



Factsheet:

Access to Base Registries in Sweden

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Sweden towards Interoperability

As the majority of the European countries, Sweden has a **National Strategy for Interoperability**, which was developed by the Swedish **eGovernment Delegation**¹ and was published in February 2013. The overarching goal behind this strategy is to achieve an “easier life for individuals and businesses, more open management, supporting innovation and participation, and a higher quality and efficiency in operations”.²

The Swedish National Strategy for Interoperability presents the analysis of the AS-IS situation and sets off the vision and objectives regarding the IT management, organisational interoperability, semantic interoperability, technical interoperability and legal interoperability.

According to the strategy, the main recommendations in order to achieve interoperability are:

Organisational - interoperability should always be based on agreements between the involved parties. All standardisation and process developments in the field of eGovernment should be provided to simplify these arrangements.

Information - the semantic differences should be solved for each specific solution. Information on the various semantic solutions should be reusable, and an approach including documentation describing the semantic solutions should be determined.

Technical - the authorities should have access to the technology that supports the exchange of solutions. They should govern the information to be released. At the same time, the establishment and development of a communication standard is necessary: an agency-wide standard for message structures should be established, i.e. how messages should be built and what they should contain. It is also important to determine, who is responsible for a concrete infrastructure service and who is responsible for providing the information. Authorities should also ensure that they have access to adequate technology concerning systems. It should be determined how Operational Level Agreements (OLA) and Service Level Agreements (SLA) are managed. Open standards and open source solutions should also, where possible, be considered.

Regarding the eGovernment strategy in Sweden, the first **Action Plan for eGovernment**³ was launched in 2008. Its main objective was to simplify the administrative procedures, in order to increase the efficiency and innovation of the Swedish Public Administration. One year later, the Swedish **eGovernment Delegation** was established in order to set up the priorities in the field of eGovernment. It released the **Agencies' Strategy towards eGovernment**⁴. This document set up the mandate and mission of the e-Delegation, as well as additional description of the eGovernment **action plan**⁵ bringing improvements on regulations, technology, administrative support and electronic services.

This action plan was replaced in 2012 by the Swedish Government Strategy for Collaborative Digital Services in Government Administration, called '**Putting the citizen at the centre**'⁶. The government's objectives through this strategy was to strengthen the authorities' ability to interact digitally in managing common IT issues, by digitising processes. Additionally, the strategy intended to make it simpler to re-use public information and digital services available via interfaces that could be used by other systems.

¹ The 'eGovernment Delegation' (E-delegation) was established in March 2009 with the view to lead and coordinate the development of eGovernment in the country

² https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/NIFO%20-%20Factsheet%20Sweden_12_2015.pdf

³ https://joinup.ec.europa.eu/sites/default/files/files_epractice/sites/media/media2484.pdf

⁴ Strategy on the work of the Public Agencies in the field of eGovernment <http://docplayer.se/1320045-Strategi-for-myndigheternas-arbete-med-e-forvaltning.html>

⁵ Strategy on the work of the Public Agencies in the field of eGovernment - Action plan: <http://docplayer.se/1313207-Sammanfattning-4-1-delegationens-uppdrag-och-arbete-5-1-1-delegationens-uppdrag-5-1-2-delegationens-arbete-6-2-utgangspunkter.html>

⁶ <http://www.regeringen.se/informationmaterial/2012/12/n2012.37/>

In 2017, the Ministry of Enterprise and Innovation published the “**For sustainable digital transformation in Sweden – a Digital Strategy**”⁷. The strategy emphasises the focus of the Government’s digital policy. The vision is for sustainable digital transformation in Sweden and the overall objective is for Sweden to become the world leader in harnessing the opportunities of digital transformation.

Additionally, the government decided to make the information exchange between base registries free of charge between government agencies, as those were building parallel registries instead of using information from the source for a fee. This free-of-charge exchange of information from four key base registries⁸ between government agencies is foreseen in the **Swedish national budget proposal for 2017**⁹. This initiative is now broadened to other authorities (local and municipalities) via a government assignment to the National Financial Management Authority.

