

1. Identification

Call	Date of submission
R3	08/04/2018

1.1. Project name

Smart Asset Management for district heating distribution 56 / 250 characters

1.2. Project acronym

SAM 3 / 20 characters

1.3. Priority

2. Efficient management of natural resources

1.4. Programme specific objective

2.3 Energy efficiency: To increase energy efficiency based on enhanced capacity of public and private actors involved in energy planning

1.5. Project duration

Contracting start	21/09/2018	Contracting end	31/12/2018
Implementation start	01/01/2019	Implementation end	30/06/2021
		Duration of implementation phase (months)	30
Closure start	01/07/2021	Closure end	30/09/2021

1.6. Summary of the project

It is a big challenge to achieve the Europe2020 goals and beyond; both increase in energy efficiency by 20 %, but also the decrease of CO₂-emissions. Also, the EU the world's largest importer of energy (400 billion EUR which amounts to approximately 53 % of the entire need) will in the upcoming years face vast reinvestment need in the modernization of existing infrastructure, such as DH (District Heating) grids, the leading heating source in the BSR. Many countries are too dependent on Coal and Russian Gas. By reducing the losses in the grid, we can minimize the usage of these fossil fuels and hence phosphor energy efficiency. The Nordic countries have shown that DH system is a tool to reduce fossil fuel dependency, moving into circular/bio economy. DH is also an enabler to more wind and solar power. The main drawback with DH is the capital need, inefficient operation (losses), expressed in economic terms – low return on capital. DH companies, usually city owned, need to attract a new generation of educated employees and more females. In order to solve the challenge described above, to boost DH efficiency, one of the most needed processes will be Smart Asset Management (SAM). SAM will create both environmental benefits for the Baltic Sea region, and more affordable heat for the end customers by using our existing assets and resources longer and more efficiently (fuel and energy saving). The purpose of the project is to develop methods, transnational collaboration processes and knowledge for SAM. The objectives are to:

- Identify barriers and success factors for the development and implementation of SAM, the digitalization of DH Distribution Networks.
- Develop nationally adapted methods for condition monitoring of the DH networks, Best Practice Maintenance Handbooks & Policies and IT-based Fault Reporting and Learning.
- Full utilization of modern ICT-tools for Predictive Maintenance of DH networks.

We have a transnational team of partners covering all competencies needed for success; City owned DH Companies, energy/DH heating member associations for a wider interaction and expert networks (ICT tools, sensors & algorithms, IoT). SAM can be a blueprint for modernization of aging assets in all infrastructure and utility sectors.

2,269 / 3,000 characters

1.7. Summary of the partnership

1.7. Summary of the partnership

The partnership consists of 8 partners:

PP1 – Öresundskraft (SE)

PP2 – SweHeat (SE)

PP3 – Energiföretagen (Swedish DH Association) (SE)

PP4 – LUT (FI)

PP5 – Green with IT from Germany (DE)

PP6 – National Energy Conservation Agency (PL)

PP7 – District Heating Company OPEC Gdynia (PL)

PP8 – Lithuanian DH Association (LT)

Please find a short description below of each partner's core competences

PP1: Öresundskraft is one of the leading DH-companies in Sweden that has prior experience of working with Smart Asset Management. They have done initial tests and implementation in the field and are also experienced in managing collaborative projects.

PP2: SweHeat is Sweden's leading association for district heating technology providers and will add needed knowledge from a know-how perspective on which solutions are available, as well as how they can be implemented to induce energy efficiency through the SAM approach.

PP3: Energiföretagen, formerly the Swedish District Association, is a key partner in setting the framework for the cooperation-models as well as training, education and documentation of experiences.

PP4: LUT is one of the leading actors from a knowledge perspective within the field of Energy Efficiency in DH-grids and they will provide their research knowledge and infrastructure to the project to both implement as well as evaluate solutions.

PP5: Green with IT has vast knowledge and experience in the application of smart IoT solutions and will be a key partner in WP4 for example. They will bring knowledge to the project from a technical perspective as well as collaborative as they are in contact with both application companies as well as technology providers.

PP6: The National Energy Conservation Agency has a strategic role in assessing the technologies and their implementation potential from a business as well technical perspective. They have vast experience from working with EU projects which will also bring value from an administrative perspective.

PP7: OPEC Gdynia will be a key stakeholder as a recipient of the results in the project to apply them in real conditions and implement the SAM concept to improve energy efficiency in their DH-grid. They are also an important communication partner that will use their vast energy company network to promote SAM.

PP8: The Lithuanian District Heating Association will play a vital role in the supporting PP3 to in their work of strategy development and implementation for monitoring systems. They will also use their network to reach DH-companies for the implementation of results to increase the impact in the BSR of SAM.

2,636 / 3,000 characters

1.8. Project Budget Summary

Financial resources [in EUR]		Preparation costs	Planned project budget
ERDF	ERDF co-financing	0.00	1,368,750.00
	Own contribution ERDF	0.00	366,250.00
	ERDF budget	0.00	1,735,000.00
NO	NO co-financing	0.00	0.00
	Own contribution NO	0.00	0.00
	NO budget	0.00	0.00
ENI	ENI co-financing	0.00	0.00
	Own contribution ENI	0.00	0.00
	ENI budget	0.00	0.00
RU	RU co-financing	0.00	0.00
	Own contribution RU	0.00	0.00
	RU budget	0.00	0.00
TOTAL	Total Programme co-financing	0.00	1,368,750.00
	Total own contribution	0.00	366,250.00
	Total budget	0.00	1,735,000.00

1.9. Lead Applicant Declaration

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

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

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

Signature of the Leadpartner

If applicable, stamp of the Lead Partner

Signatory's name









Place and date

Signatory's position

2. Partnership

2.1. Overview: Project Partnership

Project Partners and Reserved Project Partners

Role	Organisation (English)	Organisation (Original)	Country	Partner budget in the project	Preparation costs	Organisation Type
PP 1	Oresundskraft	Öresundskraft	 SE	400,000.00 €	0.00 €	Infrastructure and public service provider
PP 2	SweHeat	SweHeat	 SE	100,000.00 €	0.00 €	Business support organisation
PP 3	Swedenergy	Energiföretagen	 SE	110,000.00 €	0.00 €	Business support organisation
PP 4	Lappeenranta University of Technology	Lappeenranta teknillinen yliopisto	 FI	175,000.00 €	0.00 €	Higher education and research institution
PP 5	green with IT asc.	green with IT e.V.	 DE	275,000.00 €	0.00 €	Small and medium enterprise
PP 6	National Energy Conservation Agency	Narodowa Agencja Poszanowania Energii S.A.	 PL	225,000.00 €	0.00 €	Small and medium enterprise
PP 7	District Heating Enterprise Ltd	Okregowe Przedsiębiorstwo Energetyki Ciepłej Sp. z o.o. w Gdyni	 PL	225,000.00 €	0.00 €	Large enterprise
PP 8	Lithuanian District Heating Association	Lietuvos šilumos tiekėjų asociacija	 LT	225,000.00 €	0.00 €	Business support organisation

Associated Organisations

Role	Organisation (English)	Organisation (Original)	Country	Organisation Type
AO 1	Swedish Embassy in Warsaw	Svenska Ambassaden i Warszawa	 PL	National public authority
AO 2	National Association "Respect for Energy and the Environment"	Stowarzyszenie "Poszanowanie Energii i Środowiska"	 PL	Interest groups including NGOs
AO 3	Energy Audit Union	Zrzeszenie Audytorów Energetycznych	 PL	Interest groups including NGOs
AO 4	Energy Conservation Foundation	Fundacja Poszanowania Energii	 PL	Interest groups including NGOs
AO 5	City of Stockholm	Stockholm Stad	 SE	Local public authority
AO 6	IVL Swedish Environmental Research Institute	IVL Svenska Miljöinstitutet	 SE	Higher education and research institution

2.2 Project Partner Details - Partner 1

Partner Information

Organisation in original language	<input type="text" value="Öresundskraft"/>	13 / 250 characters
Organisation in English	<input type="text" value="Oresundskraft"/>	13 / 250 characters
Department in original language	<input type="text" value="Distribution"/>	12 / 250 characters
Department in English	<input type="text" value="Distribution"/>	12 / 250 characters

Localisation

Address	<input type="text" value="Västra Sandg. 4"/>	16 / 250 characters	Country	<input type="text" value="Sweden"/>
Postal Code	<input type="text" value="25106"/>	5 / 250 characters	NUTS1 code	<input type="text" value="SÖDRASVERIGE"/>
Town	<input type="text" value="Helsingborg"/>	11 / 250 characters	NUTS2 code	<input type="text" value="Sydsverige"/>
Website	<input type="text" value="www.oresundskraft.se"/>	20 / 100 characters	NUTS3 code	<input type="text" value="Skåne län"/>
Organisation identification No.	<input type="text" value="556089-7851"/>			
				11 / 100 characters
Type of register	<input type="text" value="register for legal entities"/>			
				27 / 250 characters

Contact Information

	Legal Representative		Contact Person
Position	<input type="text" value="Strategy and development engineer"/>	33 / 250 characters	<input type="text" value="Strategy and development engineer"/>
Given name	<input type="text" value="Magnus"/>	6 / 250 characters	<input type="text" value="Magnus"/>
Family name	<input type="text" value="Ohlsson"/>	7 / 250 characters	<input type="text" value="Ohlsson"/>
Email	<input type="text" value="magnus.ohlsson@oresundskraft.se"/>	31 / 250 characters	<input type="text" value="magnus.ohlsson@oresundskraft.se"/>
Phone	<input type="text" value="+ 46 424 903 742"/>		<input type="text" value="+ 46 424 903 742"/>
Mobile	<input type="text" value="+ 46 424 903 742"/>		<input type="text" value="+ 46 424 903 742"/>

