BUILDING SMART CITIES TOGETHER

SHARINGCITIES

LONDON

WARSAW

BORDEAUX

MILAN

LISBON

BURGAS

SHARING CITIES PROGRAMME MANAGEMENT PLAN

DELIVERABLE 1.2

CONTENTS

Version	Date	Editor	Summary of changes
v01a	18/11/2016	Sandeep Duggal	Initial Release
v01b	24/11/2016	Nathan Pierce	Added introduction and Quality Management Strategy sections and small amendments.
V01c	29/11/2016	Shane Canning	Added section on Budget, Financial Management and Programme Plan
V01d	30/11/16	Sandeep Duggal	Final edits before publication.
V01Final	16/12/16	Sandeep Duggal	Peer review completed (GLA MOPAC Audit) and first release.

1. INTRODUCTION

1.1 This Programme Management Plan (PMP) provides the general framework and establishes specific strategies and milestones for the execution of the European Commission (EC) funded Horizon 2020 (H2020) Sharing Cities (SC) programme. It outlines understanding among project teams regarding the actions and processes necessary to facilitate the critical links among people, ideas, and information that are necessary for project success. This plan will enable Sharing Cities to better utilise its resources, coordinate efforts with other groups, report its activities and results to key stakeholders and deliver high quality deliverables.

1.2 This document is a key deliverable for the Sharing Cities programme, Deliverable 1.2 in the Sharing Cities Grant Agreement (GA). It has been developed by the PMO who are based in the Greater London Authority (GLA) which is the lead organisation in the Sharing Cities Consortium and is sanctioned by the Sharing Cities Senior Responsible Officer (SRO).

1.3 The contents of this Deliverable are aligned with the Sharing Cities Consortium Agreement (CA) and the Grant Agreement (GA). This PMP is also aligned with Deliverable 1.3 – Quality Assurance Plan and Deliverable 1.6 Risk Assessment Plan. The intended audience for this PMP are the SRO, Programme Board, the PMO, Work Package (WP) leads, city leads and all consortium members.

1.4 This PMP will define the programme structure, approach, assumptions, requirements, processes, governance and the programme management expectations on the involved actors within the Sharing Cities consortium.

1.5 This is a living document and will be reviewed and updated by the Sharing Cities Programme Management Office (PMO) as necessary.

2. THE SHARING CITIES PROGRAMME

2.1   The vision that Sharing Cities is as follows:

SHARINGCITIES VISION

Our vision is of a more agile and more collaborative smart cities market that dramatically increases the speed and scale at which we implement smart solutions across European cities, engaging society in new ways to cause them to play an active role in the transformation of their communities – delivering more vibrant, liveable, economically active, and resource efficient cities.

Underpinning this are shared solutions that apply a 'digital first' approach; are more common, integrated, open; and provide the 'building blocks' incorporating European and worldwide leading practices that can be deployed at scale, yet tailored to cities of different size and stage of development.

A vision where Sharing Cities – in collaboration with other like-minded parties – is instrumental in 'creating the movement' that makes a profound and sustained difference.

--- Place >> System >> Economy >> Society ---

STRATEGIC OBJECTIVES

2.2   Sharing Cities has four strategic objectives:

2.2.1   **SCALE:** To prove that properly designed (and more common) smart city solutions can be integrated in complex urban environments to exhibit their true potential and allow for the significant scale-up and consequent increase in social, economic and environmental value.

2.2.2   **DIGITAL FIRST:** To explore and prove the extent to which a difference can be made through adopting a digital first and data-driven approach to the improvement and 'connecting up' of existing infrastructure, as well as the design and running of new city infrastructure. We want to drive the

creation of a new set of next stage digital services which will help citizens make better choices around transport and energy efficiency, which when scaled up will enhance the city's ability to hit key targets for mobility, housing, energy efficiency and resilience, and economic development.

2.2.3 **OPEN-UP & ACCELERATE the MARKET:** To understand, develop and trial business, investment and governance models, essential for the true aggregation and replication (through collaboration) of smart city solutions in cities of different sizes and maturities, in Europe and beyond. And through this to accelerate the pace by which we make transformative improvements, and enhance sustainability.

2.2.4 **SHARE & COLLABORATE for SOCIETY:** To respond to the increasing demand for participation; to enhance mechanisms for citizens' engagement; to improve local governments capacity for policy making and service delivery through collaboration and co-design; resulting in outcomes that are better for citizens, businesses and visitors.

2.3 The Programme will address these objectives by implementing a portfolio of 'digital first' and interconnected measures in each of three smart city districts: the Royal Borough of Greenwich in London, Porta Romana / Vettabbia in Milan, and the Downtown area of Lisbon. All of which are part of cities with ambitious and well documented smart city implementation strategies; all of which already have their own ambitious plans for smart city solutions across the main domains of this call (near-zero low energy districts, sustainable urban mobility, and integrated infrastructures); and all of which have clear leadership commitment (political and professional) to the programme.

KEY ACTIVITIES

2.4 The vision and objectives will be delivered through implementation of a number of measures directly relating to the call text. These will be supported within eight work packages, three of which form the core content of the proposal: People, Place, Platform.

2.4.1 **PEOPLE** – Deploy approaches and tools to develop a deep understanding of society, and the means by which they actively participate in making their districts better places, through sharing services, delivering better outcomes.

2.4.2 **PLACE** – Comprising 4 main themes that address city infrastructures that support low energy districts, electrification of mobility, and integration of

infrastructures and processes. They include: Building Retrofit; Sustainable Energy Management System; Shared eMobility; and Smart Lampposts.

2.4.3 **PLATFORM** – an urban sharing platform (USP) that manages data from a wide range of sources including sensors as well as traditional statistics; built using common principles, open technologies and standards. This builds on London's DataStore analytics expertise, Milan's work on an API marketplace & the public use of data, and Lisbon's work on sensor data and gateways.

2.5 The measures are shown in the figure below.
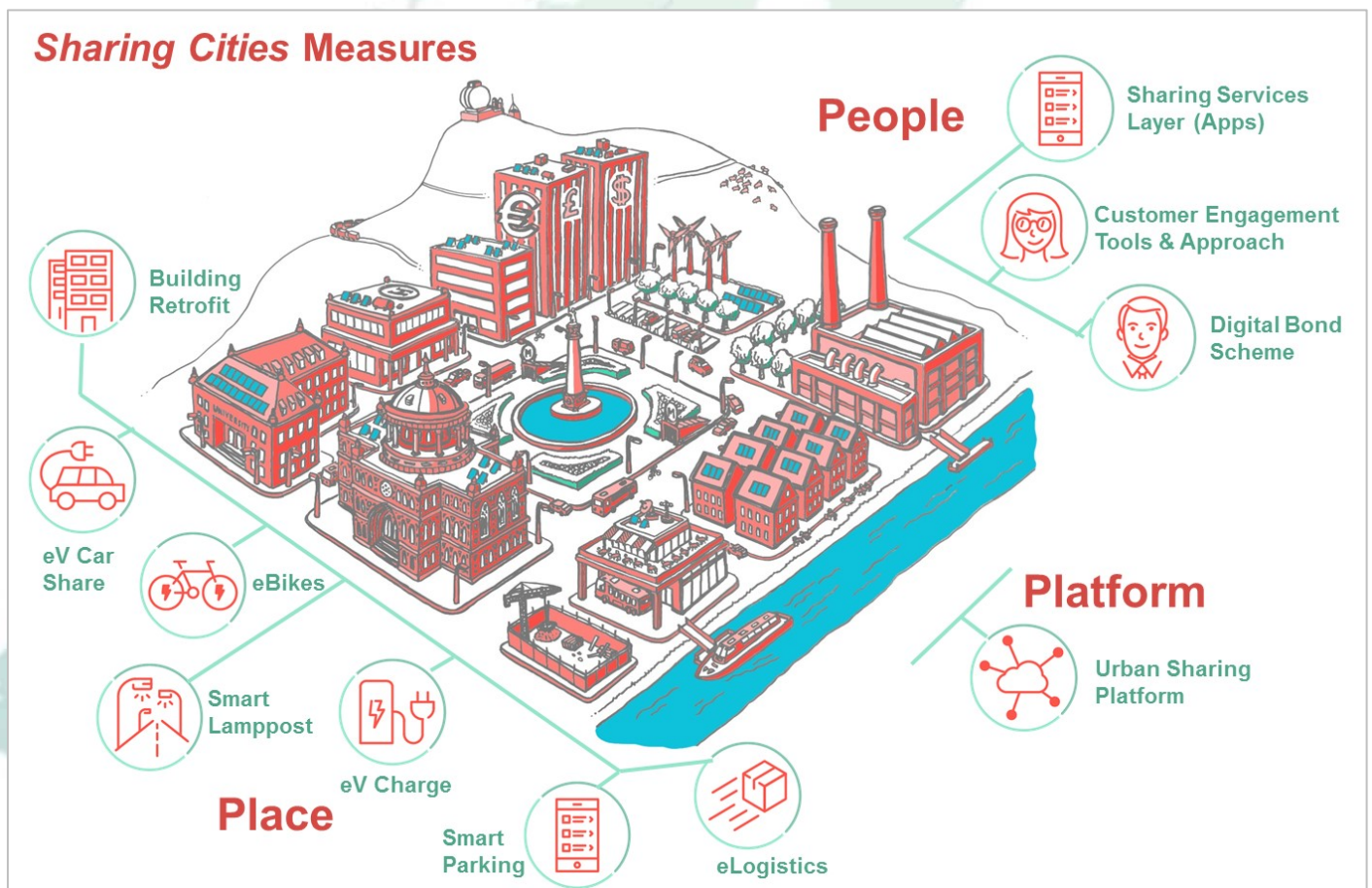
GOALS

2.6 The programme has developed "10 Audacious Goals" that will be address through the Sharing Cities programme. These will have a marked impact in positively addressing the market context described above. The goals are ambitious; targets have been identified (examples below with full detail in section 2); initiatives that will deliver these are discussed in the approach and subsequent detailed plans; and means by which we will evidence the achievement of them is discussed in Impact. These 10 goals are shown in the figure below:

H2020 Call Requirements

- Deploy wide-scale, innovative replicable and integrated solutions in energy, transport, and ICT.
- Create stronger links between cities in Member States with various geographical and economical positions through active cooperation
- trigger large scale economic investments with the repayment of implementation costs in acceptable time lines (to facilitate the bankability of the projects)
- Increase the energy efficiency of districts and of cities and foster the use of renewables and their integration energy system and enable active participation of consumers.
- Reduce the energy costs.
- Decarbonise the energy system while making it more secure and stable.
- Reduction of energy bills for all actors, especially for citizens and public authorities
- Increase air quality
- Increase mobility efficiency with lower emissions of pollutants and CO2
- Increase quality of life by creating local jobs (that cannot be de-localised) in cities

