

1. Identification

Call	Date of submission
R2 - split	07/04/2020

1.1. Project name

Sohjoa - Baltic Sea Region transitioning into eco-friendly autonomous last mile public transportation 101 / 250 characters

1.2. Project acronym

Sohjoa Baltic 13 / 20 characters

1.3. Priority

3. Sustainable Transport

1.4. Programme specific objective

3.5 Environmentally friendly urban mobility: To enhance environmentally friendly transport systems in urban areas based on increased capacity of urban transport actors

1.5. Project duration

Contracting start	25/05/2017	Contracting end	30/09/2017
Implementation start	01/10/2017	Implementation end	30/09/2020
		Duration of implementation phase (months)	36
Closure start	01/10/2020	Closure end	31/12/2020

1.6. Summary of the project

Lack of city wide coverage by public transport system increases the automobile dependency for commuters throughout the BSR as well as globally leading to severe congestion on roads, road fatalities, deteriorating air quality and vast CO2 emissions. Currently public transport is not able to offer competitive option alongside private cars for flexible, on-demand type of operation, and especially the gap in the last mile connectivity becomes a major barrier to use public transport. The challenge of transition from private cars to public transportation can be addressed by changing the structure of public transport with autonomous operation, introducing more safe, attractive, innovative, energy efficient and improved service.

Sohjoa Baltic will promote the usage of urban public transportation including automated driverless electric minibuses as part of the public transport chain especially for first/last mile trips. Through pilots, the project brings institutionalized knowledge and competence on organizing environmentally friendly and smart automated public transport solutions as well as providing guidelines on the organizational setup needed for running such a service in an efficient way.

Automated buses will not be optimal everywhere for next few years until technology maturation, therefore Sohjoa Baltic specifically intends to find out first suitable applications and development paths. As all of the development can't be done in laboratories, experiments on the roads are required to bring meaningful data to the discussion. The pilots in the diverse BSR will act as a proof that the concept is capable to work in transnational environments and can be replicated. Additionally BSR has the chance to act as a forerunner of implementing automated transportation as part of public service.

The project seeks to enhance environmentally friendly transport systems in urban areas by increasing capacity of BSR urban transport actors, by working out a joint vision, policy and business recommendations as well as short-, medium-, and long term Action Plan on removing existing barriers and facilitating public transport. These outputs will be used by urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities and private sector innovation, service developers and academic and research institutions. This is supported by the increased awareness and improved acceptance of the current and new users of public transportation.

The project provides a toolbox for the BSR cities to start the shift towards eco-friendly urban transport. Through the need for developing autonomy and successful paradigm shift from private cars to public transport, traffic will change, emissions will be reduced as well as regional development and consistency improved in urban surroundings.

2,850 / 3,000 characters

1.7. Summary of the partnership

The partnership is built to involve partners from all the main stakeholders throughout BSR area. Partnership capitalizes from the knowledge of leading regions and companies to spread knowledge and build BSR area competences.

Forum Virium Helsinki (FVH), The Municipality of Kongsberg (KONGSBERG), The City of Gdansk (GDANSK), Zemgale Planning Region (ZEMGALE) and The Municipality of Vejle (VEJLE) ensure the city involvement and co-operation with city public transportation and city area development.

Tallinn Transport Department (TTD) ensure the contract/operator/planning involvement in the project.

The Finnish Transport and Communications Agency (Traficom) successor of Finnish Transport Safety Agency (TRAFI) and Institute for Climate Protection, Energy and Mobility (IKEM) will perform legislation studies.

Metroplia University of Applied Sciences (METROPOLIA) has experience on autonomous bus operation on open roads, automation technologies, user acceptance and business case studies as well as integration into public transport. Chalmers University of Technology (CHALMERS) will contribute to Sohjoa Baltic by leveraging their expertise in efficient vehicle technologies, offering deep experience in research, test evaluation and dissemination. Tallinn University of Technology (TUT) has expertise in analyzing and optimizing the transport flows, and they will support TTD with analytical skills and safe implementation of the pilot in the project. FLOU's role in Sohjoa Baltic will focus on identifying different region types within urban environments, identifying user groups for autonomous first mile, between mile and last mile transportation, analyzing and assessing the service level needed, needs of the different user groups and accessibility of autonomous vehicles. The assessment of the changes in modal split and the analysis of the comprehensive effects of autonomous vehicles are also in the center of FLOU's contribution to this project.

Consortium consists of area and public transportation planning expertise as well as legal expertise combined with strong technical understanding which are the requirements for enabling autonomous traffic. Also associated organizations competency and help are utilized.

2,231 / 3,000 characters

1.8. Changes compared to Concept Note

The project acronym is changed from Sohjoa to Sohjoa Baltic to emphasize the Baltic co-operation level aspect and differentiate BSR project from Finnish Sohjoa-project carried out by Metropolia which is used as preceding project for WP2 and WP3.

The overall amount of showcases (small scale pilots) is lowered from 4 to 3.

Requirements for approval decision was to reduce or better justify the high budget of the lead partner. Budget of the lead partner has been reduced by ~ 7 %. Justification for the high budget of the lead partner: Based on the experience of previous projects, Sohjoa Baltic and especially the pilots will attract excessive media attention, which is why a communication manager with 70 % workload and communication assistant with 30 % workload will be hired to efficiently run WP4. In addition lead partner has the responsibility to run the project with sound financial and project management. Besides WP 1 & 4, the lead partner will actively participate in the practical implementation of other WPs and especially in the arrangements of the pilots, which increases the need for additional staff. Additionally Lead partners budget includes the costs for Helsinki large-scale pilot.

In the assessment sheet there were doubts which character such demonstrations action will be, what will be tested and how the demonstration actions will look like. It was also unclear what will happen to the demonstration actions after the project ends. These questions are answered in WP3.

In the assessment sheet it was asked to elaborate aspect of environmentally friendly solutions further. This has been addressed in chapter 3.8 (Objectives and results) in section Project Result (R1).

Update 25.3.2020:

PP 13 is not able to implement the planned small scale pilot. The Vejle pilot described and planned in group of activity 3.3 is removed. Two small scale pilots remaining. PP 4 dropped out 9.11.2018 and continued as AO (they will still do all the tasks as originally planned)

2,000 / 2,000 characters

1.9. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	15,000.00	2,367,335.17
	Own contribution ERDF	5,000.00	631,038.83
	ERDF budget	20,000.00	2,998,374.00
NO	NO co-financing	0.00	241,000.00
	Own contribution NO	0.00	241,000.00
	NO budget	0.00	482,000.00
ENI	ENI co-financing	0.00	0.00
	Own contribution ENI	0.00	0.00
	ENI budget	0.00	0.00
RU	RU co-financing	0.00	0.00
	Own contribution RU	0.00	0.00
	RU budget	0.00	0.00
TOTAL	Total Programme co-financing	15,000.00	2,608,335.17
	Total own contribution	5,000.00	872,038.83
	Total budget	20,000.00	3,480,374.00

1.10. Lead Applicant Declaration

By signing this application form we on behalf of all project partners confirm that:

1. the project, neither in whole nor in part, has received or will receive any other additional EU funds (except for the funds indicated in this application form) for any of the activities presented in the work plan during the whole duration of the project;
2. all organisations that will receive programme co-financing have been listed as project partners in this application form;
3. the project partners listed in the application form are committed to take part in the project's activities and financing;
4. the project is in line with and the entire project partnership will act according to the relevant EU legislation, rules of Interreg Baltic Sea Region, as well as national/regional legislation and policies;
5. the project respects equal opportunities and non-discrimination and has no harmful impact on the environment;
6. information in this application form is accurate and true to the best of our knowledge.

In case of approval of the application by the Interreg Baltic Sea Region Monitoring Committee our organisation will take the role of the lead partner with all the responsibilities assigned to it.

Signature of the Leadpartner

If applicable, stamp of the Lead Partner

Signatory's name

Place and date

Signatory's position

2. Partnership

2.1. Overview: Project Partnership

Project Partners and Reserved Project Partners

Role	Organisation (English)	Organisation (Original)	Country	Partner budget in the project	Preparation costs	Organisation Type
PP 1	Metropolia University of Applied Sciences	Metropolia Ammattikorkeakoulu Oy	 FI	602,852.00 €	20,000.00 €	Higher education and research institution
PP 2	Forum Virium Helsinki	Forum Virium Helsinki	 FI	312,000.00 €	0.00 €	Sectoral agency
PP 3	SUCCEEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)	SUCCEEDED by PP14 (01.01.2019) Liikenteen turvallisuusvirasto (Trafi)	 FI	67,845.45 €	0.00 €	National public authority
PP 4	"WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	"WITHDRAWAL (09/11/2018) Helsingin seudun liikenne -kuntayhtymä	 FI	1,485.36 €	0.00 €	Regional public authority
PP 5	FLOU Solutions Ltd	FLOU Solutions Oy	 FI	122,062.50 €	0.00 €	Small and medium enterprise
PP 6	Tallinn University of Technology	Tallinna Tehnikaülikool	 EE	202,000.01 €	0.00 €	Higher education and research institution
PP 7	Tallinn Transport Department	Tallinna Transpordiamet	 EE	416,999.99 €	0.00 €	Local public authority
PP 8	Chalmers University of Technology	Chalmers Tekniska Högskola	 SE	401,973.24 €	0.00 €	Higher education and research institution
PP 9	Zemgale Planning Region	Zemgales Plānošanas reģions	 LV	262,000.00 €	0.00 €	Regional public authority
PP 10	Institute for Climate Protection, Energy and Mobility	Institut für Klimaschutz, Energie und Mobilität	 DE	137,976.90 €	0.00 €	Higher education and research institution
PP 11	The City of Gdansk	Masto Gdańsk	 PL	304,547.00 €	0.00 €	Local public authority
PP 12	The Municipality of Kongsberg	Kongsberg Kommune	 NO	482,000.00 €	0.00 €	Local public authority
PP 13	The Municipality of Vejle	Vejle Kommune	 DK	105,500.00 €	0.00 €	Local public authority
PP 14	The Finnish Transport and Communications Agency (Trafi.com)	Liikenne- ja viestintävirasto Traficom	 FI	61,131.55 €	0.00 €	National public authority

Associated Organisations

Role	Organisation (English)	Organisation (Original)	Country	Organisation Type
AO 1	The Government Office of Estonia	Riigikantselei	 EE	National public authority
AO 2	Helsinki-Uusimaa Regional Council	Uudenmaan liitto	 FI	Regional public authority
AO 3	Urban Council for the Road Safety	Mejska Rada Bezpieczeństwa Ruchu Drogowego	 PL	Local public authority
AO 4	Ministry of Economic Affairs and Communications	Majandus- ja Kommunikatsiooniministeerium	 EE	National public authority
AO 5	Pomerian Association of Friends of Public Transportation	Pomorskie Stowarzyszenie Miłośników Transportu Miejskiego	 PL	Interest groups including NGOs
AO 6	Gdansk University of Technology	Politechnika Gdanska	 PL	Higher education and research institution
AO 7	Pomorskie Voivodeship	Województwo Pomorskie	 PL	Regional public authority
AO 8	Becker Büttner Held	Becker Büttner Held	 DE	Large enterprise
AO 9	Sydtrafik	Sydtrafik	 DK	Infrastructure and public service provider
AO 10	Buskerud county	Buskerud fylkeskommune	 NO	Regional public authority
AO 11	The Ministry of Infrastructure	Ministerstwo Infrastruktury	 PL	National public authority
AO 12	Helsinki Region Transport Authority HSL	Helsingin seudun liikenne -kuntayhtymä	 FI	Regional public authority

2.2 Project Partner Details - Partner 1

Partner Information

Organisation in original language	Metropolia Ammattikorkeakoulu Oy	32 / 250 characters
Organisation in English	Metropolia University of Applied Sciences	41 / 250 characters
Department in original language	Ajoneuvo- ja konetekniikka	26 / 250 characters
Department in English	Automotive and Mechanical Engineering	37 / 250 characters

Localisation

Address	Myllypurontie 1	15 / 250 characters	Country	Finland
Postal Code	00920	5 / 250 characters	NUTS1 code	MANNER-SUOMI
Town	Helsinki	8 / 250 characters	NUTS2 code	Helsinki-Uusimaa
Website	www.metropolia.fi/en	20 / 100 characters	NUTS3 code	Helsinki-Uusimaa
Organisation identification No.	FI 2094551-1	14 / 100 characters		
Type of register	The Finnish Business Information System (jointly maintained by the Finnish Patent and Registration Office (PRH) and the Finnish Tax Administration)			
				147 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Research, Development and Innovation Director	46 / 250 characters	Position	Project Manager	15 / 250 characters
Given name	Anna-maria	10 / 250 characters	Given name	Azat	4 / 250 characters
Family name	Vilkuna	7 / 250 characters	Family name	Ismailogullari	14 / 250 characters
Email	anna-maria.vilkuna@metropolia.fi	32 / 250 characters	Email	Azat.Ismailogullari@metropolia.fi	33 / 250 characters
Phone	+ 358 403 347 929		Phone	+ 358 406 377 357	
Mobile	+ 358 403 347 929		Mobile	+ 358 406 377 357	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Higher education and research institution"/>	<input type="text" value="university faculty, college, research institution, RTD facility, research cluster, etc."/>

2.2 Project Partner Details - Partner 2

Partner Information

Organisation in original language	<input type="text" value="Forum Virium Helsinki"/>	21 / 250 characters
Organisation in English	<input type="text" value="Forum Virium Helsinki"/>	21 / 250 characters
Department in original language	<input type="text" value="Forum Virium Helsinki"/>	21 / 250 characters
Department in English	<input type="text" value="Forum Virium Helsinki"/>	21 / 250 characters

Localisation

Address	<input type="text" value="Unioninkatu 24"/>	14 / 250 characters	Country	<input type="text" value="Finland"/>	
Postal Code	<input type="text" value="00130"/>	5 / 250 characters	NUTS1 code	<input type="text" value="MANNER-SUOMI"/>	
Town	<input type="text" value="Helsinki"/>	8 / 250 characters	NUTS2 code	<input type="text" value="Helsinki-Uusimaa"/>	
Website	<input type="text" value="www.forumvirium.fi"/>	18 / 100 characters	NUTS3 code	<input type="text" value="Helsinki-Uusimaa"/>	
Organisation identification No.	<input type="text" value="2170029-2"/>				9 / 100 characters
Type of register	<input type="text" value="Finnish Business Information System"/>				35 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Managing Director"/>	17 / 250 characters	Position	<input type="text" value="Project Manager"/>	15 / 250 characters
Given name	<input type="text" value="Mika"/>	4 / 250 characters	Given name	<input type="text" value="Jari"/>	4 / 250 characters
Family name	<input type="text" value="Malin"/>	5 / 250 characters	Family name	<input type="text" value="Honkonen"/>	8 / 250 characters
Email	<input type="text" value="mika.malin@forumvirium.fi"/>	25 / 250 characters	Email	<input type="text" value="jari.honkonen@forumvirium.fi"/>	28 / 250 characters
Phone	<input type="text" value="+ 358 406 685 599"/>		Phone	<input type="text" value="+ 358 406 636 668"/>	
Mobile	<input type="text" value="+ 358 406 685 599"/>		Mobile	<input type="text" value="+ 358 406 636 668"/>	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Sectoral agency"/>	<input type="text" value="e.g. local or regional development agency, environmental agency, energy agency, employment agency, etc."/>

2.2 Project Partner Details - Partner 3

Partner Information

Organisation in original language	SUCCEDED by PP14 (01.01.2019) Liikenteen turvallisuusvirasto (Trafli)	69 / 250 characters
Organisation in English	SUCCEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafli)	71 / 250 characters
Department in original language	Liikennejärjestelmä ja kehittäminen	44 / 250 characters
Department in English	Transport system and development	41 / 250 characters

Localisation

Address	P.O.Box 320	20 / 250 characters	Country	Finland
Postal Code	00101	14 / 250 characters	NUTS1 code	MANNER-SUOMI
Town	Helsinki	17 / 250 characters	NUTS2 code	Helsinki-Uusimaa
Website	www.trafi.fi/en	24 / 100 characters	NUTS3 code	Helsinki-Uusimaa
Organisation identification No.	FI 1031715-9	21 / 100 characters		
Type of register	The Finnish Business Information System (jointly maintained by the Finnish Patent and Registration Office (PRH) and the Finnish Tax Administration)			
				156 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Head of Department	26 / 250 characters	Position	Chief Adviser	13 / 250 characters
Given name	Kirsi	8 / 250 characters	Given name	Eetu	8 / 250 characters
Family name	Pulkamo	8 / 250 characters	Family name	Pilli-Sihvola	17 / 250 characters
Email	Kirsi.Pulkamo@trafi.fi	22 / 250 characters	Email	eetu.pilli-sihvola@trafi.fi	27 / 250 characters
Phone	+ 3 580 295 347 223		Phone	+ 358 295 345 572	
Mobile	+ 358 401 846 490		Mobile	+ 358 407 401 857	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="National public authority"/>	<input type="text" value="ministry, etc."/>

2.2 Project Partner Details - Partner 4

Partner Information

Organisation in original language	"WITHDRAWAL (09/11/2018) Helsingin seudun liikenne -kuntayhtymä	72 / 250 characters
Organisation in English	"WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	73 / 250 characters
Department in original language	Helsingin seudun liikenne -kuntayhtymä	46 / 250 characters
Department in English	Helsinki Region Transport Authority HSL	48 / 250 characters

Localisation

Address	Opastinsilta 6 A	25 / 250 characters	Country	Finland	
Postal Code	00240	14 / 250 characters	NUTS1 code	MANNER-SUOMI	
Town	Helsinki	17 / 250 characters	NUTS2 code	Helsinki-Uusimaa	
Website	www.hsl.fi	19 / 100 characters	NUTS3 code	Helsinki-Uusimaa	
Organisation identification No.	2274586-3				18 / 100 characters
Type of register	Finnish Business Information System				44 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Executive director	27 / 250 characters	Position	Project manager	15 / 250 characters
Given name	Suvi	8 / 250 characters	Given name	Essi	8 / 250 characters
Family name	Rihniemi	13 / 250 characters	Family name	Kyllönen	12 / 250 characters
Email	suvi.rihniemi@hsl.fi	30 / 250 characters	Email	essi.kyllonen@hsl.fi	29 / 250 characters
Phone	+ 358 947 664 040		Phone	+ 358 405 370 518	
Mobile	+ 358 947 664 040		Mobile	+ 358 405 370 518	

Partner Description

Legal status	<input type="text" value="c) Associations formed by one or several regional or local authorities as defined under a)"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Regional public authority"/>	<input type="text" value="regional council, etc."/>

2.2 Project Partner Details - Partner 5

Partner Information

Organisation in original language	<input type="text" value="FLOU Solutions Oy"/>	17 / 250 characters
Organisation in English	<input type="text" value="FLOU Solutions Ltd"/>	18 / 250 characters
Department in original language	<input type="text" value="FLOU Solutions Oy"/>	17 / 250 characters
Department in English	<input type="text" value="FLOU Solutions Ltd"/>	18 / 250 characters

