

# THE FLEMISH DATA UTILITY COMPANY

*The Flemish Data Utility Company is inspired by nature.  
It builds bridges, creates networks and forms ecosystems.  
In this way, the Flemish Data Utility Company aims to inject  
oxygen into the Flemish economy.*

**DE VLAAMSE  
VEERKRACHT**



**Vlaanderen**  
verbeelding werkt



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## Colophon

**This information brochure explains how the Flemish Data Utility Company works.**

**We would like to thank all the enthusiastic staff who put so much time and effort into this challenging project!**

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### **Contact the Flemish Data Utility Company**

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Please send any feedback or ideas to:  
[vlaamsdatanutsbedrijf@vlaanderen.be](mailto:vlaamsdatanutsbedrijf@vlaanderen.be)

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From the source:  
Sir Tim Berners-Lee



“By ensuring that data sharing is secure, responsible and transparent, you can overcome the distrust of various stakeholders.”

Björn De Vidts, Head of Data Solutions at Digitaal Vlaanderen and Transition Manager at the Flemish Data Utility Company, and Raf Buyle, Data & Innovation at Digitaal Vlaanderen

# BUILDING BRIDGES BETWEEN CITIZENS, GOVERNMENTS AND BUSINESSES

The Flemish Data Utility Company aims to help data flow as freely as water from the tap. In collaboration with an open network of partners, it is paving the way towards a digital shift and a Flemish economy that is growing into a datatech pioneer. How? We find out from Raf Buyle, Data & Innovation at Digitaal Vlaanderen, and Björn De Vidts, Head of Data Solutions at Digitaal Vlaanderen and Transition Manager at the Flemish Data Utility Company.

**F**landers has been a world leader in biotechnology, cleantech and healthtech for many years, but we are now experiencing an acceleration in the digital transformation towards a 'datatech' economy. "That's why the Flemish government wants to commit strongly to datatech, to boost the Flemish economy", Raf Buyle declares. "In practice, that will lead to greater efficiency for governments, extra growth opportunities for businesses and more ease and security for citizens."

## Ecosystems of public and private partners

To make this digital transformation happen, the technology needs to be ready. An entire supporting framework is also required. "This entails setting up a collaboration between public and private partners, for example", explains Raf Buyle. "So we are bringing the different partners together in an ecosystem. It is important that they 'speak the same language' and that they are aligned with each other in organisational terms. The Flemish Data Utility Company facilitates these ecosystems to help partners collaborate on data exchange projects. The intention is that they will go on to develop the same projects in other countries later."

## Letting data flow

That efficient data flows need more than technology alone is clear from a possible future scenario for mobility. "Imagine you want to get around sustainably and you plan to use a scooter-sharing scheme, the bus and a car-sharing scheme", says Raf Buyle, as an illustration. "It's not easy to plan your route quickly at present, because you need several apps that are not interlinked. If we can ensure that all that data can flow between the different sectors and organisations, we can create a more pleasant user experience for citizens, and businesses will also have more space to grow."

## Trust is crucial

A vital factor in the whole story is trust, from both citizens and organisations. Without that trust, they will not be prepared to share their data. So they need to be sure that it is exchanged securely and responsibly. "More and more people are becoming wary of sharing their personal data", notes Björn De Vidts. "This is partly due to scandals like the one surrounding Cambridge Analytica, which collected Facebook data in dubious ways and then used it for Donald Trump's election campaign. People are increasingly realising that sharing data is risky, and they

are also becoming more aware of what their data is worth. So they have become much more cautious. That's a good thing in itself, of course, but it can also slow down our economy and innovation."



"Personal data vaults are an important spearhead of the Flemish Data Utility Company's strategy."

Businesses are seldom inclined to share data either, and certainly not with competitors or when they make a lot of effort themselves to collect and manage their data. They also worry about security. "By ensuring that data sharing is secure, responsible and transparent, you can overcome the distrust of various stakeholders", asserts Björn De Vidts.



“We bring various parties together and help the partners in the ecosystem to align their data and processes.”

### Personal data vaults

Personal data vaults are one possible solution to help data flow more freely. They give citizens complete control of their data: they store it in a personal online vault and decide for themselves what to share, with whom and for how long.

“In this way, we can enable citizens to participate in the data economy so that they can reap the rewards without sacrificing their privacy”, Björn De Vidts explains. “This is why personal data vaults are an important spearhead of the Flemish Data Utility Company’s strategy.”

### Successful platforms for data sharing

The Flemish Data Utility Company is also involved in other projects and technologies that stimulate and simplify data sharing. Björn De Vidts tells us more: “There is the Real Estate Information Platform, for example, which brings together all the information about property sales. It’s a really useful tool for estate agents, solicitors and so on.”