Sweden has also established a service catalogue that takes reference from base registries with API information from agencies, municipalities and county councils. The catalogue is created to stimulate an increase in the re-use of existing information rather than recollecting it from individuals and businesses. The catalogue is available for use, and government administrations have already started to declare their registries.¹⁰

The government e-Delegation developed as well another catalogue, which is currently being developed by the Program for Collaboration¹¹. It will contain a large scale inventory of all national services and registries.

⁷ <http://www.regeringen.se/informationmaterial/2017/05/for-ett-hallbart-digitaliserat-sverige---en-digitaliseringsstrategi/>

⁸ These are the population registry, the company/business registry, the vehicle registry and the land registry.

⁹ <http://www.regeringen.se/4a6638/contentassets/e926a751d9eb4c978c4d892c659ebc8e/utgiftsomrade-22-kommunikationer>

¹⁰ https://joinup.ec.europa.eu/sites/default/files/ckeditor_files/files/NIFO%20-%20Factsheet%20Sweden_12_2015.pdf

¹¹ A cooperation structure between the agencies that previously formed the e-Delegation, which governs the majority of the guidelines.

Legal Interoperability

While there is no dedicated law on eGovernment in Sweden, several initiatives and activities related to eGovernment are regulated by general laws and ordinances on Public Administrations. These laws are not eGovernment legislative documents per se, but they contain chapters specifically related to eGovernment.

The concept of “base registry” is not legally defined in Sweden. It currently refers to **an authentic database, which is kept and maintained by its governing body, usually a relevant Public Administration Agency.**

However, most of the specific base registries are explicitly managed through specific legislation, corresponding to the activities and responsibilities of the particular base registries and the authorities responsible for them. Some examples of legal provisions for specific base registries are:

- The population registry is regulated by two acts;
 - The **Population Registration Act**¹², which describes when and where a person has to be registered, when change of address has to be reported and how a population registration decision may be appealed. The act is supplemented by a population registration ordinance, which includes rules prescribing that certain other authorities should furnish the population registry with information concerning addresses.
 - The **Civil Registration Act**¹³ describes, which registries must be kept, the purpose of the registries, what they may contain and how one may search for information within registries' systems. The Act is supplemented by an ordinance on population registries, stating, among other things, when information should be transferred between the different registries.
- The Vehicle Registry is established through the **Road Traffic Registration Act (2001:558)**¹⁴ and the **Road Traffic Registration Ordinance (2001:650)**¹⁵. The Vehicle Registry contains details on items such as vehicles registration, registration fees, data on driver's license registration and the right to request information.
- The Land Registry is set by the **Cadastre Act (2000: 224)**¹⁶. The Act states that the Land Registry should publish the information contained in the registry, making information available to everyone. The Act includes the purpose of the registry, the content of the registry, the authority, which enters the information into the registry, the privacy management, the disclosure of recording for automatic processing, the fees, etc.
- The **Tax registration Act**¹⁷ defines the content and functions of the Tax Registry under the authority of the Ministry of Finance. It also states details regarding the access to the data in the central tax registry.

'Once-Only' Principle

Although in Sweden there is no legal obligation for the **'Once-Only' Principle (OOP)**, the **Swedish national budget proposal for 2017**¹⁸ provides clear references to it and foresees cases, where it should be used. The principle is also mentioned in the e-Delegation document **“Guiding Principles for the digital**

¹²http://rkrattsbaser.gov.se/sfsr?fritext=1991&upph=false&sort=desc&page=4&post_id=119

¹³http://rkrattsbaser.gov.se/sfsr?fritext=1991&upph=false&sort=desc&page=4&post_id=118

¹⁴<https://www.global-regulation.com/translation/sweden/2989187/act-%25282001%253a-558%2529-on-road-traffic-register.html>

¹⁵<https://www.global-regulation.com/translation/sweden/2989178/regulation-%25282001%253a650%2529-on-road-traffic-register.html>

¹⁶<http://www.notisum.se/rnp/sls/lag/20000224.htm>

¹⁷<http://www.notisum.se/rnp/sls/lag/19800343.HTM>

¹⁸<http://www.regeringen.se/4a6638/contentassets/e926a751d9eb4c978c4d892c659ebc8e/utgiftsomrade-22-kommunikationer>

collaboration¹⁹, which underlines the efforts currently carried out towards the implementation of the principle. It states that the information should be registered only once within a public administration. Similarly, the data produced by an authority should be used by other public organisations. Additionally, a Swedish Government Committee²⁰ has been in charge of developing further proposals and recommendations for the application of the OOP in Sweden in what regards the companies' interactions with the public sector. It mainly proposes how the OOP coordination can be organised, and how a good and consistent description of the data requirement can be maintained.

