



|                            |                          |                       |                 |
|----------------------------|--------------------------|-----------------------|-----------------|
| <b>Call for proposals</b>  | DIGITAL-2023-CLOUD-AI-04 | <b>Type of action</b> | DIGITAL-SIMPLE  |
| <b>Grant Agreement No.</b> | 101167948                | <b>Start date</b>     | 1 December 2024 |
| <b>Project duration</b>    | 30 months                | <b>End date</b>       | 31 May 2027     |

**Project consortium – Coordinator: LIBELIUM LAB SL - LIBE**

|                                |             |
|--------------------------------|-------------|
| AYUNTAMIENTO DE CARTAGENA      | BEN - CART  |
| DELTADAO AG                    | BEN - DDAO  |
| DREES & SOMMER SE              | BEN - D&S   |
| LANDESHAUPTSTADT KIEL          | BEN - KIEL  |
| OPEN & AGILE SMART CITIES      | BEN - OASC  |
| MOBILITY AS A SERVICE ALLIANCE | BEN - MAAS  |
| UNIVERSITY OF GALWAY           | BEN - GALW  |
| KIEL-MARKETING EV              | BEN - KIELM |
| DUNAVNET LIMITED               | BEN - DNET  |
| NUROGAMES GMBH                 | BEN - NUR   |

Contact: [projects@libelium.com](mailto:projects@libelium.com)

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 1 of 54        |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

## D1.2 Handbook for Project Management

| <b>Document Identification</b> |  |                        |            |
|--------------------------------|--|------------------------|------------|
| <b>Status</b>                  | Draft (final once approved by the European Commission) | <b>Due Date</b>        | 31/05/2025 |
| <b>Version</b>                 | 1.0  | <b>Submission Date</b> | 31/05/2025 |

|                               |                   |                            |                                      |
|-------------------------------|-------------------|----------------------------|--------------------------------------|
| <b>Related WP</b>             | All work packages | <b>Document Reference</b>  | D1.2                                 |
| <b>Related Deliverable(s)</b> | All               | <b>Dissemination Level</b> | PU                                   |
| <b>Lead Partner</b>           | Libelium Lab      | <b>Lead Author</b>         | Juan Francisco Inglés (Libelium Lab) |
| <b>Contributors</b>           | Libelium Lab      | <b>Reviewers</b>           | Libelium Lab                         |

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 2 of 54        |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

## Document Information

### List of Contributors

| Name                  | Partner      |
|-----------------------|--------------|
| Rodrigo González      | Libelium Lab |
| Juan Francisco Inglés | Libelium Lab |
| Nuria Archilla        | Libelium Lab |
| Mateo Ferri           | Libelium Lab |

### Document History

| Version | Date       | Change editors                      | Changes                     |
|---------|------------|-------------------------------------|-----------------------------|
| 0.1     | 14/04/2025 | Nuria Archilla,<br>Rodrigo González | Initial version             |
| 0.2     | 23/04/2025 | Juan Francisco Inglés               | General contributions       |
| 1.0     | 30/05/2025 | Mateo Ferri                         | Final draft to be submitted |
|         |            |                                     |                             |
|         |            |                                     |                             |
|         |            |                                     |                             |

### Quality Control

| Role                | Who (Partner short name) | Approval Date |
|---------------------|--------------------------|---------------|
| Deliverable leader  | LIBE                     | 30/05/2025    |
| Project Coordinator | LIBE                     | 30/05/2025    |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 3 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

# Table of Contents

---

|  |    |
|--|----|
| Document Information .....                                   | 3  |
| Table of Contents .....                                      | 4  |
| - List of Tables .....                                       | 6  |
| - List of Figures .....                                      | 7  |
| Executive Summary .....                                      | 10 |
| 1 Introduction .....   | 11 |
| 1.1 Purpose of the Document .....                            | 11 |
| 1.2 Structure of the Document .....                          | 11 |
| 2 Project Overview .....                                     | 12 |
| 2.1 Project Identification .....                             | 12 |
| 2.2 Project Summary .....                                    | 12 |
| 2.3 Overall Work Plan .....                                  | 13 |
| 2.3.1 Work package list .....                                | 13 |
| 2.3.2 Milestones .....                                       | 13 |
| 2.3.3 Gantt .....  | 15 |
| 2.4 Consortium Representatives .....                         | 17 |
| 3 Project Resources .....                                    | 18 |
| 3.1 Effort per WP .....                                      | 18 |
| 4 Project Management .....                                   | 19 |
| 4.1 Organizational Structure .....                           | 19 |
| 4.1.1 Overall Management Structure .....                     | 19 |
| 4.1.2 General Assembly .....                                 | 21 |
| 4.1.3 Project Coordinator .....                              | 22 |
| 4.1.4 Project Management Board .....                         | 22 |
| 4.1.5 PM <sup>2</sup> Governance Model Mapped to SENSE ..... | 23 |
| 4.2 Decision Making and Conflict Resolution .....            | 24 |
| 4.2.1 Decision-making process .....                          | 24 |
| 4.2.2 Decision-Making Framework and Techniques .....         | 25 |
| 4.2.3 Conflict resolution .....                              | 26 |
| 4.3 Project Communication .....                              | 27 |
| 4.3.1 Contact list .....                                     | 28 |
| 4.3.2 Emails and emailing lists .....                        | 29 |
| 4.3.3 Project repositories .....                             | 30 |
| 4.3.4 Meetings and Procedures .....                          | 32 |
| 4.3.5 Minutes of a Meeting .....                             | 33 |
| 4.3.6 Meeting roles .....                                    | 33 |
| 4.4 Project Monitoring .....                                 | 35 |
| 4.5 Technical Monitoring .....                               | 35 |
| 4.6 Contractual Management .....                             | 35 |
| 4.7 Administrative and Financial Reporting .....             | 35 |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 4 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

|   |    |
|---|----|
| 4.7.1 Reporting to the EC .....                                     | 35 |
| 4.7.2 Internal Activity Reports and Financial Project Reports ..... | 37 |
| 4.7.3 Budget and payments .....                                     | 38 |
| 5 Quality Assurance .....   | 39 |
| 5.1 Document Management Process .....                               | 39 |
| 5.1.1 Documents language .....                                      | 39 |
| 5.1.2 Documents storage .....                                       | 39 |
| 5.1.3 Documents nomenclature .....                                  | 39 |
| 5.1.4 Bibliographical references .....                              | 40 |
| 5.1.5 Documents templates .....                                     | 40 |
| 5.2 Quality Guidelines on the Production of Deliverables .....      | 40 |
| 5.3 Deliverables Review .....                                       | 41 |
| 5.3.1 Roles and responsibilities .....                              | 41 |
| 5.3.2 Deliverable review process .....                              | 42 |
| 6 Risk Management .....   | 45 |
| 6.1 Risk Management Process .....                                   | 45 |
| 6.1.1 Risk identification .....                                     | 45 |
| 6.1.2 Risk quantification .....                                     | 45 |
| 6.1.3 Risk response .....   | 45 |
| 6.1.4 Risk control and report .....                                 | 46 |
| 6.2 Plan Risk Management .....                                      | 46 |
| 6.3 Risk Identification .....                                       | 46 |
| 6.4 Risk Quantification .....                                       | 47 |
| 6.5 Response Planning Strategy .....                                | 47 |
| 6.6 Control and Reporting .....                                     | 47 |
| 7 Ethics .....  | 51 |
| 8 Conclusions .....   | 54 |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 5 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

## List of Tables

---

|   |     |
|---|-----|
| <i>Table 1 Work Package Lists</i>                     | 13  |
| <i>Table 2 Project Milestones</i>                     | 13  |
| <i>Table 3 Consortium Representatives</i>             | 17  |
| <i>Table 4 Project Management Board</i>               | 17  |
| <i>Table 5 Project Effort Distributed per WPs</i>     | 19  |
| <i>Table 6 Project Governance Roles</i>               | 21  |
| <i>Table 7 Project Emailing lists</i>                 | 24  |
| <i>Table 8 Periodic Reporting Schedule</i>            | 31  |
| <i>Table 9 Reporting Schedule</i>                     | 32  |
| <i>Table 10 EC Payments</i>                           | 32  |
| <i>Table 11 Deliverable Review - Quality Criteria</i> | 34  |
| <i>Table 12 Board of Reviewers</i>                    | 342 |
| <i>Table 13 Example of SENSE Risk Register</i>        | 43  |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 6 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

## List of Figures

---

|                                       |    |
|---------------------------------------|----|
| Figure 1 Project Gantt                | 15 |
| Figure 2 Project Management Structure | 20 |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 7 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

## List of Acronyms

| Abbreviation / acronym | Description  |
|------------------------|--|
| AB                     | Advisory Board                                     |
| AC                     | Approval Committee                                 |
| AE                     | Affiliated entity                                  |
| AP                     | Associated Partner                                 |
| BEN                    | Beneficiary  |
| CA                     | Consortium Agreement                               |
| CC                     | European Competence Centre                         |
| CFS                    | Certificate on the Financial Statements            |
| COO                    | Coordinator  |
| DCM                    | Dissemination & Communication Manager (DCM)        |
| DMOs                   | Destination Management Organisation                |
| DoA                    | Description of Action                              |
| DSS                    | Data Sharing Initiative                            |
| Dx.y                   | Deliverable number y, belonging to WP number x     |
| EC                     | European Commission                                |
| FPR                    | Financial Project Report                           |
| GA                     | Grant Agreement                                    |
| IAR                    | Internal Activity Report                           |
| PMB                    | Project Management Board                           |
| KPI                    | Key Performance Indicator                          |
| MICE                   | Meetings, Incentives, Conferences, and Exhibitions |
| PC                     | Project Coordinator                                |
| PCT                    | Project Coordination Team                          |
| PM                     | Person-month                                       |
| PMB                    | Project Management Board                           |
| QA                     | Quality Assurance                                  |
| QM                     | Quality Manager                                    |
| RO                     | Risk Owner   |
| RP                     | Reporting Period                                   |
| SMEs                   | Small and Medium-sized Enterprises                 |
| TL                     | Task Leader  |

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 8 of 54        |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

| Abbreviation / acronym | Description         |
|------------------------|---------------------|
| TM                     | Technical Manager   |
| ToC                    | Table of Contents   |
| WP                     | Work Package        |
| WPL                    | Work Package Leader |

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 9 of 54        |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

## Executive Summary

---

This document is a deliverable submitted as part of the SENSE project, funded by the European Commission (EC) as part of the Digital Simple Grants of the Digital Europe Programme (DIGITAL).

This document builds upon Deliverable D1.1 to serve as a comprehensive handbook grounded in the PM<sup>2</sup> Project Management Methodology. It provides tailored guidelines and practical approaches to support effective project management, with consortium partners as the primary target audience.

PM<sup>2</sup> is the official project management methodology developed by the European Commission to improve the management of internal and external projects. It combines elements from globally accepted best practices, standards, and methodologies such as PRINCE2, PMI's PMBOK, IPMA, and Agile principles.

While the SENSE project already possesses a well-defined governance and management structure, integrating PM<sup>2</sup> will bring the following benefits:

- Enhanced transparency and control through well-defined roles and artefacts.
- Better alignment with EC expectations.
- Improved communication across the consortium.
- Streamlined documentation and reporting.
- Stronger focus on benefits and stakeholder value.

This document serves as a guide for the consortium, offering insights into project structures and methods. It fosters collaboration among partners and plays a vital role in achieving the project's ultimate goals.

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 10 of 54       |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

# 1 Introduction

---

## 1.1 Purpose of the Document

---

This document serves as the management handbook of the SENSE Project, with the primary objective of expanding on Deliverable D1.1 by integrating the PM<sup>2</sup> methodology into:

- Procedures for information exchange and coordination among partners.
- General guidelines for carrying out day-to-day project management activities.

The project governance structure is in line with the Consortium Agreement (CA) and the Grant Agreement (GA) approved by both the consortium and the European Commission (EC). This ensures consistency and compliance with established guidelines.

