NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY

Analytical Model
NORWAY

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

DIGIT

Directorate-General for Informatics

ISA² Programme

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		NIF-EIF Alignment			**NIF implementation**			**NIF monitoring**	
EIF Element - Reference - Category *See reference: the European Interoperability Framework_v2* *See definitions listed in the ISA EIF brochure*	Measurement	**NIF element present** - Reference - (Text in English)	**NIF-EIF alignment scoring** *2: fully 1: partially 0: not aligned*	**Large scale implementation** *[describe if and how implementation of the element is a common practice]*	Only implementation **examples** *[describe an implementation example specific to each element]*	**Implementation scoring** *2: Common practice 1: some examples 0: not observed*	**NIF monitoring**	**Monitoring scoring** *2: Monitored 1: Partially monitored 0: not observed*
Subsidiarity and proportionality Ref: EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'subsidiarity and proportionality' principle?	The 429 municipalities in Norway are a large part of the Norwegian public sector, and they are autonomous in their ICT-work. Only the standards that are mentioned in the ICT-standards regulation are also mandatory for the municipalities. All other measures are made primarily for the national state-part of the public sector, at the same time inviting the municipalities to join and re-use. This shows the subsidiarity principle in the Norwegian NIF - as a consequence of the high degree of decentralisation. Also, the choice of national common components is made mandatory based on the proportionality-principle when a common solution is needed to reach the goal. For instance the ID-portal is necessary to achieve single sign-on to all public sector services. The principle is the basis for the analysis and conclusion in the Common Component-report. See the descriptions of the criteria for recommending national common components on page 3, https://joinup.ec.europa.eu/community/nifo/document/national-common-components-norwegian-public-sector	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
User-centricity EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'user-centricity' principle?	The "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795, ch. 6 - user centric public services, recognize the user as a central stakeholder that must be involved and targeted in public sector administration -- "Ei forvaltning for demokrati og fellesskap" -- is where the Government first outlines and orders the public sector to follow the architecture principles, see page 94, section 6.5.2. Consequently this is one of the means chosen by the Government in order to reach the goals outlined in section 1.2. One of the goals is the ambition on broad participation, which includes amongst others "betre brukarretting" (more user centric). https://www.regjeringen.no/contentassets/307c7a3832184bbba25b75f4b6c5a40e/no/pdfs/stm200820090019000dddpdfs.pdf	2	*[describe here]*	Several municipalities have developed digital services that are user-centric, e.g. the Directorate of taxes Exemption card (http://www.skatteetaten.no/en/Person/Tax-deduction-card-and-advance-tax/Exemption-card/). More examples here: (http://kvalitet.difi.no/resultat) Altinn (https://www.altinn.no/en/) provides single point of contact for businesses and some sectors have portals that ensure single point of contact for citizens, e.g. the health sector (https://helsenorge.no/)	1	Difi conducts quality assessments of eGovernment websites and digital services every 2nd year. The results are published online (http://kvalitet.difi.no/resultat). The criteria (see http://kvalitet.difi.no/kriteriesett/kvalitet-pa-nett) include aspects related to usability and user-centricity (customisation).	2
Inclusion and accessibility EIF, Chapter 2, Underlying principles Recommendation 2 Category: Principles	Does the NIF contain the 'inclusion and accessibility' principle?	The Norwegian law on non-discrimination (§14) https://lovdata.no/lov/2013-06-21-61/§14 deals with inclusion and accessability of public ICT services. This is further outlined in the "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795, ch. 15 - a digital everyday life for all. It is also part of the "Overarching IT architecture principles for Public Sector" http://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf and fut\rther elaborated as quality criteria's for public sector websites http://kvalitet.difi.no/kriteriesett/kvalitetskriterier2013/	2	According to legal regulations, cf. cell C10, all digital services being developed must conform to the inclusion and accessibility principle. Existing digital services must be brought into conformance by 1.1.2021.	*[describe here]*	2	The Norwegian Agency for Public Management and eGovernment (Difi) is responsible for monitoring whether relevant regulations are met. Difi will supervise the regulations. Information and guidance work will be the main tasks for the supervisory authority. (https://uu.difi.no/om-oss/english)	2
