



NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY

Analytical Model *FINLAND*

The content of this Analytical Model reflects the status as collected in 2016.

DIGIT

Directorate-General for Informatics

ISA² Programme

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ISA²

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EUROPEAN COMMISSION

Directorate-General for Informatics

Directorate B — Interoperability Solutions for public administrations, businesses and citizens

Unit B6 — ISA² Programme

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Analysis of the NIFs

[See Alignment Examples in NIFO toolbox](#)

[See implementation and monitoring examples in NIFO Toolbox](#)

EIF Element - Reference - Category	NIF-EIF Alignment			NIF implementation		NIF monitoring		
	Measurement	NIF element present - Reference - (Text in English)	NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned	Large scale implementation [describe if and how implementation of the element is a common practice]	Only implementation examples [describe an implementation example specific to each element]	Implementation scoring 2: Common practice 1: some examples 0: not observed	NIF monitoring Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed	
Subsidiarity and proportionality EIF, Chapter 2, Underlying principles Category: Principles See reference: the European Interoperability Framework v2. See definitions listed in the ISA EIF brochure	Ref: Does the NIF contain the 'subsidiarity and proportionality' principle?	This is indirectly supported. The Public Sector's common architecture principles include the statement "Maximize the total benefit for the society". See Public sector architecture principles, https://www.avoindata.fi/data/fi/dataset/julkisen-hallinnon-arkkitehtuuriperiaatteet .	1	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
User-centricity EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'user-centricity' principle?	Public sector's common architecture includes the principle of user friendliness (which is not exactly the same as user-centricity). See https://www.avoindata.fi/data/fi/dataset/julkisen-hallinnon-arkkitehtuuriperiaatteet In early 2016 new principles for digitalization were introduced. The first rule is to develop user oriented services	2	Large program to promote and create online public services (SADE) continues to 2015 with focus on online services in general which indirectly support user-centricity. See SADE: http://vm.fi/en/search/-/q/SADE#	[describe project here]	2	The implementation of these rules are followed as part of the Government's strategic programme	2
Inclusion and accessibility EIF, Chapter 2, Underlying principles Recommendation 2 Category: Principles	Does the NIF contain the 'inclusion and accessibility' principle?	This is and has been included on the design principles for eServices for citizens and enterprises, see http://esuomi.fi/palvelunakymat/tuotevisio/	1		The new citizen portal and e-service views are available in beta version https://beta.suomi.fi/kansalaiselle/	2	[describe monitoring procedure here]	0
Security and privacy EIF, Chapter 2, Underlying principles Recommendation 3 Category: Principles	Does the NIF contain the 'Security and privacy' principle?	Security is structured via the following seven principles of information security: Administrative Security, Personnel Security, Physical security, Information on road safety, Safety equipment, Software Safety, Material safety data, and Safety. See Chapter 3, Annex 5 JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179_liite5/JHS179_liite5.html	2	A dedicated, permanent council is implemented for information security and working directly under Ministry of Finance(VAHTI). See http://vm.fi/en/information-security-and-cybersecurity	[describe project here]	2	Parliament has also dedicated an organisation to monitor privacy.	2
Multilingualism EIF, Chapter 2, Underlying principles Recommendation 4 Category: Principles	Does the NIF contain the 'Multilingualism' principle?	Finland has two official languages and many local public services are in two languages. For foreign residents English is often also included.	1		Government and bi-lingual municipalities publish in Finnish and Swedish see http://valtioneuvosto.fi/en/frontpage	1	[describe monitoring procedure here]	0
Administrative simplification EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Administrative simplification' principle?	The government has made a clear policy to reduce the administrative burden. The public sector's architecture principles include principles with similar goal, like "harmonize business processes" See https://www.avoindata.fi/data/fi/dataset/julkisen-hallinnon-arkkitehtuuriperiaatteet The principles for digitalization include also one-only principle	1	- My Enterprise Finland is a service structured along a company's profile; it encompasses the tools, services and electronic communication services that are best suited for the company's situation. It is a central hub for the management of issues related to the establishment of a company and to employers' obligations. It reduces companies' administrative burden. See https://oma.yrityssuomi.fi/ - Prime minister Sipilä's staretgic programme states: "We regulate less" See http://vnk.fi/en/publication?pubid=6407	[describe project here]	2	- My Enterprise Finland is a service structured along a company's profile; it encompasses the tools, services and electronic communication services that are best suited for the company's situation. It is a central hub for the management of issues related to the establishment of a company and to employers' obligations. It reduces companies' administrative burden. See https://oma.yrityssuomi.fi/	2
Transparency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Transparency' principle?	Transparency of management is discussed, especially the role of managers, supervisors, and stakeholder reporting. See Chapter 1, Annex 5 JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179_liite5/JHS179_liite5.html Also the public sector's EA principles include statement: "make processes and development transparent"	2	The new citizen portal and s-service views will be available in 2016. This platform will include a special function for the citizens to review and validate their own data in public records. See http://esuomi.fi/ See screen shot at http://esuomi.fi/palvelunakymat/		2	[describe monitoring procedure here]	0
Preservation of information EIF, Chapter 2, Underlying principles, Recommendation 5 Category: Principles	Does the NIF contain the 'Preservation of information' principle?	The storage and data recovery are included in the legal acts on interoperability. See Chapter 3, Act on Information Management Governance in Public Administration, http://www.finlex.fi/fi/laki/ajantasa/2011/20110634	2	There is an initiative to reform legislation and promote electronic archiving.	The planning for a common archiving service for public administrators has started.	1	[describe monitoring procedure here]	0
Openness EIF, Chapter 2, Underlying principles, Recommendation 6 Category: Principles	Does the NIF contain the 'Openness' principle?	The principles for digitalization includes the rule: "public sector opens data and system interfaces to citizens and companies" http://digisuomi.fi/	2	[describe here]	This NIF element is applied. The Open Data program that started in 2013 applied the Openness principle. Currently, the organization to support and develop the open data portal has been nominated and the ongoing activities are funded. Open data has been included in prime minister Sipilä's staretgic programme. We are developing data policies and legislation to include open data principle. See https://www.avoindata.fi/	1	The usage of open data is followed and monitored as part of the governance of the open data portal	1
Reusability EIF, Chapter 2, Underlying principles, Recommendation 7 Category: Principles	Does the NIF contain the 'Reusability' principle?	In Finland the principle of sharing and reusing of information technology (IT) and information services is included in the legal acts on interoperability. "Public administration authorities shall endeavour to organise their operations in such a way that they use the information from other authorities, in this section referred to as stored information, if the authority requires the use of this data." See Chapter 3, §10, Act on Information Management Governance in Public Administration: http://www.finlex.fi/fi/laki/ajantasa/2011/20110634	2	[describe here]	One part of "National Service Architecture" program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia. See http://esuomi.fi/ - - http://vm.fi/en/latest-enterprise-architecture-development See also http://esuomi.fi/palveluvayla/	1	[describe monitoring procedure here]	0
Technological neutrality and adaptability EIF, Chapter 2, Underlying principles, Recommendation 8 Category: Principles	Does the NIF contain the 'Technological neutrality and adaptability' principle?	The Public Sector's common architecture includes the principle of Technological neutrality and adaptability. See Public sector architecture principles, https://www.avoindata.fi/data/fi/dataset/julkisen-hallinnon-arkkitehtuuriperiaatteet NIF element text in English: "Minimize supplier dependency"	2	[describe here]	One part of "National Service Architecture" program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia and is based on open source code. See above	1	[describe monitoring procedure here]	0

