INCLUSION Project

Deliverable D4.1

Innovation Pilot Lab Coordination Handbook

Version: 1.0

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Abstract	This Deliverable represents the first milestone of Task 4.1 which coordinates the Pilot Labs to be demonstrated in the WP4 of INCLUSION project. As agreed by the project consortium, the WP4 started in M10 in order to smoothly establish the links with on-going WP2/WP3 and starting WP5 activities. This period has been used to monitor and collect the required introductive information about the pilot labs (site description, mobility demand/offer analysis, identification of the main gaps to be filled in by the INCLUSION, objectives of the pilot actions, etc.). D4.1 links the preparatory phase of needs assessment and identification of the solution to be piloted (the results collected from the sites are reported by the document itself) with the following activities required for pilot implementation. In particular, it provides guidance to the INCLUSION Pilot Labs for carrying out the users' requirements analysis, the design of the specification (technological, operational and organizational, depending on the pilot scope), the pilot setup and its operation. In order to achieve this objective the Deliverable defines a) the Local Pilot Action Plan (LPAP) to guide the sites along the Pilot Lab design, implementation and operation and to get the basic information (in terms of timeplan and milestone to be achieved) to put into practice the monitoring activity, b) the Table of Content of Deliverable D4.2 (D4.3), (D4.4), (D4.5), (D4.6), (D4.7) which will report the outcomes of each Pilot Lab by M18 (first version) and by M34 (second version). The LPAP (that will be filled in by the Pilot Labs) and the D4.X Table of Content are enclosed as annexes to this document. Finally, the Deliverable describes how the Pilot Labs monitoring and coordination activities will take place during the WP4.

Version	Date	Modified by	Comments
0.1	July 2018	MEMEX	Table of Content
0.2	August 2018	MEMEX	Sections 1, 2 and 5
0.3	September 2018	MEMEX	Integration of LPAP template (section 3) and Table of contents

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			for the following WP4 Deliverable
0.4	October 2018	MEMEX	Added section 3 with reshaped version of the pre-feasibility template already filled in by the Pilot Labs' responsible.
0.5	18 October 2018	MEMEX	First version circulated
0.6	22-26 October 2018	MEMEX	Check of the whole document, editing and minor changes. Version sent to SOF for internal peer review
0.7	30 October 2018	SOF	Comments/revision of version 0.6
0.8	5 November 2018	MEM	Integration of SOF revisions. Minor modifications according to SOF comments
0.9	7 November 2018	MEM	Check of the whole document and final editing
1.0	16 November 2018	SOF	Quality check and release of version 1.0

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Terms of reference

Term	Explanation
APP	Web application running on mobile operative systems
AVM	Automatic Vehicles Monitoring, the ITS system allows monitoring and control of a PT fleet
Chip-on-paper	Electronic tickets coded on a flexible support. It can be rechargeable or not, it is used to implement single or multi-trips tickets; anyway its expected lifetime is shorter than smart card as the support is less durable
Demonstration	Operation phase of the Pilot Lab
Design of the Pilot Lab	Phase of Pilot Lab implementation after the pre-feasibility. Once the actions to be demonstrated have been defined, the design will start including requirements analysis and pilot specifications
Dispatch Centre	Software used for the scheduling and optimization of the PT/mobility services whose timetable and/or routing is defined by the request of the users (which can be collected in advance, real-time or both)
DoA	Description of Activities, technical description of the project annexed to the Grant Agreement n. 770115 – INCLUSION project (Annex I Part A).
D4.1	Deliverable 4.1, this document which represents an output of WP4 – Pilot Lab Operation (Task 4.1 – Pilots Coordination).
D4.x, D4.2/3/4/5/6/7	Deliverables describing the activities and the results achieved by the Pilot Labs. Each of them relates to a Lab. They will be delivered in two versions: the first in M18 and the second in M34
ICT	Information and Communication Technologies
IT	Information and Technologies, in this Deliverable this term is used as alternative of ICT
ITS	Intelligent Transport System, ICT based system supporting mobility and PT operation.
LPAP	Local Pilot Action Plan, the LPAP is a structured and common tool to allow the Pilot Lab's responsible to plan the local activities (and to report the related outcomes) and MemEx (MEM) to monitor the progress status, the achievements and the compliance with the plan

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Term	Explanation
MaaS	Mobility-as-a-Service, concept for accessing PT and mobility services through a common interface (despite the transport mode and the service provider), searching for transport solutions (from a point A to a point B) and pay a multi-modal or multi-operators tickets with a unique transaction.
Mx	Month, unit for measuring the progress timing of the project. M1 is October 2017.
Pilot Lab	Each of the 6 sites where demo actions will be demonstrated
Pilot Lab actions	Solutions to be demonstrated in the Pilot Lab
Pilot Lab responsible	Person of the project partner staff in charge of coordinating local pilot activities and to interact with WP Leaders
Pre-feasibility analysis	First phase of Pilot Lab implementation. It consists of a consolidation of local gaps and users' needs analysis in order to identify/confirm the overall objectives/scope of the Pilot Lab and to identify the solutions to be demonstrated.
PT	Public Transport services
Service specifications	Scheme, rules and operational conditions to operate a mobility service in the Pilot Lab
SMS	Short Message Service, communication protocol used for mobile devices
Smart card	Electronic tickets coded on a plastic rigid support. It is rechargeable or not and it is used to implement subscriptions and/or e-purse as its expected lifetime is longer than the chip-on-paper
System specifications	Description of technical features and functionalities provided by the system
WP	Work package, main component of the structure of INCLUSION project. It is divided in homogeneous group of activities (tasks).
3-D matrix	Matrix structured in three dimensions

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1 Structure of the document

An introductive part (section 1) helps the reader to familiarize with the framework context of the document.

Section 2 introduces the role of WP4 into INCLUSION project in terms of objectives, activities and planned outcomes. The structure of WP4 is presented highlighting the role of Task 4.1 which is targeted to the coordination of the whole WP. Role and responsibilities of the involved partners are identified. An overall description of D4.1 is provided, with a specific focus on the role of D4.1 in the future Pilot Labs activities.

Section 3 describes the methodology adopted for WP4 coordination (Task 4.1): from the assessment (on the basis of the information already provided in the DoW) of the pre-feasibility analysis in terms of objectives and scope of the Pilot Lab up to definition of a detailed Local Pilot Action Plan (LPAP) for the design, implementation and operation phases. The LPAP is a structured and common tool to allow the Pilot Lab's responsible to plan the local activities (and to report the related outcomes) and MemEx (MEM) to monitor the progress status, the achievements and the compliance with the plan. Added to the monitoring activities, MEM will provide the Pilot Lab partners with assistance in order to solve specific technical and operational issues related to Pilot Lab implementation and support for complying with project responsibilities (definition of the LPAP, Table of contents for D4.2/3/4/5/6/7).

Once the methodology for carrying out Task 4.1 activity has been detailed, section 4 and section 5 go through the phases of pre-feasibility assessment and pilot design providing the results of the local activities at the date of document submission. In particular, section 4 focuses on the pre-feasibility phase including the following outcomes from Pilot Labs analysis: 1) detailed description of the reference context and categorization of the context based on WP1 classification of the prioritized areas, 2) identification of target users and categorization of the groups based on WP1 selected key attributes to define disadvantaged groups, 3) consolidation of gaps between mobility needs of the target groups and the mobility offer, 4) identification of the objective/scope of the Pilot Labs, 5) first ideas about the solutions to be demonstrated. This information has been collected in the early stage of WP4 activities. The "extended version" of the template collecting info about pre-feasibility analysis is included in Annex B.

Section 5 defines the LPAP which each Pilot Lab responsible has to fill in related to the process of designing, and implementing the Pilot Lab and managing its operation. The LPAP template is included in Annex A.

Finally, section 6 clarifies the interaction between WP4 and WP5 for data collection.

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2 Introduction

This section introduces the role of WP4 in INCLUSION project with a specific focus on Task 4.1 which guarantees the coordination and the monitoring of Pilot Labs. Secondly, the role of this Deliverable is specified in order to set the reference framework for the contents provided in the following sections.

2.1 Positioning WP4 in the INCLUSION project

Within INCLUSION project, WP4 defines, deploys and operates 6 Pilot Labs which demonstrates selected services and solutions in order to validate the results coming from the project WPs which have developed / are developing surveys analysis (WP1, WP2 and WP3).

The role of WP4 in the whole project is:

- to validate some relevant innovative solutions/tools to improve accessibility of public transport services for disadvantaged target users in prioritized areas through the demonstration in the real operational conditions
- to provide to WP5 and WP6 the data for the assessment of the real impacts of pilot actions in terms of improvement of public transport accessibility and contribution to social inclusion and the reliable base for understanding the expected impacts in case of follow up and scale up of the whole solution.

2.1.1 WP4 main objectives and activities

WP4 activities guarantee:

- the identification of pilot actions deployed in each site considering the local needs, gaps and target objectives (with an outlook to the most relevant case/concepts selected in WP2 and WP3);
- the definition of a detailed action plan (Local Pilot Action Plan, LPAP) for the design, setup and operation of the Pilot Labs demo;
- the detailed design of the Pilot Labs activities including the need to tailor/introduce them in the real operational practice and context of each site
- the setup of the supporting conditions (institutional, technological, operative, resources and organization, stakeholders and users' engagement) required for the demonstration of pilot actions in each site;
- the demonstration, under the real operational conditions, of the pilot actions and the collection of data to carry out the quantitative/qualitative evaluation;
- the appropriate monitoring and coordination of pilot actions in order to assure high-quality results and compliance with the defined pilot plan.

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2.1.2 WP4 structure, roles and responsibilities

INCLUSION pilot sites are indicated in Figure 1.

Figure 1: Pilot Labs in INCLUSION project

The INCLUSION pilot Labs are:

- Rhein Sieg (Germany);
- Florence Metropolitan Area (Italy);
- Cairngorm National Park (UK);
- Flanders (Belgium);
- Barcelona conurbation (Spain);
- Budapest Metropolitan area (Hungary).

Each of the Pilot Lab activities are included in a specific Task of the WP4 (from Task 4.2 to Task 4.7). Furthermore, WP4 includes a horizontal Task (Task 4.1) which guarantees the coordination and monitoring of the WP activities.

The roles and responsibilities of the project partners in WP4 and in the local sites activities are detailed in Table 1.

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Table 1: Role and main responsibilities in WP4

Task	Outputs	Partner Responsible	Pilot lab responsible	Contributing partners
Task 4.1	WP Coordination Sites networking and guidance Pilot Labs monitoring	MEM	Andrea Lorenzini & Giorgio Ambrosino	SOF provides linkage with WP2 outcomes
Task 4.2	Operation of demo actions in Rhein Sieg	VRS leads the task coordinating all the local activities for pilot setup and operation	Bernd Knieling	RUPPRECHT supports the task leader in the user needs analysis.
Task 4.3	Operation of demo actions in Florence Metropolitan area	BUSIT leads the task coordinating all the local activities for pilot setup and operation	Claudia Binazzi	MEM supports BUSIT in the definition of the pilot actions and the operation of the pilot actions
Task 4.4	Operation of demo actions in Cairngorm National Park	HITRANS leads the task	Jayne Golding & Julie Cromarty	UNIABDN supports for users needs analysis and development of business model
Task 4.5	Operation of demo actions in Flanders	TAXISTOP carries out all the task activities	Bert Victor	
Task 4.6	Operation of demo actions in Barcelona conurbation	MOSAIC leads the task	Lídia Sala	BUSUP implements and realizes actions, measures and activities

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Task	Outputs	Partner Responsible	Pilot lab responsible	Contributing partners
Task 4.7	Operation of demo actions in Budapest Metropolitan area	BKK carries out all the task activities	Patrik Tóth	

2.1.3 Timing

WP4 was operationally kicked off in July 2018 (M10) although the start date planned in the INCLUSION DoA (project proposal) was three months later (October, M13). The reasons were:

- to start coordination activities in Task 4.1 smoothly and to allow the Pilot Labs responsible to familiarize with related actions in particular with procedures for info exchange with the WP Leader, MEM;
- to start the monitoring activities of Pilot Labs progress/achievements from the early stages of assessment of the needs/gaps for public transport accessibility related to the reference area, the local current mobility offer and the identified target groups of vulnerable users already outlined in the DoA. This phase is very critical for the whole deployment of the Pilot Labs as it leads to the detail/consolidation of the scope and targets of the Pilot providing the inputs to feed the identification of the actions to be piloted and the detailed design of the required specifications (in terms of mobility services to be improved/enhanced/integrated, technologies, supporting conditions, procedures and organization, etc.). This period has been used to monitor and collect the required introductive information about the pilot labs (site description, mobility demand/offer analysis, identification of the main gaps to be filled in by the INCLUSION, objectives of the pilot actions, etc.);
- to smoothly establish the links with on-going WP2/WP3 and starting WP5 activities.