Security and privacy EIF, Chapter 2, Underlying principles Recommendation 3 Category: Principles	Does the NIF contain the 'Security and privacy' principle?	Information's security and privacy are paramount principles for information management in the public sector. The principle is including pursuant to the Personal Data Act, Public Administration, Security Act, the Civil Service Act and rules on confidentiality. This is further addressed in the "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795 and ch. 19 - Personal security in a digital world, ch. 20 - ICT security. It is also part of the "Overarching IT architecture principles for Public Sector" https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf There is a dedicated national strategy for information security (https://www.regjeringen.no/en/dokumenter/cyber-security-strategy-for-norway/id710469/), with a corresponding action plan (https://www.regjeringen.no/no/dokumenter/handlingsplan-for-informasjonssikkerhet-i-statsforvaltningen/id2440093/).	2	*[describe here]*	The agency for public management and eGovernment has incorporated the principles in the project methodology for public sector i Norway.	1	The agency for public management and eGovernment monitors implementation initiatives and their effect. Results are continuously published and shared with public sector and media.	1
Multilingualism EIF, Chapter 2, Underlying principles Recommendation 4 Category: Principles	Does the NIF contain the 'Multilingualism' principle?	• As Norway has two official language versions, in addition to often using English as working-language, especially in ICT, the concept of multilingualism is in general present This is also one of the quality criteria's for public sector websites.http://kvalitet.difi.no/kriteriesett/kvalitet-pa-digitale-tjenester/2014/56-innholdet-presenteres-pa-flere-sprak-og-malformer	2		Many digital services support multilingualism, e.g. the service to report moving within Norway (http://www.skatteetaten.no/en/Forms/Reporting-a-move-within-Norway/)	1	Difi conducts quality assessments of eGovernment websites and digital services every 2nd year. The results are published online (http://kvalitet.difi.no/resultat). The criteria (see http://kvalitet.difi.no/kriteriesett/kvalitet-pa-nett) include aspects related to multilingualism.	2
Administrative simplification EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Administrative simplification' principle?	The "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795, ch. 7 - Once Only delivering of information, adopts the Once Only Principle and the strategys focus on digitalization in G2G, G2B, G2C is and will simplify administrative burden for Government, Businesses and Citizens. Reduction of Administrative burden has been one of the key drivers of Norwegian ICT since the end of the 1980s. During the 90-s two key components were put in place; a central business register issuing an identification number to all Norwegian organisations (businesses, government organisations, NGOs etc). Through this ID it is easy to exchange information about the same entity. A few years later a law and a register that gave all governmental organisation a duty to verify that the information they needed was not already collected by another agency, before it was allowed to ask the organisations directly http://www.lovdata.no/all/hl-19970606-035.html There are huge ongoing efforts, for instance a project where the welfare directorate, the tax-directorate and the national statistics are consolidating their reporting requirements so that businesses only will have to send one report on their employees, instead of three separate. (EDAG-project) The newest version of the architecture principles also refers to the reuse of information on businesses through the business register, and relates this to the service orientation principles.	2	*[describe here]*	A-melding is an initiative that consolidates employers reporting requirements. Instead of sending three different report on each employee, they need only to send one report per employee. (https://www.altinn.no/en/a-ordningen/About-the-a-melding/)	1	Difi is facilitating the work to identify and eliminate unnecessary administrative burdens. An overview of the work and identified administrative burdens are available here: https://www.difi.no/veiledning/tidstyver	1

