WORK PROGRAMME ENTRY TEMPLATE

for the 2018 revision of the ISA^2 Work Programme

JOINING UP GOVERNMENTS

1.1 EUROPEAN LOCATION INTEROPERABILITY SOLUTIONS FOR E-GOVERNMENT (ELISE) (2016.10)

1.1.1 IDENTIFICATION OF THE ACTION

Service in charge	EC Joint Research Centre (JRC)
Associated Services	DIGIT, CNECT, ENV, ENER, MOVE, ESTAT, AGRI, SANCO
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1.1.2 EXECUTIVE SUMMARY

Location information underpins policy assessment, digital services and applications for public administrations, businesses and citizens. However, interoperability barriers hinder the optimal performance of underlying ICT ecosystems and obstruct the creation of economic value of location information. Although the PSI and INSPIRE Directives and ISA Programme have started to remove interoperability barriers, more needs to be done to reach the potential of location information, supporting Digital Single Market (DSM) Strategy goals. To address this need, the European Location Interoperability Solutions for e-Government (ELISE) Action is a package of solutions facilitating efficient and effective electronic cross-border or cross-sector interactions between European public administrations, citizens and businesses, in the domain of location information and services.

In 2018, ELISE will focus on location interoperability in the context of digital government transformation and will support improvements in key areas. It will consolidate its Geo Knowledge Base Service with reusable solutions, applications, pilots and a new series of studies on digital government transformation, thus building upon the action's 2016 and 2017 outputs.

Specifically, the Geo Knowledge Base Service will share best practices and respond to stakeholders' requests. It will be enriched by several ongoing and future studies, with pilots and applications helping to understand further the current enablers and barriers to location interoperability. The service will also include continuous monitoring, horizon-scanning and cataloguing of ICT practices and technical developments for the sharing and reuse of location data, information and services. In addition, stakeholders will also be consulted (e.g. through surveys, interviews and workshops) to ensure reusable solutions are user-centric and to explore digital transformation in practice.

Among other benefits, the Service will aid public administrations implementing the INSPIRE Directive, as well as policy makers and application developers interested in using its content and/or approach for environmental policy or other domains/initiatives. It will support DIGIT in their assessment of ICT implications of EU legislation (as part of EC Better Regulation objectives) where location information and associated processes are relevant. It will also share evidence and best practices and benchmark developments across Europe by operating an observatory, complementing DIGIT's work on the National Interoperability Framework Observatory (NIFO) Action supported by a network of experts. The Service will also contain training packages to help the EC and Member States build capacity, alongside wider communication and engagement activities for awareness-raising and the uptake of results.

1.1.3 OBJECTIVES

ELISE aims to provide location-related solutions for all four levels of the EIF. It supports the ISA^2 Programme's basic objective to identify, create and operate interoperability solutions implementing Union policies. It will remove barriers to the sharing and reuse of location information in Europe, and build more effective interactions and online services between public administrations, citizens and businesses. ELISE will promote a holistic approach towards 'location interoperability' by contributing to the assessment of ICT implications of EU legislation; identifying legislation gaps, supporting stakeholders in all stages of the policy cycle and understanding the role of location information in the digital transformation of public administrations.

1.1.4 SCOPE

In scope:

a) Evaluate the role of location information in the digital transformation of government;
b) Establish a Geo Knowledge Base Service for ISA^2 Programme stakeholders;
c) Provide guidance based on findings from different Action outputs, alongside inputs from stakeholders;
d) Develop pre-operational 'common services' for decision-making and value-added applications;
e) Develop and evolve reusable tools supporting location interoperability;
f) Run pilots and applications covering different policies/sectors;
g) Communicate effectively and disseminate the results by actively engaging stakeholders;

Out of scope:
Creating or developing solutions already in place or being produced by other initiatives. ELISE will re-use or promote them, where relevant.

1.1.5 ACTION PRIORITY

ELISE contributes to the interoperability landscape by ensuring that the 'location' dimension has an impact, adds value and is appropriately addressed within solutions across borders and sectors, in line with DSM objectives. The ISA^2 Programme is uniquely placed to fund ELISE, given its close relationship to other Actions and its role to support both EC and Member State stakeholders, amongst others. Reuse and reusability of solutions is a core theme of the Action.

