



NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY

Analytical Model *GERMANY*

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

[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	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed	
<p>See reference: the European Interoperability Framework v2 See definitions listed in the ISA EIF brochure</p> <p>Subsidiarity and proportionality EIF, Chapter 2, Underlying principles Category: Principles</p>	<p>Ref: Does the NIF contain the 'subsidiarity and proportionality' principle?</p>	<p>The National E-Government Strategy is a model for coordinated action taken on own responsibility. It strives for a common strategic orientation by federal, state and local governments in further developing e-government and would like to coordinate action taken by those involved in order to ensure interoperability and cost-effectiveness. To this end, the strategy formulates a model and common goals for further developing e-government to serve as orientation for federal, state and local governments in their own areas of action and responsibility. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile</p>	2	<p>Since Germany is a Federal State subsidiarity and proportionality applies to Germany as a whole (and is not limited to IT and interoperability). To ensure this principle, a whole bunch of organisational structures do exist. E.g. the IT-Planning council as mentioned in this document, takes EU decisions in IT and translates them into National Legislation (if necessary) and/or ensures that EU legislation is acutally implemented across the different levels of the administration. Another prominent example is the conference of the ministers of the Interior that translate relevant EU legislation to the "Länder"-level and ensures execution of EU legislation</p>	[describe project here]	2	<p>This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). The joint National E-Government Strategy of the federal, state and local governments is sensitive to the economic, social and technological developments which have a great influence on tomorrow's public administration. This strategy consciously relies on the principles of federalism, the division of powers, subsidiarity, local self-government and the principle of concomitant financing, and supports close and trusting cooperation across all levels of public administration. See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700</p>	2
<p>User-centricity EIF, Chapter 2, Underlying principles Category: Principles</p>	<p>Does the NIF contain the 'user-centricity' principle?</p>	<p>The National E-Government Strategy follows the European Union's Malmö Declaration of 18 November 2009 including providing citizens and businesses with user-centric e-government services. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile</p>	2	[describe here]	<p>User centricity covers respecting privacy, multi-channel contact points, single point of contact and information provision. Given the fact that the E-Governman legislation requires all federal agencies to offer a secure E-Mail channel (called De-Mail) covers at least parts of this principle (privacy, multi-channel). There are also many examples that the German government respects the privacy of the citizen, among the latest: the IT councils decision on using public cloud computing services that focusses particularly on data protection and privacy especially if personal data is involved (Decision 2015/4). There is also a project in the Ministry of Economics and Tehcnology aiming for a single point of contact for E-Governemnet services. Although the project is not yet completed, it has achieved its goal in some domains. Another example is "the telephone number of the administration": 115 allowing the citizens to discuss all questions regarding the administration regardless of the level or agency by calling this single number; many local governments have joined this initiative so far. Also every administration provides public information about their services (web sites) and many of them offer basic public services to their citizen.</p>	1	<p>This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700 The priorities set at European Union's Malmö Declaration of 18 November 2009 can also be found in Germany's e-government strategy (NEGS), which thus respects the areas of responsibility of those involved, strengthens their joint orientation and provides the basis for specific planning, especially with regard to the State Treaty on IT, of further e-government areas and IT strategies of the federal, state and local governments. Moreover it calls for providing citizens and businesses with user-centric e-government services. See http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile</p>	2

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Inclusion and accessibility EIF, Chapter 2, Underlying principles Recommendation 2 Category: Principles	Does the NIF contain the 'inclusion and accessibility' principle?	The National E-Government strategy states different goals for their users: - Access for all potential users of a service (Goal 1) - Access is barrier-free and services are user-friendly (Goal 2) - Easy access to public administration (Goal 3). It is still possible to communicate with the public administration using various channels. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2	[describe here]	The content management system (Government Site Builder) delivering the web services of the Federal government was chosen to especially provide web pages which are barrier-free (for disabled people). Most information of the Federal Government are currently barrier-free.	1	This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700 The National E-Government strategy (NEGS) states different goals for their users: - Access for all potential users of a service (Goal 1) - Access is barrier-free and services are user-friendly (Goal 2) - Easy access to public administration (Goal 3). It is still possible to communicate with the public administration using various channels. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2
Security and privacy EIF, Chapter 2, Underlying principles Recommendation 3 Category: Principles	Does the NIF contain the 'Security and privacy' principle?	National E-Government strategy Area C: Transparency, data protection and data security: In the interest of reliable data protection and the greatest possible transparency, the following aims have been formulated: Goal 9: Data minimization and data security: Only the personal data required to carry out the administrative task in question are collected and processed. As far as possible and reasonable, public administrations should make it possible to utilize their services without having to provide personal data. Bundling tasks as part of simplifying administrative processes and cross-level cooperation may require amending legal, technical and organizational framework conditions, while respecting privacy rights and the principle of the separation of informational powers. The federal, state and local governments are taking coordinated action on this matter. Goal 11: Administrative action and implementation of procedures and legislation are transparent and secure Uniform security standards in public administration will ensure seamless protection for the data of citizens and businesses. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2	[describe here]	Security is mainly achieved by the BSI that provides the government with recommendations to ensure the security of IT-systems. In addition, the BSI supports projects in security issues, certifies software solutions against given standards and provides general security recommendations to citizens. Privacy is ensured by the Federal Commissioner for Data Protection and Freedom of Information. He has the same role for privacy as the BSI has for security. These structures are replicated across the regional governments.	2	This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700 The National E-Government strategy contains a dedicated section (Area C) about Transparency, data protection and data security. In the interest of reliable data protection and the greatest possible transparency, Data minimization and data security (Goal 9) have been formulated as one of the aims. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2
Multilingualism EIF, Chapter 2, Underlying principles Recommendation 4 Category: Principles	Does the NIF contain the 'Multilingualism' principle?		0	[describe here]	Note: I am quite sure that there are multilingual services, but I do not have a concrete example; generally not many services are available in different languages.	0	[describe monitoring procedure here]	0
Administrative simplification EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Administrative simplification' principle?	National E-Government strategy, Area B: Cost-effectiveness and efficiency - Goal 6 Cross-level, client-oriented optimization and seamless digitization of process chains Critical assessment of tasks, bureaucracy reduction, structural modernization and client-oriented process optimization ensure a high degree of cost-effectiveness and efficiency in public administration. The IT Planning Council takes up promising ideas because they create the necessary conditions for effective electronic support for administrative processes. At the same time, administrative modernization takes advantage of the new options offered by ICT. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2	[describe here]	The German Federal Government has implemented the One-In-One-Out Principle meaning that additional administrative burden of a new legislation must be compensated with a reduction of the administrative burden elsewhere. In addition, a project is being implemented as part of the Programme "Digital Administration 2020" that searches for legislation which require physical presence of the citizen to comply with that legislation. This physical presence should step-by-step be replaced by secure means of electronic communication, e.g. using our ID card.	1	This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700 The National E-Government strategy contains a dedicated section (Area B) about Cost-effectiveness and efficiency. Goal 6 calls for cross-level, client-oriented optimization and seamless digitization of process chains. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2