Re-use of documents

In Sweden, the Public Sector Information (PSI) Directive is implemented through the **Act on the Re-use of Public Administration Documents**²¹. The law promotes the reuse of documents provided by the state and municipal authorities, as well as the conditions that an authority or agency may impose on people and companies, who wish to reuse the information provided. Furthermore, the guidance, offered on the website for reusing the public sector information²², provides a view on how the public authorities are doing regarding the e-Delegation guidelines on open data.

The national portal for **open data**, Oppnadata.se, supports the reuse of data and shares resources and solutions. Currently, the portal contains only metadata about data sources - it points to datasets at their original sites provided by the data owners. The portal relies on the open standard from the World Wide Web Consortium, **DCAT (Data Catalogue Vocabulary)**, which is part of the ISA Core Vocabularies. The open standard describes, how to publish a list of datasets, and it allows Swedish public bodies to choose the solution they would like to apply when publishing datasets, as long as one of its outputs conforms to DCAT. Oppnadata.se provides access to datasets from the Swedish administration. The portal is currently making more than 300 datasets available.²³ An example of open data provision by a base registry is the data from the Vehicle Registry. It is published on a monthly basis on the website with a press releases, charts, graphs and data contained in the statistical database. Vehicle data is available annually from 1980, and mileage data from the year 1999.

Data sharing

There are two main acts legislating data sharing in Sweden:

- the **Public Access to Information and Secrecy Act** (Lagen om offentlighet och sekretess)²⁴: it came into force in 2009, and it contains provisions on the authorities and other agencies, handling the registration (chapter 5), disclosure and handling of public documents.
- the **Personal Data Act (1998:204)**²⁵ (**PUL**): it came into force in October 1998, replacing the Swedish Data Act from 1973. The Personal Data Act is based on the Directive 95/46/EC, which aims at preventing the violation of personal integrity in the processing of personal data.

Additionally, the specific legislation for individual registries also dictate the possibilities for data sharing. Some data sharing clauses are specific to only one registry and some of them are more sectorial, for example the Patient Data Act.

¹⁹ <http://skl.se/download/18.2625f9e6145ac763d073ef0c/1399541062726/E-delegationens-principer-for-digital-samverkan-skl.pdf>

²⁰ <http://www.regeringen.se/rattsdokument/statens-offentliga-utredningar/2015/03/sou-201533/>

²¹ <http://rkrattsbaser.gov.se/sfsr?fritext=2010%3A566&upph=false>

²² <http://www.vidareutnyttjande.se/>

²³ <http://oppnadata.se/dataset>,

²⁴ <http://www.notisum.se/rnp/sls/lag/20090400.htm>

²⁵ <https://www.loc.gov/law/help/online-privacy-law/sweden.php>

Organisational Interoperability

In Sweden, the interoperability governance is not established at a national level. The Swedish management model is based on **autonomous authorities**. This means that the administration is **decentralised** with a large number of authorities of different size, county councils and municipalities that are loosely integrated into each other. The management structure is complex, both for individuals and businesses. This complex management structure leads to high administrative costs. Research has pointed out that the need for cooperation between authorities is constantly increasing.

However, this is not an easy task: authorities are a **heterogeneous group** of organisations with different cultures and ways of working. On top of this, there is no tradition of close cooperation between Swedish authorities. This results in a lack of collaboration in the governance and structure.

In this context, the e-Delegation in 2015 already pointed out some organisational guidelines in the **Guidance for digital interoperability**²⁶, which provides support to organisations that need to cooperate in the development and management of common digital solutions. The document is considered as a technology-oriented guide with an emphasis on control and management, law, information security and semantic issues. It explains the concept of the digital interaction and the importance of governing collaboration and distribution of responsibilities. It also describes the architecture of digital collaboration, whose aim is to describe how the actors work together.

This is relevant for base registries, because it takes into consideration the actors, processes and information, and how they all work together based on different life cycle events or other scenarios. Furthermore, the document provides information regarding exchange of information by digital collaboration. The use of a meta-model is encouraged as a basis for creating a model-based architecture, recommended for extensive architecture. Progress in this field is still ongoing, however, the governance is now managed by the Programme for Collaboration.

