



Deliverable 9.3

Final report on Ethical issues

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Abbreviations and acronyms

AB	Advisory Board
AC	Associated Country
AGA	Annotated model Grant Agreement
COVID-19	Coronavirus Disease 19
CSA	Coordination and Support Action
D	Deliverable
DLA	Dynamic Learning Agenda
DMP	Data Management Protocol
DOI	Digital Object Identifier
EC	European Commission
EU	European Union
EU-TT	EU Think Tank
FAIR	Findability, Accessibility, Interoperability, Reusability
FIT4FOOD2030	Fostering Integration and Transformation for FOOD2030
FNS	Food and Nutrition Security
GA	Grant Agreement
GDPR	General Data Protection Regulation
M	Milestone
M	Month
MS	Member States
NDA	Non-disclosure Agreement
ORD	Open Research Data
QL	Qualitative
QT	Quantitative
R&I	Research and Innovation
RR&I	Responsible Research and Innovation
T	Task
VU	Vrije Universiteit Amsterdam
WP	Work Package

1. Introduction

FIT4FOOD2030 has been established to support the European Commission (EC) in further development and implementation of the FOOD 2030 policy framework and its action plan. This Coordination and Support Action (CSA) aims to establish a sustainable multi-stakeholder, multi-level platform, mobilizing a wide variety of stakeholders at the level of cities, regions, countries, and Europe; the FOOD 2030 Platform. As the key part of the project, the FOOD 2030 Platform consists of three separate interlinked structures, the City and Food Labs, Policy Labs and the EU Think Tank. These multi-level structures have communicated regularly and informed the European Commission in deciding on research priorities for a sustainable food system, considering the values, needs and expectations of society. The project, thus, supports the urgently needed transformation of research and innovation (R&I) on food and nutrition security (FNS) by providing a network and instruments for the adoption of a food system and Responsible Research and Innovation (RR&I) approach to R&I.

Over the course of the project several types of data have been generated. An extensive Data Management Protocol (DMP) has been developed in the first year of the project to ensure that adequate protection and exploitation of data and results in the various work packages (WPs) of the project receive high priority. Furthermore, as part of WP 10 on ethics D10.1 was written, describing the ethical requirements related to the participation of stakeholders in the project in more detail. It is important to note that FIT4FOOD2030 serves as a CSA project, not purely as a research project. Therefore, the data is not merely collected for the purpose of research, but it mainly serves as means of fulfilling the CSA goals of the project to establish a sustainable multi-stakeholder, multi-level platform, mobilizing a wide variety of stakeholders.

We are currently approaching the end of the project. In this deliverable, we reflect on the past three years and take stock of the actions we undertook to comply with the ethical and legal requirements as indicated in the two deliverables mentioned before. First, we will describe the few updates we have implemented to the Data Management Protocol in Chapter 2. Then, in chapter 3, we describe the results of the two surveys we conducted to assess to what extent consortium members complied with the ethical and legal procedures. We conclude with the lessons learned in chapter 4.

Methodology

This deliverable falls under the responsibility of the coordinating beneficiary. However, abiding by the rules is of course a collective effort of the entire consortium. Within the project's life time we monitored whether any issues occurred and we provided opportunities to discuss legal or ethical questions partners could have. In order to understand to what extent the procedures were followed and whether they were useful, we developed **two surveys**.

The first one was targeted at the work package (WP) leaders. FIT4FOOD2030 is structured into 9 WPs that interact with each other. At the operational level, these WPs ensure an effective and efficient implementation of the activities. Each WP has been divided into tasks with clearly defined activities and outputs. As these differ per WP the data collection objectives and methods are different as well across the WPs. The **WP leaders** are responsible for the correct management, storage and transfer of the data generated within their work package. Therefore, the general part of the first survey, which was accessible and completed by all WPs, focused on the level of fulfilment of the data protection procedures, that were in place to reduce risks and prevent data breaches. In addition, the survey consisted of a part with customized questions concerning activities and methodologies only certain WPs are involved in. This concerns the ethical questions whether the WP leaders encountered actual incidences in practice, like privacy problems or integrity problems in data handling.

We also developed an **additional survey** which was directed at the coordinators of the different Labs¹. Within the framework of FIT4FOOD2030 Labs, Communities of Practice, have been built that bring together a wide diversity of stakeholders to engage in our project's transformative learning processes, around the shared domain and interest of food systems transformation in their respective countries. The Lab coordinators organized different Lab meetings and they were responsible for the outputs developed by the Lab's participants over the course of the project. In turn, several WP leaders were responsible for supporting the Lab coordinators in setting up and guiding these communities of practice and in implementing the methodology, instruments and tools within their Labs. Hence, they were jointly in charge of the correct handling of data management and ethical standards linked to Lab-related activities.

Over the course of the project we closely monitored if the Labs were aware of the data management and ethical standards, required support in the implementation and whether they encountered issues. We created frequent opportunities to provide feedback and exchange ideas. This gave us insights in the work and wellbeing of the Labs. No substantial problems were reported. The survey for the Lab coordinators was an additional exercise, as the Labs were also covered in the WP survey, to confirm our insights and to provide an extra opportunity for Lab coordinators to express their views anonymously.

The scale that was used for most questions of both surveys was a Likert scale, with the five scale points 'not at all', 'to some extent', 'to a moderate extent', 'to a great extent' and 'to a very great extent'. In cases where only a positive or a negative confirmation applied, we used a yes/no scale.