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EIF Element - Reference - Category	NIF-EIF Alignment			NIF implementation		NIF monitoring		
	Measurement	NIF element present - Reference - (Text in English)	NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned	Large scale implementation <i>[describe if and how implementation of the element is a common practice]</i>	Only implementation examples <i>[describe an implementation example specific to each element]</i>	Implementation scoring 2: Common practice 1: some examples 0: not observed	NIF monitoring <i>[describe monitoring procedure here]</i>	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
Effectiveness and efficiency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Effectiveness and efficiency' principle?	The Public Sector's common architecture includes the principle of Effectiveness and efficiency. See Public sector architecture principles, https://www.avoindata.fi/data/fi/dataset/julkisen-hallinnon-arkkitehtuuriperiaatteet NIF element text in English: "Maximize the total benefit for the society"	2	In order to improve efficiency and leverage economy of scale, Government ICT Centre Valtori has been established in 2014 and it provides sector-independent ICT services for central government administration. See http://www.valtori.fi/en-US/Information_about_Valtori	<i>[describe project here]</i>	2	Government ICT spending are followed with an annual survey.	1
Conceptual model EIF, Chapter 3 Category: Conceptual model	Does the NIF contain a conceptual model?	The entire Enterprise Architecture (EA) approach is based on conceptual models, which include commonalities and differences across domains. See Chapter 5, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Public administrations should develop a component-based service model, allowing the establishment of (European) public services by reusing, as much as possible, existing service components. EIF, Recommendation 9 Category: Conceptual model	Is the conceptual model a component-based service model? (e.g. SOA)	The Enterprise Architecture (EA) approach recommends component-based service models (such as the top-level logical system). Chapter 6, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	One part of "National Architecture for Digital Services" program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia. See http://esuomi.fi	<i>[describe project here]</i>	2	The number of organizations and solutions linked to the national service bus will be monitored	1
Public administrations should agree on a common scheme to interconnect loosely coupled service components and put in place the necessary infrastructure when establishing (European) public services. EIF, Recommendation 10 Category: Conceptual model	Does the NIF encourage the use of common schemes to interconnect loosely coupled service components?	Common schemes can be defined the national EA repository (only few have been defined so far) See http://www.arkkitehtuuripankki.fi/	2	We have published in 2013 reference architectures for service bus and base registers. See https://www.avoindata.fi/data/fi/dataset?collection_type=Interoperability+Tools	<i>[describe project here]</i>	2	<i>[describe monitoring procedure here]</i>	0
Interconnection of service components. EIF, Recommendation 10 Category: Conceptual model	Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?	Advanced integration tools (such as Enterprise Service Bus (ESB)) is recommended for technical integration. See Chapter 6.7.3, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	One part of The National Architecture for Digital Services program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia. See http://esuomi.fi/palveluvayla/	<i>[describe project here]</i>	2	The number of organizations and solutions linked to the national service bus will be followed	1
Public administrations should make their authentic sources of information available to others while implementing access and control mechanisms to ensure security and privacy in accordance with the relevant legislation. EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage to make the authentic sources of information available to others?	- The Advisory Committee on Information Management in Public Administration, JUHTA, has been set up at the Ministry of Finance to promote cooperation in information management between the State and the municipalities. The Committee plans cooperation in information management, makes reports and studies, and draws up recommendations for the public administration (JHS recommendations). See https://wiki.julkict.fi/julkict/juhta - Act on Information Management Governance in Public Administration: The purpose of this Act is to improve the efficiency of activities in public administration and to improve public services and their availability by laying down provisions on information management governance in public administration and on promoting and ensuring the interoperability of information systems. See http://www.localfinland.fi/en/authorities/information-society/policy/Pages/Act-on-Information-Management-Governance-in-Public-Administration.aspx	2	We have published in 2013 reference architectures for service bus and base registers. https://www.avoindata.fi/data/fi/dataset/kansallisen-palveluvaylan-viitearkkitehtuuri https://www.avoindata.fi/data/fi/dataset/perusta-perustietovarantojen-viitearkkitehtuuri-1-0	<i>[describe project here]</i>	2	<i>[describe monitoring procedure here]</i>	0
Access control EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	Although security principles are defined, no detailed evidence was found of access and control mechanisms to ensure compliance to security and privacy legislation. See Chapter 3, Annex 5 JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179_liite5/JHS179_liite5.html#H3	1	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Public administrations, when working to establish (European) public services, should develop interfaces to authentic sources and align them at semantic and technical level. EIF, Recommendation 12 Category: Conceptual model	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	The Act on Information Management Governance in Public Administration defines a set of basic registers to which administrators should have online connection.	1	The National Architecture for Digital Services program is implementing standardized semantic and technical access to some of the base registers	<i>[describe project here]</i>	2	<i>[describe monitoring procedure here]</i>	0
Interoperability levels EIF, Chapter 4 Category: Interoperability levels	Does the NIF describe the four levels of interoperability?	The Enterprise Architecture (EA) has the following point of views: business, information, information systems, technology. Although legal aspects are not directly included in the EA, legal acts on interoperability exist (e.g. Act on Information Management Governance in Public Administration). See Chapter 4, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Legal interoperability: Public administrations should carefully consider all relevant legislation relating to data exchange, including data protection legislation, when seeking to establish a European public service. EIF, Chapter 4 Recommendation 14 Category: Interoperability levels, legal artefacts	Does the NIF impose to consider all relevant legislation related to data exchange?	Since 1.9.2011 a new law obliges all public administration organisations to develop their Enterprise Architecture (EA). In doing so they must follow, obey and make use of the common Public Administration EA and its elements. See Chapter 2 & 3, Act on Information Management Governance in Public Administration, http://www.finlex.fi/fi/laki/ajantasa/2011/20110634	2	<i>[describe here]</i>	There is a new initiative to reform legislation so that all relevant rules related to information management in the public sector are defined in the same law.	1	<i>[describe monitoring procedure here]</i>	0
Organisational interoperability - business process alignment. Public administrations should document their business processes and agree on how these processes will interact to deliver a (European) public service. EIF, Chapter 4 Recommendation 15 Category: Interoperability levels, organisational artefacts	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	There is a published recommendation for business process modelling and business processes are essential part of architectural concept. However, there are no legal obligations for authorities to define their processes. See http://www.jhs-suositukset.fi/web/guest/jhs/recommendations/152	2	<i>[describe here]</i>	<i>As part of the national enterprise architecture we have defined and documented common services and the related processes.</i> https://arkkitehtuuripankki.onqpr.com	1	<i>[describe monitoring procedure here]</i>	0