The milestones of the WP4 timeplan are briefly summarized in Table 2 and graphically represented in Figure 2. This is a general overview for the whole project considering that the timing of each Pilot Labs differentiated slightly depending of the specific local activities.

Table 2: Actions plan for WP4 and related timing

Timing	Actions	Responsible	Outputs
M1-M9	Consolidation of Task 4.1 objectives and approach. WP4 Inception Report in M1	MEM	Requirements to define Task 4.1 detailed work methodology

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Timing	Actions	Responsible	Outputs
M3 – M12	Pre-feasibility analysis of the actions to be piloted in the Pilot Labs	Pilot Labs	Consolidation of scope/targets of the actions to be piloted in the Pilot Labs
M2	Circulation of a template reporting progress status and results of pre-feasibility analysis of the actions to be piloted in the Pilot Labs	MEM to Pilot Labs responsible	On-going assessment of scope/targets of the actions to be piloted in the Pilot Labs
M6	Template reporting progress status and results of pre-feasibility analysis of the actions to be piloted in the Pilot Labs	Pilot Labs responsible to MEM	Initial results of pre-feasibility assessment (assessment of scope/targets of the actions to be piloted) reported back
M9-M11	Initial design of Task 4.1 detailed work methodology Start monitoring of Pilot Labs	MEM	Task 4.1 detailed work methodology (basic concepts)
M10	WP4 Kick Off Start coordination activities in WP4	MEM, Pilot Labs responsible	Sharing of basic concepts about Task 4.1 detailed work methodology. Agreement between WP Leader and Pilot Labs responsible. Actions plan outlined.
M10	Circulation of a second version of the template in order to integrate the first information collected on the basis of the results of WP1 analysis	MEM to Pilot Labs responsible	On-going assessment of scope/targets of the actions to be piloted in the Pilot Labs
M13	First version of D4.1. Request to fill LPAP in	MEM to Pilot Labs responsible	Provision of detailed work methodology for Task 4.1. Guidance to Pilot Labs responsible, LPAP template, D4.x template

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Timing	Actions	Responsible	Outputs
M14	LPAP filled in	Pilot Labs responsible to MEM	Timeplan for design, implementation and operation of the pilot actions. Initial results of design phase of the actions to be piloted: detailed specifications
M14 – M34	Setup of monitoring procedure	MEM	Provision of guidance/support to the Pilot Labs responsible. Check of compliance of local actions with LPAP
M11 – M18	Design of the actions to be piloted in the Pilot Labs. Preparatory activities for Pilot Lab operation and pilot setup	Pilot Labs	Design and setup of Pilot Labs on-going. Progress results reported back.
M18-M34	Pilot Labs operation	Pilot Labs	Design and setup of Pilot Labs completed. Progress results of operation reported back.

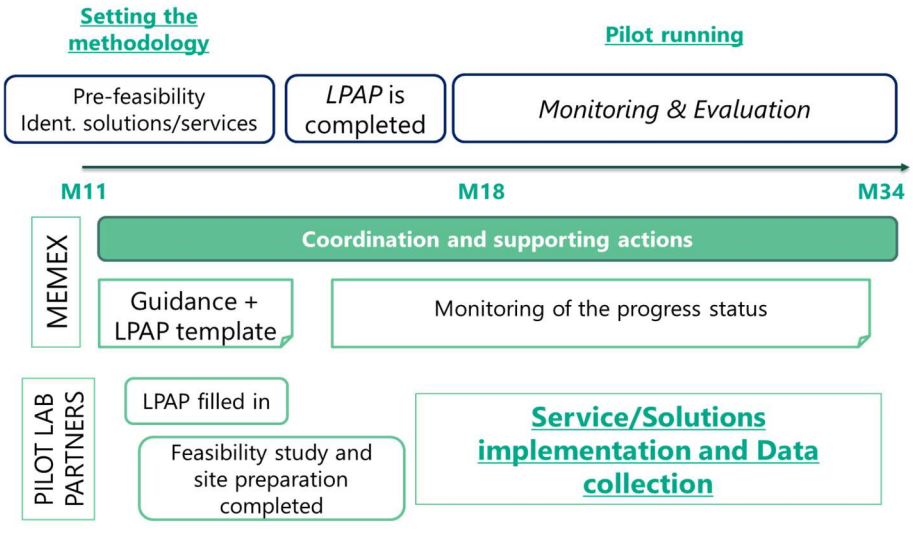

Figure 2: Timing, milestones and level of responsibilities for WP4 activities

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2.1.4 Links with other WPs

WP4 interacts with the following project WPs:

- WP2 - Social Innovation, enabling ICT and data intelligence. This WP is looking at current and emerging use of social media, APP-based services and data analytics both as a way to get better insight about the needs and the requirements of different user groups as well as operational tool which can support the provision of innovative services together with the increasing role of social innovation.
- WP3 – Inclusive mobility option: identification and critical assessment. This WP is carrying out the analysis of 50 study cases (innovative mobility initiatives, projects, measures) aiming to lower accessibility barriers and to offer viable options for a sustainable and inclusive mobility.
- WP5 – Impact assessment and process evaluation collects data produced by the operation of Pilot Labs assessing the impacts of the demo actions in terms of enhanced accessibility for the targeted user categories

The interactions between WP4 and the other WPs are graphically represented in Figure 3 and detailed in Table 3.

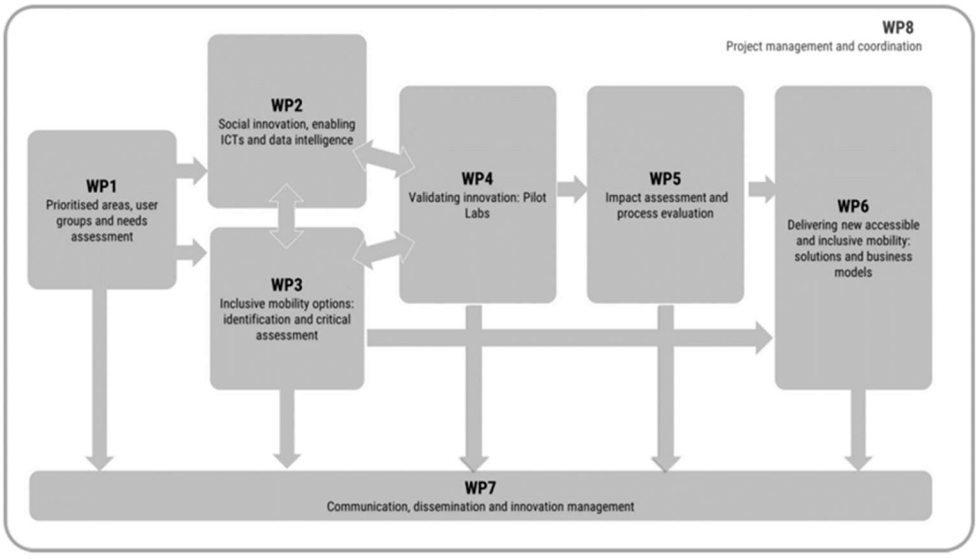

Figure 3: Interactions among WP4 and other WPs Source [INCLUSION DoW]

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Table 3: Details of the interactions between among WP4 and the other WPs

WP	Details of interactions with WP4
WP2	Role and services of the social innovation enabling technologies and models can inspiring the Pilot Labs responsible in the pre-feasibility and design phase of the Pilot Labs.
WP3	Case studies selected can provide good practices to be followed/considered in the pre-feasibility and design phase of the Pilot Labs.
WP5	Data to be used for the evaluation of demo impacts and the assessment of the related indicators are collected during WP4 pilot activities. Synergies to be established between the monitoring activities of both the WPs (WP4 and WP5).

2.2 Task 4.1 in the context of INCLUSION Pilot Labs

In the context of INCLUSION WP4 (outlined in section 2.1) the Task 4.1 "Coordination of Innovation Pilot Labs" is a horizontal task which coordinates the vertical ones (each one allocated to a Pilot Lab of the project) to ensure four key achievements:

- Guidance and assistance to the partners responsible for the Pilot Labs responsible (i.e. template for the consolidation of scope/targets of the Pilot Labs and consolidation of the actions to be piloted, LPAP template for the definition of the timeplan for Pilot Labs deployment, table of content for D4.x, technical and operation support to Pilot Labs responsible).
- The description of the actions to be piloted and their specifications as part of the information to be collected through the LPAP.
- Monitoring the progress status of pilot activities, according to the timeplan and milestones defined by the Pilot Labs responsible in the LPAP and the verification of the quality of results compared to the project objectives. The monitoring process based on LPAP includes also the verification of the application of the contingency plan in case of deviation of the progress activities compared to the plan.
- The proper interaction with WP2, WP3 and WP5 in order to achieve the objectives defined in section 2.1.4.

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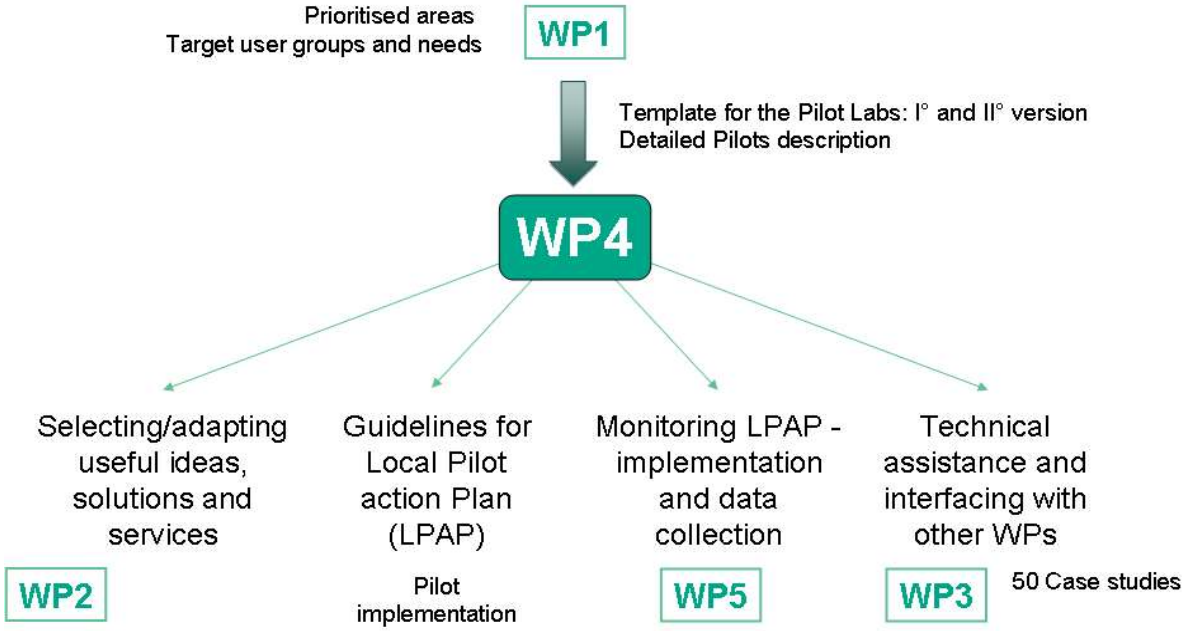

Figure 4: Main activities included in Task 4.1

2.3 Purpose of D4.1 in WP4

D4.1 is the first deliverable submitted in WP4. It must be seen as a "working document" of INCLUSION project allowing the detailed design of the Pilot Lab actions (in terms of specifications and timeplan), from one side, and establishing the methodology and the project internal procedures for the monitoring of the local Labs progress, from the other side. The first point of view is related to local Pilot Lab activities (in charge of Pilot Lab responsible and supporting partners) and the second point of view is related to Task 4.1 coordination activities (in charge of MemEx).

