



# cities2030

## D2.1 Project philosophy guidelines



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 101000640

**Deliverable D2.1\_Project philosophy guidelines\_WP2**

Prepared by P19, P14, P13 | Checked and reviewed by P14, P13, P1, P4 | Approved by P1

v1.0 - February 2021

## Document information

Key information	Data
Project reference number	101000640
Project acronym	'CITIES2030'
Project title	'Co-creating resilient and sustainable food systems towards FOOD2030'
Project start date	October 1 <sup>st</sup> , 2020
Duration	48 months
PPaCO	Mr Nicola CAMATTI
Project website	cities2030.eu
Work package (WP)	2
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Peer review start date	January 12 <sup>th</sup> , 2021
Peer review end date	February 26 <sup>th</sup> , 2021
Document type <sup>1</sup>	R
Document/file name	D2.1_Project_pholosophy_guidelines-1.0
Document title	Project philosophy guidelines
Deliverable number	D2.1
Abstract	Ethical framework of the project. the frame identifies also synergies with

<sup>1</sup> R: document, report (excluding the periodic and final reports); DEM: Demonstrator, pilot, prototype, plan designs; DEC: websites, patents filing, press & media actions, videos, etc.; OTHER: software, technical diagram, etc.

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v1.0 - February 2021

	other H2020 projects and initiatives
Project delivery date	February 28 <sup>th</sup> , 2021
PM approval date/version	28-02-2021   V28-02-2021   Version v.1.0
Submission date	February 28 <sup>th</sup> , 2021
For public dissemination Yes/NO	Yes

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## Executive Summary

This document contains the philosophy guidelines of the CITIES2030 project from an ethical point of view. The goal is to provide a Background of the Ethical Framework of the project as an operational setting that leads further activity in WP2, 1) ensuring adherence to the ethical principles and values of the project and 2) going beyond a list of ethical theoretical foundations, by providing guidance on how such principles can be implemented in CRFS.

The distribution of contents in the document is the following: Section 1 presents the context of the document within the activity of WP2, the Ethical Requirements and the other Work Packages of the project. Section 2 details the Concept and Vision of the Background of Ethical Framework. Sections 2, 3 and 4 detail the House of Cities2030 Ethics as building blocks of the ethical framework of the project. Section 5 presents conclusions and the Annex I provides the Guidelines for FAIR (Findable, Accessible, Interoperable and Reusable) data management.

## Introduction

CITIES2030 proposes a novel food system management framework that enables dynamic management of complex interconnected subsystems considering a cradle-to-cradle approach and connects all agents and stakeholders across the food supply chain enabling proactive co-creation and management.

The project requires an holistic ethical approach, covering an Ethical Framework and all RRI and gender-based approaches related to both the internal work performed by the consortium and the CRFS activity.

In order to reach this ambitious challenge, the partners in WP2 have developed the philosophy guidelines contained in this document, conformed as "The house of CITIES2030 ethics", to serve as the ethical background supporting the subsequent activities of the project.

As a result, as it is stated in the Grant Agreement, the ethical framework of Cities 2020 will strongly contribute to the following impacts foreseen:

- Creation of new and sound evidence for policy makers in relation to urban food systems in support of policy development
- Improved social inclusion and equity of all actors of the food systems

Apart from this deliverable, these contributions will be further developed through the following deliverables and whitepapers:

- D2.2: White paper on ethical CRFS (M28)
- D2.3: White paper on gender-based CRFS (M29)
- D2.4: White paper on RRI-oriented CRFS (M30)

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# 1. Background of Ethical framework: Concept and Vision

The foundations of our work on CITIES2030 ethics are laid already in the Grant Agreement of the project:

- Explore ethics as a privileged approach to encourage professionals to behave as anticipated by the society at large and their peers.
- Examine the complex interaction of policies and morality, and the insufficiency of policies as an ethical system

These backbone activities served us as a starting point to brainstorm key ideas in internal workshops for the overall ethical activities of the project. Here we summarise the main ones:

- **Ethical principles:** The fundamental ethical principles from which we will build our work are already included in the Grant Agreement (Article 34 - Ethics and Research Integrity): Reliability, Honesty, Respect and Accountability (see section 1.1).
- **Ethics by design:** The activity in the overall WP2 needs to early engage the activity in other WPs so the ethical aspects are taken into account in the design phase of the project both at technical and CRFS level.
- **Value chain:** The ethical aspects must include all the different entities in the value chain, such as suppliers, manufacturers, regulatory bodies, public authorities and customers, following a multi-stakeholder approach. Our goal is to bring all agents working together in a way that ethical principles and activities are a shared common goal and are applied with transparency across intermediaries.
- **Three-layer approach:** The ethical framework of the project will cover economic, social and environmental aspects empowering local communities, with special attention to the promotion of healthy human lifestyles (involving cultural practices, societal norms, and diet preferences) and how to overcome the vulnerabilities and obstacles of UFSE in its transition to CRFS.
- **Personal data:** The examination of territorial food development drivers (cultural identity, gastronomy, diets, well-being scores, family-oriented alimentation) requires adequate privacy and anonymity measures. Personal data is often collected related to Living Lab activities. Regarding these aspects, the activity in WP2 will complement the work of WP9 (Ethical Requirements)
- **Technical aspects:** There are key technical activities throughout the project Work Plan where the ethical framework and the overall WP2 activity needs to embrace, including:

- Data-driven CRFS platform: electronic data management structures and digitalization of practices supporting Policy Labs (CRFS-PL) and innovation system frameworks in Living Labs (CRFS-LL)
- Blockchain technologies: these promising technologies bring questions that need to be part of early discussions and monitoring about privacy, data protection, liability, data acquisition and processing, transparency, personal data and accountability across all intermediaries.
- **Gendered innovation:** Gender innovations utilise the possibilities of sex and gender to find new dimensions for ideas and innovations. Also, gender innovations reveal the different effects that actions cause to each sex's conditions and possibilities. Taking into account the gender dimension (biological characteristics, age, social and cultural features, behaviours and needs of women and men) is vital for the quality of research and innovation.
- **Relation to other WPs and WP2 tasks:** There are several WPs and tasks that perform activities subject to ethical aspects that will need to perform tight collaboration and to be assessed and monitored so that the project is performed following the ethical, RRI and gender requirements established in the Grant Agreement. WPs involved are WP2, WP3, WP6, WP7, WP8 and WP9. Section 2.1.3 details these relations.
- **Quality Assurance (QA) and Quality Control (QC) Monitoring:** WP2 and WP9 will monitor assurance and quality of the ethics activity of the project and compare it to the Key Performance Indicators related. The monitoring system includes four elements: 1) Data collection system, 2) Specifications, 3) Corrective measures and 4) Actors, and it is detailed in section 4.4.

### Normative ethical theories

CITIES2030 will follow three traditional complementary normative ethical theories widely applied in Western ethics: Virtue ethics, Deontology and Utilitarianism.

- **Virtue ethics:** Emphasis on principles of moral character of the agent or individual. In contrast to the approach that emphasizes duties or rules (deontology) or that.
- **Deontology:** Emphasis on actions, which are in conformity with a moral norm or rule. Introduced by Kant as the Categorical Imperative<sup>2</sup> to evaluate motivations for action (*"Act only according to that maxim whereby you can, at the same time, will that it should become a universal law"*) and contemporary redefined as You are No Exception Principle (YANE) and Respect for Persons Principle (RPP)<sup>3</sup>. It answers the question: "Is it right?"

2 [https://en.wikipedia.org/wiki/Categorical\\_imperative](https://en.wikipedia.org/wiki/Categorical_imperative)

3 [https://ocw.mit.edu/courses/linguistics-and-philosophy/24-03-good-food-ethics-and-politics-of-food-spring-2017/lecture-notes/MIT24\\_03S17\\_lec03.pdf](https://ocw.mit.edu/courses/linguistics-and-philosophy/24-03-good-food-ethics-and-politics-of-food-spring-2017/lecture-notes/MIT24_03S17_lec03.pdf) Attribution-NonCommercial-ShareAlike 4.0 International (CC BY-NC-SA 4.0)



- **Utilitarianism:** As a form of Consequentialism based on the Greatest Happiness Principle, where an action is morally right if it tends to promote happiness in the greatest number of people affected by the action. It emphasises the consequences of actions. It answers the question: "Is it good?"