Localisation

Address	<input type="text" value="Pohjoisranta 14"/>	15 / 250 characters	Country	<input type="text" value="Finland"/>	
Postal Code	<input type="text" value="00170"/>	5 / 250 characters	NUTS1 code	<input type="text" value="MANNER-SUOMI"/>	
Town	<input type="text" value="Helsinki"/>	8 / 250 characters	NUTS2 code	<input type="text" value="Helsinki-Uusimaa"/>	
Website	<input type="text" value="www.flouanalytics.com"/>	21 / 100 characters	NUTS3 code	<input type="text" value="Helsinki-Uusimaa"/>	
Organisation identification No.	<input type="text" value="FI26860375"/>				10 / 100 characters
Type of register	<input type="text" value="Business register"/>				17 / 250 characters

Contact Information

Legal Representative		Contact Person					
Position	<input type="text" value="Managing Director"/>	17 / 250 characters	Position	<input type="text" value="Managing Director"/>	17 / 250 characters		
Given name	<input type="text" value="Taina"/>	5 / 250 characters	Given name	<input type="text" value="Taina"/>	5 / 250 characters		
Family name	<input type="text" value="Haapamäki"/>	9 / 250 characters	Family name	<input type="text" value="Haapamäki"/>	9 / 250 characters		
Email	<input type="text" value="taina.haapamaki@fouanalytics.com"/>		33 / 250 characters	Email	<input type="text" value="taina.haapamaki@fouanalytics.com"/>		33 / 250 characters
Phone	<input type="text" value="+ 358 503 778 123"/>		Phone	<input type="text" value="+ 358 503 778 123"/>			
Mobile	<input type="text" value="+ 358 503 778 123"/>		Mobile	<input type="text" value="+ 358 503 778 123"/>			

Partner Description

Legal status	f) Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	
Source of contribution	private	
Is your organisation entitled to recover VAT related to the EU funded project activities?	Yes	
Type of partner	Small and medium enterprise	micro, small, medium enterprises < 250 employees, ≤ 50 MEUR turnover or ≤ 43 MEUR balance sheet total

2.2 Project Partner Details - Partner 6

Partner Information

Organisation in original language	<input type="text" value="Tallinna Tehnikaülikool"/>	23 / 250 characters
Organisation in English	<input type="text" value="Tallinn University of Technology"/>	32 / 250 characters
Department in original language	<input type="text" value="Ragnar Nurkse Instituut"/>	32 / 250 characters
Department in English	<input type="text" value="Ragnar Nurkse School of Innovation and Governance"/>	58 / 250 characters

Localisation

Address	<input type="text" value="Akadeemia tee 3"/>	23 / 250 characters	Country	<input type="text" value="Estonia"/>
Postal Code	<input type="text" value="12618"/>	15 / 250 characters	NUTS1 code	<input type="text" value="EESTI"/>
Town	<input type="text" value="Tallinn"/>	16 / 250 characters	NUTS2 code	<input type="text" value="Eesti"/>
Website	<input type="text" value="www.tut.ee"/>	19 / 100 characters	NUTS3 code	<input type="text" value="Põhja-Eesti"/>
Organisation identification No.	<input type="text" value="74000323"/>			
				17 / 100 characters
Type of register	<input type="text" value="The National Registry of State and Local Government Agencies"/>			
				61 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Vice Rector for Research"/>	32 / 250 characters	Position	<input type="text" value="Project Manager"/>	15 / 250 characters
Given name	<input type="text" value="Renno"/>	9 / 250 characters	Given name	<input type="text" value="Erkki"/>	5 / 250 characters
Family name	<input type="text" value="Veinthal"/>	11 / 250 characters	Family name	<input type="text" value="Karo"/>	4 / 250 characters
Email	<input type="text" value="renno.veinthal@tu.ee"/>	30 / 250 characters	Email	<input type="text" value="Erkki.Karo@taltech.ee"/>	22 / 250 characters
Phone	<input type="text" value="+ 3 726 202 005"/>		Phone	<input type="text" value="+ 3 725 156 795"/>	
Mobile	<input type="text" value="+ 3 726 202 005"/>		Mobile	<input type="text" value="+ 3 725 156 795"/>	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Higher education and research institution"/>	<input type="text" value="university faculty, college, research institution, RTD facility, research cluster, etc."/>

2.2 Project Partner Details - Partner 7

Partner Information

Organisation in original language	<input type="text" value="Tallinna Transpordiamet"/>	31 / 250 characters
Organisation in English	<input type="text" value="Tallinn Transport Department"/>	37 / 250 characters
Department in original language	<input type="text" value="Tallinna Transpordiamet"/>	32 / 250 characters
Department in English	<input type="text" value="Tallinn Transport Department"/>	37 / 250 characters

Localisation

Address	<input type="text" value="Vabaduse väljak 10"/>	27 / 250 characters	Country	<input type="text" value="Estonia"/>	
Postal Code	<input type="text" value="10146"/>	14 / 250 characters	NUTS1 code	<input type="text" value="EESTI"/>	
Town	<input type="text" value="Tallinn"/>	16 / 250 characters	NUTS2 code	<input type="text" value="Eesti"/>	
Website	<input type="text" value="www.tallinn.ee/eng/Transport-Department"/>	48 / 100 characters	NUTS3 code	<input type="text" value="Põhja-Eesti"/>	
Organisation identification No.	<input type="text" value="75014920"/>				17 / 100 characters
Type of register	<input type="text" value="Legal person of the public law"/>				39 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Head of the Tallinna Transport"/>	38 / 250 characters	Position	<input type="text" value="Project Manager"/>	15 / 250 characters
Given name	<input type="text" value="Andres"/>	9 / 250 characters	Given name	<input type="text" value="Jaagup"/>	10 / 250 characters
Family name	<input type="text" value="Harjo"/>	5 / 250 characters	Family name	<input type="text" value="Ainsalu"/>	10 / 250 characters
Email	<input type="text" value="andres.harjo@tallinnlv.ee"/>	25 / 250 characters	Email	<input type="text" value="Jaagup.Ainsalu@tallinnlv.ee"/>	37 / 250 characters
Phone	<input type="text" value="+ 3 726 404 628"/>		Phone	<input type="text" value="+ 37 256 627 354"/>	
Mobile	<input type="text" value="+ 3 726 404 628"/>		Mobile	<input type="text" value="+ 37 256 627 354"/>	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Local public authority"/>	<input type="text" value="municipality, etc."/>

2.2 Project Partner Details - Partner 8

Partner Information

Organisation in original language	Chalmers Tekniska Högskola	26 / 250 characters
Organisation in English	Chalmers University of Technology	33 / 250 characters
Department in original language	Tillämpad mekanik	26 / 250 characters
Department in English	Applied Mechanics	26 / 250 characters

Localisation

Address	Hörsalsvägen 7a	24 / 250 characters	Country	Sweden
Postal Code	41296	14 / 250 characters	NUTS1 code	SÖDRA SVERIGE
Town	Gothenburg	10 / 250 characters	NUTS2 code	Västsverige
Website	http://www.chalmers.se/	32 / 100 characters	NUTS3 code	Västra Götalands län
Organisation identification No.	556479-5598 - VAT - SE556479559801			
				43 / 100 characters
Type of register	National register of companies			
				40 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Head of Department	27 / 250 characters	Position	Post-doc Researcher	19 / 250 characters
Given name	Angela	6 / 250 characters	Given name	Mauro	5 / 250 characters
Family name	Hillemyr	10 / 250 characters	Family name	Bellone	7 / 250 characters
Email	angela.hillemyr@chalmers.se	36 / 250 characters	Email	mauro.bellone@chalmers.se	34 / 250 characters
Phone	+ 46 317 722 145		Phone	+ 46 317 223 607	
Mobile	+ 46 317 722 145		Mobile	+ 46 720 245 739	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Higher education and research institution"/>	<input type="text" value="university faculty, college, research institution, RTD facility, research cluster, etc."/>

2.2 Project Partner Details - Partner 9

Partner Information

Organisation in original language	Zemgales Plānošanas reģions	27 / 250 characters
Organisation in English	Zemgale Planning Region	23 / 250 characters
Department in original language	Zemgales Plānošanas reģions	27 / 250 characters
Department in English	Zemgale Planning Region	23 / 250 characters

Localisation

Address	Katolu iela 2b	23 / 250 characters	Country	Latvia
Postal Code	LV3001	16 / 250 characters	NUTS1 code	LATVIJA
Town	Jelgava	16 / 250 characters	NUTS2 code	Latvija
Website	www.zemgale.lv	23 / 100 characters	NUTS3 code	Zemgale
Organisation identification No.	90002182529			
				20 / 100 characters
Type of register	REGISTR OF TAXPAYERS			
				30 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Executive Director	27 / 250 characters	Position	Project manager	15 / 250 characters
Given name	VALDIS	10 / 250 characters	Given name	RATIS	10 / 250 characters
Family name	VEIPS	9 / 250 characters	Family name	MADŽULIS	12 / 250 characters
Email	zpr@zpr.gov.lv	23 / 250 characters	Email	raitis.madzulis@zpr.gov.lv	35 / 250 characters
Phone	+ 63 027 549		Phone	+ 63 028 085	
Mobile	+ 63 027 549		Mobile	+ 29 534 718	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Regional public authority"/>	<input type="text" value="regional council, etc."/>

2.2 Project Partner Details - Partner 10

Partner Information

Organisation in original language	<input type="text" value="Institut für Klimaschutz, Energie und Mobilität"/>	47 / 250 characters
Organisation in English	<input type="text" value="Institute for Climate Protection, Energy and Mobility"/>	53 / 250 characters
Department in original language	<input type="text" value="Mobilität"/>	18 / 250 characters
Department in English	<input type="text" value="Mobility"/>	17 / 250 characters

Localisation

Address	<input type="text" value="Magazinstraße 15-16"/>	28 / 250 characters	Country	<input type="text" value="Germany"/>	
Postal Code	<input type="text" value="10179"/>	14 / 250 characters	NUTS1 code	<input type="text" value="BERLIN"/>	
Town	<input type="text" value="Berlin"/>	15 / 250 characters	NUTS2 code	<input type="text" value="Berlin"/>	
Website	<input type="text" value="www.ikem.de"/>	20 / 100 characters	NUTS3 code	<input type="text" value="Berlin"/>	
Organisation identification No.	<input type="text" value="VR 0972"/>				16 / 100 characters
Type of register	<input type="text" value="Vereinsregister Greifswald"/>				35 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Managing Director"/>	26 / 250 characters	Position	<input type="text" value="Bereichsleiter Mobilität"/>	25 / 250 characters
Given name	<input type="text" value="Simon"/>	9 / 250 characters	Given name	<input type="text" value="Matthias"/>	12 / 250 characters
Family name	<input type="text" value="Schäfer-Stradowsky"/>	22 / 250 characters	Family name	<input type="text" value="Hartwig"/>	11 / 250 characters
Email	<input type="text" value="simon.schaefer-stradowsky@ikem.de"/>	42 / 250 characters	Email	<input type="text" value="matthias.hartwig@ikem.de"/>	33 / 250 characters
Phone	<input type="text" value="+ 4 930 408 187 010"/>		Phone	<input type="text" value="+ 4 930 408 187 016"/>	
Mobile	<input type="text" value="+ 4 930 408 187 010"/>		Mobile	<input type="text" value="+ 4 930 408 187 016"/>	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Higher education and research institution"/>	<input type="text" value="university faculty, college, research institution, RTD facility, research cluster, etc."/>

2.2 Project Partner Details - Partner 11

Partner Information

Organisation in original language	<input type="text" value="Masto Gdańsk"/>	13 / 250 characters
Organisation in English	<input type="text" value="The City of Gdansk"/>	18 / 250 characters
Department in original language	<input type="text" value="Wydział Gospodarki Komunalnej"/>	29 / 250 characters
Department in English	<input type="text" value="Department Community Facilities Management"/>	41 / 250 characters

Localisation

Address	<input type="text" value="ul. Nowe Ogrody 8/12"/>	20 / 250 characters	Country	<input type="text" value="Poland"/>
Postal Code	<input type="text" value="80-803"/>	6 / 250 characters	NUTS1 code	<input type="text" value="REGION PÓŁNOCNY"/>
Town	<input type="text" value="Gdańsk"/>	15 / 250 characters	NUTS2 code	<input type="text" value="Pomorskie"/>
Website	<input type="text" value="www.gdansk.pl, www.roverowygdansk.pl"/>	45 / 100 characters	NUTS3 code	<input type="text" value="Gdański"/>
Organisation identification No.	<input type="text" value="191675570"/>			
				18 / 100 characters
Type of register	<input type="text" value="Register of Legal Entities"/>			
				35 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Deputy Mayor"/>	21 / 250 characters	Position	<input type="text" value="Inspektor"/>	9 / 250 characters
Given name	<input type="text" value="Piotr"/>	9 / 250 characters	Given name	<input type="text" value="Magdalena"/>	13 / 250 characters
Family name	<input type="text" value="Grzelak"/>	11 / 250 characters	Family name	<input type="text" value="Szymańska"/>	13 / 250 characters
Email	<input type="text" value="piotr.grzelak@gdansk.gda.pl"/>	36 / 250 characters	Email	<input type="text" value="magdalena.szymanska@gdansk.gda.pl"/>	42 / 250 characters
Phone	<input type="text" value="+ 48 583 236 318"/>		Phone	<input type="text" value="+ 48 585 268 086"/>	
Mobile	<input type="text" value="+ 48 583 236 318"/>		Mobile	<input type="text" value="+ 48 585 268 086"/>	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Local public authority"/>	<input type="text" value="municipality, etc."/>

2.2 Project Partner Details - Partner 12

Partner Information

Organisation in original language	<input type="text" value="Kongsberg Kommune"/>	17 / 250 characters
Organisation in English	<input type="text" value="The Municipality of Kongsberg"/>	38 / 250 characters
Department in original language	<input type="text" value="Kongsberg Kommune"/>	17 / 250 characters
Department in English	<input type="text" value="The Municipality of Kongsberg"/>	37 / 250 characters

Localisation

Address	<input type="text" value="Kirkegata 1"/>	13 / 250 characters	Country	<input type="text" value="Norway"/>
Postal Code	<input type="text" value="3602"/>	13 / 250 characters	NUTS1 code	<input type="text" value="NORGE"/>
Town	<input type="text" value="Kongsberg"/>	20 / 250 characters	NUTS2 code	<input type="text" value="Sør-Østlandet"/>
Website	<input type="text" value="www.kongsberg.kommune.no"/>	33 / 100 characters	NUTS3 code	<input type="text" value="Buskerud"/>
Organisation identification No.	<input type="text" value="org.nr 942 402 465 IMA"/>			
	31 / 100 characters			
Type of register	<input type="text" value="The Brønnøysund Register Centre - The Norwegian State Business Registry"/>			
	71 / 250 characters			

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Mayor"/>	14 / 250 characters	Position	<input type="text" value="Head of business development"/>	28 / 250 characters
Given name	<input type="text" value="Kari Anne"/>	13 / 250 characters	Given name	<input type="text" value="Ingar"/>	9 / 250 characters
Family name	<input type="text" value="Sand"/>	8 / 250 characters	Family name	<input type="text" value="Vaskinn"/>	11 / 250 characters
Email	<input type="text" value="kari.anne.sand@kongsberg.kommune.no"/>	45 / 250 characters	Email	<input type="text" value="ingar.vaskinn@kongsberg.kommune.no"/>	43 / 250 characters
Phone	<input type="text" value="+ 4 791 866 262"/>		Phone	<input type="text" value="+ 4 748 166 459"/>	
Mobile	<input type="text" value="+ 4 748 166 459"/>		Mobile	<input type="text" value="+ 4 748 166 459"/>	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Local public authority"/>	<input type="text" value="municipality, etc."/>

2.2 Project Partner Details - Partner 13

Partner Information

Organisation in original language	Vejle Kommune	22 / 250 characters
Organisation in English	The Municipality of Vejle	34 / 250 characters
Department in original language	Teknik- og Miljøforvaltningen	38 / 250 characters
Department in English	Technical and environmental department	47 / 250 characters

Localisation

Address	Kirketonvet 22	23 / 250 characters	Country	Denmark	
Postal Code	DK-7100	16 / 250 characters	NUTS1 code	DANMARK	
Town	Vejle	14 / 250 characters	NUTS2 code	Syddanmark	
Website	www.vejle.dk	20 / 100 characters	NUTS3 code	Sydjylland	
Organisation identification No.	29 18 99 00				21 / 100 characters
Type of register	CVR				12 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	Chief City Architect	29 / 250 characters	Position	Project Developer	17 / 250 characters
Given name	Lisbet	10 / 250 characters	Given name	Boris	9 / 250 characters
Family name	Wolters	11 / 250 characters	Family name	Schönfeldt	14 / 250 characters
Email	liwol@vejle.dk	23 / 250 characters	Email	borsc@vejle.dk	23 / 250 characters
Phone	+ 4 576 812 240		Phone	+ 4 576 812 480	
Mobile	+ 4 520 339 468		Mobile	+ 4 520 342 556	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Local public authority"/>	<input type="text" value="municipality, etc."/>

2.2 Project Partner Details - Partner 14

Partner Information

Organisation in original language	<input type="text" value="Liikenne- ja viestintävirasto Traficom"/>	38 / 250 characters
Organisation in English	<input type="text" value="The Finnish Transport and Communications Agency(Traficom)"/>	59 / 250 characters
Department in original language	<input type="text" value="Liikennejärjestelmä"/>	20 / 250 characters
Department in English	<input type="text" value="Transport system"/>	16 / 250 characters

Localisation

Address	<input type="text" value="P.O.Box 320"/>	12 / 250 characters	Country	<input type="text" value="Finland"/>
Postal Code	<input type="text" value="00101"/>	5 / 250 characters	NUTS1 code	<input type="text" value="MANNER-SUOMI"/>
Town	<input type="text" value="Helsinki"/>	8 / 250 characters	NUTS2 code	<input type="text" value="Helsinki-Uusimaa"/>
Website	<input type="text" value="www.traficom.fi/en"/>	18 / 100 characters	NUTS3 code	<input type="text" value="Helsinki-Uusimaa"/>
Organisation identification No.	<input type="text" value="2924753-3"/>			
				9 / 100 characters
Type of register	<input type="text" value="The Finnish Business Information System (jointly maintained by the Finnish Patent and Registration Office (PRH) and the Finnish Tax Administration)"/>			
				148 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Director of Administration"/>	27 / 250 characters	Position	<input type="text" value="Chief Adviser"/>	13 / 250 characters
Given name	<input type="text" value="Jarkko"/>	27 / 250 characters	Given name	<input type="text" value="Eetu"/>	6 / 250 characters
Family name	<input type="text" value="Hallikainen"/>	33 / 250 characters	Family name	<input type="text" value="Pilli-Sihvola"/>	14 / 250 characters
Email	<input type="text" value="jarkko.hallikainen@traficom.fi,"/>	32 / 250 characters	Email	<input type="text" value="eetu.pilli-sihvola@traficom.fi"/>	30 / 250 characters
Phone	<input type="text" value="+ 358 295 390 410"/>		Phone	<input type="text" value="+ 358 295 345 572"/>	
Mobile	<input type="text" value="+ 358 503 574 269"/>		Mobile	<input type="text" value="+ 358 407 401 857"/>	