Sharing Cities: '10 Audacious Goals'

1. **Aggregate Demand and achieve wide Scale Deployment of smart city solutions**
   - e.g. Engage 100 cities (2016), & 50% exploit our products
2. **Deliver Highly Relevant Common and Replicable Innovative Solutions**
   - e.g. deliver >10 repeatable solutions, & ~10 tools/frameworks
3. **Attract Quantum External Investment**
   - e.g. Trigger € 500 million external exploitation investment
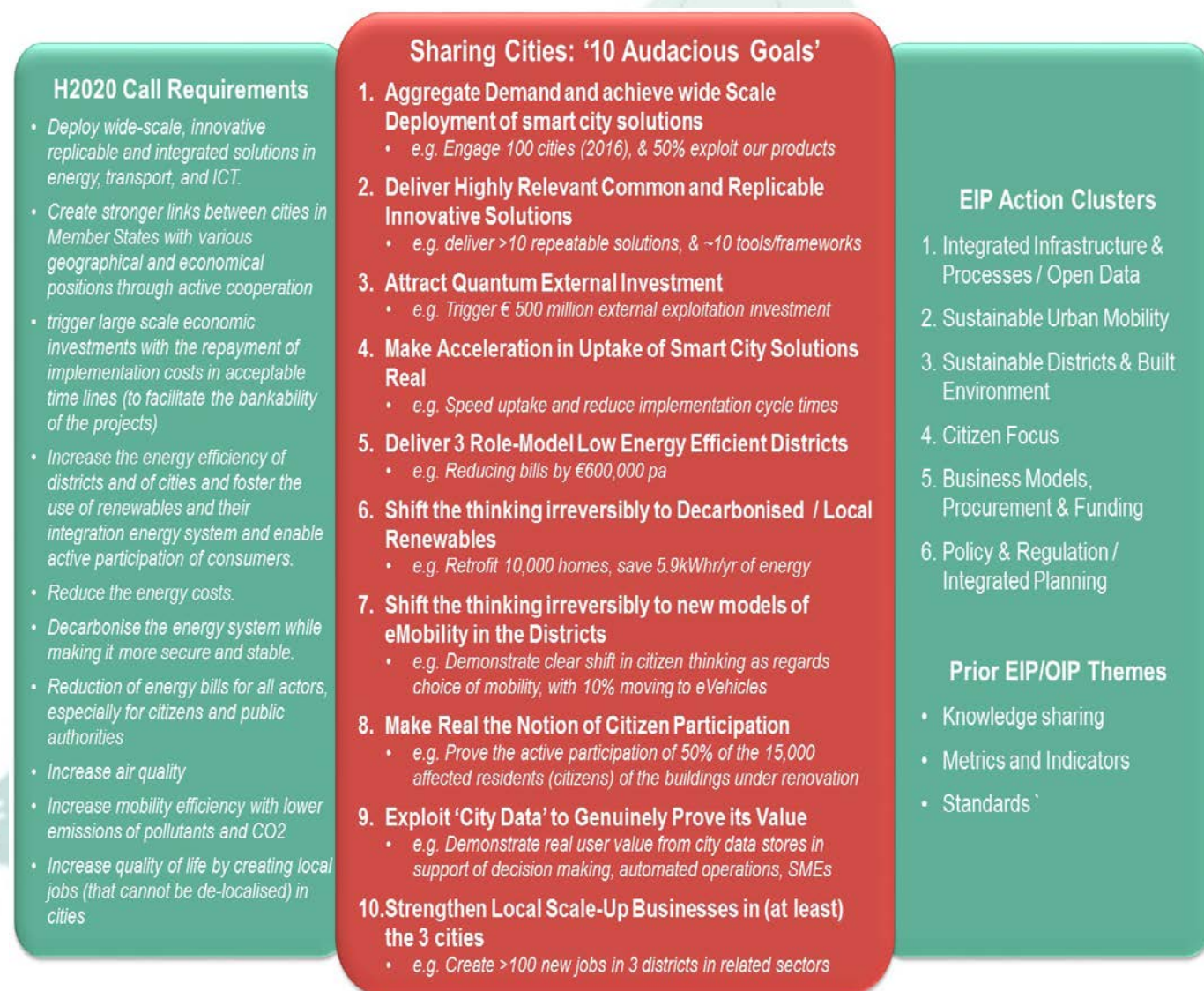4. **Make Acceleration in Uptake of Smart City Solutions Real**
   - e.g. Speed uptake and reduce implementation cycle times
5. **Deliver 3 Role-Model Low Energy Efficient Districts**
   - e.g. Reducing bills by €600,000 pa
6. **Shift the thinking irreversibly to Decarbonised / Local Renewables**
   - e.g. Retrofit 10,000 homes, save 5.9kWhr/yr of energy
7. **Shift the thinking irreversibly to new models of eMobility in the Districts**
   - e.g. Demonstrate clear shift in citizen thinking as regards choice of mobility, with 10% moving to eVehicles
8. **Make Real the Notion of Citizen Participation**
   - e.g. Prove the active participation of 50% of the 15,000 affected residents (citizens) of the buildings under renovation
9. **Exploit 'City Data' to Genuinely Prove its Value**
   - e.g. Demonstrate real user value from city data stores in support of decision making, automated operations, SMEs
10. **Strengthen Local Scale-Up Businesses in (at least) the 3 cities**
    - e.g. Create >100 new jobs in 3 districts in related sectors

EIP Action Clusters

1. Integrated Infrastructure & Processes / Open Data
2. Sustainable Urban Mobility
3. Sustainable Districts & Built Environment
4. Citizen Focus
5. Business Models, Procurement & Funding
6. Policy & Regulation / Integrated Planning

Prior EIP/OIP Themes

- Knowledge sharing
- Metrics and Indicators
- Standards `

PROGRAMME LOGIC

2.7 The following is the programme logic for Sharing Cities. A programme logic is a useful planning, communication and evaluation tool as it articulates what the program is, what it expects to do, and how success will be measured. It is useful for checking the proposed program design for adequacy of cause and effect, and the reasons or assumptions behind this.

2.8   The first diagram below is the high level programme logic and the second shows the logic in more detail with the key actors in each stage.
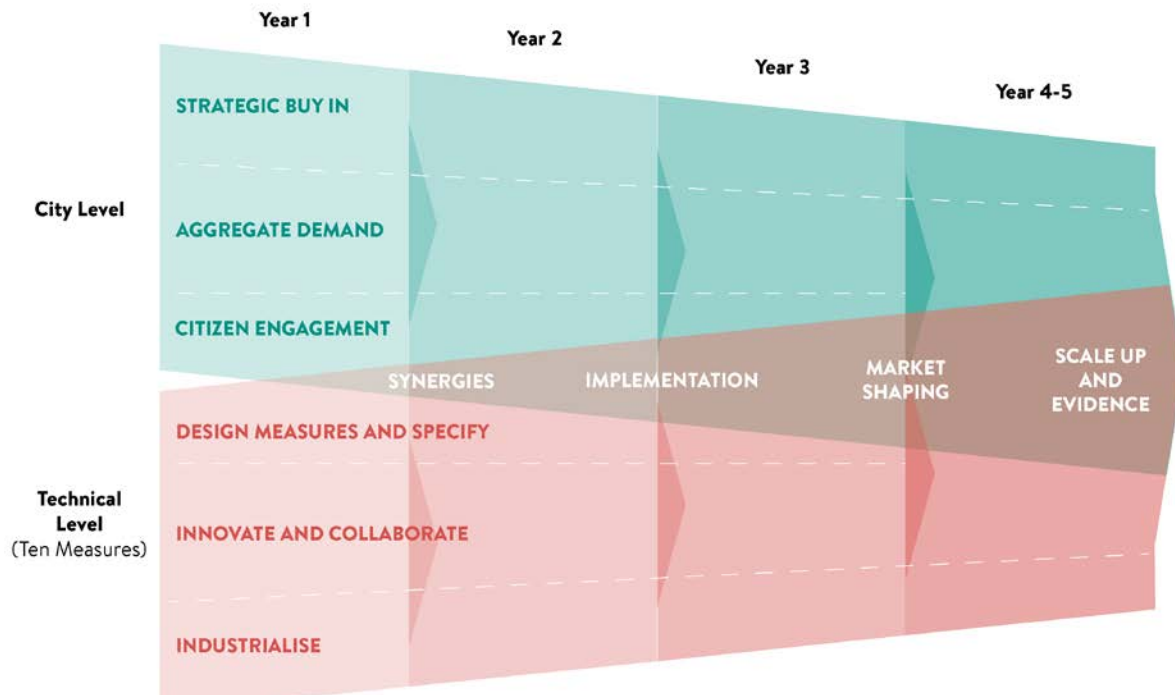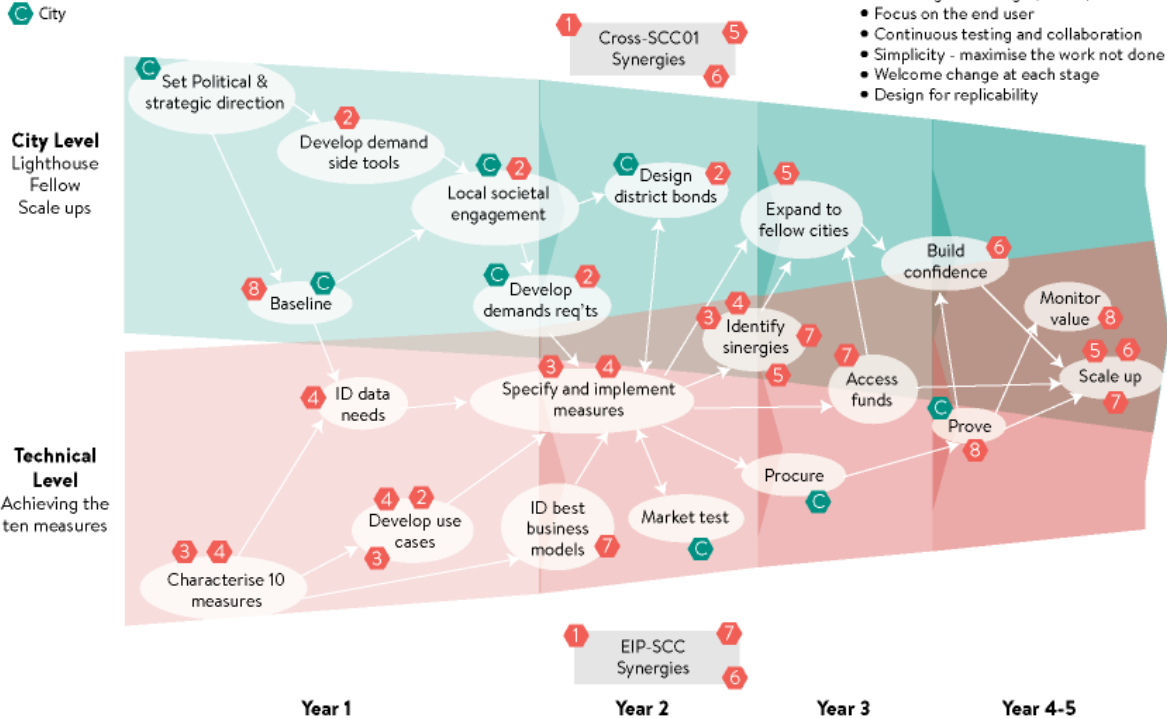
3. PROGRAMME APPROACH

3.1 The 'principal cities' at the centre of the proposal include 3 'core' (London, Lisbon and Milan) and 3 'follower' cities (Burgas, Warsaw and Bordeaux).

