IRIS

Integrated and Replicable Solutions for Co-Creation in Sustainable Cities

Project Acronym:	IRIS
Project Full Name:	Integrated and Replicable Solutions for Co-Creation in Sustainable Cities
Grant Agreement:	No 774199
Project Duration:	5 years (starting 1 October 2017)

Deliverable 8.2

A mentoring roadmap

Work Package:	WP8: Replication by Lighthouse regions, Follower cities, European market uptake
Task:	T8.1: Replication activities planning and roadmap creation
Lead Beneficiary:	VAASA
Due Date:	31/09/2020 (M36)
Submission Date:	31/03/2021 (M42)
Deliverable Status:	Draft
Deliverable Style:	R
Dissemination Level:	PU
File Name:	D8.2 A mentoring roadmap.pdf

This project has received funding from the European Union's Horizon 2020 research and innovation program under grant agreement No 774199

Authors

Surname	First Name	Beneficiary
Knuts	Mauritz	VASEK
Tsarchopoulos	Panagiotis	CERTH
Minciuc	Eduard	UPB
Purece	Cristian	ICEM

In case you want any additional information or you want to consult with the authors of this document, please send your inquiries to: irissmartcities@gmail.com.

Reviewers

Surname	First Name	Beneficiary
Cazaciuc	Dan	FOCS
Crombie	David	HKU

Version History

Version	Date	Modifications made by
0.1	21/10/2020	VAASA created the first structure of the deliverable
0.2	04/11/2020	VAASA, CERTH, UPB and ICEM updated structure
0.3	23/11/2020	First draft ready
0.4	03/12/2020	First version ready for review
0.5		
0.6	08/02/2021	Updated version according to review comments
1.0		Final version to be released to the EC

Disclaimer

This document reflects only the author's view. Responsibility for the information and views expressed therein lies entirely with the authors. The Innovation and Networks Executive Agency (INEA) and the European Commission are not responsible for any use that may be made of the information it contains.

Executive Summary

The present document is the deliverable **D8.2** entitled as **A mentoring roadmap** for the IRIS project.

The deliverable is related to the task **T8.1 Replication activities planning and roadmap creation** with mentoring from the LHs to the FCs.

The report will focus on removing obstacles to investment, providing visibility and technical assistance to investment and replication in additional areas and making smarter use of new and existing financial resources.

In task **T8.1** all LHs, and FCs, in the IRIS project have create a common roadmap together, **D8.1 A Roadmap for replication of activities**. To be able to plan replication activities, both for expansion of activities of LHs to other regions, and for FCs to develop a replication plan based on their own specific experience, local conditions and best practices. The mentoring roadmap focuses on the mentoring actions found in the replication roadmap.

In the task **T8.2 Replication tools development for capacity building, training and knowledge transfer** the project has gathered all tools available for replication activities in the IRIS project in the deliverable **D8.3 Replication tool box**, together with explanations of what the tools are. The mentoring roadmap will focus on the tools available for mentoring actions in the project.

The mentoring roadmap presented in this document will plan, and present, mentoring actions by the LHs to the FCs, and between FCs, in the IRIS project.

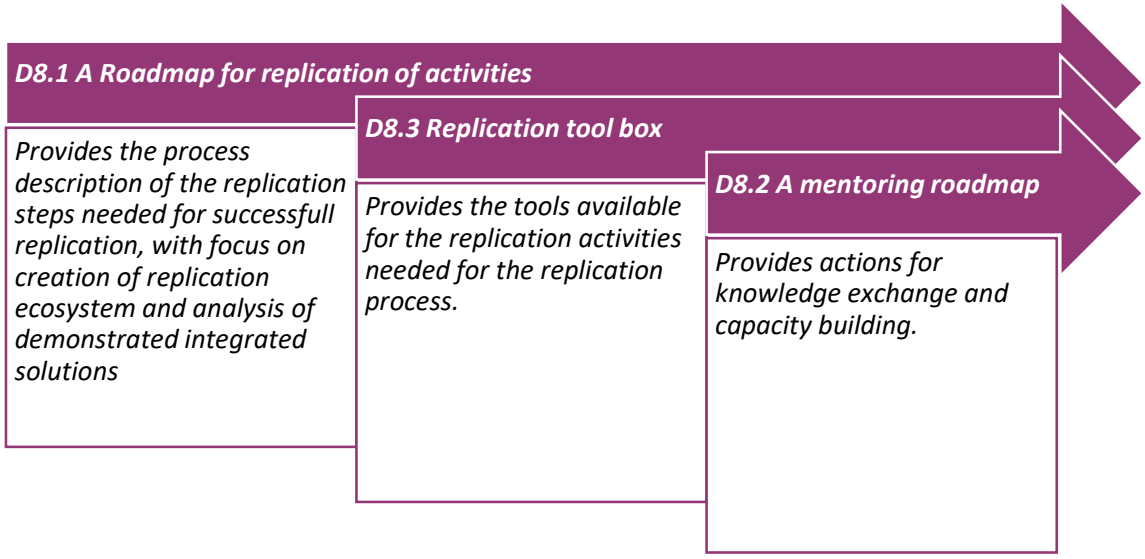

Table of Contents

Executive Summary 3
Table of Contents 4
List of Figures 5
List of Tables 5
List of Abbreviations and Acronyms 5
1. Introduction 7
1.1. Scope, objectives and expected impact 7
1.2. Contributions of partners 8
1.3. Relation to other activities 8
1.4. Structure of the deliverable 11
2. Methodological approach of the IRIS mentoring process 12
3. Planning of the IRIS Mentoring activities 15
3.1. Mentoring actions in IRIS 15
3.2. Mentoring needs in FCs 16
3.3. Mentoring roles 18
3.4. Timeline for mentoring actions in IRIS 22
3.5. IRIS mentoring results 28
4. Output to other work packages 30
5. Conclusions 31
6. References ..... **Fout! Bladwijzer niet gedefinieerd.**
Annex 1 – Planned knowledge exchange activities for the 4th year of the project (M37-M48) 32

List of Figures

Figure 1 How the WP8 deliverables are associated with each other to support the IRIS replication process 13
Figure 2 Sequence of the IRIS mentoring activities 15

List of Tables

Table 1 Relation of D8.2 to other activities (deliverables) developed within the IRIS project 8
Table 2 IRIS main types of mentoring actions 13
Table 3 Actions aimed to be performed by LH and FCs per TT and IS 17
Table 4 Leading partners of the IRIS activities in LH city UTR 19
Table 5 Leading partners of the IRIS activities in LH city NCA 20
Table 6 Leading partners of the IRIS activities in LH city GOT 21
Table 7 Timeline of IRIS mentoring actions 22
Table 8: Planned Peer 2 Peer meetings with FC Vaasa 23
Table 9: Planned Peer 2 Peer meetings with FC Alexandroupolis 24
Table 10: Planned Peer 2 Peer meetings with FC Santa Cruz de Tenerife 25
Table 11: Planned Peer 2 Peer meetings with FC Focsani 27

List of Abbreviations and Acronyms

Abbreviation	Definition
API	Application Programming Interface
BIM	Building Information Model
DSO	Distribution System Operator
CIP	City Innovation Platform
CPB	Consortium Plenary Board
DHS	District Heating System
EIB	European Investment Bank
EIP-SCC	The European Innovation Partnership on Smart Cities and Communities
EMS	Energy Management System
ESCO	Energy service company
EU	European Union
FC	Follower City
FIWARE	A curated framework of open source platform components to accelerate the development of Smart Solutions
ICT	Information and Communication Technologies
IS	Integrated Solution
KPI	Key Performance Indicator

LHC	Lighthouse City
RES	Renewable Energy System
ROI	Return on Investment
SC	Smart City
SCIS	The Smart Cities Information System
SCC1	Smart Cities and Communities lighthouse projects
SWOT	Strengths, Weaknesses, Opportunities, and Threats
TG	Task Group
TSO	Transmission System Operator
TT	Transition Track
USEF	Universal Smart Energy Framework
WP	Work Package

1. Introduction

1.1. Scope, objectives and expected impact

This deliverable is part of **WP8: Replication by Lighthouse regions, Follower cities, European market uptake** in the IRIS project.