In the development of these surveys Prof. dr. De Cock Buning, emeritus Professor of Applied Ethics in Life Sciences and an expert on value dependent drivers and barriers in science-society transitions, has been consulted several times. He is a member of FIT4FOOD2030's Advisory Board and has been appointed as ethics advisor of this project. He has provided relevant input, not only when formulating survey questions and distinguishing areas of attention, but in the writing process of this deliverable as well.

¹ The 25 Labs of FIT4FOOD2030 serve as real-world Laboratories for co-creation and experimentation. They build on the concept of '**Living Labs**', which emerged in recent years as instruments to tackle sustainability challenges through **multi-stakeholder experimentation** (Schäpke et al. 2018; McCrory et al. 2020).

2. Ethical and Legal Framework

Ethics is an integral part of all research activities funded by the European Union. During the grant preparation phase the FIT4FOOD2030 consortium completed the Ethics self-assessment and indicated that research within the project involves human participants (volunteers of which some children/minors). Moreover, research also involves personal data collection and/or processing. All the other issues mentioned in the Ethics Issues Table do not apply. Hence, within FIT4FOOD2030 the ethics advisor has provided support in putting in place procedures to adequately deal with potential incidents related to these ethical issues.

Data protection is an important component of research ethics. As an EU-funded project processing personal data FIT4FOOD2030 must demonstrate compliance with the General Data Protection Regulation (GDPR) and in general should comply with EU and national data protection laws. In addition, the consortium needs to adhere to ethical principles. This includes, for example, that the values, rights and interests of the research participants must be protected. Therefore, free and fully informed consent of participants should be obtained in advance². Within FIT4FOOD2030 two deliverables address the ethical and legal procedures: **D9.1 Data Management Protocol (DMP)** and **D10.1 Ethical and Legal Framework**. They form the cornerstone of this report. D9.1 is a project document that outlines what research data will be collected, how this will be done and what the project will do with these data during and after the beneficiaries' research. D10.1 focuses on the ethical requirements related to the participation of stakeholders in the research of the project in more detail.

These two deliverables were labelled 'living documents', since they were expected to be updated and adjusted along the lifecycle of the project whenever significant changes arise, either due to internal or external events. This could concern, for example, new data, changes in consortium policies and changes in consortium composition (e.g. new consortium members joining or old members leaving). Therefore, the Mid-Term report, covering the first half of the project (M1-M18), reflected on the DMP that was submitted in M6. In the following three paragraphs we will discuss three updates related to the second half of the project.

First, the composition of the FOOD 2030 platform changed as new Labs were added. As a consequence, the number of countries that are involved in FIT4FOOD2030 increased, which required a slight extension of the legal framework of the project. Second, over the course of the project new insights sometimes led to a change of plans. At times this resulted in activities being adjusted. This, in turn, affected the data that was collected and generated. Finally, the COVID-19 pandemic has hit us hard, forcing many of us to work from home. This introduced challenges for data management and protection.

General Data Protection Regulation (GDPR)

May 2018 the General Data Protection Regulation was enforced. The aim of the GDPR is "to protect natural persons with regard to the processing of personal data and on the free movement of such data"³. This single set of EU-wide rules is applicable to all countries within the European Economic Area (EU, and Norway, Liechtenstein and Iceland), and as such to all countries involved within the

² https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-self-assess_en.pdf

³ https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en

FIT4FOOD2030 project. However, Member States (MS) are allowed to maintain or introduce national specificities.

The consortium of FIT4FOOD2030 includes partners from different European countries, located in the Netherlands, Norway, Austria, Spain, Belgium, France and Italy. Furthermore, Policy Labs, City Labs and Food Labs of FIT4FOOD2030 reside in the following additional countries: Bulgaria, Estonia, Greece, Hungary, Lithuania, Romania. The four countries that have been included to the platform in the second half of the project are Ireland, Denmark, Portugal and the United Kingdom (table 1).

Table 1. Countries involved within FIT4FOOD2030

Country	Consortium/City Lab/Food Lab/Policy Lab
The Netherlands	Consortium and City Lab and Policy Lab
Norway	Consortium and Policy Lab
Austria	Consortium and Food Lab and Policy Lab
Spain	Consortium and City Lab and Policy Lab (Basque Country)
Belgium	Consortium and Policy Lab (Flanders)
France	Consortium
Italy	Consortium and City Lab and Food Lab and Policy Lab
Bulgaria	City Lab
Estonia	City Lab and Policy Lab
Greece	City Lab
Hungary	City Lab and Policy Lab
Lithuania	Food Lab and Policy Lab
Romania	Policy Lab
Ireland	Food Lab and Policy Lab
Denmark	Food Lab
Portugal	Food Lab
United Kingdom	Food Lab

The Data Management Protocol describes the national legislation for the first batch of involved countries. It was stipulated that consortium members and (Policy, City and Food) Lab Coordinators should ensure continuing compliance and would take into account revisions to the mentioned legislation and directives. Each partner is held responsible for fulfilment of all legal and ethical requirements in his/her country.

National legislation on the protection of personal data for the second batch of countries is provided below.

Ireland

Ireland treats personal data with the highest standards of security and confidentiality, strictly in accordance with the Data Protection Acts 1988-2018. The GDPR came into force on 25 May 2018 and it replaces the previous [data protection directive](#) which has been in force since 1995 and forms the basis of the new Data Protection Irish laws (Data Protection Acts 1988-2018). As an EU Regulation, the GDPR does not generally require transposition into Irish law, as EU Regulations have “direct effect”. In Ireland, new legislation was introduced known as the [Data Protection Act 2018](#) which was signed into law on 24 May 2018. Among its provisions, the Act:

- Establishes a new [Data Protection Commission](#) as the State’s data protection authority
- Gives further effect to the GDPR in areas where Member States have some flexibility (Part 3 of the Act), for example, the digital age of consent

This new Act, together with the previous data protection legislation will be collectively known as the “Data Protection Acts 1988-2018”. Detailed information on the Data Protection Act can be found on the website of the [Government’s Department of Enterprise, Trade and Employment](#).