These three normatives complement each other and relate in a sequential manner: Principles (Virtue ethics) guide Actions (Deontology) to produce Outcomes (Utilitarianism).

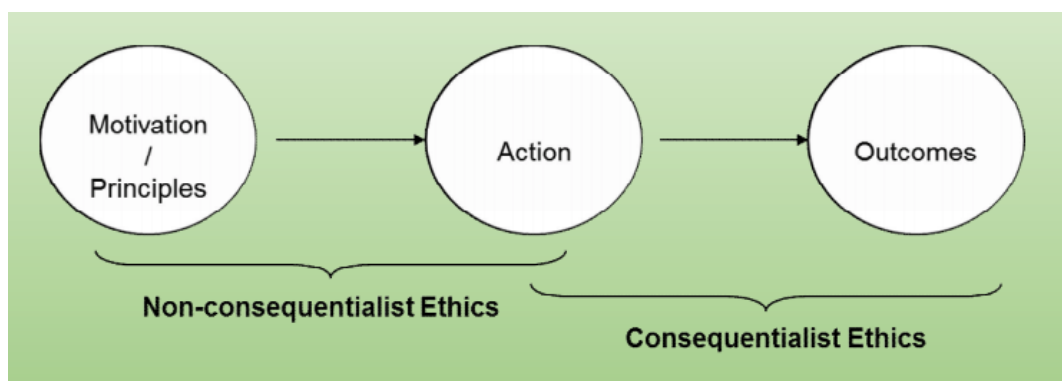


Figure 1: Normative ethical theories<sup>4</sup>

In order to build the background of the ethical framework of the project, the consortium started discussing and working on a specific approach based on these normative theories that are reflected in the ethical vision of the project: The House of CITIES2030 Ethics, further detailed in this document.

## 1.1. Ethics in the Grant Agreement

In order to set the background of the Ethical framework of the project, we need to reference the ethical obligations as stated in the Grant Agreement.

### 1.1.1. Article 34 - Ethics and Research Integrity

The beneficiaries must respect the fundamental principle of research integrity — as set out, for instance, in the European Code of Conduct for Research Integrity<sup>5</sup>. This implies compliance with the following fundamental principles:

<sup>4</sup> <https://economia.uniroma2.it/ba/businessadministration/corso/asset/YTo0OntzOjI6ImkljtzOjM6ljk0Myl7czozOjIjZGEiO3M6NToiMTk2NDQiO3M6MjoiZW0iO047czoxOjIjIjtzOjU6ImNmY2QyIjI9>

<sup>5</sup> European Code of Conduct for Research Integrity of ALLEA (All European Academies)  
[http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics\\_code-of-conduct\\_en.pdf](http://ec.europa.eu/research/participants/data/ref/h2020/other/hi/h2020-ethics_code-of-conduct_en.pdf)

- Reliability in ensuring the quality of research reflected in the design, the methodology, the analysis and the use of resources;
- Honesty in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair and unbiased way;
- Respect for colleagues, research participants, society, ecosystems, cultural heritage and the environment;
- Accountability for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts.

### 1.1.2. Ethical self-assessment

The following Ethical self-assessment aspects included in the Grant Agreement:

#### Human beings

**Does your research involve human participants?** CITIES2030 will reach stakeholders in pilot regions in order to identify their challenges and engage them into the research and innovation actions.

**Recruitment:** In preparing recruitment materials the researcher should consider the purpose of the research, the setting in which the research will be conducted. CITIES2030 will use the following methods of recruiting subjects: Advertisements, flyers, information sheets, notices, internet postings and/or media are used to recruit subjects

Direct recruitment of potential study participants. With this method considerable care will have to be taken so that the person contacted does not feel pressured to participate.

The research methodologies used are:

- Surveys
- Questionnaires
- Interviews
- Workshops

Informed Consent will be sought whenever researchers involve stakeholders into involving research activities.

The project will ensure that participants have the information they need specifying the alternatives, risks and benefits for those involved in ways that they understand. The project management guidance and training provides and includes process descriptions and work procedures (Quality Assurance) which give the details of the recruitment, inclusion and exclusion criteria and informed consent procedures. The guidance considers both vulnerable and non-vulnerable participants. The Quality Control procedures give the information how to collect evidence of the conducted work and monitor the performance.

**Are they volunteers for social or human sciences research?** The participants will be adult healthy volunteers for social sciences research.

**Are they persons unable to give informed consent?** Only persons, who have given the Informed Consent are involved in the research activities Are they vulnerable individuals or groups? No, there are not.

**Are they children/minors?** Yes, in some cases they are, for instance within cities pilots involving the schooling sphere. Very specific procedures will be applied per the institutions' policies and ethics frameworks, securing the full awareness of all authorities and responsible bodies, beyond the only parental supervision. A certain number of information sessions will be implemented, and agreements will be signed between all involved parties. A dedicated Steering Committee will be established to monitor and supervise all activities incorporating experts, nutritionists, children psychology and other related expertises.

**Are they patients?** CITIES2030 development participants are not patients, but they can have various physical and/or mental disabilities.

**Does the research harm participants?** None of the research methodologies intended to be used are known to inflict any psychological nor physical damage on participants. Researchers with the guidance of Ethics Manager take care that the activities itself will not contain any elements that may harm or threaten the participant in any manner. Protection of humans is the primary imperative and, in addition to legal and ethical standards, individual researchers' commitment to the protection of research participants should not be underestimated.

## Personal Data

**Does your research involve personal data collection and/or processing?** CITIES2030 activities include processing of personal data of the consortium partners and stakeholders related to the test/pilots and business modelling. The sensitive data (personal data revealing racial or ethnic origin, political opinions, religious or philosophical beliefs; trade-union membership; genetic data, biometric data processed solely to identify a human being; health-related data; data concerning a person's sex life or sexual orientation) at the project is NOT recognized to be related.

The strategy for the monitoring of the ethical and privacy implications of the project consists of the following three steps:

- Ongoing knowledge acquisition of the needs, problems, deviations, non-compliance, potential security breaches and challenges are documented into Risk Log. The best practices from the project are discussed as well appropriately.
- Data Processing Impact Assessment (DPIA), Art.35 GDPR will be conducted to study the scenarios in which, during the project lifecycle, personal data rights can be at stake.

- Risk mitigation and continuous improvement strategy, recommendations, collected and edited by the Ethics Manager, regarding compliance with the relevant ethical and legal provisions.

### 1.1.3. Ethics in the Work Plan

The different research methodologies of the project - surveys, questionnaires, interviews, online meetings, workshops, focus groups, etc.- will be performed according to the ethical requirements of the project. Furthermore, there are several WPs and tasks that perform activities subject to ethical aspects that will need to perform tight collaboration and to be assessed and monitored so that the project is performed following the ethical, RRI and gender requirements established in the Grant Agreement:

- **WP2** (CRFS PHILOSOPHY: ethics, RRI and gender approach): Together with WP9 (Ethics requirements), it is the central meeting point for the ethical construction of the project. All activity throughout the different tasks of WP2 need to be synchronised to fulfill the goals of the work package.
- **WP3** (CRFS INTELLIGENCE: structured and actionable knowledge): ethical related activities cover specially engagement activities of the agents and stakeholders in the food system arena (T3.1) and the characterisation of vulnerabilities (T3.2), accounting for gender, seniority, occupation, education and geographical diversity.
- **WP6** (CRFS BLOCKCHAIN: Single Click CRFS Platform): the tasks under this WP will cover privacy, security, trust and information transparency in the blockchain-based S2CP. TODO: The task T6.4 (Privacy and security) will classify and analyse all the personal data processes involved in the project to deliver a set of recommendations and guidelines aligned with GDPR.
- **WP7** (CRFS BEACON: Dissemination, exploitation, communication synergies): activities related to the Alliance partners who will join the Community under the Synergies action plan in T7.2.
- **WP8** (LEAN-AGILE GOVERNANCE: data-driven digital management): The Lean Agile Governance will need to be gender equality-driven and ethical-driven.
- **WP9** (Ethics requirements) cover the ethical aspects of CITIES2030 dealing with the H2020 program. All activity within WP2 will be closely related to WP9 regarding processes, protocols, documents, etc.

