

# NIFO Factsheet – Norway

Interoperability-related online sources of information can be found at the following addresses:

- Website of the Agency for Public Management and eGovernment. Difi is the Norwegian government agency responsible for encouraging interoperability:  
<http://www.difi.no/artikkel/2009/11/about-difi>
- A standards portal maintained by Difi: <http://www.standard.difi.no/english>
- Digital Agenda for Norway:  
[https://www.difi.no/sites/difino/files/architecture\\_principles\\_21\\_eng.pdf](https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf)
- Altinn portal for business sector communication with the public sector:  
<https://www.altinn.no/en/?epslanguage=en>

## Main interoperability highlights

The Norwegian Agency for Public Management and eGovernment (Difi) is the government agency responsible to encourage interoperability in the Norwegian public administration. It is overseen by the Ministry of Local Government and Modernisation (KMD). **The Norwegian NIF is not a framework as such but consists out of a set of regulations, decisions and recommendations**, some of which all levels of the public administration should consider when developing public services, and some which only applies to the governmental agencies and not municipalities.<sup>1</sup>

## Summary of the NIF

Since the Norwegian Interoperability Framework is not a framework as such the following main parts **are considered to represent the Norwegian NIF**:

- Common architectural principles<sup>2</sup>
- Mandatory and recommended standards<sup>3</sup>
- Common ICT components<sup>4</sup>
- Information security<sup>5</sup>

The common architectural principles is a document which highlights these kind of principles with a link to the applicable laws. The principles as defined by Norway are interoperability, scalability, service orientation, availability, security, openness and flexibility.

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<sup>1</sup> A central document for the latter is the annual circular, "Digitaliseringsrundskrivet" see: <http://www.regjeringen.no/nb/dep/kmd/dok/rundskriv/2014/Digitaliseringsrundskrivet.html?id=766322>

<sup>2</sup> - The overarching IT architecture principles for the public sector [https://www.difi.no/sites/difino/files/architecture\\_principles\\_21\\_eng.pdf](https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf) (English)

<sup>3</sup> Referanse katalog for IT-standarder i offentlig sektor, <http://www.standard.difi.no/forvaltningsstandarder/referanse katalogen-html-versjon> (Norwegian)

<sup>4</sup> Nasjonale felleskomponenter i offentlig sektor, <https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795> (Norwegian)

<sup>5</sup> [https://www.difi.no/sites/difino/files/architecture\\_principles\\_21\\_eng.pdf](https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf) (Norwegian)

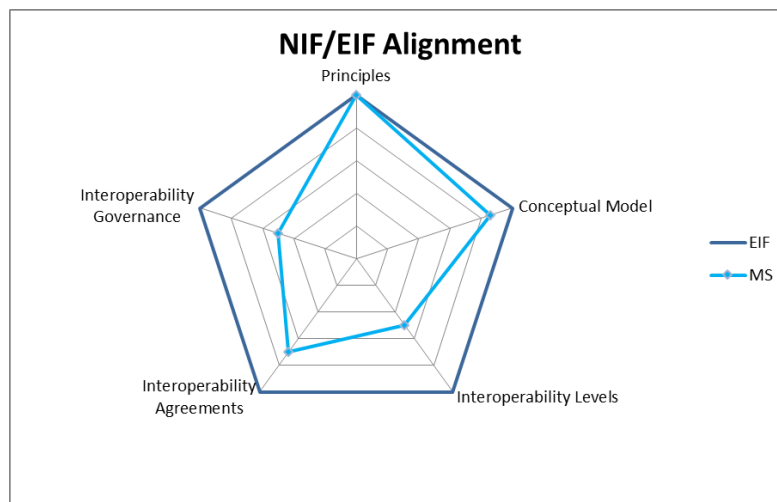
Difi maintains a standards portal<sup>6</sup> with all information regarding standards in the Norwegian public sector. On this portal a catalogue with all the mandatory and recommended standards which are approved by the Standards Council are published.

The **common ICT components** which the public institutions should use are listed in a separate document. This document contains also future recommendations on these common ICT components.

Difi shares information with the public bodies on how they should handle **information security** when using e-government on their own website.

### Alignment NIF/EIF

Norway has put considerable effort in defining parts for a NIF, even though these may be in different documents; the Norwegian NIF is well aligned with the EIF.



Of the Norwegian common architectural principles only a few are fully shared with the EIF in the architecture document (security, openness, etc.). Other principles are demonstrated through other means/documents that are not written down in the architectural principles document. An example could be administrative simplification that is described in the digitalisation strategy<sup>7</sup>. Furthermore, as one of the ongoing activities the EDAG project, which involves the welfare directorate, the tax-directorate and the national statistics, is aiming at consolidating the reporting requirements so that businesses only will have to send one report on their employees, instead of three separate.

The Norwegian NIF proposes a conceptual model for the public bodies which includes all the common components in combination with the standards. In this concept it encourages the public bodies to use and share authentic sources. The infrastructure to interconnect is the Altinn portal, it supports the data transfer between services/agencies, if needed via a secured way (encryption etc.).

