member of the WHO-IARC collaboration in the context of the Global Action Plan for the Prevention and Control of Non-communicable Diseases 2013-2030 (e.g. COSI project). She is an internationally established researcher in the field of nutritional epidemiology with more than 300 papers published in international peer-reviewed journals.

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Igor Spiroski, Institute of Public Health (MK)

Igor is medical doctor and holds PhD degree in public health. He is head of the Department of Physiology and Monitoring of Nutrition at the Institute and a research associate at Ss. Cyril and Methodius University (Skopje). His areas of professional interest are health risk assessment related to nutrition, nutritional status of populations of interest, particularly childhood obesity, public health aspect of consumer behaviours, and food marketing to children. He has authored and co-authored around 60 peer reviewed publications including books, book chapters, peer reviewed papers, conference proceedings and brochures. Igor is WHO National NCD and Nutrition Focal point as well as WHO National Focal point on Promoting Health through Life-Course, and has been involved in several national and international projects and networks. He will also coordinate a future food consumption survey for children, according to the EU MENU methodology in Macedonia. Igor is a member of the RICHFIELDS Project Advisory Board.

Ido Toxopeus, *National Institute for Public Health and the Environment (NL)*

Ido has a degree in Biology and a PhD in Animal Cognition. At RIVM, Ido works as a data specialist and scientific researcher and is involved with the Dutch food composition database and the Dutch food consumption survey as well as projects concerning monitoring of food reformulation, food safety, environmental aspects of the Dutch diet, and ways of integrating food safety and health and sustainability of the diet.

Armand Valsesia, *Nestlé Institute of Health Sciences (CH)*

Armand obtained his PhD at the University of Lausanne (CH) and worked as a data scientist in Cambridge at the European Institute of Bioinformatics and the Wellcome Trust Sanger Institute (UK). He moved to industry, first at Merck-Serono, where he was responsible for the identification of genetic biomarkers to predict intervention success in clinical trials (phase I to IV). In 2012, Armand joined the Nestlé Institute of Health Sciences, where he leads the analysis of clinical trials for metabolic disorders (obesity, type 2 diabetes) with aim of identifying biomarkers for patient stratification and generate new hypotheses regarding better nutritional interventions.

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Susanna Westenbrink, *National Institute for Public Health and the Environment (RIVM, NL)*

Susanna is a project coordinator and senior research dietitian at RIVM (NL). She is responsible for the coordination the Dutch food composition database (NEVO), and has more than 20 years of experience in food composition database work. She was involved intensively with both the EuroFIR Network of Excellence and EuroFIR NEXUS, and has contribute(d) to several other projects, such as the Dutch National Food Consumption Surveys, projects monitoring food reformulation in the Netherlands, EFSA's call on food composition data in 2012 and the European Nutrient Data Base project (ENDB) for the EPIC study. Before working at RIVM, Susanne worked at Wageningen University (NL) and the TNO Institute on Food and Nutrition (Zeist) in the areas of food consumption and food composition. Susanne is also a Director for EuroFIR AISBL and leads the FoodComp & Technical Working Group for EuroFIR.

Claudia Zoani, *Italian National Agency for New Technologies (ENEA, IT)*

A researcher at ENEA, Claudia graduated with a PhD in Analytical Chemistry, but is currently concluding a second PhD in Agriculture, Food and Environment. She is a specialist in atomic spectroscopic and mass spectrometry techniques and metrology, and conducts research and development activities on reference materials and methods, food quality and safety, traceability of raw materials and products, and chemical risk assessment. Claudia is a reviewer for several journals and national and international conferences and a member of the Steering Committee and Technical Chair for IMEKOFOODS International Conferences. She is also the Deputy Coordinator of METROFOOD-RI and PRO-METROFOOD Project. Claudia is a member of the Technical Scientific Committee for the public-private jointly owned consortium Ce.R.T.A. (Regional Centers for Alimentary Technology). She was awarded the Premio Leonardo UGIS Comunicare la ricerca IV in 2014.

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A.2 RICHFIELDS beneficiaries

Siân Astley, *European Food Information Resource (EuroFIR AISBL, BE)*

Siân has worked extensively with individuals and organisations throughout Europe from a variety of disciplines including research, food and biotech industries and the media. She is author of more than 300 popular science articles for magazines and trade publications as well as 27 peer-reviewed papers, and she was awarded her Diploma in Science Communication in 2009 (Birkbeck University of London). After 14 years as a bench-scientist, Siân became Communications Manager for NuGO, one of the first FP6 Networks of Excellence, and was the European Communications Manager for the Institute of Food Research in Norwich (UK) until April 2012. Currently, she is a senior researcher and the training and communications manager for the European Food Information Resource (EuroFIR AISBL), supporting research as well as training and communications activities within EU-funded research projects and networks. She is also an independent science communicator and an editor for Food Chemistry.

Marc-Jeroen Bogaardt, *Wageningen Economic Research (NL)*

Marc-Jeroen is working at Wageningen Research as a senior researcher with a degree in political sciences as well in engineering. He focuses on the interaction between technology, agrifood and governance. Most of his research projects are commissioned by the Dutch Ministry of Economic Affairs, agribusiness enterprises, farmers' cooperatives, and the European Commission. These projects deal with big data and smart farming, cybersecurity in the agrifood chain, data platforms as inter-organisational collaborations. He examines particularly the legal and institutional issues of technology applications like Internet of Things, Cloud Computing and Big Data technologies: shifts of power relations, new governance and decision making structures, data protection, ownership of data, privacy and security.

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Javier de la Cueva, *Independent Consultant (ES)*

Javier de la Cueva holds a Licentiate degree in Law and is a PhD from the Complutense University of Madrid (ES) where he is also an Associate Professor. He works as a practicing lawyer and as a university lecturer. As a lawyer, he has defended free intellectual property licenses and diverse technological platforms. Javier is also engaged in programming technological projects, giving lectures and writing about his specialisation. He is a GNU/Linux user since 1998 and a systems administrator for this operating system since 2003. He writes scripts in Python and enjoys n3 notation when modelling semantic web ontologies. Finally, he is a patron of Fundación Ciudadana Civio.

Paul Finglas, *Institute of Food Research (UK)*

Paul Finglas joined the Institute of Food Research in 1981 and is, currently, Head of the Food Databanks National Capability at IFR (www.ifr.ac.uk/fooddatabanks), and research leader in Food and Health. He has, for most of his science career, been involved in food nutrition and health including food composition and analysis (nutrients & bioactive compounds), traditional and ethnic foods, food description and data quality, dietary intake assessment, nutritional labelling & health claims, reformulation and impact on food intake and health, personalised nutrition and research infrastructures. Paul has considerable experience in both participating in EU projects in food, nutrition and health (PRECIOUS, REFRESH & RICHFIELDS) as well as leading (EuroFIR, TDS-EXPOSURE & BACCHUS). Paul has a broad range of experience in science publishing and is editor for the journals Food Chemistry, and Trends in Food Science and Technology. Paul has a degree in Chemistry from Aston University in Birmingham and has published over 150 publications on a wide range of topics in food science and nutrition. He is also the President for EuroFIR AISBL, a non-profit organisation based in Brussels (BE).

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Sophie Hieke, *European Food Information Council (BE) & German Institute of Food Technologies (DE)*

Sophie is the Head of Consumer Science at EUFIC and, for the past two years, she has also worked at the German Institute of Food Technologies (DIL), where she aims to set up a consumer insights department. She has extensive experience in consumer research (e.g. Principal Coordinator of the EU FP7 funded project CLYMBOL – Role of health claims and symbols in consumer behaviour. Born in Munich (DE), Sophie holds a PhD in Statistics and Consumer Research from the Ludwig-Maximilians-University (Munich – DE). Her main areas of research include quantitative methods and experimental research on consumer behaviour. She has published several award-winning articles in peer-reviewed journals and/ or presented them at international scientific conferences. She is an associate editor at Public Health Nutrition, and serves as a reviewer to renowned journals including the Journal of Consumer Affairs, Appetite, and the Journal of Marketing & Public Policy. Since 2007, she has been working as a university lecturer in Germany, France and the United States. Currently, she also has visiting research status at the University of Surrey (UK).

Charo Hodgkins, *Consumer Behaviour and Health Research Centre, University of Surrey (UK)*

Charo is a science graduate and started her career with GSK as a development chemist. In 1997, she moved to the retail sector as Head of Technical Services for Superdrug Stores PLC. During her 14 years in industry, she gained extensive experience of managing technical and data management projects within both branded and retail environments. Her expertise includes research and development, manufacturing, and quality/supply chain management for a wide range of products including, pharmaceuticals, medical devices, foods, toiletries and non-foods. Her responsibilities also involved extensive auditing of production facilities across Europe and the development and delivery of training packages in Continuous Improvement, HACCP, Data management, Crisis Management and Problem Solving techniques. In 1999, Charo took a short career break to start a family and in 2002 joined the Food, Consumer Behaviour and Health Research Centre at the University of Surrey as a Research Fellow. She has been active in several UK and EU funded research projects in the areas of food, consumer behaviour and public health. Charo has recently completed her PhD investigating the role of food composition data, nutrition information and health claims in communicating healthier food choices.

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Bent Egberg Mikkelsen, *Aalborg University (DK)*

Bent holds a M.Sc. of Food Science from the Royal Agricultural University, Copenhagen and a PhD in Social Science, from Roskilde University. He is the author of many publications on public health nutrition and sustainable public food systems. Bent has been as the principal investigator on several research projects and his work include several assignments on nutrition at schools and hospitals for the Council of Europe, food and nutrition at work for the Nordic Council of Ministers, healthy eating at school for the European WHO regional office and the EU platform for Health, Diet and Physical activity. He is a Professor of Nutrition and Public Food Systems at Aalborg University. He is the past president of an EU expert committee for the school fruit scheme (SFS). He is also a member of the advisory boards for ProMeal, Glamur and VeggieEat and FoodLinks EU-funded projects. Bent is a member of scientific panel in the Sapere Taste Education network and the Management committee of COST action IS1210. He is the principal investigator on the SoL Multi-Level Multi-Component community intervention on healthier eating.

Golboo Pourabdollahian, *Institute of Industrial Technologies and Automation (ITIA, IT)*

Golboo received her PhD from politecnico di Milano in Management, Economics and Industrial Engineering. Her research activities and interests are business models, personalisation and mass customisation, product-service systems, and manufacturing sustainability and technology road-mapping. She is engaged in different projects at European and national levels, and has authored several scientific publications.

Monique M. Raats, *Consumer Behaviour and Health Research Centre, University of Surrey (UK)*

Monique is Director of the University of Surrey's Food, Consumer Behaviour and Health Research Centre. Her portfolio of research is wide ranging in terms of topics being addressed (e.g. food choice, food preparation, policy development, food labelling), and methodologies used (e.g. qualitative, quantitative, stakeholder consultation). She has published over 110 peer-reviewed papers, 19 book chapters, and co-edited two books (The Psychology of Food Choice; Food for the Ageing Population). She is a founding member of the International Society of Behavioral Nutrition and Physical Activity. In 2011 Monique joined the UK's Scientific Advisory Committee on Nutrition and is a member of its Subgroup on Maternal and Child Nutrition. Currently she is a partner in the Horizon 2020

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RICHFIELDS project that aims to design a consumer-data platform to collect and connect, compare and share information about our food behaviours, to revolutionise research on every-day choices made across Europe and PROSO project that is to providing guidance on how to encourage engagement of citizens and third sector organizations, like non-governmental organizations (NGOs) and civil society organizations (CSOs), in Europe's research and innovation processes. She also coordinates REDICLAIM, which investigates how EU legislation impacts on the substantiation and use of "reduction of disease risk" claims on food and drinks.

Christina Sadler, *European Food Information Council (BE)*

Christina works at EUFIC (Brussels), a non-profit organisation that stands up for science-based information on food and health, which is leading RICHFIELDS's Impact & Dissemination, creating and managing the project's identity and website www.richfields.eu and other communication materials. Christina has a BSc Honours degree in Nutrition from Robert Gordon University in Aberdeen and some experience in dietetics.

Barbara Korousic Seljak, *Institut Jozef Stefan (SI)*

Barbara earned her PhD at the University of Ljubljana in Computer Science and Informatics, and works for the Computer Systems Department, Jožef Stefan Institute, in Ljubljana (Slovenia). Currently, she is the Assistant Professor at the Jožef Stefan International Postgraduate School. She is a member of the Executive Board of the Slovenian Society for Clinical Nutrition and Metabolism as well as of EuroFIR. In the project RICHFIELDS she is the leader of WP11, where a RI platform will be designed considering state-of-the-art ICTs for collecting big and open data created by consumers and researchers or generated by machines, such as sensors gathering information, digital pictures and videos, purchase transaction records, GPS signals, etc.

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Lada Timotijevic, *Food, Consumer Behaviour and Health Research Centre, University of Surrey (UK)*

Having completed my PhD in 2000 (University of Surrey) in the area of identity processes in the context of social and cross-cultural mobility, I have subsequently worked within advertising industry (J. Walter Thompson). I joined the Food, Consumer Behaviour and Health Research Centre (FCBH) at the University of Surrey (Department of Psychology) in 2002, a multidisciplinary research centre that brings together skills and expertise from across the University in order to address research questions on food related policy, consumer behaviour and public health. Since my arrival, I have played an instrumental role in the success of the Research Centre, working on research projects of substantive theoretical and applied relevance. I work within the critical public health framework and my empirically-oriented work has focused on understanding the role and nature of public and stakeholder engagement and dialogue in policy and science, risk perception and governance, and science-policy interaction. Policy relevance is a key theme across my research projects, and my work is aimed at both understanding the processes of policy making, and contributing evidence on which to base policies. I am particularly interested in public health nutrition, sustainable diets and illness prevention.

Karin Zimmermann, *Wageningen Economic Research (NL)*

Karin is a senior researcher in Strategic Marketing. She is engaged for various EU-funded projects, as a senior researcher and project manager, undertaking research on consumer behaviour and consumer driven and responsive chain (ISAFRUIT, Focus Balkans, PEGASUS, DG CLIMA), communication (CONNECT4ACTION, SUSFANS) and (conceptual) design of a European research infrastructures for food, nutrition and health (EuroDISH, RICHFIELDS). Since 2015, Karin has been a member of the Executive Management Board of the European Food, Nutrition and Health Infrastructure (FNH-RI). Currently, she is also a programme manager for research infrastructures.

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Annex 2: Workshop programme

A2.1 Workshop agenda

08:30-09:00	**Registration**
09:00-09:15	**Welcome and short introduction to RICHFIELDS** ***Chair***: Karin Zimmerman, Wageningen University & Research – NL ***Rapporteur***: Siân Astley, EuroFIR AISBL - BE
Part 1: RICHFIELDS - Vision and activities *(Rapporteur: Siân Astley, EuroFIR AISBL - BE)* ***Chair**: Karin Zimmerman, Wageningen University & Research - NL* ***Co-chair**: Paul Finglas, Institute of Food Research - UK*	
09:15-09:30	**RICHFIELDS vision and science case** Karin Zimmerman, Wageningen University & Research - NL
09:30-09:45	**Purchase, preparation and consumption data-scoping activities** Monique Raats, University of Surrey – UK
09:45-10:00	**Building on related food and health RIs** Paul Finglas, Institute of Food Research - UK
10:00-10:15	**Business generated data** Bent Egberg Mikkelsen, Aalborg University - DK
10:15-10:30	**Connecting laboratories and facilities** Sophie Hieke, German Institute of Food Technologies DIL - DE
10:30-11:00	**Open discussion**
11:00-11:15	Break
Part 2: RICHFIELDS – Developing the Core Offering *(Rapporteur: Siân Astley, EuroFIR AISBL – BE)* ***Chair**: Karin Zimmerman, Wageningen University & Research - NL* ***Co-chair**: Lada Timotijevic, University of Surrey - UK*	
11:15-11:30	**Developing the Core Offering** Charo Hodgkins, University of Surrey - UK
11:30-11:45	**ICT and schematic model for a consumer data research infrastructure** Barbara Koroušić Seljak, Institut Jozef Stefan - SI
11:45-12:00	**Business models** Golboo Pourabdollahian, ITIA-CNR - IT
12:00-12:15	**Governance and ethics** Marc-Jeroen Bogaardt, Wageningen University & Research - NL
12:15-13:00	**Open discussion**
13:00 – 14:00	*Lunch buffet*
Part 3: Breakout sessions	
14:00-15:30	**Breakout Session** ***Group 1: Facilitator**: Monique Raats, **Rapporteur**: Sophie Hieke* ***Group 2: Facilitator**: Lada Timotijevic, **Rapporteur**: Golboo Pourabdollahian* ***Group 3: Facilitator**: Charo Hodgkins, **Rapporteur**: Siân Astley* ***Group 4** (if required): **F**: Marc-Jeroen Bogaardt, **R**: Christina Sadler*
15:30-15:45	Break
Part 4: Summary *(Rapporteur*: Siân Astley, EuroFIR AISBL - BE) ***Chair**: Karin Zimmerman, Wageningen University & Research – NL* ***Co-Chairs**: Paul Finglas, Institute of Food Research - UK, Lada Timotijevic, University of Surrey - UK*	
15:45-16:00	**Feedback and discussion from breakout groups (Led by facilitators)** Led by Charo, Monique and Lada
16:00-16:15	**Way forward and next steps** Karin Zimmerman, Wageningen University & Research - NL