## 1.2 Structure of the Document

---

This document is divided into four main sections:

- Sections 2 and 3 describe the project, including its work plan and resources planned.
- Section 4 - Project Management:
  - It describes the management procedures to be followed in this project to achieve both the technical and administrative objectives.
- Section 5 - Quality Assurance:
  - It defines the processes to monitor and control the production of results to meet an adequate level of quality.
- Section 6 - Risk Management:
  - It defines the process of identifying, assessing, controlling, and mitigating all risks that could jeopardise the project's expected results.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 11 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

## 2 Project Overview

### 2.1 Project Identification

|  |  |
|--|--|
| Project acronym                              | SENSE  |
| Project title                                | Strengthening Cities and Enhancing Neighborhoods<br>Sense of Belonging |
| Call   | DIGITAL-2023-CLOUD-AI-04   |
| Topic  | DIGITAL-2023-CLOUD-AI-04-DEVELOPCITI                                   |
| Type of action                               | DIGITAL-SIMPLE   |
| Grant agreement number                       | 101167948  |
| Project start date                           | 01/12/2024   |
| Project end date                             | 31/05/2027   |
| Project total time                           | 30 months  |
| Granting authority                           | European Commission  |
| Effort                                       | 836.50   |
| Budget                                       | 7 720 478.00€  |
| EU funding (maximum amount – award decision) | 3 860 239.00€  |

### 2.2 Project Summary

Virtual world, real connection – SENSE offers immersive digital metropolises as European CitiVerses to strengthen bonds between citizens, neighbourhoods and cities. Our orchestrator drives groundbreaking Use Cases tackling urban challenges, tailored to each community's context and needs. Showcasing the incredible gains that are met when people shape communal hybrid spaces, SENSE makes the premise real – the sense of belonging drives change.

Our Frontrunner cities (Kiel, DE; Cartagena, ES) will demonstrate how social, cultural, technological, historical, economic and smart applications can improve quality of life. This citizens-first approach sees people internalize behaviours through transparency, agency and micro-participation. Built on interoperable data infrastructure and MIM Plus standards for cross-platform operability, the SENSE CitiVerse is structured to facilitate practical innovation replication across Europe, demonstrated in our Follower Cities (Murcia, ES; Ulm, DE; Arezzo, IT; Valongo, PT) and consolidated in a Roadmap for future expansion.

Keenly focused on policy direction, SENSE is dedicated to advancing recommendations for open, inclusive CitiVerse adoption aligned with European values. By presenting the results of the Use Cases and deployment guidelines at forums like the ITU Metaverse Focus Group, we drive consensus on priorities balancing innovation with engagement. SENSE CitiVerse solution will demonstrate that technology serving society fosters human connections – and this sense of belonging, ultimately, helps to build better cities.

|                       |                                      |                       |    |                 |              |                |       |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|-------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 12 of 54       |       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> | Draft |

## 2.3 Overall Work Plan

### 2.3.1 Work package list

The project workflow is organised around six Work Packages, as shown below:

Table 1 Work Package Lists

| WP Number | WP Name                                    | Lead Beneficiary | Effort        | Start Month | End Month |
|-----------|--|------------------|---------------|-------------|-----------|
| WP 1      | Project management and coordination        | 1 - LIBE         | 172.50        | 1           | 30        |
| WP 2      | Co-creating interoperable data foundations | 10 - DNET        | 114.50        | 1           | 12        |
| WP 3      | CitiVerse Development                      | 3 - DDAO         | 162.00        | 4           | 18        |
| WP 4      | Frontrunner cities and scenarios           | 1 - LIBE         | 147.50        | 7           | 26        |
| WP 5      | Follower cities, adoption and exploitation | 4 - D&S          | 118.00        | 20          | 30        |
| WP 6      | Maximising impact                          | 6 - OASC         | 122.00        | 7           | 30        |
|           |  | <b>Total</b>     | <b>836.50</b> |             |           |

### 2.3.2 Milestones

The following table summarises the project's milestones and the key control points for the project's implementation:

Table 2 Project Milestones

| Milestone Number | Milestone Name   | WP  | Lead beneficiary | Due Date (in months) | Means of verification   |
|------------------|--|-----|------------------|----------------------|---|
| 1                | Establishing Governance and Communication Procedures         | WP1 | 1 - LIBE         | 3                    | Approval of the finalized project governance structure document and successful internal communication channels and document repository usage. |
| 2                | Implementation of Risk Management and Responsible Innovation | WP1 | 1 - LIBE         | 6                    | Approval of the updated Risk Analysis and Mitigation Plan, documentation and  |

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 13 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

| Milestone Number | Milestone Name   | WP  | Lead beneficiary | Due Date (in months) | Means of verification  |
|------------------|--|-----|------------------|----------------------|--|
|                  |  |     |                  |                      | execution of specific mitigation plans.  |
| 3                | Data source catalogue and requirements established                                       | WP2 | 10 - DNET        | 6                    | A list of required data sources for all use cases documented with integration requirements, meta-data and sharing terms.               |
| 4                | Data source integrated into data space   | WP2 | 10 - DNET        | 12                   | All data sources successfully onboarded on UDX with sharing controls to allow cities to expose data sources into the SENSE data space. |
| 5                | Beta version of the portal ready for testing   | WP3 | 3 - DDAO         | 10                   | D3.1, D3.2   |
| 6                | Deployment of the orchestration system   | WP3 | 3 - DDAO         | 18                   | D3.3, D3.4   |
| 7                | Operationalizing 1st SENSE Iteration   | WP4 | 1 - LIBE         | 16                   | D4.1, D4.2 Draft Documents (structure, tags, outline)  |
| 8                | Operationalizing 1nd SENSE Iteration   | WP4 | 1 - LIBE         | 22                   | D4.3, D4.4 Documents   |
| 9                | Detailed analysis of Follower cities on their position on the Path to Digital Transition | WP5 | 4 - D&S          | 21                   | Documentation is sent to stakeholders on M21   |
| 10               | Definition of content for the CitiVerse Training Academy                                 | WP5 | 4 - D&S          | 24                   | All contents of the CitiVerse Academy and MasterGuide are defined  |
| 11               | Resources  | WP6 | 5 - KIEL         | 9                    | 1. Capacity and Quality checks 2. DataSpace deployed and tests 3. API live stream  |
| 12               | Media  | WP6 | 6 - OASC         | 18                   | 1. Analytic report 2. Strategy revised   |
| 13               | Results  | WP6 | 6 - OASC         | 24                   | 1. List of potential standards 2. Outline of 2 papers 3. Status report   |

|                       |                                      |                       |    |                 |              |                      |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 14 of 54             |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> Draft |

### 2.3.3 Gantt

| ACTIVITY  | YEAR 1 |    |    |    | YEAR 2 |    |    |    | YEAR 3 |    |
|---|--------|----|----|----|--------|----|----|----|--------|----|
|   | Q1     | Q2 | Q3 | Q4 | Q1     | Q2 | Q3 | Q4 | Q1     | Q2 |
| Task 1.1 - Establishing Governance and communication procedures                                     |        |    |    |    |        |    |    |    |        |    |
| Task 1.2 - Organizing meetings and projects management tools  |        |    |    |    |        |    |    |    |        |    |
| Task 1.3 - Monitoring project progress and quality  |        |    |    |    |        |    |    |    |        |    |
| Task 1.4 - Risk management and responsible innovation   |        |    |    |    |        |    |    |    |        |    |
| Task 1.5 - Secure information handling in project management  |        |    |    |    |        |    |    |    |        |    |
| Task 1.6 - Budget management, reporting and administration  |        |    |    |    |        |    |    |    |        |    |
| Task 2.1 - Understanding EU data standards and develop the CitiVerse Standards and Model Register   |        |    |    |    |        |    |    |    |        |    |
| Task 2.2 - Establishing interoperable local city data ecosystem                                     |        |    |    |    |        |    |    |    |        |    |
| Task 2.3 - Bridging local data ecosystem with EU data spaces  |        |    |    |    |        |    |    |    |        |    |
| Task 2.4 - Asset management, privacy, cybersecurity & identity management                           |        |    |    |    |        |    |    |    |        |    |
| Task 3.1 - Data and service market place portal   |        |    |    |    |        |    |    |    |        |    |
| Task 3.2 - Design an interoperable architecture and Federated Catalogue ensuring Gaia-X Compliance  |        |    |    |    |        |    |    |    |        |    |
| Task 3.3 - SENSE technology stack integration   |        |    |    |    |        |    |    |    |        |    |
| Task 3.4 - Implement trust mechanisms with SSI, Secure Data Transactions, and Automated Contracting |        |    |    |    |        |    |    |    |        |    |
| Task 3.5 - Develop and AI Orchestration layer using Compute-to-Data                                 |        |    |    |    |        |    |    |    |        |    |
| Task 3.6 - Integrating 3D assets and plug-in data streaming   |        |    |    |    |        |    |    |    |        |    |

|                |                                      |                |          |
|----------------|--------------------------------------|----------------|----------|
| Document name: | D1.2 Handbook for Project Management | Page:          | 15 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU       |

This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.

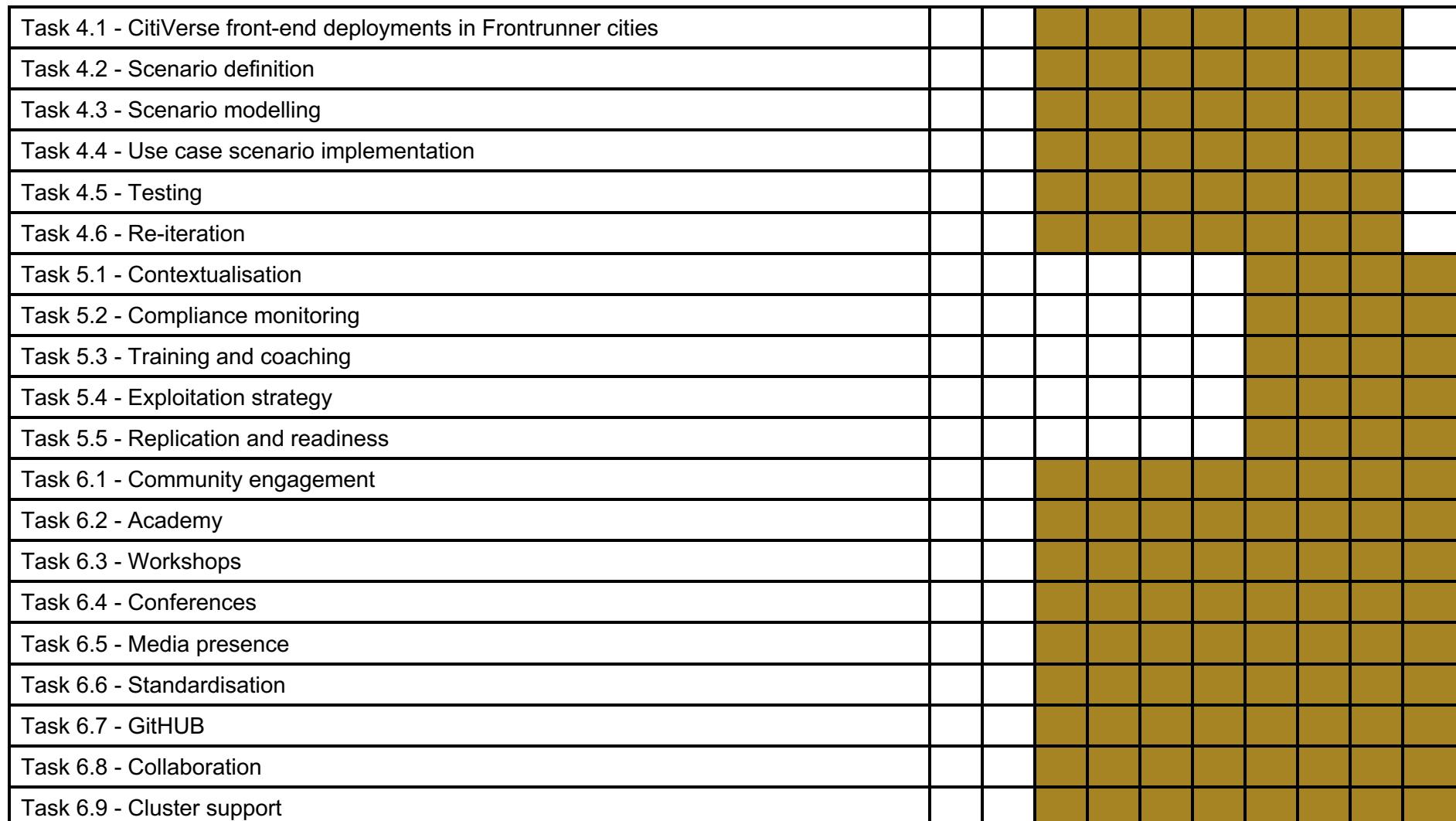


Figure 1 Project Gantt

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 16 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.