3.2 A central theme of Sharing Cities is about testing and delivering the successful integration of physical, digital and human systems in urban settings to deliver sustainable forms of place management and a better future for communities and the people who live in them. Hence, the organisation of the Programme is centred around the core work packages of People, Place and Platform. Supporting these three Work Packages (WP, 2, 3, & 4), are a number of other Work Packages.

3.3 A summary of the eight Work Packages are follows:

3.4 **Work Package 1: Programme Management** - Provide effective management control and strategic direction of the project, to ensure that the deliverables are at the highest level of quality, and to ensure that the objectives are fully achieved within the time, cost and resource constraints available.

3.5 **Work Package 2: PEOPLE — Citizen Engagement** - This work package delivers a suite of new people-centred services. These are digital interfaces supported by on the-ground coordination of participation. They are a thin interface layer built on the Urban Sharing Platform (WP4), providing a coherent user experience over the measures in our project (WP3). They provide detailed data on usage of services, provide a meaningful focal point for participation, and contain incentive mechanisms that help drive the shift towards sustainable living.

3.6 **Work Package 3: PLACE — Energy, Mobility, & Infrastructure Systems** - Our overarching objective is to demonstrate real tangible value through a new shared, digital-first, scaled and market accelerator approach to integrated design and operation of core integrated urban infrastructures and services, delivering low energy districts and sustainable mobility — all exploiting the active involvement of citizens who live, work and visit our districts.

3.7 **Work Package 4: PLATFORM — Urban Platform** - Architect and build an Urban Sharing Platform (USP) that can aggregate data and control from a wide variety of devices and sensors, store and process the data and present information to the city and citizens which enables better use of the city resources.

3.8 **Work Package 5: Replication** - Detailing the process by which follower cities are tightly connected into the Sharing Cities process and develop their replication strategies and competencies, and how we will achieve exploitation of solutions by a wide range of national and EU scale-up cities.

3.9 **Work Package 6: Communication** - Implementation of a communications strategy that will maximise the impact of Sharing Cities to speed the transformation of EU cities into smart cities; ensuring that relevant stakeholders from city and industry parties at national, European and international levels are addressed through a wide range of high-quality communication tools and materials, high-level events, and related media activities. Also ensuring links with other initiatives, projects, networks, etc related to smart cities (incl current/future Horizon 2020 calls) are established, maximising efficiency of activities and effectiveness for recipients.

3.10 **Work Package 7: Business Models** - Addressing a vital enabler to ensure the solutions from the above WPs can be exploited within and across a broad portfolio of cities. This WP discusses the triggering of funding for smart city investment funds, and investment for exploiting solutions in scale-up cities.

3.11 **Work Package 8: Evaluation** - Covering how we will deliver a comprehensive quantitative evaluation of the performance of the various measures, working with partner organisations in each lighthouse city, and indeed in other follower cities. This is critical for a programme placing so much emphasis on the development of new business and funding models.

3.12 **Wider PMO** - Alongside the Work Packages we have City Leads and city PMOs who will be responsible for translating the programme into the three lighthouse cities and to work with the PMO to ensure good programme implementation. The city leads come together in fortnightly conference calls with the transversal PMO called 'Wider PMO'.

4. PROGRAMME ASSUMPTIONS

4.1 Every partner has agreed to take part in the efficient implementation of the Programme, and to cooperate, perform and fulfil, promptly and on time, all of its obligations under the Grant Agreement and the Consortium Agreement as may be reasonably required from it and in a manner of good faith.

4.2 All activities should be conducted in accordance with the action prescribed in Annex 1 - Description of Action (part B) of the Grant Agreement.

4.3 In the case of any conflict with any amendments to the Grant and/or Consortium Agreements, this document will be amended.

4.4 The diagram below sets out how the work packages and measures relate to each other. This can also be seen in the Programme Logic set out above.
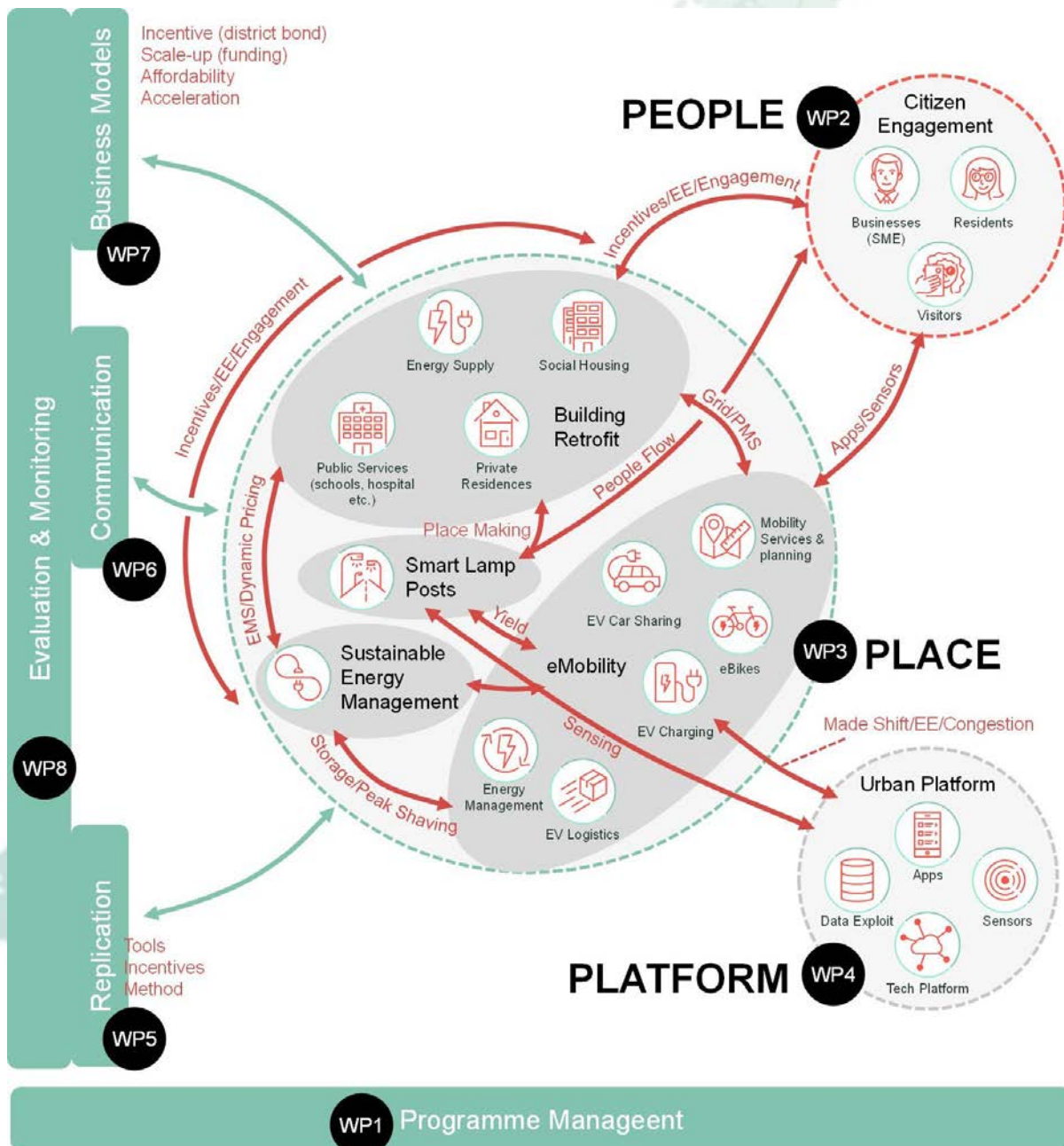
5. ORGANISATION – GOVERNANCE STRUCTURE

5.1 The Consortium shall comprise the following Consortium Bodies:

5.2 **The Programme Board** is the decision-making body of the consortium. It will ensure that both the actions and the benefits of the Sharing Cities programme are delivered. The Programme Board will be chaired by the Senior Responsible Owner (SRO).

5.3 **Sharing Cities City Project Boards** are the supervisory bodies, responsible for the effective and efficient execution of the project actions, deliverables and benefits in a specific city. The Sharing Cities City Project Boards will report to, and are accountable to the Programme Board.

5.4 Each Sharing Cities City Project Board will appoint a City Lead to represent the City in the Programme Board. The City Project Boards will be chaired by the City Leads.

5.5 The **Sharing Cities Sponsoring Group** will ensure that the benefits required from the Sharing Cities Programme are realised. The Sponsoring Group will be chaired by the Senior Responsible Owner.

5.6 The **Sharing Cities Advisory Group** has responsibility for providing a strategic steer to inform and improve the overall direction of the programme which includes reviewing innovations from the work packages and the projects. Membership of the Board is determined by the Sharing Cities Programme Board and Board members will be selected for their expertise and experience across themes relevant to the project.

5.7 The Sharing Cities Advisory Group will be chaired by the **Programme Director**.

5.8 The **Coordinator** is the legal entity acting as the intermediary between the Parties and the Funding Authority. The Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and this Consortium Agreement.

5.9 The **Design Forum** will review products and deliverables within the Sharing Cities programme with a view to identifying and working on interdependencies. The Design Forum will provide the conduit for collaboration with other Horizon 2020 programmes and in general ensure an agile approach to working across the programme that incorporates input from both Work Packages and Cities. The Forum consists of Work Package Leads and Lighthouse City Leads who are represented to provide a city-specific context as appropriate.