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="National public authority"/>	<input type="text" value="ministry, etc."/>

3. Strategy

3.1. Challenge to be addressed

Despite moderately well-executed public transportation, its share of journeys made in the BSR is quite low. In some BSR countries (e.g. Poland) the use of public transport has even decreased in the last few years. Instead of mere base traffic, travel chain should be seen as a whole and provide options where the so-called last mile journey has been resolved. A large part of the traffic between the cities in the BSR are made with passenger cars because public transportation can't offer competitive alternatives for the last mile. This was proven for instance by the former Kutsuplus-service in Finland, which demonstrated, that public transport is not able to offer competitive options alongside private cars, even in densely populated regions for flexible, on-demand type of operation. BI Intelligence estimates a number of 10 million cars and trucks featuring self-driving capabilities by 2020. However automatic vehicles themselves do not solve traffic problems such as traffic congestions and vast CO2 emissions. Traffic problems can be solved by increasing the modal share of the public transportation. The relative efficiency of public transport modes compared to passenger cars is much higher, which means less deteriorated air quality and fewer CO2 emissions. In addition cars take up a disproportionate amount of space compared to the number of people transported which leads to traffic capacity problems especially in densely populated areas. By using public transportation, more space is released to the housing and parks. Also traffic congestions decreases and traffic safety improves. As part of the many vehicles featuring self-driving capabilities, automated last mile public transportation will be among first services. A clear service and cost benefit for automated last mile public transportation exists, but the products are still developing and slowly entering the market through closed areas such as factories, amusement parks and zoos. When technology develops through closed area operations and open road pre-commercial pilots, it is evident that the next automation area will be in the last mile public transportation. For pre-commercial autonomous demonstrations, several countries have the legal framework (such as Finland and Norway, which are also piloting cities in the project) and several are undergoing the legal framework to allow autonomous demonstrations and testing in the traffic (such as Sweden and Estonia). This will later lead to full operation in traffic. Currently, public transportation is very diverse in the BSR area, some regions are moving rapidly towards electrified fleets, but some are still running conventional fleets, Norway and Poland as opposed examples. When the use of public transport increases, also the desire and the need to develop the fleet increases. In combination with the growing use of low-emission public transportation vehicles such as biogas and hybrid buses, not to mention the rail traffic, energy consumption savings can be achieved by integrating electric automated last mile public transportation to the travel chain. The energy needed to operate with electric vehicles can be produced completely CO2 free, depending on the electricity production. Even further energy consumption savings can be achieved by flexible and optimized automated local fleet leading to a truly environmentally friendly urban mobility. Competitiveness of public transport can be best promoted by increasing the supply, affecting the travel time and reducing prices. Automated operation will change the consistency of public transport, introducing innovative, energy efficient and improved service. However, to achieve this change, it is necessary to solve the gaps associated to operational, regional, public transportation planning, legal, economical, technological, user acceptance, risk analysis and benchmarking of such services. Main target groups of the project are urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities and private sector innovation and service developers, academic and research institutions as well as the current and future users of public transportation. The target groups have local, national and cross Baltic nature. These target groups share the need to better understand how to enable the shift to automated public transportation and how their operating environment will be affected. Also, an important need for the target groups is to promote and then take advantage from the promotion of environmentally friendly urban mobility as well as increase the awareness of how to set up the automated operation and what are the benefits or risks for cost, emissions, service quality, safety, technology, other mobility provider's perspectives. Main need of the users of public transport is to have affordable, yet efficient public transportation mobility chain service locally. EU project CityMobil2 (CM2) demonstrated the technical feasibility of automated last mile transport and fostered the adoption of such new transport systems. From the EU side CM2 has been a milestone on which to build new research and demonstration activities. Last mile automated transport is now a market issue and the way in which automation will contribute to public and shared transport still remains open.

One of the purposes of Sohjoa Baltic is to remove the barriers identified by the CM2 project. Barriers like missing marketing and communication strategy to increase the overall acceptance of the Automated Road Transport Systems (ARTS), and, specifically:

- To increase the level of awareness of the ARTS,
- To increase the level of awareness of the benefits of the ARTS,
- To correct perceptions that individuals might have for the ARTS in comparison with the conventional transport system.

5,840 / 6,000 characters

3.2. Transnational value of the project

There is progress across the EU towards more sustainable and environmentally friendly mobility, an action towards which Sohjoa Baltic contributes. However, levels are still low and the fact that some Member States are clear front-runners shows the potential to accelerate the shift towards low-emission mobility. The Sohjoa Baltic consortium includes many of those front runners from the EU Transport Scoreboard 2016. In the case of autonomous mobility they can assist in identifying the pressure points that need to be addressed for the technology to gain wider adoption. Recently Helsinki has been selected as one of the ten global cities in the Bloomberg Aspen initiative on cities and autonomous vehicles, and there is on-going activity, which is to be published in Summer 2017. Estonia's 2020 Action Plan 2015-2020 postulates the need to develop legislation facilitating safe introduction of autonomous vehicles and the relevant standards of interoperability, safety and monitoring. In Poland Sohjoa Baltic is in line with The 2020 Development Strategy of the Ministry of Transport, and especially with objectives: 1 - developing an integrated transport system, 2 - improvement of organization and management of the transport system, 3 - increasing safety of passengers and goods, 4 - reducing the impact of the transport system on the environment. German Federal Ministry of Environment, Nature Conservation Building and Nuclear Safety has funded project OTS 1.0 (Optimized Transport System) based on autonomous electric cars and two projects about integrated mobility concepts for public transport.

The Norwegian Government's goal is that the current environmental and energy challenges will be solved while mobility strengthened in the National Transport Plan 2018-2029. Norwegian Ministry of Transport and Communications has launched the Consultation on draft legislation on the testing of self-driving vehicles on roads, based on common European work and experiences from the demonstrations of the self-driving minibus in Norway.

In the Sohjoa Baltic project the legal, regulatory, practical and technical frameworks are studied in detail and tested in practice to create true cross border collaboration and transnational value in implementing the full potential of Autonomous Transport into the public transport system. Europe and its regions gain valuable information on how to implement electro-mobility and autonomous mobility in urban areas. The work done and guidance documents will assist in developing regional and local mobility plans and urban mobility policies that also include the uptake of automated electric buses. Guidelines will be set on how these solutions could be implemented in the future and what needs to happen in the legislative and standardisation frameworks to enable a swift uptake of autonomous vehicles in and out of public transport.

2,881 / 3,000 characters

3.3. Political and strategic background of the project

Sohjoa Baltic answers the EUSBSR's Transport objective by focusing on first/last mile challenges identified in Local Sustainable Urban Mobility Plans. Pilots in different Baltic Sea regions are selected to ease urban access to TEN-T core networks and key transport nodes in the regions, enabling a full travel chain from door to node and improving regional co-operation.

For EC Urban Mobility Package, Sohjoa Baltic enables a modal shift in urban transport through Mobility as a Service development, making public transport more attractive and accessible where current options are not cost effective. It is in line with the policies of low emission vehicles, switching towards low emission alternative energy for transport and improving the efficiency of the transport system, as lined in the 2020 Energy and Climate policy and the 2011 Transport White paper.

Transport represents almost a quarter of Europe's greenhouse gas emissions and is the main cause of air pollution in cities. Sohjoa Baltic selected zero-emission electric autonomous vehicles answer to green policies such as the Commission Strategy for low-emission mobility reducing emissions and noise. Sohjoa Baltic increases the efficiency of the transport system further encouraging people to shift to lower emission transport modes. Testing electric busses provides valuable use cases that help speed up the deployment of low-emission alternatives for transport, and is a move towards wider use of zero-emission vehicles.

Sohjoa Baltic improves the citizens' quality of life enhancing public transport networks in the pilot areas. EC Roadmap to a Single European Transport Area encourages the use of more specialized road passenger vehicles and identifies fleets of urban buses particularly suitable for making new innovative short distance solutions viable. Within Sohjoa Baltic the public awareness on benefits of electric vehicles is addressed. Publicly run test cases and demonstrations improve information and awareness of the benefits of electric vehicles and awareness and acceptance to support electric vehicles in public transport use.

Sohjoa Baltic also targets the Sustainable Mobility Plans (SUMP) of several of the partner cities that have been developed or are in the process of being developed. This is the case in e.g. Helsinki and Tallinn. In Odansk CitiMobiNet project funded by URBACT III develops the SUMP for the city and there are clear synergies to Sohjoa Baltic.

2,459 / 3,000 characters

3.4. Project's contribution to the EU Strategy for the Baltic Sea Region

Project will result in increased capacity in all relevant target groups: city public transportation, area development responsibilities, public transportation agencies and operators, traffic safety agencies, users of public transportation, the BSR businesses to enable automated public transportation in the BSR. This is supported by the increased awareness and improved acceptance of the users of public transportation, inhabitants living in the areas of operation and other mobility services and the concrete demonstrated operation, carried out by other target groups and project partners. This results in increasing the usage of environmentally friendly technologies in public transportation as well as high cost efficiency of future operation. The use of automated electric buses specifically targets to climate change adaptation, risk prevention and management aspect of the EU Strategy for the Baltic Sea. Successful paradigm shift from private cars to public transport has the potential to reduce CO2 emissions and noise and improve the quality of life in urban surroundings.

In particular, the project enhances the attractiveness of multimodal transport by enabling easy first mile/last mile transportation in urban environment in an eco-friendly way. It gives public transport the possibility to answer to the need and potentially reduce private car use. In addition, the challenges facing autonomous public transport will be mapped and analysed to create a road map style documentation package on the key points in legislation, regulation, standardisation and practical challenges when it comes to adapting this new technology in and around the BSR.

The target group needs are divided in increasing the capacity of them on how to set up the autonomous operation and what are the benefits cost / emissions / service level and how to ensure safe operation. The user's main need is to have affordable, yet efficient public transportation service locally. The project will find answers to all these questions through demonstration actions (3 large-scale and 3 small-scale pilots).

By the end of the project at least three road-maps on organizing automated urban transport for three different kind of urban regions will be produced. This will directly contribute in increased capacity of authorities, infrastructure providers and operators to enhance the transport user's options for environmentally friendly transport solutions in urban areas.

The project will bring about institutionalized knowledge and competence on organizing environmentally friendly and smart autonomous public transport solutions, it will provide guidelines on the organizational setup needed for running such a service in an efficient way. The pilots will act as proof that the concept is capable to work in transnational environment. While the pilots are local, the concept can be implemented in any urban environment that fits the requirements defined in the project.

2,957 / 3,000 characters

3.5. Seed money support

Did you receive seed money support?

3.6. Synergies with projects / other initiatives

Is your project based on any former or related to any current project/programme/initiative?

Details about former project

CityMbil2 (funded by the European Union's Seventh Framework Programme) demonstrated usage of automated buses in 7 European cities sharing the infrastructure with other road users. CM2 important result from Sohjoa Baltic point of view: The implementation process for setting up pilots. We are using that as a basis for developing main output O3.2, Automated vehicles implementation toolbox for cities. CM2 stated the need for extensive and longer-lasting pilots in order to gain new insights e.g. to the operation of automated buses in progressively open environments.

On-going Sohjoa-6Aika (national ERDF project coordinated by lead partner) project brings open "busline" to identify and address main barriers of automation. Common theme is the automatization of urban transportation and new business opportunities it can open. This project has taught issues to consider like problems when there exists roadside parking, high speeds, professional drivers not taking seriously autonomous buses, ad-hoc construction work and how varying weather conditions affects. Sohjoa-6aika approaches the real mobility use cases of automated transport but no actual experience on fulfilling mobility needs is yet achieved to a greater extent due to short-term pilots organized in different areas. With longer lasting pilots, Sohjoa Baltic aims at getting to real mobility use cases.

1,372 / 2,000 characters

3.7. Level of cooperation

- Joint development
- Joint implementation
- Joint staffing
- Joint financing

3.8. Objectives and results

Programme Level

Programme specific objective	Programme Result
3.5 Environmentally friendly urban mobility: To enhance environmentally friendly transport systems in urban areas based on increased capacity of urban transport actors	3.5 Increased capacity of authorities, ports, infrastructure providers and operators, transport users to enhance the use of environmentally friendly transport solutions in urban areas

Project Level				
No.	Project Objective	Institutional Capacity Dimensions	No.	Project Result
PO1	<p>The main project objective is to research the impacts and roles of automated buses in urban public transportation and develop planning methods and guidelines to integrate best practices in policy-making and planning.</p> <p>Through pilots and demonstrations, the project brings institutionalized knowledge and competence on organizing environmentally friendly and smart autonomous public transport solutions as well as providing guidelines on the organizational setup needed for running such a service in an efficient way. BSR countries in different levels and with different backgrounds support each other, and in demonstrations this will be shown by adjusting the ambition level of each country to suit in the present day.</p> <p>Automated buses will not fit everywhere until technology matures and in the project it is specifically intended to find out suitable applications and development paths. For BSR countries, there is a genuine opportunity to develop autonomous public transportation, by taking advantage of the unique legal framework, that allows autonomous demonstrations and testing, even on commercial basis (Finland), in the traffic. As all of the development can't be done in laboratories, experiments on the roads are necessary. The pilots and demonstrations in the diverse BSR will act as a proof that the concept is capable to work in transnational environments and can be replicated. Transnational value provides the chance to exploit learned things even worldwide and BSR to act as a forerunner of implementing autonomous last mile transportation as part of public transportation.</p> <p style="text-align: right;">1,593 / 3,000 characters</p>	<p>Enhanced institutionalised knowledge and competence <input checked="" type="checkbox"/></p> <p>Improved governance structures and organisational set-up <input type="checkbox"/></p> <p>More efficient use of human and technical resources (databases, technical solutions, small infrastructure etc.) <input type="checkbox"/></p> <p>Better ability to attract new financial resources <input type="checkbox"/></p> <p>Increased capability to work in transnational environment <input type="checkbox"/></p>	R1	<p>Project will result in increased capacity in all relevant target groups: urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities, academic and research institutions and private sector innovation and service developers. This is supported by the increased awareness and improved acceptance of the users of public transportation. Urban planning authorities consist of city planning departments in partner cities, for example City Planning Department and Public Works Department in City of Helsinki and Tallinn Transport Department in City of Tallinn. They will gain better understanding of how the urban planning in their area need to consider the autonomous buses. This includes for example knowledge of pragmatic planning requirements and planning drivers to what kind of traffic, road or mobility management arrangements are needed for autonomous bus lines. Documented knowledge for their use include for example pilot case documents on how the pilots were managed in these topics.</p> <p>Urban transport authorities consist of the public transport authorities (PTAs) and the public transport operators (PTOs). Examples of these are Sydtrafik in Municipality of Vejle and Helsinki Region Transport Authority. They will gain knowledge on the operations aspects of the autonomous buses: what are the cost structures for operating the buses, what are the first economically viable routes, what are the limitations of the current technologies regarding routes, selected roads, congestion, weather and other environmental factors. Traffic safety authorities are government agencies responsible for traffic safety. Examples of these are Swedish Transport Agency and Traficom successor of TRAFI. They will gain knowledge in how to approach safety and regulations regarding autonomous buses, including detailed information on the safety evaluations and regulation approaches taken in the pilot sites e.g. in order to process future registration plate applications of autonomous buses. Academic and research institutions and service developers consists of regional development agencies, research organisations and units. Examples of these are Chalmers University of Technology, VTT Technical Research Center of Finland. They will gain understanding of the needs for further research and current state-of-the-art in the domain of autonomous public transport, leading to better research and further innovation-driven piloting in this area.</p> <p>Enhanced capacity of target groups results in rising usage of environmentally friendly transport solutions in urban areas. In particular the project enhances the attractiveness of multimodal transport by enabling easy first mile/last mile transportation in urban environment in an eco-friendly way. Together the combination of these new organisational capacities form the regional capability of further up-take of autonomous bus transport as part of public transport in the Baltic Sea Region.</p> <p style="text-align: right;">2,985 / 3,000 characters</p>

No.	Project Objective	Institutional Capacity Dimensions	No.	Project Result
PO2	<p>Project Objective 2 is to gather information and knowledge around the governance and technical aspects of automated public transport planning, development and operating. In the project automated public transport will be studied from several point of views and the object is to gather and present insightful and beneficial information to the target groups and form a package that would cover the main points of implementing an automated bus system as a part of public transport in cities.</p> <p>Guidelines, preliminary business potential reports, technical and safety guidelines and energy efficiency investigations create unique possibilities to governments and city councils in the Baltic Sea Region to shape and develop the future of automated mobility. The legal development of automated buses is also covered in the project and will create a base for policy makers on how to safely enable new technology to be used for the common good and enhance the mobility and public transport in the region.</p> <p>By involving the users of public transport this project gathers valuable information of the mobility chains used, user profiles, user acceptance and the needs and preferences of people using public transport. This helps cities to make the change from reactive to proactive when making plans for city development.</p> <p>This will lead to having a wider toolbox in transport planning and can lead to better level of service in transportation, less expensive city transport, less environmental effects, less road fatalities and less need for parking space. The aim is to make city planning more proactive towards automated public transport and broaden the views in policy making.</p> <p>The transnational character of the project brings additional value for the outputs. The use of professionals from different backgrounds and nationalities will help to create solutions that benefit the whole Baltic Sea Region.</p>	<p>Enhanced institutionalised knowledge and competence <input checked="" type="checkbox"/></p> <p>Improved governance structures and organisational set-up <input checked="" type="checkbox"/></p> <p>More efficient use of human and technical resources (databases, technical solutions, small infrastructure etc.) <input type="checkbox"/></p> <p>Better ability to attract new financial resources <input type="checkbox"/></p> <p>Increased capability to work in transnational environment <input type="checkbox"/></p>	R2	<p>This will lead to having a wider toolbox in transport planning and can lead to better level of service in transportation, less expensive city transport, less environmental effects, less road fatalities and less need for parking space. The aim is to make city planning more proactive towards automated public transport and broaden the views in policy making.</p> <p>The transnational character of the project brings additional value for the outputs. The use of professionals from different backgrounds and nationalities will help to create solutions that benefit the whole Baltic Sea Region.</p> <p>Target groups addresses are public administrations, transport authorities, transport ministries and developers. The documentation on legislation, regulation and requirements of establishing automated public transport modes provides all the key stakeholders the relevant knowledge base to start implementing the necessary changes for establishing automated public transport at the level that technology enables it.</p> <p>The future of public transport in urban areas and the transport of people can be planned with accurate and up to date information. The SUMPs can be updated to include also these new technology solutions and have a better scope to future opportunities and challenges automated transport will bring. This should not be limited only to public transport, but the legislator and regulatory landscape needed to be developed needs to also take into account privately owned cars that may be autonomous. The challenges of these are similar and a subset of those of public transport, with some differences expected. Here Sohjoa Baltic can provide a starting point for the development and planning of an improved urban multimodal transport structure.</p>

