



## **Deliverable 6.3**

# **Final Exploitation & Legacy Plan**

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# 1 Executive summary

This deliverable D6.3 presents the Exploitation and Legacy Plan for the tools and guides produced by the MORE consortium members which are aimed at professional audiences. Its objective is to identify the exploitation activities in order to achieve the during and after-project desired impacts. By “exploitation”, we refer to the technical knowledge to be made available. Exploitation differs from “dissemination”, which is part of Work Package 7.

The strategy translates into this Final Exploitation & Legacy Plan (FELP), which provides potential opportunities for exploiting the MORE tools in Europe and beyond. This plan

- Presents the overall approach of MORE and the subsequent tools that have been developed.
- Provides key messages to reach out to potential beneficiaries.
- Is based on a list of target groups and market monitoring analysis and synergies with other EU funded projects.
- Identifies a description of actions for exploitation and legacy.

This deliverable up-dates the D6.2 Interim Exploitation Plan, so that it incorporates the latest achievements of MORE. This deliverable complements the Deliverable D.6.5. called Product Fact Sheets (PFS) and is aligned with the Dissemination and Communication Strategy (D7.1).

# 2 Introduction

## 2.1 About MORE

MORE is a comprehensive study of the allocation of space to different uses in urban roads. The project is underlined by two main ideas:

1. Urban roads have a large variety of users, each with different needs, and using the road in various ways. Two functions of the road can be identified: one is almost always acknowledged (“movement”) and another tends to be forgotten (“place”). The place function includes vehicle-based activities (e.g. parking, loading) and people-based activities (e.g. waiting for buses, window shopping, sitting).
2. Road uses have positive and negative impacts, not only on their users but also on the wider economic, social, and environmental context, affecting not only the buildings and public spaces fronting the road, but also the whole city. Urban street planning, design, management and operation can play a role in contributing to most urban policy objectives.

Most of the possible interventions that are covered in this project are about **reallocating public space on sections of urban streets that connect to the TEN-T network, from one type of use to another, either permanently or temporarily**, depending on the time of the day, on road conditions, etc. To reach this goal, the MORE project delivered a **replicable approach of a public consultation process** that can lead to more efficient and equitable allocations of multi-modal road-space on busy roads in urban areas.

More specifically, the project applied to **network sections** where severe problems of congestion, noise, air pollution, safety and security issues generate a direct negative impact on citizens’ life quality, and where building new roads is not an option. This aim is achieved, to start with, by comprehensively assessing the needs of all road users, of those who live, work, and visit the area – drawing on existing knowledge and extensive stakeholder engagement, to establish design criteria. The next stage is the exploration of options for dynamic road-space allocation solutions.

The project tested and developed **5 web tools** to assist in the **urban road-space reallocation design process**, covering option generation, stakeholder engagement, micro-simulation of road user behaviour and a comprehensive, multi-modal appraisal tool. The project tested these tools and procedures on street sections in 5 partner cities that belong to different TEN-T networks: Malmö (Sweden), London (UK), Constanta (Romania), Lisbon (Portugal) and Budapest (Hungary).

## 2.2 Basis of the *Exploitation and Legacy Plan*

The Exploitation and Legacy (also called replication) Plan focuses on:

- The street design engagement process and specific tools that has been developed and trialled in the project
- The utilisation of these results in wider activities other than those covered directly by the MORE project.

It aims to ensure the use of project results by external stakeholders, considering the following approach:

- The exploitation is sound and realistic, aiming at the exploitation of the MORE results at a global scale (in Europe and beyond).
- The plan is based on a thorough analysis of the mobility market and the competitive environment, including a review of tools developed by other EU projects and other initiatives.
- The plan establishes credible guidelines that will remain flexible, particularly in the long term for legacy.

In addition, a key concept in this deliverable is to reach the following goals:

- Communicating via the MORE partners;
- Ensuring a strong alignment with the MORE Dissemination and Communication Strategy (D7.1) and with the Deliverable called Product Fact Sheets (PFS) (D.6.5)
- Leveraging existing networks and planned events of partners and other bodies (e.g. professional organisations), instead of creating new ones;
- Targeting audiences based on quality, not quantity (in other words: interaction with potential users, not widespread broadcasting).

The focus of this Exploitation and Legacy Plan will include:

- Identification of potential commercial and public sector users, targeting MORE products to the needs of each group;
- Suggestions on the best way to extend the impact of the MORE tools, based on suitable short term and long-term actions;
- Encouragement to re-use MORE project results in research and teaching activities, to increase long term awareness and take-up and extend them, e.g. research training and projects at different universities.

## 3 Exploitable results

### 3.1 Gaps in the street design consultation process

Looking at the process of designing street space allocation, several gaps can be identified:

- The process starts with a set of options for road designs – or even, a single option. The latter are - presented to the public for consultation. However, there are often no structured methods to generate these options or to engage stakeholders in the process. In most cases, it is not clear how the options were identified.
- As far as options assessment is concerned, modelling only tends to focus on the movement of the different modes of transport, producing indicators of the performance of design options in terms of movement (for example speeds, travel time, or delays) and sometimes, also a few local environmental impacts like air pollution. Traditional modelling tools do not encapsulate the complexity and multiplicity of street uses and public space design options. Moreover, they do not fully reflect certain aspects of street life, such as the use of the footway and the kerbside, or the variety of street activity that can enhance liveability and vitality.
- Several software tools and paper documents are used to support consultation, but there is not usually a well-developed, seamless approach to stakeholder engagement throughout the street design process. Similarly, an assessment of the performance of the street under different design options is not always carried out in a very comprehensive manner, due to a lack of support tools.
- Design option selection may be based on political priorities, the estimated performance indicators, and/or the results of the public consultation. Again, the process is often not clear or rigorous and there are few methods to assess these elements and compare the merits of the different options.

### 3.2 Five tools to design streets and roads

**The MORE project addressed these gaps** and provided insight into the policy interventions that can be incorporated into road design in order to better satisfy the needs of all users while optimising, as far as possible, the efficiency, equity, security and environmental sustainability of the street system.

One of the key outcomes of the MORE project was the development of a framework to implement a **full consultation process for street design based on 5 tools**:

Nr	Tool Name	Tool Manager	Identification
1	Road Design Option Generation Tools	UCL (University College London)	<b>Option Generation</b> (Tool 1)
2a	Road Design Stakeholder Engagement Tools	BC (Buchanan Computing)	<b>Traffweb</b> (Tool 2a)
2b			<b>LineMap</b> (Tool 2b)
3	Road Design Dynamic Simulator	PTV Group (Planung Transport Verkehr)	<b>Vissim</b> (Tool 3)
4	Road Design Appraisal Tool	UCL (University College London)	<b>Appraisal</b> (Tool 4)

Table 1: Overview of exploitable results

### 3.3 Tools serving a whole consultation process

One key outcome of MORE applies to **how the 5 tools can fit and improve the whole public consultation process applied to redesigning public realm.**

1. The process starts with **issues identified from the public consultation**, that are formalised using the first Road Design Stakeholder Engagement Tools which is **Traffweb (Tool 2a)**. Then technical analysis is launched.
2. The next step consists in generating several **road design options** using the **Road Design Option Tool (Tool 1)**. This step can be conducted online.
3. The following step consists in **applying these designs to a specific street context** by using a specific tool called **LineMap (Tool 2b)** that refers to professional standards.
4. At this stage, **designs are simulated, assessed, and evaluated.**
  - One tool is a Road Design Dynamic Micro-Simulator, **VISSIM (Tool 3)** that provides microsimulation-based evaluation of road use in a base situation and scenarios with different measures and/or design changes in individual use-cases.
  - Another tool is the **Appraisal Tool (Tool 4)** that will help to evaluate the benefits and drawbacks of road design options.
5. All these options can be published for a consultation with the public on these designs using **Traffweb (Tool 2a)** and to further feed the consultation process.



In order to refine the design following contributions from the public, a retroactive loop can be triggered depending on the appreciation or reaction to the different options from the public and decision-makers taking part to the consultation process.

6. The conclusion of the consultation process is a **decision made that relates to a choice of a specific option.**

The following chart presents the process which is described.

These tools are described in the next chapter in a series of tables, using the following criteria:

- 1- Expectations, market needs and positioning and new service provided;
- 2- Tool description;
- 3- Tool application;
- 4- Tool exploitation, costs, time development and general legal requirements.

**CONSULTATION PROCESS: STEPS, STAKEHOLDERS INVOLVED, AND TOOLS**

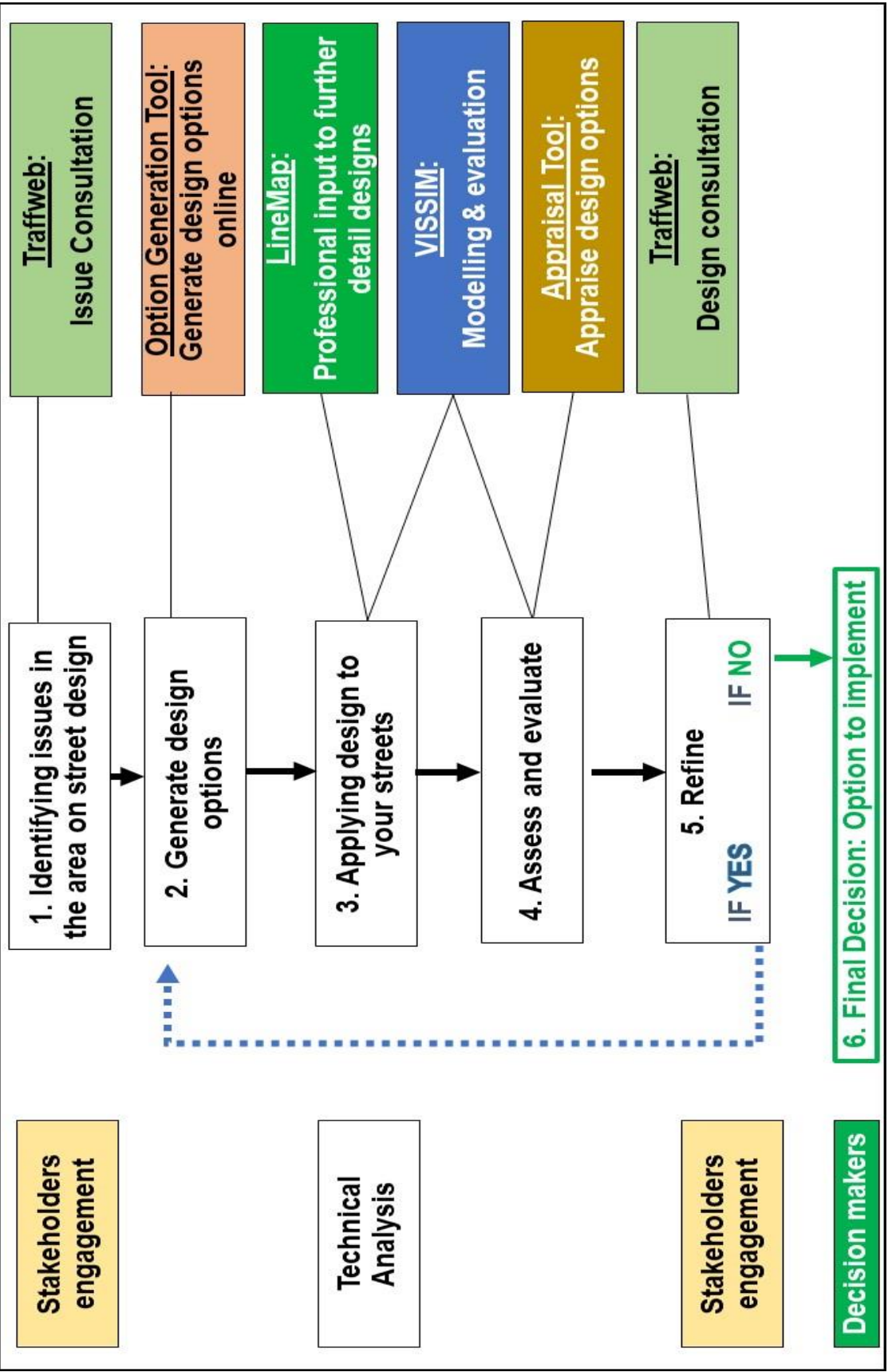


Figure 1. Procedure of the engagement process.

