



NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY

Analytical Model *AUSTRIA*

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

DIGIT

Directorate-General for Informatics

ISA² Programme

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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



EIF Element - Reference - Category

See reference: the European Interoperability Framework v2

See Alignment Examples in NIFO toolbox

See implementation and monitoring examples in NIFO Toolbox

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 2: Monitored 1: Partially monitored 0: not observed
Subsidiarity and proportionality EIF, Chapter 2, Underlying principles Category: Principles	Ref: Does the NIF contain the 'subsidiarity and proportionality' principle?	AIF states: "The principle of subsidiarity applies not just on EU level but especially and in some cases within Member States themselves, at federal/national level or at other levels (e.g. regional, provincial, county and municipality)". Ref: AIFv1.0 Section 1.5.2 It is important that interoperability frameworks used by public administrations, both organisational (OIFs) and Austrian (AIF), are aligned as regards how to achieve interoperability so that Organisations can agree on the concrete implementation of the AIF recommendations when establishing Austrian public services[1]. The principle of subsidiarity applies not just on EU level but especially and in some cases within Member States themselves, at federal/national level or at other levels (e.g. regional, provincial, county and municipality)	2	According to the AIF as well as to the Austrian cooperation agreement, standards and conventions underlying interoperable public services basically can only be established, when every stakeholder involved (federal, regional, provincial, etc. level) supports the respective candidate.	2	Solutions/public services developed under the AIF/Austrian eGovernment cooperation agreement are continuously monitored by the respective cooperation board (BLSG, IKT-BUND), ensuring full alignment with the definitions and policies stated within the Austrian Interoperability Framework. The tracking of the alignment with the AIF basically is embedded in the overall process of monitoring the progress of a concrete project, which may vary on a per project-basis (e.g. depending on its actual scale). This means, that whenever the steering committee is informed about a project's status/progress by the responsible team, evaluation and rating of its adherence to the individual components of the AIF is included as a part of the report.
User-centricity EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'user-centricity' principle?	The AIF states: "Public services are intended to serve the needs of citizens and businesses. More precisely, those needs should determine what public services are provided and how public services are delivered. Generally speaking, citizens and businesses will expect: - to access user-friendly services in a secure and flexible manner allowing personalisation; (f.e. myhelp.gv.at) - multichannel delivery, allowing access to services anyhow, anywhere, anytime; - to access a single contact point, even when multiple administrations have to work together to provide the service; - to provide only the information necessary to obtain the public service and to provide any given piece of information only once to administrations; - administrations to respect privacy". Ref: AIF V1.0 - Section 2.3 http://reference.e-government.gv.at	2	Citizens demand easily accessible, comfortable and fast procedures when interacting with public authorities. To meet these requirements, Austria focuses on a multichannel approach in terms of service delivery (electronic services are an offer, not a must), offers universal access-points (following the one-stop-shop-principle) and enforces interconnection of electronic systems (e.g. registers, supporting the data-only-once-principle).	Multichannel-approach: Austrian dual delivery system One-stop-shops: HELP.gv.at (central portal for natural persons), USP.gv.at (central portal for non-natural persons/businesses) Data-only-once-principle: Austrian register for standard documents	2
Inclusion and accessibility EIF, Chapter 2, Underlying principles Recommendation 2 Category: Principles	Does the NIF contain the 'Inclusion and accessibility' principle?	The AIF states: "The use of ICT should create equal opportunities for all citizens and businesses through inclusive services that are publicly accessible without discrimination. Inclusion means allowing everyone to take full advantage of the opportunities offered by new technologies to overcome social and economic disadvantages and exclusion. Accessibility ensures that people with disabilities and the elderly can use public services with the same service levels as all other citizens. Inclusion and accessibility must be part of the whole development lifecycle of an Austrian public service in terms of design, information content and delivery, according to e-accessibility specifications widely recognised at Austrian or international level. Inclusion and accessibility usually involve multichannel delivery. Traditional paper-based or face-to-face service delivery may need to co-exist with electronic delivery, giving citizens a choice of access. Inclusion and accessibility can also be improved by the ability of a system to allow third parties to act on behalf of citizens who are unable, either permanently or temporarily, to make direct use of public services". Ref: AIF v1.0 Section 2.4. http://reference.e-government.gv.at	2	A common Austrian workgroup on "Presentation & Default Data" has been established that - amongst others - deals with questions regarding inclusion and accessibility. This group defines common templates and guidelines ensuring a harmonized presentation of public services considering relevant standards and policies in terms of accessibility.	