UPGRADING SMARTNESS OF EXISTING BUILDINGS THROUGH INNOVATIONS FOR LEGACY EQUIPMENT

Deliverable 9.3

Progress Reports

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Abbreviations and acronyms

Abbreviation	Definition
AI	Artificial Intelligence
API	Application Programming Interface
CECs	Citizen Energy Communities
CO_2	Carbon Dioxide
EV	Electric Vehicles
ICT	Information and Communications Technology
IoT	Internet of Things
KERs	Key Exploitable Results
ML	Machine Learning
OEMs	Original Equipment Manufacturers
PC	Project Coordinator
PO	Project Officer
PV	Photovoltaics
RECs	Renewables Energy Communities
SRI	Smart Readiness Indicator
WP	Work Package

Revision history

Version	Author(s)	Changes	Date
1.0	Nuno Mateus (EDP)	Initial version	28/07/2022
2.0	Nuno Mateus (EDP) and WP leaders	Contributions added on respective work packages.	21/08/2022
3.0	João Cravinho & Daniel Albuquerque (EDP)	Revision of the document	29/08/2022
4.0	Nuno Mateus (EDP)	Revised version of the document	14/09/2022

DISCLAIMER

The sole responsibility for the content of this publication lies with the Smart2B project and in no way reflects the views of the European Union.

Executive Summary

This document presents the deliverable D9.3 – Progress Report of the H2020 project Smart2B. The present deliverable reports Smart2B progress during the first year of the project (M1-M12), including information from every WP regarding the objective's accomplishment, milestones completion, deliverables status and the use of resources.

In overall, Smart2B project is on track according to plan and no relevant deviations are identified.

1. Introduction

The first progress report of the H2020 project Smart2B (D9.3) presents Smart2B progress achieved during the first year of the project (M1-M12), including information from every WP regarding the objectives' accomplishment, milestones completion, deliverables status and the use of resources.

During the first year of the project all Work Packages (WP) began their respective work plan. According to Figure 1, the Phase I of the project, which is mainly characterized by the work done in WP1 through the definition of Specifications and Requirements of Smart2B concept and allow settle the foundations for the following phases.

The project is now in the middle of Phase II – Co-development, where all the technical WPs are working together to develop the main Smart2B technology pillars: Devices (WP2), Platform (WP3), Services (WP4) and User-interface (WP5). At the same time, WP6 (Demonstration and Evaluation in five diverse Pilots) also kicked-off on M7 (March 2022), working on the pre-pilot phase of the project, preparing the pilot sites to receive Smart2B devices, installing the equipment predicted in the Grant Agreement (PV systems, Appliances, and EV chargers) in order to reach Phase III – integration & Demonstration, planned to start as scheduled on M16 (December 2022).

