

URBANITE

Supporting the decision-making in urban transformation with the use of disruptive technologies

Deliverable D7.1

URBANITE brochure and public website

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Status-Version:	Final – v1.0
Date:	31.07.2020
Distribution level (CO, PU):	PU

Project Number:	GA 870338
Project Title:	URBANITE

Title of Deliverable:	URBANITE brochure and public website	
Due Date of Delivery to the EC:	31.07.2020	

Workpackage responsible for the Deliverable:	WP7
Editor(s):	Juncal Alonso, Leire Orue-Echevarria (TECNALIA)
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Approved by:	All Partners
Recommended/mandatory readers:	All WPs

Abstract:	The initial version of the brochure and project website will include at least project objectives and contact details. URBANITE website will be set-up and continuously enhanced by all partners to include public downloadable results and links to related news and initiatives.	
Keyword List:	Website, brochure, communication	
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Document Description

Document Revision History

Version	Data	Modifications Introd	luced
version	Date	Modification Reason	Modified by
v0.1	13.07.2020	First draft version	Leire Orue-Echevarria (TECNALIA)
v0.2	13.07.2020	Sent for internal review	Leire Orue-Echevarria (TECNALIA)
V0.3	27.07.2020	Addressed comments from the internal reviewer	Leire Orue-Echevarria (TECNALIA)
V1.0	27.07.2020	Ready for submission	Leire Orue-Echevarria (TECNALIA)

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ECEuropean CommissionEUEuropean UnionRGBRed Green Blue

Terms and abbreviations

Executive Summary

This document has a twofold objective. Firstly, it presents the look and feel of the URBANITE website, supported by some wireframes, and the initial content that the website is to have in the first version launched in July 2020. The website will be regularly updated with the addition of new content in the form of deliverables, news, blog posts, etc. Secondly, it outlines the main message of the URBANITE brochure. Similarly, to the website, there will be subsequent versions of this brochure with updated content.

This deliverable is a key pillar of the outreach strategy and will also serve to establish the URBANITE brand.

The document is structured as follows. Section 1 is the introduction of the deliverable. Section 2 presents the website structure, the look and feel with elements such as the colour palette, the images, and style, as well as the structure and content. This section of the document has been created having in mind the developers of URBANITE's website, as they are the main target audience of this document. Section 3 outlines the main aspects of the URBANITE brochure in terms of messages and content. The main target audience of this section is actually the graphical designers that will work in the creation of the brochure. Section 4 presents the conclusions of the deliverable.

1 Introduction

1.1 About this deliverable

The objective of this deliverable is twofold. On one hand, it presents the look and feel requirements, as well as the structure and main contents of the URBANITE website. On the other hand, it presents how the first version of the leaflet should be organized and the main content that it should contain.

1.2 Document structure

The document is structured as follows. Section 1 is the introduction of the deliverable. Section 2 presents the website structure, the look and feel with elements such as the colour palette, the images, and style, as well as the structure and content. This section of the document has been created having in mind the developers of URBANITE's website, as they are the main target audience of this document. Section 3 outlines the main aspects of the URBANITE brochure in terms of messages and content. The main target audience of this section is actually the graphical designers that will work in the creation of the brochure. Section 4 presents the conclusions of the deliverable.

2 Public Website

2.1 Structure

The website is a powerful communication and dissemination tool that will be updated on a regular basis as the project evolves. At this stage, the structure that we envision is as follows:

- About URBANITE
 - o Vision
 - Objectives
 - o Solution
 - o Approach
- Pilots: a brief description of the main challenges of the pilots
- Results:
 - Deliverables: Public deliverables
 - Open Source software
 - Publications: details on the papers and journals that have been published.
 - o Communication: leaflet, brochure, and so on
- Team:
 - Partners: brief description of the partners.
- Blog
- Contact us: form to contact the project coordinator.
- Private Area: link to the project's Alfresco repository.

2.2 Graphical Appearance

2.2.1 Color palette

The URBANITE Color palette in RGB format is as follows:

- Green: 19-153-115
- Yellow: 234-206-0

The website will use as baseline the following theme: <u>https://www.refaktor.org/drupal/porto7/one-page</u> (One-page site).

2.2.2 Menu

The menu of the website will be located in the upper side of the screen.



Figure 1. Location of the menu in the screen

The menu structure shall be as follows:



Figure 2. Menu structure

2.2.3 Body

The content is described in the next section (section 2.3)

2.2.4 Footer

The footer of the page should include the following information, compliant also with the EC norms.

This proj	ect has received funding from the European Union's Horizon 20	220 research and innovation programme under grant agreement No 870338
© 2020 TECNALIA. All Parque Científico y Tecnológi	. rights reserved. co de Bizkaia - C/ Geldo. Edificio 700. E-48160 Derio (Bizkaia). Tel.:	Legal information Privacy policy Cookie preferences
902.760.000 - International c	alls: (+34) 946.430.850	

Figure 3. Footer appearance of the URBANITE Website

The page disclaimer shall comply with the requirements of the European Commission. The EC flag shall appear following the guidelines of the EC, as well as the claim "This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 870338", as well as the corresponding Legal Information, Policy information and cookies information.

It shall also include the Twitter widget, and the details of contact of the person coordinating the project:

Latests Tweets	Contact us	Follow us			
Tweets by @URBANITEH2020	COORDINATOR: TECNALIA RESEARCH & INNOVATION	y w b			
CREANUTE Retweeted Image: Creanital Control Contro Control Control Con	Address: Parque Tecnológico de Bizkaia, Edif. 700. 43160 Perio. Bizkaia (Spain) Phone: +34-946-430850 Email: sergio.campos@vecnalia.com Itecnolígo tecnologica (Spain) Manager (State Spain) Manager (Spain) Manager (Spain) M				
			Legal information Privacy policy	Cookie preferences	

Figure 4. Footer (2) appearance of the URBANITE Website

URBANITE website shall present the logos of the following social networks:

- Twitter
- Slideshare
- YouTube

Moreover, it will include the legal information, privacy policy and the cookie preferences.