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="Yes"/>	
Type of partner	<input type="text" value="Infrastructure and public service provider"/>	<input type="text" value="public transport, utility company (water supply, electricity supply, sewage, gas, waste collection, airport, port, railway, etc."/>

2.2 Project Partner Details - Partner 2

Partner Information

Organisation in original language	<input type="text" value="SweHeat"/>	7 / 250 characters
Organisation in English	<input type="text" value="SweHeat"/>	7 / 250 characters
Department in original language	<input type="text" value="N/A"/>	3 / 250 characters
Department in English	<input type="text" value="N/A"/>	3 / 250 characters

Localisation

Address	<input type="text" value="TOFSMESGATAN 15"/>	16 / 250 characters	Country	<input type="text" value="Sweden"/>
Postal Code	<input type="text" value="254 49"/>	6 / 250 characters	NUTS1 code	<input type="text" value="SÖDRA SVERIGE"/>
Town	<input type="text" value="Helsingborg"/>	11 / 250 characters	NUTS2 code	<input type="text" value="Sydsverige"/>
Website	<input type="text" value="www.sweheat.com"/>	15 / 100 characters	NUTS3 code	<input type="text" value="Skåne län"/>
Organisation identification No.	<input type="text" value="769601-7362"/>	11 / 100 characters		
Type of register	<input type="text" value="register for legal entities"/>	28 / 250 characters		

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Chairman of the Board"/>	21 / 250 characters	Position	<input type="text" value="Chairman of the Board"/>	21 / 250 characters
Given name	<input type="text" value="Håkan"/>	5 / 250 characters	Given name	<input type="text" value="Håkan"/>	5 / 250 characters
Family name	<input type="text" value="Knutsson"/>	8 / 250 characters	Family name	<input type="text" value="Knutsson"/>	8 / 250 characters
Email	<input type="text" value="hakan.knutsson@sweheat.com"/>	26 / 250 characters	Email	<input type="text" value="hakan.knutsson@sweheat.com"/>	26 / 250 characters
Phone	<input type="text" value="+ 46 733 347 977"/>		Phone	<input type="text" value="+ 46 733 347 977"/>	
Mobile	<input type="text" value="+ 46 733 347 977"/>		Mobile	<input type="text" value="+ 46 733 347 977"/>	

Partner Description

Legal status	f) Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	
Source of contribution	private	
Is your organisation entitled to recover VAT related to the EU funded project activities?	Yes	
Type of partner	Business support organisation	chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.

2.2 Project Partner Details - Partner 3

Partner Information

Organisation in original language	<input type="text" value="Energiföretagen"/>	15 / 250 characters
Organisation in English	<input type="text" value="Swedenergy"/>	10 / 250 characters
Department in original language	<input type="text" value="Distribution/Fjärrvärme"/>	23 / 250 characters
Department in English	<input type="text" value="District Heating Distribution"/>	29 / 250 characters

Localisation

Address	<input type="text" value="OLOF PALMES GATA 31"/>	20 / 250 characters	Country	<input type="text" value="Sweden"/>
Postal Code	<input type="text" value="11122"/>	5 / 250 characters	NUTS1 code	<input type="text" value="ÖSTRA SVERIGE"/>
Town	<input type="text" value="Stockholm"/>	9 / 250 characters	NUTS2 code	<input type="text" value="Stockholm"/>
Website	<input type="text" value="www.energiforetagen.se"/>	22 / 100 characters	NUTS3 code	<input type="text" value="Stockholms län"/>
Organisation identification No.	<input type="text" value="556104-3265"/>			
				11 / 100 characters
Type of register	<input type="text" value="register for legal entities"/>			
				27 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Senior Advisor Distribution of DH and DC"/>	40 / 250 characters	Position	<input type="text" value="Senior Advisor Distribution of DH and DC"/>	40 / 250 characters
Given name	<input type="text" value="Leif"/>	4 / 250 characters	Given name	<input type="text" value="Leif"/>	4 / 250 characters
Family name	<input type="text" value="Nordengren"/>	10 / 250 characters	Family name	<input type="text" value="Nordengren"/>	10 / 250 characters
Email	<input type="text" value="Leif.Nordengren@energiforetagen.se"/>	34 / 250 characters	Email	<input type="text" value="Leif.Nordengren@energiforetagen.se"/>	34 / 250 characters
Phone	<input type="text" value="+ 46 734 252 558"/>		Phone	<input type="text" value="+ 46 734 252 558"/>	
Mobile	<input type="text" value="+ 46 734 252 558"/>		Mobile	<input type="text" value="+ 46 734 252 558"/>	

Partner Description

Legal status	f) Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	
Source of contribution	private	
Is your organisation entitled to recover VAT related to the EU funded project activities?	Yes	
Type of partner	Business support organisation	chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.

2.2 Project Partner Details - Partner 4

Partner Information

Organisation in original language	<input type="text" value="Lappeenrannan teknillinen yliopisto"/>	35 / 250 characters
Organisation in English	<input type="text" value="Lappeenranta University of Technology"/>	37 / 250 characters
Department in original language	<input type="text" value="LUT School of Business and Management"/>	37 / 250 characters
Department in English	<input type="text" value="LUT School of Business and Management"/>	37 / 250 characters

Localisation

Address	<input type="text" value="P.O. Box20"/>	11 / 250 characters	Country	<input type="text" value="Finland"/>
Postal Code	<input type="text" value="53850"/>	5 / 250 characters	NUTS1 code	<input type="text" value="MANNER-SUOMI"/>
Town	<input type="text" value="Lappeenranta"/>	12 / 250 characters	NUTS2 code	<input type="text" value="Etelä-Suomi"/>
Website	<input type="text" value="https://www.lut.fi"/>	18 / 100 characters	NUTS3 code	<input type="text" value="Etelä-Karjala"/>
Organisation identification No.	<input type="text" value="0245904-2"/>			
		9 / 100 characters		
Type of register	<input type="text" value="Public"/>			
		6 / 250 characters		

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Senior researcher, Adj. professor"/>	34 / 250 characters	Position	<input type="text" value="Researcher"/>	10 / 250 characters
Given name	<input type="text" value="Jukka-Pekka"/>	12 / 250 characters	Given name	<input type="text" value="Igor"/>	4 / 250 characters
Family name	<input type="text" value="Bergman"/>	7 / 250 characters	Family name	<input type="text" value="Dukeov"/>	6 / 250 characters
Email	<input type="text" value="Jukka-Pekka.Bergman@lut.fi"/>	26 / 250 characters	Email	<input type="text" value="Igor.Dyukov@lut.fi"/>	18 / 250 characters
Phone	<input type="text" value="+ 358 504 370 339"/>		Phone	<input type="text" value="+ 358 504 523 191"/>	
Mobile	<input type="text" value="+ 358 504 370 339"/>		Mobile	<input type="text" value="+ 358 504 523 191"/>	

Partner Description

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

2.2 Project Partner Details - Partner 5

Partner Information

Organisation in original language	<input type="text" value="green with IT e.V."/>	18 / 250 characters
Organisation in English	<input type="text" value="green with IT asc."/>	18 / 250 characters
Department in original language	<input type="text" value="N/A"/>	3 / 250 characters
Department in English	<input type="text" value="N/A"/>	3 / 250 characters

Localisation

Address	<input type="text" value="Charlottenstr. 16"/>	17 / 250 characters	Country	<input type="text" value="Germany"/>
Postal Code	<input type="text" value="D-10117"/>	7 / 250 characters	NUTS1 code	<input type="text" value="BERLIN"/>
Town	<input type="text" value="Berlin"/>	6 / 250 characters	NUTS2 code	<input type="text" value="Berlin"/>
Website	<input type="text" value="www.green-with-it.com"/>	21 / 100 characters	NUTS3 code	<input type="text" value="Berlin"/>
Organisation identification No.	<input type="text" value="EU-PIC 925715912"/>			
				16 / 100 characters
Type of register	<input type="text" value="Amtsgericht Berlin Charlottenburg VR VR 33664B"/>			
				47 / 250 characters

Contact Information

	Legal Representative		Contact Person
Position	<input type="text" value="CEO"/>	3 / 250 characters	<input type="text" value="CEO"/>
Given name	<input type="text" value="Jörg"/>	4 / 250 characters	<input type="text" value="Jörg"/>
Family name	<input type="text" value="Lorenz"/>	6 / 250 characters	<input type="text" value="Lorenz"/>
Email	<input type="text" value="Jörg"/>	4 / 250 characters	<input type="text" value="Jörg"/>
Phone	<input type="text" value="+ 491 794 549 780"/>		<input type="text" value="+ 491 794 549 780"/>
Mobile	<input type="text" value="+ 491 794 549 780"/>		<input type="text" value="+ 491 794 549 780"/>

Partner Description

Legal status	<input type="text" value="a) National (governmental), regional and local public authorities"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Small and medium enterprise"/>	<input type="text" value="micro, small, medium enterprises < 250 employees, ≤ 50 MEUR turnover or ≤ 43 MEUR balance sheet total"/>

2.2 Project Partner Details - Partner 6

Partner Information

Organisation in original language	<input type="text" value="Narodowa Agencja Poszanowania Energii S.A."/>	42 / 250 characters
Organisation in English	<input type="text" value="National Energy Conservation Agency"/>	35 / 250 characters
Department in original language	<input type="text" value="n/a"/>	3 / 250 characters
Department in English	<input type="text" value="n/a"/>	3 / 250 characters