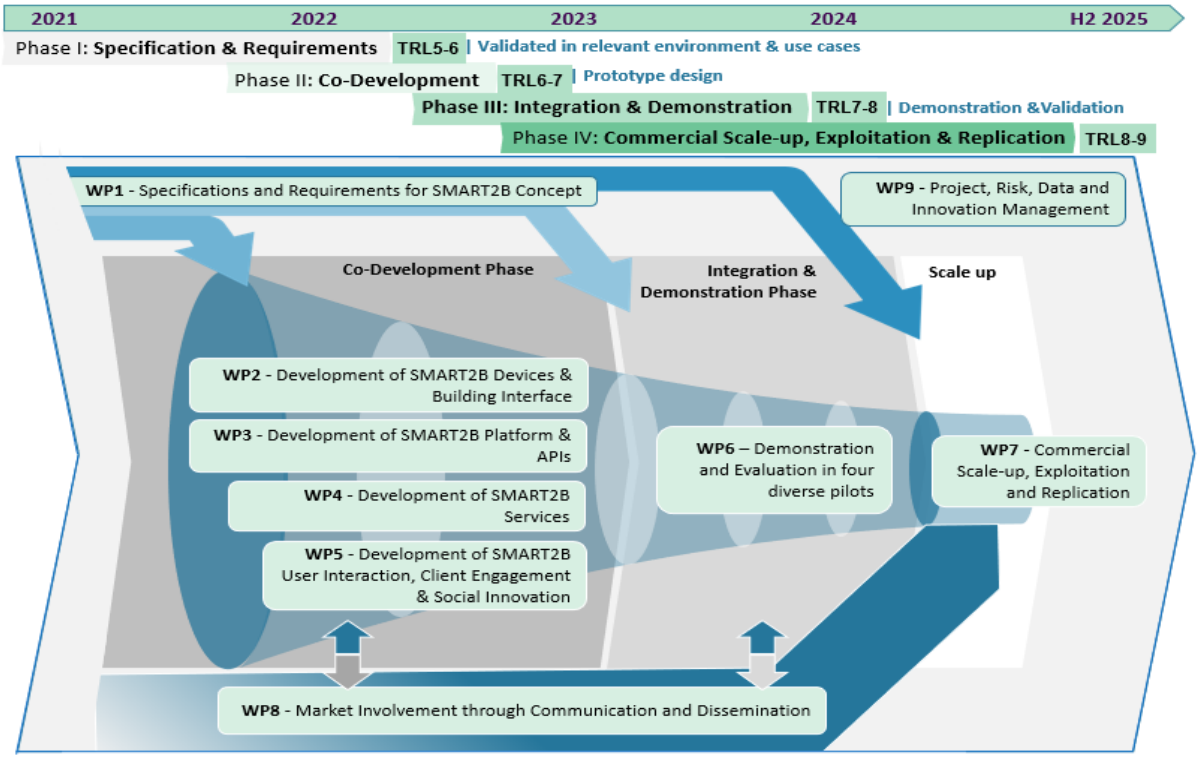

Figure 1: Smart2B Workflow.

1.1 Structure of the deliverable

Deliverable D9.3 – Progress Reports is structured as follows:

- Chapter 2 – Progress of work plan: presentation of progress achieved in every WP of Smart2B since the beginning of the project until August 2022 (M1-M12).
- Chapter 3 – Progress Milestones: Presentation of the project milestones status.

- Chapter 4 – Progress Deliverables: Report about the status of Smart2B deliverables.
- Chapter 5 – Use of resources & other issues: presentation of the conclusions about the use of resources during the first year of the project and the main risks identified that required special attention.
- Chapter 5 – Conclusions: addressing the main highlights of the Smart2B progress during the first year of the project.

2. Progress of work plan

The following subsections present each Work Package progress report in the initial phase of Smart2B (M1-M12). The information regarding the developments made per WP were presented in the form of a table, comprising the identification of the main objectives and the respective progressing status and deviations. When analyzing the progress, the current status of an objective is analyzed under three sub-categories:

- **Deviations to the plan in terms of time spent** (e.g., *was the related tasks or any of its components delayed?*);
- **Deviations to the plan in terms of team working on the task** (e.g., *did some partner reallocated effort to another partner*? Did the consortium changed the leadership of a task?);
- **Deviations to the plan in terms of technical content of the task** (e.g., *deviations due to technical issues on solutions or technical aspects of the work management/coordination*).

The status and deviations are assessed through a coloring code, according to the following table:

	A green code indicates that progress is on track and no deviations occurred or are expected
	A yellow code indicates that a deviation towards the plan was needed and/or is expected
	A red code indicates that a corrective action was needed to avoid deviation