The objective of WP 8 is to design & implement replication plans for the LHs regions and FCs that are scalable to other EU markets and cities through the creation of a tool box for capacity building, training, active mentoring & knowledge transfer. All LH and FCs will be involved in developing a roadmap (and business/financing plan) for replication of activities based on their specific expertise and best practices. A strong emphasis is given to active mentoring by LHs to the FCs. The replication plan will be implemented through a combination of solutions already available during the project or within a few years after the end of the project depending on the expertise and suitability of each FC.

The deliverable is related to the task **T8.1 Replication activities planning and roadmap creation**, where all LH cities and FCs will create a common roadmap to plan replication of activities both for expansion of activities of LHs to other regions and for FCs to develop a replication plan based on their own specific experience, local conditions and best practices. LHs will be active as mentors to FCs on the creation of this roadmap. FCs will host mentoring visits in their city. In those visits, a team of city experts from a LC city will visit a follower city as a mentor, to help the local ecosystem work out how the chosen measure/solution could be adapted/implemented in their own context. The aim of the visits is to support short-term wins and improvements, which can accelerate the FCs replication projects. The plan is to have three mentoring visits between year 3 and 5 of the project.

The collaboration between the site managers of LH cities and the replication managers of FC is an essential factor for successful mentoring visits. Site managers have in-depth know-how of all aspects in terms of partners, technology, legislation, and citizens profiling for each demonstration in their cities. In contrast, replication managers are aware of the required expertise to implement the envisaged projects in their cities. Site and replication managers have already been selected and represented in the IRIS project's organisational structure.

D8.2 will be updated in month 48 (D8.15: First update of the mentoring roadmap) and in M60 (D8.16: Second update of the mentoring roadmap).

The main purpose of the deliverable (and its updates) is to provide mentoring actions for knowledge exchange and capacity building for the FCs in their replication projects. Other purposes of the deliverable are to report, and plan, past, current and coming mentoring activities in the IRIS project. Time-schedules, responsible partners, key organizations and activity content will be presented in the deliverables D8.2, D8.15 and D8.16

The mentoring roadmap is an essential part of the replication process in the IRIS project where mentoring actions serves a fundamental function in the success of replication for the FCs. The mentoring roadmap is the third step in the replication process of the IRIS project, coming after the replication roadmap (D8.1) and replication toolbox (D8.3). The mentoring roadmap was built on the processes mentioned in D8.1 and will be supported by the tools proposed in D8.3 for knowledge exchange and capacity building in FCs.

The expected impact of this deliverable is that all mentoring activities performed by LH or FC shall be better prepared and carried out; the replicated projects can be faster implemented, with lower risks and leading to higher impact on the city level.

The deliverable will focus on removing obstacles to investment, providing visibility and technical assistance to investment and replication in additional areas and making smarter use of new and existing financial resources.

The main target audiences are the LHs (as mentors) and the FCs (those being mentored) in the IRIS project. The mentoring roadmap can serve as a useful document for other SCC01 projects, or other smart city networks and activities where mentoring activities are planned to be carried out.

Due to COVID-19 pandemic, the mentoring visits to the FCs will be organised during the 5th year of the project and their planning will be presented in D8.15.

1.2. Contributions of partners

Main contributing partners to this deliverable is VAASA, CERTH, UPB and ICEM, but using the input received by all LHs and FCs partners in previous deliverables **D8.1** and **D8.3**. During the writing of this deliverable all the FCs and their partners are working on their replication plans (**D8.4/6/8/10**), and input from the work has been used in the creation of this deliverable.

1.3. Relation to other activities

Table 1 depicts the relation of D8.2 to other activities (deliverables) developed within the IRIS project.

Table 1 Relation of D8.2 to other activities (deliverables) developed within the IRIS project

Number	Title	Relation
D2.1 (60)	Lessons learnt though cooperation with other Lighthouse projects	Output – Mentoring actions in the IRIS project serves as good experience exchange with other LH projects
D3.7 (24)	Financing solutions for cities and city suppliers	Input – Essential information regarding financing for mentoring actions
D5.1 (12)	Report on baseline, ambition & barriers for Utrecht lighthouse interventions	Input – Important information regarding demonstrations for mentoring actions
D5.2 (12)	Planning of Utrecht integration and demonstration activities	Input - Important information regarding demonstrations for mentoring actions
D5.3 (24)	Launch of T.T.#1 activities on Smart renewables and near zero energy district (Utrecht)	Input - Important information regarding demonstrations for mentoring actions

D5.4 (24)	Launch of T.T.#2 activities on Smart energy management and storage for flexibility (Utrecht)	Input - Important information regarding demonstrations for mentoring actions
D5.5 (24)	Launch of T.T.#3 activities on Smart emobility (Utrecht)	Input - Important information regarding demonstrations for mentoring actions
D5.6 (24)	Launch of T.T.#4 activities on City Innovation Platform and information services (Utrecht)	Input - Important information regarding demonstrations for mentoring actions
D6.1 (12)	Report on baseline, ambition & barriers for Nice lighthouse interventions	Input - Important information regarding demonstrations for mentoring actions
D6.2 (12)	Planning of Nice integration and demonstration activities (Nice)	Input - Important information regarding demonstrations for mentoring actions
D6.3 (24)	Launch of T.T.#1 activities on Smart renewables and near zero energy district (Nice)	Input - Important information regarding demonstrations for mentoring actions
D6.4 (24)	Launch of T.T.#2 activities on Smart energy management and storage for flexibility (Nice)	Input - Important information regarding demonstrations for mentoring actions
D6.5 (24)	Launch of T.T.#3 activities on Smart emobility (Nice)	Input - Important information regarding demonstrations for mentoring actions
D6.6 (24)	Launch of T.T.#4 activities on City Innovation Platform and information services (Nice)	Input - Important information regarding demonstrations for mentoring actions
D6.7 (24)	Launch of T.T.#5 activities on Citizen engagement and motivating feedback (Nice)	Input - Important information regarding demonstrations for mentoring actions
D7.1 (12)	Report on baseline, ambition and barriers for Gothenburg lighthouse interventions	Input – Important information regarding demonstrations for mentoring actions
D7.2 (12)	Planning of Gothenburg integration and demonstration activities	Input – Important information regarding demonstrations for mentoring actions
D7.3 (24)	Launch of T.T.#1 activities on Smart renewables and near zero energy district (Gothenburg)	Input – Important information regarding demonstrations for mentoring actions
D7.4 (24)	Launch of T.T.#2 activities on Smart energy management and storage for flexibility (Gothenburg)	Input – Important information regarding demonstrations for mentoring actions
D7.5 (24)	Launch of T.T.#3 activities on Smart emobility (Gothenburg)	Input – Important information regarding demonstrations for mentoring actions

