YEARBOOK 2018

NORDIC INSTITUTE FOR INTEROPERABILITY SOLUTIONS

The Nordic Institute for Interoperability Solutions (NIIS) is an association founded jointly by Estonia and Finland. Its mission is to ensure the development and strategic management of X-Road and other cross-border components for the e-government infrastructures of its members. In 2018 Iceland became a partner of NIIS with the aim of becoming a member.

NIIS functions as a network and cooperation platform, while also implementing IT developments in the interests of its members. The institute focuses on practical collaboration, sharing experience and promoting innovation. The operating model of the institute is something quite unique in the world.

www.niis.org

Twitter: @NordicInstitute

2018 MEANT THE START OF X-ROAD DEVELOPMENT FOR THE NORDIC INSTITUTE FOR INTEROPERABILITY SOLUTIONS

NIIS completed its first recruitments in spring 2018 and announced its first public procurement. Development of X-Road was started during the summer. I feel proud of the achievements of the NIIS team. Our public procurements and setting up of the development team were carried out according to plan and in record time.

During the year 2018 we created a multiannual strategy for NIIS with our members. Our vision is that NIIS will be an agile innovator and a strong influence in the field of e-governance, as well as being an attractive organization of which to be a member. We continue cooperating actively in Europe with the aim of having new members in the near future.

NIIS has a global impact through its X-Road data exchange layer which is used in public administration around the world. The global X-Road Community facilitated by NIIS has more members than ever before. I want to thank X-Road enthusiasts around the world, our team, all our members, our partner Iceland, our advisors and friends for their continuing support.

Ville Sirviö
CEO
Nordic Institute for Interoperability Solutions (NIIS)

Twitter: @sirvioville

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MANAGEMENT REPORT 2018

TIMELINE 2018

JANUARY 2018
- Advisory Group meeting
- Working Group meeting

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FEBRUARY 2018
- Public procurement information event for software industry in Helsinki

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MARCH 2018
- NIIS's first public procurement, "X-Road Software Core Development (194130)" was announced in the Estonian public procurement
- register.Working Group meeting
- Advisory Group meeting

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APRIL 2018
- General Meeting
- Working Group meeting

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MAY 2018
- Joint cabinet session of the Estonian and Finnish governments
- X-Road REST Support Workshop in Tallinn

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JUNE 2018
- Advisory Group meeting
- General Meeting
- Working Group meeting
- NIIS's second public procurement, "X-Road Software Core Development Related Testing (197345)," was announced

In late February and early March, information days were organised for the Estonian and Finnish software industries on the X-Road software development public procurements, in cooperation with the Estonian Association of Information Technology and Telecommunications and the Finnish Software and E-Business Association.

In March, NIIS's first public procurement, "X-Road Software Core Development (194130)" was announced in the Estonian public procurement register.

The first joint session of the governments of Estonia and Finland was held for the first time in history on 7th May 2018 in Tallinn, Estonia. The governments decided to explore ways to bring the next digital service infrastructure components under joint development with the NIIS, and to support the Institute's efforts to engage new member countries. NIIS was represented at the joint session of the governments by its CEO Ville Sirviö.

As a result of NIIS's first public procurement, the decision was taken to conclude a framework agreement for X-Road software development with Finnish company Gofore Plc. The software development was launched on 7th August, when the first sprint towards agile software development officially started. This marks the first joint Estonian-Finnish software development with a combined connection and common release plan.

In June, NIIS's second public procurement, "X-Road Software Core Development Related Testing (197345)," was announced in the Estonian public procurement register.

NIIS released the first software version 0.3.0 of XRd4J X-Road extension, on 5th September. A few days later, the REST Adapter Service version 1.0.0 was released.

X-Road Community Event, a major international event for X-Road enthusiasts from around the world, was held on 12th September in Tallinn. The event brought together 144 participants, including users, developers, platform and server operators, decision-makers and e-governance experts.

On 12th September, Iceland signed a partnership agreement with NIIS at the X-Road Community Event. Iceland is NIIS's first partner, and in future the parties will aim for closer cooperation while working towards Iceland's membership.

AUGUST 2018
- Advisory Group meeting
- Meeting with the Minister for Local Government and Public Reforms, Anu Vehviläinen

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SEPTEMBER 2018
- X-Road Community Event 2018
- The framework contract was awarded to Finnish company Q-Factory Oy for the testing of X-Road software
- Working Group meeting

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OCTOBER 2018
- Advisory Group meeting
- Workshop: Rethinking X-Road Onboarding Process
- Working Group meeting

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NOVEMBER 2018
- Advisory Group meeting
- Working Group meeting

Siim Sikkut, Anna-Maija Karjalainen, Ville Sirviö and Bjarni Benediktsson

- Meeting with the Minister of Finance and Economic Affairs of Iceland, Bjarni Benediktsson

For the first time on 28th September, NIIS released a new version of the X-Road software. X-Road 6.19.0 offered several minor fixes and bug fixes. On the same day, as a result of the public procurement, it was decided to award the framework contract for testing the X-Road software to Finnish company Q-Factory Oy.

The Icelandic partnership agreement was formally approved in November at a meeting between NIIS and the Icelandic Minister of Finance and Economic Affairs, Bjarni Benediktsson, in Reykjavik.

During the year, NIIS participated in X-Road discussions with representatives from several countries. In international relations, NIIS cooperated with the Estonian Ministry of Economic Affairs and Communications, the Finnish Ministry of Finance, the Icelandic Ministry of Finance and Economic Affairs, the Estonian National Information System Authority and the Finnish Population Register, and often shared responsibilities with its cooperation partners.

