

What is Solid for end users?
And how our design decisions
might influence the users'
perception.



**Vlaamse
overheid**



DEPARTMENT OF
**ECONOMY
SCIENCE &
INNOVATION**



**Gefinancierd door
de Europese Unie**
NextGenerationEU

We asked which interfacing related problems are most important to be solved

1) Struggles with explaining Solid

2) Lack of design patterns

3) Confusion about use of terminology

4) Struggles with visualizing data

5) Lack of standardized icons and UI elements

6) Unclear Solid principles

7) Lack of specific evaluation tools

8) Legal requirements

How is Solid being positioned?









Web content

Informative Commercial

Link

Organization

Key ideas Solid

Informative			Commercial							
										
Solid Project	SolidLab Flanders	Solid MIT	Inrupt	use.id	Digitaal Vlaanderen	Konsolidate	Karamel	Datavillage	BBC together +	
To store and access data in your Pod, applications use standard, open, and interoperable data formats and protocols .	the Solid protocols are based on open & Interoperable W3C standards .	Users should have the freedom to choose where their data resides and who is allowed to access it . By decoupling content from the application itself, users are now able to do so.	based on open specifications, just like the web. Open specifications mean interoperability across a broad ecosystem .	Pods also enable our clients to easily determine where in the world their user data will be stored . Cloud storage providers can be physically located, and legally incorporated, within a strict geographic zone.	Get a use.id WebID so you can easily reuse information across apps and organisations	As a citizen retaining control over your own data , and being able to choose which data you share with which organization and for what period of time	The core idea behind personal data vaults is to decouple application services from the data they provide and consume.	Our data vault technology ensures complete security and privacy for our users. For you this means 100% GDPR compliance .	Enrich algorithms and AI capabilities by accessing and processing sensitive data - an interoperable way with internal and external parties.	Using a DataPod means you can decide what the service provider can see and how long they get to use it for . It means there's a future where you have more control of your personal data.
You control access to the data in your Pod. You decide what data to share and with whom (ie. it, individuals, organisations, and/or applications). Furthermore, you can revoke access at any time.	you can keep control over your own data and decide what you share, and with whom .	Because applications are decoupled from the data they produce, users will be able to avoid vendor lock-in , seamlessly switching between apps and personal data storage servers, without losing any data or social connections.	Users control which entities and apps can access their data .	Through use of the Pod model, you can limit personal data access to those who truly need it.	Easily connect any compatible data vault and login method to your use.id WebID.	All of a citizen's data can be stored in a data vault, regardless of where it comes from .	The owner of the personal data vault can choose which services can read from and write to the personal data vault and keep full control over their own data.	Always stay in possession of your own data and choose when to share something .	Keep control of data and algorithms all along the collaboration process. Access data without collecting it on your system . Share data without fear of being misused or of losing competitive advantages.	You create a pod online from a provider of your choice (a bit like choosing a bank account)
Any kind of information can be stored in a Solid Pod.	following the Linked Open Data approach any kind of data can be used in a Solid ecosystem	Developers will be able to easily innovate by creating new apps or improving current apps, all while reusing existing data that was created by other apps.	Apps can access rich stores of data from any Pods , with user permission.	Solid Pods enable organisations to comply effectively and intuitively with the requirements of global privacy laws like the GDPR, CCPA and CPRA, PIPEDA , and many others.	Get a combined view of your data and of whom you shared it with.	Storage is done in a standardized format that all ecosystem participants can use.	Remain legally compliant and leverage privacy regulations such as GDPR, CCPA and DGA with a privacy-first data processing solution.	see what is known about you		
Each Pod is fully controlled by the Pod owner	If, for example, you migrate to another service, your data pod will move along with you .	The control over where your data lives, and how it is stored, enables easy compliance with data transfer and localization requirements and makes it easier to comply with national data privacy laws.	Pods store user data in an interoperable format	It's your data so you are in control . Easily manage who can access what.	This allows you as a citizen to choose to share information with anyone in the ecosystem , and allows the recipient to use that data for your intended purpose.	stop the service using your data				
Data pods are best seen as a standardized way of storing personal data , just like JPEG files are for pictures, or PDFs are for documents.			provide users with permissioning controls	With your use.id WebID , you can store and exchange data , just like your email address enables you to store and exchange messages.		share the data from that service with a different service				

reuse their
data across
services.