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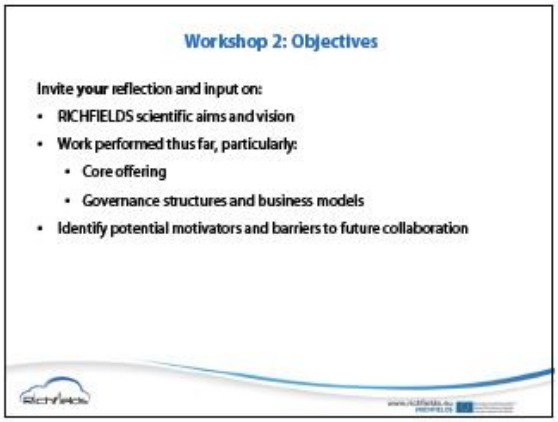
09:00-09:15 Welcome and short introduction to RICHFIELDS
Karin Zimmerman (WUR, NL)



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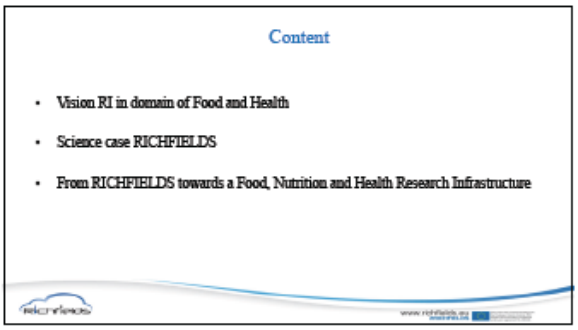
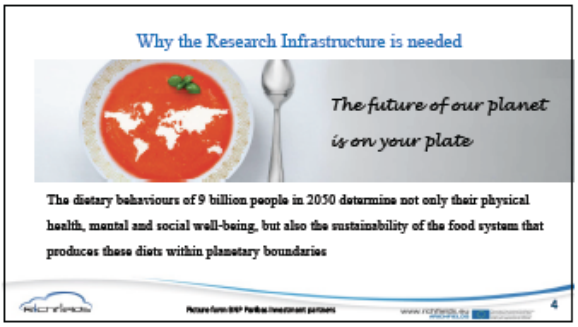
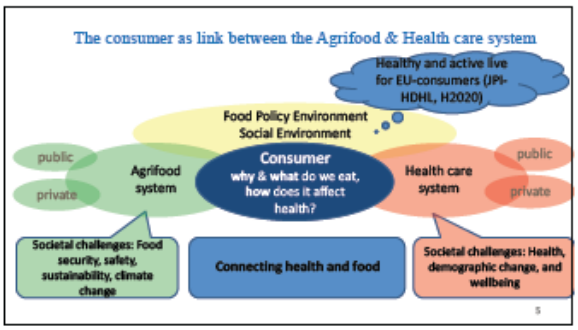
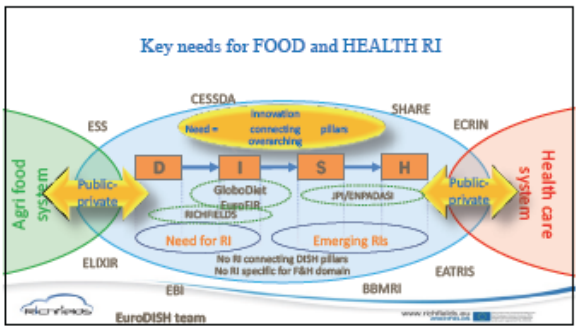
09:15-09:30 RICHFIELDS vision and science case

Karin Zimmerman (WUR, NL)









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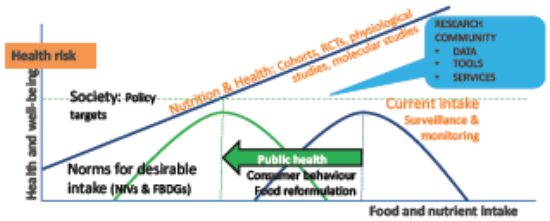
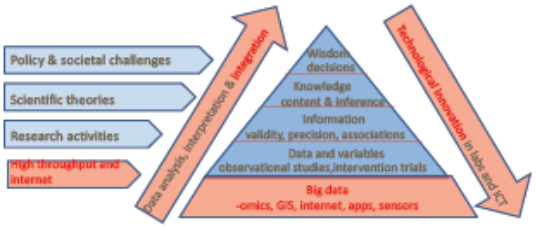
Connecting data and knowledge on Food, Nutrition and Health



Big data for smart food and health services

Scientific trends and challenges: BIG data & data integration



Science Case RICHFIELDS

Problem → Potential

- Existing datasets not sufficient for understanding consumer behaviour, product development, public health policies
- Every day, consumers & businesses generate "big data"
- Potential to link & analyse data & respond to societal challenges

RICHFIELDS purpose

Design a research platform for dietary behaviour & lifestyle data

how might we get here?

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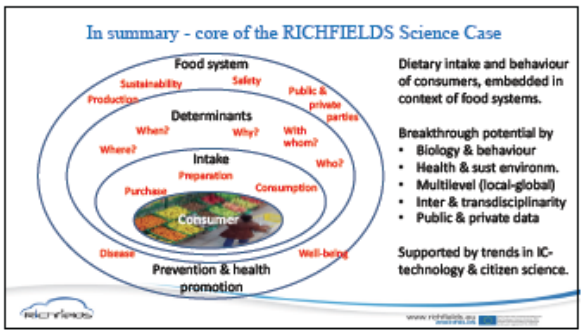

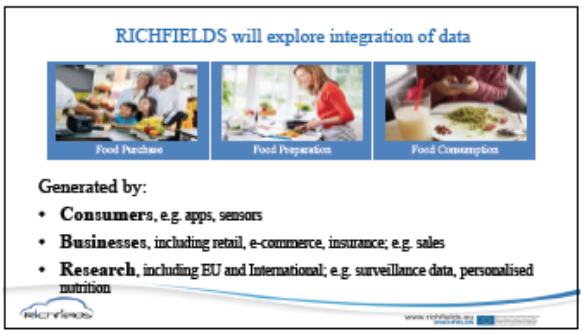

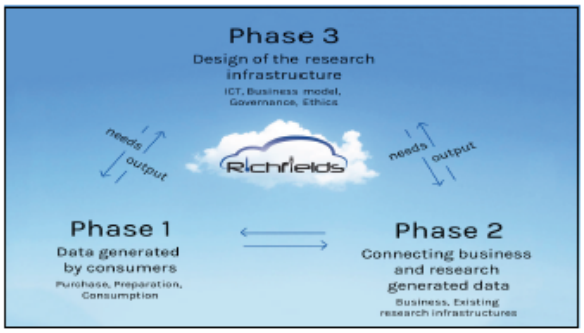

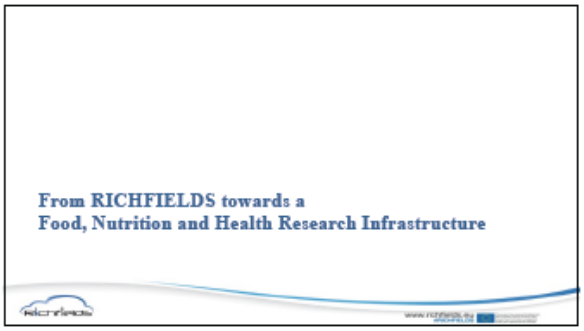

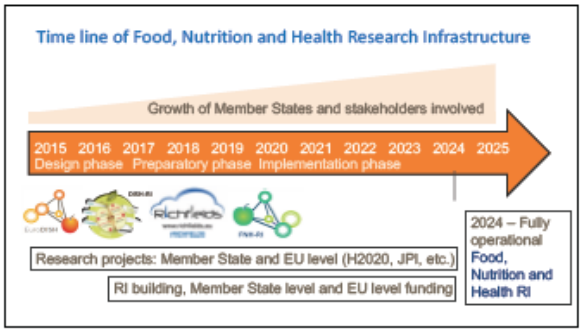

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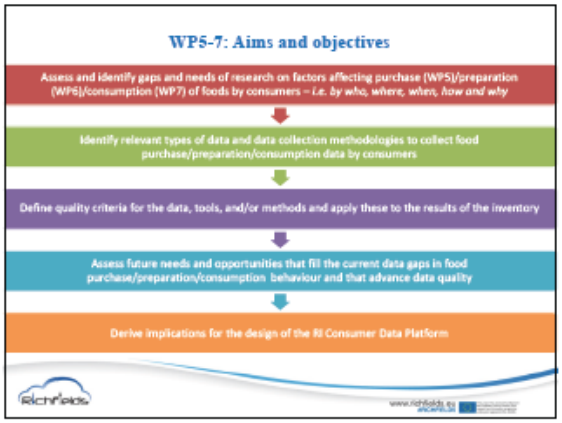
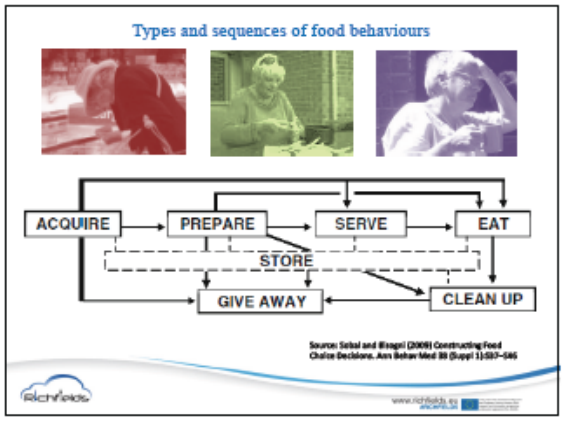
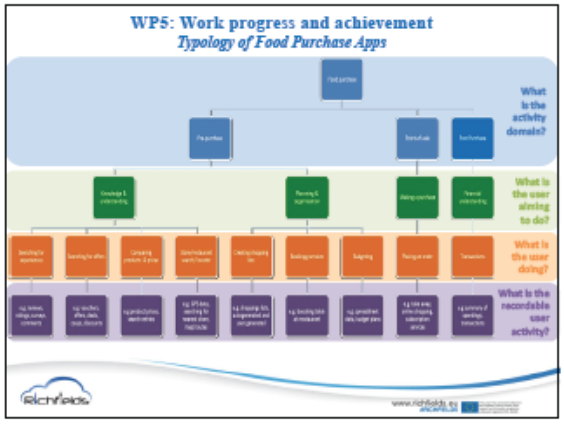
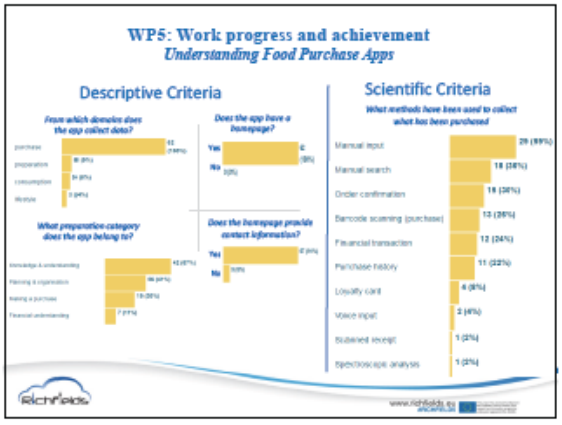
09:30-09:45 Purchase, preparation and consumption data-scoping activities

Monique Raats (University of Surrey, UK)









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Food | Consumer | Health

Phase 1: Consumer-generated data

RISE: Susanne Ekman, Anne Normann
University of Surrey: Monique Raats, Naomi Klepacz
Wageningen University & Research: Anouk Geelen, Marcus Maringer, Muriel Verain

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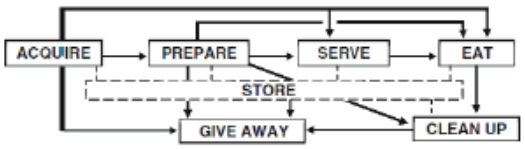
WP5-7: Aims and objectives

- Assess and identify gaps and needs of research on factors affecting purchase (WP5)/preparation (WP6)/consumption (WP7) of foods by consumers – *i.e. by who, where, when, how and why*
- Identify relevant types of data and data collection methodologies to collect food purchase/preparation/consumption data by consumers
- Define quality criteria for the data, tools, and/or methods and apply these to the results of the inventory
- Assess future needs and opportunities that fill the current data gaps in food purchase/preparation/consumption behaviour and that advance data quality
- Derive implications for the design of the RI Consumer Data Platform

Types and sequences of food behaviours





Source: Sobal and Bisogni (2009) Constructing Food Choice Decisions. Ann Behav Med 38 (Suppl 1):S37–S46

WP5-7: Work progress and achievements

Quality Criteria

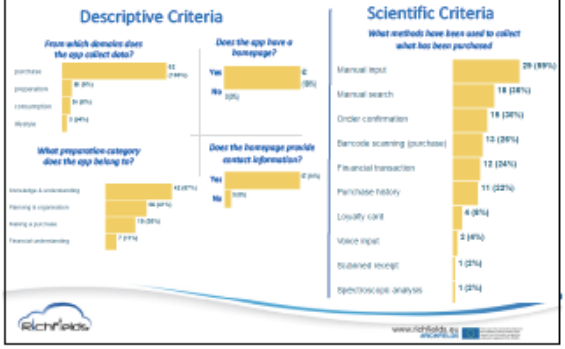
Descriptive Criteria	Scientific Criteria	Technical Criteria	Legal Criteria
Data Types	Lifestyle Data	Is data accessible?	Terms of use
Home page	Situational Characteristics	Types of Access	Privacy Policy
Contact Information	Types of Situational Characteristics	Data Formats	Data ownership
Supported platforms	Product Characteristics	Authentication	Data usage vendor
Paid Services	External Device	Price	Personal Information
Medical Device	Data integration with partner tools	Amount	Types of personal Information
Preparation Categories	What was prepared?		Public profile
Price of IOS app	What was prepared?		Privacy settings
Languages	Act or Intention?		Device data
Itunes user rating	Units of preparation		Types of device data
Itunes Genre			Cookies
Current IOS apps			Web beacons
Minimum Android version			Data storage

WP5: Work progress and achievement

Typology of Food Purchase Apps

WP5: Work progress and achievement

Understanding Food Purchase Apps



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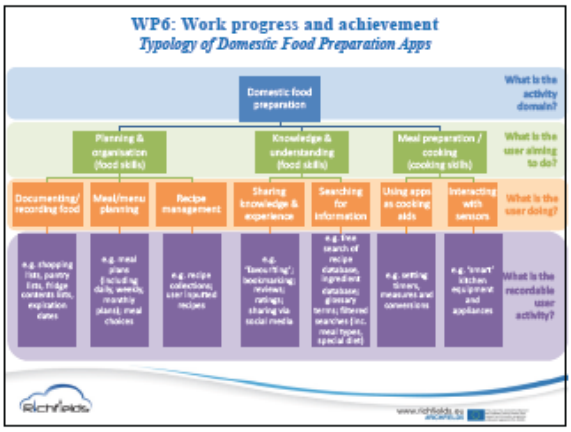

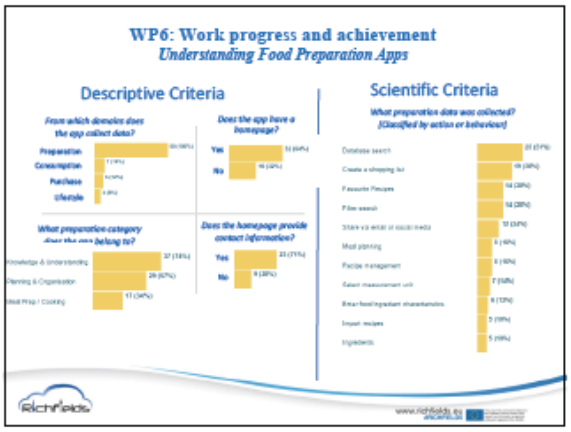

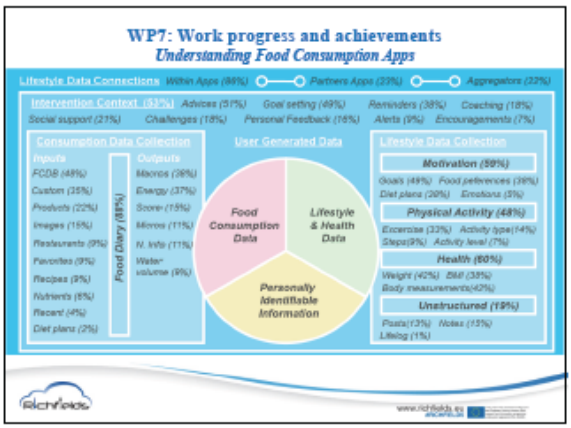

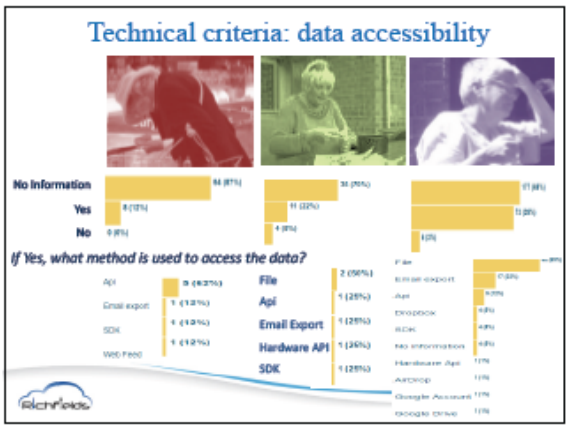

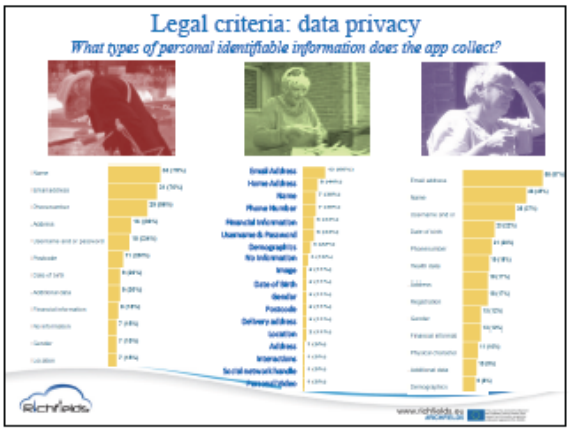

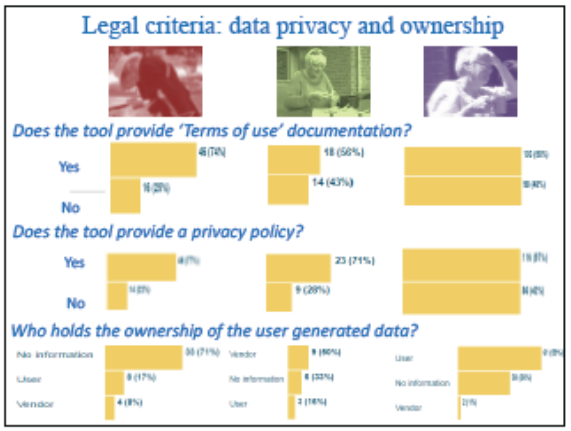

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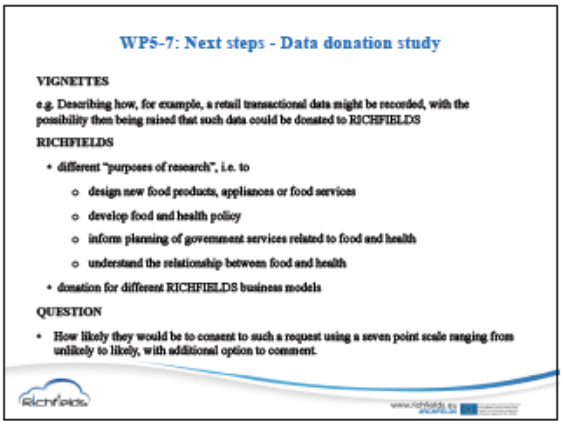