2.1 Work Package 1 – Specifications and Requirements for Smart2B Concept

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Identification of relevant stakeholders and their roles related to the user-centric Smart2B concept	This work resulted in the submission of the D1.1 - Stakeholder Framework, that focuses on the identification of relevant stakeholders and their interaction with the Smart2B system. As main outcomes of this deliverable four main groups of stakeholders: end users, technology providers, communities, energy services. In addition, Literature reviews and semi-structured expert interviews to identify the following main interests and concerns: - End users are central to smart home EMS systems - Savings potential and ease-of-use are the most important aspects for end users - Privacy and data protection are their main concerns - Communities are important factors in building end user trust and activating user engagement and participation	Completed and part of Deliverable 1.1.			
2. Analysis and definition of requirements for the smart performance assessment	This work resulted in the submission of the D1.2 - Functional Requirements of the Smart Performance Assessment & Advisor, which is based on the literature review, expert interviews and a survey in which eighteen experts participated. The main outcomes are the following: - Benchmarks that can be used to measure the performance in each impact area according to the smart readiness indicator (SRI) -Methodologies that can be used to communicate the impact to the end-users -System performance thresholds that trigger occupant feedback -Definition of the type of feedback that will be provided	Completed and part of deliverable 1.2.			
3. Definition of devices, platform architecture, service, interface, as well as data security and privacy requirements	This work resulted in the submission of the D1.3 - Design Report of the Smart2B system architecture, consisting in the identification of the different ICT modules and supporting technologies that take part in the software development of the Smart2B project. In addition, the following tasks were performed: -Definition of the basic functionality of each ICT module	Gathered information from all partners and part of deliverable 1.3.			

	-Analysis of the functional and non-functional requirements of the ICT modules -Design of the system architecture that interconnects all the ICT modules of the Smart2B concept -Design of the features required for grating modularity and seamless interoperability of the different layers and individual software development processes thorough the Smart2B project lifespan.				
4. Refinement of the business case, definition of user stories and validation of the business model	This work resulted in the submission of the D1.5 - Definition of Business Models and Evaluation Framework, resulting in the definition of the business model and identification of six relevant customer segments, including: -Building owners -Facility/Building management companies -Grid operators, Energy Utilities, ESCOs -Renewable/Citizen Energy Communities (RECs/CECs) -Building technology providers (OEMs) -Construction/Energy consulting companies	Definition of business cases as part of deliverable 1.5. In a later project phase, the business model will be validated.			

2.2 Work Package 2 – Development of Smart2B Devices & Building Interface

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Development / Optimization of novel IoT actuators to interface existing appliances and mine consumption data & 2. Development / Optimization of IoT sensors to enable user/building data collection and user feedback integration	During the first months of the project Partners are working to develop the prototypes of the following devices: - EB: 1. eSense 2. eWairable 3. eMeter - EDP: 4. re:dy A/C plug 5. re:dy solar plug 6. re:dy plug 7. re:dy switch 8. re:dy gateway 9. re:dy meter Progress made towards the specific objective: 1. eSense first prototypes are ready and is under testing. We are advancing scaled production in view of the pilot deployment. 2. eWairable is being assembled and made ready for first testing iterations. 3. eMeter, in this period, we have concentrated to upgrade and optimize the communication apparatus of the eMeter which was based on a raspberry Pi card allowing a simple remote management with a faster and easier data traffic. The testing phase is already on going. 4. EDP sensors and actuators have been developed in a timely fashion and are being installed in the pre-pilot phase.	After careful evaluation, and discussion with the project officer the development of the eCamera was substituted by additional developments on the eMeter. The eMeter is developed to allow the energy flows monitoring of single-phase and 3-phase electrical utilities.			
3. Development of onboard intelligence libraries and implementation of onboard intelligence on IoT devices	Enerbrain will develop the architecture for communication between Smart2B cloud and the devices, along with the structure embedded in the eNodes to carry out edge computing. We test an entire communication loop and a first simple library for adaptive control. We implemented the overall architecture of the communication between cloud and devices; we also created the device structure to perform edge computing and a first version of the libraries, tested with data from Enerbrain buildings. We tested the	-			

	communication flow once to verify correctness and security.				
4. Development of building interfaces and communication between Smart2B hierarchical levels	Extensive research on communication protocols for building interfaces (Google assistance, Amazon Alexa, open HAB) was conducted.	Deliverable D2.4 has been prepared and submitted on time.			