1,897 / 3,000 characters

1,742 / 3,000 characters

Horizontal principles		
Horizontal Principles	Level of Influence	Description
3.9. Sustainable development	positive	<p>Project Baltic Sohjoa will have a positive impact on the sustainable development in BSR. Actions made and outputs delivered within the project will contribute to the development of modern, more efficient urban transport systems, with reduced impacts on climate change, air pollution, noise, health and accidents.</p> <p>Positive impact on the sustainable development is achieved via the project by increasing capacity of BSR urban transport actors, by working out a joint vision, policy and business recommendations as well as short-, medium-, and long term Action Plan ("Road Map") on removing existing barriers and facilitating public transport.</p> <p>A structured report containing the energy efficiency plan and best practices will be one of the outcomes, where new policies for energy efficient autonomous and co-operative driving will be explored. Report of data analysis after the pilots will clearly show the effectiveness of energy saving best practices affecting all the relevant target groups in the choice of driving policies in BSR. As a result, the policies for the reduction of CO2 will be spread and used by the target groups to improve the welfare in BSR.</p> <p>Report on best practices of setting up automated operation and how to build such services will serve as a toolbox for the transport operators who wish to include autonomous transport options within the urban public transport chain. Rather than learn on their own attempts they will be able to prevent risks by drawing from the project's experience and start safe and efficient operation from the beginning.</p> <p>Different user profiles in BSR will be studied and used to evaluate automated buses as a part of the mobility chains throughout BSR. Improvements in the quality of life can be achieved when we understand how automated buses can be further developed to better serve the needs of people and to enable improvements in the use of urban space, as well as to help reach climate goals.</p> <p style="text-align: right;">1,954 / 2,000 characters</p>
3.10. Equal opportunities and non-discrimination	positive	<p>The pilots in WP3, will be free and open for everyone. The buses have special features for elderly and disabled people which promotes equal opportunities and non-discrimination.</p> <p>Automated buses for the last mile are first intended to solve the traffic problems of densely populated regions, where the modal share of public transportation is essential to increase. During technology maturation, the automation technology will offer cost-efficient option to rural areas where currently public transportation, if any, is heavily subsidised. Even now areas that are geographically remote or have limited accessibility may as well benefit from the automated buses if best first use cases can be identified and the knowledge produced by project utilized.</p> <p style="text-align: right;">750 / 2,000 characters</p>
3.11. Equality between men and women	neutral	<p>n/a</p> <p style="text-align: right;">3 / 2,000 characters</p>

3.12. Cross-cutting issues

Cross-cutting issue	Contribution
5. Climate change adaptation and mitigation	<p>Public transport is a vital weapon in a fight against climate change. According to calculations of UITP (International Association of Public Transport) doubling users of public transport would prevent the emission of 500 millions tonnes of CO2 equivalent in the year 2025. This would mean that urban transport emissions would be in line with the objectives outlined at the international climate negotiations and this would be despite the three-time increase in the number of trips made in urban areas.</p>

503 / 2,000 characters

4. Activities

Project management and administration

Work package budget

4.1. Description of strategic project management

Strategic project management looks at the big picture, and is responsible for risk management during the timescale of the project. This is carried by steering group. The main responsibilities of the steering group are: supporting the project team in meeting the project's objectives, promotes utilization of results, supervises realization of project plan and budget, and decides about changes in the project (subject to approval by MWJS). Steering group (especially chair) act as a coach/mentor for the project manager. The anticipated project manager comes from the lead partner organization. After the project's approval, lead partner suggests the composition of a steering group and its chairperson. The composition of the steering group is made up of the persons from target group organizations, if possible. The organizations may be project partners or associated organizations in the project. Steering group aims to have at least one representative from each BSR country to promote the interests and increase the awareness also in the countries which do not participate in the Sohjoa Baltic project directly. Steering group therefore acts as an instrument which guides the projects transnational co-operation through the balance of its members.

The suggested steering group consists of: Helsinki Region Transport (Finland), The Government Office of Estonia, Urban Council for the Road Safety (Poland), The Municipality of Kongsberg (Norway), Institute for Climate Protection, Energy and Mobility (Germany) as well as one member from Latvia, Lithuania, Denmark and Sweden. Project manager acts as a secretary. Chairman of the steering group will be chosen in the first meeting.

Helsinki Region Transport represents contract/operator/planning target group. The Government Office of Estonia has knowledge on working on national and international government level. Urban Council for the Road Safety (Poland) represents traffic safety issues. The Municipality of Kongsberg is representative of all cities and Institute for Climate Protection, Energy and Mobility represent legal issues.

The majority of members in the steering group must approve all corrective actions and decisions diverging from the work plan.

Work package leaders are not involved in steering group work. However every partner has a right to contact a steering group member if there are severe conflicts, which project manager is not able to solve.

2,425 / 4,000 characters

4.2. Description of project content management

The project content management allows project partners effectively plan, create, manage, store and distribute content such as published documents (web or print), images, archived communications, presentations, or streaming media. Project content management is organized by lead partner.

Project coordinator of lead partner works 80 % for the project contracting phase and first year of implementation phase. After that the percentages are estimated again to ensure cost effective coordination.

Lead partner appoints communication/media manager for whole project with 50 % workload.

Lead partner also appoints financial manager, but it is not budgetary.

The project manager and the WP leaders will form the core content management team responsible for the overall management and coordination of the project activities.

The project manager, WP and Group of Activities leaders will make a general project work plan including activities and milestones. Quality criteria for the main outputs are integrated in the work plan and defined in the first half a year of the project's implementation.

The project manager will be in continuous dialogue with the WP leaders, who are in close dialogue with the respective Group of Activity leaders to monitor that the tasks in their respective WP are carried out according to the work plan. The Group of Activity leaders will be responsible for coordinating the work of other partners.

As many activities are interrelated with each other – both within and across WPs – the WP leaders will also continuously keep each other informed about the progress in their respective WPs.

1,613 / 4,000 characters

4.3. Description of the project financial management

The financial management is ensured internally.

The responsibilities of the financial management will include the project's overall accounting and the compilation of half-yearly financial progress reports as well as managing the funds by drawing up cash-flow forecasts in order to avoid decommitment of funds as well as preparing the transfer of funds from the lead partner to project partners.

On the partner level, financial experts in each partner institution will make sure that a separate accounting system is established and maintained and that the required certifications or incurred expenditure are received from the respective First Level Controllers.

It is not foreseen to involve a public procurement expert as all partner institutions can employ in-house competences and are experienced with the requirements for financial management in Interreg projects.

The project manager and financial expert will assist and monitor the project partners to facilitate the timely submission of financial statements and progress reports. Additionally, all project partners have allocated sufficient staff resources in order to ensure the smooth implementation of activities and financial management.

Each partner in the partnership is aware that project expenditure must be verified by a first level controller and has made arrangements accordingly. Sufficient funds have been reserved by those partners who are within a first level control system. All partners are aware they must identify the costs allocated to the project in their internal accounting system. The lead partner and their first level controller will monitor the progress reports detailing financing and activities of each partner, before including them in the project's progress report.

1,747 / 4,000 characters

4.4. Financial control system

- Please confirm that each partner in your project partnership is aware that project expenditure must be verified by a first level controller.
- Please confirm that partners with a decentralised first level control system have reserved sufficient funds in their partner budgets for these controls.
- Please confirm each partner is aware it has to identify the costs allocated to the project in its accounting system.
- Please confirm that the lead partner and its first level controller will monitor the progress report on finance and activities of each project partner before they are included in the project's progress report that is submitted to the JS.

4.5. Further details of the financial control and reporting system of your project

Not relevant

12 / 2,000 characters

4.6. Internal coordination and communication

The internal coordination within and among the content and financial management teams is organized by lead partner by setting up a project manual (Financial/Content/Communication Management Manual). The manual describes the key financial, communication and content related procedures to follow during the project's life span.

Lead partner also understands that effective and well planned communication is critical way to keep all partners actively involved in the project.

In the financial field the project manual will highlight to the importance of disciplined reporting, sound financial management and reporting and the role of the First Level Controller.

The lead partner appoints a 50 % workload communication manager, who is responsible for planning and coordination of communication measures for the whole project. Each partner appoints a communication representative who is supported by lead partner's communication manager.

The communication manager sets communication aims for the work packages and ensures consistency of the aims, target groups and approach, drafts a communication plan and collaborates with MAJS on communication issues.

The main structure of the manual will be discussed during the contracting phase and decided in the kick-off meeting.

The knowledge of BSR Programme rules and requirements will be spread to the entire partnership through gathering knowledge from BSR Programme website, events and Programme Manual. All relevant information will be summed up and the resulting brief rules & requirements manual will be available to all partners in the kick-off meeting of the project.

Representatives of the lead partner will participate in all workshops and trainings offered by Interreg Baltic Sea Region (e.g. lead partner seminar, financial seminar and communication seminar). The experience and knowledge gained there will be shared with all project partners by means of short training sessions.

Face-to-face-meetings for all partners will be organized once for each six-month reporting period. Project manager is intending to visit all project partners personally during the first three months after possible project approval. During the project, respective WP leaders will organize monthly telco to follow up the activities, ensure the tasks are going as planned, or to discuss any issues which might have arisen.

Lead partner will set up a collaborative project place in which documents can be created, edited and stored online. Documents can be accessed from any device with an Internet connection and a full-featured Web browser. Project partners already used successfully a one of these tools to prepare project application.

2,670 / 3,000 characters

Work package 2

4.1. Title

Study phase: planning, investigating and innovating

52 / 250 characters

Work package budget

30%

4.2. Aim of the WP

P2 serves as the initial planning and investigation WP. Automated public transport will be studied from city and route planning, legal, technical and mobility service users' perspective. The studies are divided into four GoA's and together they will form the basis of the successful implementation of pilots in WP3 as well as project results backbone.

Studies on the following topics: Automated transit and shared mobility, Regional planning and modeling, Street management and operations, Human factors on autonomous vehicles, Near-term deployment opportunities, Automation systems operational requirements and Street infrastructure needs for automated vehicles.

City and regional transport planning and user acceptance - Acquires and assesses available data and information from: ticket types & purchase options, cost and service level, potential areas for first mile operation, route planning. This gathered data and information will be analyzed and as part of the output BSR level user profiles, mobility chains, user acceptance, CO2 reduction potential will be created.

Legal development for automated operation - focuses on legal side of the question: How BSR can get automated buses for full scale commercial operation. This is studied by performing analysis on the following key topics: national and BSR level stakeholder identification, liability, insurance issues, criminal law, approval procedures, data protection, public transport financing, operation of automated buses, public transport permissions, technical issues, standardization and homologation.

Safety and technical requirements - focuses on technical study: defining acceptable service quality in chosen areas, study on the autonomous technology development, study on the cooperative driving behavior, study of automated buses for elderly people/people with disabilities, adverse weather conditions driving policies, best practice through peer processes benchmarking and failure/risk analysis.

1,976 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Receive input from	<p>The data gathered and studied from the local public transport system, legal system, public transport user base, city planning and city infrastructure demands communication and cooperation with local authorities, people and businesses to be successful.</p> <p>Input is received from academic and research institutions, urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities and users of public transportation.</p>
		474 / 1,000 characters
2	Increase knowledge among	<p>The guidelines and outputs will increase the knowledge among the local mobility and planning entities in the BSR.</p> <p>Knowledge is increased among urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities, academic and research institutions, users of public transportation and private sector innovation and service developers.</p>
		392 / 1,000 characters
3	Raise awareness among	<p>Important goal of this WP is also to raise awareness among the local public transport operators, municipalities, urban transport planners and city planners. This can be achieved through the outputs of this WP and also through the cooperation and communication in the data and information gathering with the above mentioned parties.</p> <p>Awareness is raised among urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities, academic and research institutions, users of public transportation and private sector innovation and service developers.</p>
		605 / 1,000 characters

4.4. WP leader

PP 2 - Forum Virium Helsinki

PP 1 - Metropolia University of Applied Sciences

4.5. Partner involvement

FVH is part of City of Helsinki group, and has a long history of operating, planning and coordinating various smart city activities, including partnership in two automated bus pilots and a large amount of smart urban mobility pilot projects. It has been awarded and recognized internationally and locally several times with its smart city projects.

METROPOLIA has been operating open road automated bus pilots in Helsinki, Espoo and Tampere with the national SOHJOA-project. Learnt best practices, know-how and experiences will be utilized in each GoA.

CHALMERS has wide knowledge in energy efficiency for vehicles and autonomous driving. It will provide key contribution in technological transfer of research results and best practises between universities and industry, including SMEs.

IKEM is familiar with the German political, legal and regulatory framework and its embedding into the European framework. It will create the study's analytical system to analyse these political, legal and regulatory framework in partner countries.

GDANSK, ZEMGALE and VEJLE will investigate the legal framework in search of changes that have to be implemented so that the autonomous transport would be allowed on public roads, including legal acts and insurance liability. GDANSK also examines necessary infrastructural changes and social campaigns for other road users.

KONGSBERG shares its experience in the route planning, technology and user perspective in seamless travel. It provides the Norwegian legislative situation and is familiar with the Norwegian political, legal and regulatory framework.

TUT has extensive expertise in analysing and optimising the transport flows of electric vehicles, and concludes a detailed operational set-up including location, mobility and technological analysis.

FLOU has prior expertise in transportation engineering, computer science, applied mathematics and economics, and it conducts research and analysis on user group profiling, region profiling, trip purpose and CO2-emission reduction potential.

Traficom successor TRAFI analyses the usage of autonomous vehicles on private and public grounds. It examines the national road legislation, liability, insurance schemes, criminal law, approval procedures and data protection.

HSL is the competent authority for organising all public transport in the Helsinki region, and is also responsible for developing the long-term regional transport system plan. It has long experience in studying, planning, organising and developing multi-modal integrated public transport networks with a focus on sustainable modes of transport. It has participated in previous autonomous vehicle projects.

TTD is responsible for planning transport. This includes establishing line routes, stops and schedules; maintaining city transport and traffic register; developing public transport tickets; organising road safety work; approving applications for temporary closure of traffic on streets.

2,965 / 3,000 characters

- PP 1 - Metropolia University of Applied Sciences
- PP 2 - Forum Vrium Helsinki
- PP 3 - SUCCEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)
- PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL
- PP 5 - FLOU Solutions Ltd
- PP 6 - Tallinn University of Technology
- PP 7 - Tallinn Transport Department
- PP 8 - Chalmers University of Technology
- PP 9 - Zemgale Planning Region
- PP 10 - Institute for Climate Protection, Energy and Mobility
- PP 11 - The City of Gdansk
- PP 12 - The Municipality of Kongsberg
- PP 13 - The Municipality of Vejle
- PP 14 - The Finnish Transport and Communications Agency (Traficom)

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

The Government Office of Estonia could support TUT and TTD in preparing country specific guidelines and a joint roadmap BRS for legislation.

As a regional developer who creates conditions for well being, economic development and a safe environment for its citizens the Helsinki-Uusimaa Regional Council (HURC) would be interested in transport planning within their region, the CO2 reduction potential and the State of Art Studies. The HURC could provide feedback for the consortium on the State of Art studies, especially on topics such as regional planning and modeling.

The Urban Council for Roads (UCFRS) safety would support the consortium in analyzing data on technology risk assessment as well as on analyzing technical issues for the purpose of legal development. The UCFRS could provide feedback on the safety issues within the technical report (output of GoA2.4).

The Pomeranian Association of Friends of Public Transportation (PAFPT) could help plan the mobility chains composition for Gdansk, suggest best potential areas for first mile operation, help gather data on user profiles and provide feedback on the technology risk assessment.

Gdansk University of Technology (GUT) could work closely with METROPOLIA, TUT and CHALMERS to feedback these academic institutions on the state of art studies e.g. street infrastructure needs for connected-automated vehicles and would learn from them to achieve institutional change and knowledge on automated transport solutions. The strength of GUT lies in research excellence and offering education and competence in many fields of science, all of which could provide valuable input to the state of art research, assessing the safe technical operation requirements and automated transport planning.

The Transport Department of the Pomorskie Voivodeship could support GDANSK on the city and regional transport planning and generating user acceptance of automated transport solutions.

BBH is Germany's biggest law firm for infrastructural law with a large network in Germany as well as world-wide which has already worked together with IKEM on matters of autonomous vehicles. BBH will be able to provide legal insight as well as expertise from many other projects and mandates, such as the upcoming Interreg VA project "I-AT".

Sytrafik is a regional infrastructure and public service provider of public transport. They are interested in planning and development of the best service of transportation for the public. They foresee that transportation in the future will change focus to MaaS, and therefore are interested in developing First and Last mile services. They also focus on lowering the climate impact of their activity, and hence focus on testing and introducing green transportation. As such they are invited to contribute and enhance the outcome of the project and the small scale testing.

2,866 / 3,000 characters

- AO 1 - The Government Office of Estonia
- AO 2 - Helsinki-Uusimaa Regional Council
- AO 3 - Urban Council for the Road Safety
- AO 4 - Ministry of Economic Affairs and Communications
- AO 5 - Pomerian Association of Friends of Public Transportation
- AO 6 - Gdansk University of Technology
- AO 7 - Pomorskie Voivodeship
- AO 8 - Becker Büttner Held
- AO 9 - Sytrafik

Activities, outputs and responsibilities

WP 2 Group of activities 2.1

4.13. Group of activities leader

PP 1 - Metropolia University of Applied Sciences

A2.1

Title 18 / 250 characters

Description of the group of activities

In the Sohjoa Baltic project the legal, regulatory, practical and technical frameworks are studied in detail and tested in practice to create true cross border collaboration and transnational value in implementing the full potential of Autonomous Transport into the public transport system.

In this group of activities such as automated transit and shared mobility, regional planning and modeling, street management and operations, automated vehicle human factors, near-term deployment opportunities, automation systems operational requirements and street infrastructure needs of connected-automated vehicles will be studied.

For example, once autonomous buses become legally standardized and commercially and technologically viable, they could serve many trips currently served by privately owned vehicles. This would reduce parking and ownership needs, and have impacts on transit and shared mobility, regional planning, roadway management, and commercialization focus areas. As long as these and other crucial questions go unanswered, the BSR will be hampered in its ability to successfully plan for and introduce automated buses into the transportation system.

There is progress across the EU towards more sustainable and environmentally friendly mobility, an action towards which Sohjoa Baltic contributes. However, levels are still low and the fact that some Member States are clear front-runners shows the potential to accelerate the shift towards low-emission mobility. The Sohjoa Baltic consortium includes many of those front runners from the EU Transport Scoreboard 2016. They have already had to define their approach to environmentally friendly mobility. In the case of autonomous mobility they can assist in identifying the pressure points that need to be addressed for the technology to gain wider adoption.

In this GoA is performed the literature search:
 A1: Seeking citations,
 A2: Collecting relevant material,
 A3: Merging and refining overall results,
 A4: Structuring the results to add value.

Literature search may extend to videos, blog or other Internet posts, correspondence known experts (e-mails), data and images, slide shows, poster presentations etc.

2,189 / 3,000 characters

State aid relevant?

O2.1

Output Title 24 / 250 characters

Output Description

The report provides project partners a solid background of current issues in using self-driving buses in urban public transport chain. The report will be ready in the end of the first period. Report is updated along the whole project (period 4 and period 6).
 The state of the art report will include:
 1. technological background (automation and energy efficiency);
 2. current state of the legal framework in EU and BSR;
 3. safety regulation and current standardization level (ISO, EN, etc.);
 The report will address specially EU area, and short overview about developments in other important regions (USA & Far-East).
 State of the art report will benefit project partners by "cross-levelling of knowledge". The report helps Group of activities 3.1 "Detail planning and procurement of pilots" by giving partners technology, legislation and regulation and standardization overview. Also Group of activities 3.2 & 3.3 "Large and small scale pilots" will benefit state-of-the-art report. Report is updated along the whole project (period 4 and period 6).