## 4 The MORE Tools

### 4.1 Tool 1: Road Design Option Generation tools

Tool Nr	1	
Title	MORE Option Generation tools	
Last updated	January 2022	
Developer(s) / Owner(s)	UCL	
Tool leader	Paulo Ancaies	
Output	Product	X
	Option Generation (Tool 1)	
	Service	
	Process/ Methodology	
	Know-how/ IP	
Other, please specify		

A-Problems that are addressed and how customers have tried to solve them so far	Generation of options for the reallocation of space in busy urban roads. No previous attempts to solve the problem.
A-Targeted market segment, service market size and users	City governments, consultancies, universities.
A-Product and service positioning	Not a commercial product.
A-Market Trends/ Public Acceptance	Unknown. Not a commercial product.

A-State of application of the tool by MORE project partners at present date	Tool used by MORE cities from June-September 2021.								
A-Selling point (unique or multiple) and available point									
A-Level of development for the result (TRL) prior to MORE project	Research Market <table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		
A-Level of development for the result of the project (TRL)	Research Market <table border="1"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		

B-Value proposition	0
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C-Application	Tool 1: applied by the MORE cities
C-Performed trials and achieved results at the end of the project	Tool applied by the MORE cities; feedback used for refining the tool.

D-Exploitation vision	Direct sales	NO
	Open distribution	YES
	Licenses	NO
	IP sale	N.A.
	Operation fees	0

	Joined investment/ revenues with clients	N.A.
	Turn-key	N.A.
	Enabling technology (for subsequent product, service, etc.)	N.A.
	Training	Manual
	Other, please specify: Consultation & consultancy	N.A.
D-Cost of implementation of the product	0	
D-Timeline of implementation the tool	Ready to use	
D-Legal or normative or ethical requirements (need for authorisations, compliance to standards, norms, etc.)	None	
D-Status of IPR: Background (type and partner owner)	None	
D-Status of IPR: Results/Foreground (type and partner owner)	None	
D-Potential future development for the tool	Depends on user feedback	

## 4.2 Tools 2a & 2b: Road Design Stakeholder Engagement Tools

Web-based tools to assist with stakeholder engagement, both collectively during design workshops and by providing a portal for individuals to comment on design options, building on Buchanan Computing's Traffweb product and LineMap software.

Tool Nr	2	
Title	RD-SET (Road Design Stakeholder Engagement Tool)	
Last updated	28/JUL/2021	
Developer(s) / Owner(s)	Buchanan Computing Limited	
Tool leader	Simon Morgan	
Output	Product	YES
	Traffweb and LineMap	
	Service	NO
	Process/ Methodology	NO
	Know-how/ IP	NO
	Other, please specify	

A-Problems that are addressed and how customers have tried to solve them so far	<p>Previously consultation and scheme design would be carried out using a multiplicity of separate software tools and some use of paper documents. Problems encountered in implementing this system include the need for close co-operation with customers to ensure they supply the correct data, a fragmented approach to the design and engagement process with duplicate datasets for separate systems and the need for external expertise, for example CAD technicians.</p> <p>The problems are being addressed by using a single set of tools and dataset for designs in conjunction with universal datasets where possible – for instance Open Street Map as opposed to locally sourced mapping – as well as ensuring customers understand why we need the data we request.</p>
A-Targeted market segment, service	<p>Local Government, other public sector organisations.</p> <p>No research has been done on the European market for these tools. The UK Market comprises 408 top tier authorities, plus 7 passenger</p>

market size and users	transport executives and many regional authorities and subsidiary councils. Similar bodies would be targeted within the EU.								
A-Product and service positioning	Design and engagement tools for easy collaboration and public engagement.								
A-Market Trends/ Public Acceptance	There is a general move towards a better level of public engagement in schemes and proposals. This is particularly important for the pressures on urban streets and the conflicting requirements for roadspace and kerbside usage. To achieve this, graphical tools based on web and mobile platforms, with a mixture of open source and proprietary technology are favoured.								
A-State of application of the tool by MORE project partners at present date	The consultation software is complete and in use by the City Partners. Issue consultation has been carried out by all Cities. The LineMap design tool has been fully ported to a hosted environment and is in use by City Partners to enable them to create designs. Traffweb design consultation has been refined with the addition of a design survey and Transport for London have completed a design consultation using Traffweb for internal stakeholders.								
A-Selling point (unique or multiple) and available point	The combined set of tools is innovative in its degree of integration that avoids duplication and re-entry of data over the entire lifecycle of a project. They provide improved performance and usability, and a higher degree of customisation and configuration than existing techniques. Designers have full control over the designs they publish without having to resort to external IT expertise or CAD technicians. Access to data is seamless from design to engagement with the public and other stakeholders								
A-Level of development for the result (TRL) prior to MORE project	Research Market <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td style="background-color: yellow;">6</td><td>7</td><td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		
A-Level of development for the result of the project (TRL)	Research Market <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td style="background-color: yellow;">8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		
B-Value proposition	Intuitive, easy to use design and engagement tools for transport designers and planners that seamlessly connect customers to all stakeholders. Hassle free, fully managed solution by Industry leading Transport and Highways SaaS provider Buchanan Computing.								

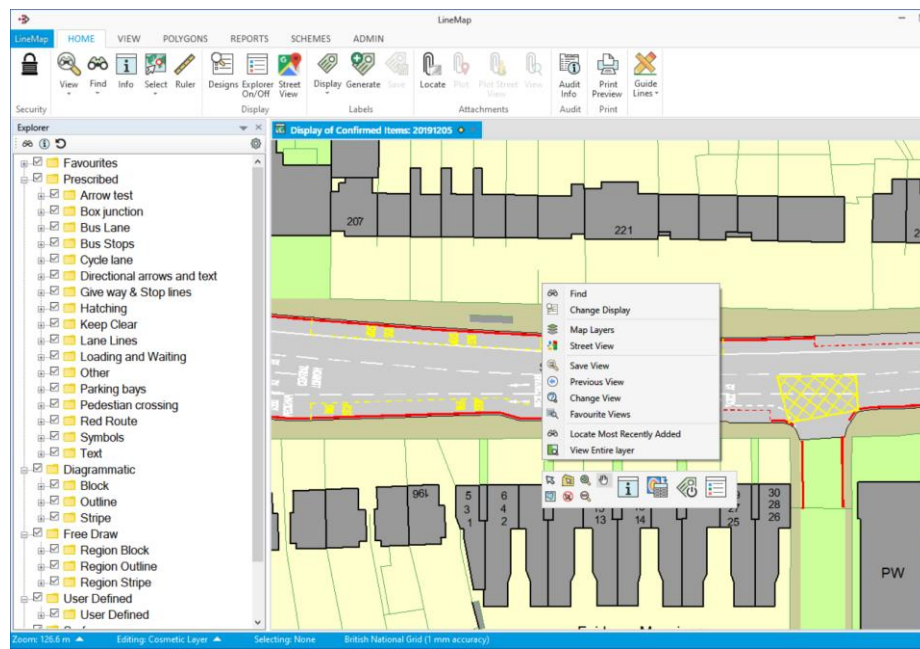
Process:

Buchanan Computing (BC) has developed **two** software tools, based on enhancements of its **Traffweb** and **LineMap** software, to provide cloud and web-based engagement tools. Stakeholder engagement consists of three types of consultation:

- **Issue Consultation:** Collect issues, suggestions and comments regarding the current situation within the study area, using Traffweb.
- **Design option development:** co-creation workshops, using blocks and acetates, to generate design options, for wider consultation and assessment, then plotted in LineMap, where professionals can refine designs.
- **Design and Proposal Consultation:** Feedback on the current issues, and any proposals or design(s) for the improvement of the study area, using Traffweb.

**Tool 2a: LineMap:**

Interactive map used to create road marking designs  
Road Marking Explorer provides extensive dataset of road markings

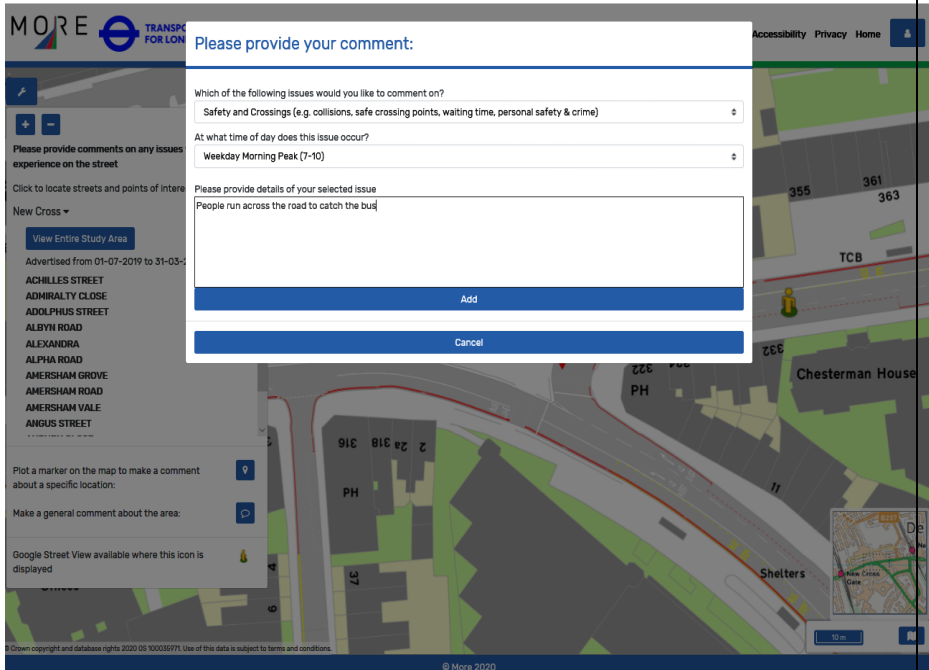
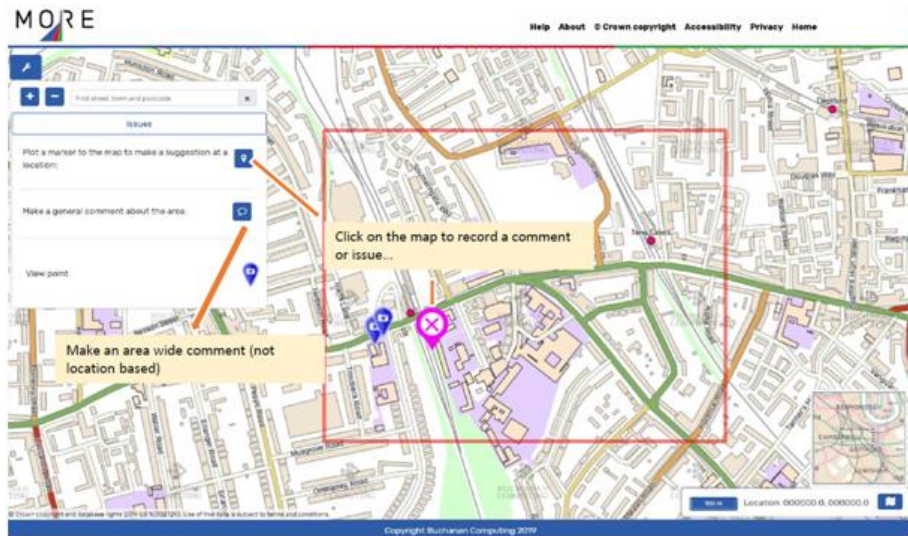


**Tool 2b: Traffweb:**

Intuitive web application allowing all stakeholders to comment on Designs, and designers to report on results:



Figures below show Traffweb Layout for issue consultation, a sample issue consultation form, sample design survey forms and the designers reporting dashboard.