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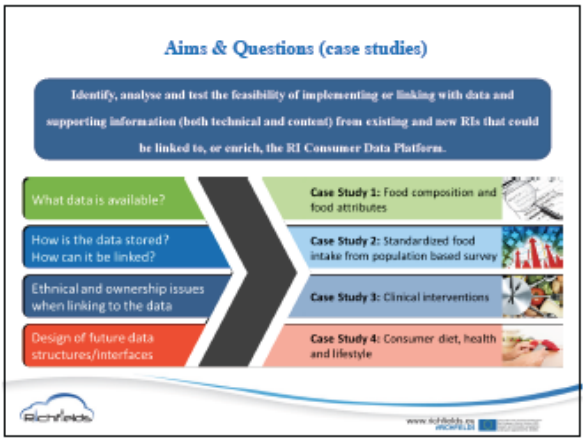
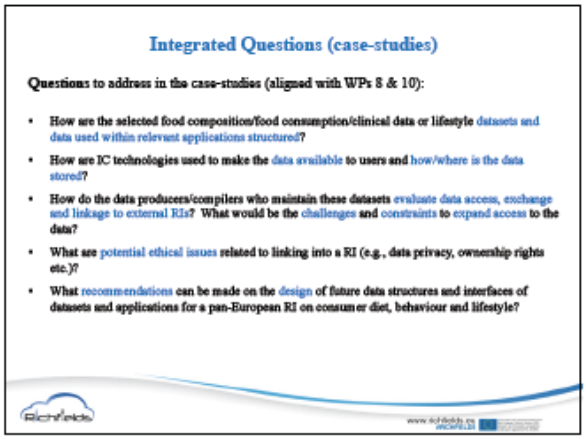
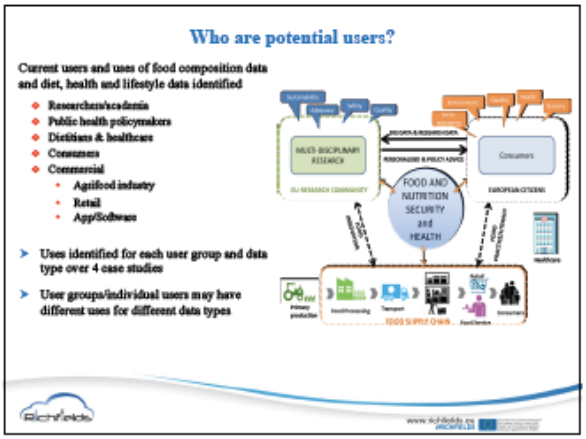
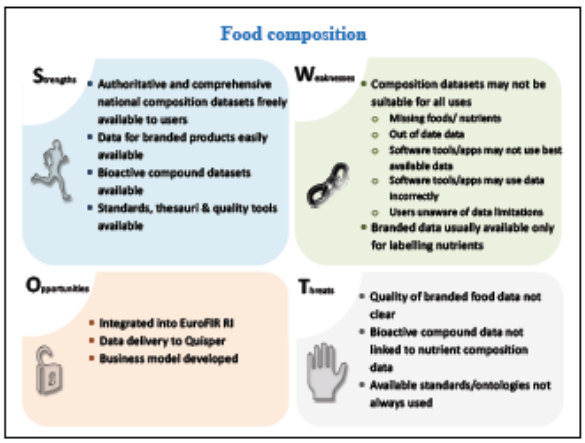
09:45-10:00 Building on related food and health RIs

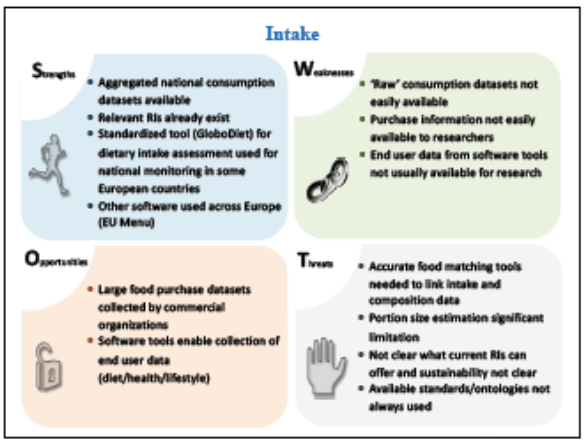
Paul Finglas (Institute of Food Research - UK)











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Strengths and weaknesses: Clinical/Biological, Health & Lifestyle

Data Type	Strengths	Weaknesses
Clinical/Biological	• Clinical/biological data (anonymised) published in scientific journals • Relevant RIs already exist • Data can be collected from electronic devices/sensors	• Clinical/biological data not available in compiled or standardised datasets • No easy access to data • Lack of standards/resources to interpret and make clinical decisions on user generated data • Not clear what current RIs can offer and sustainability not clear • End user data from software tools not usually available for research • Available standards/ontologies not always used
Health and lifestyle	• Relevant RIs already exist • Software tools enable collection of end user data (diet/health/lifestyle) • Data generated by wearable technology can be accessed and transferred by smartphone technology	• Not clear what current RIs can offer and sustainability not clear • End user data from software tools not usually available for research • Standard/ontologies not developed or available

Potential opportunities and service offerings

- Training in standards and using data
- Specific uses for different groups
- Promotion in food and nutrition research

- Improve data, wider datasets, branded products
- Link bioactive data to nutrient data
- Improve access to consumption, food purchase, clinical datasets

Training | Data sources and resources | Services | RICHFIELDS | Standards

- Dietary advice – personalised nutrition services
- Data and knowledge rules for B2B tools/apps

- Training in production and use
- Maintain standards and thesauri for compilation and exchange
- Develop standards for health/ lifestyle data

Next steps

- Perform pilots on linking EuroFIR food composition data with PRECIOUS (big) data and GS1 (semi-structured data) (CS1 & CS3)
- Develop and explore MOUS with BBMRI, Metrofood Globodiet and EuroFIR
- Link food composition to fake food buffet through EuroFIR (CS1 & CS2)
- Expand CS3 to include more clinical parameters
- Identify relevant determinants for eating, food choice and nutrition etc. (CS1 – CS4)

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Partners: eufic, cens, EuroFIR, DIL, BfR, SP, IJS, WAGENINGEN UNIVERSITY & RESEARCH

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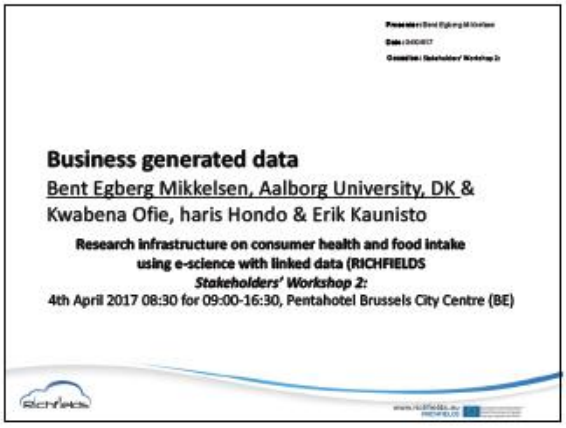
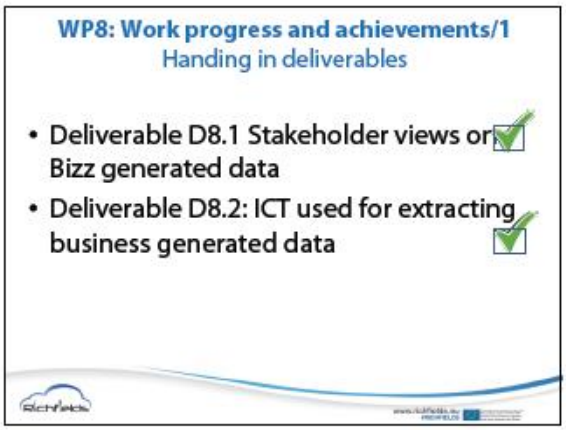
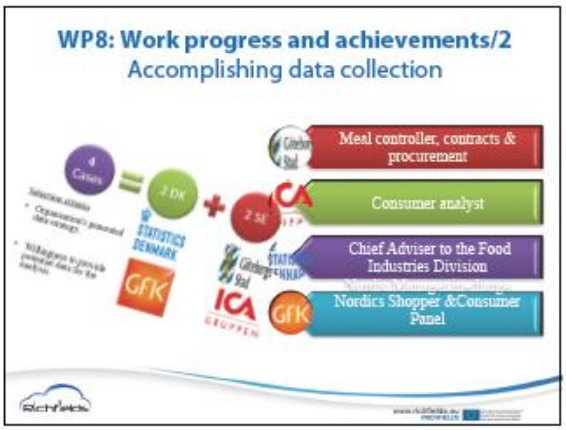
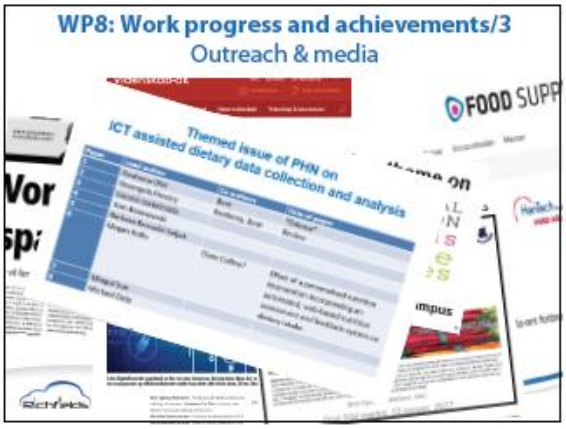
10:00-10:15 Business generated data

Bent Egberg Mikkelsen, Aalborg University - DK









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Conclusions to-date
Relevance to scientific cases

Diversity of data sources	RI needs to ensure data source diversity in collected data, generic data usage potential for EU inter- and intra-regional research.
Incompleteness of data	RI needs to ensure completeness of supplied data, data management feedback to data suppliers.
Duration of data storage	Time-frame for business data storage needs to be harmonized through a joint legislation procedure.
Missing or erroneous information	RI needs procedures for scrutinisation of supplied data.
Privacy issues	Consumer privacy legislation for identification of consumers and storage of associated data needs to be considered in relation to the RI.

RICHFIELDS WP8: Final outputs for RICHFIELDS RI
D8.1: Stakeholder views on Bizz generated data

Status: delivered

RICHFIELDS WP8: Final outputs for RICHFIELDS RI
D8.2: ICT used for extracting business generated data

Title: ICT used for extracting business generated da
Authors: Bent Egberg Mikkelsen, Kwabena Titi Ofei, Haris Hondo, Erik Kaunisto, Sophie Hieke
Status: handed in

Conclusions

- Clear potentials in sharing data from different sources for the purpose of societal and scientific enquiry.
- Large degree of data diversity since data is collected to suite the individual organizations' different data needs.
- Potential sharing benefits considered valuable since commercial data owners can benefit form scientific cooperation
- Potential in sharing data for data philanthropic reasons
- A potential limitation is that some data are collected for more political reasons for instance in the case of organic procurement which may put limits on the broadness and the potential usefulness of the data for scientific purposes.
- This might be both a weakness and a strength since it might offer data from a broader consumer perspective.
- Data incompleteness in terms of a round the clock view.
- Allowed storage of business generated consumer data 18 Mo/SE
- Illustrates a potential cross-country challenge
- Organisations might be more reluctant to share data since clients/competitors could potentially benefit from such data while not sharing their own data.
- Therefore a fair exchange mechanism needs to be there.
- Careful handling of non-aggregated data needed, in order to avoid identification of an associated enterprise or individual.
- Privacy is important but interviewees perceive this in different manners.
- Potential problems with sensitive information e.g. business turnover, protected by Law.
- Organisations may not be able to disclose the full details of the household panellist to the proposed future European RI, unless active consent

RI – important "accessories"

Training:

- Extension services
- Doctoral
- Graduate
- **Technical support**
- **Webservices**
- **Access technologies**

- **Awareness raising**
- **Broad stakeholder support and usage**
- **Political support**
-

WP8: Next steps
Publications – non Deliverables

Nr	Title	Remarks	Authors	Lead	Publisher
1	Measuring food behaviour the smart way - case insights from the implementation of the Foodscape lab	The case study of the the Foodscapelab – AAU that is the input to D10.1 report	Bent Egberg Mikkelsen, Kwabena Titi Ofei	Bent	Short abstract (350 words) ICCAS proceedings
2	Making sense of foodlab generated data on food behaviour- case insights from the Richfields study of five European foodlabs	The first results from WP10 (D10.1)	Sophie Hieke, Bent Egberg Mikkelsen, Kwabena Titi Ofei	Sophie	Short abstract (350 words) ICCAS proceedings
3	"Can business generated big food data be used to understand food consumption behaviour and can a research infrastructure be generated around such data? – insights from stakeholder interviews in Denmark and Sweden"	This is a compiled version of D8.1.	Bent Egberg Mikkelsen, Kwabena Titi Ofei, Haris Hondo Erik Kaunisto	Kwabena	Extended abstract (4000 words) ICCAS proceedings (and/or as short one to the IUNS call for abstract)
4	Small devices for Big data – business driven technologies to collect data on consumer behaviour	This is a compiled version of D8.2.	Haris Hondo Erik Kaunisto, Bent Egberg Mikkelsen, Kwabena Titi Ofei	Haris	Short abstract (350 words) ICCAS proceedings

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WP8: Next steps

example

WP8: Next steps
Advanced training course

Food: Small devices & Big data
Aalborg University, Copenhagen, November 15-17„ 2017

WP8: Problems encountered & potential solutions

Some negative views

1. Businesses are mystified why the EU want to do this

1. Why not have the Businesses and market bureaus contracted to do this instead

2. What is really a research infrastructure?

2. What is wrong with the existing data sources and their present organisation?

Potential solutions

1. Explain that the RI is putting something together that has never been put together before

2. Explain that this is a multistakeholder, cross border undertaking that aims at creating synergy

What the RI is & what it's not?