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Transparency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Transparency' principle?	The German E-Government strategy ensures data protection as well as transparency with regard to data and administrative action: - Where there are no legal reasons to the contrary, users know which public agency is processing their personal data. - Users can request information about the processing of their data (Goal 10). - Administrative action and implementation of procedures and legislation are transparent and secure (Goal 11). See National E-Government strategy: http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf?jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2	<i>[describe here]</i>	<i>Note: Transparency in the sense of the EIF (e.g. tracking governmental procedures), is not widely implemented in Germany. It would be good to see how other MS implement this principle.</i>	0	This NIF element is monitored. A cooperation group "Strategy" was launched by the IT Planning Council to coordinate, control and monitor the measures implementing the NEGS (Nationalen E-Government-Strategie). See http://www.it-planungsrat.de/DE/Organisation/Kooperationsgruppen/Strategie/KoopGr_Strategie.html?nn=1461700 The E-Government strategy ensures data protection as well as transparency with regard to data and administrative action See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf?jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2
Preservation of information EIF, Chapter 2, Underlying principles, Recommendation 5 Category: Principles	Does the NIF contain the 'Preservation of information' principle?	- SAGA 5.0 refers to basic principles including processes for document management (referred to as the DOMEA –concept = Document Management and Electronic Archiving). This is a concept of document management and electronic archiving in public administration. See http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile See http://www.cio.bund.de/DE/Architekturen-und-Standards/DOMEA/domea_node.html - A project is ongoing to build an intermediate archive for the federal agencies that is not limited to the kind of service that is provided however, it will be limited to the specific document management system used See https://www.bundesarchiv.de/imperia/md/content/bundesarchiv_de/oeffentlichkeitsarbeit/fachpublikationen/mitteilungenausdembundesarchiv/mitteilung_1-2012.pdf See digitalesarchiv Internetversionaktuell (DOC on E-ROOM) See Machbarkeitsstudie Digitales ZwArch (DOC on E-ROOM) See The Digital Archive of the Federal Archives of Germany (DOC on E-ROOM)	2	This NIF element is applied. A project is ongoing to build an intermediate archive for the federal agencies that is not limited to the kind of service that is provided however, it will be limited to the specific document management system used. The intermediate archive for the federal agencies is to begin piloting in 2014. See https://www.bundesarchiv.de/imperia/md/content/bundesarchiv_de/oeffentlichkeitsarbeit/fachpublikationen/mitteilungenausdembundesarchiv/mitteilung_1-2012.pdf	<i>[describe project here]</i>	2	Preservation of information is the task of the Federal Archive. The Federal Archive is managed and controlled by the Minister of Culture and Media. Similar structures do exist at the regional level.	2
Openness EIF, Chapter 2, Underlying principles, Recommendation 6 Category: Principles	Does the NIF contain the 'Openness' principle?	- SAGA 5.0 refers to the basic principle Openness: The aim is that IT systems are not dependent on the interests of individual market participants in the development. Open specifications provide a transparent basis for all market participants, for the government as a customer on the one hand and the suppliers of information technology on the other. Thus, they support the principle of sustainability to the information technology in public administration and promote at the same time the competition and the proliferation rate of innovative technologies in the IT industry. See SAGA 5.0; 3. Ziele, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile	2	In IT, Germany strives to use open standards whenever feasible, e.g. in SAGA only standards can be listed that fulfill our openness principle (e.g. FRAND standards cannot be listed in SAGA). In addition, when exchanging data between systems (e.g. between base registries), we develop our own semantic standards, that are made available to the public through the XRepository. Using the standard does not impose any licencing fees or other forms of IPRs. Therefore, software vendors can pick these standards and develop suitable systems. While the XRepository is used by the entire government (all levels), SAGA is applicable to the Federal Government but some regional government adopted the idea.	The open data action plan and portal: https://www.govdata.de/ - http://www.bmi.bund.de/SharedDocs/Downloads/EN/Broschueren/2014/national-action-plan-open-data.html	2	The IT-Council is responsible to act the annual framework "IT-Rahmenkonzept des Bundes". It contains all common actions at federal level in order to avoid parallel developments with the consequent costs. The actions are aimed at the architecture management and are furnishing the basis for annual budget planning. http://www.cio.bund.de/Web/DE/Strategische-Themen/IT-Steuerung-Bund/IT-Rahmenkonzept/it-raahmenkonzept_node.html The IT council is also the owner of SAGA and many other programmes where openness is important (e.g. the IT consolidation). These programmes are governed and monitored by the IT council. The same holds true for the IT planning council that governs and monitors the XÖV standards (indirectly through the KOSIT).	1
Reusability EIF, Chapter 2, Underlying principles, Recommendation 7 Category: Principles	Does the NIF contain the 'Reusability' principle?	'SAGA 5.0 refers to the basic principle Reusability The reusability of software Systems and its elements allows repeated use of the same or similar requirements. A redundant development is thus avoided, and operation, care and maintenance will be easier. It thus supports directly that the other goals will be more efficient and agile. See SAGA 5.0; 3. Ziele, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile 'National E-Government strategy, Area F: High-performance IT support Goal 18: Content, basic services, applications and infrastructure can be bundled and re-used. As far as possible, content, basic services, applications and infrastructures used for e-government are bundled and made available to other agencies for their use. Federal, state and local governments drive the re-use and bundling in their own areas of responsibility and with each other. Re-use is tested in a praxis-based way (e.g. in model regions). Establishing best practices in suitable areas in a coordinated way lays the groundwork for efficient transfer. See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf?jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile	2	Germany's IT planning board (IT-Planungsrat), a steering committee of federal and state government IT boards, is pooling IT projects and IT development in a so-called Föderale IT-Koordinierung (FITKO, federal IT coordination). Uniting and reusing IT project is important because of the increasing digitisation of public administration services, the rising complexity of IT and the growing importance of IT security. The IT Council and more prominently the Budget Committee of the parliament have started the IT consolidation initiative at Federal level and closely monitor its progress. The IT consolidation initiative contains a sub-project explicitly dealing with reusing existing digital services.	<i>[describe project here]</i>	2	The IT-Council is responsible to act the annual framework "IT-Rahmenkonzept des Bundes". It contains all common actions at federal level in order to avoid parallel developments with the consequent costs. The actions are aimed at the architecture management and are furnishing the basis for annual budget planning. http://www.cio.bund.de/Web/DE/Strategische-Themen/IT-Steuerung-Bund/IT-Rahmenkonzept/it-raahmenkonzept_node.html The IT Council and more prominently the Budget Committee of the parliament have started the IT consolidation initiative at Federal level and closely monitor its progress. The IT consolidation initiative contains a sub-project explicitly dealing with reusing existing digital services.	1

