

ID	Name	Current Description	Interoperability Salience	Examples	Input
ABB9	Public Policy	Based on EuroVoc http://eurovoc.europa.eu/drupal/?q=request&concepturi=http%3A%2F%2Fec.europa.eu/2F846&termuri=http%3A%2F%2Fec.europa.eu/2F209598&language=en&view=pl&facetlang=en The policies; overview of EU activities in all areas, from agriculture to transport: http://ec.europa.eu/policies/index_en.htm Syn. Policy Action The following implementation is an example on how this specific Architecture Building Block (ABB) can be instantiated as a Solution Building Block (SBB): Common Agricultural Policy (CAP) The common agricultural policy (CAP) – one of Europe's oldest policies – has evolved along with the EU. Today's CAP supports a modern, market-oriented farming sector ensuring the provision of safe, affordable, high quality food, produced sustainably and respecting strict standards (environmental, animal welfare, food safety, etc.), as well as supporting investment in the broader rural economy. https://ec.europa.eu/info/strategy/agriculture_en	The Public Policy ABB is salient for legal interoperability because it drives the production and formulation of legislation, and it is one of the main context elements to be taken into account when organisation need to work together, as stated in the EIF: "Legal interoperability is about ensuring that organisations operating under different legal frameworks, policies and strategies are able to work together".	Common Agricultural Policy (CAP) The common agricultural policy (CAP) – one of Europe's oldest policies – has evolved along with the EU. Today's CAP supports a modern, market-oriented farming sector ensuring the provision of safe, affordable, high quality food, produced sustainably and respecting strict standards (environmental, animal welfare, food safety, etc.), as well as supporting investment in the broader rural economy. https://ec.europa.eu/info/strategy/agriculture_en	- TOOP (The once-only principle) - The Digital Single Market
ABB102	Public Policy Cycle	The series of public policy phases that are regularly repeated in order to manage all aspects of a public policy. Based on EU Better Regulation (list of phases) and Oxford dictionary (cycle definition) http://ec.europa.eu/smart-regulation/guidelines/ug_chap1_en.htm (chapter 2 "What is Better Regulation?") http://publicadministrationtheone.blogspot.be/2012/08/public-policy-models-of-policy-making_27.html Syn. Policy Cycle The following implementation is an example on how this specific Architecture Building Block (ABB) can be instantiated as a Solution Building Block (SBB): Performance-based Full Policy Cycle for the Digital Single Market The key features of a performance-based full policy cycle are a clear articulation of policy objectives, the identification and use of quantitative indicators of expected short-term and longer-term policy impacts, the identification of synergies between policies, a much greater use of quantitative data in ex-ante impact assessments, the implementation of robust, data-based, independent ex post assessments of the performance of policies relative to their expected impacts and a wide dissemination of lessons learned in such ex-post performance assessments. http://www.europar.europa.eu/RegData/etudes/etudes/join/2013/507457/POC-IMCO_ET(2013)507457_EN.pdf	The Public Policy Cycle ABB is salient for legal interoperability because it impacts the design and formulation of public policies, which are implemented through legal acts. Interoperability principles need to be taken into account during the whole public policy cycle.	Performance-based Full Policy Cycle for the Digital Single Market The key features of a performance-based full policy cycle are a clear articulation of policy objectives, the identification and use of quantitative indicators of expected short-term and longer-term policy impacts, the identification of synergies between policies, a much greater use of quantitative data in ex-ante impact assessments, the implementation of robust, data-based, independent ex post assessments of the performance of policies relative to their expected impacts and a wide dissemination of lessons learned in such ex-post performance assessments. http://www.europar.europa.eu/RegData/etudes/etudes/join/2013/507457/POC-IMCO_ET(2013)507457_EN.pdf	Not detected
ABB166	Public Policy Implementation Approach (ex Operational Enabler)	An organisation, person, object or event that makes it possible to formulate or implement the a public policy. Based on Hib, M. and Hupis, P. Implementing Public Policy: Governance in Theory and in Practice, SAGE Publications Ltd 2002 A [Public Policy Implementation Approach] is influenced by a [Regulatory State] and a [Delegation of Powers] which determine the role of the organisation, person, object or event. This role is determined by the following quadrant: Option A: Regulatory State: Strongly / Low Level Regulated, Delegation of Powers: Top /	The Public Policy Implementation Approach ABB is salient for legal interoperability because it influences the way legislation is created to implement a public policy, and sets its focus.	Governance of Public Policies in Decentralised Contexts - The Multi-Level Approach Multi-level governance is always required for managing public policies in a decentralised context. Multi-level governance (MLG) is the term used to characterise the relationship between public actors situated at different administrative levels. MLG therefore refers to the explicit or implicit sharing of policy-making authority, responsibility, development and implementation at different administrative and territorial levels, i.e. (i) across different ministries and/or public agencies at central government level (upper horizontally), (ii) between different layers of government at local, regional, provincial/state, national and supranational levels (vertically), and (iii) across different actors at sub national level (lower horizontally). "Multi-level governance" approaches often includes also interaction between public and private entities (profit or non profit ones), in particular citizens and businesses. https://www.oecd.org/governance/regional-policy/48724665.pdf	Centralized and strongly regulated
ABB164	Legal Act	Legislative acts According to Article 289 of the Treaty on the Functioning of the European Union (TFEU), legislative acts are decisions adopted under the ordinary or a special legislative procedure Source: https://eur-lex.europa.eu/summary/glossary/legislativeActs.html	The Legal Act ABB is a key interoperability enabler because it helps achieve legal interoperability by ensuring compatible legal/judicial certainty in the exchange of information.	COMMISSION REGULATION (EU) 2018/1881 of 3 December 2018 amending Regulation (EC) No 1507/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annexes I, III, VI, VII, VIII, IX, X, XI, and XII to address nanoforms of substances. https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1544102387245&uri=CELEX:32018R1881	
AB17	Binding Instrument	Legal means, involving an obligation, which are available to the European institutions to carry out their tasks. The European binding instruments listed in Article 288 of the Treaty on the Functioning of the European Union are: [...]	The Binding Instrument ABB is a key interoperability enabler as a specialisation of the Legal Act.	The binding legal instruments that make up the secondary legislation of the EU are Regulations, Directives and Decisions. As set out in Article 288 of the Treaty on the Functioning of the European Union: - A Regulation shall have general application. It shall be binding in its entirety and directly applicable in all Member States. - A Directive shall be binding, as to the result to be achieved, upon each Member State to which it is addressed, but shall leave to the national authorities the choice of form and methods. - A Decision shall be binding in its entirety. A Decision which specifies those to whom it is addressed shall be binding only on them. https://ox.libguides.com/c.php?g:422926&p:2888217 <MF> This is not an example, but it's part of the description.	

AB113	Non-Binding Instrument	Legal means, involving no obligation, which are available to the European institutions to carry out their tasks. The European non-binding, declaratory instruments listed in Article 288 of the Treaty on the Functioning of the European Union are recommendations and opinions: [...]	The Binding Instrument ABB is a key interoperability enabler as a specialisation of the Legal Act.	Article 288 of the Treaty on the Functioning of the European Union also provides for non binding legal instruments. - Recommendations call upon the party to whom they are addressed to behave in a particular way without placing them under any legal obligation - Opinions issued by the EU institutions give assessments of situations or developments in the Union or in the individual Member States. They may also also prepare the way for subsequent, legally binding acts, or be a prerequisite for the institution of proceedings before the Court of Justice Recommendations and Opinions have moral and political significance, without being legally binding The three other main forms of actions that shape the EU legal order without having legally binding effect are resolutions, Declarations and Action programmes. https://ox.lbguides.com/c.php?g=422926&p=2888217 -MF> This is not an example, but it's part of the description	
AB165	Legislation Catalogue	Inventory of legal documents. This ABB is a key interoperability enabler (*) enabling sharing/PROVISIONING and reusing/CONSUMPTION LEGAL documents	The Legislation Catalogue ABB is a key interoperability enabler because it helps achieve legal interoperability by ensuring the provision/consumption of legal texts. Catalogues are also key element of the EIF "Integrated Public Service Governance" conceptual model. According to Recommendation n.44: "Put in place catalogues of public services, public data, and interoperability solutions and use common models for describing them."	EUR-Lex EUR-Lex provides free access, in the 24 official EU languages, to: <ul style="list-style-type: none">• the authentic Official Journal of the European Union• EU law (EU treaties, directives, regulations, decisions, consolidated legislation, etc.)• preparatory acts (legislative proposals, reports, green and white papers, etc.)• EU case-law (judgments, orders, etc.) International agreements • EFTA documents • summaries of EU legislation, which put legal acts into a policy context, explained in plain language • other public documents. It also allows you to follow the procedures leading to the adoption of legal acts. http://eur-lex.europa.eu/	
AB175	Legal Interoperability Specification	Legal interoperability covers the broader environment of laws, policies, procedures and cooperation agreements needed to allow the seamless exchange of information between different organisations, regions and countries. Legal interoperability specifications support interoperability by addressing the core legal interoperability background for solutions. Source: How does the ERAID support interoperability? https://joinup.ec.europa.eu/sites/default/files/how_does_era_support_interoperability_v1_0_0.pdf	The Legal Interoperability Specification ABB is a key interoperability enabler because it helps achieve legal interoperability by addressing the core legal interoperability background for solutions.	e-procurement SAT - Directive 2014/24/EU on public procurement DIRECTIVE 2014/24/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 February 2014 on public procurement and repealing Directive 2004/18/EC (Text with EEA relevance). The directive sets out rules on the use of public contracts for the provision of works, supplies or services by companies or individuals and the exemptions which can be applied. The legislation specifies that when national authorities use public procurement to invite tenders to provide works, supplies or services, they must treat all applicants equally and not discriminate between them. They must also be transparent in their dealings. This Directive is considered as a Legal Interoperability Specification, as it shall be transposed in a National or Regional Binding Instrument when designing the solution using the e-procurement Solution Architecture Template. https://joinup.ec.europa.eu/asset/41a/description	
AB126	Legal Interoperability Agreement	Legal interoperability Agreement is the means through which Legal Authorities mandate specific Legal Interoperability Specifications, ensuring organisations (operating under different legal frameworks, policies and strategies) are able to work together. Based on EIF: https://ec.europa.eu/isa2/sites/isa/files/EIF_brochure_final.pdf#page=27 Description to be done	The Legal Interoperability Agreement ABB is salient for interoperability enabler because it supports legal interoperability by providing cooperation agreements needed to allow the seamless exchange of information between different organisations, regions and countries.	TREATY OF LISBON The European Union is based on the rule of law. This means that every action taken by the EU is founded on treaties that have been approved voluntarily and democratically by all EU member countries. For example, if a policy area is not listed in a treaty, the Commission cannot propose a law in that area. A treaty is a binding agreement between EU member countries. It sets out EU objectives, rules for EU institutions, how decisions are made and the relationship between the EU and its member countries. The Lisbon treaty clarifies which powers: - belong to the EU - belong to EU member countries - are shared. The goals and values of the EU and are laid out in the Lisbon Treaty and the EU Charter of fundamental rights. https://europa.eu/european-union/law/treaties_en	
AB127	Legal Authority	Legal Authority is an entity which certifies Legal Interoperability Agreement in order to guarantee its reliability and trustworthiness. Based on EIF: https://ec.europa.eu/isa2/sites/isa/files/EIF_brochure_final.pdf	The Legal Authority ABB is salient for interoperability enabler because it supports legal interoperability by providing reliability and trustworthiness of Legal Interoperability Agreement.	EU Parliament European Parliament The European Parliament (EP) is the directly elected parliamentary institution of the European Union (EU). Together with the Council of the European Union (the Council) and the European Commission, it exercises the legislative function of the EU. http://www.europarl.europa.eu/plenary/en/home.html	

da verificare con Guido: non riesco a trovare il riferimento normativo che obbliga all'utilizzo delle presenti linee guida

