DRG4 FOOD FOODITY

Standardisation Workshop
Key Results

December, 2024

Introduction

Welcome to the DRG4FOOD & FOODITY Standardisation Workshop Booklet,

a comprehensive source of information about this significant milestone in our projects' journeys. The EU-funded DRG4FOOD and FOODITY projects are dedicated to enhancing digital responsibility and innovation in food systems, with a strong emphasis on standardisation to achieve their objectives in line with European policies on data and sustainability.

The DRG4FOOD & FOODITY Standardisation Workshop, held on 5 December 2024, served as a vital platform to bring together stakeholders, experts, and consortium partners. The workshop facilitated engaging discussions on challenges and opportunities in applying existing standards within the food and data sectors, particularly focusing on safety, security, privacy, and digital responsibility.

This workshop aimed to foster understanding, exchange knowledge, and explore collaborative strategies for the development and refinement of standardisation norms that can support innovation while ensuring ethical and responsible practices.

In this booklet, we delve into the intricate details of the workshop, its key takeaways, contributions from speakers, and how it reinforces DRG4FOOD and FOODITY's commitment to creating a sustainable and responsible digital framework for food systems. Whether you are a participant reflecting on the workshop's insights or an interested party seeking to understand the outcomes and conversations, this booklet provides a thorough guide to the event.

We are delighted to share the discussions, ideas, and initiatives that emerged from this gathering. Join us as we explore the critical role of standardisation in shaping the future of food systems.

Agenda

DRG4FOOD & FOODITY	Welcome and Introduction	09:30 – 09:45
Project presenters & topics		
DRG4FOOD & FOODITY	Overview of the projects and purpose of the workshop	09:45 – 10:00
FEAST	Food systems that support transitions to healthy and sustainable diets	10:00 – 10:15
NutriWell	Smart Personalised Meal Planning and Community Engagement	10:15 – 10:30
Coffee Break		**10:30 – 10:45**
FOLOU	A flexible and easy-to-use system for blockchain-based certification and traceability	10:45 – 11:00
Kitchen Spotify	The Data behind dinner: Lessons from Kitchen Adventure	11:00 – 11:15
DIAITA	Unlocking Opportunities for Standardization in AI-Driven Personalized Nutrition	11:15 – 11:30
ATTESTED & 3FAIR	Standards and Ontologies for the Agri-Food Sector - An Open-Source Developer's Perspective	11:30 – 11:45
Lunch Break		**11:45 – 12:30**
Standardisation Bodies presenter & topic		
EuroFIR	Food composition data: Standardisation and harmonisation for re-use	12:30 – 12:45
Roundtable Discussion Q&A		**12:45 – 14:00**

Speakers

Meet The Speakers

Dr. Anant Jani
FEAST (EU PROJECT)

Anant Jani is a Research Fellow at the Heidelberg Institute for Global Health in Germany and the University of Oxford, United Kingdom. He focuses on understanding how we can improve population health by addressing social determinants of health.

He is currently working on two large Horizon Europe projects exploring how we can redesign our food systems so that all Europeans can eat healthier and more sustainable diets (**feast2030.eu**) and how we can use novel financing mechanisms to fund interventions that promote health and prevent disease (**Invest4Health**).

Vladislav Dimitrov Jivkov
NutriWell (DRG4FOOD Open Call Pilot Project)

Highly experienced professional in the fields of Innovation Management, Inbound and Outbound Transnational Technology Transfer (TTT), Strategic Business Development and Management of complex Projects. Special focus and expertise in the end-to-end process management from the definition, structuring, and detailed functionality definition to the final implementation and support of sophisticated and complex WEB projects, delivering services with measurable value. Areas of professional interest: IT, WEB, eHealth, mHealth, Remote monitoring, Smart homes, Automation and Control Systems.

Giacomo Zonneveld
FOLOU (EU PROJECT)

Giacomo Zonneveld is currently a PhD student at Università Politecnica delle Marche. He earned a bachelor in 2020 and master's degree in 2023 in Information and Automation Engineering at Università Politecnica delle Marche.

From December 2023 to October 2024 he was a research fellow at Università Politecnica delle Marche within the "WeBEST" (Wine EVOO Blockchain Et Smart ContracT) project. Currently, his main research interests include network security and security of blockchain systems.

Meet The Speakers

Géza Soós
The Kitchen Adventure (FOODITY Open Call Pilot Project)

Géza Soós is an economist and a technical manager with experience in business management, forecasting analysis, and IT delivery. Over the past decade, he's had the opportunity to lead international projects, optimize business intelligence systems, and develop strategies for resource and talent management in multinational environments.

Currently, he's working with Climate Smart Elephant as a project coordinator, and IT consultant, and has been working on various projects for almost 20 years now. He also serves as a Senior Technical Manager at HCLTech, where he focuses on IT delivery and training coordination.