2.3 Work Package 3 – Development of Smart2B Platform & APIs

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Harmonizing heterogenous data sources and building interfaces in a standard-based data format	Provide guide documentation to integrating partners (WP2) in order to interact with the Smart2B platform. Define and establish a collaborative process for registering entities in the NGSI-LD Broker system component centralizing the information in an Entity Information Spreadsheet that keeps track of all the entities registering sensor data gathered in the platform in a human-readable format. Real-life data from Smart2B pilots is already being gathered by the platform at smart2b.odins.es.	The work performed resulted in part of D3.1 -FIWARE-based harmonization, data annotations and filtering/storage, submitted in M12.			
2. Design and developing building data models and automatic semantic naming before storing relevant information	Perform several meetings to discuss Ontologies and data models discussion in Smart2B context, where all WP3 partners, together with Georg Jung from VITO, discuss what data models, entities, attributes, and ontologies will be employed for pre-processing the raw data coming from building sensor readings and external data sources (WP3 + External Data Sources T3.1). Review and discuss the use of building-domain specific ontologies, such as those developed by the Interconnect Project (https://interconnectproject.eu/). Study how the employed data-models match with the different Smart2B needs for semantic annotation and data labelling. Establish meetings with partners from Smart2B sister projects to collaborate towards the achievement building ontologies.	The work performed was included in D3.1 - FIWARE-based harmonization, data annotations and filtering/storage, submitted in M12. The second version of this deliverable in M30 will include the upgrades in data model and ontologies.			
3. Implementing user/building knowledge extraction, AI algorithms and a unified actuations orchestration	Study models found in the AI4EU portal that fit the Smart2B data. Data found will be similar to the Swedish pilot. Research solving issues with the power consumption depending on the yearly season.	The work performed will be included in D3.2 -User/Building Knowledge Extraction, AI4EU-based Algorithms and Orchestration to be submitted in M13 as requested to PO.			
4. Design and developing the Northbound Platform APIs for	Study Smart2B partner decisions and tools that will be used for each component and how to integrate and harmonize them through	The work performed was included in D3.3 - Platform APIs and submitted in M12.			

enabling interoperability with multi-criteria services	platform APIs. Including, but not limited to FIWARE Orion-LD and Elasticsearch. Studying foreseeable use cases and actor interactions with services to connect them to the knowledge and databases. Start design and implementation of APIs based on the obtained knowledge about component interactions.				
5. Implementing security by-design mechanisms to ensure the protected data exchanges and privacy preserving	The development and implementation of the DCapBAC, XACML and CP-ABE system components were finalized. Configuration of the access to several partners to the real-time NGSI-LD Broker and Storage components in the PAP administration tool.	The work performed was included in D3.4 - Security & Privacy Cross-Layer, submitted in M12.			

2.4 Work Package 4 – Development of Smart2B Services

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Development of multi-criteria and multi-level control asset management services using information extracted both at building and district level to employ load shifting, flexibility and maximize end-users' comfort	During the first months of the project the overall architecture for T4.1 was defined and as well as investigation and definition of simulation environments and control algorithms. Further work on the individual components (T4.1.1-T4.1.4). Example flexibility descriptions exchanged between the local energy efficiency, the flexibility, and the load scheduling service. Flexibility aggregation and power disaggregation.	Platform integration and validation with pilot data cannot be performed at the moment. As corrective actions the partners are validating the integration with own data sets and code exchange.			
2. Development of transversal services: Smart performance assessment/advisor, air quality assessment, predictive maintenance/degradation, user-centric energy profiling, user-in-the loop actuation, and energy forecasting	Sourcing of data – both real and simulated - required in the different tasks. Investigation/implementation of different algorithms for energy consumption forecasting. Implementation of models for fault classification. Implementation of models for air quality assessment through CO_2 level prediction. Mapping exercise to quantify the SRI service AI algorithms for the various tasks were further tuned on available data sets. Pilot data requirements were collected from.	-			
3. Integration of all developed services into an aggregated framework focusing on resource management	The final version of data model has still been under discussion with WP3, limiting the progress of this task.	The data model is not fully agreed on yet. This delays the middleware implementation, but development in T4.3 needs to speed up.			