ID	Name	Current Description	ABB Interoperability saliency	Examples	Input
ABB1	Public Service	A European public service comprises any public sector service exposed to a cross-border dimension and supplied by public administrations, either to one another or to businesses and citizens in the Union. A Public Service is a mandatory or discretionary set of acts performed, or able to be performed, by or on behalf of a public organisation. Services may be for the benefit of an individual, a business, or other public authority, or groups of any of these.	The Public Service ABB is salient for organisational interoperability because it is the central element around which interoperability needs to be ensured, as stated in the EIF: "The European Interoperability Framework is a commonly agreed approach to the delivery of European public services in an interoperable manner."	EUROPASS2 - Make better use of skills and opportunities across Europe Europass is a service to help individuals to communicate their skills, qualifications and experience through the use of standardised documents templates. http://ec.europa.eu/social/main.jsp?catId=1266&langId=en	Service of Basic Information on Companies
ABB15	Service Delivery Model	Way of delivering to public service consumers, or otherwise interacting with them, for the purpose of supplying specific public services. This involves a number of management practices to ensure that the public services are provided as agreed between the public service provider and the consumer. Based on the definitions in Innovation Policy Platform (World Bank and OECD) https://www.innovationpolicyplatform.org/printpdf/12406	The Service Delivery Model ABB is salient for organisational interoperability because it represents the channel through which interoperable public services are provided to the consumers. Multi-channel service delivery is important to ensure broader access to the service, as stated in the EIF: "A multi-channel service delivery approach, meaning the availability of alternative channels, physical and digital, to access a service, is an important part of public service design, as users may prefer different channels depending on the circumstances and their needs."	Ecolabel - EU and Member State web sites EU web site: permits to discover the types of products and services that can be awarded with the EU Ecolabel. Furthermore, the site permits to browse through the EU Ecolabel Product Catalogue and Tourist Accommodation Catalogue to find currently awarded products and services. Member State Competent Bodies provide information to businesses and consumers. http://ec.europa.eu/environment/ecolabel/index_en.htm https://www.ecolabel.be/fr https://www.gov.uk/guidance/apply-for-an-eu-ecolabel	Service Delivery Model (It facilitates the exchange of company information between producers (those involved in providing information) and consumers (those involved in retrieving information))
ABB5	Public Service Consumer	A Public Service Consumer is a Public Administration, Business or Citizen consuming public services. [European Interoperability Framework] Source: Based on EIF 2.0 http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf	The Public Service Consumer ABB is salient for organisational interoperability because it is one of the main actors involved in the interoperability of the public service as stated in the EIF: "Service orientation, upon which the conceptual model for public services is conceived, means that the relationship between service providers and service consumers must be clearly defined". EIF Recommendation 29 also suggests: "Clarify and formalise your organisational relationships for establishing and operating European public services."	Cosmetic Product Notification Portal CPNP - Poison centre, Responsible person, Market surveillance authority, Distributor, Health advisor, Administrations The CPNP is making this information available electronically: • Competent Authorities (for the purposes of market surveillance, market analysis, evaluation and consumer information) • Poison Centres or similar bodies established by EU countries (for the purposes of medical treatment). The CPNP is accessible to: • Competent Authorities • European Poison Centres • Cosmetic products responsible persons • Distributors of cosmetic products https://ec.europa.eu/growth/sectors/cosmetics/cpnp_fr	CSBIC Consumers: - Companies - Entrepreneurs
ABB174	Public Service Provider	Any natural or legal person or public entity or group of such persons and/or bodies which offers the execution of public services. Based on IATE definition (definition of service producer, entry Economics, Taxation [Council]) http://iate.europa.eu/	The Public Service Provider ABB is salient for organisational interoperability because it is one of the main actors involved in the interoperability of the public service as stated in the EIF: "Service orientation, upon which the conceptual model for public services is conceived, means that the relationship between service providers and service consumers must be clearly defined". EIF Recommendation 29 also suggests: "Clarify and formalise your organisational relationships for establishing and operating European public services."	Ecolabel - Member State Competent Body The Competent Body is the independent organisation responsible for assessing, awarding, and managing EU Ecolabel applications and licences on the national level. The Competent Body provides guidance on the documents needed for the dossier, such as declarations, data sheets, and test results. Recommendations on product testing laboratories that are ISO 17025 accredited or equivalent are shared, along with any relevant technical expertise needed to complete the application. http://ec.europa.eu/environment/ecolabel/how-to-apply-for-eu-ecolabel.html http://ec.europa.eu/environment/ecolabel/competent-bodies.html#be	
ABB169	Business	Employment, occupation, profession, or commercial activity engaged in for gain or livelihood. Activity or enterprise for gain, benefit, advantage or livelihood. Enterprise in which person engaged shows willingness to invest time and capital on future outcome. Source: IATE (definition of business, entry Environment [CdT]) http://iate.europa.eu/	The Business ABB is salient for organisation interoperability because organisations can play the role of consumers of Public Services (Public Administration or businesses), as stated in the EIF: "A European public service comprises any public sector service exposed to a cross-border dimension and supplied by public administrations, either to one another or to businesses and citizens in the Union."	Cosmetic Product Notification Portal - Economic operators Economic operators involved in intra-community trade are using the Cosmetic Product Notification Portal in order to either notify cosmetic products put on the EU market (distributors) or notify and update the data (manufacturers and importers). https://webgate.ec.europa.eu/cpnp/faq/?event=faq_show	Companies
ABB172	Public Administration	A state, regional or local authority governed by public law or an association formed by one or several such authorities or a private entity mandated by at least one of those authorities or associations to provide public services, when acting under such a mandate. Source: Connecting Europe Facility (CEF), eIDAS regulation https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/CEF+Definitions	The Public Administration ABB is salient for organisation interoperability because Public Administrations can play the role both of providers and consumers of Public Services, as stated in the EIF: "A European public service comprises any public sector service exposed to a cross-border dimension and supplied by public administrations, either to one another or to businesses and citizens in the Union."	EWRS – ECHA The European Chemicals Agency (ECHA) is the driving force among regulatory authorities in implementing the EU's ground breaking chemicals legislation for the benefit of human health and the environment as well as for innovation and competitiveness. https://echa.europa.eu/about-us	Municipalities and Government Authorities
ABB8	Citizen	A person who is a member of a particular country and who has rights because of being born there or because of being given rights, or a person who lives in a particular town or city. [...]	The Citizen ABB is salient for organisation interoperability because citizens can play the role of consumers of Public Services, as stated in the EIF: "A European public service comprises any public sector service exposed to a cross-border dimension and supplied by public administrations, either to one another or to businesses and citizens in the Union."	EUROPASS2 - EU citizen Every national of a Member State shall be a citizen of the Union. http://europass.cedefop.europa.eu/europass-and-you	<i>Not detected</i>
ABB119	Organisational Interoperability Agreement	Concrete and binding documents which set out the precise obligations of two parties cooperating across an 'interface' to achieve interoperability. This ABB is a key interoperability enabler (*) for assessing the TERMS/CONDITIONS for SHARING&REUSING AND EXCHANGING information. An Interoperability Agreement is the means through which organisations (public administrations, or businesses) formalises the cooperation with one another. These agreements aim at the development of interoperability solutions, which meets the functional / technical requirements and needs of one another (European Interoperability Framework).	The Interoperability Agreement ABB is a key interoperability enabler because it helps achieve organisational interoperability by assessing and formalising terms and conditions for sharing/reusing/exchanging information between two cooperating parties as stated in the EIF Recommendation 26: "Establish interoperability agreements in all layers, complemented by operational agreements and change management procedures."	ICAO Service Level Agreement Template A Service Level Agreement (SLA) is an example of Interoperability Agreement in which parties agree on the description of the services to be provided by one or several parties to the other one(s). The SLA tackles topics like: service description, optional services, exclusions, limitations, service levels, service credits, escalation procedure, reporting and points of contact. https://www.icao.int/ESAF/Documents/APIRG/APIRG18/Docs/wp17_appendices_en.pdf	<i>Not detected</i>

ABB124	Public Service Catalogue	A catalogue of public services is a collection of descriptions of active public services that are provided by public administrations at any administrative level (i.e. local, regional, national or pan-European). All public service descriptions published in a catalogue of public services conform to a common data model for representing public services. This ABB is a key interoperability enabler (*) for sharing/PROVISIONING and reusing/CONSUMING of front-office public services.	The Public Service Catalogue ABB is a key interoperability enabler because it helps achieve organisational interoperability by ensuring ensuring the provision/consumption of front-office public services. Catalogues are also key element of the EIF "Integrated Public Service Governance" conceptual model. According to EIF Recommendation 44: "Put in place catalogues of public services, public data, and interoperability solutions and use common models for describing them."	FEDICT service catalogue FEDICT, part of the Federal Public Service Policy and Support of Belgium, offers a public service catalogue. Here are a few examples of the offered services: Company data (company information and certificates), Digiflow (access to online certificates), E-mail Relay (relay of e-mail to and from the federal public services and institutions, as a protection to viruses and spam), eBirth (birth online notification and transfer of statistics), eDepot (for notaries), Federal Authentication Service (authentication of individuals for access to online government applications), etc. http://www.fedict.belgium.be/en/service_catalogue	Web Portal
ABB173	Public Service Delivery Agent	Any agent that delivers or has the power to deliver a public service. This includes people, organisations and groups. A Public Service Delivery Agent delivers a public service on behalf of a Service Providers. An example of this would be pharmacies that deliver a service 'on the behalf of' the Ministry of Health. In this case the pharmacies would be captured as a Service Delivery Agent whereas the Service Provider would be the Ministry of Health. Based on definition of Agent class in ISA2 Core Vocabularies https://joinup.ec.europa.eu/catalogue/distribution/cpsv-ap-specification-v20-pdf	The Public Service Agent is salient for organisational interoperability because it acts on behalf of a Public Service Provider (the "Principal") to deliver a Public Service. An agent is described by the tuple <agent_type, principal_type>, where agent_type belongs to {human, machine}, and principal_type belongs to {citizen, business, PA}.	Your Europe Advice – ECAS Your Europe Advice is an EU advice service provided by legal experts from ECAS (European Citizen Action Service) operating under contract with the European Commission. It consists of a team of about 60 lawyers who cover all 24 official EU languages and are familiar both with EU law and national laws in all EU countries. Your Europe Advice replies to questions from citizens or businesses on their personal EU rights. The experts respond to the questions within one week, free of charge and in the language chosen by the user. ECAS' mission is to empower citizens to exercise their rights and promote open and inclusive decision-making through the provision of high quality advice, research and advocacy, as well as capacity building for civil society organisations. http://ecas.org/services/your-europe-advice-yea/	- Municipalities - Government Authorities
ABB12	Business Capability	A particular ability or capacity that an organisation may possess or exchange to achieve a specific purpose or outcome. Defining a business capability involves identifying and describing what needs to be done by the business in support of its overall mission. Business capabilities provide an abstraction of the business reality in a way that helps to simplify conversations between interested stakeholders. Based on TOGAF definition and description of business capability. https://www2.opengroup.org/ogsys/catalog/g161	The Business Capability ABB is salient for organisational interoperability because it defines the main business reason for exchanging business information with other business capabilities in another organisation or in the same organisation.	Surveillance3 reporting and generation of data sets The reporting and generation of data sets business capability brought by Surveillance3 enables the reporting and analysis of data by the end users, through integration mechanisms to other applications. Surveillance3 aggregates the declaration data and additional data such as Binding Tariff Information (BTI) decisions and Surveillance definitions in order to produce consolidated reports about: 1. The BTI usage for the DG TAXUD BTI sector users and for Member State users and 2. Surveillance statistical data http://ec.europa.eu/taxation_customs/dds2/surv/surv_consultation.jsp?Lang=en	Facilitating the share/reuse of the companies information between producers (those involved in providing information) and consumers (those involved in retrieving information). In particular, entrepreneurs and SME's can: - display of information - pre-filling of information in e-services - use data provided by authorities
ABB170	Exchange of Business Information	Communication of business information by a business capability. This ABB is a key interoperability enabler (*) for assessing the compatibility of interaction in exchanged information.	The Exchange of business Information ABB is a key interoperability enabler because it helps achieve organisational interoperability by ensuring compatible interaction between organisations, as stated in the EIF: "For the purpose of the EIF, interoperability is the ability of organisations to interact towards mutually beneficial goals, involving the sharing of information and knowledge between these organisations, through the business processes they support, by means of the exchange of data between their ICT systems".	Easi-MicPro - Agreement of Code of good conduct Proof of transparency and usage of pan-European reporting standards. https://webgate.ec.europa.eu/easi-micpro/application#!cogcPublicPage <MF>: Not sure this is a good example. Maybe worth to use something from the use cases of CEF e-Delivery? (https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/Success+Stories)	Exchange of companies information
ABB13	Business Information	Represents the business facts, data, or opinions, in any medium or form, including textual, numerical, graphic, cartographic, narrative, or audio-visual forms that the capability exchanges with other capabilities to support the execution of value streams. Examples include information about public service consumers, products and services, policies and rules, reports and metrics. Based on TOGAF guide about business capabilities and TOGAF definition of information. https://www2.opengroup.org/ogsys/catalog/g161 http://pubs.opengroup.org/architecture/togaf9-doc/arch/	The Business Information ABB is salient for organisational interoperability because it represents the entity being exchanged between organisations. Its interoperability needs to be guaranteed by means of organisational and semantic interoperability specifications.	Surveillance3 - Surveillance information Published Surveillance information (Business Information) on Europa: Textile category 1 - Cotton yarn, not put up for retail sale [Council Regulation (EEC) No 3030/93] from Belarus in 2015: see URL for details. http://ec.europa.eu/taxation_customs/dds2/surv/surv_data_list.jsp?Lang=en&survNumber=670010&survType=1&startDate=20150101&originCode=BY	Companies information such as: • Company identifier (Registration number) • Legal company name • Legal form • Registered office (county, municipality) • Company address (street, postal code, city) • Company registration date • Company status
	Privacy Framework	Agreed approach made of interlinked items supporting the management, distribution of sensitive information and individual's information. Source: ISA2, EIFv2 https://ec.europa.eu/isa2/isa2_en	The Privacy Framework ABB is salient for interoperability because "security and privacy are primary concerns in the provision of public services" (EIF) and, as stated in EIF Recommendation 15: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."	European Privacy Framework European privacy legislation is made up of two parts: The Data Protection Directive (95/46/EC) exists as a common ground across Europe. The Directive is a legislative act of the European Union that requires all member states to ensure there is an "adequate" level of data protection. The second part consists of diverse national laws.	<i>Not detected</i>