C-Performed trials and achieved

### Traffweb Design Survey

0%  100%

On a scale of 1 (extremely poor) to 10 (excellent), how would you rate this option?

1  2  3  4  5  6  7  8  9  10

Mode(s) of transport (regularly used to travel to or through the street)

- Car driver or passenger
- Motorcyclist
- Bus passenger
- Rail passenger
- Pedestrian
- Cyclist
- Van/HGV Driver
- Other (Enter below)

\* select at least one or specify "Other" if selected

Respondent interest

- Local resident
- Student in the area
- Local Business employee/ owner
- Commuter to the area
- Visitor or Shopper to the area
- Making a Servicing/Delivery stop
- Responding in a professional capacity (e.g. government employee, interest group)
- Other (Enter below)

\* select at least one or specify "Other" if selected

Next

Back

Cancel

C-Performed trials and achieved

### Traffweb Design Survey

0%  100%

**1: How do you think different street uses are affected by this option?**

Pedestrians - walking	Not enough <input checked="" type="radio"/>	About right <input type="radio"/>	Too much <input type="radio"/>
Pedestrians - crossing the road	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Pedestrians with restricted mobility - walking	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Pedestrians with restricted mobility - crossing the road	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Cyclists - cycling	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Cyclists - parking	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Micromobility users - travelling	Not enough <input type="radio"/>	About right <input type="radio"/>	Too much <input checked="" type="radio"/>
Micromobility users - parking	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>
Bus tram passengers - travelling	Not enough <input type="radio"/>	About right <input checked="" type="radio"/>	Too much <input type="radio"/>

Next

Back

Cancel

C-Performed trials and achieved

Scheme: All

Issues  Time of Day

- Air Pollution
- Road Safety and Crossings
- Congestion
- Quality of public realm
- Parking and Loading
- Bus
- Cycling
- Other
- Pedestrian provision

General comments VS located comments





Issue: Air Quality (e.g. pollution, traffic fumes)

Time: At All/ any Time

Date Entered: 25-09-2019 15:24:25

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results at the end of the project	<ol style="list-style-type: none"> <li>1. London 21 Responses (Pilot study with limited stakeholder contact)</li> <li>2. Lisbon 152 Responses</li> <li>3. Malmö 285 Responses (plus a bespoke survey of 1295 responses)</li> <li>4. Budapest 194 Responses</li> <li>5. Constanta 23 Responses (limited publicity due to COVID and change of mayor)</li> </ol> <p>Design option development and consultation:</p> <ol style="list-style-type: none"> <li>1. London produced 12 designs in LineMap based on responses which will go to internal (TfL staff only) consultation via Traffweb.</li> <li>2. Malmo created 3 designs in LineMap based on future scenarios using a proposed redevelopment of the study area.</li> <li>3. Constanta produced 10 designs in LineMap.</li> </ol> <p>Lisbon created 6 designs based on their study area..</p>
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D-Exploitation vision	Direct sales	<b>YES</b>
	Open distribution	<b>NO</b>
	Licenses	<b>YES</b>
	IP sale	<b>NO</b>
	Operation fees	<b>NO</b>
	Joined investment/ revenues with clients	<b>NO</b>
	Turn-key	<b>YES</b>
	Enabling technology (for subsequent product, service, etc.)	<b>NO</b>
	Training	<b>YES</b>
Other, please specify: Consultation & consultancy	<b>YES</b>	
D-Cost of implementation of the product	The system is licensed to end users from around €400 per authority per month, depending upon the range of tools required and the length of the contract. Configuration to individual requirements can be	

	provided on a time charge basis. Some tools are provided free of charge.
D-Timeline of implementation the tool	Typically 4 - 6 weeks of setup and configuration, providing LineMap already contains the required road markings (currently we have a complete set for the UK only).
D-Legal or normative or ethical requirements (need for authorisations, compliance to standards, norms, etc.)	GDPR Web Privacy and Accessibility Standards
D-Status of IPR: Background (type and partner owner)	All IPR covered by copyright law and held by Buchanan Computing Ltd
D-Status of IPR: Results/Foreground (type and partner owner)	All IPR copyright Buchanan Computing Ltd
D-Potential future development for the tool	In line with all other Buchanan Computing software, development of new features and enhancements is largely driven by the users through regular feedback, special interest and user groups  Potential major future developments would include enabling Traffweb to view designs in 2.5 or 3D as well as adding tools to allow interactive online design collaboration.

### 4.3 Tool 3: Road Design Dynamic Simulator

A simulation tool to assess how all road-based activities perform under particular design options, building on PTV's existing Vissim software.



Figure 2: Modelling further development

Tool Nr	3	
Title	RD-DS (Road Design Dynamic Simulator)	
Last updated	20.07.2021	
Developer(s) Owner(s)	/ PTV AG	
Tool leader	Jochen Lohmiller	
Output	Product	YES
	Service	NO
	Process/ Methodology	NO
	Know-how/ IP	NO
	Other, please specify	NO

A-Problems that are addressed and how customers have tried to solve them so far	Municipalities and cities, also public transport organisations, use simulation to evaluate the impact of road-space design options in the context of traffic flow. They also use the simulation to produce dynamic videos to visualize the possible future designs. The new
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	<p>features and evaluations offer a better modelling of the complexity of the real world. The new features and evaluations also refer to the kerbside and place activities. So far, customers have not been able to model built-in simple ITS, parking lots, mobility behaviour especially for lanes or passenger boarding delays with PTV Vissim. Additional evaluations allow a quicker evidence how specific objects are used, e.g. loading bays or parking lots. In addition to streets and roads Vissim provides more detailed information about sidewalks and squares. Different town planning and mobility policies can be visualized, and the impact of the traffic flows can be evaluated, e.g. for restricted access zones, pop up bike lanes, widening of footpaths or bike lanes.</p>
<p>A-Targeted market segment, service market size and users</p>	<p>There has been a strong growth in market for PTV Vissim in the recent years and further growth is to be expected. Customers are public authorities and consultancies as well as universities and scientific institutes. Through improving the modelling of urban mobility and testing ITS functionalities as well as its usability, PTV may find new use cases for traffic simulation e.g. detailed pedestrian/vehicle interaction and increases the number of licenses for existing users and new customers especially in the market of urban planning. With the success of modelling different design studies within MORE, PTV expects that other cities follow this idea of modelling and will buy and use PTV Vissim to improve the planning and decision process in introduction of such designs to their cities.</p> <p>We assume that in particular cities with more than 100 000 inhabitants will benefit from the MORE results. The cities and the consultancies working for those cities are the main target group of the new Vissim features and functionalities. Many of the 550 cities with more than 100,000 inhabitants in the E.U. are already Vissim-users. We assume that 10% of the European Vissim customers have to deal with the specific problems addressed by the MORE project. This is because those belong to the described target group and are affected by e.g. environmental contamination and social impacts because of increasing traffic on main roads.</p> <p>Considering that many European cities of the target group are already our customers we assume that about 20 new cities could become new Vissim users because of the new MORE functionalities and features. This means a sale of 50 new licenses (with 2.5 licenses per city) within three years. Considering that many cities in the rest of the world especially in developing and emerging markets have traffic problems that are similar from the ones addressed with the MORE project, we make a cautious estimate that the number of new licenses there is in the single-digit range.</p>

	<p>Some of the features developed within MORE are also beneficial for other markets, like public transit operators or automobile makers who use PTV Vissim for virtual testing. However, the number of potential customers is significant lower and the benefits are not as direct so that a direct benefit for PTV in the next year is neglected.</p>
<p>A-Product and service positioning</p>	<p>PTV Vissim is a software to simulate traffic patterns exactly. PTV Vissim is the leading microscopic simulation program for modelling multimodal transport operations. Vissim is a microscopic, time step oriented, and behaviour-based simulation tool for modelling urban and rural traffic as well as pedestrian flows. PTV Vissim displays all road users and their interactions in one model. Scientifically sound motion models provide a realistic modelling of all road users. The concept of links and connectors allows users to model any geometries. Furthermore, a large number of interfaces provide seamless integration with other systems for signal controllers, traffic management or emissions models. PTV Vissim is rounded off with comprehensive analysis options, creating a powerful tool for the evaluation and planning of transport infrastructure. Next to visualisation Vissim can measure various variables like travel time, delay, queue length, density, numbers of stops and many others. Within MORE, Vissim will be used to compare scenarios or design options, evaluate them and compare them or perform optimizations.</p> <p>So far, the road space has been dimensioned rather statically, the new features also allow more flexible use options and to simulate areas on the roadside (like parking and loading, footpaths, and bike lanes as well as place activities). Taking this fact into account, the pilot results can be fed into the software products and later converted by existing and new customers into commercial use.</p> <p>The specific role of PTV is on the one hand the role of a software provider, on the other hand the role of a consulting provider that deals with the challenges of customers in daily business and uses microscopic modelling.</p>
<p>A-Market Trends/ Public Acceptance</p>	<p>Build up the complexity of the real world with appropriate level of realism and address the user's needs (higher performance, better interaction between different traffic users, higher commercial interest in kerbside activities and information about it, higher productivity and better usability of the software).</p> <p>Road-space design is a very current and dynamic topic. Especially the rediscovery of cycling and foot traffic as well as the technical innovations like intelligent communication between vehicle-to-vehicle and vehicle-to-infrastructure require new model applications. The Covid-19 pandemic supports the trend towards partly dynamic</p>

	redesigning of street spaces. Vissim can be used well for the simulation of model tests of a redesign in the sense of a mobility transition. To be mentioned here are for example lane closures limited to a special time of the day.								
A-State of application of the tool by MORE project partners at present date	The new features are developed and can be used by the city partners. The five cities are testing the new features within simulating different scenarios of street design. They will assess the user-friendliness and accessibility. Afterwards the new features and evaluations might be adjusted.								
A-Selling point (unique or multiple) and available point	The extensions allow an easier and better simulation of the traffic infrastructure and its traffic situation and flows as well as quicker comprehensive evaluations of urban street as well as kerbside and place design options. With PTV Vissim it is possible to simulate all modes of transport and their interaction.								
A-Level of development for the result (TRL) prior to MORE project	Research Market <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>2</td> <td>3</td> <td style="background-color: yellow;">4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
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A-Level of development for the result of the project (TRL)	Research Market <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td style="background-color: yellow;">8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		

B-Value proposition	Simulation by microscopic simulation software PTV gives you a detailed overview about the status quo of the traffic flow and its impacts, with the possibilities to define and compare multiple scenarios. Simulations assess how all street-based activities perform under particular design options through various measures. In particular, the value proposition of PTV is a more realistic and dynamic microscopic modelling of lane driving, parking, loading and kerbside activities as well as the better simulation of the interaction of different traffic users on the street, on the kerbside and on places.
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As a microscopic modelling tool, it is a time-step oriented and behaviour-based simulation tool for modelling urban and rural traffic as well as pedestrian flows. Besides private transportation, may also simulate rail- and road-based public transportation. might help to evaluate what-if scenarios of traffic performance and emissions.