## 2.4 Consortium Representatives

The following table summarizes the partners of the SENSE consortium.

Table 3 Consortium representatives

| Number | Role | Short Name | Legal Name                     | Country | PIC       |
|--------|------|------------|--------------------------------|---------|-----------|
| 1      | COO  | LIBE       | LIBELIUM LAB SL                | ES      | 949752221 |
| 2      | BEN  | CART       | AYUNTAMIENTO DE CARTAGENA      | ES      | 898446108 |
| 3      | BEN  | DDAO       | DELTADAO AG                    | DE      | 882383587 |
| 4      | BEN  | D&S        | DREES & SOMMER SE              | DE      | 940356995 |
| 5      | BEN  | KIEL       | LANDESHAUPTSTADT KIEL          | DE      | 897400351 |
| 6      | BEN  | OASC       | OPEN & AGILE SMART CITIES      | BE      | 914842115 |
| 7      | BEN  | MAAS       | MOBILITY AS A SERVICE ALLIANCE | BE      | 880027748 |
| 8      | BEN  | GALW       | UNIVERSITY OF GALWAY           | IE      | 999978045 |
| 9      | BEN  | KIELM      | KIEL-MARKETING EV              | DE      | 879158143 |
| 10     | BEN  | DNET       | DUNAVNET LIMITED               | IE      | 997729585 |
| 11     | BEN  | NUR        | NUROGAMES GMBH                 | DE      | 969034463 |

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 17 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

## 3 Project Resources

This section summarises the project personnel resources, measured in person-months. Other sections of the document describe other project resources, such as development tools, code repository, the project communication infrastructure, or any supporting means.

### 3.1 Effort per WP

This section summarises the project's staff costs in total € and person-months, providing an overview of the entire effort allocation according to the WP breakdown structure of the project established in the GA:

Table 4 Project Effort Distributed per WPs

| Staff effort per participant |               |               |               |               |               |               |               |
|------------------------------|---------------|---------------|---------------|---------------|---------------|---------------|---------------|
| Participant                  | WP1           | WP2           | WP3           | WP4           | WP5           | WP6           | Total PMs     |
| 1 - LIBE                     | 80.00         | 25.00         | 28.00         | 30.00         | 20.00         | 20.00         | 203.00        |
| 2 - CART                     | 15.00         | 6.00          | 14.00         | 18.00         | 5.00          | 7.50          | 65.50         |
| 3 - DDAO                     | 7.50          | 12.00         | 28.00         | 18.00         | 5.00          | 7.50          | 78.00         |
| 4 - D&S                      | 7.50          | 6.00          | 14.00         | 12.00         | 20.00         | 15.00         | 74.50         |
| 5 - KIEL                     | 7.50          | 1.00          | 2.00          | 2.00          | 2.00          | 1.50          | 16.00         |
| 6 - OASC                     | 15.00         | 6.00          | 7.00          | 6.00          | 14.00         | 24.00         | 72.00         |
| 7 - MAAS                     | 7.50          | 3.00          | 1.00          | 6.00          | 5.00          | 7.50          | 30.00         |
| 8 - GALW                     | 7.50          | 3.00          | 7.00          | 0             | 5.00          | 7.50          | 30.00         |
| 9 - KIELM                    | 7.50          | 2.00          | 0             | 4.50          | 2.00          | 4.00          | 20.00         |
| 10 - DNET                    | 10.00         | 30.00         | 33.00         | 23.00         | 20.00         | 20.00         | 136.00        |
| 11 - NUR                     | 7.50          | 20.50         | 28.00         | 28.00         | 20.00         | 7.50          | 111.50        |
| Total Person-Months          | <b>172.50</b> | <b>114.50</b> | <b>162.00</b> | <b>147.50</b> | <b>118.00</b> | <b>122.00</b> | <b>836.50</b> |

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 18 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.

## 4 Project Management

---

### 4.1 Organizational Structure

Project governance is the foundational management framework that outlines how project decisions are made. The structure of project governance delineates the key participants in the project, their roles, responsibilities, and how they interact throughout the project's lifecycle. This framework is designed to facilitate effective project evaluation, control, and decision-making, all while fostering active participation, motivation among all partners, and the timely resolution of conflicts. The ultimate goal is to create an environment that ensures the project's success and promotes collaborative and harmonious engagement among all stakeholders.

#### 4.1.1 Overall Management Structure

All management activities must offer sufficient control and flexibility in order to achieve all the ambitious goals of the project as smoothly as possible. More specifically, the management of the SENSE project is constituted by a set of different activities such as progressive control of each work package, coordination of the different project activities and implementation of specific quality control mechanisms such as the issuing of appropriate project standards. Two important goals of project management are the following:

- The project management structure is planned in such a way in order to ensure that the stated objectives and achievements will be fulfilled in the best possible way.
- Any changes and potential risks concerning the project structure will be handled with special care from the start of the project as well as to the continuous planning for the evolution and diffusion of the project results during and after the project lifecycle.

In general, the overall management structure of the project is planned and designed to ensure that the stated objectives and achievements will be fulfilled, giving special attention to the overall coordination, risk management and contingency planning measures. SENSE is an Innovation Action and a comprehensive work plan has been derived, as reported in detail in Annex I of the Grant Agreement (GA), broken down into constituent tasks carefully designed to ensure the highest self-sufficiency and at the same time allow for technical and pilot work continuity and cohesion. To this end, the SENSE project is divided into 6 Work Packages and these are in turn divided into Tasks according to the goals and structure of each WP (see GA Annex I). For each Task, a set of goals is set up and needs to be addressed by an appropriate number of partners. One partner may contribute to more than one Tasks within one or more WPs. The structures have been assembled in a way that responsibilities among partners are clear and the communication between the various partners, boards and other committees are optimised. Moreover, a set of qualified procedures foreseen within the project lifecycle has been set up to guarantee that critical decisions are taken on time.

The overall management structure is presented in the following figure:

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 19 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

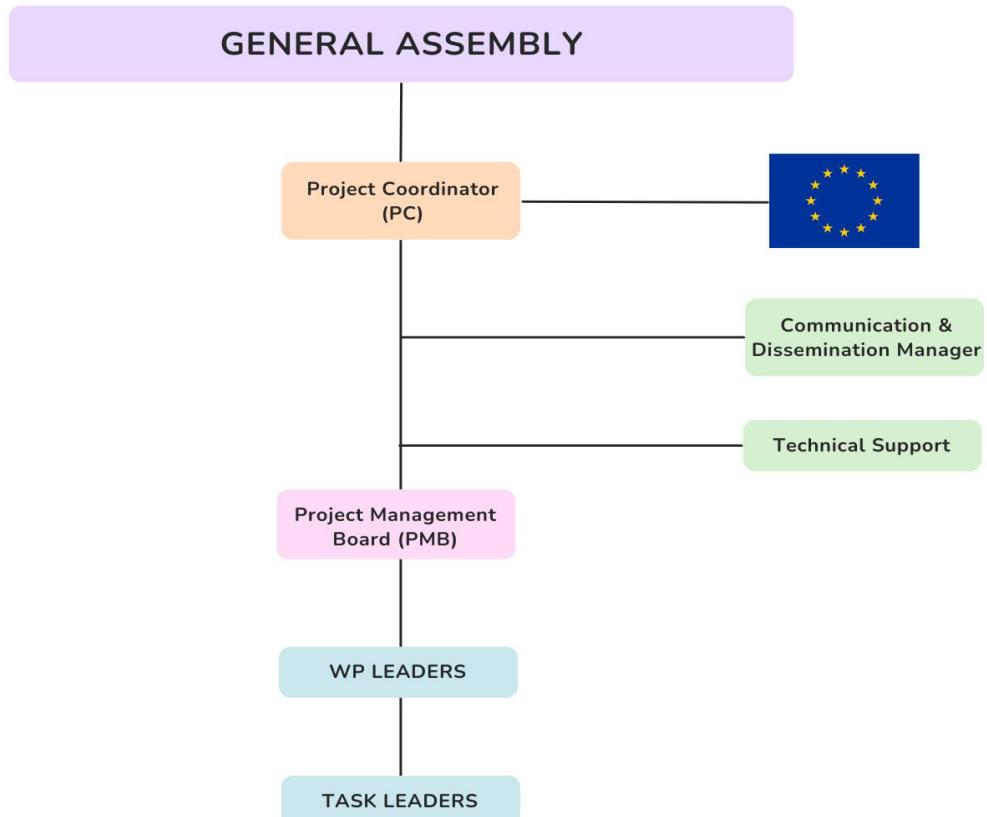


Figure 2 Project Management Structure

The following table presents each role and its members. For a description of each role assigned tasks and responsibilities, please refer to the GA Annex I.

Table 5 Project Governance Roles

| Role/Group                                      | Partners   |
|---|--|
| General Assembly                                | All consortium partners – One representative of each Party |
| The project coordinator (PC)                    | LIBE   |
| Technical Support                               | LIBE, DNET, DDAO, NUR, GALW                                |
| The quality manager (QM)                        | LIBE   |
| The dissemination & communication manager (DCM) | LIBE   |
| Project Management Board (PMB)                  | ALL WP leads or substitutes, up to two people per partner  |
| Work Package Leaders (WPL)                      | LIBE, DNET, DDAO, D&S, OASC                                |

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 20 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

#### 4.1.2 General Assembly

The General Assembly is the highest-level governing body of SENSE and is responsible for making decisions and approving the management structure and direction of the project. All the partners of the Project Consortium are represented. The General Assembly will assume responsibility for the liaison between the Parties, analysing, managing and implementing the results and provisions following the Consortium Agreement. Furthermore, it will decide on situations such as changes in the Consortium Agreement, exclusion of project partners and/or modification of the management structure. The General Assembly will report to the Steering Committee, which will execute the functions of the General Assembly. The initial synthesis of the SENSE General Assembly is as follows:

Table 6 Members of the General Assembly

| Number | Partner Name                   | Short Name | Member Name  |
|--------|--------------------------------|------------|--|
| 1      | LIBELIUM LAB SL                | LIBE       | Antonio J. Jara<br>Juan Francisco Inglés<br>Mateo Ferri  |
| 2      | AYUNTAMIENTO DE CARTAGENA      | CART       | Pedro Yepes<br>Luis Candela  |
| 3      | DELTADAO AG                    | DDAO       | Frederic Schwill<br>Kai Meinke<br>Thomas Komenda   |
| 4      | DREES & SOMMER SE              | D&S        | Christopher Stanfield<br>Maic Enter<br>Thierry Nolmans<br>Minu Tegethoff   |
| 5      | LANDESHAUPTSTADT KIEL          | KIEL       | Jens Koetke<br>Jana Korth  |
| 6      | OPEN & AGILE SMART CITIES      | OASC       | Karl-Filip Coenegrachts<br>Margarida Campolargo<br>Arnaud Verstraete<br>Inge Willemsen                                   |
| 7      | MOBILITY AS A SERVICE ALLIANCE | MAAS       | Roelof Hellemans   |
| 8      | UNIVERSITY OF GALWAY           | GALW       | Martin Serrano<br>Umair ul Hassan<br>Ullah, Ihsan  |
| 9      | KIEL-MARKETING EV              | KIELM      | Katharina Volpp<br>Maike Brüggmann   |
| 10     | DUNAVNET LIMITED               | DNET       | Alex Gluhak<br>Dajana Svrkota<br>Srdjan Krčo<br>Petar Knežević<br>Nebojša Stojanović<br>Svetlana Krčo<br>Mirjana Nikolić |
| 11     | NUROGAMES GMBH                 | NUR        | Christian Tismer<br>Holger Kürten<br>Holger Sprengel   |

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 21 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

#### 4.1.3 Project Coordinator

The Project Coordinator (PC) will be Dr. Antonio Jara, who is a Researcher (Grade C') at Libelium Lab SL with extensive experience in project administrative & technical management and innovations. He has proven experience in scientific excellence, technology transfer, valorisation & management. The PC will be responsible for the continuous monitoring of the project and all the following activities. The PC is the principal contact person of the project to interact with the European Comision (EC). He will coordinate the activities to be carried out concerning quality, cost and schedule constraints, interacting directly with the EC for all aspects, ensuring that contractual milestones are met on time and that planned deliveries are made, discussing and negotiating changes in the contract, with the support of the entire organizational structure of the project. They will approve deliverables and milestones, as well as oversee risk mitigation measures. Other activities, such as contract management, quality and configuration control, performed by official procedures outlined by General Assembly:

- **Contract Office:** manages all contractual aspects of the project and any deviation from the initial conditions and formal agreements, such as possible changes to the contract, providing guidance and support to the PC.
- **Quality assurance:** ensures that the project is conducted, activities are performed and deliverables produced following the quality procedures set out by the General Assembly, taking care to improve processes and their consequent redefinition to achieve the necessary operational efficiency.