Analysis of the NIFs

EIF Element - Reference - Category	Measurement	NIF-EIF Alignment — NIF element present - Reference - (Text in English)	NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned	NIF implementation — 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 — NIF monitoring	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
Transparency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Transparency' principle?	▲ Part of the openness principle in the newest version of the architecture principles, and key part of the act on procedures in public administration (public administration act) . There is also a separate freedom of information act that requires public bodies to be transparent and open. There is a portal where everyone can see which all letters - unless they are secret for some reason -- sent and received to all governmental agencies that has implemented an electronic case management system/document archiving systems in accordance with our national standard for electronic archiving (NOARK)	2	[describe here]	The electronic database of public mail records (OEP) grants online access to documents of the central administration to anyone interested in obtaining them; the OEP constitutes the first initiative of this kind worldwide. It facilitates users to follow the political decision-making process on the Internet across agency boundaries. https://www.oep.no/?lang=en https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/eGov%20in%20Norway%20-%20January%202015%20-%20v_12_0_Final(3).pdf	1	[describe monitoring procedure here]	0
Preservation of information EIF, Chapter 2, Underlying principles, Recommendation 5 Category: Principles	Does the NIF contain the 'Preservation of information' principle?	The national archive has developed a standard for document archive systems. One feature is the ability to export from archives to the "depot" with the national archive. Mandatory through a separate act (referred to in the article) http://www.arkivverket.no/eng/content/view/full/339 . The reference catalogue for IT-standards in the public sector also lists mandatory standards for archiving that underpin the preservation principle (http://standard.difi.no/forvaltningsstandarder/referansekatalogen-html-versjon/#Arkiv-formater)	2	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
Openness EIF, Chapter 2, Underlying principles, Recommendation 6 Category: Principles	Does the NIF contain the 'Openness' principle?	The overarching architecture principles for the Norwegian public sector contains a dedicated principle concerning transparency. In addition the principle is underpinned by the freedom of information act. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	[describe here]	Open data is of great importance to the Norwegian Government and Difi offers support and tools, through the national data catalogue "data.norge.no" and a hosting service "the data hotel", The data hotel is used by agencies, the ones that do not have an infrastructure for sharing data through web-api's, to upload their data (CSV, XML etc). This data then becomes available through a REST-API offering several choices of format, as well as querying and paging-mechanisms	1	[describe monitoring procedure here]	0
Reusability EIF, Chapter 2, Underlying principles, Recommendation 7 Category: Principles	Does the NIF contain the 'Reusability' principle?	The "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795, ch.11 - Joint Building Blocks for digitalization in Public sector - addresses the importance of reusability. More specific the "Overarching IT architecture principles for Public Sector" https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf addresses the reusability principle.	2	[describe here]	Several building blocks are offered from different agencies (eID, Altinn, National Population Register, Business Register and Cadaster) that can be reused for public services. The services are offered by different agencies, which are responsible for the national common components. As of today, there are four of such agencies; Brønnøysund Registry Center (Altinn, Business Register), The Norwegian Tax Administration (National Population Register), and The Norwegian Mapping Authority (Cadastre), in addition to Difi.	1	[describe monitoring procedure here]	0
Technological neutrality and adaptability EIF, Chapter 2, Underlying principles, Recommendation 8 Category: Principles	Does the NIF contain the 'Technological neutrality and adaptability' principle?	In the "Digital Agenda for Norge (Norway)" https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795 "Technology Neutral" is one of the principles: "Reguleringen skal være teknologinøytral", p 8. -The architecture principles also states that services should be technology neutral, cf. the principle on accessibility https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
Effectiveness and efficiency EIF, Chapter 2, Underlying principles Category: Principles	Does the NIF contain the 'Effectiveness and efficiency' principle?	In addition to user centricity, "cost efficiency" is the key reason for the existence of the architecture principles, see the introduction-text https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
Conceptual model EIF, Chapter 3 Category: Conceptual model	Does the NIF contain a conceptual model?	The Norwegian Government proposes a model that includes all the mandatory and recommended organisational, semantic and technical standards in combination with the national common components (e.g. e-ID, cadaster, Altinn portal). Figure 7.2 Common ICT architecture in the public sector - An information society for all - https://www.regjeringen.no/globalassets/upload/fad/vedlegg/ikt-politikk/stm17_2006-2007_eng.pdf	2	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
Public administrations should develop a component-based service model, allowing the establishment of (European) public services by reusing, as much as possible, existing service components. EIF, Recommendation 9 Category: Conceptual model	Is the conceptual model a component-based service model? (e.g. SOA)	One of the architecture principles is about service orientation and component based approach https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
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 architecture principle about service orientation requires loose couplings and the reference catalogue for IT standards in the public sector in Norway describes some standards relevant for integration https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	1	[describe here]	[describe project here]	0	[describe monitoring procedure here]	0
Interconnection of service components. EIF, Recommendation 10 Category: Conceptual model	Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?	The architecture principles on service orientation encourages re-use, e.g. of one of the existing infrastructures for data interchange https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	[describe here]	Altinn is a platform for developing e-government services. Among many other services, Altinn provides an infrastructure for information exchange	1	[describe monitoring procedure here]	0

