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Regional data exchange

Pilot Strategy and Action Plan (PSAP)

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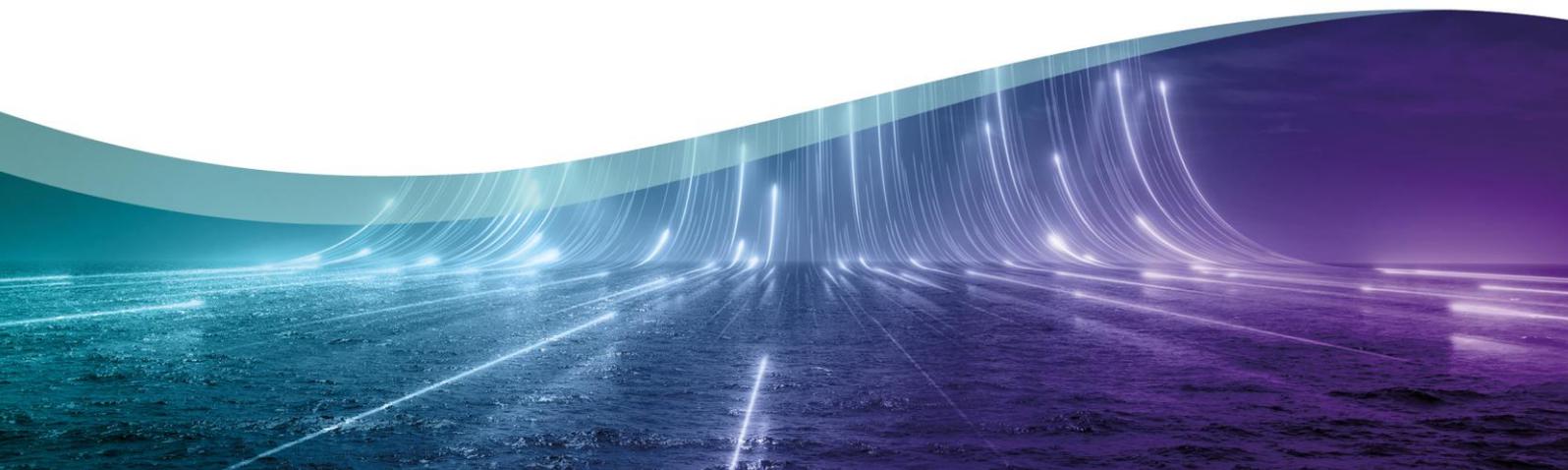
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1 Pilot Strategy

1.1 General Information

Name of Pilot (feel free to be creative!)	Regional data exchange
Name of Author of PSAP	Niels Annema
Name of Organisation Leading the Pilot (Original Language)	Provincie Drenthe
Name of Organisation Leading the Pilot (English)	Province of Drenthe

Partner	Role	Involved staff
Provincie Drenthe	Pilot partner	Niels Annema Bert Veen
Gemeente Emmen	Pilot partner	Richard Lambers
NHL Stenden/Campus Emmen	Knowledge partner	Ruud Pesch Dennis Vegter

1.2 Fundamentals

Summary

Our pilot project has been about the data sharing between governmental organisations. In this pilot we tackled the challenges around the legal, technical and ethical aspects around data sharing. With the knowledge we created in this pilot we laid the groundwork for future data collaborations in the region.

Initial position and fundamental idea

The fundamental concept behind our pilot has been to improve the delivery of public services by leveraging the power of data sharing. By sharing data across regional government organizations, we aim to better understand community needs and tailor our services to meet those needs more

effectively. This will involve establishing a secure and reliable data sharing infrastructure and clear governance protocols. Our ultimate goal has been to create a data sharing ecosystem that enables more efficient and effective service delivery, while maintaining the highest standards of data privacy and security.

From a legal standpoint, it is important to ensure that all data sharing is compliant with relevant legislation, such as data protection regulations. Navigating these regulations is often difficult for data sharing projects, as this field of work is still relatively new. The regulation on data sharing is also quickly changing through the last couple of years.

In terms of technical infrastructure, it is important to have systems in place that enable secure and efficient data sharing. This may involve establishing a central data hub or creating data exchange protocols that allow for seamless data sharing between different systems.

Effective data governance is also crucial for a successful data sharing project. This involves establishing clear roles and responsibilities for data management, ensuring data quality and accuracy, and establishing protocols for data access and use.

