



NATIONAL INTEROPERABILITY FRAMEWORK OBSERVATORY

Analytical Model *BULGARIA*

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

DIGIT

Directorate-General for Informatics

ISA² Programme

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EUROPEAN COMMISSION

Directorate-General for Informatics

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

Unit B6 — ISA² Programme

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Analysis of the NIFs



EIF Element - Reference - Category

[See reference: the European Interoperability Framework v2](#)

[See Alignment Examples in NIFO toolbox](#)

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

| EIF Element - Reference - Category | NIF-EIF Alignment | | | NIF implementation | | NIF monitoring | | |
|---|--|--|--|--|---|--|--------------------------------------|---|
| | Measurement | NIF element present - Reference - (Text in English) | NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned | Large scale implementation [describe if and how implementation of the element is a common practice] | Only implementation examples [describe an implementation example specific to each element] | Implementation scoring 2: Common practice 1: some examples 0: not observed | NIF monitoring | Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed |
| Subsidiarity and proportionality EIF, Chapter 2, Underlying principles Category: Principles | Ref: Does the NIF contain the 'subsidiarity and proportionality' principle? | <p>This principle is explained in 'e-Governance Development Strategy – 2014-2020 in the Republic of Bulgaria', Strategic Objective 3: Promotion, access and participation. https://www.mtitc.government.bg/archive/upload/docs/2014-03/1_StrategiaRazvitiEUBulgaria_2014_2020.pdf EN version: https://www.mtitc.government.bg/upload/docs/2014-07/e_Governance_Strategy_Draft.pdf</p> <p>- Strategic Objective 3: Promotion, access and participation. The implementation of the Strategy's objectives will be performed in accordance with contemporary tendencies in the field of e-Governance, by applying the newest technological solutions and meeting the following principles: [...] <ul style="list-style-type: none"> ☞ centralized policy definition and implementation of management, control and decentralization in its implementation; [...] </p> <p>- https://www.mtitc.government.bg/archive/upload/docs/2014-03/1_StrategiaRazvitiEUBulgaria_2014_2020.pdf The specific actions to achieve the National Strategy objectives are defined in the Roadmap to the e-Governance strategy 2014-2020. https://www.mtitc.government.bg/archive/upload/docs/2014-03/1_StrategiaRazvitiEUBulgaria_2014_2020.pdf It covers both further development and building upon the achieved results from the implementation of the general e-Governance Strategy 2011 – 2015 in the Republic of Bulgaria.</p> <p>Bulgaria has put forward legislative provisions to support interoperability. They are set in the Law on e-Governance and the Ordinance on the general requirements for interoperability and information security. The latest version of the Bulgarian National Interoperability Framework (NIF) for governmental information systems dates from June 2006. In this sense, it is necessary to review the existing national framework in the light of experience, gained from its adoption to date, covering the experience of other European countries in this field, as well as the relevant documents issued at the EU level and in particular the European Interoperability Framework (version 2). Currently the project for updating of the National framework for interoperability of information systems is in progress. In the executive branch, it will take into account the interoperability framework of the European Union level.</p> | 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? | <p>- Primary services are delivered as a one-stop-shop with online tracing of the phase of execution. - E-Services have to be consumer oriented: thoroughly described, correct, understandable, clearly differentiated into anonymous, requiring identification, etc. - All data of the companies and the citizens can be entered only once. The administration units are obliged to use and share the data already gathered on a multiple basis respecting security and privacy. See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2, Principle 3, Principle 4, http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf</p> <p>These principles are laid in the Bulgarian Electronic Governance Act: https://www.mtitc.government.bg/page.php?category=486&id=3634 Article 2. (1) The administrative authorities, the persons performing public functions and the organisations providing public services cannot require from citizens and organisations to provide or prove data that have already been collected or created but shall be obliged to collect them ex officio from the original data administrator.</p> <p>Principle Nr. 2: The "Service oriented Architecture (SOA) is accepted as the basis for building of the information systems within the governmental information systems. In accordance with SOA all procedures related to exchange of information in the infrastructure of the governmental information systems (including: the information exchange between the systems of the different administration units; the information exchange between the administration and the citizens and the citizens and the companies when delivering e-services) can be represented, defined and parameterized as "services".</p> <p>Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2, Principle 3, Principle 4.</p> <p>All principles in BgIF are laid in the Bulgarian legislative framework - Bulgarian Electronic Governance Act and the six ordinances to it. https://www.mtitc.government.bg/page.php?category=465</p> | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |

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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? | <p>Principle Nr. 4: All data of the companies and the citizens, interacting with the governmental information systems, can be entered only once. The administration units are obliged to use the data already gathered on a multiple basis. The holders of the information resources are obliged to provide access thereto of all providers of e-Services using the respective information resource on the basis of regulated rights to access.</p> <p>A. The single entry of the data and their multiple uses as well as the semantic interoperability between the various applied systems of the e-Government is realized through the Register of the information objects.</p> <p>B. It is obligatory to enter in the register of the information objects every electronic document foreseen to be used in newly developed information systems as well as the segments composing it, composite and simple elements of data. In case of presence of already registered elements and segments from the composition of the newly proposed document, they are used in it synonymously without repeated registration.</p> <p>See Bulgarian national interoperability framework for governmental information systems, chapter 2, http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf</p> <p>These principle is laid in the Bulgarian Electronic Governance Act: https://www.mtitc.government.bg/page.php?category=486&id=3634 Bulgarian Government created the portal for information systems interoperability with the view to promote e-Government interoperability, thus enabling information systems (http://interoperability.egov.bg/).</p> <p>The portal maintains a national register of standards to ensure interoperability (http://interoperability.egov.bg/web/guest/40) a registry information objects and register for e-services (http://www.egov.bg/ereg-public/), as well as rules and procedures for the certification of systems in accordance with European standards.</p> <p>Principle Nr. 4: All data of the companies and the citizens, interacting with the governmental information systems, can be entered only once. The administration units are obliged to use the data already gathered on a multiple basis. The holders of the information resources are obliged to provide access thereto of all providers of e-Services using the respective information resource on the basis of regulated rights to access.</p> <p>Bulgarian national interoperability framework for governmental information systems, chapter 2.</p> <p>All principles in BgIE are laid in the Bulgarian legislative framework - Bulgarian Electronic Governance Act and the six ordinances to it.</p> <p>https://www.mtitc.government.bg/page.php?category=466</p> | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |
| Security and privacy EIF, Chapter 2, Underlying principles Recommendation 3 Category: Principles | Does the NIF contain the 'Security and privacy' principle? | <p>1. One of general objectives of the unification and rationalization of the information infrastructure of the governmental information systems is "Security, confidential exchange, personal data protection, intellectual property protection"</p> <p>2. Principle Nr. 6: In accordance with Recommendation Nr. 12 of the European Interoperability Framework the security aspects of the intersystem exchange cover the following levels:</p> <ul style="list-style-type: none"> - Analysis of the global and local environment; - Analysis of the type of information during the design or enlargement of the functional capabilities of the network; - Building of the public key infrastructure (PKI); - Monitoring, diagnosis and measures for protection in a situation of threat for the information security; - Controlled access to information; - Ensuring of authenticity and completeness of the information; - Measures for protection at the level of working stations, including at client's level (including "firewalls", antivirus protection; Trojan horses and other programmes bringing the computer systems into undesirable status or results). <p>See Bulgarian national interoperability framework for governmental information systems, chapter 2, http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf</p> <p>These principle is laid in the Bulgarian Electronic Governance Act: https://www.mtitc.government.bg/page.php?category=486&id=3634 Chapter 4: Article 54. The administrative authorities shall ensure the information security of the information systems used by them.</p> <p>Standards and Measures for Information Security Article 55. The security requirements and the standards for entering, sending, processing, accessing, interchanging, storing, and archiving data with which the information systems shall comply as well as the general security measures that have to be taken by the administrative authorities shall be specified in the regulation under Article 43, paragraph 2 (ORDINANCE ON THE GENERAL REQUIREMENTS FOR INTEROPERABILITY AND INFORMATION SECURITY https://www.mtitc.government.bg/page.php?category=487&id=3635)</p> <p>Principle Nr. 6: In accordance with Recommendation Nr. 12 of the European interoperability Framework the security aspects of the intersystem exchange cover the following levels: analysis of the global and local environment; analysis of the type of information during the design or enlargement of the functional capabilities of the network; building of the public key infrastructure (PKI); monitoring, diagnosis and measures for protection in a situation of threat for the information security; controlled access to information; ensuring of authenticity and completeness of the information; measures for protection at the level of working stations, including at client's level (including "firewalls", antivirus protection; Trojan horses and other programmes</p> | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |

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| Multilingualism EIF, Chapter 2, Underlying principles Recommendation 4 Category: Principles | Does the NIF contain the 'Multilingualism' principle? | <p>One of the key principles that have to be adapted is the multi-linguistic character. See Bulgarian national interoperability framework for governmental information systems, chapter 2, http://www.mtitc.government.bg/upload/docs/en_BUI_FRAMEWORK.pdf</p> <p>This principle is in Article 13 (3) 4, Bulgarian Electronic Governance Act: Article 13. (1) The provider of electronic administrative services shall ensure to the receivers unimpeded, direct and permanent access to the following information:..... 4. the languages through which the service could be used. https://www.mtitc.government.bg/page.php?category=486&id=3634</p> <p>Bulgarian national interoperability framework for governmental information systems, chapter 2.</p> <p>All principles in BgIE are laid in the Bulgarian legislative framework - Bulgarian Electronic Governance Act and the six ordinances to it. https://www.mtitc.government.bg/page.php?category=468</p> | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Administrative simplification EIF, Chapter 2, Underlying principles Category: Principles | Does the NIF contain the 'Administrative simplification' principle? | <p>The updated Bulgarian national interoperability framework for information systems of executive authorities describes: "Administrative Simplification Public sector administrations gather, in their line of duty, a considerable amount of information, which sometimes comes down to the fact that law requires it, not the direct objectives of a particular department. Such processes raise the cost of the operation of public sector administration and cause administrative hindrances to citizens and businesses, which can be expressed as a cost incurred by citizens and business. To achieve administrative simplification, use of different databases to collect the same data must be avoided and, if permissible, public administration units from different sectors must cooperate in the development of Bulgarian public services." See the draft of Bulgarian national interoperability framework for information systems of executive authorities : https://www.mtitc.government.bg/upload/docs/2016-01/BNIF_EN.pdf</p> | 1 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Transparency EIF, Chapter 2, Underlying principles Category: Principles | Does the NIF contain the 'Transparency' principle? | <p>The Bulgarian national interoperability framework defines the following requirements with regard to traceability of a transaction process, which is a component of transparency: Principle 3: B. In order to ensure traceability of the transaction process and demonstrability of the participants in its individual steps, the storage of copies has to be provided both of the electronic document filed by the consumer of the e-service to the provider of the service, and of the documentary confirmation for its receipt on the part of the provider: https://www.mtitc.government.bg/upload/docs/ZakonElektronniaDokumentPodpis.pdf, however, part of which will be cancelled pursuant to Regulation (EU) 910/2014 of the European Parliament and the Council on electronic identification and trust services for electronic transactions in the internal market and repealing Directive 1999/93/EC. http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2014.257.01.0073.01.ENG</p> <p>'Traceability of the e-service' is an element of transparency of the transaction process.</p> <p>'Principle 3:..... 'B. In order to ensure traceability of the transaction process and demonstrability of the participants in its individual steps, the storage of copies has to be provided both of the electronic document filed by the consumer of the e-service to the provider of the service, and of the documentary confirmation for its receipt on the part of the provider.</p> <p>All principles in BgIE are laid in the Bulgarian legislative framework - Bulgarian Electronic Governance Act and the six ordinances to it. https://www.mtitc.government.bg/upload/docs/2016-01/BNIF_EN.pdf</p> | 1 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |

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| Preservation of information EIF, Chapter 2, Underlying principles, Recommendation 5 Category: Principles | Does the NIF contain the 'Preservation of information' principle? | The Bulgarian national interoperability framework defines the following requirements with regard to preservation of information: - Storage of transactional information: In order to ensure traceability of the transaction process and demonstrability of the participants in its individual steps, the storage of copies has to be provided. - Management of electronic recordings: The MoReg specification for management of electronic recordings, based on the European Regulation 94/C 235/03; - The management of the life cycle of information: The management of the life cycle of the information in the e-Government systems has to be consistent with the Recommendations of the so called "Data Management Forum (DMF)". See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 3, http://www.mtmc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf Principle 3:..... B. In order to ensure traceability of the transaction process and demonstrability of the participants in its individual steps, the storage of copies has to be provided both of the electronic document filed by the consumer of the e-service to the provider of the service, and of the documentary confirmation for its receipt on the part of the provider. Principle 4:..... F. The management of the life cycle of the information in the e-Government systems has to be consistent with the Recommendations of the so called "Data Management Forum (DMF)". F1. "Management of the life cycle of the information" means the complex approach for management of the data flows and the metadata associated with them in the information systems from the formation and the initial storage to the moment of their falling into disuse. Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 3. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Openness EIF, Chapter 2, Underlying principles, Recommendation 6 Category: Principles | Does the NIF contain the 'Openness' principle? | The updated Bulgarian national interoperability framework for information systems of executive authorities describes: "2.9 Openness In the context of the Bulgarian Interoperability Framework, openness is the willingness of persons, organisations or other members of a community of interest to share knowledge and stimulate debate in order to solve existing problems. Openness means that Bulgarian public administration takes into consideration the alternatives of open specifications, standards and software. Public sector must not absolutise the principle of openness. In situations where open specifications have not achieved the required maturity or where closed solutions are more efficient, public administration may use closed solutions. Decisions must be made proceeding from the idiosyncrasies of each particular case. Applying the principle of openness suggests public administrations to generate results that can be reused and shared, when developing custom-made software systems." See the draft of Bulgarian national interoperability framework for information systems of executive authorities: https://www.mtmc.government.bg/upload/docs/2016-01/BNIF_EN.pdf | 1 | <i>[describe here]</i> | The Bulgarian open data portal (https://opendata.government.bg) publishes information for reuse in an open, machine-readable format and together with their metadata. | 1 | <i>[describe monitoring procedure here]</i> | 0 |
| Reusability EIF, Chapter 2, Underlying principles, Recommendation 7 Category: Principles | Does the NIF contain the 'Reusability' principle? | The principle of reusability is applied for data and for documents: A. The single entry of the data and their multiple uses as well as the semantic interoperability between the various applied systems of the e-Government is realized through the Register of the information objects. B. It is obligatory to enter in the Register of the information objects every electronic document foreseen to be used in newly developed information systems as well as the segments composing it, composite and simple elements of data. In case of presence of already registered elements and segments from the composition of the newly proposed document, they are used in it synonymously without repeated registration. -The content of the Register of the information objects and Register of the electronic services: http://www.egov.bg/ereg-public/ A. The single entry of the data and their multiple uses as well as the semantic interoperability between the various applied systems of the e-Government is realized through the Register of the information objects. B. It is obligatory to enter in the Register of the information objects every electronic document foreseen to be used in newly developed information systems as well as the segments composing it, composite and simple elements of data. In case of presence of already registered elements and segments from the composition of the newly proposed document, they are used in it synonymously without repeated registration. - Bulgarian national interoperability framework for governmental information systems, chapter 2. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |

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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? | - Benefiting from the advantages of the open code - Use of open standards See Bulgarian national interoperability framework for governmental information systems, Principle 3, http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf Register of standards: http://interoperability.egov.bg/web/guest/40 Principle Nr. 3: All services are realized as transactions of formalized information objects – electronic documents. Bulgarian national interoperability framework for governmental information systems, chapter 2. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Effectiveness and efficiency EIF, Chapter 2, Underlying principles Category: Principles | Does the NIF contain the 'Effectiveness and efficiency' principle? | The updated Bulgarian national interoperability framework for information systems of executive authorities describes: "Effectiveness and Efficiency when developing public services: public sector administrations must guarantee that decisions taken are the most productive and efficient ones in order to achieve the best solutions for the taxpayers' money. In choosing the best solution, profitability of investments, costs on changing the infrastructure and organization as well as retraining costs, total cost, increase of flexibility, decrease of administrative hindrances, decrease of risks, transparency, simplification, work environment improvement and other aspects must be taken into consideration." See the draft of The updated Bulgarian national interoperability framework for information systems of executive authorities : https://www.mtitc.government.bg/upload/docs/2016-01/BNIF_EN.pdf | 1 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Conceptual model EIF, Chapter 3 Category: Conceptual model | Does the NIF contain a conceptual model? | The basic approach to the creation of the National Framework for governmental information systems, chapter 4 (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) A. In the present document "Electronic Service (e-Service)" is defined in accordance with the Directive of the European Parliament and the European Council Nr. 98/48/EC dated 20.07.1998 as "a public service, provided by the administration at a distance, in electronic way, called (activated), related to exactly defined transactions". B. The primary services provided by different units of the governmental information systems, can be of different degree of automation (they also can contain manual operations) but for the customer they represent an unified process with one entry and exit and with a possibility for "on-line" tracing of the phase of execution. C. In order to realizing complex services with a single interface, integrating primary services provided by different units of the governmental information systems, all services (primary and complex) have to be mandatory registered in the Register of the e-Services. D. The Register of the e-Services organizes an environment of complex e-Services including: standardized nomenclature and classification of the primary and the complex services, rules for joining the services in Value Added Chains and their provision to the customers. E. The entry into the Register of e-Services can be done with examination of the conformity with the mandatory and recommended standards registered in the Register of the standards. The Register will be supported and updated by a double-unit structure analogous to that for the Register of the standards. Bulgarian national interoperability framework for governmental information systems, chapter 4. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |
| Public administrations should develop a component-based service model, allowing the establishment of (European) public services by reusing, as much as possible, existing service components. EIF, Recommendation 9 Category: Conceptual model | Is the conceptual model a component-based service model? (e.g. SOA) | The "Service oriented Architecture" (SOA) is accepted as the basis for building of the information systems within the governmental information systems. In accordance with SOA all procedures related to exchange of information in the infrastructure of the governmental information systems (including: the information exchange between the systems of the different administration units; the information exchange between the administration and the citizens and the citizens and the companies when delivering e-services) can be represented, defined and parameterized as "services". See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2 (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 0 |