NIIS General Meetings were held in April, June, and twice in December.

NIIS Advisory Group meetings were held in January, March, June, August, October, November and December.
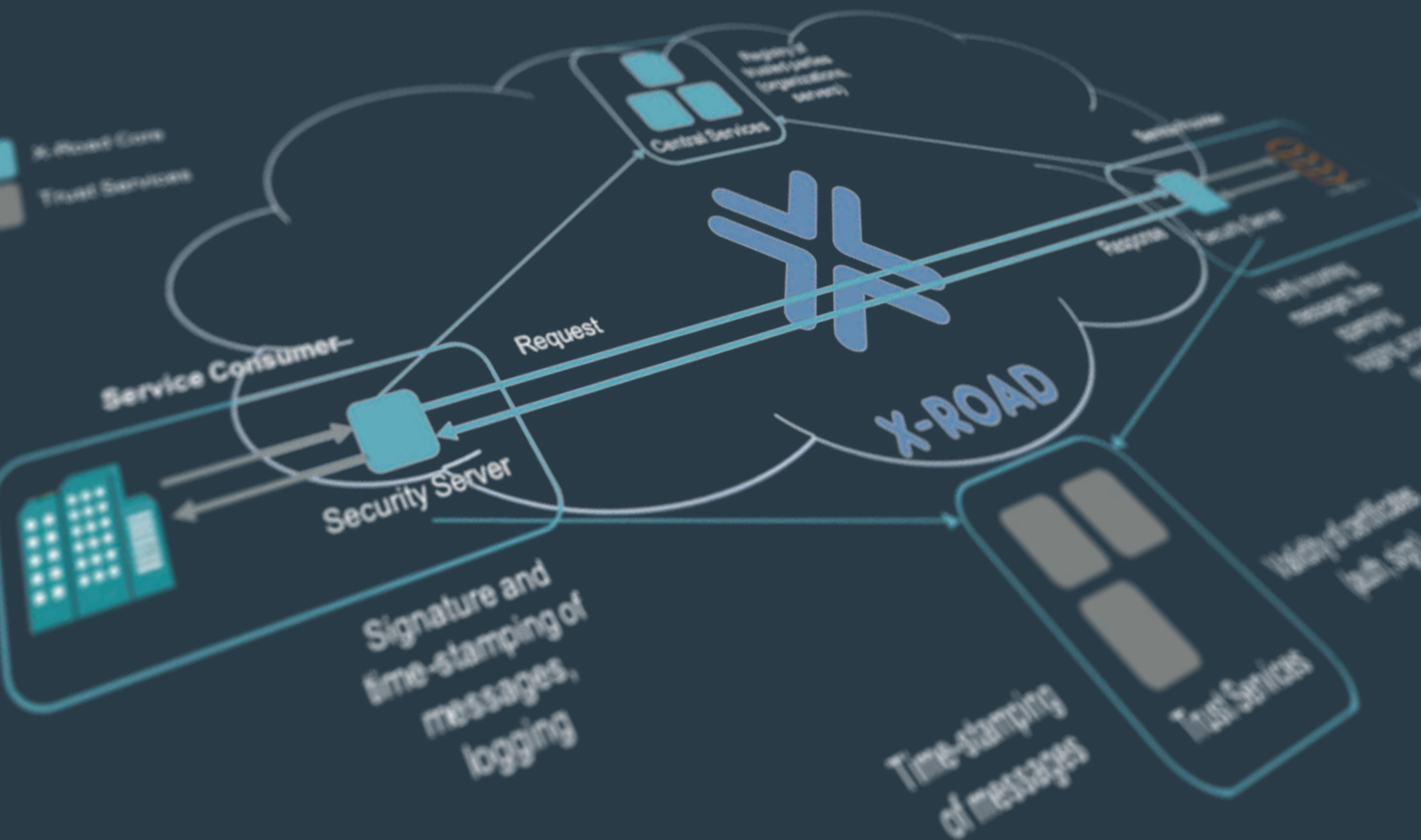
X-Road Working Group meetings were held in January, March, April, June, September, October, November and December.

X-ROAD®

X-ROAD® IS AN OPEN SOURCE DATA EXCHANGE
LAYER SOFTWARE THAT ENABLES ORGANIZATIONS
TO EXCHANGE INFORMATION SECURELY OVER THE
INTERNET. X-ROAD® IS A CENTRALLY GOVERNED
DISTRIBUTED INTEGRATION LAYER BETWEEN
INFORMATION SYSTEMS, WHICH PROVIDES A
STANDARDIZED AND SECURE WAY TO PRODUCE
AND CONSUME SERVICES. X-ROAD® ENSURES
CONFIDENTIALITY, INTEGRITY AND INTEROPERABILITY
BETWEEN DATA EXCHANGE PARTIES.

X-ROAD®

X-Road® is an open source data exchange layer solution that enables organizations to exchange information over the Internet. X-Road is a centrally managed distributed data exchange layer between information systems that provides a standardized and secure way to produce and consume services. X-Road ensures confidentiality, integrity and interoperability between data exchange parties.

X-Road is used nationwide in the Estonian Data Exchange Layer X-tee and in the Suomi.fi Data Exchange Layer service in Finland. X-Road is released under the MIT open source licence and is available free of charge for any individual or organization.