Localisation

Address	<input type="text" value="Swietokrzyska 20"/>	16 / 250 characters	Country	<input type="text" value="Poland"/>
Postal Code	<input type="text" value="00-002"/>	6 / 250 characters	NUTS1 code	<input type="text" value="REGION CENTRALNY"/>
Town	<input type="text" value="Warsaw"/>	6 / 250 characters	NUTS2 code	<input type="text" value="Mazowieckie"/>
Website	<input type="text" value="http://www.nape.pl/en"/>	21 / 100 characters	NUTS3 code	<input type="text" value="Masto Warszawa"/>
Organisation identification No.	<input type="text" value="KRS 0000186140"/>			
				14 / 100 characters
Type of register	<input type="text" value="National Court Register (KRS)"/>			
				31 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="President of the Board"/>	22 / 250 characters	Position	<input type="text" value="Vice-President of the Board"/>	27 / 250 characters
Given name	<input type="text" value="Andrzej"/>	8 / 250 characters	Given name	<input type="text" value="Andrzej"/>	8 / 250 characters
Family name	<input type="text" value="Wszniewski"/>	11 / 250 characters	Family name	<input type="text" value="Rajkiewicz"/>	10 / 250 characters
Email	<input type="text" value="awiszniewski@nape.pl"/>	20 / 250 characters	Email	<input type="text" value="arajkiewicz@nape.pl"/>	19 / 250 characters
Phone	<input type="text" value="+ 48 225 054 661"/>		Phone	<input type="text" value="+ 48 225 054 661"/>	
Mobile	<input type="text" value="+ 48 606 608 702"/>		Mobile	<input type="text" value="+ 48 606 499 145"/>	

Partner Description

Legal status	f) Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	
Source of contribution	private	
Is your organisation entitled to recover VAT related to the EU funded project activities?	Partly	
VAT explanation	In accordance to polish TAX law there are two exceptions: 1. Input tax resulting from the purchase of accommodation and catering services is not deductible 2. Input tax resulting from use of company cars in mixed operations 223 / 1,000 characters	
Type of partner	Small and medium enterprise	micro, small, medium enterprises < 250 employees, ≤ 50 MEUR turnover or ≤ 43 MEUR balance sheet total

2.2 Project Partner Details - Partner 7

Partner Information

Organisation in original language	<input type="text" value="Okregowe Przedsiębiorstwo Energetyki Ciepłej Sp. z o.o. w Gdyni"/>	64 / 250 characters
Organisation in English	<input type="text" value="District Heating Enterprise Ltd"/>	31 / 250 characters
Department in original language	<input type="text" value="Pion Dyrektora Eksploatacji"/>	28 / 250 characters
Department in English	<input type="text" value="Operation and Maintenance Department"/>	37 / 250 characters

Localisation

Address	<input type="text" value="Opata Hackiego 13"/>	17 / 250 characters	Country	<input type="text" value="Poland"/>	
Postal Code	<input type="text" value="81-231"/>	6 / 250 characters	NUTS1 code	<input type="text" value="REGION PÓŁNOCNY"/>	
Town	<input type="text" value="Gdynia"/>	6 / 250 characters	NUTS2 code	<input type="text" value="Pomorskie"/>	
Website	<input type="text" value="www.opecgdy.com.pl"/>	18 / 100 characters	NUTS3 code	<input type="text" value="Trójmiejski"/>	
Organisation identification No.	<input type="text" value="Register of National Economy (REGON) - 190563632"/>				48 / 100 characters
Type of register	<input type="text" value="National Court Register (KRS) - 0000047173"/>				42 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="Chairman of the Board"/>	21 / 250 characters	Position	<input type="text" value="Head of EU Contracts Department"/>	31 / 250 characters
Given name	<input type="text" value="Janusz"/>	6 / 250 characters	Given name	<input type="text" value="Joanna"/>	6 / 250 characters
Family name	<input type="text" value="Różalski"/>	8 / 250 characters	Family name	<input type="text" value="Kotowicz"/>	8 / 250 characters
Email	<input type="text" value="j.rozalski@opecgdy.com.pl"/>	25 / 250 characters	Email	<input type="text" value="j.kotowicz@opecgdy.com.pl"/>	26 / 250 characters
Phone	<input type="text" value="+ 48 586 273 800"/>		Phone	<input type="text" value="+ 48 586 273 807"/>	
Mobile	<input type="text" value="+ 48 586 273 800"/>		Mobile	<input type="text" value="+ 48 502 761 889"/>	

Partner Description

Legal status	<input type="text" value="b) Bodies governed by public law"/>	
Source of contribution	<input type="text" value="public"/>	
Is your organisation entitled to recover VAT related to the EU funded project activities?	<input type="text" value="No"/>	
Type of partner	<input type="text" value="Large enterprise"/>	<input type="text" value="more than 250 employees"/>

2.2 Project Partner Details - Partner 8

Partner Information

Organisation in original language	<input type="text" value="Lietuvos šilumos tiekėjų asociacija"/>	35 / 250 characters
Organisation in English	<input type="text" value="Lithuanian District Heating Association"/>	39 / 250 characters
Department in original language	<input type="text" value="N/A"/>	3 / 250 characters
Department in English	<input type="text" value="N/A"/>	3 / 250 characters

Localisation

Address	<input type="text" value="Vito Gerulaičio st. 1"/>	21 / 250 characters	Country	<input type="text" value="Lithuania"/>
Postal Code	<input type="text" value="LT-08200"/>	8 / 250 characters	NUTS1 code	<input type="text" value="LIETUVA"/>
Town	<input type="text" value="Vilnius"/>	7 / 250 characters	NUTS2 code	<input type="text" value="Lietuva"/>
Website	<input type="text" value="http://www.lsta.lt/"/>	19 / 100 characters	NUTS3 code	<input type="text" value="Vilniaus apskritis"/>
Organisation identification No.	<input type="text" value="124361985"/>			
				10 / 100 characters
Type of register	<input type="text" value="register for legal entities"/>			
				27 / 250 characters

Contact Information

Legal Representative		Contact Person			
Position	<input type="text" value="President"/>	9 / 250 characters	Position	<input type="text" value="Expert for marketing"/>	20 / 250 characters
Given name	<input type="text" value="Valdas"/>	6 / 250 characters	Given name	<input type="text" value="Mantas"/>	7 / 250 characters
Family name	<input type="text" value="Lukosevicius"/>	12 / 250 characters	Family name	<input type="text" value="Paulauskas"/>	10 / 250 characters
Email	<input type="text" value="info@sta.lt"/>	12 / 250 characters	Email	<input type="text" value="mantas@sta.lt"/>	14 / 250 characters
Phone	<input type="text" value="+ 37 052 667 025"/>		Phone	<input type="text" value="+ 37 052 667 096"/>	
Mobile	<input type="text" value="+ 37 052 667 025"/>		Mobile	<input type="text" value="+ 37 052 667 096"/>	

Partner Description

Legal status	c) Associations formed by one or several regional or local authorities as defined under a)	
Source of contribution	public	
Is your organisation entitled to recover VAT related to the EU funded project activities?	No	
Type of partner	Business support organisation	chamber of commerce, chamber of trade and crafts, business incubator or innovation centre, business clusters, etc.

3. Strategy

3.1. Challenge to be addressed

The EU faces a big challenge in achieving the Europe2020 goals (both increase in energy efficiency by 20 %, but also the decrease of CO₂ emissions). Another problem is the dependency on coal and gas from Russia. The Energy Union and the Intergovernmental Panel on Climate Change (IPCC) have already stressed the importance of urgency when working with energy efficiency efforts (as described in the Paris Protocol). Not only is the EU the world's largest importer of energy (400 billion EUR which amounts to approximately 53 % of the entire need), but the internal market is also unintegrated at many levels (certain regions being isolated). Even though we face big future challenges, there are several potential fields of improvement when working with the purposed pillars of the Energy Union and the Europe2020 goals. One of these fields will be the future asset management of energy/DH (District Heating) companies and a regional cooperation to increase the integration of DH grids. By increasing awareness among Energy/DH producers on how to more efficiently use their fuel, resources/assets, not only will the EU be able to create a powerful tool for the decrease of primary fuel usage (both for heating and electricity production), but they will also be more agile in their adaption of a change in market needs (deregulation, more energy efficient houses, decentralization of production into smaller units and third party access). Best Class of DH networks have a heat loss of 1-3 % of produced energy, less than 20% turnover of the hot water volume per year and no pipe burst. A poor performing DH network in the BSR is losing 30-40% of produced energy (can be polluting coal fired plants), with 500-800% turnover of the hot water volume and several pipe bursts (caused by corrosion) which can cause death accidents and other consequential damages. SAM is aiming beyond Best Class. Translating the percentages above to a fictive BSR city of 1 million inhabitants will give: Consumption of district heating (80% market share) is 10 000 GWh, equivalent to 0,5-1 billion Euro per year. The reinvestment value of the distribution network is 5 billion Euro. A 10% heat loss is worth more than 50 Million Euro per year. DH is an integration tool for Smart and Sustainable Cities. A challenge is to make DH more efficient, with higher utilization, thus more competitive to supply secure, clean and affordable heating. DH can phase out fossil fuel usage for space heating and tap warm water. The Baltic Region has an opportunity to become the leader in efficient energy utility management and the international cooperation will enable the dialogue of an integrated energy supply system which has proven to be very essential when working with energy security and diversification of fuel sources to reduce the risks and price fluctuations on the energy market in the EU. Even though new technology is essential for this process, working with efficient use of assets and infrastructure will be at least as decisive when allocating existing capital for future investments and new technologies. Connection to the common challenges: EUSBSR: Providing the region with competitive, secure and sustainable energy as stated in PA Energy. EUSBSR: HA Capacity mainly focusing on block B and C where we see a clear connection to activity B5 for example: "...a strategic approach with structured dialogues targeting business, civil society, academia and local/regional authorities (B5)." The HELCOM Baltic Sea Action Plan: Both "Eutrophication" and "Hazardous substances"; natural oxygen levels as well as concentrations of hazardous substances close to natural levels. By using our assets in a more efficient way, fewer pollutants are discharged into the Baltic Sea