Not

- A single big source data source
- A turn key business
- A profit undertaking
- A static phenomena
- A single country activity
- A competitor to traditional market intelligence

Hot

- A multiple big source data platform
- A European activity
- A patchwork of different sources
- A for non-profit undertaking
- A data philantrophic initiative
- A dynamic phenomena
- An infrastructure for research
- .... and hopefully something more

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Partners: WAGENINGEN

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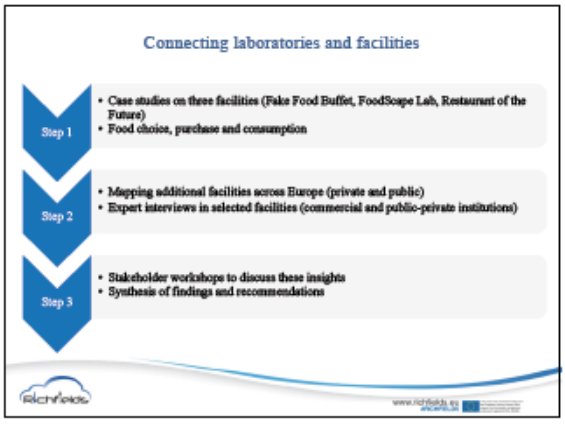
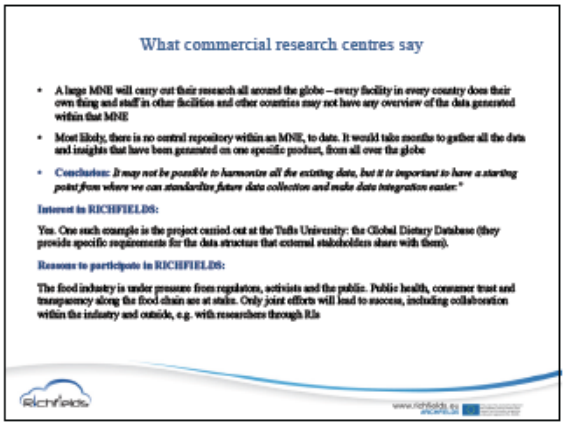
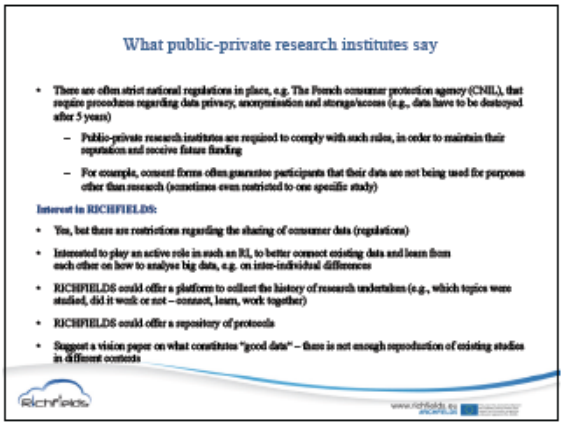
10:15-10:30 Connecting laboratories and facilities

Sophie Hieke, German Institute of Food Technologies DIL - DE







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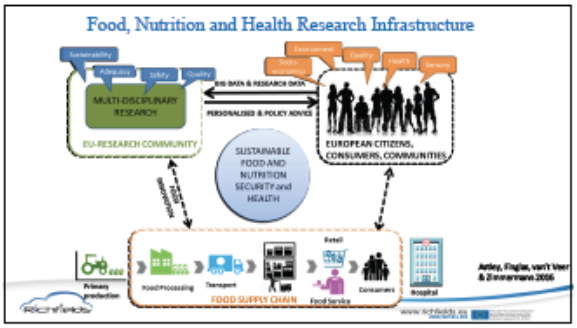
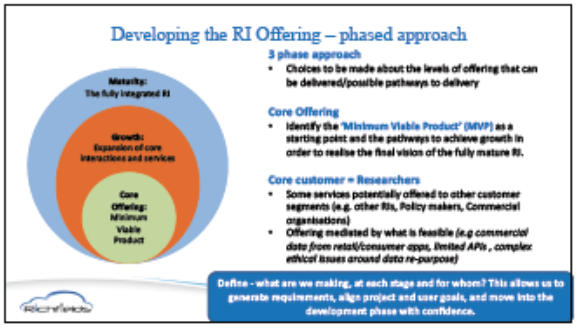
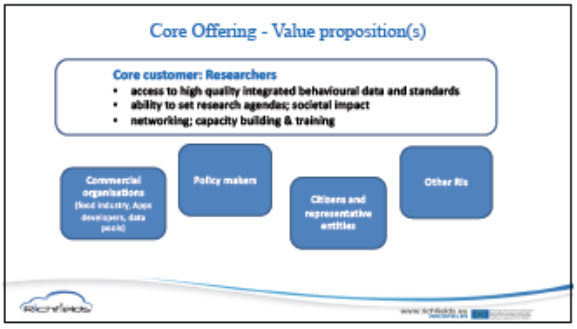
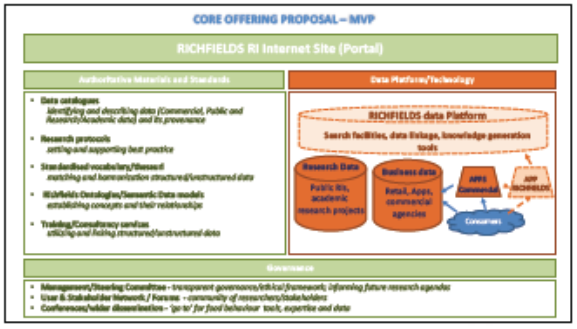
11:15-11:30 Developing the Core Offering

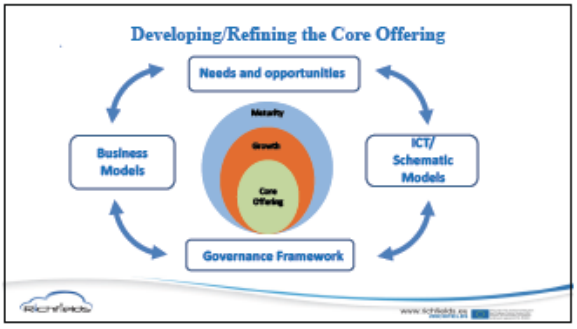
Charo Hodgkins, University of Surrey - UK











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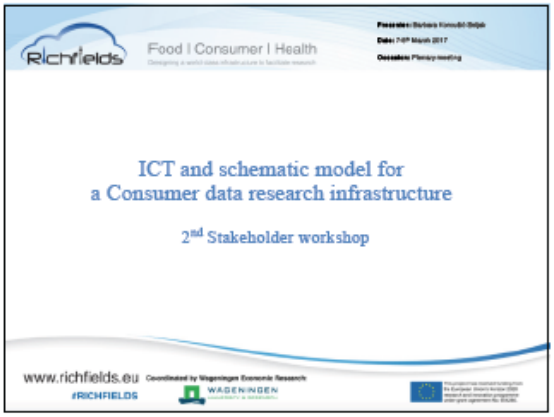
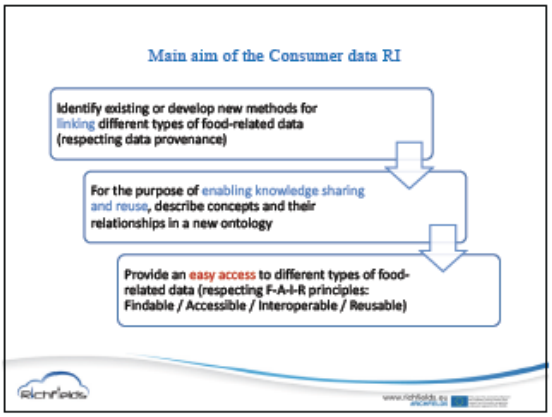
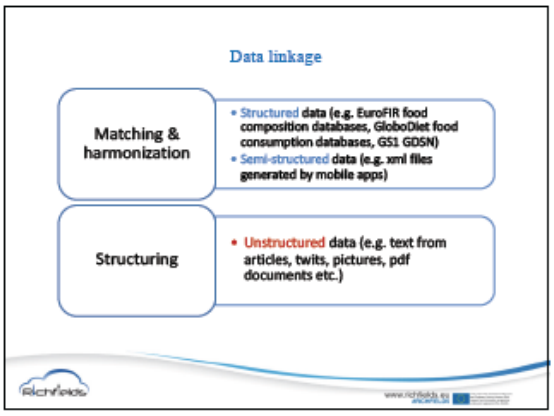
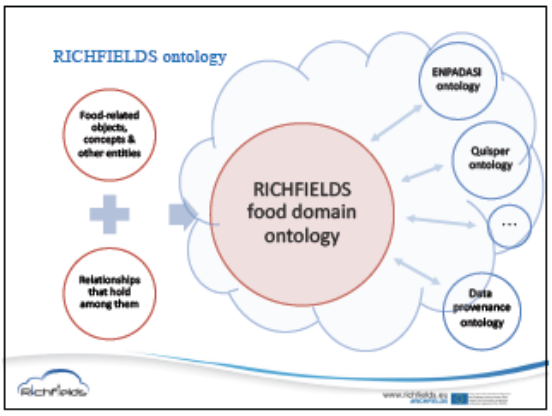
11:30-11:45 ICT and schematic model for a consumer data research infrastructure

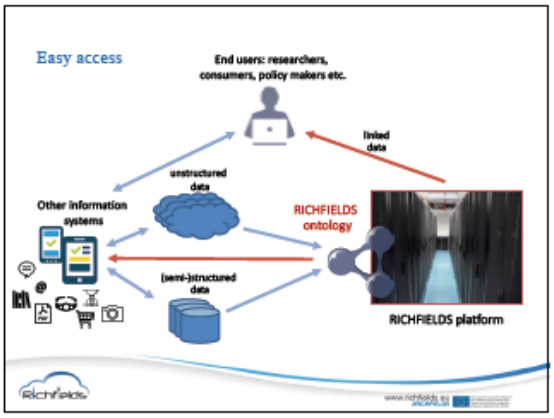
Barbara Koroušić Seljak, Institut Jozef Stefan - SI











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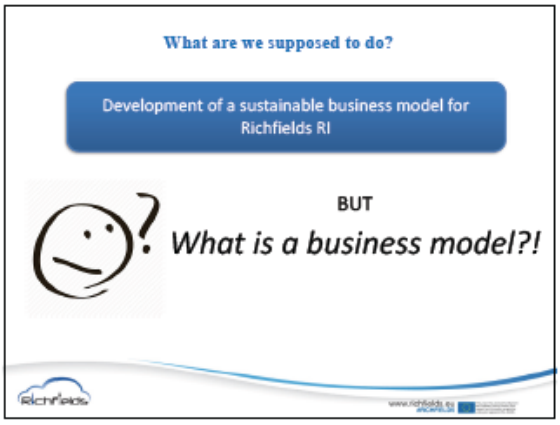
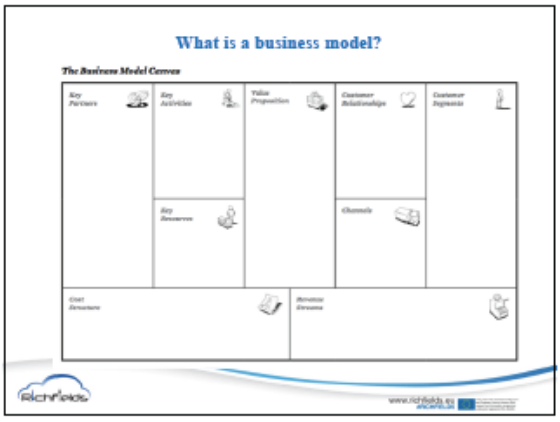
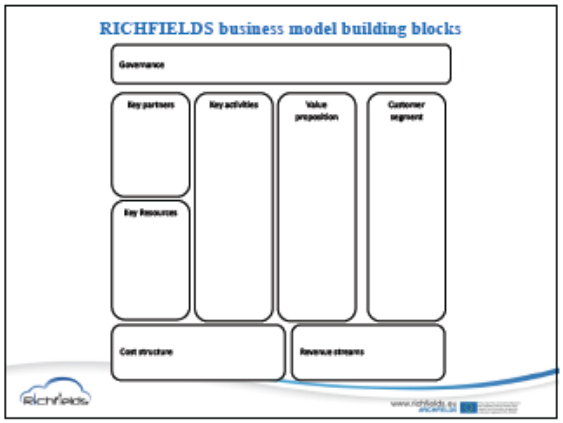
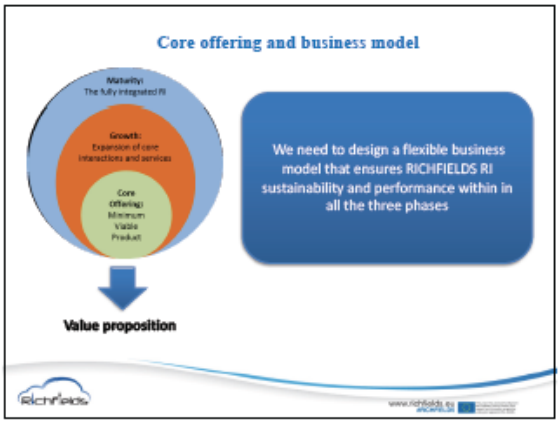
11:45-12:00 Business models

Golboo Pourabdollahian, ITIA-CNR - IT









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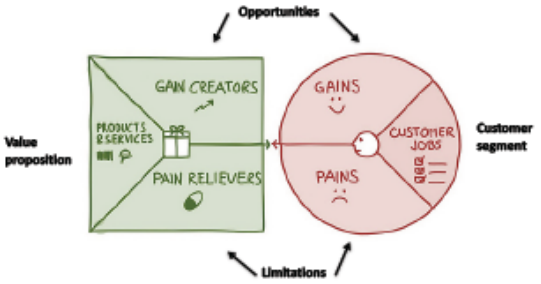
Customer segments and value proposition



Customer segments and value propositions: options/modules

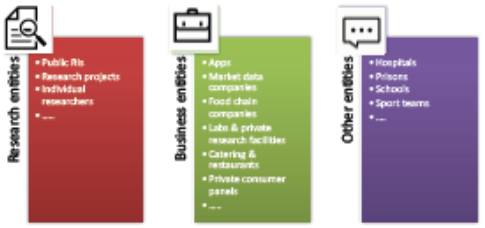
- Researchers
- Policy makers
- Other RIs
- Consumers (Citizens)
- Companies (App developers, food manufacturers, retailers, agrifood industry, …)
- Professionals (dieticians, nutritionists, physicians, …)
- ….

What is the **unique value proposition** that Richfields could offer to them?

Customer segments and value propositions: options/modules

Segment	Unique value proposition
Researchers	• access to high quality integrated behavioural data and standards • ability to set research agendas; societal impact • networking; capacity building & training
Policy makers	• informing decisions on future policies • forecasting and anticipatory design of policies • policies in tune with publics' needs and science
Other RIs	• Access to a broader data set • access to high quality integrated behavioural data and standards
Citizens & representative entities	• Social consciousness, interest in shifting policy/research agendas
Commercial organisations (food industry, Apps developers, data pools)	• support on how to design data capture devices to enhance data quality and utilisation for scientific purposes • Branding/added value for their product
Other Customers in growth phase?	……

Key resources and supply chain



What are the type of **business relationships** we may establish to include these data?

Data providers and supply chain

Data provider category	Data provider sub-category	Provides data in exchange of
Research entities	Public RIs	• Access to high quality integrated data • Access to standards • Free membership
	Research projects	
	Individual researchers	
Business entities	Apps	• Branding • Data analysis service & Patterns generated
	Market data companies	• Data analysis service & Patterns generated • Membership of the RI • Branding
	Private consumer panels	
	Labs & Private research facilities	
	Food chain companies (retailers, manufacturers, etc)	• Data analysis service & Patterns generated • Branding
	Catering & restaurants	• Branding
Other entities	Hospitals	• Data analysis services
	Prisons	
	Schools	
	Sport teams	

Revenue streams

Majority of RIs mapped and analysed are public RIs → Dependant on public funds

RICHFIELDS aims at establishing a public-private RI

Options for revenue streams:

- Membership fee (for all members, only for private customers, etc.)
- Pay per data
- Pay per service (consultancy, analysis, etc)
- Training
- Private funds (food manufacturers, pharmaceutical companies, etc)
- Public funds
- Donations
- ….

What are **suitable revenue models** for the provision of services to the different customers?
What are the **suitable funding mechanisms** for the RI?

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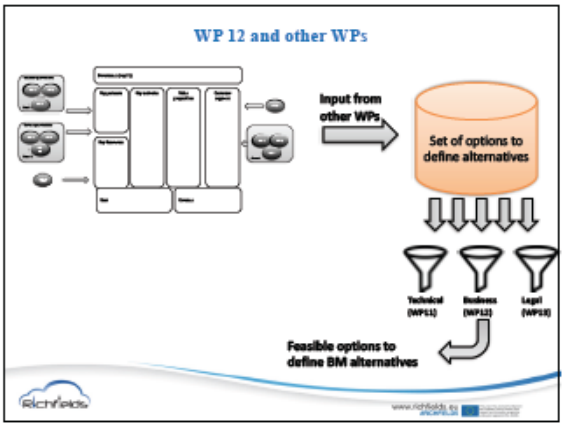

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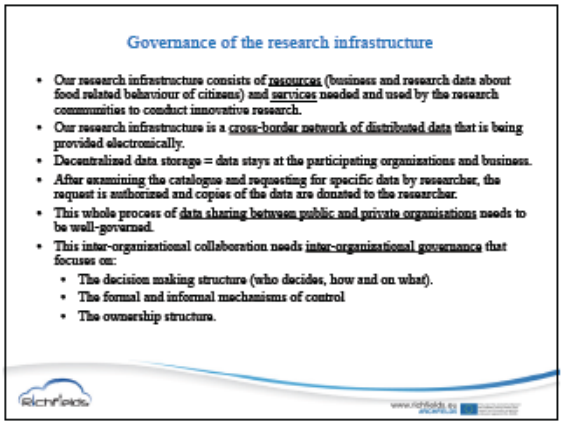
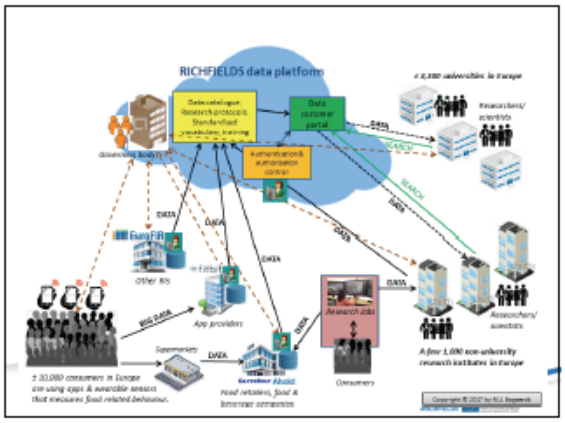
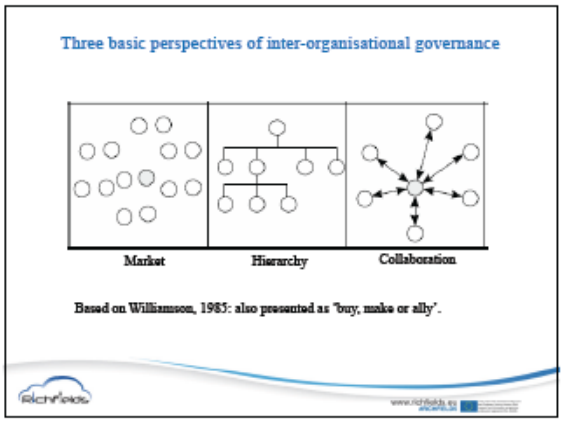
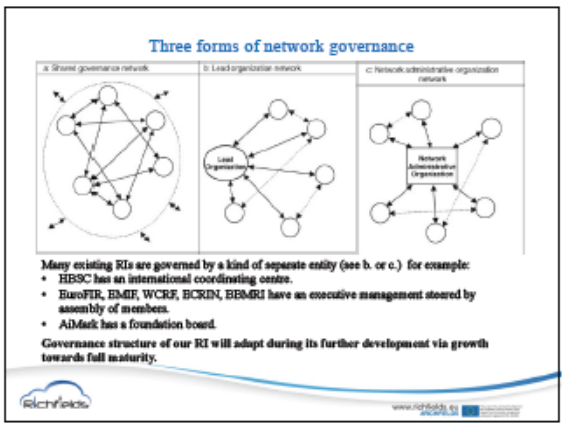
12:00-12:15 Governance and ethics

Marc-Jeroen Bogaardt, Wageningen University & Research – NL









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A2.3 Stakeholder Workshop: Breakout Session Discussion Questions

Aim: to invite your feedback and recommendations on the development of the Core Offering, value propositions and Business/Governance Model for the proposed new RI.