1.1.5.1 Contribution to the interoperability landscape

Question	Answer
How does the proposal contribute to improving interoperability among public administrations and with their citizens and businesses across borders or policy sectors in Europe? *In particular, how does it contribute to the implementation of:* • *the new European Interoperability Framework (EIF),* • *the Interoperability Action Plan and/or* • *the Connecting European Facility (CEF) Telecom guidelines* • *any other EU policy/initiative having interoperability requirements?*	In 2018, ELISE will deepen the understanding of location interoperability enablers and barriers related to the transition towards digital government. As such, it is intended to provide technical assessments and recommendations for the EIF and contribute to the implementation of the Interoperability Action Plan (e.g. Actions 4,6,17 & 19). ELISE pilots are designed to test cross-border and cross-sector interoperability and deliver pre-operational and reusable solutions. Their outputs contribute to different EU initiatives; including support to the implementation of the INSPIRE Directive 2007/2/EC, promoting the Once Only Principle (OOP, recommendation no.18 of the e-Government Action Plan) and the CEF by providing building blocks for Member State deployment.
Does the proposal fulfil an interoperability need for which no other alternative action/solution is available?	ELISE is the only action in ISA^2 focusing on location interoperability. It will promote widespread uptake and the reuse of good practices through the development its Geo Knowledge Base Service.

1.1.5.2 Cross-sector

Question	Answer
*Will the proposal, **once completed** be useful, from the interoperability point of view*	Location interoperability is relevant to almost all EU policies and many of the outputs apply

and utilised in two (2) or more EU policy sectors? Detail your answer for each of the concerned sectors.	in any policy area. The ELISE pilots will be tested in domains such as environment, energy, transportation, statistics, health, agriculture and cultural heritage.
*For proposals completely or largely **already in operational phase,** indicate whether and how they have been utilised in two (2) or more EU policy sectors.*	The Re[3]gistry and INSPIRE test framework / validator are available online for free for all Member States, as well as reusable software for others to explore, and have been used in the environmental and energy domains.

1.1.5.3 Cross-border

Question	Answer
*Will the proposal, **once completed,** be useful from the interoperability point of view and used by public administrations of three (3) or more EU Members States? Detail your answer for each of the concerned Member State.*	The common services and tools will be designed to be reusable across Member States. The Geo Knowledge Base Service will offer guidance, advice and solutions for EU institutions and Member States.
*For proposals completely or largely **already in operational phase**, indicate whether and how they have been utilised by public administrations of three (3) or more EU Members States.*	Road safety data-exchange solutions piloted and implemented in Norway and Sweden are being rolled-out to 14 other Member States using CEF Programme Support Action[1]. INSPIRE Registry services (see below) have 100k accesses per quarter from several different Member States.

1.1.5.4 Urgency

Question	Answer
Is your action urgent? Is its implementation foreseen in an EU policy as priority, or in EU legislation?	ELISE is active in supporting several EU policy initiatives, such as the EIF (Actions 4, 6, 17 & 19); the revision of the PSI Directive (spring 2018); INSPIRE Directive implementation (next deadlines end 2017 and 2020); EU eGovernment Action Plan 2016-2020 (COM(2016)179 final; Action 19).
How does the ISA[2] scope and financial	The ISA[2] Programme offers a unique

[1] Reference call: CEF MOVE/B4-2017-63

capacity better fit for the implementation of the proposal as opposed to other identified and currently available sources?	opportunity to investigate how to reuse and build on the cross-sector/cross-border approach of INSPIRE to create synergies between location and wider ICT interoperability solutions and frameworks. The ISA[2] Programme is the only funding source to address interoperability issues in the scope of ELISE.