### 1.1.4. Risks related to Ethics (WP2)

The CITIES2030 Grant Agreement includes two risks closely related to the activities in WP2. The work package will support the Project Management team to monitor these risks and will contribute to design and implement contingency plans whenever necessary.

The following table includes the WP2-related risks as they are included in the Grant Agreement.

#	Description of risk	WP	Proposed risk-mitigation measures
6	Unexpected negative consequences of activities regarding ethics and gender approaches to UFSE. Likelihood: Medium.	WP2	Develop a proper training about ethics and gender to allow the identification, mitigation and transformation of related risks, improving organizational efficiency and developing organizational identity.
8	The project framework is not compliant with the evolving EU legislation on UFSE as well as supply chain-related and food related standards. Likelihood: Low.	WP2, WP3, WP4, WP5, WP6	The UFSE landscape and realities is thoroughly examined at the very inception of the project to secure that all relevant compliance regimes and regulatory frameworks are accurately understood; the "CRFS Intelligence Lab" (observatory) is the interactive and real-time updated instrument to ensure the consortium is aware of any changes in policies.

## 1.2. Elements of the Ethical Framework

*"Legal frameworks cannot regulate everything – there are limits to their scope and to the quantity of details of laws and regulations. The ethical frameworks can also be used for interpreting their legal counterparts and form a further basis for self-regulation"*. These sentences, taken from the essay "Reuse of data in smart cities Legal and ethical frameworks for big data in the public arena"<sup>6</sup>, reflect very well the aim of the ethical framework of CITIES2030 project.

## 1.3. Ethical Vision: The House of CITIES2030 Ethics

The partners participating in WP2 have had a series of discussions in the first months of the project in order to build the operational setting of the ethical framework of Cities2030. A set of key ideas emerged (see section 1 above) pivoting the activity in order to reach this goal. According to these and as a result of this activity, WP2 team proposes the initial vision of the ethical

<sup>6</sup> [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=3491752](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3491752)

background of the project, named “The House of CITIES2030 Ethics”, that comprises the following elements in a useful analogy with the building blocks of a house:

- **Base:** Ethical values and principles that will lead our work, encouraging professionals to behave as anticipated by the society. Interaction of policies and morality.
- **Pillars:** Activities and means of reaching the expected results, outcomes and impacts of the CITIES2030 project.
- **Dome:** Impacts, Outcomes and Results of CITIES2030. The following picture depicts this vision, which will be developed in the following sections.

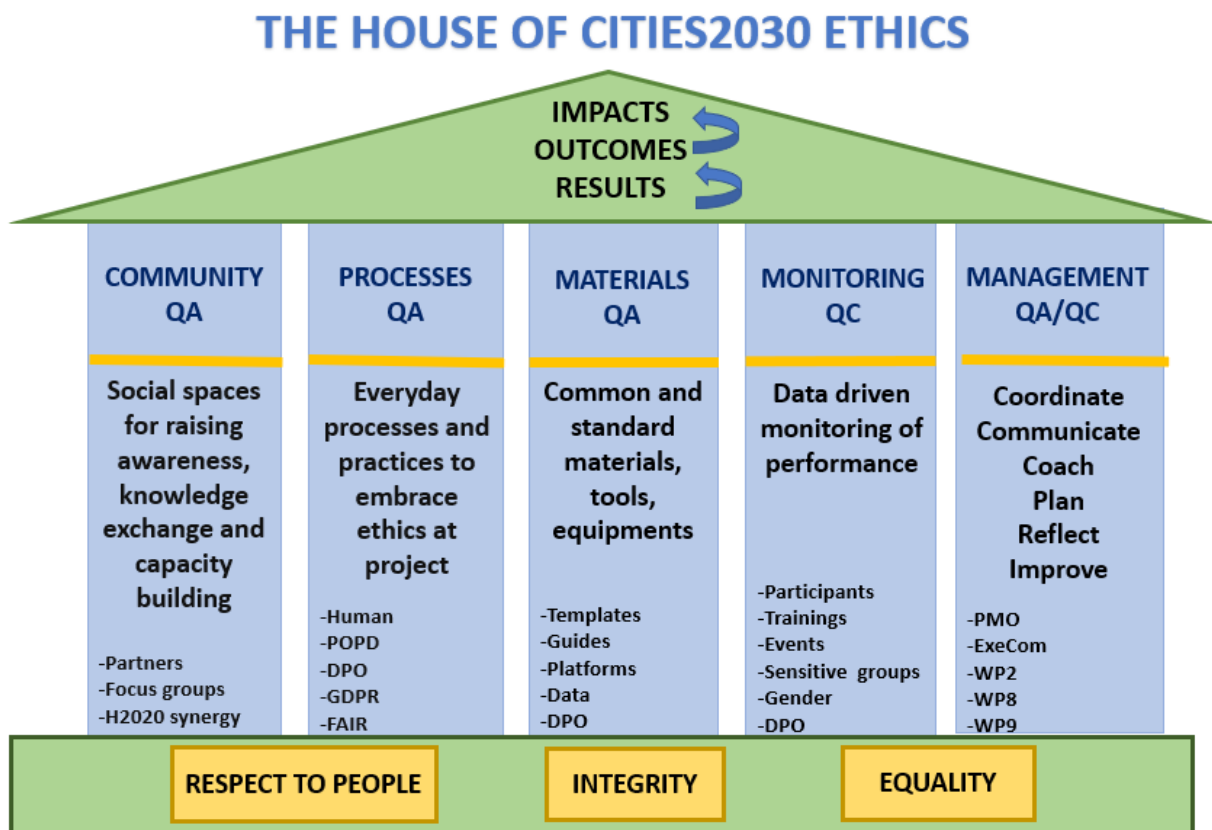


Figure 2: House of Cities2030 Ethics vision

It is important to note that this vision of Cities2030 Ethics purposely fits with the Western normative ethical theories mentioned in Section 1. Thus, virtue ethics -the principles- corresponds to the Base, Deontology -actions- corresponds to the Pillars, and Utilitarianism -impact- corresponds to the Dome of the House. The following picture depicts this alignment.



Figure 3: House of Cities2030: Alignment with Western normative ethical theories

The following sections detail the House of Cities2030 Ethics.

## 2. Ethical Base: Values and Principles

The ethical values and principles of CITIES2030 project are both aligned to the ethical principles stated in the Article 34 of the Grant Agreement, namely Reliability, Honesty, Respect and Accountability, plus the RRI and Gender aspects as stated in the Grant Agreement.

As a result of this alignment and the conversations among WP2 partners, the following main values and principles for the project have been agreed:

- **Respect to people:** paying special attention to vulnerable groups, which may involve children, persons with disabilities or people with risk of exclusion.
- **Integrity:** honesty and truthfulness or accuracy of both individuals and institutional developments's actions<sup>7</sup>. Both partners and stakeholders will adhere to the responsibilities on matters such as environmental impact, transparency of economic and non-economic activities, rights of rural food suppliers and stimulation of open access behaviour. The research activities will have in view both the scientific utility and value and the openness of the project outputs..
- **Equality:** CITIES2030 is a gender-neutral initiative. CITIES2030, through the activities run, will bring contributions to the gender discrimination reduction both in the rural and rural environments. The project activities will support gender equality, including the women's assertion and their role played in the urban food supply chains.