2.3 Content

2.3.1 Home page

When the user lands at the URBANITE homepage, the first thing he will see is the 'Home'.

2.3.1.1 Carrousel of images

The following images should appear in the moving carrousel of images that this template presents. The text is also detailed.



Figure 5. Image 1 of the carrousel



Figure 6. Image 2 of the carrousel





2.3.1.2 One-page homepage

The homepage shall look similar to this:

About URBANITE

		RESULTS	
Vision	Objectives	Results	Approach

Evidence – based | Data - driven

Decision making in the urban transformation field using disruptive technologies and a participatory approach

Attitude, trust, benefits and risks of using disruptive technologies to support decision - making

Our Features

- Social policy lab: Involvement of stakeholders
- Modularity, i.e. each component provides specific functionalities and exposes clear interfaces,
- Adaptability to heterogeneous city and region contexts and ICT maturity levels, from complete implementation to complementary add-on components
- Interoperable, i.e. vertical and horizontal interoperability among modules and with existing systems
- Based on (European) open standards

Piloting cities



Figure 8. One-page homepage

2.3.2 About URBANITE

When clicking on the menu 'About URBANITE' the page should scroll down, and the following images should appear:

About URBANITE



Figure 9. About URBANITE

Then, when clicking on the icons, new pages should open. The content of each of the pages is shown next.

2.3.2.1 Vision

The text of the vision should be:

URBANITE solution consists of a reference architecture and the implementation of a set of generic components for urban mobility that can be adaptable to the context and needs of each city or region. The main characteristics of this solution are:

- modularity, i.e. each component provides specific functionalities and exposes clear interfaces,
- adaptability to heterogeneous city and region contexts and ICT maturity levels, from complete implementation to complementary add-on components
- interoperability, i.e. vertical and horizontal interoperability among modules and with existing systems
- based on (European) open standards.

The Vision page shall look like this:



Figure 10. Vision

2.3.2.2 Objectives

When clicking on 'objectives', a page similar to this shall appear.



Figure 11. URBANITE Objectives

The text that should appear is as follows (they are written here in italics but on the website, this shall not be the case).

The main objectives of URBANITE are to:

- Create an in-depth knowledge on the implications of the use of the disruptive technologies (e.g. AI), in the public sector and other stakeholders of the mobility and urban transformation value chain.
- **Provide automatic mechanisms to harvest, curate, fusion and visualization of existing open and proprietary data** coming from different sources related to urban mobility and transportation
- Facilitate the policy decision-making processes in the context of mobility and urban transformation with a scalable, integrated and modular ICT ecosystem built upon disruptive technologies
- Validate URBANITE Key Results in 4 real use cases: Amsterdam, Bilbao, Helsinki and Messina
- Develop a viable business model to ensure the sustainability of URBANITE

2.3.2.3 Solution

The site should appear as follows:



The text to include is:

The URBANITE solution provides:

- **A Data Management Platform** supporting the entire processing chain from collecting, aggregating, provisioning to using the data.
- A Decision-Support System including (AI based) predictive algorithms and simulation models for mobility that support the decision-making process by analyzing the current situation, the trends that occurred in a certain timeframe and allowing to predict future situations, when changing one or more variables.
- **A Social Policy Lab** built upon two pillars: 1) co-creation sessions, both for the policyrelated aspects and the design of the platform and 2) the empirical analysis on trust, attitude, impact, benefits and risks of the stakeholders in the use of URBANITE's disruptive technologies

2.3.2.4 Approach

The site should appear as follows.



The text to be included is:

Key Features:

- Involvement of stakeholders
- Analysis of the attitude towards the use of disruptive technologies for decision-making
- Data management platform
- A Decision Support system

2.3.3 Pilots

When clicking on pilots, the following page should appear



AMSTERDAM BILBAO HELSINKI MESSINA

Figure 12. Pilots

And then, when clicking on each city, more information about the pilot should appear. One page per pilot.

This information will be expanded and improved as the project progresses.

Amsterdam

Amsterdam, the capital of the Netherlands, is a municipality with 800.000 inhabitants. The city harbours many creative and technological businesses and has a strong focus on innovation, winning the iCapital award in 2016, with their Amsterdam Approach. This approach to innovation is not solely economically driven, and incorporates cooperative strategies involving the quadruple helix. Amsterdam aims to stay a frontrunner in the digital transition of government services and the changing role of government in society. The city recently presented its agenda on this topic "The Digital City", which focusses on a free, inclusive, and creative city. This agenda includes policy, experiments and guidelines on digital infrastructure, digital rights, and room for creative projects, enabling innovation with the citizen at its centre. The organization and collaboration between commercial, societal and governmental is organized in consortia, such as Amsterdam Smart City. Here parties look at city wide innovation topics and together develop initiatives to tackle urban challenges.

Another topic that is of growing importance in the city is figuring out their data position. This evolving position looks at how to deal with data generated by the city and how data is generated and used by businesses in cooperation with the city. One of the main ways the city relates to this is issue, is by developing leading principles on data usage. These principles are collected in the TADA manifest. These six principles are designed by the city in collaboration with stakeholders on how to deal with data responsibly¹.

Another core issue in Amsterdam is its rapid growth. More inhabitants and visitors lead to increased mobility and traffic issues. In order to deal with this growth there is a specific focus on Smart Mobility. The city has complex traffic streams with massive amounts of bicycles combined with cars and public transport. To manage these traffic issues there is a need for better data analysis in order to create sustainable mobility solutions.

Bilbao

With an area of 41,60 km2 and around 355,000 inhabitants, Bilbao is located right in the heart of a metropolitan area that extends along the estuary of the Nervión River with a population close to 1 million.