1,058 / 2,000 characters

Main Output

Investment

4.16. Timeline

	A2.1	O2.1
Period 1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>
Period 6	<input type="checkbox"/>	<input type="checkbox"/>

WP 2 Group of activities 2.2

4.13. Group of activities leader

PP 5 - FLOU Solutions Ltd

A.2.2

Title 36 / 250 characters

Description of the group of activities

Group of activities 2.2 is divided in two stages. First stage takes place before the small and large scale pilots and the second stage takes place after the pilots in 10/2019 to 09/2020.

The automated public transport systems have great potential in solving many of the challenges faced by millions of travellers today. In order to optimally benefit from the new technologies, the strategic goals of the cities and the cities' current problems need to be recognised.

Urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities, academic and research institutions and users of public transportation can be involved in the first stage activity 1 by presenting, gathering or managing data sources used in this group of activities.

The first stage consists activities 1 to 3.

1. City strategies and transport goals
 This activity aims at understanding the traffic challenges faced by different partner cities' and current needs regarding their transport systems. In addition, the partner cities' hopes and needs for research are examined. The goal is to find similarities and particularities between the goals and challenges of the cities. This activity is done in co-operation with the local project partners.

2. Designing the research themes
 The second activity in the first phase focuses on formulating the research themes for the pilots. The aim is to ensure that the research done along the pilots is comparable between the partner cities. After this activity, the pilots will have well thought out problems that they can explore during the pilots' execution.

3. Compiling a report of the first stage findings.

The second stage consists activities 4 to 6.

4. Data gathering
 The second half starts by gathering the acquired experiences and feedback from all the different pilots held. The experiences are gathered from the partner cities and partners.

5. Analysis
 The experiences are gathered together and analysed for similarities and most important findings. With the help of the experiences from pilots and the interviews of the first stage, a risk assessment is made and suggestions for actions and policies are done to ensure best possible implementation of automated first and last mile solutions.

6. Creating a two-way roadmap
 The last activity is to compile all of the findings to a roadmap which is the main output of this group of activities. The roadmap will look at actions aiming to develop the automated vehicles to better serve cities' needs and how cities should plan their transport system to best realise the benefits of automated first and last mile solutions. The roadmap is based on all the information and results acquired through the whole process.

2,760 / 3,000 characters

State aid relevant?

O.2.2

Output Title 64 / 250 characters

Output Description

The main output of this GoA is a report of the different goals cities have for their transportation systems and how automated last and first mile systems could serve those purposes. What are the benefits to the cities from automated first mile and last mile solutions? How automated first mile and last mile bus solutions should be developed to better meet the needs of modern city demand?

In the first part of the study, the participating cities are interviewed to gain insight of the objectives for their transport system. The goal is to clarify what should be developed and planned in transport at their current situation. In addition, objectives will be developed for a mobility study for the study to best answer to questions that are relevant for the participating cities.

The second part of the study examines the successes and lessons learned by the cities from the pilots. The cities will be interviewed whether the pilots fulfilled their purpose, what should be done differently when designing consequent pilots and which lessons should be taken into account when implementing full scale automated solutions in the future. Furthermore, a risk assessment of the developing technologies will be done in regard with the transport goals of the cities. Policies to better achieve the goals set for the transport systems will be suggested based on the experiences from the pilots and the risk assessment.

The transnational value is created through the tight cooperation between project partners. The results gained from this study can be applied to all over the BSR and the policy approaches are easily implemented to all European policies and governances.

1,667 / 2,000 characters

Main Output

Investment

4.14. Target group(s) and use of the main output

Target groups to apply the main outputs are urban planning authorities, urban transport authorities, companies providing public transport, Mobility-as-a-Service operators, academic and research institutions, users of public transportation and private sector innovation and service developers. Understanding gathered in the project will speed up development of automated buses and their integration in city transportation. This will lead to having a wider toolbox in transport planning and can lead to better level of service in transportation, less expensive city transport, less environmental effects, less road fatalities and less need for parking space.

Positive feedback will also accelerate the development: taking up modular infrastructure planning will allow greater added-value from automated buses in early stage. E.g. if proactive planning can better allocate parking lots and enable modular development of cities, valuable city space can be reused more easily for other purposes.

Output will also benefit end-users: passengers in city transport. By speeding up the development of integrating automated buses in city transport, passengers will have an earlier access to new transport modes. By providing the missing link on existing travel chains, automated buses can affect strategic choices (e.g. car-ownership) and at the same time provide people with added access to daily activities.

1,407 / 2,000 characters

4.16. Timeline

	A.2.2	O.2.2
Period 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

WP 2 Group of activities 2.3

4.13. Group of activities leader

PP 10 - Institute for Climate Protection, Energy and Mobility

A2.3

Title 37 / 250 characters

Description of the group of activities

Aim of this GoA is to develop a strategy and roadmap for the legally safe implementation of public transportation with automated buses creating transnational and highly relevant value. The project partners have in part been involved in the project CityMobil2 participating in drafting a preliminary legal framework to certify automated transport systems. This GoA will build on these and other earlier findings and results to develop a roadmap for the Baltic Sea Region on using automated buses as part of public transport.

There will be four activities (A1-A4).

A1: Best-practice example

Description and analysis of a best-practice example: Aalto University campus area testing performed in the national Sohjoa project for one month in 2016. Metropolia and The Traficom successor TRAFI planned together the testing of automated buses in public road traffic. Lessons learned and problems encountered during the testing and planning process will be described as a best-practice example.

A2: Development of a joint roadmap for Finland and Germany

From the experience within several other demonstration projects about autonomous vehicles as support or supplement for public transport in Germany IKEM will develop a legal and administrative roadmap for the implementation of autonomous vehicles for Germany. Traficom will then adapt and substantiate this roadmap for Finland.

On this basis IKEM will write a joint roadmap for Germany and Finland with close support of Traficom and reference to the aforementioned best-practice example at and a second best practice example from Germany.

A3: Transfer of the roadmap to the other five project states by workshops

Apart from the best-practice example in Finland, the project includes large scale pilots in Tallinn (Estonia) and Kongsberg (Norway) and small-scale pilots (showcases) in Gdansk (Poland), Zemgale region (Latvia), and Vejle (cancelled) (Denmark).

In each of these five pilots external expertise will be acquired from local law experts.

The local law experts will transfer the joint roadmap (A2) to the legal situation in their countries. IKEM will coordinate the work of the local law experts (budgeted for each country under BL4). The emerging roadmaps for every country will be sent to the relevant authorities as well as other main target groups and discussed within national workshops organized by the lead partner of the subproject. This approach will guarantee a practical and realizable outcome.

A4: Comparison of the national approaches, development of a joint roadmap for the BSR and report

Analyzing the roadmaps IKEM will display a comparison of the legal and administrative situation in these countries, taking into account the common background in European and international law. Based on the roadmaps for seven countries plus a comparative law analysis, IKEM will develop a joint roadmap for the BSR. IKEM will aggregate all results in a final report as a main output of the GoA 2.3.

2,971 / 3,000 characters

State aid relevant?

O2.3

Output Title 23 / 250 characters

Output Description

The output is an aggregated report, which sums up results from all of the activities of GoA.2.3 by July 2020 to finish the project. By the end of 2019 a preliminary report will be released and based on that workshops will be held to develop the final changes for the aggregated report.

The aggregated report will consist of:

- 1) six national roadmaps, one for Germany and Finland (joint roadmap) and five roadmaps for the other member states
- 2) a comparison of the national laws
- 3) a joint roadmap for all participating (BSR) member states, which IKEM will develop for the Baltic Sea region as contribution to a European roadmap for the implementation of public transport with autonomous vehicles. This roadmap will be based on the revision of the roadmaps which were created for each member state as well as the results of the comparison of law.

This joint roadmap, like the roadmaps for each Member State, will tackle the following issues

- a) national and BSR stakeholders,
- b) competent government levels of responsibility,
- c) technical requirements for public transport with autonomous vehicles,
- d) personal requirements for public transport with autonomous vehicles,
- e) operation of public transport with autonomous vehicles,
- f) liability for actions of the autonomous vehicles,
- g) insurance in the autonomous traffic,
- h) data protection, privacy and information regime, data analyzing rights.

The following fields of law are being examined:

- 1) law of vehicle approval
- 2) public transport law
- 3) law of driving licenses
- 4) road traffic law
- 5) labor law
- 6) liability law
- 7) criminal law
- 8) data protection and privacy law
- 9) information sharing law

The output is of transnational value because it will show the common as well as different aspects of national law, which have to be adjusted and approximated, e.g. by EU directives, in order to harmonize and approximate the legal basis for the EU-wide implementation of autonomous vehicles in public transportation.

1,975 / 2,000 characters

Main Output

Investment

4.14. Target group(s) and use of the main output

The aggregated report, especially the joint roadmap as well as the national roadmaps, will be used by:

- approval bodies
- cities, municipalities
- government institutions, e.g. agencies (transport safety, road traffic)
- public transportation companies
- companies developing/selling autonomous vehicles
- policy makers
- lawmakers
- projects that focus on the implementation and technical development of autonomous vehicles in Europe
- universities and other public or private R&D bodies
- interest groups
- media

The end users for this report and/or the roadmaps will be:

- government officials
- administrators in public bodies
- public transportation company employees
- politicians
- researchers
- salesmen/saleswomen
- lobbyists

The aggregated report will be used in the BSR and might also function as a basis for research and development in other European countries. The principle by which it will be created is transferrable to any other European country or even worldwide. The Finnish Transport and Communications Agency (Traficom) successor of Finnish Transport Safety Agency (TRAFI) and lead partner took part in, and the respective working group delivered a proposal to establish a common legal framework to certify automated transport systems at European level.

Sohjoa Baltic will take the results of this work into account, and i.a. look for deficiencies or ways to further develop the results and findings of these studies with regard to public transportation.

1,484 / 2,000 characters

4.16. Timeline

	A.2.3	O.2.3
Period 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

WP 2 Group of activities 2.4

4.13. Group of activities leader

PP 8 - Chalmers University of Technology

A2.4

Title 34 / 250 characters

Description of the group of activities

The group of activities 2.4 focuses on studying safe and technical requirements for automated buses to drive in public areas. This CoA is strongly relevant for the transnational area influencing all the TGs, since it will help to identify the minimum safety standard required to drive autonomously in public areas in BSR countries. CoA 2.4 is divided in 7 activities:

A1: Defining acceptable service quality in the chosen areas
 Each driving scenario involves different driving conditions, for instance vehicles, pedestrian and other road users; this activity will identify the acceptable level of service in urban areas of BSR with particular attention to safety issues and interferences among autonomous vehicles and other road users.

A2: Study on the autonomous technology development
 As a general method for autonomous driving does not exist yet, the aim of A2 is the investigation of the most recent technologies with focus on urban areas and the use of new artificial intelligence methods to minimize energy consumption and maximize safety.

A3: Study on the cooperative driving behaviour
 The cooperation between vehicles foresees the communication of desired individual actions in order to plan cooperative actions according to specific objectives. Scientific literature has demonstrated that cooperative vehicles are able to save energy and improve safety using intelligent driving behaviour. This activity will explore the application of these technologies in real environments evaluating the practical advantages for the TGs.

A4: Study of autonomous technology buses for elderly/people with moving disabilities
 The public service must be as broad as possible, as a consequence elderly, pregnant, and people with disabilities, who probably is not able to drive, constitutes one of the most important users of the public transportation. This activity is explicitly dedicated to the study of autonomous and artificial intelligence methods to improve the service for people in this particular category.

A5: Adverse weather conditions driving policies
 For the practical utilization in real environments autonomous busses must deal with bad weather (e.g. rain and snow). As a result, it is important to study safety functions to drive in any condition and guarantee the continuation of the transportation service in urban areas of the BSR.

A6: Best practices through peer processes benchmarking
 This activity has the final objective to identify evaluation criteria for safety and performance in autonomous driving, indeed the project objectives have to be coherent and quantitatively evaluable in comparison among different functions.

A7: Failure and risk analysis
 For the sake of maximize the service efficacy, it is important to analyse possible failures and minimize risks. Using functional analysis, it is possible to identify risk elements (e.g. sensors, mechanical parts, software etc.) with failure probabilities.

2,931 / 3,000 characters

State aid relevant?

O2.4

Output Title 40 / 250 characters

Output Description

The contribution of this group of activities is twofold: energy efficient plan for autonomous fleet and the technical guidelines for operation in public environment.

Output 1: Energy efficient plan for autonomous fleet: A structured report containing the energy efficient plan and best practices will be the outcome of A2 and A3, where new policies for energy efficient autonomous and cooperative driving will be explored. Report of data analysis after the pilots in WP3 will clearly show the effectiveness of energy saving best practices affecting all the relevant TGs, including public operators and manufacturers, in the choice of driving policies in BSR. As a result, the policies for the reduction of CO2 will be spread and used by the TGs to improve the quality of life in BSR. As further outcome, identification of peer process benchmarking and evaluation criteria (A6) will clearly define unambiguous methods for the assessment of vehicles performance.

Output 2: Technical guidelines for operation in public environment: Although energy efficiency is one of the most important aspect to be considered, safety in public areas is the most important one. A1 and A7 will contribute to the overall outcome of the project in terms of risk analysis and the definition of the acceptable quality of service, identifying the minimum safety standard to drive autonomously in BSR according to the functional safety standard ISO26262 (ISO 26262 addresses the needs for an automotive-specific international standard that focuses on safety critical components). This outcome will be significant for all the TGs contributing also to the standardization and certification process of future energy efficient autonomous vehicles, also in consideration of bad weather condition (A5). Moreover, activities A4 outcomes will be minimum safety and accessibility requirements for elderly and people with disabilities.

1,905 / 2,000 characters

Main Output

Investment

4.14. Target group(s) and use of the main output

Though all target groups will benefit from the outcomes of this group of activities, the practical utilization of safe and technical requirements will be beneficial for the city public transportation, area development responsibilities, public transportation agencies and operators and traffic safety agencies to improve the regulation for the efficient and autonomous driving in BSR. Public authorities will have in their disposal the guidelines for the safety and accessibility requirements for the future of the transportation system. Whereas the utilization of energy saving best practices will be beneficial for private manufacturers and local businesses, as well as public and private users in terms of pollution reduction and economic savings. Manufacturers and local businesses, in charge of the implementation of the new requirements in production, will benefit from the know-how gained during this activities with the consequent social growth. The implementation of energy saving functions and safety requirements can become a strong advantage in the worldwide market. Furthermore, the results in terms of best practices are replicable in the entire European Community.

1,188 / 2,000 characters

4.16. Timeline

	A.2.4	O.2.4
Period 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Work package 3

4.1. Title

Automated pilots as part of the public transportation

53 / 250 characters

Work package budget

40%

4.2. Aim of the WP

WP3 introduces automated buses to public transport chain especially for first/last mile trips. The pilots will demonstrate that the buses are safe, reliable, cost-effective and that they are viable mobility solution which can be scaled for permanent service in the right mobility use cases at the end of the project. These pilots will also help in shaping future traffic regulations that will enable the scaling and the operation of automated buses in BSR. Through pilots, the project seeks institutionalized knowledge and competence on organizing environmentally friendly and smart automated public transport solutions as well as experience of the organizational setup needed for running such a service in an efficient way.

WP3 will organize 6 pilots: 3 Large-scale pilots could utilize fe. the buses in complex conditions mixed traffic such as transporting pedestrians from train station to industrial park, and 3 Small-scale pilots focus on showcasing and introducing automation nationally to TGCs.

WP3 will study topics of: city planning, infrastructure optimization, public relations and communication, interaction between other road users, support systems for operators and users of the transport, the buses' ability to operate in difficult environments (ie. snow, rain, darkness, cold) the impact of automated vehicles on modal shift, travel behavior and interaction of other road users, information and ticketing systems, user acceptance, operational costs and reliability. In addition, the WP3 actions will: test scenarios for different interest groups, which will be verified, document the experiences of each pilot, develop them in an iterative cycle for the other WP3 pilots.

After the pilots, lessons learned will be used locally and nationally for building permanent services, further development and industrialization. Pilots will demonstrate variety of different mobility use cases which could be replicated within the BSR by the target groups.

1,965 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Increase knowledge among	The pilots and demonstrations will act as proof that the concept is capable to work in transnational environment. While the pilots are local, the concept can be implemented in any urban environment that fits the requirements defined in the project. Pilots increase knowledge of urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities, academic and research institutions and private sector innovation and service developers. METROPOLIA (PP1), FLOU (PP5), Chalmers (PP8) and IKEM (PP10) provide research data for target groups. They will organize events and/or participating in forums (f.ex. CIVITAS Forum 2018).
		681 / 1,000 characters
2	Raise awareness among	Pilots raise awareness among users of public transportation. For users of public transportation are communicated through communication tools on board on buses and trains, press releases, tvradio, social media channels and videos from project's website.
		256 / 1,000 characters
3	Change attitude of	Pilots change attitude of users of public transportation. For users of public transportation are communicated through communication tools on board on buses and train, press releases, tvradio, social media channels and videos from project's website.
		255 / 1,000 characters

4.4. WP leader

PP 12 - The Municipality of Kongsberg

PP 1 - Metropolia University of Applied Sciences

4.5. Partner involvement

METROPOLIA has previous experience about robot bus demonstrations on public roads and has been planning, organizing and implementing them on different sites in Finland. Metropolia will share its knowledge of robot buses with other project partners.

The Finnish Transport and Communications Agency (Trafi) successor of TRAFI has the competence to permit the licence to test robot buses on public roads in Finland.

KONGSBERG is in process with national authorities about making Kongsberg a national testing area for automated vehicles. They have extensive experiences in setting up test venues and they're co-owner of the planned test road and will make any necessary changes in the roadbed in the current route, including any resigning.

TTD has extensive expertise in analysing and optimising the transport flows of electric vehicles. In addition they will support TTD to successfully implement the pilot.

GDANSK, ZEMGALE and VEJLE presents a consistent and strategic approach towards sustainable mobility. They have significant experience in forming partnerships across the region and are aiming to improve infrastructure for the multimodal travel. Through automated bus demonstration, GDANSK, ZEMGALE and VEJLE are interested to identify problems in the approval of the automated vehicles, the required infrastructure and the test tracks by local and national authorities as well as to develop a communication strategy with the different responsible branches of administration.

CHALMERS has developed leading research in various areas of science. Leveraging on their expertise in efficient vehicle technologies, they add deep experience in research, test evaluation and dissemination regarding the pilots.

IKEM's strength lies in its research for both public and private actors, a special connection of economic, legal and policy analysis as well as strong ties to both research and practice partners. Through case studies of the pilots, IKEM will learn about the technical and legal obstacles regarding automated vehicles and will find coordinated legal solutions further consulting the project partners in the approval of the automated vehicles.