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Inter-governmental coordination. EIF, Chapter 4 Recommendation 15 Category: Interoperability levels, organisational artefacts	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	No explicit recommendations are made on how business processes should interact, but this is partly included in the Enterprise Architecture (EA) models of public administrations. See Chapter 5, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	1	<i>[describe here]</i>	There is a project where we define the financial data exchange between municipalities and central government, see https://wiki.julkict.fi/julkict/kuntatieto	1	<i>[describe monitoring procedure here]</i>	0
Organisational interoperability - organisational relationships. Public administrations should clarify their organisational relationships as part of the establishment of a (European) public service. EIF, Chapter 4 Recommendation 16 Category: Interoperability levels, organisational artefacts.	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	Due to the "management by architectures" of the Enterprise Architecture framework, the organisational relationships should be explicitly represented by means of models. See Chapter 6.2, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Organisational interoperability - change management. Public administrations working together to provide (European) public services should agree on change management processes to ensure continuous service delivery. EIF, Chapter 4 Recommendation 17 Category: Interoperability levels, organisational artefacts	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery?	The change management processes are guided by the AS-IS and TO-BE models in the Enterprise Architecture framework. See Chapter 6.2, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Semantic interoperability. Public administrations, when working together to establish (European) public services, should use a common taxonomy of basic public services. EIF, Chapter 4 Recommendation 13 Category: Interoperability levels, semantic artefacts.	Does the NIF encourage the usage of a common taxonomy of basic public service?	Each domain will develop its domain architecture in co-operation between all the organisations operating in the domain. A domain architecture will contain all the elements that are or should be common to the organisations acting in the domain. The domain architecture makes use of the common Public Administration Enterprise Architecture and its elements. See Slide 5, 2011-02-10 Presentation 3.03 Public Administration EA FINLAND.pdf https://joinup.ec.europa.eu/sites/default/files/isa_field_path/presentation_by_jari_kallela_-_finnish_act_of_2011_on_information_management_governance_in_public_administration.pdf	2		Common taxonomy for public services (health and social security) has been defined as part of the national repository of public services metadata. Other public administration taxonomies see https://finto.fi/juho/fi/ As part of the public sector's recommendation work, there are dedicated working groups for common conceptual models and core vocabularies https://wiki.julkict.fi/julkict/juhta/juhta-tyoryhmat-2016/sanastot https://wiki.julkict.fi/julkict/juhta/juhta-tyoryhmat-2016/kasitemallit	1	<i>[describe monitoring procedure here]</i>	0
Public administrations should support the establishment of sector specific and cross-sectoral communities that aim to facilitate semantic interoperability and should encourage the communities to share results on national and European platforms. EIF, Recommendation 18 Category: Interoperability levels, semantic artefacts	Does the NIF encourage public administrations to support the establishment of sector specific and cross-sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms?	An interoperability portal was developed for the different public administrations to share their semantic assets. This portal was merged in 2014 into the open data portal See https://www.avoindata.fi/data/fi/dataset?collection_type=Interoperability+Tools There are both sector specific architectures for information content (like health and welfare) as well as for the whole public sector (like base registers).	2	As part of the public sector EA work, there are dedicated groups for semantic definition work for different topics: https://wiki.julkict.fi/julkict/juhta/juhta-tyoryhmat-2016/tiedon-hyodyntamisen-verkosto	<i>[describe project here]</i>	2	<i>[describe monitoring procedure here]</i>	0
Technical interoperability. Public administrations should agree on the formalised specifications to ensure technical interoperability when establishing European public services. EIF, Recommendation 19 Category: Interoperability levels, technical artefacts.	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	The formal process (JHS181) defines how standards are selected and published. The selected standards are published in avoindata.fi portal. There is a technical description for the register interfaces, see https://www.avoindata.fi/data/fi/dataset/pera-tekniinen-arkkitehtuuritarkoitukselliset-tietovarantojen-rajapintapalveluiden-toteuttamiselle	2	One part of The National Architecture for Digital Services program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia. See http://esuomi.fi/palveluvayla/	<i>[describe project here]</i>	1	<i>[describe monitoring procedure here]</i>	0
Public administrations, when establishing (European) public services, should base interoperability agreements on existing formalised specifications, or, if they do not exist, cooperate with communities working in the same areas. EIF, Recommendation 20 Category: Interoperability agreements.	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	Interoperability specifications are created in the enterprise architecture work. The specifications are sector dependent, for example, there are reference architectures (which include specifications for business processes, information and applications) for medical receipts and applications for intermediate schools. In the enterprise architecture governance model, the actors working on the same topic are organized in a unit called target area.	2	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
Public administrations should use a structured, transparent and objective approach to assessing and selecting formalised specifications. EIF, Recommendation 21 Category: Interoperability agreements.	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	The formalized specification are defined in the reference architecture. Action plans on implementing the architecture are also included in the reference architecture documentation. However, these vary from case to case.	1	<i>[describe here]</i>	<i>[describe project here]</i>	0	<i>[describe monitoring procedure here]</i>	0
When establishing (European) public services, public administrations should prefer open specifications, taking due account of the coverage of functional needs, maturity and market support. EIF, Recommendation 22 Category: Interoperability agreements.	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	There is a principle that open source solutions are preferred. (nr 16 on national EA principles)	1		So far all software development in the National Architecture for Digital Services has been with open source and the developed code has also been published.	2	<i>[describe monitoring procedure here]</i>	0
Contribution to the standardisation process Public administrations should lead or actively participate in standardisation work relevant to their needs. EIF, Chapter 5, Recommendation 23 Category: Interoperability agreements.	Does the NIF encourage public administrations to lead or actively participate in standardisation work relevant to their needs?	The international recommendations for the collection of standards must be taken into account. See Chapter 6.3, JHS179, http://docs.jhs-suositukset.fi/jhs-suositukset/JHS179/JHS179.html	2	<i>The selected standards are defined in arkkitehtuuripankki.fi and are available in avoindata.fi</i>	<i>[describe project here]</i>	1	<i>[describe monitoring procedure here]</i>	0