The value proposition is the more realistic and dynamic modelling of kerbside, lane driving, parking activities as well as the better simulation of the interaction of different traffic users. Therefore, supports the selection of an optimal and tailor-made design solution.

### C-Application

Within the MORE project PTV developed different applications and technical enhancements within PTV Vissim that help simulating and evaluating different street designs. The new features developed in the context of the MORE project offer a better and faster modelling of the complexity of the real world. Additional technical enhancements and evaluations allow a quicker evidence how specific objects are used.

The **new features** developed for PTV Vissim software are:

- In-build Intelligent Transport System (ITS) tools
- Easier simulation of parking and loading of motorized vehicles
- Car park creator
- Lane-specific driving behaviour
- Major flow definition
- Passenger boarding delays
- Dwell time attribute for pedestrians
- Parking in reverse

Technical enhancements are developed

- Transparency for shapefile backgrounds
- PDF-file as background
- Modelling tips (attribute modifications, scripting) for place-based street activities (queuing, standing, talking,

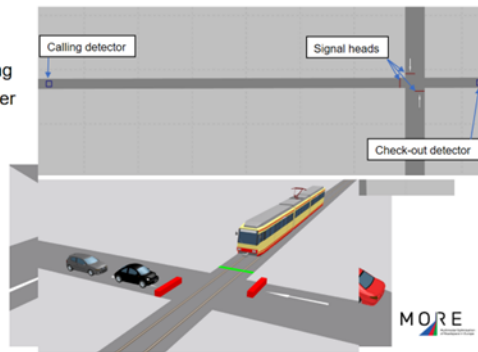
sitting) Covid-19 related updates (queue spacing, waiting area spacing)

### Place-based street activities



### New features: Simple ITS

- Pedestrian crossing
- Two stage controller
- Railway crossing



**New evaluations** for parking and loading developed for PTV Vissim software are the following:

1. Parking spaces evaluations
2. Parking lots evaluations
3. Parking lot groups evaluations
4. New parking-related vehicle attributes
5. New vehicle parking states
6. Number of stops (pedestrians) for area measurements
7. Average number of stops and average stopped time for pedestrian network evaluation

C-Performed trials and achieved results at the end of the project

Before the new features and evaluations are given to the MORE partners, they are just tested by PTV. Recently the new developments are tested by the MORE city partners.

D-Exploitation vision	Direct sales	YES
	Open distribution	NO
	Licenses	YES
	IP sale	NO
	Operation fees	NO
	Joined investment/ revenues with clients	NO
	Turn-key	NO
	Enabling technology (for subsequent product, service, etc.)	YES
	Training	YES
	Other, please specify: Consultation & consultancy	Consultation & consultancy
D-Cost of implementation of the product	<p>Depends on configuration, license cost starting at 6 000 EUR. The average price for a Vissim license is about 20 000 EUR. The amount of personnel costs for setting up a microscopic model depends on the size of the space to be represented, the complexity of the traffic processes to be simulated, the number of scenarios and the experience of the modeler.</p>	
D-Timeline of implementation of the tool	<p>The developed features will be available as prototypes before the end of the MORE project. They were already released in the autumn 2020 release. Afterwards modifications and final adjustments have been carried out based on feedback from the broad mass of customers applying these feature prototypes. The process of modifying and adjusting will last approx. two years, so that final versions of the features will be available for the market two years after the end of the MORE project.</p> <p>The adjusted software release with these new feature prototypes will be in autumn 2021. Next to user workshops, PTV will inform customers by newsletter, website, social media and presentations at conferences.</p>	
D-Legal or normative or ethical requirements (need for authorisations, compliance to)	None	

standards, norms, etc.)	
D-Status of IPR: Background (type and partner owner)	The Software PTV Vissim owned by PTV as well as the new features and evaluations are owned by PTV.
D-Status of IPR: Results/Foreground (type and partner owner)	The results and outcomes of the modelling are owned by the user.
D-Potential future development for the tool	PTV will adjust the software if market trends and customer needs changes.

#### 4.4 Tool 4: Road Design Appraisal Tool

Tool Nr	4	
Title	MORE Option Appraisal tool	
Last updated	June 2021	
Developer(s) / Owner(s)	UCL	
Tool leader	Paulo Anciaes	
Output	Product Appraisal tool (Tool 4)	YES
	Service	NO
	Process/ Methodology	NO
	Know-how/ IP	NO
	Other, please specify	NO

A-Problems addressed and how customers have tried to solve them so far	Appraisal of options for the reallocation of space in busy urban roads. No previous attempts to solve the problem.
A-Targeted market segment, service market size and users	City governments, consultancies, universities.
A-Product and service positioning	Not a commercial product.
A-Market Trends/ Public Acceptance	Unknown. Not a commercial product.
A-State of application of the tool by MORE	Tool used by MORE cities from June-September 2021.

project partners at present date									
A-Selling point (unique or multiple) and available point	No previous tools.								
A-Level of development for the result (TRL) prior to MORE project	Research Market <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		
A-Level of development for the result of the project (TRL)	Research Market <table border="1"> <tr> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>6</td> <td>7</td> <td>8</td> </tr> </table>	1	2	3	4	5	6	7	8
1	2	3	4	5	6	7	8		

B-Value proposition	0
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C-Application	Tool applied by the MORE cities.
C-Performed trials and achieved results at the end of the project	Tool applied by the MORE cities, feedback used for refining the tool

D-Exploitation vision	Direct sales	No
	Open distribution	X
	Licenses	No
	IP sale	N.A.
	Operation fees	N.A.
	Joined investment/ revenues with clients	
	Turn-key	
	Enabling technology (for subsequent product, service, etc.)	

	Training	
	Other, please specify: Consultation & consultancy	
D-Cost of implementation of the product	0	
D-Timeline of implementation the tool	Ready to use	
D-Legal or normative or ethical requirements (need for authorisations, compliance to standards, norms, etc.)	None	
D-Status of IPR: Background (type and partner owner)	None	
D-Status of IPR: Results/Foreground (type and partner owner)	None	
D-Potential future development for the tool	Depends on user feedback	

A web-based tool to assist with the appraisal of design options, using the outputs from the VISSIM simulations and other information.

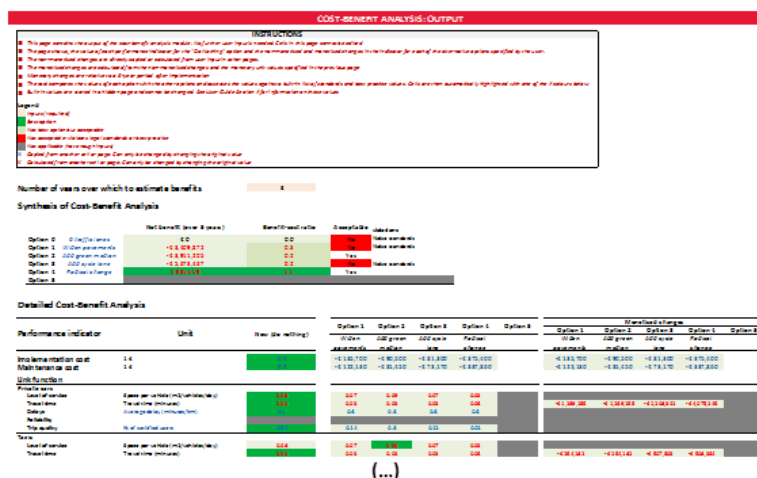


Figure 3: Example of appraisal tool output page

## 4.5 Technical characteristics of these tools for application

Tools can shape the way analysis are conducted and results are produced. Therefore, three challenges can be identified.

- Firstly, tools may not always be tailored to local context. MORE acknowledges that a road design process should provide tailor made solutions that are adjusted to a local context;
- Secondly, tools should adapt to different types of road design projects, whether translating into a full redesign of public realm between building facades or whether translating into tactical urbanism;
- Thirdly, tools should be able to adapt to online activities, in particular for consultation.

The MORE tools address these challenges as follows:

- The tools are **adaptable to different local contexts**, to different languages and conditions. This implies that local regulation, local street design options, local political priorities can be taken into account. Tool providers tend to adjust the geography to local needs and expectations, expressed either by the future tool users, the decision-makers, or the general public participating in consultations;
- The tools are **adaptable to different types of road designs** whether involving large change of the profile of public realm and thus significant investment or requiring light interventions based on tactical urbanism (such as what was implemented during the COVID19 period) that are public-budget-light measures;
- The tools can be used in **different consultation conditions**: either on site, either **face-to-face or online**. This last option could appear to be necessary in case physical meetings or gathering had to be banned or to widen consultation possibilities. Results can be communicated electronically, either in in-person, hybrid, or online meetings. The input from consultation and political priorities can be defined and provided online. The manipulation of the tools by specialised staff can also be done remotely.



# 5 Key messages for exploitation & legacy

To promote the results of the MORE project, and in particular the **stakeholder engagement process** and the **tools** presented above, the Final Exploitation and Legacy Plan sets out how the project fits into wider policy objectives and programmes.

The key messages based on the experience of the MORE project focus on the strategic importance of streets to achieve local and national policy objectives. In particular:

- There is growing pressure and conflicts on road-space on urban main roads. These are likely to become more diverse and intense in the future.
- Changing lifestyles and technologies pose new challenges for their impact on streets.
- Dealing with contested road-space is not only a technical issue, but also a political and public engagement one.
- Busy streets are where many strategic policy issues play out and are a valuable public asset for their social and economic role.
- Policy priorities and paradigms are evolving – from improving transport flows to creating more liveable places. New visions and tools are needed to support this shift.

This chapter refers to EU and Member State levels policies and programmes. It also aims at identifying the way cities, local authorities and territories could integrate the benefits of the projects within their local policies. The methods, concepts and tools of the MORE project have the potential to support policy makers at all governance level – local, national, EU and international – as they match their sustainability and growth ambitions with new guidelines, regulations and targets.