In the last 25 years Bilbao has suffered an important urban transformation from an industrial economy with heavy industry and harbour facilities to a city based on a service economy. This has helped to balance the city and provide a friendly environment for pedestrians with wider pavements; reduction of on-streetcar parking in the city centre; traffic light control system to cater to pedestrians; promenades for walking and cycling. Today, 65% of internal movements are produced on foot.

In the framework of the ITS Plans of the city, Bilbao's investment has been oriented to promote public transport, user-centric information services (open data policy integrating static and dynamic standardized information), improve safety and reduce traffic congestion (new traffic management systems) and pollution. Exploitation of the city's IT infrastructure has allowed

¹ <u>https://tada.city/en/home-en/</u>

defining and implementing a modular ITS architecture, ready to grow up and admit any new system.

Due to the orography of the city and the growth population living on the hillsides, Bilbao developed an "Accessibility Plan" focused on facilitating access and mobility in these High Districts primarily for elderly and groups with special needs.

Bilbao has been also working on public-private partnerships to solve the complexities of the urban freight delivery.

Recently, Bilbao launched its Sustainable Urban Mobility Plan (SUMP) for the horizon 2030 with the objectives of:

- Reducing air and noise pollution
- Improving safety by reducing accidents and fatalities
- Guaranteeing universal accessibility
- Improve energy and transport (passengers and goods) efficiency
- Contribute to improve the attractiveness and environmental quality of the city

In the context of the SUMP, the city has carried out some initiatives like Bilbao 30 to calm the traffic to favour bike mobility, promotion of Electric Vehicles (EVs) with a new e-bike sharing service, grants for acquisition of EVs, replacement of some BilboBus's fleet for E-buses, implementation of charging points, and so on.

Bilbao is also deploying a public wifi network to be upgraded to LTE communication technology.

Another relevant topic is Zorrotzaurre island project, which is the latest major urban regeneration project to be implemented in Bilbao. The regeneration of Zorrotzaurre represents a balanced and integral project, defined by concepts of sustainability, that recuperates a degraded space and converts it into a new quarter of Bilbao.

The city SUMP prioritizes actions on the 8 defined strategic areas linked to a set of indicators to measure the achievement of the SUMP's objectives. However, there is not any data-driven decision mechanisms supporting its implementation or monitoring tools. There is a dashboard in place to calculate the indicators, but data feed is done manually and even in many cases. it is difficult to gather the necessary data or of enough quality, particularly when data sources rely on external departments or third parties.

Bilbao open data policy aims to promote the development of user-centric mobility services. The city manages the information related to the transport network they are responsible of but there are other mobility service providers (public and private) in the city that produce data related to other transport modes and their uses. These distributed and non-standardized data approach derives in a misuse of information to really understand the mobility patterns of the city to lead into the best policies and mobility services implementation.

Besides, there are other socio-economic and cultural factors that influence the mobility and technology services choices of the citizens that may not be taken into account in the mobility and urban planning and that require further attention.

Helsinki

Jätkäsaari (West Harbour) is a growing passenger and transport harbour and a new residential district construction site, right adjacent to the center of Helsinki. It is currently the world's largest passenger port. The harbour is the main connection between Helsinki and Tallinn, with growing

mobility and new terminal 2017. Annually 1 million private cars travel on the connection. Jätkäsaari is also a new development site for 18.000 new residents and 6.000 new jobs. Truck freight traffic from and to ferries provide economic feasibility of the ferry routes. A single road leads in and out of Jätkäsaari. This road feeds directly to the largest car commuting junction (70.000 cars daily) from the city centre to the western suburbs of Helsinki, creating interference. The site is such that infrastructure investments (bridge, tunnel) are not economically feasible. Also, Jätkäsaari public transport (tram) is out of capacity at peak hours (nicknamed "Hate Tram" in local media).

The data system around mobility the district has been catalogued at Helsinki West Harbour Data and Interfaces (2017, on-line at https://www.hel.fi/hel2/ksv/julkaisut/los_2017-3.pdf), containing description of open data sets, real time data sets, and some closed data sets that are available and/or would be needed towards mobility needs. This catalogue is also the base line for the project but will be complemented with other data sets from private sources and other sectors' data (like social data).

Actual application details will be co-designed with the city's stakeholders responsible for mobility (participating units listed above), mobility users, and projects' experts/researchers. Specific data analysis and machine learning algorithms are co-designed with this group in a process that entails both planning and shared learning. Only through this multi-stakeholder co-design process, we can get hands-on into all ethical, legal, societal and cultural aspects regarding big data and artificial intelligence on mobility planning and understand the attitude of all involved stakeholders towards the use of such technologies in the decision – making process, as well as how these affect their trust.

These aspects will be analysed when big data and artificial intelligence technologies to achieve the following:

- Identifying Mobility Patterns Going beyond origin-destination matrices: Better understanding of mobility patterns. Identification of key mobility issues based on data, and key opportunities based on new algorithms for mobility management. Understanding of clusters of mobility users, their needs, their mobility patterns, and current problems with their mobility from the data, focusing especially on user groups with transport poverty.
- Enabling Machine Learning for Planning -Making mobility data machine-learning -ready: Going through the mobility data catalogue and analysing and improving it from the big data and machine learning opportunities perspective. While some data sets are immediately usable, others will require annotation process, and some data sets will require harmonization work.
- Better urban planning: Collection of a multi-source big data will help City plan the Jätkäsaari district (and other future districts) better. For example, integrating air quality data, transport data, wellbeing data, locations of schools, eldercare services, with real-world big data where people actually move (e.g. based on 4G positioning), will help the City engage into user- and data-centric urban planning of roads, streets, etc.
- Designing functional, manageable feed-back loops between mobility system data and mobility management and planning. Blueprints for new concepts, methods and frameworks for future data-driven systems mobility, creating opportunities to integrate mobility management and mobility planning in a real time learning smart city.