Common standards and recommendations by the working group on "Presentation & Default Data" listed on the e-Government reference server: https://www.ref.gv.at/PRAESENTATION-STANDARDDATEN.1991.0.html	2
Security and privacy EIF, Chapter 2, Underlying principles Recommendation 3 Category: Principles	Does the NIF contain the 'Security and privacy' principle?	The AIF states: Underlying principle 4: 'Citizens and businesses must be assured that they interact with public administrations in an environment of trust and in full compliance with the relevant regulations, e.g. on information security, privacy and data protection. This means that public administrations must guarantee the privacy of citizens and the confidentiality of information provided by businesses. Subject to security constraints, citizens and businesses should have the right to verify the information that administrations have collected about them and to be consulted whether this information may be used for purposes other than those for which it was originally supplied. Recommendation 3. Public administrations should consider the specific needs of each Austrian public service, within the context of a common security and privacy policy'. Ref: AIF v1.0 Section 2.5. http://reference.e-government.gv.at	2	Data security: Citizens place a high degree of confidence in the Austrian administration with regard to data protection. Citizens put a high value on the protection of their privacy. Sector-specific personal identifiers, or sSPINs, were developed specially for the purpose of identification to conform to data protection standards. They ensure that only authorised persons within the administration have access to personal data. Ref: 200911 Austrian minds about Interoperability Reichstädter.pdf, eGovernment Principles. http://www.a-sit.at/de/sicherheitsbegleitung/sicherheitshandbuch/index.php	Austrian Mobile Phone Signature (http://www.buergerkarte.at/)	2
Multilingualism EIF, Chapter 2, Underlying principles Recommendation 4 Category: Principles	Does the NIF contain the 'Multilingualism' principle?	AIF states: "Multilingualism needs to be carefully considered when designing Austrian public services. A balance needs to be found between the expectations of citizens and businesses to be served in the national language(s) and public administrations' ability to offer services in other (e.g. English, ...) languages. Multilingualism comes into play not just at the level of the user interface, but at all levels in the design of Austrian public services. For example, choices on data representation may limit the ability to support different languages. Recommendation 4. Public administrations should use information systems and technical architectures that cater for multilingualism when establishing an Austrian public service after evaluating the necessity and benefits. Some services and the main transactional platform Help.gv.at (citizens) and usp.gv.at (entrepreneurs) are offered additional in English as well. Ref: AIF v1.0 Section 2.6. http://reference.e-government.gv.at	1	Specific interoperability standards in the field of multilingualism basically exist, but their actual implementation depends on individual consideration.	1	2
Administrative simplification EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Administrative simplification' principle?	The AIF states: 'Underlying principle 6: Administrative simplification'. All new services and also legislative initiatives are analysed and structured according to the Big Picture e-Government and trying to be granular structured as well as reducing complexity. Ref: AIF v1.0 Section 2.7 http://reference.e-government.gv.at 'Underlying principle 6: Administrative simplification': Businesses compile large amounts of information, often solely due to legal obligations, which is of no direct benefit to them and not necessary for achieving the objectives of the legislation imposing the obligations. This creates a considerable administrative burden, which can be expressed as a cost incurred by businesses. To achieve this target, public authorities across sectors (if applicable) will have to act together when establishing Austrian public services.	2	The central register of civil status not only holds information on birth, marriage and death of natural persons but also provides their basic data (such as name, date of birth, etc.) to other registers and administrative procedures, allowing for a better quality of the respective information and a reduction of efforts necessary for their maintenance on both sides, public administration and citizens.	1	2