1.1.5.5 Reusability of action's outputs

Name of reusable solution	Geo Knowledge Base Service
Description	The Service, itself, fosters the reusability of solutions in the context of location interoperability. Moreover, the underlying approach explores how knowledge about (location) interoperability can be represented and shared with different stakeholders, including the pilot/application methodologies.
Reference	
Target release date / Status	Q4/2020 (operational solution)
Critical part of target user base	Service: usage by 5 Member States and 3 EC DGs Approach: reuse of approach or basic 'knowledge elements' in 2 other initiatives
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

Name of reusable solution to be produced (for new proposals) or produced (for existing actions)	'Location' Interoperability guidance
Description	Use of the Blueprint and associated guidance by public administrations and businesses, e.g. procurement, location privacy, service design guidance
Reference	https://joinup.ec.europa.eu/community/eulf/og_page/eulf-blueprint
Target release date / Status	Q4/2018 – Q4/2019 for new guidance
Critical part of target user base	Reuse by 5 public bodies
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	N/A

Name of reusable solution	Common services, pilots and applications
Description	These will help test the concepts developed in ELISE and provide reusable solutions, as well as outputs for operational activities.
Reference	https://www.youtube.com/watch?v=jnny5ATwTYE https://joinup.ec.europa.eu/community/eulf/og_page/eulf-energy-pilot
Target release date / Status	Q1/2018 – Q4/2021 ongoing programme of pilots
Critical part of target user base	Services: integration into applications/portals by 10 public bodies or businesses Pilots: Take up by public bodies and/or businesses in 10 Member States
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Transportation pilot outputs already used in Norway, Sweden, United Kingdom, Flanders, Ireland.

Name of reusable solution	Re^{3}gistry software
Description	Maintenance and extension of the open source Re^{3}gistry software to ensure support for the INSPIRE Registry and cross-sector register federations. Handover options will be assessed, such as release as a full open source project or as a DSI building block in the CEF.
Reference	https://joinup.ec.europa.eu/software/re3gistry/description http://inspire.ec.europa.eu/registry/ http://inspire-regadmin.jrc.ec.europa.eu/ror/
Target release date / Status	Q4/2018 operational solution
Critical part of target user base	Re-use of software by 5 public bodies and high levels of usage through the online INSPIRE Registry service.
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Already re-used in several Member States and for managing ISA Core Vocabularies. Indicators are part of quarterly reporting on the ISA^2 Dashboard

Name of reusable solution	INSPIRE test framework
Description	Extended testing frameworks to ensure that reuse of INSPIRE and other geo-ICT data infrastructures provide reliable and appropriate content across INSPIRE's data themes, supporting public administrations in their implementation tasks.
Reference	https://github.com/inspire-eu-validation/

Target release date / Status	Q4/2018
Critical part of target user base	Re-use by 10 public bodies
For solutions already in operational phase - actual reuse level (as compared to the defined critical part)	Version 1.0 was released only in July 2017. Reuse will be monitored periodically

1.1.5.6 Level of reuse of existing solutions

Question	Answer
Does the proposal intend to make use of any ISA2, ISA or other relevant interoperability solution(s)? Which ones?	ELISE will promote re-use and build on EULF, ARe^{3}NA and other ISA/ISA^2 solutions, including: i) publishing outputs on JoinUp and sharing solutions based on the EIF and EIRA; ii) making 'location' contributions to the assessment of ICT implications of new legislation and to the NIFO; iii) following recommendations/methods of the Sharing and Re-use strategy and the Interoperability Maturity Model; and iv) supporting SEMIC (including for vocabularies) and seeking stakeholder feedback through EUSurvey. ELISE will also reuse or promote solutions from other initiatives, including, i.e.: i) the European Data Portal; ii) the interoperability assets from INSPIRE; iii) recent European projects (ELF and GeoSmartCity); iv) the Belgian and German approaches to OpenStreetMap; v) Danish and Czech Republic approaches to core registries; and vi) will re-use relevant legal and organisational assets across its activities (e.g. business cases, licensing approaches, Public Private Partnership (PPP) models, training modules).
For proposals completely or largely already in operational phase: has the action reused existing interoperability solutions? If yes, which ones and how?	Examples include the Transportation pilot reusing the TN-ITS data specifications and INSPIRE approach to location (linear) referencing. The INSPIRE test framework is partly based on the OGC CITE test engine for web services.

1.1.5.7 Interlinked

Question	Answer

Does the proposal directly contribute to at least one of the Union's high political priorities such as the DSM? If yes, which ones? What is the level of contribution?	ELISE contributes directly to the DSM Strategy, as it actively supports the EIF, the revision of PSI Directive and INSPIRE Directive implementation as requested by the EU eGovernment Action Plan 2016-2020. By assessing demand, opportunities and barriers through specific studies and thematic pilots, ELISE creates targeted guidance and (location) interoperability tools.