ABB223	Security Framework	<p>Agreed approach made of interlinked items supporting the management and protection sensitive information, individual's information and other resources.</p> <p>Source: ISA2, EIFv2 https://ec.europa.eu/isa2/isa2_en</p>	<p>The Security Framework ABB is salient for interoperability because "security and privacy are primary concerns in the provision of public services" (EIF) and, as stated in EIF Recommendation 15: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."</p>	<p>The EU cybersecurity certification framework</p> <p>The European Commission puts forward the creation of a EU certification framework for ICT security products in its 2017 proposal for a regulation.</p> <p>On 13 September 2017 the Commission issued a proposal for a regulation on ENISA, the "EU Cybersecurity Agency", and on Information and Communication Technology cybersecurity certification ("Cybersecurity Act").</p> <p>Certification plays a critical role in increasing trust and security in products and services that are crucial for the digital single market. At the moment, a number of different security certification schemes for ICT products exist in the EU. Without a common framework for EU-wide valid cybersecurity certificates, there is an increasing risk of fragmentation and barriers in the single market.</p> <p>The proposed certification framework will provide EU-wide certification schemes as a comprehensive set of rules, technical requirements, standards and procedures. This will be based on agreement at EU level for the evaluation of the security properties of a specific ICT-based product or service e.g. smart cards.</p> <p>The certification will attest that ICT products and services that have been certified in accordance with such a scheme comply with specified cybersecurity requirements. The resulting certificate will be recognized in all Member States, making it easier for businesses to trade across borders and for purchasers to understand the security features of the product or service.</p> <p>The schemes proposed in the future European framework will rely as much as possible on international standards as a way to avoid creating trade barriers and ensuring coherence with international initiatives.</p>	Not detected
ABB206	Interoperability Framework	<p>An agreed approach to interoperability for organisations that wish to work together towards the joint delivery of public services. Within its scope of applicability, it specifies a set of common elements such as vocabulary, concepts, principles, policies, guidelines, recommendations, standards, specifications and practices.</p> <p>Source: ISA2, EIFv2 https://ec.europa.eu/isa2/isa2_en</p>	<p>The Interoperability Framework ABB is an interoperability enabler because it helps achieve organisational interoperability by defining a set of rules, practices and a commonly agreed approach to the delivery of European public services. The EIF is an instance of this building block: "The European interoperability framework is a commonly agreed approach to the delivery of European public services in an interoperable manner. It defines basic interoperability guidelines in the form of common principles, models and recommendations."</p>	<p>The new European Interoperability Framework (EIF)</p> <p>The new European Interoperability Framework (EIF) is part of the Communication (COM(2017)134) from the European Commission adopted on 23 March 2017. The framework gives specific guidance on how to set up interoperable digital public services.</p> <p>It offers public administrations 47 concrete recommendations on how to improve governance of their interoperability activities, establish cross-organisational relationships, streamline processes supporting end-to-end digital services, and ensure that both existing and new legislation do not compromise interoperability efforts.</p> <p>The new EIF is undertaken in the context of the Commission priority to create a Digital Single Market in Europe. The public sector, which accounts for over a quarter of total employment and represents approximately a fifth of the EU's GDP through public procurement, plays a key role in the Digital Single Market as a regulator, services provider and employer.</p> <p>The successful implementation of the EIF will improve the quality of European public services and will create an environment where public administrations can collaborate digitally.</p> <p>https://ec.europa.eu/isa2/eif_en</p>	EIF (European Interoperability Framework)
ABB214	Interoperability Governance	<p>Refers to decisions on interoperability frameworks, institutional arrangements, organisational structures, roles and responsibilities, policies, agreements and other aspects of ensuring and monitoring interoperability at national and EU levels.</p> <p>Source: the New EIF http://eur-lex.europa.eu/resource.html?uri=cellar:2c2f2554-0faf-11e7-8a35-01aa75ed71a1.0017.02/DOC_3&format=PDF</p> <p>Syn. Interoperability management method or system</p>	<p>The Interoperability Governance ABB is an interoperability enabler because it helps achieve organisational interoperability as it is "the key to a holistic approach on interoperability, as it brings together all the instruments needed to apply it" (EIF). As stated in EIF Recommendation 20: "Ensure holistic governance of interoperability activities across administrative levels and sectors."</p>	<p>Governance defined in the new European Interoperability Framework (EIF)</p> <p>§ 3.1 of the new EIF Annex II: Interoperability governance refers to decisions on interoperability frameworks, institutional arrangements, organisational structures, roles and responsibilities, policies, agreements and other aspects of ensuring and monitoring interoperability at national and EU levels. The European interoperability framework, the Interoperability Action Plan (Annex 1 to the Communication) and the European interoperability architecture (EIRA) are important parts of interoperability governance at the EU level.</p> <p>http://eur-lex.europa.eu/resource.html?uri=cellar:2c2f2554-0faf-11e7-8a35-01aa75ed71a1.0017.02/DOC_3&format=PDF</p>	
ABB205	Interoperability Organisational Authority	<p>A person or organisation having the political and/or administrative power to create and govern the interoperability capabilities of an organisation.</p> <p>Based on the definitions of authority and organisational in the Oxford dictionary. https://en.oxforddictionaries.com/definition/authority</p> <p>Syn. Interoperability Coordination Power or Right, or Control</p>	<p>The Interoperability Organisational Authority ABB is an interoperability enabler because it helps achieve organisational interoperability by ensuring political and/or administrative governance of the interoperability capabilities of an organisation as stated in the EIF Recommendation 20: "Ensure holistic governance of interoperability activities across administrative levels and sectors"</p>	<p>INSPIRE Directive 2007/2/EC of 14 March 2007, Article 19</p> <p>1. The Commission shall be responsible for coordinating Inspire at Community level and shall be assisted for that purpose by relevant organisations and, in particular, by the European Environment Agency.</p> <p>2. Each Member State shall designate a contact point, usually a public authority, to be responsible for contacts with the Commission in relation to this Directive. This contact point will be supported by a coordination structure, taking account of the distribution of powers and responsibilities within the Member State.</p> <p>http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32007L0002&from=EN</p>	Not detected
ABB208	Interoperability Strategy	<p>The overarching strategic plan in the area of cross-border interoperability, developed by the European Commission in conjunction with Member State Chief Information Officers (CIOs).</p> <p>Source: ISA2 https://ec.europa.eu/isa2/actions/continuously-updating-european-interoperability-strategy_en</p>	<p>The Interoperability Strategy ABB is an interoperability enabler because it helps achieve organisational interoperability by setting up the vision and principles for the development of the interoperability capabilities. The European Interoperability Framework implements the European Interoperability Strategy.</p>	<p>European Interoperability Strategy (EIS)</p> <p>COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL COMMITTEE AND THE COMMITTEE OF THE REGIONS - Towards interoperability for European public services</p> <p>This Communication introduces the European Interoperability Strategy (EIS) and the European Interoperability Framework (EIF) for European public services, two key elements in the Digital Agenda. Together, they promote interoperability among public administrations.</p> <p>The European Interoperability Strategy (EIS) is developed by the European Commission's Directorate-General for Informatics. The EIS aims to provide guidance and to prioritise the actions needed to improve interaction, exchange and cooperation among European public administrations across borders and across sectors for the delivery of European public services.</p> <p>http://eur-lex.europa.eu/resource.html?uri=cellar:f132547a-7d66-4626-8eb6-9f7428394de7.0017.03/DOC_2&format=PDF</p>	<p>The Interoperability Strategy pursues and is characterized by the following items:</p> <ul style="list-style-type: none"> - Simplify and reduce the reporting requirements faced by entrepreneurs/SMEs - Lessen the administrative burden - Share and reuse information - Once only-principle

ABB176	Organisational Interoperability Specification	This aspect of interoperability is concerned with how organisations, such as public administrations in different Member States, cooperate to achieve their mutually agreed goals. In practice, organisational interoperability implies integrating business processes and related data exchange. Organisational interoperability also aims to meet the requirements of the user community by making services available, easily identifiable, accessible and user-focused.	The Organisational Interoperability Specification ABB is a key interoperability enabler because it helps achieve organisational interoperability by addressing the core organisational interoperability background for solutions, as stated in the document "How EIRA supports interoperability". Organisational interoperability specifications require the organisational terms and conditions for the exchange of information, access to public services and a common interpretation of the exchanged information despite the numerous ways the data may be represented.	Memorandum of Understanding on Economic and Financial Statistics between the DG Statistics of the European Central Bank and Eurostat The purpose of this Memorandum of Understanding is to set out the respective areas of responsibility in economic and financial statistics at the Community level of the ECB (Directorate General Statistics) and the Commission (Eurostat); to provide a framework for the exchange and reproduction of data; to note the forms which co-operation between the Directorate General Statistics (DG Statistics) and Eurostat will take; and to set down a procedure for resolving disagreements. https://www.ecb.europa.eu/ecb/legal/pdf/en_mou_with_eurostat1.pdf	<i>Not detected</i>
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ID	Name	Current Description	ABB Interoperability Saliency	Examples	Input
ABB22	Data	<p>Data is facts represented as text, numbers, graphics, images, sound, or video. Data is the raw material used to represent information, or from which information can be derived.</p> <p>Data are symbols obtained through an encoding process of business information or a legal act.</p> <p>Source: ISO-IEC-2382-1 * 1993 * https://www.iso.org/obp/ui/#iso:std:iso-iec:2382:ed-1:v1:en</p>	<p>The Data ABB is salient for semantic interoperability because it represents the most important mean of interaction between ICT systems of organisations in order to ensure interoperability as stated in the EIF recommendation n° 30: "Perceive data and information as a public asset that should be appropriately generated, collected, managed, shared, protected and preserved."</p>	<p>The EU ETS data viewer provides an easy access to emission trading data contained in the European Union Transaction Log (EUTL). The EUTL is a central transaction log, run by the European Commission, which checks and records all transactions taking place within the trading system. The EU ETS data viewer provides aggregated data by country, by main activity type and by year on the verified emissions, allowances and surrendered units of the more than 12 000 stationary installations reporting under the EU emission trading system, as well as 1400 aircraft operators.</p> <p>https://www.eea.europa.eu/data-and-maps/dashboards/emissions-trading-viewer-1</p>	
ABB182	Representation	<p>The description of the perceptible configuration of business information or a Legal act. Representations can be classified in various ways; for example, in terms of medium (e.g. electronic or paper documents, audio, etc.) or format (HTML, ASCII, PDF, RTF, etc.).</p> <p>Source: ArchiMate® v3 http://pubs.opengroup.org/architecture/archimate3-doc/chap08.html</p>	<p>INTEROPERABILITY SALIENCY: The Representation ABB is a key interoperability enabler because it ensures a common and unambiguous interpretation of Data (*).</p> <p>(*DECISION (EU) 2015/2240 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 November 2015 establishing a programme on interoperability solutions and common frameworks for European public administrations, businesses and citizens (ISA2 programme) as a means for modernising the public sector</p>	<p>ESPD data - XML representation</p> <p>European Single Procurement Document (ESPD) is a self-declaration of the businesses' financial status, abilities and suitability for a public procurement procedure. It is available in all EU languages and used as a preliminary evidence of fulfilment of the conditions required in public procurement procedures across the EU. Thanks to the ESPD, the tenderers no longer have to provide full documentary evidence and different forms previously used in the EU procurement, which means a significant simplification of access to cross-border tendering opportunities. [...] The online form can be filled in, printed and then sent to the buyer together with the rest of the bid.</p> <p>https://ec.europa.eu/tools/espd/filter?lang=en</p>	
ABB30	Data Policy	<p>A set of broad, high level principles which form the guiding framework in which data management can operate.</p> <p>Source: OECD https://stats.oecd.org/glossary/detail.asp?ID=4454</p>	<p>The Data Policy ABB is salient for semantic interoperability because it provides a guiding framework to manage data and information according to interoperability principles as stated in the EIF recommendation n° 30: "Perceive data and information as a public asset that should be appropriately generated, collected, managed, shared, protected and preserved."</p>	<p>EU SCIENCE HUB - The European Commission's science and knowledge service - JRC's Data policy</p> <p>The JRC's data policy is driven by transparency with the aim of contributing to innovation. It is a pillar of the development and implementation of scientific knowledge management at the JRC. It follows the commitments and regulatory basis of the Commission Decision on the reuse of Commission documents (2011/833/EU).</p> <p>https://ec.europa.eu/jrc/en/about/jrc-in-brief/data-policy http://publications.jrc.ec.europa.eu/repository/bitstream/JRC95307/1/b-na-27163-en-n%20.pdf</p>	
ABB23	Data Set	<p>A Data Set is a collection of data, published or curated by a single agent, and available for access or download in one or more formats.</p> <p>Source: W3C http://www.w3.org/TR/vocab-dcat/#class-dataset</p>	<p>The Data Set ABB is salient for semantic interoperability because it provides a collection of data to be shared or exchanged between ICT systems as stated in the EIF recommendation n° 30: "Perceive data and information as a public asset that should be appropriately generated, collected, managed, shared, protected and preserved."</p>	<p>Eurostat - Water productivity data set</p> <p>Water productivity indicates how much economic output is produced per cubic meter of fresh water abstracted (in EUR per m3 or PPS per m3). It serves as a measure of the efficiency of water use.</p> <p>https://data.europa.eu/euodp/en/data/dataset/djp7fG1qYJ6KqhQRbCzw</p>	

ABB24	Data Set Catalogue	<p>A collection of datasets. This ABB is a key interoperability enabler (*) for sharing/PROVISIONING and reusing/CONSUMING Data.</p> <p>Based on W3C http://www.w3.org/TR/vocab-dcat/#class-catalog</p>	<p>The Data Set Catalogue ABB is a key interoperability enabler / manifestation because it supports to achieve semantic interoperability by ensuring the provision and consumption of data as stated in the EIF recommendation n° 44: "Put in place catalogues of public services, public data, and interoperability solutions and use common models for describing them."</p>	<p>Agricultural and Vegetable Catalogue The seed of varieties of agricultural and plant species and varieties of vegetable species that are published in the EU level common catalogue is subject to no marketing restrictions with the Community. Publication in the catalogue must be approved as fulfilling minimum requirements laid down in legislation. Data is published on the contents of the catalogues for agricultural and vegetal species and maintainers with details of the reference list.</p> <p>https://data.europa.eu/euodp/data/dataset/7A980EqVa83q6L7tHQ</p>	
ABB195	Descriptive Metadata Policy	<p>A resource for purposes such as discovery and identification. It can include elements such as title, abstract, author, and keywords.</p> <p>Source: http://www.niso.org/publications/press/UnderstandingMetadata.pdf</p>	<p>The Descriptive Metadata ABB is salient for semantic interoperability because it facilitates opening and sharing data by providing the appropriate format, description of the content, high level of quality in order to achieve interoperability as stated in the EIF recommendation n° 42: "[...] Ensure that open data is accompanied by high quality, machine-readable metadata in non-proprietary formats, including a description of their content, the way data is collected and its level of quality and the licence terms under which it is made available. The use of common vocabularies for expressing metadata is recommended."</p>	<p>Dublin Core Metadata Element Set, Version 1.1: Reference Description The Dublin Core Metadata Element Set is a vocabulary of fifteen properties for use in resource description. The name "Dublin" is due to its origin at a 1995 invitational workshop in Dublin, Ohio; "core" because its elements are broad and generic, usable for describing a wide range of resources. The fifteen element "Dublin Core" described in this standard is part of a larger set of metadata vocabularies and technical specifications maintained by the Dublin Core Metadata Initiative (DCMI). The full set of vocabularies, DCMI Metadata Terms [DCMI-TERMS], also includes sets of resource classes (including the DCMI Type Vocabulary [DCMI-TYPE]), vocabulary encoding schemes, and syntax encoding schemes. The terms in DCMI vocabularies are intended to be used in combination with terms from other, compatible vocabularies in the context of application profiles and on the basis of the DCMI Abstract Model [DCAM].</p> <p>http://dublincore.org/documents/dces/</p>	
ABB181	Master Data Policy	<p>The authoritative, most accurate data that is available about key business entities, used to establish the context for business transactions and transactional data.</p> <p>Source: DAMA DM_BOK http://www.dama.org</p>	<p>The Master Data ABB is salient for semantic interoperability because it is used to establish the context for business transactions and transactional data by providing accurate data usually stored and available for reuse by other parties. Its management should be prioritised as stated in the EIF recommendation n° 31: "Put in place an information management strategy at the highest possible level to avoid fragmentation and duplication. Management of metadata, master data and reference data should be prioritised."</p>	<p>EMVO: EMVS Master Data Guide The EMVS (European Medicines Verification System) requires that OBP's (OnBoarding Partners) upload both product master data and product batch/pack data. The aim of this guide is to clarify what data is expected to be used for the EMVS master data noting that the long-term goal is to source directly from the IDMP/SPOR system.</p> <p>https://emvo-medicines.eu/new/wp-content/uploads/EMVO_0122_EMVS-Master-Data-Guide-1.pdf</p>	