FLOU's core competencies include deep expertise in transportation engineering, computer science, applied mathematics and economics. In WP 3, FLOU will use the prior expertise on analyzing impacts of transport projects and user profiling and be a part of analyzing the data and experiences acquired with the robot bus pilots.

FVH and HSL will plan and assist in realization of planned activities in Helsinki area. Both have previous experiences in automated bus trials as well as mayor level support to automation as part of the public transportation.

TTD is responsible for planning transport. This includes establishing line routes, stops and schedules; maintaining city transport and traffic register; developing public transport tickets; organising road safety work; approving applications for temporary closure of traffic on streets.

3,000 / 3,000 characters

- PP 1 - Metropolia University of Applied Sciences
- PP 2 - Forum Virium Helsinki
- PP 3 - SUCCEEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)
- PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL
- PP 5 - FLOU Solutions Ltd
- PP 6 - Tallinn University of Technology
- PP 7 - Tallinn Transport Department
- PP 8 - Chalmers University of Technology
- PP 9 - Zemgale Planning Region
- PP 10 - Institute for Climate Protection, Energy and Mobility
- PP 11 - The City of Gdansk
- PP 12 - The Municipality of Kongsberg
- PP 13 - The Municipality of Vejle
- PP 14 - The Finnish Transport and Communications Agency (Trafi)com)

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

All of the AOs will support the consortium in Public Relations and Communications using their communication channels to generate publicity for both types of demonstrations and for the Sohjoa Baltic project in general. The consortium and AOs will rely on cross marketing of contents generated locally to maximise the marketing impact of the project and raise the awareness of automated public transport solutions among users and transport providers as well as politicians.

The Urban Council for the Road Safety is not only an advisory organisation but also implements solutions increasing roads safety, therefore they would advise the consortium on realizing safe automated transport demonstrations. Whilst their actions are divided into the fields of: education, infrastructure, rescue service and traffic supervision they would be interested to use these competence in planning a small-scale demonstration in Gdansk and elaborating good practice examples.

The Ministry of Economic Affairs and Communications would lobby for automated solutions for the first and last mile operation in mixed traffic and use their communication competence to promote this solutions as safe, energy saving and it's CO2 reduction potential.

The PAFPT aims to cooperate with local government to create an efficient, eco-friendly and integrated public transportation system, make it accessible for persons with disabilities, promote urban public transport as an eco-friendly form of mobility and to associate with public transport oriented organisations nationwide and abroad. As such the PAFPT would support the consortium in planning the small-scale demonstration and liaise with hosts of large-scale demonstrations to be able to support local government in planning automated routes for the last mile transport in Gdansk and the Pomeranian region.

Each of the AOs will also provide information on the activities to the editorial offices from their media relations mailing lists, however the templates for press releases might be similar e.g. provided by the project leader communications manager with some local, country or region specific elaboration.

Finally the AOs will use their communication channels to share the report on good practice examples with their interest groups.

- AO 1 - The Government Office of Estonia
- AO 2 - Helsinki-Uusimaa Regional Council
- AO 3 - Urban Council for the Road Safety
- AO 4 - Ministry of Economic Affairs and Communications
- AO 5 - Pomerian Association of Friends of Public Transportation
- AO 6 - Gdansk University of Technology
- AO 7 - Pomorskie Voivodeship
- AO 8 - Becker Büttner Held
- AO 9 - Sydtrafik
- AO 10 - Buskerud county

2,265 / 3,000 characters

Activities, outputs and responsibilities

WP 3 Group of activities 3.1

4.13. Group of activities leader

PP 12 - The Municipality of Kongsberg

A3.1

Title 41 / 250 characters

Description of the group of activities 1,925 / 3,000 characters

A1: Detail planning of simultaneous city pilots
 Each of the piloting partners will in a coordinated way define optimal piloting routes that meets marked demands for transport last and first mile, for example between a train stop and some industry buildings or larger houses. Each of the pilots will then apply for ability to drive with the autonomous bus the defined routes. The piloting routes will use their defined goals for the pilots to select routes. Information to target groups will be given broadly before the pilots start to drive. All involved persons will be invited to participate in end user surveys. These learnings will be used in the Evaluation report. The pilots will be improved during the pilots based on the end user surveys and supplementary interviews.

Each of the pilot will set up an operation team who will have responsibility for the online transport service. All this learning will be a base for our national and international learning.

A2: Joint plan for automated bus public procurement
 The procurement to lease automated buses will be performed jointly by the piloting partners in order to set up common realistic goals for the procurement. It will be investigated whether one joint procurement or several separate would offer the most cost-effective solution for the project. The procurement will take into account traditional technical requirements, but additionally the new characteristics which depend on the operating conditions of automated vehicles, will be evaluated and included if necessary. The procurement will be considering current public procurement rules, entered into force in 2016

State aid relevant?

O3.1

Output Title 35 / 250 characters

Output Description 650 / 2,000 characters

The procurement process will be reported, indicating the main parameters which were considered for the procurement and the outcome. Any possible 3rd party confidential information related to the procurement process will not be revealed.

Main Output

Investment

4.16. Time line

	A3.1	O3.1
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>

WP 3 Group of activities 3.2

4.13. Group of activities leader

PP 6 - Tallinn University of Technology

A3.2

Title 23 / 250 characters

Description of the group of activities

Operations of the buses will be free and open for everyone. The aim is to drive buses regularly so that passengers can be accustomed to them and can link them to daily mobility needs. For safety reasons the buses still moves relatively slowly compared to other traffic and requires special arrangements which can hinder other traffic. Operations are also dependent on weather conditions, the buses are not yet able to drive in heavy rainfall or during wintertime (in snow or very low temperatures). Though, driving in such conditions can be investigated during the project.

The large-scale pilots are planned to run 2018-2020 with the following characteristics:

- Automated buses will run for at least 4 months in one location, so passengers can incorporate them to their everyday mobility plan and create demand for sustaining this service
- The pilots will be integrated with the city transport network and cross-border mobility solutions will be mapped.
- New mobility options including automated vehicles can be sustained, the next step is to integrate them as part of everyday fleet operated, provided the outcomes of our pilots are successful.
- There is effective knowledge sharing between partnering cities, including rotation of operators, if proven necessary.
- Buses will be in operation for minimum 8 months in each city, mostly in real-life traffic on open roads
- During the pilots, buses will be projected to operate up to 8 hours a day and 5 days a week (taking into account weather conditions).

The planning (under GoA3.1), implementation and evaluation of these pilots will be done mutually in the consortium and this will be effectively documented for other cities replications in the BSR. The large-scale pilots will work in line with small-scale pilots so that these cities can learn from the best practices.

The three large scale pilots will be implemented on public roads on road networks with low speeds (30-40 km/h) and traffic. The bus could operate either among pedestrians and bicycles (lane for light traffic) or among light mixed vehicle traffic. People could be carried into the vicinity of a metro station, for example in Ruoholahti or Lauttasaari in Helsinki. Driving route in the town of Kongsberg could be between a railway junction and technology park. In Tallinn, the bus could operate in the Mustamäe area with three potential routes: 1. Connecting large University and Tehnopol Science Park campus with the public transport; 2. Connecting the biggest hospital in Estonia (PERH) with the public transport system and/or 3. Serving as a last-mile option for the Road Administration main examination center. Length of the routes will be approximately 0,5-2 km long thus focusing on the last mile transport problem.

2,992 / 3,000 characters

State aid relevant?

O3.2

Output Title 52 / 250 characters

Output Description

Also a toolbox (implementation process) for adding automated buses is developed. Our ambition is that BSR cities outside project consortium will be able to move from piloting to real solutions much faster by learning from the best practices of the large-scale piloting cities. Sohjoa Baltic project will organise at least one public event involving other cities in the BSR region interested in automated buses

These outputs will be used by urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities and private sector innovation, service developers and academic and research institutions. This is supported by the increased awareness and improved acceptance of the current and new users of public transportation.

1,216 / 2,000 characters

Main Output

Investment

4.14. Target group(s) and use of the main output

All the TGs, especially the urban planning and transport authorities and transport providers, will be involved in the development of the transnational guideline to automated last mile public transportation (PT). Consequently all the TGs besides PT users will develop best practices for knowledge exchange and will collate both training and technical guidelines for operators.

377 / 2,000 characters

4.16. Timeline

	A3.2	O3.2
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>

WP 3 Group of activities 3.3

4.13. Group of activities leader

PP 11 - The City of Gdansk

A.3.3

Title	Small scale city pilots	23 / 250 characters
Description of the group of activities	<p>Under GoA 3.3 three small scale bus pilots (showcases) will be implemented in Gdansk, Vejle (cancelled) and Zemgale (one pilot in each city). The pilots will be planned, implemented and evaluated jointly with co-creation activity under GoA 3.1.</p> <p>The small scale pilots serve as pilots for transport operators from countries which have no current legislation on the autonomous transport in place and for the cities where the automated bus piloting hasn't been tested yet. Pilots will be implemented according to the current legislation of each country and the buses will operate either on public roads, partly on public roads or in an entirely isolated area.</p> <p>The small-scale pilots are planned to run 2018-2020 with the following characteristics:</p> <ul style="list-style-type: none"> - Automated buses will run for at least one month in one location - The showcases raise the awareness of automated transport and have a significant marketing impact. - Hosts of the small scale pilots learn from each other and from the hosts of the large scale pilots. They work in partnership to plan and organise successful showcases and to evaluate it. - To benefit from cross marketing it is planned to include the small scale pilots in other significant events e.g. the European Mobility Week. <p>Both types of pilots (large and small scale) will prove that this solution is capable to work in transnational environment and can be replicated.</p> <ul style="list-style-type: none"> - The transnational experience can be extended by a live video streaming of the pilots from inside of the vehicle so that anyone could be a virtual passenger of the automated bus and the transport providers could better understand the automated intelligent public transport. - Hosts of the large and small scale pilots will invite local politicians as well as transport providers from other cities and regions in their countries to extend the local character of the pilots and share the experience of the automated intelligent transport solutions. - Through both large and small scale pilots the projects brings competence on provision of the eco-friendly and smart automated transport solutions and guidelines on the logistics and technicalities of running a service. <p>These outputs will be used by urban planning authorities, urban transport authorities, companies providing public transport, traffic safety authorities and private sector innovation, service developers and academic and research institutions. This is supported by the increased awareness and improved acceptance of the current and new users of public transportation.</p>	2,531 / 3,000 characters
State aid relevant?	<input checked="" type="checkbox"/>	

O.3.3

Output Title	Report on best practices	25 / 250 characters
Output Description	<p>The report will serve as a toolbox for transport operators who wish to include automated transport options within the urban public transport chain. Thanks to this document target groups will learn how to setup automated operation, about it's benefits and costs and how to ensure safe operation. They will be able to:</p> <ul style="list-style-type: none"> - learn how to integrate automated buses in the public transport - optimize the transport flows and identify region types within urban environments, - assess the service level needed, - identify user groups and their needs. <p>This particular output will transfer the know-how to all actors interested in automated transport starting from public authorities and ending with private sector service and innovation developers.</p>	743 / 2,000 characters
Main Output	<input checked="" type="checkbox"/>	
Investment	<input type="checkbox"/>	

4.14. Target group(s) and use of the main output

<p>The Project's target groups, reached thanks to the high local and national visibility of showcases, include:</p> <ul style="list-style-type: none"> - urban planning authorities - urban transport authorities - companies providing public transport - traffic safety authorities - private sector innovation and service developers - academic and research institutions - users of public transportation <p>It is anticipated that the main output, namely the report on good practices together with a road map will be applied by the urban planning authorities, transport authorities and companies providing public transport, supported by the academic and research institutions, traffic safety authorities and private sector innovation and services developers.</p> <p>All the target groups will benefit from the main output. First of all the transport providers will receive a ready to use instruction which will address all the issues that might arise while introducing automated transport solutions.</p> <p>The research institutions, urban planning and transport authorities, providers of the public transport and traffic safety authorities will also benefit from the main output by achieving a qualitative institutional change in their attitude to planning and providing smart mobility for residents and tourists.</p>	1,260 / 2,000 characters
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4.16. Timeline

	A 3.3	O 3.3
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 6	<input type="checkbox"/>	<input type="checkbox"/>

Work package 4

4.1. Title

Communication, dissemination and exploitation

45 / 250 characters

Work package budget

20%

4.2. Aim of the WP

WP4 works on communicating, disseminating and exploiting the project's activities and results in order to maximize impact at local, national and transnational levels. WP4 creates a Communications and Dissemination plan, identifying and describing the project's additional target groups, key messages, target group involvement and communications aims, actions, channels, resources, timetable, responsibilities, and the follow up and evaluation.

WP4 is conducted by Lead Partner in collaboration with each partner as local media and public relations need to be approached locally. Lead Partner has the overall responsibility for creating and implementing the communications actions.

WP4 engages the decision makers, influencers, businesses, citizens, both before, during and after the project. This is crucial to the implementation of the demonstration as learned from the CityMobil2 and SOHJOA projects.

Lead Partner sets up a newsroom for creating communications, dissemination and exploitation plans as well as materials, such as media bulletins, translations, documentation, reporting and following media presence and impact. Suitable use of AR/VR (augmented/virtual reality) solutions will be tested. Tools of communication include digital media allowing the public transnationally follow the live web cam during demo/pilots; a webpage for the project, social media interaction, podcasting, and engaging audience to content production.

Each WP4 activity support the pre-, during- and after phases. This requires producing video and other visual materials and arranging events such as seminars. Local engagement and awareness raising will be inclusive, involving liaison with local authorities, businesses, particular emphasis will be placed on local audiences and media relations during the demos, and after them the dissemination and leaving wider impact by, sharing results of the demos, attending call for papers for related conferences, conventions and other events.

1,984 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Receive input from	<ul style="list-style-type: none"> -Urban planning authorities -Urban transport authorities -Academic and research institutions -Companies providing public transport -Traffic safety authorities -Users of public transportation including elderly and people with moving disabilities -Private sector innovation and service developers -Eldercare and disabled transport providers and payers <p>The approach is to engage the key stakeholders, focusing in the planning and investigation procedures in WP2, but also more widely in facilitated discussion regarding the project as well as the topic of autonomous public transport in general.</p>
		596 / 1,000 characters
2	Raise awareness among	<ul style="list-style-type: none"> -Urban planning authorities -Urban transport authorities -Academic and research institutions -Companies providing public transport -Traffic safety authorities -Users of public transportation including elderly and people with moving disabilities -Private sector innovation and service developers - General public <p>The approach is to communicate to public authorities and general public with the facts and evidence of the maturity level, real-life safety, and near-future cost savings potential of the autonomous vehicles. These include general media</p>
		550 / 1,000 characters
3	Increase knowledge among	<ul style="list-style-type: none"> - Academic and research institutions - Urban planning authorities - Urban transport authorities - Companies providing public transport - Traffic safety authorities - Users of public transportation including elderly and people with moving disabilities - Private sector innovation and service developers - Developers of Smart Cities and Communities in the Baltic Sea Region - European autonomous vehicles stakeholders <p>The approach is to communicate current state-of-the-art, experiences and examples and opportunities regarding autonomous buses to the target groups, with channelled communication to each, including visit programme to the demonstrations and facilitating peer discussions of various levels of actors with pilot sites and non-pilot cities. The aim is to distribute the project lessons learned in the project areas and Baltic Sea Region, but also more widely engage key European actors like automated buses manufacturers in exploring future opportunities in Baltic Sea Region.</p>
		991 / 1,000 characters

4.4. WP leader

PP 1 - Metropolia University of Applied Sciences

PP 2 - Forum Virium Helsinki

4.5. Partner involvement

Each partner will take part in identifying the national and transnational target groups of the project in order to reach the essential target groups of the entire project.

During the demonstration period, the local partner will be required to take responsibility in order to set up the communications and dissemination activities locally in order to implement good and professional public relations with local media as well as public.

The collaboration with project coordinator's communications requires from each partner at least producing contents and translating the project's general information, press releases and workshop / seminar invitations or possible marketing materials to local languages.

Promoting involvement of target groups and binding other cities in order to gain wider impact requires finding the media contacts, local business networks and involve authorities before the project's actions such as workshops and demonstrations take place on site.

Each partner will arrange in their city possibly a press conference or other media / public event during their demonstration, will invite audience and delegates to attend the demonstrations, as well as involve them to seminars, workshops or other activities. All partners, at minimum, will report on the impact of the project by documenting the feedback given from the audience and other target groups as well as following up their local media coverage.

Also taking part in disseminating the project's activities in the partners' networks in order to help maximizing impact.

Local and regional authorities PP14 (successor of P3), PP4, PP7, PP9, PP11, PP12, PP13 are well positioned in communicating within their regions, but also towards their national audiences in local languages. There are both city, regional and national level partners involved, and dissemination both at Baltic Sea forums as well as forums like EUROCITIES and UITP.

Academic communication partners PP1, PP5 (we include FLOU to this group, even if it is enterprise), PP6, PP8, PP10 are well positioned in disseminating the project results to the academic audiences in Baltic Sea Region and beyond. These include for example disseminating results at local, European and global ITS World Congresses.

In addition to the universities, innovation institute partners like PP2 and PP10 are well positioned in communicating towards the European innovation actors and Smart City Networks. These include for example disseminating at Smart Cities events and seminars, Smart City Networks (OASC, OASC Nordic chapter, 6Åika network of 6 largest cities of Finland, EIP SCC network).

PP 1 - Metropolia University of Applied Sciences
 PP 2 - Forum Virium Helsinki
 PP 3 - SUCCEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)
 PP 4 - *WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL

PP 5 - FLOU Solutions Ltd
 PP 6 - Tallinn University of Technology
 PP 7 - Tallinn Transport Department

PP 8 - Chalmers University of Technology
 PP 9 - Zemgale Planning Region
 PP 10 - Institute for Climate Protection, Energy and Mobility
 PP 11 - The City of Gdansk
 PP 12 - The Municipality of Kongsberg

PP 13 - The Municipality of Vejle

PP 14 - The Finnish Transport and Communications Agency (Traficom)

2,623 / 3,000 characters

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

The AOs will support the lead partner and local partners in local and transnational communication aspects, both by using their communication channels to engage key external target groups to the project, and providing input to the communication and dissemination planning. AOs key contribution is substantial leverage on the project impact.

The consortium together with AOs will cross market locally generated content to maximise the impact of the project and raise the awareness of autonomous public transport solutions among the target groups.

As an example of what AOs can provide in additional dissemination value, the Ministry of Economic Affairs and Communications would promote the autonomous solutions in the Baltic and EU for the first and last mile operation in mixed traffic and use their communication competence to promote this solutions as safe, energy saving and its CO2 reduction potential. The organization could support the consortium in marketing communication, generating positive publicity for Sohjoa Baltic and use its networks to disseminate the project's outputs.

AO 1 - The Government Office of Estonia
 AO 2 - Helsinki-Uusimaa Regional Council
 AO 3 - Urban Council for the Road Safety
 AO 4 - Ministry of Economic Affairs and Communications
 AO 5 - Pomerian Association of Friends of Public Transportation
 AO 6 - Gdansk University of Technology
 AO 7 - Pomorskie Voivodeship
 AO 8 - Becker Büttner Held
 AO 9 - Sydtrafik
 AO 10 - Buskerud county

1,094 / 3,000 characters

Activities, outputs and responsibilities

WP 4 Group of activities 4.1

4.13. Group of activities leader

PP 1 - Metropolia University of Applied Sciences

A 4.1

Title 39 / 250 characters

Description of the group of activities 2,048 / 3,000 characters

State aid relevant?