5.10 All Terms of Reference for the governance structures can be found on the Programme's Google Drive.

5.11 An outline of the governance structure can be seen below:
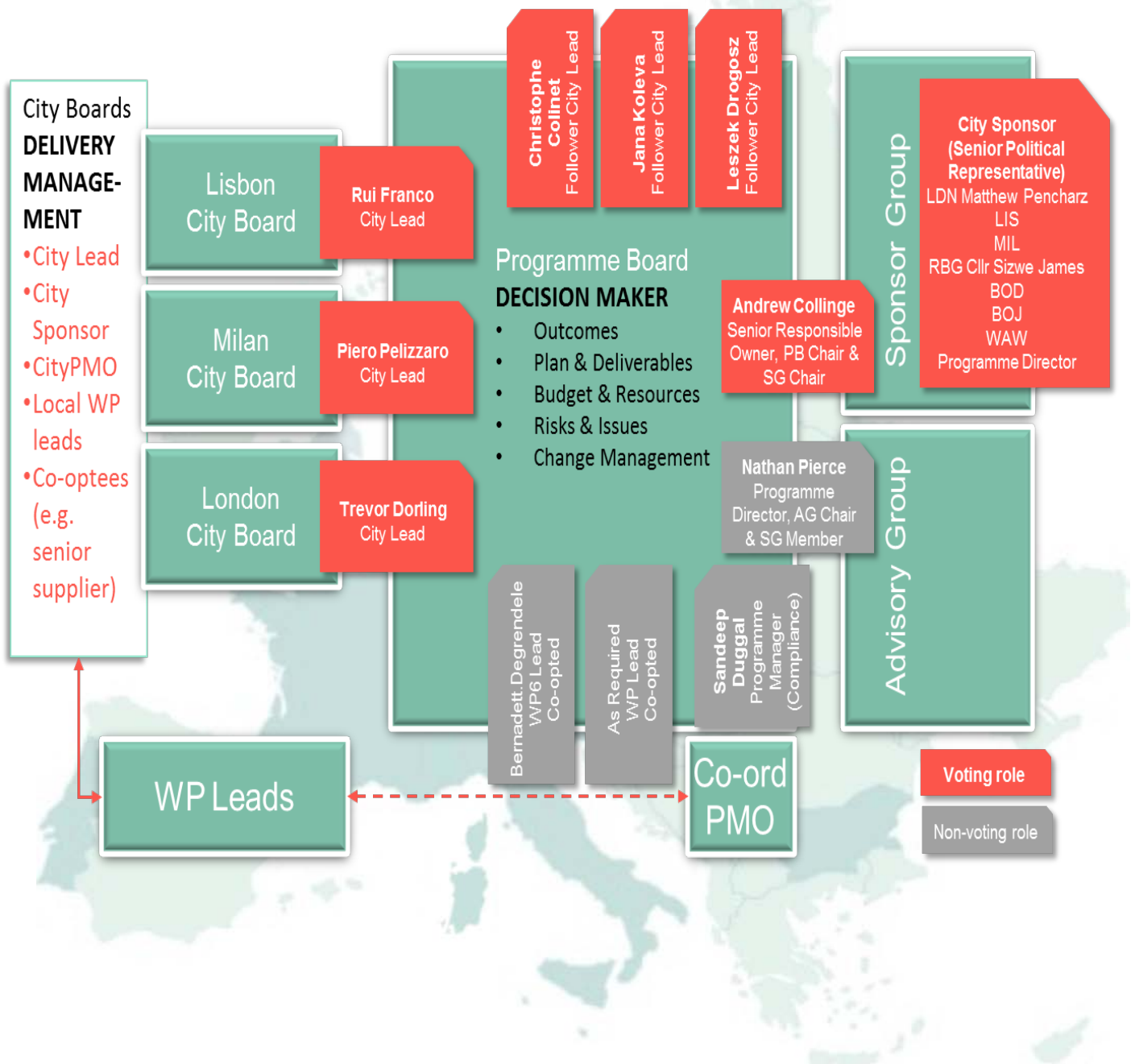
6. ROLES AND RESPONSIBILITIES

Body	Role and Responsibilities
Programme Management Office (GLA)	The legal entity acting as the intermediary between the Parties and the Funding Authority. Ultimately responsible to ensure that actions are implemented properly and to submit high quality deliverables and reports to INEA.
	To direct the programme towards successfully achieving the programme outcomes, goals and aims.
	Effective programme management, in accordance with the current proposal and INEA requirements.
	Effective communication between and support for project partners as well as communication and negotiation with the INEA.
	Scheduling, organising and documentation of programme meetings.
	Quality control assurance of programme and project outputs.
	Effective risk management.
	Preparation and submission of reports and financial statements to INEA respecting the submission deadlines.
Work Package Leads	Execution of Action as set out in annex 1 part B of the Grant Agreement
	Work Packages 2,3 & 4 will deliver the central theme of the programme - testing and delivering the successful integration of physical, digital and human systems in urban settings to deliver sustainable forms of place management and a better future for communities and the people who live in them. Hence, the organisation of our project around the central core work packages of People, Place and Platform.
	Supporting these three Work Packages (WP, 2, 3, & 4), the other Work Packages will ensure successful programme delivery.
Cities	Effective and efficient execution of the project actions, deliverables and benefits in a specific city.
	Programme Board Members (Voting Rights)
	Co-ordination of Local Partners

7. KEY STAKEHOLDERS

7.1 Stakeholders in Sharing Cities are a wide and diverse group and they all have an interest in success of the programme. Our aim is to convert as many stakeholders among the public from ambient 'watchers' into active supporters; equally we should transform Sharing Cities supporters into 'drivers' of change and policy development.

7.2 Below is a high level overview of who the key stakeholders are for the Sharing Cities programme. A more detailed exploration of our key stakeholders can be found in the Sharing Cities Marketing Strategy on the Google Drive.

Policy Makers	City Leaders
	Governments (Local, Regional & National)
	Parliaments (EU & MS)
	European Commission
	Sponsors Group
Influencers	Lighthouse Cities
	SCC01
	EIP
	Advisory Board
	Academics
	Local Partners
Community	Press
	Public
	Local businesses
	Community groups
Followers	Fellow Cities
	Businesses / Investors
	InnovateUK / Funders

8. RISK MANAGEMENT PROCESS

8.1 Successful Programme management and securing our Audacious Goals and outcomes requires vigilance and timely action against the realisation of programme risks. Programme risks may be related to a variety of causes including change within scope of work packages and or tasks, solution development as well as external factors such as changes to resource profile and dependencies. Managing and monitoring risk is a key activity of City Boards and the Programme Board.

8.2 An Issues & Risks Register will be used to capture and actively manage risks (before they become issues), and issues and partners will be required to participate in the Risk Management strategy by raising risks and issues and actively implementing mitigation measures to reduce the likelihood and impact of any risk.

HOW TO RAISE A RISK

8.3 The PMO will be responsible to maintain a programme level risk register which will be available to review by all partners on the Programme's Document storage facility on Google Docs.

8.4 Risks may be raised by Cities (Core/fellow), Work Package Leads or PMO and a moderation of all risks submitted will be undertaken by the PMO to assess validity, demotion, promotion and shift to issue status of a risk.

8.5 Risks should be managed by City Boards where locality based and Work Package Leads where Work Package based. Programme Board will be responsible for the risk management of any risks that are considered transversal.

8.6 Any risks assessed by PMO as amber or red will be escalated to the Programme Board to assess and consider mitigation strategies. The Risk register will be reviewed by the Programme Board no less than quarterly.

8.7 Any partner may raise new risks or provide updated information (following mitigation) on existing risks by completing a Risk and Issues Reporting Tool which should be submitted to the PMO.

8.8 Partners may also raise risks and or issues on their Monthly Update Reports. The top risks and/or issue should be raised here for programme Board review.

8.9 It should be noted that all risk and/or issues should be raised through the channels prescribed above. Any deviance from the process set out seriously impacts the PMOs and the Programme's risk management to operate effectively

ASSESSING RISK RAG STATUS AND THREAT LEVEL (PROXIMITY)

8.10 The following matrix is used to calculate a risk's RAG rating:

LIKELIHOOD			
high	AMBER	RED	RED
medium	GREEN	AMBER	RED
low	GREEN	GREEN	AMBER
IMPACT	low	medium	high
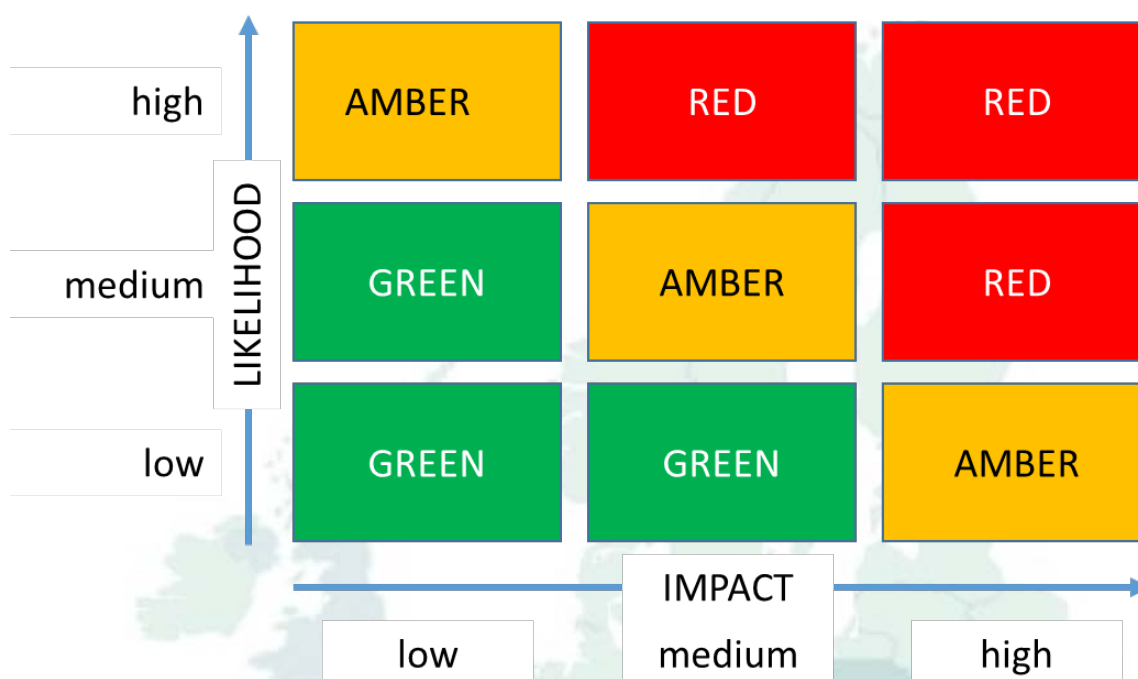
8.11 The following table is used to measure the proximity or timing of a risk threat level:

PRESENT	**The risk is already present and is likely to continue until mitigated or accepted**
IMMINENT	**The risk may occur within the next three months**
CLOSE	**The risk may occur within the next twelve months**
REMOTE	The risk may occur within the lifetime of the programme

HOW TO RAISE AN ISSUE

8.12 The PMO will be responsible to maintain a programme level issues register which will be available to review by all partners on the Programme's Document storage facility on Google Docs.

