1. Identification

Call	Date of submission
C1	25/04/2022

1.1. Full name of the project

Baltic Public Open Data Services

32 / 250 characters

1.2. Short name of the project

BalticPODS

10 / 20 characters

1.3. Programme priority

1. Innovative societies

1.4. Programme objective

1.2 Responsive public services

1.6. Project duration

Contracting start	22/09/2022	**Contracting end**	31/12/2022
Implementation start	01/01/2023	**Implementation end**	31/12/2025
		Duration of implementation phase (months)	36
Closure start	01/01/2026	**Closure end**	31/03/2026

1.7. Project summary

Many public institutions (municipalities, regions, governments) across the Baltic Sea Region provide different data sets to be freely used for various purposes. However, Public Open Data (POD) usage is still very limited. We lack useful and responsive e-services that would use POD at a local level (e.g. a school rating app) but, most importantly - at the transnational level (e.g. an international trains web app). The main barrier preventing from broader emergence of new such services is the lack of commonly used standards to access and use such data. Development is complex due to the multitude of data formats and access methods and poor quality of data. To find relevant data, application developers need to search through various web portals that use different search methods and languages. Aggregating portals at the EU and national levels offer limited search capabilities.

The BalticPODS project will provide a unified ecosystem for access and usage of POD across the whole BSR. It will create a standard and comprehensive toolset for POD providers. It will provide a unified web portal with user- and developer-friendly facilities to search for relevant POD sources. Ultimately, it will develop tools to quickly develop new e-services through simplified, standard and automatically generated programmer interfaces. This will significantly reduce time and developer effort from the provision of data to the provision of useful services, thus benefitting the society of the BSR.

1,494 / 1,500 characters

1.8. Summary of the partnership

The partnership in the project will be composed of three groups of institutions.

1. Public Open Data Providers (public institutions) will be responsible for providing the "data opening" experience and know-how from the data provider's point of view. Moreover, they will participate in conducting case studies and first solution pilots. This will engage various institutions (SMEs, universities, schools, research institutes) and individuals (secondary school pupils, students) from the respective regions and countries. The consortium will comprise several such partners:
* Regional Council of North Karelia - Joensuu, Finland
* Masovian Voivodship Regional Council - Warsaw, Poland (associated organisation)
* Hamburg Municipality - Germany (associated organisation)
* Riga Municipality - Latvia (associated organisation)
* Vilnius Municipality - Lithuania (associated organisation)

2. Business Development Partners will be responsible for contributing from the perspective of business and individual users of Public Open Data. This will include participating and engaging various institutions (public and private) and individuals (innovators) from their respective countries to participate in case studies, first pilot solutions and testing of the BalticPODS platform. These cases and pilots would include providing new open data sets, standardising access to existing ones and creating new e-services that use these data sets and data sets from other countries (transnationally). These partners' role will also be to promote the BalticPODS platform and generally the use of Public Open Data in their respective countries. The consortium will comprise four such partners:
* Lithuanian Innovation Centre – Vilnius, Lithuania
* EurA AG – Ellwangen, Germany
* Tartu Science Park Foundation – Tartu, Estonia
* More Mosaic - Stockholm, Sweden
* Lithuanian Confederation of Industrialists - Vilnius, Lithuania (associated organisation)

3. Technology Partners will be responsible for developing the BalticPODS platform. This will include efforts in standardisation of Public Open Data, creation of a unified POD portal for the BSR, and creation of a toolset for e-service developers. These partners will also participate in organising case studies and pilot cases. and promoting the platform. The consortium will comprise three such partners:
* Warsaw University of Technology – Warsaw, Poland
* Institute of Mathematics and Computer Science – Riga, Latvia
* Karelia University of Applied Sciences - Joensuu, Finland

2,520 / 3,000 characters

1.11. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	1,980,658.24
	Own contribution ERDF	0.00	495,164.56
	ERDF budget	0.00	2,475,822.80
NO	NO co-financing	0.00	0.00
	Own contribution NO	0.00	0.00
	NO budget	0.00	0.00
NDICI	NDICI co-financing	0.00	0.00
	Own contribution NDICI	0.00	0.00
	NDICI 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**	0.00	1,980,658.24
	Total own contribution	0.00	495,164.56
	Total budget	0.00	2,475,822.80

2. Partnership

2.1. Overview: Project Partnership

2.1.1 Project Partners

No.	LP/PP	Organisation (English)	Organisation (Original)	Country	Type of partner	Legal status	Partner budget in the project	Active/inactive	
								Status	from
1	LP	Warsaw University of Technology	Politechnika Warszawska	PL	Higher education and research institution	a)	523,632.00 €	Active	22/09/2022
2	PP	Regional Council of North Karelia	Pohjois-Karjalan maakuntaliitto	FI	Regional public authority	a)	168,504.00 €	Active	22/09/2022
3	PP	Lithuanian Innovation Centre	Lietuvos inovacijų centras	LT	Business support organisation	a)	295,456.00 €	Active	22/09/2022
4	PP	Tartu Science Park Foundation	Sihtasutus Tartu Teaduspark	EE	Business support organisation	a)	237,136.00 €	Active	22/09/2022
5	PP	EurA AG	EurA AG	DE	Business support organisation	b)	364,964.00 €	Active	22/09/2022
6	PP	Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)	Latvijas Universitātes Matemātikas un informātikas institūts (LUMII)	LV	Higher education and research institution	a)	406,856.00 €	Active	22/09/2022
7	PP	Karelia University of Applied Sciences Ltd.	Karelia Ammattikorkeakoulu Oy	FI	Higher education and research institution	a)	344,496.00 €	Active	22/09/2022
8	PP	More Mosaic	More Mosaic	SE	NGO	b)	134,778.80 €	Active	22/09/2022

2.1.2 Associated Organisations

No.	Organisation (English)	Organisation (Original)	Country	Type of Partner
AO 1	Riga City Council	Rīgas Dome	LV	Local public authority
AO 2	Senate of the Free and Hanseatic City of Hamburg	Senat der Freien und Hansestadt Hamburg	DE	Local public authority
AO 3	Marshal Office of the Masovian Voivodship	Urząd Marszałkowski Województwa Mazowieckiego	PL	Regional public authority
AO 4	Vilnius Municipality	Vilniaus miesto savivaldybė	LT	Local public authority
AO 5	Lithuanian Confederation of Industrialists	Lietuvos pramoninkų konfederacija	LT	Interest group

2.2 Project Partner Details - Partner 1

LP/PP Lead Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language
Politechnika Warszawska
23 / 250 characters

Organisation in English
Warsaw University of Technology
31 / 250 characters

Department in original language
Wydział Elektryczny
19 / 250 characters

Department in English
Faculty of Electrical Engineering
33 / 250 characters

Partner location and website:

Address	pl. Politechniki 1 (18 / 250 characters)	**Country**	Poland
Postal Code	00-661 (6 / 250 characters)	**NUTS1 code**	Makroregion województwo mazowieckie
Town	Warszawa (8 / 250 characters)	**NUTS2 code**	Warszawski stołeczny
Website	www.pw.edu.pl/engpw (19 / 100 characters)	**NUTS3 code**	Miasto Warszawa

Partner ID:

Organisation ID type	Tax identification number (NIP)
Organisation ID	5250005834
VAT Number Format	PL + 10 digits
VAT Number	N/A ☐ PL5250005834 (12 / 50 characters)
PIC	999884052 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

As the Lead Partner, WUT will manage all activities in the project and report to MA/JS. It will also lead activities in WP1, specifically in GoA 1.2, 1.4 and 1.5. It will lead the development of the main parts of the Provision Toolset, Portal Backend and Access Tool. It will also participate in standardisation activities. In WP2 and WP3, WUT will participate in the organisation of workshops, cooperate in implementing the pilot cases, and conduct technical communications. It will also lead activities to adjust the BalticPODS solutions based on the results of the pilots' evaluation.

587 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 2

LP/PP	Project Partner

Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Pohjois-Karjalan maakuntaliitto (31 / 250 characters)
Organisation in English	Regional Council of North Karelia (33 / 250 characters)
Department in original language	Aluekehitys (11 / 250 characters)
Department in English	Regional Development (20 / 250 characters)

Partner location and website:

Address	Siltakatu 2 (11 / 250 characters)	**Country**	Finland
Postal Code	80100 (5 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Joensuu (7 / 250 characters)	**NUTS2 code**	Pohjois- ja Itä-Suomi
Website	www.pohjois-karjala.fi/english (30 / 100 characters)	**NUTS3 code**	Pohjois-Karjala

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	0927140-5
VAT Number Format	FI + 8 digits
VAT Number	**N/A** ☐ FI09271405 (10 / 50 characters)
PIC	991453879 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Regional public authority	Regional council, etc.
Sector (NACE)	84.11 - General public administration activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	Yes

Role of the partner organisation in this project:

The Regional Council of North Karelia is involved in an implementation with the Karelia University of Applied Sciences. The Regional Council of North Karelia`s interest lay in accessible and user-friendly information for decision-makers at local, regional and national levels. RCNK will test the produced solutions with key actors - decision-makers, municipalities, NGO and citizens.

386 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 3

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Lietuvos inovacijų centras (26 / 250 characters)
Organisation in English	Lithuanian Innovation Centre (28 / 250 characters)
Department in original language	n/a (3 / 250 characters)
Department in English	n/a (3 / 250 characters)

Partner location and website:

Address	Mokslininkų g. 6A (17 / 250 characters)	**Country**	Lithuania
Postal Code	LT-08412 (8 / 250 characters)	**NUTS1 code**	Lietuva
Town	Vilnius (7 / 250 characters)	**NUTS2 code**	Sostinės regionas
Website	www.lic.lt (10 / 100 characters)	**NUTS3 code**	Vilniaus apskritis

Partner ID:

Organisation ID type	Legal person's code (Juridinio asmens kodas)
Organisation ID	110066875
VAT Number Format	LT + 9 digits
VAT Number	N/A ☑ (0 / 50 characters)
PIC	999456476 (9 / 9 characters)

Partner type:

Legal status	a) Public

Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	70.22 - Business and other management consultancy activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

Lithuanian Innovation Centre (PP3) is a business partner contributing from the perspective of business and individual users of Public Open Data. This will include participating and engaging various institutions (public and private) and individuals (innovators) from Lithuania to participate in case studies, first pilot solutions and testing of the BalticPODS platform. These cases and pilots would include providing new open data sets, standardising access to existing ones and creating new e-services that use these data sets and data sets from other countries (transnational). PP3 role will also be to promote the BalticPODS platform and generally the use of Public Open Data in Lithuania.
PP3 participates in all work packages, with the leading role in WP2, GoA2.1 and 2.2. PP3 is responsible for preparing and executing pilot cases and evaluating these piloting actions. It will also contribute to WP1 developing user interface etc., and in WP3 - durability plan.

974 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 4

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Sihtasutus Tartu Teaduspark (27 / 250 characters)
Organisation in English	Tartu Science Park Foundation (29 / 250 characters)
Department in original language	N/A (3 / 250 characters)
Department in English	N/A (3 / 250 characters)

Partner location and website:

Address	Riia 181a (9 / 250 characters)	**Country**	Estonia
Postal Code	50411 (5 / 250 characters)	**NUTS1 code**	Eesti
Town	Tartu (5 / 250 characters)	**NUTS2 code**	Eesti
Website	www.sciencepark.ee (18 / 100 characters)	**NUTS3 code**	Lõuna-Eesti

Partner ID:

Organisation ID type	Registration code (Registrikood)
Organisation ID	90001121
VAT Number Format	EE + 9 digits
VAT Number	N/A ☐ EE100296086 (11 / 50 characters)
PIC	998505391 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	68.20 - Rental and operating of own or leased real estate	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Partly

VAT explanation

Tartu Science Park Foundation is entitled to recover any paid Value Addes Tax (VAT), except goods and services related to catering of guests and own staff at project seminars
and other local events. Thus, these costs will include VAT in project reports.

253 / 1,000 characters

Role of the partner organisation in this project:

Tartu Science Park Foundation (TSP) is a business development partner contributing from the perspective of business and individual users of Public Open Data. This will include participating and engaging various institutions (public and private) and individuals (innovators) from Estonia to participate in case studies, first pilot solutions and testing of the BalticPODS platform. TSP's role will also be to promote the BalticPODS platform and generally the use of Public Open Data in Estonia and beyond. TSP will participate in all work packages, with the leading role in WP2, GoA2.2 and 2.1. TSP will be responsible for preparing and executing pilot cases and evaluating these piloting actions. It will also contribute significantly in promoting and propagating the project's solutions and developing the durability plan in WP3.

833 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 5

LP/PP	Project Partner		
Partner Status	Active		
	Active from 22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	EurA AG (7 / 250 characters)
Organisation in English	EurA AG (7 / 250 characters)
Department in original language	Niederlassung Hamburg (21 / 250 characters)

Department in English	Office Hamburg (14 / 250 characters)

Partner location and website:

Address	Max-Eyth-Straße (16 / 250 characters)	**Country**	Germany
Postal Code	73479 (5 / 250 characters)	**NUTS1 code**	Baden-Württemberg
Town	Ellwangen (9 / 250 characters)	**NUTS2 code**	Stuttgart
Website	www.eura-ag.de (15 / 100 characters)	**NUTS3 code**	Ostalbkreis

Partner ID:

Organisation ID type	Company registration number (Handelsregisternummer)
Organisation ID	HRB 728305 (10 / 50 characters)
VAT Number Format	DE + 9 digits
VAT Number	N/A ☐ DE213388230 (11 / 50 characters)
PIC	950316276 (9 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	Business support organisation	Chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.
Sector (NACE)	70.22 - Business and other management consultancy activities	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Financial data	**Reference period**	01/01/2021 – 31/12/2021	
	Staff headcount [in annual work units (AWU)]		168.0
	Employees [in AWU]		166.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]		0.0
	Owner-managers [in AWU]		2.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]		0.0
	Annual turnover [in EUR]	16,953,427.40	
	Annual balance sheet total [in EUR]	9,077,666.79	
	Operating profit [in EUR]	2,506,414.07	

Role of the partner organisation in this project:

EurA AG is a business development partner contributing from the perspective of business and individual users of Public Open Data. This will include participating and engaging various institutions (public and private) and individuals (innovators) from Germany to participate in case studies, first pilot solutions and testing of the BalticPODS platform. EurA's role will also be to promote the BalticPODS platform and generally the use of Public Open Data in Germany and beyond. EurA will participate in all work packages, with the leading role in WP3. EurA will be responsible for managing activities for propagating BalticPODS solutions through organising hackathons and other events. It will also participate in preparing and executing pilot cases and evaluating these piloting actions in WP3. It will also contribute significantly to promoting the project's solutions and developing the durability plan in WP3.