Developers will be able to easily innovate by creating new apps or improving current apps, all while reusing existing data that was created by other apps.

Pods store user data in an interoperable format

the Solid protocols are based on **open & interoperable W3C standards**.

Get a **use.id WebID** so you can easily reuse information across apps and organisations

share the data from that service with a different service

With a **use.id WebID** you can easily compile and reuse your digital truth, regardless of where it is stored.

Individuals are free to **use their data seamlessly across different applications and services**.

This gives Solid the unique ability to allow **different applications to work with the same data**.

To store and access data in your Pod, applications use **standard, open, and interoperable data formats and protocols**.

based on open specifications, just like the web. Open specifications mean **interoperability across a broad ecosystem**.

following the **Linked Open Data** approach **any kind of data** can be used in a Solid ecosystem

Enrich algorithms and AI capabilities by accessing and processing **sensitive data** in an interoperable way with internal and external parties.

Storage is done in a **standardized format** that all ecosystem participants can use.

Data pods are best seen as a **standardized way of storing personal data**, just like JPEG files are for pictures, or PDFs are for documents.

Apps can access rich stores of data from any Pods, with user permission.

Solid creates **interoperable ecosystems** of applications and data

Any kind of information can be stored in a Solid Pod.

If, for example, you migrate to another service, **your data pod will move along with you**.

All of a citizen's data can be stored in a data vault, **regardless of where it comes from**.

the separation
of data
storage and
applications

Easily connect any compatible data vault and login method to your **use.id WebID**.

You create a pod online from a **provider of your choice** (a bit like choosing a bank account)

Because applications are decoupled from the data they produce, users will be able to **avoid vendor lock-in**, seamlessly switching between apps and personal data storage servers, without losing any data or social connections.

Pods also enable our clients to easily determine **where in the world their user data will be stored**. Cloud storage providers can be physically located, and legally incorporated, within a strict geographic zone.

The Solid Protocol is a **specification** that lets people store their data securely in **decentralized data stores** called Pods.

The core idea behind personal data vaults is to **decouple application services from the data** they provide and consume.

Users should have the freedom to **choose where their data resides and who is allowed to access it**. By decoupling content from the application itself, users are now able to do so.

have improved
transparency
over their data.

Get a **combined view of your data** and of whom you shared it with.

see what is known about you

have improved
access control
over their data.

Using a Data Pod means you can decide **what the service provider can see and how long they get to use it for**. It means there's a future where you have more control of your personal data.

Users control which entities and apps can access their data.

It's your data so you are in **control**. Easily manage who can access what.

With your **use.id WebID**, you can **store and exchange data**, just like your email address enables you to store and exchange messages.

Each Pod is **fully controlled by the Pod owner**

You control access to the data in your Pod. You decide **what data to share and with whom** (be it individuals, organisations, and/or applications). Furthermore, you can **revoke access** at any time.

provide users with **permissioning controls**

you can keep **control over your own data and decide what you share, and with whom**.

Through use of the Pod model, you can **limit personal data access** to those who truly need it.

As a citizen retaining control over your own data, and being able to **choose which data you share with which organization and for what period of time**

The owner of the personal data vault can **choose which services can read from and write to the personal data vault** and keep full control over their own data.

Keep control of data and algorithms all along the collaboration process. Access data without collecting it on your system. Share data without fear of being misused or of losing competitive advantage.

This allows you as a citizen to **choose to share information with anyone in the ecosystem**, and allows the recipient to use that data for your intended purpose.

stop the service using your data

Always stay in possession of your own data and choose when to share something.