8.13 Issues may be raised by any partner, individuals or whistle blowers to City Board, Work Package Leads or directly to PMO.

8.14 All issues will be escalated to the Programme Board by PMO and it will be this body's responsibility to manage serious cases. All other issues not deemed by PMO to be critical will be managed by the City or Work Package Leads. An annual report will be produced of issue resolution.

8.15 Issues should be flagged to the PMO by completing a Risk and Issues Reporting Tool which should be submitted to the PMO. Partners also have the option to include new issues they wish to be escalated to the Design Forum and Programme Board on their Monthly Update Report.

REVIEW PROCESS

8.16 All risks and issues submitted through the official process will be reviewed by the PMO at monthly Risk and Issues Workshops. Amber and Red risks will be selected for additional scrutiny which may involve the PMO contacting the risk owner for additional information on the risk or issue.

8.17 All new risks assessed to be a threat to the programme will be reviewed by the Design Forum to ensure that the mitigation strategy has been well developed.

8.18 All Programme risks that are deemed as Amber and Red will be presented to the Programme Board for review.

8.19 All issues will be presented to the Programme Board for review.

9. QUALITY MANAGEMENT PROCESS

9.1 It is a fundamental prerequisite for the successful and effective delivery of the Sharing Cities programme that all of its activities and deliverables are subject to quality assurance (QA) and quality control (QC). Deliverable 1.3 - Quality Management Strategy (QMS) is in place to establish the principles and process within which QA and QC will take place. This PMP provides an extract of the QMS. For more detailed instruction please refer to the document directly.

9.2 The Sharing Cities Grant Agreement sets out a high-level quality control and assurance process as follows:

9.3 Work Package (WP) Leads are responsible for quality control mechanisms within their WP.

9.4 The Co-ordinator (i.e. the Programme Management Office (PMO)) will prepare a quality manual which will include essential guidelines for ensuring internal quality of Deliverables and management procedures.

9.5 All Deliverables will be reviewed internally by the WP Lead, followed by a final review by the PMO prior to the Deliverable being sent to INEA or published.

9.6 QA and QC should ensure the successful and effective delivery of the Sharing Cities deliverables, objectives, and ten ambitious goals by:
- Ensuring that all deliverables and outputs are fit for purpose and produced in a consistent way, in accordance with relevant and agreed standards
- Enabling information and learning to be shared across all Sharing Cities consortium members and facilitating effective dissemination outside of the consortium as appropriate
- Ensuring that deliverables and outputs are aligned to take into account interdependencies between WPs and cities
- Supporting and enabling continuous improvement of agile programme delivery

9.1 Being a continuous process throughout the life of the Sharing Cities programme. The Quality Management Strategy is designed to:
- Clarify roles and responsibilities in relation to QA and QC
- Establish a framework which allows for WP Leads to quality assure the work of their WP and establish QA as an integral part of their day to day activities
- Ensure that the Sharing Cities programme deliverables and products are fit for purpose and contribute effectively to the achievement of the programme's aims

- Ensure that the Sharing Cities Deliverables comply with the requirements of the European Commission in that they:
- Contribute to the implementation of the Sharing Cities programme;
- Support the Sharing Cities programme to deliver its aims and objectives (including its 10 ambitious goals); and
- Are of continuing scientific and technical relevance to the Sharing Cities programme and the wider H2020 Smart Cities agenda.
- Establish tools that support the implementation of the strategy, including a programme-level review schedule setting out minimum timescales for QC prior to approval
- Ensure that written Deliverables are fit for purpose to be published on the European Commission's website, and that they are understandable and useful for any interested parties.

9.8 The QMS process is set out in the diagram below. For more information please see the QMS Strategy on the Google Drive
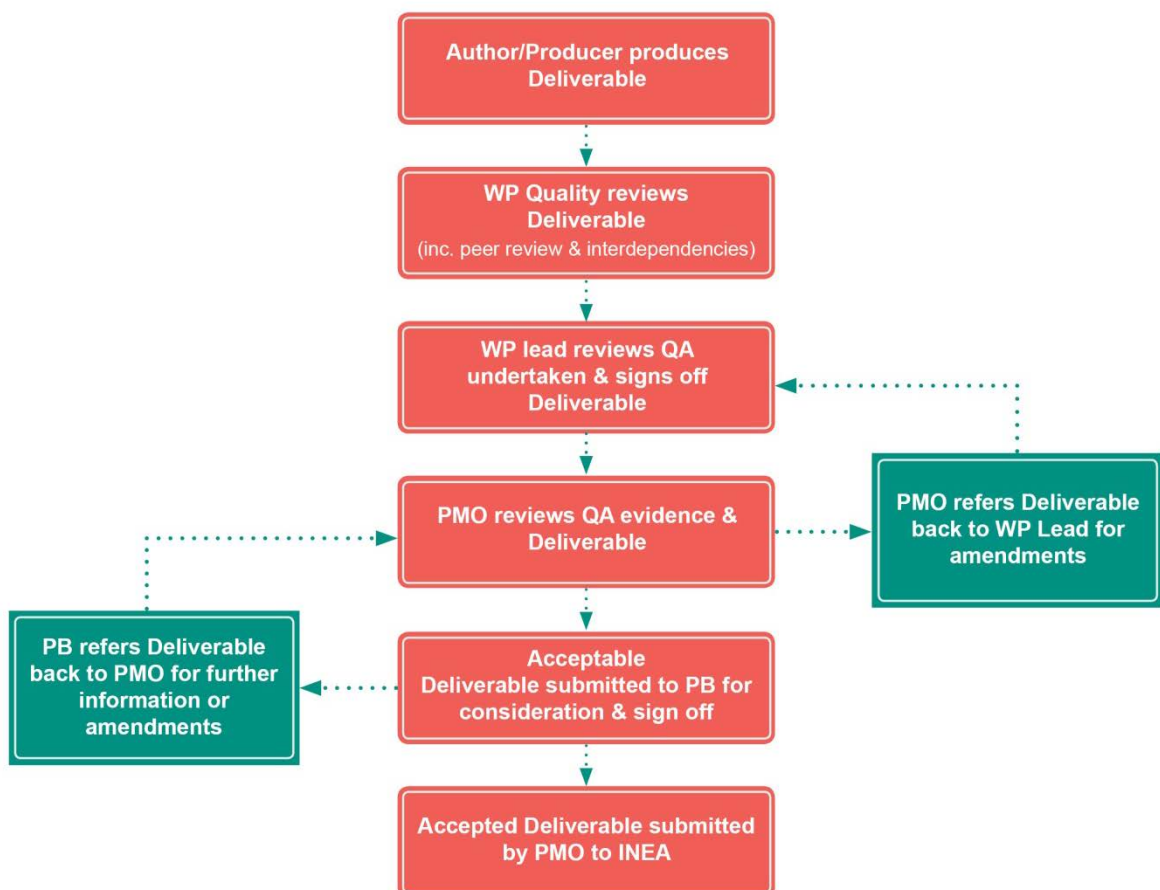
10. OVERVIEW OF DELIVERABLES

Deliverable	Title	Lead Partner	Month Due
D1.1	D1.1. Minutes of the project meetings	GLA	1
D1.2	Project Management Plan	GLA	11
D1.3	Quality Assurance Plan	GLA	2
D1.4	Interim technical and financial reports	GLA	18
D1.5	Final technical and financial reports	GLA	60
D1.6	Risk Assessment Plan	GLA	2
D1.7	Risk management register	GLA	1
D1.8	Risk Management Report	GLA	60
D1.9	D1.9. Minutes of the project meetings	GLA	11
D1.10	D1.10. Minutes of the project meetings	GLA	14
D1.11	D1.11. Minutes of the project meetings	GLA	20
D1.12	D1.12. Minutes of the project meetings	GLA	26
D1.13	D1.13. Minutes of the project meetings	GLA	32
D1.14	D1.14. Minutes of the project meetings	GLA	38
D1.15	D1.15. Minutes of the project meetings	GLA	44
D1.16	D1.16. Minutes of the project meetings	GLA	50

D1.17	D1.17. Minutes of the project meetings	GLA	56
D1.18	D1.18. Minutes of the project meetings	GLA	60
D2.1	Methods Book of existing and next stage customer insight and engagement methods	FCC	13
D2.2	Report on Community Engagement Hubs	FCC	13
D2.3	District Bond design, suitable for replication	FCC	18
D2.4	Governance structures, business models, and contractual arrangements which form the basis of the Digital Social Marketplace	FCC	48
D2.5	Portfolio of co-designed Urban Services	FCC	30
D2.6	A process to support creation of urban services in follower/scale-up cities	FCC	24
D2.7	Renovation or construction of spaces to act as community hubs	FCC	30
D2.8	Urban Services Platform	FCC	36
D2.9	Captured data structures and user interface examples	FCC	42
D2.10	Cohort of Community Facilitators	FCC	12
D3.1	Local energy production	LBN	18
D3.2	Case study capture of Building Retrofit, including discussion on experience in different building types and energy efficiency performance	Teicos	48
D3.3	Business Model Guide based on implementations in the 3 districts	CdM	50
D3.4	Scope of learning, tools decision support document.	GLA	36

D3.5	Documented technical, uses cases and financial architecture of the systems for each district and evaluation of the relative merits - part 1	GLA	30
D3.6	SEMS Insight Report	GLA	54
D3.7	Development of an integrated energy / mobility performance dashboard to calibrate city achievements and support assessment and justification of action in exploitation cities	CEiiA	24
D3.8	Document the various integrated mobility measures in each district, addressing technical, human, and financial aspects - Part 1	CEiiA	30
D3.9	Component-based design	UrbanDNA	15
D3.10	Potential smart lamppost fast-track standard – 'management framework'	UrbanDNA	24
D3.11	Installation of Smart Lampposts multi sensors to begin in the three demonstrator areas.	UrbanDNA	12
D3.12	Case study of demand aggregation and associated governance & decision making, technical, business model, procurement, funding factors	UrbanDNA	18
D3.13	Documented technical, uses cases and financial architecture of the systems for each district and evaluation of the relative merits - part 2	GLA	48
D3.14	Document the various integrated mobility measures in each district, addressing technical, human, and financial aspects - Part 2	CEiiA	60
D3.15	Publishable report on the implementation of WP3 by the technical lead, highlighting activities that have taken place, risks encountered, corrective actions taken and lessons learned	LBN	60
D4.1	Urban Sharing Platform Requirements	UrbanDNA	11
D4.2	Urban Sharing Platform Reference Model	CEFRIEL	12
D4.3	Urban Sharing Platform Realisation	CEFRIEL	12