KLIP, the Cable and Pipeline Information Portal, is every bit as useful. It has been successfully used for years. Anyone who needs to do excavation work can request a plan of all the underground cables and pipelines via the portal. It combines data from every cable and pipeline manager

imaginable. Another success story is GIPOD, the Generic Public Domain Information Platform, which contains a wealth of information on planned mobility disruptions in the public space.

For all these projects, the Flemish Data Utility Company takes the problem and the desired solution as the starting points. “The technology is a means to reach a solution”, underlines Björn De Vidts.

### Catalysing role

The Flemish Data Utility Company is also part of the solution, given that it plays a catalysing role as a neutral third party in the development of data exchange. “We bring various parties together and help the partners in the ecosystem to align their data and processes.

We also create a legal framework”, Raf Buyle clarifies. “There is still a lot to be done in terms of legislation around personal data vaults, since we are acting as pioneers.

From this pioneering role, we are simultaneously developing several concrete concepts with various partners such as Randstad, to share data on qualifications, and the Growth Package (previously Child Benefit) to share data about wages.”

### User-friendly and trusted

Clearly such projects can only succeed if citizens actually make use of the new possibilities. That makes user-friendliness absolutely crucial, as well as trust in privacy. Björn De Vidts tells us more: “Citizens also need to be prepared to activate their data vault and use it over the long term. This is why we do not intend to present the data vaults as a technological innovation in a public communication campaign. Instead, we will let them experience the benefits in practice through trusted partners who already use them, such as banks, payroll companies or solicitors. That should lower the threshold for adoption.”

### More data and more innovation

“The result should be more privacy, more data and more innovation”, Raf Buyle adds. “We are convinced that this will happen when data is no longer stuck in silos but can flow unimpeded. Then businesses will gain access to more data so that they can innovate more, and innovate better. This is why the Flemish Data Utility Company wants to help companies to be successful in the data economy, within Flanders and beyond.

### The perfect conditions

Flanders undoubtedly has the perfect conditions for a digital transformation to a data economy. “We have a long history of innovation in various sectors”, says Raf Buyle. “We also have the requisite know-how, and our businesses are ready for it. Combine that with our knowledge institutions that are among the best in the world, and we have all the pieces of the puzzle at hand. In any case, it is an inclusive story with an open network involving a large number of partners. For example, we work with strategic research centres including imec, VIB, VITO and Flanders Make. The innovative business networks VOKA and Agoria are also important partners. We are now in the final sprint towards putting various solutions and systems into production.”

### Political support

Political support also puts wind into the digital transformation's sails. “The Flemish Data Utility Company has the support of the government and the Flemish Minister of Digitisation, Jan Jambon”, says Björn De Vidts. “In combination with Flemish know-how and our strong network, we can achieve so much today and in the years to come. We will also be working at the European and even global scale, because the flow of data obviously doesn't stop at the border.”



“We do not intend to present the data vaults to citizens as a technological innovation. Instead, we will let them experience the benefits in practice through trusted partners. That should lower the threshold for adoption.”

# The Flemish Data Utility Company's mission

1



## Improve privacy for citizens

Safe data storage

Active permission management

2



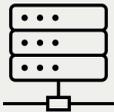
## Offer data vaults on the market through partners

SaaS data vault

My Family

My Professional Data

3



## Create an innovative platform for data sharing

Data Finder

Smart Data Space

4



## Develop data-driven ecosystems

Generic Public Domain Information Platform

Business Cases

Real Estate Information Platform

Cable and Pipeline Information Portal

# Supporting innovations in data sharing

Allowing data to flow securely and with privacy guarantees between citizens, governments and businesses generates great benefits for everyone. It means more efficiency, more comfort and security, and more opportunities for growth. A lot is happening in this area, and various players are working hard to pave the way. The Flemish Data Utility Company is playing a catalysing role in this 'data tech' economy, aiming to accelerate the realisation of new technological possibilities as a neutral partner.

"The technological foundations have been laid, and now we want to build on them practically in the short term", says David Van den Brande, CTO of the Flemish Data Utility Company. "Obviously we will come up against certain challenges: that is intrinsic to the pioneering work we are doing at the company."

## Open technology standard

A crucial aspect of the development of personal data vaults is Solid technology, an open collection of technical specifications and protocols that a number of parties are working on. "Clearly we monitor developments in this domain very closely, so that we know the areas in which further research is still needed for the specific cases we are developing ourselves."