D4.1 is planned in M13 (October 2018) then it is temporally located at the early stage of the design and setup phase of the Pilot Lab (M10 – M18) for what concerns the local activities at Pilot Lab level. On the other hand, for what concerns the overall coordination activities of Task 4.1, the release of D4.1 matches the definition of the methodology and action plan for the monitoring of Pilot Labs' progress and results.

By following the timing of the activities, the Deliverable is structured as follows:

- Reporting of the assessment of objectives of Pilot Labs and consolidation of the actions to be piloted (outcomes of the pre-feasibility analysis)
- Guidelines (LPAP) for defining (and then reporting) the actions required by the design, implementation and operation of the Pilot Labs and defining the related timeplan (to be used for the implementation of monitoring activities)

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- Guidelines (Table of content for D4.x) for standardizing the reporting of Pilot Labs outcomes by the partners responsible (Pilot Lab responsible). The first edition of D4.x are designed for the reporting of the results of the Pilot Labs' design and implementation (preparatory activities) and the second of the reporting of the operation of the demonstration. The contents of each edition of D4.x related to the Lab description can slightly change according to the timing of each Pilot Lab (as indicated in the LPAPs).
- Definition of methodology for carrying out the monitoring activities of Pilot Labs based on the info collected in the LPAP.

2.4 Target audience

As indicated in section 2.3, the D4.1 is a "working document" whose aim is to establish coordination activities in Task 4.1 and to guarantee high-quality results of Task 4.2/3/4/5/6/7 according to the plan (LPAP). Then the target audience is represented by internal partners of the consortium, in particular:

- The partners leading/supporting the Pilot Labs operation in Task 4.2/3/4/5/6/7
- Other WP Leaders (in particular WP5 Leader) to coordinate monitoring procedures in the two WPs.

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3 Methodology

Section 3 details the methodology adopted to carry out the coordination and monitoring activities of Pilot Labs to be guaranteed by Task 4.1. The methodology consists of various steps: each of them are detailed in the following sections in terms of activities, timing and results.

3.1 Template for Pilot Labs description

The first step required by the methodology is to assess the scope and the targets of the Pilot Labs as described in the DoA in order to consolidated (or adapt) the objectives of the Pilot and the key actions to be demonstrated in the Lab (WHAT). This action is mandatory to further detail the specifications of the Pilot Lab (HOW) and then move to the setup and implementation preparatory activities (WHEN).

This phase is required as:

- the description provided in the DoA has been produced 18 months before the start date of WP4 and then some changes could be occurred in the local reference context (i.e. mobility offer, target user groups, stakeholder to be involved, supporting conditions, etc.)
- the identification of actions to be piloted, the definition of the target groups of vulnerable users to be addressed, the assessment of the role ICT technologies can assume for fostering social innovation has taken advantages from the results of WP1 analysis and WP2/WP3 initial results.

In order to carry out this phase, MemEx defined and circulated a template among the Pilot Labs responsible. The template (Pilot Lab description) aimed to "describe" the Lab in terms of scope, targets and actions to be demonstrated.

The template (first version) was produced in M2 (November 2017) in order to consolidate the Pilot Labs scope/targets according to the WP1 analysis which was starting that time.

The information collected was the following one:

- PART A): Description of reference context:
    - Site description (general description, predominant type of activity in the area, area dimension, population numbers)
    - Target users groups and needs
    - Number of target users
    - Mobility demand in the target area and mobility needs of the target group
    - Mobility offer both in terms of transport/mobility services and "virtual" access services to them (i.e.: information, promotion, etc.)

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  - Technological background
  - Identification of the main gaps to be addressed by the Pilot Lab
  - Identification of the actions to be demonstrated in the Pilot Lab
- PART B): Description of the actions to be demonstrated in the Pilot Lab
  - Short description/overview of the actions to be demonstrated
  - Identification of key stakeholder and description of local partnership
  - Preliminary analysis of barriers to overcome
  - Identification of expected outcomes

The template was firstly filled in by the Pilot Labs responsible in first months of the project and then the template was updated by MemEx in M10 (July 2018) in order to better shape some parts of it according to the key achievements of WP1 (resulting from D1.3, validation of WP1 outcomes): definition of prioritized areas, target groups (and specifications of main attributes) and classification of target needs for vulnerable users groups categories. In particular the identification of target groups has been graphically represented through a 3-D matrix combining the main attributes identified in WP1 analysis.

The integration carried out in the second version of the template were the following:

- Classification of the target area according to the typologies of the prioritized areas defined in WP1
- Detail of description of the target group in terms of the key attribute defined in WP1 (Deliverable D1.3) for vulnerable users: sex, resident status, employment/education status, family status, presence of disability, age (children, teens and young adult, adults, older adults and elderly) and level of income (low, medium and high)
- Identification of the needs of target group in terms according to Deliverable D1.3: essential, basic requirements (to be selected among the following options: accessibility, safety, affordability, reliability, connectivity), specific needs (to be selected among the following options: low-floor/kneeling buses, staff assistance, flexible tariffs, flexible PT offer, on-demand services), added value services (to be selected among the following options: parking areas next to train station, good conditions in the pedestrian environment, integrated ticketing, real-time travel information, possibility of reserving seat in advance, on-line payment).

3.2 Definition of Local Pilot Action Plan

The second step of the methodology defined within Task 4.1 move from the assessment of actions to be piloted in the Pilot Labs to their design and implementation to launch demo initiatives (HOW/WHEN). This phase is based on the definition and use of a Local Pilot Action Plan (LPAP) issued by MemEx and to be filled in by the Pilot Labs responsible.

The LPAP consists of four main sections:

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- PART A: final indication of the actions to be demonstrated in the Pilot Lab (summary of the conclusions coming from the template for Pilot Lab description)
- PART B: description of the current progress status of design activities (carried out, in progress, future) and detail of the main results (even intermediate) already achieved. Once the main actions required for the design of the Pilot Lab and the definition of the related specifications, a timeplan is required to be provided
- PART C: description of the current progress status of implementation activities (carried out, in progress, future) and detail of the main results (even intermediate) already achieved. Once the main actions required for the implementation of the Pilot Lab, a timeplan is required to be provided
- PART D: detail of barriers/critical factors and definition of the contingency plan.

The LPAP will be filled in M13-M14 (October/November 2018) and will be periodically updated during the WP4 activities. The LPAP represents the basis to set the monitoring process of Pilot Lab activities.

3.3 Definition of monitoring procedures

The monitoring procedure will be carried out by MEM and they will be based on the organization of periodic conference calls among the WP4 partners.

The WP4 conferences calls will be more frequent on the first month of the WP activities which are focused on the critical phase of design of pilot specifications and implementation setup and basically bi-monthly in the operation phase. The WP4 conferences calls will be integrated in the monthly "virtual" project meeting which is organized to check the progress activities of all the WPs and activities' synergies,

The motivation of this choice is to allow the interactions among the WP4 and the other WPs (see section 2.1) and to share the main achievements of the Pilot Labs with the whole consortium. This choice does not prevent to organize specific WP4 conferences calls (restricted to WP participants) if required.

The objectives of the WP4 conferences calls are the following ones:

- MEM will check the progress status of the activities in the Pilot Labs compared to what planned in the LPAP and the quality/consistency of the WP4 outcomes in relation with the project objectives. Eventually, MemEx will ask to the Pilot Labs to provide an updated version of the LPAP.
- MEM will understand the needs to provide "on call" technical and operational assistance to the Pilot Labs' responsible as detailed in section 3.4 in order to limit deviations on the LPAP and to define mitigation solution (when required).
- Pilot Labs will be guided to report the progress results in a common and structured way
- Sharing of information with the other WP responsible will be activated

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3.4 Technical and operational assistance to Pilot Labs

The "on call" assistance MemEx will provide to the Pilot Labs' responsible consists in the following main activities:

- Expert contribution on key choices of design phase of the Pilot Labs in particular related to the definition of specification of the ITS supporting Labs operation.
- Technical contribution/advise about technical issues related to ITS implementation in the Pilot Labs.
- Operational recommendations about procedures and resources organization/allocation to support Pilot Labs' implementation and operation.

This assistance will be provided upon request of the Pilot Labs' responsible. The need for assistance will be identified during the WP4 conferences calls and the support will be given as follows:

- revision of documents related to Pilot Labs' design and implementation;
- expert assistance through conferences calls (the ones organized for WP4 coordination and bilateral ones, if required);
- provision of specific recommendations on key issues highlighted by the Pilot Labs' responsible.

3.5 Timeplan and milestones

In the deployment of Pilot Labs in WP4, the following three main phases are identified:

- Design and definition of the specifications
- Implementation and Pilot Lab's setup
- Operation

Basically, the deadline for completing the implementation of Pilot Lab will be M18 in order to launch the operation in M19-M20 (May 2019 or June at the latest) and to plan enough time to carry out data collection for evaluation (WP5). Based on the indications provided in section 5.1, the time of operation launch could be slightly different sites by site and action by action depending on the efforts to do in the design and implementation phases

3.6 Guidelines for drafting D4.x

As part of the coordination activities in charge of MEM as WP4 Leader, this Deliverable will provide the template and the guidelines to Pilot Labs' responsible partners which are in charge of releasing D4.2/3/4/5/6/7 in M18 and in M34. The template and the guidelines are included in the document as Annex C.

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The version of the WP4 Deliverables released in M18 will mainly focus on the design of the Pilot Labs' specifications whereas the version released in M34 will focus on implementation and management of pilot operation.

The guidelines provided in this Deliverable will allow:

- to have a common structure for reporting the progress activities and the achievements of the Pilot Labs;
- to identify good practice and lessons learnt consolidated during Pilot Labs' implementation and operation;
- to highlight barriers/problems faced during Pilot Labs' implementation and operation.

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4 Needs analysis and pre-feasibility/design

This section summarizes the main results of the needs analysis (pre-feasibility) which consolidates the scope/objective of the Pilot Labs and assesses the actions to be piloted.

4.1 Overview of the six Pilot Labs

The next sections briefly summarise, for each Pilot Lab, the local context, identified needs, the objective of the Pilot Lab, the solutions to be piloted and a preliminary risk analysis. The contents of the next sections come from the reduction of the "extended" version of the template defined by MemEx and filled in by the Pilot Lab responsible. The "extended" version of the template is included in the Annex B enclosed to this document.