These principles strongly support one of the main aims of the project in terms of impac: to **build trust**. There cannot be long-lasting and sustainable CRFS if the different technical and human efforts are not built upon a strong base of mutual trust and confidence among the different actors, users and people.

<sup>7</sup> <https://en.wikipedia.org/wiki/Integrity>



Therefore, the activities run within the project will have in view the societal impact upon urban life and ecology and rural socio economics and ecology. There will be exchanges of good practices concerning the insurance of the project ethics framework. Therefore, a constant communication among partners is necessary as it will enable sharing cultural experiences of their own countries. That will provide a solid framework of the project and allow to formulate models of good practices and possible directions for implementing these principles.

## 3. Ethical Pillars: Actions

### 3.1. Community

The purpose of the Community pillar is to build a **social space** for project partners, focus groups and colleagues of other RDI projects to facilitate knowledge exchange and develop capacity on ethics issues and procedures. The social space will offer an open research and innovation platform to explore ethics-related issues e.g. gender, RRI, GDPR in CRFS.

All ethics-related events, workshops and training will be planned, carried out and assessed under this pillar.

The pillar gathers all ethics-related capacity building efforts of WP2, WP8 and WP9 into one action plan. Input will be gathered from pillars Processes, Materials and Monitoring along the different innovation development stages of the Living Labs<sup>8</sup> of the project: Exploration (moving from idea towards concept or prototype of the solution), Experimentation (real-life setting) and Evaluation.

#### 3.1.1. Partners

The ethical aspects must include all the different entities in the value chain, such as suppliers, manufacturers, regulatory bodies, public authorities and customers. multi-stakeholder approach. Our goal is to bring all agents working together in a way that ethical principles and activities are a shared common goal and are applied with transparency across intermediaries.

#### Quadruple Helix Approach

The Triple Helix model, designed by Etzkowitz and Leydesdorff (2000), focuses on the relations of universities, industry and governments. The Quadruple Helix (Carayannis & Campbell, 2009) blends in the perspective of a media-based and culture-based public. CITIES2030 practices the Open Innovation 2.0 (OI2) which is a new paradigm based on the Quadruple Helix Model where government, industry, academia and civil participants work together to co-create, future-proof, and drive structural changes far beyond the scope of what any one organization or person could

<sup>8</sup> [https://u4iot.eu/pdf/U4IoT\\_LivingLabMethodology\\_Handbook.pdf](https://u4iot.eu/pdf/U4IoT_LivingLabMethodology_Handbook.pdf)



do alone. The stakeholders are selected in accordance with the particular principles of this approach and therefore ensures the representativity for the entire societal panel.

### 3.1.2. Focus groups

The pillar organises workshops, Ethics Cafes, research actions etc. to explore and structure ethical-, gender- and RRI issues in CRFS, and to co-create solutions and practical procedures.

Focus groups will apply Quadruple Helix approach and bring together major stakeholders ensuring the representativity for the entire societal panel in a directed consultative process to determine the requirements and key elements for the ethical success of the co-design and co-creation phases, through collective intelligence sessions with a "person-based approach". Focus groups require a triangulation of the collective intelligence inputs in relation to the barriers and benefits of the application and the impact of each use case to be brought to the policy and living labs. Scenarios will be presented to determine the acceptability, feasibility, barriers and promoters of uptake and commitment to each pilot.

### 3.1.3. Synergies and Liaisons with other R&D projects and initiatives

Already in the proposal phase, the consortium studied in depth and identified several projects and initiatives with which to establish relationships during the project. These liaisons will be further developed during the project by WP2 tasks in collaboration with the liaisons' activities included in other Work Packages of the project.

Project	Potential synergies
SHERPA	Shaping the ethical dimensions of smart information systems (SIS) – a European perspective. Grant agreement ID: 786641 <a href="https://www.project-sherpa.eu">https://www.project-sherpa.eu</a>
B2SHARE	Service to store and publish research data. <a href="https://b2share.eudat.eu">https://b2share.eudat.eu</a>
ASSET	The project aims at demonstrating and facilitating a new form of consumerism. Grant agreement ID: 688364 <a href="https://www.asset-consumerism.eu">https://www.asset-consumerism.eu</a>
RRI Tools	The project fosters responsible research and innovation. Grant agreement ID: 612393

	<a href="https://rri-tools.eu">https://rri-tools.eu</a>
GRACE	The project investigates the cultural production of gender equalities within Europe. Grant agreement ID: 675378 <a href="https://graceproject.eu/">https://graceproject.eu/</a>
LANDSUPPORT	The project develops a web-based, free, open-access GeoSpatial Decision Support System. Grant agreement ID: 774234 <a href="https://www.landsupport.eu/">https://www.landsupport.eu/</a>
BigPicnic	The project brings together the public, scientists, policy-makers and industry to help tackle the global challenge of food security. Grant agreement ID: 710780 <a href="https://www.bgci.org/our-work/projects-and-case-studies/bigpicnic/">https://www.bgci.org/our-work/projects-and-case-studies/bigpicnic/</a>
SKIN	The project is about short supply chain knowledge and innovation network. Grant agreement ID: 728055 <a href="http://www.shortfoodchain.eu/">http://www.shortfoodchain.eu/</a>
PROTEIN2FOOD	The project develops high quality food protein from multi-purpose seed crops and grain legumes through optimised, sustainable production and processing methods. Grant agreement ID: 635727 <a href="https://www.protein2food.eu/">https://www.protein2food.eu/</a>
Greenovate	The actor is a network of organisations supporting sustainable innovation. <a href="https://greenovate-europe.eu/">https://greenovate-europe.eu/</a>
IoF2020	The project Internet of Food&Farm 2020 explores the potential of IoT-technologies for the European food and farming industry. Grant agreement ID: 731884 <a href="https://www.iof2020.eu/">https://www.iof2020.eu/</a>
FIT4FOOD2030	The project Implements FOOD 2030 programme to future proof Europe's food systems through research and innovation. Grant agreement ID: 774088 <a href="https://fit4food2030.eu/">https://fit4food2030.eu/</a>
RUBIZMO	The project is a new European initiative working to discover the vital ingredients for developing entrepreneurship and successful business models in rural areas.

	Grant agreement ID: 773621 <a href="https://rubizmo.eu/">https://rubizmo.eu/</a>
PROMISS	The project aims to better understand and prevent protein energy malnutrition in seniors. Grant agreement ID: 678732 <a href="https://www.promiss-vu.eu/">https://www.promiss-vu.eu/</a>
PoliRural	The project develops tools to decision makers to tackle rural challenges such as depopulation, land abandonment and the loss of biodiversity. Grant agreement ID: 818496 <a href="https://polirural.eu/">https://polirural.eu/</a>
DataBio	The project focuses on utilizing Big Data to contribute to the production of the best possible raw materials in order to produce food, energy and biomaterials in a responsible and sustainable way. Grant agreement ID: 732064 <a href="https://www.databio.eu/">https://www.databio.eu/</a>
DEMETER	The project is to lead the digital transformation of Europe's agri-food sector through adoption of advanced IoT technologies, data science and smart farming. Grant agreement ID: 857202 <a href="https://h2020-demeter.eu/">https://h2020-demeter.eu/</a>
REDIRNET	The project (Emergency Responder Data Interoperability Network) provides a decentralized framework for interoperability for first responders' systems based on a public meta-data gateway controlled by the agencies themselves. Grant agreement ID: 607768 <a href="https://vicinity2020.eu/vicinity/content/redirnet">https://vicinity2020.eu/vicinity/content/redirnet</a>
BDVe	The Bid Data Value eCosystem Project (BDVe) provides coordination and support for the H2020 projects within the big data value public-private partnership. Grant agreement ID: 732630 <a href="https://www.big-data-value.eu/">https://www.big-data-value.eu/</a>
EIT Food Latvia	The organisation is Europe's leading food innovation initiative, which works to make the food system more sustainable, healthy and trusted. <a href="https://www.eitfood.eu/in-your-country/country/latvia">https://www.eitfood.eu/in-your-country/country/latvia</a>
FoodShift2030	The project aims to launch a citizen-driven transition of the European food