ABB224	Open Data Policy	<p>Open data refers to the practice of publishing (raw) data in a way that is accessible, reusable, machine readable and licensed permissively. It can be generated by a wide range of parties, including public authorities, the semi-public sector, businesses and the public. In the case of public authorities, such as European Union organisations, making their data available for public reuse supports economic development, openness and transparency.</p> <p>Source: EU Open Data guide http://bookshop.europa.eu/en/eu-open-data-pbOA0416036/downloads/OA-04-16-036-EN-C/OA0416036ENC_002.pdf?FileName=OA0416036ENC_002.pdf&SKU=OA0416036ENC_PDF&CatalogueNumber=OA-04-16-036-EN-C</p>	<p>The Open Data ABB is salient for semantic interoperability because it is a part of the basic components of the EIF's conceptual model for integrated public services. Opening of public sector datasets for sharing and reuse is encouraged by the Directive on the reuse of public sector information, which provides a common legal framework for reuse of public sector data as stated in the EIF recommendation n° 2: "Publish the data you own as open data unless certain restrictions apply."</p>	<p>EU implementation of the G8 Open Data Charter</p> <p>https://ec.europa.eu/digital-single-market/en/news/eu-implementation-g8-open-data-charter</p>	
ABB225	Base Registry Data Policy	<p>A trusted authentic source of information under the control of an appointed public administration or organisation appointed by government.</p> <p>According to the European Interoperability Framework, base registries are: "reliable sources of basic information on items such as persons, companies, vehicles, licenses, buildings, locations and roads" and "are authentic and authoritative and form, separately or in combination, the cornerstone of public services".</p> <p>Source: the New EIF http://eur-lex.europa.eu/resource.html?uri=cellar:2c2f2554-0faf-11e7-8a35-01aa75ed71a1.0017.02/DOC_3&format=PDF</p>	<p>The Base Registry ABB is salient for semantic interoperability because it includes "authoritative sources of information", that need to be made available. EIF's includes base registries in the conceptual model for integrated public services, and describes it as "the cornerstone of European public service delivery". EIF gives several recommendations on how to manage and interact with base registries (recommendation 37, 38, 39 and 40).</p>	<p>GOOD PRACTICES ON BUILDING SUCCESSFUL INTERCONNECTIONS OF BASE REGISTRIES</p> <p>In order to provide quick and user-friendly public services to citizens and businesses, public administrations are trying to adopt customer-centric approaches and readjust their ways of working. One way to achieve efficiency and increase user-friendliness is through the 'once-only principle'. Instead of asking the citizen for information that they have already provided, public administrations will reuse the information they already have. Much of this information is stored in authoritative databases called base registries. As the authentic sources of data for public administrations, base registries are one of the basic building blocks of public services and are the key to making the once-only principle a reality. The document contains some good practices to foster access to the data contained in these base registries. The good practices presented, are grouped according to the layered interoperability model proposed by the European Interoperability Framework (EIF).</p> <p>https://ec.europa.eu/isa2/sites/isa/files/publications/access-to-base-registries-good-practices-on-building-successful-interconnections-of-base-registries.pdf</p>	
ABB27	Reference Data Policy	<p>Reference Data is any data used to organise or categorise other data, or for relating data to information both within and beyond the boundaries of the enterprise. Usually consists of codes and descriptions or definitions.</p> <p>Source: DAMA DM_BOK http://www.dama.org</p>	<p>The Reference Data ABB is salient for semantic interoperability because it can be shared and reused (e.g. in the form of taxonomies or controlled vocabularies) between organisation to agree on some basic information. Management of reference data is a priority as suggested by EIF's recommendation 31: "Put in place an information management strategy at the highest possible level to avoid fragmentation and duplication. Management of metadata, master data and reference data should be prioritised."</p>	<p>FIRDS Reference Data System</p> <p>The intended audience of this document is National Competent Authorities, Trading Venues Systematic Internalisers and Data Reporting Service Provider (including Approved Publication Arrangement and Consolidated Tape Providers), who are going to implement system interfaces for the uploading of data to the Financial Instruments Reference Data System.</p> <p>This document aims to specify the exchange of Reference Data Information (RDI) between NCAS, Trading Venues, Systematic Internalisers and the Financial Instruments Reference System.</p> <p>https://www.esma.europa.eu/sites/default/files/library/esma65-11-1193_firds_reference_data_reporting_instructions_v2.0.pdf</p>	

ABB177	Semantic Interoperability Specification	<p>Semantic interoperability enables organisations to process information from external sources in a meaningful manner. It ensures that the precise meaning of exchanged information is understood and preserved throughout exchanges between parties. In the context of the EIF, semantic interoperability encompasses the following aspects:</p> <ul style="list-style-type: none"> • Semantic interoperability is about the meaning of data elements and the relationship between them. It includes developing vocabulary to describe data exchanges, and ensures that data elements are understood in the same way by communicating parties. • Syntactic interoperability is about describing the exact format of the information to be exchanged in terms of grammar, format and schemas. Semantic interoperability specifications support semantic interoperability by addressing the core semantic interoperability background for solutions. 	<p>The Semantic Interoperability Specification ABB is salient for semantic interoperability because it enables organisations to process information from external sources in a meaningful manner and ensuring that the precise meaning of exchanged information is understood and preserved throughout exchanges between parties as stated in the EIF recommendation n°32: "Support the establishment of sector-specific and cross-sectoral communities that aim to create open information specifications and encourage relevant communities to share their results on national and European platforms."</p>	<p>United Nations Centre for Trade Facilitation and E-Business (UN/CEFACT) standard - International Plant Protection Convention (IPPC) SPSCertificate</p> <p>Specification of phytosanitary certificates. These certificates are issued to indicate that consignments of plants, plant products or other regulated articles meet specified phytosanitary import requirements and are in conformity with the certifying statement of the appropriate model certificate.</p> <p>http://ephyto.ippc.int/UN-CEFACT-schema/</p>	
ABB26	Data Model	<p>A collection of entities, their properties and the relationships among them, which aims at formally representing a domain, a concept or a real-world thing.</p> <p>Source: ISA2 - SEMIC Action https://joinup.ec.europa.eu/sites/default/files/methodology_and_tools_for_metadata_governance_and_management_for_eu_institutions.pdf</p>	<p>The Data Model ABB is salient for semantic interoperability because it ensures compatible interpretations of data exchange as specified in the document "Methodology and tools for metadata governance and management for EU Institutions", developed under the SEMIC action of the ISA Programme: "Whilst technological developments offer various means to automate the exchange of information, technological developments alone cannot guarantee a greater interoperability between information systems. A fundamental aspect is the need for common data standards: primarily data models and reference data [...]"</p>	<p>ESPD - Exchange data model</p> <p>The ESPD exchange data model (ESPD-EDM) is used for the ESPD service provided by the European Commission.</p> <p>The ESPD Exchange Data Model was designed to implement the data requirements expressed in the Annex 2 of the COMMISSION IMPLEMENTING REGULATION (EU) 2016/7 of 5 January 2016 (from now on "the Annex to the Regulation 2016/7"), establishing the standard form for the European Single Document. Additionally to these requirements, the model took also into account the Information Requirements Model specified by the CEN/BII-Workshops.[3] (namely Workshop 3), and the latest developments relating to the Virtual Company Dossier (VCD) in e-Sens.[4].</p> <p>One premise that has ruled the design and implementation life-cycle of the ESPD-EDM has been "not to reinvent the wheel". Thus some very early key decisions were:</p> <ul style="list-style-type: none"> (i) select a mature business language for the naming, design and implementation of the ESPD-EDM; (ii) reuse as much as possible existing information components and libraries "as-they-are"; (iii) for those entities that are not defined in any standard specification, design new components in such a way that they can be reused in other situations and domains, both in e-Procurement and beyond e-Procurement. <p>OASIS UBL-2.1 standard was chosen as the best candidate to base the ESPD-EDM upon. The main reasons for this decisions were:</p>	

ABB20	Data Entity	<p>A classification of objects found in the real world described by the Noun part of speech – persons, places, things, concepts, and events – of interest to the enterprise.</p> <p>Source: DAMA DM_BOK http://www.dama.org</p>	<p>The Data Entity ABB is salient for semantic interoperability because it represents a basic component of a Data Model ABB (see Data Model building block).</p>	<p>EURES - Job vacancy</p> <p>Most of the jobs on the EURES Job Mobility Portal come from the job vacancies databases managed by the Public Employment Services of the countries participating in EURES. Using a technology called Web Services, the EURES search engine instantly, in real time, interrogates each national database for jobs. These jobs can be of two types: "EURES jobs", displayed with a blue flag, which are jobs where an employer has expressed an interest in recruiting from another country, or any other jobs advertised in the national jobs databases. There is, in addition, a central database where EURES advisers can manually post jobs that will all be flagged as "EURES jobs". This is for the time being the only way for those few countries that are not yet fully connected to Web Services to advertise jobs on the EURES portal. This solution can, however, also be used for other specific purposes, such as when an employer wishes to publish a vacancy in several languages etc., which may not always be possible in a national database.</p> <p>https://ec.europa.eu/eures/public/en/advertise-a-job?lang=en&app=1.8.1p6-build-0&pageCode=advertise_job</p>
ABB194	Core Data Model	<p>A context-neutral data model that captures the fundamental characteristics of an entity or a core set of entities.</p> <p>Based on Core Vocabularies Handbook https://joinup.ec.europa.eu/site/core_vocabularies/Core_Vocabularies_user_handbook/</p>	<p>The Core Data ABB is salient for semantic interoperability because it supports semantic interoperability by providing simplified, reusable and extensible data models that capture the fundamental characteristics of a data entity in a context-neutral and syntax-neutral fashion.</p>	<p>ISA2 Core Vocabularies</p> <p>Core Vocabularies are simplified, re-usable and extensible data models that capture the fundamental characteristics of an entity in a context-neutral fashion. Public administrations can use and extend the Core Vocabularies in the following contexts:</p> <ul style="list-style-type: none"> • Development of new systems: the Core Vocabularies can be used as a default starting point for designing the conceptual and logical data models in newly developed information systems. • Information exchange between systems: the Core Vocabularies can become the basis of a context-specific data model used to exchange data among existing information systems. • Data integration: the Core Vocabularies can be used to integrate data that comes from disparate data sources and create a data mash-up. • Open data publishing: the Core Vocabularies can be used as the foundation of a common export format for data in base registries like cadastres, business registers and service portals. • ISA² has developed the Core Vocabularies for public administrations in an open process with the active involvement of specific working groups. The Core Vocabularies developed are the following: <ul style="list-style-type: none"> - Core Person: captures the fundamental characteristics of a person, e.g. name, gender, date of birth, location. - Registered organisation: captures the fundamental characteristics of a legal entity (e.g. its identifier, activities) which is created through a formal registration process, typically in a national or regional register.

ABB232	Semantic Interoperability Agreement'	<p>Semantic Interoperability Agreement is the consensus among a group of co-operation partners on the model and data entities that support common services. Apart from the typology of the data entities, the consensus also covers the characteristics of the data entities as expressed in metadata and the use of common controlled vocabularies.</p> <p>Source: https://joinup.ec.europa.eu/sites/default/files/document/2015-03/Process</p>	<p>The Semantic Interoperability Agreement ABB is salient for semantic interoperability because it supports semantic interoperability by providing a common and agreed procedure for solution building blocks used in an information exchange context as stated in the EIF recommendation n°32: "Support the establishment of sector-specific and cross-sectoral communities that aim to create open information specifications and encourage relevant communities to share their results on national and European platforms."</p>	<p>e-Invoicing Semantic Data Model</p> <p>The semantic data model includes only the essential information elements that an electronic invoice needs to ensure legal (including fiscal) compliance and to enable interoperability for cross-border, cross-sector and for domestic trade. The semantic data model may be used by public and private sector organisations for public procurement invoicing and took into account the physical and financial supply chain perspective, reflecting both private and public sector requirements, with a view to allowing the full straight-through processing of an electronic invoice.</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/2017/06/28/CEN+Publishes+eInvoicing+Semantic+Data+Model</p>	
ABB231	Data Syntax	<p>Data Syntax is a set of rules defining the way in which data is put together with appropriate identifiers, delimiters, separator character(s), and other non-data characters to form messages.</p> <p>Source: reference: https://www.iso.org/obp/ui/#iso:std:iso:14817:-1:ed-1:v1:en:term:4.59</p>	<p>The Data Syntax ABB is salient for semantic interoperability because it provides the rules establishing how data have to be written.</p>	<p>XML syntax</p> <p>XML syntax refers to the rules that determine how an XML application can be written. The XML syntax is very straight forward, and this makes XML very easy to learn. Below are the main points to remember when creating XML documents.</p> <p>https://www.quackit.com/xml/tutorial/xml_syntax.cfm</p>	

ID	Name	Current Description	ABB Interoperability Saliency	Examples	Input
ABB60	Interoperable European Solution	<p>A solution, developed by Public Administrations that facilitate the delivery of electronic Public Services and cross-border exchange of information between Public Administrations (or Citizens) in support to the implementation and advancement of EU, national or local Public Policies.</p> <p>Based on ISA TES definition https://joinup.ec.europa.eu/node/149889</p>	The Interoperable European Solution ABB is salient for technical interoperability because it is the central element the EIF's conceptual model for integrated public services.	<p>eDelivery</p> <p>Supporting secure and reliable exchange of data and documents eDelivery is a network of nodes for digital communications. It is based on a distributed model where every participant becomes a node using standard transport protocols and security policies. eDelivery helps public administrations to exchange electronic data and documents with other public administrations, businesses and citizens, in an interoperable, secure, reliable and trusted way. eDelivery is one of the building blocks of the European Commission's Connecting Europe Facility (CEF). These building blocks are reusable specifications, software and services that will form part of a wide variety of IT systems in different policy domains of the EU. The CEF eDelivery building block is based on the AS4 messaging protocol, open and free for all, developed by the OASIS standards development organisation. To ease its adoption in Europe, eDelivery uses the AS4 implementation guidelines defined by the Member States in the e-SENS Large Scale Pilot. Organisations must install an Access Point, or use a Service Provider, to exchange information with the AS4 messaging protocol.</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eDelivery</p>	
ABB187	Interoperable European Solution Service	<p>Represents the explicitly defined shared application behavior of a Interoperable European Solution.</p> <p>Based on ArchiMate® v3 http://pubs.opengroup.org/architecture/archimate3-doc/chap09.html</p>	The Interoperable European Solution Service ABB is salient for technical interoperability because it is a central element the EIF's conceptual model for integrated public services. It represents the generalisation of all application services provided by an Interoperable European Solution as stated in the EIF : "Technical interoperability the applications and infrastructures linking systems and services."	<p>EU Login</p> <p>EU Login is the European Commission's user authentication service. It allows authorised users to access a wide range of Commission web services and websites, using a single email address and password. EU Login implements the single sign-on functionality.</p> <p>https://webgate.ec.europa.eu/cas/help.html</p>	
ABB38	Machine to machine interface	<p>A boundary set of means enabling the exchange of data between a service and other services. This ABB is a key interoperability enabler (*) for assessing compatible interfaces.</p> <p>Source: ISA2 - EIA Action</p>	The Machine to machine interface ABB is a key interoperability enabler because it supports to achieve technical interoperability by ensuring availability of interfaces of public administration systems and data they handle as stated in the EIF recommendation n°5: ""Ensure internal visibility and provide external interfaces for European public services" and recommendation n°9:"Ensure data portability, namely that data is easily transferable between systems and applications supporting the implementation and evolution of European public services without unjustified restrictions, if legally possible."	<p>XMLGate TRACES Businesses (XTB)</p> <p>Webservices enabling the management of organisations and cities registered in TRACES.</p> <p>https://circabc.europa.eu</p>	
ABB38	Human interface	<p>A boundary set of means enabling the exchange of data between an individual and a service. This ABB is a key interoperability enabler (*) for assessing compatible interfaces.</p> <p>Source: ISA2 - EIA Action</p>	The Human interface ABB is a key interoperability enabler / manifestation because it supports to achieve technical interoperability exchanging data allowing users to access services through multiple channels as stated in the EIF recommendation n°10: "Use multiple channels to provide the European public service, to ensure that users can select the channel that best suits their needs."	<p>GrapesJS</p> <p>GrapesJS is an open-source, multi-purpose, Web Builder Framework which combines different tools and features with the goal to help you (or users of your application) to build HTML templates without any knowledge of coding. It's a perfect solution to replace the common WYSIWYG editors, which are good for content editing but inappropriate for creating HTML structures. You can see it in action with the official demos, but using its API you're able to build your own editors.</p> <p>https://grapesjs.com/</p>	