916 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

2.2 Project Partner Details - Partner 6

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	Latvijas Universitātes Matemātikas un informātikas institūts (LUMII)
	68 / 250 characters
Organisation in English	Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)
	77 / 250 characters
Department in original language	Sistēmu modelēšanas un programmatūras tehnoloģiju laboratorija
	62 / 250 characters
Department in English	Research Laboratory of System Modeling and Software Technologies
	64 / 250 characters

Partner location and website:

Address	Raina bulvaris 29	**Country**	Latvia
	17 / 250 characters		
Postal Code	LV-1459	**NUTS1 code**	Latvija
	7 / 250 characters		
Town	Riga	**NUTS2 code**	Latvija
	4 / 250 characters		
Website	lumii.lv	**NUTS3 code**	Rīga
	8 / 100 characters		

Partner ID:

Organisation ID type	Unified registration number (Vienotais reģistrācijas numurs)
Organisation ID	90002111761
VAT Number Format	LV + 11 digits
VAT Number	**N/A** ☐ LV90002111761
	13 / 50 characters
PIC	999645723
	9 / 9 characters

Partner type:

Legal status a) Public

Type of partner Higher education and research instituti | University faculty, college, research institution, RTD facility, research cluster, etc.

Sector (NACE) 72.19 - Other research and experimental development on natural sciences and engineering

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? No

Role of the partner organisation in this project:

IMCS UL is a technology partner responsible for developing the BalticPODS platform software. It will participate in the preparation of Baltic Open Data Standards. This includes participation in the organisation of joint development workshops with the POD providers and POD e-service developers. IMCS UL will lead the development of the design and implementation of the Baltic Open Data Explorer. It includes participation in the organisation of end-user workshops and joint co-creation of use cases, scenarios, and user interface elements. IMCS UL will participate in designing and implementing toolsets for POD providers and POD e-service developers, utilising its expertise in building visual domain-specific languages. IMCS UL will provide technical expertise in the preparation, execution, and evaluation of case studies, pilot cases, propagation workshops, and hackathons for students. IMCS UL will do the technical communications.

937 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 7

LP/PP Project Partner

Partner Status Active

Active from 22/09/2022 **Inactive from**

Partner name:

Organisation in original language Karelia Ammattikorkeakoulu Oy

29 / 250 characters

Organisation in English Karelia University of Applied Sciences Ltd.

43 / 250 characters

Department in original language Karelia Ammattikorkeakoulu Oy

29 / 250 characters

Department in English Karelia University of Applied Sciences Ltd.

43 / 250 characters

Partner location and website:

Address Tikkarinne 9

12 / 250 characters

Country Finland

Postal Code	80200 (5 / 250 characters)	**NUTS1 code**	Manner-Suomi
Town	Joensuu (7 / 250 characters)	**NUTS2 code**	Pohjois- ja Itä-Suomi
Website	karelia.fi/en/front-page/ (25 / 100 characters)	**NUTS3 code**	Pohjois-Karjala

Partner ID:

Organisation ID type	Business Identity Code (Y-tunnus)
Organisation ID	2454377-1
VAT Number Format	FI + 8 digits
VAT Number	N/A ☐ FI24543771 (10 / 50 characters)
PIC	952838373 (9 / 9 characters)

Partner type:

Legal status	a) Public	
Type of partner	Higher education and research instituti	University faculty, college, research institution, RTD facility, research cluster, etc.
Sector (NACE)	85.42 - Tertiary education	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities? Yes

Role of the partner organisation in this project:

Karelia UAS will be involved in the project through its strong communication and visualisation expertise. It will lead standardisation of open data visualisations in A1.1 and participate in the design of visualisation features in A1.2. Karelia UAS will be involved in the implementation of the North Karelia pilot together with the Regional Council of North Karelia in A2.1 and A2.2. It will lead the transfer activities (communication and propagation of solution) in WP3. One of the key challenges of WP3 will be to communicate with different actors, about the benefits of Public Open Data for their operations and help them to take advantage of the BalticPODS solutions. it will be important to have a dialogue with these actors (e.g. in workshops and pilot cases) from the beginning of the project and thereby take into account the different starting points and practices of the actors.

893 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ○ No

State aid relevance

For the partner type selected, the Programme sees a medium to high risk for implementing State aid relevant activities. If the partner is of the opinion that its activities are not State aid relevant, it can ask the MA/JS for a plausibility check on the State aid relevance. Does the partner want to do this?

○ Yes ○ No

2.2 Project Partner Details - Partner 8

LP/PP	Project Partner		
Partner Status	Active		
Active from	22/09/2022	**Inactive from**	

Partner name:

Organisation in original language	More Mosaic (11 / 250 characters)
Organisation in English	More Mosaic (11 / 250 characters)
Department in original language	NA (2 / 250 characters)
Department in English	NA (2 / 250 characters)

Partner location and website:

Address	Nynäsvägen 366, lgh 1001 (24 / 250 characters)	**Country**	Sweden
Postal Code	12234 (5 / 250 characters)	**NUTS1 code**	Östra Sverige
Town	Enskede (7 / 250 characters)	**NUTS2 code**	Stockholm
Website	www.moremosaic.eu (17 / 100 characters)	**NUTS3 code**	Stockholms län

Partner ID:

Organisation ID type	Organisation number (Organisationsnummer)
Organisation ID	802475-7588
VAT Number Format	SE + 12 digits
VAT Number	**N/A** ☑ (0 / 50 characters)
PIC	948018734 (9 / 9 characters)

Partner type:

Legal status	b) Private	
Type of partner	NGO	Non-governmental organisations, such as Greenpeace, WWF, etc.
Sector (NACE)	85.59 - Other education n.e.c.	

Partner financial data:

Is your organisation entitled to recover VAT related to the EU funded project activities?	No

Financial data				
	Reference period	01/01/2021	–	31/12/2021
	Staff headcount [in annual work units (AWU)]			2.0
	Employees [in AWU]			2.0
	Persons working for the organisation being subordinated to it and considered to be employees under national law [in AWU]			0.0
	Owner-managers [in AWU]			0.0
	Partners engaged in a regular activity in the organisation and benefiting from financial advantages from the organisation [in AWU]			0.0
	Annual turnover [in EUR]			53,141.00
	Annual balance sheet total [in EUR]			66,267.00
	Operating profit [in EUR]			7,589.00

Role of the partner organisation in this project:

MoreMosaic will concentrate on the communication activities in the project. It will lead GoA 3.1 and participate in pilot case and workshop organisation. It will use its significant communication experience through various media and organising transnational cooperation involving different actors, especially the younger generation (e.g. in the ERASMUS+ and NordPlus programmes).

379 / 1,000 characters

Has this organisation ever been a partner in the project(s) implemented in the Interreg Baltic Sea Region Programme?

○ Yes ◉ No

2.3 Associated Organisation Details - AO 1

Associated organisation name and type:

Organisation in original language: Rīgas Dome
10 / 250 characters

Organisation in English: Riga City Council
17 / 250 characters

Department in original language: NA
2 / 250 characters

Department in English: NA
2 / 250 characters

Legal status: a) Public

Type of associated organisation: Local public authority — Municipality, city, etc.

Associated organisation location and website:

Address: Ratslaukums 1
13 / 250 characters

Country: Latvia

Postal Code: LV-1539
7 / 250 characters

Town: Riga
4 / 250 characters

Website: www.riga.lv
11 / 100 characters

Role of the associated organisation in this project:

Riga City, as an associated partner of the project, will seek various ways of cooperation that would involve the provisioning of currently available data sources on various aspects of the city's operations, assistance in synchronising the provided open data with the BalticPODS system and assistance in seeking potential case study participants.

345 / 1,000 characters

2.3 Associated Organisation Details - AO 2

Associated organisation name and type:

Organisation in original language: Senat der Freien und Hansestadt Hamburg
39 / 250 characters

Organisation in English: Senate of the Free and Hanseatic City of Hamburg
48 / 250 characters

Department in original language: NA
2 / 250 characters

Department in English: NA
2 / 250 characters

Legal status: a) Public

Type of associated organisation: Local public authority — Municipality, city, etc.

Associated organisation location and website:

Address: P.O. Box 10 55 20
17 / 250 characters

Country: Germany

Postal Code: D-200038
8 / 250 characters

Town: Hamburg
7 / 250 characters

Website: www.hamburg.de/senat
20 / 100 characters

Role of the associated organisation in this project:

The city of Hamburg, as an associated partner of the project, will seek various ways of cooperation that would involve the provisioning of currently available data sources on various aspects of the city's operations, assistance in synchronising the provided open data with the BalticPODS system and assistance in seeking potential case study participants.

355 / 1,000 characters

2.3 Associated Organisation Details - AO 3

Associated organisation name and type:

Organisation in original language
Urząd Marszałkowski Województwa Mazowieckiego
45 / 250 characters

Organisation in English
Marshal Office of the Masovian Voivodship
41 / 250 characters

Department in original language
NA
2 / 250 characters

Department in English
NA
2 / 250 characters

Legal status
a) Public

Type of associated organisation
Regional public authority
Regional council, etc.

Associated organisation location and website:

Address
ul. Jagiellońska 26
19 / 250 characters

Country
Poland

Postal Code
03-719
6 / 250 characters

Town
Warszawa
8 / 250 characters

Website
mazovia.pl
10 / 100 characters

Role of the associated organisation in this project:

The Masovian Voivodship, as an associated partner of the project, will seek various ways of cooperation that would involve the provisioning of currently available data sources on various aspects of the region's operations, assistance in synchronising the provided open data with the BalticPODS system and assistance in seeking potential case study participants.
361 / 1,000 characters

2.3 Associated Organisation Details - AO 4

Associated organisation name and type:

Organisation in original language
Vilniaus miesto savivaldybė
27 / 250 characters

Organisation in English
Vilnius Municipality
20 / 250 characters

Department in original language
NA
2 / 250 characters

Department in English
NA
2 / 250 characters

Legal status
a) Public

Type of associated organisation
Local public authority
Municipality, city, etc.

Associated organisation location and website:

Address
Konstitucijos pr. 3
19 / 250 characters

Country
Lithuania

Postal Code
LT-09601
8 / 250 characters

Town
Vilnius
7 / 250 characters

Website
vilnius.lt
10 / 100 characters

Role of the associated organisation in this project:

Vilnius, as an associated partner of the project, will seek various ways of cooperation that would involve the provisioning of currently available data sources on various aspects of the city's operations, assistance in synchronising the provided open data with the BalticPODS system and assistance in seeking potential case study participants.
343 / 1,000 characters

2.3 Associated Organisation Details - AO 5

Associated organisation name and type:

Organisation in original language
Lietuvos pramoninkų konfederacija
33 / 250 characters

Organisation in English
Lithuanian Confederation of Industrialists
42 / 250 characters

Department in original language
NA
2 / 250 characters

Department in English
NA
2 / 250 characters

Legal status
a) Public

Type of associated organisation
Interest group
Trade union, foundation, charity, voluntary association, club, etc. other than NGOs

Associated organisation location and website:

Address
Vilniaus g. 31
14 / 250 characters

Country
Lithuania

Postal Code
LT-01402
8 / 250 characters

Town
Vilnius
7 / 250 characters

Website
www.lpk.lt
10 / 100 characters

Role of the associated organisation in this project:

The Lithuanian Confederation of Industrialists will cooperate with the project by assisting in seeking potential workshop and case study participants. It will contribute to all the groups of activity where the involvement of enterprise (SME in particular) representatives is needed. This includes activities where such representatives would participate in workshops and other events.
384 / 1,000 characters

3. Relevance

3.1 Context and challenge

According to the "Open Data Maturity Report 2021", BSR countries undertake significant efforts to open their public data. On the other hand, only around 0.5% of their citizens use Public Open Data (POD) in their everyday activities. Just opening the data by public institutions isn't enough. We need to be able to quickly develop ranges of new web and mobile e-services related to public data that respond to the needs of citizens in the BSR.

Provision of POD is currently done throughout the BSR at different levels and using different means. Local, regional and national-level public institutions typically publish data through their websites. This is done using various data and file formats and through various user interfaces (UIs) and programmers interfaces (APIs). These heterogeneous data sources are typically referenced through national-level POD platforms that gather links to these sources in their countries and offer simple search facilities. Most of the data is offered as static files instead of dynamic APIs. The current situation necessitates significant effort and skills to find relevant data sources (if at all available) and to use them to build responsive applications that fulfil the demands of the public. This is even more difficult when developing cross-national applications that use similar POD from different countries.

Considering this, the project aims at tackling three major challenges. The first is to facilitate the provisioning of POD in standard dynamic form (APIs) that is useful for e-service developers. The second is to standardise and thus facilitate access to existing POD sources through user-friendly visualisation. The third is to provide tools to quickly develop new services (apps) through significantly simplified, standard and automatically generated program code for using POD.

In summary, the main challenge is to significantly reduce time and effort in the POD lifecycle - from the provision of dynamic data to useful e-services.

1,997 / 2,000 characters

3.2 Transnational value of the project

The project's main challenges are associated with standardising access and usage of dynamic Public Open Data throughout the Baltic Sea Region, using visual representations. Novel standards of visualisation should unify how data in different languages (Polish, German, Latvian, Swedish etc.) and formats are represented. This necessitates transnational cooperation of POD providers (public institutions) with POD users (SMEs, schools, universities etc.) and POD software technology providers (research institutions). A significant transnational effort is needed to develop appropriate standard specifications and a system that implements these specifications and unifies various POD sources available throughout the whole BSR. This would result in a significant improvement in the availability and a bottom-up growth of good quality POD sources across the entire BSR. It will also lower entry barriers for various local municipalities and councils to provide open data useful for their inhabitants.

The envisioned POD platform will significantly enhance capabilities to use data transnationally through developing various web and mobile applications that aggregate data from sources situated in different countries of the BSR. Currently, such transnational POD usage is minimal. Thus, the project's transnational value also consists in the emergence of an international community of application developers. The new POD platform will provide a unified ecosystem for software developers with templates, guidelines and tutorials. This will allow for creating a transnational community that would exchange information on ways to develop responsive applications for the benefit of the citizens of the BSR. It can be noted that limiting such a community to just a single country would not create a "critical mass" to gain the necessary acceptance and attention regarding the new POD standards.

