FOLKETINGET STATSREVISORERNE

FOLKETINGET RIGSREVISIONEN

Extract from Rigsrevisionen's report submitted to the Public Accounts Committee

Open data

1. Introduction and conclusion

1.1. Purpose and conclusion

1. Data is the new oil. This phrase has become a mantra among businesses, international organisations and the public sector across the world in pace with the growing number of studies and cases that have demonstrated how increased and innovative use of data, and not least government data, can be of great economic value.

2. According to a UN e-government survey from 2018, Denmark leads the world in digital government services. However, we are not leading in opening up the vast amount of data collected by the public sector. A number of international comparisons of national open data initiatives show that Denmark is doing worse than before, when compared to other countries. In the EU's most recent survey from 2016, and in the latest survey conducted by the OECD in 2017, Denmark is ranked among the poorest performing countries, when it comes to open data.

3. Government authorities can contribute to economic growth and increased transparency in government administration by opening their data to the public. The data has already been collected by the authorities to enable them to perform their public task, and it can create additional value, if it is re-used by citizens and businesses. Based on findings from previous studies, the European Commission in 2017 estimated that open data would add between 0.4% and 1.58% to the GDP of the European countries up to year 2020.

4. Government authorities can also increase the transparency of their administration by opening data on their activities, like, for instance, details on government tenders or the expenses of individual authorities. Increasing the transparency of government can contribute to building the citizens' trust in the authorities and serve as an incentive to ensure effective and efficient administration.

5. The economic potential of open data can be realized, if it is used for developing applications and services, or as point of departure for analyses, trend assessments, research, etc. Examples from Denmark include a company that uses altitude and address data to develop tools for climate proofing, and a company that integrates data on workplaces, educational institutions, age, level of income and shopping habits of the inhabitants in a specific area, and then uses the data to assess the potential of setting up a shop in that particular neighbourhood. Open geographic data also provided the platform for the development of map apps for mobile phones that offer access to information on, for instance, the Danish road network, city names and buildings. This is an excellent example of how open data makes life easier for many citizens.

GDP

GDP is an acronym for Gross Domestic Product, which is the value of all finished goods and services produced by a country's residents exclusive of the cost of material, supplies and services used to produce the goods or services.

Denmark's GDP was DKK 2,178 billion in 2017. A GDP growth rate of between 0.4% and 1,58% corresponds to an increase in GDP of DKK 8.7 billion and DKK 34.4 billion, respectively.

The PSI act

The act on re-use of public sector information (the PSI act) was passed in 2005 (act no. 596 of 24 June 2005) based on the PSI directive from 2003. The Danish PSI act sets minimum standards for the re-use of public sector information.

The Ministry of Finance has informed Rigsrevisionen that the PSI directive is currently being revised in the EU. The ministry expects the work to be completed in 2019. Subsequently the Danish PSI act will need to be revised to reflect relevant changes to the directive.

Data anonymisation

It is possible to anonymise sensitive personal data. Anonymisation is the process of turning data into a form that does not allow identification of individuals. It is achieved through aggregation or randomisation of data. Data aggregation involves gathering, for instance, individuals in larger groups to prevent identification of specific individuals. Randomisation involves various techniques that change the accuracy of the data in a data set and break the link between data and the individual.

6. The desire to realize an economic potential is also reflected in the comments to the Danish PSI bill from 2005. It appears from the section describing the background for the bill that making public sector data useful for the development of commercial products in order to foster growth and prosperity was the primary objective of the act.

The PSI act introduced minimum standards for re-use of public data in 2005. The act allows the authorities to open data, but they are not committed to doing so. According to the OECD's most recent report from 2017, 21 out of 31 countries have defined additional requirements and delegated the responsibility for opening government data. Denmark is not among these countries.

7. The ministries are not collecting the same amounts or types of data. For some ministries it is a core task to collect and publish data, as it is for Statistics Denmark under the Danish Ministry for Economic Affairs and the Interior. Other ministries hold confidential data, classified data and sensitive personal data, which, by definition, cannot be released as open data. However, sensitive personal data can provide the basis for open data, if it is anonymised prior to release.

All the ministries collect data that might add value as open data. Therefore, Rigsrevisionen examines whether the ministries undertake a systematic effort concerning open data. Opening up new data can involve administrative costs and – like all other costs incurred by the ministries – these must have a legal basis. A systematic effort can help the ministries determine whether the potential value of opening specific data sets exceeds the cost of doing so.

8. This study concerns the government's work on open data. The focus of the study is to identify lessons learned and give the ministries an opportunity to learn from each other. Rigsrevisionen has also published selected results from the study as interactive visualisations that can be accessed on our website until the end of 2019.

9. Rigsrevisionen initiated the study in December 2017.

▤ Conclusion

The ministries collect vast amounts of data in order to perform their public tasks. When they open data, it becomes available to everybody.