X-Road implements a set of common features to support and facilitate data exchange. X-Road provides the following features out of the box:
- address management
- message routing
- access rights management
- organization level authentication
- machine level authentication
- transport level encryption
- time-stamping
- digital signature of messages
- logging
- error handling.

The identity of each organization and technical entry point (Security Server) is verified using certificates that are issued by a trusted Certification Authority (CA) when an organization joins an X-Road ecosystem. The identities are maintained centrally, but all data is exchanged directly between consumer and provider. Message routing is based on organization and service level identifiers that are mapped to physical network locations of the services by X-Road. All the evidence regarding data exchange is stored locally by the data exchange parties, and no third parties have access to the data. Time-stamping and digital signature together guarantee non-repudiation of data sent via X-Road.

Two X-Road ecosystems can be joined together, that is federated. Federation is a one-to-one relationship between two ecosystems. Members of the federated ecosystems can publish and consume services with each other as if they were members of the same ecosystem. It is possible to create federation connections with multiple ecosystems, but transitive federation relationships are not supported. An ecosystem does not have a federation relationship with another ecosystem that it's not directly federated with. Federation enables easy and secure cross-border data exchange between X-Road ecosystems.

Indirectly, X-Road also enables citizens and officials to operate via different portals and applications (document management systems, institutional information systems) in a more efficient and flexible manner. For example, it helps to check for relevant information in national databases or securely exchange documents with institutions.

NIIS AND X-ROAD®

Nordic Institute for Interoperability Solutions (NIIS) is a non-profit association with a mission to ensure the development and strategic management of X-Road and other cross-border components of e-government infrastructure. The following activities, among others, are undertaken by NIIS with regard to X-Road:

- management, development, verification, and audit of the source code;
- administration of documentation;
- administration of business and technical requirements;
- conducting development;
- developing and implementing principles of licensing and distribution;
- providing second-line support for members;
- international cooperation.

X-Road® is released under an MIT licence and is available free of charge to any individual or organization.

X-Road® is a registered trademark of the Estonian Information System Authority and is used under licence by NIIS.
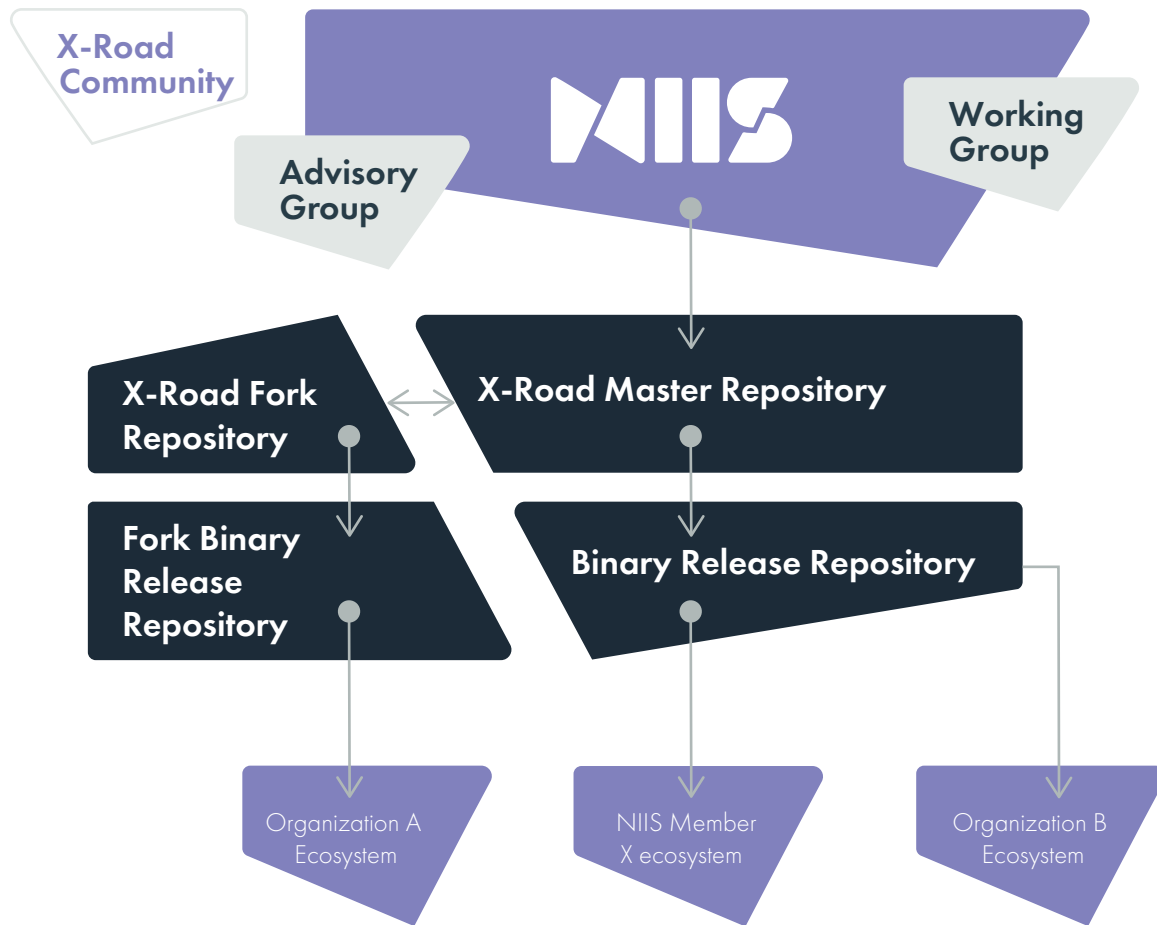
THE DEVELOPMENT MODEL

NIIS IS AN ASSOCIATION FOUNDED JOINTLY BY
FINLAND AND ESTONIA. ITS MISSION IS TO DEVELOP
E-GOVERNANCE SOLUTIONS, KICKING OFF WITH THE
X-ROAD TECHNOLOGY USED NATIONWIDE IN PUBLIC
ADMINISTRATION IN ESTONIA AND FINLAND.