Messina

The city of Messina is the third largest city in Sicily with a population of around 250,000. The area is a vital service centre not only for the surrounding municipalities of the province, but also for the Calabria and Straits area. Its particular geographical position makes Messina the gateway to Sicily from the mainland. As a matter of fact, it has always served as a crossroads for Sicily.

Messina is the first stop for those who come from the strait. Therefore, the flow of commuters comes from the surrounding area municipalities and from the sea. The port of Messina is one of the first Italian port that appears in the top ten of European ports for passenger according to the recently published Eurostat survey. The port area is a centre for logistics and contains both civil and military shipyards. Peculiar to the city of Messina is the local public transport consisting mainly of buses, tramway and rail transports network and of hydrofoil and ferry boats fleets.

The municipality of Messina is investing a lot in infrastructure and smart services for the city and citizens. It is proved by the several activities it is carrying on, such as vehicular access detection in LTZ (Limited Traffic Zone) and pedestrian areas, centralized traffic management based on smart lights, micro and macro simulation of traffic flows and analysis, incentives to use public transportation, video surveillance.

To this aims, it has set up an ICT infrastructure to perform the following monitoring activities:

- real time tracking of bus and tram positions in the city;
- vehicular access detection in LTZ (Limited Traffic Zone) and pedestrian areas based on vehicular plate recognition at well identified access gate;
- access detection of trucks moving dangerous goods in the urban area based on OCR video-cameras;
- noise monitoring for traffic degree detection;
- electro-magnetic field monitoring for electro-magnetic pollution detection.
- Bus and tram tracking, and noise and electro-magnetic monitoring activities are at operating speed from several years (the monthly and yearly reports can be seen on the Municipality web site https://trasparenza.comunemessina.gov.it/stato-ambiente.html).
- Vehicular access monitoring-based OCR video-cameras is in a testing stage and will start to operate in May 2019.

The Municipality of Messina aims to make its urban mobility system hard to be managed for several reasons, also due its geographical peculiarities, that are:

- the main points of connection of the city (and of Sicily) with the mainland and some of the neighbouring municipalities are in the urban centre, and involve different transportation systems (ferryboats, trains, hydrofoils, inter-regional buses)
- the geographical shape of the city is stretched for 32 km beside the Tirrenian sea, and tight between its hills and the sea.

Citizens cope daily with public transport delay, traffic jams, works and unforeseen depending on the weather and geographical features. The main challenge the Municipality of Messina has to tackle in the coming years is to build mobility services fulfilling the need of citizens, dwellers, commuters and visitors to move seamless and without hurdles thanks to an expanded array of transportation options and services in the meantime to secure and to optimise the management and interaction among the different mobility and monitoring systems and services available in its urban area reducing the waste of resources and of costs for the public administration. As matter of fact the Municipality of Messina is well-equipped with real time urban mobility monitoring systems The main challenges for the Municipality of Messina are:

- Improving communication towards citizens to build a sense of ownership to the city, and to support them in urban shifts
- put people at the center of the public transport system management, thus to address effective needs of citizens
- make the Public Transport system more attractive, thus to improve the sustainability of the urban mobility
- to create an urban ecosystem for optimized urban management involving public administrations, private transport companies and citizens
- integrate different transport services and systems (local public transport, transport information in real-time, parking, ticketing, urban monitoring systems, car sharing and carpooling) in order to provide seamless services to citizens
- develop and exploit social media strategies affecting and shifting citizens travel behaviors by engaging and placing dwellers, commuters and visitors as co-creators in the urban mobility services making citizens active players in the achievement of urban mobility goals.

2.3.4 Results

2.3.4.1 Open Source Software

The following text should appear here.

URBANITE's software components will be released, at least partly, as open source.

The link to the GitLab public repository will be published soon.

2.3.4.2 Deliverables

This page shall contain a table following this format:

Table 1 Deliverable List

	Deliverable	File		
D7.1	URBANITE brochure and public website			
D2.2	Mapping of stakeholders			
D3.1	URBANITE Mobility data sources analysis			
D5.3	Integration strategy			
D7.2	2 Communication, Networking Plan and Dissemination Strategy			
D4.1	Strategies and algorithms for data modelling and visualizations			
D3.4	URBANITE data structure and semantic model specification			
D5.1	Detailed requirements specification			
D2.1	Analysis of experiences in other industries			
D2.3	SOPO Lab first session "Ask: defining challenges and formulating shared values and principles"			
D4 5	Recommendation system for policy design			
D5.4	URBANITE Detailed architecture			
D5.6	URBANITE DevOps Infrastructure			
D7.3	Dissemination, communication and networking report			
D5.7	URBANITE Ecosystem			
D3.2	Data harvesting module and connectors implementation-v1			
D3.5	Data curation module implementation			

	Deliverable	File		
D3.7	7 Data aggregation and storage module implementation			
D2 4	SOPO Lab second session "Create: going into the details of challenges and			
02.4	designing roadmaps"			
D5.2	Detailed requirements specification			
D4.2	, Implementation of strategies and algorithms for data modelling and visualizations			
D4.3	URBANITE policy decision model			
D4.4	URBANITE traffic flow model			
D5.5	URBANITE Detailed architecture			
D7.4	Dissemination, communication and networking report			
SOPO Lab third session "Policy: translating insights into practical po				
D2.5	and requirements"			
D5.8	URBANITE Ecosystem			
D2.6	Impact analysis and recommendations			
D3.3	Data harvesting module and connectors implementation-v2			
D3.6	Data curation module implementation			
D3.8	Data aggregation and storage module implementation			
D4.6	Final implementation of the recommendation system for policy design			
D5.9	URBANITE Ecosystem			
D7.5	Dissemination, communication and networking report			

2.3.4.3 Publications

This page shall contain information about the articles, journals and general publications released in the project, under the following format:



Figure 13. Publications format

For the time being, the following text needs to be included:

No publications yet available.