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Technological neutrality and adaptability EIF, Chapter 2, Underlying principles, Recommendation 8 Category: Principles	Does the NIF contain the 'Technological neutrality and adaptability' principle?	<p>SAGA 5.0 specifies the open standards to be used. Open specifications provide a transparent basis for all market participants, for the government as a customer on the one hand and the suppliers of information technology on the other. Thus, they support the principle of sustainability to the information technology in public administration and promote at the same time the competition and the proliferation rate of innovative technologies in the IT industry.</p> <p>See SAGA 5.0; 3. Ziele, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile</p> <p>- It was said that Germany aims to create the technological neutrality through the open standards. Also through the usage of open specifications "own" development (by third parties) could be done.</p> <p>See National E-Government strategy, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile</p>	1		In Germany legislation on public procurement basically says that a tender should provide functional requirements and should not impose any restrictions on the bidders (e.g. the tender should not prefer a bidder because a specific technology is required). Together with the open standards policy, this ensures flexibility and technological neutrality in public procurement. However, consolidating the IT in a small number of IT service providers requires an active architecture management. This involves clearly the management of technologies and means that each service center needs to establish its own technology strategy and need to respect these strategic decisions in public tenders (e.g. so that software uses a small number of database systems, a small number of middleware technologies, etc.). Therefore, it is believed that the criterion cannot be completely be fulfilled if IT should be provided effectively and efficiently.	1	Technological neutrality is monitored and controlled by the court, e.g. every party in a public tender can open a court case if they feel that the public procurements is not technically neutral.	1
Effectiveness and efficiency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Effectiveness and efficiency' principle?	<p>In Germany, SAGA 5.0 (Standards and Architectures for eGovernment applications), specifies the following with regard to the principle of effectiveness and efficiency:</p> <p>- Investment in information technology should be considered not only as a one-time costs but also ongoing (operating, care and maintenance) costs as well as costs that arise in the future replacement of a software system. The principles of efficiency and economy are to be respected and be verified by appropriate economic studies (see § 7 para 1 and 2 BHO). Furthermore, it is also needed to minimize risks and to pursue investment security.</p> <p>See SAGA 5.0; 3. Ziele: http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile</p> <p>The National E-Government Strategy concentrates on cost-effectiveness and efficiency and includes the following goal:</p> <p>Goal 6: Cross-level, client-oriented optimization and seamless digitization of process chains</p> <p>Critical assessment of tasks, bureaucracy reduction, structural modernization and client-oriented process optimization ensure a high degree of cost-effectiveness and efficiency in public administration. The IT Planning Council takes up promising ideas because they create the necessary conditions for effective electronic support for administrative processes. At the same time, administrative modernization takes advantage of the new options offered by ICT.</p> <p>According to the document A Model for 2015: Germany's E-Government Sets International Standards for Effective and Efficient Administration in a Federal Structure, in their joint and individual efforts on e-government, the federal, state and local governments are guided by the following principles:</p> <p>By 2015, Germany's e-government will be ranked among the European leaders because</p> <p>A) it is oriented on usefulness for citizens and businesses,</p> <p>B) it is cost-effective and efficient,</p> <p>...</p> <p>F) it provides high-performance IT support.</p> <p>See National E-Government strategy: http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Strategie/National_E-Government_Strategy.pdf;jsessionid=87F5B5ABE7888A05AEBF933EB441758B.2_cid094?__blob=publicationFile</p>	2	First of all, for all investments made, a return of investment analyses must be provided. This rule is strongly monitored by the German Court of Auditors (especially in IT projects). In addition, all major IT-projects need to use a certain process model for their projects (called V-Model XT Bund); complying to this rule is also monitored by the German Court of Auditors. Specifically in IT but also in organisational development, more modern methods such as process modelling, UML and BPMN are used more and more often. The transfer of this key knowledge is managed by the Federal Office of Administration that develop and adjust these methods. Of particular interest may be an addition to the new eGovernment legislation generally requiring process modelling before the introduction of an IT system. This ensures that process is being enhanced before the IT system is designed/or selected. Finally, the exchange of knowledge between government and Academia is not only achieved by specific projects but particularly by an institute called OeFIT (part of Fraunhofer) that is financed by the Federal Ministry of the Interior. This close link to Academia ensures that new insights and new methods can be quickly transferred and applied to the government.	[describe project here]	2	This NIF element is monitored. The federal government is investing heavily in information technology. They increase their efficiency with the electronic support of more and more administrative tasks. The IT-Council is responsible to act and monitor the annual framework "IT-Rahmenkonzept des Bundes". It contains all common actions at federal level in order to avoid parallel developments with the consequent costs. The actions are be aimed at the architecture management and are furnishing the basis for annual budget planning. See http://www.cio.bund.de/Web/DE/Strategische-Themen/IT-Steuerung-Bund/IT-Rahmenkonzept/it-rahmenkonzept_node.html	2
Conceptual model EIF, Chapter 3 Category: Conceptual model	Does the NIF contain a conceptual model?	<p>Rahmenarchitektur IT-Steuerung Bund defines an architecture model for eGovernment applications consisting out:</p> <ul style="list-style-type: none"> - Enterprise viewpoint specifies the purpose, use area and rules of an application. - Information viewpoint describes the structure and semantics of the data to be processed, i.e. the data model. - Computational viewpoint represents the breaking down of an application into functional elements and their interaction interfaces. - Engineering viewpoint represents the distribution of the individual elements of the system to physical resources and their connections. - Technology viewpoint describes the technologies used to implement the system. <p>More detail for services is given in picture 3, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/rahmenarchitektur_itsteuerung_bund_grundlagen_download.pdf?__blob=publicationFile</p> <p>The support of the specialized tasks in the federal by IT is highly complex and technical. Although it is not an essential part of the daily work, there are often communication problems between business and IT side. The frame architecture creates therefore - according to their name - a framework to detect functional and technical aspects uniformly. This enables different views for the planning and management of the IT landscape of the federal administration are bundled. The result is an essential basis for better, more flexible and economical IT solutions in the covenant.</p> <p>See http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/it_steuerung_download.pdf?__blob=publicationFile</p>	2	[describe here]	The IT service centres implement at least parts of the architecture methods cited as NIF element; e.g. the centre of IT (ZIVIT) and the IT service provider for the job centres have implemented architecture management methods including their conceptual models to a large extend. The same holds true for the IT service providers for the regional governments (Länder). Since IT is still not fully consolidated, there is still room for improvement.	1	The Court of Auditors closely monitors the IT governance units and asks them to use the latest methods and models. This includes the usage of architecture management methods.	1

