



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Integrated Solutions for Positive
Energy and Resilient Cities

D12.19

Ethical Monitoring and Contingency Plan – V2



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 957751. The document represents the view of the author only and is his/her sole responsibility: it cannot be considered to reflect the views of the European Commission and/or the European Climate, Infrastructure and Environment Executive Agency (CINEA). The European Commission and the Agency do not accept responsibility for the use that may be made of the information it contains.

Document Control Sheet

Project Title	integRatEd Solutions for POSitive eNErgy and resilient CitiEs - RESPONSE
Deliverable	D12.19 Ethical Monitoring and Contingency Plan – V2
Work package	WP12 Project Management
Task	T12.4 Data and Ethics Management and GDPR Conformation activities
Number of pages	24
Dissemination level	PU
Main author	Maximilien Lanna (UBFC/CID)
Contributors	Emmanuel Py (UBFC/CID), Hadrien Rouchette (DM), Monjur Murshed (EIFER), Sini Lamoureux (Turku), Georges Martinopoulos (CERTH), Ritva Salminiitty (TUAS), Paola Astegiano (RINA-C), Catarina Milhazes (SPI), Samuel Thiriot (EIFER)

Reviewers

Partner	Name	Contact information
TYS	Tomi Kultala	tomi.kultala@tys.fi
EIFER	Monjur Murshed	monjur.murshed@eifer.org

Dissemination level codes

PU = Public, fully open, e.g., web

CO =Confidential, restricted under conditions set out in Model Grant Agreement

CI =Classified, information as referred to in Commission Decision 2001/844/EC.

Versioning and Contribution History

Version	Date	Author/Editor	Contributors	Description/Comments
V1.1	16/08/2022	Maximilien Lanna Emmanuel Py		Updated version of the deliverable
V1.2	28/08/2022		Monjur Murshed	Initial feedback and improvement suggestions
V1.3	20/09/2022	Maximilian Lanna Emmanuel Py	WP leaders	Refined version of the deliverable
V1.4	07/10/2022		Lamoureux Sini Monjur Murshed Tomi Kultala Catarina Milhazes	Revision and improvement suggestions made by the reviewers and Ethics Board (EtB)
V1.5	12/10/2022		Hadrien Rouchette	Description of two Use cases
V2.0	23/11/2022	Maximilian Lanna Emmanuel Py	Monjur Murshed	Integration of all feedback and preparation of the final version

Index

Executive Summary.....	6
Chapter 1 – Introduction	8
1.1 Objective.....	8
1.2 Approach	8
1.3 Relevance to other deliverables.....	8
1.4 Structure of the deliverable	8
Chapter 2 – Ethical Monitoring Plan	11
2.1 Ethical Policy.....	11
2.1.1 Ethics related legislation overview.....	11
2.1.2 Data related legislation overview.....	12
Chapter 3 – Ethical Risk Management and Contingency Plan	16
3.1 Ethical Risk Management Policy.....	16
3.2 Use Cases.....	16
3.2.1 Ethics use case 1 : EcoTouch by OGGA.....	17
3.2.2 Ethics use case 2 : CNET bike as a service data collection.....	17
3.3 Ethics Risk Register	17
Chapter 4 - Conclusion	21
4. Conclusion	21
Bibliography	23

Index of Tables

Table 1: Ethics risk register outline of RESPONSE project.....	18
--	----

Glossary

Abbreviation	Full form
BTWC	Biological and toxin weapon convention
DPIA	Data Protection Impact Analysis
EC	European Commission
EMCP	Ethical Monitoring and Contingency Plan

ERA	European Research Area
EtB	Ethics Board
EU	European Union
FP7	Seventh Framework Program
GDPR	General Data Protection Regulation
OJ	Official Journal
PIA	Privacy Impact Assessment
QREM	Quality, Risk & Ethics Manager
WHO	World Health Organization

Executive Summary

This deliverable *D12.19 Ethical Monitoring and Contingency Plan – V2* is the second version of the deliverable related to ethical aspects. The first version (D12.6, submitted on M12) focused on describing Ethics related aspects, including the questions on legal and regulatory compliance in the context of the RESPONSE project. This version (V2) provides further explanations and guidelines on how to tackle ethical issues. It also provides several example and use cases and, last but not least, new questions that Work Package leaders have to answer when they are trying to identify ethical issues.