Come back soon!

2.3.4.4 Communication

This page will contain the links to the different communications released in the context of the project such as:

- Leaflet
- Brochure
- Press releases
- Newsletters

For the time being, the following text shall appear in this section:

No communications published yet.

Come back soon!

2.3.5 Team

In the main page, the part corresponding to the team shall look like this:



When clicking on the logo of a partner, the user will be redirected to the 'partners' page, that contains a map and all the descriptions of the partners.

The following text shall appear in this section:

URBANITE consortium is composed of eleven partners from six different countries, representing Northern, Southern and Eastern Europe.



Then, a brief description of all partners shall follow, under the following format:

Tecnalia

tecnalia) inspiring

TECNALIA Research & Innovation is the first privately funded Applied Research Centre in Spain and one of the leading such centres in Europe. With our 1,475 highly-qualified employees, a 110 million Euros turnover and a portfolio with over 4,000 clients, TECNALIA is determined to change its way of

working with companies to promote the transformation of knowledge into wealth.

Read More

Figure 14. Example of how a partner information shall appear

The text to include for the partners is as follows:

2.3.5.1 TECNALIA

TECNALIA Research and Innovation (TECNALIA, www.tecnalia.com) is a private, non-for-profit, applied research centre of international excellence with a strong market orientation aiming at achieving the major impact in economic terms, through the innovation and technological development. TECNALIA is the largest private R+D+i entity in Spain and the 5th in Europe, with a staff of over 1.300 employees (280 PhDs) from 30 different nationalities, and an income of 108M \in in 2019.

The whole team at TECNALIA has one GOAL: to transform technology into GDP, meaning wealth to improve people's quality of life through generation of business opportunities for industry. TECNALIA is committed to generate major impacts in economic terms, by means of innovation and technological development, addressed by 6 business divisions covering the economic sectors of Building Technologies, Energy and Environment, ICT, Industry and Transport, Lab Services, and Health. TECNALIA has been granted 483 patents and promoted more than 30 spin-off companies. TECNALIA is an equal opportunity employer. Current ratio of female/male employees is 43/57.

TECNALIA is a key agent in the ERA - European Research Area. TECNALIA actively participates in the governing bodies of several European Technology Platforms, PPPs and JTIs (EEB, FOF, SPIRE, ARTEMIS...). In FP7 activity TECNALIA had position 11th among RTOs and 23rd in absolute, according to the EC's 7th FP7 Monitoring Report (Final), since we partnered in 377 projects, coordinating 81 of them; in H2020 TECNALIA is similarly active and participates in 301 projects, coordinating 62 of them, up to the end of May 2020. TECNALIA is a member of EARTO and of EUROTECH, linking together the most important RTOs in Europe. TECNALIA has been the more active organization in the ARTEMIS Programme, participating in 27 projects and also in 13 ECSEL projects.

TECNALIA is member and belongs to the Steering Board of the main EU Partnerships (PPPs, KETs, KICs, ETPs, EIPs, JTIs such as euRobotics, BDVA, ECSO, ECSEL, AI Alliance, FoF, EEB, EGVI, SPIRE, NEM, KIC EIT Manufacturing).

Website: <u>www.tecnalia.com</u>

2.3.5.2 Alma Digit

Alma Digit offers consulting services to small and medium-sized public and private companies in order to develop highly innovative solutions in ICT (Information and Communication Technology). According to Gartner's data, digital incompetence will cause a quarter of organizations to lose their market position. In this scenario, Alma Digit aims at adopting the most recent Cloud/Edge/Fog Computing, Internet of Things (IoT) and Social Media technologies in order to provide a wide range of solutions. This is possible because Alma Digit, academic spin-off of the University of Messina, continuously and carefully cooperates with ICT researchers in order to transfer the technological innovation from the academic to the industrial context. In particular, Alma Digit provides design and implementation of scalable Cloud-based products tailored to the specific customer needs. The proposed and developed solutions will provide efficient tools for storing, processing and analysing data, using in-site or public systems, and considering the ease of use of developed systems as being of prime importance. At the same time, Alma Digit looks at social media solutions and social big data analytics in order to produce ICT services and applications to customers able to improve the digital marketing and communication. The society praises experience in international projects and in maintaining relations with the local territory pushing both industrial and academic applied research in order to meet the real needs of the market. Thanks to the EU-funded Horizon 2020 project frontierCities2, Alma Digit is actively involved in promoting and developing the FIWARE technology in its products and Future Internet services, particularly within industry 4.0 and digital culture initiatives. Alma Digit's clients have the opportunity to innovate their production and communication systems using advanced technology solutions designed to ensure maximum efficiency and interoperability.

http://www.almadigit.com/

2.3.5.3 Comune di Messina

The **Urban mobility department** and the Department of **Cultural and Educational policies and Economic Development Department** of the Municipality of Messina are committed in the URBANITE project. Messina is the third largest city on the island of Sicily, Italy. It has a population of about 250,000 inhabitants in the city proper and about 500,000 in the province. It is located near the northeast corner of Sicily, at the Strait of Messina, just opposite the province of Reggio Calabria on the mainland). The Municipality affects strongly the regional policies and the local ones. In fact, it plays an active part into the policy and strategic planning activity of the Sicilian Regional Government and at local territorial level; it is the main player in charge of developing and implementing local policies.

- a) The urban mobility and viability department is mainly in charge of:
- drafting and updating of the Urban traffic Plan (PUT) of the Urban Mobility Plan (PUM)
- designing and managing in the field of infomobility (information services for mobile users).
- Implementing, administrative management and updating of the ZTL
- programming and managing of traffic light and control systems.
- monitoring activities of noise pollution originating from vehicular traffic and electromagnetic field.