## Focus on business cases

Fortunately, we are right at the source of the technology in Flanders. "We receive advice from SolidLab and imec

researchers at various Flemish universities, who conduct further research with people such as Tim Berners-Lee, who was one of the founders of the internet, along with our compatriot Robert Cailliau", David Van

de Brande tells us. "We have also entered into a partnership with Inrupt, the company co-founded by Tim Berners-Lee, so that we do not have to invest as much of our own time in the technological building blocks of the Solid foundation, and can devote ourselves to putting

concrete business cases into practice."

*The Flemish Data Utility Company is playing a catalysing role in this 'data tech' economy, aiming to accelerate the realization of new technological possibilities as a neutral partner.*

We hear from



**David Van den Brande**  
Chief Technology Officer

# Solid: digital data vaults for every citizen



Dorien Bauwens, Solid Program Lead at Digitaal Vlaanderen and Sarah Smits, Solid Project Manager at Digitaal Vlaanderen

Solid is a technological concept attracting worldwide interest. But what is it exactly, and why is the Flemish government so committed to Solid and the digital data vaults? It all becomes a lot clearer when we look at the concrete cases that are gradually taking shape.

The idea of Solid is that you separate data storage from the applications that use the data”, says Dorien Bauwens, Solid Program Lead at Digitaal Vlaanderen. “That is not currently the case: citizens’ data – often including sensitive information – is located in the databases of organisations that use this data. Disconnecting the storage place and putting it into citizens’ hands means that citizens can keep track of their data once again. A digital vault – also known as a ‘Pod’ or ‘Personal Online Data store’ – enables citizens themselves to grant other parties access to their data, for example by making a degree certificate available to a potential employer.” User-friendly and efficient to protect citizens’ privacy.

## Wider access to data in line with the GDPR

The data vaults have benefits for organisations – governments or businesses – as well. They currently have all kinds of data in certain software applications, but often

cannot gain access to other useful data. Nor is it easy to work out whether the data they are using are still up to date and relevant.

“Disconnecting the storage place and putting it into citizens’ hands means that citizens can keep track of their data once again.”

“The data vaults give organisations secure access to more data than they have today”, Dorien Bauwens explains. “What’s more, they no longer have to worry about data management and back-ups. And last but not least, the Solid technology offers them support in complying with the GDPR legislation for personal data protection.”

## Great transparency

The Solid team, at any rate, is absolutely convinced of the benefits that the digital transformation will deliver. “The greater transparency is a significant advantage”, Sarah Smits, Solid Project Manager at Digitaal Vlaanderen, declares. “At present, that transparency around personal data is completely lacking. Citizens sometimes have to present copies of documents or send scanned documents, without having any idea about what happens to them afterwards. If their information is inside their own data vault, they know exactly which parties have access to which data. Citizens themselves will use the data vault through ‘Mijn Burgerprofiel’, their citizen profile accessed from the online application or mobile app.”

## Protect and change data

“This means that citizens can easily decide for themselves what happens to their data”, Dorien Bauwens adds. “It will also be more refined than it currently is. For example, you

can set a certain time limit for access by a third party, or you can reveal just some of the data in a document and protect the rest. In addition, you can change data yourself, such as your address, which in turn is an advantage for organisations that you allow to access this data. It means they know they are using correct, up-to-date information.”

### Organisations prepared to adapt

In an ideal scenario, the data would stay in the vault permanently, where organisations can access it. There will always be exceptions to this, meaning that some parties would be allowed to make a copy, but that right will have to be legally substantiated. That might be the case, for example, for banks that require access to specific data for auditing over a longer period. “Ultimately, though, everyone should be able to use the data vaults”, Sarah Smits says. “Clearly that requires a number of fundamental changes in terms of technology and organisations’ internal processes. Nonetheless, we have noted that they do not consider those efforts an obstacle. They clearly see the advantages of an approach in which they no longer need to collect and store all the data themselves but can work efficiently with decentralised data vaults.”

## The case of degree certificates: secure storage and sharing

A product prototype has been developed for degree certificates: a ‘Minimal Viable Product’ (MVP) that we can use to store data concerning qualifications in our data vault. A handy starting point for Solid was the authentic source, the Certificates of Learning and Experience Database (LED) held by AHOVOKS, the agency for higher education, adult education, qualifications and study grants. All accredited degrees, diplomas and certificates are registered in the LED.

### Proven authenticity

“The data-sharing platform MAGDA gives government bodies access to these diplomas and certificates”, Sarah Smits explains. “However, many businesses also need this kind of information. Randstad teamed up with us as the first party interested in being able to consult degree qualification data using the data vault. At present that is still done on paper, because you can’t share degree certificates with ‘Mijn Burgerprofiel’, for example. In time, it will be possible with the digital vault, however. The receiving organisation will also get a digital ‘stamp’ to attest that the data is genuine.”