4.2 Pilot Lab Rhein-Sieg

Table 4:Description of Rhein Sieg Pilot Lab

1. Site description	
General description	
The Rhine-Sieg area is located in the west of Germany. Hennef Im Siegbogen is a finished development area in Hennef, next to the cities Bonn and Cologne. Eitorf is a city where a development area called Blumenhof is in construction, next to Hennef. A lot of families with younger children in the Rhine-Sieg region are looking for affordable housing space. There is access to schools. The environs are local recreation areas and invites to wander or cycle. The Dutch or Belgian coast can be reached in a few hours by car or train.	
Prioritized area typology	
Peri-urban areas	Traditionally deprived area in economic growth, with an increasing population The new housing estate in Hennef Am Siegbogen and in Eitorf Blumenhof is part of a traditional city which benefits from a spillover effect of families with younger children, working in the areas of Cologne and Bonn and looking for affordable housing.
Features of the area	**Predominant type of activities**: Residential **Area covered:** < 5 Km^2 (for each area) **Population density:** > 500 inhab. / Km^2 (Hennef), between 200 and 500 inhab. / Km^2 (Eitorf)

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2. Target user groups and needs	
Identified target groups	Families with younger children
Features of the target groups	**Population of the target groups:** between 500 and 2000 users in Hennef, between 100 and 500 users in Eitorf. **Age:** Children (0-14 years), Teens and young adults (15-24 years), Adults (25-54 years). **Income level:** medium **Car ownership** is between one and two cars per household and modal split is dominated by the use of the own car. **Modal split**: Modal split in Hennef: Driver of own car: 48%, Co-Driver car: 16%, Public Transport: 9%, Bike: 7%, Going by feet: 20% - Modal split in Eitorf: Driver of own car: 50%, Co-Driver car: 15%, Public Transport: 16%, Bike: 1%, Going by feet: 18% **Directions of the trips:** Work: Hennef: 31% municipality, 8% Bonn, 40% district, 21% others, Eitorf: 32% municipality, 30% Bonn, 19% district, 19% others. Shopping, Leisure: Hennef: 62% municipality, 5% Bonn, 23% district, 9% others. Eitorf: 67% municipality, 2% Bonn, 25% district, 5% others
Needs of the target groups	Bringing children from new housing estate to kindergarten or basic primary school. Going to own working place after bringing children/going to main station to drive to working place in another city. Bringing the children to friends or sports club. This means three to four trips per day. But more important is the possibility to combine these trips without using the car (multi-chain-trips). The length of all daily trips is 43 kilometres in sum. **A survey to determine the inhabitants (families with young children) transport services needs beyond work-trips is on-going.**

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3. Current supply of mobility services in the site

Conventional Public Transport:

- Deutsche Bahn (Regional Express, suburban train)
  Monday – Friday 5am to 01am three trains/hour
  Saturday/Sunday 5am to 02 am two trains/hour (partly three)
- Rhein-Sieg Verkehrsgesellschaft – RSVG (buses), Lines 532, 533, 564, 570, 571, 573, 579
  Monday – Friday one time/per hour from 6am to 9pm
  Saturday/Sunday every second hour from 8am to 8/9pm
  During Off-peak hours partly demand bus (TaxiBus) is in use
- Rhein-Sieg Verkehrsgesellschaft mbh is a private limited company (Ltd.) – owner is the Rhine-Sieg district
- Fares are unique in the tariff of VRS
- Taxis: Private Taxi company

4. Technological & ITS background

Transport mode type	***ITS***
DB Regio AG RSVG	Real-time localization and monitoring E-Ticketing system (VRS) Infosystem in trains

5. Main objectives of the Pilot

Objective	***Short Description***	***Context***
1)	Improving mobility opportunities for families with young children	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
2)	Improving the integration of different means of mobility with public transport targeted to families with children to self the participation of children in the daily trips for sports clubs, youth clubs etc.	
3)	Development of concepts for the implementation of similar measures in other regions of the Verkehrsverbund Rhein-Sieg.	

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6. Description of ideas to be implemented

Solutions depend on the outcomes of the survey we'll conduct during the project. Possible solutions are low-cost bike-sharing, better storage possibilities for bicycles at interesting points in Eitorf, new timetable offerings in PT.

7. Preliminary risk analysis

The time to process data collected through the survey should delay the start of the design activities.

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4.3 Pilot Lab Florence Metropolitan Area

Table 5: Description of Florence Metropolitan area Pilot Lab

1. Site description	
General description	
The Pilot site is included in the area covered by Metropolitan Florence Authority ("Città metropolitana") and it consists of two separate sub-areas; the first one (Pilot area 1) is included in the metropolitan area (794 km^2, 651.000 inhabitants); the second one (pilot area 2) is located in San Piero a Sieve, located in the centre of Mugello area, on the northern boundaries of the metropolitan conurbation. The transport system of Florence is composed by tram, bus and train network. In particular, there are 10 railway stations that play a very important role thanks to a good rail network. The urban transport network offer is typical urban service with high/medium frequency lines. Around the city centre, a network of suburban and peripheral connections operates in the suburbs and rural surrounding areas. In particular, Lines 30 and 35 connect the centre of Florence (i.e. the central railway station) with the municipality of Campi Bisenzio (located at north-western of Florence) along two different directions.	
Prioritized area typology	
Pilot area1 - Urban area	Peri-urban area located in hilly area with stable employment and population
Pilot area 2 - Peripheral areas	Accessible small town located in a hilly area with a stable population and mixed economy
Features of the area	**Predominant type of activities**: Residential and work (pilot area 1), residential (pilot area 2) **Area covered:** between 40 and 80 Km^2 (pilot area 1), between 20 and 40 Km^2 (pilot area 2) **Population density:** ≥ 500 inhab. / Km^2 (pilot area 1), between 50 and 100 inhab. / Km^2 (pilot area 2)
2. Target user groups and needs	
Identified target groups	Immigrants (pilot area 1), Commuters (pilot area 2)

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Features of the target groups	**Population of the target users**: between 20.000 and 50.000 users (pilot area 1), between 100 and 500 (pilot area 2). Visual impaired people and blind not included. **Age:** Children (0-14 years) (pilot area 1), Teens and young adults (15-24 years) (area 1+2), Adults (25-54 years) (area 1+2), Older adults (55-64 years) (area 1+2), visual impaired/blind people (area 1+2) **Income level**: low (pilot area 1), medium (pilot area 2)
Needs of the target groups	Pilot area 1: low-income families and immigrants who move to north direction mainly for home-work travel or to go to social facilities. There is a lack of detailed statistics about the transport passengers, their habits and usage level of these PT services. No targeted initiatives. Pilot area 2: The railway station of San Piero a Sieve plays a role of fundamental importance for the mobility of the whole Mugello area. Only few services reach the railway station. No real-time information available.

3. Current supply of mobility services in the site

- Conventional Public Transport – Bus network: operated by Busitalia through its controlled company Ataf Gestioni in urban district. Ataf manages the Local Public Transport with a fleet of 360 buses, 41 lines and 15.5 million bus km per year. The service structure is typically urban service with high, medium frequency lines.

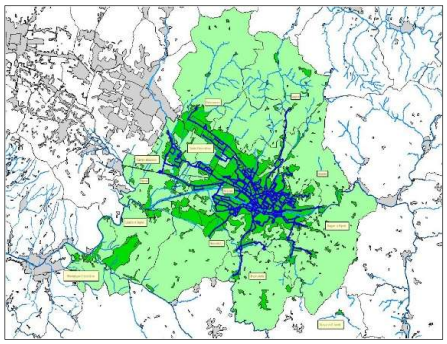

Figure 5: Urban network in Florence Source [ATAF Gestioni]

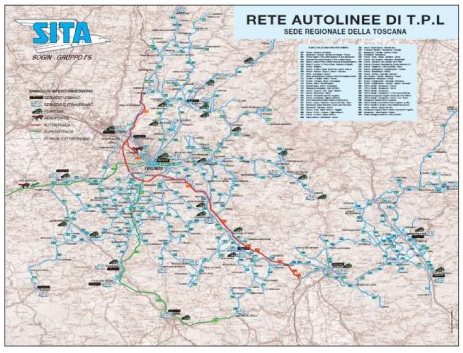

Figure 6: Suburban and rural network in the Florence Shire Source [BUSITALIA]

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- Conventional Public Transport - Tram network: the tramway service, managed and operated by GEST (RATP Group) of the Florence Metropolitan Area is composed of one line (T1) which extends for 11.5 km and has 26 stops: it starts from "Villa Costanza" in Scandicci to finish at the Careggi – Hospital in Florence. Another line (T2) is under construction
- DRTs: *Nottetempo* is a DRT service active during the night from 10.00 to 3.00. The reservation is made by calling a phone number. The service is operated by Ataf Gestioni, through seven buses that operated on the south and east part of metropolitan area
- Taxis are operated by 2 company So.co.ta and Co.ta.fi which cover all the Florence metropolitan area. Recently 70 licences were granted for fully electric vehicles.
- Special services for students, operates by ATAF with 4 buses for a minimum of 50 passengers. The cost of the trip corresponds to the fare of a single ticket for each passenger.
- Car sharing: there are 2 operators Car2go with a fleet of 250 vehicles and Enjoy with 73 vehicles.
- Bike sharing: there are 2 operators of bike sharing: *Mobike* with a 4000 bikes and Go bee bike with 500 bikes at the moment to be extended to 4000. The news of this system of bike sharing is the possibility to pick up and release the bike wherever you are through an app on the mobile phone.

Conventional services are provided by ATAF and BUSITALIA within the contract subsided by Regional Government (for the metropolitan area) and the Metropolitan Authority (for the "weak" peripheral services). DRT and special services are contracted by the Municipality of Florence to ATAF. Car sharing and Bike Sharing have been operated by the Municipality of Florence.

4. Technological & ITS background

Transport mode type	***ITS***
Conventional public transport	• AVM – Automated Vehicle Monitoring • E-ticketing system (SMS, smart card, chip-on-paper) • Info-user system (ATAF2.0 APP, on-road infopanels)
Nottetempo - DRT service	Travel Dispatch Centre equipped by Software *Personalbus*

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5. Main objectives of the Pilot		
Objective	***Short Description***	***Context***
Pilot area 1		
1)	Make an assessment on the service attendance (identifying the categories of users)	☒ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
2)	Involve local government and voluntary associations in order to understand the needs of target users and improve the service	☒ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
3)	Involve the voluntary associations and the metropolitan area of Florence as transport authorities to contract the operation of the services, in particular to explore the possibilities to define new special fare.	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
Pilot area 2		
4)	Reorganize the entire service (both the one related to the single regional service and the metropolitan "weak lot"), foreseeing the transit on an alternative viability which was the one on the other side of the railway	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project

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5)	Improvement of integrated service payment	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
Pilot area 1&2		
6)	Improvement of infomobility services	☒ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project

6. Description of ideas to be implemented

In the pilot area 1 an on-field research, interviews and meetings with local authorities and voluntary associations (e.g. Caritas) will be carried out in order to identify the mobility needs of people which do not use bus service. Based on this needs' analysis, a range of possible actions will be evaluated in order to improve the communication towards the target users (immigrants) about access to transport services, pricing of the service included possible discounts related to the income level.

In the pilot area 2 the service will be re-structured to enhance accessibility to San Piero a Sieve railways station. An integrated smart card will be introduced to allow the management of train and bus subscriptions on the same card. Actions on infomobility will be specified.

Pilot area 1+2) The possibility to improve ATAF2.0 with "crowdsourcing" functionalities related to users needs analysis and service assessment will be analyzed together with the possibilities to launch dedicated functionalities for visual impaired/blind people

7. Preliminary risk analysis

Pilot area 1) The involvement of local authorities and voluntary associations could take longer time than expected.

Pilot area 1+2) Success of technical/economical feasibility with APP provider

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4.4 Pilot Lab Cairngorm National Park

Table 6:Description of Cairngorm National Park Pilot Lab

1. Site description	
General description	
The Cairngorms National Park is the UK's largest National Park covering parts of Aberdeenshire, Moray, Highland, Angus and Perth and Kinross. For this the Statutory level consists of a mix of responsibilities among various authorities. The park is visited by 1,6 million visitors each year. Inverness is the closest city at approximately 30 miles from the Park. The area creating an interesting test site covering multiple local authorities. The pilot area will be extended around Aviemore.	
Prioritized area typology	
Rural/remote area	Geographically isolated area with a seasonal economy and declining population
Features of the area	**Predominant type of activities**: Residential and tourist vocation **Area covered:** > 2000 Km^2 **Population density:**< 10 inhab. / Km^2
2. Target user groups and needs	
Identified target groups	The target users for the pilot are both residents and tourists, and several vulnerable groups have been identified: elderly people / persons of reduced mobility, residents who suffer from fuel poverty due to high rural fuel costs, young people who face the challenge of not having access to their own mobility solution, and inhabitants in dispersed settlements.
Features of the target groups	**Population of the target users**: between 5.000 and 20.000 users **Age:** All; any specific range has been targeted **Income level**: low, medium 90% of visitors utilise the car to move compared to 3% by public transport and 7% by cycling. Traffic volumes in the area peak during school holidays and seasonal tourist activities will make small, unclassified roads (traditionally used for cycling and walking routes) busy and dangerous.