This deliverable describes several new Ethics related aspects, including the evolution of questions on legal and regulatory compliance in the context of the RESPONSE project. This document therefore provides several new guidelines that could be used in the project and helps to define an ethical policy based on several European Union legislation (Chapter 2). The Quality, Risk & Ethics Manager (QREM), along with the Ethics Board (EtB) are responsible for the quality and timely delivery of required reports, identification of main areas of possible ethical risks and promotion of appropriate contingency activities. Within the context of RESPONSE project, the ethical risk management policy and two relevant use cases are described. Then an Ethics Risk Register is introduced to process and monitor ethical issues that could emerge in RESPONSE. Several tools and legal prescriptions (e.g. privacy impact assessment and binding corporate rules) are mentioned that shall be used in order to prevent or dismiss any ethical issues (Chapter 3).



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Chapter 1

Introduction

Chapter 1 – Introduction

1.1 Objective

This deliverable *D12.19 Ethical Monitoring and Contingency Plan – V2* has been prepared within the *T12.4 Data and Ethics Management and GDPR Conformation activities* of the RESPONSE project. It covers more issues related to Ethical Monitoring and Contingency Planning (EMCP) and tries to go further in the comprehension of ethics matters in the RESPONSE project.

The objectives of this deliverable are to:

- Ensure that all legal requirements regarding ethics, personal data protection and data management are understood by the different parties involved (especially Work Package Leaders). It also aims to report new potential ethical issues stemming from the project research activities that haven't been pointed out in the first version of the deliverable.
- Identify and describe some potential use cases related to ethics in the RESPONSE project.

1.2 Approach

The first version of this document (D12.6) provided an overview of several texts and laws containing ethics elements that should apply to the RESPONSE project. The aim of the second version of the deliverable (D12.19) is to understand if those elements helped to prevent any ethical issues and assess if new one appeared.

1.3 Relevance to other deliverables

Four versions of the Ethical Monitoring and Contingency Plan will be prepared throughout the RESPONSE project. This D12.19 is the second deliverable, whereas *D12.20 Ethical Monitoring and Contingency Plan – V3*, and *D12.21 Ethical Monitoring and Contingency Plan – V4* will be prepared in M42 and M60, respectively.

This D12.19 is closely related to the *D12.16 Data Management Plan - V3* that will be delivered in M24. It is also linked with *D13.1 Ethics Requirement 1*, *D13.2 POPD Requirement 2*, and *D12.7 Cyber Data Security and Identity Management Plan – V1*, which has been delivered until now. The deliverables provide inputs on how all partners must act in an ethical and responsible manner, especially in activities of data collection and protection involving humans (for example in WP4, WP6, WP7 and 8), use of Informed Consent form in collecting personal data through interviews, surveys, etc. as well as transferring such data within the EU and Non-EU member states.

1.4 Structure of the deliverable

The first part of this deliverable is dedicated to the Ethical Monitoring Plan (Chapter 2). It contains a definition of ethics and a review of the existing literature that can be used in assessing ethics matters. The deliverable

presents an overview of several European policies and helps identify aspects that are specifically related to ethics in order to have a comprehensive view of this subject.

Then in Chapter 3, within the context of RESPONSE project, the ethical risk management policy and two related use cases are described. Then an Ethical Risk Register is set, in order to establish the process to be used to identify, record, manage and monitor risk and the need for contingency planning when an identified risk cannot be completely avoided or mitigated.