	system towards a low carbon circular future, including a shift to less meat and more plant based diets. Grant agreement ID: 862716 <a href="https://foodshift2030.eu/">https://foodshift2030.eu/</a>
AIOTI	The organisation is contributing to a dynamic European IoT ecosystem. <a href="http://www.aioti.org/">http://www.aioti.org/</a>
FoodE	The organisation (Food systems in European cities) aims to accelerate the growth of sustainable and resilient City/Region food systems (CRFS). <a href="https://www.foode.eu/">https://www.foode.eu/</a>
ROSIE	RRI projects directory <a href="https://innovation-compass.eu/business-directory/3109/rosie/">https://innovation-compass.eu/business-directory/3109/rosie/</a> ROSIE project: <a href="https://www.interreg-central.eu/Content.Node/ROSIE.html">https://www.interreg-central.eu/Content.Node/ROSIE.html</a>
Ecowaste 4 Food	Interreg Europe (GECOTTI-PE). Supporting eco-innovation to reduce food waste and promote a better resource efficient economy. <a href="https://www.interregeurope.eu/ecowaste4food/">https://www.interregeurope.eu/ecowaste4food/</a>
Eure	Interreg Europe (GECOTTI-PE). Effectiveness of Environmental Urban policies to improve Resources Efficiency. <a href="http://www.interregeurope.eu/eure/">http://www.interregeurope.eu/eure/</a>
Local flavours	Interreg Europe (GECOTTI-PE). Authentic tourism based on local cultural flavours. <a href="http://www.interregeurope.eu/localflavours/">http://www.interregeurope.eu/localflavours/</a>
Intensify	Interreg Europe (GECOTTI-PE). More Carbon Reduction through Intense Community Engagement. <a href="https://www.interregeurope.eu/intensify/">https://www.interregeurope.eu/intensify/</a>

## 3.2. Processes

The purpose of the Process pillar is to **identify and define** the key processes that consortium partners need to execute to meet all the ethical requirements in CITIES2030. During the project, our goal is to continuously identify and implement requirements, assessing solutions and ensuring improved outcomes. This will require to involve stakeholders along the processes and workflows designed.

Initially, processes are defined for : 1) Recruiting, 2) Consent Form and 3) processes related to FAIR Data Management. We detail these processes in the following section.

### 3.2.1. Recruiting strategy

In preparing recruitment materials the researcher should consider the purpose of the research, the setting in which the research will be conducted. CITIES2030 will use the following methods of recruiting subjects: Advertisements, flyers, information sheets, notices, internet postings and/or media are used to recruit subjects

Direct recruitment of potential study participants. With this method considerable care will have to be taken so that the person contacted does not feel pressured to participate.

The research methodologies used are:

- Surveys
- Questionnaires
- Interviews
- Workshops

### 3.2.2. Consent Form

Informed Consent will be sought whenever researchers involve stakeholders into research activities. The Informed Consent will be produced under WP9 and WP2 will support WP9 in its correct implementation.

In addition, WP6 foresees the use of “innovative purpose and consent” contracts using Blockchain in line with COPA-COGECA EU Code of Conduct on agricultural data sharing by contractual agreement.

### 3.2.3. FAIR Data Management

CITIES2030 participates in Open Research Data Pilot, which requires the policy of FAIR data<sup>9</sup> (findable, accessible, interoperable and re-usable research data). The activity in WP2 will support WP8 and WP9 contributing to making research data FAIR, to safeguard it is soundly managed.

In order to do so, we have elaborated guidelines (included in Annex I of this deliverable) to assist all participants make their research data FAIR. The guidelines are based on the Guidelines on FAIR Data Management in Horizon 2020 together with a summary of issues to be addressed<sup>10</sup>, and we have added further information and suitable tables to ease the process.

Personal Data will only be recorded and processed if it is adequate, relevant and strictly limited to what is needed for the research purposes of the project according to the Data Management Plan that will be defined. The assessment will start before initiating the collection of any personal data.

<sup>9</sup> <https://www.nature.com/articles/sdata201618>

<sup>10</sup> [https://ec.europa.eu/research/participants/data/ref/h2020/grants\\_manual/hi/oa\\_pilot/h2020-hi-oa-data-mgt\\_en.pdf](https://ec.europa.eu/research/participants/data/ref/h2020/grants_manual/hi/oa_pilot/h2020-hi-oa-data-mgt_en.pdf)

### 3.3. Materials for the Work

Material pillar's purpose is to manage all the ethics-related tools like templates, guidances, excel-sheets, inquiry models, training materials, webinars, recordings, etc. which are produced at work packages WP2, WP8 and WP9. These tools are used in the pillars: Community and Processes.

#### 3.3.1. Templates

There will be different templates for activities during the project. Some examples are:

- Templates of the informed consent/assent forms and information sheets covering the voluntary participation and data protection issues, provided by WP9
- Structured interviews for Focus Groups, produced in T2.2, T2.3 and T2.4.
- Impact assessment forms, developed in T2.5
- Memorandum of Understanding for liaisons' activities produced in T7.2

#### 3.3.2. Guidelines

The WP2 will co-create and produce a set of guidelines and white papers, which include the key processes' descriptions, visual process mapping, and procedures. These materials will be communicated to specific partners whenever needed.

#### 3.3.3. Tools

During the project a set of tools will be defined. Candidate tools are:

- Correlate tool: the internal management tool for the project could be used to schedule events, share documents, Focus Groups management, etc.
- Forms tool to gather information in a normalised way so it can be assessed and thoroughly evaluated.
- Digital learning platform.

### 3.4. Monitoring

The purpose of the Monitoring pillar is to establish a monitoring system which assesses WP2 and WP9 performance comparing it to Key Performance Indicators related to expected impacts and communication and dissemination activities, which will contribute to the Impact Monitoring and Assessment (IMA) processes within WP1 to adjust and improve actions developed under the project work plan.

The monitoring system includes four elements: 1) Data collection system, 2) Specifications, 3) Corrective measures and 4) Actors, who are responsible for monitoring, which ensure compliance and a systemic ethical perspective in the sustainable provision of intelligence, knowledge and experimental action within policy and living labs, and also enable the consortium to respond appropriately to any new ethical issues that are discovered during project implementation.

- 1) Data collection system: who, what, when, to where
- 2) Success factor, limits, goals for each index (e.g. 50% women)
- 3) Processes in a case of deviation
- 4) Responsible actors

The continuous and iterative monitoring of ethics, gender and RRI-related aspects embedded within the activities focused in generating actionable intelligence (WP3), the participatory policy life cycle assessments implemented in Policy Labs (WP4) and the innovation systems frameworks and actions in Living Labs (WP5), is crucial for the successful results, outcomes and impact of the project. For example, ethical monitoring is an essential component of the **CRFS educational programme** of CITIES2030, which will encompass activities such as volunteering, job shadowing, apprenticeships, personal projects developments, and entrepreneurship ventures focusing on social enterprises, with the planned establishment of a non-profit legal entity (T5.4) to explore and raise funds, and support the acceleration of innovation.

The data-driven CORRELATE platform of CITIES2030 is designed to manage data throughout the project. Monitoring of ethical implications of the project based on the creation and update of a **Risk Log** managed by WP8 will facilitate the effective implementation of mitigation and corrective measures ensuring KPI comparisons will be collectively available among living labs, policy labs and other action groups in order to ensure evidence based 'systemic business case' and tangible and viable decision-making processes.

CITIES2030 proposes an extensive citizen engagement, globally led by the cities of the consortium, who together with the key stakeholders participate in the identification of barriers and opportunities and the iterative design and development of innovations and solutions grounded in collective intelligence.