3,749 / 6,000 characters

3.2. Transnational value of the project

All European infrastructure need modernization. Railway, roads, telecom, gas and electric power distribution, water and sewage are all global services, benefitting from global innovation and development. District Heating (DH) is the youngest of all the utilities and not yet global. In fact, the BSR is a global center of DH, together with China. DH is identified as a tool to decarbonize global heating supplies. As a global center, BSR has an opportunity by new innovation to modernize (extend life) and take next steps for the next generation fossil fuel free DH. Energy sources can vary, but the DH distribution network are similar. Up to now, each country and actually each city has built, maintained and operated their DH networks. The generic functionality of Smart Asset Management open up for collaboration between the BSR-cities, in the field of DH. There are different solutions/challenges in the participating countries, but today we are most likely to only know our own national challenges/solutions. This creates the issue of not having all sufficient information when working with SAM. By having a cross-national approach, not only can we exchange knowledge to maximize the choice of the most optimal solution at each site, but we also are able to learn from each other's experiences which can inspire us to think in a new way. Practically this will translate to the following in the project: - Accessing technologies and solutions that from all participating countries. By working with SAM, all countries will be able to jointly share this knowledge and have a larger portfolio of solutions at their disposal when working with energy efficiency. - Shared knowledge exchange about how challenges are tackled in other regions and countries with similar DH-setups. By being a part of SAM, partners are able to evaluate other participating countries' solutions to either adopt those measures, or to be inspired of how they can rethink their own approach. - Joint training sessions and workshops to access experts from other countries that could add new insights to your organisation's challenges. - Learning about new business models that are used in the participating countries to assess the potential of implementing them (fully or partially) in your own organization to increase energy efficiency measures. - Accessing and creating transnational guidelines based on international access to knowledge, but adapted to your own local and regional conditions. - Receiving external input on your own organizational priorities from a SAM project context. Could include receiving feedback on how other countries work with attracting younger well-educated personnel as well as what type of energy-efficiency investments you should prioritize given your current development stage.

2,791 / 3,000 characters

3.3. Political and strategic background of the project

European District Heating sector has a significant green and energy efficiency growth potential. Currently, district heat is delivered to millions of end-consumers in more than 5,000 European systems. Recent EU research and policies conclude that district heating has the potential for playing an important role in the future in terms of utilising essential resources such as CHP, geothermal energy, industrial surplus heat, waste and biomass. On the other hand, district heating must co-exist with substantial energy savings and conservation measures in the heat demand that EEB directive is promoting. Consequently, district heating faces a significant challenge in terms of its ability to optimise, re-design and further develop the technological concept in order to decrease losses and create a synergy between conservation and higher efficiencies in production. In accordance with the Europe 2020 strategy, knowledge and innovation are important for fostering competitiveness, drive growth and economic prosperity in an increasingly "smart, sustainable and inclusive Europe". As part of the EU's efforts to create an Innovation Union, it is recognized that the public sector is a major economic force and needs to support innovation, improve the quality of public services, create demand for innovation in the private sector also via public procurement which accounts for a large share of GDP. This requires a coordinated effort to avoid fragmentation of demand. The efforts of the public sector should also be directed towards tackling the grand societal challenges e.g. such as energy security (via energy efficiency solutions). It is also stressed that an active strategy is needed in supporting growth enhancing policies, notably research and innovation. By implementing the SAM approach through innovative products, integrating the project partners into the innovation processes to ensure potential demand and faster market uptake, the project will contribute to the development of a smart approach of creating new business, employment opportunities, drive productivity and prosperity. The project also contributes to the implementation of Horizon 2020, the EU framework programme for Research and Innovation, by applying scientific approaches and research analysis to concrete infrastructure needs, i.e. DH-grids. By involving for example DH-companies, not only into analytical and theoretical parts, but also coupling them to collaborate directly with industry and suppliers of innovative technologies, the project will make better use of Research and Innovation's huge potential from a Smart Asset Management Perspective.

2,639 / 3,000 characters

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

SAM will contribute to the EUSBSR Objective Connect the Region and sub-objective reliable energy markets by:

1. Improve the security of energy supply by minimizing losses in the DH-grid which may cause an increase in the need of alternative fuels that often of fossil dependent.
2. Contribute to economic growth by improving the competitiveness of the region and encourage investments in energy efficiency.
3. Contribute to the overall reduction of greenhouse gas emissions and air pollutant through more efficient energy distribution and action to reduce energy demand because of predictive and preventive SAM maintenance.

SAM will also contribute to the sub-objective "Connecting people in the region" by setting-up new networks and new platforms of cooperation for preventive and predictive maintenance for DH-operators. Another objective that our project will contribute to is "Increase Prosperity" by identify synergies, creating a critical mass of competences in the technical field of DH key and create synergies between current energy efficiency initiatives to improve the innovative capacity among DH-operators and technology providers. PA Energy: The project will contribute to the 2020 energy and climate strategy by minimizing losses in the grid through smart preventive and proactive maintenance by:

1. Developing efficient district heating to improve energy efficiency and security of supply, in accordance with Article 14 of the Energy Efficiency Directive;
2. Preparing national energy efficiency action plans for DH-operators through the project guidelines.
3. Achieving new savings each year for the DH-operators due to a decrease in maintenance and unnecessary repair costs.
4. Providing the region with competitive, secure and sustainable energy.

HA Capacity: SAM will mainly focus on contributing to block B and C where we see a clear connection to activity B5 for example: "...a strategic approach with structured dialogues targeting business, civil society, academia and local/regional authorities (B5)."

2,028 / 3,000 characters

3.5. Seed money support

Did you receive seed money support?

No, we have not received any seed money support from the EUSBSR Seed Money Facility/Baltic Sea Region Programme

3.6. Synergies with projects / other initiatives

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

Yes

Details about former project

SAM has a holistic macro-regional approach as it is based on the result of both previously conducted EU projects as well as national initiatives. The concept was born due to prior experiences where we have seen the asset management as missing link in the approach. This is especially vital when working with expensive long term investments such as grids for energy distribution. The network in SAM has therefore mapped known initiatives and used those experiences when creating the SAM-approach. Examples of previous as well as ongoing initiatives are:

- InnoHeat (interreg SBP, finished)
- Urban Magma (Vinnova, ongoing)
- UBIS (Interreg SBP, ongoing)
- Rensol (interreg BSR, finished)

-Innovationsmiljöer för smarta hållbara städer (Tillväxtverket ERUF Skåne-Blekinge, ongoing)

Having said this though, we aim to also keep an ongoing dialogue with both the joint-technical secretariats of the EU programs in the region and representatives from other institutions (Vinnova for example), as well as with ongoing projects such as UBIS. This will serve three main purposes:

1. An increase in knowledge that may be valuable in SAM in adjunct areas of interest.
2. An expansion of our cooperation network for the implementation and promotion of SAM.
3. A minimization of unnecessary replication of already conducted/created studies/activities that can be directly applied in SAM from other initiatives.

1,396 / 2,000 characters

3.7. Level of cooperation

Joint development

Joint implementation

Joint staffing

Joint financing

3.8. Objectives and results

Programme Level

Programme specific objective

2.3 Energy efficiency: To increase energy efficiency based on enhanced capacity of public and private actors involved in energy planning

Programme Result

2.3 Enhanced capacity of public and private actors involved in energy planning (public authorities, energy agencies, enterprises, NGOs) allowing for increased energy efficiency.

Project Level

No.	Project Objective	Institutional Capacity Dimensions	No.	Project Result
PO1	<p>Smart Asset Management has the objective to increase energy efficiency through enhancement of the participating partners and associated partner through the adoption and implementation Smart Asset Management processes. This will create both environmental benefits for the Baltic Sea Region, and also more affordable energy products for the end customers by using our existing assets and resources more efficiently. When defining assets, it is important to know that it includes infrastructure, but also capital and human resources and the correct usage of all organizational tools at your disposal. The purpose of the project is to develop methods and processes, test innovative technologies and services that will increase organizational capacity among DH-companies and their stakeholders. Knowledge will also be brought in from best-practice industries. The objective is to develop and introduce SAM as a work process for the partners and to initiate permanent BSR transnational ICT supported collaboration around sharing experience. The result will be better operating energy companies that establish long term relations with relevant stakeholders.</p> <p style="text-align: right;">1,150 / 3,000 characters</p>	<p>Enhanced institutionalised knowledge and competence <input checked="" type="checkbox"/></p> <p>Improved governance structures and organisational set-up <input checked="" type="checkbox"/></p> <p>More efficient use of human and technical resources (databases, technical solutions, small infrastructure etc.) <input checked="" type="checkbox"/></p> <p>Better ability to attract new financial resources <input type="checkbox"/></p> <p>Increased capability to work in transnational environment <input type="checkbox"/></p>	R1	<p>A created SAM Baltic Sea Region Partner Network for organizational capacity enhancement where universities, DH companies, technology suppliers and relevant stakeholders (DH associations for example) collaborate to increase energy efficiency through an increased uptake of innovative technologies but also business/management models and predictive maintenance.</p> <p>Developed methodology to make publicly owned organisations more fit/focused on "Smart Asset Management". Adaption of LEAN to specific circumstances is one example.</p> <p>Benchmarking and international knowledge exchange on existing best practices to further learn from adjunct projects/experiences and maximize the impact of the SAM project. Maintenance Handbook, Best Practise and Collaborative Experience Feedback (IT based Fault Reporting) are our tools.</p> <p>Increased Human Resource Development capacity by creating incentives and certifying that new knowledge is being acquired, in order to attract younger well-educated personnel.</p> <p>Implementation of new business models that fit the SAM-approach in order to induce energy-efficiency measures and certify their viability from a technical, social and economic perspective.</p> <p>Analyzed, mapped, tested and evaluated DH-grid monitoring methods, a Predictive & Preventive Maintenance method.</p> <p>A documented and distributed SAM Maintenance manual that describes the processes and methods to promote energy-efficiency through organizational enhancement.</p> <p>Installed and tested demonstrators for SAM technology and solutions. Several external knowledge sharing workshops in the BSR and other European regions.</p> <p>Information sharing of the project in all media channels available with the member association partners and associated partners.</p> <p style="text-align: right;">1,730 / 3,000 characters</p>