O 4.1

Output Title 45 / 250 characters

Output Description 1,469 / 2,000 characters

Main Output

Investment

4.16. Time line

	A 4.1	O 4.1
Period 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>
Period 6	<input type="checkbox"/>	<input type="checkbox"/>

WP 4 Group of activities 4.2

4.13. Group of activities leader

PP 1 - Metropolia University of Applied Sciences

A.4.2

Title 28 / 250 characters

Description of the group of activities

The project will raise media interest on national, transnational and global level, therefore it has been identified to have a need for extra PR and communications resources during the project.

The project coordinator nominates a Communications Manager pairing up with the Project Manager. Communications Manager will be responsible for planning, implementing and following up Project's Communications, Public and Media relations as well as dissemination activities in collaboration with partners and experts from each country.

The Communication Manager is responsible for operating as the PR contact person for the project, in collaboration with each partner. The aim is to help media to find right information or book interviews, help partnering cities to arrange press conferences, launching events or related activities to each demonstration. PR responsibilities consists also dealing with requests of delegates attending demos, and keeping up with the current activities of the project.

The Communications Manager will be paired up with a media assistant helping with production of communications materials, especially website, digital media and video production for the entire project. This does not rule out the possibility to have other material production locally, or the need to acquire translation services during the project as each demonstration in partnering city requires materials in local languages.

All of the project partners nationally and transnationally are involved in Public Relations and Communications using their communication channels to generate publicity for both types of demonstrations and for the project in general. The consortium rely on cross marketing of contents generated locally to maximise the impact of the project and raise the awareness of autonomous public transport solutions among users and transport providers as well as politicians.

In practice, during the project the impact is maximized by encouraging people use the demonstrators - the communication will be pointed to target groups and in particular to road users.

After the project on national or transnational level will be exploitation activities take place when politicians and other decision makers and influencers are engaged to the project in order to evolve nationally the acceptance of the autonomous vehicle concept, as well as evolving traffic and transport legislation.

The impact on the target groups will aim to awareness and acceptance of the new solutions for first and last mile services.

The steps to planned exploitation include also collaboration with local authorities and private businesses, in practice organizing workshops or seminars to gain mutual understanding and resolve questions raising locally.

2,745 / 3,000 characters

State aid relevant?

O.4.2

Output Title 43 / 250 characters

Output Description

Aim of impact and exploitation is to encourage all Target Groups to participate at the early stage of the changing mobility services in European transnational level towards safe and well-operating autonomous mobility solutions that require development from societal, behavioral, technological and regulatory aspects.

The output is raising awareness and creating acceptance to autonomous transportation via practical experience, collecting feedback from piloting cities' demos and analyzing, reporting and evaluating the lessons learned by peer review and at final stage of project, co-creating the practical toolbox and recommendations for future actions in order to progress the Baltic Sea region authorities regulatory development work that enable mobility and transport sector create new service innovations and business opportunities.

The impact for citizens is accepting and adopting the change in their daily behavior concerning transportation methods, for authorities receiving viewpoints to policy-making and regulations concerning autonomous public transportation and for businesses finding the growth potential of autonomous transportation sector and related industries and development of technologies.

Exploitation strategy is defined and carried out in a close relation with the dissemination activities. Produced by the WP leader, focusing particularly of the multiplication possibilities. Communicating the activities, harvesting feedback by various methods, final reporting containing collected results of activities carried out in the project and qualitative analysis, also producing seminar and publications and Calls for Papers to continue the progressive work after the project.

PPs are involved in identifying the local TGS and key actors, carrying out dissemination and supporting impact and exploitation activities. Also evaluation of experiences and co-creating the toolbox / recommendations from the project end results and sharing information to local TGS and networks.

1,997 / 2,000 characters

Main Output

Investment

4.14. Target group(s) and use of the main output

Aim of impact and exploitation is to encourage all Target Groups to participate at the early stage of the changing mobility services in European transnational level towards safe and well-operating autonomous mobility solutions that require development from societal, behavioral, technological and regulatory aspects.
 The output is raising awareness and creating acceptance to autonomous transportation via practical experience, collecting feedback from piloting cities' demos and analyzing, reporting and evaluating the lessons learned by peer review and at final stage of project, co-creating the practical toolbox and recommendations for future actions in order to progress the Baltic Sea region authorities regulatory development work that enable mobility and transport sector create new service innovations and business opportunities.
 The impact for citizens is accepting and adopting the change in their daily behavior concerning transportation methods, for authorities receiving viewpoints to policy-making and regulations concerning autonomous public transportation and for businesses finding the growth potential of autonomous transportation sector and related industries and development of technologies.
 Exploitation strategy is defined and carried out in a close relation with the dissemination activities. Produced by the WP leader, focusing particularly of the multiplication possibilities. Communicating the activities, harvesting feedback by various methods, final reporting containing collected results of activities carried out in the project and qualitative analysis, also producing seminar and publications and Calls for Papers to continue the progressive work after the project.
 PPs are involved in identifying the local TGs and key actors, carrying out dissemination and supporting impact and exploitation activities. Also evaluation of experiences and co-creating the Toolbox/ recommendations from the project end results and sharing information to local TGs and networks.

1,998 / 2,000 characters

4.16. Timeline

	A4.2	O4.2
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>
Period 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>

WP 4 Group of activities 4.3

4.13. Group of activities leader

PP 1 - Metropolia University of Applied Sciences

A4.3

Title 24 / 250 characters

Description of the group of activities 1,757 / 3,000 characters

State aid relevant?

O4.3

Output Title 36 / 250 characters

Output Description 1,804 / 2,000 characters

Main Output

Investment

4.16. Timeline

	A4.3	O4.3
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 6	<input type="checkbox"/>	<input checked="" type="checkbox"/>

5. Output indicators

5.1. Obligatory output indicator

Number	Obligatory output indicator	Description
O1	Documented learning experience	<p>The Sohjoa Baltic project will conduct three large-scale pilots on eco-friendly autonomous public transport, one in Helsinki (Finland), one in Tallin (Estonia) and one in Kongsberg (Norway). These pilots are a run in as close to real life conditions as the legal framework in each country allows. This gives valuable information on three different urban mobility challenges in three locations that will vary greatly from each other. Pilots will test different strategies for support systems for users of the transport solution as well as different strategies to the management of this means of transport. The relevant experiences will be reported as deliverables and the experiences and challenges in implementing autonomous public transport will be made widely available to all relevant authorities in Europe.</p> <p style="text-align: right;">813 / 1,000 characters</p>
O2	Documented learning experience	<p>The Sohjoa Baltic project will run three small-scale pilots (showcases) to introduce autonomous public transportation in City of Gdansk (Poland), Zemgale Region (Latvia) and City of Vejle (cancelled) (Denmark). These showcases are essentially run in closed surroundings, yet available to public. These events will increase both awareness and knowledge on autonomous eco-friendly transport across Europe. Based on the previous experiences of Sohjoa Baltic partners, who have run this kind of demonstrations before, a large media attention is expected as well as transnational interest. In these cases also the knowledge base gained from the three main pilots is made available as to instruct on the potential of how to organise autonomous public transport for a longer duration.</p> <p style="text-align: right;">779 / 1,000 characters</p>
O3	Documented learning experience	<p>The Sohjoa Baltic project will study and develop a study on the legal and regulatory framework on what the eco-friendly automated public transport has to face before it can be taken into wider use across Europe. The Finnish Transport and Communications Agency (Traficom) successor of Finnish Transport Safety Agency (TRAFI) is a leader on his field with already completed demonstrations in Finland alongside a study on how Finnish law applies. Institute for Climate Protection, Energy and Mobility has the legal expertise, knowledge and the networks to approach this through a wider perspective and the associated organisations of Urban Council for the Road Safety in Poland and Ministry of Economic Affairs and Communication in Estonia bring further expertise to the study. In addition, Sohjoa Baltic will also produce State of the Art report on the issues related to autonomous public transport, such as shared mobility, regional planning and street management.</p> <p style="text-align: right;">968 / 1,000 characters</p>

5.2. Project specific output indicators

Number	Output indicator	Mark in case output indicator not relevant	Description	Target value in number
P1	No. of local/regional public authorities/institutions involved	<input type="checkbox"/>	<p>PP 4 - Helsinki Region Transport PP 7 - Tallinn Transport Department PP 9 - Zemgale Planning Region PP 11 - The City of Gdansk PP 12 - The Municipality of Kongsberg PP 13 - The Municipality of Vejle PP 14 - The Finnish Transport and Communications Agency (Traficom) successor of Finnish Transport Safety Agency (TRAFI)</p> <p style="text-align: right;">321 / 1,000 characters</p>	7
P2	No. of national public authorities/institutions involved	<input type="checkbox"/>	<p>The Finnish Transport and Communications Agency (Traficom) successor of Finnish Transport Safety Agency (TRAFI) . In addition, the non-grant receiving authorities and institutions included as affiliated members not included in the Target Value are the Government Office of Estonia and the Ministry of Economic Affairs and Communications in Estonia, Helsinki-Uusimaa Regional Council in Finland, and the Urban Council for Road Safety in Poland.</p> <p style="text-align: right;">445 / 1,000 characters</p>	1

Number	Output indicator	Mark in case output indicator not relevant	Description	Target value in number
P3	No. of enterprises receiving support	<input type="checkbox"/>	Forum Virium Helsinki, being the innovation unit within the Helsinki City Group; FLOU Solutions, a Finnish Smart transport SME. 128 / 1,000 characters	2
P4	No. of enterprises receiving non-financial support	<input type="checkbox"/>	During the planning, launching and the implementation of the WP3 pilots, it is expected that the actions will arise local interest from mobility field enterprises and public transportation operators in each pilot country (6 pilots). We expect that each pilot could benefit an enterprise and it will lead to new product/service. Target value 6. 345 / 1,000 characters	6
P5	No. of enterprises cooperating with research institutions	<input type="checkbox"/>	In project consortium belongs an enterprise (FLOU) and if Metropolia University of Applied Sciences, Tallinn University of Technology and Chalmers University of Technology could cooperate with an enterprise with non-financial support, for example in pilots (enterprises could test their technology), so we could revise that the target value is 4. 348 / 1,000 characters	4
P6	No. of documented newly developed market products and services	<input type="checkbox"/>	Sohjoa Baltic will support the development of new public transport service for last mile. In addition the WP2 studies may reveal new product or service ideas which can be further developed into market by existing enterprises or a startup. 240 / 1,000 characters	5
P7	Amount of private investments matching public support in innovation or R&D projects	<input checked="" type="checkbox"/>	0 / 1,000 characters	0
P8	Amount of documented planned investments to be realised with other than the Programme funding	<input type="checkbox"/>	Project targets that one large scale pilot will lead to deployment of first local fleet consisting of several vehicles, value of investment estimated 1 m€. As small scale pilots will lead to further local development by local trials estimated investment value of 300 000 €. 274 / 1,000 characters	1,300,000

6. Budget

6.1 External expertise and services

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
1	First level controller 22 / 100 characters	No	WP1	1. Metropolia University of Applied Sciences	12,000.00	EU-wide tender
2	Promotion, communication (printed handouts, roll-ups, business cards etc and audiovisual materials) 99 / 100 characters	No	Group of activity 3.2 & 4.2	1. Metropolia University of Applied Sciences	30,000.00	Open national tender
3	Piloting arrangements (services bought for making the pilot e.g building up traffic light/signs) 97 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	10,000.00	Bid-at-three
4	Event/conference fees 21 / 100 characters	No	WP1-WP4	1. Metropolia University of Applied Sciences	3,000.00	No procurement
5	First level controller 21 / 100 characters	No	WP1	2. Forum Virium Helsinki	12,000.00	Bid-at-three
6	Event/conference fees 21 / 100 characters	No	WP1-WP4	2. Forum Virium Helsinki	3,000.00	No procurement
7	First level controller 21 / 100 characters	No	WP1	3. SUCCEEDED by PP14 (01.01.20)	900.00	Bid-at-three
8	Event/conference fees 21 / 100 characters	No	WP1-WP4	3. SUCCEEDED by PP14 (01.01.20)	0.00	No procurement
9	First level controller 21 / 100 characters	No	WP1	5. FLOU Solutions Ltd	12,000.00	Bid-at-three
10	Event/conference fees 21 / 100 characters	No	WP1-WP4	5. FLOU Solutions Ltd	3,000.00	No procurement
11	Event/conference fees 21 / 100 characters	No	WP1-WP4	6. Tallinn University of Technology	3,000.00	Bid-at-three
12	Promotion, communication 24 / 100 characters	No	Group of activity 3.2 & 4.2	7. Tallinn Transport Department	20,000.00	Limited national tender
13	Legal consultancy 17 / 100 characters	No	Group of activity 2.3, 3.1 & 3.2	7. Tallinn Transport Department	10,000.00	Bid-at-three
14	Piloting arrangements (services bought for making the pilot e.g building up traffic light/signs) 96 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	10,000.00	Bid-at-three
15	Technical consultancy (service for planning and organizing the pilot) 68 / 100 characters	No	Group of activity 3.1 & 3.2	7. Tallinn Transport Department	10,000.00	Bid-at-three
16	Event/conference fees 21 / 100 characters	No	WP1-WP4	7. Tallinn Transport Department	3,000.00	Bid-at-three
	Total				1,109,796.99	

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
17	Legal consultancy 17 / 100 characters	No	Group of activity 2.3 & 2.4	8. Chalmers University of Technology	10,000.00	Bid-at-three
18	Promotion, communication 23 / 100 characters	No	Group of activity 3.3 & 4.2	9. Zemgale Planning Region	10,000.00	Limited national tender
19	Legal consultancy 17 / 100 characters	No	Group of activity 2.3, 3.1 & 3.3	9. Zemgale Planning Region	10,000.00	Limited national tender
20	Piloting arrangements (services bought for making the pilot e.g building up traffic light/signs) 96 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	5,000.00	Bid-at-three
21	Technical consultancy (service for operating the bus, planning and organizing the pilot) 88 / 100 characters	No	Group of activity 3.1 & 3.3	9. Zemgale Planning Region	85,000.00	Open national tender
22	Event/conference fees 21 / 100 characters	No	WP1-WP4	9. Zemgale Planning Region	3,000.00	No procurement
23	First level controller 21 / 100 characters	No	WP1	10. Institute for Climate Protection, Energy and Mobility	9,000.00	Bid-at-three
24	Promotion, communication 24 / 100 characters	No	Group of activity 3.3 & 4.2	11. The City of Gdansk	10,000.00	Bid-at-three
25	Legal consultancy 17 / 100 characters	No	Group of activity 2.3, 3.1 & 3.3	11. The City of Gdansk	10,000.00	Bid-at-three
26	Piloting arrangements (services bought for making the pilot e.g building up traffic light/signs) 96 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	5,000.00	Bid-at-three
27	Technical consultancy (service for operating the bus, planning and organizing the pilot) 88 / 100 characters	No	Group of activity 3.1 & 3.3	11. The City of Gdansk	72,297.00	Open national tender
28	First level controller 22 / 100 characters	No	WP1	12. The Municipality of Kongsberg	12,000.00	Bid-at-three
29	Promotion, communication 24 / 100 characters	No	Group of activity 3.2 & 4.2	12. The Municipality of Kongsberg	20,000.00	Bid-at-three
30	Legal consultancy 17 / 100 characters	No	Group of activity 2.3, 3.1 & 3.2	12. The Municipality of Kongsberg	10,000.00	No procurement
31	Piloting arrangements (services bought for making the pilot e.g building up traffic light/signs) 96 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	10,000.00	No procurement
32	Technical consultancy (service for operating the bus, planning and organizing the pilot) 88 / 100 characters	No	Group of activity 3.1 & 3.2	12. The Municipality of Kongsberg	180,000.00	EU-wide tender
33	Event/conference fees 21 / 100 characters	No	WP1-WP4	12. The Municipality of Kongsberg	3,000.00	No procurement
34	First level controller 22 / 100 characters	No	WP1	13. The Municipality of Vejle	12,000.00	No procurement
Total					1,109,796.99	

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
35	Promotion, communication 24 / 100 characters	No	Group of activity 3.3 & 4.2	13. The Municipality of Vejle	10,000.00	No procurement
36	Event/conference fees 21 / 100 characters	No	WP1-WP4	13. The Municipality of Vejle	3,000.00	No procurement
37	Event/conference fees 21 / 100 characters	No	WP1-WP4	8. Chalmers University of Technology	3,000.00	No procurement
38	Event/conference fees 21 / 100 characters	No	WP1-WP4	11. The City of Gdansk	3,000.00	No procurement
39	Robot bus leasing (bus rental 9 kk) 35 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	80,000.00	Open national tender
40	Robot bus leasing (site assessment) 35 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	5,000.00	Open national tender
41	Robot bus leasing (vehicle setup and validation) 48 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	6,500.00	Open national tender
42	Robot bus leasing (training for at least 2 bus operators) 57 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	5,000.00	Open national tender
43	Robot bus leasing (insurance for the vehicle) 45 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	3,000.00	No procurement
44	Robot bus leasing (2 way shipment of the vehicle) 49 / 100 characters	No	Group of activity 3.2	1. Metropolia University of Applied Sciences	8,000.00	Open national tender
45	Robot bus leasing (bus rental 9 kk) 35 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	80,000.00	EU-wide tender
46	Robot bus leasing (site assessment) 35 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	5,000.00	EU-wide tender
47	Robot bus leasing (vehicle setup and validation) 48 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	6,500.00	EU-wide tender
48	Robot bus leasing (training for at least 2 bus operators) 57 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	5,000.00	EU-wide tender
49	Robot bus leasing (insurance for the vehicle) 45 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	3,000.00	Bid-at-three
50	Robot bus leasing (2 way shipment of the vehicle) 49 / 100 characters	No	Group of activity 3.2	7. Tallinn Transport Department	8,000.00	EU-wide tender
51	Robot bus leasing (bus rental 9 kk) 35 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	80,000.00	Open national tender
Total					1,109,796.99	