D7.6 (24)	Launch of T.T.#4 activities on City Innovation Platform and information services (Gothenburg)	Input – Important information regarding demonstrations for mentoring actions
D7.7 (24)	Launch of T.T.#5 activities on Citizen engagement and motivating feedback (Gothenburg)	Input – Important information regarding demonstrations for mentoring actions
D8.1 (25)	A Roadmap for replication of activities	Input – Mentoring actions are an important part in the replication process and in the replication roadmap
D8.3 (25)	Replication tool box	Input – Mentoring actions are tools identified and presented in the toolbox
D8.5 (60)	Vaasa Northeastern Europe implementation guideline	Output – Mentoring actions in the IRIS project services as best practices for the wider regional implementation guidelines
D8.7 (60)	Alexandroupolis Southeastern Europe implementation guideline	Output – Mentoring actions in the IRIS project services as best practices for the wider regional implementation guidelines
D8.9 (60)	Santa Cruz de Tenerife Southwestern Europe implementation guideline	Output – Mentoring actions in the IRIS project services as best practices for the wider regional implementation guidelines
D8.11 (60)	Focsani South-Central Europe implementation guideline	Output – Mentoring actions in the IRIS project services as best practices for the wider regional implementation guidelines
D8.13 (60)	Establish & operate IRIS European smart cities network with Seven European level regional arrangements	Output – Mentoring actions are key for all smart city networks on a European level and will feed into the activating of new cities
D8.14 (60)	Capacity building activities based on the IRIS smart cities toolbox	Output – The mentoring activities are closely connected to the capacity building activities in the IRIS project
D8.15 (48)	First update of the mentoring roadmap	Output – Update will build upon first version output
D8.16 (60)	Second update of the mentoring roadmap	Output – Update will build upon first version and first update output

1.4. Structure of the deliverable

This deliverable focuses on explaining the mentoring actions that will take place during the IRIS project. It will include actions carried out before the writing of the report, actions taking place while writing and mentoring actions that will be carried out for the remainder of the project. The deliverable has two main sections:

Chapter 2 presents the methodological approach of the IRIS mentoring process.

Chapter 3 presents the planning of the IRIS mentoring activities. The current state of the mentoring actions is presented and explained, together with responsible partners, their roles, and also a time-schedule for when the mentoring actions will take place during the project. That chapter will be updated in the next versions of the deliverable, i.e. D8.15 and D8.16.

2. Methodological approach of the IRIS mentoring process

The mentoring roadmap is created through input gathered from previous work and experiences in WP 8, from presentations by FCs, workshops, deliverables and webinars in the IRIS project, and through research done regarding replication activities in the 17 SCC01 Lighthouse projects.

During the process of creating the mentoring roadmap, the IRIS project has also worked together with the EU Smart Cities Information System (SCIS), and the Marketplace of the European Innovation Partnership on Smart Cities and Communities (EIP-SCC, notably Action Cluster Integrated Planning), as well as the SCC01 Collaboration Framework's Task Group on Replication.

The replication core group consisting of the IRIS partners VAASA, CERTH, UPB and ICEM has been the main working group for the deliverable, using previous results and experiences from within the IRIS project and replication activities carried out during the 3 first years in the project.

A lot of the focus in the IRIS replication actions is on mentoring, and it has been identified as one of the most efficient ways of enabling the replication projects in the FCs, also accelerating the process of replication. Mentoring will be one of the most important activities in the IRIS project for successful replication in the FCs. The main aim/objective of the mentoring activity is to transfer knowledge and consolidate capacity of Follower cities to replicate different projects/solutions that have already been implemented in Lighthouse cities. The mentoring process also aims at helping Follower cities to overcome different barriers and drawbacks, knowledge gaps and avoid making the same mistakes when implementing/replicating a project/solution.

The mentoring roadmap builds on the previous deliverables **D8.1 A Roadmap for replication of activities** and **D8.3 Replication tool box (**Figure 1**)**. It is part of the replication roadmap process and the tools for mentoring actions can be found in the replication tool box.

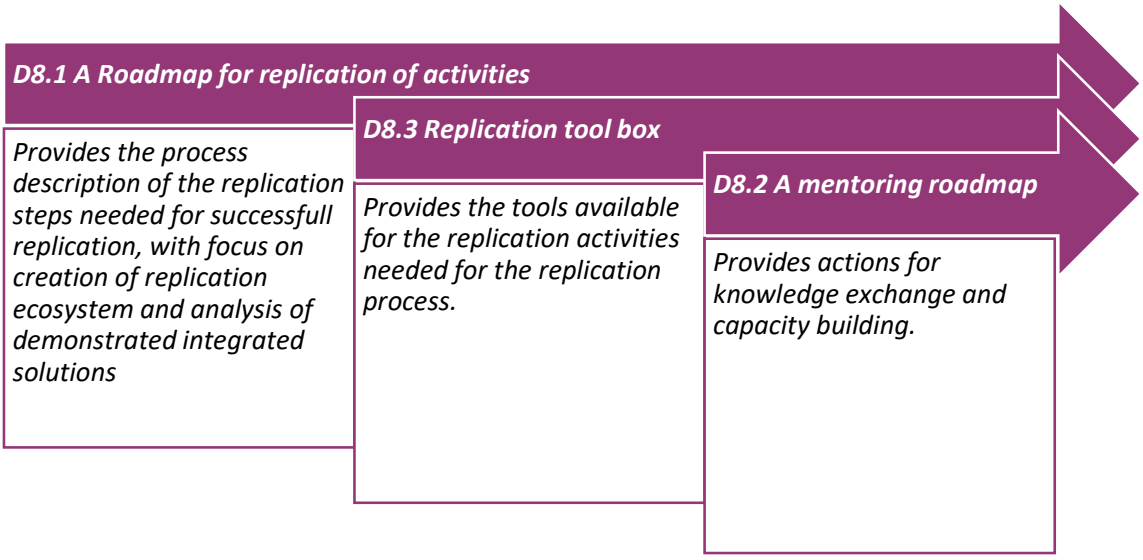

Figure 1 How the WP8 deliverables are associated with each other to support the IRIS replication process

LHs will be active as mentors to FCs in their work of creating replication projects. FCs will host mentoring visits in their city. Those visits will take the form of a LH city, with experts, visiting a fellow city as a mentor, to help them work out how the chosen measure/solution could be adapted/implemented in their own context. The aim of the visits is to support short-term wins and improvements, which can accelerate the follower city replication projects.

We foresee at least one mentoring visit per FC and LH, in other words three mentoring visits between Year 3 and 5 of the project. Towards this aspect an individual site manager, with a deep know-how of all its aspects in terms of technology, legislations and citizens profiling for each of the cities has already been selected and is represented in the organizational structure of the IRIS project.