Q1. How can we best **motivate** Researchers, Business and Consumers to collaborate with RICHFIELDS and donate their data?

- To what extent does the proposed Core Offering (*see attached*) meet the needs of **Researchers**?
    - Which elements are of most value and why? How will they help meet the needs of researchers (*benefits/pains/gains*)?
    - Is there anything missing from the Core Offering?
    - What are the most important ***data sources/tools*** that should be included in the platform for Researchers? Why?

- Is there sufficient value for **Business entities (e.g. app developers, retailers, food industry)** to want to collaborate and donate data?
    - Which elements of the Core Offering will be of most value to Business entities? Why?
    - Is there anything that could be added to the Core Offering to add additional value for Business entities?
    - What are the most important ***tools*** we could offer Business entities? Why?

- Is there sufficient value for **Consumers** to collaborate and donate data to RICHFIELDS?
    - What is the value for Consumers and how should it be best communicated to them to encourage data donation?

Q2. What are the potential **barriers** to collaborating with RICHFIELDS and donating data?

- What are the **main barriers** likely to be for
    - Researchers?
    - Business entities?
    - Consumers?
- Are the barriers you have identified similar/different across the three stakeholder groups)? How might they be overcome?

Q3. What are the key requirements for **good governance** of RICHFIELDS? Why?

- What do you think would be the most appropriate Governance Model for RICHFIELDS? (*see attached for some examples*)? Are there any other options you can suggest?
- To what extent would your **willingness to collaborate/share data** with RICHFIELDS be impacted by the Governance Model employed?
    - Under what conditions would you be unwilling to share data with RICHFIELDS? Why?

Output: short summary of main discussion points and recommendations from the group ready to feedback to the plenary session

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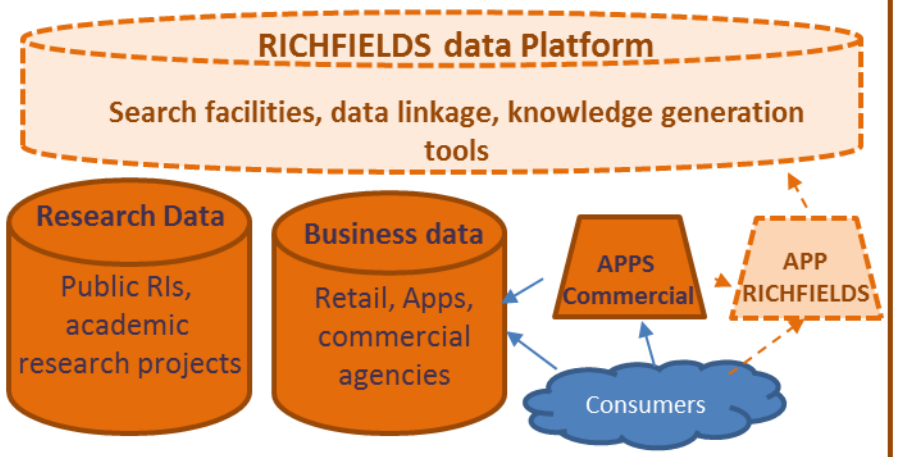
CORE OFFERING PROPOSAL – MVP

RICHFIELDS RI Internet Site (Portal)

Authoritative Materials and Standards

- **Data catalogues**
  identifying and describing data (Commercial, Public and Research/Academic data) and its provenance
- **Research protocols**
  setting and supporting best practice
- **Standardised vocabulary/thesauri**
  matching and harmonization structured/unstructured data
- **Richfields Ontologies/Semantic Data models**
  establishing concepts and their relationships
- **Training/Consultancy services**
  utilizing and linking structured/unstructured data

Data Platform/Technology



Governance

- **Management/Steering Committee** - *transparent governance/ethical framework; informing future research agendas*
- **User & Stakeholder Network / Forums** - *community of researchers/stakeholders*
- **Conferences/wider dissemination** - *'go to' for food behaviour tools, expertise and data*

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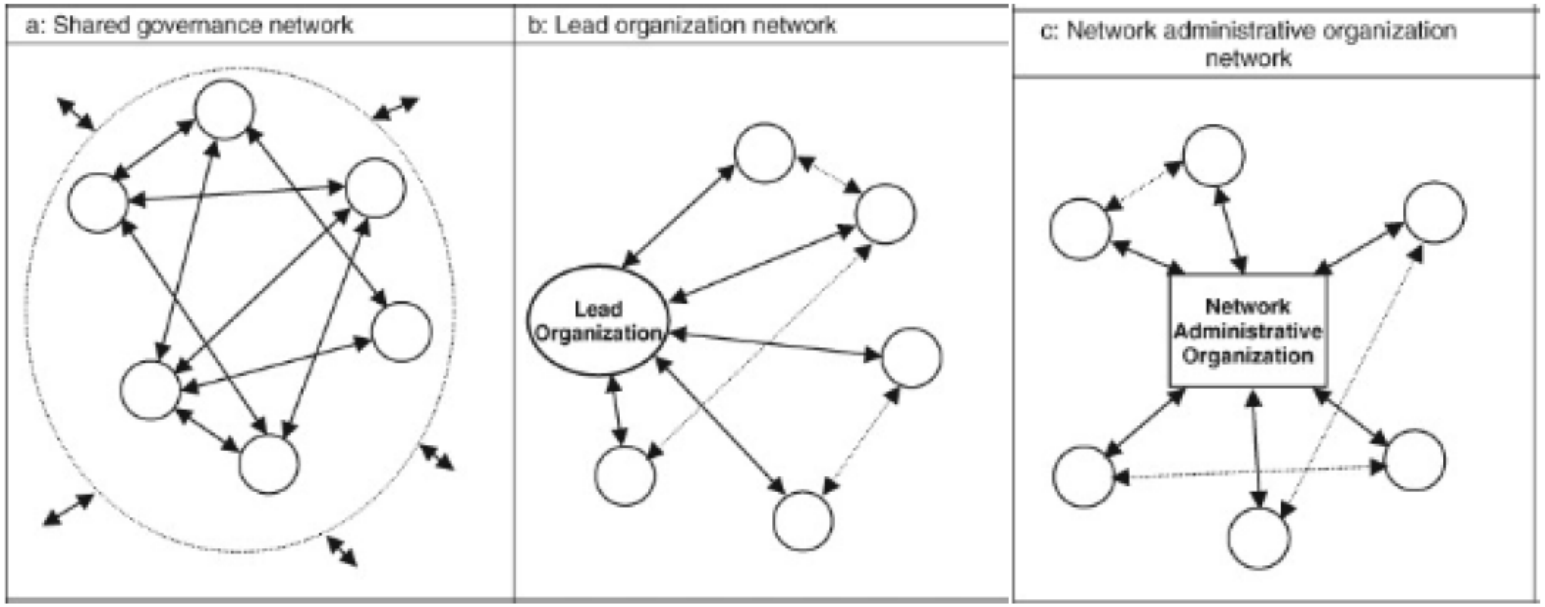
Three forms of network governance



Many existing RIs are governed by a kind of separate entity (see b. or c.) for example:

- HBSC has an international coordinating centre.
- EuroFIR, EMIF, WCRF, ECRIN, BBMRI have an executive management steered by assembly of members.
- AiMark has a foundation board.

Governance structure of our RI will adapt during its further development via growth towards full maturity.

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Richfields

Registration Form
Richfields Stakeholder Workshop 2

Tuesday 4th April 2017
Penta Hotel Brussels, Belgium

First Name	Family Name	Organisation	Signature
Sian	Astley	EuroFIR AISBL	
Monique	Axelos	INRA	
Marc-Jeroen	Bogaardt	Wageningen Economic Research	
Tamara	Bucher	The University of Newcastle	
Maurizio	Canavari	Alma Mater Studiorum-Università di Bologna	
Paolo	Colombani	Consulting Colombani GmbH	
Gill	Cowburn	University of Oxford	
Javier	de la Cueva	Javier de la Cueva Asociados	
Frankie	Douglas	Nutritics	
Paul	Finglas	Institute Of Food Research	

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Maria	Glibetic	Institute for medical research	
Petra	Goyens	DG Research & Innovation European Commission	
Evangelia	Grammatikaki	Joint Research Centre (JRC) Ispra	
Sophie	Hieke	German Institute of Food Technologies	
Charo	Hodgkins	University of Surrey	
Ann	Jõeleht	National Institute for Health Development	
Maria	Kapsokefalou	Agricultural University of Athens	
Barbara	Koroušić Seljak	Jožef Stefan Institute	
James	Lay	food angels uk ltd	
Angelika	Mantur	EuroFIR AISBL	
Bent Egberg	Mikkelsen	AAU	
Elkhaznagi	Mohamed Moncef	3dots	
Heimo	Müller	Medical University Graz	
Damian	O'Kelly	Nutritics	

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Sidonie	Pauchet	EuroFIR AISBL	
Sandrine	Pigat	Creme Global	
Loek	Pijls	Loekintofood	
Golboo	Pourabdollahian	ITIA-CNR	
Karl	Presser	ETH Zurich/Premotec GmbH	
Thomas	Primus	FoodNotify GmbH	
Monique	Raats	University of Surrey	
Christina	Sadler	European Food Information Council (EUFIC)	
Kristin	Salupuu	National Institute for Health Development	
Nadia	Slimani	International Agency for Research on Cancer (IARC)	
Igor	Spiroski	Institute of Public Health of the Republic of Macedonia	
Lada	Timotijevic	University of Surrey	
Ido	Toxopeus	RIVM	
Armand	Valsesia	Nestlé Institute of Health Sciences	

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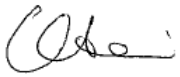
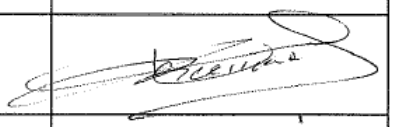
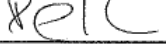
Susanne	Westenbrink	RIVM	
Karin	Zimmermann	Wageningen University & Research	
Claudia	Zoani	ENEA (Agenzia nazionale per le nuove tecnologie, l'energia e lo sviluppo economi	
Hedwig	Beernaert	EuroQAM	
Annemieke	Vans Ginkel Res	EFAD	
Isabel	Pastor	ZNSE	
			

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Annex 3: Rapporteurs' reporting

A3.1 Notes from main session – unedited (Siân Astley, EuroFIR – BE)

As agenda

There were some questions asking for clarification of points presented.

Q. Do you have contact with FAO and EFSA
A. FAO yes outside Europe. The challenge is very different globally, but we try to match the standards and ways we work. We have done quite a bit of work with EFSA in developing standards for collecting, particularly, consumption data. Also, with IRAC and GloboDiet.
A. Determinants lack such standards and partners are working with FAO on these aspects.

Q. Links with other RIs
A. Have looked to ECRIN, but there are few considering nutrition. Those that are looking at biological risk for disease however are moving into this area, particular with regard to risk not prevention/ maintenance of health.

LP making something big out of lots of small pieces of information is challenging and not always attractive. It needs to be clear what benefits will come out of it.
Have developed a "core offering" that will be discussed later, with this in mind, and with that the types of research questions that might be addressed with the support of a consumer generated data platform, such as RICHFIELDS.

Q. Food data are delivered by research but also commercial, what is your view on the data quality?
A. The issue of quality of these data goes beyond the scope of the work package but is an issue for the wider project since there must be some consideration regarding quality of service and tools. There is some assessment in terms of how data are delivered.
A. There are some be some "minimum quality" and then it is perhaps the responsibility of the users.

Coffee

As agenda

Q. Think about standards (scientific) but also governance, finance and ethical standards
A. There's content and then there is a the "running" of the platform.

Q. Is there a strategy for engaging with the commercial technology side
A. Not specifically because they are just one part of the equation.
A. Not all engagement and exchange is the responsibility of RICHFIELDS, which is providing the design not the delivery.

Q. Would be useful to have RICHFIELDS within the broader RI landscape, which will help position the platform in the wider research roadmap.

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A. RICHFIELDS is in the top left (determinants) area and we have links with the various RIs to add value to them and offer access to data not currently included by them for research.

Q. In terms of our vision, the data would reside elsewhere and RICHFIELDS would provide access, although there might be RICHFIELDS data that could be housed on the platform and shared with users.
A. Currently, we would use webservices to provide information to end users and we will need to develop interfaces to meet the needs of users; one for human users and another for information services.

Q. Very important to define the terms you are using. "Access to high quality integrated data", for example has meaning within the project and not amongst potential users.
A. Yes. Even within RICHFIELDS there is some confusion about what we are talking about, e.g. structured/ unstructured/ big data/ integrated, etc.
A. When we were considering data for composition there was very little information for branded data, which if scored with the EuroFIR terms would be low quality, but it is more important to have that data than not, especially since the missing information for these data is or might be available elsewhere.

Q. Why is EuroFIR outside the scope of RICHFIELDS?
EuroFIR is a data provider. There is some food behaviour data, not just composition, but it is not a core part of the consumer generated data platform. EuroFIR is a legal entity with a structure and governance of its own, but could use data or provide information to RICHFIELDS.

Q. Transparency is key including funding and sources of data for, for example, publications.
A. Interesting that you view RICHFIELDS as "bring data together". What do you mean? Because the governance does not "bring the data together" but rather provide access, which also includes sources and ownership.
A. EuroFIR can deliver data, with the permission of our members.
The platform provides an overview with sources and contacts to facilitate use, such as publication. Computing power is also an issue to access the data.

Q. The proposal is interesting. My organisations would be bottom right, perhaps donating and using data. However, real-life is more complex because there are so many RIs. Organisatons might provide and use data from many sources, particularly for government organisations, and between or amongst organisations with are users/ providers.
A. There is a lot of discussion around this but the complex nature of the relationships within and between individuals and organisations influence the design but do not inhibit the vision and mission.

Q. One of the fundamental issues for governance is to try to integrate legislation with FAIR principle and Open access data requirements, and ethical and governance legislation is not keeping up with. There is a lot of work to be done, but it benefits the wider perspective?
In the commercial sector, there is wide variation in governance and often does not comply with the principle that data belongs to the originator (consumers). In a world where resources are constrained tools such as the platform are important for research but also better utilisation of resources.

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ECRIN is very interest in linking individual clinical data with earlier intervention to ensure individuals remain within the healthy thresholds longer.

We need to be careful and take small steps to achieve the goal. Ambition in the goals is fine, but there needs to be slow effective progressive if these are to be sustainable.

Data from citizens has/ is being collected (e.g. Carefour, Tesco, etc.) and are aware of the issues. In fact, discussions with these providers has been positive to date, with many expressing a willingness to share the data to learn more about the value, interpretation and understanding. There will, however, always be others who are more reluctant to share.

The societal challenges are too complex to address via only a single mechanism (e.g. a healthy diet and exercise), which means pre-competitive collaborations within and across sectors is essential.

We have had less positive experiences with retailers in practice. In principle, they are willing to share but the constraints on business and sharing consumer data in practice is difficult. Although approached in a fashion to promote partnerships, again in practice they are deliberately set-up/ setting up structures to prevent the activities in practice.

At a certain point, we will reach a typical situation of “early adopters”, etc. meaning this will develop initially in a close environment but grow and thrive in a more open environment at a later stage as the benefits become clearer and the risks are shown to be manageable.

This is the right time to approach industry because they are being pressurised to step up and do their part to reduce weight gain, obesity and unhealthy lifestyles. They also need to provide evidence rather than just stating they are doing so, and this offers leverage.

Where is the impact on health issues?
Here but also arising from research done using this data, and it will focus on prevention, slowing people’s move from healthy into the clinical sector.