1.1.6 PROBLEM STATEMENT

The problem of	barriers to location interoperability
affects	many policy areas and public services
the impact of which is	higher costs due to inefficiencies in current governmental processes and barriers in the creation of economic value. This data is undervalued, not managed efficiently or not interpreted correctly, impacting on various forms of decision-making
a successful solution would be	sharing best practices, guidelines and tools, supported through the ELISE Geo Knowledge Base Service, including training and pilots to demonstrate the feasibility and identify the benefits of solutions. For example, different data specifications are used in different contexts, whereas ELISE pilots use INSPIRE to have a harmonised approach.

The problem of	limited data-sharing of location data
affects	European data economy
the impact of which is	over-investments/spending using often poorer quality information and barriers to innovation, especially in the private sector
a successful solution would be	more collaborative approaches to the reuse of (location) data, in line with the PSI and INSPIRE Directives. This should go beyond interoperability technologies and common data formats to also have common approaches in areas such as data/service licensing (including Open Data), as well as capacity building in topics such as 'spatial literacy' (i.e. skills for handling spatial/map data) and other training for public administrations.

1.1.7 IMPACT OF THE ACTION

1.1.7.1 Main impact list

Impact	Why will this impact occur?	By when?	Beneficiaries
(+) Savings in money	Savings will occur thanks to avoiding duplicated efforts and reusing cost-efficient solutions in e.g.: data procurement, software development and service delivery	Once solutions are in an operational phase in Public Administrations	Public administrations, businesses and citizens
(+) Savings in time	Time savings will occur thanks to avoiding duplicated efforts and, again, reusing cost-efficient solutions	As above	Public administrations, businesses and citizens
(+) Better interoperability and quality of digital public service	Interoperability objectives will be realised through fostering collaboration between actors, sharing of best practices, highlighting optimal business processes and (user-centric) services	The duration of ELISE and the operation of its Geo Knowledge Base Service	All stakeholders
(-) Integration or usage cost	Effort will be needed to integrate 'location' in other initiatives, across all the EIF	ELISE supports such integration until 2021	EU and MS policy makers
(+) Improved policy-making where location plays a role (including cross policy alignment)	Considering location information at the early stages will provide a cohesive approach to analysing status/problems throughout the policy cycle	Within the policy implementation and review timeframe (e.g. 5 years approx. for new policies)	EU and MS policy makers
(+) Effective skills	Organisations will improve their spatial literacy and other skills to make best use of available data	ELISE duration and operation of Geo Knowledge Base Service	All
(+) Creation of a collaborative network	The Geo Knowledge Base Service is a focal point for facilitating partnerships between organisations/ initiatives, offering expert advice about location data and services/ sources, reusable software etc.	Initial benefits will occur when partnerships are set up, such as via pilots or the roll-out of interoperable	Various stakeholder relationships, including with research and businesses

Impact	Why will this impact occur?	By when?	Beneficiaries
		services	

1.1.7.2 User-centricity

Collaboration is core to ELISE's approach, where it fosters key stakeholder interaction through workshops, consultations, surveys and co-development of solutions, in particular within the ISA^2 Working Group on Geospatial Solutions. Interoperability solutions are developed based on stakeholder demand and priorities, are validated in the field to ensure they meet these needs in a practical way and are improved through feedback from users. Aligned with the direction of ISA^2, ELISE will also explore stakeholder relations with businesses and citizens, extending the existing group of EC Services, INSPIRE stakeholders, solution providers, thematic communities and standardisation bodies.

1.1.8 EXPECTED MAJOR OUTPUTS

ELISE work packages and outputs form a holistic proposal, including evaluating benefits, outcomes and impacts, with clear links to key ISA^2 selection criteria. It will act as a 'solution incubator' to develop and pilot solutions, a 'solution bridge' to bring them to maturity and a 'solution broker' to find new users. ELISE also involves a number of feasibility studies to scope and assess requirements/options for key topics before launching pilots, alongside engagement and knowledge-sharing activities. The major outputs for 2018 are summarised below.