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 <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 Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed	
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)	<p>4- SAGA 5.0: A separate section is dedicated to the specifications for the realization of service-oriented architectures (service-oriented architectures - SOA). This section describes the specifications that are relevant in the implementation services oriented architectures. The specifications, which only ensure interoperability in service oriented architectures, offers a effective and efficient communication between applications.</p> <p>SAGA 5.0; 5. Applikationsarchitektur, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile</p> <p>4- Germany is also creating architectures on several layers of government</p> <p>See http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/it_steuerung_download.pdf?__blob=publicationFile</p> <p>See http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/rahmenarchitektur_itsteuerung_bund_grundlagen_download.pdf?__blob=publicationFile</p>	2	<i>[describe here]</i>	The IT service centers do implement a component-based service model and SOA technologies are used to some extend.	1	The Court of Auditors closely monitors the IT governance units and asks them to use the latest methods and models. This includes the usage of architecture management methods.	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?	<p>Germany has different documents to support the interconnection of loosely coupled service components.</p> <p>- XÖV stands for XML in public administration and its aim is to standardize data exchange within and with the public administration. XöV encourages the use of common schemes. This will improve interoperability and consequently electronic processes will be more uniform and efficient. Standard XML schemas are available in the repository of which some are mandatory by law.</p> <p>See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/XML-in-der-oeffentlichen-Verwaltung/xml_verwaltung_node.html</p> <p>See http://www.xoev.de/sixcms/detail.php?gsid=bremen02.c.730.de</p> <p>- In SAGA 5.0, a separate section is dedicated to the specifications for the realisation of service-oriented architectures (service-oriented architectures - SOA). This section describes the specifications that are relevant in the implementation services oriented architectures. These specifications offer an effective and efficient communication between applications.</p> <p>SAGA 5.0; 5. Applikationsarchitektur, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile</p>	2	There are a lot of XÖV-Applications, collected at the Xrepository. Development and operation of XRepository provided code lists are to be used. Coordination and checking of XÖV standards is carried out by the Co-ordination Office for IT Standards (KoSIT) in Bremen.	<i>[describe project here]</i>	2	Monitoring the XÖV standards is part of the job of the Federal Office of Administratoin. They do examine XÖV standards, have the ability of accepting and rejecting them and give hints on how to improve XÖV standardization.	1
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?	<p>Deutschland-online - The joint eGovernment strategy of the federal Government, federal-state governments and municipalities.</p> <p>The aim of Deutschland-Online (DOL) is to create a fully integrated eGovernment landscape in Germany, so that electronically captured data can be exchanged between the administrations of the Federal Government, federal states and municipalities in a consistent manner and across all levels.</p> <p>It has the following 6 priorities: Infrastructure, Standardization, IT implementation of the EU services directive, Registration services, Motor vehicle registration services, Civil status registration services.</p> <p>See SAGA 4.0, chapter 4, Strategic goals, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_4_0_englisch_download.pdf?__blob=publicationFile</p> <p>See also Deutschland-online, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Projekte/Aktionsplan_2011.pdf;jsessionid=CFCE52D2EC3572E5D4DADB744DABED3.2_cid322?__blob=publicationFile</p>	2	<i>[describe here]</i>	We do use technologies for loosely coupled services in the data centers whenever possible; however there is still room for improvement	1	<i>Note: Not sure whether this aspect should be monitored. A good example would help to identify relevant monitoring measures.</i>	0
Public administrations should make their authentic sources of information available to others while implementing access and control mechanisms to the relevant legislation. EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage to make the authentic sources of information available to others?	<p>Deutschland-online - The joint eGovernment strategy of the federal Government, federal-state governments and municipalities.</p> <p>The aim of Deutschland-Online (DOL) is to create a fully integrated eGovernment landscape in Germany, so that electronically captured data can be exchanged between the administrations of the Federal Government, federal states and municipalities in a consistent manner and across all levels.</p> <p>It has the following 6 priorities: Infrastructure, Standardization, IT implementation of the EU services directive, Registration services, Motor vehicle registration services, Civil status registration services.</p> <p>See SAGA 4.0, chapter 4, Strategic goals, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_4_0_englisch_download.pdf?__blob=publicationFile</p> <p>See also Deutschland-online, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Projekte/Aktionsplan_2011.pdf;jsessionid=CFCE52D2EC3572E5D4DADB744DABED3.2_cid322?__blob=publicationFile</p>	2	<i>[describe project here]</i>	<p>One of the projects and future applications is "open government", making available authentic sources of information to a broad public.</p> <p>See http://www.it-planungsrat.de/DE/Projekte/Steuerungsprojekte/Steuerungsprojekte_NEGS/OpenGovernment/opengovernment.html</p> <p>Authentic sources such as base registries do almost always implement an XÖV open standard and could therefore be used by others. Note: Implementing the standard is free of charge while using the public service may be not.</p>	1	This NIF element is monitored. The action plan of the IT Planning Council is updated annually, and its implementation is monitored by the Office of the IT Planning Council.	2
Access control EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	<p>- A separate entity, the BSI (Bundesamt für Sicherheit in der Informationstechnik) is responsible. As a national security agency, the goal of the Federal Office for Information Security (BSI) is to promote IT security in Germany. The BSI is first and foremost the central IT security service provider for the federal government in Germany.</p> <p>- No specific notions or actions are taken within the interoperability initiatives</p> <p>See https://www.bsi.bund.de/EN/Home/home_node.html</p>	1	This NIF element is applied. In 2011 the National Cyber Defence Centre under the auspices of the BSI (Bundesamt für Sicherheit in der Informationstechnik) was created to improve and shorten communication lines between various authorities in case of cyber-attacks. It is part of Cyber Security Strategy for Germany. See http://www.bmi.bund.de/DE/Themen/IT-Netzpolitik/IT-Cybersicherheit/Cybersicherheitsstrategie/Cyberabwehrzentrum/cyberabwehrzentrum_node.html See http://www.bmi.bund.de/SharedDocs/Downloads/DE/Themen/OED_Verwaltung/Informationsgesellschaft/cyber_eng.html;jsessionid=ED75205F5C0C3CE8D24BF72F5918D1E3.2_cid295?nn=3314802	<i>[describe project here]</i>	2	The cyber defence center must report to the Federal Ministry of the Interior, which in turn manages and controls it.	2