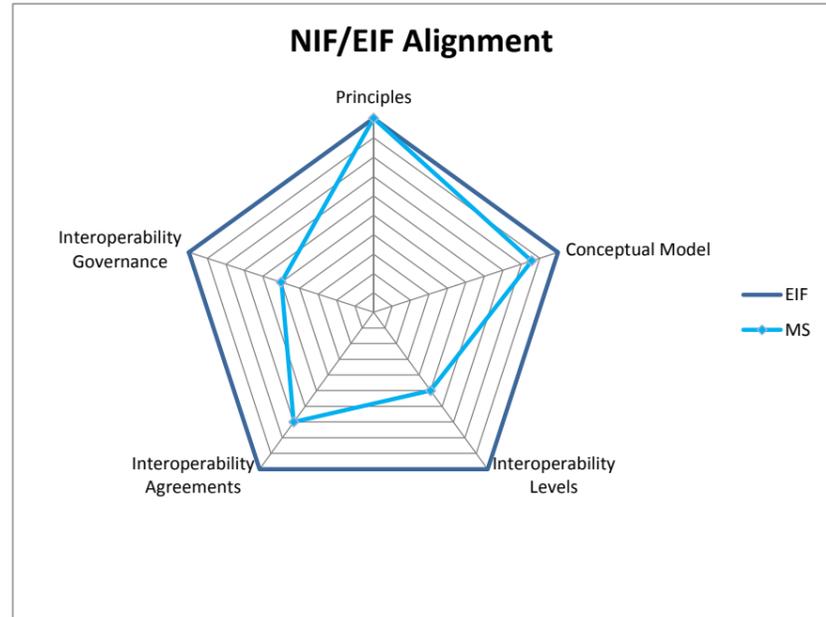| EIF Element - Reference - Category	Measurement	NIF element present - Reference - (Text in English)	NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned	Large scale implementation [describe if and how implementation of the element is a common practice]	Only implementation examples [describe an implementation example specific to each element]	Implementation scoring 2: Common practice 1: some examples 0: not observed	NIF monitoring	Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed
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 architecture principle about transparency requires disclosure of data sources used by IT solutions. The security principle requires that openness and access to such data sources are balanced against the need for information security and data protection. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf There are also legal provisions that mandate that some data sources, e.g. master data registries, are made available to relevant parties	2	*[describe here]*	Master data registries like the central register over persons and the business register are available to the public on certain terms. Data.norge.no hosts and makes available data sets on behalf of public bodies	1	*[describe monitoring procedure here]*	0
Access control EIF, Recommendation 11 Category: Conceptual model	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	The overarching architecture principles for the Norwegian public sector contains a dedicated principle concerning security. In addition, there are a number of legal provisions that regards information security. There are also guides and technical solutions available to aid the agencies in maintaining satisfactory information security, e.g. ID-porten which is widely used. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	*[describe here]*	ID-porten is a common log in solution to public services. With ID-porten you can log in to more than 660 different services from government agencies. (http://eid.difi.no/en/id-porten)	1	Both the Norwegian Data Protection Authority and Difi performs various surveys on privacy and information security in Norway	1
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 overarching architecture principle on service orientation requires reuse. The following have been identified as authentic sources and the public administrations are encouraged, and sometime required, to use these: - Central registry for organisations (enhetsregistret) - persons national register (folketregistret) - cadastre (mattrikelen) There is currently no alignment in the interfaces since each performs their technical development individually. There is however an ongoing effort that aims to see these registers and other common building blocks in a more coherent manner. *(rest deleted)*	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
Interoperability levels EIF, Chapter 4 Category: Interoperability levels	Does the NIF describe the four levels of interoperability?	The three interoperability levels are explicitly described in the architecture principle about interoperability https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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?	Relevant laws are referenced in the architecture principles, e.g. the act on Data Protection. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
Organisational interoperability - business process alignment. Public administrations should document their business processes and agree on how these processes will interact to deliver a (European) public service. EIF, Chapter 4 Recommendation 15 Category: Interoperability levels, organisational artefacts	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	The overarching architecture principle on interoperability involves coordination of business processes. This implies that the business processes are documented. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
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 principles are mandatory for government agencies and recommended for municipalities. Aside from that, the relationship between the different levels of public administrations is not directly addressed by the principles. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	0	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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?	It could be argued that this is implied by the principle on interoperability, but it is not explicitly stated. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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?	This might be derived from the principles on interoperability and accessibility, but it is not explicitly stated. The principles does not address continuous delivery as an approach to software development	0	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
Semantic interoperability. Public administrations, when working together to establish (European) public services, should use a common taxonomy of basic public services. EIF, Chapter 4 Recommendation 13 Category: Interoperability levels, semantic artefacts.	Does the NIF encourage the usage of a common taxonomy of basic public service?	The architecture principle on interoperability encourages coordination of common conceptual and information models within the relevant area of interaction. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	1	*[describe here]*	The Brønnøysund Register Centre offers a cloud based solution called SERES (SEmantikkRegister for Elektronisk Samhandling) where public bodies can establish, maintain and share their information models. https://altinnett.brreg.no/no/SERES/	1	*[describe monitoring procedure here]*	0