D4.4	Report of Urban Sharing Platform Operation	UrbanDNA	24
D4.5	Report of Urban Platform Sharing and Reuse	UrbanDNA	24
D4.6	Urban Sharing Platform Requirements - Update (2)	UrbanDNA	18
D4.7	Urban Sharing Platform Requirements - Update (3)	UrbanDNA	30
D5.1	One replication strategy	Eurocities	3
D5.2	One two-day replication training	Eurocities	3
D5.3	One replication training manual	Eurocities	4
D5.4	Six city baseline reports	Eurocities	12
D5.5	3 work shadowing visits	Eurocities	20
D5.6	Three replication roadmaps	Eurocities	22
D5.7	Three mentoring visits in each follower city	Eurocities	31
D5.8	One roadmap implementation report per follower city per year (Year 2 to 4)	Eurocities	48
D5.9	Twenty technical webinars	Eurocities	41
D5.10	Two scientific publications	Eurocities	40
D5.11	Ten technical handbooks	Eurocities	40

D5.12	One practical replication handbook	Eurocities	40
D5.13	National scale-up meetings	Eurocities	24
D5.14	Replication activities in scale-up cities & Peer learning events.	Eurocities	24
D5.15	Webinars about EU funding	Eurocities	24
D5.16	Training about bid writing	Eurocities	24
D5.17	Meetings with funders	Eurocities	24
D5.18	Three Peer Learning Events	Eurocities	21
D6.1	Leaflets (Local Languages)	Eurocities	6
D6.2	D6.2. Project logo and project graphic charter	Eurocities	3
D6.3	Leaflet (English)	Eurocities	6
D6.4	Website	Eurocities	8
D6.5	Twelve Videos & Promotional Video	Eurocities	36
D6.6	Communication Strategy	Eurocities	6
D6.7	Press and media activities (1)	Eurocities	30
D6.8	Events (1)	Eurocities	30

D6.9	INEA common information and dissemination activities	Eurocities	6
D6.10	Press and media activities (2)	Eurocities	42
D6.11	Press and media activities (3)	Eurocities	60
D6.12	Events (2)	Eurocities	42
D6.13	Events (3)	Eurocities	60
D7.1	Measures Exploitation Potential Report	UrbanDNA	12
D7.2	Lighthouse City Needs – a report capturing, per measure, the scope and financing / funding needs for the principal cities; including options where appropriate	UrbanDNA	15
D7.3	Broader EU Scale-Up City Needs – similar to above	UrbanDNA	24
D7.4	Measure – Business Model Workshop	UrbanDNA	12
D7.5	Measure – Business Model Profile Report	UrbanDNA	15
D7.6	Opportunity Matching – Lighthouse Cities	UrbanDNA	15
D7.7	Opportunity Matching – Scale-Up Cities	UrbanDNA	24
D7.8	Funding London Model	UrbanDNA	12
D7.9	Fund Potential London Model	UrbanDNA	15
D7.10	Fund Launch in Principal Cities	UrbanDNA	24
D7.11	Fund Launch National/'Trans-EU'	UrbanDNA	36

D7.12	Scale-Up Report	UrbanDNA	40
D8.1	Common Monitoring and Evaluation Framework	Imperial	12
D8.2	Core and Site Specific Data Collection Protocols	Imperial	17
D8.3	Local Monitoring Programme Design	Imperial	18
D8.4	Monitoring Programme Data Reports	Imperial	24
D8.5	Monitoring Programme Analysis Reports	Imperial	27
D8.6	Interim Economic, social and environmental appraisal	Imperial	48
D8.7	Final Economic, social and environmental appraisal	Imperial	60
D8.8	Interim Report on Model Toolbox	Imperial	24
D8.9	Final Report on Model Toolbox	Imperial	51

11. BUDGET OVERVIEW

11.1 Below is a high level overview of the Haring Cities Budget as approved by Programme Board on 16th October 2016

Programme Budget by Partner								
Partner	Direct Personnel	Sub contracting	Other Direct Costs	Indirect Costs	Specialist Unit Cost	Total	Reimbursement rate %	Max Grant Amount
GLA	1,705,155.00	50,000.00	208,600.00	478,438.75	0.00	2,442,193.75	100.00	2,442,195.55
UrbanDNA	648,942.00	0.00	11,400.00	165,085.50	0.00	825,427.50	70.00	577,799.25
EUROCITIES	482,800.00	0.00	393,850.00	219,162.50	0.00	1,095,812.50	100.00	1,095,812.50
FCC	711,335.20	0.00	52,000.00	190,833.75	0.00	954,168.75	100.00	954,168.75
Imperial	578,042.00	0.00	106,616.00	171,164.50		855,822.50	100.00	855,822.50
Total Tranversal	4,126,274.20	50,000.00	772,466.00	1,224,685.00	0.00	6,173,425.00		5,925,798.55
CML	492,000.00	169,055.00	707,492.00	299,873.00	1,009,281.00	2,677,701.00	100.00	2,677,701.00
E-Nova	367,158.00	80,000.00	58,530.00	106,422.00	0.00	612,110.00	100.00	612,110.00
EMEL	200,040.37	135,000.00	105,845.50	76,471.47	0.00	517,357.34	70.00	362,150.14
IST	336,630.00	0.00	24,500.00	90,282.50	0.00	451,412.50	100.00	451,412.50
Reabilita	146,333.00	0.00	14,600.00	40,233.25	142,140.00	343,306.25	70.00	240,314.38
CEiiA	504,425.00	0.00	47,463.00	137,972.00	0.00	689,860.00	100.00	689,860.00
EDP	576,630.00	95,000.00	121,600.00	174,557.50	0.00	967,787.50	70.00	677,451.25
PT Inov.	779,420.00	0.00	32,700.00	203,030.00	0.00	1,015,150.00	70.00	710,605.00
Total Lisbon	3,402,636.37	479,055.00	1,112,730.50	1,128,841.72	1,151,421.00	7,274,684.59		6,421,604.26
RBG	1,015,779.87	268,158.00	317,434.00	333,303.47	778,632.00	2,713,307.34	100.00	2,713,307.34
Concirrus	372,750.00	0.00	8,400.00	95,287.50	0.00	476,437.50	70.00	333,506.25
Mastadon C	107,404.00	0.00	3,000.00	27,601.00	0.00	138,005.00	70.00	96,603.50
Danfoss	40,645.00	0.00	8,400.00	12,261.25	0.00	61,306.25	70.00	42,914.38
Kiwi	121,500.00	0.00	18,400.00	34,975.00	0.00	174,875.00	70.00	122,412.50
TfL	52,500.00	0.00	8,400.00	15,225.00	0.00	76,125.00	100.00	76,125.00
Siemens UK	536,600.00	0.00	363,400.00	225,000.00	0.00	1,124,999.99	70.00	787,500.00
Total London	2,247,178.87	268,158.00	727,434.00	743,653.22	778,632.00	4,765,056.08		4,172,368.96
CdM	710,830.00	251,836.50	451,820.00	290,662.50	422,436.94	2,127,585.94	100.00	1,870,298.44
PoliMi	479,000.00	25,000.00	54,950.00	133,487.50	0.00	692,437.50	100.00	692,437.50
CEFRIEL	290,000.00	0.00	10,150.00	75,037.50	0.00	375,187.50	100.00	375,187.50
Poliedra	288,100.00	208,000.00	10,150.00	74,562.50	0.00	580,812.50	100.00	580,812.50
LEGAMBIENTE	124,000.00	0.00	20,000.00	36,000.00		180,000.00	100.00	180,000.00
RSE	120,118.00	0.00	5,000.00	31,279.50	0.00	156,397.50	100.00	156,397.50
Kiunsys	47,000.00	0.00	110,500.00	39,375.00	0.00	196,875.00	70.00	137,812.50
NHP	236,000.00	0.00	481,050.00	179,262.50	0.00	896,312.50	70.00	627,418.75
Teicos	470,050.00	0.00	153,500.00	155,887.50	1,558,570.00	2,338,007.50	70.00	1,636,605.25
A2A	205,000.00	35,000.00	176,750.00	95,437.50		512,187.50	70.00	358,531.25
Siemens IT	420,000.00	0.00	60,600.00	120,150.00		600,750.00	70.00	420,525.00
Total Milan	3,390,098.00	519,836.50	1,534,470.00	1,231,142.00	1,981,006.94	8,656,553.44		7,036,026.19
Bordeaux	308,880.00	0.00	32,500.00	85,345.00		426,725.00	100.00	426,725.00
Warsaw	201,907.00	29,400.00	33,000.00	58,726.75		323,033.75	100.00	323,033.75
Burgas	142,480.00	150,000.00	36,500.00	44,745.00		373,725.00	100.00	373,725.00
Instytut Energetyki	52,800.00	0.00	7,111.40	14,977.85		74,889.25	100.00	74,889.25
Total Fellow	706,067.00	179,400.00	109,111.40	203,794.60	0.00	1,198,373.00		1,198,373.00
TOTAL	**13,872,254.44**	**1,496,449.50**	**4,256,211.90**	**4,532,116.53**	**3,911,059.94**	**28,068,092.11**		**24,754,170.96**

12. FINANCIAL MANAGEMENT

PARTNER RESPONSIBILITY

12.1 All partners must ensure that any project related costs meet the criteria of 'Eligible Costs' as outlined in the Grant Agreement. Each Partner is solely responsible for justifying all project related costs to the European Commission. Neither the GLA nor any other Partner will in any way be liable or responsible for such justification of costs Partners must refer to the Grant Agreement and Consortium Agreement to ensure that they are meeting their financial obligations.

12.2 All partners should familiarise themselves with their 'Rights and Obligations' under the Grant Agreement.

12.3 It is important to note that the budget in Annex 2 of the Grant Agreement is estimation and therefore at the time of reporting, partners may declare costs that are different from the estimated eligible costs in the budget.

REPORTING PERIODS

12.4 The action is divided into the following 'reporting periods':
- RP1: from month 1 to month 12
- RP2: from month 13 to month 24
- RP3: from month 25 to month 42
- RP4: from month 43 to month 60

THE INTERIM CLAIM PROCESS

12.5 PMO must submit a periodic report within 60 days following the end of each reporting period. The periodic report must include the following:

(a) a 'periodic technical report' containing:

(i) an explanation of the work carried out by the beneficiaries;

(ii) an overview of the progress towards the objectives of the action, including milestones and deliverables identified in Annex 1.

12.6 This report must include explanations justifying the differences between work expected to be carried out in accordance with Annex 1 of the Grant Agreement and that actually carried out. The report must also detail the exploitation and dissemination of the results and — if required in Annex 1 — an updated 'plan for the exploitation and dissemination of the results';

(iii) a **summary** for publication by the *Agency*;

(iv) the answers to the '**questionnaire**', covering issues related to the action implementation and the economic and societal impact, notably in the context of

the Horizon 2020 key performance indicators and the Horizon 2020 monitoring requirements;

(b)   a '**periodic financial report**' containing:

(i) an '**individual financial statement**' (see Annex 4 of Grant Agreement) **from each beneficiary and from each linked third party**, for the reporting period concerned. The individual financial statement must detail the eligible costs (actual costs, unit costs and flat-rate costs; for each budget category.