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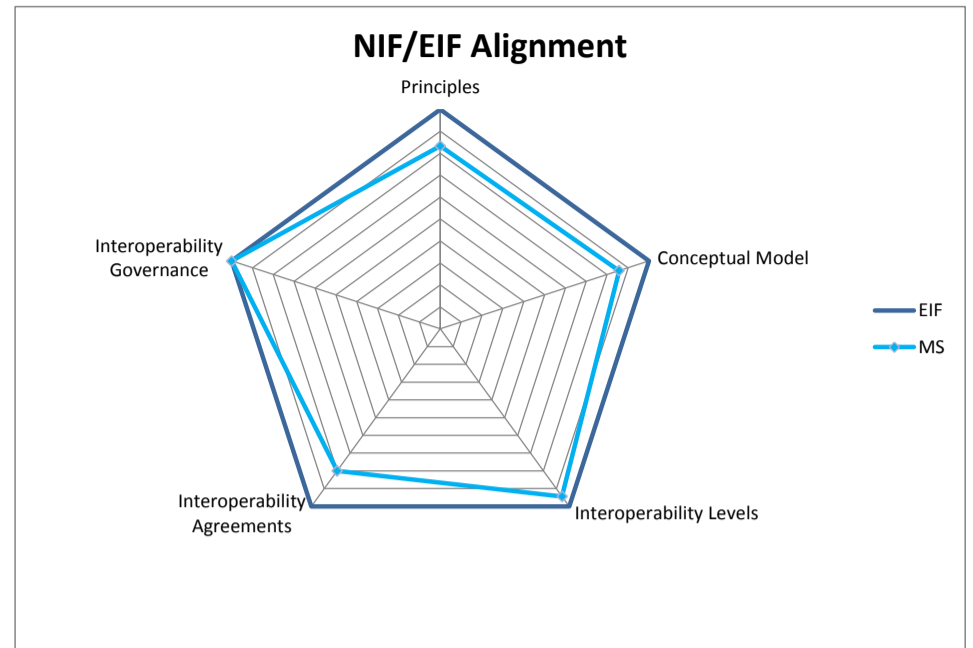
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Public administrations, when working together to establish (European) public services, should agree on minimum service requirements for secure data exchange. EIF, Recommendation 13 Category: Interoperability agreements.	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	The national service bus starts in production mode on Nov 2015 and it defines recommended security levels	2	One part of The National Architecture for Digital Services program is to implement publicly accessible service bus. This bus will be based on Xroad from Estonia. See http://esuomi.fi/palveluvayla/	[describe project here]	2		0
Governance Public administrations should establish a framework for the governance of their interoperability activities across administrative levels. EIF, Recommendation 25 Category: Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	A clear governance process is defined, together with roles & responsibilities for the different stakeholders. See Chapter 2, Act on Information Management Governance in Public Administration, http://www.finlex.fi/fi/laki/ajantasa/2011/20110634	2	The architecture group on the national level consist of key architects from different sectors and local administration. The Group has regular meetings. See https://wiki.julkict.fi/julkict/juhta/juhta-n-jaostot/jhka-jaosto	[describe project here]	2	[describe monitoring procedure here, Precise if monitoring procedures include stimulating and/or corrective measures]	0