Output name	Analysis of the role of location information in digital government transformation
Description	This set of studies will evaluate the role of location information in different dimensions such as data access and licensing, service integration, business processes innovation and access to innovative technologies.
Reference	https://joinup.ec.europa.eu/community/eulf/og_page/eulf-blueprint
Target release date / Status	Q4/2019

Output name	Geo Knowledge Base service
Description	The service will provide guidance and support to Commission policy DGs, public administrations, business and citizens in Member States on the optimal exploitation of interoperable location information. This includes a location interoperability observatory, support to the ICT assessments of new legislation (led by DIGIT), training and user support.

Reference	
Target release date / Status	Q4/2017 service definition Q1/2018 piloting and initial evidence sharing Q4/2021 operation of service

Output name	ELISE Observatory/ landscape analysis and technology watch
Description	Complementing NIFO, evidence will be gathered and shared about the uptake of Blueprint recommendations and the leading technological and organisational best practices across Europe. Initial evidence will be based on a pan-European survey supported with expert inputs
Reference	
Target release date / Status	Q4/2017 service definition and piloting completed Q1/2018 – Q4/2019 operation

Output name	Location interoperability tools
Description	The developments of tools for Spatial Data on the Web, including mechanisms to convert data from services (powered by geospatial standards) into websites and feedback on metadata by data users will be delivered and further tested in 2018
Reference	http://www.ldproxy.net http://geonetwork-opensource.org/
Target release date / Status	Q4/2017 solution design Q4/2018 prototype Q4/2019 operation

Output name	ELISE Application Pilots
Description	The pilots test ELISE's guidelines and tools, while supporting INSPIRE reuse beyond the environmental domain, helping to improve digital services in different sectors.
Reference	https://joinup.ec.europa.eu/community/eulf/og_page/eulf-energy-pilot
Target release date / Status	Energy pilot example: Q4/2017 Pilot definition and stakeholder engagement Q2/2018 Pilot launch and initial development Q4/2019 Operation

1.1.9 ORGANISATIONAL APPROACH

1.1.9.1 Expected stakeholders and their representatives

Stakeholders	Representatives	Involvement in the action
ISA^2	Member State representatives in the ISA^2 Working Group on Geospatial Solutions and the ISA^2 Committee. Plus, other ISA^2 Actions	Inputs to Work Programme, governance, identifying best practices, partnerships and synergies with other activities
Commission Services	ENV, ESTAT, CNECT, DIGIT, MOVE, ENER, GROW. EC Inter service group on Geographic information (COGI)	Scoping solutions / pilots, including ICT Assessments
INSPIRE Governance	Maintenance and Implementation Group (MIG), National Contact Points (NCPs), Legally Mandated Organisations (LMOs), European Environment Agency (EEA)	Identifying needs, promoting reusable solutions, participating in pilots
Geospatial Solution providers	Businesses (including SMEs) and research bodies	Knowledge base content and solution development
Thematic Policy domains	Committees, working groups, including those related to location data, such as Copernicus (GROW) and GEO (RTD)	As relevant for application, solution or pilot activities
Standardisation Bodies	Coordination groups, for CEN, ISO, OGC, W3C, OASIS, etc.	Uptake of ELISE outputs as standards
UN-GGIM: Europe	ELISE will contribute to possible pilot activity in this area, taking into account the ISA^2 Action on statistical information systems and inputs from EULF and ARe^{3}NA and the work of ESTAT.	Uptake of results of work on geospatial data and statistics
Member State organisations, groups and projects	Location / e-Government coordination bodies, Government digital agencies, National mapping and cadastral agencies, Private sector actors	Solution providers and users
Pan-European interest groups, organisations and projects	Such as OSGeo and other FLOSS communities; open data communities, research / academic groups, European umbrella organisations	As data sources and pilot partners and inputs to feasibility studies
EEA/EIONET, Environment	EEA/EIONET national focal points (NFPs), National Reference Centres	As partners in potential INSPIRE environmental pilots

National agencies	for Information Systems.	
Network of businesses, or individual private companies	Smespire (and similar) networks of enterprises, private companies working in specific thematic domains	Pilot partners and stakeholders for scoping solutions

1.1.9.2 Identified user groups

Existing stakeholder groups are defined above but ELISE will also cover businesses and citizens by exploring successful models and solutions (e.g. to support innovation, provide funding, put PPPs into practice, take on board citizen inputs).