CITIES 2030 monitor the UFSE value chain, including the Alliance Partners who will join the Community under the Synergies action plan in T7.1, participating in the co-creation environments (policy and living labs), and develops a framework for inclusiveness and diversity in societal engagement under the header of food-related ethics, gender balance, equality, and RRI, with techniques to ensure a distributed socio demographic diversity such as a random selection strategy for engagement in T3.1 to account for gender, seniority, occupation, education and geographical diversity.



All of them are involved in the different research methodologies of the project - surveys, questionnaires, interviews, online meetings, workshops, focus groups – after accepting innovative “purpose and consent” contracts using Blockchain technology in line with COPA-COGECA EU Code of Conduct, and researchers leading the action measure the progress, evaluate the level of execution of the related KPIs, check the technical and organizational measures implemented to safeguard the rights and freedoms of the data subjects/research participants, and review the security measures implemented to prevent unauthorized access to personal data:

- Number of interviews realised
- Number of engaged stakeholders
- Number of women
- Number of men
- Number of youngster
- Number of policy makers
- Number of governance
- Number of food system experts
- Number of other community members

### 3.4.1. Sensitive Groups

The ethical framework of the project places special emphasis on two sensitive groups that will be involved in the research methodologies: women and children.

CITIES2030 must ensure that the challenges, experiments and innovations implemented are aligned with these user's needs and circumstances in order to guarantee the social inclusion and equity sought by the project. Monitoring actions will pay specific attention to the innovation pattern sessions arranged in order to check their design always puts the users at the centre, and will evaluate the risks of drifting away from these vulnerable groups in the co-design and co-creation processes.

The feedback obtained thanks to children participation in the schooling sphere and women participation is crucial for the ethical pillar Community. They will make sure that the actionable solutions are designed to be inclusive and feasible to the whole cohort of individuals, and this information will enrich relevant outcomes of the project, such as the **Guide of good practices for gender issues and discrimination** of women in food value chain. Gender issues are covered in workshops, seminars, policy and living labs, contributing to changing the agri-food and ICT image by involving also female researchers and developers in the development and evaluation activities.

Related KPIs:

- Number of women
- Number of Youngsters
- Number of innovation patten sessions
- Number of challenges



- Number of experiments

### 3.4.2. Trainings

Education and capacity building are key activities of the project work plan, and unexpected negative consequences of activities regarding ethics and gender approaches to UFSE is one of the main risks to be managed and monitored by the consortium. Partners contributing to WP2 will mitigate this risk developing proper training about ethics, gender and RRI to identify and transform the related threats during the 48 month-duration of T2.2, T2.3 and T2.4 in order to improve organizational efficiency and identity on ethics.

The implementation of training activities to equip participants and Community for the development of ethics compliance policy and innovation co-creation processes significantly contribute to the **educational programme** (WP3) and **capacity building programmes** (WP4 and WP5) to push effective learning for sustainable transformation. The quality control of these ethics-related Learning Outcomes made available and accessible in the CRFS Alliance Google Site platform is complemented by the monitoring of the diverse online events that will take place within the learning strategy.

Ethical aspects will be also considered and monitored in the online trainings with partners organized to reach a good understanding of the dissemination, exploitation, communication and synergies strategy (DeoRC plan) within WP7, and the information sessions for children participation, aimed at parents and other agents involved in co-creation activities.

Related KPIs:

- White papers of WP2
- Video on ethics, gender and RRI under CRFS plan
- 1 digital learning platform

### 3.4.3. Events

The consortium must apply the ethical baseline and principles of CITIES2030 in the many events planned as research methodology and for knowledge gathering and transfer, such as (i) megatrends driving innovation workshops with women entrepreneurs involved in urban food supply chains that will be organized within WP2, (ii) different engagement activities and the establishment of working groups to gather insight from agents from the food system arena within WP3, including digital - short webinars and teleconferences - and field events - meetings, interviews with questionnaires, small-scale dynamic workshops for awareness-raising, multiple stakeholder technical workshops and SME/Industry site visits to train and prepare participants for CRFS developments, (iii) onsite and online events with Community participants in Policy Labs and pilot cities within WP4, (iv) onsite and online events with Community participants in Living Labs and Exploitation Workshop (EW) series with the pilots within WP5.

Related KPIs to be monitored:

#### Deliverable D2.1\_Project philosophy guidelines\_WP2

Prepared by P19, P14, P13 | Checked and reviewed by P14, P13, P1, P4 | Approved by P1

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- Workshops with women entrepreneurs (WP2)
- Field and online “intelligence” events (WP3)
- Onsite and online “Policy” events (T4.1, WP4)
- Pilot events in cities (T4.2, WP4)
- Onsite and online “Living” events (T5.1, WP5)
- Exploitation Workshop series (T5.3, WP5)

## 3.5. Management of ethics

The purpose of the Management pillar is to carry out a comprehensive management of ethical issues throughout the project activities according to the base, and to define who will be involved and how in the tasks of coordination, communication and coaching of ethics, gender and RRI aspects, essential for the standards to be applied in all work packages during the life of the project.

### 3.5.1. Coordination

Coordination actions advise the consortium and the Work Packages related (see section 2.1.3) to ensure it addresses all ethical issues scrupulously providing a coherent set of recommendations with a suggested strategy for their implementation, and guidance on the direction to follow and specific points where particular attention must be paid.

Coordination monitors and verifies processes with the aim of ensuring that the responsible partners properly address ethical baseline previously identified in T2.1, follow the recommendations and requirements within T2.2, T2.3 and T2.4 to prepare and deliver the white papers and, whenever necessary, provide ethical advice to all WPs to implement proper mitigation measures provided by the internal and external monitoring structures, forming the basis of the monitoring and enforcement strategy envisioned in T2.5. Coordination work is carefully aligned with the comprehensive development of the Ethics Requirements formulation of WP9 performed within WP8.

CITIES2030 defines several governance managers and bodies playing a key role in the coordination of ethics, who will be in strong contact with the researchers, technical teams and the Community, and will apply the ethical decision-making mechanisms structured in task T2.2. They have performed an initial in-depth review and will be responsible for the continuous monitoring of the evolving EU legislation, standards and rules related to ethics, gender and RRI in the specific field of the UFSE, in close connection to the leaders of the interactive and real-time observatory “CRFS Intelligence Lab” to ensure the partners are aware of any changes in policies and regulation. Coordination will perform and update ethics impact assessments at different stages of the lifecycle of the project to address newly identified risks, and will be documented in relevant deliverables at the beginning and the end of the WP2, allowing corrective measures and management of risk 8.

- **Ethics Manager/Data Officer Daniele Sferra (UNIVE):** ongoing evaluation of the ethical risks, ensuring they are taken into consideration in the project work plan and mitigated where relevant. He/she is responsible for guaranteeing that the participants contacted and taking part in the research, co-creation processes and validation of the innovations are protected. He/she participates in the meetings with the other governance bodies of CITIES2030 and will ensure their comments and recommendations are taken into account in an updated version of the work plan and effectively implemented in a gender equality-driven and ethical-driven WP8 Lean Agile Governance. In addition, the Ethics Manager will supervise the ethical aspects in the implementation of the project synergies actions plan led by the Synergies Actions Board, and will check the CRFS management system ethics, mainly privacy, security, trust and information transparency in the blockchain-based S2CP of WP6.
- **Data Controllers (DPOs)** appointed per partner if their research involves the processing of personal data: identify and analyse the regulatory elements relevant to the collection, management and use of personal data from an ethical point of view with a global, EU and international rights perspective. They feed the Data Management Plan and the Data Knowledge management system approach of WP8 with valuable information, and collaborate with WP9 developing in-depth assessments of the specific legal and ethical risks raised by the project in relation to the obligations derived from the Data Protection Impact Assessment (DPIA), in compliance with Article 35 of the GDPR. DPOs will supervise the personal data aspects in the implementation of the project synergies actions plan led by the Synergies Actions Board, and will check the technical and organizational measures implemented to safeguard the rights and freedoms of the data subjects/research participants, and the security measures implemented to prevent unauthorized access to personal data.
- **Steering Committee** for children participation: experts in charge of specific procedures associated with children participating in the research and co-creation activities to ensure that the required ethical standards are not compromised in an ongoing and consistent process.