#### 4.1.4 Project Management Board

The Project Management Board (PMB) is in charge of the project's operational coordination. It consists of the WP leaders and technical people responsible for each party. Chaired by the Project Coordinator (PC), the Board supervises the progress of the WP's work. It aligns the efforts with a common work plan, ensuring a smooth implementation of the project objectives. It meets regularly (remotely or physically) and works proactively between the meetings. A simple majority makes decisions, but any member can raise an issue with the General Assembly.

Table 7 Project Management Board

| WP | WP Name                                    | Partner | Participants  |
|----|--|---------|---|
| 1  | Project Management & coordination          | LIBE    | Antonio J. Jara<br>Juan Francisco Inglés                  |
| 2  | Co-creating interoperable data foundations | CART    | Alex Gluhak<br>Srdjan Krčo                                |
| 3  | CitiVerse Development                      | DDAO    | Frederic Schwill<br>Kai Meinke                            |
| 4  | Frontrunner cities and scenarios           | D&S     | Antonio J. Jara<br>Juan Francisco Inglés                  |
| 5  | Follower cities, adoption and exploitation | KIEL    | Minu Tegethoff<br>Helmut Strobel<br>Christopher Stanfield |

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 22 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

| WP | WP Name         | Partner | Participants                        |
|----|-----------------|---------|-------------------------------------|
| 6  | Maximing impact | OASC    | Arnaud Verstraete<br>Inge Willemsen |

#### 4.1.5 PM<sup>2</sup> Governance Model Mapped to SENSE

PM<sup>2</sup> proposes a clear governance structure designed to ensure clarity, accountability, and efficient project delivery. To enhance the operational and strategic management of the SENSE project, PM<sup>2</sup> roles and responsibilities are mapped to the existing structures in the project as follows:

- **Project Owner (PO):** The ultimate accountability for the success of the project lies with the PO. In the context of SENSE, this role is best assumed by the LIBE coordinator, who already oversees strategic direction and coordination with the European Commission. The PO ensures alignment with overall objectives and maintains stakeholder satisfaction.
- **Project Steering Committee (PSC):** The PSC provides strategic oversight, validates key project decisions, and ensures the alignment of project objectives with broader policy and stakeholder expectations. In SENSE, this role naturally aligns with the General Assembly, which includes one representative from each consortium partner and makes high-level decisions on content, finance, and intellectual property.
- **Project Manager (PM):** Responsible for the day-to-day management of the project, the PM ensures effective planning, execution, monitoring, and closure. This role aligns with the Project Management Board (PMB) Lead, who supervises WP progress and reports to the General Assembly. The PM also ensures risk, quality, and communication plans are implemented effectively.
- **Project Core Team (PCT):** This team supports the PM and is composed of key delivery personnel. In SENSE, WP Leaders and Task Leaders form the core team, ensuring that operational and technical work is carried out as planned. They manage dependencies across work packages, coordinate deliverables, and report progress.
- **Business Manager (BM):** The BM is responsible for ensuring the project delivers business value and benefits. For SENSE, the BM role can be assigned to the WP6 Lead (OASC), who is already responsible for maximising impact and overseeing stakeholder engagement, dissemination, and exploitation activities.
- **Solution Provider (SP):** The SP handles the development and delivery of the project's technical solution. This role fits well with partners DNET and DDAO, who are leading technical development and system integration under WPs 2 and 3. They ensure the technical feasibility and quality of deliverables, especially around the CitiVerse infrastructure and data systems.
- **Quality Assurance Manager (QAM):** Although not a core PM<sup>2</sup> role, the inclusion of a QAM is critical for large projects. LIBE, already assigned QA responsibilities in D1.1, continues in this role to oversee quality compliance, conduct reviews, and monitor adherence to standards and templates.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 23 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

- **Support Office:** PM<sup>2</sup> recommends establishing a support office to assist the PM with documentation, coordination, and administrative tasks. In SENSE, this function can be delegated to the PMB support staff or a rotating secretariat among WP leaders.

### Advantages of the Mapped Structure:

1. **Streamlined Decision-Making:** Clear role assignment prevents duplication and improves the speed of resolution for issues and escalations.
2. **Enhanced Accountability:** Defined roles and responsibilities ensure accountability at each project layer.
3. **Strategic-Operational Link:** The General Assembly (PSC) provides strategic guidance, while the PM and PCT ensure operational delivery, forming a robust governance bridge.
4. **Improved Stakeholder Satisfaction:** By defining the Business Manager role, the project strengthens its focus on benefits realisation and stakeholder impact.
5. **Optimised Risk and Quality Management:** The inclusion of a QAM ensures the quality of outcomes and compliance with European Commission expectations.

## 4.2 Decision Making and Conflict Resolution

---

### 4.2.1 Decision-making process

The General Assembly, the decision-making body of the consortium, consisting of one representative of each Party, shall be free to act on its own initiative to formulate proposals and take decisions following the procedures set out herein.

The General Assembly shall take the following decisions:

- Content, finances and intellectual property rights.
  - Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the Granting Authority, such as changes resulting from suggested reallocation of tasks and budget by the Work Package Leaders.
  - The percentage of work package completion per work package as well as per Party to be reported to the Granting Authority based on the assessment by the Work Package Leaders Group regarding the individual performance of single Parties in case of non-completion of work packages.
  - Modifications or withdrawal of Background in Attachment 1 (Background Included).
  - Additions to Attachment 3 (List of Third Parties for simplified transfer according to Section 8.3.2)
  - Additions to Attachment 4 (Identified entities under the same control).
- Breach, defaulting party status and litigation.
  - Identification of a breach by a Party of its obligations under this Consortium Agreement or the Grant Agreement.
  - Declaration of a Party to be a Defaulting Party.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 24 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

- Remedies are to be performed by a Defaulting Party.
- Termination of a Defaulting Party's participation in the consortium and measures relating to it.
- Steps to be taken for litigation purposes and the coverage of litigation costs in case of joint claims of the Parties of the consortium against a Party (e.g. Section 7.1.4)

The PMB oversees the project's operational coordination. It consists of the WP leaders and technical responsible people from each Party. Chaired by the Project Coordinator (PC), the Board supervises the WP's progress and aligns the efforts with a common work plan, ensuring a smooth implementation of the project objectives. It meets regularly (remotely or physically) and works proactively between meetings. A simple majority makes decisions, but any member can raise an issue with the General Assembly.

#### 4.2.2 Decision-Making Framework and Techniques

PM<sup>2</sup> emphasizes structured, transparent, and scalable decision-making processes that align closely with SENSE's multi-stakeholder governance structure. Integrating PM<sup>2</sup> principles into SENSE enhances agility, accountability, and fairness in decision-making while equipping the project with a formal conflict resolution protocol suited for EU-funded collaborative environments.

##### Decision-Making Framework

PM<sup>2</sup> promotes a hierarchical, yet participative decision-making model that ensures appropriate involvement from both strategic and operational levels:

- **Strategic Decisions** are the responsibility of the **Project Steering Committee (PSC)** (mapped to SENSE's General Assembly). These include:
  - Approval of major changes to scope, cost, time, and quality.
  - Strategic alignment with policy goals and consortium agreements.
  - Ratification of conflict resolutions escalated from lower tiers.
- **Operational Decisions** are handled by the **Project Manager (PM)** in consultation with the **Project Core Team (PCT)** (aligned with the PMB and WP leaders). These include:
  - Daily coordination, task assignments, and deliverable approvals.
  - Adjustments to work plans and internal timelines.
  - Recommendations to escalate strategic matters.
- **Decision Escalation Process:**
  - Task-level decisions are made by **Task Leaders**.
  - If unresolved, issues escalate to **WP Leaders** (Core Team).
  - If still unresolved, they escalate to the **Project Manager**.
  - The PM, if unable to resolve, escalates to the **PSC/General Assembly**.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 25 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

This multi-tiered decision framework fosters resolution at the lowest responsible level, consistent with PM<sup>2</sup> and SENSE's principle of decentralised project autonomy.

## Decision-Making Techniques

PM<sup>2</sup> supports a variety of techniques depending on the nature and urgency of the decision:

- **Consensus Building:** Preferred method, especially for cross-consortium decisions.
- **Majority Voting:** Applied when consensus cannot be reached. SENSE's use of a simple majority in the General Assembly aligns with PM<sup>2</sup> guidance.
- **RACI Matrix Application:** PM<sup>2</sup> promotes the use of RACI charts (Responsible, Accountable, Consulted, Informed) to clarify decision roles and prevent ambiguity in responsibilities—especially critical for cross-WP dependencies in SENSE.

## Tools and Artefacts Supporting Decision-Making and Conflict Resolution

To operationalize these procedures, PM<sup>2</sup> promotes several artefacts, which SENSE may adapt:

- **Issue Log:** Centralized documentation of conflicts, ownership, and resolution status.
- **Decision Log:** Tracks all critical decisions, responsible roles, and dates.
- **Change Request Form (CRF):** Standardised form for evaluating proposed changes affecting time, scope, or budget.
- **Meeting Minutes Template:** Ensures decisions and actions are formally recorded and shared across the consortium.

### 4.2.3 Conflict resolution

The consortium prioritises preventing unnecessary conflicts. However, if conflicts do arise, a well-defined conflict resolution and escalation process is in place to address them appropriately. This process emphasises resolving conflicts at the lowest possible level, with each conflict being addressed, mediated, or decided at progressively higher levels of authority.

Conflicts within the consortium will be resolved through dialogue and mutual concession. The process starts at the Task level under the management of the Task Leader (TL), then proceeds to the Work Package (WP) level under the management of the Work Package Leader (WPL) and continues through the management bodies up to the General Assembly. Additional rules regarding conflict resolution are detailed in the Consortium Agreement.

If necessary, the Project management board will convene a conflict resolution meeting within fifteen (15) calendar days upon receiving a written request from any partner or project body. Arbitration attempts will be conducted in increasing order of authority:

- first within the team of each work package under the management of the Work Package Leader and
- then within the Project Coordination Committee.

This structured approach ensures a systematic and fair process for addressing conflicts within the consortium.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 26 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

PM<sup>2</sup> recommends a structured and tiered conflict resolution model designed to resolve issues efficiently while preserving collaboration.

### Step 1: Internal Resolution at the Task Level

- Conflict is identified by Task Leaders.
- Internal dialogue is facilitated with involved parties.

### Step 2: Escalation to the Work Package Leader

- WP Leader intervenes as a mediator.
- If needed, a corrective action plan is drafted and agreed upon.

### Step 3: Project Manager Intervention

- The PM performs impartial analysis, consults documentation, and proposes binding actions.
- Actions are documented in the issue log.

### Step 4: Escalation to the Project Steering Committee (PSC / General Assembly)

- If unresolved, the conflict is raised formally via the PM.
- The PSC assesses impacts on project scope, cost, and performance and makes final decisions.

### Step 5: External Mediation or Arbitration (if applicable)

- If the PSC decision is disputed, the conflict can be addressed under the Consortium Agreement's legal dispute clause, consistent with PM<sup>2</sup> recommendations for escalation beyond the project level.

## 4.3 Project Communication

The primary objective of internal communication is to ensure that all members of the consortium and working groups within the project have access to the necessary information to make well-informed decisions and maximise their contributions. Effective internal communication is crucial for achieving the project's expectations and objectives.

The Key objectives of internal communication include:

- 1. Awareness of the project's vision and objectives:**
  - Ensuring that all consortium members are well-informed about the project's vision and objectives.
- 2. Effective communication of the project's decisions:**
  - Ensuring that all project decisions are communicated clearly and effectively to consortium members.
- 3. Understanding and adherence to policies and procedures:**

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 27 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

- Ensuring that all consortium members understand and know how to follow the policies and procedures related to their participation in the project.

**4. Knowledge of resources and updates:**

- Ensuring that all consortium members are familiar with the resources available and updates and developments in programmes beyond their own.

**5. Feedback mechanism:**

- Providing a mechanism for consortium members to offer feedback to management through formal channels.

Communication is managed by implementing certain rules, concerning in particular:

**1. Organisation of official meetings:**

- Conducting official meetings such as the General Assembly and project coordination team meetings.