Analysis of the NIFs



[See Alignment Examples in NIFO toolbox](#)


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

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Transparency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Transparency' principle?	The AIF states: Underlying principle 8: Citizens and businesses should be able to understand administrative processes. They should have the right to track administrative procedures that involve them, and have insight into the rationale behind decisions that could affect them. Transparency also allows citizens and businesses to give feedback about the quality of the public services provided, to contribute to their improvement and to the implementation of new services. Ref: AIF v1.0 Section 2.8 http://reference.e-government.gv.at	2		Information supporting the citizens in understanding administrative processes is mainly implemented via one-stop-portals (e.g. HELP.gv.at, USP.gv.at). Providing automated insight into administrative processes in order to track their respective progress is not yet implemented. The Austrian open spending portal www.offenerhaushalt.at holds spending and budget data of all Austrian municipalities. All open interface specifications of the Transparency Database will be published once finalised at: http://reference.e-government.gv.at/Transparenzdatenbank.2637.0.html	1	2
Preservation of information EIF, Chapter 2, Underlying principles, Recommendation 5 Category: Principles	Does the NIF contain the 'Preservation of information' principle?	The AIF states: "2.9 Underlying principle 8: Preservation of information". Austria has a central approach for the different layers of government (federal, regional, cities & communities) to access the digital long-term archiving process. The Digital Archive Austria is a high-performance and secure solution for long-time archiving. Public sector bodies are responsible for joining the project and then for their actions while archiving of digital documents. See http://oesta.gv.at/site/5659/default.aspx 2.9 Underlying principle 8: Preservation of information Records and information in electronic form held by administrations for the purpose of documenting procedures and decisions must be preserved. The goal is to ensure that records and other forms of information retain their legibility, reliability and integrity and can be accessed as long as needed, taking into account security and privacy.	2	Records and information in electronic form held by administrations for the purpose of documenting procedures and decisions must be preserved (e.g. http://oesta.gv.at/site/5659/default.aspx). The goal is to ensure that records and other forms of information retain their legibility, reliability and integrity and can be accessed as long as needed, taking into account security and privacy.		2	2
Openness EIF, Chapter 2, Underlying principles, Recommendation 6 Category: Principles	Does the NIF contain the 'Openness' principle?	The AIF states: "2.10 Underlying principle 9: Openness". The openness principle is also a main point of the Big Picture e-Government approach - taking into account agreed national standards and specifications mainly based on open standards developments. Ref: AIF v1.0 Section 2.10 http://reference.e-government.gv.at 2.10 Underlying principle 9: Openness In the context of the AIF, openness is the willingness of persons, organisations or other members of a community of interest to share knowledge and stimulate debate within that community, the ultimate goal being to advance knowledge and the use of this knowledge to solve problems. While respecting data protection and privacy, interoperability involves sharing information among interacting organisations, and hence implies openness. www.data.gv.at	2		Public administration enforces openness through making non-personal data publicly available according to Open Data principles. data.gv.at offers a catalog of open data sets and services of the public administration, which in the Open Data principles are based. The platform has been awarded with the United Nations Public Sector Service Award in 2014 (UNPSA). Standards and conventions developed under the AIF/Austrian cooperation agreement are publicly available on the e-Government reference server. Solutions developed under the AIF/Austrian cooperation agreement are preferably open source-based.	1	2
Reusability EIF, Chapter 2, Underlying principles, Recommendation 7 Category: Principles	Does the NIF contain the 'Reusability' principle?	The AIF states: "Reuse means that public administrations confronted with a specific problem seek to benefit from the work of others by looking at what is available, assessing its usefulness or relevance to the problem at hand, and deciding to use solutions that have proven their value elsewhere. This implies that public administrations must be willing to share with others their solutions, concepts, frameworks, specifications, tools and components. This can be facilitated by applying the principle of openness, as described above. Reuse and sharing naturally lead to cooperation using collaborative platforms, towards mutually beneficial and agreed common goals. Reuse is consequently key to the efficient development of Austrian public services". Ref: AIF v1.0 Section 2.11 http://reference.e-government.gv.at	2	Common standards and solutions developed under the AIF/Austrian cooperation agreement are modular and generic allowing for an easy and widespread uptake of the building blocks.		2	2
Technological neutrality and adaptability EIF, Chapter 2, Underlying principles, Recommendation 8 Category: Principles	Does the NIF contain the 'Technological neutrality and adaptability' principle?	The AIF states: "When establishing Austrian public services, public administrations should focus on functional needs and defer decisions on technology as long as possible in order to avoid imposing specific technologies or products on their partners and to be able to adapt to the rapidly evolving technological environment. Public administrations should render access to public services independent of any specific technology or product". Ref: AIF v1.0 Section 2.12 http://reference.e-government.gv.at	2		Modules for online applications were conceptualised by the eGovernment Strategy for implementing interfaces on the basis of international open standards and for making licenses available for free. Modules for online applications are software components that encapsulate all the procedures needed to carry out specific functions, as mandated by the eGovernment strategy. They also implement interfaces for web applications. These modules make the intended functionality easier to integrate into applications. https://www.digitales.oesterreich.gv.at/site/6528/default.aspx	1	2
Effectiveness and efficiency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Effectiveness and efficiency' principle?	The AIF states: "There are many ways to take stock of the value brought by public service solutions, including considerations such as return on investment, total cost of ownership, increased flexibility and adaptability, reduced administrative burden, increased efficiency, reduced risk, transparency, simplification, improved working methods, and recognition of public administration achievements and competencies". Ref: AIF v1.0 Section 2.13 http://reference.e-government.gv.at	2		The actions foreseen by the AIF related to the NIF's "Effectiveness and efficiency" principle are performed on a per-service-basis in order to ensure the finding of profound and relevant results. Please provide a concrete example. HELP.gv.at, a one-stop-shop for citizens, delivers a report on usage and effectiveness on a per-year-basis.	1	2