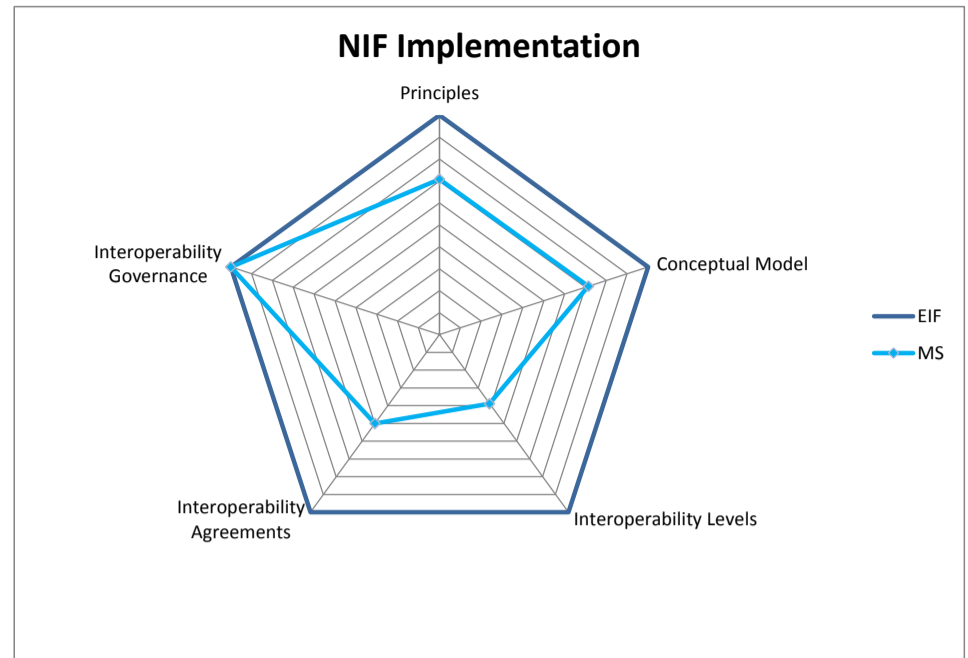
Category	EIF	MS
Principles	100%	83,3%
Conceptual Model	100%	85,7%
Interoperability Levels	100%	94,4%
Interoperability Agreements	100%	80,0%
Interoperability Governance	100%	100,0%