## 5.1 Relevance for EU policies

The results of MORE are in line with several policy and legislative initiatives at the EU level, including:

- the European Green Deal and “Fit-for-55” package
- the revision of the TEN-T guidelines
- the European Sustainable and Smart Mobility Strategy

### 5.1.1 Green Deal and Fit-for-55 package

The MORE project is in line with high level political objectives set at the European Union level such as defined in the **Green Deal**:

- Better street design can help cities achieve their sustainability and decarbonisation objectives.
- As transport accounts for a quarter of the European Union's greenhouse gas emissions, reducing emissions in cities can support the EU in achieving climate neutrality by 2050

The MORE project is in line with the “**Fit-for-55**” package, a set of proposals to make the EU's climate, energy, land use, transport and taxation policies fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels.

In particular:

- Member States and local authorities share the responsibility to reduce carbon emissions, which requires a better governance and management of road space
- Member States and local authorities share the responsibility to expand on-street charging infrastructure to support the take up of zero-emission vehicles, and to install charging and fuelling points at regular intervals.

The MORE project is in line with a set of proposals to make **the EU's climate, energy, land use, transport and taxation policies** fit for reducing net greenhouse gas emissions by at least 55% by 2030, compared to 1990 levels. In particular:

- Member States and local authorities share the responsibility to reduce carbon emissions, which requires a better governance and management of road space
- Member States and local authorities share the responsibility to expand on-street charging infrastructure to support the take up of zero-emission vehicles, and to install charging and fuelling points at regular intervals.

### 5.1.2 TEN-T policy

The experience and legacy of the MORE project is also relevant for the process of review of the EU guidelines on the Trans-European Transport Network (TEN-T).

The EU TEN-T policy sets guidelines for national and EU investments in transport infrastructure and for targeted EU funding such as the Connecting Europe Facility.

As urban nodes will gain more relevance in the ongoing revision of the TEN-T guidelines, the experience and learnings of the MORE project will prove to be relevant for policy makers.

In particular, the project can provide:

- Advice on the scope for applying urban management practices on inter urban/national roads, particularly on the approaches to major urban areas (e.g., traffic signal 'gating' to restrict traffic levels in areas with poor air quality).

- Improvements in communications between the different authorities and governing bodies at the urban and inter-urban level.
- Enhancing transport safety and security.

### 5.1.3 Sustainable and Smart Mobility Strategy

The project is fully in line with the following objectives put forward by the European Sustainable and **Smart Mobility Strategy**, published by the European Commission in December 2020:

- To reach the aim of “sustainable mobility – an irreversible shift to zero emission mobility”, the strategy acknowledges the role to be played by alternative, smart and well-integrated transport solutions and recognises the willingness of Europeans to switch towards more sustainable modes. It also mentions the need to develop clean energy fuelling devices, which would impact public realm.
- As referred to in the “Smart mobility – achieving seamless safe and efficient connectivity section of the strategy, “efficient capacity allocation and traffic management must also be addressed”.
- As mentioned in the “Resilient mobility – a more resilient single European transport area: for inclusive mobility”, investment in TEN-T should aim at “sustainable functioning of the economy and cohesion among Member States”. Moreover, “The economic shock has highlighted the need for affordable, accessible and fair mobility for passengers and other users of transport services”.

MORE contributes to tackling these challenges and achieving these goals:

- By considering the design of public spaces, public realm, and street space in a way that facilitates the use of sustainable and inclusive transport modes.
- By providing tools that take into consideration sustainable modes (pedestrians, cyclists) and the level of electrification of different motor vehicles.
- By conceiving tools that incorporate different smart traffic management strategies (signal system), assess the efficiency of kerbside use.
- By conceiving tools that are compatible with policy assessment based on transport criteria (traffic and congestion level), environmental criteria (CO<sub>2</sub>, emissions) and economic criteria (attractiveness of high streets, access to employment and economic activities).

## 5.2 Relevance for urban transport policies

Cities in Europe and beyond have reached their highest levels of congestion due to a growing number of vehicles and an evolution in economic activities that put additional pressure on

streets. These traffic flows cause severe externalities and worsen the liveability of cities. Urban space management represents an effective tool, supporting the shift to less polluting transport modes and decarbonisation of transport. Reducing street capacity for cars, access regulation, removing parking spaces, are only some of the possible measures to rethink urban spaces and incentivise more sustainable practices such as walking and cycling.

The roles and powers of local authorities in managing urban space are evolving. As strategic tools such as **Sustainable Urban Mobility Plans (SUMPs)** become more widespread across Europe, cities are required to systematically involve all relevant stakeholders in the co-creation of the schemes and the co-design of the space, which makes the processes and tools developed by MORE ever more relevant.

In particular, MORE can provide insightful guidance on:

- Better aligning road/street designs to achieve local objectives (modal split, emission reduction, increase of street activities).
- Assessing the impact of new technologies, such as connected and automated vehicles and artificial intelligence, on the use of road space.
- Recommendations for the prioritisation of road/street space in favour of sustainable and active modes of transport.

Procedures to use road space more efficiently and dynamically by considering the needs of all users and also by using space to promote sustainable mobility.

# 6 Implementation of the Exploitation & Legacy Plan

This chapter presents actions that are related to the implementation of the Final Exploitation and Legacy Plan, targets that could benefit from exploitation, and ways to implement the project's legacy.

Section 6.1. identifies groups that can benefit from results of the projects (and, more specifically, the tools and consultation process). Section 6.2. looks at the market of tools. Section 6.3. identifies EU funded projects that could benefit from MORE. Finally, based on this analysis, Section 6.4. identifies a series of actions to implement the Exploitation and Legacy Plan.

## 6.1 Target groups

The markets targeted by MORE were monitored in order to detect new trends and possibilities, which allowed the consortium to react to the market changes and adapt the implementation of the developed tools.

To facilitate market analysis, MORE consortium members reached out to several stakeholders to be targeted by the Final Exploitation & Dissemination Strategy, split into different categories and additional data (website, contact person), in particular:

- European Public Bodies (e.g. DG MOVE, DG REGIO)
- Relevant European-level interest groups will be approached, for example FIA, the automobile international association;
- Regional, national and European mobility clusters and industrial associations (such as ITS Automotive, Rail Group, Lombardy Mobility Cluster);
- Authority representatives (e.g. UITP Organising Authorities' representatives)
- Road users' representatives (e.g. cyclist representatives)
- Operators' representatives (e.g. UITP Bus Committee)
- Stakeholders involved in urban life, street management and design (e.g. UITP Transport and urban life representatives)
- ERTRAC (Urban Mobility Working Group, Long Distance Freight Transport Working Group)
- National Professional bodies (e.g. Plataforma Tecnológica de la Carretera, CIHT)
- Academic bodies, researchers and students (e.g. UITP Academic Network)
- Associations of modelling

- Supplying industries, for example automated vehicles manufactures, OEMs, ICT suppliers, big data companies
- MORE will also liaise with other thematically related initiatives beyond the H2020 projects mentioned above. As for the project, the initiatives as well will be linked with the 3 thematic areas identified by MORE. In particular:
- EMTA (transport authorities)
- World Business Council for Sustainable Development, the European Investment Bank and the Traffic Management as a Service initiative for Digitalisation and data driven models.

The key information is shared in Table 2: Tracking for networking activities below.

Table 2: Tracking for network activities

Category	Organsaiton	Website	Title	Name	Title	Responsible Partner	Key messages	Date	Status	Typology	Conclusions	Others	Status	Steering Committee feedback
EU Public Bodies	DG MOVE	<a href="https://ec.europa.eu/transport">https://ec.europa.eu/transport</a>	Ms	Gudrun Schulz	Team Leader	UITP	Analyze their possible interest in future implementations (future exploitation)	01/07/2019	Done	Small teams meeting				
	DG MOVE	<a href="https://ec.europa.eu/transport">https://ec.europa.eu/transport</a>	Ms	Isabelle Vandoorne	Deputy Head of Unit	UITP	Analyze their possible interest in future implementations (future exploitation)	01/07/2019	Done	Small teams meeting	Interest in feeding SUMP guide process with MORE			
	DG MOVE	<a href="https://ec.europa.eu/transport">https://ec.europa.eu/transport</a>	Mr	Piotr Rapacz	Policy Officer	UITP	Analyze their possible interest in future implementations (future exploitation)	01/07/2019	Done	Small teams meeting	Interest in feeding SUMP guide process with MORE			
	DG REGIO	<a href="https://ec.europa.eu/info/departments/regional-and-urban-policy_en">https://ec.europa.eu/info/departments/regional-and-urban-policy_en</a>	Mr	Vincent Leiner	Team Leader	UITP	Making aware of the project	07/06/2019		Emailing				
Local and regional authorities	ParkMap User Group	<a href="https://www.buchanancomputing.net/parkmap_training.html">https://www.buchanancomputing.net/parkmap_training.html</a>				BC	Analyze their possible interest in future implementations (future exploitation)	04/12/2019	Done	Conference	The key message was to make all of our clients aware of the tools we had developed and the benefits they could bring to their workflow			
	Cambridgeshire County Council	<a href="https://www.cambridgeshire.gov.uk/">https://www.cambridgeshire.gov.uk/</a>	Mr	Andhika Caddy	Policy & Regulation Engineer	BC	Analyze their possible interest in future implementations (future exploitation)	20/01/2020	Done	One-to-one				
	Croydon Council	<a href="https://www.croydon.gov.uk/">https://www.croydon.gov.uk/</a>	Ms	Sarah Randall	Head of Parking Services	BC	Analyze their possible interest in future implementations (future exploitation)	11/03/2020	Done	One-to-one				
	North Essex Parking Partnership	<a href="http://www1.parkingpartnership.org/north/">http://www1.parkingpartnership.org/north/</a>	Mr	Richard Walker	Parking Partnership Group Manager	BC	Analyze their possible interest in future implementations (future exploitation)	01/03/2020	Done	One-to-one				
Road operators representatives	Essex Highways	<a href="https://www.essexhighways.org/transport-and-roads.aspx">https://www.essexhighways.org/transport-and-roads.aspx</a>	Ms	Chloe Livingstone	Development Lead Officer	BC	Analyze their possible interest in future implementations (future exploitation)		Done	Small teams meeting	Discussion on how to use the Issue Consultation tools created for the MORE project during their Parking Consultation process		Formal follow up meeting is pending	
	Essex Highways	<a href="https://www.essexhighways.org/transport-and-roads.aspx">https://www.essexhighways.org/transport-and-roads.aspx</a>	Ms	Gemma Hills	Legal Highways Technician	BC	Analyze their possible interest in future implementations (future exploitation)		Done	Small teams meeting	Discussion on how to use the Issue Consultation tools created for the MORE project during their Parking Consultation process		Formal follow up meeting is pending	
Public Transport Operators	UITP Transport and Urban Life Committee	<a href="https://www.uitp.org/organisation">https://www.uitp.org/organisation</a>	Ms	Hanne Bertnes Norli	Market Director	UITP	Making aware of the project	Fall 2020	Foreseen	Conference				
Public Transport Authorities	UITP Organising Authorities Committee	<a href="https://www.uitp.org/organisation">https://www.uitp.org/organisation</a>	Mr	Daniel Bergeron	Directeur Exécutif, Planification du Transport et de la Mobilité	UITP	Collect their feedbacks (please, specify what kind of feedbacks/for what activity/task)	Fall 2020/ Spring 2021	Foreseen	Workshop				
National professional bodies	The Chartered Institution of Highways and Transportation (UK)	<a href="https://www.ciht.org.uk/">https://www.ciht.org.uk/</a>				UCL								
Road users representatives	European Passenger Federation						Collect their feedbacks (please, specify what kind of feedbacks/for what activity/task)							
Industrial platforms	UITP Vehicle and Equipment Industry Committee	<a href="https://www.uitp.org/organisation">https://www.uitp.org/organisation</a>												
European and national research project	ERTRAC Long Distance Freight Transport WG	<a href="https://www.ertrac.org/index.php?page=ertrac-working-groups">https://www.ertrac.org/index.php?page=ertrac-working-groups</a>					Making aware of the project							
	ERTRAC Urban Mobility WG	<a href="https://www.ertrac.org/index.php?page=ertrac-working-groups">https://www.ertrac.org/index.php?page=ertrac-working-groups</a>					Making aware of the project							
Cities representatives/networks	EUROCITIES	<a href="http://www.eurocities.eu">http://www.eurocities.eu</a>					Analyze their possible interest in future implementations (future exploitation)							
Academic bodies	UITP Academic network	<a href="https://www.uitp.org/organisation">https://www.uitp.org/organisation</a>					Making aware of the project							
Others							Others							

## 6.2 Market monitoring

The Final Exploitation and Legacy Plan (FELP) has been fully monitored and reviewed throughout the project.