ABB159	Service Discovery Service	<p>Shares the functionality of locating a machine-processable description of a service-related resource that may have been previously unknown and that meets certain functional criteria. It involves matching a set of functional and other criteria with a set of resource descriptions. The goal is to find an appropriate service-related resource.</p> <p>Based on W3C https://www.w3.org/TR/2004/NOTE-ws-gloss-20040211/</p>	<p>The Service Discovery Service ABB is salient for technical interoperability because it allows to discover service available for reuses as stated in the EIF recommendation n°36: "Develop a shared infrastructure of reusable services and information sources that can be used by all public administrations."</p>	<p>jUDDI jUDDI is an open source Java implementation of OASIS the Universal Description, Discovery, and Integration (UDDI) specification for (Web) Services. The jUDDI project includes Scout. Scout is an implementation of the JSR 93 - JavaTM API for XML Registries 1.0 (JAXR).</p> <p>Features:</p> <ul style="list-style-type: none"> • Platform Independent • Use with any relational database that supports ANSI standard SQL (MySQL, Oracle, DB2, Sybase, Derby etc.) • Deployable on any Java application server that supports the Servlet 2.3 specification • jUDDI registry supports a clustered deployment configuration. • Easy integration with existing authentication systems • Supports InVM embeddable mode <p>http://juddi.apache.org/</p>	
ABB221	Service Discovery Component	<p>Implements the functionality of locating a machine-processable description of a service-related resource that may have been previously unknown and that meets certain functional criteria. It involves matching a set of functional and other criteria with a set of resource descriptions. The goal is to find an appropriate service-related resource.</p> <p>Based on W3C https://www.w3.org/TR/2004/NOTE-ws-gloss-20040211/</p>	<p>The Service Discovery Component ABB is salient for technical interoperability because it allows to implement the functionality of sharing services available for reuse as stated in the EIF recommendation n°36: "Develop a shared infrastructure of reusable services and information sources that can be used by all public administrations."</p>	<p>Consul Consul has multiple components, but as a whole, it is a tool for discovering and configuring services in an infrastructure.</p> <p>https://www.consul.io/</p>	
ABB45	Orchestration Service	<p>Shares the functionality of defining the sequence and conditions in which one service invokes other services in order to realize some useful function.</p> <p>Based on W3C https://www.w3.org/TR/ws-arch/</p>	<p>The Orchestration Service ABB is salient for technical interoperability because it provides the functionality of "automated" business processes coordination. The EIF's Conceptual model for integrated EU public services foresees the concept a Coordination for Integrated Service Delivery. The Model comprises an "integrated service delivery" is based on a "coordination function", which is related to SOA principles such as choreography and orchestration, to manage internal business processes in order to remove complexity for the end-user, as stated in the EIF: "The coordination function ensures that needs are identified and appropriate services are invoked and orchestrated to provide a European public service. This function should select the appropriate sources and services and integrate them. Coordination can be automated or manual."</p>	<p>Apache ODE (Orchestration Director Engine) software executes business processes written following the WS-BPEL standard. It talks to web services, sending and receiving messages, handling data manipulation and error recovery as described by your process definition. It supports both long and short living process executions to orchestrate all the services that are part of your application.</p> <p>http://ode.apache.org/</p>	
ABB186	Orchestration Component	<p>Implements the functionality that uses various methods to discover, model, analyse, measure, improve, and optimize business processes. A business process coordinates the behavior of people, systems, information, and things to produce business outcomes in support of the business strategy. Processes can be structured and repeatable or unstructured and variable.</p> <p>Based on Gartner http://www.gartner.com/it-glossary/business-process-management-bpm/</p>	<p>The Orchestration Component ABB is salient for technical interoperability because it provides a set of various methods to manage existing business processes or define and establish new ones. BPM components also execute business process documented through accepted modelling techniques, as recommended by the EIF n.28: "Document your business processes using commonly accepted modelling techniques and agree on how these processes should be aligned to deliver a European public service."</p>	<p>Activiti is an open-source workflow engine written in Java that can execute business processes described in BPMN 2.0. Activiti supports open standards such as BPMN and DMN with open REST APIs for demanding human- and system-centric processes. It provides business intelligence and audit logs features for free. And with building the solution on business processes, Activiti help to structure the software, think about user tasks, external systems and timers that need to be managed, think about transaction boundaries of the application.</p> <p>https://www.activiti.org/</p>	
ABB40	Data Transformation Service	<p>Shares the functionality of conversion of one data format to another.</p> <p>Source: ISA2 – EIA Action</p>	<p>The Data Transformation Service ABB is salient for technical interoperability because it provides the functionalities to transform internal data structures to common and agreed interoperable formats as stated in the EIF recommendation n° 41: "Establish procedures and processes to integrate the opening of data in your common business processes, working routines, and in the development of new information systems."</p>	<p>Eurostat transformation service The transformation service allows datasets to be converted from one file format to another, optionally performing additional tasks, such as mapping and transcoding. The service is operational but is currently only available for internal consumption within Eurostat. However, the source code of both web service and software component is available in the SDMX webspace:</p> <p>http://ec.europa.eu/eurostat/web/sdmx-infospace/validation-transformation/transformation-services</p>	

ABB61	Data Transformation Component	<p>implements the functionality of conversion of data from one data format to another.</p> <p>Source: ISA2 – EIA Action</p>	<p>The Data Transformation Component ABB is salient for technical interoperability because it enables the implementation of the functionalities to transform internal data structures to common and agreed interoperable formats as stated in the EIF recommendation n° 41: "Establish procedures and processes to integrate the opening of data in your common business processes, working routines, and in the development of new information systems."</p>	<p>Eurostat SDMX converter The SDMX Converter is a tool that converts statistical datasets between different formats. It is a Java application which is actively developed by Eurostat and is published as open source software.</p> <p>http://ec.europa.eu/eurostat/web/sdmx-infospace/sdmx-it-tools/sdmx-converter</p>	
ABB42	Data Validation Service	<p>Shares the functionality of referring to any activity aimed at verifying that the value of a data item comes from a given set of acceptable values. Data validation may be followed by corrective actions, such as data editing or data imputation.</p> <p>Based on Eurostat Data Validation http://ec.europa.eu/eurostat/data/data-validation</p>	<p>The Data Validation Service ABB is salient for technical interoperability because it shares the functionality to validate if data received (or to be sent) is compliant with common and agreed interoperable formats as stated in the EIF recommendation n° 41: "Establish procedures and processes to integrate the opening of data in your common business processes, working routines, and in the development of new information systems."</p>	<p>Eurostat Struval The Structural Validation service (called STRUVAL) performs structural validation of statistical data files following the SDMX Information Model for a given data flow.</p> <p>http://ec.europa.eu/eurostat/web/sdmx-infospace/validation-transformation/structural-validation</p>	
ABB63	Data Validation Component	<p>implements the functionality of referring to any activity aimed at verifying that the value of a data item comes from a given set of acceptable values. Data validation may be followed by corrective actions, such as data editing or data imputation. In statistics, imputation is the process of replacing missing data with substituted values.</p> <p>Based on Eurostat Data Validation http://ec.europa.eu/eurostat/data/data-validation</p>	<p>The Data Validation Component ABB is salient for technical interoperability because it allows the implementation of the functionality to validate if data received (or to be sent) is compliant with common and agreed interoperable formats as stated in the EIF recommendation n° 41: "Establish procedures and processes to integrate the opening of data in your common business processes, working routines, and in the development of new information systems."</p>	<p>Hibernate Validator Express validation rules in a standardized way using annotation-based constraints and benefit from transparent integration with a wide variety of frameworks. Application layer agnostic validation: Hibernate Validator allows to express and validate application constraints. The default metadata source are annotations, with the ability to override and extend through the use of XML. It is not tied to a specific application tier or programming model and is available for both server and client application programming. Hibernate Validator presents the following characteristics:</p> <ul style="list-style-type: none"> • Extendable: Hibernate Validator offers a configurable bootstrap API as well as a range of built-in constraints. The latter can easily be extended by creating custom constraints. • Rich metadata API: Hibernate Validator gives access to constraint configuration via a metadata API facilitating, for example, tooling integration. • Reference implementation: Hibernate Validator 6.x is the reference implementation Bean Validation 2.0. • Added value: Hibernate Validator offers additional value on top of the features required by Bean Validation. For example, a programmatic constraint configuration API as well as an annotation processor which plugs into the build process and raises compilation errors whenever constraint annotations are incorrectly used. 	
ABB128	Conformance Testing Services	<p>Shares the functionality of verifying that several solutions can interoperate at one or more layers of the interoperability stack, while conforming to one or more specifications. This type of testing is executed by operating SUTs (System Under Test) and capturing their exchanges. The logistics of interoperability testing is usually more costly (time, coordination, interoperability), and interoperability testing is no substitute for a conformance test suite. Experience shows that interoperability testing is more successful and less costly when conformance of implementations has been tested first.</p> <p>Based on CEN/CENELC GITB https://www.cen.eu/work/areas/ict/ebusiness/pages/ws-gitb.aspx</p>	<p>The Conformance Testing Services ABB is salient for technical interoperability because it enables the validation and verification that several solutions at one or more layers of the interoperability stack and they satisfy certain interoperability requirements.</p>	<p>Interoperability Testbed The Test Bed allows users to execute predefined test cases on their systems. Test results are provided in a standardised, machine-readable format. The Test Bed also offers a test registry and repository (TRR) to store test artefacts (assertions, test cases, validation schemas, etc.) and compile test services (validation services, simulator services, etc.).</p> <p>https://ec.europa.eu/isa2/solutions/interoperability-test-bed_en</p>	
ABB129	Conformance Testing Components	<p>implements the functionality of allowing a structured and modular approach to implement test automation.</p> <p>Based on ISTQB http://glossary.istqb.org/search/test</p>	<p>See ABB128- Conformance Testing Services</p>	<p>Interoperability Testbed The Test Bed allows users to execute predefined test cases on their systems. Test results are provided in a standardised, machine-readable format. The Test Bed also offers a test registry and repository (TRR) to store test artefacts (assertions, test cases, validation schemas, etc.) and compile test services (validation services, simulator services, etc.).</p> <p>https://ec.europa.eu/isa2/solutions/interoperability-test-bed_en</p>	

ABB131	Conformance Test Report	Data from testing activities and subsequently consolidated in a report to inform stakeholders. Based on ISTQB http://glossary.istqb.org/search/test	The Conformance Test Report ABB is salient for technical interoperability because it provides reports of data testing to inform stakeholders.	The JUnit plugin provides a publisher that consumes XML test reports generated during the builds and provides some graphical visualization of the historical test results (see JUnit graph for a sample) as well as a web UI for viewing test reports, tracking failures, and so on. Jenkins understands the JUnit test report XML format (which is also used by TestNG). When this option is configured, Jenkins can provide useful information about test results, such as trends. https://wiki.jenkins.io/display/JENKINS/JUnit+Plugin	
ABB130	Conformance Test Scenario	A document specifying a sequence of actions for the execution of a test. Also known as test script or manual test script. Based on ISTQB http://glossary.istqb.org/search/test	The Conformance Testing Scenario ABB is salient for technical interoperability because it provides a document of a list of activities for the execution of interoperability tests.	SoapUI is the world's most widely-used open source API testing tool for SOAP and REST APIs. SoapUI offers SOAP Web Services functional testing, REST API functional testing, WSDL coverage, message assertion testing and test refactoring. Scenario-based tests should be directly tied to user stories, which were probably provided by the product owner or some business stakeholder. Under ideal circumstances, these tests should be the user stories, so that business stakeholders can both easily help the tester develop the test cases and understand the results. https://www.soapui.org/testing-dojoo/best-practices/scenario-based-testing.html https://www.soapui.org/testing-dojoo/world-of-api-testing/test-first.html	
ABB57	Access Management Service	Shares the functionality of allowing users to make use of i) IT services, ii) data, and/or iii) other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorized users are able to access or modify the assets. Based on ITIL v3 https://www.axelos.com/Corporate/media/Files/Glossaries/AXELOS-Common-Glossary.pdf	The Access Management Service ABB is salient for technical interoperability because it provides the functionality of allowing user to make an authorized and trusted use of IT Services, data and other assets as stated in the EIF: "Public administrations should ensure that a 'data access and authorisation plan' which determines who has access to what data and under what conditions, to ensure privacy. Unauthorised access and security breaches should be monitored and appropriate actions should be taken to prevent any recurrence of breaches"	Belgian Federal Public Service Policy and Support - Role Management service The Role Management service gives access managers the possibility to manage roles. A role gives access to an online government application. Users: All public services and institutions that want a secure access management for their applications: federal public services and institutions; Communities and Regions; Provinces, municipalities and local public social welfare centres; businesses or persons implementing government contracts. Requirements: application with Fedict Service Desk and signing up to a user agreement. http://www.fedict.belgium.be/en/identificatie_beveiliging/rolle_nbeheer	
ABB70	Access Management Component	Implements the functionalities of allowing users to make use of i) IT services, ii) data, and/or iii) other assets. Access management helps to protect the confidentiality, integrity and availability of assets by ensuring that only authorised users are able to access or modify the assets. Based on ITIL v3 https://www.axelos.com/Corporate/media/Files/Glossaries/AXELOS-Common-Glossary.pdf	The Access Management Component ABB is salient for technical interoperability because it provides the implementation the functionality of allowing user to make an authorized and trusted use of IT Services, data and other assets as stated in the EIF: "Public administrations should ensure that a 'data access and authorisation plan' which determines who has access to what data and under what conditions, to ensure privacy. Unauthorised access and security breaches should be monitored and appropriate actions should be taken to prevent any recurrence of breaches"	OpenIAM Access Manager OpenIAM Access Management solution is based on a professional open source model. This is a robust, scalable solution built with Service Oriented Architecture. It integrates seamlessly with the OpenIAM Identity Manager product to provide a comprehensive solution that allows to take control of not only who can access the systems, but what they can do once they are in there. Corporate security policy is enforced across multiple points and managed centrally to improve effectiveness and reduce administrative costs. http://www.openiam.com/products/access-manager/overview/	