Category	EIF Element	Scoring		
		Max	MS	
Principles	Subsidiarity and proportionality	2	1	
	User-centricity	2	2	
	Inclusion and accessibility	2	1	
	Security and privacy	2	2	
	Multilingualism	2	1	
	Administrative simplification	2	1	
	Transparency	2	2	
	Preservation of information	2	2	
	Openness	2	2	
	Reusability	2	2	
	Technological neutrality and adaptability	2	2	
	Effectiveness and efficiency	2	2	
	Total		24	20
	Conceptual Model	Does the NIF contain a conceptual model?	2	2
Is the conceptual model a component-based service model? (e.g. SOA)		2	2	
Does the NIF encourage the use of common schemes to interconnect loosely coupled service components.		2	2	
Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?		2	2	
Does the NIF encourage to make the authentic sources of information available to others?		2	2	
Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?		2	1	
Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?		2	1	
Total			14	12
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	2	
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	2	
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	2	
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	1	
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	2	
	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery.	2	2	
	Does the NIF encourage the usage of a common taxonomy of basic public service?	2	2	
	Does the NIF encourage public administrations to support the establishment of sectorspecific and cross-sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms.	2	2	
	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	2	2	
	Total		18	17
Interoperability Agreements	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	2	2	
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	1	
	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	2	1	
	Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs?	2	2	
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	2	
Total		10	8	
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	2	
	Total	2	2	