1,894 / 2,000 characters

3.3 Target groups

Target group	Sector and geographical coverage	Its role and needs
Infrastructure and public service provid	This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases. 383 / 500 characters	The role of this target group is to: - provide existing public open data sources, - cooperate in providing new open data sets, - cooperate in acquiring local entities (SMEs, universities, schools, ...) interested in creating pilot applications based on the new platform. This target group will use the tools developed within the project to validate their ease of use. It will also promote the use of these tools among e-service developers in their area. 454 / 1,000 characters

Target group	Sector and geographical coverage	Its role and needs
Business support organisation	This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR. 429 / 500 characters	The role of this target group is to: - cooperate in acquiring local entities (SMEs, universities, schools, ...) interested in creating pilot applications based on the new platform, - promote and propagate the project results among public institutions (POD providers), innovators (students, researchers, engineers) and SMEs, - build a community around the Baltic Public Open Data System. This target group will use various communication and promotion tools and techniques. It will acquire knowledge about the BalticPODS system necessary to communicate the project results to the public. It will also use various means of communication and their contacts to acquire participants for the pilot cases. 699 / 1,000 characters
National public authority	This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project. 375 / 500 characters	The role of the target group is to: - cooperate in unifying access and usage of open public data at the national level, - assist in the synchronisation between the existing POD sites with the new POD system, - promote the new POD platform among POD providers (local authorities etc.) and application developers in specific countries. 333 / 1,000 characters
Small and medium enterprise	Various innovative enterprises that use open data sources to develop novel software (web and mobile applications). This target group covers all interested SMEs in all countries of the BSR. 188 / 500 characters	The role of the target group is to: - participate in case studies, hackathons and other activities resulting in the development of novel e-services that use Public Open Data in selected fields like Smart City or Spatial Planning. This target group needs tools to develop applications (web, mobile) based on public open data more effectively. 342 / 1,000 characters
Higher education and research institution	This group includes universities across the whole BSR that conduct Computer Science, Software Engineering and general Engineering courses. The project partnership includes such universities, where their researchers and students will participate in various propagation activities	The role of the target group is to: - participate in case studies, hackathons and other activities resulting in the development of novel e-services that use Public Open Data in selected fields like Smart City or Spatial Planning. - promote the usage of BalticPODS among students and researchers

3.4 Project objective

Your project objective should contribute to:

Responsive public services

The project's main goal is to create the Baltic Public Open Data System (BalticPODS) - a new responsive public e-service. Its role will be to significantly facilitate the creation of new e-services (e.g. mobile or web apps) that are based on the usage of Public Open Data (POD). BalticPODS will be used by public institutions providing open data (e.g. local authorities) and entities that develop new e-services (e.g. SMEs, innovators, students).

The BalticPODS ecosystem will be composed of three unified components:
1. The Baltic Open Data Provider Toolset. It will include easy-to-use tools for building a complete POD platform with dynamic, API-based access to data. Ease of use and responsiveness will be assured through the advanced visualisation capabilities of the data definition tool. POD platforms created with our system will be easy to set up and configure even by less experienced personnel.
2. The Baltic Open Data Explorer. This component will be a transnational POD access platform. It will offer an intelligent POD search facility that will be based on advanced visualisation capabilities allowing to present data in a clear and standardised way. It will also offer a feedback and data request facility that will increase the responsiveness of local POD platforms.
3. The Baltic Open Data Developer Toolset. It will include a tool to generate program code directly from the visual definitions of data structures available in the local POD platforms. This code will be unified and accessible even to non-professional programmers. It will automatically access appropriate APIs and relieve the programmers from coding the complex data transmission layer.

All the characteristics of the BalticPODS System will be validated through the pilot cases where we will engage public institutions and e-service developers from around the BSR. This will be backed by extensive material (handbook, training guide, business model, etc.) that will assure the durability of the system.

1,998 / 2,000 characters

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

Please indicate whether your project contributes to the implementation of the Action Plan of the EU Strategy for the Baltic Sea Region (EUSBSR).

(•) Yes ( ) No

Please select which Policy Area of the EUSBSR your project contributes to most.

PA Innovation

Please list the action of this Policy Area that your project contributes to and explain how.

The project contributes to Action 2: "Digital innovation and transformation". It directly responds to one of the main challenges under this action which is to "develop common standards for interoperable public and private solutions", and to "harmonise data" that will "support transfer of solutions across Baltic Sea region, new market opportunities and globally more competitive digital ecosystems". It also directly responds to one of the planned areas of activity which is the "Baltic Sea region open data initiative".

The Baltic Public Open Data Services project will develop and implement standards for the provisioning of public open data, leading to wide interoperability of solutions throughout the whole BSR. It will also constitute an initiative to facilitate the development of innovative new services for BSR citizens that are based on the developed open data standards.

884 / 1,500 characters

If applicable, please describe which other Policy Areas of the EUSBSR your project contributes to and how.

NA

2 / 1,500 characters

3.6 Other political and strategic background of the project

Strategic documents

European Data Act (adopted by the EC on 23.02.2022) calls for setting clear and fair rules on access and re-use of data and investing in relevant next-generation tools. It also calls for joining forces in pooling European data in key sectors, with common and interoperable data spaces. This should be facilitated by giving users rights, tools and skills to stay in full control of their data. Our project directly implements this strategy in relation to open data offered by public institutions.

495 / 500 characters

European Strategy for Data - COM(2020)66, defines a major goal of creating a unified European data space, with the free flow of data. All citizens and enterprises (big or small) should be able to benefit from access and usage of non-personal data. The strategy calls for cross-sectoral (horizontal) measures for data access and usage, avoiding harmful fragmentation between sectors and countries. Our project directly implements this strategy in relation to open data offered by public institutions.

500 / 500 characters

Data Opening Programme for 2021-2027 (Polish Ministry of Digitisation) plans to increase the volume and quality of data available through the central data portal and develop an ecosystem to create new e-services and products and business models causing economic and social benefits. One of the key priorities is the increased availability of data through APIs. Our project directly responds to this strategy by providing tools facilitating access to open data through APIs.

474 / 500 characters

3.7 Seed money support

Please indicate whether your project is based on a seed money project implemented in the Interreg Baltic Sea Region Programme 2014-2020.

( ) Yes (•) No

3.8 Other projects: use of results and planned cooperation

Full name of the project	Funding Source	Use of the project outcomes and/or planned cooperation
Baltic Large Scale Computing (BalticLSC) 40 / 200 characters	Interreg Baltic Sea Region 26 / 200 characters	The new POD platform will use various technical artefacts developed throughout the BalticLSC project. This will include the frontend of the BalticLSC environment, including a graphical editor for the computation language, and several backend components. The systems could be potentially integrated to enable usage of Public Open Data in various large scale computation applications. 382 / 1,000 characters
Otwarte dane - dostęp, standard, edukacja (Open Data - access, standard, education) 83 / 200 characters	Operational Programme: Digital Poland (EU Funded) 49 / 200 characters	The BalticPODS project will use the project outcomes as inputs to the development of standards for providing data in a dynamic form (APIs). We will also cooperate with the institution that maintains the "dane.gov.pl" portal developed with this project. This will comprise the potential involvement of experts in various workshops and other project events. 355 / 1,000 characters

3.10 Horizontal principles

Horizontal principles	Projects's direct impact
Sustainable development	positive
Non-discrimination including accessibility	positive
Equality between men and women	neutral

4. Management

Allocated budget 10%

4.1 Project management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the project management as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the project management, e.g. external entity supporting the lead partner in the management of the project, advisory board, steering committee, any other relevant working groups, etc.

The Project Coordinator, appointed by the lead partner will be supported by:
a) Project Steering Committee (PSC): composed of officially designated representative of each project partner;
b) Project Executive (PE), which will include work package leaders, designated by the work package lead partners;
c) Stakeholder Advisory Group (SAG), composed of representatives of public institutions from each of the countries that partners involved in the project come from

465 / 500 characters

4.2 Project financial management

☑ **Please confirm that the lead partner and all project partners will comply with the rules for the financial management and control as described in the Programme Manual.**

If relevant, please indicate any other important aspects of the financial management, e.g. external entity supporting the lead partner, positions planned for financial management, involvement of special financial experts (e.g. for public procurement), etc.

The lead partner will appoint a Chief Financial Officer that will be supported by the WUT's financial team that will conduct daily financial (accounting) tasks. The lead partner will also engage a public procurement expert to supervise procurement procedures in the project. Each of the partners will use its financial (accounting) personnel for financial management at the partner level and for reporting to the lead partner.

426 / 500 characters

4.3 Input to Programme communication

☑ **Please confirm that you are aware of the obligatory inputs to Programme communication that must be submitted along the pre-defined progress reports, as described in the Programme Manual.**

If relevant, please describe other important aspects of project communication that you plan to introduce, e.g. a communication plan, opening and closing events, social media channel(s) etc.

The communication plan will be addressing three targets: public institutions, e-service developers and the general public. Activities will include e.g. special events for the institutions, software hackathons for developers, facebook and twitter postings for the general public, YouTube videos with tutorials and presentations.

328 / 500 characters

4.4 Cooperation criteria

Please select the cooperation criteria that apply to your project. In your project you need to apply at least three cooperation criteria. Joint development and joint implementation are the obligatory ones you need to fulfill in your project.

Cooperation criteria	
Joint Development	☑
Joint Implementation	☑
Joint Staffing	☐
Joint Financing	☑

5. Work Plan

Number	Work Package Name
1	Preparing solutions

Number	Group of Activity Name
1.1	Preparation of the Baltic Open Data Standards
1.2	Preparation of the Baltic Open Data Provider Toolset
1.3	Development of the Baltic Open Data Explorer User Interface
1.4	Development of the Baltic Open Data Explorer Engine
1.5	Development of the Baltic Open Data Developer Toolset

Number	Work Package Name
2	WP2 Piloting and evaluating solutions

Number	Group of Activity Name
2.1	Preparation and Execution of Pilot Cases
2.2	Evaluation of Pilot Cases
2.3	Adjustment of the Baltic Public Open Data System

Number	Work Package Name
3	WP3 Transferring solutions

Number	Group of Activity Name
3.1	Communication of the Baltic Open Data System
3.2	Propagation of the Baltic Open Data System
3.3	Development of the Durability Plan

Work plan overview

Period: 1 2 3 4 5 6	Leader
WP.1: Preparing solutions	**PP1**
A.1.1: Preparation of the Baltic Open Data Standards D.1.1: Baltic Open Data Standards Guidelines (D)	PP7
A.1.2: Preparation of the Baltic Open Data Provider Toolset D.1.2: Baltic Open Data Provider Toolset (D)	PP6
A.1.3: Development of the Baltic Open Data Explorer User Interface D.1.3: Baltic Open Data Explorer User Interface (D)	PP6
A.1.4: Development of the Baltic Open Data Explorer Engine D.1.4: Baltic Open Data Explorer Engine (D)	PP1
A.1.5: Development of the Baltic Open Data Developer Toolset D.1.5: Baltic Open Data Developer Toolset (D)	PP1
WP.2: WP2 Piloting and evaluating solutions	**PP3**
A.2.1: Preparation and Execution of Pilot Cases D.2.1: Report on the Results of the BalticPODS Pilot Cases (D)	PP3
A.2.2: Evaluation of Pilot Cases D.2.2: Baltic Public Open Data System Evaluation Report (D)	PP4
A.2.3: Adjustment of the Baltic Public Open Data System O.2.3: Baltic Public Open Data System (O)	PP1
WP.3: WP3 Transferring solutions	**PP5**
A.3.1: Communication of the Baltic Open Data System D.3.1: Baltic Open Data System Communication Report (D)	PP8
A.3.2: Propagation of the Baltic Open Data System D.3.2: Baltic Public Open Data System Propagation Guidelines (D)	PP5
A.3.3: Development of the Durability Plan O.3.3: Baltic Public Open Data System Durability Plan (O)	PP5

Outputs and deliverables overview

Code	Title	Description	Contribution to the output	Output/ deliverable contains an investment

D 1.1	Baltic Open Data Standards Guidelines	This deliverable contains all the specifications for representing Public Open Data and guidelines on how to use these specifications in other project activities. Special care will be taken to provide information on the usage of these standards in different countries across the BSR. The deliverable will be composed of four elements. 1. Specification of standard data structures and formats for use in providing Public Open Data in a dynamic form through APIs. This will include the specification of the structure and relations between APIs' data transfer objects - their attributes, types of the attributes, obligatory and optional elements etc. This specification will be prepared to be compatible with the visual representations (point 2 below). 2. Specification of concrete visual representation for expressing Public Open Data. The representation will allow for visualising data structures and formats in a graphical way. It will also be designed in accordance with best practices for visual notations, assuring good usability and user experience. 3. Specification of standards for provisioning data through APIs. This will include standards for defining, designing and implementing API operations for accessing POD. 4. Guidelines for applying the above specifications in selecting and developing the tools (cf. GoAs 1.2-1.4) and in the pilot cases. They will point out specific practical issues related to the specificity of individual countries. For instance, they will explain how the specifications should be applied to fit within specific legal regulations in each country. The guidelines will also provide notes on the functionality of the tools needed to implement the specifications.	O2.3 Baltic Public Open Data System	
D 1.2	Baltic Open Data Provider Toolset	This deliverable will contain several components forming a consistent framework for developing POD provisioning platforms. The toolset software will be ready for use by the personnel of public institutions willing to provide Public Open Data. The software will enable the quick creation of servers equipped with APIs for dynamic access to Public Open Data provided by respective public institutions. It will also contain comprehensive documentation, which will include detailed instructions for using the toolset. The software tools in this deliverable will allow selecting, installing, configuring, and deploying all the components necessary to set up a complete POD provisioning system. These components will align with the data provisioning standards and data representations developed in GoA 1.1. The deliverable will include necessary links to the individual tools and the documentation that will be made available through the Baltic Open Data Explorer (see GoAs 1.3 and 1.4). This deliverable will be used in further activities, specifically as part of the respective pilot case in WP2. It will be adjusted in GoA 2.3, following feedback from the pilots. Ultimately, it will become part of the final output, the Baltic Public Open Data System.	O2.3. Baltic Public Open Data System	
D 1.3	Baltic Open Data Explorer User Interface	This deliverable will consist of software front-end components of the Baltic Open Data Explorer (BODE) UI, responsible for the communication with the end-users. These components will form a portal where POD users will be able to search, find, assess the suitability, and enable access to Public Open Datasets. The portal will be also equipped with interactive forms for the submission and management of feedback from POD users. The portal will extensively use visual user interface elements and interactive methods. It will provide a state-of-the-art user experience and usability. The front-end will be provided as open-source code and deployed for public access through the Internet. This deliverable will also consist of software design artefacts (software models, user interface blueprints, etc.) and a software user guide. The guide will provide comprehensive information on how to effectively use the BODE UI, especially for the developers who would like to create new e-services using the provided POD. Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the BODE User Interface will become a part of the Baltic Public Open Data System (O2.3).	O2.3. Baltic Public Open Data System	
D 1.4	Baltic Open Data Explorer Engine	This deliverable will constitute the lower layer, i.e. the software back-end components of the Baltic Open Data Explorer (BODE) Engine, responsible for the communication with the front-end components and the POD sources. These components will contain all the domain logic and storage facilities. This will include mechanisms for synchronisation and status checking with Public Open Data sources, specifically those compatible with the Baltic Open Data Provider Toolset (D1.2). The Engine will also contain components implementing search and exploration mechanisms and a database to store metadata found in POD sources. The Engine will be made available through a dedicated API used by the front-end components (D1.3). It will also contain communication components responsible for accessing various POD APIs. The back-end will be provided as open-source code, and its API will be deployed for public access through the Internet. Access to the API will be secured using modern security mechanisms. This deliverable will also consist of software design artefacts (software models, data storage models, synchronisation mechanism specifications etc.) and a technical guide. The guide will provide comprehensive information on how to effectively configure and adapt the BODE Engine to cover various POD sources - their API structures and data formats. Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the BODE Engine will become a part of the Baltic Public Open Data System (O2.3).	O2.3. Baltic Public Open Data System	