Analysis of the NIFs

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

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Conceptual model EIF, Chapter 3 Category: Conceptual model	Does the NIF contain a conceptual model?	Chapter 3 of the AIF proposes a conceptual model for public services to suggest ways to organise the creation and operation of these services. The model brings together the common aspects and best practices observed. As a blueprint for future implementations of Austrian public services, the model helps develop a common vocabulary and understanding across sectors / organisations about the main elements of a public service and how they come together. The model emphasises a building-block approach to setting up Austrian public services, allowing for the interconnection and reusability of service components when building new services. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2			0	2
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 AIF states: 'The model promotes the reuse of information, concepts, patterns, solutions, and specifications in organisations and at Austrian level, recognising that Austrian public services: - are based on information from various sources located at different levels of administration, in different organisations, and - combine basic public services constructed independently by public administrations in different organisations. Therefore, the model highlights the need for modular, loosely coupled service components interconnected through infrastructure and for working together to deliver Austrian public services. It explicitly calls for Austrian-wide adoption of a service orientation to designing and developing systems, and an ICT ecosystem comprising consistent, and in some cases jointly developed, service components. Its particular service orientation is a specific way of creating and using business processes, packaged as services, throughout their lifecycle'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	ELAK Transactions: The ELAK transaction convention defines special information and electronic record management system functions and interfaces for the automated exchange of EDIAKT packages over Web services. 200911 Austrian minds about Interoperability Reichstädter.pdf, ELAK Transactions. Downloadable at: https://joinup.ec.europa.eu/catalogue/distribution/elak-transactions		2	2
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?	The AIF states: 'Public administrations will need to agree a common scheme on how to interconnect service components. There are well-known and widely used technical solutions, e.g. web services, to do this, but implementing them at Austrian level will require concerted efforts by public administrations, including investment in common infrastructure'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	The Austrian eGovernment strategy requires active participation in creating interfaces that are standardised across public authorities and drafting specifications that are effective nationwide as part of the cooperation between the Federal Government, the provinces and municipalities. The results from the work groups are based wherever possible on international norms and standards, or use them as a model.		2	2
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?	The AIF states: 'Public administrations should agree on a common scheme to interconnect loosely coupled service components and put in place the necessary infrastructure when establishing Austrian public services'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	The exchange of information between the parties is carried out over a dedicated communication platform Elak: In its function as a document and workflow management system for the electronic implementation of internal work processes, electronic file systems (Elektronischer Akt, ELAK) become a kind of data hub in which different applications and data sources can be integrated so that changes in media format can be avoided. This is supported by a series of defined interfaces, through which an ELAK, as a core application of an authority, communicates with clients as well as other systems and applications. 200911 Austrian minds about Interoperability Reichstädter.pdf, ELAK Infrastructure. XML Data Input Protocol: The XML input protocol defines a standard for input data, regardless of whether it is sent from a public authority Web form or any other point. The entry point creates an XML data set which is stored on an ELAK or an archive system so that it can be processed by different applications when needed. - Electronic Data Interchange Format (EDIAKT): Data is packaged as EDIAKT objects which are comprised of: (1) meta-data that describes a record, business (sub-)case, or document, (2) process data for process instances and activities in accordance with the XPD standard of the Workflow Management Coalition, (3) content of the record, business (sub-)case, or document, and (4) procedure-specific data that may be attached to an object. EDIAKT is used more than just as an interface between different electronic record systems. It can also be used for internal data exchange between special applications and archive systems. Ref: 200911 Austrian minds about Interoperability Reichstädter.pdf, XML Data Input Protocol, Electronic Data Interchange Format.		2	2
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 AIF states: 'The most important components of the conceptual model are base registries that provide reliable sources of basic information on items such as persons, companies, vehicles, licences, buildings, locations and roads. Such registries are under the legal control of public administrations and are maintained by them, but the information should be made available for wider reuse with the appropriate security and privacy measures. 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'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	Where allowed from a legal perspective, authoritative sources are made available to others based on common access control mechanisms obeying relevant security- and privacy-policies.	Austrian business register, central register of residents, etc.	2	2