Denmark

The Data Protection Act, [Act No. 502 of 23 May 2018](#), supplements and implements the EU GDPR. This Act and the GDPR shall apply to all processing of personal data carried out, in full or in part, by the means of automatic data processing, and to any other non-automatic processing of personal data that are or are intended to be contained in a filing system. More information on the Data Protection Act can be found on the website of [Datatilsynet](#).

Portugal

From 25 May 2018 the EU GDPR became applicable in Portugal. The Portuguese Data Protection Law, No. 58/2019 of 8 August, (only available in Portuguese [here](#)), which assures the execution in the Portuguese legal system of the GDPR, was published on 8 August 2019. Additional data protection obligations are included in certain sector-specific laws, such as:

- Law No. 12/2005 of 26 January (only available in Portuguese [here](#)), which contains specific provisions regarding data protection on genetic and health information; and
- Law No. 41/2004 of 18 August (only available in Portuguese [here](#)), which regulates the protection of personal data in the electronic communications sector and contains specific provisions for telecommunication service providers.

United Kingdom

From 25 May 2018 the EU GDPR became applicable in the United Kingdom. Although the UK has now left the EU, the GDPR continues to have direct effect in the UK until the end of the transition period, which will expire on 31 December 2020. Once the transition period is over, the GDPR will become part of domestic law referred to as 'the UK-GDPR.'

The GDPR permits Member States to derogate from the GDPR and implement exemptions from certain GDPR provisions within their national implementing legislation (Article 23 of the GDPR). In the UK, these derogations and exemptions are provided in the [Data Protection Act 2018](#), which compliments, and is to be read together with the GDPR. The Act came into force on 25 May 2018 and repealed the Data Protection Act 1998 ('the 1998 Act'). This Note provides a high-level overview on specific themes and is not a comprehensive review of the Act.

The Act sets out a number of exemptions, which apply in relation to data subject requests to exercise their rights under the GDPR under certain circumstances. It also provides additional conditions under which special categories of data and criminal records data may be processed. Furthermore, the Act reduces the age of consent for the provision of an information society service to a child (e.g. e-commerce services) from 16 to 13 years.

Data management

FIT4FOOD2030 participates in the Open Research Data (ORD) pilot under Horizon 2020. This pilot aims to improve and maximize access to and re-use of research data generated by Horizon 2020 projects. In our DMP we describe our overall approach towards data management, paying attention to what data will be collected, processed and/or generated, and data security. Moreover, we explain how we make our research data findable, accessible, interoperable and re-usable (FAIR).

The Protocol also contains a table per WP which outlines the type of data that is being collected, the methods used and data utility (the objective). However, as reality is dynamic and so is managing a

project, we have been faced with changing circumstances, such as the COVID-19 pandemic, that impacted our work. Moreover, sometimes new insights and received requests also led to adaptation of plans. For that reason, some of the WP tables have been updated, the updates are included in Annex 1.

COVID-19

The corona virus outbreak and government's responses to the pandemic introduced challenges all over the world, FIT4FOOD2030 being no exception. As a containment measure, working remotely became the standard. This sudden change in working environment, including the absence of office facilities, could potentially have had an impact on data management and protection within the project. With the shift to working from home, it is likely that the use of personal devices for professional purposes increased. This means that project data could have been stored, and potentially shared, without sufficient protection as indicated in the DMP. However, all members of the project felt it was their collective responsibility to prevent these problems from happening and to reduce the risk of data breach to a minimum. Furthermore, 'Edugroepen' had been installed at the beginning of the project as an approved secure data management platform and sharepoint, which at that point already functioned as a fully integrated part of the workflow for both the consortium and the Lab coordinators. As everyone was very much accustomed to using Edugroepen for all project data storage and sharing, they continued to do so in the new remote situation. Therefore, no data management issues have occurred.

Next to that, the shift to working remotely also had consequences for the project meetings that were initially meant to take place in person. All meetings now had to shift to a virtual, online format. Fortunately, the organisation of the project Coordinator (Vrije Universiteit (VU) Amsterdam) rapidly adapted to the new situation by immediately starting negotiations with Zoom, a secure online meeting platform. The VU signed a contract with Zoom, including the integration of strict, invariable privacy and security settings (such as mandatory meeting passwords), facilitating its employees to safely meet online.

3. Compliance mapping and assessment

To understand to what extent the standards and procedures to safely collect, process, store and transfer data, as described in the Data Management Protocol (D9.1) and the Ethical and Legal Framework (D10.1), have been followed and to see whether these were useful, we have developed a survey for the WP leaders⁴. The survey was launched end of November 2020 and closed two weeks later. All 10 WP leaders completed the survey.

In the following paragraphs we will present the outcome of this survey and discuss to what extent the WP leaders have acted in accordance with the procedures. As this deliverable is a final report on ethical issues, we focus mainly on the ethical question whether actual incidences have been reported. The lessons learned will be discussed in chapter 4.

Survey for Work Package leaders

In the next paragraphs we will go through the WP survey results, structured by the following sections: (1) 'Data storage and transfer' (incl. subsections on General data storage and transfer', 'DLA intervention sessions and Lab coordinator trainings', 'Surveys' and 'Interviews'), (2) 'Making data openly accessible' and (3) 'Informed consent' (incl. subsections on 'Stakeholder database', 'Interviewees and Expert Group meetings', 'Advisory Board and EU-Think Tank').