Regarding the actors responsible for base registries, the following table describes, which authority owns which base registry and what master data types they handle:

Base Registry	Authority	Master Data
Civil Registry	The Swedish Tax Agency	PERSONAL DATA (NATURAL AND LEGAL PERSONS)
Vehicle Registry	The Swedish Transport Agency	VEHICLES
Business Registry	Company Registration Office	BUSINESS
Land Registry	The National Land Survey	LAND AND PARCELS

Thus, the Swedish Tax Agency is responsible for the Civil Registry. Population records are kept in a computerised way and can be retrieved from them for various purposes. On 1 July 1991, responsibility for population registration was transferred from the Swedish Church to the tax authorities, who acquired another duty alongside their taxation duties. A unique national tax authority has been created by merging ten tax authorities, each responsible for a region, into one. The population registration is centralized, taking place at tax offices.

In terms of eGovernment initiatives, the main responsibilities for the development and implementation are shared between the following actors:

²⁶<http://www.esamverka.se/download/18.7e784787153f0f33aa51c876/1464274862194/V%C3%A4gledn+digital+samverkan+4.1.pdf>

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- The Ministry of Finance²⁷, responsible for the policy for digitalisation of public sector (including base registries);
 - The Program for Collaboration²⁸, a cooperation structure between the agencies that previously formed the e-Delegation, which governs the majority of the guidelines;
 - The Swedish National Financial Management Authority²⁹, which owns the guidelines on cost/benefit;
 - The Swedish Post and Telecom Authority³⁰ (PTS), which handles the guidelines on web accessibility;
 - The National Archives³¹ that are responsible for open data and the public sector information (PSI), as well as some common specifications.

²⁷ <https://www.bmf.gv.at/>

²⁸ <http://www.esamverka.se/om-esam/publikationer.html>

²⁹ <http://www.esv.se/effektiv-statsforvaltning/digitalisering/>

³⁰ <https://webbriktlinjer.se/>

³¹ <http://opnadata.se>

Semantic Interoperability

In terms of semantic interoperability, there is no general framework at a national level indicating how base registries should exchange information among themselves. All registries have different approaches on how they exchange data. Hence, each authority responsible for base registries have their own formats and semantics and ways of exchanging information.

Nevertheless, the Swedish Companies Registration Office, The Tax Agency and Statistics Sweden have developed **common models, and descriptions of concepts**, and information elements on core business data. Several public agencies have collaborated to develop and agreed on a common taxonomy concerning cases (“*ärenden*”). This **common taxonomy** has been applied via the project “Effektiv informationsförsörjning”, where information exchange is achieved through services between local public administrations and central public agencies.

In this context, it is important to highlight that the **Program for Collaboration** is, currently, looking closely at the semantic resources offered by the ISA Program in order to reuse them, although this is an in-progress initiative.

On the other hand, when providing information to the Swedish authorities, it is possible to easily consult the **data requirements**³² for a wide range of procedures. The website verksam.se allows to search for and access the data requirement records for various government agencies. These requirements describe when a company needs to report or submit information to the Government as a result of a law, a regulation or a rule. The purpose of this registry is for authorities to coordinate and collaborate between themselves in their data requirements and data collection from businesses. By doing so, authorities should be able to acquire information from businesses through other authorities, rather than recollecting it from the companies. The overall goal is to limit the demand for companies to submit data.³³ This data requirements can also be downloaded as open data³⁴.

Although the exchange of information is based on voluntary cooperation between the agencies responsible for the registries, substantial collaboration has also been achieved through the e-Delegation. For that matter, the concept of base information services, which are part of the concept for digital cooperation developed by the Program for Collaboration, has been created and applied in different types of domains and standardised base information services are being built to supply data³⁵. Architectural models exist on how to set up this type of services governed by the program of collaboration between agencies.