Analysis of the NIFs

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	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	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
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?	Deutschland-online - The joint eGovernment strategy of the federal Government, federal-state governments and municipalities. The aim of Deutschland-Online (DOL) is to create a fully integrated eGovernment landscape in Germany, so that electronically captured data can be exchanged between the administrations of the Federal Government, federal states and municipalities in a consistent manner and across all levels. It has the following 6 priorities: Infrastructure, Standardization, IT implementation of the EU services directive, Registration services, Motor vehicle registration services, Civil status registration services. See SAGA 4.0, chapter 4, Strategic goals, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_4_0_englisch_download.pdf?__blob=publicationFile See also Deutschland-online, http://www.it-planungsrat.de/SharedDocs/Downloads/DE/Projekte/Aktionsplan_2011.pdf?sessionid=CFCE52D2EC3572E5D4DADB744DABED3_2_cid322?__blob=publicationFile	2		One of the projects and future applications is "open government", making available authentic sources of information to a broad public. See http://www.it-planungsrat.de/DE/Projekte/Steuerungsprojekte/Steuerungsprojekte_NEGS/OpenGovernment/opengovernment.html In addition, our authentic source, e.g. the base registries almost always exchange data by using open XÖV standards, that means that access to that registries is technically open. Alignment in that sense is not feasible since the data kept in base registries are very different. E.g. by pushing the identity management function of our new Id-card, we aim at harmonizing the technical means to access those services.	1	This NIF element is monitored. The action plan of the IT Planning Council is updated annually, and its implementation is monitored by the Office of the IT Planning Council.	2
Interoperability levels EIF, Chapter 4 Category: Interoperability levels	Does the NIF describe the four levels of interoperability?	The different Interoperability levels in Germany are described in SAGA 5.0 (Standards and Architectures for eGovernment applications) - Organisational interoperability: Organisational interoperability is supported by the National Process Library initiative. - Technical interoperability: Technical interoperability is achieved by Germany's standardisation initiative SAGA 5.0 - Semantic interoperability: Semantic interoperability is achieved by the XÖV initiative (XML in public administrations). - Legally: On the legal level, Germany has established a new E-Government legislation on federal level (7. June 2013). The E-Government law aims at providing the tools for E-Government services, fosters interoperability and increases the transparency of German public administrations. See SAGA 5.0; 3. Ziele, 3.5 Interoperabilität, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile	2		On the technical level, SAGA is applied at the Federal level. On the semantic level, XÖV is applied for important IT projects especially for base registers, on all levels of the German government. On the organisational level, we have process modelling activities in place that do model processes for documentation and IT systems implementation purposes.	1		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?	Note: I found that recommendation rather misleading. Of course, the German government respects the relevant legislations not only when implementing European public services. Insofar no NIF-element is actually needed. When it comes to data protection, we have strong rules and compliance is regularly monitored and audited (see www.bfdi.bund.de).	0	A programme exists to implement and control the E-Government legislation: Digital Government 2020, which is part of Germany's digital agenda. The programme implements the E-Government legislation and monitors the respective projects. (see http://www.google.de/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&cad=rja&uact=8&sqi=2&ved=0CCoQFjABahUKEwi8-TDzOrHahVCyRQKHeafAhk&url=http%3A%2F%2Fwww.bmi.bund.de%2FSharedDocs%2FDownloads%2FE%2FNachrichten%2FPressemittelungen%2F2014%2F09%2Fregierungsprogramm-digitale-verwaltung-2020.pdf%3F__blob%3DpublicationFile&usq=AFQjCNHbQFob_NYQvNRs3s4-3t0nCefE-A&bvm=bv.102022582,d.bGg).	<i>[describe project here]</i>	2	There is a programme to implement and control the E-Government legislation. Monitoring of this programme can be found here: http://www.verwaltung-innovativ.de/DE/Regierungsprogramm/aktuelles_regierungsprogramm/Monitoring_RP/Monitoring_RP_node.html	1
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?	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324 The research project "National Process Library", funded by the German Ministry of Interior, and in cooperation with Humboldt University zu Berlin, aims at gathering and exchanging business processes of the public administration across national, state, city and municipality level. The Business Process Technology group develops a process platform for the National Process Library providing a convenient tool to share, analyse, discuss and exchange processes among the different partners of the German administration. Major challenges are the ability to cope with the variety of different Business Process Notations used in the public sector as well as the different abstraction levels, structures and labels of these models. The platform is being designed to manage process building blocks and bring together the knowledge of administrative processes that exists at various levels and link it in a way that makes sense. The project is not about routinely aligning existing models of administrative processes at federal, state and municipal levels. Rather, it hopes to pool existing experiences and multiply knowledge by encouraging the different levels to work together. Using the integrated e-government community, information can be documented using modelling processes and exchanged between participants. See Humboldt University, http://bpt.hpi.uni-potsdam.de/Public/ResearchProfile See National Process Library, http://www.hpi.uni-potsdam.de/hpi/veranstaltungen/ceb/ceb2011/national_process_library.html?L=1 See also http://www.prozessbibliothek.de/ausgangslage/	2	<i>[describe here]</i>	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies. see initiatives described at: http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324	1	<i>True: there is currently no monitoring of the process modelling activities</i>	0