WP9: Copies of opinions/approvals by ethics committees and/or competent authorities for the research with humans must be kept on file (to be specified in the grant agreement) and submitted to the Agency upon request.

### 3.5.2. Communication

Both internal and external communication of the elements of the ethical framework is extremely important in such a large consortium, with such extensive policy labs, living labs and social spaces for co-creation, and with participants with diverse track records and levels of commitment to food systems transformation (FST).

The clear and proactive communication of the key processes and workflows allows to ensure and fulfil the ethics requirements to all the parts that compose the Community pillar - policy makers, society, stakeholders, professionals - and to identify coaching needs for those who need it. A constant and transparent communication of the ethical principles among territorial partners and routed through the country managers is necessary as it will enable sharing cultural experiences of their own countries and increasing the sustainability and uptake of the innovations at 3 levels: economic, social, environmental.

WP2 partners, led by the Ethics Manager, will distribute and clarify with partners the guidelines, the recommendations stemming from all identified risks, and the white papers continuously updated and delivered by the tasks T2.2, T2.3 and T2.4, within a joint internal communication strategy in collaboration with T8.2 that ensures synchronisation with the 10 working Groups of CITIES2030 around the 10 key thematic.

Communication ethical pillar shall also endeavour to provide a coherent message to audiences targeted by the dissemination, exploitation, communication and synergies strategy (DeoRC plan) within WP7: the relevance of ethical self-regulation, and project development and results are aligned with the EU idea of an inclusive, innovative and reflective society, while ensuring that ethics are present in the models of good practices for the intelligence and knowledge transfer to the stakeholders, policy-makers, farmers, citizens, rural and urban networks, food clusters, advisory services, research community and public.

### 3.5.3. Coaching

Ethics, gender and RRI are key elements in achieving fair, resilient and sustainable Food Systems and Ecosystems, and that the project results have a real impact on European society.

Throughout the implementation of tasks T2.2, T2.3 and T2.4, interviews and online meetings will be held with engaged partners and participants, to analysis of stakeholders' considerations, criteria, barriers and facilitators to co-design effective use cases, and challenges and coaching needs will be identified, which will be transferred to WP3, WP4 and WP5 to be integrated and addressed in the CRFS Educational Programme and capacity building. CITIES2030 allocates a comprehensive set of resources to develop coaching actions on RRI, gender approaches and ethics engaging multiple actors of the whole food system in order to secure that participatory policy and innovation processes meet ethics, RRI and gender dimensions, and uptakes from the civil society in fields such as citizen science and active citizenship.

## 4. Ethical Dome: Results, Outcomes and Impact

All the principles and activities performed within WP2 will contribute to the overall results of the project. Our goal with the Ethics2030 pillars is to engage all the activities, both technical and pilots, in order to maximise a sustainable impact built upon trust by all the stakeholders involved.

The Work-package will support project execution widely and broadly in order to achieve planned results, outcomes and impacts, based on realistic expectations.

In order to achieve this goal, a specific activity was set up in the Work Plan of the project: T2.5 WP2-specific impact monitoring and assessment implementation. This task T2.5, aligned with the other assessment tasks in the Work Plan (T4.4, T5.5, T6.6, T7.7 and T8.7), will produce:

- **Outputs:** results gathered through the different activities, materials and tools in a measurable way according to the KPIs of the project
- **Outcomes:** Specific change in behaviour or structure, mainly based on the insights gathered within the pilots.
- **Impact:** Well-being and social benefit measured upon the outcomes and based on the Key Expected Impacts of the project.

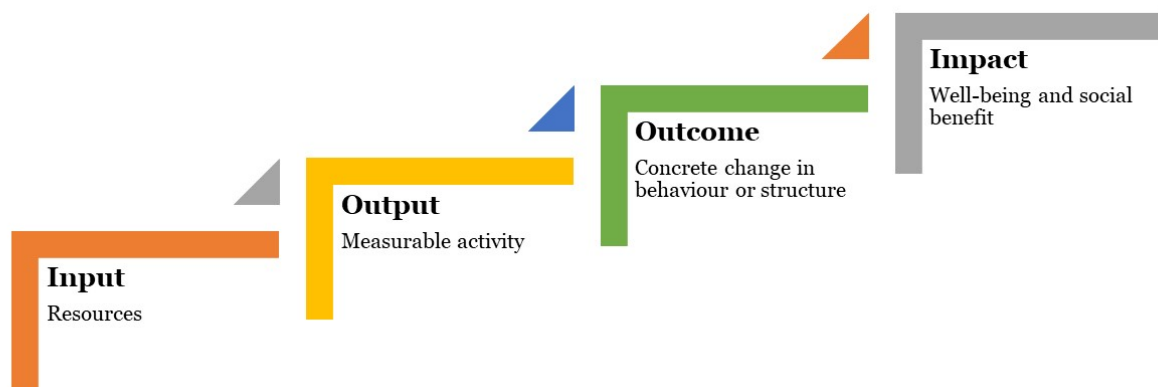


Figure 4: Ethical Dome<sup>11</sup>

## 5. Conclusions

This deliverable report has presented the Background of the Ethical Framework of the Cities2030 project, whose Concept and Vision has been modeled throughout a series of meetings among partners in WP2 that led to the design of the House of Cities2030 Ethics.

The House of Cities2030 Ethics covers in an holistic way the building blocks of the Ethical Framework: Ethical Principles (Base), Actions (Pillars) and Impact (Dome).

<sup>11</sup> <https://www.sitra.fi/en/articles/it-worth-trying-measure-impact/>

The report has developed an initial series of procedures and tools to be used and refined within the tasks in WP2 and the other Work-Packages of the project, leading to a measurable impact based on the Key Expected Impacts of the project.

Specifically, the report includes in its Annex I provides the Guidelines for FAIR (Findable, Accessible, Interoperable and Reusable) data management.

## 6. Related Bibliography

European Commission (2019). Ethics guidelines for trustworthy AI. Available at:

<https://ec.europa.eu/digital-single-market/en/news/ethics-guidelines-trustworthy-ai>

Floridi, L. Translating Principles into Practices of Digital Ethics: Five Risks of Being Unethical. *Philos. Technol.* 32, 185–193 (2019). <https://doi.org/10.1007/s13347-019-00354-x>. Available at:

<https://link.springer.com/article/10.1007/s13347-019-00354-x>

Dobrin, A. (2012). 3 Approaches to Ethics: Principles, Outcomes and Integrity. Available at:

<https://www.psychologytoday.com/us/blog/am-i-right/201205/3-approaches-ethics-principles-outcomes-and-integrity>

Ryan, M., & Gregory, A. (2019). Ethics of Using Smart City AI and Big Data: The Case of Four Large European Cities. *ORBIT Journal*, 2(2). <https://doi.org/10.29297/orbit.v2i2.110>. Available at:

<https://www.project-sherpa.eu/ethics-of-using-smart-city-ai-and-big-data-the-case-of-four-large-european-cities/>

Ryan, Mark; Brey, Philip; Macnish, Kevin; Hatzakis, Tally; King, Owen; Maas, Jonne; et al. (2019): D1.4 Report on Ethical Tensions and Social Impacts. De Montfort University. Online resource.