The mentoring actions in the roadmap follows a process flow that has different actions in different stages of the IRIS project. Some mentoring actions are dependent of parts in the replication process that the FCs need to achieve a certain stage before being able to enter into the mentoring actions.

Table 2 presents the time-plan of main mentoring actions in the IRIS project, i.e. LHs demonstration communication actions, webinars, workshops, peer 2 peer meetings, mentoring visits (both LH to FC and FC to LH) and staff exchange. D8.1 (section 3.5) and D8.3 (section 3.5) provide detailed information about each type of action and the tools that can be used to support it. Note that due to COVID-19 pandemic, the mentoring visits to the FCs will be organised during the 5th year of the project and their planning will be presented in D8.15.

Table 2 IRIS main types of mentoring actions

Mentoring actions / IRIS project year	1	2	3	4	5
Demonstration information actions					
Webinars					
Workshops					
Peer 2 Peer meetings					
Mentoring visits					

The actors involved in the mentoring process should come from different entities, including:

1. Municipalities – usually there are people within the Municipality that oversee project implementation and they can gather great experience that can be shared.

2. Companies that participate in projects development/implementation. There are people that can share their experience and expertise in different areas, such technical design, business models, financing issues.

There should be mentioned that the main flow stream of information within the mentoring process should come from Lighthouse cities to Follower cities. However, there can be always situations when Follower cities can also contribute to this mentoring process by sharing their experience/expertise with other partners.

The mentoring process should be based, first, on the Follower cities' needs and, secondly, on the experience and expertise that can be provided by Lighthouse cities, gained by them through implementation of different projects/solutions within IRIS. The Follower cities' needs come from the development of different projects/solutions that are part of one of the IRIS project Transition Tracks:

1. Transition Track #1: Renewable and energy positive districts

2. Transition Track #2: Flexible energy management and storage

3. Transition Track #3: Intelligent mobility solutions

4. Transition Track #4: Digital transformation and services

5. Transition Track #5: Citizen engagement and Co-creation

One important part of the mentoring process is the replication eco-system that the FCs are working on creating in their cities. Many of the mentoring actions are completely dependent on a functioning eco-system with identified key organizations, companies and persons. If the eco-system is not functioning well in the FCs, the mentoring actions will not be able to reach the result and impact compared to the potential they have.

D8.1 (section 3.1.4) presents the process of defining the stakeholders in the IRIS Fellow Cities. Moreover, it presents (section 3.3) the methodology for the creation of working groups for chosen Transition Tracks and Integrated Solutions. Following the roadmap, the Fellow Cities did the first step in the definition of the local ecosystems for the IRIS solutions in their replication plans (D8.4, D8.6, D8.8 and D8.10). These deliverables include an initial mapping of the local stakeholders per TT. A more extended mapping of the local ecosystem will be part of D8.15.

The mentoring process in the project starts with the different project partners getting to know each other, mostly during the physical kick-off and general assembly meetings. From the beginning of the project, the communication regarding the demonstrated solutions are one of the on-going mentoring processes throughout the project. There are passive materials being created presenting and explaining the demonstrated solutions in the LHs, but all the passive materials needs active mentoring actions from the

LHs demonstrators towards the FCs to open up the solutions and their impacts. Webinars are one form of passive material that easily can be used as active mentoring actions, by having the webinars live with possibilities to ask questions regarding the presented solutions. Webinars can also be used as tools to prepare for active peer 2 peer mentoring meetings. All of these mentoring actions then feeds into the mentoring visits and staff exchange actions, that requires a well-functioning local replication eco-system, to make them as successful as possible. The preparation for the mentoring visits and staff exchange is of utmost importance, as they are the actions that requires the most resources when being carried out, and there will only be a limited number of them (Figure 2).

Figure 2 Sequence of the IRIS mentoring activities

Figure 2 presents the mentoring actions from the more passive ones to more active ones (from left to right). The more passive ones require less effort, preparation, time and resources, and, thus, can be more numerous, while the more active actions require more resources and involvement from both LHC and FC.

With the help of the mentoring roadmap the IRIS project will be able to plan the mentoring actions for the coming two years, and also focus resources and work towards the mentoring actions that gives the best results.

3. Planning of the IRIS Mentoring activities

3.1. Mentoring actions in IRIS

The main actions used within the mentoring process are the following:

- Mentoring visits
  - Follower cities' representatives to Lighthouse cities
  - Lighthouse cities' representatives to Follower cities
- Staff Exchange
- Peer2Peer meetings
- Webinars
- Workshops

The main actions within the mentoring process can focus on the following, but not limited to, thematic areas:

1. Technical issues regarding a specific projects/solution.
2. Business model issues.
3. Project financing issues.
4. Communication issues.
5. Data management issues.
6. Monitoring after project implementation issues.
7. Governance, innovation ecosystem management.

As it has been mentioned above the main goal of the mentoring process is to transfer knowledge from the Lighthouse cities and consolidate capacity of Follower cities to replicate different projects/solutions that have already been implemented in Lighthouse cities.

The implementation of the main mentoring actions can lead to easier, broader, and more effective replication of different projects within IRIS. At the same time, the mentoring actions can lead to achieving different specific objectives that can also be of great help for replication activity. These specific objectives include the following, but they are not limited to:

1. Provide more technical details regarding implemented projects.
2. Provide information about consultancy/equipment suppliers.
3. Provide information about business models.
4. Provide information about financial institutions, financial schemes, financial opportunities.
5. Provide information for avoiding/improving communication between different project partners.
6. Provide information about big data management.
7. Provide information about after project implementation monitoring.

The mentoring process started at the same time when the IRIS project started, since all partners started to share different information, experience, and expertise. At the face-to-face IRIS consortium meetings organized in Utrecht, Gothenburg, Nice and Vaasa there have been organized knowledge exchange actions on different subjects meant to develop and enhance the mentoring process within IRIS project. Due to the pandemic the face-to-face consortium meetings have been canceled, however though, the mentoring process has not been abandoned and moved to on-line actions. There have been organized webinars, peer-to-peer meetings, and workshops with different topics, which proved to be very effective even though they have been held on-line. The mentoring process within IRIS project is a continuous one, and hopefully, after the pandemic shall pass, there can be organized live visits so this process can have a great impact on projects/solutions replication action.

3.2. Mentoring needs in FCs

The main mentoring needs for Follower cities are defined by the replication projects planned in each Transition Track. Every Transition Track has several Integrated Solutions. The table below presents all Integrated Solutions for each Transition Track and actions aimed to be performed by each Lighthouse and Follower cities. The letters in tables mean the following:

- P – means Pre-Pilot project implemented by city.
- D – means Demonstration project implemented by city.
- R – means Replication project intended to be implemented by city.