Analysis of the NIFs



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

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Access control EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	The AIF states: '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'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	Where allowed from a legal perspective, authoritative sources are made available to others based on common access control mechanisms obeying relevant security -and privacy-policies.	Austrian Federation of portals (https://www.ref.gv.at/AG-IZ-PVP2-Version-2-1-0-2.2754.0.html)	2	2
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 AIF states: 'Public administrations, when working to establish Austrian public services, should develop interfaces to authentic sources and align them at semantic and technical level'. Ref: AIF v1.0 Section 3 The conceptual model for public services. http://reference.e-government.gv.at	2	XML Data Input Protocol: The XML input protocol defines a standard for input data, regardless of whether it is sent from a public authority Web form or any other point. The entry point creates an XML data set which is stored on an ELAK or an archive system so that it can be processed by different applications when needed. - Electronic Data Interchange Format (EDI/ACT): Data is packaged as EDI/ACT objects which are comprised of: (1) meta-data that describes a record, business (sub-case, or document), (2) process data for process instances and activities in accordance with the XPD standard of the Workflow Management Coalition, (3) content of the record, business (sub-case, or document, and (4) procedure-specific data that may be attached to an object. EDI/ACT is used more than just as an interface between different electronic record systems. It can also be used for internal data exchange between special applications and archive systems. Ref: 200911 Austrian minds about Interoperability Reichstädter.pdf, XML Data Input Protocol, Electronic Data Interchange Format.		2	2
Interoperability levels EIF, Chapter 4 Category: Interoperability levels	Does the NIF describe the four levels of interoperability?	The AIF mentions the four levels of interoperability. This chapter describes four levels of interoperability. Each deserves special attention when a new Austrian public service is established. The practical implementation of the conceptual model for cross-border/cross- organisation/cross-sector services requires each of these levels to be taken into account. Ref: AIF v1.0 Chapter 4 http://reference.e-government.gv.at	2	(see explanations under AIF-EIF-Alignment) The practical implementation of the conceptual model for cross-border/cross-organisation/cross-sector services requires each of these levels to be taken into account. Ref: AIF v1.0 Chapter 4 http://reference.e-government.gv.at		2	2
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?	The AIF states: 'Public administrations should carefully consider all relevant legislation relating to data exchange, including data protection legislation, when seeking to establish an Austrian public service'. AIF v1.0 Section 4.3 Legal interoperability. http://reference.e-government.gv.at	2	Legal conformance is the basis for every Austrian public service. A dedicated workgroup titled "Law & Security" provides legal assistance in specific domains and defines interoperability standards from a legal perspective.	Common standards and recommendations by the working group on "Law & Security" listed on the e-Government reference server: https://www.ref.gv.at/RECHT-SICHERHEIT.1990.0.html	2	2
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?	The AIF states: 'In order for different administrative entities to be able to work together efficiently and effectively to provide Austrian public services, they may need to align their existing business processes or even to define and establish new business processes. Aligning business processes implies documenting them, in an agreed way, so that all public administrations contributing to the delivery of Austrian public services can understand the overall business process and their role in it. Public administrations should document their business processes and agree on how these processes will interact to deliver an Austrian public service'. AIF v1.0 Section 4.4. Organisational interoperability. http://reference.e-government.gv.at	1		On reference.e-government.gv.at: the main business process models for services.	1	2
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?	The AIF refers to the intergovernmental coordination group (BSG) where the agreement on process alignments in the different levels of government is stimulated. Ref: AIF v1.0 http://reference.e-government.gv.at With the intergovernmental coordination group (BSG) the agreement on process alignments in the different levels of government are stimulated.	2	The working group on Infrastructure & Interoperability (AG- II) aims at defining an efficient, granular architecture definition and modular and component-based approach ways to facilitate the creation of integrated solutions. Documents published by AG-II: http://reference.e-government.gv.at/Veroeffentlichungen.570.0.html The integration working group (AG-IZ) aims at the integration of central services such as security, authentication and authorization of subscribers off the contents. http://reference.e-government.gv.at/INTEGRATION-ZUGANG.1919.0.html . The presentation / standard data (AG-PS) working group focuses on accessibility and user-friendliness of eGovernment services. http://reference.e-government.gv.at/PRAESENTATION-STANDARD.1991.0.html		2	2