12.7 The beneficiaries and linked third parties must declare all eligible costs, even if — for actual costs, unit costs and flat-rate costs — they exceed the amounts indicated in the estimated budget (see Annex 2 of the Grant Agreement). Amounts which are not declared in the individual financial statement will not be taken into account by INEA.

12.8 If an individual financial statement is not submitted for a reporting period, it may be included in the periodic financial report for the next reporting period.

12.9 The individual financial statements of the last reporting period must also detail the receipts of the action.

12.10 Each beneficiary and each linked third party must certify that:

- the information provided is full, reliable and true;
- the costs declared are eligible
- the costs can be substantiated by adequate records and supporting documentation that will be produced upon request or in the context of checks, reviews, audits and investigations, and
- for the last reporting period: that all the receipts have been declared

(ii) an explanation of the use of resources and the information on subcontracting and in-kind contributions provided by third parties from each beneficiary and from each linked third party, for the reporting period concerned;

(iii) a 'periodic summary financial statement', created automatically by the electronic exchange system, consolidating the individual financial statements for the reporting period concerned and including — except for the last reporting period — the request for interim payment.

12.11 All claims should be made in Euros and partners and linked third parties with accounting established in a currency other than the Euro should convert the costs recorded in their accounts into euro, at the average of the daily exchange rates published in the C series of the Official Journal of the European Union (https://www.ecb.int/stats/exchange/eurofxref/html/index.en.html), calculated over the corresponding reporting period.

12.12 If no daily euro exchange rate is published in the Official Journal of the European Union for the currency in question, costs must be converted at the average of the monthly accounting rates published on the Commission's website, calculated over the corresponding reporting period.

INVOICE PROCEDURE

12.13 INEA will pay to the coordinator the amount due as interim payment within 90 days from receiving the periodic report.

12.14 The GLA's supplier registration and payment functions are administered by Transport for London (TfL). Partners are required to register as a supplier on TfL's payment system (BravoSolution). Partners will only be required to register once (during pre-payment stage). If any changes to the banking details provided are required, please contact the PMO.

12.15 Once the pre-payment/ interim payment has been received from INEA, the PMO will raise purchase orders for each partner's claim and will request the submission of an invoice/request for payment from partners. No payment can be made until a correctly formatted invoice has been submitted to PMO.

12.16 Invoices should contain the following details and be printed on the headed paper:
- The name and address of your organisation (if this is not already on the organisation's headed paper)
- Our name and address as follows: Sandeep Duggal, Delivery Unit, Greater London Authority, City Hall, The Queen's Walk, London, SE1 2AA, UK
- The Purchase Order number (to be supplied to the registered contact by the payment system and confirmed by PMO)
- A contact name, phone number and email of someone in your organisation who can help with any enquiries about the invoice
- A short description of what the payment is for (e.g. "Sharing Cities pre-payment grant request")
- The amount requested (in Euro and excluding VAT as this is a grant payment).
- Your bank account details (bank name, account number, and sort code

REQUIREMENT TO KEEP RECORDS AND TIMESHEETS

12.17 Partners must keep records and other supporting documents for a period of five years after the payment of the balance in order to prove the proper implementation of the action and the costs they declare as eligible.

12.18 To evidence Direct Personnel Costs Partners must keep time records for the number of hours declared. The time records must be in writing and approved by the persons working on the action and their supervisors, at least monthly.

12.19 As an exception, for persons working exclusively on the action, there is no need to keep time records, if the beneficiary signs a declaration confirming that the persons concerned have worked exclusively on the action.

12.20 A timesheet template can be found on the Programme Google Drive – PMO Resources.

FINANCIAL TRANSFERS PERMITTED BY INEA

12.21 The budget in Annex 2 of the Grant Agreement is an estimation and therefore at the time of reporting, partners may declare costs that are different from the estimated eligible costs in the budget.

12.22 Partners may transfer budget among themselves, between linked third parties or between budget categories, without requesting an amendment (unless Annex 1 of the Grant Agreement must be changed).

12.23 Partners cannot transfer budget to a form of costs that has not been foreseen in Annex 2.

12.24 New subcontracts — the transfer of budget intended to increase the eligible costs for 'subcontracting' is considered a significant change of Annex 1. This normally requires an amendment. Partners may use a 'simplified approval procedure' (change declared at the next periodic report) without formal amendment provided however the partner bear the full risk of non-approval and rejection by the Commission/Agency.

12.25 Partners cannot shift budget between Special Unit Costs and any other category without an amendment

12.26 It is important to note that the Grant Agreement allows transfers of   budget, not of tasks.

13. REPORTING AND COMMUNICATION

13.1 A primary method of reporting progress, risks and issues is through the monthly report, which is submitted by work package and city leads to the PMO and is informed by local and task leads. While bilateral and informal contacts are important and helpful, formal communications are necessary to track and audit progress.

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┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│ local leads │ ───▶ │  city leads │      │  task leads │
└─────────────┘      └─────────────┘      └─────────────┘
                            │                    │
                            ▼                    ▼
┌─────────────┐      ┌─────────────┐      ┌─────────────┐
│     pmo     │ ◀─── │   monthly   │ ◀─── │   WP leads  │
│             │      │   report    │      │             │
└─────────────┘      └─────────────┘      └─────────────┘
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13.2 The PMO analyses the reports in order to prioritise risks and issues and develop these as a part of the partnership-wide Design Forum conversations each month.

13.3 The monthly report is based on a template supplied by the PMO. The template allows the city and work package leads to report on identified risks and issues and raise new risks and issues. The monthly report is designed to be light weight to avoid becoming a distraction, but still provide the opportunity to expand on detail where necessary.

13.4 This formal process of reporting is supported by more informal conversations between partners, city forums, work package meetings, and general meetings of the consortium. While communications should not be rigid, nevertheless a formal process of communications around risks, issues and subsequent changes is necessary to ensure good programme discipline

14. CHANGE MANAGEMENT

14.1 Change Control is the process of managing and controlling changes to the Sharing Cities Programme and deliverables. A separate process (Technical Design) applies to products, including the Urban Sharing Platform, data etc. at the Work Package level.

14.2 The purpose of managing and making change requests is;

1. To maintain a central log of potential changes

2. To establish prioritisation of the potential changes

3. To carry out a formal impact assessment of the potential change against the Programme Plan, Consortia Agreement and the Grant Agreement

4. To assess the impact of change on the risks to the Programme, the benefits and outcomes and to the Audacious Goals

5. To take decisions at the appropriate level (Work Package, City Board, Programme Board, Commission)

6. To create and maintain and audit trail

7. To manage communication of the potential change, decision, and outcome across the relevant stakeholders

14.3 Each Work Package Lead is responsible for change control within their work package. Where changes may or do have an impact outside of the work package, either on other work packages or at the city level, or at the Programme level the Work Package Lead must raise those with the Programme Management Office (PMO) using this process.

THE PROCESS FOR RAISING A CHANGE REQUEST

14.4 Any partner may raise a query with regard to a change.

14.5 In the first instance the query must be referred to the relevant Work Package Lead/s,

14.6 If the Work Package Lead believes that the change would impact another Work Package, a City or Cities, or the Programme s/he will complete the change request template.

14.7 The template requires the Work Package Lead to communicate the change proposal to the relevant and impacted parts of the Programme.

14.8 The completed change control request is then submitted to the PMO.

THE PROCESS FOR APPROVING CHANGE REQUESTS:

14.9 The PMO will assess the request's validity and will be responsible to navigate the request through the approval process. The requestor will be issued a Change Control Reference number which should be quoted on all correspondence.

14.10 The requestor may be required to provide additional information upon the request of PMO.

14.11 In line with the programme's governance structure, all requests for change will be referred to the Programme Board as the Programme's ultimate decision making authority. The Programme Board will make the final decision based upon the information provided.

14.12 The Sponsor Group will be consulted if the change impacts a city.

14.13 Where the impact of any change is significant in terms of agreed outcomes & commitment with the European Commission, the Senior Responsible Officer (SRO) will inform the Commission.

14.14 The PMO will manage the Commission approval process and ensure any parallel GLA processes are observed and legal & finance advice sought as appropriate.
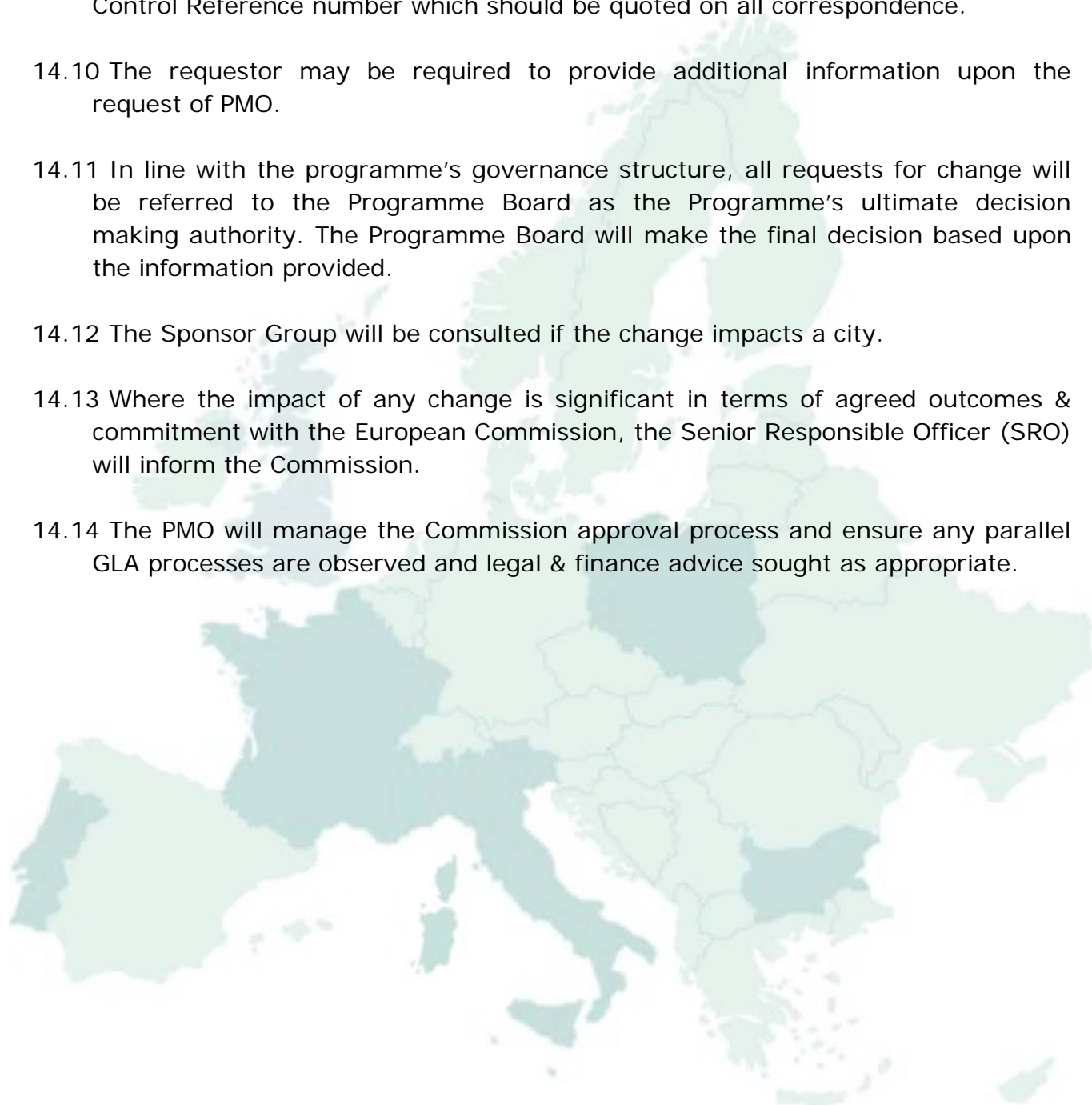
15. PROGRAMME PLAN

15.1 It is the responsibility of all work package and city leads to ensure that they have adequate programme plans in place and that they are frequently updated with any changes being reflected.