Table 3 Actions aimed to be performed by LH and FCs per TT and IS

Transition Tracks	Integrated Solutions	Lighthouse Cities									Follower Cities			
		Utrecht			Nice Cote d' Azur			Gothenburg			Vaasa	Alexandroupolis	Santa Cruz de	Focsani
#1 Smart renewable and closed-loop energy positive districts	IS-1.1: Positive Energy Buildings	-	-	R		D	R	P	D	R	R	R	R	R
	IS-1.2: Near zero energy retrofit district	P	D	R	P	D	R	P	D	R	R	R	R	-
	IS-1.3: Symbiotic waste heat networks	-	-	R	P	D	R	P		R	R	R	R	-
#2 Flexible energy management and storage	IS-2.1: Flexible elec.tricity grid networks	-	D	R	P	D	R	-	D	R	R	-	-	-
	IS-2.2: Smart multi-sourced low temperature district heating (DH) with innovative storage solutions	P	-	R	P	D	R	P	D	R	R	R	-	R
	IS-2.3: Utilizing 2nd life batteries for smart large-scale storage schemes	-	D	R	P	D	R	-	D	R	-	-	R	-
#3 Intelligent mobility solutions	IS-3.1: Smart Solar V2G Evs charging	P	D	R	P	D	R	P	-	R	R	R	R	R
	IS-3.2: Innovative Mobility Services for the Citizens	P	D	R	P	D	R	P	D	R	R	R	R	R
#4 Digital transformation and services	IS-4.1: Services for Urban Monitoring	P	D	R	P	D	R	P	-	R	R	R	R	R
	IS-4.2: Services for City Management and Planning	P	D	R	-	-	-	P	D	R	R	-	-	R
	IS-4.3: Services for Mobility	P	D	R	-	D	R	-	-	-	R	-	R	R

	IS-4.4: Services for Grid Flexibility	**P**	**D**	**R**	**-**	**-**	**-**	**-**	**D**	**R**	**R**	**R**	**-**	**-**
#5 Citizen Engagement and Co-creation	**IS-5.1: Co-creating the energy transition in your everyday environment**	**P**	**D**	**R**	**P**	**D**	**R**	**P**	**D**	**R**	**R**	**R**	**R**	**R**
	IS-5.2: Participatory city modelling	**P**	**D**	**R**	**P**	**D**	**R**	**P**	**D**	**R**	**R**	**R**	**-**	**-**
	IS-5.3: Living labs	**-**	**D**	**R**	**-**	**-**	**-**	**P**	**D**	**R**	**R**	**R**	**-**	**-**
	IS-5.4: Apps and interfaces for energy efficient behaviour	**P**	**D**	**R**	**P**	**D**	**R**	**-**	**D**	**R**	**R**	**R**	**R**	**R**

The FC have identified knowledge gaps related to the replication of the IRIS solutions, in their replication plans. In the same document, they also present local actions for capacity building and knowledge transfer. D8.15 will analyse the FCs replication plans and propose additional mentoring activities to fill these gaps.

There should be mentioned that, especially due to pandemic, the Integrated Solutions from Transition Track 5 have not been addressed as initially planned neither in Lighthouse nor in Follower cities. Therefore, there is a special need in mentoring actions for the Transition Track 5, and hopefully after the pandemic these actions can be performed and Follower cities can replicate Citizen Engagement and Co-creation related projects.

HKU, the IRIS leading partner in citizen engagement and co-creation activities, proposed a mentoring process to support FC to organise the local citizen engagement actions. In particular:

- HKU will indicate 10 time slots of 1.5 hour in the coming two months for Fellow Cities to sign up for
- Each FC can sign in on one time slot for a one-on-one expert/mentor meeting with HKU
- Each FC should prepare a brief question/challenge in advance, possibly linked to the preparation of the FC plan TT5 solutions but can be wider
- The one-on-one meeting can take free form and discuss these challenges in an online meeting
- Based on meeting follow-up agreements can be made.

3.3. Mentoring roles

The Lighthouse cities' representatives have the main mentoring role within the IRIS project. They should participate to mentoring actions and provide information and share their experience and expertise to Follower cities' representatives. The mentoring actions should be based on Lighthouse cities' experience gained through the implementation of different pilot/demonstration/replication projects within IRIS. To better address a specific issue a mentoring action can be performed by a specific Lighthouse city with greater experience in that area. However, it is not excluded that some mentoring actions can be performed by two even all three Lighthouse cities at the same time if they all have experience and expertise in that specific area/domain/project.

Different representatives of Lighthouse cities can share knowledge in different areas. The main role within the mentoring process should have the Municipality representatives and site managers from the Lighthouse cities because the main counterparts from the Follower cities shall almost always be site managers or representatives from Municipalities.

Municipality representatives and site managers can share their experience regarding project management, different financing issues, consultancy/equipment suppliers, overcoming barriers and obstacles for project implementation, after project implementation issues. Representatives of companies that participate in project development and implementation can share information and experience regarding different technical details, business models, data management, etc.

Table 4, Table 5 and Table 6 present the leading partners for all IRIS solutions in the three LH cities.

Table 4 Leading partners of the IRIS activities in LH city UTR

Measure Number	Measure Title	Leading Partner
Transition Track #1: Smart renewable and closed-loop energy positive districts		
Measure 1	District wide PV	BOEX
Measure 2	LT district heating	BOEX
Measure 3	HEMS TOON	BOEX
Measure 4	NZEB refurbishment	BOEX
Measure 5	Smart (hybrid) e-heating systems	BOEX
Measure 6	AC/DC home switchboxes	BOEX
Measure 7	Smart DC Street Lighting	UTR
Transition Track #2: Flexible energy management and storage		
Measure 1	Solar V2G charging points for e-cars/e-vans (demand driven)	LOM
Measure 2	Solar V2G charging point for e-buses	LOM
Measure 3	Stationary storage in apartment buildings	LOM
Measure 4	EMSs- Smart Energy Management System	LOM
Transition Track #3: Intelligent mobility solutions		
Measure 1	V2G e-cars (demand driven)	LOM
Measure 2	V2G e-buses	LOM
Transition Track #4: Digital transformation and services		
Measure 1	Monitoring E-Mobility with LoRa network	UTR
Measure 2	Smart Street Lighting with multi-sensoring	UTR
Measure 3	3D Utrecht City Innovation Model	UTR, CIV
Measure 4	Monitoring Grid Flexibility	UTR, LOM
Measure 5	Fighting Energy Poverty	UTR, BOEX
Transition Track #5: Citizen Engagement and Co-creation		
Measure 1	Community building by change agents	BOEX, HKU

Measure 2	Campaign District School Involvement	UTR
Measure 3	Campaign Smart Street Lighting	UTR
Measure 4	Co-creation in Local Innovation Hub	UTR, HKU
Measure 5	XR Experience	BOEX