Finally, stakeholder engagement has been critical to the success of the project. This involves identifying key stakeholders, including government agencies, community organizations, and industry partners, and engaging them in the design and implementation of the project. Data is still scattered across many organisations and getting them to actively participate is essential to opening up the data ecosystem.

Challenges

The big challenges we have in the region are major transitions such as renewable energy and the circular economy.

For both of these challenges the responsibilities and actions are split between the provincial and the municipal level. There is already a lot of cooperation between these levels of government on the policy side, but prior to this project there was little to no contact on the data side of these challenges.

The Data for All project allowed us to start such a collaboration on the data questions that we have in tackling the energy and circular economy transitions.

For these kinds of cross-border projects, it's incredibly valuable to gain a handle on regional data so we can formulate targeted policies. Previously, this was often accomplished by commissioning a one-time study from an external agency. This pilot project allowed us to establish a way to conduct these studies ourselves. This keeps the knowledge within the organizations themselves, allowing us to continue conducting the studies over the years, ensuring continuity.

For the energy transition, this for example means that the province of Drenthe has now created an energy dashboard that supplies all the municipalities with all available data regarding energy.

In the project around circular economy, we successfully set up a system where all the project partners got together and shared both knowledge and data to get a better grasp of valuable minerals in residual products in the region.

Goals

The main goal of the pilot was to create a framework with answer most of the questions that arise when organisations want to share data. In order to achieve this overarching goal, we need to answer the following subgoals;

Standardized data exchange

The pilot project aims to establish a standardized data exchange protocol that can be used by all participating organizations. This will enable seamless data sharing and facilitate interoperability between different systems and data formats.

Compliance with relevant legal frameworks

To ensure compliance with relevant data protection laws and regulations, the pilot project will establish clear guidelines for data privacy and security, ensure that data sharing agreements are legally binding, and obtain appropriate consent from data subjects.

Ethical considerations

The pilot project will prioritize ethical considerations throughout the data sharing process, ensuring that individual privacy and autonomy are respected and that data sharing is done in a fair and equitable way.

Improved public service delivery

Ultimately, the pilot project aims to improve public service delivery by getting more insight into the effects of policy in the region. By gaining more insight into the effects of policies, government organizations can tailor their services to meet needs more effectively.

Towards the end of the project we can say that the technological and ethical considerations were the least challenging. There are already existing guidelines we can follow in that regard. However, the legal and organisational were the most frequent barriers we ran into.

Partners

Province of Drenthe

The province of Drenthe in the Netherlands is a regional government organization responsible for a range of tasks, including spatial planning, infrastructure, and public transportation. In this pilot project, the province plays a key role in data sharing with its municipalities. Through the pilot project, the province works closely with the municipality of Emmen to establish a framework for data sharing that

addresses technical, legal, and ethical challenges, ultimately improving public service delivery across the region.

Municipality of Emmen

The municipality of Emmen is one of the twelf municipalities in Drenthe and is responsible for tasks such as public safety, social welfare, and waste management. In this pilot project, the municipality plays a crucial role in sharing data related to these tasks, providing insights into community needs and data value at the municipal level.

Greenwise Campus Emmen

The Greenwise Campus supports the pilot by providing specialized knowledge and expertise in the areas of data sharing, privacy, and security. They also work to integrate the latest academic research and best practices into the pilot project, helping to ensure that the framework developed is based on the most current and effective approaches.

Stakeholders and beneficiaries

The stakeholders in this project were mostly the municipalities, the province, academia and other government related entities. There were already good contacts between the policy workers of all the fields of work in our organisations. Due to the Data for All project the initial work to set up a similar system for the data colleagues is now also in place. There has not been as much contact with the academic world, especially in the world of data. But this pilot showed us that there is a lot of knowledge that we can share between the governmental agencies and the academia in the region.

The other municipalities in Drenthe were not official partners of this pilot projects, but they in many ways have profited of these efforts. There is also good contact with these municipalities and we hope to implement our work in those regions as well. Especially as some smaller municipalities might not have the resources to set up a data team similar to the municipality of Emmen. This way we can strengthen each other and have the work done in one central, efficient place.

The takers of the work in our project are in the first place be regional governmental organisations. We built a framework that we can roll out to other organisations in the region that would benefit from data sharing activities. The main benefits will be that we can learn from each other and possibly help smaller municipalities to participate in data oriented policy making.