1.1.9.3 Communication and dissemination plan

Documentation will be published on the ISA[2] website and on JoinUp. Cross-references will be made to, for example, INSPIRE's knowledge base[2] and relevant 'partner' websites. The source code of solutions developed under ELISE will be published in well-accepted open source repositories such as GitHub. Training will be carried out in face-to-face events, webinars, and through access to online resources. Videos, brochures, and platforms, including social media will also be used. Engagement activities such as surveys will also help to raise awareness about the Action. Key events are summarised in the following table.

Event	Representatives	Frequency of meetings / absolute dates of meetings?
ISA[2] Committee and Coordination Group Meetings	MS representatives	Twice yearly
ISA[2] Working Group on Geospatial Solutions	MS and Commission representatives	1-2 times per year
ISA[2] Geospatial Solutions Business Forum	Business community representatives (possibly divided into thematic streams)	1-2 times per year
ELISE workshops, partner events, webinars	MS and Commission representatives, thematic groups, invited experts, including training events	4-5 times per year
INSPIRE Conferences	INSPIRE stakeholders	Once per year
INSPIRE Maintenance and Implementation Group and Sub-Group meetings	MS representatives and invited experts	To be determined
Meetings of standardisation groups (CEN, ISO, OGC, W3C)	Standards experts	2-3 times per year

[2] http://inspire.ec.europa.eu/

Event	Representatives	Frequency of meetings / absolute dates of meetings?
Business innovation events, e.g. apps incubators, hackathons, competitions	Web / mobile developers Geo ICT SMEs	1-2 times per year
Other thematic conferences	Transport, Energy as well as FOSS/ICT conferences, including ISA2's SEMIC and Sharing and Reuse Conferences	Once per year

1.1.9.4 Key Performance indicators

Description of the KPI	Target to achieve	Expected time for target
Number of EC services where ELISE has contributed advice or solutions to improve efficiency or effectiveness in location interoperability	5	2020
Number of MS public services where ELISE guidance, tools, support or pilots have helped them improve the integration of location information in their processes	5	2020
Number of cases where ELISE has received positive feedback from stakeholders on the information, awareness raising, training or other support provided by the Geo Knowledge Base Service	10	2020
Number of MS participating in the ELISE observatory as part of the Geo Knowledge Base Service	12	2020

1.1.9.5 Governance approach

The broad reach of ELISE involves engaging with work in the Member States and the EC. The ISA[2] WG on Geospatial Solutions[3] will continue to play a vital advisory and facilitating role (e.g. for ELISE WP updates, Geo Knowledge Base Service content/scope, promoting take-up). ELISE focusses on user-centricity, co-creation and shared ownership of results for wider reuse. WG representatives are, therefore, encouraged to contact others (e.g. UN-GGIM: Europe, Group on Earth Observations, standards bodies and thematic actors) to aid communication/coordination/promotion of location interoperability. As JRC.B06 is the chair for the WG, ELISE can also fully connect with other groups, such as COGI and INSPIRE governance structures, including the MIG EC expert group, where ELISE helps to deliver some aspects of its work programme 2016-2020[4].

[3] The ISA[2] WG on Geospatial Solutions is the successor of the ISA WG on Spatial Information and Services (SIS), which was the governance group for the EULF and ARe3NA ISA actions.
[4] https://ies-svn.jrc.ec.europa.eu/documents/58

1.1.10 TECHNICAL APPROACH AND CURRENT STATUS

The focus of the ELISE work packages for 2018 is described in detail in Table 1.