Table 5 Leading partners of the IRIS activities in LH city NCA

Measure Number	Measure Title	Responsible Partner
Transition Track #1: Smart renewable and closed-loop energy positive districts		
Measure 1	Collective self-consumption at building scale (Palazzo Meridia)	NEXITY
	Collective self-consumption at building scale (UNS-IMREDD)	UNS-IMREDD
Measure 2	Optimization of heating load curve	COF
Measure 3	Commissioning process from the design of the operation	CSTB
Measure 4	Dashboard providing real-time energy balance	EDF
Transition Track #2: Flexible energy management and storage		
Measure 1	LEM - Local Energy Management system	EDF
Measure 2	DHC Smart District Heating and Cooling optimization algorithm - Phase 1: Monitoring on a part of the network	MSE
	DHC Smart District Heating and Cooling optimization algorithm - Phase 2: Full monitoring (with electric and thermal storage)	EDF, MSE
Measure 3	Stationary storage deployment in buildings and local electric flexibility management	UNS-IMREDD, EDF
Transition Track #3: Intelligent mobility solutions		
Measure 1	Dynamic energy management of an EV charging network - Phase 1: baseline EVCI supervision management	EDF
	Dynamic energy management of an EV charging network - Phase 2: V1G and V2G based smart charging services	EDF
Measure 2	Free floating EV car sharing system - Phase 1: smart management of EV charging to optimize shared vehicles use rate	EDF
	Free floating EV car sharing system - Phase 2: Smart charging of V1G and V2G vehicles for EVCI to contribute to grid flexibility services	EDF
Transition Track #4: Digital transformation and services		
Measure 1	Sensors data collection in air quality - Phase 1: With legacy air sensors)	ATMOSUD
	Sensors data collection in air quality - Phase 2: With microsensors	ATMOSUD

Measure 2	BIM/CIM data display	CSTB
Measure 3	Charging infrastructure data for optimal EV-based free-floating car sharing - Phase 1: Connected to phase 1 of measure 3.2	NCA
	Charging infrastructure data for optimal EV-based free-floating car sharing - Phase 2: Connected to phase 2 of measure 3.2	NCA
Measure 4	Data interoperability with energy cloud	UNS-IMREDD
Transition Track #5: Citizen Engagement and Co-creation		
Measure 1	Public awareness campaign on air quality - Phase 1: with IMREDD targeted audience	ATMOSUD
	Public awareness campaign on air quality - Phase 2: with public stage media	ATMOSUD
Measure 2	Public awareness campaign Energy – School & Collège; Youth & Family - Phase 1: with youth and family	COF
	Public awareness campaign Energy – School & Collège; Youth & Family - Phase 2: for the school	COF
Measure 3	Citizens individual engagement – IOT invoices	COF

Table 6 Leading partners of the IRIS activities in LH city GOT

Measure Number	Measure Title	Responsible Partner
Transition Track #1: Smart renewable and closed-loop energy positive districts		
Measure 1	At least 200 kWh electricity storage in 2nd life batteries powered by 140 kW PV	RB
Measure 2	Heating from geo energy with heat pumps (2-300 m deep boreholes)	RB
Measure 3	Cooling from geo energy without chillers	RB
Measure 4	Local energy storages consisting of water buffer tanks, structural storage and long-term storage in boreholes	RB
Measure 5	Seasonal energy trading (cooling in summer season) with adjacent office block	RB
Measure 6	Advanced Energy Management System to achieve peak shaving and minimal environmental impact	RB
Measure 7	Building Integrated Photovoltaics (BIPV) in façade	HSB
Transition Track #2: Flexible energy management and storage		
Measure 1	350 V DC building microgrid utilizing 140 kW rooftop PV installations and 200 kWh battery storage	AH
Measure 2	Low temperature DH 45/30 system for six buildings	RB
Measure 3	1700 kWh PCM (Phase Change Material) cooling storage	AH
Measure 4	Integration and evaluation of a 200kWh energy storage	RB
Transition Track #3: Intelligent mobility solutions		

Measure 1	EC2B, version for accommodation (Riksbyggen's BRF Viva)	TRIV
Measure 2	EC2B, version for workplaces (Johanneberg campus area)	TRIV
Transition Track #4: Digital transformation and services		
Measure 1	CIM - City Information Model	GOT
Measure 2	Energy Cloud	METRY
Transition Track #5: Citizen Engagement and Co-creation		
Measure 1	Organize a spatial planning design contest for children and youths based on a Minecraft® model of Gothenburg	GOT
Measure 2	Further develop the city's online citizensourcing platform "Min Stad"	GOT
Measure 3	Inclusive Life Challenge competition	GOT
Measure 4	Demonstrate a BIM (Building Information Modelling) based AR/VR app	JSP
Measure 5	Demonstrate the Personal Energy Threshold (PET)	HSB

3.4. Timeline for mentoring actions in IRIS

As it has been stated above, the mentoring actions within IRIS projects started in the first year of the project. There have been organized, at the face-to-face and on-line consortium meetings and with other opportunities, webinars, workshops and peer2peer meetings. Due to the pandemic, site visits and staff exchange have not been organized yet. However, they are still in plan for the 4th or 5th year of the project. The table below shows the performed and planned mentoring actions for each IRIS project year.

Table 7 Timeline of IRIS mentoring actions

ACTION / YEAR	1	2	3	4	5
Webinars		2	6	4	4
Workshops	2	4	4	4	4
Peer 2 Peer			4	3	3
Visits FC to LHC				1 per FC	1 per FC
Visits LHC to FC				1 per FC	3 per FC
Staff Exchange					1 per FC

The purposed mentoring actions proposed for the next two years of the project are very much dependent on the evolution of the pandemic situation in Europe, especially when talking about staff exchange and experts' visits. So, this planning shall be adjusted in accordance with overall situation in EU.

Annex 1 presents the planned knowledge exchange activities for the 4th year of the project (M37-M48).

3.5. Plan for mentoring actions

Based on identified knowledge gaps, needs and interests of the FCs, a plan for the remainder of the IRIS project regarding mentoring actions was created. The planned mentoring activities will most likely result in additional mentoring activities, and therefore this plan will be updated as more mentoring activities are agreed upon.

Updates will be presented in the coming deliverables:

D8.15 First update of the mentoring roadmap [M48]

D8.16 Second update of the mentoring roadmap [60]

Planned mentoring activities for each FCs:

VAASA

Table 8: Planned Peer 2 Peer meetings with FC Vaasa

City, Demonstration Project and/or Organization	Replication Project	Topics for Mentoring Support	Suggested time
Utrecht	Smart Energy Management System in Vaasa	Transition Track #2: general discussion on Measure 4: Smart energy management system would be of interest, interesting solution for Vaasa.	Q2 / 04 / 2020
Nice	Positive Energy Building in Vaasa	TT#1 Palazzo Meridia optimization	Q2 / 04 / 2020
Gothenburg	Positive Energy Building in Vaasa Ravilaakso mobility solutions	TT#1 Viva Sustainability Tool TT#3 EC2B	Q2 / 04 / 2020
Utrecht, Bo-Ex, retrofit projects (including citizen engagement)	Pikipruukki social housing / VOAS student housing	Retrofit solutions, implementation and investment calculation	Q4 / 10 / 2020
Utrecht, DSO Stedin, LomboXnet	Smart Grid, Ravilaakso / Vaasa as whole	Grid flexibility, congestion management, peak load reduction	Q1 / 01 / 2021
Gothenburg, Trivector, EC2B	Ravilaakso, Hanna & Yrjö säätiö	EC2B suitability for Ravilaakso area and H&J säätiö project	Q2 / 04 / 2020
Utrecht City Innovation Platform	Vaasa City Innovation Platform	How to plan and create a CIP	Q3 / 08 / 2020