Horizontal principles and cross-cutting issues

Horizontal principles

Horizontal Principles	Level of Influence	Description
3.9. Sustainable development	positive	<p>The project will contribute to sustainable development through its main objective by:</p> <ul style="list-style-type: none"> - Enhancing organizational capacity through the SAM-process to meet future challenges that DH-operators face due to the trend of decentralized energy production. The organizational capacity is a key factor when working with energy efficiency in the DH-grid as these measures require a new proactive approach to maintenance. - Promoting new innovative predictive and preventive solutions for maintenance, creating a long term approach to minimize costs and promote systems that have improved energy efficiency performance. This results in substantial savings of water volume which is a key factor from a sustainability perspective for SAM - Implementing training programs and workshops, the project will increase the internal knowledge of personnel which will result in increased willingness (and incentives) to install, test and promote technology that prolongs the life-cycle of the grid, for example through smart sensors. - Creating clear guidelines and incentives for the usage of new business models, organizations that adopt the SAM approach will be able to collaborate with solution providers in a more concrete way in order to mitigate any potential risks associated with the implementation of new cutting-edge innovative technology for increased energy efficiency. - Creating an enabling-policy environment for developing action plans for the SAM energy-efficiency measures of inefficient district heating networks by removing governance barriers and supporting development and implementation of sustainable energy policies and legislation at EU, national, regional and local level. - Overcoming non-technical barriers that prevent investors and stakeholders from improving the performance of inefficient DH networks by preparing the economic business plans through activities that incentivize sustainable energy investments. <p style="text-align: right;">1,923 / 2,000 characters</p>
3.10. Equal opportunities and non-discrimination	neutral	<p>n/a</p> <p style="text-align: right;">3 / 2,000 characters</p>
3.11. Equality between men and women	neutral	<p>n/a</p> <p style="text-align: right;">3 / 2,000 characters</p>

3.12. Cross-cutting issues

Cross-cutting issue	Contribution
<p>5. Climate change adaptation and mitigation</p>	<p>District Heating (DH) is identified in the EU Heating and Cooling Strategy as a tool to reduce CO2 emissions. Climate change will cause a more turbulent weather, not only warmer but also as seen in March 2018 colder, arctic winds in the BSR-region. DH is the most secure and resilient heating system, to provide people with comfort heating in order not to freeze to death. Every year people die from freezing, inside their homes in Europe. The gas network lost pressure and ability to supply during the cold period. The electric power is at the edge of delivery capacity each time it is getting cold.</p> <p>We also have problems with our energy systems in warm periods. A few years ago, the large coal power plants in Southern Poland could not deliver full power due to warm weather and lack of fresh water (for cooling). A system with DH and Combined Heat and Power does not have this risk. The heat is not emitted (contributing to hotter weather), but instead distributed in the DH network.</p> <p>By implementing the SAM project, DH-companies will be able to not only improve their energy-efficiency in the grid, they will also be able to avoid and prevent costly leakages. These leaks are costly from several climate perspectives:</p> <ul style="list-style-type: none"> -Loss of energy/heat. -Loss of water volume in the grid, that may result in pollution of nearby nature and surroundings. -Costly and risky repairs in emergency situations. -Breakdowns and leakages may result in the usage of additional fossil fuels for temporary alternative heat production need during high peak periods of the day.

1,555 / 2,000 characters

4. Activities

Project management and administration

Work package budget

4.1. Description of strategic project management

The project will be managed by a project manager from the Lead beneficiary that will be responsible for running it in accordance to the plan set out in the application. The Project manager will coordinate and report all activities to a steering committee that is represented by one person from each participating partner. The steering committee is responsible for:

- Providing input to the development of SAM
- Evaluating the strategy of the project.
- Giving advice on budget and financially related issues such as reallocation of funds between WPs, BLs.
- Supporting the project in achieving the results.
- Identifying the priorities as well as risks in the project.
- Monitoring the quality of the project and giving advice on strategic decisions.

Please see each partners main responsibilities below in the strategic project management:

Öresundskraft: Being the overall Lead Beneficiary, Öresundskraft will be responsible for the coordination of all steering committee activities and decisions. The project manager will be responsible to communicate all decisions and results to the partners as well as to the JS.

Energiföretagen: Energiföretagen (Swedish District Heating Association) has broad experience of working with manuals and implementation of strategies. It will therefore be their responsibility to be the strategic coordinator for the development of the SAM Manual and all subsequent activities. They will also support the project participants in strategic decisions such as SAM policy integration.

Lappeenranta University of Technology: Being the research partner in the project, LUT will be responsible for all strategies that include evaluation and analysis such as Technical Feasibility Studies, Present Situation Analysis and documentation of experiences. They are also very experienced in EU projects, having taken part in initiatives such as RENSOL for example, which will be valuable for the remaining project partners.

SweHeat: Having vast experience from working with technology providers as well as national publicly funded projects, it will be SweHeat's responsibility to coordinate all activities that are aimed towards the implementation of solutions as well as EU administrative coordination, such as providing clear guidelines to the partners about reporting and supporting them in their FLC certification jointly with Öresundskraft.

Green with IT: GWM will be responsible for all IT-related activities in the project. They will be the key partner in the strategic decisions on how to adopt the ICT toolbox as well as how to further increase the capacity enhancing measures from a data management perspective.

National Energy Conservation Agency: NAPE will be responsible for the coordination of all business model related activities. It is also their responsibility to evaluate and give guidelines on how the models can be adapted to national conditions.

OPEC Gdynia: The responsibility of OPEC Gdynia will be to represent the perspective of a DH-grid operator in the project to certify that the SAM working process and strategy is in line with what the market needs and is able to implement. They will jointly coordinate this with the Lead Partner as well and with the Lithuanian District Heating Association.

Lithuanian District Heating Association: The strategic role of the partner in the project management is to bring in the perspective on how national district heating associations can adopt the SAM strategies to promote them to their members to induce energy efficiency efforts.

3,527 / 4,000 characters

4.2. Description of project content management

The SAM project has discussed the content management jointly prior to submitting this proposal through telephone and Skype to certify that we have a joint view of how the project should be managed. Please see the questions and answers below:

Will the content management team be organized internally or through external support?

The content management team will be mainly organized internally by the Lead Partner. The project participants have concluded that prior to the kick-off meeting, initial discussions and propositions will be held over Skype and telephone. A final decision will then be taken during the kick-off meeting of who should be a part of the team.

How many positions are planned for project coordinator, communication manager and project assistant?

The project team has concluded that there will be one project manager, one project communication officer, one financial manager and three project assistants that represent WP2-WP4. The project manager, communication officer and financial manager will be from the Lead Partner, the assistants from the remaining partnership.

Do we plan to involve any other expert in the project management team?

The project partnership feels comfortable that the internal competences of the team are sufficient to do most of the work internally. What will be needed though, are external competences to support the implementation of the project and key knowledge specific technical fields that may result in certain external support on the management level as well.

How are the work package leaders coordinating the work at a work package level?

Each work package leader will coordinate the work in the work package by having monthly skype meetings with the involved partners for each activity. The work package leader will also create a monthly agenda of which activities should be conducted and by whom as well as their current status (as activities usually take more than a single month to conduct). This work will then be coordinated jointly with the other Work Package leaders and the project manager.

How are the responsibilities for the content work and communication divided between the work package leaders, activity leaders and the lead partner as well as the partners?

The work package leaders are as follows:

WP1 Management – Öresundskraft Sweden

WP2 Strategy development Smart Asset Management (SAM) – LUT Finland

WP3 Training, Knowledge Exchange and Collaboration – NAPE Poland

WP4 Data Driven Predictive Maintenance adoption – Green with IT Germany

Group of Activities A2.1 Development of the SAM concept for capacity enhancement of public District Heating providers and stakeholders – Öresundskraft Sweden

Group of Activities A2.2 Identifying barriers and success factors for the implementation of SAM- Energy Efficiency measures – Lithuanian district heating association, Lithuania

Group of Activities A3.1 Development of Maintenance Practices, Handbooks and Recommendations – Energiföretagen Sweden

Group of Activities A3.2 Development of Digitalized Shared Experience systems (Fault Reporting and performance indicators) between District Heating Companies and their relevant stakeholder networks. – SweHeat Sweden

Group of Activities A4.1 Development and adoption of Predictive Maintenance Data Process and Decision Making algorithms for energy efficiency measures – Green with IT Germany

Group of Activities A4.2 Development and piloting of sensors and ICT-based tools to enhance organizational capacity in order to increase impact of energy efficiency efforts – OPEC Gdynia Poland

All communication is communicated through the group activity leaders to the Work package leaders and then to the PM that jointly with the steering committee and the communication officer integrates all communicative measures.