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		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	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
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?	The AIF mentions procedures to encourage the interaction. "Public administrations should clarify their organisational relationships as part of the establishment of Austrian public service" Ref: AIF v1.0 Section 4.4.2 http://reference.e-government.gv.at	1		The PVP-standard defines organisational responsibilities and obligations as a basis for interorganisational access of applications within the public administration (https://www.ref.gv.at/AG-IZ-PVP2-Version-2-1-0-2.2754.0.html).	1	2
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 AIF states: "Since delivering an Austrian public service is the result of collective work parties that produce or consume parts of the service, change management processes are critical to ensure the accuracy, reliability and continuity of the service delivered to other public administrations, businesses and citizens. Public administrations working together to provide Austrian public services should agree on change management processes to ensure continuous service delivery". AIF v1.0 Section 4.4. Organisational interoperability. http://reference.e-government.gv.at	2	According to the AIF a coordinated approach on change management is key for ensuring the accuracy, reliability and continuity of services delivered to other public administrations, businesses and citizens. In fact, specific policies on change management are part of every single project set up under the Austrian cooperation agreement. Is there a concrete implementation- e.g. please give an example of a specific policy.	Standards published under http://reference.e-government.gv.at/KONVENTIONEN-WEITERE-KONZEPT.S06.0.html Please provide the name of the file you refer to.	0	2
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?	reference.e-government.gv.at contains the main principles and taxonomies for a semantic IOP approach. See also on: reference.e-government.gv.at at the sections for Konventionen, Infrastruktur-Interoperabilität.	1	Electronic Delivery specifications and semantic interoperability aspects are defined at: http://reference.e-government.gv.at/Veroeffentlichte-Informationen.353.0.html		2	2
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?	The AIF states: "Public administrations should support the establishment of sector-specific and cross-sector communities that aim to facilitate semantic interoperability and should encourage the communities to share results on Austrian and international platforms". AIF v1.0 Section 4.5. Semantic interoperability. http://reference.e-government.gv.at	2	- XML Structures for Business Objects: The XML business objects (XML-g) protocol contains a recommendation for a procedure that efficiently models XML structures for communicating between public authorities applications. The modelling recommendations are applicable to the creation of electronic application forms, amongst other things. - XML Toolbox: The XML toolbox describes a convention containing organisational and technical specifications for the design of XML data structures for electronic application forms. - XML Structure for Personal Data: The PersonData record is used to uniquely describe a person through interconnected information blocks called Person, Address and Signature. It is used in all eGovernment processes that handle personal data. - Electronic Data Interchange Format (EDI/ACT): Data is packaged as EDI/ACT objects which are comprised of: (1) meta-data that describes a record, business (sub-)case, or document, (2) process data for process instances and activities in accordance with the XPDL standard of the Workflow Management Coalition, (3) content of the record, business (sub-)case, or document, and (4) procedure-specific data that may be attached to an object. Ref: 200911 Austrian minds about Interoperability Reichsbücher.pdf, XML Structures for Business Objects, XML Toolbox, XML Structure for Personal Data, Electronic Data Interchange Format.		2	2
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 AIF states: "Recommendation: Public administrations should agree on the formalised specifications to ensure technical interoperability when establishing Austrian public services. - published after a formal process (confirmation/declining) on http://reference.e-government.gv.at "	2	Public administrations agree on the formalised specifications to ensure technical interoperability when establishing Austrian public services. These technical specifications are published after a formal process (confirmation/declining) on http://reference.e-government.gv.at .		2	2
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.	The AIF states: "Public administrations, when establishing Austrian public services, should base on the Austrian cooperation agreement on existing formalised specifications (reference.e-government.gv.at), or define interoperability agreements and if they do not exist, cooperate with communities working in the same areas". Ref: AIF v1.0 Section 5 Interoperability Agreements. http://reference.e-government.gv.at	2	The implementation of Austrian public services is based on the Austrian cooperation agreement on existing formalised specifications (https://www.ref.gv.at/fileadmin/_migrated/content_uploadds/e-gov-koop_2-0-2_20070913_02.pdf)		2	2

Analysis of the NIFs



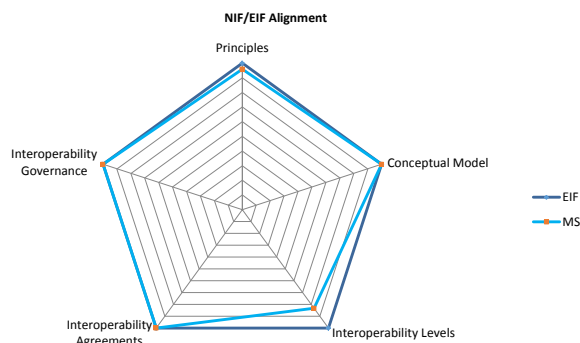
[See Alignment Examples in NIFO toolbox](#)