Feedback was given from the three groups
KZ presented the take home messages

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3.2 Notes from breakout groups - unedited

Group 1/ Researcher: Monique Raats

1: How can we best motivate researchers, business and consumers to collaborate with RICHFIELDS and donate their data?

What is the difference between data donators and data providers? For example, if you provide data, there needs to be a business model (i.e. specifications, rules, what you get in return) and if you donate data, you simply give something "away". This difference would result in different motivations for stakeholders to share their data. It is important to decide on the terminology we use within RICHFIELDS: share, donate, provide etc. Otherwise we may scare away potential collaborators before discussions even begun.

You need to show that there is added value in RICHFIELDS, and in sharing data. No matter who you talk to (research, industry, government etc.) – they need to see the added value for them.

Open Access policies enforced by the EC will change the landscape in this regard (e.g., Horizon 2020 regulations on generated data, repositories etc.)

RICHFIELDS could offer a catalogue of what data is available where – for researchers of any kind to look up where they might find data that are of interest to their studies.

- To what extent does the proposed Core Offering meet the needs of researchers?
- Is there sufficient value for Business entities (e.g. app developers, retailers, food industry) to want to collaborate and donate data?
- Is there sufficient value for consumers to collaborate and donate data to RICHFIELDS?

It is important to distinguish between the different data providers/sources, e.g. cohort studies underlie different legal restrictions. In turn, RICHFIELDS could help ensure the sustainability of data collected within these cohorts.

Currently, the Core Offering assumes every data user also provides data. But in order to have a working business model, you need to have users who do not provide anything other than direct payment for your data. WHO IS THE USER? Because no, e.g., retailer, will provide data when at the same time they are also asked to pay for data from other sources. One idea could be to offer to host companies' data as a business model (Paul Finglas). Another way would be to ask all users of RICHFIELDS to pay for access, e.g. researchers could include such fees into their grants and research proposals. Those who share data could get "cheaper" access to the data from RICHFIELDS, i.e. preferred fees or special subscriptions.

"Knowledge generation" is where RICHFIELDS could provide added value, through software and analysis tools, data catalogues, research protocols, standardisation or trainings on vocabulary and ontology.

One idea is that those who are the major data source, consumers, will not be the main users of the platform. However, through an app using the data available in RICHFIELDS, they could derive value from

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this platform. But this will require a strong scientific community with the expertise to run these analyses and provide these interpretations. But the European research community on consumers, food and health is anything but a coherent community – which poses additional problems.

All of these deliberations go back to who funds the RI. None of the existing RIs have "cracked" this problem so far, of obtaining long-term funding sources that will eventually make them independent of state-derived funding (Commission etc.). RICHFIELDS is operating in a field where this might be different due to the pressure the industry experiences in shaping public health in a positive way. Different disciplines within this field (consumers, food and health) are further experiencing strong and heated debates around data quality, trustworthiness etc. These developments could be factors positively influencing RICHFIELDS' success in becoming a self-sustained operation in the future.

Can RICHFIELDS expand their reach following a demand-driven approach? Meaning, based on the research questions that stakeholders have, RICHFIELDS could target the corresponding data sources.

Consumers will want something they can use, like an app, which helps them with different problems. As long as it is not clear what such a service might look like, there is no value in the platform and we may lose our major data providers (consumer-generated data, e.g. through apps, that they share through consent forms). This further supports the notion that app developers should be closely incorporated into RICHFIELDS, e.g. through a small fee they pay for access to the data. They need to come up with viable offerings for consumers, to turn RICHFIELDS into value for them.

2: What are the potential barriers to collaborating with RICHFIELDS and donating data?
Consent and how it is embedded in the processes is a major issue: not one that cannot be overcome but one that needs to be dealt with in great detail.

What stops people not going directly to other actors in the RICHFIELDS chain? RICHFIELDs needs to simplify access to the data needed, in order to be of value to those who will use it. Build insights by developing case studies on successful and unsuccessful stories of accessing data from different sources.

When RICHFIELDS provides data access at a more attractive price level than when those stakeholders would have to pay for direct access – then the business model is viable. The same goes for offering insights, knowledge in interpreting the data: this is where RICHFIELDS will become valuable to data users and possibly justify fees to access the platform.

Again, the comment on what the insights would actually look like comes up. As long as this is not specified, it remains difficult to design a business model.

Is the minimum viable product (data catalogues, inventories etc.) enough? Not outside of research. RICHFIELDS needs to offer more. Just locating data sources will not suffice. Making sense of the available data – now that would add value. Connecting different data instead of just cataloguing them. Will RICHFIELDS be another research infrastructure or can it actually connect existing RIs to offer a new level of (added) value?

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It becomes apparent to participants that RICHFIELDS will not be a data platform but rather a tool/service to connect existing data sets, platforms, generators, sharers, researchers etc. The outcome would be an inventory of where to find what data, collected by whom, how and for what purpose.

What will be the added value of RICHFIELDS? One thing mentioned would be a repository of research protocols. But what exactly will RICHFIELDS do here? Just catalogue them or actually assess them and rank, choose etc. the best ones? RICHFIELDS will eventually have to set a standard, in order to be of value, not just collate all of the different protocols and cataloguing them. This is of course a complex matter as different disciplines approach similar topics in very different ways and use different methodologies. One way will be to work closely with policy makers to ensure that whatever standards are set will find their way into policy at some point. This would open up the process of exchange between research, business and policy. And it could even have a reinforcing element, e.g. policy makers pushing business or research to collaborate with RICHFIELDS, share data, standardise their protocols etc. Companies, for example, could be assessed in terms of their impact on public health through the work they do. This is also related to a lack of transparency, e.g. the algorithms that are used in apps and elsewhere, that is often negatively discussed in this area.

At the moment, the name RICHFIELDS has no meaning to anyone – it is not intuitive. A new acronym would need to be developed, in order to communicate the value of the RI in a more instant way.

3: What are the key requirements for good governance of RICHFIELDS? Why?
Essentially, the question is “who needs to be at the table for RICHFIELDS to work?”. Marc-Jeroen presented three different forms of networks and network governance that exist. How can we ensure sufficient “buy-in” from the community in order to reach the engagement we are looking for?

Research institutes and facilities (WP10) will be more valuable for using RICHFIELD data, not so much providing data. They could/should be used for their expertise, knowledge on how to interpret the data, protocols, their physical facilities (which could be used to conduct new research) but they should also be connect to one another to further exchange: who has attempted what in research? Why did it work and more importantly why did it not work? Ultimately, such a connection is the only way forward towards analysing big data in meaningful ways.

Key requirements for good governance can only be established once it is clear how RICHFIELDS will be governed. This will impact legal structures and requirements but also which funding sources are allowed. Taking this a step further, the question is how society sees the path of research and what role funding can or cannot play. For example, research infrastructures are typically funded by the individual countries (Member States). In the Netherlands, there is now a public debate around this aspect, with certain groups requesting the national funding to be reduced to the initial funding of such RIs, meaning the set-up of the infrastructure, but not the on-going maintenance. There are further discussions focussing on existing research funding and how to make better use of the available funds: could a fixed “overhead” of 10-20% from all funding pots go directly towards RIs, to reduce the burden on European funding and even allow the foundation of new RIs? (Karin Zimmermann)

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One issue might be that RICHFIELDS will rely on data from consumers (i.e., those who use wearable devices like fit bits or use apps for shopping and cooking) that are not necessarily the ones research is trying to understand better or reach with their interventions. Meaning, those consumers who are at risk, those who belong to vulnerable consumer groups, may be less prone to engaging in this process of data generation in the first place. Hence the population of interest is not the population from which data are drawn.

Intellectual property rights are seen as another barrier: are all the generated data open access to everybody? How do publications fit in this? Currently, researchers are judged based on their publications and these are undertaken in a highly competitive environment which could be strongly affected by making all data open access. The process of making data open access takes time and cannot be rushed or forced (e.g., see data management plans and protocols now required by the Commission for all Horizon 2020 projects).

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Motivations to collaborate with RICHFIELDS

Researchers	Business	Consumers
Get reliable product in exchange such as methods	Access to information and data	Information on nutrition aspects, relevant advices
To promote replication of studies	Improve their products (for apps) / adding more features	Guarantee about anonymity of data
Access to data repository, access others' data and studies for comparison	Reputation enhancement	For the sake of research
Access to standards and procedures Methods to standardize big data Traceability of data Ontology/terminology of the concept		Immediate and tangible advantages to consumers

Motivations to collaborate with RICHFIELDS

- Cooperation is the key, main driver is the possibility to get a mutual advantage
- What would be the win-win situation?
- The traceability of data is important but it impacts negatively the privacy. So it's a trade-off traceability-anonymity
- To instruct researchers
- Industrial data could be reliable because they are replicable
- The problem of university is replicability because they have different methods
- Involvement of ISO for Richfields standards might be helpful

Busines:
- Not many people in Belgium use food-related apps

Consumers:
- The problem is quality of collected data

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Barriers for collaboration with RICHFIELDS

Researchers	Business	Consumers
Fake data Lack of reproducibility	They ask for commercial advantage in return Lack of interest	Lack of transparency (no information about what will happen to my data) Need for more details on how the data will be used (for what, where, how)
Lack of awareness	Lack of awareness	Lack of awareness
		Lack of immediate advantage

Potentials ways to overcome:

- **It's very important to cooperate with media**
- **Cooperation long-term cooperation with academia to educate young generation on data donation**
- **Match different big players and create networks, identify what is the common interest between them and have clear rules**

Governance

Governance

- Consumers usually don't read the T&C but in the case of data sharing they are very sensitive
- Governance of business data is totally different
- Having a RICHFIELDS app and using apps T&C to have more consumers involved

Good governance:

- Transparency (who is the governing body)
  - Missions, vision, stakeholders, financial (?)
  - Where does my data go? For what my data will be used?
  - Who I have to talk if I change my mind? How can I withdraw the data?

Which governance model?

- Lead organisation network
- Public-private entities also can have an effective lead-organisation network

Governance & willingness to share data

- No willing ness to share data with the non-transparent organisation
- Need to know the exact details when sharing data

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Final remarks

- Traceability, transparency, reliability, trust, reproducability are crucial
- Clear contract and regulations for data donors
- Academia and universities seem to be the most open stakeholders to share data
- Where can we map best practices in core offering?

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Group 3/ Industry: Charo Hodgkins

Charo welcomed the participants and explained how the group was constituted. She also explained what was wanted from the discussion between 14:15 and 15:30.

It was agreed that Bent EM would feedback as a group.

Motivation – what do we need to do to motivate organisations or individuals to donate data including researchers?

As a researcher, RICHFIELDS might need to provide some incentive for engagement, e.g. recognition for sharing data and or using data of a certain standard. Culture has changed so that there is appreciation for sharing AND how data are used. However, these issues are not recognised as measure of merit. Users will be required to acknowledge the source, which offers kudos for sharing.

The willingness to share data is a more normal culture within ICT. It might be interesting to explore how this came about and whether it can be replicated more widely across the research community.

Commercially, the interest is in the data per se not the implications arising from participation.

Food composition is perhaps less valuable commercially whereas behaviours and choices offer a commercial advantage in delivery and uptake.

If RICHFIELDS provides some standards, protocols, etc. it would help support researchers' activities, particularly early career researchers.

There is also an issue with the data, e.g. raw versus aggregated. Some of the unwillingness to share comes from concerns about the value and documentation around the data.

Others have examples of wanting to know what is in it for their business (to share).

Going to the retailers/ middle management often results in a general reluctance to share/ make decisions. Instead, RICHFIELDS needs to consider who might encourage organisation to release these data.

Which elements are most valuable?
One route to understand this might be to start with the goal, e.g. healthy behaviours.

The sources of data would need to be treated differently, e.g. shopping receipts might be more readily shared than more personal health related data.

DE institute has an interesting approach to leave the data with the source but "what is to be researched" can be shared electronically on request. The data are interrogated automatically without releasing the data. This creates certain issues with multiple sources but it is an interesting approach for RICHFIELDS,

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even if it can be messy. There are other examples of this approach amongst commercial sources of information (e.g. GS1) (need to know basis governed by industry for industry).

Why do we want industry data? Is it because we need to map the commercial food environment? If so, do we need to do all retailers in every country or might there be adequate data if the market leader was included with some niche examples? However, large companies can have different products and different attitudes across countries. One large retailer might represent only a percentage of the uptake country-wide. Even having the branded products does not get around the variation that is represented in the market.

The questions that we might want to answer using RICHFIELDS is huge, as are potential sources. Thus, crucial data comes down to the most important questions. It is difficult to escape this loop, although what people are eating and when goes someway to identifying behaviours, especially given that most people shop at a household level but eat at an individual level. Over a third of what is purchased ends up in the bin. There is also the issue of eating out of home. There is a lot of data around the purchase but much less available for consumption, which might be why apps are an important additional source of (un)reliable data. Users of apps are a very discrete group of people with discrete behaviours and goals. So, long as we can describe the accurately, it has a use in understand more about determinants.

Is there anything missing from a commercial perspective? Participation might provide some validity/ credibility. An alternative might be feedback based on the data provider. This model is already being used for consumers. However, some tech companies do not interact directly with consumers and so has limited value for them (e.g. those providing software to nutritionists, dietitians, etc.). Ultimately, the commercial sector would appreciate access to sources of data, such as Brandbank, because it would increase the value of their product. One of the benefit would be a cleaned up, up-to-date commercial data for products.

Realistically, a product costs 37 GBP per product to be listed. However, it should be remembered that much of the market are SMEs or micro- businesses (95-98%) that comply with what they must, even assuming they know they should be complying. There will always be problems with the content although again some data are better than none.

Allergen, additives, etc. are examples of drivers for eating behaviours.

How should we communicate value to consumer to encourage them to share? Arguably, purchase is the key mechanism of interest and determinant of consumption. RICHFIELDS could potentially provide the evidence to re-engineer society. It is a strange paradigm that we have all these data and yet now we need to ask the consumer if we can do research with it. We need to obtain consent to use it, but is it the responsibility of RICHFIELDS. There will need to be some form of engagement with consumers. However, anonymised data could be used, in which case why not use it. Most people are indifferent/ careless with ownership rights. Consumer organisation are perhaps the starting point for facilitation. Given this requirement is around the ethical framework, does this need to change rather than re-seeking consent that has been given for repurposing. Most researchers are not interested in being able to identify individuals and require only demographic information to frame data.

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This is a long-term process. If companies provide data and nothing happens then they will cease to share. However, if it can be demonstrated that there is a point and purpose, it will gather momentum.

Governance models – model B offers a chance of success whilst the others are too complex with too many vested interests. In the end, an entity is only a success if it is driven from within.
Three requirements: transparency, activity, vision, visibility

Summary:

Motivation

- Researchers: Incentive for engagement related to measure of merit; saves time and effort with standards, SOPS, etc.; value of raw data versus aggregated; documentation for values;
- Willingness to share data is a more normal within ICT
  - Might be interesting to explore how this came about and whether it can be replicated more widely
- Commercially: Interest is in the data per se not the implications arising from participation; some data are less valuable commercially whereas behaviours and choices offer a commercial advantage in delivery and uptake.
- Need to engage those who have the power to influence release of data

Value …

- One route to understand this might be to start with the goal, e.g. healthy behaviours
- Sources of data would need to be treated differently, e.g. shopping receipts might be more readily shared than more personal health related data
- Approach of federated sources already being used and provides a good model (i.e. not holding the data with RICHFIELDS)
  - Does create some issues with messy/ different sources
- Why do we want industry data? Is it because we need to map the commercial food environment? If so, do we need to do all retailers in every country or might there be adequate data if the market leader was included with some niche examples?
  - Different products and different attitudes across countries; one large retailer might represent only a percentage of the uptake country-wide; even having the branded products does not get around the variation that is represented in the market.
- Crucial data comes down to the most important questions … It is difficult to escape this loop.
  - Shop at a household level but eat at an individual level; over a third of what is purchased ends up in the bin; eating out of home; lot of data around the purchase but much less available for consumption; apps are a very discrete group of people with discrete behaviours and goals, but so long as we can describe the data accurately, it has a use in understand more about determinants …

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Commercial perspective

- Participation might provide some validity/ credibility
- An alternative might be feedback based on the data provider, but some tech companies do not interact directly with consumers and so has limited value
- Commercial sector would appreciate access to sources of data

Consumers

- Arguably, purchase is the key mechanism of interest and determinant of consumption
- RICHFIELDS could potentially provide the evidence to re-engineer society
- Strange paradigm that we have all these data and yet now we need to ask the consumer if we can do research with it ...
  - Perhaps the ethical framework needs to change: Most researchers are not interested in being able to identify individuals only demographic information to frame data
- Long-term process ... If companies provide data and nothing happens then they will cease to share. However, if it can be demonstrated that there is a point and purpose, it will gather momentum

Governance

- B but only if it is driven from within …
- Requirements: transparency, activity, vision, visibility

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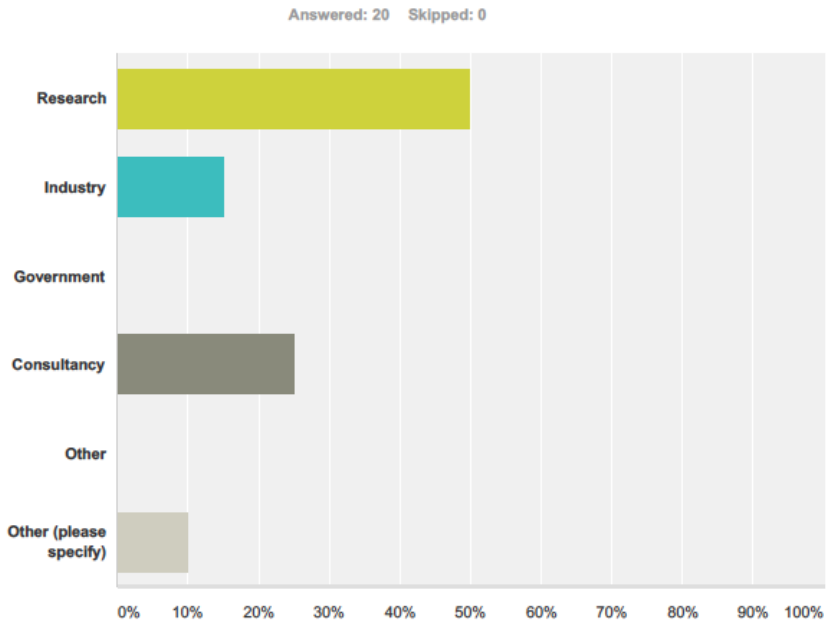
Annex 4: Feedback from participants

Feedback was obtained from 20 participants and is summarised below.