Compared to the previous concepts, where RIA and VRK worked on the same software together using two separate teams, the new concept foresees only one development team – led by NIIS.

This way, cooperation between Estonia and Finland is no longer limited to handing over the source code as the countries started to develop the X-Road core together. Both countries wanted to share the same X-Road core and maintain the interoperability between X-tee and Suomi.fi Data Exchange Layer to enable cross-border data exchange between Estonia and Finland. This meant that the joint development of X-Road needed to be coordinated.

NIIS is responsible for coordinating the daily collaboration and maintaining the product roadmap and the product backlog. The input to the development process still comes from RIA and VRK through their participation in the Working Group that is organized and facilitated by NIIS.

As a result, the development work and all the input required for it has become centrally managed by NIIS, which makes the process much more efficient than before.

Nothing changed for the X-tee and Suomi.fi Data Exchange Layer member organizations. RIA and VRK remained responsible for running their national ecosystems and providing all the same support services to their members. From the X-Road Community's point of view one of the biggest changes was making the X-Road backlog public. Anyone can access the backlog, leave comments and submit enhancement requests through the X-Road Service Desk portal.

X-ROAD® TECHNOLOGY OVERVIEW 2018

Petteri Kivimäki
Chief Technology Officer, X-Road
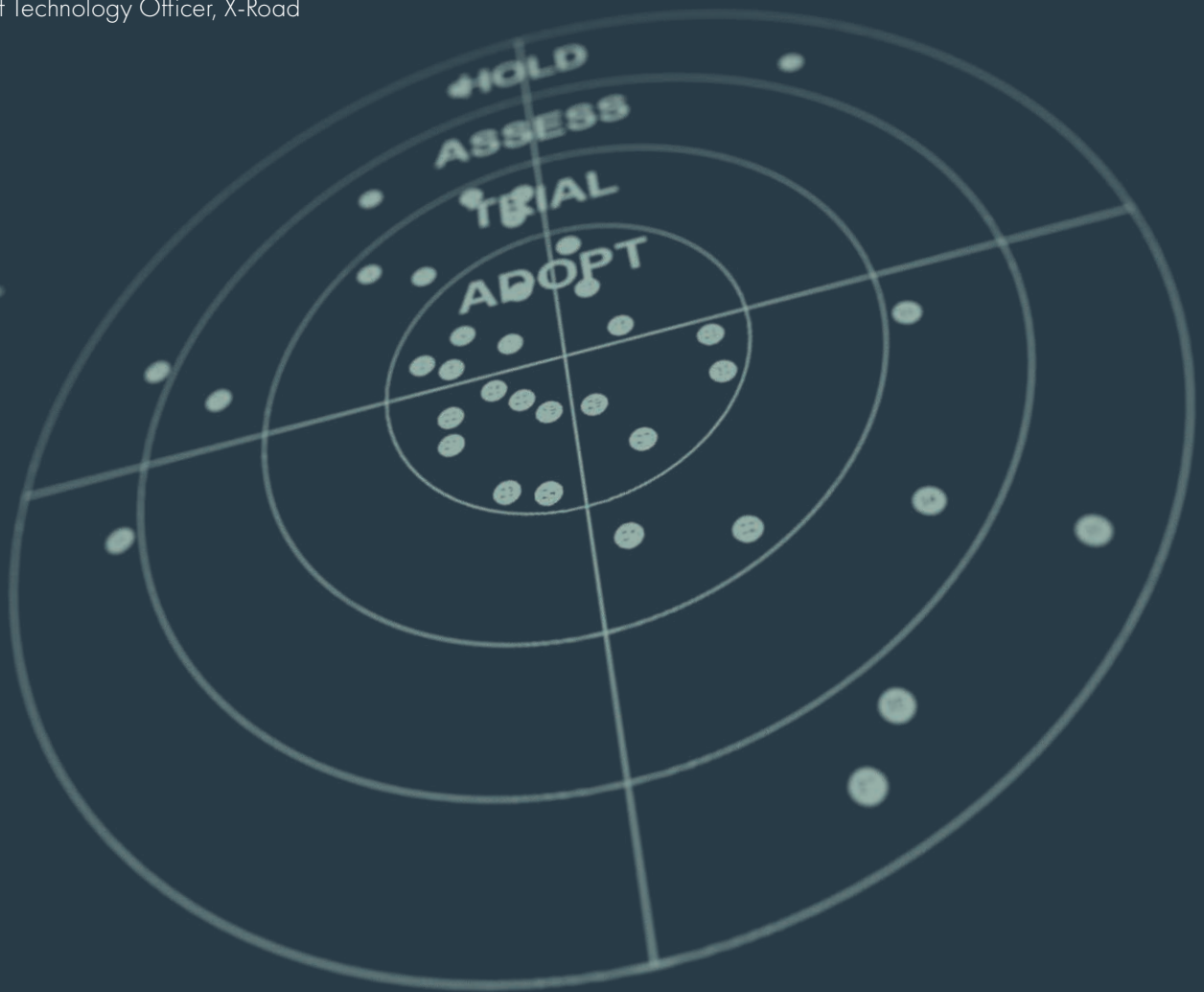
THE YEAR 2018 WAS A YEAR OF CHANGE IN X-ROAD CORE DEVELOPMENT. NIIS TOOK OVER X-ROAD CORE DEVELOPMENT FROM THE POPULATION REGISTER CENTRE OF FINLAND AND THE INFORMATION SYSTEM AUTHORITY OF ESTONIA IN JUNE 2018.