3,778 / 4,000 characters

4.3. Description of the project financial management

The project financial management and reporting will be lead and coordinated by the Lead Partner. Each partner will appoint a financial manager, who will be responsible for the financial management and reporting of the partner in question. This financial manager prepares reports and discusses budgets and spending together with the project responsible of each partner organization. For each reporting period the financial manager of the project overall collects reports from every partner and compiles them for the reporting of the project as a whole. The financial manager then discusses spending levels and remaining budgets with the project manager, who relates spending to progress. A dialogue may be initiated with partners that need to adjust spending or performance in order for the project to achieve its targets. In case spending or performance need to be adjusted for several partners, work package leaders may need to become involved and adjustments to the activities of partners may have to be made.

1,012 / 4,000 characters

4.4. Financial control system

Please confirm that each partner in your project partnership is aware that project expenditure must be verified by a first level controller.

Please confirm that partners with a decentralised first level control system have reserved sufficient funds in their partner budgets for these controls.

Please confirm each partner is aware it has to identify the costs allocated to the project in its accounting system.

Please confirm that the lead partner and its first level controller will monitor the progress report on finance and activities of each project partner before they are included in the project's progress report that is submitted to the JS.

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

The financial manager will develop a tool for the monitoring of progress and follow up of spending and remaining budgets. This will facilitate budget monitoring and follow up for every partner and it will provide rapid feedback to project management regarding deviations from the project plan. All partners are experienced in tight project accounting controlling. All partners have well proven IT-based business controlling systems, facilitating immediate check of project status. Partners will, peer-to-peer, give feedback to each other on the output of the activities in relation to budget levels.

602 / 2,000 characters

4.6. Internal coordination and communication

The project will be planned and structured from start to finish. Initially project management will develop and document tools for the overall management and monitoring of the project and each work package leader will develop and document tools for the management of each work package. The set of tools will include rules and guidelines for the project overall, financial management tools to facilitate budget monitoring, followup and corrective measures, checklists, and guidelines for each work package. The goal of the project is to develop a partnership and methods that for the long term will be able to implement SAM. For this reason it is not enough to communicate project rules, guidelines, reporting, and the use of checklists at the start of the project. It will be important to continuously update these tools. The rules, guidelines, and reporting routines will be communicated at the first partner meeting at the beginning of the project. Interim project meetings will take place twice a year with the aim to update regarding achievements, discuss the forthcoming activities, challenges, any needs for further adjustments of the timeline and budget. The Project Leader and Communication Manager will on a regular basis arrange Skype meetings in order to approach preselected partner constellations, closely working with each other, and to communicate to the whole partners' network. The use of the tools will also include regular reporting of experiences that give rise to changes or additions to the tools and at future partner meetings there will also be an opportunity to discuss improvements to the tools. It is important that tools are easy to use and that they do not add unnecessary red tape to project activities. The leader of each work package will be responsible for their tools, and the project and financial managers will take responsibility for the overall tools. The project and financial manager will also, at the start of the project, visit partners at their offices in order to discuss project activities and reporting. These visits will be performed at the start of the project. The communication officer will prepare an overall communication strategy for the project and provide partners with messages, templates and manuals as needed. Each partner will also be responsible for communicating their project activities and to represent the project results where they are active. CM will prepare project presentation material for the use of partners and provide guidance and support on communication messages. CM will ensure online presence for the project by updating existing websites as well as create potential new online channels. Project documentation will be collected on the project intranet, which will be set up at the beginning of the project. All project participants will have access to this tool and here we will also be able to communicate progress, discuss important matters, post questions and use it as an archive.

2,965 / 3,000 characters

Work package 2

4.1. Title

Analysis: Strategy development Smart Asset Management (SAM) for energy and capital efficiency

93 / 250 characters

Work package budget

25%

4.2. Aim of the WP

The aim of the WP is to set the structural plan and implementation strategy for SAM in order to be able to pinpoint the most important capacity enhancing processes for the partners to be able to promote energy efficiency in district heating grids. This includes the following main aims:

1. To have a fully developed methodology for Smart Asset Management based on prior experiences and current challenges.
2. To have implemented data driven processes based on the actual improvement potential of energy efficiency measures.
3. To share all knowledge cross-nationally to promote collaboration as well as
4. To set an operational and financial framework for SAM for DH (District Heating) Operators, in the participating countries.
5. To create a common understanding for the operational conditions, priorities, national differences in a DH Company.

In addition to this, the WP aims at raising awareness among participants that an increase in organizational capacity from a holistic perspective (knowledge, resources, access to networks and technology) can benefit their work in achieving increased energy efficiency.

1,118 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Receive input from	DH-companies, DH-associations, municipalities and cities, cleantech-clusters, universities and business organizations
		117 / 1,000 characters
2	Raise awareness among	Media channels, interest groups, public/municipal utility companies
		67 / 1,000 characters
3	Increase knowledge among	DH-companies, DH-associations, municipalities and cities, cleantech-clusters, universities and business organizations
		117 / 1,000 characters

4.4. WP leader

PP 4 - Lappeenranta University of Technology

PP 4 - Lappeenranta University of Technology

4.5. Partner involvement

PP1 – Öresundskraft (SE): WP-leader. The entire internal organization is available as a blueprint for the interaction between SAM and Energy Company organizations. PP1 has a role for testing the SAM concept, from an organizational perspective. PP1 is a leading Swedish Energy Company, active internationally and in national expert committees.

PP2 – SweHeat (SE): PP2 has a wide global perspective and network in the field of DH and energy utilities. PP2 has taken an active role in the Innovation process of the Swedish energy systems. Members of SweHeat are specialist suppliers of SAM knowledge and systems. PP2 have been coordinator of a Strategic Innovation Agenda for DH, in Sweden. They have also interviewed 30 DH operators about their needs and challenges related to asset management, sponsored by Vinnova, Challenge-Driven-Innovation.

PP3 – Energiföretagen (Swedish DH Association) (SE): PP3 is the member organization for Swedish DH operators, more than 200. Their role is to be expert but also get feedback from their Distribution Group of members. This group consists of the most dedicated 20 representatives from the DH operators. PP3 is also member association for Electric Power Producers and Distributors. It is interesting to benchmark with other industries.

PP4 – LUT (FI): The university with their researchers will be active in 2.1.2 Technical Feasibility Studies, including Present Situation Analysis, in 2.2.3. Economic Business Modelling. PP4 will contribute with application of Business Canvas Model.

PP5 – Green with IT from Germany (DE): PP5 have a minor role in this WP. They will get feedback from their members (city owned Stadtwerke – DH operators).

PP6 – National Energy Conservation Agency (PL): PP6 is a national energy agency, with the purpose to save energy. Their contribution in this WP is to broaden the perspective, including City & Energy Company and Building Owner perspective. Especially Housing Associations are owners of heat networks, which need upgrading, to reduce lost energy.

PP7 – District Heating Company OPEC Gdynia (PL): PP7 and PP1 have important roles as city owned energy companies. They will develop, test and verify ideas directly in their internal organization, giving SAM ideas immediate feedback. Both will be the test sites, especially for WP4. PP7 is a leading DH operator in Poland.

PP8 – Lithuanian DH Association (LT): PP8 has an expert role (incl connection to a Business University in Vilnius) but also networking role in the WP. With all members, DH operators in Lithuania they will contribute with knowledge and feedback in this WP. Two national DH associations, PP3, PP8 have a broad overview of their member's (city owned energy companies) needs, challenges and plans.

PP 1 - Öresundskraft
 PP 2 - SweHeat
 PP 3 - Swedenergy
 PP 4 - Lappeenranta University of Technology
 PP 5 - green with IT asc.
 PP 6 - National Energy Conservation Agency
 PP 7 - District Heating Enterprise Ltd
 PP 8 - Lithuanian District Heating Association

2,741 / 3,000 characters

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

The associated organisations will mainly focus on promoting the transnational knowledge exchange activities, give input to the risk analysis, take part and promote the training programs and distribute the documentation.

219 / 3,000 characters

AO 1 - Swedish Embassy in Warsaw
AO 2 - National Association "Respect for Energy and the Environment"
AO 3 - Energy Audit Union
AO 4 - Energy Conservation Foundation
AO 5 - City of Stockholm
AO 6 - IVL Swedish Environmental Research Institute

Activities, outputs and responsibilities

WP 2 Group of activities 2.1

4.13. Group of activities leader

Please select

A 2.1

Title 42 / 250 characters

Description of the group of activities 1,005 / 3,000 characters

State aid relevant?

O 2.1

Output Title 22 / 250 characters

Output Description 311 / 2,000 characters

Main Output

Investment

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

142 / 2,000 characters

4.16. Time line

	A 2.1	O 2.1
Period 1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>

WP 2 Group of activities 2.2

4.13. Group of activities leader

Please select

A 2.2

Title 46 / 250 characters

Description of the group of activities 1,013 / 3,000 characters

State aid relevant?

O 2.2

Output Title 43 / 250 characters

Output Description 361 / 2,000 characters

Main Output

Investment

4.16. Timeline

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

Work package 3

4.1. Title

Training, Knowledge Exchange and Collaboration: Capacitybuilding for Asset- and Maintenance Management to induce sustainable public stakeholder long term strategies

165 / 250 characters

Work package budget

30%

4.2. Aim of the WP

WP 3 has the aim to develop policies, practices and strategies for SAM as well as to promote training programs to increase organizational capacity and to document all work in the form of guidelines and manuals. This includes specific aims such as:

1. Creating a national Maintenance Handbook that includes evaluated condition monitoring methods, documented through common understanding and consensus of best practices for energy efficiency measures by implementing SAM.
2. Developing joint training programs based on project experiences to enhance organizational capacity by working with SAM. Training programs and experiences are also to be promoted at joint external events, for example with EuroHeat and Power.
3. Documenting all experiences to be able to share knowledge externally in order to maximize the impact of the project as well as to certify transferability and sustainability measure. Transferability potential of SAM is very high as many of the methods and processes can be implemented by other public entities, such as Waste Water Treatment Plants that also own large grids with similar challenges as DH-operators encounter.
4. Creating a functioning Fault Reporting and Feedback system in each country that promotes energy efficiency measures for DH-operators.