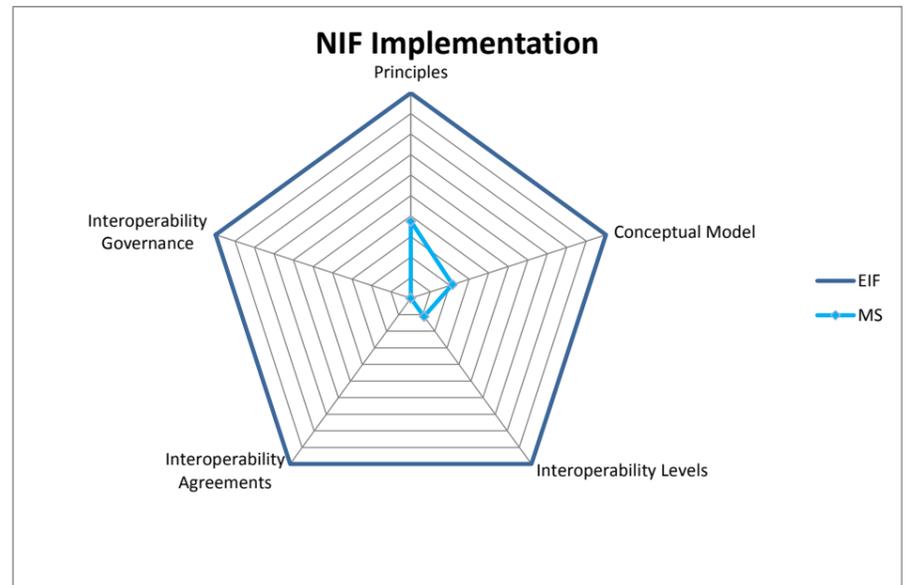| EIF Element - Reference - Category	Measurement	NIF element present - Reference - (Text in English)	NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned	Large scale implementation [describe if and how implementation of the element is a common practice]	Only implementation examples [describe 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
		NIF-EIF Alignment		**NIF implementation**			**NIF monitoring**	
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 architecture principles do not mention such communities	0	*[describe here]*	This is actively done in Norway e.g. through the semicolon project for semantic assets and in the case of sector specific on e.g. geospatial or the health sector (though this dates to before the NIF)	1	*[describe monitoring procedure here]*	0
Technical interoperability. Public administrations should agree on the formalised specifications to ensure technical interoperability when establishing European public services. EIF, Recommendation 19 Category: Interoperability levels, technical artefacts.	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	The architecture principles comply with this by requiring technical interoperability and pointing to standards, cf. the reference catalogue for IT standards in the public sector in Norway. http://standard.difi.no/forvaltningsstandarder/referansekatalogen-html-versjon https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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 architecture principle on interoperability involves coordination of contractual frameworks, but does not give any guidance on how. Providers of common building blocks make use of agreements that govern service levels, cooperation etc. The agreement is between the provider of the common building block and the public body using it to produce and deliver services to end users, e.g. citizens or businesses. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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?	A Standards Council is set up in order to select and recommend formalised specifications on technical, semantic and organisational standards. The Standards Council is an advisory body to Difi. Their working process is described here: http://standard.difi.no/filearchive/standardiseringsraadets-arbeidsmetodikk-v1-5-forslag.pdf [NO] Furthermore, in 2013 the mandate of SKATE was formalised as coordinator of ICT development in the Public Sector in Norway. https://www.difi.no/veiledning/ikt-og-digitalisering/skate SKATE works on the strategic level whereas there are different tactical committees set up for the different parts of the architecture like e.g. the standards council	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