Table 1. Focus of ELISE work packages for 2018

Work package	2018 focus
STUDIES	
The role of location information in digital government transformation	Public administrations are, themselves, evolving as a consequence of ICT being adopted in their processes, across all aspects of the EIF. A set of studies will explore how location information is driving such 'digital transformation'. This includes exploring the current status across Europe of data access and sharing, innovative business processes and technologies; the conditions/main drivers to enable a data economy based on location information; and analysing the opportunities and risks of using location-information algorithms in decision-making. The study could also put in place a model for horizon-scanning of new trends in location–based technologies that can be of relevance to the transformation to digital government including mobile, social, cloud and other information technologies, advanced data analytics and evaluation of impacts of the application and use of disruptive technologies (e.g. Blockchains, Internet of Things).
2. FRAMEWORKS AND SOLUTIONS	
Guidance	Maintenance of good practice Blueprint, associated guidance documents on emerging topics, to be agreed with stakeholders, and reference materials. Further work to improve usability of guidance, including online adaptation, cataloguing references identified in the observatory, and facilities for user feedback and co-creation. Possible integration from ESTAT and UN-GGIM of good practices for statisticians and policy analysts in the use of location data in their work.
Location Interoperability Tools[5]	User-centric approach for the evolution and sustainability of solutions, including the Re^{3}gistry software; the INSPIRE test framework; and further developments for the Spatial Data on the Web tools and technical guidance for both data providers and data users. Continued contributions to SEMIC (building on the Core Location Vocabulary, GeoDCAT-AP, website annotation etc.), sharing of 'discovered' solutions on JoinUp based on the EIRA as a reference model; technical study to analyse data fusion in the context of global reference grid systems for big geospatial data, including address data.
3. APPLICATIONS	
ELISE Application Pilots	ELISE pilots are applications designed to explore in practice the opportunities and barriers to the use of location information in different technological settings and for different purposes, cutting

[5] Formerly entitled "Geospatial Interoperability Tools"

Work package	2018 focus
	across different thematic domains and involving stakeholders from different European countries in the public and private sectors. For example, based on the available budget and demand from relevant stakeholders, the pilots could include: G2B/B2G[6]: Pilot in the **Intelligent Transport Systems domain**: follow-up of current pilot, possible focus on e.g. Digital maps for connected and autonomous transport and use of private sector data for improving accuracy of public road databases; use of INSPIRE in standards in support of multimodal travel and traffic information services. G2G/G2B: **Energy Efficiency** Pilot: Enabling the use of location-enabled technologies in Digital Government processes and services related to EU policies on energy efficiency, for the benefits of government and citizens. B2G, G2C: Pilot in the **eHealth** domain, e.g. use of smart location-aware devices to improve healthcare management and policies; evaluation of the geographical spread of diseases in specific contexts- based on feasibility study funded in 2017. B2G: Pilot on **"reverse PSI":** concrete examples of use by public sector of privately held data- support to the revision of the PSI Directive, based on feasibility study funded in 2017. Feasibility studies of pilots in particular domains, e.g. **precision agriculture** and **cultural heritage**.
Common services	EU Gazetteer pilot phase 1 (Geographical Names and Administrative Units): continued development, following the demand and supply assessment, pilot definition and mobilisation and initial development in the 2016 and 2017 work programmes.
4. GEO KNOWLEDGE BASE SERVICE	
Location interoperability observatory, landscape analysis and technology watch	Following the definition and piloting of an observatory process in 2017, we will undertake an EU-wide 'observatory' survey in 2018, supported by a network of experts. The published results will help in identiying good practices and targeting actions for MS and ELISE.
Training and user support	Training development and delivery; stakeholder engagement awareness raising (including citizens' feedback), web publication, support to users.
Communication and stakeholder engagement	Proactive awareness-raising, dissemination of the Action's outputs, stakeholder engagement, including citizens' feedback and online representation of the Action's knowledge.

[6] **G2B**= Government to Business, **B2G**= Business to Government, **G2G**= Government to Government and **G2C**= Government to Citizens

1.1.11 COSTS AND MILESTONES

1.1.11.1 Breakdown of anticipated costs and related milestones

The proposed ELISE Work Programme spans five years and has three phases, with **Initiation** (year 1) completed in 2016/2017. **Execution** (years 2-4) contains activities and new studies and other outputs, with the maintenance of existing tools. A mid-term evaluation is also planned. **Closing** (year 5) will involve readying of solutions for operation/handover, final evaluation and transition of results to "operational governance". Details of each activity, with dates and costs for each year in the work programme are shown below.