It is important to also note that the WP approaches the challenges by looking at the organizational potential to unlock currently unavailable capacity by implementing SAM. One example of this is to raise organizational capacity by implementing proactive maintenance methods to prevent future breakdown which are a huge burden on a DH-company and cause DH-grids to become highly inefficient from an energy and resource perspective (losing both energy, but also water for example).

1,761 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Change behaviour of	DH-operators, DH-service stakeholders, technology and service providers 71 / 1,000 characters
2	Change attitude of	Cities, municipalities, DH-associations and universities. 57 / 1,000 characters
3	Raise awareness among	Media and external dissemination networks within relevant business industry networks, i.e. public supply system organizations. 126 / 1,000 characters

4.4. WP leader

PP 6 - National Energy Conservation Agency

PP 6 - National Energy Conservation Agency

4.5. Partner involvement

PP1 – Öresundskraft (SE): PP1 has the role as user of the output, handbook and fault reporting system. PP1 will also be test site for monitoring methods in 3.1.1. PP1 is one of the most experienced energy company in Sweden when it comes to condition based maintenance methods, both for DH and for Power Distribution.
 PP2 – SweHeat (SE): PP2 has a global overview of monitoring methods and will share this knowledge. The member group of PP2 are interested to develop new services and products related to monitoring.
 PP3 – Energiföretagen (Swedish DH Association) (SE): PP3 is WP-leader and key partner in WP3. They are a frontrunner in the field of Capacity Building for their member group, DH operators. WP3 has issued a Maintenance Handbook in 2015, which need to be updated with the new IT tools. The work process and organization to develop the original handbook will be a blueprint for this next and extended version. PP3 has also started to develop a shared national Fault Reporting system, as experience feedback. They will share the experience from user and adm perspective.
 PP4 – LUT (FI): PP4 as a leading university will contribute with pedagogical advises for the printed material and participate in the development of the training programs.
 PP5 – Green with IT from Germany (DE): PP5 is a network of Energy companies, building associations and technology providers. They will follow the WP-work and communicate and get feedback from their members.
 PP6 – National Energy Conservation Agency (PL): PP6 will contribute with their experience and work processes for identifying and estimating energy saving potential in SAM, for DH operators/energy companies and housing associations. With experience from other sectors, PP6 will contribute and develop methodology for the capacity building.
 PP7 – District Heating Company OPEC Gdynia (PL): PP7 and PP1 are critical in the WP, as users of a handbook and fault reporting system. They also have the operational experience of the daily maintenance work and will act as test site.
 PP8 – Lithuanian DH Association (LT): PP8 will evaluate and decide to develop their own Maintenance Handbook and Fault Reporting system, jointly with PP3 and PP6. Members of PP8 will test monitoring methods and contribute to the capacity building.

PP 1 - Oresundskraft
 PP 2 - SweHeat
 PP 3 - Swedenergy
 PP 4 - Lappeenranta University of Technology
 PP 5 - green with IT asc.
 PP 6 - National Energy Conservation Agency
 PP 7 - District Heating Enterprise Ltd
 PP 8 - Lithuanian District Heating Association

2,282 / 3,000 characters

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

The associated organisations will promote the training programs through their networks, disseminate the documentation and give input to the guidelines for Fault and System Performance Reporting systems in activity 3.2.3.

220 / 3,000 characters

AO 1 - Swedish Embassy in Warsaw
AO 2 - National Association "Respect for Energy and the Environment"
AO 3 - Energy Audit Union
AO 4 - Energy Conservation Foundation
AO 5 - City of Stockholm
AO 6 - IVL Swedish Environmental Research Institute

Activities, outputs and responsibilities

WP 3 Group of activities 3.1

4.13. Group of activities leader

Please select

A 3.1

Title 57 / 250 characters

Description of the group of activities 1,113 / 3,000 characters

State aid relevant?

O 3.1

Output Title 39 / 250 characters

Output Description 230 / 2,000 characters

Main Output

Investment

4.16. Timeline

	A 3.1	O 3.1
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 4	<input type="checkbox"/>	<input type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>

WP 3 Group of activities 3.2

4.13. Group of activities leader

Please select

A 3.2

Title 57 / 250 characters

Description of the group of activities 947 / 3,000 characters

State aid relevant?

O 3.2

Output Title 37 / 250 characters

Output Description 502 / 2,000 characters

Main Output

Investment

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

73 / 2,000 characters

4.16. Time line

	A 3.2	O 3.2
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Period 5	<input type="checkbox"/>	<input type="checkbox"/>

Work package 4

4.1. Title

SAM Implementation: Data Driven Predictive Maintenance adoption to promote energy efficiency through ICT-based systems

118 / 250 characters

Work package budget

30%

4.2. Aim of the WP

The aim of WP 4 is to implement the experiences from the project from a practical perspective. The work package focuses on the implementation of ICT-based systems implemented for energy efficiency by using tools to enhance the DH-operators capacity. This is achieved by:

1. Mapping the required generic system integrations for SAM and listing organizational requirements for SAM.
2. Conducting discussions with external stakeholders to create work processes and collaboration models that are adaptable and agile in their approach to meet end-customer demands.
3. Implementing fully developed demonstrators that are monitored and evaluated.
4. Creating data analysis algorithms with integration to actual condition of the network.
5. Developing Digitalized Decision Support Guidelines.

By implementing WP4, SAM will be able to prove the viability of the long term strategy in order to promote energy efficiency through ICT-based systems. By integrating the experiences from WP 2 and WP 3 and promoting data driven algorithms, SAM will aim to demonstrate how the approach is implemented from the initial analysis (WP 2), enhanced capacity measures (WP 3) and practical working processes in WP4.

1,194 / 2,000 characters

4.3. Communication strategy in WP

No.	Communication aim	Target group(s)
1	Change behaviour of	DH-operators and their stakeholder networks that work with maintenance issues on the DH-grid. 93 / 1,000 characters
2	Increase knowledge among	Cities, municipalities, technology providers and public utility companies. 74 / 1,000 characters
3	Raise awareness among	DH-associations and DH-business networks. 41 / 1,000 characters

4.4. WP leader

PP 5 - green with IT asc.

PP 5 - green with IT asc.

4.5. Partner involvement

PP1 – Öresundskraft (SE): PP1 is one of two test sites, for fully implementation of a Demonstrator for Predictive Maintenance system. PP1 has worked with new modern Predictive Maintenance tools for several years, prototype testing of various type, in a Vinnova-sponsored "Challenge-Driven-Innovation"-project for DH and Drinking Water pipes.
 PP2 – SweHeat (SE): PP2 is contributing with the global outlook & trends and finding of required specialized tech suppliers. PP2 has active collaboration with Research Centers in several countries. PP2 has led a feasibility study and inquiry analysis to more than 20 energy companies in Sweden, Germany and Poland.
 PP3 – Energiöretagen (Swedish DH Association) (SE): The Distribution group (20 specialists from DH operators) are involved as reference and support in the development of the Demonstrators. The result from the Demonstrators will be presented at a EuroHeat & Power conference and also in national workshops.
 PP4 – LUT (FI): PP4 will contribute with a Research-perspective, develop understanding of the current backend systems and the current user interfaces. PP4 will also design the architecture of sensor data integration to share data pool or ledger, API integrations to blockchain (distributed ledger technology DLT). Important for economic growth in the Baltic Sea is the finding of new service and business models based on shared data.
 PP5 – Green with IT from Germany (DE): WP leader, with a lot of experience of collaborative IT development of building automation, energy savings in City Blocks.
 PP6 – National Energy Conservation Agency (PL): PP6 will follow the WP work and contribute with experience from end user perspective and verify the need of polish DH operators. PP6 has a special task to distribute knowledge not only to energy companies, but also to Housing Associations, who have their own heat networks. Usually these networks are in a poor shape, leaking huge amount of hot water.
 PP7 – District Heating Company OPEC Gdynia (PL): PP7 is the test site for one of the demonstrators for predictive maintenance. The need, requirements and feedback from the internal operational organization is crucial for the development and verification of the demonstrator.
 PP8 – Lithuanian DH Association (LT): PP8 follows the WP and interact with its members in order give feedback for the development of the demonstrators and to prepare national training sessions.

PP 1 - Öresundskraft
 PP 2 - SweHeat
 PP 3 - Swedenergy
 PP 4 - Lappeenranta University of Technology
 PP 5 - green with IT asc.
 PP 6 - National Energy Conservation Agency
 PP 7 - District Heating Enterprise Ltd
 PP 8 - Lithuanian District Heating Association

2,429 / 3,000 characters

4.6. Reserved partner involvement

0 / 3,000 characters

4.7. Associated organisations involvement

The associated organisations will help to identify management systems, supply us with their own tools for evaluating organisational capacity and promote the demonstrator cases in the project.

191 / 3,000 characters

AO 1 - Swedish Embassy in Warsaw
AO 2 - National Association "Respect for Energy and the Environment"
AO 3 - Energy Audit Union
AO 4 - Energy Conservation Foundation
AO 5 - City of Stockholm
AO 6 - IVL Swedish Environmental Research Institute

Activities, outputs and responsibilities

WP 4 Group of activities 4.1

4.13. Group of activities leader

Please select

A4.1

Title 52 / 250 characters

Description of the group of activities 1,314 / 3,000 characters

State aid relevant?

O4.1

Output Title 47 / 250 characters

Output Description 378 / 2,000 characters

Main Output

Investment

4.16. Time line

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

WP 4 Group of activities 4.2

4.13. Group of activities leader

Please select

A 4.2

Title 38 / 250 characters

Description of the group of activities 953 / 3,000 characters

State aid relevant?