The Urban mobility department works by means of different instruments and through an integrated and multi-disciplinary approach able to attract external and private resources that along with public funds are able to stimulate investments in different urban areas with a common gaol of underpinning sustainable and smart mobility of the Municipality of Messina.

b) The Department of Economic Development is a municipality office devoted to define and work out the strategic plan for urban regeneration of its area. Consultancy and promotion activities for companies of all sizes. Entrepreneurial training. Territorial marketing. Socio-economic analysis. International relations and gender policies, cultures of differences and relations with the University.

https://comune.messina.it/

2.3.5.4 Engineering Ingegneria Informatica SpA

Engineering (ENG) was founded in 1980 and is currently the first IT group in Italy, among the top 10 IT groups in Europe, with around 10,500 employees and over 50 branch offices distributed in Italy, Germany, Spain, Belgium, Republic of Serbia, South America (Brazil and Argentina) and United States. The group produces IT innovation to more than 1,000 large clients, with a complete offer combining system and business integration, outsourcing, cloud services, consulting, and proprietary solutions. In 2017, consolidated revenues were more than 1 billion Euro, with a share of 10% of domestic market.

ENG operates through 4 business units, Finance, Public Administration & Health, Industry & Services and Telco & Utilities, delivering innovative IT solutions to main vertical markets: Central & Local Government, Transportation & Services, Aerospace, Automotive, Banks, Consumer Products, Defence & Space, Energy & Utilities, Fashion & Luxury, Healthcare, Homeland Security, Insurance, International Bodies, Life Science, Manufacturing, Media, Retail, Telecommunications, and Welfare & Social Security. Also, ENG operates in the outsourcing and cloud computing market via an integrated network of 4 Data Centers, equipped with infrastructure aligned to the best technological, quality and security standards, managing about 21,000 servers and 230,000 workstations.

ENG divisions are supported by cross-business Competence Centers focused on key success technologies and solutions, including the ones on Intelligent Transportation Systems (ITS) and Big Data & Analytics.

Since 1987, ENG innovation capability is supported by its Central Unit of Research & Development, with around 300 researchers currently involved in over 70 research projects cofunded by national and international authorities. The R&D Unit is located across 6 different locations in Italy (Palermo, Naples, Lecce, Rome, Milan, Trento), with about 33 million Euro in annual investment.

ENG is mainly involved in the project through the Open Public Service Innovation (OPSI) Lab, part of R&D Unit. The OPSI Lab works on the themes of Innovation for Public Sector, Social Innovation

and Smart Cities, with special focus on the urban mobility field. The OPSI Lab takes care also of transferring R&D knowledge and results towards ENG's Business Units addressing the Smart City and Central & Local Government markets, acting as an innovation flywheel.

https://www.eng.it/

2.3.5.5 Forum Virium Helsinki

Forum Virium Helsinki (FVH) is a non-profit enterprise owned by the City of Helsinki and founded in 2006. As part of the City of Helsinki Group, FVH is an innovation unit playing a key role in developing and implementing the Smart City and Open City strategies of the City of Helsinki. Helsinki has been recognised as one of the top six smart cities in the Europe in the 2014 European Parliament study "Mapping the European Smart Cities". Helsinki is among the ten fastest growing metropolitan areas in Europe. FVH implements the Helsinki smart city strategy in the new urban development projects, coordinating the development of the Kalasatama Smart City District, open data at Helsinki Region Infoshare, future mobility test bed at Jätkäsaari Smart Mobility Lab, and other initiatives.

FVH has a long track record in European projects. It is the coordinator of the 6Aika – Open and Smart Services strategy of the six largest cities of Finland (ERDF, 110 MIO), coordinator of FABULOS – robot bus pilot - project (Horion2020, 7 MIO), coordinator of Select4Cities – IoE platform for smart cities – project (Horizon2020, 6 MIO), business model WP leader in FINEST TWINS (H2020 Widespread), partner in EMPOWER and MUV projects (smart mobility, H2020), WP leader in SILVER (FP7 PCP), CreateFI (FI PPP accelerator) and D-CENT (FP7) projects. It has coordinated the CitySDK (ICT PSP) with excellent reviews.

https://forumvirium.fi/

2.3.5.6 Fraunhofer Fokus

The FRAUNHOFER Society is one of the leading organisations of applied research and development in Europe. One of the main goals of the FRAUNHOFER Society is to link scientific work with industrial demands.

Fraunhofer Institute for Open Communication Systems (Fraunhofer FOKUS), based in Berlin, Germany, develops solutions for the communication infrastructure of the future. The research institute explores how information and communication will contribute to a more secure and convenient living. Thus, the institute addresses important challenges in the society and the smart cities of the future, including access to information, economic and sustainable use of resources, smart mobility and a modern governmental administration. In its projects, Fraunhofer FOKUS establishes useful ties between industry, governmental administration, users and the people. The institute has a well-known reputation in national and international research programs as well as in standardisation bodies such as DIN, ISO, ETSI, or OMG. For companies and governmental administration, FOKUS is a competent companion in realizing IT projects. Independent from specific manufacturers, products and technologies, the institute provides a neutral platform. With more than 25 years of experience, FOKUS is one of the most important actors in the ICT research landscape both nationally and worldwide. Fraunhofer FOKUS exploits its experience and IPR gathered in publicly funded projects to conduct high quality, cutting-edge research and development for its clients. Besides that, knowledge is distributed and multiplied via lessons held by Fraunhofer FOKUS employees at several universities.

https://www.fokus.fraunhofer.de/

2.3.5.7 Jozef Stefan Institute

JSI is the most important research institute in Slovenia and is ranked around 50th among research centres (faculties or institutes) in Europe regarding European involvement. JSI comprises of 28 research departments and employs about 1000 researchers and PhD students. JSI enjoys international recognition, participating currently in over 300 international projects. JSI has been involved in many national and international ICT projects.