Analysis of the NIFs

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

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	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
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?	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324 The research project "National Process Library", funded by the German Ministry of Interior, and in cooperation with Humboldt University zu Berlin, aims at gathering and exchanging business processes of the public administration across national, state, city and municipality level. The Business Process Technology group develops a process platform for the National Process Library providing a convenient tool to share, analyse, discuss and exchange processes among the different partners of the German administration. Major challenges are the ability to cope with the variety of different Business Process Notations used in the public sector as well as the different abstraction levels, structures and labels of these models. The platform is being designed to manage process building blocks and bring together the knowledge of administrative processes that exists at various levels and link it in a way that makes sense. The project is not about routinely aligning existing models of administrative processes at federal, state and municipal levels. Rather, it hopes to pool existing experiences and multiply knowledge by encouraging the different levels to work together. Using the integrated e-government community, information can be documented using modelling processes and exchanged between participants. See Humboldt University, http://bpt.hpi.uni-potsdam.de/Public/ResearchProfile See National Process Library, http://www.hpi.uni-potsdam.de/hpi/veranstaltungen/cebitt/cebitt_2011/national_process_library.html?L=1 See also http://www.prozessbibliothek.de/ausgangslage/	1	<i>[describe here]</i>	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies. see initiatives described at: http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324	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?	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324 The research project "National Process Library", funded by the German Ministry of Interior, and in cooperation with Humboldt University zu Berlin, aims at gathering and exchanging business processes of the public administration across national, state, city and municipality level. The Business Process Technology group develops a process platform for the National Process Library providing a convenient tool to share, analyse, discuss and exchange processes among the different partners of the German administration. Major challenges are the ability to cope with the variety of different Business Process Notations used in the public sector as well as the different abstraction levels, structures and labels of these models. The platform is being designed to manage process building blocks and bring together the knowledge of administrative processes that exists at various levels and link it in a way that makes sense. The project is not about routinely aligning existing models of administrative processes at federal, state and municipal levels. Rather, it hopes to pool existing experiences and multiply knowledge by encouraging the different levels to work together. Using the integrated e-government community, information can be documented using modelling processes and exchanged between participants. See Humboldt University, http://bpt.hpi.uni-potsdam.de/Public/ResearchProfile See National Process Library, http://www.hpi.uni-potsdam.de/hpi/veranstaltungen/cebitt/cebitt_2011/national_process_library.html?L=1 See also http://www.prozessbibliothek.de/ausgangslage/	1	<i>[describe here]</i>	Process modelling plays a dominant role on the federal and legal level; e.g. the e-government legislation requires that every IT project must model and improve processes prior to IT implementation. In addition, the Federal Ministry of the Interior has set out a process modelling technique and tool for its own and all subordinate agencies. see initiatives described at: http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/Prozessmodellierung/prozessmodellierung_node.html;jsessionid=19E73FBB31DCCDAC134C708F019F9E1F.2_cid324	1	<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?		0	<i>[describe here]</i>	Change Management is inherently part of the so called S-O-S method for large scale projects (http://www.bva.bund.de/DE/Organisation/Abteilungen/Abteilung_BIT/Leistungen/IT_Standards/SOS_Methode/Kurzeinweisung/OrganisatorischesUmfeld/04_Ver%C3%A4nderungsmanagement/node.html). This method must be used for all larger projects and especially in IT projects.	1	The Court of Auditors monitors the correct application of the S-O-S method and wherewith the correct application of the change management method included in it.	1
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?	'- K-13 (Planned): use of code lists The use of standardised code lists, provided in XRepository, are recommended by the coordination of the XÖV. - K-14 (MUST): Successful processing of XÖV UML model by XÖV production accessories The XÖV UML model must be able to be error-free processed in the time of the compliance check by the current version published by the XÖV coordination XÖV production accessories. This includes the error-free generation of XML Schemas. See http://www.xoev.de/sixcms/detail.php?gsid=bremen83.c.2258.de#Nutzung von Codelisten - Methods for providing value lists: A central challenge in the integration of IT processes is the production of semantic interoperability. Using lists of values (colloquially code lists), provides the ability to process multiple overarching definition of shared terms and thus an explicit and verifiable semantics in this context. Of particular importance are multidisciplinary and subject-independent code lists that can be reused in many different contexts. See http://www.xoev.de/sixcms/detail.php?gsid=bremen83.c.4888.de	1	The XRepository provides code lists and other semantic standards. There is a core model in place for public services. http://www.xoev.de/de/produkte http://www.xoev.de http://www.xrepository.de/	<i>[describe project here]</i>	2	Using and complying with XÖV standards is monitored by both the IT planning council (as for project using XÖV standards) and by the Federal Office of Administration (as for XÖV standards complying with XÖV rules).	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 <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	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
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 German online standardisation project (Deutschland-online Standardisierung) contains XÖV (XML for public administrations) working groups that aligned on the following: - Data conference working group to define general data models (XÖV Core components) for all public services - Delivery and implementation of XÖV standards working group to address the practical use of the completed XÖV standards. See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/XML-in-der-oeffentlichen-Verwaltung/xml_verwaltung_inhalt.html	2	Coordination and checking of XÖV standards is carried out by the Co-ordination Office for IT Standards (KoSIT) in Bremen.	<i>[describe project here]</i>	2	KOSIT is controlled and managed by the IT planning council. http://www.it-planungsrat.de/DE/Organisation/KoSIT/KoSIT_node.html	1
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 German SAGA 5.0 (Standards and Architectures for eGovernment applications) classifies the technical specifications with which the software systems of the Federal Administration must be realized. The use of uniform specifications is one of the key objectives of SAGA. The definitions of openness, interoperability and services are incorporated in the creation of SAGA. SAGA's recommendations are subject to the General principles described in the EIF, provided for European services of the public administration. This is reflected above all in the objectives of the SAGA. Also the implications of the recommendations of the EIF with influence on architecture pattern to be used are supported by the classifications of SAGA. The selection and evaluation of specifications follows the transparent process required by the EIF. SAGA 5.0; http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile	2	The IT council implements the IT consolidation project. Part of the project is to develop solutions that are to be used across the Federal government. Part of these projects is the development and agreement upon formalised specifications, e.g. in secure mail, electronic identification (mainly our Id card), formular management, e-procurement and electronic payment.	The IT planning board approved making the use of the XVergabe eProcurement standard mandatory in Germany. The standards allows the country's procurement agencies and companies to exchange information and submit, receive and manage bids for government contracts. In its announcement, the IT planning board emphasises how the XVergabe standard can be used in eSENS, the new European large-scale pilot project, aiming to consolidate eGovernment services and standards across the EU. https://www.xvergabe.org/confluence/display/xv/Home	2	Note: Not sure how a monitoring could look like; a good example could help.	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.	- The definitions of openness, interoperability and services are incorporated in the creation of SAGA. SAGA's recommendations are subject to the General principles described in the EIF, provided for European services of the public administration. This is reflected above all in the objectives of the SAGA. Also the implications of the recommendations of the EIF with influence on architecture pattern to be used, are supported by the classifications of SAGA. The selection and evaluation of specifications follows the transparent process required by the EIF. - The SAGA module classifies the technical specifications with which, the software systems of the Federal Administration must be realized. The use of uniform specifications is one of the key objectives of SAGA. See SAGA 5.0; http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile - XML in public administration - XÖV standardization (semantic level): The goal of XÖV is to improve interoperability in the electronic data exchange within and with the public administration. To achieve this, as part of XÖV standardize, common rules for developing and maintaining standards for electronic data interchange (XÖV standards) are developed and coordinated in the community of XÖV projects. These common rules (eg XÖV manual) serves as a guideline for the implementation of XÖV projects and as a basis for the coordination of these projects, the reuse of functional blocks (XÖV core components) and concepts and methods to facilitate the standardization XÖV. See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/XML-in-der-oeffentlichen-Verwaltung/xml_verwaltung_node.html - Organisational interoperability: National Process Library + arrangements made on service provider/consumer level for (in)formal SLA's	2	This NIF element is applied by the SAGA module. SAGA is a compilation of references to specifications and methods for software systems of public administration. By order of the IT Council, the use of SAGA 5 for the federal administration in their choice of information technologies is authentic. Through the use of SAGA, the selection of technologies are made in all IT projects of public administration according to transparent criteria and uniform quality standards and sustainable IT solutions are created with high investment security. See SAGA 5.0; http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile - Coordination and checking of XÖV standards is carried out by the Coordination Office for IT Standards (KoSIT) in Bremen. See http://www.xoev.de See http://www.xrepository.de/	<i>[describe project here]</i>	2	see above.	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?	SAGA 5.0 aligns on a structured, transparent and objective approach. The lifecycle of specifications is explained by means of a figure and the following text: A specification may go through several transitions at once. So, a specification of a SAGA engine version can be eventually "mandatory" to another such as from "Proposed" "Observed" and "Sensi- Colt". Not immediately, you can leave only the classification of "Bestandsgeschützt" because with this classification, protection is granted. Each test can always have the result that a specification retains its classification. For example, a specification of "Proposed", when she was still not finalized at the time of the examination and the work on the specification but also not have been set remains. See SAGA 5.0; 5.4. Lebenslauf klassifizierter spezifikationen, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile	2	Germany provides a lits of standards to be used by public administrations. SAGA has a whole module about the standard's selection process (http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile). The criteria has good overlap with CAMSS of the ISA programme, in some parts the criteria a stronger (e.g. we do not allow standards based on FRAND licensing) and our criteria are in some domains not so elaborated (e.g. CAMSS is more detailed).	<i>[describe project here]</i>	2	The compliance of the standards selection criteria is not directly monitored. However, a SAGA standard could only be approved if it is approved by all members of the SAGA expert group. The final list of standards need to be approved by the IT-Council that double-checks the work of the SAGA expert group.	1
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?	SAGA aligns on openness: With this aim, it is strived for that information technology systems in the future do not solely depend on the interests of individual market participants. Open specifications provide a transparent basis for all market participants, for the public administration as a customer on the one hand and the suppliers of information technology on the other hand. Thus, they support the principle of sustainable development for information technology in the public sector management and at the same time promote the increase of competition and the dissemination rate of innovative technologies in the IT industry. SAGA 5.0; 3. Ziele, 3.3 Offenheit, http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile	2	Germany provides a lits of standards to be used by public administrations. SAGA has a whole module about the standard's selection process (http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_grundlagen_de_bund_5_1_0_download.pdf?__blob=publicationFile). The criteria has good overlap with CAMSS of the ISA programme, in some parts the criteria a stronger (e.g. we do not allow standards based on FRAND licensing) and our criteria are in some domains not so elaborated (e.g. CAMSS is more detailed).	<i>[describe project here]</i>	2	The compliance of the standards selection criteria is not directly monitored. However, a SAGA standard could only be approved if it is approved by all members of the SAGA expert group. The final list of standards need to be approved by the IT-Council that double-checks the work of the SAGA expert group.	1