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| 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? | See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2. D: "The Register of eServices organizes an environment of complex eServices, including: standardized nomenclature and classification of the primary and the complex services, rules for joining the services". (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) In order to ensure a common interface in the information exchange between: a) the units of the governmental information systems; b) governmental information systems and consumers of complex e-services (physical persons and legal entities). Every exchange between the providers of information (units of the governmental information systems) and the consumers of information (units of the administration, citizens, companies) must be realized through "integration (intermediary) environment". See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 5. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Principle Nr. 2: "The Service oriented Architecture (SOA) is accepted as the basis for building of the information systems within the governmental information systems. In accordance with SOA all procedures related to exchange of information in the infrastructure of the governmental information systems (including: the information exchange between the systems of the different administration units; the information exchange between the administration and the citizens and the citizens and the companies when delivering e-services) can be represented, defined and parameterized as "services". Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 2. | 2 | [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? | In order to ensure a common interface in the information exchange between: a) the units of the governmental information systems; b) governmental information systems and consumers of complex e-services (physical persons and legal entities). Every exchange between the providers of information (units of the governmental information systems) and the consumers of information (units of the administration, citizens, companies) must be realized through "integration (intermediary) environment". See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 5. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Principle Nr. 5: In order to ensure a common interface in the information exchange between: a) the units of the governmental information systems; b) governmental information systems and consumers of complex e-services (physical persons and legal entities), every exchange between the providers of information (units of the governmental information systems) and the consumers of information (units of the administration, citizens, companies) must be realized through "integration (intermediary) environment"..... B. The intermediary environment is built-up of "Basic components" performing specific functions. The basic components are "complex autonomous, self-controlled modules of applications having clearly defined interfaces and functions in the context of the general architecture of the information systems within the administration". Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 5. | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] 0 |
| 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? | In Bulgaria, all data of companies and citizens should be entered only once when interacting with governmental information systems. The administration units are obliged to use the data already gathered and the holders of the information resources are obliged to provide access to all providers of e-Services using the respective information resource on the basis of regulated rights to access. See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 4. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Principle Nr. 5: In order to ensure a common interface in the information exchange between: a) the units of the governmental information systems; b) governmental information systems and consumers of complex e-services (physical persons and legal entities), every exchange between the providers of information (units of the governmental information systems) and the consumers of information (units of the administration, citizens, companies) must be realized through "integration (intermediary) environment"..... B. The intermediary environment is built-up of "Basic components" performing specific functions. The basic components are "complex autonomous, self-controlled modules of applications having clearly defined interfaces and functions in the context of the general architecture of the information systems within the administration". Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 5. | 2 | [describe here] | [describe project here] | 0 | [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 holders of the information resources are obliged to provide access thereto of all providers of e-Services using the respective information resource on the basis of regulated rights to access. See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 4. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 4. | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] 0 |

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 observed 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? | The single entry of the data and their multiple uses as well as the semantic interoperability between the various applied systems of the e-Government is realized through the Register of the information objects. See Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 4. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 5, Principle 4. | 2 | [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 NIF contains the four aspects of the interoperability: - Legal: Ordinance on the general requirements for interoperability and information security; - Organizational - creating organization for the management of the processes for data exchange and processing between different organizational structures; - Semantic - providing one and the same meaningful content of the exchanged data; - Technical - enabling exchange between the applied systems in various computers. See Bulgarian national interoperability framework for governmental information systems, chapter 4. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 4. Ordinance on the general requirements for interoperability and information security. | 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? | The ordinance on the general requirements for interoperability and information security shall provide requirements for: - Interoperability - Information security - Register of Standards - Interoperability and information security certification methodical for certification - List of the accredited persons and list of the certified systems and products See http://www.mtitc.government.bg/upload/docs/en_ORDINFORMATION_SECURITY.pdf Ordinance on the general requirements for interoperability and information security https://www.mtitc.government.bg/page.php?category=487&id=3635 | 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 Bulgarian Government has created the portal for information systems interoperability with the view to promote e-Government interoperability. The portal maintains a national register of standards to ensure interoperability - a registry information objects and register for e-services, as well as reference models, rules and procedures for the certification of systems in accordance with European standards. http://interoperability.agov.bg/ (EN version is under construction) portal for information systems interoperability http://interoperability.agov.bg/ (EN version is under construction) | 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 interoperability contains the aspect "organizational" - creating organization for the management of the processes for data exchange and processing between different organizational structures. See Bulgarian national interoperability framework for governmental information systems, chapter 2. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 2. | 2 | [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? | | 0 | [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? | | 0 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |

Analysis of the NIFs



[See Alignment Examples in NIFO toolbox](#)