D 1.5	Baltic Open Data Developer Toolset	The Baltic Open Data Developer Toolset will constitute a framework facilitating the development of data access layers for applications that use Public Open Data. The framework will allow for the automatic generation of code based on the structure of data provided by various open data sources. The application developers will need to specify the data sources using an easy-to-use visual language which then will be turned into code suitable for the selected type of application, programming language, and software development framework. The Toolset will consist of an integrated development environment for the visual data description and transformation language. It will include a graphical editor, translation (code generation) tools, and comprehensive application programmers' interfaces for easy and unified access to open data sources. This deliverable will also consist of software design artefacts (software models, language abstract and concrete syntaxes, etc.) and a software user guide. The guide will provide comprehensive information on effectively using the Baltic Open Data Developer Toolset, e.g., incorporating the generated software components into the user's software system. It will be vital for the developers who would like to create new e-services using the Developer Toolset. Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the Baltic Open Data Developer Toolset will become a part of the Baltic Public Open Data System (O2.3).	O2.3. Baltic Open Data System	
D 2.1	Report on the Results of the BalticPODS Pilot Cases	The final report will summarise all the pilots performed in partner countries. It will contain a description of each pilot case. Depending on the piloted solution (OD Provider Toolset, OD Explorer, OD Developer Toolset) it will present information about their domains, provided data types, their usage and application. It will describe how the process of providing or using POD was designed and executed and what e-services (e.g. mobile or web apps) were created based on the provided open data. Together with these descriptions, certain qualitative data will be presented, where particular importance will be given to the effectiveness of data provisioning, accessibility, and ease of use. The report will summarise the input given to GoA 2.2 to evaluate all the processes performed while using the Baltic Public Open Data System. This document will gather all the collected data and provide material for further improvement of BalticPODS (O2.3) and success stories for communicating the project results in WP3. Demonstration of success stories will serve to propagate the tools in the Transfer stage.	O2.3. Baltic Public Open Data System	
D 2.2	Baltic Public Open Data System Evaluation Report	This deliverable will be prepared based on the feedback workshop results for all three components: Baltic Open Data Provider Toolset, Baltic Open Data Explorer, and Baltic Open Data Developer Toolset. They will include a summary of activities within the workshops with a detailed list of issues, feedback comments, improvement recommendations, etc. The list will refer to specific features and requirements identified and the changes implemented (if they were feasible and within the project's scope). It will specify which requirements were met and what are the discrepancies. It will also verify if the requirements were understood and if the requested changes were implemented correctly. All the contents of the report will be oriented towards improving the system in the future. It will be used in GoA 2.3 and WP3, especially in GoA 3.3. It will contribute to creating the Durability Plan, which needs to consider possible future changes, updates, and extensions of the Baltic Public Open Data System.	O2.3. Baltic Open Data System and O3.3 Baltic Open Data System Durability Plan	
O 2.3	Baltic Public Open Data System	The result of this GoA is the main output of the project. The Baltic Public Open Data System will consist of three major components: the Baltic Open Data Provider Toolset (cf. deliverable D1.2), the Baltic Open Data Explorer (cf. deliverables D1.3 and D 1.4), and the Baltic Open Data Developer Toolset (cf. deliverable D1.5). The contents of the output will combine the contents of these three components according to descriptions of D1.2, D1.3, D1.4 and D1.5. The final output will contain final, adjusted versions of the individual components, improved following the evaluation activities. The output will be provided as a software source code of the three major components stored in an open-source code repository. It will also be accompanied by comprehensive documentation, consisting of design specifications (architectural models, detailed subsystem models), language specifications, and user guides. Moreover, it will also include the standards specifications resulting from GoA 1.1 (Baltic Open Data Standards Guidelines). The central component of BalticPODS - the Baltic Open Data Explorer - will be deployed and made available as a publicly accessible web portal. The other tools (executable versions) and the documentation will be provided for download in the Explorer portal. When providing the Explorer portal and the included tools and documentation, we will assure their accessibility to different groups of users in all the countries of the Baltic Sea Region. This should allow for sharing and using Public Open Data transnationally across the whole Region. The Baltic Open Data Provider Toolset will use uniform data provisioning standards, thus making data accessible in the same structures and formats in all the countries of the BSR. The Baltic Open Data Explorer will be used to search for Public Open Data without any barriers caused by country borders. This is due to the standardised representation of data regardless of the language and geographical location. The Baltic Open Data Developer Toolset will allow e-service developers to access such Public Open Data without the need to understand the technical details of APIs and without the need to use websites in local languages.		

D 3.1	Baltic Open Data System Communication Report	The Baltic Open Data System Communication Report will summarise and present all the communication activities and various promotional materials created during the project, like logos, presentations, videos, demos, web pages, social media communications, articles, and programs in popular science, research, and general public media/journals. This report will provide insight into the transnational communication strategy developed for BalticPODS. It will share the experience and guidelines on promoting and communicating the BalticPODS in the future within the BSR and beyond. The report will also include the strategy for further communication and raising interest in the BalticPODS solutions beyond the project end. This element is critical for the durability of the main output, i.e. the O2.3 Baltic Open Data System. Thus, the report will directly contribute to the BalticPODS Durability Plan developed in GoA 3.3.	O3.3 Baltic Public Open Data System Durability Plan	
D 3.2	Baltic Public Open Data System Propagation Guidelines	Baltic Public Open Data System Propagation Guidelines will summarise all the propagation activities and various materials created and used during the GoA in the form of tutorials, workshop agendas, practical session scripts, and presentations. All the gathered feedback from workshop moderators and presentation speakers will be transformed into uniform guidelines for organizing such workshops or hackathons in the entire BSR and beyond. This experience will contribute to the O3.3 BalticPODS Durability Plan developed in GoA 3.3. Further propagation of the BalticPODS solutions and organization of (possible paid) tutorial workshops or training is important for the durability of the main output, the O2.3 Baltic Open Data System.	O3.3. Baltic Public Open Data System Durability Plan	
O 3.3	Baltic Public Open Data System Durability Plan	The Baltic Public Open Data System Durability Plan will be composed of four major elements. The first element will present the business models for sustaining BalticPODS long after the project ends. It will cover such issues as scenarios for continuous maintenance and development of the system, deployment of BalticPODS components by the governing institutions, scenarios for cooperation and building a community around BalticPODS, scenarios for inclusion of BalticPODS into the existing POD ecosystems, value propositions, customer relationships, customer segments, communication channels, key partners, key activities, essential resources, cost structures, and revenue streams. The business models will predominantly cover scenarios where the BalticPODS solution is provided free of charge to its end-users. In relation to this, it will propose various opportunities to find funding sources, based e.g., on supportive activities like paid courses and services. It will also include guidelines for finding new business opportunities in relation to the BalticPODs solution. The second element of this output will be the evaluation of pilot cases and guidance on the practical application of BalticPODS. This will be based on and extend the deliverable D2.2. The third element will be the communication strategy for BalticPODS results. This will be based on and extend the deliverable D3.1. The final, fourth element will be the propagation guidelines for extending the impact of the BalticPODS solution beyond the project consortium onto the target groups. This will be based on and extend the deliverable D3.2.		

Work package 1

5.1 Preparing solutions

5.2 Aim of the work package

The aim of this work package is to prepare solutions to help address the identified challenge. You can either develop entirely new solutions or adapt existing solutions to the needs of your target groups. Prepare your solutions in a way that you can pilot them in Work Package 2. Consider how you involve your target groups in preparation of the solutions.
Organise your activities in up to five groups of activities to present the actions you plan to implement. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1	PP 1 - Warsaw University of Technology
Work package leader 2	PP 6 - Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)

5.4 Work package budget

Work package budget	30%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases. 383 / 500 characters	This target group will be engaged within WP1 through participation in the planned workshops. During these workshops, we will engage representatives of public providers of Open Data in the joint development of standards and guidelines for providing POD. We will invite people responsible for providing open data at selected public institutions. This will include representatives from project partners, associated organisations and public institutions from outside of the consortium. We will reach out to these institutions through contacts already available and collected during preparations for the project. 608 / 1,000 characters
2	Business support organisation This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR. 429 / 500 characters	This target group will be engaged within WP1 through the organisation of the planned workshops. This will be done by the business support organisations that are part of the project consortium and are already engaged in project activities. Representatives of these organisations will actively invite workshop participants and will reach out to various institutions outside of the consortium. They will use their contacts, like SMEs, research institutions, student groups etc. using various means of communication. They will also use their expertise in organising interactive events and joint development activities. 615 / 1,000 characters
3	National public authority This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project. 375 / 500 characters	This target group will be engaged in WP1 through collaboration in developing and applying standards for the provisioning of Public Open Data. Project partners will reach out to public authorities responsible for managing public data at national levels. This will include contacts already acquired during project preparations, like the Polish central Data Management Department responsible for the "dane.gov.pl" portal. 418 / 1,000 characters
4	Small and medium enterprise Various innovative enterprises that use open data sources to develop novel software (web and mobile applications). This target group covers all interested SMEs in all countries of the BSR. 188 / 500 characters	This target group will be engaged within WP1 through participation in the planned workshops. During these workshops, we will engage representatives of SMEs interested in developing e-services based on Public Open Data. They will cooperate in the joint development of standards and guidelines for using POD to develop new applications. We will invite software developers and innovators to obtain feedback on the respective standards, specifications and functionalities of tools. We will reach out to these enterprises through contacts already available and collected during preparations for the project. 603 / 1,000 characters
5	Higher education and research institution This group includes universities across the whole BSR that conduct Computer Science, Software Engineering and general Engineering courses. The project partnership includes such universities, where their researchers and students will participate in various propagation activities and pilot cases. 295 / 500 characters	This target group will be engaged within WP1 through participation in the planned workshops and directly in the development of tools. This will engage universities already being part of the project consortium and other such institutions contacted during the project. External universities will be engaged in the joint development of standards and guidelines for providing POD and developing respective e-services. We will reach out to these institutions through contacts already available and collected during preparations for the project. 540 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
1.1	**Preparation of the Baltic Open Data Standards**
1.2	**Preparation of the Baltic Open Data Provider Toolset**
1.3	**Development of the Baltic Open Data Explorer User Interface**
1.4	**Development of the Baltic Open Data Explorer Engine**
1.5	**Development of the Baltic Open Data Developer Toolset**

WP 1 Group of activities 1.1

5.6.1 Group of activities leader

Group of activities leader PP 7 - Karelia University of Applied Sciences Ltd.

A 1.1

5.6.2 Title of the group of activities

Preparation of the Baltic Open Data Standards

45 / 100 characters

5.6.3 Description of the group of activities

This GoA aims to standardise Public Open Data (POD) representation through a new common visual (graphical) notation. The new notation will be used in all POD provisioning, exploration and usage tools created within the project. It will be designed to be as universal as possible in the context of its usage across the whole Baltic Sea Region (BSR) and beyond. It will take into account the various existing regulations regarding open data structures and types, both at the national and EU levels.

GoA 1.1 will be executed in three phases. In phase 1, we will prepare the initial specifications and guidelines on their usage. We will use the existing standards for representing POD across the BSR countries (which differ despite efforts to unify them at the EU level). We will then develop a unified and common specification of data structures and types to be used when storing, retrieving and using POD. This will also include the development of a common approach to access POD in a dynamic way through Application Programmer Interfaces (APIs). In parallel, in phase 1, we will develop an initial visual representation of the data structures and types. This will involve best practices for the development of graphical notations, including the definition of the visual syntactic elements, and their usability and user experience.

In phase 2 we will conduct a joint development workshop. We will involve representatives of POD providers (public institutions) and e-service developers (POD consumers - innovators, students, software developers) from around the BSR. During the workshop, we will aim at reviewing and proposing updates and enhancements to the initial specifications. We will concentrate on understanding the needs of e.g. local municipalities that do not have sufficient resources to understand and develop their own, dynamic POD systems (with API access to data). We will also determine adjustments needed for the efficient development of mobile and web apps that use POD. We will especially concentrate on the needs of less experienced developers.

In phase 3 we will develop the final specification - the Baltic Open Data Standards Guidelines. It will be based on the initial specification developed in phase 1 and then adjusted according to the results of phase 2. The specification will be accompanied by guidelines on applying the standard specification, to be used when developing tools in GoAs 1.2-1.4.

All partners will contribute to the goals of GoA 1.1 in the areas of their expertise - in preparing respective elements of the deliverable, organising the workshop and acquiring workshop participants.

2,632 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.1

Title of the deliverable

Baltic Open Data Standards Guidelines

37 / 100 characters

Description of the deliverable

This deliverable contains all the specifications for representing Public Open Data and guidelines on how to use these specifications in other project activities. Special care will be taken to provide information on the usage of these standards in different countries across the BSR. The deliverable will be composed of four elements.
1. Specification of standard data structures and formats for use in providing Public Open Data in a dynamic form through APIs. This will include the specification of the structure and relations between APIs' data transfer objects - their attributes, types of the attributes, obligatory and optional elements etc. This specification will be prepared to be compatible with the visual representations (point 2 below).
2. Specification of concrete visual representation for expressing Public Open Data. The representation will allow for visualising data structures and formats in a graphical way. It will also be designed in accordance with best practices for visual notations, assuring good usability and user experience.
3. Specification of standards for provisioning data through APIs. This will include standards for defining, designing and implementing API operations for accessing POD.
4. Guidelines for applying the above specifications in selecting and developing the tools (cf. GoAs 1.2-1.4) and in the pilot cases. They will point out specific practical issues related to the specificity of individual countries. For instance, they will explain how the specifications should be applied to fit within specific legal regulations in each country. The guidelines will also provide notes on the functionality of the tools needed to implement the specifications.