Phase: Initiation Planning Execution Closing/Final Evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
1. STUDIES					
Initiation	1.1 Assessment of economic opportunities and barriers related to geospatial data in the context of the DSM	160 - -	ISA	Q3/2016	Q4/2017
Execution	1.2 INSPIRE and spatial data standards in support of EU-wide Multimodal Travel Information Services	- 100 -	ISA	Q3/2017	Q4/2018
Execution	1.3 Supporting better uses of location data and statistics	90 - -	ISA	Q4/2017	Q4/2018
Execution Execution	1.4 The role of location information in digital government transformation	- 230 400	ISA	Q4/2017 Q4/2018	Q3/2018 Q4/2019
Execution	1.5 Location-Enabled Digital Platforms Benchmark	- 260 -	ISA	Q3/2017	Q2/2018
2. FRAMEWORKS AND SOLUTIONS					
Initiation Execution Execution	2.1 Guidance	110 50 40	ISA	Q1/2017 Q3/2017 Q2/2018	Q2/2017 Q2/2018 Q4/2018
Initiation Execution Execution	2.2 Location Interoperability Tools	220 240 300	ISA	Q4/2016 Q4/2017 Q4/2018	Q4/2017 Q3/2018 Q3/2019
Initiation	2.3 References and inventories	60	ISA	Q4/2016	Q3/2017

Phase: Initiation Planning Execution Closing/Final Evaluation	Description of milestones reached or to be reached	Anticipated Allocations (KEUR)	Budget line ISA/ others (specify)	Start date	End date
Execution		100 -		Q2/2017	Q4/2018
3. APPLICATIONS					
Initiation Execution Execution	3.1 ELISE Application Pilots	80 260 300	ISA	Q4/2016 Q3/2017 Q3/2018	Q4/2017 Q2/2018 Q4/2019
Initiation Execution Execution	3.2 Common services – EU Gazetteer	85 150 270	ISA	Q4/2016 Q3/2017 Q2/2018	Q3/2017 Q1/2018 Q4/2018
4. GEO KNOWLEDGE BASE SERVICE					
Initiation	4.1 Geo Knowledge Base service definition and piloting	81 - -	ISA	Q4/2016	Q4/2017
Initiation Execution Execution	4.2 Location interoperability observatory, landscape analysis and technology watch	91 65 360	ISA	Q2/2016 Q4/2017 Q2/2018	Q3/2017 Q2/2018 Q1/2019
Initiation Execution	4.3 Location input to ICT assessment of new legislation	36 50 -	ISA	Q2/2016 Q4/2017	Q3/2017 Q4/2018
 Execution Execution	4.4 Training and user support	- 120 80	ISA	 Q2/2017 Q2/2018	 Q1/2018 Q3/2019
Initiation Execution Execution	4.5 Communication and stakeholder engagement	60 120 150	ISA	Q3/2016 Q2/2017 Q3/2018	Q2/2017 Q2/2018 Q2/2019
	2016 **2017** **2018** **Total**	983 +1835 +1900 =4718			

The proposed work elements are also important to the JRC in supporting the evolution of INSPIRE and its wider scientific interests in data and technology. Consequently, ISA resources will be complemented by JRC institutional staff resources for management, ELISE governance support and technical support on INSPIRE issues.

1.1.11.2 Breakdown of ISA^2 funding per budget year

Budget Year	Phase	Anticipated allocations (in KEUR)	Executed budget (in KEUR)
2016	Initiation	983	983
2017	Execution	2240	1835
2018	Execution	1900	

1.1.12 Planning for the tendering procedures to be launched for the action

Call for tenders foreseen Global amount in KEUR	Call for Tenders Duration in years	Indicative planning of publication (QX/YYYY)
Intramuros: 700k	n/a	Q2 2018
Framework contracts: 650k	1.5 years	Q2-Q4 2018
Small/expert contracts: 150k	1.5 years	Q2-Q4 2018
Open calls: 400k	1.5 years	Q2-Q4 2018

1.1.13 ANNEX AND REFERENCES

Description	Reference link	Attached document
INSPIRE resources	http://inspire.ec.europa.eu/	
EULF	https://joinup.ec.europa.eu/community/eulf/description	
ARe^{3}NA	https://joinup.ec.europa.eu/community/are3na/description	
ELISE	https://joinup.ec.europa.eu/community/elise/home	