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

| EIF Element - Reference - Category | NIF-EIF Alignment | | | NIF implementation | | NIF monitoring | | |
|---|--|---|--|--|--|---|--------------------------------------|--|
| | Measurement | NIF element present - Reference - (Text in English) | NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned | Large scale implementation [describe if and how implementation of the element is a common practice] | Only implementation examples [describe an implementation example specific to each element] | Implementation scoring 2: Common practice 1: some examples 0: not observed | NIF monitoring | Monitoring scoring 2: Monitored 1: Partially monitored 0: not observed |
| 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? | Semantic interoperability is based on specific information resources of two types: - Resources providing for morphological compatibility (nomenclatures, thesauruses, ontologies, etc.). - Resources providing for syntactical compatibility (XML-schemes, models and schemes of metadata, etc.). See Bulgarian national interoperability framework for governmental information systems, chapter 2. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) The semantic interoperability is based on specific information resources of two types: resources providing for morphological compatibility (nomenclatures, thesauruses, ontologies, etc.), resources providing for syntactical compatibility (XML-schemes, models and schemes of metadata, etc.). Bulgarian national interoperability framework for governmental information systems, chapter 2. | 2 | A register of data sets, information objects and eServices is available online at: http://www.egov.bg/ereg-public/ | Chapter 3 of the updated Bulgarian national interoperability framework for information systems of executive authorities recommends "When jointly developing Bulgarian public services, public administrations must use a common taxonomy of basic public services and agree on minimum service requirements for secure data Exchange." See the draft of the updated Bulgarian national interoperability framework for information systems of executive authorities : https://www.mtitc.government.bg/upload/docs/2016-01/BNIF_EN.pdf | 1 | [describe monitoring procedure here] | 0 |
| Public administrations should support the establishment of sector specific and cross-sectoral communities that aim to facilitate semantic interoperability and should encourage the communities to share results on national and European platforms. EIF, Recommendation 18 Category: Interoperability levels, semantic artefacts | Does the NIF encourage public administrations to support the establishment of sector specific and cross sectoral communities that aim to facilitate semantic interoperability and that share results on national and European platforms? | | 0 | [describe here] | [describe project here] | 0 | [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. | Technical interoperability is distributed on: - Standards (vertical and horizontal) - The methods for data presentation; - The methods of access; - The methods for data integration; - The architectures for distributed applications; - The protocols for exchange of messages and files; - The network services; - The services for the security of the exchange and the storage of the messages. See Bulgarian national interoperability framework for governmental information systems, chapter 2. (http://www.mtitc.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Bulgarian national interoperability framework for governmental information systems, chapter 2. | 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. | Chapter 5 of the updated Bulgarian national interoperability framework for information systems of executive authorities describes: "Interoperability Agreements Introduction This chapter proposes an approach to facilitate cooperation among public administrations in providing Bulgarian public services. As stated throughout this document, Bulgarian public services delivery requires cooperation among different public administrations at the different interoperability levels described in the previous chapter. For each level, the organisations involved can rely on the general regulations on e-governance – the Electronic Government Act and the secondary legislation for its implementation, but can also formalise cooperation arrangements in interoperability agreements. Agreements must be drafted with sufficient detail to achieve their aim – delivery of Bulgarian public services – while granting a maximum internal autonomy to each organisation. At organisation level, interoperability agreements can, for example, take the form of Service Level Agreements (SLAs) that specify the obligations of each party participating in the provision of cross-sector and aggregate services. At semantic level, interoperability agreements can take the form of reference taxonomies, schemes, code lists, data dictionaries, sector-based libraries and so forth. At technical level, interoperability agreements include interface specifications, communication protocols, messaging specifications, data formats, security or dynamic registration specifications as well as service development specifications. While interoperability agreements at legal and organisational level will usually be very specific to the respective Bulgarian public service concerned, interoperability agreements at technical level and, to a lesser extent, at semantic level can often be mapped onto existing formalised specifications. Recommendation 19. When developing Bulgarian public services, public administrations must consider the Electronic Government Act and the secondary legislation on its implementation and, where necessary, should define interoperability agreements. See the draft of the updated updated Bulgarian national interoperability framework for information systems of executive authorities: https://www.mtitc.government.bg/upload/docs/2016-01/BNIF_EN.pdf | 1 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |

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 |
| Public administrations should use a structured, transparent and objective approach to assessing and selecting formalised specifications. EIF, Recommendation 21 Category: Interoperability agreements. | Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications? | The Register of the standards is a dynamic structure, reflecting the current situation of the standardization processes and the possibilities for their application in the current moment. The register is supported and updated by a double-unit structure containing expert and executive part through procedures regulated in the respective Instruction Manuals. Basic criteria for choice of the standards are: - Openness; - Level of accessibility and maintenance; - Maturity - Potential - Applicability to the national conditions See Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards. (http://www.mttic.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) | 1 | The standards' registry is available online at: http://interoperability.agov.bg/web/guest/40 | [describe project here] | 2 | [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? | Basic criteria for choice of the standards are: - Openness; - Level of accessibility and maintenance; - Maturity - Potential - Applicability to the national conditions See Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards. (http://www.mttic.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) Principle Nr.1: In accordance with Recommendation Nr. 14 of the European Interoperability Framework, the main factor ensuring system integration and interoperability is the application of open internationally adopted standards. This is guaranteed through the support of a Register of the standards with "on-line" access, containing standards of different degree of compulsory character. A. The basic criteria for choice of the standards are as follows: • openness; • level of accessibility and maintenance; • maturity; • potential; • applicability to the national conditions; Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards | 1 | [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? | The Register of the standards is a dynamic structure, reflecting the current situation of the standardization processes and the possibilities for their application in the current moment. The register is supported and updated by a double-unit structure containing expert and executive part through procedures regulated in the respective Instruction Manuals. See Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards. (http://www.mttic.government.bg/upload/docs/en_BUL_FRAMEWORK.pdf) D. The Register of the standards is a dynamic structure, reflecting the current situation of the standardization processes and the possibilities for their application in the current moment. The register is supported and updated by a double-unit structure containing expert and executive part through procedures regulated in the respective Instruction Manuals. Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards | 2 | [describe here] | [describe project here] | 0 | [describe monitoring procedure here] | 0 |