ABB58	Audit Service	<p>Shares the audit functionality of providing support for the principle of accountability, which is holding users of a system accountable for their actions within the system, and detection of policy violations. The audit policy defines the elements of an information system which need to be traced, for example to assure traceability of actions: what, how, when, where and with what.</p> <p>Based on The Open Group http://www.opengroup.org/security/das/xdas_int.htm</p>	<p>The Audit Service ABB is salient for technical interoperability because it defines the elements of an information system which need to be traced, for example to assure traceability of user actions as stated in the EIF: "Public administrations should ensure that a 'data access and authorisation plan' which determines who has access to what data and under what conditions, to ensure privacy. Unauthorised access and security breaches should be monitored and appropriate actions should be taken to prevent any recurrence of breaches"</p>	<p>OpenIAM Auditing Service ensures that detailed information about events and activities associated with identities or resources are logged into a centralized repository and be tracked.</p> <p>https://www.openiam.com/products/identity-manager/features/audit-compliance/</p>	
ABB71	Audit Component	<p>Implements the functionality of providing support for the principle of accountability, which is holding users of a system accountable for their actions within the system, and detection of policy violations. The audit policy defines the elements of an information system which need to be traced, for example to assure traceability of actions: what, how, when, where and with what.</p> <p>Based on The Open Group http://www.opengroup.org/security/das/xdas_int.htm</p>	<p>The Audit Component ABB is salient for technical interoperability because it allows the implementation of audit policies as stated in the EIF: "Public administrations should ensure that a 'data access and authorisation plan' which determines who has access to what data and under what conditions, to ensure privacy. Unauthorised access and security breaches should be monitored and appropriate actions should be taken to prevent any recurrence of breaches"</p>	<p>Activiti audit feature The audit feature of Activiti archives all process instances, activity instances, keeps variable values continuously in sync and all form properties that are submitted so that all user interaction through forms is traceable and can be audited. Authenticated users who submitted the forms are accessible in the history as well as for start forms and task forms.</p> <p>https://www.activiti.org/userguide/#historyFormAuditPurposes</p>	
ABB178	Technical Interoperability Specification	<p>A specification contained in a document which lays down the characteristics required of a product such as levels of quality, performance, safety or dimensions, including the requirements applicable to the product as regards the name under which the product is sold, terminology, symbols, testing and test methods, packaging, marking or labelling and conformity assessment procedures.</p> <p>Source: Directive 98/34/EC laying down a procedure for the provision of information in the field of technical standards and regulations and of rules on Information Society services; http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CONSLEG:1998L0034:20070101:EN:PDF</p>	<p>The Technical Interoperability Specification ABB is salient for technical interoperability because it assesses the characteristics required of a product to support interoperability solutions.</p>	<p>HTTPS specification HTTP [RFC2616] was originally used in the clear on the Internet. However, increased use of HTTP for sensitive applications has required security measures. SSL, and its successor TLS [RFC2246] were designed to provide channel-oriented security.</p> <p>https://tools.ietf.org/html/rfc2818</p>	
ABB233	Interoperable european solution component	<p>Interoperable European Solution Component represents the encapsulation of a functionality provided by an Interoperable European Solution.</p> <p>Based on ArchiMate® v3 http://pubs.opengroup.org/architecture/archimate3-doc/chap09.html</p>	<p>The Interoperable European Solution Component ABB is salient for technical interoperability because it is a central element the EIF's conceptual model for integrated public services: it represents all the functionalities provided by an Interoperable European Solution as stated in the EIF: "Technical interoperability the applications and infrastructures linking systems and services."</p>	<p>EU Login EU Login is the European Commission's user authentication service. It allows authorised users to access a wide range of Commission web services and websites, using a single email address and password. EU Login implements the single sign-on functionality.</p> <p>https://webgate.ec.europa.eu/cas/help.html</p>	
ABB234	Technical Interoperability Agreement	<p>Technical Interoperability Agreement is the means through which Technical Authorities mandate specific Technical Interoperability Specifications, ensuring organisations (operating under different technical frameworks, policies and strategies) are able to work together.</p> <p>Based on EIF: https://ec.europa.eu/isa2/sites/isa/files/eif_brochure_final.pdf#page=27</p>	<p>The Technical Interoperability Specification ABB is a key interoperability enabler because it provides an agreed procedure according to assess the characteristics required of a product to support interoperability solutions.</p>	<p>ETA The European Technical Assessment (ETA) is an alternative for construction products not covered by a harmonised standard. It is a document providing information on their performance assessment. The procedure is established in the Construction Products Regulation and offers a way for manufacturers to draw up the Declaration of Performance and affix the CE marking. It contributes to the free movement of construction products and the creation of a strong Single Market.</p> <p>https://ec.europa.eu/growth/sectors/construction/product-regulation/european-assessment_en</p>	

ID	Name	Current Description	ABB Interoperability Saliency	Examples	Input
ABB156	e-Archiving Service	<p>Shares the functionality of enabling the permanent or long-term storage of selected (by an authority) electronic documents or information for preservation purposes like their enduring research value and memory aid.</p> <p>The EIRA(c) differentiates between document management, record management and e-archiving as follows:</p> <ul style="list-style-type: none"> - Document management is primarily about day-to-day use of electronic documents (create/update/delete/versioning) within the operational environment; - Record management is primarily about ensuring that information (e.g. in form of an electronic document or database record) is available for business and legal purposes (e.g. to proof and track the handling of contracts). If an electronic document or information is becoming a record (an authority declares it as a record) that electronic document or information needs to be handled by the record management service (based on specific business or legal reasons (e.g. contract negotiation)). - e-Archiving is primarily about storing records which have been selected (by an authority) for permanent or long-term preservation due to their enduring research value and as a memory aid. An electronic document or information which a) is managed by the document management service or the record management service and b) is no longer needed for business or legal purposes or day-to-day activities, and c) still has value for research purposes or as a memory aid, the electronic document should be managed by the e-archiving service". <p>Source: ISA2 - EIA Action</p>	<p>The e-Archiving Service ABB is salient for technical interoperability because it provides and shares the functionality for the long-term or permanent preservation of records and information in electronic form in order to ensure their temporal egibility, reliability and integrity as stated in the EIF: "Legislation requires that decisions and data are stored and can be accessed for a specified time. This means that records and information in electronic form held by public administrations for the purpose of documenting procedures and decisions must be preserved and be converted, where necessary, to new media when old media become obsolete. The goal is to ensure that records and other forms of information keep their legibility, reliability and integrity and can be accessed as long as needed subject to security and privacy provisions."</p>	<p>CEF eArchiving eArchiving provides the core specifications, software, training and knowledge to tackle the challenge of short, medium and long-term data management and reuse in a sustainable, authentic, cost-efficient, manageable and interoperable way.</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving</p>	
ABB157	e-Archive Component	<p>Shares the functionality of enabling the permanent or long-term storage of selected (by an authority) electronic documents or information for preservation purposes like their enduring research value and memory aid.</p> <p>Source: ISA2 - EIA Action</p>	<p>The e-Archiving Component ABB is salient for technical interoperability because it provides the implementation of the functionalities for the long-term or permanent preservation of records and information in electronic form in order to ensure their temporal egibility, reliability and integrity as stated in the EIF: "Legislation requires that decisions and data are stored and can be accessed for a specified time. This means that records and information in electronic form held by public administrations for the purpose of documenting procedures and decisions must be preserved and be converted, where necessary, to new media when old media become obsolete. The goal is to ensure that records and other forms of information keep their legibility, reliability and integrity and can be accessed as long as needed subject to security and privacy provisions."</p>	<p>CEF eArchiving eArchiving provides the core specifications, software, training and knowledge to tackle the challenge of short, medium and long-term data management and reuse in a sustainable, authentic, cost-efficient, manageable and interoperable way.</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eArchiving</p>	
ABB49	Forms Management Service	<p>Shares the functionalities of i) dynamic creation, ii) distribution and ii) analysis of forms and online surveys.</p> <p>Source: ISA2 - EIA Action</p>	<p>The Forms Management Service ABB is salient for technical interoperability because it provides and shares the functionalities of dynamic creation, distribution and analysis of forms and online surveys as stated in the EIF: "Catalogues help others to find reusable resources (e.g. services, data, software, data models). Various types of catalogue exist, e.g. directories of services, libraries of software components, open data portals, registries of base registries, metadata catalogues, catalogues of standards, specifications and guidelines. Commonly agreed descriptions of the services, data, registries and interoperable solutions published in catalogues are needed to enable interoperability between catalogues."</p>	<p>EACEA e-Forms Electronic Application Forms - eForms This page contains the resources and information required by applicants who wish to complete and submit an electronic application form (eForm) for a funding opportunity or for an accreditation.</p> <p>https://eacea.ec.europa.eu/about-eacea/electronic-application-forms-eforms_en</p>	

ABB77	Forms Management Component	<p>Implements the functionalities of i) dynamic creation, ii) distribution and ii) analysis of forms and online surveys.</p> <p>Source: ISA2 - EIA Action</p>	<p>The Forms Management Component ABB is salient for technical interoperability because it provides the implementation of the functionalities of dynamic creation, distribution and analysis of forms and online surveys as stated in the EIF: "Catalogues help others to find reusable resources (e.g. services, data, software, data models). Various types of catalogue exist, e.g. directories of services, libraries of software components, open data portals, registries of base registries, metadata catalogues, catalogues of standards, specifications and guidelines. Commonly agreed descriptions of the services, data, registries and interoperable solutions published in catalogues are needed to enable interoperability between catalogues."</p>	<p>Form Tools is a forms framework written in PHP and MySQL. You download and install the script on your own website. At its heart, Form Tools is a web form creator, processor, data storage and access script. It was originally designed to work with any existing web form, but has since been expanded to create forms automatically as well.</p> <p>https://formtools.org/</p>
ABB215	Data Publication Service	<p>Shares the functionality of making data available for common use.</p> <p>Based on DAMA http://www.dama.org/</p>	<p>The Data Publication Service ABB is salient for technical interoperability because it provides the functionalities to make public data freely available for use and reuse by others unless restriction apply as stated in the EIF recommendation n.2: "Publish the data you own as open data unless certain restrictions apply."</p>	<p>European Data Portal The European Data Portal harvests the metadata of Public Sector information available on public data portals across European countries. Information regarding the provision of data and the benefits of re-using data is also included.</p> <p>https://www.europeandataportal.eu/</p>
ABB209	Data Publication Component	<p>Implements the functionality of making data available for common use.</p> <p>Based on DAMA http://www.dama.org/</p>	<p>The Data Publication Component ABB is salient for technical interoperability because it provides the implementation of the functionalities to make public data freely available for use and reuse by others unless restriction apply as stated in the EIF recommendation n.2: "Publish the data you own as open data unless certain restrictions apply."</p>	<p>CKAN is a data management system that makes data accessible by providing tools to streamline publishing, sharing, finding and using data. This is a tool for making open data websites. It helps you manage and publish collections of data. It is used by national and local governments, research institutions, and other organizations who collect a lot of data.</p> <p>https://ckan.org/</p>
ABB52	Metadata Management Service	<p>Shares the functionalities for the i) creation, ii) storage, iii) categorisation and iv) retrieval of metadata.</p> <p>Based on DAMA http://www.dama.org/</p>	<p>The Metadata management Service ABB is salient for interoperability because it provides and shares the functionalities to manage metadata. EIF recommends to prioritise it: "Put in place an information management strategy at the highest possible level to avoid fragmentation and duplication. Management of metadata, master data and reference data should be prioritised."</p>	<p>Eurostat SDMX repository The Euro SDMX Registry is Eurostat's implementation of an SDMX registry to facilitate the exchange of statistical data and metadata by serving as a metadata repository. It stores the SDMX artefacts needed for the parties to access and interpret the content of the exchanged statistical data and metadata sets.</p> <p>http://ec.europa.eu/eurostat/web/sdmx-infospace/sdmx-it-tools/sdmx-registry</p>
ABB74	Metadata Management Component	<p>Implements the functionalities for the i) creation, ii) storage, iii) categorisation and iv) retrieval of metadata.</p> <p>Based on DAMA http://www.dama.org/</p>	<p>The Metadata management Component ABB is salient for interoperability because it provides the implementation of the functionalities to manage metadata. EIF recommends to prioritise it: "Put in place an information management strategy at the highest possible level to avoid fragmentation and duplication. Management of metadata, master data and reference data should be prioritised."</p>	<p>Eurostat SDMX repository The Euro SDMX Registry is Eurostat's implementation of an SDMX registry to facilitate the exchange of statistical data and metadata by serving as a metadata repository. It stores the SDMX artefacts needed for the parties to access and interpret the content of the exchanged statistical data and metadata sets.</p> <p>http://ec.europa.eu/eurostat/web/sdmx-infospace/sdmx-it-tools/sdmx-registry</p>
ABB235	Privacy Service	<p>Privacy Service shares the functionalities of storing, securing, anonymising, pseudonymising, rectifying and erasing personal data.</p>	<p>The Privacy Service ABB is salient for interoperability because "security and privacy are primary concerns in the provision of public services" (EIF) and, as stated in EIF Recommendation 15: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."</p>	<p>SOLVIT Solvit is a mailbox service for the access, rectification or deletion of personal data.</p> <p>http://ec.europa.eu/solvit/privacy-statement/#maincontentSec8</p>