Department of intelligent systems (DIS) expertise is behaviour modelling and extraction through machine learning, and its specialty is combining machine learning with expert knowledge. It also has expertise in decision support, optimization, multi-agent systems, and speech and language technologies where cultural heritage is the common motivation. DIS's one of important application domains is the analysis of human behavior using sensor and other data. It has developed a number of methods for the analysis of physical activity, culminating in the victory at the live international EvAAL activity recognition competition in 2013. In 2014 the team from the department participated in the Tricorder 10 million competition and was the only one from continental Europe to join the 10 final competing teams from over 300 initially interested. In several projects, virtual humans and virtual environments are the essential field of research. DIS has extensive experience with international collaboration, having participated in many FP6, FP7, H2020 and other international projects. It also has software-engineering expertise, resulting in a number of intelligent applications for end-users from the industry and general public.

https://www.ijs.si/ijsw/JSI

2.3.5.8 Stiching WAAG Society

Founded in 1994, WAAG operates at the intersection of science, technology and the arts. Our work focuses on emergent technologies as instruments of social change, and is guided by the values of fairness, openness and inclusivity. WAAG's dedicated team of sixty thinkers and makers empowers people to become active citizens through technology.

WAAG uses the method of Public Research. Public Research is experimental, interdisciplinary research. Artists, creatives and end-users have a central position and a large influence on the final result: Users-as-Designers. The classic approach of science and the standard model of research and development is enhanced by this method that cross-links arts, culture and science. Public Research creates applications suited to the needs and possibilities of users and is related to participatory design, rapid prototyping, practice-based research and tinkering.

With its long time, international experience in community building and managing innovative projects WAAG has developed several ground-breaking prototypes, applications in (inter)national projects and programs. Labs, challenges and academies are a few of the successful strategies that we use to engage a wide range of stakeholders with technology that can benefit societal issues, like healthy aging, digital heritage, educational reform, open design, development of internet technologies and even genomics.

The CODE department of WAAG focuses on open policy design. How do open innovation and data driven technologies influence the way citizens, governments, knowledge institutes and businesses relate. We build platforms, visualize data, host workshops and organize policy labs to see how topics like citizen science, privacy, coding morality, digital identity, and e-democracy can empower citizens.

<u>https://waag.org/</u>

2.3.5.9 Gemeente AMSTERDAM

The City of Amsterdam is a Public Organization. Amsterdam is the capital city of The Netherlands. The City has around 838.000 residents from 180 different countries. The Amsterdam Metropolitan Area has 2,2 million inhabitants. The city is exceptionally well connected both physically and digitally. Amsterdam is one of the leading 'smart cities' in Europe and invest in data science, big data solutions and data driven policies together with other partners. Many smart city projects start at the grass roots, not with the government but by citizens or organisations that want to make а difference. is Ιt also а city with a strong entrepreneurial spirit and commercial competences. It has many companies, big and small, start-ups and established ones, that have the technological skills and clout to set up smart city solutions, and some of them see Amsterdam as a great testing ground for new concepts. Moreover, Amsterdam has a rich and broad knowledge base, including two research universities (University of Amsterdam and Free university), two universities of applied sciences (Amsterdam University of Applied Sciences and InHolland), and a new (small) university AMS (Advanced Metropolitan Solutions) fully dedicated to 'engineering the future city'.

In Amsterdam, the Amsterdam Smart City (ASC) platform is where smart city projects are born, run and shared. The ASC community brings together dozens of projects whose takeholders range from private companies to public organisations and from knowledge partners to citizens. The Amsterdam Smart City platform was the winner of the European Commission's City Star Award 2011 for its role in the use and promotion of sustainable energy. The City of Amsterdam won the World Smart Cities Awards for its Open Data Program for transport and mobility at the 2012 World Smart Cities Forum, and Amsterdam was listed second in Fast Company's 10 smartest cities in Europe ranking for 2013 after Copenhagen. The city proudly carries the title of 'European Capital of Innovation 2016 and 2017'. Amsterdam used the $\notin 1$ million price money to invest in social innovation; in a call the inhabitants of the city were asked to propose projects. More than 400 projects were proposed by citizens and a jury selected 40 for funding. Main tasks attributed in the project: The main task of the city of Amsterdam is to organiset he first policy & research Summit in 2020. This first summit will launch the NGI Policy manifesto and aims to make a real splash to help turn this summit into sustainable community, also beyond the NGI.

https://www.amsterdam.nl/

2.3.5.10 Ayuntamiento de Bilbao

Bilbao is the capital of the county called Bizkaia, Spain, and it could be considered as the industrial and financial capital of the Basque Country. With an area of 41,60 km² and around 355,000 inhabitants, Bilbao is located right in the heart of a metropolitan area that extends along the estuary of the Nervión River with a population close to 1 million.

Every day, 550,000 movements with origin or destination Bilbao are produced. Approximately a half of the incoming people use the public transport (train or bus) and 2/3 of the outgoing movements are carried out by private car. Meanwhile most of the 850,000 daily internal trips are performed by walking (64%).

The Sustainable Mobility department of the city is in charge of:

- Municipal parking management
- Traffic and transport management (urban bus network, bike-sharing service, funicular, vertical mobility, taxi)
- Environment

This department is responsible of the Sustainable Urban Mobility Plans (launched in 2018 for the H2030) and the Air Quality Plan (under development). Besides there is a strong electromobility strategy which has implemented in the last two years: 6 full-electric buses, 2 e-scooters for the municipal police, 20 electric vehicles for the on-street parking monitoring system, 38 electric taxis, 450 e-bikes for the municipal sharing service and 23 charging points plus 8 of fast-charge.

https://www.bilbao.eus/

2.3.5.11 Asociación Cluster de Movilidad y Logística de Euskadi

The Cluster of Mobility and Logistics, MLC ITS Euskadi, is a private non-profit association which was founded in 2005 by 20 partners. MLC-ITS Euskadi is formed by a group of companies, governments and associations located in the Basque area and interconnected in a specific area of activity, linked by complementary characteristics and common elements.