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Chapter 2

Ethical Monitoring Plan

Chapter 2 – Ethical Monitoring Plan

2.1 Ethical Policy

Ethics, in the RESPONSE context, has been explained in deliverable D.12.6. As previously stated, it shall be seen as including questions of legal and regulatory compliance as well as a branch of philosophy and shall be seen as an addition to personal data protection matters related in deliverable *D3.2 Data Governance and RESPONSE Integrated and Interconnected City Ecosystem mandating cross-platform collaboration*.

2.1.1 Ethics related legislation overview

Version 1 of the deliverable (D12.6) explained several types of legislation and guidelines related to ethics such as GDPR. Further works on this topic have been realized in the European Union, in order to anticipate the adoption of regulations on the use of artificial intelligence. The Council of Europe, for instance, has adopted guidelines that mention ethical principles¹. This charter provides a framework of principles that can guide policy makers, legislators and justice professionals when they grapple with the rapid development of AI in national judicial processes. But the ethical principles that are mentioned can also be used in other contexts.

Core principles have been identified and might be useful in the RESPONSE project:

- Principle of respect of fundamental rights: ensuring that the design and implementation of artificial intelligence tools and services are compatible with fundamental rights;
- Principle of non-discrimination: specifically preventing the development or intensification of any discrimination between individuals or groups of individuals;
- Principle of quality and security: with regard to the processing of judicial decisions and data, using certified sources and intangible data with models conceived in a multi-disciplinary manner, in a secure technological environment;
- Principle of transparency, impartiality and fairness: making data processing methods accessible and understandable, authorising external audits;
- Principle “under user control”: precluding a prescriptive approach and ensuring that users are informed actors and in control of their choices.

The “European Ethical Charter on the use of artificial intelligence in judicial systems and their environment” is the first European instrument to set out five substantial and methodological principles that apply to the automated processing of judicial decisions and data, based on AI techniques. Developed by the Council of Europe’s European Commission for the Efficiency of Justice (CEPEJ), it is aimed at private companies (start-ups

¹ CEPEJ European Ethical Charter on the use of artificial intelligence (AI) in judicial systems and their environment, Adopted at the 31st plenary meeting of the CEPEJ (Strasbourg, 3-4 December 2018).

active on the market of new technologies applied to legal services - legaltechs), public actors in charge of designing and deploying AI tools and services in this field, public decision-makers in charge of the legislative or regulatory framework, and the development, audit or use of such tools and services, as well as legal professionals.

2.1.2 Data related legislation overview

The first version of this deliverable mainly focused on the application of GDPR. Several other texts have recently been adopted at the European level. The European Council's Conclusions of 21-22 October 2021 underlined "the importance of making rapid progress on existing and future initiatives, in particular unlocking the value of data in Europe, notably through a comprehensive regulatory framework that is conducive to innovation and facilitates better data portability, fair access to data and ensures interoperability"². In this context, "the Commission puts forward the proposed Data Act with the aim of ensuring fairness in the allocation of value from data among actors in the data economy and to foster access to and use of data"³.

Data Act : The Data Act aims to facilitate consumers' and businesses' access to, and use of, data generated by IoT devices and related services, while prohibiting such data from being used to create competing products or services. Evidently some risks of harm for any project can be anticipated, but by no means all.

Any individual or company who/which has contributed to the generation of IoT data (the "user") is entitled to request access to it from the individual or company (the "data holder") that is entitled or obliged and, regarding non-personal data, able to make the data available. The data shall be made available on fair, reasonable and non-discriminatory terms.

The user and the third party are prohibited from using the data to develop a product that competes with the product from which the data originated. Furthermore, the third party may not onward transfer the data received to another third party, unless this is required to provide the services requested by the user.

The Data Act includes provisions to encourage the development of interoperability standards for data to be reused in different industry sectors to reduce barriers between and within domain-specific data spaces. It also leaves intact the separate rights and obligations under the GDPR that apply to personal data, which must be read in parallel – albeit the Data Act applies to all data, including non-personal data.