O 4.2

Output Title 15 / 250 characters

Output Description 443 / 2,000 characters

Main Output

Investment

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

87 / 2,000 characters

4.16. Time line

	A 4.2	O 4.2
Period 1	<input type="checkbox"/>	<input type="checkbox"/>
Period 2	<input type="checkbox"/>	<input type="checkbox"/>
Period 3	<input type="checkbox"/>	<input type="checkbox"/>
Period 4	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Period 5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

5. Output indicators

5.1. Obligatory output indicator

Number	Obligatory output indicator	Description
O1	Documented learning experience	<p>The most important learning experience in the project will evolve around the SAM approach and methodology. The project aims to develop training methods and joint international documented workshops on the preparation, implementation and follow up of working with SAM for energy efficiency measures. The learning experience will include areas of importance such as:</p> <ul style="list-style-type: none"> -Network needed to create implement SAM - -Legislation and the need for public procurement preparation. -Ownership. -End-user involvement. -Operation. -Financing. -Potential of Public-Private partnerships. -Handbook for condition based maintenance -Fault Reporting system, prototype for collaborative sharing of experience by hundred of cities <p>All of the training methods will be documented by the participants for the distribution of external stakeholders to ensure that the experiences from the project are spread in the Baltic Sea Region.</p>

931 / 1,000 characters

5.2. Project specific output indicators

Number	Output indicator	Mark in case output indicator not relevant	Description	Target value in number
P1	No. of local/regional public authorities/institutions involved	<input type="checkbox"/>	<p>The involved authorities are Öresundskraft, OPEC Gdynia and Green with IT.</p>	3
P2	No. of national public authorities/institutions involved	<input type="checkbox"/>	<p>The involved authorities are NAPE, LUT, SweHeat, Energiföretagen and the Lithuanian DH Association.</p>	5
P3	No. of enterprises receiving support	<input checked="" type="checkbox"/>		0
P4	No. of enterprises receiving non-financial support	<input type="checkbox"/>	<p>The project will involve approximately 50 enterprises in the activities. The main activities for enterprises will be to work with providing technological solutions in and to be involved in the implementation. They will also be a part of the evaluation of the demonstrators as well as promote the results/solutions.</p>	50
P5	No. of enterprises cooperating with research institutions	<input checked="" type="checkbox"/>		0
P6	No. of documented newly developed market products and services	<input type="checkbox"/>	<p>SAM Methodology manual in WP2, Digitalized Shared Experience systems (Maintenance Handbook, Fault Reporting and performance indicators) in WP3 and a SAM ICT Toolbox in WP4.</p>	3
P7	Amount of private investments matching public support in innovation or R&D projects	<input checked="" type="checkbox"/>		0
P8	Amount of documented planned investments to be realised with other than the Programme funding	<input checked="" type="checkbox"/>	<p>Öresundskraft will invest 2 mln EUR in condition monitoring systems for predictive maintenance during the project.</p>	2,000,000

6. Budget

6.1 External expertise and services

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
1	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	1. Oresundskraft	5,000.00	Bid-at-three
2	Consultant for activity implementation support 47 / 100 characters	No	2.1, 2.2, 3.1, 3.2, 4.1 and 4.2	1. Oresundskraft	15,000.00	Bid-at-three
3	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	2. SweHeat	5,000.00	Bid-at-three
4	Consultant for activity implementation support 47 / 100 characters	No	2.1, 2.2, 3.1, 3.2, 4.1 and 4.2	2. SweHeat	16,000.00	Bid-at-three
5	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	3. Swedenergy	5,000.00	Bid-at-three
6	External technical support for Development of Maintenance Practices, Handbooks and Recommendations 99 / 100 characters	No	3.1	3. Swedenergy	13,000.00	Bid-at-three
7	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	4. Lappeenranta University of Technology	5,000.00	Bid-at-three
8	External expertise to WP 2 Strategy development 47 / 100 characters	No	2.1 and 2.2	4. Lappeenranta University of Technology	5,000.00	Bid-at-three
9	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	5. green with IT asc.	5,000.00	Bid-at-three
10	External expertise to WP 4 Data Driven Predictive Maintenance adoption 71 / 100 characters	No	4.1 and 4.2	5. green with IT asc.	50,000.00	Limited national tender
11	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	6. National Energy Conservation Agency	5,000.00	Bid-at-three
12	External expertise for implementing and coordinating WP4 56 / 100 characters	No	4.1 and 4.2	6. National Energy Conservation Agency	16,000.00	Bid-at-three
13	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	7. District Heating Enterprise Ltd	5,000.00	EU-wide tender
14	External expertise to pilot sensors and ICT-based tools 56 / 100 characters	No	4.2	7. District Heating Enterprise Ltd	14,000.00	Bid-at-three
15	Meeting and conference costs 28 / 100 characters	No	2.1, 3.1 and 3.2	8. Lithuanian District Heating Association	5,000.00	Bid-at-three
16	External expertise to Identifying barriers and success factors for Energy Efficiency measures 94 / 100 characters	No	2.2	8. Lithuanian District Heating Association	17,000.00	Bid-at-three
	Total				192,000.00	

Item No.	Contract specification	Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
17	FLC Cost <small>8 / 100 characters</small>	No	2.1, 2.2, 3.1, 3.2, 4.1 and 4.2	5. green with IT asc.	3,000.00	Bid-at-three
18	FLC Cost <small>8 / 100 characters</small>	No	2.1, 2.2, 3.1, 3.2, 4.1 and 4.2	8. Lithuanian District Heating Association	3,000.00	Bid-at-three
Total					192,000.00	

6.2 Equipment

Item No.	Category		Investment item?	Group of activities no.	Contracting partner	Planned contract value	Planned award procedure
	Category	Additional Specification					
1	<input type="text" value="Please select"/>	<input type="text"/> 0 / 100 characters	<input type="text" value="Select"/>		<input type="text" value="Please select"/>	<input type="text" value="0.00"/>	<input type="text" value="Please select"/>
	Total					<input type="text" value="0.00"/>	

There is no investment selected.

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









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

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

Partner	BL1 - Staff costs	BL2 - Office & administration	BL3 - Travel & accommodation	BL4 - External expertise & services	BL5 - Equipment	BL6 - Infrastructure & works	BL7 - Specific project activities	Total project budget
PP 1 - Oresundskraft	320,000.00	48,000.00	12,000.00	20,000.00	0.00	0.00	0.00	400,000.00
PP 2 - SweHeat	61,000.00	9,150.00	8,850.00	21,000.00	0.00	0.00	0.00	100,000.00
PP 3 - Swedenergy	70,000.00	10,500.00	11,500.00	18,000.00	0.00	0.00	0.00	110,000.00
PP 4 - Lappeenranta University of Technology	132,500.00	19,875.00	12,625.00	10,000.00	0.00	0.00	0.00	175,000.00
PP 5 - green with IT asc.	180,500.00	27,075.00	9,425.00	58,000.00	0.00	0.00	0.00	275,000.00
PP 6 - National Energy Conservation Agency	166,500.00	24,975.00	12,525.00	21,000.00	0.00	0.00	0.00	225,000.00
PP 7 - District Heating Enterprise Ltd	169,500.00	25,425.00	11,075.00	19,000.00	0.00	0.00	0.00	225,000.00
PP 8 - Lithuanian District Heating Association	164,500.00	24,675.00	10,825.00	25,000.00	0.00	0.00	0.00	225,000.00
Total	1,264,500.00	189,675.00	88,825.00	192,000.00	0.00	0.00	0.00	1,735,000.00

There is no state aid relevant activity selected.

6.7 Planned project budget per funding source & per partner

Partner	Country	Legal status	Funding source	Co-financing rate [in %]	Total [in EUR]	Programme co-financing [in EUR]	Own contribution [in EUR]
PP 1 - Oresundskraft	 SE	National (governmental), regional and local public authorities	ERDF	75.00%	400,000.00	300,000.00	100,000.00
PP 2 - SweHeat	 SE	Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	ERDF	75.00%	100,000.00	75,000.00	25,000.00
PP 3 - Swedenergy	 SE	Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	ERDF	75.00%	110,000.00	82,500.00	27,500.00
PP 4 - Lappeenranta University of Technology	 FI	Bodies governed by public law	ERDF	75.00%	175,000.00	131,250.00	43,750.00
PP 5 - green with IT asc.	 DE	National (governmental), regional and local public authorities	ERDF	75.00%	275,000.00	206,250.00	68,750.00
PP 6 - National Energy Conservation Agency	 PL	Bodies having legal personality, but not fulfilling criteria i and/or iii under category b)	ERDF	85.00%	225,000.00	191,250.00	33,750.00
PP 7 - District Heating Enterprise Ltd	 PL	Bodies governed by public law	ERDF	85.00%	225,000.00	191,250.00	33,750.00
PP 8 - Lithuanian District Heating Association	 LT	Associations formed by one or several regional or local authorities as defined under a)	ERDF	85.00%	225,000.00	191,250.00	33,750.00
Total ERDF					1,735,000.00	1,368,750.00	366,250.00
Total					1,735,000.00	1,368,750.00	366,250.00

6.8 Spending Plan - per reporting Period

	EU partners (ERDF)	Total
Period 1 [Month 1-6]	325,000.00	325,000.00
Period 2 [Month 7-12]	390,000.00	390,000.00
Period 3 [Month 13-18]	390,000.00	390,000.00
Period 4 [Month 19-24]	340,000.00	340,000.00
Period 5 [Month 25-30]	290,000.00	290,000.00
Total	1,735,000.00	1,735,000.00

6.9 Net-revenues

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

7. Preparation costs

7.1 Preparation Costs

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