Javier Ginebreda
DIAITA (FOODITY Open Call Pilot Project)

Javier Ginebreda is a strategic leader with an Executive MBA from IESE and a background in Industrial Engineering. With over a decade of experience across industries like retail, energy, and technology, he has collaborated with global clients such as, Dufry, Puig and the UN. Currently at Bestiario, he drives digital transformation and innovation, blending strategy, technology, and creativity to deliver impactful solutions.

Jann Eike Kruse
ATTESTED & 3FAIR (DRG4FOOD & FOODITY Open Call Pilot Projects)

With a master's in applied semiconductor physics and PhD in ultra-short laser metrology, he soon followed his passion for open knowledge and open-source software and hardware and founded the CommonsLab Makerspace.

It was initially conceived as open space for DIY and DYWO technology learning and knowledge sharing, but CommonsLab later became involved in various innovation actions producing open-source hardware and software prototypes. Today, he leads the research and development activities at CommonsLab with special focus on smart IoT device development and embedded systems programming.

Meet The Speakers

Dr Siân Astley
EuroFIR
(Standardisation Body)

Dr 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. She 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.

Project Coordinators

Kai Hermsen
DRG4FOOD
Project Coordinator

Samuel Almeida
FOODITY
Project Coordinator

Highlights

Welcome and Introductions

Privanova, lead organiser opened the workshop by welcoming participants and introducing the event focused on the role of standardisation in creating safer, more sustainable, and innovative food systems. **Milica Klavžar,** EU Project Manager from Privanova emphasized the aim to explore challenges and opportunities in applying these standards and to identify pathways for improvement.

The workshop brought together representatives from four EU projects—DRG4FOOD, FOODITY, FOLOU, and FEAST—as well as five pilot projects from open calls. Milica highlighted the presence of EuroFIR, a leading standardisation body, who will give their perspective on the challenges faced, and introduced the agenda, which included presentations from project coordinators and distinguished speakers.

Milica Klavžar
Privanova
Project Manager

EU Projects

DRG4FOOD & FOODITY

Kai Hermsen, the coordinator of the DRG4FOOD project, highlighted the project's focus on improving the quality of life through an open, trustworthy, and adaptive data approach along the food lifecycle. The project aims to enhance the sharing and protected use of consumer food data while safeguarding user rights. Key activities include developing a roadmap to digital responsibility, launching open calls for pilot projects, and forming a responsible tech and food community. The project emphasizes collaboration and standardisation in the food data space.

Samuel Almeida from F6S presented the FOODITY project, which runs alongside DRG4FOOD. The project's main goal is to return control of food and nutrition data to citizens. FOODITY focuses on developing tools that respect data sovereignty and engages in citizen awareness activities. The project supports 12 pilot initiatives and emphasizes the importance of interoperability and data privacy. Samuel also discussed the challenges of balancing innovation with compliance and the need for standardisation to ensure consistent and reliable data.

FEAST

Anant Jani presented the FEAST project, which involves 35 partners across 15 European countries and is focused on food systems that support transitions to healthy and sustainable diets. The project aims to deliver value by improving outcomes for people, the planet, the public sector, and the private sector. Jani emphasized the importance of making it easy for all people in Europe to access delicious, healthier, and more sustainable food. He highlighted the need for food systems to increase food security, improve health, enhance soil health, reduce greenhouse gas emissions, and ensure fair revenue distribution among farmers and small businesses. Jani also pointed out the current shortcomings of food systems, such as contributing to non-communicable diseases and environmental degradation and stressed the importance of defining outcomes to set appropriate standards for food systems.

DRG4FOOD & FOODITY Open Call Pilot Projects

NutriWell

Vladislav Jivkov presented the NutriWell project, developed under the DRG4FOOD initiative. NutriWell is an application focused on personalised nutrition, featuring a personal data wallet for users to define their nutrition profiles. The app generates personalised nutrition plans with deep personalisation and gamification elements. It includes an AI Cuisine Houket for switching nutrition plans between different cuisines and a Social Cooking Organiser for users to cook and socialize together. The app emphasizes transparency and educational aspects, allowing users to understand the calculations behind their nutrition plans. NutriWell aims to provide precise meal plans tailored to individual needs, with potential applications in B2C markets, dietetics, clinical trials, and specific medical conditions. The project is currently seeking investors to further develop and market the application.