Analysis of the NIFs

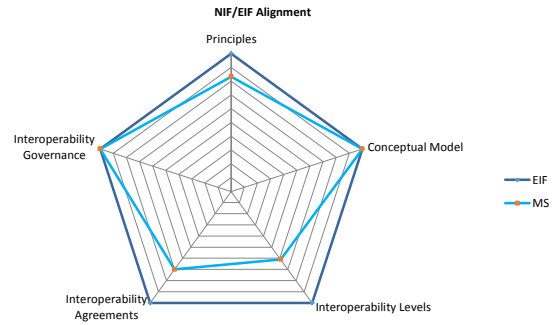
[See Alignment Examples in NIFO toolbox](#)

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



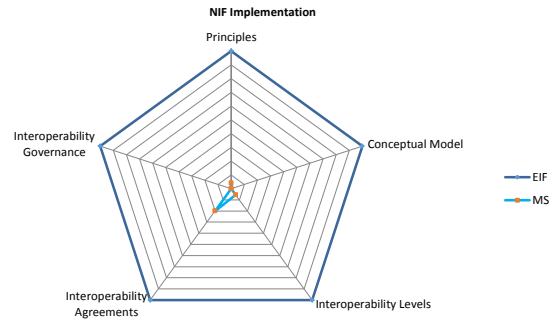
| Analysis of the NIFs | | NIF-EIF Alignment | | NIF implementation | | NIF monitoring | | |
|---|--|--|---|---|--|---|--|---|
| EIF Element - Reference - Category | Measurement | NIF element present - Reference - (Text in English) | NIF-EIF alignment scoring 2: fully 1: partially 0: not aligned | Large scale implementation <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 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? | <p>PRINCIPLE NR. 7: THE ADEQUATE APPLICATION OF THE STANDARDS FOR INTEROPERABILITY (FIXED IN THE DYNAMICALLY SUPPORTED REGISTER OF THE STANDARDS) IN THE INFORMATION SYSTEMS WITHIN THE ADMINISTRATION MUST BE REALIZED THROUGH CONFORMITY ASSESSMENT PROCEDURES.</p> <p>A. Every software product or information system being developed or bought with the aim to be applied in the administration has to be certified for conformity in accordance with a special Instructions Manual.</p> <p>B. The certification for conformity is based on conformity tests, carried out by organizations authorized for this. The test methodics is based on the ETSI (European Telecommunication Standardization Institute) Recommendations and are adopted by the Authority, empowered to support the Register of the standards.</p> <p>C. Besides the conformity with the entries in the three registers mentioned, the certification procedure should include a testing for the minimum requirements for security, corresponding to the European recommendations mentioned above.</p> <p>Bulgarian national interoperability framework for governmental information systems, chapter 5, Register of standards;</p> | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here]</i> | 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. | The Ordinance 274 for the establishment of the regulations of the "State e Governance Agency" has been published in November 2016 in the Official journal. One of the directorates of this agency is Directorate "Information systems and interoperability" and takes the interoperability topic under its supervision. | 2 | <i>[describe here]</i> | <i>[describe project here]</i> | 0 | <i>[describe monitoring procedure here, Predefine if monitoring procedures include stimulating and/or corrective measures]</i> | 0 |

| Category | EIF | MS |
|-----------------------------|------|--------|
| Principles | 100% | 83,3% |
| Conceptual Model | 100% | 100,0% |
| Interoperability Levels | 100% | 61,1% |
| Interoperability Agreements | 100% | 70,0% |
| Interoperability Governance | 100% | 100,0% |