**2. Meeting organisation rules:**

- Establishing rules for meeting organisations tailored to the project's needs, including creating pre-agendas and meeting minutes for comments and approval.

**3. Information sharing rules:**

- Providing and maintaining information at all project levels.

**4. Electronic repository:**

- Information can be shared through an electronic repository accessible to all consortium members.

**5. Project mailing lists:**

- Utilising project mailing lists for efficient communication.

**6. Use of standard document templates:**

- Implementing standard document templates to ensure uniformity of information and easy identification of documents.

**7. Type of font.**

- The official type of font is the Arial family.

By adhering to these communication strategies and rules, the project aims to foster a transparent and efficient flow of information, contributing to the collaboration's overall success.

#### 4.3.1 Contact list

The contact list includes the contact information of every person involved in the project from all consortium partners.

The project coordinator is responsible for keeping this table up to date throughout the project's duration, and the partners must be informed about the changes in due time. To facilitate this, the contact list will be managed in a separate file within the project repository. This approach ensures a centralised and easily accessible location for maintaining accurate and current contact details for all project participants. The contact list includes members of each work package.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 28 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

### 4.3.2 Emails and emailing lists

Mailing lists serve as the primary mode of interpersonal communication within the project. The key objectives of these lists are to offer a convenient and rapid means of communication for project members while maintaining a record of communications and archives of exchanged information. Mailing lists are utilised for various purposes, including scheduling meetings, distributing documents or information, and facilitating general questions and answers. By leveraging mailing lists, the project ensures efficient and organised communication, fostering collaboration among team members.

#### 4.3.2.1 Use of emailing lists

Mailing lists are the main means of internal communication within the project. The objectives of the mailing lists are to provide an easy and fast way to communicate with the other project members. The project has set up different mailing lists for each Work package.

Appropriate uses of mailing lists include scheduling meetings, forwarding documents or other information, and general questions and answers.

Table 7 Project emailing lists

| Name      | Purpose                                     |
|-----------|---|
| sense     | General purposes related to the project     |
| sense.wp1 | Administrative, legal, and financial issues |
| sense.wp2 | Issues related to the WP2                   |
| sense.wp3 | Issues related to the WP3                   |
| sense.wp4 | Issues related to the WP4                   |
| sense.wp5 | Issues related to the WP5                   |
| sense.wp6 | Issues related to the WP6                   |

#### 4.3.2.2 Communication rules

For a suitable use of the mailing lists, the rules below are to be followed by all partners:

- SUBJECT (please include the acronym of the project at the beginning of the subject line and then the relevant subject: *[SENSE] Subject*)
- If the subject involves a WP, add the corresponding WPX. For example, *[SENSE WPX] Subject*
- Use a clear Subject title. The subject should be a clear indication of the content (for example, "WP1", "Meeting minutes 2024-12-15"). It is highly recommended to keep a record of the conclusions and decided actions of the e-mail.
- ATTACHMENTS. Avoid attachments as much as possible in your e-mails, using a link to the repository instead.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 29 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

### 4.3.3 Project repositories

The project repository is the central hub for storing all project-related documentation. It facilitates the storage, review process, information sharing, and collaborative work among all partners to achieve common project goals. It is a comprehensive resource for information essential for the project's success.

All pertinent information related to the project will be housed in this repository. This includes contractual documents such as the Grant Agreement (GA) and Consortium Agreement (CA) and any amendments. Additionally, documentation related to reviews, reporting, contact details, templates, working documents for deliverables, internal working papers, agendas, meeting minutes, and more are all integral parts of the repository. Importantly, the final versions of all deliverables are to be uploaded to ensure a complete and organised record of the project's outcomes. It also includes all communication and dissemination activities. The repository thus plays a pivotal role in streamlining communication, collaboration, and documentation management throughout the project's lifecycle.

#### 4.3.3.1 Structure

At the moment, the project repository is on MS SharePoint. The repository is organised in folders:

- Grant Agreement
- Consortium Agreement
- One for each Work package
- Deliverables
  - Pending approval
  - Approved deliverables
- Meetings
- Project templates
- Guidelines and important documents to follow
- ...

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 30 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

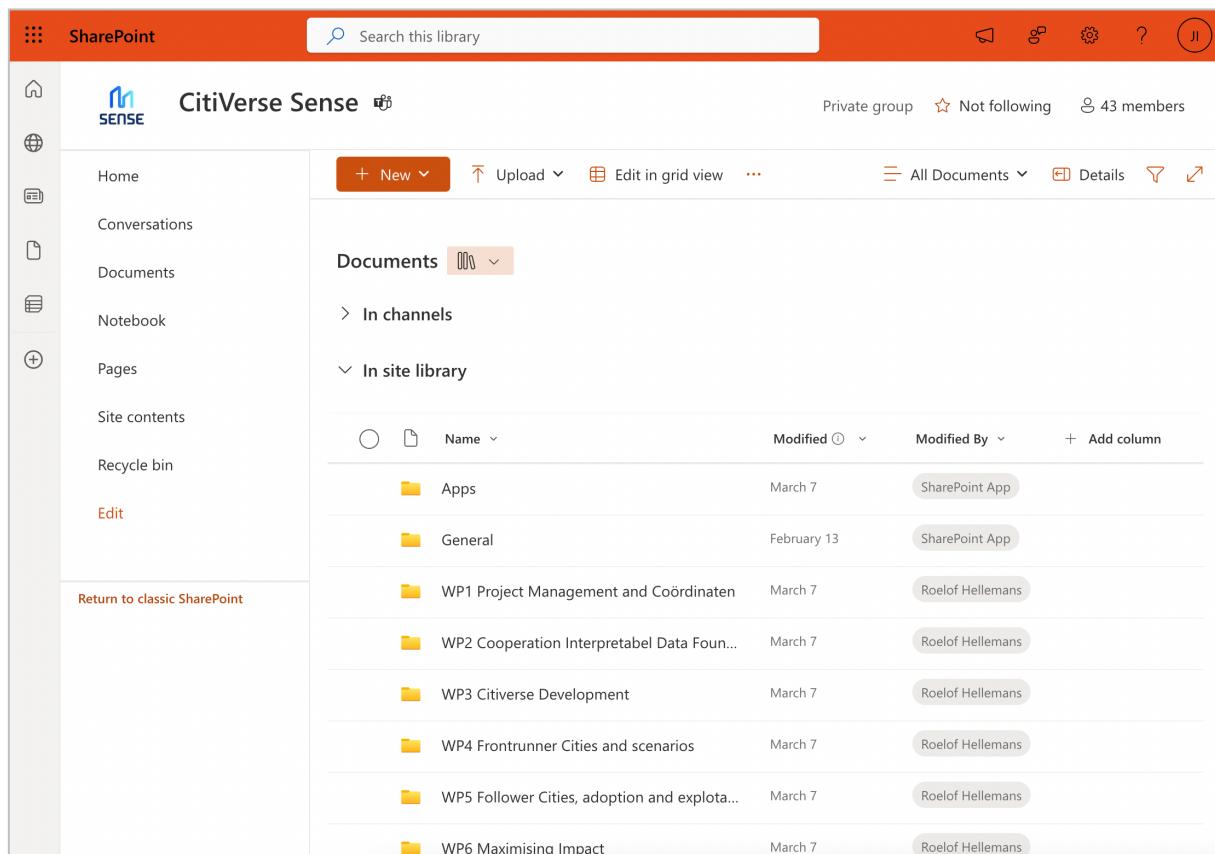


Figure 3 Project repository

#### 4.3.3.2 Management and Maintenance

While the repository is on MS SharePoint, LIBE is responsible for its overall maintenance, ensuring its functionality and organisation. Work Package leaders are responsible for organising documents related to their respective Work Packages within the repository. This includes coordinating the storage and accessibility of relevant materials tied to their designated areas of the project.

Deliverable editors are crucial in maintaining updated versions of the corresponding deliverables within the repository. Their responsibility involves ensuring that the most current and accurate information regarding project deliverables is available in the repository, contributing to the overall completeness and coherence of project documentation.

This distribution of responsibilities among LIBE, Work Package leaders, and Deliverable editors ensures a structured and collaborative approach to managing the project repository, optimising efficiency in document organisation and version control.

#### 4.3.3.3 Technology

We will use MS SharePoint, including the Online MS Tools, such as spreadsheets, documents, and slides, which have been designed for real-time collaboration between team members. This system allows access to personal and shared files or folders wherever the user may be.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 31 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

#### 4.3.4 Meetings and Procedures

Meetings (online or in person) are used to report and verify the status of the project, its work packages, and deliverables. Talking about specific project issues and for decision-making.

E-mail and teleconferences shall be used as the main options for solving issues on a day-to-day operative basis.

At least one party representative should be present or represented at any meeting where they are required.

The Parties shall participate cooperatively in the meetings.

##### 4.3.4.1 Rules for the organization of meetings

The rules for conducting meetings must be the following:

- establish the points of the agenda in advance
- involve the necessary partners
- ensure that all partners contribute and can participate
- Concentrate on agenda issues
- generate minutes and upload them to the folder in the repository

##### 4.3.4.2 Convening meetings

The person responsible for the General Assembly shall convene ordinary meetings of the General Assembly at least once a year and shall also convene extraordinary meetings at any time upon written request of any Member of the General Assembly.

The PMB shall convene ordinary meetings at least quarterly and extraordinary meetings at any time upon written request of any Member of the PMB.

##### 4.3.4.3 Notice of a meeting

Anyone responsible for the General Assembly, PMB, WPs, Tasks, etc shall give written notice of a meeting to each Member of the relevant group as soon as possible and no later than the minimum number of days preceding the meeting as indicated below.

|                          | Ordinary meeting | Extraordinary meeting |
|--------------------------|------------------|-----------------------|
| General Assembly         | 30 calendar days | 15 calendar days      |
| Project Management Board | 14 calendar days | 7 calendar days       |

##### 4.3.4.4 Sending the agenda:

The person responsible for the groups being summoned to a meeting shall prepare and send each Member of the group an agenda no later than the minimum number of days preceding the meeting, as indicated below

|                          |  |
|--------------------------|--|
| General Assembly         | 15 calendar days, 7 calendar days for an extraordinary meeting |
| Project Management Board | 7 calendar days  |

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 32 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

#### 4.3.4.5 Adding agenda items:

Any agenda item requiring a decision by the Members must be identified as such on the agenda.

Any Member may add an item to the original agenda by written notice to all other Members no later than seven calendar days preceding the meeting and two days preceding an extraordinary meeting.

During a meeting, the Members present or represented can unanimously agree to add a new item to the original agenda.

#### 4.3.4.6 On-line meetings

Meetings may also be held via videoconference or other telecommunication means.

#### 4.3.4.7 Decisions after the meeting

Decisions will only be binding once the relevant part of the minutes has been accepted according to Section 6.2.2.6 of the CA

#### 4.3.4.8 Decisions without a meeting

Any decision may also be taken without a meeting if

- the Coordinator circulates to all Members of the relevant group a suggested decision with a deadline for responses of at least ten calendar days after receipt by a Party and
- the decision is agreed upon by 51 % of all Parties.

Failure to respond by the deadline shall be deemed a non-vote for applying the quorum and majority requirement.

The Coordinator shall inform all the Members of the outcome of the vote.

A veto may be submitted up to fifteen calendar days after receipt of this information.

The decision will be binding after the Coordinator sends a notification to all Members. The Coordinator will keep records of the votes and make them available to the Parties on request

### 4.3.5 Minutes of a Meeting

The chairperson shall produce minutes of each meeting, which shall be the formal record of all decisions made. They shall upload the draft minutes to the repository within ten calendar days of the meeting.

The minutes shall be accepted if, within fifteen calendar days of publication in the repository, no Party has sent an objection to the chairperson concerning the accuracy of the draft minutes by written notice.

The accepted minutes shall be stored in the repository.

### 4.3.6 Meeting roles

The main roles to be mentioned are:

- The **Meeting Chair** is the person/role in charge of steering the meeting.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 33 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

- The Project Coordinator is the chair of the General Assembly and the Project Management Board.
- The WP leader is the chair of meetings at WP level.
- The Task leader is the chair of the meetings at Task level.
- The **Host** is the organisation in charge of face-to-face meeting preparations and supporting the meeting chair on site. This includes reserving a suitable venue with the necessary facilities for the expected attendees and providing them with logistic and accommodation information. The host role will rotate during the project's lifetime.
- An **attendee** is any stakeholder who participates in the meeting. Attendees will follow the host's instructions concerning the requirements to attend the session (for example, security policies).