[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]	Implementa- tion scoring 2: Common practice 1: some examples 0: not observed	NIF monitoring	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
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 AIF states: "When public administrations select the formalised specifications or technologies to ensure interoperability, they should assess relevant formalised specifications. This assessment should be tailored to the specific interoperability needs of the public administrations in question, but based on objective criteria, primarily related to functional interoperability needs. When several formalised specifications meet functional interoperability needs, additional criteria on quality of implementation, market support, potential for reusability and openness can be used. Recommendation 21. Public administrations should use a structured, transparent and objective approach to assessing and selecting formalised specifications. Ref: AIF v1.0 Section 5 Interoperability Agreements. http://reference.e-government.gv.at	2	reference.e-government.gv.at - http://reference.e-government.gv.at/uploads/media/e-gov-koop_2-0-2_20070913_02.pdf describes in detail how a structure is developed and agreed between the stakeholders see therefore: http://reference.e-government.gv.at/ORG-KOOP-e-gov-koop-2-0-2.916.0.html		2		2
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?	The AIF states: "When establishing Austrian public services, public administrations should prefer open specifications, taking due account of the coverage of functional needs, maturity and market support." Ref: AIF v1.0 Section 5 Interoperability Agreements http://reference.e-government.gv.at	2		The Austrian Mobile Phone Signature/MOA-ID implementing electronic identification and authentication of citizens - amongst others - is using SAML- and OAuth-protocol suites, XML, X.509-certificates, etc. MOA-ID is a basic component for public services requiring users to proof their identity against public authorities. The interface between MOA-ID and specific applications is based on open national standards published on the eGovernment Reference Server.	1		2
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 AIF states: "If new specifications have to be developed, public administrations may either develop the specifications themselves and put forward the result for standardisation, or request a new formalised specification to be developed by standards developing organisations." Ref: AIF v1.0 Section 5 http://reference.e-government.gv.at Part of the working group structure of PDA: 4 working groups: Law & security, integration & access, infrastructure interoperability, presentation & standard data In some cases, public administrations may find that no suitable formalised specification is available for a specific need in a specific area. If new specifications have to be developed, public administrations may either develop the specifications themselves and put forward the result for standardisation, or request a new formalised specification to be developed by standards developing organisations.	2	The working groups established under the AIF/Austrian cooperation agreement are working closely together with national and international standardization bodies and initiatives.	Representatives of different working groups are members of relevant initiatives, e.g. as part of the Austrian Standards-delegation (for example: CEN/PC 440)	2		2
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 AIF states: "From a business point of view, administrations and other entities exchange official information that may involve access to base registries. This should go through a secure, harmonised, managed and controlled layer allowing information exchanges between administrations, businesses and citizens that are: - signed and certified – both sender and receiver have been identified and authenticated through agreed mechanisms, - encrypted – the confidentiality of the exchanged data is ensured, - logged – the electronic records are logged and archived to ensure a legal audit trail. In the proposed conceptual model, these functions are grouped in the 'secure data exchange' layer. This layer should allow the secure exchange of certified messages, records, forms and other kinds of information between the different systems. In addition to transporting data, this layer should also handle specific security requirements such as electronic signatures, certification, encryption and time stamping. Security is potentially one of the main barriers to interoperability if it is not applied in a harmonised and agreed way among organisations. The conceptual model highlights this and calls on all service providers to: - consider the security issues head-on; - cooperate on a common framework to meet their respective security needs via compatible mechanisms and commonly agreed specifications; - reach a common understanding on essential characteristics such as protective marking levels, authorisation levels and authentication strength. Therefore, public administrations should agree on a common security framework when establishing an Austrian public service. One of the key prerequisites for implementing the functionality expected in secure data exchange involves leveraging national identification and authentication infrastructures in the organisations to reach a working cross-organisations/sectors scheme. This scheme should establish which ICT architectures and data are needed in a cross-sector context to make existing organisation electronic identity infrastructures interoperable. Ref: AIF v1.0 Section 3.2.2 Secure data exchange layer http://reference.e-government.gv.at	2		In Austria, IT Security and Data Protection depends on the requirements of the application or authority. Electronic communications between citizens and the authorities can take place with or without the citizens having to uniquely identify themselves. These security requirements can be classified into two levels, which describe the necessary elements for the ICT security infrastructure for electronic administrative processes. - Level I: On this level, there is no particular need for security. A one-way authenticated TLS (Transport Layer Security) connection ensures basic security with use of the authority's identification attribute in the certificate. Authentication occurs on the server-side only, which ensures customers of the genuine nature of the services being offered by the public authority, whereas the customers are not required to identify themselves. - Level II: On this level, communication in administrative processes must be authenticated. Communication between clients and the server is encrypted, thereby ensuring authenticity and confidentiality of the content. In practice, this level of security is carried out by identification and authentication of the citizen using the citizen card and the MOA-ID. Ref: 200911 Austrian minds about Interoperability Reichstädter.pdf, IT Security and Data Protection	1		2
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.	The AIF states: "Even if interoperability is maintained for a given Austrian public service, its delivery often relies on components that are common to many Austrian public services. These components, which are the results of interoperability agreements reached outside the scope of the Austrian public service, should also be made available over time. Moreover, as the common components and interoperability agreements are the results of work carried out by public administrations at different levels (local, regional, national and international), coordination and monitoring this work requires a holistic approach. Public administrations should establish a framework for the governance of their interoperability activities across administrative levels." Ref: AIF v1.0 Section 6 Interoperability Governance. http://reference.e-government.gv.at	2	http://reference.e-government.gv.at/Digitalis-Oesterreich.725.0.html The federal platform Digital Austria is the governance framework. There is an established governance collaboration process existing, how to get projects without interoperability back to the interoperability route as well as escalation mechanism touching organisational and political levels of interoperability. Austria puts forward the Federal Platform Digital Austria (PDA) as centre stage for coordination and strategy of eGovernment in Austria by the Federal Government. All eGovernment projects in Austria now run under the Federal Platform Digital Austria (see Vision document: https://reference.e-government.gv.at/Digitalis-Oesterreich.725.0.html)		2		2