2.5 Work Package 5 – Development of Smart2B User Interaction, Client Engagement & Social Innovation

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Design of the Smart2B interactive applications architecture and overall look & feel	The definition of the architecture for the Smart2B interactive applications, as well as the interaction design for these, has been completed and is described in the submitted deliverable D5.1.	The architecture and design of the user interface will continue to be revised until the end of the project, whenever this is deemed necessary, based on the feedback received from users.			
2. Development of the interactive feedback component	Development of a preliminary version of the interactive feedback component and its integration in the overall application is currently under development Incorporation of Services developers (WP4) requirements in Interactive feedback mockups was already under development.	-			
3. Design and implementation of the user interfaces and visualizations for the different actors	Development of the overall user interface for the different actors, including the functionalities to associate building owners, building managers and occupants with buildings. Creation of dashboards for visualizing information about energy consumption and production.	-			
4. Development of the smart readiness advising and gamification component	Creation of non-functional mock-ups for defining the design of the gamification component, and preliminary evaluation of the mock-ups to identify points for improvement. Beginning of the implementation of the gamification component and integration with the overall user interface.	-			
5. Integration of all the developed components with each other and with the Smart2B services	Beginning of the integration of all the components (dashboards, feedback, and gamification) in the Smart2B user interface.	Developments in an initial stage due the stage of developments of Smart2B Platform and Services (WP3 & WP4)			

2.6 Work Package 6 – Demonstration and Evaluation in five diverse Pilots

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Deployment of the Smart2B Devices, Smart2B Platform, Smart2B Services and Smart2B User Interfaces as defined in WP2 - WP5 in different building typologies and climate zones across Europe	Two out of the five pilots had major changes (ABL and EB pilots): A new EB pilot was already defined, while the final configuration of ABL still on development and several interactions with Project officer have been made regarding this topic. The deployment of Smart2B Devices and their integration in Smart2B platform already begin in 2 of 5 pilots. The measured data is already being sent to the Smart2B Platform and shared with Project partners. Meetings with WP4 and WP5 were arranged to set the requirements for each pilot site in order to develop the Smart2B Services and User Interfaces (UI). Acquisition and installation of several equipment predicted in the grant agreement already began: EV chargers, PV systems and appliances SCML pilot already organized the first onsite workshop to the users of the buildings.	Due the changes identified in ABL and EB pilots, Smart2B Consortium already approved the first amendment of the project. The procedures already began and discussions about it have been done with the PO.			
2. Performance and continuous monitoring of operational experiments based on the demonstration framework defined in WP1 to monitor and track the pilots' performance	These tasks have not started yet (M16).	-	-	-	-
3. Evaluation of stakeholder surveys to analyze user experience and satisfaction with the Smart2B innovations	These tasks have not started yet (M16).	-	-	-	-
4. Modification of Smart2B innovations based on analyses of stakeholder	These tasks have not started yet (M16).	-	-	-	-

surveys and pilot performance					
5. Evaluation of the use cases and operational experiments	These tasks have not started yet (M16).	-	-	-	-

2.7 Work Package 7 – Commercial Scale-up, Exploitation and Replication

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Insurance of compliance with regulatory frameworks and solid certification strategies for the developed solutions	Moving from the Key Exploitable Results identified by D1 a further analysis on regulatory/institutional barriers and enablers, and of compliance with other devices on the market is conducted. Two self-assessment surveys have been prepared and shared within the consortium: 1) The first one aim to assess compliances with national requirements, relevant standards, specifications and best practices as well as patent applications opportunity. Each partner will analyze and report these key aspects for each KER identified in D7.5 in the survey and send it back to EB. 2) The second survey focuses on compliances with most popular smart services and platform. For this purpose, key systems and appliances within the pilot sites for Smart2B have been identified as well as other off-the-shelf solutions and products (e.g., smart home services). Each partner will perform a self-assessment to evaluate how each innovation is compatible with these products and services and send back the survey to EB.	Smart2B partners are required to send the final version of their files to EB by mid-September. After that, EB will collect the results and provide a complete report with comments and further analysis on the self-assessment surveys.			
2. Standardization actions will be carried out by EB, EDP and OdinS to contribute to standardization	This objective is currently on hold since it will depend on the results of the two self-assessment surveys from objective 1.	-	-	-	-
3. Assessment of commercial readiness of the SMART2B innovations and development of commercialization plan	These tasks have not started yet (M16).	-	-	-	-
4. Assessment of the market impact SMART2B innovations will have on the European building stock	These tasks have not started yet (M16).	-	-	-	-