Despite the significant organizational changes, three new X-Road core versions saw daylight in 2018:
- • 6.17.0, released by Finland's Population Register Centre in February 2018
- • 6.18.0, released by Estonia's Information System Authority in May 2018
- • 6.19.0, released by NIIS in September 2018

Unlike 2017, when two new major features - operational monitoring and support for external load balancing – were released, the year 2018 did not bring any new major features to the X-Road core. Instead, the three releases published during the year contained smaller, but important improvements and fixes to existing features.

The most important improvements and bug fixes that were released in 2018 are mentioned below:
- Security Server's improved recovery from OCSP (Online Certificate Status Protocol) service's service breaks;
- support for certificate chains with Security Server internal TLS certificate;
- security improvements on Security Server's getWsdl meta service;
- X-Road message protocol extension for transferring loosely defined security tokens (like JSON Web Tokens) as SOAP headers over X-Road;
- Security Server performance improvements, e.g. improve message processing performance during batch time-stamping, fix a performance issue in a client-side Security Server when connecting to a clustered service provider;
- improvements on the Security Server UI, e.g. more descriptive error messages, show list of approved certificate authorities;
- improvements on resource usage, e.g. optimize Security Server database connections, optimize Jetty resource usage, improve the clean-up of expired global configuration files;
- improvements on documentation, and updates on third-party dependencies.

Even if no new major features were released in 2018, it doesn't mean that the pace of X-Road core development is about to slow down. It is actually the opposite: in 2019 the X-Road core will see the biggest changes since the release of X-Road version 6. The design and planning of the upcoming changes were already started in 2018, but the results won't be available to X-Road users until 2019. In the meanwhile, X-Road Tech Radar provides up-to-date information on the various technologies used in X-Road.

https://nordic-institute.github.io/X-Road-tech-radar/

ANNUAL REPORT 2018

BEGINNING OF FINANCIAL YEAR:	01.01.2018
END OF FINANCIAL YEAR:	31.12.2018
BUSINESS NAME:	MTÜ NORDIC INSTITUTE FOR INTEROPERABILITY SOLUTIONS
REGISTRY CODE:	80419486
STREET, BUILDING:	HOBUJAAMA TN 4
CITY:	TALLINN
COUNTY:	HARJU MAAKOND
POSTAL CODE:	10151
TELEPHONE:	+372 7130 800
E-MAIL ADDRESS:	INFO@NIIS.ORG

Statement of Financial Position (in euros)

	31.12.2018	31.12.2017	Note
Assets			
Current assets			
Cash and cash equivalents	2 895 842	1 764 838	
Receivables and prepayments	53 549	1 929	2
Total current assets	2 949 391	1 766 767	
Non-current assets			
Property, plant and equipment	3 104	1 724	
Total non-current assets	3 104	1 724	
Total assets	2 952 495	1 768 491	
Liabilities and net assets			
Liabilities			
Current liabilities			
Payables and prepayments	267 369	9 922	4
Total current liabilities	267 369	9 922	
Total liabilities	267 369	9 922	
Net assets			
Accumulated surpluses (deficits) from previous periods	1 758 569	0	
Surplus (deficit) for the period	926 557	1 758 569	
Total net assets	2 685 126	1 758 569	
Total liabilities and net assets	2 952 495	1 768 491	

Statement of Revenues and Expenses (in euros)

	20.06.2017-31.12.2017	20.06.2017-20.06.2017	Note
Revenue			
Fees received from members	1 859 410	1 841 000	5
Other income	138	17	
Total revenue	1 859 548	1 841 017	
Expenses			
Other operating expense	-657 921	-38 591	6
Employee expense	-272 214	-43 379	7
Depreciation and impairment loss (reversal)	-1 724	-345	
Other expenses	-1 319	-169	
Total expenses	-933 178	-82 484	
Surplus (deficit) from operating activities	926 370	1 758 533	
Interest income	187	36	
Net surplus (deficit) for the period	926 557	1 758 569	

Statement of Cash Flows (in euros)

	2018	20.06.2017 - 31.12.2017	Note
Cash flows from operating activities			
Surplus (deficit) from operating activities	926 370	1 758 533	
Adjustments			
Depreciation and impairment loss (reversal)	1 724	345	
Total adjustments	**1 724**	**345**	
Adjustments for operating receivables and prepayments	-51 620	-1 929	2
Adjustments for operating liabilities and prepayments	257 447	9 922	4
Interest received	187	36	
Total cash flows from operating activities	**1 134 108**	**1 766 907**	
Cash flows from investing activities			
Purchase of property, plant and equipment and intangible assets	-3 104	-2 069	3
Total cash flows from investing activities	**-3 104**	**-2 069**	
Total cash flows	**1 131 004**	**1 764 838**	
Cash and cash equivalents at beginning of period	1 764 838	0	
Change in cash and cash equivalents	**1 131 004**	**1 764 838**	
Cash and cash equivalents at end of period	2 895 842	1 764 838	

Statement of Changes in Net Assets (in euros)

	Accumulated surpluses (deficits) from previous period	Total net assets
20.06.2017	0	0
Net surplus (deficit) for the period	1 758 569	1 758 569
31.12.2017	1 758 569	1 758 569
Net surplus (deficit) for the period	926 557	926 557
31.12.2018	2 685 126	2 685 126

Note 1 Accounting policies

General information
The financial statements 2018 of the non-profit association MTÜ Nordic Institute for Interoperability Solutions have been prepared in conformity with the Estonian financial reporting standard. The main requirements of the Estonian financial reporting standard are established in the Accounting Act of the Republic of Estonia and are supplemented by the guidelines issued by the Accounting Standards Board.