Data Governance Act⁴: The Data Governance Act (DGA) aims to rule the re-use of certain categories of protected data held by public sector body (such as data protected by intellectual property rights,

² European Council, European Council meeting (21-22 October 2021) - Conclusion EUCO 17/21, 2021, p. 2.

³ Proposal for a REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on harmonised rules on fair access to and use of data (Data Act), Brussels, 23.2.2022 COM(2022) 68 final 2022/0047 (COD).

⁴ REGULATION (EU) 2022/868 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on European data governance and amending Regulation (EU) 2018/1724, 30 May 2022. The regulation shall apply on 24 September 2023

confidentiality, the protection of personal data, ...). Exclusive arrangements regarding data are prohibited and specific conditions for re-use can be imposed by the public sector bodies. Public sector bodies may charge for allowing the re-use of data.

The DGA rules data intermediation services which “aim to establish commercial relationships for the purpose of data sharing between an undetermined number of data subjects and data holders on the one hand and data users on the other, through technical, legal or other means, including for the purpose of exercising the rights of data subjects in relation to personal data (...)”. Data intermediation services are provided by a provider that is subject to many obligations to ensure its neutrality.

The DGA also provides “Data Altruism” that allows data subjects to make available voluntary personal data related to them (held by public sector bodies) to be re-use in the general interest.

Digital Services Act⁵: The Digital Services Act (DSA) aims to put into practice the principle that what is illegal offline is illegal online.

It lays down a set of rules to make digital platforms more responsible and to fight against the distribution of illegal or harmful content or illegal products: racist attacks, child pornography, disinformation, sale of drugs or counterfeit goods, etc. This legislation is intended to replace the so-called e-commerce directive of 8 June 2000, which has become outdated.

The objectives are multiple: to better protect European Internet users and their fundamental rights (freedom of expression, consumer protection, etc.), to help small businesses in the EU to develop; strengthening democratic control and monitoring of very large platforms; mitigating systemic risks, such as information manipulation or disinformation.

Digital Market Act⁶: The Digital Markets Act (DMA) aims to tackle the anti-competitive practices of the internet giants and correct the imbalances of their dominance in the European digital market. Regulatory tools are put in place upstream to:

- create fair competition between digital players, particularly for the benefit of small and medium-sized enterprises and European start-ups
- stimulate innovation, growth and competitiveness in the digital market

⁵ REGULATION (EU) 2022/2065 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on a Single Market For Digital Services (Digital Services Act) and amending Directive 2000/31/EC (Digital Services Act), 19.10.2022. The regulation shall mainly apply on 17 February 2024 except for some articles that shall apply on 16 November 2022 (article 93§2)

⁶ REGULATION (EU) 2022/1925 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on contestable and fair markets in the digital sector and amending Directive (EU) 2019/1937 and (EU) 2020/1828 (Digital Markets Act), 14.09.2022. The regulation shall apply on 2 May 2023..

- strengthen the freedom of choice of European consumers



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Chapter 3

Ethical Risk Management and Contingency Plan

Chapter 3 – Ethical Risk Management and Contingency Plan

3.1 Ethical Risk Management Policy

The objective of ethical risk management policy is to establish the process to be used to identify, record, manage and monitor ethical risk and the need for contingency planning when an identified risk cannot be completely avoided or mitigated. In relation with guidelines from the European Commission⁸, this deliverable focused on several questions that were to be asked in order to determine if there were ethical problems.