Category	EIF	MS
Principles	100%	70,8%
Conceptual Model	100%	71,4%
Interoperability Levels	100%	38,9%
Interoperability Agreements	100%	50,0%
Interoperability Governance	100%	100,0%

Category	EIF Element	Scoring		
		Max	MS	
Principles	Subsidiarity and proportionality	2	0	
	User-centricity	2	2	
	Inclusion and accessibility	2	2	
	Security and privacy	2	2	
	Multilingualism	2	1	
	Administrative simplification	2	2	
	Transparency	2	2	
	Preservation of information	2	1	
	Openness	2	1	
	Reusability	2	1	
	Technological neutrality and adaptability	2	1	
	Effectiveness and efficiency	2	2	
	Total		24	17
	Conceptual Model	Does the NIF contain a conceptual model?	2	0
Is the conceptual model a component-based service model? (e.g. SOA)		2	2	
Does the NIF encourage the use of common schemes to interconnect loosely coupled service components.		2	2	
Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?		2	2	
Does the NIF encourage to make the authentic sources of information available to others?		2	2	
Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?		2	0	
Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?		2	2	
Total			14	10
Interoperability Levels		Does the NIF describe the four levels of interoperability?	2	0
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	1	
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	1	
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	1	
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	0	
	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery.	2	0	
	Does the NIF encourage the usage of a common taxonomy of basic public service?	2	1	
	Does the NIF encourage public administrations to support the establishment of sectorspecific and cross-sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms.	2	2	
	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	2	1	
	Total		18	7
Interoperability Agreements	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	2	0	
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	0	
	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	2	2	
	Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs?	2	1	
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	2	
Total		10	5	
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	2	
	Total		2	2



Category	EIF	MS
Principles	100%	33,3%
Conceptual Model	100%	14,3%
Interoperability Levels	100%	0,0%
Interoperability Agreements	100%	0,0%
Interoperability Governance	100%	0,0%

Category	EIF Element	Scoring	
		Max	MS
Principles	Subsidiarity and proportionality	2	0
	User-centricity	2	2
	Inclusion and accessibility	2	0
	Security and privacy	2	2
	Multilingualism	2	0
	Administrative simplification	2	2
	Transparency	2	0
	Preservation of information	2	0
	Openness	2	1
	Reusability	2	0
	Technological neutrality and adaptability	2	0
	Effectiveness and efficiency	2	1
	Total		24
Conceptual Model	Does the NIF contain a conceptual model?	2	0
	Is the conceptual model a component-based service model? (e.g. SOA)	2	1
	Does the NIF encourage the use of common schemes to interconnect loosely coupled service components.	2	0
	Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?	2	1
	Does the NIF encourage to make the authentic sources of information available to others?	2	0
	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	2	0
	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	2	0
	Total		14
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	0
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	0
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	0
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	0
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	0
	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery.	2	0
	Does the NIF encourage the usage of a common taxonomy of basic public service?	2	0
	Does the NIF encourage public administrations to support the establishment of sectorspecific and cross-sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms.	2	0
	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	2	0
	Total		18
Interoperability Agreements	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	2	0
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	0
	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	2	0
	Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs?	2	0
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	0
Total		10	0
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	0
Total		2	0