Three interoperability levels are found back in the Norwegian NIF. The relevant legislation is listed with the common architectural principles. The organisational levels are observed and

<sup>6</sup> <http://www.standard.difi.no/> (English summary, portal in Norwegian)

<sup>7</sup> [https://www.difi.no/sites/difino/files/architecture\\_principles\\_21\\_eng.pdf](https://www.difi.no/sites/difino/files/architecture_principles_21_eng.pdf)



## 2016 update.

formalised specifications are encouraged through the usage of standards for technical interoperability.

On interoperability agreements it is observed that Difi encourages public bodies to use standard agreements which are selected and approved by the Standards Council, furthermore it is accentuated that these standards should be open standards.

Interoperability governance is partially observed: a Standards Council is set up and meets 4 times a year in order to select and publish formalised specifications on technical, semantic and organisational standards.

SKATE (Management and coordination of services in e-government<sup>8</sup>) is a strategic Cooperation Council which contributes to the digitalisation of the public sector. It 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.

More detailed information on NIF / EIF alignment is provided on the NIFO Community on

### Example of alignment –EIF principle Subsidiarity and proportionality

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 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 <https://www.regjeringen.no/no/dokumenter/meld.-st.-27-20152016/id2483795>,

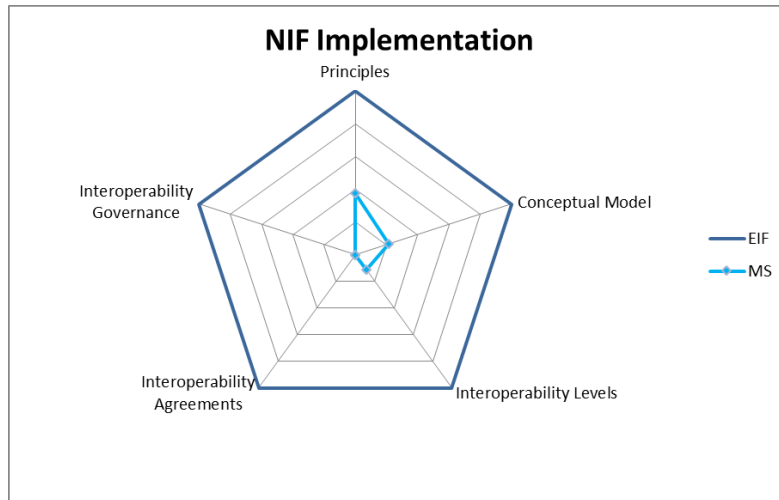
JoinUp on the [Compare NIFs](#) page.

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<sup>8</sup> <https://www.difi.no/faqomrader-og-tjenester/digitalisering-og-samordning/skate>

## Implementation of NIF

Some implementation examples are seen for the areas of principles, conceptual model and interoperability levels.



For seven of the twelve principles, a practical example is provided. Examples of user centricity include Altinn (<https://www.altinn.no/en/>) which provides a single point of contact for businesses and the portal that ensures the single point of contact for citizens for the health sector (<https://helsenorge.no/>). Another example is the A-melding initiative that consolidates employers' reporting requirements (<https://www.altinn.no/en/a-ordningen/About-the-a-melding/>), supporting administration simplification. The reusability principle is implemented by the national common component approach: these are building blocks offered by different agencies (eID, Altinn, National Population Register, Business Register and Cadaster) that can be reused for public services. As of today, there are four agencies; Brønnøysund Registry Center (Altinn, Business Register), the Norwegian Tax Administration (National Population Register), and the Norwegian Mapping Authority (Cadastre), in addition to Difi.

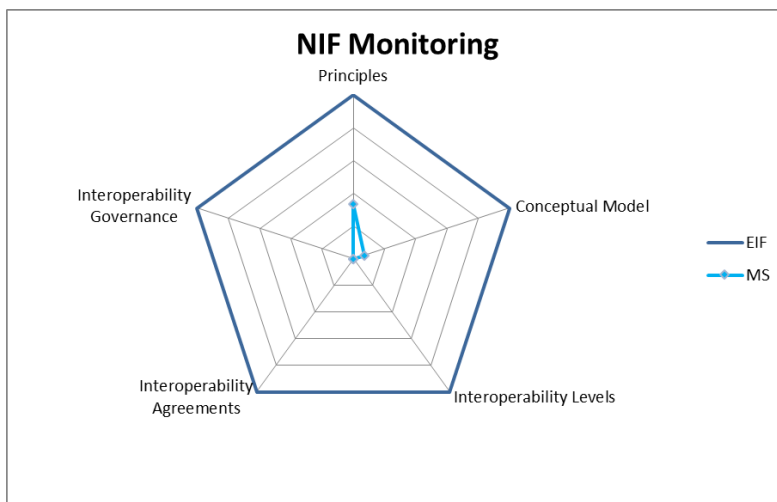
A large scale implementation is mentioned for the principle of accessibility and inclusion with legal regulations requiring all digital services being developed to conform to this principle and existing digital services must be brought into conformance by 2021.