| Category | EIF Element | Scoring | | |
|---|---|--|-----------|-----------|
| | | Max | MS | |
| Principles | Subsidiarity and proportionality | 2 | 2 | |
| | User-centricity | 2 | 2 | |
| | Inclusion and accessibility | 2 | 2 | |
| | Security and privacy | 2 | 2 | |
| | Multilingualism | 2 | 2 | |
| | Administrative simplification | 2 | 1 | |
| | Transparency | 2 | 1 | |
| | Preservation of information | 2 | 2 | |
| | Openness | 2 | 1 | |
| | Reusability | 2 | 2 | |
| | Technological neutrality and adaptability | 2 | 2 | |
| | Effectiveness and efficiency | 2 | 1 | |
| | Total | | 24 | 20 |
| | Conceptual Model | Does the NIF contain a conceptual model? | 2 | 2 |
| | | Is the conceptual model a component-based service model? (e.g. SOA) | 2 | 2 |
| Does the NIF encourage the use of common schemes to interconnect loosely coupled service components. | | 2 | 2 | |
| Does the NIF encourage to put in place the infrastructure to interconnect loosely coupled service components? | | 2 | 2 | |
| Does the NIF encourage to make the authentic sources of information available to others? | | 2 | 2 | |
| Does the NIF encourage access and control mechanisms to ensure compliance to security and privacy legislation? | | 2 | 2 | |
| Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level? | | 2 | 2 | |
| Total | | 14 | 14 | |
| Interoperability Levels | | Does the NIF describe the four levels of interoperability? | 2 | 2 |
| | | Does the NIF impose to consider all relevant legislation related to data exchange? | 2 | 2 |
| | Does the NIF describe that the business processes are documented in an agreed way in order for other administrations to understand the overall business process? | 2 | 1 | |
| | Does the NIF encourage to agree on how these processes will interact among the different levels of public administrations? | 2 | 2 | |
| | Does the NIF encourage public administrations to clarify their organisational relationships as part of the establishment of a (European) public service? | 2 | 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 | 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 | 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 | 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 | 1 | |
| | Does the NIF encourage Public administrations to use a structured, transparent and objective approach to assess and select formalised specifications? | 2 | 1 | |
| | Does the NIF encourage public administrations to prefer open specifications, taking due account of the coverage of functional needs, maturity and market support? | 2 | 1 | |
| | Does the NIF encourages public administrations to lead or actively participate in standardisation work relevant to their needs? | 2 | 2 | |
| | Does the NIF encourage public administrations to agree on minimum service requirements for secure data exchange? | 2 | 2 | |
| | Total | 10 | 7 | |
| Interoperability Governance | A governance framework exists to control the interoperability activities across administrative levels. | 2 | 2 | |
| | Total | 2 | 2 | |

| Category | EIF | MS |
|-----------------------------|------|-------|
| Principles | 100% | 4,2% |
| Conceptual Model | 100% | 0,0% |
| Interoperability Levels | 100% | 5,6% |
| Interoperability Agreements | 100% | 20,0% |
| Interoperability Governance | 100% | 0,0% |



| Category | EIF Element | Scoring | | |
|---|---|--|----------|---|
| | | Max | MS | |
| Principles | Subsidiarity and proportionality | 2 | 0 | |
| | User-centricity | 2 | 0 | |
| | Inclusion and accessibility | 2 | 0 | |
| | Security and privacy | 2 | 0 | |
| | Multilingualism | 2 | 0 | |
| | Administrative simplification | 2 | 0 | |
| | Transparency | 2 | 0 | |
| | Preservation of information | 2 | 0 | |
| | Openness | 2 | 1 | |
| | Reusability | 2 | 0 | |
| | Technological neutrality and adaptability | 2 | 0 | |
| | Effectiveness and efficiency | 2 | 0 | |
| | Total | 24 | 1 | |
| | 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 | 0 | |
| Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level? | | 2 | 0 | |
| Total | | 14 | 0 | |
| 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 | 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 | 1 | |
| 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 | 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 | 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 | 2 | |
| Interoperability Governance | A governance framework exists to control the interoperability activities across administrative levels. | 2 | 0 | |
| | Total | 2 | 0 | |

| Category | EIF | MS |
|-----------------------------|------|------|
| Principles | 100% | 0,0% |
| Conceptual Model | 100% | 0,0% |
| Interoperability Levels | 100% | 0,0% |
| Interoperability Agreements | 100% | 0,0% |
| Interoperability Governance | 100% | 0,0% |

| Category | EIF Element | Scoring | | |
|---|---|--|----------|---|
| | | Max | MS | |
| Principles | Subsidiarity and proportionality | 2 | 0 | |
| | User-centricity | 2 | 0 | |
| | Inclusion and accessibility | 2 | 0 | |
| | Security and privacy | 2 | 0 | |
| | Multilingualism | 2 | 0 | |
| | Administrative simplification | 2 | 0 | |
| | 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 | 0 | |
| | 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 | 0 | |
| Does the NIF encourage the development of interfaces to authentic sources that are aligned at semantic and technical level? | | 2 | 0 | |
| Total | | 14 | 0 | |
| 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 | | |