The financial statements have been prepared in euros.

Cash and cash equivalents
Cash and cash equivalents in the statement of financial position and statement of cash flows comprise bank account balances.

Foreign currency transactions and assets and liabilities denominated in a foreign currency

Foreign currency transactions are recorded based on the official foreign currency exchange rates of the European Central Bank valid on the transaction date. Monetary financial assets and liabilities denominated in foreign currencies are translated into the entity's functional currency on the reporting date based on the rates of the European Central Bank valid on the balance sheet date. Profits and losses from foreign currency transactions are recorded in the statement of revenues and expenses of the reporting period.

Receivables and prepayments
Receivables and prepayments shall be carried at amortised cost which generally equals their nominal value less any impairment allowances.

Plant, property and equipment and intangible assets
Based on the materiality principle non-current assets are asset items with the cost of over 2,000 euros and a useful life of over 1 year. Assets with a lower cost or shorter useful life are fully expensed when the asset is taken into use and they are accounted for off-balance sheet.

Property, plant and equipment are recognised at cost which comprises the purchase price and other costs directly attributable to the acquisition.

Minimal acquisition cost 2000 euros

Leases
The lease transactions where all material risks and rewards related to the ownership of the assets are transferred to the lessee are recorded as finance leases.

Other leases are recorded as operating leases.

Operating lease payments are recognised as expenses in the income statement on the straight-line basis over the lease period.

Financial liabilities
Financial liabilities (trade payables) are carried at amortised cost.

Revenue recognition
The membership fees received from members of the association are accounted for based on the following principle: membership and joining fees and other fees not intended for specific purposes that are received from members of the association are recognised as income in the period for which they have been paid.

Note 2 Receivables and Prepayments (in euros)

	31.12.2018	Within 12 months	Note
Tax prepayments and receivables	26 351	26 351	3
Other receivables	18 410	18 410	
Prepayments	8 788	8 788	
Deferred expenses	8 788	8 788	
Total receivables and prepayments	**53 549**	**53 549**	

	31.12.2017	Within 12 months	Note
Prepayments	1 929	1 929	
Deferred expenses	689	689	
Other paid prepayments	1 240	1 240	
Total receivables and prepayments	**1 929**	**1 929**	

Note 3 Tax prepayments and liabilities (in euros)

	31.12.2018		31.12.2017	
	Tax prepayments	Tax liabilities	Tax prepayments	Tax liabilities
Value added tax	0	33 309	0	0
Personal income tax	0	6 296	0	1 396
Social tax	26 351	912	0	2 364
Other tax prepayments and liabilities	0	137	0	4
Total tax prepayments and liabilities	**26 351**	**40 654**	**0**	**3 764**

Note 4 Payables and prepayments (in euros)

	31.12.2018	Within 12 months	Note
Trade payables	211 151	211 151	
Employee payables	6 481	6 481	
Tax payables	40 654	40 654	3
Other payables	9 083	9 083	
Total payables and prepayments	**267 369**	**267 369**	

	31.12.2017	Within 12 months	Note
Trade payables	5 949	5 949	
Tax payables	3 764	3 764	3
Other payables	209	209	
Total payables and prepayments	**9 922**	**9 922**	

Note 5 Fees received from members (in euros)

	2018	20.06.2017 - 31.12.2017
Fees not intended for specific purposes		
Liikmemaksud Eesti	920 500	920 500
Liikmemaksud Soome	920 500	920 500
Liikmemaksud Island	18 410	0
Total fees received from members	**1 859 410**	**1 841 000**

Note 6 Miscellaneous operating expenses (in Euros)

	2018	20.06.2017 - 31.12.2017
Leases	28 418	3 240
Travel expense	19 858	3 565
Purchased services	65 951	24 997
Expenses of the X-Road project	492 949	0
Other	50 745	6 789
Total miscellaneous operating expenses	**657 921**	**38 591**

Note 7 Labor expense (in Euros)

	2018	20.06.2017 - 31.12.2017
Wage and salary expense	213 815	32 306
Social security taxes	58 399	10 774
Total labor expense	**272 214**	**43 080**
Average number of employees in full time equivalent units	3	1

Note 8 Related parties (in Euros)

Number of members by the end of economic year

	31.12.2018	31.12.2017
Number of juridical person members	2	2

Remuneration and other significant benefits calculated
for members of management and highest supervisory body

	2018	20.06.2017 - 31.12.2017
Remuneration	111 012	32 306
Other	0	298

STRATEGY 2019-2021

MISSION: TO ENSURE THE DEVELOPMENT AND STRATEGIC MANAGEMENT OF X-ROAD AND OTHER CROSS-BORDER COMPONENTS FOR E-GOVERNMENT INFRASTRUCTURE.