5. Detailed assessments of costs and benefits emanating from the SMART2B innovations for the target stakeholders	These tasks have not started yet (M28).	-	-	-	-
6. Creation of the exploitation plan for commercial and non-commercial partners of the consortium	The task was developed following a strict path that comprised an initial survey filed by each partner, interviews with 1:1, selection of most relevant and competitive KERs, final selection of KERs with interesting market size and strong business cases. At the end of a 4-step process, 23 KERs from 10 Smart2B partners have been analysed, using decision criteria as potential market, innovativeness, and IP position.	Following an internal discussion, it was established that some part of D7.5 might remain confidential, therefore it was proposed that: - A new version of 7.5 would be made public hiding sensitive information and explaining the ratio of this decision in the introduction or methodology section. - A new "D7.6 Exploitation plan v1 - full version" will be available with all the information collected by D1. - Deliverable 7.5.a was submitted in February 2022 (M6) on time.			

2.8 Work Package 8 – Market Involvement through Communication and Dissemination

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Actively involve additional stakeholders to the project to get their commitment to the design and implementation of the project, and to broaden the network for the commercialisation after Smart2B's completion	The Dissemination and Communication Plan has been defined and shared within the Consortium. The related deliverable D8.1 - Dissemination and Communication Plan, including project identity, has been submitted on time. The communication and dissemination plan features a strategic and operational approach to communicate project contents and disseminate project results. The document has been designed as a 'living document' that will be updated as the project unfolds, guiding the communication and dissemination actions; it describes in a non-exhaustive way how Smart2B will get in touch with the right audiences, as well as the channels and tools that will be used during the years of the project. Partners have started to inform and communicate with multiple audiences to introduce the Smart2B project and the first activities in progress. Lists of potential interested stakeholders have been created to be involved in different activities. These contacts will be used throughout the project to create the Smart2B network, attract experts, disseminate the results, generate market demand, and maximize the project's impact.	-			
2. Foster the full utilization of the results and findings during and after the end of the project, by activating tight relationship with the stakeholders for the full roll-out of the system after the project	During the first 12 months of the project the several communication and dissemination activities were implemented to enhance awareness and target specific audiences. D1 is leading the communication activities of the project: the Social Media channels and the Smart2B website were launched, and communication material was designed, in line with the visual identity and the digital focus of the current situation. Additionally, the first Newsletter and Press Release was and delivered.	-			