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Needs of the target groups	The conventional bus services do not align with other transport options in the area and do not sufficiently cover outlying areas to allow vulnerable user groups access to transport. Increased flexibility of the offer (enhancement of "on-demand" service, improved booking option) and "service" integration (real-time information, payment, booking)

3. Current supply of mobility services in the site

The underlying public transport infrastructure is fragile and includes fixed route bus and rail (both privately operated), some open access demand responsive transport and taxis. There is a car sharing website that matches trip opportunities. The main provider of public bus services in the area is Stagecoach North Scotland who operate the main bus routes to, from and within the area. Megabus.com and Scottish Citylink operates other lines to Perth, Edinburgh and Glasgow. Rail services serve Aviemore from/to Inverness, Glasgow, Edinburgh being operated by ScotRail, Virgin East Coast and Caledonian Sleeper.

www.ct4u.co.uk is the Badenoch and Strathspey Transport Company who offer a range of services including a Community Car Scheme. This service is provided by Volunteer drivers using their own vehicles to get people out to vital life and health services, increasing their social interaction. To become eligible for the scheme, the users must have no transport of your own and be unable to access public transport for whatever reason. Payment is on a minimum charge or mileage rate basis. Volunteer Drivers are paid a mileage rate which is non-profit making and under car sharing legislation, so should not affect their car insurance.

Car sharing services have been established by HITRANS and can be accessed at https://liftshare.com/uk/community/hitravel.

Fixed route bus and rail are a mixture of commercial operation and supported services. Rail contracts are secured by Scottish Government and UK Government. Most local bus services are supported by the local authority. The limited DRT provision is secured by the local authority and local fundraising by the community transport company.

4. Technological & ITS background

Transport mode type	***ITS***
Public transport as well as linking service-users to taxi services, car-sharing and/or car rental services	MaaS initiative: Real-Time Passenger Information (RTPI) management system to improve the flow of data from public transport operators to live transport information services such as travelinescotland.com and to make it useable by a prospective MaaS operator.

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5. Main objectives of the Pilot		
Objective	***Short Description***	***Context***
1)	Integration of lift sharing scheme, car club and/or e-bike scheme with public transport & improvement of multimodal travel information	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
2)	Development of a central application to capture multiple information sources that can be presented as open data	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION
3)	Integrated ticketing between rail and bus. Alternative solutions will be evaluated focussing on the accessibility and barriers to the Park with the possibility of providing one ticket for accessing transport but also leisure activities	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
4)	Investigate and address governance issues related to mobility management	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project

6. Description of ideas to be implemented

Exploration into e-bikes in the area and how this can link into other transport services.

Enhanced intelligent transport systems for travel information.

Increased operation of demand responsive transport services including smaller (taxi sized) vehicles. Multi modal integrated transport services and payment to include key tourism trip generators.

7. Preliminary risk analysis

The proposals have been tested with stakeholders to strategic business case stage. While this gives a degree of comfort that the proposals will be acceptable to stakeholders there will need to be continued engagement and sensitivity analysis as the project moves to outline business case.

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4.5 Pilot Lab Flanders

Table 7: Description of Flanders Pilot Lab

1. Site description	
General description	
Taxistop offers on-demand transport services for 35.000 elderly persons in Flanders. Their journeys are offered by 2.500 voluntary drivers in their private car. Around 400.000 rides are served per year. The dispatching is locally organized mainly by the local municipalities to which Taxistop provides know-how, training and "umbrella" services such as insurance schemes. The figure below shows the number of cities where Taxistop services are offered.	
Prioritized area typology	
Rural/remote area	Flat area with an increasing population and mixed or improving economy
Peri-urban areas	Suburban area with ageing population
Urban areas	Large urban area including peripheral boroughs with declining employment and population
Features of the area	**Predominant type of activities**: Residential and tourist vocation **Area covered:** > 2000 Km^2 **Population density:** >500 inhab. / Km^2

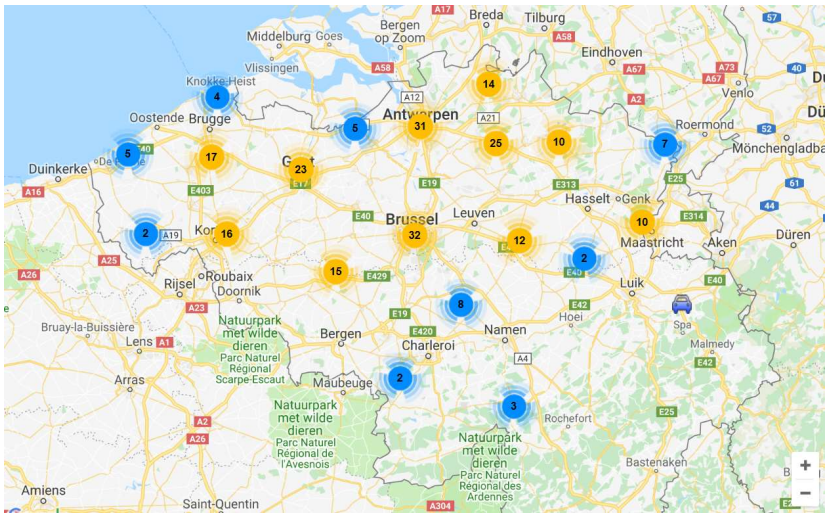

Figure 7: Location of Taxistop services in Flanders Source [Taxistop]

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2. Target user groups and needs	
Identified target groups	Elderly, Disabled, Low income
Features of the target groups	**Population of the target users**: between 20.000 and 50.000 users **Age:** Adults (25-54 years), Older adults (55-64 years), Elderly (over 65 years) **Income level**: low **Trip purpose:** Work, leisure The target users are mainly elderly people and disable people with a low income and immigrants who are seldom jobseekers.
Needs of the target groups	A hotline is available for elderly and disabled people to book a ride. The ride needs to be ordered 2 days before.

3. Current supply of mobility services in the site
Current transport offer in the target region includes: (1) High-capacity Public transport: bus and train. (2) Carpool website: Carpool.be. This service focuses on short distances, mainly for commuting. The services is operated by Taxistop and supported by the Flemish public transport operator De Lijn, (3) Car-sharing: In many Flemish cities there is car-sharing offered by Cambio car-sharing. Cambio is a partnership between Taxistop and the different public transport operators in Belgium. In cities without Cambio, sometimes a certain part of the municipal fleet is also shared with the citizens, (4) Less Mobile Services: In 80% of the Flemish municipalities there is a partnership between the municipality and Taxistop to organize this service. Taxistop offers trainings, insurance and software, whilest the municipalities are doing the recruitment and acceptance of members and volunteers, and the local dispatching. (5) Local taxi services.

4. Technological & ITS background	
Transport mode type	***ITS***

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Services offered by Taxistop	The Dispatch Centre ('Centrales de Moins Mobiles') are equipped with the software application for collecting the requests from the users and operates the services in a certain area. Requests are collected by phone.

5. Main objectives of the Pilot

Objective	*Short Description*	*Context*
1)	Modify current application through user feedback	☒ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
2)	Enlarging the target group to young people or people in poverty	☒ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
3)	Training target group as jobseekers to MaaS services	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project

6. Description of ideas to be implemented

Taxistop will introduce Mobitwin in Flanders. Mobitwin is a software providing app solution for collecting requests in real time. The software is integrated with the 'Less Mobile Centrales' application. This action is targeted for elderly and disabled people. Elderly and disabled people will be learned how to use IT-applications to book a ride. Furthermore, a first test for MaaS to be used by the target group of the jobseekers. The target group is very specific since their components have difficulties finding a job and often have a language deficiency but they need to use different mobility options to search/find a work.

7. Preliminary risk analysis

The friendly usability of the Mobitwin APP by elderly not surely familiar with most advanced IT technologies.

Language can be a barrier in the training of jobseekers to MaaS as most of them are immigrants who have often a language shortfall.

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4.6 Pilot Lab Barcelona Conurbation

Table 8:Description of Barcelona Conurbation Pilot Lab

1. Site description	
General description	
The pilot area is the peri-urban area of the Barcelona Metropolitan Region which consists of three zones. The first zone consists of other municipalities (outside Barcelona) in an official union of adjacent cities and municipalities called the Àrea Metropolitana de Barcelona (AMB) (also Greater Barcelona). The second zone is considered as urban and metropolitan adjacent area. It forms a belt of cities: Vilanova i la Geltrú, Vilafranca del Penedès, Martorell, Terrassa, Sabadell, Granollers, Mataró and their respective areas of influence. The third zone is expanding according to a radial scheme, spreading across fluvial corridors or depressions, as in case of Manresa, Igualada and Vic, or continuing the coast, as in case of Blanes and El Vendrell.	
Prioritized area typology	
Peri-urban areas	Towns and cities included in the Barcelona Metropolitan Region (mostly in peri-urban areas) with a stable population and mixed economy
Features of the area	**Predominant type of activities**: Residential and tourist vocation. Business park included. **Area covered:** > 2000 Km^2 **Population density:** >500 inhab. / Km^2
2. Target user groups and needs	
Identified target groups	Students, younger, family with children.
Features of the target groups	**Population of the target users:** >500.000 inhab. / Km^2 **Age:** Teens and young adults (15-24 years), Adults (25-54 years) **Income level**: Low, medium **Mobility demand:** The target group has accessible and good transport connections with Barcelona during day-time and following a radial infrastructure.

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Needs of the target groups	On-demand services from point A to point B because of the PT. Improvement of real-time travel information Possibility of reserving seat in advance Improvement of on-line payment More occasional group of travellers – particularly young people – that can form spontaneously among like-minded people sharing common interests like e.g. travelling to common destinations such as concerts, football games, theme parks, nature excursions, etc. Usually, these events are taken place during hours that Public Transport service is not frequent (i.e. during night): furthermore the municipalities of the peri-urban area are connected with the inner part of Barcelona conurbation through radial axis which can be not suitable for moving from A to B. Now the target user group is used to either taking their own car or take a lift by someone else to go to the event. Real time information services are lacking, all information is static or has a very high cost (Google) and is not classified accordingly to the mobility operator needs.

3. Current supply of mobility services in the site

Conventional Public Transport

A) Name of the operator: RENFE-Rodalies

- Type of operator: Regional train services
- Number of lines/fleet dimension: 1 line (R1) From Barcelona to Massanet-Massanes
- Extent of the services: 100km from Molins de Rei to Massanet de la Selva
- Operational hours: from 4:50h to 00:07h on weekdays and from 6:04h to 00:55 on weekends
- Fares: One-way ticket costs € 4,1

B) Name of the operator: Sagalés

- Type of operator: Regular night bus
- Number of lines/fleet dimension: 1 line (N82) from Barcelona to Pineda de Mar (stop in Canet de Mar)
- Extent of the services: 100km from Barcelona to Blanes.
- Operational hours: from 23:12h to 06:20h on weekdays and from 22:57h to 06:25 on weekends

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- Fares: One-way ticket costs € 6,5 and integrated tickets are available

Taxis

Five local taxi drivers

Shared taxis

Available with near towns

4. Main objectives of the Pilot

Objective	*Short Description*	*Context*
1)	Enhance specific data analytics tools	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION
2)	Propose existing smart mobility solutions to specific user groups of leisure travellers to specific events	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
3)	Testing the digital and social communication strategy on the web and social media	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
4)	Assess the level of acceptance and the perceived benefits of the proposed smart mobility solution in targeted area, by its targeted users, in terms of social inclusion, environmental sustainability and quality of live, etc.	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project

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5. Description of ideas to be implemented

Before INCLUSION Pilot Lab, there is incomplete historical info on the travel needs related to social/leisure events as BUSUP has only historical info about the users that used their buses in the past to go to these events but this is a minor segment. No targeted survey has taken place as BUSUP got historical info from the clients that used their buses in the past to go to these events.