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
52	Robot bus leasing (site assessment) 35 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	5,000.00	Open national tender
53	Robot bus leasing (vehicle setup and validation) 48 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	6,500.00	Open national tender
54	Robot bus leasing (training for at least 2 bus operators) 58 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	5,000.00	Open national tender
55	Robot bus leasing (insurance for the vehicle) 45 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	3,000.00	No procurement
56	Robot bus leasing (2 way shipment of the vehicle) 49 / 100 characters	No	Group of activity 3.2	12. The Municipality of Kongsberg	8,000.00	Open national tender
57	Robot bus leasing (bus rental 2 kk) 35 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	20,000.00	EU-wide tender
58	Robot bus leasing (site assessment) 35 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	5,000.00	EU-wide tender
59	Robot bus leasing (vehicle setup and validation) 48 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	5,500.00	EU-wide tender
60	Robot bus leasing (training for at least 2 bus operators) 57 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	5,000.00	EU-wide tender
61	Robot bus leasing (insurance for the vehicle) 45 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	1,000.00	No procurement
62	Robot bus leasing (2 way shipment of the vehicle) 49 / 100 characters	No	Group of activity 3.3	9. Zemgale Planning Region	8,000.00	EU-wide tender
63	Robot bus leasing (bus rental 2 kk) 35 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	20,000.00	Open national tender
64	Robot bus leasing (site assessment) 35 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	5,000.00	Open national tender
65	Robot bus leasing (vehicle setup and validation) 48 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	5,500.00	Open national tender
66	Robot bus leasing (training for at least 2 bus operators) 57 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	5,000.00	Open national tender
67	Robot bus leasing (insurance for the vehicle) 45 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	1,000.00	Bid-at-three
68	Robot bus leasing (2 way shipment of the vehicle) 49 / 100 characters	No	Group of activity 3.3	11. The City of Gdansk	8,000.00	Open national tender
	Total				1,109,796.99	

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
69	First Level Controller 22 / 100 characters	No	WP 1	14. The Finnish Transport and Communications Agency (Trafiom)	11,100.00	Bid-at-three
70	Events / Conference fees 24 / 100 characters	No	WP1 - WP4	14. The Finnish Transport and Communications Agency (Trafiom)	3,000.00	Other
71	Legal analysis (including translation). 39 / 100 characters	No	Group of activity 2.3	11. The City of Gdansk	12,000.00	Bid-at-three
72	Budget reallocation from PP 6 for arrangements of the final event. 66 / 100 characters	No	WP4	7. Tallinn Transport Department	34,999.99	No procurement
Total					1,109,796.99	

6.2 Equipment

Item No.	Category		Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
	Category	Additional Specification					
1	Laboratory equipment	Workstations and sensors for research activities (tasks A2, A3, A4, A5 in Goa 2.4) 82 / 100 characters	No	WP2-3	8. Chalmers University of Technology	34,000.00	Bid-at-three
2	Other specific equipment	Equipments for large scale robot bus pilot (traffic lights, signs, road markings etc.) for rent 95 / 100 characters	No	Group of activities 3.2	1. Metropolia University of Applied Sciences	13,000.00	Bid-at-three
3	Other specific equipment	Equipments for large scale robot bus pilot (traffic lights, signs, road markings etc.) for rent 95 / 100 characters	No	Group of activities 3.2	7. Tallinn Transport Department	30,000.00	Limited national tender
4	Other specific equipment	Equipments for large scale robot bus pilot (traffic lights, signs, road markings etc.) for rent 95 / 100 characters	No	Group of activities 3.2	12. The Municipality of Kongsberg	30,000.00	Bid-at-three
5	Other specific equipment	Equipments for small scale robot bus pilot (traffic lights, signs, road markings etc.) for rent 95 / 100 characters	No	Group of activities 3.3	9. Zemgale Planning Region	10,000.00	Limited national tender
6	Other specific equipment	Equipments for small scale robot bus pilot (traffic lights, signs, road markings etc.) for rent 95 / 100 characters	No	Group of activities 3.3	11. The City of Gdansk	10,000.00	Bid-at-three
7	IT hardware and software	It hardware and software for management 39 / 100 characters	No	WP1	9. Zemgale Planning Region	1,965.00	Bid-at-three
8	Other specific equipment	Drone and camera equipment for videos. 38 / 100 characters	No	Group of activities 4.3	1. Metropolia University of Applied Sciences	3,000.00	No procurement
9	Other specific equipment	Virtual reality robot bus. 26 / 100 characters	No	Group of activities 4.3	1. Metropolia University of Applied Sciences	14,000.00	Bid-at-three
10	Other specific equipment	VR headset for virtual robot bus. 33 / 100 characters	No	Group of activities 4.3	1. Metropolia University of Applied Sciences	1,000.00	No procurement
11	IT hardware and software	Computer for VR headset. 24 / 100 characters	No	Group of activities 4.3	1. Metropolia University of Applied Sciences	2,000.00	No procurement
Total						148,965.00	

There is no investment selected.

6.4 Expenditure for specific project activities (e.g. expenditure for large research activities on sea etc.)

This section is activated only in the exceptional cases defined in the Programme Manual and after a successful consultation with the JS.

6.5 Breakdown of planned project costs per budget line & per partner

Partner	BL1 - Staff costs	BL2 - Office & administration	BL3 - Travel & accommodation	BL4 - External expertise & services	BL5 - Equipment	BL6 - Infrastructure & works	BL7 - Specific project activities	Total project budget
PP 1 - Metropolia University of Applied Sciences	321,369.57	48,205.44	37,776.99	162,500.00	33,000.00	0.00	0.00	602,852.00
PP 2 - Forum Virium Helsinki	247,565.00	37,134.75	12,300.25	15,000.00	0.00	0.00	0.00	312,000.00
PP 3 - SUCCEEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)	57,153.14	8,572.97	1,219.34	900.00	0.00	0.00	0.00	67,845.45
PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	612.79	91.92	780.65	0.00	0.00	0.00	0.00	1,485.36
PP 5 - FLOU Solutions Ltd	74,315.00	11,147.25	21,600.25	15,000.00	0.00	0.00	0.00	122,062.50
PP 6 - Tallinn University of Technology	163,478.23	24,521.73	11,000.05	3,000.00	0.00	0.00	0.00	202,000.01
PP 7 - Tallinn Transport Department	156,957.00	23,543.55	10,999.45	195,499.99	30,000.00	0.00	0.00	416,999.99
PP 8 - Chalmers University of Technology	290,412.00	43,561.80	20,999.44	13,000.00	34,000.00	0.00	0.00	401,973.24
PP 9 - Zemgale Planning Region	70,900.00	10,635.00	11,000.00	157,500.00	11,965.00	0.00	0.00	262,000.00
PP 10 - Institute for Climate Protection, Energy and Mobility	101,458.17	15,218.73	12,300.00	9,000.00	0.00	0.00	0.00	137,976.90
PP 11 - The City of Gdansk	110,217.00	16,532.55	11,000.45	156,797.00	10,000.00	0.00	0.00	304,547.00
PP 12 - The Municipality of Kongsberg	85,652.00	12,847.80	11,000.20	342,500.00	30,000.00	0.00	0.00	482,000.00
PP 13 - The Municipality of Vejle	60,435.00	9,065.25	10,999.75	25,000.00	0.00	0.00	0.00	105,500.00
PP 14 - The Finnish Transport and Communications Agency (Traficom)	31,261.86	4,689.28	11,080.41	14,100.00	0.00	0.00	0.00	61,131.55
Total	1,771,786.76	265,768.02	184,057.23	1,109,796.99	148,965.00	0.00	0.00	3,480,374.00

6.6 State aid expenditure

Partner	Country	Legal status	Funding source	Total [in EUR]	Co-financing rate	Total costs of NOT State Aid relevant activities [in EUR]	Total costs of State Aid relevant activities [in EUR]	Co-Financing rate for the State Aid relevant activities	State Aid Instrument
PP 1 - Metropolia University of Applied Sciences	Finland	Bodies governed by public law	ERDF	602,852.00	75.00 %	602,852.00	0.00	0.00 %	De-minimis
PP 2 - Forum Virium Helsinki	Finland	Bodies governed by public law	ERDF	312,000.00	75.00 %	312,000.00	0.00	0.00 %	Please select
PP 3 - SUCCEEDED by PP14 (01.01.2018) Finnish Transport Safety Agency (Trafi)	Finland	National (governmental), regional and local public authorities	ERDF	67,845.45	75.00 %	67,845.45	0.00	0.00 %	Please select
PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	Finland	Associations formed by one or several regional or local authorities as defined under a)	ERDF	1,485.36	75.00 %	1,485.36	0.00	0.00 %	Please select
PP 5 - FLOU Solutions Ltd	Finland	Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	ERDF	122,062.50	75.00 %	0.00	122,062.50	75.00 %	De-minimis
PP 6 - Tallinn University of Technology	Estonia	Bodies governed by public law	ERDF	202,000.01	85.00 %	202,000.01	0.00	0.00 %	De-minimis
PP 7 - Tallinn Transport Department	Estonia	National (governmental), regional and local public authorities	ERDF	416,999.99	85.00 %	416,999.99	0.00	0.00 %	Please select
PP 8 - Chalmers University of Technology	Sweden	Bodies governed by public law	ERDF	401,973.24	75.00 %	401,973.24	0.00	0.00 %	Please select
PP 9 - Zemgale Planning Region	Latvia	National (governmental), regional and local public authorities	ERDF	262,000.00	85.00 %	262,000.00	0.00	0.00 %	Please select
PP 10 - Institute for Climate Protection, Energy and Mobility	Germany	Bodies governed by public law	ERDF	137,976.90	75.00 %	137,976.90	0.00	0.00 %	Please select
PP 11 - The City of Gdansk	Poland	National (governmental), regional and local public authorities	ERDF	304,547.00	85.00 %	304,547.00	0.00	0.00 %	De-minimis
PP 12 - The Municipality of Kongsberg	Norway	National (governmental), regional and local public authorities	Norway	482,000.00	50.00 %	482,000.00	0.00	0.00 %	Please select
PP 13 - The Municipality of Vejle	Denmark	National (governmental), regional and local public authorities	ERDF	105,500.00	75.00 %	105,500.00	0.00	0.00 %	Please select
PP 14 - The Finnish Transport and Communications Agency (Traficom)	Finland	National (governmental), regional and local public authorities	ERDF	61,131.55	75.00 %	61,131.55	0.00	0.00 %	Please select
Total ERDF				2,998,374.00		2,876,311.50	122,062.50		
Total Norway				482,000.00		482,000.00	0.00		
Total				3,480,374.00		3,358,311.50	122,062.50		

Partner	Country	Legal status	Funding source	Total [in EUR]	Co-financing rate	Total costs of NOT State Aid relevant activities [in EUR]	Total costs of State Aid relevant activities [in EUR]	Co-Financing rate for the State Aid relevant activities	State Aid Instrument
PP 1 - Metropolia University of Applied Sciences	Finland	Bodies governed by public law	ERDF	602,852.00	75.00 %	602,852.00	0.00	0.00 %	De-minimis
PP 2 - Forum Virium Helsinki	Finland	Bodies governed by public law	ERDF	312,000.00	75.00 %	312,000.00	0.00	0.00 %	Please select
PP 3 - SUCCEEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)	Finland	National (governmental), regional and local public authorities	ERDF	67,845.45	75.00 %	67,845.45	0.00	0.00 %	Please select
PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	Finland	Associations formed by one or several regional or local authorities as defined under a)	ERDF	1,485.36	75.00 %	1,485.36	0.00	0.00 %	Please select
PP 5 - FLOU Solutions Ltd	Finland	Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	ERDF	122,062.50	75.00 %	0.00	122,062.50	75.00 %	De-minimis
PP 6 - Tallinn University of Technology	Estonia	Bodies governed by public law	ERDF	202,000.01	85.00 %	202,000.01	0.00	0.00 %	De-minimis
PP 7 - Tallinn Transport Department	Estonia	National (governmental), regional and local public authorities	ERDF	416,999.99	85.00 %	416,999.99	0.00	0.00 %	Please select
PP 8 - Chalmers University of Technology	Sweden	Bodies governed by public law	ERDF	401,973.24	75.00 %	401,973.24	0.00	0.00 %	Please select
PP 9 - Zemgale Planning Region	Latvia	National (governmental), regional and local public authorities	ERDF	262,000.00	85.00 %	262,000.00	0.00	0.00 %	Please select
PP 10 - Institute for Climate Protection, Energy and Mobility	Germany	Bodies governed by public law	ERDF	137,976.90	75.00 %	137,976.90	0.00	0.00 %	Please select
PP 11 - The City of Gdansk	Poland	National (governmental), regional and local public authorities	ERDF	304,547.00	85.00 %	304,547.00	0.00	0.00 %	De-minimis
PP 12 - The Municipality of Kongsberg	Norway	National (governmental), regional and local public authorities	Norway	482,000.00	50.00 %	482,000.00	0.00	0.00 %	Please select
PP 13 - The Municipality of Vejle	Denmark	National (governmental), regional and local public authorities	ERDF	105,500.00	75.00 %	105,500.00	0.00	0.00 %	Please select
PP 14 - The Finnish Transport and Communications Agency (Traficom)	Finland	National (governmental), regional and local public authorities	ERDF	61,131.55	75.00 %	61,131.55	0.00	0.00 %	Please select
Total ERDF				2,998,374.00		2,876,311.50	122,062.50		
Total Norway				482,000.00		482,000.00	0.00		
Total				3,480,374.00		3,358,311.50	122,062.50		

6.7 Planned project budget per funding source & per partner

Partner	Total Project Budget			of it not State Aid relevant Activities			of it State Aid relevant Activities		
	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	Total costs of NOT State Aid relevant activities [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	Total costs of State Aid relevant activities [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]
PP 1 - Metropolia University of Applied Sciences	602,852.00	452,139.00	150,713.00	602,852.00	452,139.00	150,713.00	0.00	0.00	0.00
PP 2 - Forum Virium Helsinki	312,000.00	234,000.00	78,000.00	312,000.00	234,000.00	78,000.00	0.00	0.00	0.00
PP 3 - SUCCEEDED by PP14 (01.01.2019) Finnish Transport Safety Agency (Trafi)	67,845.45	50,884.08	16,961.37	67,845.45	50,884.08	16,961.37	0.00	0.00	0.00
PP 4 - "WITHDRAWAL (09/11/2018) Helsinki Region Transport Authority HSL	1,485.36	1,114.02	371.34	1,485.36	1,114.02	371.34	0.00	0.00	0.00
PP 5 - FLOU Solutions Ltd	122,062.50	91,546.87	30,515.63	0.00	0.00	0.00	122,062.50	91,546.87	30,515.63
PP 6 - Tallinn University of Technology	202,000.01	171,700.00	30,300.01	202,000.01	171,700.00	30,300.01	0.00	0.00	0.00
PP 7 - Tallinn Transport Department	416,999.99	354,449.99	62,550.00	416,999.99	354,449.99	62,550.00	0.00	0.00	0.00
PP 8 - Chalmers University of Technology	401,973.24	301,479.93	100,493.31	401,973.24	301,479.93	100,493.31	0.00	0.00	0.00
PP 9 - Zemgale Planning Region	262,000.00	222,700.00	39,300.00	262,000.00	222,700.00	39,300.00	0.00	0.00	0.00
PP 10 - Institute for Climate Protection, Energy and Mobility	137,976.90	103,482.67	34,494.23	137,976.90	103,482.67	34,494.23	0.00	0.00	0.00
PP 11 - The City of Odensk	304,547.00	258,864.95	45,682.05	304,547.00	258,864.95	45,682.05	0.00	0.00	0.00
PP 12 - The Municipality of Kongsberg	482,000.00	241,000.00	241,000.00	482,000.00	241,000.00	241,000.00	0.00	0.00	0.00
PP 13 - The Municipality of Vejle	105,500.00	79,125.00	26,375.00	105,500.00	79,125.00	26,375.00	0.00	0.00	0.00
PP 14 - The Finnish Transport and Communications Agency (Traficom)	61,131.55	45,848.66	15,282.89	61,131.55	45,848.66	15,282.89	0.00	0.00	0.00
Total ERDF	2,998,374.00	2,367,335.17	631,038.83	2,876,311.50	2,275,788.30	600,523.20	122,062.50	91,546.87	30,515.63
Total Norway	482,000.00	241,000.00	241,000.00	482,000.00	241,000.00	241,000.00	0.00	0.00	0.00
Total	3,480,374.00	2,608,335.17	872,038.83	3,358,311.50	2,516,788.30	841,523.20	122,062.50	91,546.87	30,515.63

6.8 Spending Plan - per reporting Period

	EU partners (ERDF)	Norwegian partners (Norway)	Total
Period 1 [Month 1-6]	310,329.61	48,200.00	358,529.61
Period 2 [Month 7-12]	480,752.00	72,300.00	553,052.00
Period 3 [Month 13-18]	511,267.67	72,300.00	583,567.67
Period 4 [Month 19-24]	683,943.76	110,860.00	794,803.76
Period 5 [Month 25-30]	531,328.96	106,040.00	637,368.96
Period 6 [Month 31-36]	480,752.00	72,300.00	553,052.00
Total	2,998,374.00	482,000.00	3,480,374.00

6.9 Net-revenues

No.	Project Partner	Description	Amount [in EUR]	Source of revenues
1	<input type="text" value="Please select"/>	<input type="text"/> 0 / 100 characters	<input type="text" value="0.00"/>	<input type="text"/> 0 / 100 characters

7. Preparatory costs

7.1 Preparation Costs

Would you like to apply for reimbursement of the preparation costs?

Yes

7.2 Other EU support of preparatory cost

Did you receive any other EU funds specifically designated to the development of this project application?

No

7.3 Payment request to reimburse Preparation cost

The project herewith applies for reimbursement of the preparation cost.

This reimbursement is based on a lump sum which means that no real cost have to be certified by the first level controller. Please note that for the lump sums no accounting documents proving expenditure will be required by the Programme. The only preconditions to receive this lump sum payment are:

- the approval of your application;
- the conclusion of the subsidy contract;
- no double financing of the preparation cost.

PP no.	PP name/country	Total cost	Co-financing rate	Reimbursement	Fund
1	Metropolia Ammattikorkeakoulu Oy (FI)	20,000.00	75%	15,000.00	ERDF
2	Forum Virium Helsinki (FI)	0.00	75%	0.00	ERDF
3	SUCCEDED BY PP14 (01.01.2019) Liikenteen turvallisuusvirasto (Trafi) (FI)	0.00	75%	0.00	ERDF
4	"WITHDRAWAL (09/11/2018) Helsingin seudun liikenne -kuntayhtymä (FI)	0.00	75%	0.00	ERDF
5	FLOU Solutions Oy (FI)	0.00	75%	0.00	ERDF
6	Tallinna Tehnikaülikool (EE)	0.00	75%	0.00	ERDF
7	Tallinna Transpordiamet (EE)	0.00	75%	0.00	ERDF
8	Chalmers Tekniska Högskola (SE)	0.00	75%	0.00	ERDF
9	Zemgales Plānošanas reģions (LV)	0.00	75%	0.00	ERDF
10	Institut für Klimaschutz, Energie und Mobilität (DE)	0.00	75%	0.00	ERDF
11	Miasto Gdańsk (PL)	0.00	75%	0.00	ERDF
12	Kongsberg Kommune (NO)	0.00	75%	0.00	NOR
13	Vejle Kommune (DK)	0.00	75%	0.00	ERDF
14	Liikenne- ja viestintävirasto Traficom (FI)	0.00	75%	0.00	ERDF
TOTAL		20,000	75%	15,000	

7.4 Bank information

Name of the bank	Danske Bank	
Address	Hiililaiturinkuja 2, 00075 Danske Bank	
Country & Town	Finland	Helsinki
IBAN	FI4580001971273918	
BIC (S.W.I.F.T.-Code)	DABAFIHH	
Internal reference	Sohjoa-BSR	
Holder of the account	Jorma Uusitalo	
Address	PO Box 4000, 00079 Metropolia	
Country & Town	Finland	Helsinki