#### 4.3.6.1 General Assembly Meetings

The Project Coordinator must chair the General Assembly Meetings and should cover all major issues (technical and non-technical) proposed by consortium members. The project coordinator will summon dedicated General Assembly meetings, when necessary, but there will be at least one per year (these meetings can be in person or online). A consortium partner can send more than one representative to a General Assembly meeting, but there will be one vote per organisation. (Please refer to CA).

#### 4.3.6.2 Project Management Board

The Project Coordinator must chair the Project Management Board meetings, which will usually be online. They are planned for every month and/or upon the request of any of the members.

These meetings will involve day-to-day project management and the implementation of work packages.

#### 4.3.6.3 Other level meetings (WPs, Tasks, etc)

These meetings are usually technical meetings held with a WP leader, task leaders, deliverable editors, and any other partner who could contribute to the issue of the meeting.

The work package leader decides the frequency of the meetings, but it is advisable to celebrate a meeting at least once monthly, preferably via videoconference.

In a monthly call, the agenda should be sent at least one week in advance, and the meeting minutes should be produced within seven days after the meeting.

WPLs chair WP meetings. TLs or individual partners may set up additional technical meetings after informing the WPL. All meetings will be documented by minutes, including the names of those attending and listing major decisions and actions to be taken. Meeting agendas, individual to-do lists, and other important project information will be accessible via the collaboration platform for remote teamwork.

|                       |                                      |                       |    |                 |          |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|----------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    | <b>Page:</b>    | 34 of 54 |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0      |

## 4.4 Project Monitoring

The main goal of project monitoring is to ensure that the parties comply with their obligations, that the project follows its timeline, and that it is on budget. The Project Coordinator, with the support of the Project Management Board, is responsible for this.

The timeline will follow the project's work plan and budget set out in the DoA.

## 4.5 Technical Monitoring

The main goal of this process is to ensure that the project's technical goals are achieved. Technical Support oversees this process with the support of the PCs and WPLs.

## 4.6 Contractual Management

Contractual management ensures the project follows the terms and conditions of the Grant Agreement and implements the activities and tasks set out in the project.

It covers:

- Changes in the consortium configuration, such as including or withdrawing beneficiaries or third parties.
- Changes in the project's technical scope affecting the Description of Action.
- Changes in the Consortium Agreement.
- Contract closing.

The Project Coordinator oversees the processing and coordination of any amendment on behalf of the consortium and is also responsible for transferring any contractual change to the project plan.

## 4.7 Administrative and Financial Reporting

### 4.7.1 Reporting to the EC

#### 4.7.1.1 Continuous reporting

The beneficiaries must continuously report on the progress of the action (e.g. **deliverables**, **milestones**, **outputs/outcomes**, **critical risks**, **indicators**, etc., if any) following the timing and conditions set out in the Grant Agreement and its Annex 1 (as agreed with the granting authority).

Standardised deliverables (e.g. progress reports not linked to payments, reports on cumulative expenditure, special reports, etc, if any) must be submitted **using the templates communicated by the granting authority**.

#### 4.7.1.2 Periodic reporting: Technical reports and financial statements

In addition, the beneficiaries must provide reports to request payments following the schedule and modalities set out in the GA's Data Sheet:

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 35 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

- for interim payments (if any) and the final payment: a **periodic report**.

The prefinancing and periodic reports include a technical and financial part.

The technical part includes an overview of the action implementation. It must be prepared using the template **communicated by the granting authority**.

The financial part of the additional prefinancing report includes a statement on using the previous prefinancing payment.

The financial part of the periodic report includes:

- the detailed costs reporting table (Annex 4 of the GA)
- the certificate on the financial statements (CFS) (see Article 24.2 and Data Sheet, point 4.3) – if the requested EU contribution of the beneficiary is  $\geq$  EUR 325000.

All eligible costs and contributions incurred should be declared, even if they exceed the amounts indicated in the estimated budget (see Annex 2 of the GA). The granting authority will only consider amounts declared in the individual financial statements.

By signing the detailed cost reporting tables, the beneficiaries confirm that:

- the information provided is complete, reliable and true
- the costs and contributions declared are eligible (see Article 6 of the GA)
- the costs and contributions can be substantiated by adequate records and supporting documents (see Article 20 of the GA) that will be produced upon request (see Article 19 of the GA) or in the context of checks, reviews, audits and investigations (see Article 25 of the GA)
- for the final periodic report, all the revenues have been declared (if required; see Article 22 of the GA).

Beneficiaries must also submit their affiliated entities' detailed cost reporting tables (if any). In case of recoveries (see Article 22 of the GA), beneficiaries will be held responsible for their affiliated entities' financial statements.

The Funding and Tender Opportunities platform offers an online manual containing all the information relevant to the project implementation at the administrative and financial level, specifically, all the information related to financial issues, personnel cost calculation and cost eligibility. It can be accessed here:

<https://webgate.ec.europa.eu/funding-tenders-opportunities/display/OM/Online+Manual>

Each partner will need to:

- Complete the individual Financial Statement (including its third parties, if any), including an explanation of the use of resources and information on subcontracting and in-kind contributions provided by third parties from each beneficiary for the reporting period concerned. This includes a PM breakdown per WP.
- Electronically sign and submit their Financial Statements to the Coordinator. The FSIGN must do this through the portal.

For more information on how to provide REPORTING, please refer to Article 21 of the GA.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 36 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

Table 8 Periodic Reporting Schedule

|                      | PERIOD  | REQUEST INPUTS | CONTRIBUTION S | FINAL VERSION |
|----------------------|---------|----------------|----------------|---------------|
| Periodic reporting 1 | M1-M18  | M16            | M18-M19        | M19           |
| Periodic reporting 2 | M19-M30 | M28            | M30-M31        | M31           |

#### 4.7.2 Internal Activity Reports and Financial Project Reports

The partners will send the coordinator internal reports on their costs and activities every six months to ensure the correct development of the project. These reports are intended for internal use and will not be submitted to the EC.

Each report should include:

- Main activities and main achievements in the last six months.
- A summary of the resources (efforts) consumed in each WP during the considered period.

These reports are designed to accumulate information over time, ensuring that data from a specific period is seamlessly integrated into subsequent reports. Their purpose extends beyond standalone documentation, as they serve as vital inputs for the comprehensive periodic reports submitted to the EC.

All the partners will fill in two different templates and compulsorily use them.

- SENSE\_IAR\_Template: Internal Activity report
- SENSE\_FPR\_Template: Financial Project Report

To generate the report, the process unfolds as follows:

**Timeline:** The report creation spans two to three months, initiated with the call for contributions and culminating in the final delivery. Interim reports are generated at the close of each six months, with, for instance, the M1-M6 report slated for completion by the end of M7. This temporal framework persists throughout subsequent periods. The Project Coordinator provides the templates and requests contributions 30 days before the deadline for delivering inputs (e.g., end M5 for the first report).

**Template and Contribution Request:** The Project Coordinator, using a foresighted approach, distributes templates and solicits contributions a month before the input deadline. This proactive step ensures a smooth and timely workflow. For instance, templates and requests are dispatched for the first report by the end of M5.

**WP Leaders' Coordination:** Work Package (WP) leaders collaborate with partners to summarise activities and key achievements within their respective WPs.

**Input Compilation:** Partners furnish their contributions within the designated template. Within this project, the IARs will be produced according to this schedule:

Table 9 Reporting Schedule

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 37 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

|                      | PERIOD  | REQUEST INPUTS | CONTRIBUTION S |
|----------------------|---------|----------------|----------------|
| IAR and FPR 1        | M1-M6   | M5             | M7             |
| IAR and FPR 2        | M7-M12  | M11            | M13            |
| Periodic reporting 1 | M1-M18  | M16            | M19            |
| IAR and FPR 3        | M19-M24 | M23            | M25            |
| Periodic reporting 2 | M25-M30 | M29            | M31            |

#### 4.7.3 Budget and payments

To perform the project tasks stated in the Grant Agreement (GA), the Project Coordinator receives the funds for all partners from the EC and is then in charge of transferring the relevant amounts to each partner.

According to GA Point. 3 of the Data Sheet, the European Commission's maximum financial contribution to the project is 7.720.478.00€. At the beginning of the project, the consortium will receive a 70% prefinancing payment, which will be distributed to the partners accordingly.

Table 10 EC Payments

| What                     | Why   | When   |
|--------------------------|---|--|
| Interim payment (If any) | Upon EC acceptance of 1st financial statement   | Month 24 (once the European Commission has accepted the Periodic reports).                                     |
| Final payment            | Upon EC acceptance of final financial statement | Month 36 (once the project has finished and the European Commission has accepted all statements and reporting) |

The project coordinator shall keep project funds in a bank account and will always keep records of the balance of available project funds.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 38 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

## 5 Quality Assurance

---

The following section describes the tools that will be used to ensure the quality level of project outcomes and contractual deliverables.

### 5.1 Document Management Process

---

#### 5.1.1 Documents language

English is the official language in these projects. Therefore, all the documents must be written in British English, using the appropriate grammar rules and a formal language. Certain dissemination material (such as press releases, newsletters, flyers, etc.) can be considered an exception to this rule and can be translated into other relevant languages for the project.

#### 5.1.2 Documents storage

The project will share all relevant documents through an electronic project repository accessible to the consortium members. This repository will store and update all the common and shareable project information.

Work package leaders are responsible for organising the documents relevant to their Work Package. Deliverable leaders are responsible for keeping their documents. All partners contributing to a document are responsible for maintaining the document according to the guidelines included in this document and the instructions given by the deliverable leader.

#### 5.1.3 Documents nomenclature

The deliverable leader should name all the deliverables of the project previous to the final version according to the following nomenclature:

**Project\_Dx.x\_vm.n\_[suffix]**

Where:

- Project: project short name, i.e. SENSE
- Dx.x is the deliverable number as defined in the DoA: number of the work package and the deliverable number within the work package.
- vm.nn:
  - m: 0 for the draft versions, 1 for the final version (delivered to the EC).
  - n: consecutive number from 0 to 9. It can be extended to several digits if necessary.
- Suffix (optional): can be used to identify intermediate versions or contributions from partners to a draft version (never in a final version) and could include dates, short names of partners, etc.

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 39 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

#### 5.1.4 Bibliographical references

Example: Author (surname and name). (Year). Title of the article. *Title or publication channel, volume number (Issue number), page range*, <https://doi.org/xx.xxx/yyyy>

- Always capitalise the first word of the title and subtitle.
- Include accurate publication details.

#### 5.1.5 Documents templates

Project documents should be based on the following templates, available in the project electronic repository:

- yyyyymmdd\_SENSE\_agenda\_template: meeting minutes template in MS Word.
- yyyyymmdd\_SENSE\_minutes\_template: meeting minutes template in MS Word.
- SENSE\_Deliverable\_template.docx: deliverable template in MS Word.
- yyyyymmdd\_SENSE\_ppt\_template.pptx: presentation template in MS Power Point.

Other templates will be produced when necessary.

### 5.2 Quality Guidelines on the Production of Deliverables

Deliverables shall report the project's results and progress. However, they should be easy for people unfamiliar with the project to read and understand.

In the deliverables:

- The red thread, the concept, and the design shall be clear throughout the deliverable.
- The language shall be easy to understand, and short sentences are preferred.
- Illustrations and figures should guide readers.
- If code samples are used, they should be moved to appendices.

The quality of the deliverables will be assessed against specific quality criteria to ensure uniformity and consistency in the review process of all deliverables and to ensure the reviewers' clear understanding of and compliance with the process. The criteria, along with the aspects to be investigated, are outlined next:

Table 11 Deliverable Review - Quality Criteria

| Quality Criteria | Description  |
|------------------|--|
| Readability      | <p>The language of the text is clear (proper sentence structure is used).</p> <p>The text is in English (UK).</p> <p>The text is unambiguous.</p> <p>The terminology, including acronyms, is explained.</p> <p>There are no spelling errors.</p> <p>Any potentially sensitive information is appropriately worded.</p> |

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 40 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

|              |  |
|--------------|--|
|              | Abbreviations and acronyms are explained in a separate list.<br>Length checked.  |
| Completeness | All aspects of the deliverable, as described in Annex I (Part A) of the GA, are fully addressed.<br><br>Is it according to the original proposal objectives and meets the success indicator?<br><br>Does it contain all the required chapters?<br><br>Does the executive summary give a short, non-confidential description of the deliverables? Is it self-contained? |
| Consistency  | Are the chapters consistent with each other?<br><br>Is it consistent with other deliverables?<br><br>Is it following the requirements of other WPs?  |
| Accuracy     | The respective references support all factual information used in the deliverable.   |
| Added value  | The deliverable has scientific and/or policy value, as the project envisages.<br><br>The language of the text is useful to the targeted audience (e.g. scientists, policymakers, etc.).  |
| Relevance    | The content is relevant to the scope of the deliverable.<br><br>The deliverable is relevant to the targeted readers/audience.  |
| Compliance   | The text is written in line with the deliverable template.   |

## 5.3 Deliverables Review

### 5.3.1 Roles and responsibilities

**Deliverable Responsible:** They allocate tasks to and coordinate the contributors' work. They are responsible for consolidating all contributors' inputs into the draft deliverable to be submitted for review and publication. They prepare the deliverable's Table of Contents (ToC).