Data storage and transfer

Within FIT4FOOD2030 we distinguished three types of data: (1) Personal data; (2) Research Data and (3) Stakeholder Data. To safely store and share this data with others, all members of the FIT4FOOD2030 consortium, the EU Think Tank, Advisory Board and Lab coordinators, made use of the secure and approved file sharing platform Edugroepen. Some pages are accessible for all consortium partners, others only for a selection of relevant (consortium) partners. Partners who transferred research data containing personal information should anonymize these before it is shared with others. In the below results, we are referring to this platform when speaking of "safe/secure storage/transfer/sharing of data".

General data storage and transfer (by all WPs)

In general, 90% of the WP leaders indicated that all data was safely stored from a moderate to a very great extent, with a majority of 40% who confirmed that this was done to a very great extent. 67% indicated that unauthorized access to files with project data has been avoided from a moderate to very great extent, for example by deleting non-useful copies of data and results and not saving data on personal notebooks and hard disks. A majority of 33% confirmed that this was done to a great extent. It turned out that for some beneficiaries it was an internal challenge, within their organisation, to ensure that (new) colleagues complied with these procedures. No data breaches have been reported.

75% of the WP leaders said that all research data containing personal information was anonymized from a great to very great extent, before transferring this to partners. 75% of the WP leaders also indicated that the key documents, containing the personal identifiers and numerical codes, were stored safely and separately from the documents containing the anonymized data, from a moderate

⁴ One of the WPs had two WP leaders. As they had quite different responsibilities, and therefore probably different experiences, we found it useful to have them both to complete they survey. This means that this WP has been treated in the survey and its results as two different WPs, whereas it is actually one WP that has been split up.

to very great extent. A majority of 38% confirmed that this was done to a very great extent. As a result, no incidents, such as unauthorized access to data or breach of confidentiality, have been reported.

DLA intervention sessions and Lab coordinator training sessions with the Policy, City and Food Labs

A Dynamic Learning Agenda (DLA) is a method for challenge-driven reflection and learning. It is useful for groups involved in complex change processes. This tool has been used to stimulate learning in the Labs. The DLA contains all questions the Lab coordinators consider relevant to answer in order to realize more impactful (R)R&I on FNS. These questions have been addressed during intervention sessions, which are open learning dialogues, with the Labs. In addition, Lab coordinators have been trained in setting up their Community of Practice and how to design meetings for cooperative deliberation.

The WP leaders who led these sessions indicated in the survey that all stakeholder data (e.g. name, organization, area of activity) and data that was retrieved during Lab DLA intervention sessions has also been stored safely on the designated sub-sites within Edugroepen. The same goes for most personal data, meaning data including personal identifiers, retrieved from Lab coordinator trainings. When this data was transferred, this was always done safely as well. Furthermore, Lab coordinators and Lab participants have been informed from a moderate (50%) to great (50%) extent about the communication products in which their (anonymized) data appeared. In some cases, this has not been done yet as these outputs are still in the process of being developed.

Surveys

Several WPs used surveys as a tool to either collect information, assess needs or to verify compliance. The DMP prescribes that when using a survey tool within FIT4FOOD2030 the researcher needs to check

- Where the provider stores the data, this should be in Europe;
- If the data will be used for commercial activities.
- If the personal data of the respondents is well protected.

Of the WPs that were involved in executing surveys, every WP leader indicated that survey respondents were always informed upfront about how their answers would be used, processed and stored. 80% said that research and personal data retrieved from surveys were stored safely, from a great to very great extent, with a majority of 60% who indicated that this was done to a very great extent. Everyone confirmed that the survey provider stored all data in Europe and that the personal data of survey respondents was always well protected. Moreover, it was indicated that the survey data was never used for any commercial activities. 60% indicated that the data was safely transferred from a great to very great extent, with a majority of 40% who confirmed that this was done to a very great extent. No data breaches were reported.

Interviews

If research data was being gathered through interviews, the researcher had to make sure that data including personal identifiers, such as personal information, will not be made publicly available. Moreover, all researchers must have obtained informed consent for data sharing and long-term preservation (in oral or written form) from the interviewees prior to the conversation. In addition, audio recordings needed to be deleted after the anonymized transcripts were created.

Within three WPs interviews were conducted. These WPs indicated that the research data and anonymized personal data that was retrieved from the interviews, has been stored safely on the Edugroepen platform in most cases. 67% indicated that this was done to a very great extent. At the time this deliverable was written, some recordings of interviews were not yet destroyed as some WP leaders explained that they would like to listen to the interviews again during the writing process of

some pending project outputs. However, they will destroy the recordings afterwards, the latest 6 months after the end of the project.

Making data openly accessible

The FIT4FOOD2030 project participates in the open access to research data pilot of article 29.3 of the model Grant Agreement (GA). This means all research data will be made openly available after removal of personal identifiers (anonymization). Personal data, meaning data including personal identifiers such as personal information of interviewed participants or survey respondents (and the “keys” used for anonymization) will not be made publicly available. Moreover, FIT4FOOD2030 has committed to archiving relevant data safely in repository [Zenodo](#). This is an open and public research data repository funded by the European Commission (via the OpenAire Projects FP7 and Horizon 2020), CERN and the Alfred P. Sloan Foundation. Accessibility and Findability are two of the FAIR guiding principles of scientific data management and stewardship.