1. Please indicate the sector of your organisation



Answer Choices	Responses	
Research	50.00%	10
Industry	15.00%	3
Government	0.00%	0
Consultancy	25.00%	5
Other	0.00%	0
Other (please specify)	10.00%	2
Total		20

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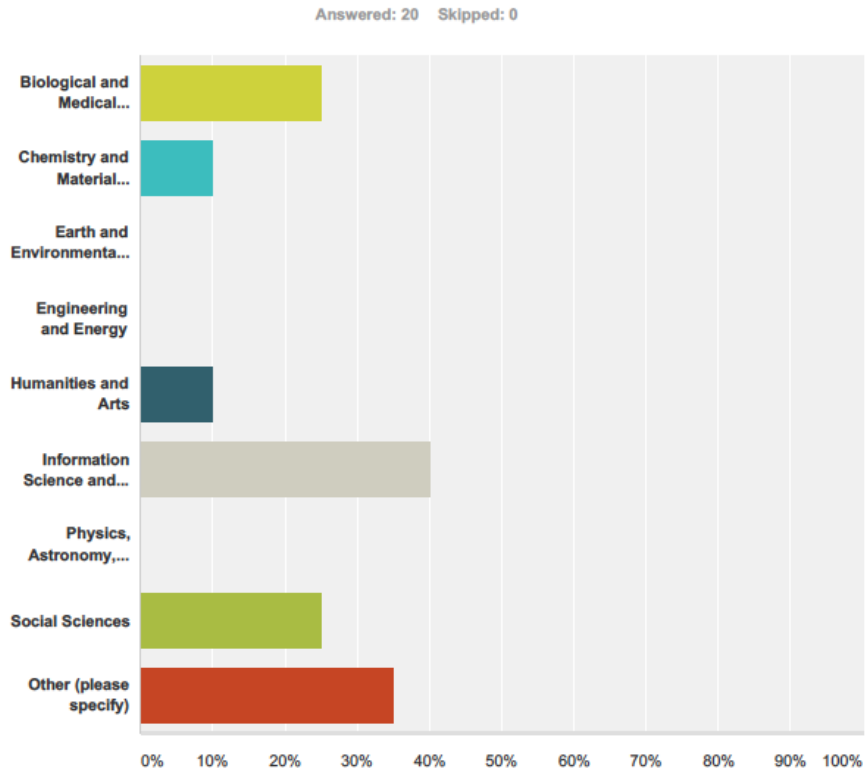
2. In which disciplines are you an expert?



Answer Choices	Responses	
Biological and Medical Sciences	25.00%	5
Chemistry and Material Sciences	10.00%	2
Earth and Environmental Sciences	0.00%	0
Engineering and Energy	0.00%	0
Humanities and Arts	10.00%	2
Information Science and Technology	40.00%	8
Physics, Astronomy, Astrophysics and Mathematics	0.00%	0
Social Sciences	25.00%	5
Other (please specify)	35.00%	7
Total Respondents: 20		

3. **Please provide your full name** – not applicable

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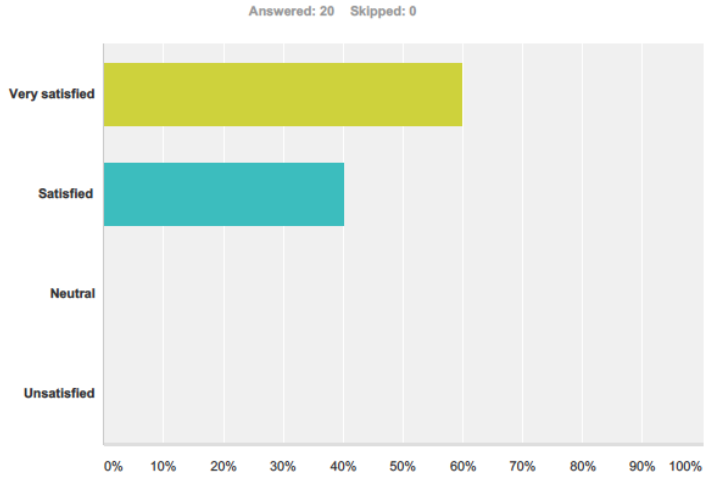
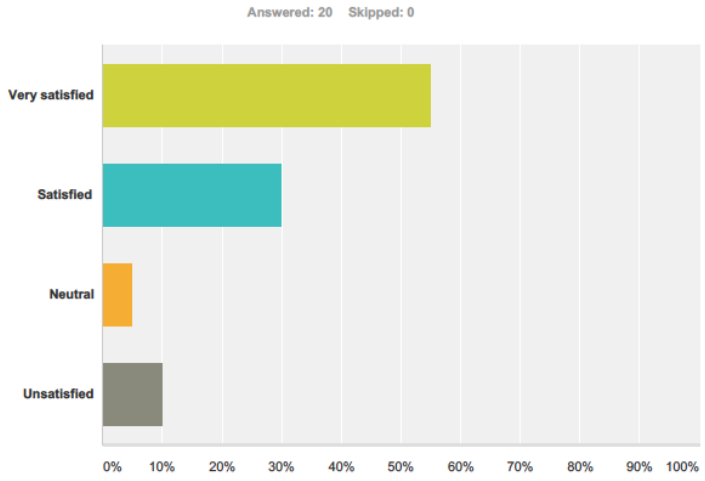
4. How would you rate your level of satisfaction with the date of the event?



Answer Choices	Responses	
Very satisfied	60.00%	12
Satisfied	40.00%	8
Neutral	0.00%	0
Unsatisfied	0.00%	0
Total		20

5. How would you rate your level of satisfaction with the venue?



Answer Choices	Responses	
Very satisfied	55.00%	11
Satisfied	30.00%	6
Neutral	5.00%	1
Unsatisfied	10.00%	2
Total		20

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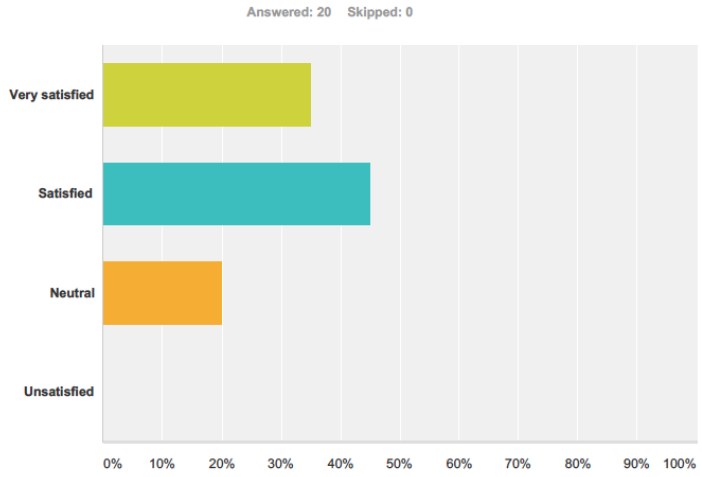
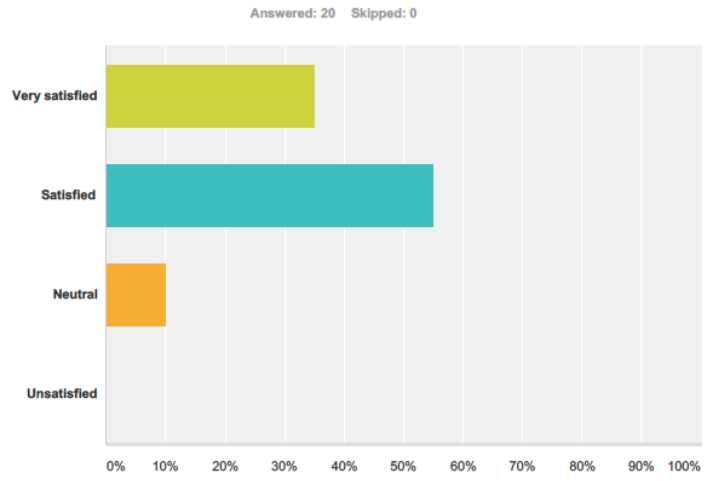
6. How would you rate your level of satisfaction with the meeting room?



Answer Choices	Responses	
Very satisfied	35.00%	7
Satisfied	45.00%	9
Neutral	20.00%	4
Unsatisfied	0.00%	0
Total		20

7. How would you rate your level of satisfaction with the lunch?



Answer Choices	Responses	
Very satisfied	35.00%	7
Satisfied	55.00%	11
Neutral	10.00%	2
Unsatisfied	0.00%	0
Total		20

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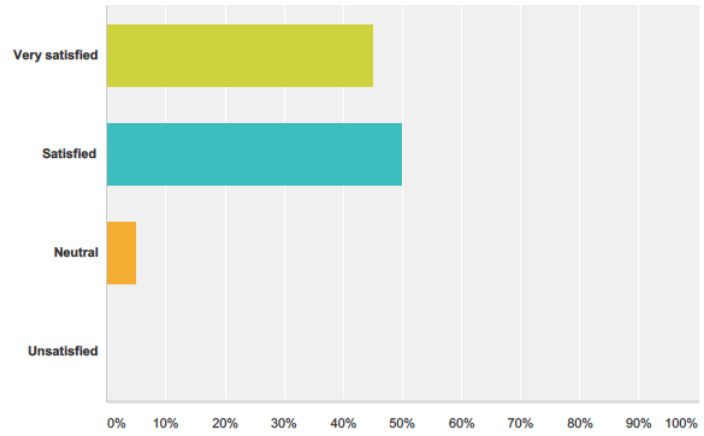
8. How would you rate your level of satisfaction with the duration of the workshop?

Answered: 20 Skipped: 0



Answer Choices	Responses	
Very satisfied	45.00%	9
Satisfied	50.00%	10
Neutral	5.00%	1
Unsatisfied	0.00%	0
Total		20

9. Comments

Answered: 7 Skipped: 13

#	Responses	Date
1	It was well organised and prepared. The tricky thing is that most data is needed from external resources and the goal of data usage is not completely defined yet.	4/13/2017 8:40 AM
2	I think the individual workshops could have been longer, and some of the speaker slots could have benefited from being streamlined / stricter on timing overall	4/7/2017 4:44 AM
3	Duration OK, would have been more practical for a one day visit if starttime would have been a little later. Say from 10:00-17:00 instead of 09:00-16:00	4/7/2017 2:39 AM
4	1) De accommodatie van de zaal was beneden peil 2) In de namiddag was get te warm in de zaal niettegenstaande de airconditioning 3) De ontvangst in het hotel was beneden alles: alleen Engels en Frans was de voertaal. Kennis Nederlands : geen enkel woord	4/6/2017 9:56 AM
5	Well organised	4/6/2017 5:18 AM
6	Questions 8 and 9 are the same	4/6/2017 1:38 AM
7	I believe more time for the discussion would have been useful. e.g. 2h instead of 1h30	4/5/2017 12:37 AM

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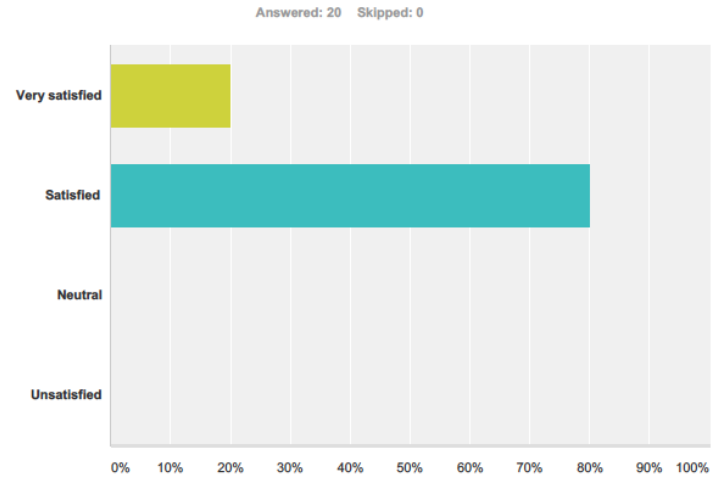
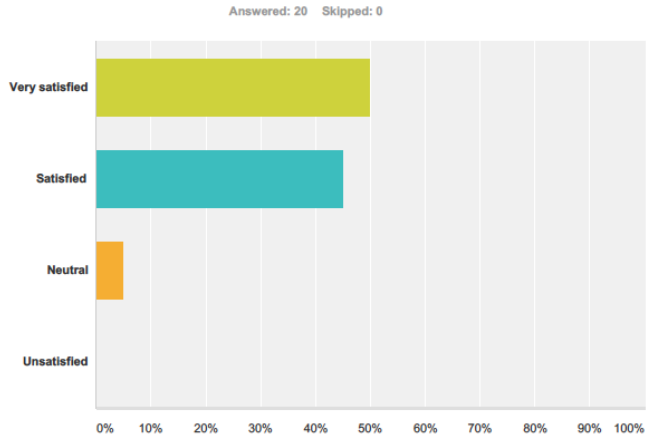
10. How would you rate your level of satisfaction with the applicability of topics?



Answer Choices	Responses	
Very satisfied	20.00%	4
Satisfied	80.00%	16
Neutral	0.00%	0
Unsatisfied	0.00%	0
Total		20

11. How would you rate your level of satisfaction with lecturers?



Answer Choices	Responses	
Very satisfied	50.00%	10
Satisfied	45.00%	9
Neutral	5.00%	1
Unsatisfied	0.00%	0
Total		20

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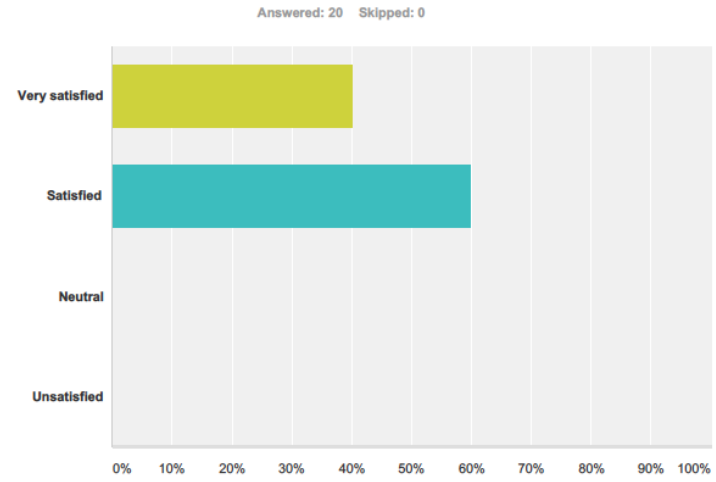
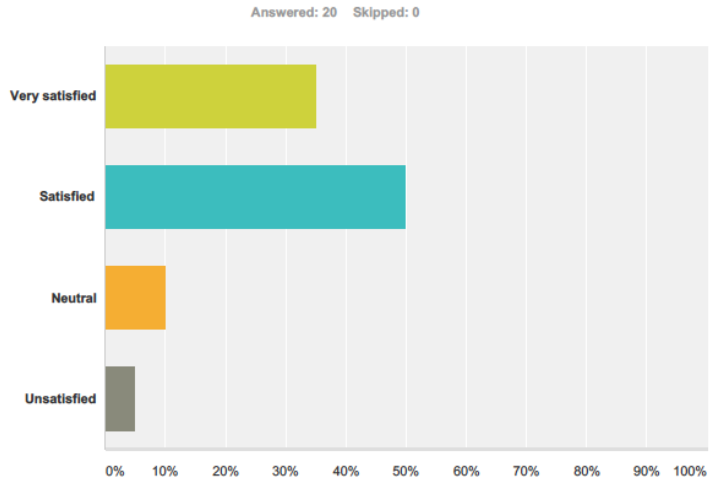
12. How would you rate your interest in the topics?