1,700 / 2,000 characters

Which output does this deliverable contribute to?

O2.3 Baltic Public Open Data System

35 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.1: Preparation of the Baltic Open Data Standards						
D.1.1: Baltic Open Data Standards Guidelines						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.2

5.6.1 Group of activities leader

Group of activities leader PP 6 - Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)

A 1.2

5.6.2 Title of the group of activities

Preparation of the Baltic Open Data Provider Toolset

52 / 100 characters

5.6.3 Description of the group of activities

This GoA aims to develop a set of tools that will significantly facilitate the provisioning of Public Open Data. The toolset will be designed for ease of installation, configuration and maintenance, even by less experienced personnel. It will be composed of open-source software tools that various public institutions (e.g. local authorities) can use to build complete platforms for providing their Open Data. The essential characteristic of the toolset will be its ability to provide data dynamically through APIs. It will also be designed to use the Baltic Open Data Standards developed in GoA 1.1. This will assure ease of use and responsiveness of the resulting platforms through the application of advanced visualisation of provided data.

GoA 1.2 will be executed in two phases. In the first phase, the toolset will be designed. We will select available components, determine components that need to be developed and define the architectural blueprints (physical and logical architecture). We will define interfaces between components and their networking. During design, we will consider the workshop results conducted in GoA 1.1 and the resulting standards specification.

In the second phase, we will implement the toolset and provide the associated documentation. This phase will involve the preparation of the development environment, installation of individual components, configuration, and networking and deployment of the tools. Where necessary, appropriate components will be extended with visualisation capabilities as defined in GoA 1.1. During this phase, we will organise a workshop with POD providers. During this joint development workshop, we will review and propose functionalities according to the needs of POD providers. These activities will lead to providing the Baltic Open Data Provider Toolset. Finally, the toolset will be tested. This will consist in developing a test data provisioning platform with the use of the developed toolset. This will assure the readiness of the toolset for the pilot cases to be executed in WP2. All the elements of the toolset will be documented. This will also include the preparation of detailed documentation on the usage of the toolset, accessible even to personnel not experienced in providing POD.

2,268 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.2

Title of the deliverable

Baltic Open Data Provider Toolset

33 / 100 characters

Description of the deliverable

This deliverable will contain several components forming a consistent framework for developing POD provisioning platforms. The toolset software will be ready for use by the personnel of public institutions willing to provide Public Open Data. The software will enable the quick creation of servers equipped with APIs for dynamic access to Public Open Data provided by respective public institutions. It will also contain comprehensive documentation, which will include detailed instructions for using the toolset.

The software tools in this deliverable will allow selecting, installing, configuring, and deploying all the components necessary to set up a complete POD provisioning system. These components will align with the data provisioning standards and data representations developed in GoA 1.1. The deliverable will include necessary links to the individual tools and the documentation that will be made available through the Baltic Open Data Explorer (see GoAs 1.3 and 1.4).

This deliverable will be used in further activities, specifically as part of the respective pilot case in WP2. It will be adjusted in GoA 2.3, following feedback from the pilots. Ultimately, it will become part of the final output, the Baltic Public Open Data System.

1,253 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Public Open Data System

36 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.2: Preparation of the Baltic Open Data Provider Toolset						
D.1.2: Baltic Open Data Provider Toolset						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.3

5.6.1 Group of activities leader

Group of activities leader PP 6 - Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)

A 1.3

5.6.2 Title of the group of activities

Development of the Baltic Open Data Explorer User Interface

59 / 100 characters

5.6.3 Description of the group of activities

The goal of GoA1.3 is to build the means to search, find, assess the suitability, and enable access to Public Open Datasets for the data consumers, including e-service developers. As a result, we will build the Baltic Open Data Explorer (BODE) portal. The User Interface (UI) of BODE will be based on state-of-the-art web technology. It will be based on a data and metadata exploration tool (portal), incorporating a visual user interface and interaction methods. The User Interface will include the visual notation developed as part of the standard in GoA 1.1. BODE UI will allow the users to see the details of the available datasets, explore the data itself, and obtain the software tools to process the data. As an important responsiveness feature, we will provide functionalities in the BODE UI that will allow the submission and management of feedback from POD users.

GoA1.3 will be split into two phases. In phase 1, we will develop the software design blueprints. An Explorer end-user workshop will be held where joint co-creation of the design – use cases, user interaction, scenarios, and user interface elements – will be done. The workshop results will be the primary source for developing detailed design models. Phase 1 of GoA 1.3 will produce the following artefacts – use case model, detailed user interaction scenarios, behavioural model, design of the user interface elements considering best user experience practice, and the component model of the BODE UI software architecture.

In phase 2, we will implement the software. We will code the front-end components using state-of-the-art front-end development and data visualisation frameworks. BODE front-end will incorporate modern data exploration methods, languages, libraries, and tools. BODE front-end components will be interfaced with the backend components of the BODE Engine developed in GoA 1.4. They will also be aligned with the Provider Toolset resulting from GoA1.2. Phase 2 of GoA 1.3 will produce software ready for the pilots to be executed in WP2.

Design and implementation of the BODE UI software will be developed using the best agile and model-driven practices primarily by technical partners (WUT and IMCS UL) with significant involvement of end-users.

2,250 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.3

Title of the deliverable

Baltic Open Data Explorer User Interface

40 / 100 characters

Description of the deliverable

This deliverable will consist of software front-end components of the Baltic Open Data Explorer (BODE) UI, responsible for the communication with the end-users. These components will form a portal where POD users will be able to search, find, assess the suitability, and enable access to Public Open Datasets. The portal will be also equipped with interactive forms for the submission and management of feedback from POD users. The portal will extensively use visual user interface elements and interactive methods. It will provide a state-of-the-art user experience and usability. The front-end will be provided as open-source code and deployed for public access through the Internet.

This deliverable will also consist of software design artefacts (software models, user interface blueprints, etc.) and a software user guide. The guide will provide comprehensive information on how to effectively use the BODE UI, especially for the developers who would like to create new e-services using the provided POD.

Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the BODE User Interface will become a part of the Baltic Public Open Data System (O2.3).

1,320 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Public Open Data System

36 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.3: Development of the Baltic Open Data Explorer User Interface						
D.1.3: Baltic Open Data Explorer User Interface						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.4

5.6.1 Group of activities leader

Group of activities leader PP 1 - Warsaw University of Technology

A 1.4

5.6.2 Title of the group of activities

Development of the Baltic Open Data Explorer Engine

51 / 100 characters

5.6.3 Description of the group of activities

The goal of GoA 1.4 is to develop mechanisms for enabling access to Public Open Datasets by data consumers, including e-service developers. This will result in creating the functionality for programmatic access, search, and exploration of distributed data provided through the use of the Baltic Open Data Provider Toolset developed in GoA 1.2. The BODE Engine will be based on state-of-the-art data processing and storage technologies. It will use metadata synchronisation mechanisms to crawl through the available POD sources and determine their availability and structure. This will be combined with technologies for representing data structures resulting from GoAs 1.1 and 1.2. Moreover, the storage and processing mechanisms will be aligned with the visual representations developed in GoAs 1.1 and 1.3.

GoA 1.4 will be split into two phases. In phase 1, we will develop the software design blueprints. This will consist of the following artefacts – data synchronisation specification, metadata storage specification, structural and behavioural models of the back-end mechanisms, specification of interfaces to the BODE UI and the POD sources, and the component model of the BODE Engine architecture. These artefacts will be aligned with the artefacts resulting from Explorer end-user workshop and other activities held in GoA 1.3.

In phase 2, we will implement the software. We will code the back-end components using state-of-the-art back-end development and data storage and synchronisation frameworks. BODE back-end will incorporate modern methods to store and process metadata and metamodels for visual representations. BODE back-end components will be interfaced with the front-end components of the BODE UI developed in GoA1.3.They will also be aligned with the Provider Toolset resulting from GoA 1.2. Phase 2 of the GoA 1.3 will produce software ready for the pilots to be executed in WP2.

Design and implementation of the BODE Engine software will be developed by the technical partners (WUT and IMCS UL) using the best agile and model-driven practices.

2,074 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.4

Title of the deliverable

Baltic Open Data Explorer Engine

32 / 100 characters

Description of the deliverable

This deliverable will constitute the lower layer, i.e. the software back-end components of the Baltic Open Data Explorer (BODE) Engine, responsible for the communication with the front-end components and the POD sources. These components will contain all the domain logic and storage facilities. This will include mechanisms for synchronisation and status checking with Public Open Data sources, specifically those compatible with the Baltic Open Data Provider Toolset (D1.2). The Engine will also contain components implementing search and exploration mechanisms and a database to store metadata found in POD sources. The Engine will be made available through a dedicated API used by the front-end components (D1.3). It will also contain communication components responsible for accessing various POD APIs. The back-end will be provided as open-source code, and its API will be deployed for public access through the Internet. Access to the API will be secured using modern security mechanisms.

This deliverable will also consist of software design artefacts (software models, data storage models, synchronisation mechanism specifications etc.) and a technical guide. The guide will provide comprehensive information on how to effectively configure and adapt the BODE Engine to cover various POD sources - their API structures and data formats.

Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the BODE Engine will become a part of the Baltic Public Open Data System (O2.3).

1,650 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Public Open Data System

36 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.4: Development of the Baltic Open Data Explorer Engine						
D.1.4: Baltic Open Data Explorer Engine						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 1 Group of activities 1.5

5.6.1 Group of activities leader

Group of activities leader PP 1 - Warsaw University of Technology

A 1.5

5.6.2 Title of the group of activities

Development of the Baltic Open Data Developer Toolset

53 / 100 characters

5.6.3 Description of the group of activities

The goal of GoA 1.5 is to build a toolset that will help innovative software developers (professionals, students, engineers, researchers, prosumers, etc.) develop their software utilising APIs that provide dynamic Public Open Data. As the key element of the toolset, we will create a visual open data description and transformation language. The language will allow transforming visual definitions of POD structures and formats into ready code. The Development Toolset users will be able to define different operations on data using the visual language. Using the language will significantly limit the required level of knowledge of a specific programming language. The ready-to-use code in a selected programming language and framework will be automatically generated and can be easily incorporated into the user's software system.

GoA1.5 will be split into two phases. In phase 1, the visual language will be developed. The development will define abstract and concrete syntaxes and build a graphical editor. In phase 2, we will develop the code generators. These generators will compile specifications expressed in the visual language and turn them into code in the most popular programming languages and frameworks. The language and framework base will be later extended using the feedback gained during WP2 and allow for easy future extensions and updates after the project. We will use best practices and technologies for formal visual language design and implementation in both phases. We will assure good usability of the visual language by even inexperienced software developers.

Design and implementation of the Toolset software will be done using the best agile and model-driven practices by the technical partners (WUT and IMCS UL).

1,747 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 1.5

Title of the deliverable

Baltic Open Data Developer Toolset

34 / 100 characters

Description of the deliverable

The Baltic Open Data Developer Toolset will constitute a framework facilitating the development of data access layers for applications that use Public Open Data. The framework will allow for the automatic generation of code based on the structure of data provided by various open data sources. The application developers will need to specify the data sources using an easy-to-use visual language which then will be turned into code suitable for the selected type of application, programming language, and software development framework.

The Toolset will consist of an integrated development environment for the visual data description and transformation language. It will include a graphical editor, translation (code generation) tools, and comprehensive application programmers' interfaces for easy and unified access to open data sources.

This deliverable will also consist of software design artefacts (software models, language abstract and concrete syntaxes, etc.) and a software user guide. The guide will provide comprehensive information on effectively using the Baltic Open Data Developer Toolset, e.g., incorporating the generated software components into the user's software system. It will be vital for the developers who would like to create new e-services using the Developer Toolset.

Project partners will use this deliverable to prepare and execute pilot cases in the GoA 2.1. Furthermore, we will update this deliverable in the GoA 2.3 according to the results of the pilot cases. After the updates, the Baltic Open Data Developer Toolset will become a part of the Baltic Public Open Data System (O2.3).

1,623 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Open Data System

29 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.1: Preparing solutions						
A.1.5: Development of the Baltic Open Data Developer Toolset						
D.1.5: Baltic Open Data Developer Toolset						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

Work package 2

5.1 WP2 Piloting and evaluating solutions

5.2 Aim of the work package

The aim of this work package is to pilot, evaluate and adjust solutions. Plan one or several pilots to validate the usefulness of the solutions prepared in Work Package 1. Start Work Package 2 early enough to have time to pilot, evaluate and adjust solutions, together with your target groups. By the end of this work package implementation the solutions should be ready to be transferred to your target groups in Work Package 3.
The piloted and adjusted solution should be presented in one project output.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 3 - Lithuanian Innovation Centre

Work package leader 2 PP 4 - Tartu Science Park Foundation

5.4 Work package budget

Work package budget 30%

5.4.1 Number of pilots

Number of pilots 3

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases. 383 / 500 characters	This target group will be engaged within WP2 through active participation in the planned piloting activities. During the pilots, we will engage representatives of public providers of Open Data in opening their datasets to the public by using our tools. We will invite departments responsible for providing open data at selected public institutions. This will include representatives from project partners, associated organisations and public institutions from outside of the consortium. We will reach out to these institutions through contacts already available and collected during preparations for the project. 614 / 1,000 characters
2	Business support organisation This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR. 429 / 500 characters	This target group will be engaged within WP2 through the organisation of the planned pilot cases. This will be done by the business support organisations that are part of the project consortium and are already engaged in project activities. Representatives of these organisations will actively invite and cooperate with public institutions, SMEs, students, innovators and others in conducting the pilots. Business support organisations being part of the project consortium will be engaged in reaching out to various similar institutions outside of the consortium. They will use their contacts in all the countries of the BSR. They will also use their expertise in organising pilot cases with the participation of technology experts and technology users. 754 / 1,000 characters
3	National public authority This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project. 375 / 500 characters	This target group will be engaged in WP2 by supporting collaboration with other target groups (especially local public institutions). This will consist e.g. in contacting various institutions and interested individuals through their communication channels to promote participation in the pilot cases. To assure such engagement, the project partners will reach out to public authorities responsible for managing public data at national levels. This will include contacts already acquired during project preparations, like the Polish central Data Management Department responsible for the "dane.gov.pl" portal. 608 / 1,000 characters

	Target group	How do you plan to reach out to and engage the target group?
4	Small and medium enterprise Various innovative enterprises that use open data sources to develop novel software (web and mobile applications). This target group covers all interested SMEs in all countries of the BSR. 188 / 500 characters	This target group will be engaged within WP2 through participation in the planned pilot cases. During these pilot cases, SMEs will develop new innovative e-services by using the BalticPODS tools (Explorer, Developer Toolset). They will be supported by our technical experts, who will assist in using specific functionalities of the tools. During the pilots, we will invite software developers and innovators from the SMEs to formulate feedback on the tools and their documentation. We will reach out to these enterprises through contacts already available and collected during the project's preparations and through various communication channels within GoA 3.1. 662 / 1,000 characters
5	Higher education and research institution This group includes universities across the whole BSR that conduct Computer Science, Software Engineering and general Engineering courses. The project partnership includes such universities, where their researchers and students will participate in various propagation activities and pilot cases. 295 / 500 characters	This target group will be engaged within WP2 through participation in the planned pilot cases. During these pilot cases, students and researchers will develop new innovative e-services by using the BalticPODS tools (Explorer, Developer Toolset). They will be supported by our technical experts, who will assist in using specific functionalities of the tools. During the pilots, we will invite students and researchers to formulate feedback on the tools and their documentation. In this WP we will engage universities already being part of the project consortium and other such institutions contacted during the project. We will reach out to these institutions through contacts already available and collected during preparations for the project and through various communication channels within GoA 3.1. 805 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
2.1	**Preparation and Execution of Pilot Cases**
2.2	**Evaluation of Pilot Cases**
2.3	**Adjustment of the Baltic Public Open Data System**

WP 2 Group of activities 2.1

5.6.1 Group of activities leader

Group of activities leader PP 3 - Lithuanian Innovation Centre

A 2.1

5.6.2 Title of the group of activities

Preparation and Execution of Pilot Cases

40 / 100 characters

5.6.3 Description of the group of activities

The BalticPODS project requires three pilots, one for each Baltic Open Data System component created in WP1: 1) The Baltic Open Data Provider Toolset, 2) The Baltic Open Data Explorer, 3) The Baltic Open Data Developer Toolset.