In order to support this exercise, data was collected during the project timeline which relates to:

- Other research activities and implementation EU funded programmes (see [Table 3](#));
- Any existing modelling tools that are used to assess and evaluate street designs (see [Table 4](#));
- Any existing commercial or open-source products which are modelling tools (see [Table 5](#)).

The target group organisations were identified according to their baseline interest in MORE along with the agreed strategy within the project to exploit the products with them.

Tables are also displayed in Annexes and hyperlinked to this document.



Table 3: Similar EU Projects Monitoring

CODE	Name Project	Start date	End date	Type of project	CORDIS website	Project's contact point/leader	Needs covered	Targeted users	Area covered	Technology or main outcome	Key recommendations	Synergies with MOE	Key Work for MOE
1	VITAL NODES	Nov-17	Oct-19	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	POLS	Multi- and intermodal connection between long-distance and last-mile freight logistics.	Freight transport, B&T/ENT cities	Geographical area	In-vehicle signage, information "tools" to standardise format of information for drivers provided by each project partner, providing data from vehicles.	To check if we could build synergies. To follow the TEN-T cities instead of possible potential users of the MOE tools? To involve them to our End Users forum if possible.	Particular recommendations for freight	Last mile, intermodality, Nodes
2	AZEE Connected Corridor	Sep-18	Mar-20	CEF	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	TRANSPORT FOR LONDON	Pilots technology that provides a wireless link between vehicles and road infrastructure, aiming to use this technology to reduce congestion and improve mobility, travel-time reliability, safety, and make more efficient use of our road network.	Drivers of both private and commercial vehicles on the AZEE corridor, from outside of London through to inner London	AZEE corridor in London and south east England	In-vehicle signage, information "tools" to standardise format of information for drivers provided by each project partner, providing data from vehicles.	Investigate how technology being deployed in part of this project could be used in conjunction with new technologies or designs being explored by MOE to optimise use of road space	Gathering live data on road and traffic conditions from vehicles, which could be used in making decisions on how to manage flexible road space Using vehicle signage to inform and influence driver behaviour	
3	BuyREIT	Nov-16	Apr-19	H2020-RIA	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	LIBSON COUNCIL	Procurement of innovative solutions for waste collection urban delivery of goods and services.	Freight transport, Co-ops in the project - Rotterdam, Oslo and Copenhagen.	Targeting freight in TEN-T corridors		Group of Observer Cities to check if this could be useful		Clean transport
4	Prosperity	Sep-16	01-Aug-19	H2020-RIA	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	LIBSON COUNCIL	Develop know-how to empower technical services and decision makers to deliver a SDMP	Government agencies and local authorities	The whole city is involved		To follow up the SDMP that's being developed in Lisbon, that will offer additional data and indicators that might prove to be useful for MOE project		SDMP, street design
5	Benchmark study ERF		Oct-19	Benchmark	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	ERF	Benchmark study on the impact of the revolution in mobility and transport practices on road infrastructure and equipment	Government agencies and local authorities	15 countries, systems of actors			Similarities and differences between system of actors. Synthesis of ongoing experiments and existing infrastructure and equipment of new mobility	Governance, Stakeholders
6	Smarticipate	Feb-18	Jan-19	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	FRANKFURTER GESellschaft für FORSCHUNG UND ANWENDUNGSFORSCHUNG E.V.	Smarticipate aims at enabling participative democracy within a single platform. Citizens, NGOs, businesses and public administrations can suggest projects, propose 2D and 3D models, and enable politicians to share their views and receive feedback in real time.	Citizens, NGOs, businesses and public administrations	City Planning	Smarticipate will be offered as a generic platform - including a test version of the three topics already developed - with the option of further financing.		Overall approach of the role of consultation and tools to ensure participation	Consultation
7	WdoNow	Feb-16	Jan-19	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	EMPIRICA GESellschaft für FORSCHUNG UND ANWENDUNGSFORSCHUNG E.V.	WdoNow project developed and piloted a new type of civic engagement platform that supports communication and collaboration between citizens, civil society and public administrations.	Citizens, civil society and public administrations	Local policy challenges	The project developed and piloted an innovative platform of services.	WdoNow provides support services available to other public administrations via the project's software partners. Furthermore, various software components developed or extended within the project can be downloaded as open source solutions. Firstly, information is also available to assist those interested in implementing and/or further developing any of the WdoNow components. This information provides interested users with a detailed overview of the solution's current levels of maturity and sustainability, but crucially also provides insights into how they can be successfully taken forward, thus cementing the project's legacy for later innovations.	The collaborative dimension of consultation.	Consultation
8	ENLARGE	Oct-16	Sep-18	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	ISTITUTO PER LA RICERCA SOCIALE SCAL	ENLARGE project uses gamification to help public administrations better leverage the full potential of collaborative policy-making.	Citizens, civil society and public administrations	Local policy challenges	The result of the ENLARGE Choose Your Own Adventure (CYA) gambook on participatory processes in the field of sustainable energy.	The ENLARGE project's findings may have a big impact on policy-makers working in public administrations and for all stakeholders involved in formulating and implementing public policies.	The gamification dimension of consultation	Consultation
9	SMART	Jan-15	Dec-16	FP7-FP6/FP7	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	TECHNISCHE UNIVERSITÄT Delft	Self-healing asphalt can reduce the amount of time and money spent on maintenance, reduce traffic disruption and help improve road safety.	Road managers.	Street & road design and maintenance	To develop an effective, sustainable and environmentally friendly self-healing system for asphalt pavements. Researchers therefore created a unique technology whereby an encapsulated repairer within the asphalt mix is used as a healing agent.	Integrating new knowledge that can be applied to European cities	Technical solutions to be shared with the public in consultations.	Consultation
10	CoEUS	May-17	Apr-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	RUPPRECHT CORNETZ FORSCHUNG & BERATUNG GMBH	Provide support, guidance and tools that strengthen their capabilities to make informed decisions on the deployment of CCAM.	Road authorities, mobility planners and other urban mobility stakeholders.	Eight case studies in the four local authorities	Tools to evaluate the impacts of CCAM on traffic efficiency, road and parking areas of a given city are most affected by certain events. The platform would then generate discussion and identify strategies to improve automation readiness.	Greater cooperation and integration required: it is essential to transform planning practices from the product to the paradigm towards agile and adaptive decision making, aided by capacity development for local authorities, robust decision consultations and cross-sectorial cooperation.	Taking into consideration new technologies in the landscape of mobility and using the results of the project to feed consultation.	
11	CoVAL	Nov-17	Apr-21	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	ATHENS TECHNOLOGY CENTER AND ANTONIOS VONORNIKOS EMPORIKAI TECHNOLOGICAL RESEARCH CENTER	Meeting societal challenges calls for innovation, and more specifically value co-creation where users and administrations can collaborate to devise better services.	Citizens, NGOs, businesses and public administrations		Policy briefs were issued which include indicators to monitor and evaluate existing initiatives to support public sector transformation. The project team also created the Co-VAL dashboard, which showcases how 'real' and 'national' governments perform against project recommendations.	Co-VAL is set to raise awareness of co-creation and how to best implement it amongst policymakers and practitioners.	Acknowledging the need of transformation of authorities in order to perform consultation.	Governance, Consultation
12	TrustVehicle	Jun-17	Oct-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	VIRTUAL VEHICLE RESEARCH CENTER	Different concepts to increase reliability of trust in automated vehicles for four different classes were identified: passenger cars, heavy trucks (including tractors), electric buses and light commercial vehicles. The trust end users into account throughout by performing user acceptance studies and driving simulator studies that assessed driver behaviour and trust.	Passenger cars, heavy trucks (including tractors), electric buses and light commercial vehicles.	The researchers adopted a workshop methodology to 'simulate proof of urban and transport infrastructure to reveal expert studies.	Advanced technical solutions for automated driving were set up to better assess critical situations in mixed traffic scenarios and even in harsh environments (obstacles such as heavy rain and fog).	By considering the interaction of humans with all aspects of automated road transport systems, 'TrustVehicle' was able to offer solutions that significantly increase reliability in automated vehicles and contribute to acceptance.	Taking into consideration new technologies in the landscape of mobility and using the results of this project to feed consultation.	Technological solutions and transport modes
13	QPAIK	Sep-18	Feb-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	UBWISSE LDA	Smart parking solutions are systems and devices designed to help drivers find vacant parking spaces. It also supports municipalities and parking managers in achieving operational efficiencies, and in reducing traffic congestion. Understanding mobility patterns can help to optimise parking occupancies, and reduced pollution rates.	Urban and transport planners, users, citizens.	Urban planning activities & parking management/design.	The Ubwisse tool could be used by city planners to assess which roads and parking areas of a given city are most affected by certain events. This should lead to more efficient parking provisioning, reducing road traffic and related emissions.	City planners can simulate and analyse how parking lots and spaces become constrained when roads are changed or closed, or when traffic increases due to certain events. This should lead to more efficient parking provisioning, reducing road traffic and related emissions.	Parking management as part of the whole street design management and design.	Parking
14	CLARITY	Jun-17	Aug-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	AIT AUSTRIAN INSTITUTE OF TECHNOLOGY	The project aims at helping city planners and policymakers' efforts to easily identify and mitigate climate change risks.	Urban and transport planners and policymakers.	The researchers adopted a workshop methodology to 'simulate proof of urban and transport infrastructure to reveal expert studies in Spain, Italy, Austria and Sweden.	The project worked to create a digital tool and online platform to bring the latest scientific knowledge in a tailored way to end-users in cities and regions. The tool can help in taking the informed decisions on how to shape the urban and traffic infrastructure they are responsible for in more climate resilient.	Reference to this project to integrate the climate protection goals and see how options of street design could contribute to them.	Environment	
15	METAMORPHOSIS	Jun-17	Oct-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	STYCHING MEDIA UNIVERSITY OF APPLIED SCIENCES	The Metamorphosis project aims to challenge the privilege of public space and the discrimination associated with this privilege: when it comes to the use of public space, motorists are treated more favourably than other users than the fact that they own a car. This unequal distribution or discrimination has become so widely accepted that it is part of most road codes in EU countries.	Road authorities, mobility planners and other urban mobility stakeholders.	Public space design and management.	The project implemented a number of initiatives aimed at highlighting the importance of granting equal use to public space. These initiatives included creating more than 200 temporary car-free spaces in 15 neighbourhoods across Europe, including in Graz, Munich, Milano, Zurich, Southampton, Warsaw and Abu Dhabi.	Using the results obtained during its demonstration initiatives, the project has now set its sights on getting the EU to take action and the discriminatory distribution of public space, particularly in densely populated urban areas.	Providing examples of street designs with a better balance of space dedicated to and usage between different users	Street design options
16	CLAR-CITY	May-17	Jul-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	TRENOMICS BV	Aiming to create a major shift in the public understanding of the causes of poor air quality, the EU-funded ClarCity project invited citizens to give their opinions on air pollution and carbon emissions.	Road authorities, mobility planners and other urban mobility stakeholders.	Link between our daily life activities, pollution and health in our cities	Using a high-resolution geographical approach, the team modelled emissions by the type of activities people take part in and, through quantitative analysis, examined their role in contributing to air pollution. Firstly, policy action plans were created and fed back to city decision makers.	The project showed that the method of engagement and impact modelling is best suited for small-medium cities - apparently because larger cities already have solid models in place and a wealth of activities going on, which make recruiting citizens harder than in smaller communities.	Complement the MOE approach by the air quality related topic	Environment
17	ALLEGRO	Nov-15	Oct-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	TECHNISCHE UNIVERSITÄT Delft	The project provides much-needed insight into pedestrian and cyclist behaviour in traffic. Its findings could notably help cities manage crowds during major events and through the current COVID-19 crisis.	Road authorities, mobility planners and other urban mobility stakeholders.	Pedestrians and cyclists behaviour on roads and street space.	Beyond its microscopic and macroscopic models, the ERC-funded ALLEGRO project also provides game-theoretical models. These provide useful information on conditions under which traffic self-organises efficiently, as opposed to those where it collapses.	ALLEGRO's models could be used to monitor events in cities or be applied to the movement of people within individual buildings.	Use these tools to integrate pedestrian and cyclist behaviour in different modelling tools of MOE and identify options that better meet these needs or that better influence behaviour.	Users' needs
18	AgeCigCity	Dec-18	Nov-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	UNIVERSITY COLLEGE LONDON	The project helped develop a new tool for architects and planners that takes into account visual and spatial cognition to design better urban spaces.	Planners	Pedestrian behaviours depending on the context, change of street design to better meet specific needs.	By translating this into quantitative 'visibility measures' and mapping the sequence of pedestrian decisions into a mathematically modified network, simulation techniques can be used to predict what people will go. Based on the environment and what they see, 'Autopilot' models. The tool makes visibility connections and can plug in to geographic information systems software which shows the data. Tools currently used by planners and architects do not take into account visual perception and how it affects human behaviour in urban areas.	The project aims at raising awareness for a better balance of cognitive and behavioural considerations and can be adapted to different types of city	Specific needs can be taken into consideration in the consultation process.	Consultation
19	AJICE	Sep-19	Feb-20	H2020	<a href="https://cordis.europa.eu/project/id/101017444">https://cordis.europa.eu/project/id/101017444</a>	MARTIN PREPARETTI SPA	The project has developed a custom-made solution for which they have applied for a patent pending. That can be integrated into urban architecture as a design feature, while offering multiple functions.	Road authorities, mobility planners and other urban mobility stakeholders.	Protection of public space, safety, security, and attack-mitigating solutions.	The AJICE barrier is made from a mix of steel and concrete. To be cost-effective in practice, it is available in different dimensions, variants and fittings and can be assembled in a modular way. Its reinforced meshed device allows each assembly by two people, despite weighing almost 2 tonnes. Depending on the model, the units can contain a variety of electronic devices responsible for specialist tasks, such as identification of incoming vehicles, people counting, sounding alarms or flying a drone.	The challenge for city authorities is to keep people safe. As far as possible, the designers want to avoid severe disruption to the public way of life, especially in densely populated and tourist societies. AJICE has been specifically designed to balance both needs, soundly alarms or flying a drone.	Taking into consideration this challenge in the street design consultation process. Make widely, raise awareness about a series of specifications that need to be taken into account for special needs (safety, security...)	Street design options