Several WPs already made (some of) their research results openly accessible, for example through open access journals, high level debates, scientific sessions, dissemination materials or via the project website. Of those WPs, 88% said that these openly accessible results nearly never included personal data. In the cases where personal data was included in publications, this was done intentionally and on request of the person(s) involved, as they had a positive interest in personal publicity. These cases never concerned sensitive data which could cause harm by disclosure. In most cases personal data retrieved from interviews and Lab meetings was anonymized in external communication products. With respect to Zenodo it has been decided that all public deliverables will be uploaded to this repository by the end of the project.

Informed consent

Within EU funded projects beneficiaries must carry out the action in compliance with (1) ethical principles and (2) applicable international, EU and national law. The main ethical principles include

- Respecting human dignity and integrity
- Ensuring honesty and transparency towards research subjects and notably **getting free and informed consent** (as well as assent whenever relevant)
- Ensuring privacy and confidentiality⁵

FIT4FOOD2030 has carried out research involving human beings, therefore ethical procedures had to be followed. Informed consent is considered to be the cornerstone of research ethics⁶. This means that participation must be entirely voluntary and participants have the right to refuse to participate and to withdraw their participation or data at any time — without any consequences. Moreover, consortium members must ensure that potential participants have fully understood the information and do not feel pressured or coerced into giving consent.

VU provided the informed consent templates to the consortium as part of WP10 (Ethics requirements). Specific templates were developed for different contexts, such as the Lab meetings, Advisory Board and EU Think Tank meetings. These templates contain, for example, a section on the permission to use meeting materials. Deliverable 10.1 contains detailed information on the informed consent procedures. It includes, for example, the requirement that hard copy informed consent forms should be scanned before storing the forms on the institutions internal system.

⁵ [Annotated Model Grant Agreement](#) (AGA), p.270

⁶ https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/ethics/h2020_hi_ethics-data-protection_en.pdf

Stakeholder database

Within FIT4FOOD2030 a stakeholder database has been created. This serves as input for the network analysis, to track the growing network over time. Moreover, stakeholders that are included in this database could be consulted to participate in surveys or discussions during the course of the project. According to the WP leaders involved, the stakeholders that have registered always received information in advance about how their data would be used. Their data has been safely stored, no incidents of unauthorized access have been reported. There were no stakeholders who withdrew their approval to be contacted.

Interviewees (including members of the Expert Group)

Next to that, interviewees and members of the Expert Group were always asked in advance to give their informed consent, either by signing a form or via oral confirmation. The informed consents were never withdrawn at a later stage. Most received hard-copy informed consent forms of the Expert Group meetings were scanned and stored on the institution's internal system.

Advisory Board and EU-Think Tank

Two external consortium bodies are linked to FIT4FOOD2030. This concerns the **EU-Think Tank (TT)** and the **Advisory Board (AB)**. The EU-TT was established in May 2018 and comprises 15 members. It supports the development & implementation of an integrated vision for EU food systems and enables the EC to liaise with the emerging network and the lessons that FIT4FOOD2030 generates. It also acts as the linking pin between EC and Member States (MS) & Associated Countries (AC) and serves as a sounding board with global outreach. The AB was founded in the summer of 2018 and comprises 11 members. It provides strategic expert advice on the scientific quality of the activities and deliverables. In this way it ensures the project develops in accordance with the latest state-of-the-art in Food and Nutrition Security Research & Innovation and it checks whether the project accounts for the different perspectives and interests of stakeholders.

The secretariat for both the Think Tank and the AB is located at VU. Consequently, VU was responsible for collecting the signed informed consent forms of the respective members. In addition, the members of the TT have also signed a media release form and the AB's members a non-disclosure agreement (NDA). The Media Release Form grants FIT4FOOD2030 permission to take photographs and publish these. The NDA ensures that the members shall not disclose any confidential information. In the case of meetings held by these two bodies it was sufficient to ask the members to sign the informed consent form once as the different meetings were attended by the same participants. Nobody withdrew their consent. All hard-copy forms have been scanned and safely stored on Edugroepen.

Survey for Lab coordinators

During the qualitative monitoring of the Labs over the course of the project, we noticed that data protection was taken seriously by all Lab coordinators. The anonymization of data was on their mind. Participants were at all times informed of the purpose and use of their data. No substantial problems occurred and there were no incidents reported. This was the case for both adult and underaged participants.

With regards to the informed consent procedure we saw some cultural differences. As explained earlier the Labs are part of the FOOD 2030 platform. They have been set up in different European countries and are therefore rooted in distinct local and national contexts. That is why they also face different realities in their communities. This heterogeneity is reflected in their diverse experiences. For example, the amount of adjustments of the informed consent form to local legislation varied strongly per country, which had an impact on the assessment of the informed consent template itself.

Although in general the procedure was strictly followed, some Lab coordinators were worried that the sometimes quite extensive informed consent forms would frustrate the participants. However, no Lab coordinators were contacted by participants with further questions related to the informed consent form, and participants never withdrew their consent.

In this chapter, we will complement and reflect on these outcomes with the results of the Lab coordinator survey, that served as an additional monitoring tool. Twelve Lab coordinators (out of 25) filled in the survey. Extra reminders did not lead to a higher response rate. The responses were equally distributed over the Food/City and Policy Labs. By providing this opportunity to express views in an anonymous way, we may also conclude that the Lab coordinators who did not respond to the survey, did not have any additional comments to make which they did not already voice during the meetings over the course of the project.

In the next paragraphs we will go through the Lab coordinators survey results, structured by the following sections: 1) 'Informed consent', 2) 'Data protection', and 3) 'Underaged participants'. In the discussion of the results, when we speak of a certain percentage of "all Lab coordinators", we refer to all Lab coordinators who completed the survey. However, the results of the survey align with our already existing views of the work and wellbeing of the Labs that we have developed over the course of the project.