The Baltic Open Data Provider Toolset pilot will focus on the Public Open Data (POD) providers, especially local municipalities. The pilot participants will include municipalities from North Karelia, interested Associated Organizations (cities of Riga, Hamburg, Vilnius, municipalities from the Mazovian Voivodship), and other acquired interested municipalities. Jointly, they will test the Open Data Provider Toolset using data they currently provide or would like to start providing.

The pilots for the Baltic Open Data Explorer and the Baltic Open Data Developer Toolset will be partially executed jointly, as both involve the usage of POD. The Explorer will be tested by SMEs and start-ups acquired mostly by the project's business support partners (TSP, LIC, and EurA), and students and researchers acquired mostly by the project's university and communication partners (WUT, IMCS UL, Karelia UAS and MM). The Open Data Explorer will contain data from different Open Data (OD) providers, not limited to the participants of the first (OD Provider Toolset) pilot. Such data sources will include public institutions already providing data like the Mazovian Voivodship or national Open Data portals. The users of the OD Explorer will validate various functionalities of the Explorer, like, e.g. the ease of finding and aggregating metadata on POD from different sources.

The OD Developer Toolset pilot will have similar testing groups, with the main focus on researchers and students acquired by WUT, IMCS UL, and KUAS due to their better acquaintance with beta-testing of software development tools. After the first adjustments in GoA 2.3, the Developer Toolset will be more extensively tested by interested SMEs and start-ups. The pilot will consist in developing various innovative applications with the use of the Toolset and validating its ease of use for inexperienced developers.

The main topic of all the pilots will be data concerning the broad area of Smart City solutions, but it won't be limited to this area only. For each pilot, we plan the involvement of at least five project partners. The technical partners will support the pilot case organizers with the required technical knowledge about the tested tools. The pilots will gather feedback not only by gathering opinions on the solution from the pilot participants but also by directly observing the problems or needs of the people using the tools (e.g. through co-creation activities). All the gathered feedback will be immediately provided to GoA 2.2 for evaluation and will be later used in GoA 2.3.

2,807 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 2.1

Title of the deliverable

Report on the Results of the BalticPODS Pilot Cases

51 / 100 characters

Description of the deliverable

The final report will summarise all the pilots performed in partner countries. It will contain a description of each pilot case. Depending on the piloted solution (OD Provider Toolset, OD Explorer, OD Developer Toolset) it will present information about their domains, provided data types, their usage and application. It will describe how the process of providing or using POD was designed and executed and what e-services (e.g. mobile or web apps) were created based on the provided open data. Together with these descriptions, certain qualitative data will be presented, where particular importance will be given to the effectiveness of data provisioning, accessibility, and ease of use. The report will summarise the input given to GoA 2.2 to evaluate all the processes performed while using the Baltic Public Open Data System.

This document will gather all the collected data and provide material for further improvement of BalticPODS (O2.3) and success stories for communicating the project results in WP3. Demonstration of success stories will serve to propagate the tools in the Transfer stage.

1,105 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Public Open Data System

36 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.1: Preparation and Execution of Pilot Cases						
D.2.1: Report on the Results of the BalticPODS Pilot Cases						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 2 Group of activities 2.2

5.6.1 Group of activities leader

Group of activities leader PP 4 - Tartu Science Park Foundation

A 2.2

5.6.2 Title of the group of activities

Evaluation of Pilot Cases

25 / 100 characters

5.6.3 Description of the group of activities

During this activity, the results and feedback gained during the pilots will be evaluated and strengthened in cooperation with external experts in the respective fields and the project's technology partners. We will organise evaluation workshops which will review experience from GoA 2.1 and formulate initial recommendations for adjustments in GoA 2.3. The workshops will be attended by specialists from project partners, associated organisations, and other institutions interested in supporting the project's results (e.g., Poland's central Data Management Department has expressed its interest in participating in such workshops). The workshops will be organised in parallel to the pilots, and their schedule will depend on the actual pilot case (GoA 2.1) and tool adjustment (GoA 2.3) activities. We plan international online and in-person workshops (in English) and regional in-person workshops (in local languages). The agendas of these workshops will include walk-throughs, practical examples, sample application building (when feasible), brainstorming on tool functionalities and formulation of recommendations.

Similarly to the division of pilots in GoA 2.1, the evaluation will involve three components of the Baltic Public Open Data System (O2.3). In most cases, we will jointly organise evaluation workshops to cover the whole process, from providing POD through exploring data to developing e-services. The results of the evaluation workshops will be regularly summarised in intermediate reports and passed to GoA 2.3 to allow for quick adjustments to the BalticPODS components. This should allow for further evaluation of adjusted versions of the system in further evaluation activities. All the results of the workshops and intermediate reports will be gathered in the final Baltic Public Open Data System Evaluation Report.

1,847 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☑

D 2.2

Title of the deliverable

Baltic Public Open Data System Evaluation Report

49 / 100 characters

Description of the deliverable

This deliverable will be prepared based on the feedback workshop results for all three components: Baltic Open Data Provider Toolset, Baltic Open Data Explorer, and Baltic Open Data Developer Toolset. They will include a summary of activities within the workshops with a detailed list of issues, feedback comments, improvement recommendations, etc. The list will refer to specific features and requirements identified and the changes implemented (if they were feasible and within the project's scope). It will specify which requirements were met and what are the discrepancies. It will also verify if the requirements were understood and if the requested changes were implemented correctly. All the contents of the report will be oriented towards improving the system in the future. It will be used in GoA 2.3 and WP3, especially in GoA 3.3. It will contribute to creating the Durability Plan, which needs to consider possible future changes, updates, and extensions of the Baltic Public Open Data System.

1,005 / 2,000 characters

Which output does this deliverable contribute to?

O2.3. Baltic Open Data System and O3.3 Baltic Open Data System Durability Plan

78 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.2: Evaluation of Pilot Cases				■	■	
D.2.2: Baltic Public Open Data System Evaluation Report					■	

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 2 Group of activities 2.3

5.6.1 Group of activities leader

Group of activities leader PP 1 - Warsaw University of Technology

A 2.3

5.6.2 Title of the group of activities

Adjustment of the Baltic Public Open Data System

48 / 100 characters

5.6.3 Description of the group of activities

The goal of this GoA is to adjust the components of the Baltic Public Open Data System: the Baltic Open Data Provider Toolset (created in GoA 1.2), the Baltic Open Data Explorer (created in GoA 1.3 and GoA 1.4), and the Baltic Open Data Developer Toolset (created in GoA 1.5). These adjustments will be based on feedback and evaluation results from GoA 2.1 and 2.2. The exact scope and focus of these adjustments will be identified during and after executing the pilots and conducting evaluation workshops. The process of adjustments will start with reviewing and updating the design documentation and standards resulting from all the GoAs in WP1. This will be followed by the implementation of adjustments in code leading to improved and extended functionalities of the BalticPODS tools. These updated functionalities will be documented through updating end-user documentation.

We will follow best software development practices from selected agile, iterative methodologies. Adjustments will be implemented in phases, called iterations, based on the priorities received from GoA 2.1 and 2.2. This will allow for a reevaluation of updated versions of the BalticPODS components within consecutive evaluation activities in GoAs 2.1 and 2.2. To allow for such fast and frequent updates, we will maintain constant communication between the technology partners responsible for developing the BalticPODS tools and the pilot case coordinators and workshops organisers. This procedure will ensure the high quality of the final software tools and documentation of output O2.3. The Baltic Public Open Data System.

1,605 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 2.3

Title of the output

Baltic Public Open Data System

30 / 100 characters

Description of the output

The result of this GoA is the main output of the project. The Baltic Public Open Data System will consist of three major components: the Baltic Open Data Provider Toolset (cf. deliverable D1.2), the Baltic Open Data Explorer (cf. deliverables D1.3 and D 1.4), and the Baltic Open Data Developer Toolset (cf. deliverable D1.5). The contents of the output will combine the contents of these three components according to descriptions of D1.2, D1.3, D1.4 and D1.5. The final output will contain final, adjusted versions of the individual components, improved following the evaluation activities.

The output will be provided as a software source code of the three major components stored in an open-source code repository. It will also be accompanied by comprehensive documentation, consisting of design specifications (architectural models, detailed subsystem models), language specifications, and user guides. Moreover, it will also include the standards specifications resulting from GoA 1.1 (Baltic Open Data Standards Guidelines). The central component of BalticPODS - the Baltic Open Data Explorer - will be deployed and made available as a publicly accessible web portal. The other tools (executable versions) and the documentation will be provided for download in the Explorer portal.

When providing the Explorer portal and the included tools and documentation, we will assure their accessibility to different groups of users in all the countries of the Baltic Sea Region. This should allow for sharing and using Public Open Data transnationally across the whole Region. The Baltic Open Data Provider Toolset will use uniform data provisioning standards, thus making data accessible in the same structures and formats in all the countries of the BSR. The Baltic Open Data Explorer will be used to search for Public Open Data without any barriers caused by country borders. This is due to the standardised representation of data regardless of the language and geographical location. The Baltic Open Data Developer Toolset will allow e-service developers to access such Public Open Data without the need to understand the technical details of APIs and without the need to use websites in local languages.

2,214 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Infrastructure and public service provider This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases.	This target group will use the BalticPODS components and documentation to provide their open data to the public. They will use the Baltic Open Data Provider Toolset to develop new or extended capabilities for providing data dynamically accessible through APIs, which is the most preferred way of providing open data. Currently, a significant barrier exists that prevents public institutions (especially smaller ones) from widely publishing their open data this way. The Toolset will significantly reduce the barrier by reducing the qualifications and workload needed to implement a fully professional open data provisioning system. 632 / 1,000 characters
Target group 2 Small and medium enterprise Various innovative enterprises that use open data sources to develop novel software (web and mobile applications). This target group covers all interested SMEs in all countries of the BSR.	This target group will use the BaltiPODS components and documentation to access public open data and develop new innovative e-services (e.g. mobile or web apps). They will use the Baltic Open Data Explorer to search for new opportunities to use Public Open Data (POD) in their business activities. Also, they will use the Baltic Open Data Developer Toolset to develop program code in the applications that need to access POD. Currently, a significant barrier exists that prevents SMEs from producing wider ranges of useful POD-based applications. This barrier is associated with the high qualifications needed to handle heterogeneous data sources available around the BSR. Our tools will significantly reduce the barrier by reducing the qualifications and workload needed to implement fully professional POD e-services. 821 / 1,000 characters
Target group 3 Higher education and research institution This group includes universities across the whole BSR that conduct Computer Science, Software Engineering and general Engineering courses. The project partnership includes such universities, where their researchers and students will participate in various propagation activities and pilot cases.	This target group will use the BaltiPODS components and documentation to access public open data and develop new innovative e-services (e.g. mobile or web apps). They will use the Baltic Open Data Explorer to search for new opportunities to use Public Open Data (POD) in their research and educational activities. Also, they will use the Baltic Open Data Developer Toolset to develop program code in the applications that need to access POD. Currently, a significant barrier exists that prevents SMEs from producing wider ranges of useful POD-based applications. This barrier is associated with the high qualifications needed to handle heterogeneous data sources available around the BSR. Our tools will significantly reduce the barrier by reducing the qualifications and workload needed to implement fully professional POD e-services. 837 / 1,000 characters
Target group 4 Business support organisation This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR.	This target group will use the output O2.3 in their activities to support the development of services to provide and use Public Open Data. They will be able to refer the organisations they support to the Explorer portal to find relevant data and respective tools with documentation. They will also be able to use directly the provided documentation (user guides, training materials) to organise activities for propagating and promoting the use of Public Open Data in their area of activities. 493 / 1,000 characters
Target group 5 National public authority This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project.	This target group will use the output O2.3 in their activities to support the development of services to provide and use Public Open Data at a national level. They will be able to install the software of the Explorer portal as an additional service facilitating the use of POD. They will also be able to use directly the provided documentation (user guides, training materials) to organise activities for propagating and promoting the use of Public Open Data at a national level. 480 / 1,000 characters

Durability of the output

The durability of this output will be assured by implementing the Durability Plan developed in GoA 3.3. In summary, the output will be functioning after the project ends in two ways. First, we will provide all the components of O2.3 (code, executables, documentation) through an open-source repository. The repository will be accessible to everyone interested. Its maintenance using public repository systems will not need additional financing. Second, we plan to collaborate with central data management institutions around the BSR to assure future long-lasting maintenance and development of the main Explorer portal. We will use business models developed in GoA 3.2 to provide necessary resources. As an example, the lead partner plans to use its own resources and collaborate with the Polish governmental Data Management Department to assure the necessary hardware and personnel to administer and further improve the functionality of the BalticPODS components.