**Deliverable contributors:** They are responsible for drafting part of the deliverable, as per the allocation of tasks performed and delivering their inputs timely to the Deliverable Leader.

**Project Management Board (PMB) and WP Leader:** The PMB and the WP Leader will be involved in the review process, meaning they approve the ToC and the final deliverable. The latter is a last quality check before the official submission to the European Commission, assuring that the deliverable complies with the template and that the deliverable is ready to be sent, including that the text is free of spelling/grammar/syntactic/semantic errors, as well as of comments, and highlighted text. Other aspects (page numbering and table of contents, figures, tables, etc.) will also be checked.

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 41 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

### 5.3.2 Deliverable review process

All involved roles are responsible for delivering the review schedule on time.

The process starts with the deliverable leader delivering the Table of Contents (ToC) of the deliverable.

The WP leader, TMs, and the PC are responsible for approving the ToC.

- The final ToC must be set **ninety days before the deliverable due date**.
- A first draft of the deliverable must be produced with all contributions from the partners involved **at least sixty days before its due date**.

From here, the WP leader will continue working with the partners to produce the different versions that will take the document to the pre-final version.

- **One month before the due date**, the Deliverable responsible will send the Deliverable to the assigned reviewers, who will have **15 days to review it**. Then, the deliverable will be returned to the Deliverable Leader, who will have **seven days** to amend any comments, etc.
- The Deliverable Leader will send the revised version to the PC for the final check at least **seven days before the due date**.

Delays shall be announced as early as possible. In case of deviations, mitigation measures shall be proposed by the responsible party. The same shall apply in case of quality issues that cause iterations of corrections.

Table 12 Deliverables

| Deliverable No | Deliverable Name  | WP  | Lead Beneficiary | Type | Dissemination Level | Due Date (MX) |
|----------------|---|-----|------------------|------|---------------------|---------------|
| D1.1           | Project Governance Structure Document                                 | WP1 | LIBE             | R    | PU - Public         | 3             |
| D1.2           | Handbook for Project Management                                       | WP1 | LIBE             | R    | PU - Public         | 6             |
| D1.3           | Progress Report v1  | WP1 | LIBE             | R    | SEN - Sensitive     | 15            |
| D1.4           | Progress Report v2  | WP1 | LIBE             | R    | SEN - Sensitive     | 30            |
| D1.5           | Risk Management and Compliance Analysis Reports                       | WP1 | LIBE             | R    | SEN - Sensitive     | 12            |
| D1.6           | Ethics report on Humans, Personal Data and Artificial Intelligence v1 | WP1 | LIBE             | R    | SEN - Sensitive     | 15            |
| D1.7           | Ethics report on Humans, Personal                                     | WP1 | LIBE             | R    | SEN - Sensitive     | 30            |

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 42 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

|      |  |     |      |     |                 |    |
|------|--|-----|------|-----|-----------------|----|
|      | Data and Artificial Intelligence v2                          |     |      |     |                 |    |
| D2.1 | SENSE Standards Register                                     | WP2 | LIBE | R   | PU - Public     | 6  |
| D2.2 | Privacy, Cybersecurity & Identity Management Recommendations | WP2 | D&S  | R   | SEN - Sensitive | 9  |
| D2.3 | Data source catalogue and integration requirements           | WP2 | DNET | R   | PU - Public     | 6  |
| D2.4 | Data space integrations                                      | WP2 | DNET | DEM | SEN - Sensitive | 12 |
| D3.1 | Fully functional data and service marketplace portal         | WP3 | DDAO | DMP | SEN - Sensitive | 12 |
| D3.2 | Launched Gaia-X compliant architecture and catalogue         | WP3 | DDAO | DMP | SEN - Sensitive | 12 |
| D3.3 | Integrated trust framework and automated contracting system  | WP3 | DDAO | DMP | SEN - Sensitive | 15 |
| D3.4 | Fully implemented AI orchestration layer in SENSE            | WP3 | DDAO | DMP | SEN - Sensitive | 18 |
| D4.1 | SENSE scenarios  | WP4 | LIBE | R   | PU - Public     | 12 |
| D4.2 | Operational SENSE  | WP4 | LIBE | R   | SEN - Sensitive | 18 |
| D4.3 | Technical guidelines   | WP4 | LIBE | R   | PU - Public     | 20 |
| D4.4 | Recommendations on best practices                            | WP4 | LIBE | R   | PU - Public     | 26 |
| D5.1 | Guide towards CitiVerse (for each Follower City)             | WP5 | D&S  | R   | SEN - Sensitive | 23 |
| D5.2 | Guide towards CitiVerse (Master)                             | WP5 | D&S  | R   | PU - Public     | 30 |

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 43 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

|       |   |     |      |       |                 |    |
|-------|---|-----|------|-------|-----------------|----|
| D5.3  | SENSE Academy Curriculum                                    | WP5 | D&S  | R     | PU - Public     | 24 |
| D6.1  | Engagement report v1  | WP6 | KIEL | R     | SEN - Sensitive | 12 |
| D6.2  | Engagement report v2  | WP6 | KIEL | R     | SEN - Sensitive | 24 |
| D6.3  | City x City Academy v1                                      | WP6 | OASC | R     | PU - Public     | 24 |
| D6.4  | City x City Academy v2                                      | WP6 | OASC | R     | PU - Public     | 30 |
| D6.5  | Final report on SENSE Workshop                              | WP6 | D&S  | R     | SEN - Sensitive | 18 |
| D6.6  | Final report on SENSE Workshop v2                           | WP6 | D&S  | R     | SEN - Sensitive | 24 |
| D6.7  | Final report on SENSE Workshop v3                           | WP6 | D&S  | R     | SEN - Sensitive | 30 |
| D6.8  | Final Conference  | WP6 | OASC | OTHER | PU - Public     | 28 |
| D6.9  | Dissemination, exploitation and communication (DEC) plan    | WP6 | OASC | R     | PU - Public     | 7  |
| D6.10 | Dissemination, exploitation and communication (DEC) plan v2 | WP6 | OASC | R     | PU - Public     | 15 |
| D6.11 | Dissemination, exploitation and communication (DEC) plan v3 | WP6 | OASC | R     | PU - Public     | 30 |
| D6.12 | Standards report  | WP6 | GALW | R     | SEN - Sensitive | 30 |
| D6.13 | SENSE GitHub  | WP6 | DDAO | OTHER | PU - Public     | 12 |
| D6.14 | Best practices final report                                 | WP6 | OASC | R     | PU - Public     | 30 |

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 44 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

## 6 Risk Management

Risk scenarios are uncertain events or conditions that, if they occur, have a positive or a negative effect on the project outcome. A risk has a cause and, if it happens, a consequence. The risk management process is vital for any project to anticipate situations that can affect the normal progress or even jeopardise the project's continuation. This anticipation will provide the SENSE consortium with enough information to make decisions accordingly and act beforehand to minimise the impact of the risks identified.

This section defines how risks associated with the SENSE project will be identified, analysed, and managed. It outlines how risk management activities will be performed, recorded, and monitored throughout the project's lifecycle and provides templates and practices for recording and prioritising risks.

### 6.1 Risk Management Process

Risks will be constantly assessed and evaluated throughout the project. The risk management methodology consists of four steps:

- a. Risk identification
- b. Risk quantification
- c. Risk response
- d. Risk control and report

#### 6.1.1 Risk identification

Risk involves discovering risks. All partners must continuously identify risk scenarios using all the project documents, discussions, and technologies, the partner's technical expertise, and the project implementation experience. Risks comprise actions/events that can compromise the project's schedule, costs, and outcomes.

#### 6.1.2 Risk quantification

A qualitative risk quantification will be performed regularly for each risk. The analysis will involve identifying the impacts and likelihood of occurrence, calculating the risk level and prioritising the risk for a response plan if the risk is HIGH.

#### 6.1.3 Risk response

This means implementing the appropriate measures to deal with the risk. For each identified risk, one of the following risk mitigation approaches will be put into place to address it:

- Avoid – Eliminate the threat by eliminating the cause.
- Mitigate – Identify ways to reduce or limit the risk's likelihood or impact.
- Accept – Nothing will be done. This approach is rejected if there are other possibilities.
- Transfer – Make another party responsible for the risk (buy insurance, outsourcing, etc.).

|                |                                      |                |    |          |       |               |
|----------------|--------------------------------------|----------------|----|----------|-------|---------------|
| Document name: | D1.2 Handbook for Project Management |                |    |          | Page: | 45 of 54      |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0   | Status: Draft |

#### 6.1.4 Risk control and report

Each risk level will be tracked and monitored, ensuring adequate risk management throughout the project lifespan. This will be done during the PMB meetings.

The PMB prepares rolling minutes to analyse all the risks monthly. This document is in the repository.

### 6.2 Plan Risk Management

Every team member is responsible for managing risks in their activities. However, given SENSE's managing structure, the key persons for timely risk communication are WP Leaders, who are members of the PMB and identified as potential Risk Owners (RO).

Risk identification involves discovering risks. All partners must continuously identify risk scenarios using all the project documents, discussions, and technologies, the partner's technical expertise, and the project execution experience. Whenever a partner identifies a risk, the relevant information must be communicated to the Project Management Board (PMB) and the Project Coordinator (PC). Identified risks shall be communicated to the respective WP Leader, and the PMB and the Project Coordinator must be informed.

Risk Identification is a continuous task. All WP Leaders survey the tasks and sub-tasks leaders of their WP monthly to identify new or foreseen risks that have happened or may happen. In case of a new risk or foreseen risk happening. WP Leaders are responsible for ensuring the identified risk is included in the risk register (see section 6.6, Table 13).

A qualitative Risk Quantification will be performed regularly for each risk with the partner who identified it, the Risk Owner, i.e., the WP Leader, the Project Management Board, and, if required, with the support of other partners and consortium members. A short risk assessment session will be organised within project meetings.

Risk response involves the PMB, the Risk Owner / WP Leader and the partner responsible for implementing resolution actions. The Risk Owner, supported by the PMB and any other Consortium member deemed relevant, sets up a risk mitigation strategy. Furthermore, the RO is responsible for ensuring that the resolution actions are implemented to mitigate the risk and are appointed by the PMB.

The Risk Owner and the partner responsible for the resolution action(s) will control risks. All risks and resolution plans will be documented in the project risk register during the project's lifetime.

All risks can be followed in the rolling minutes of the PMB meetings.

### 6.3 Risk Identification

During the project preparation phase, possible risks and mitigation measures were identified and set out in the proposal.

The following issues shall be considered as tools and techniques for risk identification:

- Analysis of the deliverable status

|                       |                                      |                       |    |                 |          |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|----------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    | <b>Page:</b>    | 46 of 54 |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0      |

- Analysis of WP schedules and scopes

Regular communications between the WP leaders and the Project Management Board will ensure risks can be anticipated. Each participant is responsible for informing the WP Leader(s) and the Management Board about new potential threats.

## 6.4 Risk Quantification

All risks identified will be quantified to identify the range of possible project outcomes. The qualification will determine which risks are the top to pursue and respond to and which risks can be ignored. The likelihood and impact of occurrence for each identified risk will be assessed by the project coordinator, with input from the partner who identified the risk and, if required, with support from other partners and consortium members, using the following classification:

### Likelihood

- High (values 8-10) – greater than 70% probability of occurring;
- Medium (values 4-7) – between 30% and 70% probability of occurring;
- Low (values 1-3) – less than 30% probability of occurring

### Impact

- High (values 8-10) – Risk that has the potential to impact project cost (>30%) greatly, project schedule (>6 months delay) or performance (30%);
- Medium (values 4-7) – Risk that has the potential to impact project cost moderately, project schedule or performance (between low and high);
- Low (values 1-3) – Risk that has relatively little impact on cost (<10%), schedule (<2 months delay) or performance (5%);

## 6.5 Response Planning Strategy

The risk response planning strategy presents a strategy for tackling the threats resulting from risks. It is a contingency plan that assigns roles and responsibilities and provides a response framework for Risk Owners.