ABB236	Privacy Component	Privacy Component implements the functionalities of storing, securing, anonymising, pseudonymising, rectifying and erasing personal data.	The Privacy Service ABB is salient for interoperability because "security and privacy are primary concerns in the provision of public services" (EIF) and, as stated in EIF Recommendation 15: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."	SOLVIT Solvit is a mailbox service for the access, rectification or deletion of personal data. http://ec.europa.eu/solvit/privacy-statement/#maincontentSec8	
ABB55	e-Signature Creation Service	Shares the functionality of signing data in electronic form by a natural person. An 'electronic signature' means data in electronic form which is attached to or logically associated with other data in electronic form and which is used by the signatory to sign. Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG	See ABB69 - Trust Service Provisioning Component	CEF eSignature DSS (Digital Signature Services) is an open-source software library for electronic signature creation and validation. https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eSignature	
ABB144	e-Signature Verification and Validation Service	Shares the functionality of the verification of documents that are signed electronically. An 'electronic signature' means data in electronic form which is attached to or logically associated with other data in electronic form and which is used by the signatory to sign. 'validation' means the process of verifying and confirming that an electronic signature or a seal is valid. Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG	See ABB69 - Trust Service Provisioning Component	DSS (Digital Signature Services) is an open-source software library for electronic signature creation and validation. https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eSignature	
ABB197	e-Signature Preservation Service	Shares the functionality of extending the trustworthiness of the qualified electronic signature beyond the technological validity period. An 'electronic signature' means data in electronic form which is attached to or logically associated with other data in electronic form and which is used by the signatory to sign. Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG	See ABB69 - Trust Service Provisioning Component	Namirial Spa Long term archiving solution Namirial is a Trust Service Provider, focused on addressing the fast growing market of Digital Transaction Management (DTM), which includes legally compliant electronic signatures, managing and tracking documents flows, conducting secure transactions and ensuring secure storage of data. https://www.xyzmo.com/digital-signature/e-signature-products	
ABB201	e-Timestamping Creation Service	Shares the functionality of the verification of timestamps used for establishing evidence that a give piece of data existed at a given point in time. An 'electronic time stamp' means data in electronic form which binds other data in electronic form to a particular time establishing evidence that the latter data existed at that time. Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG	See ABB69 - Trust Service Provisioning Component	DigiStamp eTimeStamp® protects the intellectual property in any computer file: <ul style="list-style-type: none"> • Use Desktop and Web applications for on-demand protection • Plug the Timestamp Authority into the automated systems Plug-in rigorous implementation of US & EU standards: <ul style="list-style-type: none"> • Secure, reliable, RFC 3161 timestamp cloud service • Archiving and Hash Chaining keyless security • Elliptic Curve Upgrade Implementation of the Internet Engineering Task Force's RFC 3161 means DigiStamp timestamps are understood by data validation systems the world over: <ul style="list-style-type: none"> • Implementation of ANSI X9.95 further increases the compatibility of our timestamps. • Compliance with IETF RFC 3628 gives credence to the trustworthiness of our Time Stamp Authorities. • Conformance to IETF RFC 3126 makes our timestamps usable for long-term, legally binding agreements. https://www.digistamp.com/	
ABB202	e-Timestamping Verification and Validation Service	Shares the functionality of the verification of timestamps used for establishing evidence that a give piece of data existed at a given point in time. An 'electronic time stamp' means data in electronic form which binds other data in electronic form to a particular time establishing evidence that the latter data existed at that time. Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG	See ABB69 - Trust Service Provisioning Component	OpenSSL timestamp verification OpenSSL is an open-source tool that can be used to retrieve and verify digital timestamps. https://wiki.openssl.org/index.php/Manual:Ts(1) https://www.digistamp.com/technical/software-alternatives/using-openssl-to-request-timestamps/	

ABB203	Registered Electronic Delivery Service	<p>Shares the functionalities that i) makes it possible to transmit data between third parties by electronic means and ii) provides evidence relating to the handling of the transmitted data, including proof of sending and receiving the data, and iii) that protects transmitted data against the risk of loss, theft, damage or any unauthorised alterations;</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AQJ.L_.2014.257.01.0073.01.ENG</p>	See ABB69 - Trust Service Provisioning Component	<p>Qualified electronic registered delivery services listed with CEF Trusted List Browser tool Qualified electronic registered delivery services are listed on</p> <p>https://webgate.ec.europa.eu/tl-browser/#/search/1</p> <p>https://webgate.ec.europa.eu/tl-browser/#/search/1</p>
ABB69	Trust Service Provisioning components	<p>Implements the functionalities encapsulating the trust services functionalities.</p> <p>A 'trust service' means an electronic service normally provided for remuneration which consists of these functionalities:</p> <p>i) the creation, verification, and validation of electronic signatures, electronic seals or electronic time stamps, electronic registered delivery services and certificates related to those services, or</p> <p>ii) the creation, verification and validation of certificates for website authentication; or</p> <p>iii) the preservation of electronic signatures, seals or certificates related to those services.</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AQJ.L_.2014.257.01.0073.01.ENG</p>	The Trust Service Provisioning Component ABB is salient for technical interoperability because it provides the implementation of the functionalities of information exchange between administrations, businesses and citizens (e-signature and e-seal creation, verification, validation and preservation, timestamping creation, verification and validation, identity management, etc.) as stated in the EIF recommendation n°47: "Use trust services according to the Regulation on eID and Trust Services as mechanisms that ensure secure and protected data exchange in public services."	<p>e-TrustEx</p> <p>Open e-TrustEx is a platform offered by the Directorate-General for Informatics of the European Commission to Public Administrations at European, national and regional level to set up secure exchange of natively digital documents from system to system via standardized interfaces. Open e-TrustEx provides a set of generic web services, which Public Administrations can use to connect heterogeneous applications, removing the need for complex point-to-point connections.</p> <p>http://eur-lex.europa.eu/legal-content/DE/TXT/?uri=CELEX%3A52016SC0279</p> <p>https://joinup.ec.europa.eu/solution/open-e-trustex</p>
ABB204	Identity Management Service	<p>Shares the functionality of user authentication.</p> <p>'Electronic identification' means the process of using person identification data in electronic form uniquely representing either a natural or legal person, or a natural person representing a legal person;</p> <p>'Authentication' means an electronic process that enables the electronic identification of a natural or legal person, or the origin and integrity of data in electronic form to be confirmed;</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AQJ.L_.2014.257.01.0073.01.ENG</p>	See ABB69 - Trust Service Provisioning Component	<p>EU Login</p> <p>EU Login is the European Commission's user authentication service. It allows authorised users to access a wide range of Commission web services. EU Login is the entry gate to sign in to different European Commission services and/or other systems. EU Login verifies your identity and allows recovering your personal settings, history and access rights in a secure way. You can sign in using social media accounts or the EU Login account.</p> <p>EU Login supports a variety of verification methods:</p> <ul style="list-style-type: none"> • Password; • ECAS Mobile App PIN code; • ECAS Mobile App QR code; • On mobile authentication; • Mobile phone + SMS; • Token and Token CRAM. <p>https://webgate.ec.europa.eu/cas/about.html</p> <p>https://webgate.ec.europa.eu/cas/manuals/EU_Login_Tutorial_1.1.pdf</p> <p>Federal Public Service Policy and Support - Federal Authentication Service (FAS)</p> <p>Via the Federal Authentication Service (FAS) individuals are authenticated so that they can access secure online government applications.</p> <p>Characteristics:</p> <ul style="list-style-type: none"> • Three different security levels depending on the sensitivity of the information: user name and password; user name, password and token; electronic identity card with associated PIN code. • Authentication when connecting to an application • Support with the implementation of the service
ABB158	Identity Management Component	<p>Implements the functionality of user authentication.</p> <p>'Electronic identification' means the process of using person identification data in electronic form uniquely representing either a natural or legal person, or a natural person representing a legal person;</p> <p>'Authentication' means an electronic process that enables the electronic identification of a natural or legal person, or the origin and integrity of data in electronic form to be confirmed;</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AQJ.L_.2014.257.01.0073.01.ENG</p>	See ABB69 - Trust Service Provisioning Component	<p>OpenIAM Identity Manager</p> <p>The OpenIAM Identity Manager automates the task of managing identities across the various devices and applications used by the enterprise. This includes applications within the enterprise such as Active Directory and Exchange, and cloud based applications such as Google Apps. OpenIAM Identity Manager provides capabilities such as:</p> <ul style="list-style-type: none"> • Provisioning, De-provisioning, Workflow • Password Management, Password Policies, Synchronization • Self-Service, allowing locked users to reset their accounts, manage their profiles, challenge response security questions • Audit, Attestation, Reporting • Delegated Administration <p>http://www.openiam.com/products/identity-manager/idm-overview/</p>

ABB145	Trust Registry Service	<p>Shares the functionality of the discovery of essential information about e.g. supervised/ accredited trust service providers issuing certificates for electronic signatures, for electronic seals or for website authentication; supervised/ accredited trust services for eSignature, eSeal or TimeStamp creation and validation; supervised/ accredited trust services for eSignature or eSeal preservation; supervised/ accredited trust services for electronic registered delivery.</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG</p>	See ABB69 - Trust Service Provisioning Component	<p>BE:Trusted BE:Trusted list including information related to the qualified trust service providers which are supervised by the issuing Member State, together with information related to the qualified trust services provided by them, in accordance with the relevant provisions laid down in Regulation (EU) No 910/2014 of the European Parliament and of the Council of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market.</p> <p>https://tsl.belgium.be/archive/TSL-BE-2016-T3_v15_sn27%20SPF%20Economie_signed.pdf</p>	
ABB146	Trust Registry Component	<p>Implements the functionality of the discovery of essential information about e.g. supervised/ accredited trust service providers issuing certificates for electronic signatures, for electronic seals or for website authentication; supervised/ accredited trust services for eSignature, eSeal or TimeStamp creation and validation; supervised/ accredited trust services for eSignature or eSeal preservation; supervised/ accredited trust services for electronic registered delivery.</p> <p>Based on eIDAS - REGULATION (EU) No 910/2014 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 23 July 2014 on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L._2014.257.01.0073.01.ENG</p>	See ABB69 - Trust Service Provisioning Component	<p>Trusted lists of all EU Member States EU Member States have the obligation to establish, maintain and publish trusted lists of qualified trust service providers and the qualified trust services provided by them. Under the Regulation (EC) No 910/2014/EU (eIDAS Regulation), national Trusted Lists have a constitutive effect. In other words, a trust service provider and the trust services it provides will be qualified only if it appears in the Trusted Lists. Consequently, the users (citizens, businesses or public administrations) will benefit from the legal effect associated with a given qualified trust service only if the latter is listed (as qualified) in the Trusted Lists. Article 22 of the eIDAS Regulation provides indeed the obligation for Member States to establish, maintain and publish trusted lists, including information related to the qualified trust service providers for which they are responsible, together with information related to the qualified trust services provided by them. The lists are to be published in a secured manner, electronically signed or sealed in a form suitable for automated processing. Trusted Lists are therefore essential in ensuring certainty and building trust among market operators as they indicate the status of the service provider and of the service at the moment of supervision, while aiming at fostering interoperability of qualified trust services by facilitating the validation of, among others, eSignatures and eSeals. Member States may add trust services other than the qualified ones in the trusted lists, on a voluntary basis, at national level, provided that it is clearly indicated that they are not qualified according to Regulation (EU) No 910/2014. In order to allow access to the trusted lists of all Member States, the Commission makes them available to the public, through a secure channel to an authenticated web server, the trusted lists as notified by Member States, in a signed or sealed form suitable for automated processing.</p> <p>https://ec.europa.eu/digital-single-market/en/eu-trusted-lists-trust-service-providers https://ec.europa.eu/information_society/policy/esignature/trusted-list/tl-mp.xml</p>	
ABB43	Data Exchange Service	<p>Shares the functionality that enables the secure exchange of messages, records, forms and other kinds of data between different ICT systems. This includes data routing, except endpoint discovery.</p> <p>Based on EIFv2 http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf</p>	The Data Exchange Service ABB is salient for technical interoperability because it provides secure and trustworthy data exchange between different ICT systems as stated in the EIF: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."	<p>XMLGate XMLGate is a Web service application used to validate an XML instance against a well-defined schema. The XML flow is submitted either via a PDF form or by uploading the XML file.</p> <p>https://webgate.ec.europa.eu/sanco-xmlgate/login.jsp;jsessionid=2MPn_N5Wg9Dar4_W2-yVL_Xg-ViW3kn47PLVbNise9X5Kycx1yLl-25226473</p>	
ABB64	Data Exchange Component	<p>Implements the functionality that enables the secure exchange of messages, records, forms and other kinds of data between different ICT systems. This includes data routing, except endpoint discovery.</p> <p>Based on EIFv2 http://ec.europa.eu/isa/documents/isa_annex_ii_eif_en.pdf</p>	The Data Exchange Component ABB is salient for technical interoperability because it provides the implementation of the functionalities to enable a secure and trustworthy data exchange between different ICT systems as stated in the EIF: "Define a common security and privacy framework and establish processes for public services to ensure secure and trustworthy data exchange between public administrations and in interactions with citizens and businesses."	<p>Open e-TrustEx Open e-TrustEx is a secure document exchange platform. Solution for European public administration that needs to electronically exchange information with other entities in a secure way. Open e-TrustEx is a cross-sector, open source tool that helps administrations to exchange structured and unstructured documents and to connect to pan-European e-delivery infrastructures with reduced investment. For Commission services, DG Informatics operates the e-TrustEx platform for a fee.</p> <p>https://ec.europa.eu/isa2/solutions/open-e-trustex_en</p>	
ABB210	Configuration and Solution of Cartography Service	<p>Shares the functionality of documenting the configuration and architecture of solutions.</p> <p>Source: ISA2 - EIA Action</p>	The Configuration and Solution of Cartography Service ABB is salient for technical interoperability because it can be used to document the interoperability features of a solution or a set of solution/services.	<p>Essential The EA Essential tool provides with a semantically-rich meta-model. This means accurate modelling which allows for sophisticated reporting. Essential can be configured to import data from a wide range of sources such as CMDBs, Business Process Modelling tools, PMO tools, etc. The Essential Import Utility REST API allows to schedule automated imports from external data sources to keep the repository accurate and current. Complex queries can be built on the repository using the query wizard in Essential Open Source. In addition to traditional the Enterprise Architecture assets, Essential also manages information about the entire organization including resources, skills, contracts, risk, security and more.</p> <p>https://www.enterprise-architecture.org/features.php</p>	