NIIS is an agile innovator and a strong influence in the field of e-governance, and an attractive organization of which to be a member.

NIIS is cooperating actively in Europe, where it has 3–5 members, and is facilitating the global X-Road Community.

X-ROAD VISION 2021

X-Road is a modular, easy-to-implement, cloud native, secure data exchange solution.

X-Road is thriving as a core digital infrastructure component in the Nordic countries and is a well-known technology standard within the EU countries.

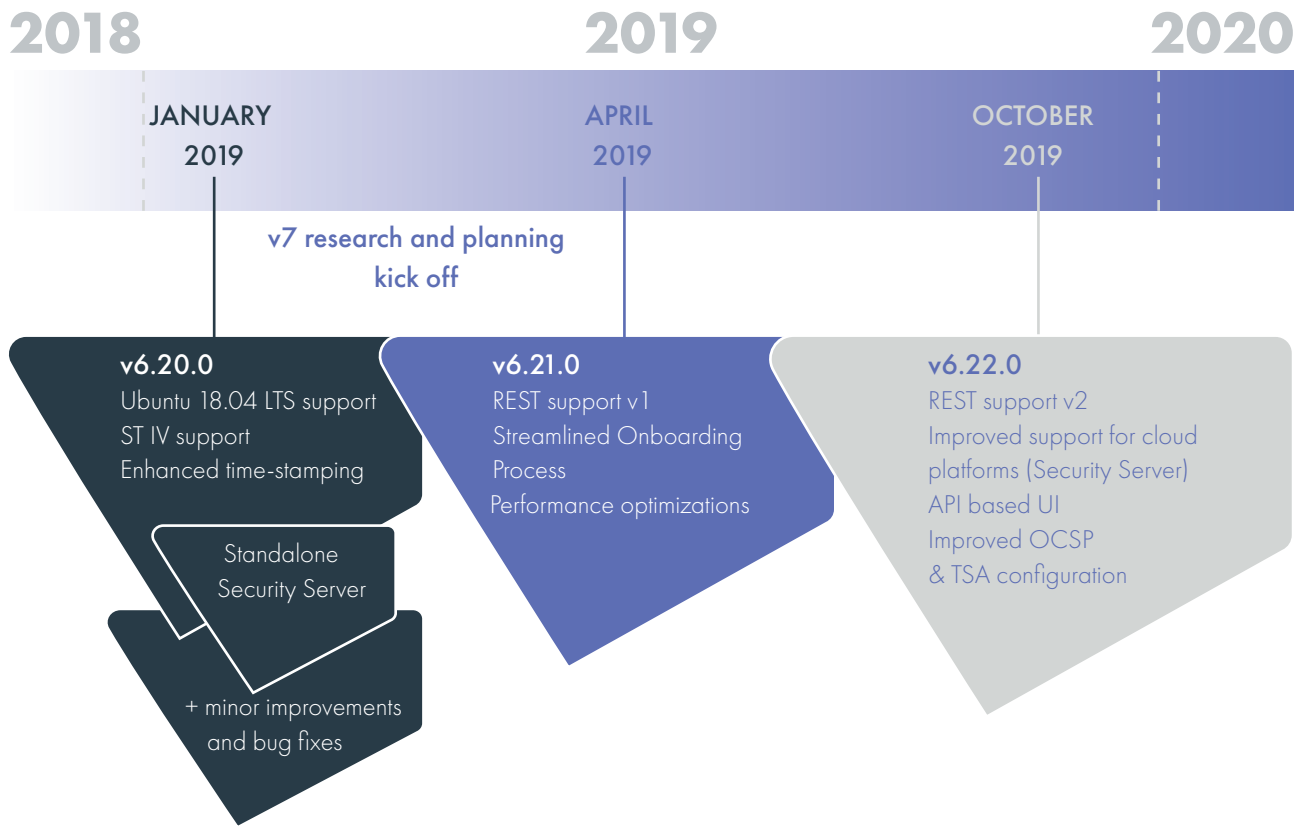| NIIS Agile Development Principles	**NIIS agile software development planning is done in waves as implementation proceeds and details become clearer later.** • Development is able to adapt quickly to changing realities. **Milestones are identified, but flexibility in the path to reach them remains, and changing milestones is allowed.** • Milestones are changed over the prioritization of the product backlog. **X-Road product backlog is prioritized either by Advisory Group or Working Group depending on the development item.** **Changes in prioritization may cause strategic objectives for 2019 to change – new objectives may be introduced and/or implementation of current objectives may be postponed.**

STRATEGIC FOCUS AREAS IN DEVELOPMENT 2019–2021

Development	• Upgrade and completion of X-Road version 6 (2019) • Research and planning for X-Road version 7 (2019) • Start of development of X-Road version 7 (2020) • Beta pilot version of X-Road version 7 (2020) • End of development of X-Road version 6 (2020) • First release of X-Road version 7 (2021)

2018   2019   2020

JANUARY
2019

APRIL
2019

OCTOBER
2019

v7 research and planning
kick off

v6.20.0
Ubuntu 18.04 LTS support
ST IV support
Enhanced time-stamping

Standalone
Security Server

+ minor improvements
and bug fixes

v6.21.0
REST support v1
Streamlined Onboarding
Process
Performance optimizations

v6.22.0
REST support v2
Improved support for cloud
platforms (Security Server)
API based UI
Improved OCSP
& TSA configuration