## 6.6 Control and Reporting

All SENSE partners must communicate to the Project Coordinator and the Management Board the status and effectiveness of risks that may arise and present a mitigation plan to update the risk management register and assess the relevance of the tools. The Risk Owner will confirm the correct implementation of the risk responses and check the response's effectiveness. The risk owner will keep track of the situation and inform the Project Coordinator and the Management Board. The risk exposure will be continuously re-evaluated and modified accordingly. The new risks a partner identifies will be analysed as those on the original risk list and added to the register.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 47 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

The Risk Register is the core means of documentation of Risks and the Risk Management Process during the project. This Risk Register will be accessible to all members and include the following sections and items:

- **Risk Identification**

- Risk ID: The identification number of the risk
- Risk Description: The description of the risk. The standard format is suggested, "an event will occur if something is done/not done and its impact."
- WP related: The WP in which the risk has been identified

- **Qualitative Rating**

- Likelihood: the probability of occurring (check Table 13 for more information)
- Impact: Potential of impacting the project (check Table 13 for more information)

- **Risk Response**

- Risk Response: Avoid/Mitigate/Accept/Transfer (explain)
- Risk Owner: Leader of the related WP

- **Control**

- Overall Status: Open / Closed

The Risk Register is a living document that provides the foundation for regularly reporting risks. A risk report shall be part of the PMB meeting at least every four months and each General Assembly.

|                       |                                      |                       |    |                 |              |                |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|--------------|----------------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    |                 | <b>Page:</b> | 48 of 54       |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0          | <b>Status:</b> |

Table 13 Example of SENSE Risk Register

| Risk number | Risk Description  | Work Package No(s) | Proposed Mitigation Measures  |
|-------------|---|--------------------|---|
| 1           | Ineffective project management and coordination - Risk that inadequate project management and workstream coordination reduces effectiveness and delays timelines. Likelihood: Low Impact: High  | WP1                | Appoint experienced project management leadership, utilize mature governance frameworks providing clear roles and responsibilities, implement tools to coordinate across partners and workstreams, regularly review milestones and budgets to quickly respond to any delivery gaps. This will drive disciplined execution that delivers solutions on time and on budget.  |
| 2           | Incompatible technologies, data sources, and the risk of data inconsistencies or errors due to disparate standards or protocols. Resistance or scepticism from stakeholders and slower adoption of technologies and practices, impacting project success. Likelihood: Medium Impact: High | WP3, WP2           | The implementation of an inclusive system for data collection (UDX) and the consequent application of the standards that come with the GAIA-X rulebook to ensure interoperability, compatibility and seamless integration across various spaces, technologies and data sources. Provide training sessions to ensure all partners are well-versed in standardized practices and building the capacity of teams to handle the technical challenges effectively. |
| 3           | Crafting a virtual representation of a real city can involve some risks, spanning technical accuracy, ethical considerations, and community perceptions. Potential pitfalls include inaccuracies in data, privacy concerns, security vulnerabilities. Likelihood: Medium Impact: Medium   | WP4                | Applying the GAIA-X standards will help to ensure that ethical and privacy requirements are met, since data sovereignty and control, compliance with GDPR, transparent data processing and ethical data use are engraved in the DNA of the GAIA-X rules.  |
| 4           | Minor engagement of users - Risk that targeted citizens do not sufficiently   | WP4                | Implement coordinated awareness programs to promote ongoing citizen participation, including multi-channel campaigns, co-creation   |

|                |                                      |                |          |          |     |         |       |
|----------------|--------------------------------------|----------------|----------|----------|-----|---------|-------|
| Document name: | D1.2 Handbook for Project Management | Page:          | 49 of 54 |          |     |         |       |
| Reference:     | D1.2                                 | Dissemination: | PU       | Version: | 1.0 | Status: | Draft |

|   |  |          |   |
|---|--|----------|---|
|   | adopt/regularly utilize the SENSE solutions. Likelihood: Medium Impact; Low  |          | workshops, and use case demonstrations. This will increase user adoption and drive regular utilization of the SENSE solutions.  |
| 5 | Introducing VR/AR and metaverse technologies to citizens and stakeholders may encounter resistance or scepticism. Likelihood: Low Impact; Low  | WP4, WP5 | Open and comprehensive communication, user-friendly interfaces and the embedding of new technologies into well-known all-day situations will help to overcome reluctance and instead inspire people to try out new services.                |
| 6 | Non-standardized approaches that limit scalability. Challenges in expanding and adapting the project to evolving needs in the context of Task 5.5. Likelihood: Medium Impact; Medium | WP5      | The Follower cities deployment aims to establish monitoring mechanisms to track interoperability and compatibility in different contexts. Ensuring a continuous adaptation of standards and practices based on feedback and evolving needs. |
| 7 | Policy misalignment - Risk emerging regulations are not proactively accommodated during SENSE solution design. Likelihood: Medium Impact; High                                       | WP6      | Establish regulatory monitoring cross-functional team, implement compliance frameworks, and foster partnerships with policymakers. This will allow alignment of solutions with policy shifts and emerging regulations.                      |

|                       |                                      |                       |    |                 |          |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|----------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    | <b>Page:</b>    | 50 of 54 |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0      |

## 7 Ethics

The Project Management Board (PMB) will oversee and manage ethical, gender and cultural issues. It will ensure the effective application of ethical principles and integration of cultural and gender dimensions into the project activities.

The project has foreseen a deliverable dedicated to Ethics (D1.6). The deliverable addresses ethical considerations concerning human involvement, personal data management, and AI technologies in the SENSE project. It will provide guidelines and measures for handling ethical issues, including informed consent, data protection, and ethical AI usage, ensuring compliance with GDPR and other regulations. It also covers a broad spectrum of rights, including dignity, freedoms, equality, solidarity, citizens' rights, and justice. The final aim is to ensure that high ethical standards are applied in all activities of SENSE and that effective risk mitigation will be initiated.

The project will establish, engage, and progressively expand a dynamic community involving the largest number of stakeholders from the entire citiverse ecosystem, ensuring full coverage of supply chain segments, expertise, interests, geographies, and gender equality.

Actions involving activities raising ethics issues must be carried out in compliance with the following:

- Ethical principles
- Applicable EU, international and national laws, including the EU Charter of Fundamental Rights and the European Convention for the Protection of Human Rights and Fundamental Freedoms and its Supplementary Protocols.

The beneficiaries must pay particular attention to the principle of proportionality, the right to privacy, the right to the protection of personal data, the right to the physical and mental integrity of persons, the right to non-discrimination, the need to ensure the protection of the environment and high levels of human health protection.

Before the beginning of an action task raising an ethical issue, the beneficiaries must have obtained all approvals or other mandatory documents needed for implementing the task, notably from any (national or local) ethics committee or other bodies such as data protection authorities.

SENSE does not plan to use personal data for its implementation. Nevertheless, the Data Space will be designed and implemented to handle this type of data during or after the project. Also, the activity of identifying and analysing pre-existing data sets and sources could involve the management of personal data. For that case, the following best practice principles will be followed:

- SENSE will treat and handle personal data (if any) following the EU General Data Protection Regulation (GDPR) concerning the processing of personal data and on the free movement of such data.
- No data will be collected without the explicit informed consent of individuals under observation.

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 51 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

- Any shadow (ancillary) personal data obtained during the research will be immediately cancelled. Special attention will be paid to complying with the Council of Europe's
- Recommendation R (87)15 on the processing of personal data for police purposes, Art.2
- In the eventual case that personal data is required, SENSE will make sure it is not shared with any non-EU country.

Additionally, SENSE will set the following general best practices:

- No data collected will be sold or used for purposes other than the current project.
- If employees of partner organisations are to be recruited, specific measures will be set to protect them from a breach of privacy/confidentiality and discrimination.
- For the normal implementation of the project coordination, internal communication, and project communication and dissemination, specific consent will be requested in accordance with a privacy policy for the use of personal data, including aspects such as the use of data, access to data, retention date and users' rights regarding their data.
- The project website will provide a privacy policy describing data protection for the services offered to web users (e.g., web account, newsletter subscription).
- For the implementation of technical activities (development and validation...), any shared information made available between consortium partners (and their third parties), like background, results, confidential information, datasets, or any data or information, shall not include personal data.
- Each partner will ensure that personal data is removed, obfuscated, or made inaccessible from the shared information before providing it to any other partner. All the aspects related to this issue will be considered and regulated by SENSE Consortium Agreement. Article 29 Working Group 05/2014 Opinion on Anonymisation Techniques.
- SENSE partners will comply with the ethical principles including the highest standards of research integrity as set out in the European Code of Conduct for Research Integrity.

The SENSE consortium will adhere to relevant national and international laws, guidelines and policies including:

- Declaration of Helsinki (2000)
- Convention of the Council of Europe on Human Rights and Biomedicine (April 4, 1997)
- UNESCO Universal Declaration on the Human Genome and Human Rights (on October 19 2005)
- CIOMS/WHO International Ethical Guidelines for Biomedical Research Involving Human Subjects (1993, reviewed in 2001)
- The European Union Charter of Fundamental Rights, as signed and proclaimed by the Presidents of the European Parliament, the Council and the Commission at the European Council meeting in Nice on December 7 2000 (2000/C 364/01)

|                |                                      |                |    |          |          |
|----------------|--------------------------------------|----------------|----|----------|----------|
| Document name: | D1.2 Handbook for Project Management |                |    | Page:    | 52 of 54 |
| Reference:     | D1.2                                 | Dissemination: | PU | Version: | 1.0      |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

- Council of Europe – ETS n° 164 - Convention for the Protection of Human Rights and Dignity of the Human Being concerning the Application of Biology and Medicine: Convention on Human Rights and Biomedicine, Oviedo, 4.IV.1997
- Regulation No 45/2001 of the European Parliament and of the Council of December 18 2000, on the protection of individuals
- The EU General Data Protection Regulation (GDPR) This will be considered in more detail under the "Personal data" section.
- Article 29 Working Group 05/2014 Opinion on Anonymisation Techniques.

|                       |                                      |                       |    |                 |          |
|-----------------------|--------------------------------------|-----------------------|----|-----------------|----------|
| <b>Document name:</b> | D1.2 Handbook for Project Management |                       |    | <b>Page:</b>    | 53 of 54 |
| <b>Reference:</b>     | D1.2                                 | <b>Dissemination:</b> | PU | <b>Version:</b> | 1.0      |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*

## 8 Conclusions

---

The SENSE Project Management Handbook serves as a comprehensive and authoritative guide, outlining the essential procedures, governance structures, and methodologies that underpin the effective management of the SENSE consortium. Developed as an extension of Deliverable D1.1, this handbook has been carefully designed to reinforce the operational framework of the consortium, enhance inter-partner collaboration, and ensure the consistent delivery of high-quality results. It also functions as a critical compliance instrument, ensuring full alignment with the regulatory and reporting requirements of the European Commission (EC).

The handbook offers a detailed and practical overview of the project, including the structure of the Work Plan, milestone planning, resource allocation, and the definition of the roles and responsibilities of the key governance bodies. Central to the document is the integration of rigorous quality assurance and risk management frameworks, which enable the consortium to proactively monitor progress, manage uncertainties, and ensure that project outcomes remain aligned with agreed objectives and expected standards.

By incorporating the principles of the PM<sup>2</sup> project management methodology, the handbook further strengthens decision-making, stakeholder communication, and issue resolution mechanisms, supporting a culture of accountability and continuous improvement.

In essence, the SENSE Project Management Handbook is not just a procedural document - it is a strategic enabler. It provides day-to-day operational guidance, fosters a cohesive and collaborative working environment, and reinforces the consortium's shared commitment to excellence, impact, and strict compliance with European Commission standards.

|                |                                      |          |          |
|----------------|--------------------------------------|----------|----------|
| Document name: | D1.2 Handbook for Project Management | Page:    | 54 of 54 |
| Reference:     | D1.2 <b>Dissemination:</b> PU        | Version: | 1.0      |

*This document translates some of the obligations from the grant agreement and in case of discrepancies, it is the grant agreement which prevails over this deliverable.*