2.9 Work Package 9 – Project, Risk, Data and Innovation Management

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Coordination of the activities and efforts among all partners to guarantee an effective operation of the project	The Smart2B Consortium had is 1st General Assembly (GA) of the project (every 6 months), in online mode due Covid-19 restrictions in the majority of the Partners countries. Project Steering Committee (PSC) meetings occur every three-months with active participation of WP leaders, where an assessment is made on the progress and risks of the different ongoing and upcoming activities within the project. The First Advisory Board meeting (annual periodicity) was also organized, with the participation of some Partners where valuable advice where received. The project has now reached a point in time where internal management procedures have been assimilated and used by the partners.	In the 1st GA meeting, and mainly due discrepancies between pilots' description and objective in Grant Agreement and what is possible to perform in reality, Consortium agreed to begin the 1st project amendment.			
2. Keep communication channels between the beneficiaries and between the EC and the Project Coordinator (PC)	The consortium is successfully using the tools implemented in the beginning of the project: mailing lists, file repository, project website, project social channels, interim periodic report tools, and specific reporting tools developed for the communication of events and dissemination activities	-			
3. Management and control of the project resources, covering the overall legal, IPRs, contractual, ethical, financial and administrative management in compliance with consortium agreement	EDP management team is available and maintain periodic contacts with the Consortium partners to help overcome problems and doubts related to human resources, financial management, or acquisitions. EDP closely following all Partners current state of project execution, through the periodic interim report procedures. Until now, no major deviation were identified.	-			
4. Implementation of a Data and Ethical Policy concerning all domains of the project, complying with EC rules	With the begining of WP6 (Demonstration and Evaluation in five diverse Pilots) in March 2022, the data management procedures, methodology and tools made available for the Consortium with the first release of deliverable 9.4 will be implemented and used. Although, periodic revision will be made in order to check revision or updated are need.	-			

	However, until now, any need for changes were identified in this respect. In the technical domain, the project continues to develop the Smart2B platform with embedded data privacy and security mechanisms, associated to all data sources and services managed by the platform according to the work plan (namely in T3.5 - Development of the Security & Privacy Cross Layer).				
5. Monitoring of the progress of all technical activities, achievement of results and ensuring that they are delivered on time and to budget by the development of a project risk management and quality assurance	The progress of the project is periodically monitored through the PSC meetings, where each WP leader presents an overview of the progress, the challenges that are faced, and any risks that have been detected on the WP. All the scheduled meetings have occurred. The deliverable quality procedure implement in the early stage of the project has been ensuring a common quality standard and, in general, the timely release of deliverables.	-			
6. Promote gender equality	The Smart2B project promotes a hiring policy guaranteeing equal opportunities for all genders. All opened position calls include an equality statement to ensure this to the candidates. The project has successfully hired and involved several collaborators of all genders.	-			

2.10 Work Package 10 – Ethics requirements

Objectives	Progress	Comments	Status		
			Time frame	Technical content	Team effort
1. Ensure compliance with the 'ethics requirements' set out in this work package.	During the first year of the project the "ethics requirements" that the project must comply with, aligned with EC guidelines, were defined.	The D10.1 - POPD - Requirement No.2, was submitted in M6, and details the procedures to follow in case personal data are transferred from the EU to a non-EU country or international organization, in accordance with Chapter V of the General Data Protection Regulation2016/679			

3. Progress Milestones

In this chapter the milestones of the Smart2B project that should be achieved during the first year of the project were presented (Table 1), including information regarding the delivery date, means of verification and the respective status.

Table 1 – List of milestones M1-M12

No.	WP	Title	Delivey date	Means of verification	Status
MS14	8	Project website online	Feb-22	-	Achieved on time
MS1	1	Platform requirement & stakeholder framework completed	Mar-22	D1.1 - D1.4a	Achieved on time

4. Progress Deliverables

In this chapter the deliverables of the Smart2B project that should be submitted during the first year of the project are presented (Table 2), including information regarding the responsible Partner and Submission status.

Table 2 – List of deliverables M1-M12

No.	WP	Title	Due date	Responsible	Status
D9.2	9	Project Management Plan	Oct-21	EDP	Submitted on time
D8.1	8	Dissemination and Communication Plan, including project identity	Nov-21	D1	Submitted on time
D8.2	8	Project brochure, posters, roll-up, and infographics (first version)	Nov-21	D1	Submitted on time
D9.1	9	Project Management Handbook	Dec-21	EDP	Submitted on time
D1.1	1	Stakeholder Framework	Feb-22	RWTH	Submitted on time
D1.2	1	Functional Requirements of the Smart Performance Assessment & Advisor	Feb-22	VITO	Submitted on time
D10.1	10	POPD - Requirement No. 2	Feb-22	EDP	Submitted on time
D7.5	7	Exploitation Plan v1	Feb-22	D1	Submitted on time
D8.3	8	Project Web and Social Media Presence	Feb-22	CERTH	Submitted on time
D9.4	9	Data Management and System Failure Management Plan	Feb-22	EDP	Submitted on time