Additional questions can be asked, specifically related to the RESPONSE project:

1. Has there been changes in the way you collect data in the RESPONSE project?
2. Did you feel the need to collect more data than what was originally planned?
3. Did you encounter any difficulties in implementing data protection regulation?
4. Is there a person in charge of data protection in your structure?
5. Is the data safely stored in certified repositories for long term preservation and curation?
6. Do you feel like there might be bias regarding the nature of the data collected? Participants selected to take part in data collection activities show diversity in terms of gender, race, socio-economic background, political stance and disability.
7. What kind of bias: Gender, Race, Political opinion? Were the data collection methods shared with various project partners and the Ethics Board to check for bias, in particular cognitive, unconscious and contextual bias?
8. Were you faced with ethical matters during the realization of project?
9. Do you feel like the Informed Consent Form has been a useful tool?
10. Do you keep trace of every processing of data?
11. Have you been referring to EU texts related to ethics?
 - Which one?
12. Have you identified risks related to data that were not planned at the beginning of the project?
13. Have you been facing security issues with the data collected?

3.2 Use Cases

Two ethics related use cases (withn identification of problems and mitigation strategies) within the context of Dijon lighthouse city are described in this section. In the updated deliverables (D12.20, D12.21), further use cases in context of Turku lighthouse city will be described.

⁸ European Commission, Ethics for researchers – Facilitating Research Excellence in FP7, 2013, p. 24.

3.2.1 Ethics use case 1 : EcoTouch by OGGA

Eco-Touch technology (provided by the partner OGGA) will be deployed in the PEB2 in Dijon (IE 1.2.3). This tool exploits Artificial Intelligence (AI) for the dynamic management of energy. AI will progressively build the real thermal model of the building and proposes monitoring scenarios without altering the freedom of occupants. It also allows a forecasting of the heating consumption to limit the peak.

Problem: This technology uses knowledge about the presence and absence of the housing occupants (voluntarily shared by the occupants) to finely manage energy consumption. It is crucial to protect the personal data of the occupants.

How to solve: The data must be stored in the building itself, and the storage system shouldn't be accessible from the outside (internet).

3.2.2 Ethics use case 2 : CNET bike as a service data collection

CNET bike as a sensor will implement sensors for outside air quality in Dijon on electric bikes and other types of vehicles (mostly buses and tramways). Data gathered by these mobile systems will be sent wireless at specific locations for analysis and contribute to the replicability of mitigation solutions; the holistic impact of energy climate scenarios and test resilience measures (scenarios in Dijon Metropole likely to occur in the coming decades on environment); the effects of each scenario on the territory.

Problem: As the sensor may collect data about its time and location, it may be possible to reconstruct the journey of a given bike.

How to solve: The sensor will only communicate its time, location and serial number to the cloud. It is then possible to install and operate the sensors without declaring the name of the bike in the cloud. There would therefore be anonymisation by compartmentalisation: one environment that will have access to air quality information associated with a serial number; and a second environment where only the users of the sensors will be recorded, without the corresponding locations. As long as the two documents are not combined, anonymity will be respected.

3.3 Ethics Risk Register

The Ethics risk register is maintained as a specific project management document. It is stored in the MS Team repository of RESPONSE project and must be continuously updated as soon as ethics related risks become visible. Once a risk is identified by the task leader or the WP leader or even a partner, it shall be submitted to the QREM and EtB who will assess and review it with the respective partners.

Table 1 gives an outline of the ethics risk register of the RESPONSE project, with following information:

- Ethics Risk ID: A unique ID of the ethics risk
- Related WP: Relevancy to the WP
- Ethics Risk Description: Explanation of the identified ethics risk
- Probability: Describes the chances of occurring such risks as low, medium and high
- Impact: Describes the impact of the risks as low, medium and high
- Contingency Plan: Measures to handle the risk in case of its occurrence

Table 1 : Ethics risk register outline of RESPONSE project (stand 03.11.2022)