Analysis of the NIFs

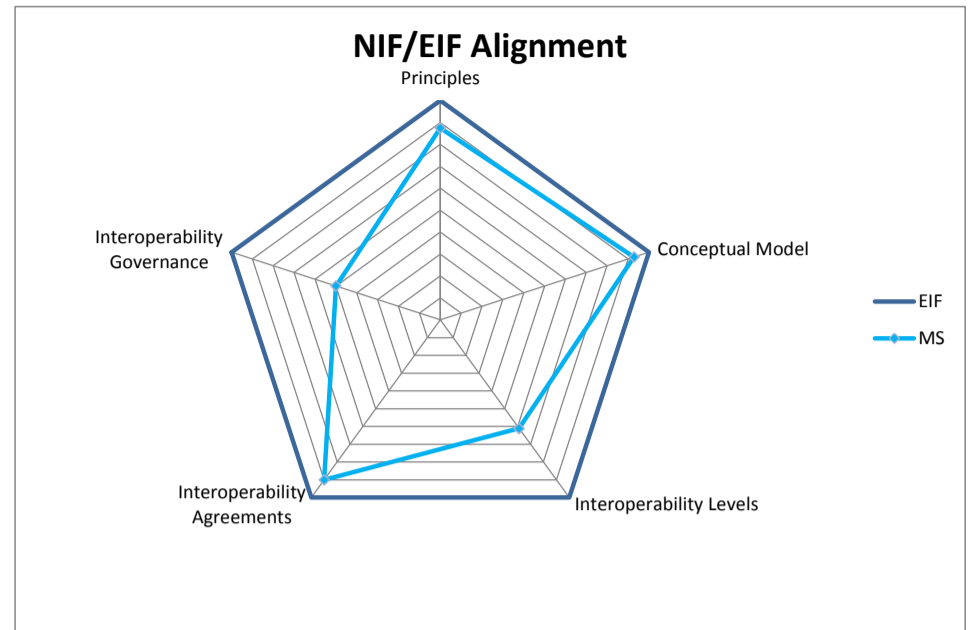
[See Alignment Examples in NIFO toolbox](#)