ICT methods and tools will be applied in order to investigate the target groups transport demand through information mining from Social Networks, to mix the achieved results with the traditional survey based on historical data and organise transport services that adapt dynamically over time to meet the identified mobility needs and demand and improve transport accessibility.

Pseudo real-time information scraping services to check new demands that can emerge.

6. Preliminary risk analysis

- Miss the appropriate social network to be considered according to each target event
- Lack of data accuracy and data quality (e.g. poor volume of data (insufficient demand for the proposed event), contradictions, etc.)
- Seasonality of event may require an advance or delay of the proposed pilot activities.

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4.7 Pilot Lab Budapest

Table 9: Description of Budapest Pilot Lab

1. Site description	
General description	
Budapest is the capital city of Hungary and its economic and political centre, being the largest metropolitan area in Central Eastern Europe. It has a population of 1,75 million inhabitants and it is the seventh largest city in the European Union. It is an important financial hub in Central Europe with a developed service sector. Budapest is a leading city in Central-Eastern-Europe in the implementation of transport management organisational schemes, in charge of integration of different transport modes, and of building organisational capacity for the implementation of sustainable measures. The targeted area consists of selected crowded stations of the network (metro, tram, trolley bus) in the downtown of Budapest.	
Prioritized area typology	
Urban areas	Metropolitan area with complex geography, stable population and employment
Features of the area	**Predominant type of activities**: Residential and tourism **Area covered:** between 200 and 500 Km^2 **Population density:** >500 inhab. / Km^2
2. Target user groups and needs	
Identified target groups	Elderly, (temporarily) impaired people, immigrants, occasional users who could be not familiar with Public Transport
Features of the target groups	**Population of the target users**: >500.000 inhab. / Km^2 **Age:** Teens and young adults (15-24 years), Adults (25-54 years), Older adults (55-64 years), Elderly (65 years and over) **Income level**: not relevant for this Pilot Lab

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Needs of the target groups	Improving safety perception Improving assistance to the customer Awareness rising about the PT services provided: access rule, service conditions, etc. As approximately 10-15% of all public transport users are somehow reduced in their mobility (disabled, visually impaired, passengers with luggage, temporarily disabled people, or even people who do not speak the country's language) thus it is vital to involve all people. The general comprehension about accessibility is that it is an additional expenditure that is for solely for disabled people.

3. Current supply of mobility services in the site

Budapest Transport Plc (hereinafter: BKV) is in charge of fixed rail public transport operations in Budapest. BKV operates 4 metro and 33 tram lines in the city. The company is owned by the Municipality of Budapest and it is controlled by BKK. Budapest has a 42 km long metro network on four lines and one of the greatest tram network in Europe. Line 4 is completely access free, Line 2 is partially whereas stations of Lines 1 and 3 do not have step-free access. The tram network is 160 km long, while tram line 6 is the busiest tram line in the world with more than 400.000 passengers daily. The tram network has been extended in 2016 and will be further extended in 2019. Tram service is partly access-free. All stations on line 4-6 are step-free and a reconstruction programme in 2016 provided several additional access-free stations on the tram network. Providing equal transport services for all is key priority, however the metro and tram network in Budapest is not accessible for everyone currently. The yearly operation costs of the public transport system in Budapest were 557,6 million Euros. There are three main elements of financing: 263.1 million Euros from ticket sales, 275,5 million Euros from public subsidies, 19,8 million Euros from other revenues

4. Technological & ITS background

Transport mode type	***ITS***
Metro+Tram	FUTÁR digital passenger information system to provide audio information for visually impaired people at several PT stops of the city. Information about different sales points (customer centres, ticket offices, ticket vending machines, distributors) are available through an online platform: https://www.bkk.hu/pontkereso/
Metro+Tram	BKK Info app provides information about disruptions on the PT network

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Metro+Tram	The Automated Fare Collection (AFC) project is under delivery. The new system will provide seamless accessibility to BKK tickets and passes for all.

5. Main objectives of the Pilot

Objective	*Short Description*	*Context*
1)	Training and re-educating staff to improve knowledge about mobility needs and demands of people with reduced mobility.	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project
2)	Launching campaign for public transport users to create a stimulus environment for social inclusion.	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION
3)	Encouraging cooperation among all stakeholders of people who needs assistance.	☐ free-standing ☒ part of a broader initiative beyond the scope of INCLUSION project

6. Description of ideas to be implemented

Re-educate wide public with campaigns and retrain staff to change attitude from comprehending a passenger with disability as a problem to an inclusive, equity environment which stimulates everyone to help passengers with reduced mobility and create a more effective system.

7. Preliminary risk analysis

Need for negotiations with other stakeholders, including communities

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5 Guidelines for Local Pilot Action Plan

As indicated in section 2.3, Deliverable D4.1 aims to provide guidance to Pilot Labs responsible how to move from the consolidation of the actions to be demonstrated in the Pilot Labs to the detailed specifications of the Pilot Lab itself in terms of public transport/mobility services, technological tools and supporting elements (working processes to be modified, resources to be allocated, operational procedures, actions on regulation, accounting procedures, etc.). The Local Pilot Action Plan (LPAP) plays a key role as supporting tool for the deployment of Pilot Labs and the take up and operation of the monitoring process as explained in the following section 5.1.

5.1 Definition and role of the LPAP

The Local Pilot Action Plan (LPAP) is a detailed template to guide the Pilot Labs responsible along the design of the Pilot Lab, the identification of the actions to be planned for carrying out the implementation, sign-off and operation of the pilot and to report the current status of the activities, the achievements and the future milestones.

Then the LPAP covers a two-fold role:

- (before to be filled in) A guided template for the Pilot Lab responsible to carry out the design, implementation and planning of operation of the Pilot itself
- (once filled in) A timeplan to allow MEM as WP4 Leader to carry out the monitoring of local activities and check the compliance of the achievements with the plan in terms of time effectiveness and outcomes' consistency.

The LPAP consists of 4 main parts:

- Synthesis of pre-feasibility analysis
    - Progress status of the requirements analysis based on the need identified in the pre-feasibility analysis
    - Main outcomes of the requirements analysis
    - Future actions to be done (if any)
- Design of the service/solution to be piloted
    - Progress status of the specifications' definition: service scheme, access rules, etc., technologies (functional specifications, technical features, operational conditions), supporting elements (working processes to be modified, resources to be allocated, operational procedures, actions on regulation, etc.)
    - Main outcomes of the design phase
    - Future actions to be done (if any)

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- Implementation Plan and milestone
    - For completing design
    - For pilot setup and implementation
    - For operation of the pilot
- Contingency Plan

The LPAP has been defined considering the following conditions:

- Objectives of the Pilot Lab are different as well as the typology of actions which are planned for implementation. Some pilots (Barcelona, Flanders) focus on technologies' operation, some on internal process for service delivery (training of the personnel, communication strategies) as Budapest, some offer a "combined" situation mixing service modification/integration, process adaptation (users needs' analysis, survey, etc.) and technologies' as Florence, Cairngorm National Park in Scotland and Rhein Sieg;
- The timing of the actions to be demonstrated can be slightly different site by site and action by action (still in the same Pilot Lab) being different the consolidation status of the solutions to be implemented at the beginning of the project, the time required to complete the pre-feasibility analysis and the design. As result some actions are still in the users' needs analysis phase, some are entering in the design phase whereas others are under implementation (or completed).

The LPAP template defined by MEM is included in the document as Annex A.

The LPAP filled in by the Pilot Lab's responsible will be included in the first version (to be released in M18) of the Deliverables D4.2, D4.3, D4.4, D4.5, D4.6 and D4.7.

5.2 Guidelines to fill the LPAP in

This section provides guidelines to the Pilot Labs' responsible how to fill in the Local Pilot Action Plan (LPAP) and which are the information required.

1. Object of the Pilot Lab

This section of the LPAP focuses on the identification of the actions to be demonstrated in the Pilot Lab (row 1.1 of the LPAP) and their classification (row 1.2).
In row 1.1 the specific actions which will be demonstrated in the Pilot Labs must be detailed; the Pilot Labs' responsible are invited to clearly indicate the actions which are demonstrated in the scope of INCLUSION project and to differentiate them for "supporting" (framework) actions which could be related to the implementation of the Pilot Lab but carried out regardless the INCLUSION project.
In row 1.2 a first-level classification of the actions to be piloted is presented. This classification helps to categorize the Labs within homogeneous groups. It is allowed to select more than one option for each Pilot Lab as the actions can cover different categories. In the following rows (1.3 (a), (b), (c), (d), (e)) a second level classification must be selected taking into account the first choice, for example 1.3

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(a) must be considered in case "improvement of mobility services" has been chosen at row 1.2 and so on.

2. Pre-feasibility analysis

This section aims to report the progress status of the requirements analysis.
In row 2.1 only actions already carried out must be reported.
In row 2.2 only results already achieved must be reported.
On-going actions (to be completed) must be reported in row 2.3.
The Pilot Lab's responsible are invited to provide all the required details in terms of description in order to allow MEM to understand the status of the activities and monitor the future progress.

3. Design of the pilot

This section aims to report the progress status of the activities for pilot specifications.
In row 3.1 only actions already carried out must be reported.
Row 3.2 focuses on specifying the results already achieved in the design of pilot specifications: bullets included in rows 3.2.1/2/3/4/5 can be used by the Pilot Lab's responsible as guidance for reporting. Other issues can be added depending on the actions taking place at pilot level. With regards to the actors involve and their responsibilities, the Pilot Labs' responsible are invited to give just an introduction and to use section 5.1 for details.
On-going actions (to be completed) must be reported in row 3.3.

4. Implementation Plan of the Pilot Labs

The Pilot Labs' responsible are invited to provide a detailed action plan for the Pilot Lab. The action plan is divided in two main stages: 4.1) up to end of the design activities; 4.2) for preparatory actions up to the launch of the Pilot Lab and the operation. The Pilot Lab's responsible are invited to provide all the required details in terms of description in order to allow MEM to monitor the future progress of Pilot Labs activities. The template can be adapted in terms of row (to report the action to be done) and columns (to adapt the timing required). Actions must comply with the indications provided in section 3, in particular from suggested bullets in rows 3.2.1/2/3/4/5. Milestones must be clearly identified and scheduled.

5. Stakeholder and partnership

The Pilot Labs' responsible are invited to list the stakeholder to be involved in the future activities for the design, implementation and operation of the Pilot Lab, to indicate their typology (selecting from the options provided) and to specify their role. This section can be also filled in as consolidation of the similar section included in the first template.

6. Contingency plan

The Pilot Labs' responsible are invited to provide a contingency plan according to the risk analysis assessed in the first template. The contingency plan includes the specification of the possible risk, the likehood (L=Low; M=Medium; H=High) the risk will occur and the mitigation solution which are envisaged.

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6 Evaluation and data collection

The monitoring of Pilot Lab activities in WP4 will be coordinated with the activities taking place in WP5 for guaranteeing data collection procedures for evaluation of Pilot Labs' impacts. The monitoring and coordination activities in WP5 are carried out by UNIABDN. MEM and UNIABDN will cooperate in order to include a dedicated session in WP4 conference calls to check the progress status of data collection activities and to give (by UNIABDN) appropriate guidance to Pilot Labs' responsible.

For the definition of the evaluation indicators, data collection procedures and evaluation timing please refer to D5.1 "Impact Evaluation Plan".