Ethics Risk ID	Related WP	Ethics Risk Description	Probability (low/medium/high)	Impact (low/medium/high)	Contingency Plan
n° 001	6	Risk of collecting sensible data (according to GDPR) related to health	Medium	Medium	Renewed GDPR Conformity
n° 002	4	Risk of citizen monitoring through data collection	Medium	High	Data minimization and technical solutions related to anonymization
n° 003	3	Multi-scale governance issues related to lack of communication between partners and institutions	Low	High	Grant Agreement Interpretation
n° 004	3	Lack of data from sensors related to data retention from partners	Medium	Medium	Mediation between different partners
n° 005	3	Gender, race, social background, disability, etc related discrimination (based on city data interoperability)	Low	Medium	Ethics by design during data processing
n° 006	5	Risks related to environmental considerations & preservation	Medium	Medium	Reviewing of public contracts
n° 007	3	Risks of conflicts between cybersecurity measures and access to data	Low	High	Reassessment of cybersecurity measures
n° 008	1	Risks of conflicts between national legislations during replication of the project	Low	High	Assess the need for new provisions in the Grant Agreement + Need for negotiations at the European level
n° 009	5	Lack of political and managerial coordination at administrative level to get data to feed the BMC	Medium	High	Dedicated workshop to explain how to fill the BMC

n° 010	5	Lack of clarity of environmental sustainability initiatives	Low	Medium	Improve the connection between LH and FC
n° 011	7	Risk of collecting sensitive data (according to GDPR) related to personal physical details	Medium	Medium	Instead of measuring/collecting data regarding gender, age, height, weight, the tenants are asked to pick a pre-defined fictional person type. Data is stored on VTTs secure servers, not in cloud services. Sensitive data is stored and handled in compliance with GDPR
n° 12	8	Risk of giving an edge to the technical partner in charge of the feasibility study if it followed by a tender process	Medium	Medium	Ensure selection criteria in the tender process will not benefit to the technical partner
n° 013	8	Technical partners may target other priorities and objectives than municipalities	Medium	Low	Try to find compromise to avoid project break up
n° 014	4	The risk of too personal information being published on mentors' social media channels	Medium	Medium	Social media trainings for mentors



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Chapter 4

Conclusion

Chapter 4 - Conclusion

4. Conclusion

Ethical monitoring in the RESPONSE project mainly focuses on the risks inherent to the processing of personal data. The aim of the Ethical Monitoring and Contingency Plan is to have a clearer understanding of those risks and to help data processors act in compliance with the renewed legal regime contained in GDPR.

Version 1 of this deliverable (D12.19) focused on legal texts related to ethics and personal data protection law. This new version of the deliverable gives an update on new texts that will soon be applicable: Data Act, Data Governance Act, Digital Market Act, Digital Services Act.

It also gives a new tool to WP leaders- an ethics risk register that can be completed every time a new question arise, with a risk analysis and suggestions on how to tackle the problem. It also focuses on use cases that shall be useful to every partners. The next versions of this deliverable will be D12.20 (on M42) and D12.21 (M60), where further updates and use cases will be presented.



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities

Bibliography

Bibliography

- Horizon 2020 Programme: Guidance on How to complete your ethics self-assessment, [h2020_hi_ethics-self-assess_en.pdf \(europa.eu\)](#)
- “H2020 Programme Guidelines on FAIR Data Management in Horizon 2020”, [h2020-hi-oa-data-mgt_en.pdf \(europa.eu\)](#)
- H2020 Programme Guidelines to the Rules on Open Access to Scientific Publications and Open Access to Research Data in Horizon 2020, [h2020-hi-oa-pilot-guide_en.pdf \(europa.eu\)](#)
- EDPB, Guidelines 3/2018 on the territorial scope of the GDPR (Article 3) Version 2.1 12 November 2019, 28 p.



RESPONSE

Integrated Solutions for Positive Energy
and Resilient Cities



This project has received funding from the European Union's Horizon 2020 research and innovation programme under Grant Agreement n° 957751. The document represents the view of the author only and is his/her sole responsibility: it cannot be considered to reflect the views of the European Commission and/or the European Climate, Infrastructure and Environment Executive Agency (CINEA). The European Commission and the Agency do not accept responsibility for the use that may be made of the information it contains.