ABB213	Configuration and Solution of Cartography Service Component	<p>Implements the functionality of documenting the configuration and architecture of solutions.</p> <p>Source: ISA2 - EIA Action</p>	<p>The Configuration and Solution of Cartography Component ABB is salient for technical interoperability because it provides the implementation of the functionalities which can be exploited to document the interoperability features of a solution or a set of solution/services.</p>	<p>Essential</p> <p>The EA Essential tool provides with a semantically-rich meta-model. This means accurate modelling which allows for sophisticated reporting. Essential can be configured to import data from a wide range of sources such as CMDBs, Business Process Modelling tools, PMO tools, etc. The Essential Import Utility REST API allows to schedule automated imports from external data sources to keep the repository accurate and current. Complex queries can be built on the repository using the query wizard in Essential Open Source.</p> <p>In addition to traditional the Enterprise Architecture assets, Essential also manages information about the entire organization including resources, skills, contracts, risk, security and more.</p> <p>https://www.enterprise-architecture.org/features.php</p>	
ABB48	e-Payment Service	<p>Shares the functionality of executing payment transactions where the consent of the payer to execute a payment transaction is given by means of any telecommunication, digital or IT device.</p> <p>Source: Directive 2007/64/EC http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0064:EN:NOT</p>	<p>The e-Payment Service ABB is salient for technical interoperability because it enables the possibility of executing payment transactions by any means of telecommunication, digital or IT device as stated in the EIF: "Public administrations need to exploit services delivered outside their organisational boundaries by third parties, such as payment services provided by financial institutions or connectivity services provided by telecommunications providers."</p>	<p>SEPA</p> <p>The single euro payments area (SEPA) harmonises the way cashless euro payments are made across Europe. It allows European consumers, businesses and public administrations to make and receive the following types of transactions under the same basic conditions:</p> <ul style="list-style-type: none"> - credit transfers - direct debit payments - card payments <p>This makes all cross-border electronic payments in euro as easy as domestic payments.</p> <p>https://ec.europa.eu/info/business-economy-euro/banking-and-finance/consumer-finance-and-payments/payment-services/single-euro-payments-area-sepa_en</p>	
ABB68	e-Payment Component	<p>Implements the functionality of executing payment transactions where the consent of the payer to execute a payment transaction is given by means of any telecommunication, digital or IT device.</p> <p>Source: Directive 2007/64/EC http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32007L0064:EN:NOT</p>	<p>The e-Payment Service ABB is salient for technical interoperability because it provides the implementation of functionalities of executing payment transactions.</p>	<p>OpenACH</p> <p>Introducing OpenACH, the world's first free, open-source, secure web-based ACH origination and payment processing platform.</p> <p>https://openach.com/</p>	
ABB189	Service Registration Service	<p>Shares the functionality of registering the system service within a catalogue to be discovered by other services.</p> <p>Source ISA2 - EIA Action</p>	<p>The Service Registration Service ABB is salient for interoperability because it enables the registration of services in a catalogue with commonly agreed descriptions as stated in the EIF recommendation n°44: "Put in place catalogues of public services, public data, and interoperability solutions and use common models for describing them."</p>	<p>Apache ZooKeeper is an effort to develop and maintain an open-source server which enables highly reliable distributed coordination.</p> <p>ZooKeeper is a centralized service for maintaining configuration information, naming, providing distributed synchronization, and providing group services. All of these kinds of services are used in some form or another by distributed applications.</p> <p>https://cwiki.apache.org/confluence/display/ZOOKEEPER/Index</p>	
ABB133	Service Registry Component	<p>Implements the functionality of registering the system service within a catalogue to be discovered by other services.</p> <p>This ABB is a key interoperability enabler (*) for sharing/PROVISIONING and reusing/CONSUMING back-office services.</p> <p>Source ISA2 - EIA Action</p>	<p>The Service Registration Component ABB is a key interoperability enabler because it supports to achieve technical interoperability by provisioning and consuming back-office services as stated in the EIF recommendation n°44: "Put in place catalogues of public services, public data, and interoperability solutions and use common models for describing them."</p>	<p>jUDDI is an open source Java implementation of OASIS Universal Description, Discovery, and Integration (UDDI) specification for (Web) Services.</p> <p>https://juddi.apache.org/</p>	
ABB41	Machine Translation Service	<p>Shares the functionality of serving any current or future Digital Service Infrastructure (DSI) requiring cross-lingual functionality. The main functionality is automated translation of text, metadata and concept classes or nomenclatures.</p> <p>Based on CEF Automated Translation https://ec.europa.eu/digital-single-market/en/news/tools-and-resources-cef-automated-translation</p>	<p>The Machine Translation Service ABB is salient for technical interoperability because it enables cross-lingual functionality by providing automated translation of text, metadata and concept classes or nomenclatures as stated in the EIF recommendation n°16: "Use information systems and technical architectures that cater for multilingualism when establishing a European public service. Decide on the level of multilingualism support based on the needs of the expected users."</p>	<p>CEF Digital - eTranslation building block</p> <p>eTranslation is a Connecting Europe Facility (CEF) building block provided by the European Commission (EC). eTranslation provides an online machine translation service.</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation</p>	

ABB62	Machine Translation Component	<p>Implements the functionality of serving any current or future Digital Service Infrastructure (DSI) requiring cross-lingual functionality. The main functionality is automated translation of text, metadata and concept classes or nomenclatures.</p> <p>Based on CEF Automated Translation https://ec.europa.eu/digital-single-market/en/news/tools-and-resources-cef-automated-translation</p>	<p>The Machine Translation Component ABB is salient for technical interoperability because it provides the implementation of functionalities for cross-lingual functionality by providing automated translation of text, metadata and concept classes or nomenclatures as stated in the EIF recommendation n°16: "Use information systems and technical architectures that cater for multilingualism when establishing a European public service. Decide on the level of multilingualism support based on the needs of the expected users."</p>	<p>CEF Digital - eTranslation building block eTranslation is a Connecting Europe Facility (CEF) building block provided by the European Commission (EC). eTranslation provides a web-user interface for direct use by individuals (human-to-machine).</p> <p>https://ec.europa.eu/cefdigital/wiki/display/CEFDIGITAL/eTranslation</p>	
ABB190	Hosting and Networking Infrastructure	<p>Shares the functionalities for i) hosting Interoperable European Solutions and ii) providing the necessary networks for operating these solutions.</p> <p>Source: ISA2 - EIA Action</p>	<p>The Hosting and Infrastructure ABB is salient for technical interoperability because it provides all the functionalities to host the Interoperable European Solutions (high availability and high performance hosting infrastructure) and the network where can operate these solutions (public and private network). Hosting and networking represent the lower level of the technical layer, but to be taken into account when design an interoperable solution, as it can create interoperability barriers. Interoperability technical specifications need to be used at this level to ensure interoperability of the levels above.</p>	<p>DIGIT Hosting and Networking Infrastructure Service The mission of the Directorate General for Informatics (DIGIT) is to deliver digital services to enable EU policies and to support the Commission's internal administration. Mission statement With this goal in mind, DIGIT as trusted partner has the responsibility to:</p> <ul style="list-style-type: none"> • Provide the EC, and whenever appropriate other European Institutions and bodies, with high quality and innovative: <ul style="list-style-type: none"> o Workplace solutions – creating new ways of working and collaboration for staff; o Business solutions – delivering information systems supporting rationalised business processes within the framework of the corporate IT Governance strategy; o Infrastructure solutions – providing reliable, cost-effective and secure infrastructure and services; o Effective solutions – aligning IT investments with business priorities, facilitating relationships with our strategic partners, balancing risk with business value for the institution. • Support the modernisation of public administrations by promoting and facilitating interoperability so that European public administrations can work seamlessly together and with businesses and citizens across boundaries. <p>https://ec.europa.eu/info/sites/info/files/strategic-plan-2016-2020-dg-digit_march2016_en.pdf</p>	
ABB94	Public Network	<p>A network that can be accessed by the public (public administrations, businesses and citizens) without specific authorisations. Interoperable European Solutions can rely on Public Networks (e.g. the Internet) to realise the physical communication between nodes.</p>	<p>See ABB190 - Hosting and Networking Infrastructure</p>	<p>World-Wide-Web (WWW) The WorldWideWeb (W3) is a wide-area hypermedia information retrieval initiative aiming to give universal access to a large universe of documents.</p> <p>http://info.cern.ch/hypertext/WWW/TheProject.html</p>	
ABB93	Private Network	<p>A network that is used for the only purpose of realising the physical communication among Interoperable European Solution (e.g. sTESTA), and cannot be accessed by the public.</p> <p>Source: ISA2 - EIA Action</p>	<p>See ABB190 - Hosting and Networking Infrastructure</p>	<p>Any private network Hosts within enterprises that use IP can be partitioned into two categories: Category 1: hosts that do not require access to hosts in other enterprises or the Internet at large; hosts within this category may use IP addresses that are unambiguous within an enterprise, but may be ambiguous between enterprises. Category 2: hosts that need access to a limited set of outside services (e.g., E-mail, FTP, netnews, remote login) which can be handled by mediating gateways (e.g., application layer gateways). For any hosts in this category an unrestricted external access (provided via IP connectivity) may be unnecessary and even undesirable for privacy/security reasons. Just like hosts within the first category, such hosts may use IP addresses that are unambiguous within an enterprise, but may be ambiguous between enterprises. A third category is what is called a 'public network' and consist of the following: Category 3: hosts that need network layer access outside the enterprise (provided via IP connectivity); hosts in the last category require IP addresses that are globally unambiguous.</p> <p>https://tools.ietf.org/html/rfc1918</p>	
ABB92	Network	<p>Transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed (circuit- and packet- switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed.</p> <p>Source: DIRECTIVE 2002/21/EC on a common regulatory framework for electronic communications networks and services http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0021&from=EN</p>	<p>See ABB190 - Hosting and Networking Infrastructure</p>	<p>sTESTA The TESTA network service – which stands for Trans European Services for Telematics between Administrations – provides a European backbone network for data exchange between a wide variety of public administrations. The network uses the Internet Protocols (IP) to ensure universal reach, but is operated by the EU Commission separately from the Internet. It provides guaranteed performance and a high level of security and has connections with all the EU Institutions and national networks. It caters for the exchange of both unclassified and classified information.</p> <p>https://ec.europa.eu/isa2/solutions/testa_en</p>	

ABB150	Network Service	<p>Shares the functionalities provided by a network provider which is the combination of transmission systems and, where applicable, switching or routing equipment and other resources which permit the conveyance of signals by wire, by radio, by optical or by other electromagnetic means, including satellite networks, fixed (circuit- and packet- switched, including Internet) and mobile terrestrial networks, electricity cable systems, to the extent that they are used for the purpose of transmitting signals, networks used for radio and television broadcasting, and cable television networks, irrespective of the type of information conveyed.</p> <p>Based on DIRECTIVE 2002/21/EC on a common regulatory framework for electronic communications networks and services http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32002L0021&from=EN</p>	See ABB190 - Hosting and Networking Infrastructure	<p>sTESTA</p> <p>The TESTA network service – which stands for Trans European Services for Telematics between Administrations – provides a European backbone network for data exchange between a wide variety of public administrations.</p> <p>The network uses the Internet Protocols (IP) to ensure universal reach, but is operated by the EU Commission separately from the Internet. It provides guaranteed performance and a high level of security and has connections with all the EU Institutions and national networks. It caters for the exchange of both unclassified and classified information.</p> <p>https://ec.europa.eu/isa2/solutions/testa_en</p>
ABB151	Hosting Service	<p>Shares the functionalities of a hosting provider, typically a high availability and high performance hosting infrastructure that is being comprised, among other elements, of back-end web server instances and application servers for hosting and serving both static and dynamic sites.</p> <p>Based on DIGIT C Infrastructure Services Provision http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>	See ABB190 - Hosting and Networking Infrastructure	<p>DIGIT/C Hosting Service</p> <p>DIGIT/C offers a high availability and high performance hosting infrastructure that is being comprised, among other elements, of back-end web server instances and application servers for hosting and serving both static and dynamic sites.</p> <p>http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>
ABB191	Hosting Facility	<p>The equipment supporting the hosting of Interoperable European Solutions and their components, usually embodied in a building.</p> <p>Based on DIGIT C Infrastructure Services Provision http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>	See ABB190 - Hosting and Networking Infrastructure	<p>DIGIT/C Hosting Facility</p> <p>DIGIT/C offers a high availability and high performance hosting infrastructure that is being comprised, among other elements, of back-end web server instances and application servers for hosting and serving both static and dynamic sites.</p> <p>The dynamic sites supported by the standard Apache web servers are mainly sites based on Coldfusion and in some cases also sites using CGI scripts.</p> <p>Dynamic sites based on particular technologies (i.e. Weblogic) are being hosted on individual application servers and are being integrated with the other related sites using reverse proxy mappings.</p> <p>Direct HTTP access to the back-end web servers hosting the static sites is denied by the standard web server configuration.</p> <p>http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>
ABB193	Public Hosting Facility	<p>The equipment supporting the hosting of Interoperable European Solutions and their components, usually embodied in a building, which is owned by a third party and shared between organizations (e.g. cloud services).</p> <p>Based on DIGIT C Infrastructure Services Provision http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>	See ABB190 - Hosting and Networking Infrastructure	<p>Amazon Web Services (AWS)</p> <p>AWS provides a comprehensive suite of services and solutions to run sophisticated and scalable applications to help achieve better business outcomes. Running your applications in the AWS Cloud can help you move faster, operate more securely, and save substantial costs, all while benefitting from the agility, scale and performance of the cloud.</p> <p>https://aws.amazon.com/solutions/?nc2=h_q_l_sol</p>
ABB192	Private Hosting Facility	<p>A Hosting Facility, meaning the equipment supporting the hosting of Interoperable European Solutions and their components, usually embodied in a build-in, which is owned by or dedicated to one organization (e.g. data centre or private cloud).</p> <p>Based on DIGIT C Infrastructure Services Provision http://ec.europa.eu/ipg/build/infrastructure/index_en.htm</p>	See ABB190 - Hosting and Networking Infrastructure	<p>DG TAXUD Surveillance3 IES Datawarehouse servers hosted in DG TAXUD Data Centre</p> <p>The Surveillance3 Data Warehouse plays multiple roles:</p> <ul style="list-style-type: none"> • The role of 'hub-and-spoke' within the Surveillance3 system where data from different systems are integrated and linked and made available for report & analytics as well as the central place from which other systems are fed with the correct information. • The role of reporting environment offering all the required reporting, data analysis & discovery and data mining functionality. <p>https://ec.europa.eu/assets/taxud/taxation_customs/tenders/2016ao02_a2_technical_en.pdf</p>