D1.3	1	Design Report of the SMART2B system architecture	Mar-22	OdinS	Submitted on time
D1.4	1	Description of the Use Cases	Mar-22	EDP	Submitted on time
D1.5	1	Definition of Business Models and Evaluation Framework	Mar-22	EDP	Submitted on time
D1.7	1	Description of Demonstration Framework and KPIs	Mar-22	EDP	Submitted on time
D2.4	2	Prototype protocols for the integration of third-party gateways, smart home assistants and building management systems	Mar-22	OdinS	Submitted on time
D5.1	5	Report on Interactive Applications Design	May-22	FC.ID	Submitted on time
D2.2	2	Prototypes of the IoT gateways	Aug-22	EDP	Submitted on time
D2.3	2	Prototypes of onboard intelligence algorithm libraries	Aug-22	EB	Delayed to Sep-22
D3.1	3	FIWARE-based harmonization, data annotations and filtering/storage	Aug-22	OdinS	Submitted on time
D3.2	3	User/Building Knowledge Extraction, AI4EU-based Algorithms and Orchestration	Aug-22	EB	Delayed to Sep-22
D3.3	3	Platform APIs	Aug-22	FC.ID	Submitted on time
D3.4	3	Security & Privacy Cross-Layer	Aug-22	OdinS	Submitted on time

D8.4	8	Periodic Digital Dissemination Activities Report v1	Aug-22	CERTH	Submitted on time
D8.5	8	Periodic Stakeholder Engagement Report v1	Aug-22	EDP	Submitted on time
D9.3	9	Progress Reports	Aug-22	EDP	Submitted on time

5. Use of resources & other issues

During the first year of the project (12/36 months), 40 of the 49 Smart2B tasks initiated their work and 5 of them already finished their contribution to the project. Looking at the work and achievements planned presented by Milestones and Deliverables, it can be concluded that 2 out of 15 Milestones were according to the schedule (100%) and 24 out of 25 deliverables (96%) planned for the first year were delivered on time.

In addition, prior to the submission of this progress report, the current expenditure of person-month, personnel costs, and other types of expenses was assessed through the interim reporting process, and it was concluded that no major deviations happened in this period.

At the moment, the only topic that rises more concerns in the management of the project is the ABL pilot case, since its final configuration is not yet completely defined. However, the project management team already stablished all measures to mitigate the impacts in the overall project development and results: Weekly meeting with pilot owner; stablished contacts with other Danish entities in order to request their support to engage new potential users.

In any case, this risk will be continuously assessed, and appropriate mitigation measures will be adopted as needed.

6. Conclusions

This deliverable presents the first report progress of Smart2B project resulting from the inputs given by every WP leaders through internal reporting procedures. During the first year of the project, all the WP and majority of the tasks kicked-off their work, producing the first deliverables of the project and reaching the initial proposed milestones. Most of the initially defined workplan was on track and only minor adjustments regarding deliverables submission dates were required due technical difficulties and/or overlap of delivery dates.

As result of the continuous risk management assessment procedures stablished since the beginning of the project, all the risks have been identified at an early stage and the proper mitigation measures have been adopted, and no significant delays have been identified so far.

In the first General Assembly of the project, as consequence of several discrepancies identified between proposed pilot sites in proposal phase and what is in fact possible to perform, as well as minor typos identified in the Grant Agreement, the Consortium decided to advance to the 1st Amendment of the Project, which procedures was already begun in articulation with Project Officer. At the moment, the final configuration of the ABL Pilot (Residential, in cold Climate) is the main topic which raises concerns to the Consortium, but all the mitigation measures are in action to avoid impacts on Smart2B project milestones and work plan.

Thus, the Smart2B Consortium considers the project is on track according to the plan, without any outstanding problems affecting its normal execution and is successfully starting the second year of its execution.