Table 4: Existing Modelling tools

CODE	Name product	Description	Goal / Achievement	Trageted users	Website	Keyword
1	Streetmix	This is an opensource online tool to design and conceive a variety of options for road and street space.	Consultation	Authorities, general public	<a href="https://streetmix.net/-/1562300#">https://streetmix.net/-/1562300#</a>	Option generation
2	TraMod 2.0	This is a tool for transport modeling developed in collaboration between traffic engineers, IT and GIS specialists. It can be fully implemented in a server environment with an application programming interface (API) for mobile and web applications. This creates an opportunity to test various traffic scenarios within seconds without a need to install and learn how to use desktop traffic modelling software or contacting traffic engineers every time a new roadwork appears in the region.	Street design modelling	Authorities, general public	<a href="https://trafficmodeller.com/">https://trafficmodeller.com/</a>	Option generation, Modelling
3	PolVisu	This website proposes a series of best practices and online courses that relate to sharing and gathering expertise in data supported policymaking.		Authorities, general public	<a href="https://policyvisuals.eu/">https://policyvisuals.eu/</a>	Option generation
4	Urban Transport Roadmaps	The Urban Transport Roadmaps project provides an on-line tool to help develop the first scenarios of a SUMP. With its simplified approach the tool serves as a first step for people with non-specialist knowledge and allows you to: i) explore and identify appropriate sustainable transport policy measures; ii) quantify the transport, environmental and economic impacts of these measures; iii) consider an implementation pathway (roadmap) for a specific policy scenario.	Policy evaluation & modelling	Authorities, general public	<a href="http://urban-transport-roadmaps.eu/">http://urban-transport-roadmaps.eu/</a>	Modelling
5	NISTO	This aims at developing an evaluation and planning toolkit for mobility projects which is applicable transnationally and can be adopted by planners. The partnership believes that the three pillars of sustainability (economy, environment and society) as well as the close integration of the stakeholders into the evaluation process are essential for the development of well-functioning, sustainable mobility projects.	Policy evaluation & modelling	Authorities, general public	<a href="http://www.nisto-project.eu/home.html">http://www.nisto-project.eu/home.html</a>	Option generation
6	AnyLogic	AnyLogic simulation modeling provides a Road Traffic Library, enabling traffic flow simulation with the power to deliver the most efficient road traffic engineering and design. Clear visualizations quickly aid development, with density maps highlighting congestion, and animations demonstrating traffic flow and bottlenecks. The freedom to experiment, and the ability to optimize accurate models, with traffic simulation software, provides the best platform for success in road traffic planning and engineering.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.anylogic.com/road-traffic/">https://www.anylogic.com/road-traffic/</a>	Traffic modelling
7	AimSun	Digital modeling is a safe and cost-effective way to test transportation schemes, or operations plans and help make your city safer, cleaner and more liveable. A digital twin can model current or proposed transportation infrastructure and the trips that people want to make, and matches them with the modes of transportation available, from cars, to taxis, buses, trams, car shares, or even walking.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.aimsun.com/aimsun-next/">https://www.aimsun.com/aimsun-next/</a>	Traffic modelling
8	TransModeler	This traffic simulation package is applicable to a wide array of traffic planning and modeling tasks. TransModeler can simulate all kinds of road networks, from freeways to downtown areas, and can analyze wide area multimodal networks in great detail and with high fidelity. The model can help visualize the behaviour of complex traffic systems in a 2-dimensional or 3-dimensional GIS environment to illustrate and evaluate traffic flow dynamics, traffic signal and ITS operations, and overall network performance.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.caliper.com/transmodeler/default.htm">https://www.caliper.com/transmodeler/default.htm</a>	Traffic modelling
9	SUMO	This tool is an open source, highly portable, microscopic and continuous multi-modal traffic simulation package designed to handle large networks.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.eclipse.org/sumo/">https://www.eclipse.org/sumo/</a>	Traffic modelling
10	SIMWALK	This tool allows to model all areas where car traffic and pedestrian interaction must be analyzed. Conduct capacity analyses at intersections, ramps, pavements, crossings, intersection corners, roundabouts, metro and station entrances - all in the same SimWalk model. It provides a full potential of an intermodal simulation to improve transport infrastructure	Policy evaluation & modelling	Authorities, general public	<a href="https://www.simwalk.com/modules/simwalk_roadtraffic.html">https://www.simwalk.com/modules/simwalk_roadtraffic.html</a>	Traffic modelling
11	VMC	This tool uses a stochastic macroscopic traffic model developed and implemented by us. This model allows to assess and to quantify the influence of traffic, for example on drive train loads, energy requirements and consumption, and also to systematically investigate sensitivities and dependencies.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.itwm.fraunhofer.de/en/departments/mt/dynamics-system-simulation/traffic-simulation.html">https://www.itwm.fraunhofer.de/en/departments/mt/dynamics-system-simulation/traffic-simulation.html</a>	Traffic modelling
12	Quadstone Paramics Modeller	Quadstone Paramics is a modular suite of microscopic simulation tools providing a powerful, integrated platform for modelling a complete range of real world traffic and transportation problems	Policy evaluation & modelling	Authorities, general public	<a href="https://www.paramics.co.uk/en/">https://www.paramics.co.uk/en/</a>	Traffic modelling
13	Treiber's Microsimulation of Road Traffic	Treiber's Microsimulation is a personal software project created by that author and used in his research of traffic dynamics and traffic modelling.	Policy evaluation & modelling	Authorities, general public	<a href="https://traffic-simulation.de/">https://traffic-simulation.de/</a>	Traffic modelling
14	Citizen Space	Citizen Space is a platform for consultations, engagement activities, surveys and response forms. It supports the end-to-end process of public involvement: from the design and creation of your response mechanism through data collection to final feedback and response publishing	Consultation	Authorities, general public	<a href="https://www.delib.net/citizen_space/geospatial">https://www.delib.net/citizen_space/geospatial</a>	Engagement activities
15	Commonplace	Commonplace aims at running online public consultations, dealing with strategic planning (regional & local plans), planning applications and design and Masterplanning. It uses the collective knowledge of a community to shape ideas and build better places It crowdsources knowledge from your community about ways to improve transport infrastructure and achieve planning approval.	Consultation	Authorities, general public	<a href="https://www.commonplace.is/">https://www.commonplace.is/</a>	Engagement activities