15.2 PMO may request that Work Package and City Leads share their plans in order to feed into a high level Programme Plan which PMO will maintain.

15.3 The high level Programme Plan is attached as Appendix 1. This will be maintained on the Google Drive along with the all other programme plans and updated on a regular basis.

Annex 1- High Level Programme Plan

Sharing Cities Programme Plan by Work Packages

Task/Deliverables	Year 1												Year 2												Year 3												Year 4												Year 5											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

WP1 PMO

Task 1.1. Coordination and general management
M01 - Project initiation
D1.1 Minutes of the project meetings
Programme Management Office Set Up
D1.2 Project Management Plan
Constitution of the Constitution of the Steering Committee (M02)
Consortium Agreement
Programme Management systems in place (Liquid Planner & Google Drive)
Meeting Schedules for work packages and cities
Risk Register Distributed to WP and City Leads
Project Documentation, processes and guidelines issued
High level programme plan
Suppliers Registered on SAP
Pre payments
Brief on INEA reporting requirements
Request for Interim Payments (periodic report)
Budget & Resource Review
Design Authority
M09 - Completion of the project
Task 1.2. Quality Control Assurance
M05 - Definition of the quality assurance plan
D1.3 Quality Assurance Plan
Quality Assurance Monitoring
Task 1.3 Technical Progress Monitoring
D1.4 - Interim technical and financial reports
D1.5 - Final technical and financial reports
Task 1.4. Consortium Meetings and Programme Boards
M1 Kick-Off Meeting
M3 Programme Board
M6 Consortia Board (Burato)
M9 Programme Board
M9 Programme Board
M12 Consortia Board Milan
M12 Programme Board
M15 Programme Board
M18 Consortia Board Brussels
M18 Programme Board
M21 Programme Board
M24 Consortia Board Warsaw
M24 Programme Board
M27 Programme Board
M30 Programme Board
M30 Consortia Board Lisbon
M33 Programme Board
M36 Consortia Board Bordeaux
M36 Programme Board
M39 Programme Board
M42 Consortia Board City TBD
M42 Programme Board
M45 Programme Board
M48 Programme Board
M48 Consortia Board London
M51 Programme Board
M54 Consortia Board City TBD
M54 Programme Board
M57 Programme Board
M60 Consortia Board Brussels
M60 Programme Board
Task 1.5. Risk management
D1.6 Risk Assessment Plan
D1.7 Risk management register
M04 - Completion of the risk assessment and mitigation procedures set out
D1.8 Risk Management report
D1.9 Record of the Programme Consortium minutes (M6)
D1.10 Record of the Programme Consortium minutes (M12)
D1.11 Record of the Programme Consortium minutes (M18)
D1.12 Record of the Programme Consortium minutes (M24)
D1.13 Record of the Programme Consortium minutes (M30)
D1.14 Record of the Programme Consortium minutes (M36)
D1.15 Record of the Programme Consortium minutes (M42)
D1.16 Record of the Programme Consortium minutes (M48)
D1.17 Record of the Programme Consortium minutes (M54)
D1.18 Record of the Programme Consortium minutes (M60)
D1.19 Programme Lean Diagram

WP2 People

Task 2.1. Catalyse current landscape
D2.1. Methods book of existing and next steps customer insight and engagement methods
D2.2 Report on Community Engagement Hubs
Task 2.2. Develop the 'Digital Social Market' strategy
D2.3. District Bond design: suitable for realization
D2.4. Governance structures, business models, and contractual arrangements which form the basis of the digital social marketplace
Task 2.3. Co-design urban services
D2.5. Portfolio of co-designed Urban Services
D2.6. A process to support creation of urban services in follower/scale-up cities
D2.7. Reminder/or construction of spaces to act as community hubs
Task 2.4. Build and deploy the service layer
D2.8. Urban Services Platform
D2.9. Captured data structures and user interface examples
Task 2.5. Ongoing Facilitation, Iteration and Dissemination
D2.10 - Cohort of Community Facilitators

WP3 Place

Task 3.1. Building Retrofit
D3.1. Use and realization of the 'Solar Potential Chart' in all principal districts
D3.2. Case study capture of Building Retrofit, including discussion on experience in different building types and energy efficiency performance
D3.3. Business Model Guide based on implementations in the 5 districts
Task 3.2 Sustainable Energy Management Systems
D3.4. Dashboards, decision support systems produced for operating and engaging with the systems
D3.5. Documented technical, uses cases and financial architecture of the systems for each district and evaluation of the relative merits
D3.5.1. Documented technical, uses cases and financial architecture of the systems for each district and evaluation of the relative merits. Part 2
D3.6. Data Insights Report, addressing experiences on availability, quality, security and management of energy related data.
Task 3.3 Shared eMobility
D3.7. Development of an integrated energy / mobility performance dashboard to calibrate city achievements and support assessment and justification of action in exploitation cities. (Potentially in collaboration with an appropriate industry association / network)
D3.8. Documented the various integrated mobility measures in each district, addressing technical, human, and financial
D3.8.1. Documented the various integrated mobility measures in each district, addressing technical, human, and financial aspects (Part 2)
Task 3.4 Smart Lampposts
D3.9. Component based design (in collaboration with, test beds for, national & ISP initiatives)
D3.10. Potential smart lamppost fast-track standard – 'management framework' (in collaboration with BSI or CEN)
D3.11. Sidmart Lamppost multi-sensor demonstrators
D3.12. Case study of demand aggregation and associated governance & decision making, technical, business model, procurement, funding factors

WP4 Platform

Task 4.1 City Requirements Gathering
Task 4.2. Co-Development of the Urban Sharing Platform Reference Architecture
Task 4.3. Build the Urban Sharing Platform
Task 4.4. Operate and Govern the Urban Sharing Platform
Task 4.5. Share and Extend the Urban Sharing Platform

WP5 Replication

Task 5.1. Replication strategy and roadmap
D5.1. One replication strategy
D5.2. One two-day replication training
D5.3. One replication training manual
D5.4. Three city baseline reports
D5.5. At least 3 week shadowing visits
D5.6. Three replication roadmaps
Task 5.2 Implementation of the replication roadmaps
D5.7. Three mentoring visits in each follower city
D5.8. One roadmap implementation report per follower city per year
Task 5.3 Capacity building activities
D5.9. Twenty technical webinars
D5.10. Two scientific publications
D5.11. Ten technical handbooks
D5.12. One practical replication handbook
Task 5.4 Realisation activities in scale-up cities
D5.13 National scale-up meetings
D5.14 Replication workshops I
Task 5.5 Dialogue with funders
D5.15 Webinars about EU funding programmes
D5.16 Training about bid writing
D5.17, D5.17 Webinars with funders and banks
D5.18 Three year learning visits

WP6 Communications

Task 6.1. Communication and dissemination strategy
D6.1. Communication, dissemination and media strategies
Task 6.2. Visual Identity toolkit
D6.2. Project logo and project graphic charter
Task 6.3 Promotion tools
D6.3. Leaflet
Task 6.4 Digital communication tools
D6.4. Website
D6.5. Twelve videos (tutorials and infographics)
Task 6.5 Press and media activities
D6.6. Media and social media strategy
D6.7. At least 30 press releases and articles published
Task 6.6 Events
D6.8. Events (national, European, international level)
D6.9. Contribute, upon invitation by the INEA, to common information and dissemination activities to increase synergies between, and the visibility of H2020 supported actions

WP7 Business Models

Task 7.1. Profile Measures
D7.1. Measures Exploitation Potential Report
Task 7.2 Assess Need
D7.2. Lighthouse City Needs – a report capturing, per measure, the scope and financing / funding needs for the principal cities including options where appropriate
D7.3. Broader EU Scale-Up City Needs – similar to above
Task 7.3. Research Potential Business Models
D7.4. Measure – Business Model Workshop
D7.5. Measure – Business Model Profile Report
Task 7.4. Matching Process
D7.6. Opportunity Matching – Lighthouse Cities
D7.7. Opportunity Matching – Scale-Up Cities
Task 7.5. Package the London Funding Model
D7.8. Funding London Model
Task 7.6. Assess Potential within Principal Cities
D7.9. Fund Potential London Model
Task 7.7. Implementation of City-Level Smart City Funds
D7.10. Fund Launch in Principal Cities
D7.11. Fund Launch National 'There #1'
Task 7.8. SME / Scale-Up Businesses
D7.12. Scale-Up Report (anticipated as authored with Advisory Board member Sherry Coutu who authored the UK Scale-Up report)

WP8 Evaluation

Task 8.1 Common Monitoring and Evaluation Framework
D8.1. Common Monitoring and Evaluation Framework
Task 8.2 Development of Core and Site Specific Data Collection Protocols
D8.2. Core and Site Specific Data Collection Protocols
Task 8.3 Design Implement and Maintain Core and Site Specific Monitoring Programme
D8.3. Local Monitoring Programme Design
D8.4. Monitoring Programme Data Reports
Task 8.4 Analysis of Monitoring Data
D8.5. Monitoring Programme Analysis Reports
Task 8.5 Economic, Social and Environmental Appraisal
D8.6. Interim Economic, social and environmental appraisal
D8.7. Final Economic, social and environmental appraisal
Task 8.6 Development and Application of Up-scaling and realisation Toolbox
D8.8. Interim Report on Model Toolbox
D8.9. Final Report on Model Toolbox