### Improved data security for Randstad

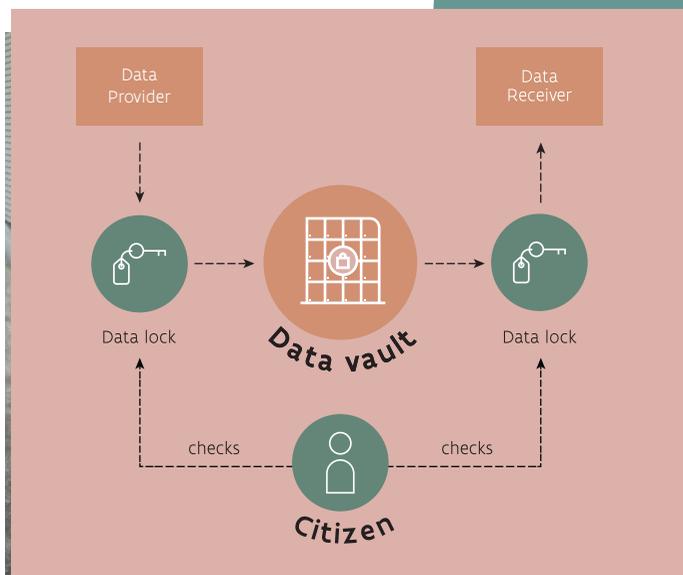
HR companies like Randstad also benefit from this. They want to commit more to data security. The more our economy and systems are fuelled by information, the more important it is for that information to be well protected and yet permanently available if necessary. Thus data minimisation is another spearhead: ensuring that as little sensitive data as possible needs to be stored and secured.

In the collaboration with Randstad, this primarily had to do with jobs for care and nursing staff. It is a standard requirement for applicants in that sector to present a certificate of their qualifications. The authenticity of these certificates is crucial. With the help of the personal data vaults, Randstad can inform the potential employer what qualifications the person has without sending them all the raw data.

### ICON project

“Development is already at quite an advanced stage”, says Dorien Bauwens. “To make it all possible in practice, Randstad will connect to the Solid ecosystem, where it will be able to call up and read data. An ICON (interdisciplinary cooperative research) project application has been submitted for further research, so that this can be turned into a mature product in a more extensive ecosystem.”

At a later stage, the possibilities can be expanded even further. For example, an applicant would be able to see at a glance whether they have the required qualifications. Qualification data could also be combined with other data such as references from previous employers or other useful experience. Dorien Bauwens continues: “There is various data in the vault, so in theory you can always combine different types of data. For example, job applicants would be able to get feedback more quickly if they are not eligible for concrete reasons, such as insufficient work experience.”



## The case of wages: customised service provision

The case study for wage data is more complex than the one for degree certificates because there is more than one source. Furthermore, wage data is more sensitive information. “All the same, we do share that data with many parties such as banks and insurance companies, or the landlord of our rented house or apartment”, says Dorien Bauwens.

### Recent data for the Growth Package

“Your tax return form gives the government access to your wage information, but that’s information from two years ago. In many cases, it is important to have more recent data. That is mainly of benefit to citizens, for example if your pay drops sharply and you have the right to government support, or more such support, such as the social grant in the Growth Package. This is evened out in the tax return after a while, but if you are in financial difficulties, you would obviously prefer not to have to wait two years. Citizens can always submit a request themselves, but the data vault will make it possible to give the government permission to see your pay data.”

### Better for everyone

This way citizens always keep control and only share information with whom they want, and when, why and for what period they want. It is also easier to filter certain data. “If you are going to rent a house and the landlord asks for a pay slip, they actually only have the right to the data concerning your income”, explains Sarah Smits. “But there is a lot more information on your payslip, such as your marital status, dependent children or adults including anyone with a disability, and so on. You really don’t need to share your entire private life with a landlord or the bank. From their perspective, storing and sometimes typing out all that data – often still using a paper document – is a very time-consuming process that is also susceptible to fraud by citizens. So it is better for everyone to share less data and conduct the entire process digitally using the data vault.”

### Working on reusable building blocks

The Agency for Payment of the Growth Package is the first party to be involved in this Solid case. “We already know what architecture is needed, and we are also working with Doccle, a management platform for digital documents”, Dorien Bauwens says. “Doccle is used by various payroll companies to provide pay data. The payroll companies are interested in Solid, and negotiations are underway. In addition, in conjunction with the security building blocks Mijn Burgerprofiel and the MAGDA platform, which is a government platform for sharing secure data from authentic sources, we are developing several reusable components so that these components can also be used for other cases.”