The identification of the sensible data and the description of the procedures adopted by the INCLUSION partners for their collection, management and process are described in the Data Management Plan produced in M6 which will be duly updated as required by the progress of project activities (in particular Pilot Labs) during the project lifetime.

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7 Conclusions

This Deliverable includes the first results of WP4 coordination activities carried out by MemEx (MEM) as WP leader; in particular these activities are part of Task 4.1.

This Deliverable provides details on the methodology and the action list adopted for the collection of the information/outcomes from the Pilot Labs and for the monitoring of the results according to what is planned.

The methodology is based on sharing among the consortium two main "tools" (templates) which has been defined by MEM and circulated among the Pilot Labs' responsible: these tables aim to collect the required information from the Pilot Labs to setup the on-going and future monitoring and coordination activities.

The first template has been used at the beginning of WP4 activities in order to collect detailed information on the pilots' context and background, to classify this information according to the emerging results from WP1 in terms of prioritized areas and vulnerable target groups and to gather preliminary results on user needs analysis and selection of possible solutions to be demonstrated in the Pilot Lab (pre-feasibility analysis). The main results coming from the collection of this kind of information is summarized in the Deliverable as first results of Pilot Labs' activities.

The second template is the Local Pilot Action Plan (LPAP) which has been provided in this Deliverable in order to support the feasibility analysis to be carried out by the Pilot Labs. This template will be filled in by the Pilot Labs' responsible in order to share with the WP Leader (and the whole consortium) the final consolidation of possible solutions to be demonstrated, the progress status of requirements' analysis and the planning of feasibility analysis and implementation phase of the Pilot Labs' actions. The LPAP will be updated along the WP4 activities and they will be used by MEM to monitor the progress of local activities and to share the relevant information with the other WP Leader (in particular WP5 for the collection of data required by the evaluation). Added to enable the monitoring activity, the LPAP will be used by the Pilot Labs' responsible to generate the contents for issuing the next WP4 Deliverable which will describe the activities implemented at Pilots level and the results achieved: these Deliverable will be released by the responsible project partner in M18 and in M34. The guided template for issuing these Deliverable has been annexed to D4.1 too.

The Deliverable allows the Pilot Labs' responsible to understand how the information provided through the LPAP will be used for the monitoring activity and how this task will be organized. The Deliverables indicates also the supporting activities that MEM can provide to the Pilot Labs' responsible for the design and the implementation of the solutions to be demonstrated: this activity will be carried out by MEM as part of the Task 4.1.

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8 INCLUSION consortium

For further information

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Annex A: Template for issuing LPAP

1. Object of the Pilot Lab		
1.1	Actions (to be) demonstrated in the Pilot Lab - Overview	*Please specify the actions (to be) demonstrated in the Pilot Lab*
1.2	What will be demonstrated in the Pilot Lab?	☐ Improvement of mobility services ☐ Provision of new "customers oriented" services ☐ Optimization of internal processes from Transport Operator's side ☐ Implementation of innovative ITS supporting mobility services operation/offer ☐ New funding/business models/commercial agreements ☐ Other (please specify).....
1.3 (a)	In case the answer to 1.1) is "improvement of mobility services", please detail which is the change involved in the mobility offer	☐ Launch of a new mobility service ☐ Opening a restricted service to target groups ☐ Opening a restricted service to the general public ☐ Other (please specify)..... ☐ Enhancement of a mobility service already operated ☐ Extension in terms of covered area ☐ Extension in terms of covered time ☐ Enforcement of vehicles/fleet (number, typology, performance/quality) ☐ Other (please specify).....

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		☐ Integration of mobility services already operated ☐ Coordination of services among multiple service providers or funding agencies ☐ Integration of services targeted to specific target users with general public transport ☐ Integration of sustainable modes with general public transport ☐ Integration of ride/(asset) sharing services with general public transport ☐ Optimization of scheduling/timetable ☐ Enhancement of interchange points ☐ Other (please specify)..... ☐ Other (please specify).....
1.3 (b)	In case the answer to 1.1) is "provision of new services to end-users", please detail which is the new/enhanced service offered	☐ New or enhanced access modalities to services (i.e. service registration/membership, booking, etc.) ☐ New or enhanced payment methods ☐ New or enhanced passenger information services ☐ New or enhanced customer handling and support ☐ Other (please specify).....
1.3 (c)	In case the answer to 1.1) is "optimization of internal processes", please detail which are the processes involved	☐ Service planning ☐ Service operation/control ☐ Assessment of quality performance/service reporting

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		☐ Relationship with the funding agencies/authorities ☐ Marketing ☐ Customers satisfaction analysis ☐ Customers needs analysis ☐ Training/improved skills of the internal staff ☐ Other (please specify).....
1.3 (d)	In case the answer to 1.1) is "implementation of ITS supporting systems", please detail which is the ITS involved	☐ Service planning (matching of demand/offer, scheduling of "on demand" services, etc.) ☐ Platform for sharing/networking of resources, Transport Operators, etc. ☐ Users information systems ☐ E-ticketing ☐ Fleet Monitoring system ☐ Aid driver tools ☐ Data mining system ☐ Expert knowledge system ☐ Back office application, business intelligence ☐ Other (please specify).....
1.3 (e)	In case the answer to 1.1) is "new funding/business models", please specify	

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2. Pre-feasibility analysis		
2.1	Please describe the current status of needs analysis and the actions already carried out for the identification of requirements the demo actions will comply with. Is the analysis of the requirements completed?	
2.2	Please resume the main results of the requirements analysis	
2.3	Please describe the actions to be carried out in the future to complete the requirements analysis and the milestones	
3. Design of Pilot Lab		
3.1	Please describe the current status of design activities of Pilot Lab actions. Is the design completed?	
3.2	Please resume the main results of the design of the Pilot Lab	3.2.1 Design of new mobility services/ Definition of improvements to a mobility service already under operation / Service integration Access modalities:..... Service model: covered area, opening time, service scheme, routing, scheduling, pick up-drop off points, interchange points, etc. Fleet/vehicle description: ..... Booking procedure:..... Payment modalities:..... Integration within mobility offer: ..... Institutional/regulatory issues:.....

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		Actors involved, role and responsibilities:…… Other (please specify)……
		3.2.2 Design of new customers services Service specifications:…… Management procedure for the operation of the service:…… Data/resources required:…… Institutional/regulatory issues:…… Actors involved, role and responsibilities:…… Other (please specify)……
		3.2.3 Specifications of new internal processes Description of the processes:…… Resources required/involved:…… Supporting data/tools/material:…… Allocation of responsibilities…… Other (please specify)……
		3.2.4 Definition of ITS specifications System Architecture: …… Technical specifications: …… Functional specifications:…… Operative specifications:……

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		3.2.5 Definition of new funding/business models/commercial agreements Target clients:…….. Involved actors:…….. Value proposition:……. Sustained costs:…….. Funding/ Revenues: ……. Commercial agreements with mobility operators:…….. Commercial agreements with other (no transport) organizations: …….. Other (please specify)……..
3.3	Please describe the actions to be carried out in the future to complete the design of the Pilot Lab and the milestones	

4. Implementation Plan of the Pilot Lab

4.1	Please fill in the following GANTT with the main actions occurring in the future months for the finalization of requirements analysis and design of the Pilot Lab. Please highlight the milestone to be achieved up to the end of the design phase. In case you have indicated that this phase is already completed in section 2, go to 4.2

	M13	M14	M15	M16	M17	M18
Action 1			M1			
Action 2				M2		
Action 3						
…….						
……						

M1 = …….
M2 = ……..

4.2	Please fill in the following GANTT with the main actions occurring in the demo months for the setup of demo actions included in the Pilot Lab, the implementation

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	of the preparatory activities and the operation. Please highlight the milestone to be achieved up to the launch of Pilot Lab and during the operation of the demo.

	M13	M14	M15	M16	M17	M18	M19	M20	M21	M22	M23	M24	M25	M26	M27	M28	M29	M30	M31	M32	M33	M34
Action 1			M 1																			
Action 2				M 2																		
Action 3												M 3										

M1 = …….

M2 = ……..

5. Local stakeholders and partnership (to be) involved during the Pilot Lab design, implementation and operation		
Name	Typology *(e.g. Transport/Mobility Operators, Local Authorities, Service Contracting Authority, Funding Agencies/Bodies, Citizen associations…)*	Role

6. Contingency plan		
Please list the risk that you envisaged in the implementation/operation of the Pilot Lab	Please indicate the likehood the risk indicated will occur	Please indicate mitigation measures that you have plan for the risk indicated

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Annex B: "Extended version" of the template for the assessment of pre-feasibility analysis

PART A: Overview and needs analysis

1. Pilot overview		
1.1	**Pilot lab**	☐ Rhein-Sieg ☐ Florence Metropolitan Area ☐ Cairngorms National Park ☐ Flanders ☐ Barcelona conurbation ☐ Budapest
1.2	**Lead Partner**	
1.3	**Other Partners involved**	

2. Site description		
2.1	**General description** *(Short description: max. 100 words)*	
	Please describe in general the main characteristic of the Pilot area (e.g. socio-economic context, land-use patterns, administrative competencies, etc.)	
2.2	**Transport environment / Prioritized area typology (where applicable)**	
	Rural/remote areas	☐ Accessible rural town with a growing young population and changing economy ☐ Flat area with an increasing population and mixed or improving economy ☐ Geographically isolated area with a seasonal economy and declining population ☐ Deprived hilly area in economic decline with an ageing population *Comments on the category selected*

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		(please indicate the extent to which the description fits the pilot lab reality)
	Peri-urban areas	☐ Accessible small town located in a hilly area with a stable population and mixed economy ☐ Declining suburban area with ageing population ☐ Traditionally deprived area in economic growth, with an increasing population *Comments on the category selected* *(please indicate the extent to which the description fits the pilot lab reality)*
	Urban areas	☐ Urban area with declining population, stable employment, and growing peri-urban areas ☐ Large flat urban area with declining employment and population ☐ Urban area located in hilly area with stable employment and population ☐ Declining urban area with decreasing employment and population loss *Comments on the category selected* *(please indicate the extent to which the description fits the pilot lab reality)*
	Other	
2.3	**Predominant type of activity in the area** *(it's possible to add other categories; more than one can be chosen)*	☐ Residential ☐ Tourism ☐ Business Park ☐ Agriculture and Livestock ☐ .....
2.4	**Area covered** *(x Km^2)*	☐ x < 5 Km^2 ☐ 5 < x < 10 Km^2 ☐ 10 < x < 20 Km^2 ☐ 20 < x < 40 Km^2 ☐ 40 < x < 80 Km^2 ☐ 80 < x < 200 Km^2 ☐ 200 < x < 500 Km^2 ☐ 500 < x < 1000 Km^2 ☐ 1000 < x < 2000 Km^2

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		☐ x ≥ 2000 Km^2
2.5	**Population density** *(x inhab. / Km^2)*	☐ x < 10 inhab. / Km^2 ☐ 10 < x < 50 inhab. / Km^2 ☐ 50 < x < 100 inhab. / Km^2 ☐ 100 < x < 200 inhab. / Km^2 ☐ 200 < x < 500 inhab. / Km^2 ☐ x ≥ 500 inhab. / Km^2
3. Target user groups and needs		
3.1	**Target group: Age** *(more than one can be chosen)*	☐ Children (0-14 years) ☐ Teens and young adults (15-24 years) ☐ Adults (25-54 years) ☐ Older adults (55-64 years) ☐ Elderly (65 years and over)
	Target group: Income level *(qualitative estimation; more than one can be chosen)*	☐ Low ☐ Medium ☐ High
	Target group: other	e.g. students, physically impaired, family with children, immigrants, etc.