When establishing (European) public services, public administrations should prefer open specifications, taking due account of the coverage of functional needs, maturity and market support. EIF, Recommendation 22 Category: Interoperability agreements.	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	The architecture principle on interoperability clearly states that open standards should be used in cases where the reference catalogue does not mention relevant standards. https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf	2	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
Contribution to the standardisation process Public administrations should lead or actively participate in standardisation work relevant to their needs. EIF, Chapter 5, Recommendation 23 Category: Interoperability agreements.	Does the NIF encourage public administrations to lead or actively participate in standardisation work relevant to their needs?	Everyone can submit proposals to Difi (Public Management and eGovernment Agency) to contribute to the further standardisation work. The standards council looks into the requests and determines the priority. The standardisation council is described on the standardisation portal: http://standard.difi.no/filearchive/standardiseringsraadets-arbeidsmetodikk-v1-5-forslag.pdf	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	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 agencies are responsible for assessing the needed security measures. It could be argued that public bodies must agree on minimum service requirements for secure data exchange, in order to be in accordance with the principles on interoperability and security. This is however not explicitly stated in the principles.	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here]*	0
Governance Public administrations should establish a framework for the governance of their interoperability activities across administrative levels. EIF, Recommendation 25 Category: Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	A Standards Council is set up in order to select and recommend formalised specifications on technical, semantic and organisational standards. The Standards Council is an advisory body to Difi. Their working process is described here: http://standard.difi.no/filearchive/standardiseringsraadets-arbeidsmetodikk-v1-5-forslag.pdf [NO] Furthermore, in 2013 the mandate of SKATE was formalised as coordinator of ICT development in the Public Sector in Norway. https://www.difi.no/veiledning/ikt-og-digitalisering/skate SKATE works on the strategic level whereas there are different tactical committees set up for the different parts of the architecture like e.g. the standards council	1	*[describe here]*	*[describe project here]*	0	*[describe monitoring procedure here, Precise if monitoring procedures include stimulating and/or corrective measures]*	0