Rigsrevisionen's study shows that a complete overview of open government data is not available in Denmark. This finding led Rigsrevisionen to undertake a mapping, which showed that 921 government data sets are open to the public in 88 different locations on the internet. Without access to a complete overview, the citizens and businesses may find it difficult to locate the data they want to re-use, and the government may therefore be unable to realize the potential of the open data.

The comments to the Danish PSI act stated that the responsibility for maintaining an overview based on the authorities' voluntary registration of open data sets should initially be placed with the Ministry of Higher Education and Science and subsequently with the Ministry of Finance. The fact that it was voluntary for the authorities to register data partly explains why the overview remained incomplete. Since 2014 the Ministry of Finance has had authority to commit the other ministries to report their data into one specific overview of open data. The Ministry of Finance has yet to exercise this authority.

Some ministries have established a very systematic effort concerning open data and opened many data sets; others have the potential to learn from these ministries. The study shows that 11 ministries work extensively and systematically with open data, whereas the remaining seven ministries have been less systematic in their efforts. Rigsrevisionen has identified a number of good practice examples from the ministries' open data effort. For example, the Ministry of Energy, Utilities and Climate has applied a structured approach involving a coordinated strategy, data overview and project team that embrace the department as well as the underlying agencies and bodies. The Ministry of Employment has worked on anonymising personal data, which has enabled the ministry to open more data.

The study shows that the Ministry of Finance, the Ministry of Industry, Business and Financial Affairs and the Ministry of Higher Education and Science have launched several cross-ministerial initiatives in order to support the opening of government data. In connection with these initiatives, the Ministry of Industry, Business and Financial Affairs and the Ministry of Higher Education and Science have identified technical, legal, organisational and financial barriers to the individual ministries' efforts to opening data. Rigsrevisionen's mapping confirms that the ministries encounter these barriers to opening new data. The most frequent barrier is of a technical nature. The Ministry of Finance might try to overcome this barrier by addressing an earlier objective concerning updating the technical guidance for opening up data, from 2010. In January 2019, the Ministry of Industry, Business and Financial Affairs launched a digital starter kit with the aim of overcoming specific barriers to open data. The kit contains tools that can help the ministries resolve legal challenges and estimate the value associated with opening new data sets. It is Rigsrevisionen's assessment that more initiatives will be required, if the remaining barriers are to be overcome.

The ministries
A collective term covering the departments as well as underlying agencies and bodies.

Display of data
Open government data sets are displayed on the internet. Some data sets are displayed in portals developed for that specific purpose, and others are displayed on the ministries' websites.

A number of cross-ministerial initiatives have generated important knowledge of the value of selected government data, and various initiatives have been launched on the basis hereof to open specific data sets across the individual ministries. In recent years, and under the auspices of the *Open Government Partnership,* particularly the Ministry of Industry, Business and Financial Affairs has played a key role in working out estimates of the value of government data sets. Rigsrevisionen welcomes this initiative.

The Ministry of Finance's pending launch of a data catalogue is intended to contribute to providing an overview of open government data. The Ministry of Finance has informed Rigsrevisionen that the data catalogue, as a minimum, will include information about 75 of the 921 data sets that are currently open, but at this point no final decision on the scope of the data catalogue has been made. The catalogue will not include information on where the data sets are displayed, and the ministries will not be committed to updating the information about the data sets in the catalogue. The Ministry of Finance has yet to decide whether it wants to exercise the authority granted to the ministry in the PSI act to commit the ministries to use the data catalogue and continuously update the information. It is Rigsrevisionen's assessment that if the Ministry of Finance does not exercise this authority, the data catalogue will be incomplete and the information will be outdated very quickly.

Rigsrevisionen's recommendations:

- The responsibility for the cross-ministerial open data effort should be clearly assigned, and funding barriers should be overcome to provide a gateway to establish the "open by default" principle for government data, in keeping with international developments. All ministries would be required to open their data, unless they have good reasons not to do so. For instance, if the opening of data is not expected to add value.
- The Ministry of Finance and relevant partners - based on data from the mapping made by Rigsrevisionen - should consider expanding the data catalogue to give the users a complete overview of all open data across government.
- The Ministry of Finance should consider exercising the authority granted to the ministry in the PSI act and make it mandatory for the individual ministries to update the data sets included in the data catalogue on a current basis. This would keep the data catalogue relevant and updated.

Open by default
This means that the government makes its data open to the public by default. The principle radically changes the government's work with open data; now the ministries do not have to come up with good reasons to open up specific data sets - they must come up with good reasons not to do so. If data is of inferior value or quality, or classified, the ministries have a valid reason not to open by default.

The principle of *open by default* is referred to in the G8 Open Data Charter that was signed by the G8-countries in 2013 and has been endorsed by the European Community as well.

According to an OECD survey of 35 OECD member countries – and partner countries – conducted in 2018, 27 countries have committed to an *open by default* policy across ministries. Denmark has not made such a commitment.