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	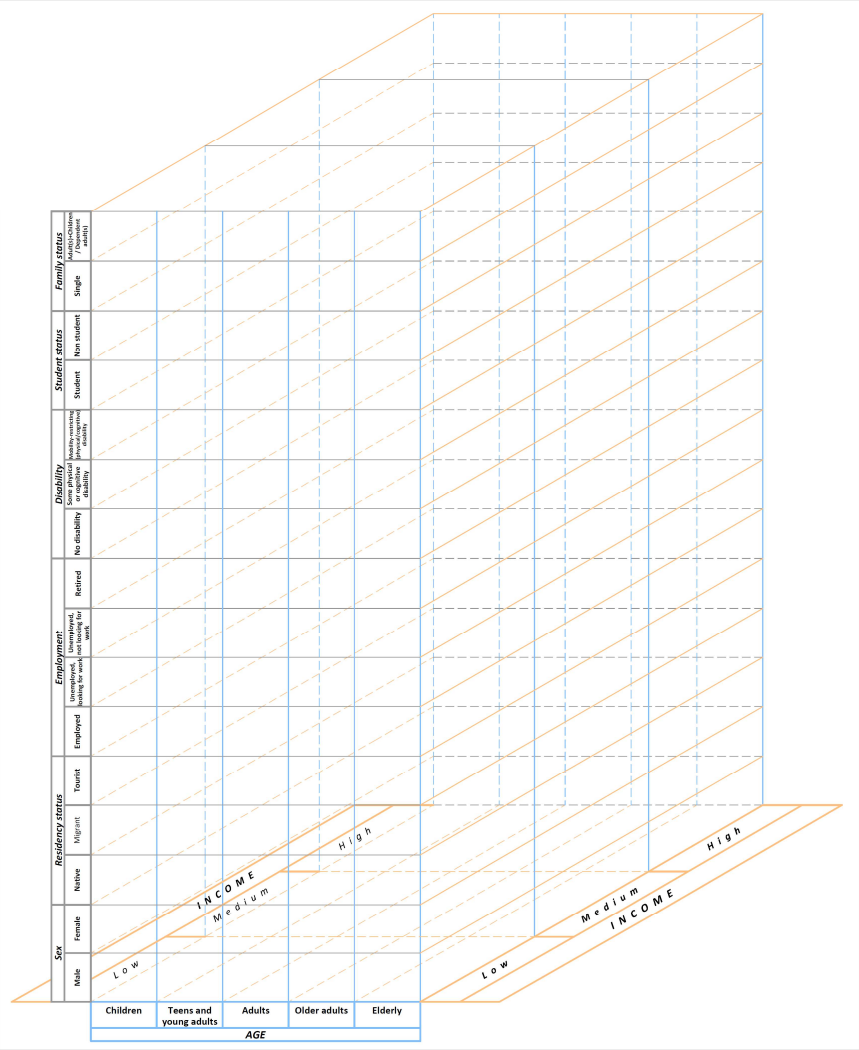	
3.2	**Population of the target group in the prioritized/target area** *(x users)*	☐ x < 100 users ☐ 100 < x < 500 users ☐ 500 < x < 2000 users ☐ 2000 < x < 5000 users ☐ 5000 < x < 20000 users ☐ 20000 < x < 50000 users ☐ 50000 < x < 100 000 users ☐ 100 000 < x < 500 000 users ☐ x ≥ 500 000 users
3.3	**Trip purpose (of target group)** *(please refer to section 4.1; it's possible to add other categories and more than one can be chosen)*	☐ Work ☐ Education ☐ Shopping ☐ Tourism

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		☐ Social and entertainment ☐ Sport and leisure ☐ .....
3.4	***Target user characteristics*** *(please refer to section 4.1)* *(Short description: max. 100 words)*	*Please describe in general the main characteristic of the Target users (taking into account also the car ownership, the access to private transport…)*

3.5	**Target user needs** (According to Deliverable 1.3) *(more than one can be chosen)*	
	Layer 1 **Essential requirements**	☐ Availability of transport services *Comments:*
	Layer 2 **Basic requirements** *(more than one can be chosen; if you select all five, rank them in order of importance)*	☐ Accessibility ☐ Safety ☐ Affordability ☐ Reliability ☐ Connectivity *Comments*
	Layer 3 **Specific needs** *(it's possible to add other categories; more than one can be chosen)*	☐ Low-floor/kneeling buses ☐ Staff assistance ☐ Flexible tariffs ☐ Flexible PT offer ☐ … *Comments*
	Layer 4 **Added value needs**	☐ Parking areas next to train station ☐ Good conditions in the pedestrian environment

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	(Please indicate the three most important added value needs; it's possible to add other categories)	☐ Integrated ticketing ☐ Real-time travel information ☐ Possibility of reserving seat in advance ☐ … *Comments*

4. Mobility demand (where applicable)

4.1	Please describe the current mobility demand of the target user group(s) (max. 200 words) *Trips per day, days of the week, time of day of trips, length of trips, modal split and its trend* *Direction of the trip ("from inside out", "from out to inside", into a limited area…)* *Origin / Destination points (e.g. home to work, home to sports centre…)*

5. Current supply of mobility services in the site (where applicable)

5.1	Please list and describe the existing **mobility/transport services** operated in the Pilot (max. 500 words) *Name of Operator, Type of operator (e.g. commercial, community transport, municipality/authority) number of lines (routes)/fleet dimensions, extent of the services in terms of coverage area (including maps, if possible), operational hours/days, fares and any concessions for target users…)* *Conventional Public Transport* *Taxis*

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	Shared taxis *Demand Responsive Transport (DRTs)* *Special services (e.g. for tourists, for children etc.)* *Flexible Public Transport* *Bike/car sharing* *Voluntary car services* *Sustainable "individual" mode / "soft" measures (e.g. personal bike, carpooling…)*	
5.2	Promotion and provision of useful information of each service *(max. 100 words)*	*Please describe what promotion, marketing, awareness raising, engagement takes place.*
5.3	Funding/business models related to the transport services (max. 100 words)	*Please describe the funding/business models which services currently operate under (where do services obtain their revenues from? Do they require or receive subsidies / grants to maintain the service provision? What are these subsidies/grants? Is a relevant part of the operating costs covered by the users?)*

6. Technological & ITS background (where applicable)

(please list the ITS systems supporting the operation of services)

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	Transport mode type *(please refer to section 5.1)*	***ITS*** *(e.g. Real-time localization and monitoring system, e-ticketing system, infosystems, etc.)*	***Service provided*** *(please indicate the services in terms of information, payment tools, booking channels (if available)*	
6.1			***To end-users (B2C)*** *Business to Customer*	***To Operators / Authorities (B2B, B2A)*** *Business to Business, Business to Administrative*

7. Main gaps and issues related to the transport services

	Transport mode type *(please refer to section 5.1)*	***Main Gaps and issues*** *Please list and describe the main gaps and issues related to the mobility/transport services operated in the Pilot*
7.1		

8. Main objectives of the Pilot

	Objective	***Short Description***	***Context***
8.1	*1)*		☐ free-standing

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			☐ part of a broader initiative beyond the scope of INCLUSION project
	2)		☐ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
	3)		☐ free-standing ☐ part of a broader initiative beyond the scope of INCLUSION project
8.2	If relevant, please describe the framework in which the Pilot activities are involved (max. 100 words) What policy driver/policy change incentivises the deployment of this Pilot site? Why is it actually a Pilot site, and what is the strategic background of the Pilot? *e.g. Government policy that is switching from a supply-oriented view on public transport to a more demand-oriented system, potential agreements between cities/regions, changing in transport regulation schemes, development of the SUMP*		

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PART B: Identification of possible solutions to be demonstrated in the Pilot Labs

9. Description of possible ideas to be implemented		
9.1	**Main aspects that need change to achieve the objectives detailed in section 7**	☐ Transport service in the field ☐ Processes (including governance models) ☐ Systems ☐ Tariffs ☐ Funding/Business models ☐ User information ☐ … Please detail below once the topics have been chosen:
9.2	**Possible solutions (already planned) to be implemented** (max. 200 words) *Please list and describe the possible solutions to be implemented.* *Will the Pilot implement a specific mobility service? If so, please describe its main characteristics.* *Is the Pilot related/connected to a specific mobility service? If so, please detail.*	

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10. Issues of interest to the Pilot sites that should be addressed by the solutions		
10.1	Please list and describe the issues of interest to the Pilot sites (max. 200 words) *e.g. addition or extension of services in terms of lines (routes) or coverage areas, targeting specific user groups / population groups, opening a restricted service to other groups or to the general public, coordination of services among multiple service providers or funding agencies or integration of services with general public transport, new or enhanced payment methods, new or enhanced passenger information services, addition of customer-facing ITS/ICT, addition of back-office ITS/ICT, etc.*	
11. Preliminary analysis of some potential barriers to overcome, risk and constraints to be managed, and opportunities to be exploited		
11.1	Please describe the potential barriers/risks/constraints that have already been identified *(max. 200 words)*.	
11.2	Preliminary identification of items of uncertainty or with long lead-times for the changes and solutions considered *(More than one can be chosen)*	☐ Conditionality/dependency on some other activity, project, event, etc. being started or completed ☐ Requirements for negotiations with other stakeholders, including communities ☐ Changes in work practices which would require negotiation and reaching acceptance by labour force or contractors ☐ Approvals for a pilot project, new service types, new funding commitments, etc. which will require some preparatory effort

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		☐ Requirement for a new/amended regulation, order, etc. that must yet be prepared and approved by law-makers/decision takers ☐ Potential opposition from stakeholders, including existing or target users, that could cause delay or even blocking of the proposed pilot ☐ …

12. Local stakeholders and partnership likely to become involved during the Pilot implementation in INCLUSION		
	Title - Name	**Type** *(e.g. Transport/Mobility Operators, Local Authorities, Service Contracting Authority, Citizen Associations…)*
12.1		

13. Expected improvements/outcomes		
13.1	"Customer-facing level" – B2C services *(max. 100 words)*	
13.2	"Back-office level" – B2B/B2A services *(max. 100 words)*	

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Annex C: Table of contents for drafting D4.X

Version to be released in M18

1. Introduction

2. Site description

General description, classification of the area according to WP1, predominant type of activity in the area….

3. Mobility demand

Trips per day, days of the week, time of the day of trips, length of the trips, modal split and its trend …

Direction of the trip ("from inside out", "from out to inside", into a limited area…)

4. Mobility service operated in the site and stakeholder involved

Conventional Public Transport, Flexible Public Transport, Special services, Bike/car sharing, voluntary car services, cycling lanes

PT/Mobility Operators, PT/Mobility Authorities, interactions, role and responsibilities

5. Target groups for Pilot Labs

Number (population) of target groups, unanswered mobility needs in the current mobility offer

6. Identification of the Pilot Lab actions

Specific needs to be addressed

Requirements analysis: methodologies, tools/procedure (survey, focus group, etc.) and results

Identification of the solutions/actions to be demonstrated and description

7. Design of the Pilot Lab

Pilot area, service design, new service for customers, ITS specifications, definition of internal processes/procedures, any changes/adaptation to institutional/regulatory level, funding modalities, business models.

8. Actors to be involved in the Pilot Lab, roles and responsibilities

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9. Timeplan for the demo operation (M19-M34)

10. Risk assessment

Version to be released in M34

1. Introduction

1.1 Brief description of the pilot area

1.2 Brief summary of the objectives of the Pilot Lab

1.3 Main outcomes of the design phase

2. Site implementation activities, timing and milestone

2.1 Actions at mobility service level (if a new mobility service has been activated or a mobility service already operated has been modified: scheme, served destinations, covered time, access modalities, booking/payment, intermodality, etc.)

2.2 Actions for ITS implementation (if carried out in the Lab)

3. Organization and operational procedures

3.1 Staff/resources involved in the management of the Pilot Lab

3.2 Procedures for the management and monitoring of Pilot Lab

3.3 Training activities

4. Institutional/regulatory/legal issues

5. Promotion activities

6. Financial issues

7. Deviations from planning and corrective actions

8. Main results of the demo phase

8.1 Results achieved vs target indicators

8.2 Lessons learnt