Table 5 - Existing Commercial Or Open Source Products

CODE	Name product	Description	Goal / Achievement	Trageted users	Website	Keyword
1	Streetmix	This is an opensource online tool to design and conceive a variety of options for road and street space.	Consultation	Authorities, general public	<a href="https://streetmix.net/-/1562300#">https://streetmix.net/-/1562300#</a>	Option generation
2	TraMod 2.0	This is a tool for transport modeling developed in collaboration between traffic engineers, IT and GIS specialists. It can be fully implemented in a server environment with an application programming interface (API) for mobile and web applications. This creates an opportunity to test various traffic scenarios within seconds without a need to install and learn how to use desktop traffic modelling software or contacting traffic engineers every time a new roadwork appears in the region.	Street design modelling	Authorities, general public	<a href="https://trafficmodeller.com/">https://trafficmodeller.com/</a>	Option generation, Modelling
3	PolVisu	This website proposes a series of best practices and online courses that relate to sharing and gathering expertise in data supported policymaking.		Authorities, general public	<a href="https://policyvisuals.eu/">https://policyvisuals.eu/</a>	Option generation
4	Urban Transport Roadmaps	The Urban Transport Roadmaps project provides an on-line tool to help develop the first scenarios of a SUMP. With its simplified approach the tool serves as a first step for people with non-specialist knowledge and allows you to: i) explore and identify appropriate sustainable transport policy measures; ii) quantify the transport, environmental and economic impacts of these measures; iii) consider an implementation pathway (roadmap) for a specific policy scenario.	Policy evaluation & modelling	Authorities, general public	<a href="http://urban-transport-roadmaps.eu/">http://urban-transport-roadmaps.eu/</a>	Modelling
5	NISTO	This aims at developing an evaluation and planning toolkit for mobility projects which is applicable transnationally and can be adopted by planners. The partnership believes that the three pillars of sustainability (economy, environment and society) as well as the close integration of the stakeholders into the evaluation process are essential for the development of well-functioning, sustainable mobility projects.	Policy evaluation & modelling	Authorities, general public	<a href="http://www.nisto-project.eu/home.html">http://www.nisto-project.eu/home.html</a>	Option generation
6	AnyLogic	AnyLogic simulation modeling provides a Road Traffic Library, enabling traffic flow simulation with the power to deliver the most efficient road traffic engineering and design. Clear visualizations quickly aid development, with density maps highlighting congestion, and animations demonstrating traffic flow and bottlenecks. The freedom to experiment, and the ability to optimize accurate models, with traffic simulation software, provides the best platform for success in road traffic planning and engineering.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.anylogic.com/road-traffic/">https://www.anylogic.com/road-traffic/</a>	Traffic modelling
7	AimSun	Digital modeling is a safe and cost-effective way to test transportation schemes, or operations plans and help make your city safer, cleaner and more liveable. A digital twin can model current or proposed transportation infrastructure and the trips that people want to make, and matches them with the modes of transportation available, from cars, to taxis, buses, trams, car shares, or even walking.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.aimsun.com/aimsun-next/">https://www.aimsun.com/aimsun-next/</a>	Traffic modelling
8	TransModeler	This traffic simulation package is applicable to a wide array of traffic planning and modeling tasks. TransModeler can simulate all kinds of road networks, from freeways to downtown areas, and can analyze wide area multimodal networks in great detail and with high fidelity. The model can help visualize the behaviour of complex traffic systems in a 2-dimensional or 3-dimensional GIS environment to illustrate and evaluate traffic flow dynamics, traffic signal and ITS operations, and overall network performance.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.caliper.com/transmodeler/default.htm">https://www.caliper.com/transmodeler/default.htm</a>	Traffic modelling
9	SUMO	This tool is an open source, highly portable, microscopic and continuous multi-modal traffic simulation package designed to handle large networks.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.eclipse.org/sumo/">https://www.eclipse.org/sumo/</a>	Traffic modelling
10	SIMWALK	This tool allows to model all areas where car traffic and pedestrian interaction must be analyzed. Conduct capacity analyses at intersections, ramps, pavements, crossings, intersection corners, roundabouts, metro and station entrances - all in the same SimWalk model. It provides a full potential of an intermodal simulation to improve transport infrastructure	Policy evaluation & modelling	Authorities, general public	<a href="https://www.simwalk.com/modules/simwalk_roadtraffic.html">https://www.simwalk.com/modules/simwalk_roadtraffic.html</a>	Traffic modelling
11	VMC	This tool uses a stochastic macroscopic traffic model developed and implemented by us. This model allows to assess and to quantify the influence of traffic, for example on drive train loads, energy requirements and consumption, and also to systematically investigate sensitivities and dependencies.	Policy evaluation & modelling	Authorities, general public	<a href="https://www.itwm.fraunhofer.de/en/departments/mt/dynamics-system-simulation/traffic-simulation.html">https://www.itwm.fraunhofer.de/en/departments/mt/dynamics-system-simulation/traffic-simulation.html</a>	Traffic modelling
12	Quadstone Paramics Modeller	Quadstone Paramics is a modular suite of microscopic simulation tools providing a powerful, integrated platform for modelling a complete range of real world traffic and transportation problems	Policy evaluation & modelling	Authorities, general public	<a href="https://www.paramics.co.uk/en/">https://www.paramics.co.uk/en/</a>	Traffic modelling
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14	Citizen Space	Citizen Space is a platform for consultations, engagement activities, surveys and response forms. It supports the end-to-end process of public involvement: from the design and creation of your response mechanism through data collection to final feedback and response publishing	Consultation	Authorities, general public	<a href="https://www.delib.net/citizen_space/geospatial">https://www.delib.net/citizen_space/geospatial</a>	Engagement activities
15	Commonplace	Commonplace aims at running online public consultations, dealing with strategic planning (regional & local plans), planning applications and design and Masterplanning. It uses the collective knowledge of a community to shape ideas and build better places It crowdsources knowledge from your community about ways to improve transport infrastructure and achieve planning approval.	Consultation	Authorities, general public	<a href="https://www.commonplace.is/">https://www.commonplace.is/</a>	Engagement activities

## 6.3 Actions planned

Based on the previous analysis of targeted stakeholders and market monitoring, we identified a series of actions. Some were implemented during the last phase of the project. Others will be implemented after the end of the project.

### 6.3.1 In-project actions

#### A. Workshop for Independent Evaluation

UITP organised Workshops for Independent Evaluation of the MORE products. It consisted of three elements:

- First: sessions during UITP Committees Meeting (Organising Authorities, Transport and Urban Life and Research) helped to present, discuss and collect feedback on the exploitable results with potential end users that took place in late 2020.
- Second: a workshop organised by UITP, POLIS and UCL took place online on 24 March 2021. This two-session workshop first dealt with road-space reallocation: governance challenges & practical issues in the morning session and dealt with visions of future streets in the afternoon session.
- Third: a workshop organised by Polis & UITP with UCL, BC and PTV to present the main outcome and to disseminate to a large public. This webinar was organised in the last quarter of 2021 and paved the way for the MORE Assembly of Partners Annual Meeting that took place in December 2021.

#### B. Other short-term actions

Other short-term actions were organised.

- Meeting with key officials in DGMOVE, DGREGIO and other relevant Directorates General (CONNECT, Environment) were organised to discuss the policy value of MORE to the Commission.
- MORE road user and road operator representative partners were invited to reach out to their memberships, raise awareness and establish interest in using MORE outputs. Also with the EC industrial platforms, starting with building a working link with ERTRAC.
- Links were developed with other European and national research projects.
- Engagement with city networks was made, via POLIS, ICLEI and EUROCITIES, again to raise awareness and establish interest.
- Engagement with national professional bodies via our five city partners, to identify the level and nature of interest in the MORE outputs; and with 'ground level' professional bodies working in the MORE cities to design and tailor the long-term training modules.
- Engagement with academic bodies in the universities in the five cities, to alert them to the resources that MORE will provide and encourage them to take up outputs in the research and teaching.

### **6.3.2 Post-project long term actions**

The strategy is also looking at the longer-term horizon for MORE exploitation through developing modules for academic and professional training that will be socially inclusive and gender sensitive.

#### **A. Academic research and teaching**

The academic community will be made aware of MORE concepts and outputs through presentations at international conferences and seminars, and through academic publications.

In addition, the results of the project have also been integrated into a course on "Street Planning and Design" for Master students at UCL.

#### **B. Finally, direct contacts will be made with university groups in the five MORE cities, and beyond.**

#### **Trainings**

UITP recognises training as a strategic field to develop given the amount of knowledge and expertise available among public transport companies and city authorities throughout the world. Over the last few years, the number of training programmes organised by UITP has grown exponentially with training activities being held in more than 57 countries and attracting participants from not less than 90 countries so far. We also joined forces with a number of strategic partners like the World Bank, world prestigious universities and major local transport stakeholders with the establishment of UITP Centres for Transport Excellence to boost the training programmes in the Middle East and North Africa and Asia-Pacific regions. Within the UITP portfolio of trainings there are a number of programs where MORE results will be integrated. This includes:

##### [a\) UITP Leaders in Urban Transport Planning](#)

#### **Objectives**

Last organized in 2016 in Johannesburg, this was a 5-day learning programme organized jointly by the World Bank and the UITP, with support from Gauteng Roads and Transport Department, PPIAF, Korea Green Growth Trust Fund, and ESMAP, this event aims at developing leadership capabilities in urban mobility planning. It seeks to create awareness of integrated mobility planning, its components, and implementation.

##### [b\) UITP Integration of Urban Planning and Public Transport](#)

#### **Objectives**

Last organised in Melbourne, Australia in 2018, the objectives of the training are:

- Share best practice, both internationally and locally, in the area of integrated transport planning;

- Examine different aspects of transport planning, including modal integration, city shaping and place making, 15-minute cities and customer-focussed planning;
- Highlight case studies across the European Union;
- Provide a forum for exchange between government authorities, operators, suppliers and industry;
- Develop industry networks and contacts.

#### c) Polis Working Group on Parking

##### **Objectives**

As joint initiative of Polis and the European Parking Association, the Polis Parking Working Group brings members of both organisations together to discuss challenges related to urban parking policies. Within the Working Group on Parking, Polis and EPA members discuss topics such as the relation between parking and urban development, opportunities of digital technologies applied to parking management, the role of parking in supporting new urban mobility lifestyles and designing parking solutions that enable future innovations.

The potential of the MORE tools (especially VISSIM) in producing simulations of possible future road-space design options, with regards to parking lots and kerb-side access and management, could be presented to the members of the Working Group, with the objective of explaining their functionalities and features to cities and interested stakeholders currently dealing with issues of parking spaces evaluation.

#### d) Polis Working Group on Access

##### **Objectives**

Within the Working Group on Access, Polis members jointly work on how to best address challenges such as access regulations, pricing, infrastructure, and accessibility for all. The development of inclusive transport services, being public or private, is key in this regard. The working group looks at both economic and social access, including access to transport services for people with reduced mobility, access to jobs, education and other services.

# 7 Conclusion

This Final Exploitation and Legacy Plan (FELP) provides an updated version of the Interim Exploitation Plan as set out in D6.2, which highlighted knowledge generated during the first reporting period.

D6.3 has now set out the exploitable results, the target groups to be engaged, examples of the key messages to be used, how the markets have been monitored and a suitable action plan with medium term actions such as an Independent Evaluation Workshop and long-term actions such as UITP Trainings.

The content of this Final Exploitation and Legacy Plan (D6.3) takes into account the latest achievements of MORE. This includes more defined results to be exploited, further meetings with professional stakeholders and monitoring of the markets where the MORE tools will find themselves.

This Exploitation and Legacy Plan ensures the best use and the dissemination and legacy of the knowledge achieved during the project and underlines the added value of the project, achieve legacy and boost further scientific developments beyond the project.

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