Informed consent

As mentioned earlier, VU drafted the templates for informed consent forms and distributed these within the consortium. The forms for the Lab coordinators detailed: a) Risks of the study, b) Participation is voluntary, c) Permission to use audio recordings / workshop material (anonymized), d) Photographic consent. The Lab coordinators were responsible for adjusting the forms to their local contexts. Moreover, coordinators had to circulate the forms prior to every meeting since different meetings would be attended by different participants. 58% of the Lab coordinators indicated that this information was clearly communicated to them from a moderate to a very great extent, with a majority of 25% who said this was done to a great extent. 42% said this happened timely as well, from a moderate to a very great extent, with an equal distribution of 17% for both 'to a great extent' and 'to a very great extent'.

For most Labs (67%) local/national regulations did not play a significant role in implementing the informed consent procedures in the Lab-related project activities, with 25% indicating that it even played no role at all. However, the remaining 33% indicated that these regulations actually played a very large role. Therefore, the impact of local legislations seems to vary strongly per country. This is probably also why we see very diverse responses to the question if the informed consent form had been adapted to better reflect the national/local circumstances: 36% said they adapted the form to a (very) great extent, another 36% said they did this to some/a moderate extent and 27% said they have not done this at all.

The actual distribution of the informed consent form prior to the meeting and the signing of the forms by participants show some room for improvement. 55% of the Lab coordinators say that the forms have been distributed prior to every meeting from a moderate to a very great extent, with a majority of 36% who confirmed that this was done to a very great extent. 45% confirms that the forms were signed. Of those Labs, 60% confirms that all the received hard-copy forms were scanned and stored on the institution's internal system. 45% indicated that new Lab members, either replacing colleagues from within their own organization or additional members, received and signed the informed consent form, from a moderate to a very great extent.

No Lab coordinators were contacted by participants with further questions related to the informed consent form, which indicates that the content of the form was very clear. In only one case a participant withdrew its consent after a meeting, for the reason of not agreeing with the use of pictures.

64% of the Lab coordinators said that they found the FIT4FOOD2030 informed consent template useful to some or a moderate extent, with a majority of 45% who found it useful to a moderate extent. 36% did not find the template useful at all. This is partly linked to the earlier observation that in some cases the legal department of the involved organisations had to include quite substantial additions to the form to comply with the local/national legislation.

Data protection

All Lab coordinators indicated that research data retrieved from Lab meetings has been anonymized from a great to a very great extent, with a majority of 73% who confirmed that this was done to a very great extent. At the time this deliverable was written, more than half of all Lab coordinators indicated that recordings of Lab meetings have been destroyed to a great or very great extent, with a majority of 36% who confirmed that this was done to a very great extent. Almost everyone confirmed that no incidents, such as unauthorized access to data or breach of confidentiality, have been reported by participants. Participant organisations did not often request to link their name to the project for publicity. 36% of the Lab coordinators said that this was never the case.

The clarity of the Coordinator's communication on the data protection procedures that the Labs were expected to follow was moderate to great, with an equal distribution of responses. The timing of this communication could have been earlier sometimes, as it was indicated that the Coordinator acted moderately timely on this matter.

Underaged participants

The GDPR prescribes that verified parental consent is a requirement when collecting data on children. Within the context of FIT4FOOD2030 some City and Food Labs aimed to involve youth and children in the different activities. The project's partners and Third Parties that would conduct these activities have extensive experience with working with this target group in setting up school modules, exhibitions and other educational activities. VU drafted and distributed a specific informed consent template for underaged participants to the Lab coordinators. Necessary adaptations, e.g. the definition of 'underaged participants', had to be made by the coordinators to reflect local/national legislation as this differs per Member State.

In half of the Food and City Labs that responded to the survey, some underaged persons (under 18 years old) participated in the Lab meetings and/or in the module testing and piloting. A total of about 450 underaged participants took part. In all cases, the parent or caregiver and the underaged participant him/herself signed an informed consent form. The Labs never experienced any ethical or legal problems with the underaged participants.

4. Lessons Learned

In this deliverable we assessed to what extent the ethical and legal procedures, which the consortium committed to comply with in order to manage technical harm reduction, were followed and we specifically focused on the ethical question whether any actual privacy or integrity problem in data handling occurred.

Summarizing the above, we can conclude that all data within FIT4FOOD2030 has been well protected by the secure storage and transfer via the approved platform Edugroepen. In nearly all cases data was anonymized, following the procedures of D9.1 and D10.1. In the few occasions where data was not anonymized, the transparency was intentional, with mutual consent and with good reason, for example for requested publicity for the person involved. At all times, stakeholders and participants were informed of the purpose and use of their data. No problems occurred and there were no incidents reported. Notwithstanding, improvement is desired when it comes to avoiding unauthorized access to files with project data. It is important to continuously pay attention to this and to keep on reminding consortium members to follow the procedures adequately.

The destruction of recordings of some interviews and Lab meetings is still about to take place, as the recordings are still to be used in the writing process of some project's outputs. However, within six months after the end of the project the destruction of recordings will be completed.

The informed consent procedure for stakeholders, interviewees and members of the Expert group, AB and TT seem to have functioned nearly flawlessly. However, this procedure showed some room for improvement when it comes to the Lab meetings, both from the side of the consortium and the side of the Lab coordinators. The consortium could improve their communication process and sooner request feedback from the Labs, in order to provide them with more useful and timely information and materials. The Labs could thereafter implement a stricter policy on the distribution and signing of the informed consent forms by the Lab participants. In general, we can conclude that the diverse responses of the Lab coordinators reflect the challenge of implementing these procedures in different local/national contexts.