Utrecht	Smart Grid, Ravilaakso / Vaasa as whole	Grid flexibility, congestion management and peak load reduction	Q1 / 02 / 2021
Gothenburg	Vaasa digital platform	Citizen engagement using a digital platform	Q1 / 02 / 2021
Gothenburg, Min Stad	Vaasa City participatory city modelling	Citizen Engagement on digital platform	Q2 / 2021
HKU	Lähiö Inno - VOAS	Citizen Engagement	Q1 / 02 / 2021

ALEXANDROUPOLIS

Table 9: Planned Peer 2 Peer meetings with FC Alexandroupolis

City, Demonstration Project and/or Organization	Replication Project	Topics for Mentoring Support	Suggested time
Utrecht	Apartment buildings Street lighting	Topic 1 – TT1, measure #6 – Smart AC/DC power grid in apartments Topic 2 – TT1, measure #7 – Smart DC street lighting at district level	Q2 / 04 / 2020
Nice	Energy Positive Buildings Smart Multi-Sourced Low Temp District Heating	Topic 1 – TT1, measure #1 – Collective self-consumption at building scale Topic 2 – TT2, measure #2 – Smart multi-sourced low temp district heating with innovative storage solutions	Q2 / 04 / 2020
Gothenburg	Energy Management System Energy Cloud	Topic 1 – TT1, measure #10 advanced energy management system to integrate PV, DH, grid and storage options Topic 2 – TT4, measure #2 energy cloud	Q2 / 04 / 2020
Nice	Retrofit objects	Retrofit solutions: Techno-economic efficiency, implementation plan	Q1 / 02 / 2021
Utrecht	Retrofit objects	Retrofit solutions: investment calculation,	Q1 / 02 / 2021

		implementation, citizen engagement	
Nice, Palazzo Meridia	Positive energy city hall	Retrofit solutions, techno-economic efficiency, implementation plan	Q2 / 2021
Utrecht, Bo-Ex, retrofit projects (including citizen engagement)	"EOT" social houses	Retrofit solutions, implementation and investment calculation	Q2 / 2021
Nice, #2 smart DHN, MNCA	Geothermal DHN of Anthei-Aristino	Storage solutions for optimisation, enhanced energy management system	Q4 / 2021
Utrecht, Fighting Energy Poverty, Municipality of Utrecht	Fighting energy poverty	Implementation process (innovation challenge), citizen engagement activities	Q3 / 2021
HKU	Applies to all replication projects that "need" citizen engagement	Citizen Engagement	Q1 / 02 / 2021

SANTA CRUZ DE TENERIFE

Table 10: Planned Peer 2 Peer meetings with FC Santa Cruz de Tenerife

City, Demonstration Project and/or Organization	Replication Project	Topics for Mentoring Support	Suggested time
Utrecht	Retrofitting City Innovation Platform	TT#1.1 Measure #4. Could we know more about the cost-benefit analysis refurbishment of the building? TT#4. Santa Cruz de Tenerife is still studying possible City Innovation Platform.	Q2 / 04 / 2020
Nice	Retrofitting City Innovation Platform	TT#1.1 Measure #4. Could we know more about the cost-benefit analysis refurbishment of the building? TT#4. Santa Cruz de Tenerife is still studying possible City Innovation Platform.	Q2 / 04 / 2020

Gothenburg	Battery Storage Systems Energy Management Systems Planning of E-Buses	TT#1.1.: #1. Could we know more about the cost-benefit analysis for the 140 kW PV/ 2nd life Battery storage system (200 kWh)? What type of agreements could make possible to receive the 2nd life batteries. TT#1: #6. Could we know more about the advance management system to integrate PV, Storage, Electric vehicles. TT#3. Local Bus Company, in Tenerife, claims that air conditioning might dramatically reduce electrical charge of the e-buses.	Q2 / 04 / 2020
Gothenburg	Energy Systems	Energy system BRF Viva	Q1 / 02 / 2021
Nice	City sensors	Integration of renewable energy sources in residential buildings	Q1 / 02 / 2021
Utrecht, Bo-Ex, retrofit projects (including citizen engagement)	Social housing retrofitting Barrio de La Alergría y María Jiménez	Retrofit solutions, implementation and investment analysis	Q2 / 05 / 2021
Gothenburg, Viva Measure 200 kWh electricity storage in 2nd life batteries powered by 140 kW PV.	Smart Gerencia 2nd life batteries	Agreement for supply 2nd life, BEMS, integration of batteries, bateries performance and investment analysis	Q2 / 06 / 2021
Nice, Activities on NCA, Smart Charging infrastructure Gothenburg, Viva Measure 200 kWh electricity storage in 2nd life batteries powered by 140 kW PV.	Santa Cruz EV charging system	General management of the infrastructure. Managemnt of RES, 2nd life batteries and EV: (how manage this flexible electricity?)	Q3 / 09 / 2021 Q2 / 06 / 2021

Gothenburg, Brf Viva	Personal Mobility Strategy	General philosophy of the project and integration of different solutions. Citizens engagement	Q2 / 04 / 2021
Nice, Sensor data collection in air quality. Measure 1	Santa Cruz sensor data collection in air quality	Citizen engagement activities vs environmental scenario	Q3 / 10 / 2021
Gothenburg, City Information Model Pilot.	CIM y public data	Johannesber pilot area. Implementation sensor data into BIM/CIM for public visualization	Q2 / 06 / 2021
Nice, Data control and monitoring for Smart e-mobility	Smart EV charging	Smart Charging platform	Q3 / 11 / 2021
Gothenburg, Co-creation activities in Local Innovation Hubs	VR BIM Smart Gerencia	Citizen engagement activities	Q3 / 09 / 2021
Nice, Sensor data collection in air quality. Measure 1	Santa Cruz sensor data collection in air quality	Citizen engagement activities vs environmental scenario	Q3 / 12 / 2021

FOCSANI

Table 11: Planned Peer 2 Peer meetings with FC Focsani

City, Demonstration Project and/or Organization	Replication Project	Topics for Mentoring Support	Suggested time
Utrecht	City Management and Planning Citizen Engagement Energy Efficient Behavior	IS 4.2 Services for city management and planning. IS 5.1 Co-creation the energy transition in your every environment. IS 5.4 Apps and interfaces for energy efficient behavior.	Q2 / 04 / 2020
Nice	Citizen Engagement Energy Efficient Behavior	IS 5.1 Co-creation the energy transition in your every environment. IS 5.4 Apps and interfaces for energy efficient behavior.	Q2 / 04 / 2020
Gothenburg	City Management and Planning	IS 4.2 Services for city management and	Q2 / 04 / 2020

	Citizen Engagement Energy Efficient Behavior	planning. IS 5.1 Co-creation the energy transition in your every environment. IS 5.4 Apps and interfaces for energy efficient behavior.	
Utrecht	EV charging	V2G EV charging	Q1 / 02 / 2021
Gothenburg	Residential buildings	Integration of renewable energy sources in residential buildings	Q1 / 02 / 2021
Utrecht & Gothenburg	Retrofitting of residential and public buildings	Integration of renewable energy sources	TBC
Nice & Gothenburg	Smart district heating	Integration of renewable energy sources	TBC
Utrecht	V2G EV charging	Low temperature district heating, integration of renewable energy sources	TBC
Utrecht & Gothenburg	Bike sharing	V2G EV charging	TBC
Utrecht City Innovation Platform	Vaasa City Innovation Platform	Bike sharing	TBC
Nice & Gothenburg	District heating system automation, monitoring & control	How to plan and create a CIP	TBC
Gothenburg & Nice	Traffic lights management, Street lighting	Trafic lights management, Smart street lighting	TBC
Nice & Utrecht, HKU	Citizen engagement	Citizen engagement	TBC
Nice & Gothenburg	Apps for energy efficient behavior	Apps for energy efficient behavior	TBC