³² <https://www.uppgiftskrav.se/home>

³³ <https://www.uppgiftskrav.se/om-uppgiftskrav-header>

³⁴ https://www.uppgiftskrav.se/home?p_p_id=Uppgiftskrav_WAR_uktadmportlet&p_p_lifecycle=0&p_p_state=normal&p_p_mode=view&p_p_col_id=column-1&p_p_col_count=1&Uppgiftskrav_WAR_uktadmportlet_facesViewIdRender=%2Fviews%2FhamtaRegistret.xhtml

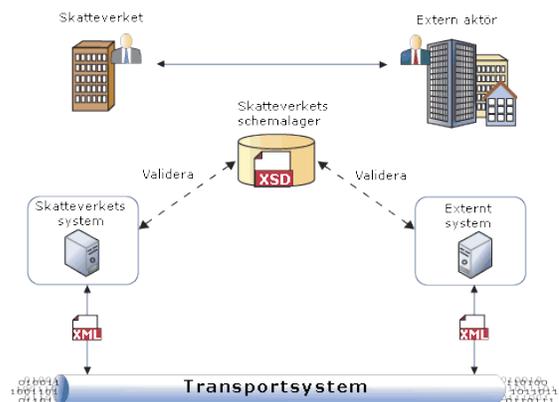
³⁵ <http://bolagsverket.se/om/oss/samverkan/sammansatt-bastjanst/sa-har-fungerar-den-sammansatta-bastjansten-1.14119>
https://www.forsakringskassan.se/myndigheter/e-tjanster/ssbtek/teknisk_beskrivning

Technical Interoperability

Technical interoperability covers the applications and the infrastructures linking systems and services. It also includes aspects such as interface specifications, interconnection services, data integration services, data presentation and exchange, secure communication protocols etc. While public administrations have specific characteristics at political, legal, organisational and information levels, interoperability at the technical layer does not exhibit specific characteristics. Therefore, technical interoperability should be ensured, whenever possible, via the use of standards and specifications.

The **Swedish Standards Institute**³⁶ (SIS) approved in 2008 the Open Document Format (ODF) as a national standard. ODF is an open XML-based file format for office applications to be used for documents containing text, spreadsheets, charts and graphical elements.

The **Tax Agency** uses XML for the structured exchange of electronic information with external actors. The external actor can be a company, organisation or other authority. Schedule bearing should be used in all the Swedish Tax systems that exchange electronic information in XML format. The schedules are stored in one place to facilitate reuse and access. External systems can use the warehouse for validating XML documents. Since all schedules are in one place, one can be sure that the correct diagram is used in all instances.



NAVET and SPAR (Tax Agency)

Via the population registry, all Swedish citizens, residents and public administration bodies have access to information regarding the population. This information is distributed to authorities through **NAVET** and **SPAR**. NAVET is the Swedish Tax Agency system for distribution of information about the registered population through a peer-to-peer exchange of data. SPAR is the Swedish population and address registry that contains all persons that have been entered in the population registry. In this registry there is also information regarding persons with co-ordination numbers, whose identities have been verified. SPAR is updated every day using new information from the population registry. In order to access the information from the population registry through SPAR, one must be a user of SPAR. SPAR users include banks, insurance companies and mail-order companies.

Authorities and SPAR users can access information regarding a citizen's new address, when they move, or a citizen's new name, if they have changed it. This effectively removes the citizens need to notify these authorities when making changes as the notification is sent automatically. All altered information is sent on a daily basis via NAVET to authorities such as the Swedish Social Insurance Agency, the Swedish Migration Board, the Swedish Mapping, Cadastre and Land, Lantmäteriet, the Swedish Pensions Agency, the Swedish Transport Agency, including the Vehicle and License Registries and others. The information is transferred each week to the various municipal administrations and the county healthcare departments (some counties get daily updates).

³⁶ <http://www.sis.se/>

SHS (Distribution and retrieval system)

SHS³⁷ offers services and software products for secure and reliable exchange of information. It is currently used by government agencies, municipalities and county councils, but also by companies and organisations for exchange of information related to e-services. The Swedish distribution and retrieval system is the cornerstone of many government communications. Accordingly, governments, businesses and the public can communicate with each other using this system. Once fully developed, the Swedish authorities can use SHS to act as an "information bus" and become the backbone for communication between authorities, municipalities and the public.

SHS is used to:

- send electronic documents;
- retrieve information from other agencies' computer systems;
- subscribe to information from other authorities;
- ask questions to another official;
- provide information, such as receipts.