## Find out more

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flemish-data-utility-company#the-  
advent-of-personal-data-vaults](http://www.vlaanderen.be/digitaal-vlaanderen/het-vlaams-datanutsbedrijf/the-flemish-data-utility-company#the-advent-of-personal-data-vaults)

WHAT IF YOU COULD CONNECT DATA EASILY?

# Opportunities for cross-pollination

Data is everywhere. All kinds of data are created every second. But they often gets stuck with a single party. What if these data were retrievable, shareable and accessible?

That is one of the Flemish Data Utility Company's goals.

We are developing an ecosystem based on standards and generic building blocks to open up individual data silos and make it simple to exchange data.

Furthermore, based on the ambition to foster more Flemish innovation, we want to make private data shareable and reusable as well as public data.

Discover four projects in which concrete problems and challenges are being tackled by making it possible to exchange data.

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Information Portal* p.14

*Generic Public Domain  
Information Platform* p.15

*Real Estate Information  
Platform* p.16

*Data Finder* p.17

## PREVENTING EXCAVATION DAMAGE IS FAR BETTER THAN HAVING TO REPAIR IT



We hear from



**Liesbeth Rombouts**  
KLIP Product Owner

# A PEEK UNDER THE GROUND

*Beneath Flanders' 64,000 km of public roadways are 600,000 km of cables and pipelines. This translates to nine metres of cables and pipelines for every metre of road. So it is not surprising that the risk of damage to underground cables and pipelines during excavation works is high. A catastrophic example is the gas disaster that happened in Gellingen in 2004. To avoid such disasters, as well as more minor hindrances, the Cable and Pipeline Information Portal (Kabel- en Leidinginformatieportaal - KLIP) was set up. Anyone who wants to do excavation work must submit an application to KLIP beforehand.*

*Liesbeth Rombouts, KLIP Product Owner, takes us down into this underground world.*

Since KLIP was founded in 2007, efficiency has improved in leaps and bounds. We developed an agreed data model so that we could work with standardised information and now the entire process is digital and automated. All the information from all the relevant cable and pipeline managers is included in a single integrated plan, which can even be downloaded and consulted in an app.

For the applicant, it is far easier to get a comprehensible image of what there actually is under the ground in a specific area. They can look at a clear map and switch certain layers with information from specific cable and pipeline managers on and off. That way the applicant can also find more information about the characteristics of the cables.

### Cables on the loose

Worldwide, the quality of data on underground infrastructure is an enormous challenge. Are the pipelines still where they were laid? Unfortunately, we can't just take a quick peep under the ground to check if everything is the way it was when the last measurements were taken. Sometimes cables get pulled out of place, or are not put back in exactly their original location.

Furthermore, we are moving increasingly in the direction of 3D models, which clearly makes it even more important to know and stick to the exact location. This is extra challenging because the depth is not always known, for example with very old cables and plans. Consequently, continually improving the data quality remains our focus.

### Knowledge transfer

Along with Wallonia, Brussels and the federal government, we are looking into how we can deploy the data model we have developed throughout Belgium. By sharing the knowledge we have gained, we aim to be able to exchange digital data on cables and pipelines all over the country.

### Self-financing

We are at the cutting edge of data sharing between the government and private players. Many of the organisations associated with us – plan applicants and pipeline managers – are private companies. We are also entirely self-sufficient: we finance all our activities with the income from the plan applications.

# FOUR INNOVATIONS IN THE FIGHT AGAINST MOBILITY DISRUPTIONS

*Work on the sewage network, a local funfair or scaffolding on the pavement for a home renovation project. What do they all have in common? In each case, there is an area in the public domain that is no longer accessible to the public. All this information must be reported to the Generic Public Domain Information Platform (Generiek Informatieplatform Openbaar Domein - GIPOD). Oliver May, GIPOD Product Owner, explains how it works.*

One of the main goals of GIPOD is to be an authentic source for all planned closures of public space and disruptions to mobility. We aim to minimise the disruption as much as possible, for example by planning the laying of all utility pipelines at the same time. Besides being cost-efficient, it is far more pleasant if a pavement only has to be dug up once instead of three times in quick succession. Last but not least, we make all this information available to third parties in the form of data. Stakeholders such as satnav providers, De Lijn bus company and the emergency services all use it to determine their routes.

GIPOD was thoroughly renewed at the beginning of 2021. This is what changed:

## 1. Standard dataset.

A standard dataset makes it easy to exchange data, whether between the various stakeholders or with third parties in the form of open data. This standardisation is crucial to the goal of linking public and private data to each other more effectively.