All in all, no substantial incidents have been reported and therefore we can conclude that the FIT4FOOD2030 procedures have functioned sufficiently.

Annex I Updated table with data characteristics per WP

D9.1 contains the original tables per WP. This annex only shows the tables that have been updated (see green highlights for changes).

Abbreviations:

QL = qualitative data, QT = quantitative data, T=Task, M=Month, MS = Milestone.

Table 2. Overview of the characteristics of data collected/used for WP2 (AIT) - Mapping of trends in food systems and related R&I policy frameworks

WP/Task	Title task	Responsible Partner(s)	Outputs (month, type, dissemination level)	Dataset description & Data Collection Methods (QL/QT)	Data Utility (objective)	Type of Data & Data Format
T2.1 (M1-10)	Analysis of visions, trends, drivers and barriers of the food systems and FNS R&I	AIT	Workshop protocol (M10, internal not for public use)	Stakeholder interviews: recordings and transcriptions (QL) Data collection via Online survey (QT) Minutes of workshop (QL)	To be used as input in task 2.1	Audio files (MP3/MP4, N=10), Word files (DOCX/PDF) Excel file (XLSX)
			D2.1 (M10, Report, Public)	Desk research (past EU funded projects, scientific and grey literature (policy reports) (QL)	To be used as input in WP4 and input for City Labs (WP6)	Word/PDF file (DOCX, PDF)
T2.2 (M1-10)	Mapping food policies and governance of EU food systems and related R&I	UNIBO	D2.2 (M12, Report, Public)	Desk research and collaboration with SCAR working group	To be used as input for Policy Labs (WP5) and a basis for further updates through the collaboration of interested stakeholders	Word/PDF file (DOCX, PDF), Excel files (XLSX)
T2.3 (M1-10)	Mapping performance of EU food systems towards meeting European visions	WR	D2.3 (M14, Report, Public)	Data cube presenting multi-model outcomes on SDG Impact indicators for World, EU28 and selected individual member states (QT)	To score the performance of EU food systems in task 2.3, and to be used as input for training sessions for Policy Labs (WP5)	Word file (DOCX/PDF), Data files, visualisations (CSV/ XLSX)

Deliverables:

D2.1 – Report on baseline and description of identified trends, drivers and barriers of the food system and R&I.

D2.2 – Report on overview and needs, barriers and enablers for policies and governance of EU food systems and FNS R&I - comparison to global systems.

D2.3 – Résumé of performance of EU food systems towards European FNS and SDGs.

Table 3. Overview of the characteristics of data collected/used for WP3 (ILSI Europe and EIT Food) – Identification of showcases

WP/Task	Title task	Responsible Partner(s)	Outputs (month, type, dissemination level)	Dataset description & Data Collection Methods (QL/QT)	Data Utility (objective)	Type of Data & Data Format
T3.1 (M3-10)	Gathering information on food systems R&I cases	ILSI	MS9 (M6, Report, Confidential)	Expert group kick-off meeting to identify criteria on how to identify showcases, (minutes of expert meeting)	Criteria for showcase selection	Word/PDF file (DOCX/PDF)
			D3.1 (M14, Report, Confidential)	Report on detailed data set 154 RR&I cases: data collection via Online survey (QT); spread via Consortium (including consortium stakeholder database); WP3 expert group; Policy Labs; City Labs; SCAR; MUFPP; Workshop	To identify recent R&I initiatives to select showcases	Word/PDF file (DOCX/PDF)
T3.2 (M9-16)	Selecting best cases in food systems R&I	ILSI	MS16 (M15, Dataset, Confidential)	Selection of 10-15 showcases available, minutes of expert meeting + organisation of multiple stakeholder workshop to identify showcases	To have an initial dataset on showcases for assessment	Word/PDF file (DOCX/PDF)
			D3.2 (M18, Report, Confidential)	Report on selected showcases (incl. criteria)	Assess what makes showcases differ from cases	Word/PDF file (DOCX/PDF)
T3.3-4 (amended) (M17-24 delayed to M29-38)	Assessment of food system change leverage areas and identification of R&I needs	EIT Food	D3.3 (M36, Report, Public)	In-depth analysis of Food2030 pathways for food systems transformation	Assess specificities of Food2030 pathways	Word/PDF file (DOCX/PDF)

	and best practices					
T3.3-4 (amended) (M30-35)	Assessment of food system change leverage areas and identification of R&I needs and best practices	EIT Food	D.3.4 (M38, Report, Public)	R&I recommendations for targeted action in the Food2030 pathway areas	Identify and assess appropriate action to be deployed in Food2030 pathways	Word/PDF file (DOCX/PDF)

Deliverables:

D3.1 – Report on detailed data set of 100-150 (R)R&I cases.

D3.2 – Report on selected showcases, including criteria for assessment of R&I cases, and ranking.