³⁷ <https://www.forsakringskassan.se/myndigheter/e-tjanster/shs>

Cross-border Interoperability

In terms of cross-border interoperability, Sweden participates in EUCARIS, providing vehicle information. It is also a member of EULIS and part of the e-Justice Portal, the Business Registry Interconnection system (BRIS) and the e-SENS project.

Sweden is cooperating in the “Once-Only” Principle Project (TOOP)³⁸, whose goal is to explore and demonstrate the “once-only” principle through multiple pilots. A federated architecture on a cross-border collaborative pan-European scale is being used, in order to identify drivers and barriers, and to provide a basis for future implementation and wider use.

Sweden also makes use of the Electronic Exchange of Social Security Information (EESSI)³⁹. RRSSI is an IT system, which will help social security bodies across the EU exchange information more rapidly and securely (as required by EU regulations on social security coordination). The goal is to ensure that communication between national bodies on cross-border social security files is exchanged using structured electronic documents.

Important steps have been done in the cooperation of the exchange of information between the Nordic countries. This subject is expected to be tackled in the Nordic-Baltic ministerial conference on digitalisation⁴⁰. However, the declaration is not public yet

It is also important to mention that a collaboration exists between Norway and Sweden on water bodies⁴¹.

³⁸ http://cordis.europa.eu/project/rcn/207635_en.html

³⁹ <http://ec.europa.eu/social/main.jsp?catId=869>

⁴⁰ <http://www.nordicinnovation.org/events/digital-north-nordic-baltic-ministerial-conference-on-digitalisation/>

⁴¹ <https://www.google.es/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0ahUKEwjZ3JGGoPzTAhUffRoKHYEYBigQFqgoMAA&url=http%3A%2F%2Fwww.syke.fi%2Fdownload%2Fnoname%2F%257BC21575F5-3113-4583-88BD-F236448A3C2C%257D%2F98052&usq=AFQjCNG42kcPADV9TrGqtRhcX9QGzEenSQ&sig2=ByCscq-cGaV-8jflpE86fQ>

E-Government Public Services making use of base registries data

The **Government portal**⁴² serves as the English website of the Swedish Government and Government Offices. It is designed to provide documents and records, information about current government bills, initiatives and ministerial activities, as well as information on how the decision-making process works in Sweden. The website has three main sections:

- The Government and the Government Offices: the section offers up-to-date information listed according to each ministry, minister and subject area;
- Publications: this section contains all information material and other publications issued in English or other foreign languages (along with an ordering facility);
- How Sweden is governed: this section places the work of the Government and the Government Offices in context. Decision-making processes, the EU and other matters are described and exemplified.

The single point of contact for businesses is **Verksamt**⁴³, which is the operative place for the Swedish Point of Single Contact. Verksamt.se is also part of the EUGO network, which gathers all national points of single contact. The Companies Registration Office and the Swedish Tax Agency also administer a joint "one stop shop" registration of businesses via the same website. It allows companies to register in the Companies Registry, apply for tax registrations (income and VAT), register an employee, and pre-fill tax return at the joint website.

The etterlevandeguiden.se portal, similar to Verksamt, is a life-event based portal for the registration of the death of a relative.

E-services are executed and accessed through the municipalities, Swedish Registries' coordination is decentralised. The list of Swedish municipalities and their respective services can be found on the Swedish municipality website⁴⁴. There is neither **Citizens Portal**, nor **Single Point of Contact** for citizens in Sweden.

The following list sets up a set of common life and business events that will result to inputs in a series of base registries:

- Land Registry⁴⁵ : purchase/sale of real-estate;
- Civil Registry : birth/deceased of a person;
- Tax Registry⁴⁶ : change in income, change in assets;
- Business Registry⁴⁷ : creation/dissolution of a company;
- Vehicle Registry⁴⁸: vehicle registration, information on vehicles (owner), order of a registration plate a certificate, and/or a damage report.

⁴² <http://sweden.gov.se/>

⁴³ <https://www.verksamt.se/eugo>

⁴⁴ <http://skl.se/tjanster/kommunerlandsting/kommunerlista.1246.html>

⁴⁵ <http://www.lantmateriet.se/>

⁴⁶ www.skatteverket.se

⁴⁷ <https://snr4.bolagsverket.se/snrgate/startIn.do>

⁴⁸ <http://transportstyrelsen.se/en/road/Vehicles/Registration-certificates/>