## 2. Better estimation of mobility disruptions with a focus on low-impact mobility

In the past, only the roadworks themselves were marked as a disrupted area. Now we can consider the broader context, defining the disrupted area to also include the surroundings: a temporary one-way system or access-only road, for example. The impact on cyclists and pedestrians can also be determined. In a subsequent phase, even the diversions can be included in the plans.

## 3. Digitalisation of permit processes (signage permit and 'zone admittance').

These permits are also linked to the closure of public space. And not just that: the application for a signage permit is the direct input for mapping out the planned mobility disruptions.

## 4. Detecting conflicts

New applications are automatically tested against closures that are already scheduled, which may result in a warning, for instance, that roadworks are planned for a time when a resident is requesting a temporary parking ban so that they can move house.

It will be a while before all these innovations are rolled out, but we are already dreaming of automation as the ultimate stage of digitalisation. We also continue to work on improving the data quality. We want to be able to add more information, such as input from users themselves. For example, with certain types of disruption the fire brigade checks whether their largest fire engine can get through, but this information is not currently in GIPOD. It would bring enormous added value to be able to process this input as well.

We hear from



**Oliver May**  
GIPOD Product Owner

NOW YOU CAN REQUEST ALL REAL ESTATE INFORMATION VIA A SINGLE CENTRAL PLATFORM

# 300 DIFFERENT APPLICATIONS ARE A THING OF THE PAST

*Each time a property is sold or rented for a longer period, an enormous amount of (legally required) information has to be collected. Every town or city council has its own system, meaning that solicitors and estate agents sometimes have to fill in application forms, sometimes have to send emails and on occasion even have to go to a service desk in person. This is a time-consuming and labour-intensive process.*

*The Real Estate Information Platform (Vastgoedinformatieplatform) will put an end to this by digitising the process from end to end. The result will be a digital portal where anyone requesting real estate info can call up the required data in one simple process. Sammy Parmentier, Real Estate Information Platform Product Owner, tells us more.*

## How does it work?

1. The applicant files a request for information on the Real Estate Information Platform.
2. The Real Estate Information Platform makes an automatic check: information can only be requested for valid plot numbers and/or buildings.
3. This platform delivers added value: it collects all the data from the connected sources available (central registers)
4. The local council in question only has to add the information from its municipal sources that the Real Estate Information Platform cannot access
5. All the information is delivered to the applicant in a simple PDF and also as a data block imported straight into their system if they are fully integrated with the platform.

We hear from



**Sammy Parmentier**  
Real Estate Information  
Platform Product Owner

## Everyone benefits!

This new platform benefits all parties concerned, Sammy Parmentier notes proudly. The application procedure for solicitors and estate agents has been made far simpler. Town and city councils also stand to benefit. At present, getting paid for providing information causes long delays and extra work to follow up payments and send reminders. In future, payments and invoicing could be organised simply through the platform.

The Real Estate Information Platform data model introduces a standard way of requesting and transmitting information. Deciphering unclear handwriting or emailing for extra information will be a thing of the past.

Additionally, town and city councils will no longer have to invest in connecting the central data sources to their own systems. A single, global platform gives them very easy access, and the fragmented infrastructure is centralised. If new obligations to provide information arise, such as an asbestos certificate, only the platform will need to accommodate the change.

Finally, the delivery of the data block directly into the system also opens up a host of possibilities for further automation for solicitors or estate agents. On the basis of the information received, certain clauses should be automatically added or amended when drawing up deeds or agreements. Publications on websites could be updated in the same way.

## Collaboration

The Real Estate Information Platform is an initiative by the Flemish Government, the real estate sector (FedNot and CIB), in partnership with the local councils represented by the VVSG (Flemish Towns and Councils Association) and the Department of Environment. Digitaal Vlaanderen is responsible for developing the platform and for the operational management.

## Obligatory

From January 2024 onwards, it will be obligatory to use the Real Estate Information Platform. We started rolling out the platform to an initial group of 17 pilot municipalities in October 2022. The most difficult thing will be to get all local governments connected on time. But we're up for the challenge!

# OUR AMBITION? IF YOU CAN'T FIND IT WITH THE DATA FINDER, IT MEANS IT DOESN'T EXIST

*Last spring, Digitaal Vlaanderen launched the Flemish Data Finder, a kind of search engine that gives access to all the information from Flemish governments on a single platform. Geraldine Nolf, Information Catalogue Product Owner, and Nicolas Hoflack, Data Finder Product Owner, tell us more.*

## Easier to find means more efficient

The Flemish government possesses a wealth of information, and it wants to make this data easier for governments, businesses and citizens to find. This is essential to the mobilisation of knowledge, expertise and dynamics in our society. In time, the Flemish Data Finder must give easy-to-use but secure access to the most extensive collection of information in Flanders. Specifically, Digitaal Vlaanderen will bring together 7000 Flemish government datasets on the first version of this central platform. These sets include open data and geographical data that can currently be found in places such as the Flemish Open Data Portal. Furthermore, the closed data and services and the open APIs have now been included in the same Data Finder for the first time.