Answer Choices	Responses	
Very satisfied	40.00%	8
Satisfied	60.00%	12
Neutral	0.00%	0
Unsatisfied	0.00%	0
Total		20

13. How would you rate the depth of coverage?



Answer Choices	Responses	
Very satisfied	35.00%	7
Satisfied	50.00%	10
Neutral	10.00%	2
Unsatisfied	5.00%	1
Total		20

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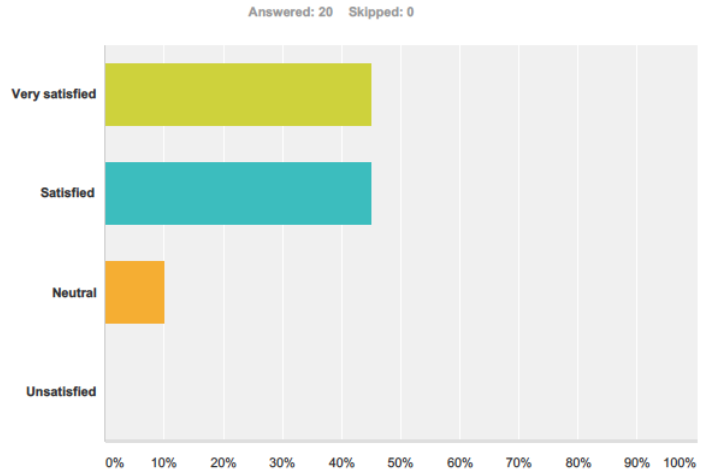
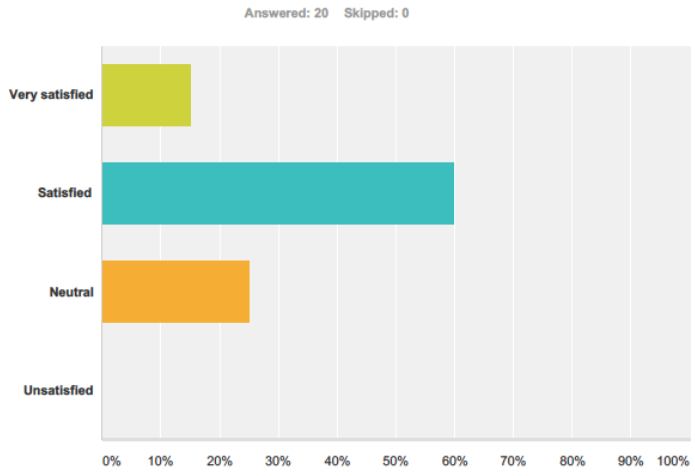
14. How would you rate the meeting generally?



Answer Choices	Responses	
Very satisfied	45.00%	9
Satisfied	45.00%	9
Neutral	10.00%	2
Unsatisfied	0.00%	0
Total		20

15. How would you rate Part 2: developing the core offerings?



Answer Choices	Responses	
Very satisfied	15.00%	3
Satisfied	60.00%	12
Neutral	25.00%	5
Unsatisfied	0.00%	0
Total		20

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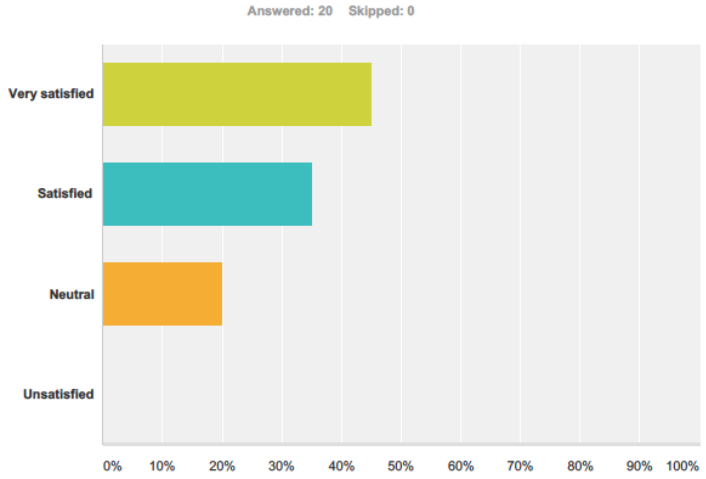
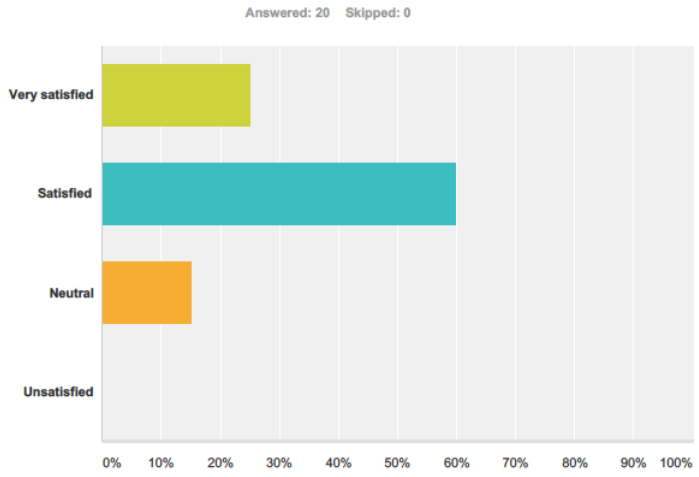
16. How would you rate Part 3: Breakout session?



Answer Choices	Responses	
Very satisfied	45.00%	9
Satisfied	35.00%	7
Neutral	20.00%	4
Unsatisfied	0.00%	0
Total		20

17. How would you rate Part 4: Summary?



Answer Choices	Responses	
Very satisfied	25.00%	5
Satisfied	60.00%	12
Neutral	15.00%	3
Unsatisfied	0.00%	0
Total		20

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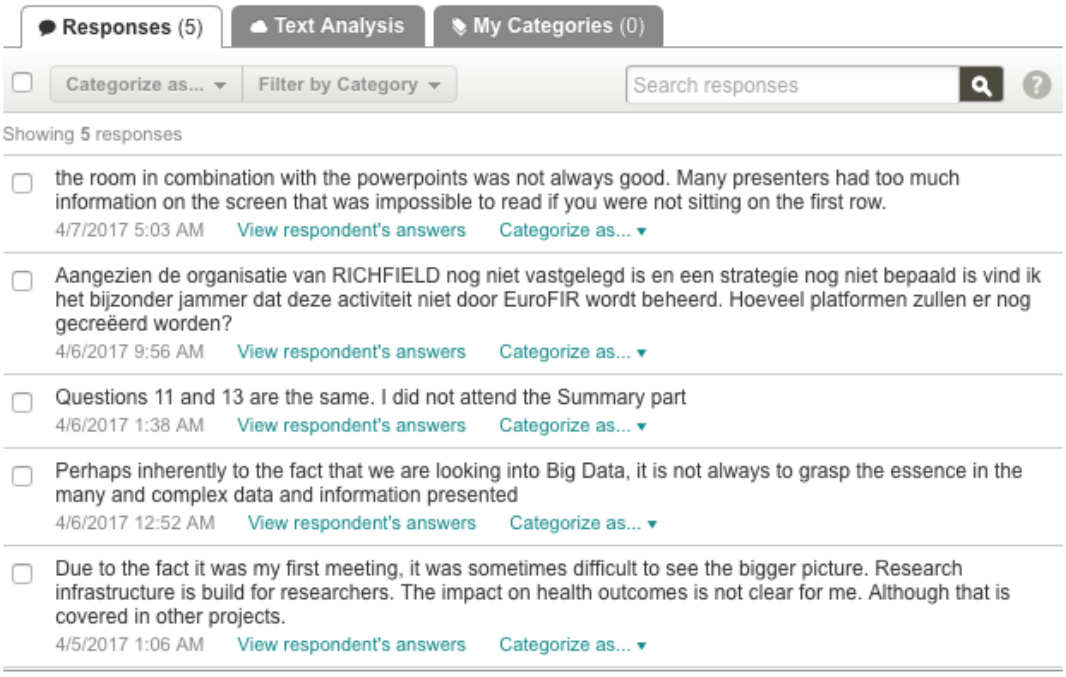
18. Comments

Answered: 5 Skipped: 15



19. How did you find out about this workshop?

Answered: 20 Skipped: 0

#	Responses	Date
1	I was invited to attend by email	4/20/2017 4:01 AM
2	FRESHFIELDS PARTNER	4/16/2017 5:53 PM
3	Over EuroFIR	4/13/2017 8:40 AM
4	invite	4/11/2017 1:28 AM
5	Invited	4/9/2017 11:44 PM
6	I don't remember. EuroFIR board, EuroFIR mailings?	4/7/2017 5:03 AM
7	Pual Finglas had mentioned it around 2 months ago	4/7/2017 4:44 AM
8	Eurofir announcement	4/7/2017 2:39 AM
9	I took part in preparing the workshop.	4/7/2017 1:12 AM
10	through RICHFIELDS	4/6/2017 12:05 PM
11	Through a colleague	4/6/2017 10:14 AM
12	Vorig jaar door Paul Finglas die me uitnodigde om te participeren	4/6/2017 9:56 AM
13	I F R Norwich	4/6/2017 5:18 AM
14	Suggestion by a colleague	4/6/2017 1:38 AM
15	Via Paul Finglas	4/6/2017 12:52 AM
16	RICHFIELDS MEMBER	4/5/2017 1:43 AM
17	Via EFAD, we were asked to join.	4/5/2017 1:06 AM
18	I am member of EUROFIR, and received an invitation	4/5/2017 12:37 AM
19	Member of the PAB of RICHFIELDS	4/5/2017 12:08 AM
20	From EuroFir	4/4/2017 9:48 PM

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20. How could we have improved this meeting?

Answered: 20 Skipped: 0

#	Responses	Date
1	It was quite an intense day	4/20/2017 4:01 AM
2	Although it was only one day meeting and it was not really possible, extending time for breaks could have been a possibility of improving the meeting. Knowledge acquired in an informal way is truly important.	4/16/2017 5:53 PM
3	Discussions are always led by people who can talk very well. Some written part would also give more quite people the chance for good input.	4/13/2017 8:40 AM
4	no improvements	4/11/2017 1:28 AM
5	-	4/9/2017 11:44 PM
6	see 20. Part 3 was more difficult to contribute to for me, being an observer and not partner in the project. I missed the link to the previous meeting last year; what is the progress on the food linking activities?	4/7/2017 5:03 AM
7	More time for individual break out sessions	4/7/2017 4:44 AM
8	Perhaps by adding a topic of discussing what the next concrete steps of creating the RI would be, and how stakeholders could be involved.	4/7/2017 2:39 AM
9	I will think about that.	4/7/2017 1:12 AM
10	more stakeholders from different sectors	4/6/2017 12:05 PM
11	It was a well organised exploratory meeting, if I must make a comment it was slightly annoying that a lot of acronyms were used and it was difficult to see where the reference to these were described. Also it would be nice to know when we can expect to be engaged with again.	4/6/2017 10:14 AM
12	De organisatiestructuur van RICHFIELD is nog onbestaande? De Marketing strategie en de operationele objectieven zijn niet besproken	4/6/2017 9:56 AM
13	Better layout to enable all the delegates to see the whole of the slides.	4/6/2017 5:18 AM
14	no comment	4/6/2017 1:38 AM
15	Perhaps by formulating for every part/workpackage/presenation a(n even more) structured wording of 'this is what we seek to achieve, here we were last year, since then we achieved this, and next we seek to achieve that.	4/6/2017 12:52 AM
16	N/A	4/5/2017 1:43 AM
17	n.a.	4/5/2017 1:06 AM
18	more time for discussion	4/5/2017 12:37 AM
19	More participants from the industry	4/5/2017 12:08 AM
20	To think about things that we discussed yesterday and improve your plan!	4/4/2017 9:48 PM

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21. What was the most interesting about this meeting?

Answered: 20 Skipped: 0

#	Responses	Date
1	Meeting others involved and learning about the project	4/20/2017 4:0
2	Opinions of stakeholders already in the business.	4/16/2017 5:5
3	Availability of personal data and meeting people	4/13/2017 8:4
4	getting different stakeholders to give input	4/11/2017 1:2
5	Progression of the work	4/9/2017 11:4
6	The first part with the overview of workpackages and progress	4/7/2017 5:03
7	The big picture and bringing various partners / experts together. It is a huge undertaking that would be amazing to accomplish and be a part of	4/7/2017 4:44
8	hearing about the current state of afairs	4/7/2017 2:39
9	The reactions we got during the break out sessions.	4/7/2017 1:12
10	meeting stakeholders	4/6/2017 12:0
11	The potential	4/6/2017 10:1
12	breakout sessie	4/6/2017 9:56
13	Break out	4/6/2017 5:18
14	the range of topics	4/6/2017 1:38
15	I think the new challenge of handling on the one hand the phantasmic opportunity with the huge amounts of data that could potentially be used, and on the other hand the very varied quality and reliability of these data..	4/6/2017 12:5
16	OBTAINING STAKEHOLDER FEEDBACK	4/5/2017 1:43
17	Meeting others and networking	4/5/2017 1:06
18	overview of the different WP	4/5/2017 12:3
19	Reactions from stakeholders	4/5/2017 12:0
20	I had never heard about it, so the topic was new for me.	4/4/2017 9:48

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22. What was worst about this meeting?

Answered: 20 Skipped: 0

#	Responses	Date
1	There was a bit too much sitting still - would have been good to break out more often, but difficult to do this and cover all the material needed	4/20/2017 4:01 AM
2	I could not tell.	4/16/2017 5:53 PM
3	There was nothing bad in the meeting, only that my suitcase did not arrive in time :-)	4/13/2017 8:40 AM
4	very abstract still	4/11/2017 1:28 AM
5	nothing	4/9/2017 11:44 PM
6	Nothing was the worst. Some parts were a little more interesting to me than other parts.	4/7/2017 5:03 AM
7	I struggled through some of the later sessions, 15 min slots a good idea but I think stricter timings on this and a constant focused message on how the speakers topic fits in to Richfields would have been beneficial - at times I was lost! There is so much overlap and repetition of the same work across different industries, but this is to be expected given the diversity of the attendees and scope of the undertaking.	4/7/2017 4:44 AM
8	dull conference room, set up in rows does not help in getting interaction / discussion	4/7/2017 2:39 AM
9	I had expected more questions from our guests after each presentation in the plenary part of the meeting.	4/7/2017 1:12 AM
10	/	4/6/2017 12:05 PM
11	Acronym use	4/6/2017 10:14 AM
12	Er waren geen mededelingen en opinies tijdens de breakout sessies die ondermaats waren	4/6/2017 9:56 AM
13	Nothing	4/6/2017 5:18 AM
14	no comment	4/6/2017 1:38 AM
15	Well, because the topic of Richfields can be so broad, it is challenging, at least for me, to all the time see: 'what are we trying to do here?' I ask myself that question regularly (not only in Richfields, actually :-)).	4/6/2017 12:52 AM
16	Nothing	4/5/2017 1:43 AM
17	n.a.	4/5/2017 1:06 AM
18	the venue, it may sound ludicrous, but the WIFI connection at the hotel was extremely bad. for an hotel that is hosting business meeting, this is unacceptable	4/5/2017 12:37 AM
19	N/A	4/5/2017 12:08 AM
20	-	4/4/2017 9:48 PM

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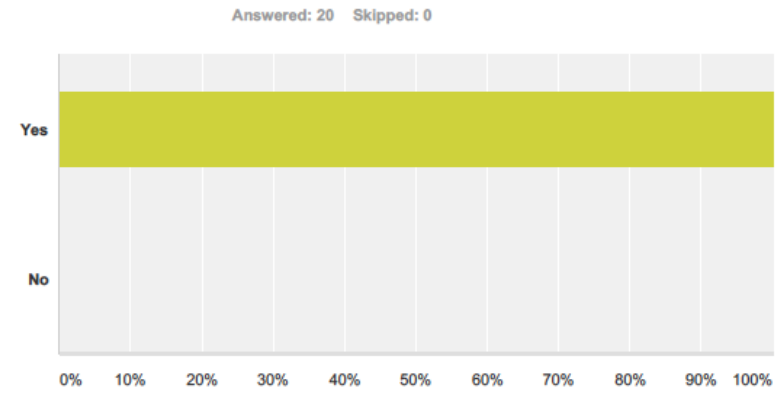
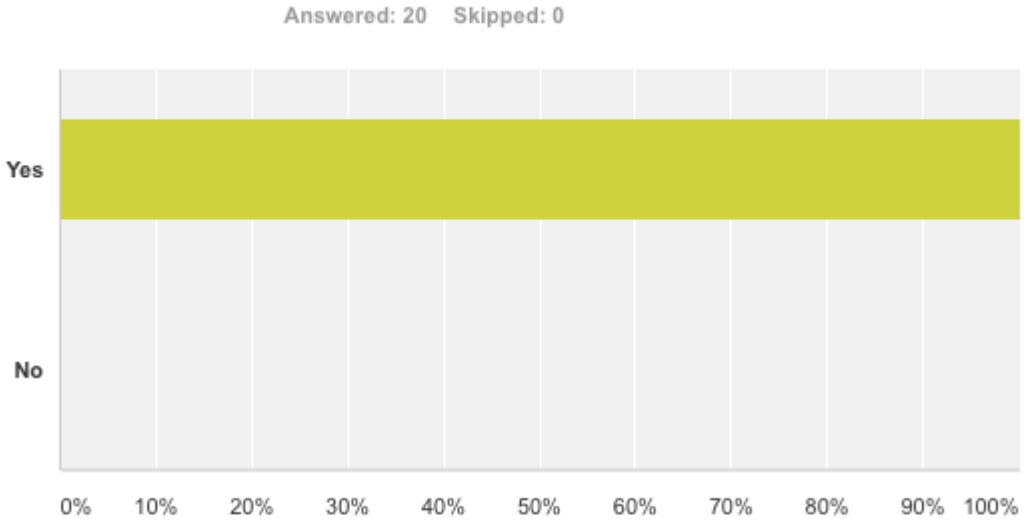
23. Do you wish to continue to receive news and updates about RICHFIELDS?



Answer Choices	Responses	
Yes	**100.00%**	20
No	**0.00%**	0
Total		**20**

24. Would you be interested in attending future RICHFIELDS stakeholder workshops?



Answer Choices	Responses	
Yes	**100.00%**	20
No	**0.00%**	0
Total		20

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