Category	EIF	MS
Principles	100%	100,0%
Conceptual Model	100%	85,7%
Interoperability Levels	100%	50,0%
Interoperability Agreements	100%	70,0%
Interoperability Governance	100%	50,0%

NIF/EIF Alignment

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	1
	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	1
	Total	**14**	**12**
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	2
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	2
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	1
	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	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	0
	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**	**9**
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	1
	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	1
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	1
	Total	**10**	**7**
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	1
	Total	**2**	**1**

Category	EIF	MS
Principles	100%	37,5%
Conceptual Model	100%	21,4%
Interoperability Levels	100%	11,1%
Interoperability Agreements	100%	0,0%
Interoperability Governance	100%	0,0%

NIF Implementation

Category	EIF Element	Scoring	
		Max	MS
Principles	Subsidiarity and proportionality	2	0
	User-centricity	2	1
	Inclusion and accessibility	2	2
	Security and privacy	2	1
	Multilingualism	2	1
	Administrative simplification	2	1
	Transparency	2	1
	Preservation of information	2	0
	Openness	2	1
	Reusability	2	1
	Technological neutrality and adaptability	2	0
	Effectiveness and efficiency	2	0
	Total	**24**	**9**
Conceptual Model	Does the NIF contain a conceptual model?	2	0
	Is the conceptual model a component-based service model? (e.g. SOA)	2	0
	Does the NIF encourage the use of common schemes to interconnect loosely coupled service components.	2	0
	Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?	2	1
	Does the NIF encourage to make the authentic sources of information available to others?	2	1
	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	0
	Total	**14**	**3**
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	0
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	0
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	0
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	0
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	0
	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery.	2	0
	Does the NIF encourage the usage of a common taxonomy of basic public service?	2	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	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**	**2**
Interoperability Agreements	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	2	0
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	0
	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	2	0
	Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs?	2	0
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	0
	Total	**10**	**0**
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	0
	Total	**2**	**0**

Directorate-General for Informatics (DIGIT)

Category	EIF	MS
Principles	100%	33,3%
Conceptual Model	100%	7,1%
Interoperability Levels	100%	0,0%
Interoperability Agreements	100%	0,0%
Interoperability Governance	100%	0,0%

NIF Monitoring

Category	EIF Element	Max	MS
Principles	Subsidiarity and proportionality	2	0
	User-centricity	2	2
	Inclusion and accessibility	2	2
	Security and privacy	2	1
	Multilingualism	2	2
	Administrative simplification	2	1
	Transparency	2	0
	Preservation of information	2	0
	Openness	2	0
	Reusability	2	0
	Technological neutrality and adaptability	2	0
	Effectiveness and efficiency	2	0
	Total	**24**	**8**
Conceptual Model	Does the NIF contain a conceptual model?	2	0
	Is the conceptual model a component-based service model? (e.g. SOA)	2	0
	Does the NIF encourage the use of common schemes to interconnect loosely coupled service components.	2	0
	Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components?	2	0
	Does the NIF encourage to make the authentic sources of information available to others?	2	0
	Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation?	2	1
	Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level?	2	0
	Total	**14**	**1**
Interoperability Levels	Does the NIF describe the four levels of interoperability?	2	0
	Does the NIF impose to consider all relevant legislation related to data exchange?	2	0
	Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process?	2	0
	Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations?	2	0
	Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service?	2	0
	Does the NIF encourage public administrations to agree on change management processes to ensure continuous service delivery.	2	0
	Does the NIF encourage the usage of a common taxonomy of basic public service?	2	0
	Does the NIF encourage public administrations to support the establishment of sectorspecific and cross-sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms.	2	0
	Does the NIF encourage public administrations to agree on the formalised specification to ensure technical interoperability when establishing European public services.	2	0
	Total	**18**	**0**
Interoperability Agreements	Does the NIF encourage: - Interoperability agreements to be based on existing formalised specifications? Or - if they do not exist, to cooperate with communities working in the same areas.	2	0
	Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications?	2	0
	Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support?	2	0
	Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs?	2	0
	Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange?	2	0
	Total	**10**	**0**
Interoperability Governance	A governance framework exists to control the interoperability activities across administrative levels.	2	0
	Total	**2**	**0**