<https://doi.org/10.21253/DMU.8397134.v3> . Available at:

[https://dmu.figshare.com/articles/D1\\_4\\_Report\\_on\\_Ethical\\_Tensions\\_and\\_Social\\_Impacts/8397134](https://dmu.figshare.com/articles/D1_4_Report_on_Ethical_Tensions_and_Social_Impacts/8397134)

## Annex I: CITIES2030 FAIR Guidelines

### I.1 Making data findable, including provisions for metadata

#### Guidelines

*Are the data produced and/or used in the project discoverable with metadata, identifiable and locatable by means of a standard identification mechanism (e.g. persistent and unique identifiers such as Digital Object Identifiers)?*

*What naming conventions do you follow?*

*Will search keywords be provided that optimize possibilities for re-use?*

*Do you provide clear version numbers?*

*What metadata will be created? In case metadata standards do not exist in your discipline, please outline what type of metadata will be created and how.*

#### Summary

*Outline the discoverability of data (metadata provision)*

*Outline the identifiability of data and refer to standard identification mechanisms. Do you make use of persistent and unique identifiers such as Digital Object Identifiers?*

*Outline naming conventions used*

*Outline the approach towards search keyword*

*Outline the approach for clear versioning*

*Specify standards for metadata creation (if any). If there are no standards in your discipline describe what type of metadata will be created and how.*

Each dataset generated during the project will:

- Include information about how it has been recorded and with which format.
- Provide search keywords to optimise possibilities for re-use.
- Using a DOI for effective and persistent citation. This DOI can be used in any relevant publications to direct readers to the underlying dataset.
- The data will be accompanied with metadata clarifying the meaning of the data and how the data has been collected.



In order to clearly describe the content of the data and its version, the naming convention for CITIES2030 datasets will follow a similar approach to the deliverable naming convention of the project.

Datasets metadata will follow the META-SHARE<sup>12</sup> schema for data sets description. META-SHARE is an open resource exchange infrastructure. The following data set description is based on the DMP template circulated by CRACKER<sup>13</sup>.

Metadata	Description
Resource Name	[Complete title of the resource]
Resource Type	[Conceptual resource]
Media Type	[The Physical Medium of the content representation]
Language(s)	[The language(s) of the resource content]
License	[The licensing terms and conditions that can be used]
Distribution Medium	[The channel used for delivery or providing access to the resource, e.g. accessible through interface, downloadable, CD/DVD., etc.]
Usage	[Foreseen use of the resource for which it has been produced]
Size	[Size of the resource with regards to a specific size unit measurement in form of a number]
Description	[A brief description of the main features of the dataset]

Table 1: Example of Dataset metadata

This information will be included in the different versions of the DMP, whenever available.

## 1.2 Making data openly accessible

### Guidelines

<sup>12</sup> <http://www.meta-net.eu/meta-share>

<sup>13</sup> <http://cracker-project.eu>



*Which data produced and/or used in the project will be made openly available as the default? If certain datasets cannot be shared (or need to be shared under restrictions), explain why, clearly separating legal and contractual reasons from voluntary restrictions.*

*Note that in multi-beneficiary projects it is also possible for specific beneficiaries to keep their data closed if relevant provisions are made in the consortium agreement and are in line with the reasons for opting out.*

*How will the data be made accessible (e.g. by deposition in a repository)?*

*What methods or software tools are needed to access the data?*

*Is documentation about the software needed to access the data included?*

*Is it possible to include the relevant software (e.g. in open source code)?*

*Where will the data and associated metadata, documentation and code be deposited? Preference should be given to certified repositories which support open access where possible.*

*Have you explored appropriate arrangements with the identified repository?*

*If there are restrictions on use, how will access be provided?*

*Is there a need for a data access committee?*

*Are there well described conditions for access (i.e. a machine readable license)?*

*How will the identity of the person accessing the data be ascertained?*

## **Summary**

*Specify which data will be made openly available? If some data is kept closed provide rationale for doing so*

*Specify how the data will be made available*

*Specify what methods or software tools are needed to access the data? Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)?*

*Specify where the data and associated metadata, documentation and code are deposited*

*Specify how access will be provided in case there are any restrictions*

## **Deliverable D2.1\_Project philosophy guidelines\_WP2**

Prepared by P19, P14, P13 | Checked and reviewed by P14, P13, P1, P4 | Approved by P1

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## I.2.1 Open research repository

The consortium will choose an Open research repository for the datasets generated in the project. The repository will include at least research data needed to validate the results of scientific publications.

## I.2.2 Data Sharing policy

In case it is necessary to share data between a Data Controller and other technological partners, a Data Sharing Agreement (DSA) will be signed containing the data shared, the purpose of the data and the time limitation.

## I.2.3 Accessibility of datasets

The following table describes the accessibility details of the datasets openly available.

Dataset	Reference name
Data Access	[Specify how the data will be made available (e.g. by deposition in a repository)] [Have you explored appropriate arrangements with the identified repository?]
DOI	[DOI]
Keywords	[Search keywords assigned to the dataset]
SW access tools	[Specify what methods or software tools are needed to access the data? Is documentation about the software needed to access the data included? Is it possible to include the relevant software (e.g. in open source code)?]
Location	[Specify where the data and associated metadata, documentation and code are deposited. Preference should be given to certified repositories which support open access where possible.] [Examples: Zenodo, Google Drive, Project website, GitHub]
License	[Examples: Public/CC Commons/Consortium/Research & Education/Validated professionals, Registered Zenodo users, Commercial exploitation]
Restrictions	[Specify how access will be provided in case there are any restrictions] [Are there well described conditions for access (i.e. a machine readable license)?] [Examples: Patent, NDA, IPR, GDPR, etc.]

Preservation	Destroyed at the end of the project? Duration of preservation in years
Data access committee	[Is there a need for a data access committee?]
Access ID	[How will the identity of the person accessing the data be ascertained]

## I.3 Making data openly interoperable

### Guidelines

*Are the data produced in the project interoperable, that is allowing data exchange and re-use between researchers, institutions, organisations, countries, etc. (i.e. adhering to standards for formats, as much as possible compliant with available (open) software applications, and in particular facilitating re-combinations with different datasets from different origins)?*

*What data and metadata vocabularies, standards or methodologies will you follow to make your data interoperable?*

*Will you be using standard vocabularies for all data types present in your data set, to allow inter-disciplinary interoperability?*

*In case it is unavoidable that you use uncommon or generate project specific ontologies or vocabularies, will you provide mappings to more commonly used ontologies?*

### Summary

*Assess the interoperability of your data. Specify what data and metadata vocabularies, standards or methodologies you will follow to facilitate interoperability.*

*Specify whether you will be using standard vocabulary for all data types present in your data set, to allow inter-disciplinary interoperability? If not, will you provide mapping to more commonly used ontologies?*

Data Interoperability	
Vocabularies	[Specify data and metadata vocabularies] [Will you be using standard vocabularies for all data types present in your

	data set, to allow inter-disciplinary interoperability?] [Specify whether you will be using standard vocabulary for all data types present in your data set, to allow inter-disciplinary interoperability? If not, will you provide mapping to more commonly used ontologies?]
Standards	[Specify standards]
Methodologies	[Specify methodologies]

## I.4 Increase data re-use (through clarifying licences)

### Guidelines

*How will the data be licensed to permit the widest re-use possible?*

*When will the data be made available for reuse? If an embargo is sought to give time to publish or seek patents, specify why and how long this will apply, bearing in mind that research data should be made available as soon as possible.*

*Are the data produced and/or used in the project usable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why.*

*How long is it intended that the data remains re-usable?*

*Are data quality assurance processes described?*

### Summary

*Specify how the data will be licenced to permit the widest reuse possible*

*Specify when the data will be made available for reuse. If applicable, specify why and for what period a data embargo is needed*

*Specify whether the data produced and/or used in the project is usable by third parties, in particular after the end of the project? If the re-use of some data is restricted, explain why*

*Describe data quality assurance processes*

*Specify the length of time for which the data will remain re-usable*

All the research data will be of the highest quality, have long-term validity and is well documented in order for other researchers to be able to get access and understand them.

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## I.5 Ethical aspects

### Guidelines

*Are there any ethical or legal issues that can have an impact on data sharing? These can also be discussed in the context of the ethics review. If relevant, include references to ethics deliverables and ethics chapter in the Description of the Action (DoA).*

*Is informed consent for data sharing and long term preservation included in questionnaires dealing with personal data?*

### Summary

*To be covered in the context of the ethics review, ethics section of DoA and ethics deliverables. Include references and related technical aspects if not covered by the former*