966 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.2: WP2 Piloting and evaluating solutions						
A.2.3: Adjustment of the Baltic Public Open Data System						
O.2.3: Baltic Public Open Data System						

5.6.7 This deliverable/output contains productive or infrastructure investment

☐

Work package 3

5.1 WP3 Transferring solutions

5.2 Aim of the work package

In Work Package 3, communicate and transfer the ready solutions to your target groups. Plan at least one year for this work package to transfer your solutions to the target groups, considering their respective needs. Select suitable activities to encourage your target groups to use the solutions in their daily work.
Organise your activities in up to five groups of activities. Describe the deliverables and outputs as well as present the timeline.

5.3 Work package leader

Work package leader 1 PP 5 - EurA AG

Work package leader 2 PP 7 - Karelia University of Applied Sciences Ltd.

5.4 Work package budget

Work package budget 30%

5.5 Target groups

	Target group	How do you plan to reach out to and engage the target group?
1	Infrastructure and public service provider This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases. 383 / 500 characters	This target group will be engaged within WP3 as a target for the planned communication and propagation activities. During various events within this WP, we will engage further representatives of public providers of Open Data external to the project consortium. We will use the experience gained by public institutions engaged already in WP1 and WP2 in opening their datasets to the public by using our tools. We will actively reach out to departments responsible for providing open data at all public institutions around the BSR. We will use various means of communication and engagement like mailings, websites, social media, videos, hackathons, workshops etc. 662 / 1,000 characters
2	Business support organisation This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR. 429 / 500 characters	This target group will be engaged within WP3 as a target for the planned communication and propagation activities. During various events within this WP, we will engage further representatives of business support organisations external to the project consortium. We will use the experience gained by business support organisations engaged already in WP1 and WP2 to support public Open Data usage. We will actively reach out to various business support institutions (public and private) around the BSR. We will use multiple means of communication and engagement like individual contacts, mailings, websites, social media, videos, hackathons, workshops etc. 655 / 1,000 characters
3	National public authority This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project. 375 / 500 characters	This target group will be engaged within WP3 as a target for the planned propagation activities. During the pilots, we will engage representatives of national public authorities responsible for organising access to Public Open Data sources at the respective national levels. We will use the experience gained while contacting such institutions already in activities in WP1 and WP2. We will actively reach out to central data management institutions in all the countries of the BSR. We will use direct means of communication through contacts already established during project preparations and project execution. 613 / 1,000 characters
4	Small and medium enterprise Various innovative enterprises that use open data sources to develop novel software (web and mobile applications). This target group covers all interested SMEs in all countries of the BSR. 188 / 500 characters	This target group will be engaged within WP3 as a target for the planned communication and propagation activities. We will engage further representatives of SMEs during various events within this WP. We will use the experience gained by SMEs engaged already in WP1 and WP2 to develop e-services based on POD. We will actively reach out to the broadest possible range of SMEs (start-ups, software houses etc.) around the BSR. We will use various means of communication and engagement like individual contacts, mailings, websites, social media, videos, hackathons, workshops etc. 579 / 1,000 characters
5	Higher education and research institution This group includes universities across the whole BSR that conduct Computer Science, Software Engineering and general Engineering courses. The project partnership includes such universities, where their researchers and students will participate in various propagation activities and pilot cases. 295 / 500 characters	This target group will be engaged within WP3 as a target for the planned communication and propagation activities. During various events within this WP, we will engage further students and researchers and the institutions they represent (universities, research institutes). We will use the experience gained by those involved already in WP1 and WP2 to develop e-services based on POD. We will actively reach out to the broadest possible range of such institutions and their representatives around the whole BSR. We will use various means of communication and engagement like individual contacts, mailings, websites, social media, videos, hackathons, workshops etc. 665 / 1,000 characters

5.6 Activities, deliverables, outputs and timeline

No.	Name
3.1	**Communication of the Baltic Open Data System**
3.2	**Propagation of the Baltic Open Data System**
3.3	**Development of the Durability Plan**

WP 3 Group of activities 3.1

5.6.1 Group of activities leader

Group of activities leader PP 8 - More Mosaic

A 3.1

5.6.2 Title of the group of activities

Communication of the Baltic Open Data System

44 / 100 characters

5.6.3 Description of the group of activities

Proper communication activities will be crucial for the durability of the BalticPODS project. The users of the created solutions, especially for the Baltic Open Data Explorer and the Baltic Open Data Developer Toolset, are a vast group. Therefore, a significant amount of general communication is required. The users of the Baltic Open Data Provider Toolset will be targeted with more precise communication involving the dissemination of information through internal regional administration channels. Still, it will not be omitted in general communication.

During the initial periods of the project, the main focus will be on building awareness of the three solutions within the Baltic Public Open Data System. The goal of these activities is to attract additional pilot and evaluation workshop participants. The pilots and workshops could potentially be organised without such additional participants. However, additional pilots or evaluators would be beneficial for the overall result of the project.

During the later periods of the project, the communication will be intensified as the BalticPODS tools will be working and available (even if not in the final version). The main goal of this communication will be to interest more parties in using any of the available BalticPODS tools. This will be strongly connected to the GoA 3.2 The Propagation of the Baltic Open Data System by attracting participants to activities organised within this activity (e.g., hackathons). However, at that point, the BalticPODS won't require special training to be used so that interested parties can use it without participation in any events.

To ensure consistent communication about the project from all Project Partners, the Communication Officer will prepare the communication strategy to be used throughout the project. The communication strategy will be adjusted to the project's current needs as described above. The project plans to use its own social media channels and Project Partners' channels (YouTube, Instagram, Facebook, LinkedIn). This will allow us to reach stakeholders both internationally and nationally. With the help of other partners, the Communication Officer will prepare press releases available for all PP to translate and disseminate within their region. Additionally, the communication will be enhanced by special videos prepared by Karelia UAS, which has experience promoting the use of data with high-quality visualisation videos.

These communication activities will produce various materials, like logos, videos, presentations, demos, web pages, social media communications, articles, and programs in popular science and general public media/journals. They will also include papers submitted and presented at major technical conferences and research journals. These materials will be actively managed during the project and finally summarised in the report created at the end of the project.

2,916 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ✔

D 3.1

Title of the deliverable

Baltic Open Data System Communication Report

44 / 100 characters

Description of the deliverable

The Baltic Open Data System Communication Report will summarise and present all the communication activities and various promotional materials created during the project, like logos, presentations, videos, demos, web pages, social media communications, articles, and programs in popular science, research, and general public media/journals. This report will provide insight into the transnational communication strategy developed for BalticPODS. It will share the experience and guidelines on promoting and communicating the BalticPODS in the future within the BSR and beyond. The report will also include the strategy for further communication and raising interest in the BalticPODS solutions beyond the project end. This element is critical for the durability of the main output, i.e. the O2.3 Baltic Open Data System. Thus, the report will directly contribute to the BalticPODS Durability Plan developed in GoA 3.3.

919 / 2,000 characters

Which output does this deliverable contribute to?

O3.3 Baltic Public Open Data System Durability Plan

51 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.1: Communication of the Baltic Open Data System						
D.3.1: Baltic Open Data System Communication Report						

5.6.7 This deliverable/output contains productive or infrastructure investment

WP 3 Group of activities 3.2

5.6.1 Group of activities leader

Group of activities leader PP 5 - EurA AG

A 3.2

5.6.2 Title of the group of activities

Propagation of the Baltic Open Data System

42 / 100 characters

5.6.3 Description of the group of activities

The main goal of this GoA is to actively propagate the components of the Baltic Public Open Data System (BalticPODS) among its possible users. These user groups can be divided into two main categories. The first group is the Public Open Data (POD) providers interested mainly in the Baltic Open Data Provider Toolset and providing information about their data in the Baltic Open Data Explorer. The second group is the POD users interested primarily in using the Baltic Open Data Explorer and the Baltic Open Data Developer Toolset, available from the BalticPODS Explorer portal.

Several action types are planned to propagate the BalticPODS among its potential users. The first type will be the preparation of significantly sized workshops in the form of hackathons targeting young innovators and students. Their primary purpose will be to use the Baltic OD Explorer to invent new ideas for using POD and the Baltic OD Developer Toolset to create the first versions or prototypes of such solutions. Hackathon results will show the possibilities of quickly finding proper POD sources and rapidly developing working applications using POD. The second type of propagation activity will include organising training workshops (both local and international), in most cases focusing on one of the OD Provider Toolset or the OD Developer Toolset. These training workshops will show the benefits of using the Toolsets and teach how to use them during practical sessions. This type will allow approaching the BalticPODS users more directly than the hackathons, which is especially required in the case of the Provider Toolset. The last type of propagation activities will be tightly connected to GoA 3.1 and will cover presentations of BalticPODS or its parts at different conferences, shows, etc. Compared to the workshops, it will focus on presenting the BalticPODS to an international audience. It will emphasise the benefits of the BalticPODS applications without the practical session (just a practical presentation), which is the core element of the hackathons and workshops.

The activities will be started and run in parallel with activities in the last period of WP2. This will allow success stories from pilot cases to attract participants to the workshops and hackathons. Additionally, these activities will involve people that got interested in BalticPODS during activities in WP2 but did not fully commit to participating in piloting and evaluation. They will be able to participate in tutorial workshops using a stable version of the BalticPODS.

These propagation activities will produce various tutorials, workshop agendas, practical session scripts, presentations, and experiences of the presenters and moderators. These materials will be actively managed during the project and finally summarised in the Propagation Guidelines document created at the end of the project. They will ultimately contribute to the Durability Plan of the BalticPODS.

2,954 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☑

D 3.2

Title of the deliverable

Baltic Public Open Data System Propagation Guidelines

53 / 100 characters

Description of the deliverable

Baltic Public Open Data System Propagation Guidelines will summarise all the propagation activities and various materials created and used during the GoA in the form of tutorials, workshop agendas, practical session scripts, and presentations. All the gathered feedback from workshop moderators and presentation speakers will be transformed into uniform guidelines for organizing such workshops or hackathons in the entire BSR and beyond. This experience will contribute to the O3.3 BalticPODS Durability Plan developed in GoA 3.3. Further propagation of the BalticPODS solutions and organization of (possible paid) tutorial workshops or training is important for the durability of the main output, the O2.3 Baltic Open Data System.

732 / 2,000 characters

Which output does this deliverable contribute to?

O3.3. Baltic Public Open Data System Durability Plan

52 / 100 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.2: Propagation of the Baltic Open Data System						
D.3.2: Baltic Public Open Data System Propagation Guidelines						

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

WP 3 Group of activities 3.3

5.6.1 Group of activities leader

Group of activities leader PP 5 - EurA AG

A 3.3

5.6.2 Title of the group of activities

Development of the Durability Plan

34 / 100 characters

5.6.3 Description of the group of activities

The goal of this GoA will be to develop a dedicated Durability Plan for the main output O2.3 The Baltic Public Open Data System (Baltic PODS). The Durability Plan will propose business models for supporting the maintenance and development of the BalticPODS components long after the project ends. These business models will consider the most effective means to provide services based on the three major components of BalticPODS (Provider Toolset, Explorer, Developer Toolset). For instance, currently, several data provisioning platforms (e.g., arxiv.org) are maintained by universities (e.g., Cornell University) and such a scenario will be developed for BalticPODS, involving the lead partner, for example. Moreover, the business models will consider the inclusion of BalticPODS into the current POD provisioning ecosystems (e.g., dane.gov.pl, data.gov.lt, data.europa.eu) across the Baltic Sea Region and beyond. In this GoA, we will also research other aspects of future business activities related to the durability of the BalticPODs solution. It will include the necessary elements integral to any durability plan, such as value propositions, customer relationships, customer segments, communication channels, key partners, key activities, essential resources, cost structures, and revenue streams. The business models will primarily consider scenarios where the BalticPODS solution is provided free of charge to its end-users. However, it will seek various opportunities to find funding sources based on supportive activities such as paid courses and services, for example. It will also include guidelines for finding new business opportunities concerning the BalticPODS solution.

The Durability Plan will also incorporate the experience gained and deliverables prepared in GoAs 2.2, 3.1, and 3.2. Based on these results, we will prepare guidelines for future communication and propagation activities necessary to sustain the BalticPODS systems by attracting new parties and maintaining relations with already established contacts. These guidelines will update the results as provided in the descriptions of D2.2, D3.1, and D3.2.

2,137 / 3,000 characters

5.6.4 This group of activities leads to the development of a deliverable ☐

O 3.3

Title of the output

Baltic Public Open Data System Durability Plan

46 / 100 characters

Description of the output

The Baltic Public Open Data System Durability Plan will be composed of four major elements. The first element will present the business models for sustaining BalticPODS long after the project ends. It will cover such issues as scenarios for continuous maintenance and development of the system, deployment of BalticPODS components by the governing institutions, scenarios for cooperation and building a community around BalticPODS, scenarios for inclusion of BalticPODS into the existing POD ecosystems, value propositions, customer relationships, customer segments, communication channels, key partners, key activities, essential resources, cost structures, and revenue streams. The business models will predominantly cover scenarios where the BalticPODS solution is provided free of charge to its end-users. In relation to this, it will propose various opportunities to find funding sources, based e.g., on supportive activities like paid courses and services. It will also include guidelines for finding new business opportunities in relation to the BalticPODs solution.

The second element of this output will be the evaluation of pilot cases and guidance on the practical application of BalticPODS. This will be based on and extend the deliverable D2.2. The third element will be the communication strategy for BalticPODS results. This will be based on and extend the deliverable D3.1. The final, fourth element will be the propagation guidelines for extending the impact of the BalticPODS solution beyond the project consortium onto the target groups. This will be based on and extend the deliverable D3.2.

1,613 / 3,000 characters

Target groups and uptake of the solution presented in this output

Target groups	How will this target group apply the output in its daily work?
Target group 1 Business support organisation This group includes various private and public institutions that deal with the development and support of public services and specifically with services to provide public open data and build relevant e-services. The project partnership includes such institutions for the organisation of pilot cases, promotion of the project's solution and support in building a community of POD providers and e-service developers around the BSR.	This target group will use the BalticPODS Durability Plan in their activities leading to more efficient support of institutions providing Public Open Data and developing new e-services based on such data. For this, they will use the business models, propagation and communication guidelines contained in the Durability Plan. This way, they will be able to extend the community around POD and support various activities in propagating and promoting BalticPODS and its technologies. 480 / 1,000 characters
Target group 2 National public authority This group covers respective central institutions that are responsible for coordinating activities in the digital economy sector, specifically related to opening public data at the national level. This target group covers such institutions in every country of the BSR. The project has contacted such institutions that have expressed willingness to cooperate with the project.	This target group will use the BalticPODS Durability Plan in their activities leading to more efficient management of new and extended Public Open Data provisioning systems. For this, they will use the business models, propagation and communication guidelines contained in the Durability Plan. This way, they will be able to improve the support of POD providers in their respective countries across the BSR. 407 / 1,000 characters
Target group 3 Infrastructure and public service provider This group includes departments within local and regional public authorities that are responsible for the digitalization and provisioning of various public open data sources. This target group covers all local and regional public authorities in all countries of the BSR. The project partnership includes such institutions as providers of open data sets and organisers of pilot cases.	This target group will use the BalticPODS Durability Plan in their activities leading to the introduction of new and extended Public Open Data provisioning systems. For this, they will use the business models, propagation and communication guidelines contained in the Durability Plan. This way, they will be able to follow best practices for POD provisioning gained and formulated throughout the duration of the project. 420 / 1,000 characters

Durability of the output

The durability of this output will be assured by providing public access to the business models and the propagation and communication guidelines constituting the Durability Plan. The plan will be accessible to everyone interested in applying the BalticPODS tools in their activities related to the provisioning and usage of Public Open Data. Storage and provisioning of the Durability Plan using public repository systems will not need additional financing.