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

EIF Element - Reference - Category	Measurement	NIF-EIF Alignment		NIF implementation		NIF monitoring		
		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
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?	In Germany, the coordinating body for IT-standards (Kosit) has the task of the development and operation of IT to coordinate standards for data exchange in the public administration. The work of Kosit is controlled by an advisory board, in addition to the federal and state governments and municipalities and the Federal Office for Security in Information Technology (BSI). See http://www.cio.bund.de/DE/Architekturen-und-Standards/Daten-und-Prozessmodellierung/XML-in-der-oeffentlichen-Verwaltung/xml_verwaltung_node.html;jsessionid=19E73FB831DCCDA134C708F019F9E1F.2_cid324 The goal of XÖV (XML in public administrations) is to improve the interoperability of electronic data exchange within and with the public administration. To achieve this, in the context of XÖV standardization developed common rules for the development and maintenance of standards for the electronic data interchange (XÖV standards) are created and matched in the community of XÖV projects. These common rules (e.g. XÖV manual) serve both as a guide for the performance of XÖV projects and as a basis for the coordination of these projects, the reuse of technical components (XÖV core components) and as concepts and methods to facilitate the XÖV standardization. See http://www.xoev.de/sixcms/detail.php?gsid=bremen02.c.730.de	2	This NIF element is applied by the SAGA module. SAGA is a compilation of references to specifications and methods for software systems of public administration. By order of the IT Council, the use of SAGA 5 for the federal administration in their choice of information technologies is authentic. Through the use of SAGA, the selection of technologies are made in all IT projects of public administration according to transparent criteria and uniform quality standards and sustainable IT solutions are created with high investment security. Germany actively participates in the MSP for ICT when evaluating standards and working on the ICT Rolling Plan See SAGA 5.0; http://www.cio.bund.de/SharedDocs/Publikationen/DE/Architekturen-und-Standards/SAGA/saga_modul_tech_spez_de_bund_5_0_download.pdf?__blob=publicationFile - Coordination and checking of XÖV standards is carried out by the Coordination Office for IT Standards (KoSIT) in Bremen. See http://www.xoev.de See http://www.xrepository.de/	[describe project here]	2	Note: not sure, how this could be monitored; a good example could help.	0
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 Federal Office for Information Security (BSI) is the central IT security service provider for the federal government in Germany. As a national security agency, the goal is to promote IT security in Germany. For instance, the "IT-Grundschatz Catalogues" is a publication of BSI. The aim of IT-Grundschatz is to achieve an appropriate security level for all types of information of an organisation. IT-Grundschatz uses a holistic approach to this process. Through proper application of well-proven technical, organisational, personnel, and infrastructural safeguards, a security level is reached that is suitable and adequate to protect business-related information having normal protection requirements. On the IT exhibition in October 2013 in Nuremberg, the BSI has published a minimum standard for the use of a transport encryption using the TLS protocol. Thus, in the federal protocol TLS 1.2 is given in combination with Perfect Forward Secrecy (PFS) as a minimum standard on both sides of the communication relationship. See BSI, https://www.bsi.bund.de/DE/DasBSI/dasbsi_node.html	1	This NIF element is applied. The Federal Office for Security in Information Technology (BSI) provides a software tool, namely GSTOOL, for authorities to efficiently assist the user in creating, managing and updating security concepts according to the IT-Grundschatz. See https://www.bsi.bund.de/DE/Themen/weitereThemen/GSTOOL/gstool_node.html	[describe project here]	2	The BSI is also used as an instance to evaluate whether a public service meets the security requirements set out earlier and advises the projects.	1
Governance Public administrations should establish a framework for the governance of their interoperability activities across administrative levels. EIF, Recommendation 25 Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	- The IT council owns SAGA and is responsible for the definition of its scope and its development. It is also responsible for promoting SAGA. - The IT planning council owns the national E-government strategy. It is responsible for its scope, definition and implementation. There will also be monitoring (no systematic monitoring in place 1/2013) See http://www.it-planungsrat.de/DE/Home/home_node.html	1	[describe here]	Governance is achieved by at least three means: 1) By the German Bundestag and its committees (e.g. the budget committee closely monitors the implementation of the IT consolidation). 2) The IT council governs the IT landscape and its interoperability initiatives (e.g. SAGA) at federal level. 3) The IT planning council governs the IT landscape on the	1	The budget committee closely monitors the implementation of the IT consolidation.	1

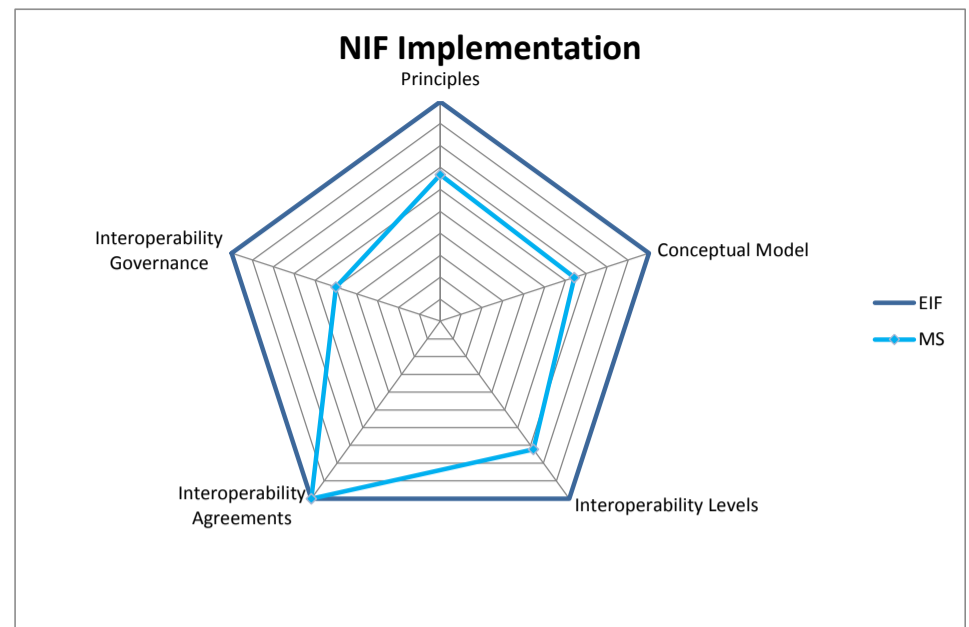
Category	EIF	MS
Principles	100%	87,5%
Conceptual Model	100%	92,9%
Interoperability Levels	100%	61,1%
Interoperability Agreements	100%	90,0%
Interoperability Governance	100%	50,0%

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	0	
	Administrative simplification	2	2	
	Transparency	2	2	
	Preservation of information	2	2	
	Openness	2	2	
	Reusability	2	2	
	Technological neutrality and adaptability	2	1	
	Effectiveness and efficiency	2	2	
	Total		24	21
	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	2	
Total			14	13
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	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	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	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	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	11
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	1	
Total		10	9	
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	1	
	Total		2	1



Category	EIF	MS
Principles	100%	66,7%
Conceptual Model	100%	64,3%
Interoperability Levels	100%	72,2%
Interoperability Agreements	100%	100,0%
Interoperability Governance	100%	50,0%

Category	EIF Element	Scoring		
		Max	MS	
Principles	Subsidiarity and proportionality	2	2	
	User-centricity	2	1	
	Inclusion and accessibility	2	1	
	Security and privacy	2	2	
	Multilingualism	2	0	
	Administrative simplification	2	1	
	Transparency	2	0	
	Preservation of information	2	2	
	Openness	2	2	
	Reusability	2	2	
	Technological neutrality and adaptability	2	1	
	Effectiveness and efficiency	2	2	
	Total		24	16
	Conceptual Model	Does the NIF contain a conceptual model?	2	1
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	2	
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	1	
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	1	
Total			14	9
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	1	
	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	1	
	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	1	
	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	13
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	1	
	Total	2	1	



Category	EIF	MS
Principles	100%	79,2%
Conceptual Model	100%	64,3%
Interoperability Levels	100%	27,8%
Interoperability Agreements	100%	30,0%
Interoperability Governance	100%	50,0%

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	0	
	Administrative simplification	2	2	
	Transparency	2	2	
	Preservation of information	2	2	
	Openness	2	1	
	Reusability	2	1	
	Technological neutrality and adaptability	2	1	
	Effectiveness and efficiency	2	2	
	Total		24	19
	Conceptual Model	Does the NIF contain a conceptual model?	2	1
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	1	
Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?		2	0	
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	9
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	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	1	
	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	1	
	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	5
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	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	0	
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	1	
Total		10	3	
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	1	
	Total		2	1