End users can be divided into two groups. One would be the colleagues in regional organisations that can get access to more and better data to help them in their work. Another part of the pilot project is to think about ways to provide open data to anyone that is interested in the region. The end users there could be anyone with any idea on what to do with that data.

Project impact strategy

We will achieve a framework for better collaboration between data projects in the region. This will be done by tackling three aspects of data collaboration that can sometimes be an obstacle. These themes will be the technical, legal and ethical aspects of data sharing projects. Within the pilot project we will take a use case by analysing the impact of the Greenwise Campus. This project is divided into two parts, circular economy and health. For both parts we created a list of datasets we would like to see to have a baseline of the region and to measure the activities of the campus. For some of these datasets we need to figure out how we would share them in a central and safe data space. By answering such legal and technical questions we can create a strong knowledge base we can build on in the future.

End users and takers of this project will be any regional or governmental organisation that can benefit from data exchange. By the end of this pilot they too can be provided with this knowledge framework they can use to answer any questions that may arise while working with data.

The scale of the project is initially the province of Drenthe and in some parts the northern Netherlands, but the lessons learned apply to all regions in the Netherlands and to a lesser degree the rest of Europe. The project will focus on gathering and processing data for the rest of 2024 and will provide the knowledge framework towards the second quarter of 2025.

2 Pilot solution

2.1 What has the pilot accomplished?

We are most proud of our work around the energy initiative. In this we brought a variety of local actors together and are working on a proper data solution so we can see and manage our efforts around energy savings way better. Prior to this project, all the institutions working on energy savings worked in their own system. Therefore, we didn't know of each other's activities in the region and the work that was being done on the houses. We are working to connect all of these systems into one central database so we can improve our decisions on where to do efforts in the region, as this makes it so that we have better insight into the neighbourhoods that still have the most issues around their energy bills. The customer journey will also be improved in a major way, as we are now working on a way so that they can provide the required information only once, after which it can be shared to the other involved organisations. This sharing will of course only be done with the approval of the citizens.

2.2 What is (are) the concrete solution(s) developed?

We are working to combine all the different data systems into one platform that contains all the energy saving measures taken. In this system we are creating a first version of something looking like a house passport. We are currently still developing the data solution so we can follow up with visuals and pictures very soon.

2.3 How was it developed?

The organisations involved in this project are; Province of Drenthe, Drents Energie Locket, Fixteam and all of the municipalities. The expertise we have in our project team now consists of energy experts, data analysts, data engineers and legal expertise from an external legal centre.

The technological solution has been ready for a while, as the province of Drenthe has a fully implemented cloud data solution we can use for this project. The biggest hurdles appeared to be the organisational and legal challenges. It is in the first place quite difficult to explain a data vision to fifteen different organisations. As happens with every other data project, organisations can be quite hesitant if they don't see an immediate benefit. Setting up a data solution will be more effort in the short term, but will provide many benefits on the long term.

The largest challenge in this project is the legal question whether or not we are allowed to connect data to a single address/house, instead of actual people. This makes it so we are not going against GDPR on paper, but still brings a lot of questions with it as this has not really been done before in the Netherlands. We are currently still investigating the exact possibilities with external experts so we can get a definitive answer.

2.4 When was it (or will it be) fully achieved?

We are still developing final parts of the project. The legal research is still going on, and we are in the process of collecting all the available data and presenting it in dashboards and maps. We will be using the rest of the year to deploy the final product to the organisations involved and improve the data flows so it can go as automatic as possible.

2.5 By who or what organisation(s) will your solution be taken up?

All the energy policy workers in the province and the municipalities, as well as the central energy advisory organisation and the fixers that are working on energy improvements in the field. After the summer, most of them will be able to work with early versions of the product as we will continue to improve it in the remainder of the year. Training will most likely be done in a single physical meeting where we present the product and show how exactly it can be used.

2.6 How will your solution live on after the end of the project?

Even after Data for All is done, we will continue with our efforts to improve the data activities around housing and energy. Energy costs and an overloaded power grid are major problems in the Netherlands right now, so we will keep on trying to improve the data solutions around that to help our energy colleagues as best as possible. There are still many ways we can improve it by adding in detailed information on energy usage in neighbourhoods and business parks to create a system where we can predict and tackle energy peak usage.