In the conceptual model dimension, the Altinn is a platform for developing e-government services. Among many other services, Altinn provides an infrastructure for information exchange. ID-porten is a common log in solution to public services, providing access to more than 660 different services from government agencies. (<http://eid.difi.no/en/id-porten>).

The semantic interoperability level is implemented through the SERES (SEmantikkRegister for Elektronisk Samhandling) where public bodies can establish, maintain and share their information models. <https://altinnett.brreg.no/no/SERES/>. Support to semantic communities is actively done in Norway e.g. through the semicolon project for semantic assets (<http://www.semicolon.no/?p=870&lang=en>) and in the case of sector specific on e.g. geospatial or the health sector.

## Monitoring of NIF

Norway monitors mostly the principles, and one aspect of the conceptual model.



Difi conducts quality assessments of eGovernment websites and digital services every 2 years. The results are published online (<http://kvalitet.difi.no/resultat>). The criteria (see <http://kvalitet.difi.no/kriteriesett/kvalitet-pa-nett> and <http://kvalitet.difi.no/kriteriesett/kvalitet-pa-digitale-tjenester>) include aspects related to usability and user-centricity (customisation) and multilingualism. Regarding inclusion and accessibility, Difi is responsible for monitoring whether the relevant regulations are met. Information and guidance work will be the main tasks for the supervisory authority. (<https://uu.difi.no/om-oss/english>).

Criteria for assessing digital services also addresses security and privacy (e.g.: The service maintains user privacy, uses a proven login solution. Sensitive information is encrypted. The service Provider has an overview of data included in the service).

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>.

In the conceptual model dimension, access control is monitored by both the Norwegian Data Protection Authority and Difi, which performs various surveys on privacy and information security in Norway.

## Other initiatives on interoperability

The government mailbox accounts have been widely adopted with a great success: over one million have been created until summer 2016. The use of the digital mailbox helps the Norwegian public administration to reduce costs and is better for the environment. Each year, the public sector sends over 40 million letters. That is comparable to the daily CO<sup>2</sup> emissions of 250,000 cars, the government writes, while costing some NOK 400 million (about EUR 43 million).<sup>9</sup>

<sup>9</sup> <https://joinup.ec.europa.eu/community/epractice/news/one-million-norwegians-have-government-mailbox>



The infrastructure for eInvoicing, based on PEPPOL, is maintained by Difi. Since its creation back in 2012, it has been mandatory to electronically send invoices to governmental agencies.

ID-porten/MinID<sup>10</sup> is developed and operated by Difi for logging on to public services online.

“Digital by default” (introduced during 2014 through an amendment of the regulation of communications with and within the government.<sup>11</sup>) is now an accepted and widely implemented paradigm in Norway. The regulation is given with basis in the Act relating to procedure in cases concerning the public administration (Public Administration Act). The amendment is a change from “opt-in”, where citizens needed to give explicit consent to digital communication in place of paper-based, to “opt-out”, where agencies now can communicate with the citizens digitally.

In parallel, a new register has been established by Difi; the “Contact and Reservation Registry” is mandatory for all agencies to use before sending any communication digitally, as the register contains the citizens electronic contact information as well as information on whether they have entered a reservation against digital communication.<sup>12</sup>

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-apis, 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.

Data.norge.no (<https://data.norge.no>) is the Norwegian open data portal that provides access to national datasets. The portal is currently making over 800 datasets available (<https://data.norge.no/data>). This figure doubled along the last two years. The sets are also accessible via ODIP (<https://www.europeandataportal.eu/>), the pan-European single point of access to European datasets. Over 50 applications (<http://data.norge.no/app>) are reusing one or more datasets that are available on the portal.

GeoNorge<sup>13</sup> is a metadata portal for geographical information. It is an initiative under the Norway Digital<sup>14</sup> umbrella. Norway Digital is an initiative to build the national geographical infrastructure with the purpose to make reference data and thematic data available.

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<sup>10</sup> <http://eid.difi.no/>

<sup>11</sup> The regulation, § 8 and 9 gives the agencies right to communicate digitally unless the citizen has registered a reservation, see: <https://lovdata.no/dokument/SF/forskrift/2004-06-25-988#shareModal>

<sup>12</sup> See the regulation, chapter 7: [https://lovdata.no/dokument/SF/forskrift/2004-06-25-988#KAPITTEL\\_7](https://lovdata.no/dokument/SF/forskrift/2004-06-25-988#KAPITTEL_7)

<sup>13</sup> <http://www.geonorge.no>

<sup>14</sup> [http://www.statkart.no/Norge\\_digitalt/Engelsk/About\\_Norway\\_Digital/](http://www.statkart.no/Norge_digitalt/Engelsk/About_Norway_Digital/)