458 / 1,000 characters

5.6.6 Timeline

Period:	1	2	3	4	5	6
WP.3: WP3 Transferring solutions						
A.3.3: Development of the Durability Plan					■	■
O.3.3: Baltic Public Open Data System Durability Plan						■

5.6.7 This deliverable/output contains productive or infrastructure investment ☐

6. Indicators

Indicators

Output indicators				Result indicators		
Output indicators	**Total target value in number**	**Project outputs**	**Please explain how the solution presented in this output serves the target group(s).**	**Result indicator**	**Total target value in number**	**Please explain how organisations in the target groups within or outside the partnership will take up or upscale each solution.**
RCO 84 – Pilot actions developed jointly and implemented in projects	3	N/A	N/A	**RCR 104 - Solutions taken up or up-scaled by organisations**	2	The Baltic Public Open Data System will be actively maintained (taken up and further developed) after the project end, according to the BalticPODS Durability Plan. This is planned to be coordinated by the lead partner with cooperation from an external central institution responsible for managing Public Open Data. All the main solution components (code, executables, documentation) will be placed in an open-source code repository. The repository will be actively used by the development teams organised around the lead partner and involving open-source software developers. It is planned that collaboration will be established with central data management institutions around the BSR to assure future long-lasting maintenance and development of the main Explorer portal. We will use business models developed as part of the Durability Plan to provide necessary resources. As an example, the lead partner plans to use its resources and collaborate with the Polish governmental Data Management Department to ensure the hardware and personnel needed to administer and further improve the functionality of the BalticPODS components. 1,134 / 2,000 characters
RCO 116 – Jointly developed solutions	2	O.2.3: Baltic Public Open Data System	This solution will benefit the target groups by providing a coherent and easy to use system that supports the process of providing, accessing and using Public Open Data for the development of innovative e-services. The system will serve public data providers (public institutions) in more effective installation, configuration and maintenance of their POD provisioning systems based on dynamic APIs. It will also serve SMEs and universities to develop e-services based on POD more effectively, necessitating less effort and programming skills. Other target groups (business support organisations, national public institutions) will be served by enhancing their capacities to support various organisations in their activities related to the provisioning and usage of POD. 774 / 1,000 characters			
		O.3.3: Baltic Public Open Data System Durability Plan	This solution will serve the target groups (business support organisations and national public bodies) by increasing the efficiency of their support given to institutions providing Public Open Data and developing new e-services based on such data. Through the use of business models, propagation and communication guidelines contained in the Durability Plan, they will be able to extend the community around POD and support various activities in propagating and promoting BalticPODS and its technologies. The solution will also serve public service providers in increasing their capacities to provide POD. They will be able to follow best practices for POD provisioning gained and formulated throughout the duration of the project and contained in the Durability Plan. 769 / 1,000 characters			

Output indicators		Result indicators			
Output indicator	**Total target value in number**	**Result indicator**	**Total target value in number**	**Please describe what types of organisations are planned to actively participate in the project. Explain how this participation will increase their institutional capacity. These types of organisations should be in line with the target groups you have defined for your project.**	
RCO 87 - Organisations cooperating across borders	13	**PSR 1 - Organisations with increased institutional capacity due to their participation in cooperation activities across borders**		Project partners and associated organisations	Project partnership will involve three major types of organisations that will increase their institutional capacities. Public institutions (local and regional authorities - 1 project partner and 4 associated organisations) will increase capacities to provide Public Open Data services more effectively, i.e. dynamically, through APIs. They will gain new tools and expertise to install, configure and deploy POD provisioning systems for the benefit of their citizens. Business support and communication organisations (4 project partners and 1 associated organisation) will increase their capacities to support various organisations in their respective countries and beyond. They will gain new expertise in consulting POD providers (public institutions) and POD users (SMEs, start-ups, and individual innovators). Universities (3 project partners) will increase their capabilities in developing tools for Public Open Data and e-services that use POD. They will increase state-of-the-art knowledge in visual representations of POD and mechanisms for effective search and usage of POD. Moreover, they will gain new educational competencies in this field, creating possibilities for new courses and projects and adding value to their students. 1,238 / 1,500 characters
			33	Other organisations	We plan to reach out to several organisations outside of the project partnership. Our rough estimate is that we will engage at least 20 such organisations to participate in project activities actively. However, we plan to engage much more. For this figure, we do not count potential participants in hackathons and presentations. To a significant extent, these other organisations will be of the same three types as described for the project partners and associated organisations. The nature of their increased capacities will be similar. Moreover, some external organisations will represent two other types of organisations. National public institutions will increase their capacities to support various organisations within their countries in the process of providing and using Public Open Data. They will benefit through more effective and faster implementation of national policies to provide POD dynamically (through APIs). SMEs will increase their capacities for developing innovative e-services based on POD. They will gain new expertise in accessing APIs through the BalticPODS tools. They will also gain through reduced effort needed to produce code for accessing POD sources. 1,185 / 1,500 characters

7. Budget

7.0 Preparation costs

Preparation Costs

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

Other EU support of preparatory cost

Did you receive any other EU funds specifically designated to the development of this project application?	No

7.1 Breakdown of planned project expenditure per cost category & per partner

No. & role	Partner name	Partner status	CAT0 - Preparation costs	CAT1 - Staff	CAT2 - Office & administration
1 - LP	Warsaw University of Technology	Active 22/09/2022	24,000.00	376,640.00	56,496.00
2 - PP	Regional Council of North Karelia	Active 22/09/2022	0.00	118,080.00	17,712.00
3 - PP	Lithuanian Innovation Centre	Active 22/09/2022	0.00	197,120.00	29,568.00
4 - PP	Tartu Science Park Foundation	Active 22/09/2022	0.00	164,720.00	24,708.00
5 - PP	EurA AG	Active 22/09/2022	0.00	257,280.00	38,592.00
6 - PP	Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)	Active 22/09/2022	0.00	309,120.00	46,368.00
7 - PP	Karelia University of Applied Sciences Ltd.	Active 22/09/2022	0.00	241,920.00	36,288.00
8 - PP	More Mosaic	Active 22/09/2022	0.00	103,676.00	15,551.40
Total			24,000.00	1,768,556.00	265,283.40

No. & role	Partner name	CAT3 - Travel & accommodation	CAT4 - External expertise & services	CAT5 - Equipment	Total partner budget
1 - LP	Warsaw University of Te	56,496.00	6,500.00	3,500.00	523,632.00
2 - PP	Regional Council of North	17,712.00	15,000.00	0.00	168,504.00
3 - PP	Lithuanian Innovation Cen	29,568.00	37,700.00	1,500.00	295,456.00
4 - PP	Tartu Science Park Foun	24,708.00	23,000.00	0.00	237,136.00
5 - PP	EurA AG	38,592.00	30,500.00	0.00	364,964.00
6 - PP	Institute of Mathematics	46,368.00	1,500.00	3,500.00	406,856.00
7 - PP	Karelia University of Appli	36,288.00	20,000.00	10,000.00	344,496.00
8 - PP	More Mosaic	15,551.40	0.00	0.00	134,778.80
Total		265,283.40	134,200.00	18,500.00	2,475,822.80

7.1.1 External expertise and services

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value
1. Warsaw Universi	Events/meetings	CAT4-PP1-A-0	Organisation of meetings and workshops, including a project event (65 / 100 characters)	No	1.1 1.2 1.3 1.5 2.1 2.2 3.1 3.2	5,000.00
1. Warsaw Universi	Communication	CAT4-PP1-C-0	Participation in external conferences and events (48 / 100 characters)	No	3.1	1,500.00
2. Regional Council	Specialist support	CAT4-PP2-E-0	Participation of external experts in workshops and pilots (57 / 100 characters)	No	1.1 1.3 2.1 2.2 3.2	6,000.00
2. Regional Council	Events/meetings	CAT4-PP2-A-0	Organisation of meetings and workshops, including a project event (65 / 100 characters)	No	1.1 2.1 3.1	6,500.00
3. Lithuanian Innova	National control	CAT4-PP3-F-0	FLC certification (17 / 100 characters)	No	N/A	1,000.00
3. Lithuanian Innova	Events/meetings	CAT4-PP3-A-0	Organisation of meetings and workshops, including organisation of a hackathon (77 / 100 characters)	No	1.1 1.2 1.3 2.1 2.2 3.2	29,500.00
3. Lithuanian Innova	Specialist support	CAT4-PP3-E-0	Participation of external experts in workshops and pilots (57 / 100 characters)	No	1.1 1.2 1.3 1.5 2.1 3.2	7,200.00
4. Tartu Science Pa	Events/meetings	CAT4-PP4-A-0	Organisation of meetings and workshops, including organisation of a hackathon (77 / 100 characters)	No	1.1 1.2 2.1 2.2 3.2	17,000.00
	Total					134,200.00

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
4. Tartu Science Pa	Specialist support	CAT4-PP4-E-0	Participation of external experts in workshops and pilots 57 / 100 characters	No	1.2 2.1 2.2 2.3 3.2 3.3	6,000.00	
5. EurA AG	Events/meetings	CAT4-PP5-A-1	Organisation of meetings and workshops, including organisation of a hackathon 77 / 100 characters	No	2.1 2.2 3.2	20,000.00	
5. EurA AG	Specialist support	CAT4-PP5-E-1	Participation of external experts in workshops and pilots 57 / 100 characters	No	2.1 2.2 3.2	4,500.00	
5. EurA AG	National control	CAT4-PP5-F-1	FLC certification 17 / 100 characters	No	N/A	6,000.00	
6. Institute of Math	Specialist support	CAT4-PP6-E-1	Organisation of meetings and workshops 38 / 100 characters	No	1.4 1.5 2.3	1,500.00	
7. Karelia Universitv	Events/meetings	CAT4-PP7-A-1	Organisation of meetings and workshops, including organisation of a hackathon 77 / 100 characters	No	1.1 1.3 2.1 2.2 3.2	15,000.00	
7. Karelia Universitv	Specialist support	CAT4-PP7-E-1	Participation of external experts in workshops and pilots 57 / 100 characters	No	1.1 1.3 2.1 2.2 3.2	5,000.00	
2. Regional Council	Communication	CAT4-PP2-C-1	Promotional services 20 / 100 characters	No	3.1 3.2	2,500.00	
	Total					134,200.00	

7.1.2 Equipment

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
1. Warsaw Universi	IT hardware and soft	CAT5-PP1-B-0	Computer workstations and software development tools 52 / 100 characters	No	1.2 1.3 1.4 1.5 2.3	3,500.00	
3. Lithuanian Innova	IT hardware and soft	CAT5-PP3-B-0	Computer workstations 21 / 100 characters	No	1.3 2.3	1,500.00	
6. Institute of Math	IT hardware and soft	CAT5-PP6-B-0	Computer workstations and software development tools 52 / 100 characters	No	1.2 1.3 1.4 1.5 2.3	3,500.00	
7. Karelia Universitv	IT hardware and soft	CAT5-PP7-B-0	Newest specialist software for project guidelines and UI design 63 / 100 characters	No	1.1 1.3 2.3	10,000.00	
	Total					18,500.00	

7.1.3 Infrastructure and works

Contracting partner	Group of expenditure	Item no.	Specification	Investment item?	Group of activities no.	Planned contract value	
Please select	Please select	CAT6-PP--01	0 / 100 characters	Please select		0.00	
	Total					0.00	

7.2 Planned project budget per funding source & per partner

No. & role	Partner name	Partner status	Country	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]	State aid instrument
1-LP	Warsaw University of Technology	Active 22/09/2022	PL	ERDF	80.00 %	523,632.00	418,905.60	104,726.40	For each partner, the State aid relevance and applied aid measure are defined in the **State aid section**
2-PP	Regional Council of North Karelia	Active 22/09/2022	FI	ERDF	80.00 %	168,504.00	134,803.20	33,700.80	
3-PP	Lithuanian Innovation Centre	Active 22/09/2022	LT	ERDF	80.00 %	295,456.00	236,364.80	59,091.20	
4-PP	Tartu Science Park Foundation	Active 22/09/2022	EE	ERDF	80.00 %	237,136.00	189,708.80	47,427.20	
5-PP	EurA AG	Active 22/09/2022	DE	ERDF	80.00 %	364,964.00	291,971.20	72,992.80	
6-PP	Institute of Mathematics and Computer Science, University of Latvia (IMCS UL)	Active 22/09/2022	LV	ERDF	80.00 %	406,856.00	325,484.80	81,371.20	
7-PP	Karelia University of Applied Sciences Ltd.	Active 22/09/2022	FI	ERDF	80.00 %	344,496.00	275,596.80	68,899.20	
8-PP	More Mosaic	Active 22/09/2022	SE	ERDF	80.00 %	134,778.80	107,823.04	26,955.76	
Total ERDF						2,475,822.80	1,980,658.24	495,164.56	
Total						2,475,822.80	1,980,658.24	495,164.56	

7.3 Spending plan per reporting period

	EU partners (ERDF)		Total	
	Total	Programme co-financing	Total	Programme co-financing
Preparation costs	24,000.00	19,200.00	24,000.00	19,200.00
Period 1	339,596.00	271,676.80	339,596.00	271,676.80
Period 2	331,260.00	265,008.00	331,260.00	265,008.00
Period 3	400,340.00	320,272.00	400,340.00	320,272.00
Period 4	422,312.00	337,849.60	422,312.00	337,849.60
Period 5	548,850.80	439,080.64	548,850.80	439,080.64
Period 6	409,464.00	327,571.20	409,464.00	327,571.20
Total	2,475,822.80	1,980,658.24	2,475,822.80	1,980,658.24