3.6. IRIS mentoring results

The main results of the mentoring activity shall be in knowledge transfer and capacity building at Follower cities Municipality. This main objective shall lead to reaching several specific objectives, but not limited to:

1. Provide Follower cities with ideas for new projects/solutions.

2. Transfer specific technical information regarding implemented solutions and help Follower cities site managers to adapt projects to local conditions. This is very important especially when the replication project includes new technologies, concepts, equipment, devices, etc.
3. Offer information and contacts of potential services and equipment suppliers especially for new technologies.
4. Offer information on business models, possible partnership between Municipality and other public or private companies for a faster, better, and more efficient project implementation.
5. Offer information about financing opportunities at EU level and provide a general support in analyzing different financing schemes.
6. Provide information and support for overcoming different barriers, e.g. technical, legal, financial, etc.
7. Provide solutions for after project implementation monitoring and any possible improvements that can be implemented to a specific project.

Achieving all these specific objectives should lead to the main objective of the mentoring activity – to develop and replicate more projects in Follower cities and to spread information beyond IRIS project to other cities in EU.

There should be mentioned that all 4 Follower cities have already started implementing different projects that they planned to replicate, and for some of those projects the information/help provided/offered by Lighthouse cities has been of very useful help. However, there is still room for improvement for meliorate the ties between Lighthouse and Follower cities. A very important role to reach this goal shall have the staff exchange and mentoring visits that are planned in the next 2 years of the IRIS project.

4. Output to other work packages

The mentoring roadmap will have relevant output to the tasks and deliverables for the following work packages:

WP2: EU wide cooperation with ongoing projects, initiatives and communities

Will provide information of the IRIS mentoring process, which will be relevant, and interesting information for other SCC01 LH projects.

WP3: Development of Bankable Business Models and Exploitation Activities

Will provide information about mentoring actions regarding business and financial mentoring from horizontal partners, and LHs, to FCs on how to finance their replication projects and how to create feasible business models for them.

WP5: Utrecht Lighthouse City demonstration activities

Will provide information regarding expected mentoring actions from Utrecht to FCs.

WP6: Nice Lighthouse City demonstration activities

Will provide information regarding expected mentoring actions from Nice to FCs.

WP7: Gothenburg Lighthouse City demonstration activities

Will provide information regarding expected mentoring actions from Gothenburg to FCs.

WP9: Monitoring and evaluation

Will provide information regarding expectations on monitoring and evaluation of demonstration results for mentoring actions. Key persons in local replication eco-systems will need monitoring and evaluation information for successful mentoring results.

WP10: Communication and Dissemination

The mentoring actions have a strong connection to both internal and external communication of the project. Most mentoring actions will have an active communicative need and the mentoring roadmap will help the communication work package to follow the mentoring actions as they happen.

5. Conclusions

Being able to plan and communicate mentoring actions is a key for the replication success of the IRIS project. Without well carried out mentoring actions the replication projects in the FCs will have a difficult time achieving their targets of replicating the demonstrated solutions in the IRIS project.

The objective of this deliverable is to provide mentoring actions for knowledge exchange and capacity building for the FCs in their replication projects. The objective is achieved as the deliverable presents clearly which mentoring actions will be carried out in the project, when they will be carried out, how, and who is responsible for them. The deliverable is a key guiding document for the LHs and their mentoring actions towards the FCs during the duration of the project.

This deliverable has two updates coming later in the project:

D8.15 : First update of the mentoring roadmap [48]

Related to Task 8.1. First update of the mentoring roadmap for FCs mentored by LHs with a Gantt chart and a Work Breakdown Structure (WBS), as well as a schedule per task, responsible partner related subtasks, related deliverables, and dependencies on other tasks. Report will focus on removing obstacles to investment, providing visibility and technical assistance to investment and replication in additional areas and making smarter use of new and existing financial resources.

D8.16 : Second update of the mentoring roadmap [60]

Related to task 8.1. Second update of the mentoring roadmap for FCs mentored by LHs with a Gantt chart and a Work Breakdown Structure (WBS), as well as a schedule per task, responsible partner related subtasks, related deliverables, and dependencies on other tasks. Report will focus on removing obstacles to investment, providing visibility and technical assistance to investment and replication in additional areas and making smarter use of new and existing financial resources.

In the updates, there will be more experience and results from mentoring actions to evaluate and to package as lessons learned for other projects as well.

Annex 1 – Planned knowledge exchange activities for the 4th year of the project (M37-M48)

Topic of exchange (e.g. solution, process, method, tool)	Type of exchange	WPs involved	Organiser (action holder for this activity)	Participant(s)	Date (indicative)
Retrofitting and tenant engagement	Peer-2-peer	WP5, WP8	USI	Bo-Ex, Vaasa, USI, Tenerife, Alexandroupolis	29 October 2020
E-buses	Peer-2-peer	WP5, WP8	USI	QBUZZ, Tenerife, Alexandroupolis	TBD
Battery Energy Storage Systems	Webinar	WP5, WP6, WP7, WP11	CERTH	LomboXnet, EDF, Goteborg Energi	December 2020
Smart grid/grid flexibility	Webinar or peer-2-peer	WP5, WP8	TBD	LomboXnet, Stedin, Vaasa stakeholders, Tenerife	TBD
2nd Life Batteries	Webinar or peer-2-peer	WP5, 6, 7, 8		Got, Utr, Nize, Tenerife	TBD
City Innovation Platform	Webinar or workshop	WP4, WP8	CERTH	CIV, NCA, Fellow Cities	
IP – when do you need IP protection?	Webinar	WP3	VUB	For solution providers that have worked on their Key Exploitable Results	Feb 2021
IP	Peer-to-peer (on demand)	WP3	VUB	For solution providers that have worked on their Key Exploitable Results	TBD
Business modelling – fit to local conditions	Webinar	WP3	UU, IMCG CERTH	For solution providers (with city representatives attending)	Feb 2021
Business modelling	Peer-to-peer (on demand)	WP3	UU, IMCG		TBD

City innovation management – several of approaches (when to use what)	Webinar	WP3	UU, UNS, IMCG	City representatives; innovation, manager, strategic planner, region planners	Feb 2021
City innovation management	Peer-to-peer	WP3/WP8	TPD		TBD
Financial instruments	Webinar	WP3, WP8	IMCG, VASEK		TBD
”Cookbook”/ SCUBI (will be summitted in June)	webinar	WP3	UU	The city innovation planners	June 2021
”Cookbook”/ SCUBI (will be summitted in June)	Peer-to-peer (on demand)	WP3	UU		From fall 2021
Key Exploitable Results	Peer-to-peer	WP3	IMCG	Exploitation teams – the solution providers	TBD