At present, Digitaal Vlaanderen is primarily building the central locator for public data, but in future it will also include data from private parties such as telecom companies or even smaller businesses. The goal is to make the plethora of data more comprehensible and accessible for businesses and citizens, so they can also gain far more insight into what is available for use in their own applications. Until now, much of that data was hidden in silos that made it impossible to find and hence unusable. In addition, transparent data will also lead to a more efficient, data-driven policy, both in government and in innovative companies.

## Feedback requested

We are currently fully focused on improving the information about the available datasets, making the latest and most valuable data more visible to searchers. Additionally, we are working on the general texts that describe the sets and trying to provide better visual support. In this rewriting and reworking process, we are very grateful for the chance to incorporate feedback from users, so we asking for their feedback and ideas.

We hear from



**Geraldine Nolf**  
Information Catalogue Product Owner

**Nicolas Hoflack**  
Data Finder Product Owner

## Find out more:

Discover the Data Finder here:  
[www.vlaanderen.be/datavindplaats](http://www.vlaanderen.be/datavindplaats)

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[vlaamsdatanutsbedrijf@vlaanderen.be](mailto:vlaamsdatanutsbedrijf@vlaanderen.be)

## SolidLab is shaping the data economy

“If Flanders wants to participate in the economy of the future, we simply have to invest in the possibilities of Solid”, asserts Professor Ruben Verborgh, who is involved in SolidLab through Ghent University and imec. He has been working for years on Solid with Tim Berners-Lee, the inventor of the world wide web.

### A matter of trust

While the Flemish Data Utility Company concerns itself with the practical development and the business side of the digital transformation, SolidLab conducts research into future challenges and formulates recommendations and possible solutions. A multidisciplinary group of researchers is working on providing a good framework for aspects such as in-built security and the speed of data exchange. The legal and social contexts are also important issues. Additionally, SolidLab conducts

research among users so that it can make recommendations for more user-friendly future applications. “The technology is the essential precondition, but without the engagement and trust of the end users, we have nothing”, states Ruben Verborgh.

### More efficiency and innovation

Today, data exchange is very difficult. Ruben Verborgh explains why: “A mountain of data is held by internet giants like Google and Facebook,

whereas smaller companies have real difficulty – partly because of GDPR – creating value using personal data. That means that citizens have no control over their data, and organisations lack opportunities to increase efficiency and innovation.” The personal data vaults should put an end to this situation. This is why SolidLab is aiming for a paradigm shift in the data economy. “Flemish people are often too modest, but our Solid knowledge and experience is really world-class. It means we can be a blueprint for the rest of Europe and even the whole planet.”



## Solid Competence Center for sustainable growth

The Competence Center that has been set up is intended to ensure that various parties in the Solid ecosystem get the necessary information and training. This will enable the ecosystem to grow sustainably. Sarah Smits, Solid Project Manager at Digitaal Vlaanderen, explains. “We want to use the Competence Center, among other things, to deliver more content and organize training courses to get businesses and organisations started. We will offer accessible Solid training for various roles or perspectives, such as technical, legal or business. Several parties are still developing this. Anyone interested in helping to create these training courses is certainly welcome.”





## Solid Community: an open forum

Solid Community is a collaboration between SolidLab, Digitaal Vlaanderen and the Flemish Data Utility Company. The aim of this community is to ensure that Solid is adopted more quickly by end users and service providers. Its areas of focus include extending ecosystems and partnerships, building and sharing knowledge, and carrying out concrete projects. Alongside this, the community acts as a forum where everyone involved can check in with all the other parties to monitor progress and to ask each other for feedback.

“By cooperating constructively and exchanging knowledge, we aim to guarantee the interoperability of future

Solid services and products”, says Dorien Bauwens, Solid Program Lead at Digitaal Vlaanderen.

This is also why the Solid Community is open to everyone. “We see that many parties join the Solid community from different perspectives: from the government and from the private sector, ranging from start-ups to large companies”, Dorien Bauwens explains.

“Besides organising sessions on the technical challenges, we run sessions on the social/societal aspects and business models. Members can also propose topics or present problems they want to discuss.”