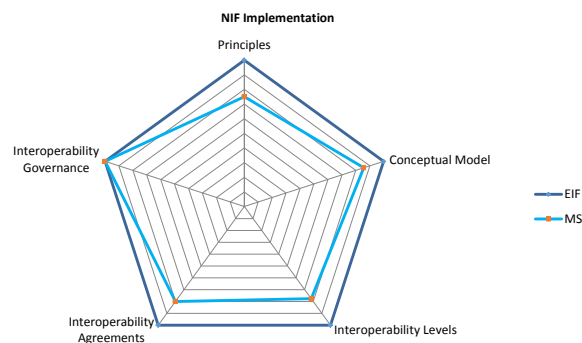
Category	EIF	MS
Principles	100%	95,8%
Conceptual Model	100%	100,0%
Interoperability Levels	100%	83,3%
Interoperability Agreements	100%	100,0%
Interoperability Governance	100%	100,0%

Category	EIF Element	Scoring	
		Max	MS
Principles	Subsidiarity and proportionality	2	2
	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	2
	Openness	2	2
	Reusability	2	2
	Technological neutrality and adaptability	2	2
	Effectiveness and efficiency	2	2
	Total	24	23
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	2
	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	2	2
	Total	14	14
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	1
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	2
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	1
	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	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	2
	Total	18	15
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	2
	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	2
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	2
	Total	10	10
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	2
	Total	2	2



Category	EIF	MS
Principles	100%	75,0%
Conceptual Model	100%	85,7%
Interoperability Levels	100%	77,8%
Interoperability Agreements	100%	80,0%
Interoperability Governance	100%	100,0%

Category	EIF Element	Scoring	
		Max	MS
Principles	Subsidiarity and proportionality	2	2
	User-centricity	2	2
	Inclusion and accessibility	2	2
	Security and privacy	2	2
	Multilingualism	2	1
	Administrative simplification	2	1
	Transparency	2	1
	Preservation of information	2	2
	Openness	2	1
	Reusability	2	2
	Technological neutrality and adaptability	2	1
	Effectiveness and efficiency	2	1
Total		24	18
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	2
	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	2	2
	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	1
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	2
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	1
	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	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	14
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	2
	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	1
	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%	100,0%
Conceptual Model	100%	100,0%
Interoperability Levels	100%	100,0%
Interoperability Agreements	100%	100,0%
Interoperability Governance	100%	100,0%

Category	EIF Element	Scoring	
		Max	MS
Principles	Subsidiarity and proportionality	2	2
	User-centricity	2	2
	Inclusion and accessibility	2	2
	Security and privacy	2	2
	Multilingualism	2	2
	Administrative simplification	2	2
	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	24
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	2
	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	2	2
	Total	14	14
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	2
	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	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	2
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	2
	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	2
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	2
	Total	10	10
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	2
	Total	2	2