Our mission is to improve passengers and goods mobility by means of cooperation, innovation and internationalization, enhancing the competitiveness of its members and region and contributing to reach the 20/20/20 objectives.

Our vision is to be a referent meeting point for all stakeholders in the field of Mobility, Logistics and ITS, contributing to the quality, efficiency and sustainability of the sector and the society in general.

The cluster is integrated by 100 members including: mobility & logistics operators & industry; product and service providers, infrastructure managers, public administrations, research and academy.

We work closely with our partners in three main areas: innovation; green mobility and market & internationalization.

http://www.mlcluster.com/

2.3.6 Blog

This section will include the different blog entries posted in accordance with the communication strategy defined in D7.2.

2.3.7 Contact us

The screen for the contact us tab shall appear like this:

Home » Contact Us

Contact Us

Your name *

Your e-mail address *

Subject *

Message *

Send message

Figure 15. 'Contact us' webpage

Furthermore, the following data shall appear:

Project Coordinator Contact: Sergio Campos (TECNALIA) C/ Geldo. Parque Tecnológico de Bizkaia, Edificio 700. E-48160 Derio - Bizkaia (Spain)

Technical coordinator contact:

Sonia Bilbao (TECNALIA)

C/ Geldo. Parque Tecnológico de Bizkaia, Edificio 700. E-48160 Derio - Bizkaia (Spain)

2.3.8 Private area

The link to the project's Alfresco repository shall appear here: <u>http://intranet.urbanite-project.eu/</u>

3 Leaflet

The aim of this first version of the leaflet is to create awareness of the project and present the key aspects of URBANITE. Subsequent versions of the leaflet will have other goals, such as the presentation of the pilots and a later version focused on the presentation of the results delivered.

The information that the first version of the leaflet will contain is as follows:

3.1 Front of the leaflet

• Logo of the project, acronym and title of the project:



URBANITE

Supporting the decision-making in URBAN transformation with the use of disruptive technologies

- EC Disclaimer: This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 870338
- EU flag: the EU emblem must have appropriate prominence. Graphics guide to the European emblem to be accessed at: <u>http://publications.europa.eu/code/en/en-5000100.htm</u>
- Partner logos

3.2 Inside the Leaflet

3.2.1 Project Objective

URBANITE, using a co-creation approach, aims at creating a **long-term sustainable reference architecture** along with the implementation of a set of generic components for urban mobility that **use disruptive technologies** such as AI and big data, which can be adaptable to the context and needs of each city or region. This reference architecture is complemented with a set of best practices obtained through an analysis of the **expectations**, **trust and attitude from civil servants**, **citizens and other stakeholders in the use of such disruptive technologies**.

3.2.2 Approach

This is how the URBANITE solution proposes to solve the challenge:



3.2.3 Results

URBANITE results include:



A Data Management Platform supporting the entire processing chain from collecting, aggregating, provisioning to using the data.



A Decision-Support System including (AI based) predictive algorithms and simulation models for mobility that support the decision–making process by analyzing the current situation, the trends that occurred in a certain timeframe and allowing to predict future situations, when changing one or more variables.



A Social Policy Lab built upon two pillars: 1) co-creation sessions, both for the policy-related aspects and the design of the platform and 2) the empirical analysis on trust, attitude, impact, benefits and risks of the stakeholders in the use of URBANITE's disruptive technologies

3.2.4 Key Features

URBANITE Key Features are:

- **Modularity**, i.e. each component provides specific functionalities and exposes clear interfaces,
- Adaptability to heterogeneous city and region contexts and ICT maturity levels, from complete implementation to complementary add-on components
- Interoperable, i.e. vertical and horizontal interoperability among modules and with existing systems
- based on (European) open standards.

How URBANITE platform could be used Provide high level Complete data Fill the gap	Example of possible situations	URBANITE refer Low level functionalities to collected data	rence architectu	re and platform	ystem
functionalities management and between isolated	How URBANITE platform could be used	Provide high level functionalities	Complete data management and	Fill the gap between isolated	Existing s

3.2.5 Use cases

URBANITE will be validated in:

- Amsterdam: To combine data sources in a meaningful and understandable way for both policy makers and citizens, where citizens are also data 'prosumers'
- Bilbao: Boost e-mobility and active mobility as a priority followed by the promotion of bikes
- Helsinki: To have a better data and evidence-based approach for traffic and urban planning in Jätkäsaari
- Messina: To integrate multimodal transportation making it more attractive and putting the citizens at the core

3.3 Back of the leaflet:

3.3.1 Find us!

www.urbanite-project.eu

Twitter: @URBANITEh2020

YouTube: https://www.youtube.com/channel/UCld-iV8vPr2gl0T87SmfLLw

Slideshare: https://es.slideshare.net/URBANITEProject

3.3.2 Project Key data

Project Duration: April 2020 – March 2023

Budget: € 3,954,062.50

3.3.3 Contact information details

Project Coordinator:

Sergio Campos (TECNALIA) Sergio.Campos@tecnalia.com

+34 664100109

4 Conclusions

This document has presented on one hand, the main aspects of the URBANITE website that will be used as entry point to get to know the project, and on the other, the main content that the first version of the brochure / leaflet should present.

Both the website and the leaflet will be continuously updated along the project timeframe. In the case of the website, as results are attained, these will be published on the website, as well as blog entries, deliverables, presentations (uploaded to Slideshare), videos (in the YouTube channel) and source code (released in the public Git). Also, as mentioned beforehand, the leaflet will also have several iterations, with different foci, goal and target audience.