THE SMART DATA SPACE MAKES DATA AVAILABLE IN THE LONG TERM

# Standards and building blocks as the cornerstone of sustainable data sharing

*One of the basic principles of the Flemish Data Utility Company is making data scalable and durable, by working with standards and generic building blocks to extract more from the data that is already available.*

*The Smart Data Space is one of the technological forces behind these open standards. It focuses on the sustainable sharing of sensor data and the related contextual information across different fields, management levels and sectors. Annelies De Craene, Smart Data Space Product Owner and Justine Ottevaere, Ecosystem Manager, clarify.*

**W**e genuinely do want to break individual data silos open and make it easy to exchange data.

At present, every initiative is created in isolation: every party has its own dataset and custom work is required to be able to link it to other projects.

## Water quality

Take the data on water. There are various stakeholders – including local councils, the Flanders Environment Agency (VMM) and private companies – that all have their own sensors to measure water quality. They each have their own system for processing and storing this data as well. If you wanted to collect all the information about water quality across Flanders, you would have to contend with a jumble of sources and processes. Moreover, you would need to approach all those parties individually. That also makes it impossible to obtain real-time insights.

We want to set up an ecosystem in which all these parties are connected. It works like a web of data flows where the different stakeholders are connected by shared data standards and software building blocks. To do this, we will use the OSLO (Open Standaarden voor Linkende Organisaties) standards to structure the data. The data will stay with the party that generated it, but other parties will be able to locate and access it.

In this way, the existing data that is already being collected can be deployed in a scalable manner (because it is not confined to a single party) and reused. Thus each party does not need to install its own sensors, but instead can use data provided by others within the ecosystem.

## A world of new applications

Because it will be easier to find and use the available data, interesting cross-

pollinations may also emerge. The options are endless. Take a second area on which we are now also focusing our efforts: mobility. We dream that one day there will be a mobility app giving citizens real-time solutions to get from point A to point B. It would combine many forms of data: the current availability of shared bicycles, air quality figures, journey times on public transport, etc.

*“We want to break individual data silos open and make it easy to exchange data.”*

Our goal is not to build this app ourselves, but to ensure that all the data is standardised and that the right building blocks exist to include all this in a single ecosystem.

### Link to data vaults

To build on the previous example, we could also supplement the mobility app with citizens' personal data. The data can be shared securely thanks to the personal data vaults. This would enable a citizen with a disability to call up a personalised journey plan, for example.

In general, when you are confronted with public and private exchanges of information, you hit boundaries. However, the data vaults would enable us to develop a solution.

### We hear from



**Annelies De Craene**  
*Smart Data Space Product Owner*

**Justine Ottevaere**  
*Ecosystem Manager*



FROM THE SOURCE: SIR TIM BERNERS-LEE

“WE NEED A COURSE CORRECTION ENABLING US TO USE THE WEB MORE POWERFULLY INSTEAD OF HAVING THE SENSE THAT THE WEB IS EXPLOITING US”

To develop the Solid technology in our Flemish use cases, we have worked closely with the inventor of the world wide web, Sir Tim Berners-Lee. He wants to give people back control of their own information in a way that serves both users and organisations.

Through Inrupt, the company he founded, he offers technical support for this new type of data infrastructure. The technology enables organisations to unlock higher quality data that is genuinely interoperable, whilst building trust among users.

### Controlled access

The Solid technology currently in use offers users safe, interoperable Solid Pods where they can view, manage and share their personal data. By creating transparency between users and organisations, this technology complies with the current data regulations. Furthermore, the technology can also be scaled and adapted to respond to the evolving requirements in the field of data protection.

### Technological progress

This new technology gives the Flemish economy extra oxygen, by making data easier to find and exchange. In line with the current use cases and needs in Flanders, the performance, scale, security and compliance needs can be guaranteed in order to set up the Solid Pod model for millions of citizens.

Over the coming months, 6.5 million citizens in Flanders will have the opportunity to set up their own personal data vault. Citizens can choose what information they share, which organisations should have access to the information and how long this information is shared for. As soon as users have activated their vault, they can start using it within the current projects. This relieves citizens of the effort of manually transferring data, and service providers can organise the data more efficiently.

With this technological support, it will be possible to comply with the new data protection regulations in an intuitive manner. This will trigger an upwards spiral of information, trust and innovation.





**DIGITAAL  
VLAANDEREN**

The Flemish Data Utility Company  
Digitaal Vlaanderen  
Havenlaan 88  
1000 Brussels

[www.vlaanderen.be/digitaal-vlaanderen/het-vlaams-datanutsbedrijf/the-flemish-data-utility-company](http://www.vlaanderen.be/digitaal-vlaanderen/het-vlaams-datanutsbedrijf/the-flemish-data-utility-company)  
[vlaamsdatanutsbedrijf@vlaanderen.be](mailto:vlaamsdatanutsbedrijf@vlaanderen.be)