D3.3 – Report on Food2030 pathways

D3.4 – Policy recommendations on Food2030 pathways

Table 4. Overview of the characteristics of data collected/used for WP4 (F4L) – Exploration of roadmaps for R&I breakthroughs

WP/Task	Title task	Responsible Partner(s)	Outputs (month, type, dissemination level)	Dataset description & Methods (QL/QT) ²	Data Utility (objective)	Type of Data & Data Format
T4.1 (M6-12)	Identification of research and innovation breakthroughs	F4L, ILSI	D4.1 (M12, Report, Public) Internal workshop: Exploration of Roadmaps for R&I breakthroughs (M6)	Minutes of the workshop	To identify different perspectives of what breakthroughs are	Word/PDF files (DOCX/PDF)
		AIT	MS11 (M10): Workshops on the identification of potential R&I breakthroughs	Minutes and reports from the workshops	To be integrated into D4.1	Word files (DOCX)
T4.2 (M10-16)	Critical success factors for implementation of breakthroughs	AIT	D4.2 (M16, Report, Public)	None	-	Word/PDF files (DOCX/PDF)
		F4L	MS15 (M14): Workshops on the prioritisation of potential R&I breakthroughs and identification of barriers and incentives	Reports from the workshops	To sketch out routes for the realisation of potential breakthroughs, via the multi-stakeholder platform. To be integrated into D4.2	Word files (DOCX)
T4.3 (M10-16)	Forward outlook towards a food system transformation	WeCR	D4.3(M16, Report, Public)	None	-	Word/PDF files (DOCX/PDF)
		F4L/WeCR	MS19 (M16): Workshop for discussion of position paper	Report from the workshop	To be considered under D4.3	Word/PDF files (DOCX/PDF)
T4.4 (M28-32)	Appropriate instruments for	F4L	D4.4(M32, Report, Public)	None	-	Word/PDF files

the identification of R&I breakthroughs for the future					(DOCX/PDF) Web materials "Breakthrough cards" integrated in the website
	F4L	MS27 (M28): Targeted consultation of the draft set of recommendations	Responses to the public consultation on the draft set of recommendations	To be integrated under D4.4	Word/PDF files, Excel files (XLSX)

Deliverables:

D4.1 – Report on inventory of R&I breakthroughs.

D4.2 – Report on key success factors for realisation of breakthroughs.

D4.3 – Position paper on urgency, good practices, and pathways for applications of the RRI concept to food system transformation.

D4.4 – Report on instruments for the identification of R&I breakthroughs for the future.

Table 8. Overview of the characteristics of data collected/used for WP8 (OsloMet) – Learning for Transformation

WP/Task	Title task	Responsible Partner	Outputs (month, type, dissemination level)	Dataset description & Data collection Methods (QL/QT) ²	Data Utility (objective)	Type of Data
T8.1 (M1-36)	Setting up Dynamic Learning Agenda (DLA)	OsloMet	D8.1 (M4, Training guide, Public)	-	-	Word/PDF file (DOCX/PDF)
T8.2 (M3-36)	Monitoring the evolving network	OsloMet	D8.2 (M36, Report, Public)	DLA log-sheets from Lab Coordinators via email (QL) Minutes from DLA teleconference sessions (QL) Participatory observation Surveys after each DLA session. Two comprehensive surveys to lab coordinators - in September November 2019 and September 2020. All surveys were carried out with the online web survey system: https://www.uio.no/english/services/it/admin-services/nettskjema/ Interviews with all lab coordinators between November 2019 and January 2020.	<ul style="list-style-type: none"> To learn and monitor; To investigate and understand the evolution of the transformative network. 	Word/PDF files (DOCX/PDF)
T8.3 (M3-36)	Monitoring actor diversity and dynamics	OsloMet	D8.2 (M32, Report, Public)	Stakeholder data, to be collected through excel sheets via email (QT/QL)	<ul style="list-style-type: none"> To learn and monitor; To investigate and 	Excel files (XLSX), Questionnaire

				'Proof of reach' forms to be filled in by Labs	understand the evolution of the transformative network.	(SAV)
T8.4 (M1-36)	Monitoring emerging visions and theories of change	OsloMet	D8.2 (M32, Report, Public)	Minutes from vision workshops and Lab meetings (QL)	To monitor emerging visions and theories of change	Word files (DOCX)
T8.5 (M20-36)	Experiment -to- experiment learning	OsloMet	Workshop and connection of Labs for mutual exchange (M24)	Minutes from workshop (QL)	<ul style="list-style-type: none"> To learn and monitor; To investigate and understand the evolution of the transformative network. 	Word/PDF file (DOCX/PDF)
T8.6 (M24-36)	To develop a corresponding toolbox for future M&E activities	OsloMet	Experience sharing workshop to make transdisciplinary dialogue work in the complex landscape of FOOD2030. D8.3 (M35, Toolbox, Public)	Minutes from the workshop	<ul style="list-style-type: none"> To learn and monitor; To investigate and understand the evolution of the transformative network. 	Word/PDF file (DOCX/PDF)

Deliverables:

D8.1 – Tool and Training guide Dynamic Learning Agenda.

D8.2 – Report on tasks 8.1 – 8.5.

D8.3 – Toolbox for integrated reflexive M&E in R&I development

Table 9. Overview of the characteristics of data collected/used for WP9 (VU) – Project management and coordination

Responsible Partner(s)	Outputs (month, type, dissemination level)	Dataset description & Methods (QL/QT)	Data Utility (objective)	Type of Data & Data Format
VU	D9.1 (ORDP, Public) D9.2 (Report, Public) D9.3 (Report, Public)	- - - Survey to gather input from partners (QT,QL)	- - - to understand to what extent ethical and legal procedures as described in D9.1 and D10.1 have been followed and what problems, if any, occurred when	- - - Excel files - Word/PDF file (DOCX/PDF)

	D9.4 (Report, Confidential)	-Evaluation workshop with external advisors (QL) Recording + minutes of the meeting	complying with these standards - to assess the relevance, feasibility and importance of the project	- Audio files (M4A) Word/PDF file (DOCX/PDF)
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Deliverables:

D9.1 – Data Management Protocol (DMP)

D9.2 – Project Execution Handbook (PEH)

D9.3 – Final report on ethical issues

D9.4 – Report by External Evaluator