X-ROAD TECHNICAL RELEASE ROADMAP 2019

Version 6.20.0	**Support for Ubuntu 18.04 LTS**
	• Central Server, Security Server and Configuration Proxy can be migrated from Ubuntu 14.04 LTS to the latest Ubuntu 18.04 LTS version.
	• Ubuntu 14.04 LTS will quit receiving maintenance updates in Q2/2019 which is why migration is required.
	• Ubuntu 18.04 LTS support includes installation packages, and instructions for fresh installation and migration from Ubuntu 14.
	Security Server provides built-in support for Finnish data classification system level ST IV.
	• The default security configuration has been updated according to the Finnish Communications Regulatory Authority's requirements.
	Messagelog time-stamping has been improved so that messagelog records are always verifiable regardless of the number of processed messages and Security Server's load.
	Security Server's security and maintainability is improved replacing customised and outdated 3rd party components with the latest off-the-shelf versions of the components.
	• In addition, maintainability is improved removing unsupported features and dead code from the codebase.

Security Server provides support for consuming and producing both SOAP and REST/JSON services.

- REST/JSON based systems can be integrated into X-Road without technical changes and an additional adapter service component.
- Consuming and producing SOAP services are still supported and no changes are required to existing SOAP based service consumers and producers.

X-Road onboarding process is streamlined enabling automatic approval of registration requests of new X-Road member organizations and information systems.

- X-Road operator may choose between automatic and manual approval of registration requests within an X-Road ecosystem.
- Automatic approval speeds up the registration process and reduces the daily management tasks of the X-Road operator.

Security Server performance is optimised to make message processing faster.

- Optimisation speeds up the messagelog archival process and optimises Security Server's resource usage.
- Security Server is able to automatically adjust the amount of hardware resources allocated to it.

Standalone Security Server is a special version of Security Server that is ready-to-use in minutes without the normal Security Server installation, configuration and registration process.

- Standalone Security Server is meant for testing purposes in X-Road service development and it cannot communicate with other Security Servers.
- Standalone Security Server is targeted especially at developers and organizations that are developing services to be published via X-Road.

Version 6.22.0

Support for publishing REST services to X-Road using API descriptions and support for more fine grained access rights managements of REST services.

- Additional improvements based on user feedback received from version 6.21.0.

New user interface provides improved user experience (UX) for Central Server and Security Server administrators.

- New intuitive user interface makes taking care of administrative tasks easier and supports streamlining the onboarding process of new X-Road members.

Common maintenance and configuration tasks can be automated using the administrator API.

- Maintaining and operating multiple Security Servers can be done more efficiently as configuration and maintenance tasks require less manual work.

Better support for running Security Server on cloud platforms enables use of different cloud services together with Security Server, e.g. cloud HSMs and auto scaling.

- Cloud services can be used to reduce administrative tasks of operating Security Server, optimise infrastructure costs and increase availability.

Security Server administrators can define preferred order for OCSP and TSA services.

- Free or low cost service providers can be defined as primary service providers which are used by default.
- Service providers with lower priority are used only if primary services are not available. In the case where OCSP and/or TSA are paid services this helps to lower Security Server operational costs.

Support for enhanced security configuration in clustered time-stamping services is added.

- A cluster may contain multiple time-stamping service instances that do not use a shared certificate and a private key which increases the security of the service.

ORGANIZATION

The highest body of NIIS is the General Meeting of its Members. The Members of NIIS are the Ministry of Finance on behalf of the Republic of Finland and the Ministry of Economic Affairs and Communication on behalf of the Republic of Estonia.

Representatives of the Members:

- Anna-Maija Karjalainen, Director General, Public Sector ICT, Ministry of Finance, Finland;
- Siim Sikkut, Deputy Secretary General for Communications and State Information Systems, Ministry of Economic Affairs and Communications, Estonia.

MANAGEMENT BOARD

NIIS is managed and represented by the Management Board. The Management Board is elected for three years and may have one to three members. The members of NIIS have agreed that the Management Board shall comprise a single member who shall act as the Chief Executive Officer of the Institute. The CEO is in charge of the day-to-day management of the Institute, as referred to in subsection 26(1) of the Non-profit Associations Act.

Chief Executive Officer

Ville Sirviö
+372 7130 801
ville.sirvio@niis.org

ADVISORY GROUP

The Advisory Group is formed for the purpose of supporting the Chief Executive Officer and relaying information and instructions between the operative level and the General Meeting. For clarity, the Advisory Group is not a formal organ of the Institute and has no decision-making power of its own.

Advisory Group Members in 2018

- Andrus Kaarelson, Director of Information System, Information System Authority (RIA), Estonia (26.10.2017–); deputy member Joonas Heiter, Head of Department, Information System Authority (RIA), Estonia (20.09.2018–);
- Miia Mänd, Head of Department of IT Policy, Ministry of Economic Affairs and Communications (MKM), Estonia (26.10.2017–);
- Maria Nikkilä, Head of Digitalization Unit, Ministry of Finance (VM), Finland (26.10.2017–30.4.2018);
- Atte Pirttilä, Development Manager, Population Register Centre (VRK), Finland (18.9.2018–)
- Mikko Pitkänen, Development Manager, Population Register Centre (VRK), Finland (25.1.2018–18.9.2018)
- Katja Väänänen, Senior Specialist, Ministry of Finance, Public Sector ICT, Digitalization, Finland (30.4.2018–)
- Eero Konttaniemi, Development Manager, Population Register Centre (VRK), Finland (14.12.2017–25.1.2018).