The Kitchen Adventure

Géza Soós presented the KitchenSpotify project, which aims to influence healthier eating habits by transforming cooking into an engaging and educational experience. The app, The Kitchen Adventure, reframes cooking as a fun activity, similar to how Duolingo gamifies language learning. It recommends meals based on user preferences and encourages healthier choices through gamification features like eco and health scores. The app uses data to nudge users towards meals with less meat and more vegetables, without being strictly vegetarian. Géza highlighted challenges in app development, particularly regarding GDPR compliance and the complexity of calculating eco scores for food sustainability. The project leverages existing open data sources, such as Open Food Facts, to develop a scoring system that encourages sustainable and healthy food choices.

DIAITA

avier Ginebreda presented the DIAITA project, an AI-driven personalised nutrition assistant focused on improving the quality of life for cancer patients. The project addresses the issues of malnutrition, the scarcity of healthcare professionals, and the lack of reliable resources for patients and caregivers. DIAITA is curated by experts and trained to understand the specific needs of cancer patients, offering personalised nutrition advice. Javier emphasized the importance of standardisation for ensuring consistent and reliable data, facilitating integration with other health systems, and enabling global scalability. He highlighted challenges such as variability in food data, balancing innovation with compliance, and collaborating with third parties. The project's approach includes ensuring interoperability, global compatibility, and fostering collaborative environments. Javier outlined eight steps for achieving standardisation, including defining data sets, creating infrastructure, engaging stakeholders, and ensuring data privacy.
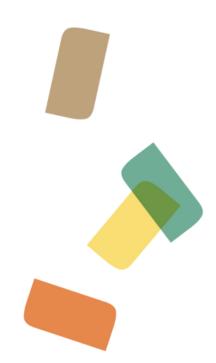
ATTESTED & 3FAIR

Jann Kruse from CommonsLab presented the ATTESTED and 3FAIR projects. The ATTESTED project focuses on developing a user-friendly tool for traceability in food production, emphasizing ease of data entry in factories. It involves a pilot project with stakeholders to gather feedback and improve the system. The project uses an open-source approach for both hardware and software, ensuring transparency and adherence to digital responsibility goals. The 3FAIR project aims to gather consumer feedback on food products through a QR code system, allowing consumers to provide input on products they purchase. This project also emphasizes data ownership and privacy, using the Data U infrastructure to ensure consumers control their data. Both projects aim to enhance transparency and trust in the agri-food sector.

Standardisation Body

EuroFIR

Dr. Sian Astley from EuroFIR discussed the challenges of standardisation in food composition data. She highlighted the importance of food composition databases, which are used by dietitians, researchers, policymakers, and the food industry for various purposes, including public health and product reformulation. Despite the existence of some standards, there is limited standardisation due to varying food consumption patterns, agricultural practices, and preparation methods across countries. She emphasized the need for standardised vocabularies and thesauri to enhance data accuracy and interoperability. Dr. Astley also noted ongoing challenges such as documentation, sampling, and data quality, and stressed the importance of automation and robust testing in improving data processes. She concluded that while there are efforts towards standardisation, significant challenges remain, particularly in harmonising data across different regions and sectors.

Takeaways

Positive Outcomes:

- Successful gathering of diverse participants from various EU projects and organisations, fostering collaboration and knowledge exchange.
- Insightful presentations from multiple projects, each offering unique perspectives on standardisation in food and data systems.
- Effective use of digital responsibility goals and frameworks, as demonstrated by projects like NutriWell.
- Engaging discussions on the challenges and opportunities in applying standards, with active participation from attendees.
- Valuable insights shared by EuroFIR on food composition data standardisation and harmonisation.
- Productive Q&A session, allowing for deeper exploration of topics and clarification of participant queries.
- Networking opportunities for participants to connect and discuss potential collaborations.

Identified Areas for Improvement in Standardisation for Food Systems:

- **Interoperability Challenges:** Difficulty in ensuring that different systems and data sets can work together seamlessly, particularly in the context of food and data ecosystems.
- **Data Quality and Consistency:** Need for improved measures to ensure the quality and consistency of data across various databases and platforms.
- **Lack of Comprehensive Standards:** Absence of universally accepted standards for data formats, vocabularies, and ontologies, leading to difficulties in data sharing and integration.
- **Dynamic Nature of Food Data:** Challenges in maintaining up-to-date and accurate food composition data due to frequent changes in food products and market dynamics.
- **Personalisation vs. Standardisation:** Balancing the need for personalised nutrition solutions with the requirement for standardised data to ensure scalability and interoperability.
- **Cross-Domain Integration:** Difficulty in linking agricultural data with consumer data and health outcomes, highlighting the need for cross-domain standardisation efforts.
- **Resource Limitations:** Limited funding and human resources for maintaining and updating food composition databases, leading to potential data gaps and outdated information.
- **Automation and AI Integration:** Need for further development and testing of automated systems and AI to aid in data standardisation and quality assessment.
- **Global Collaboration:** Necessity for international cooperation to develop and implement standards that can be applied globally, considering regional differences in food systems.

Thank you!