Solid is

the separation
of data
storage and
applications

And it enables users to...

have improved
transparency
over their
data.

have improved
access control
over their
data.

reuse their
data across
services.

Which allows improved services that offer...

reduced
overhead

 Datanutsbedrijf

enhanced
personalization

 Datavillage

more
targeted
matching

 karaMel

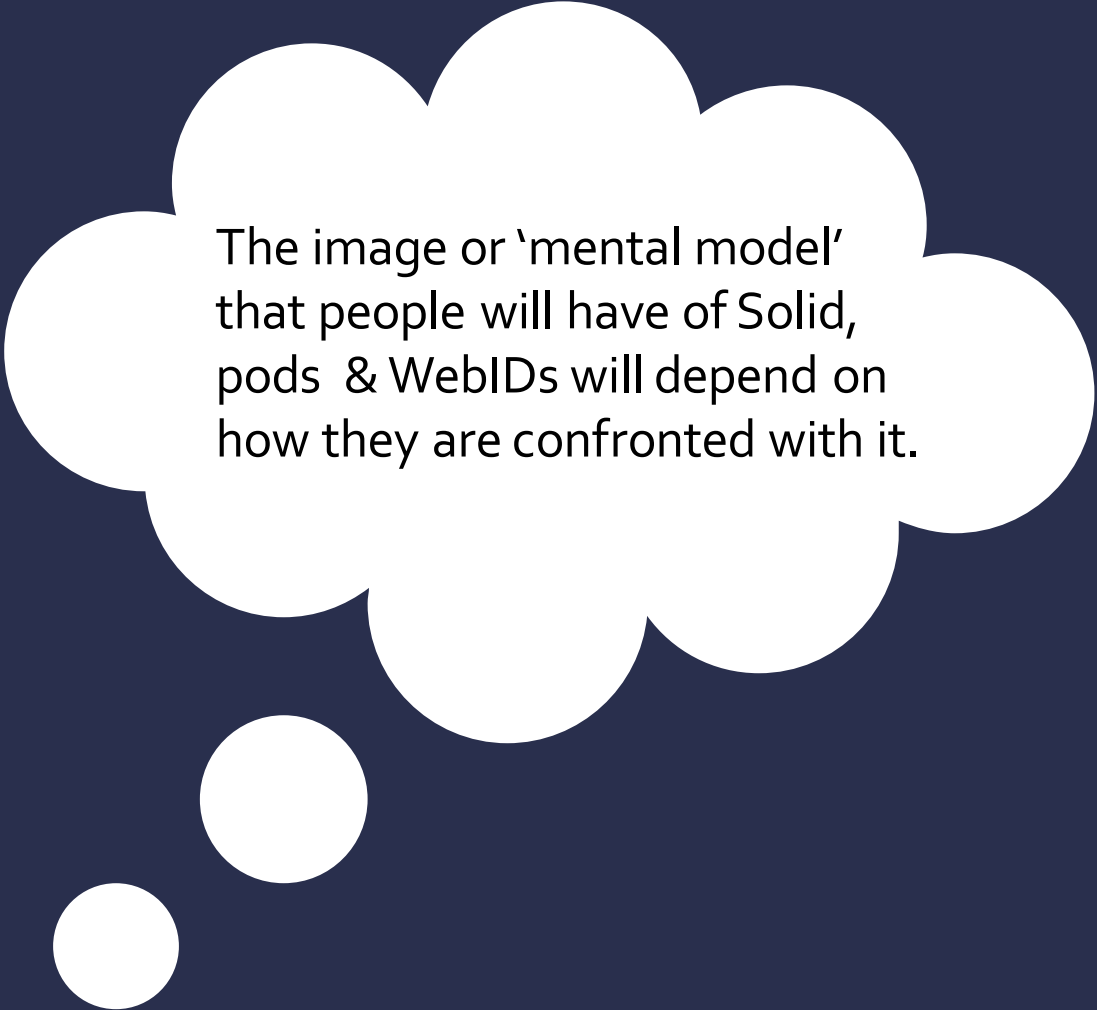
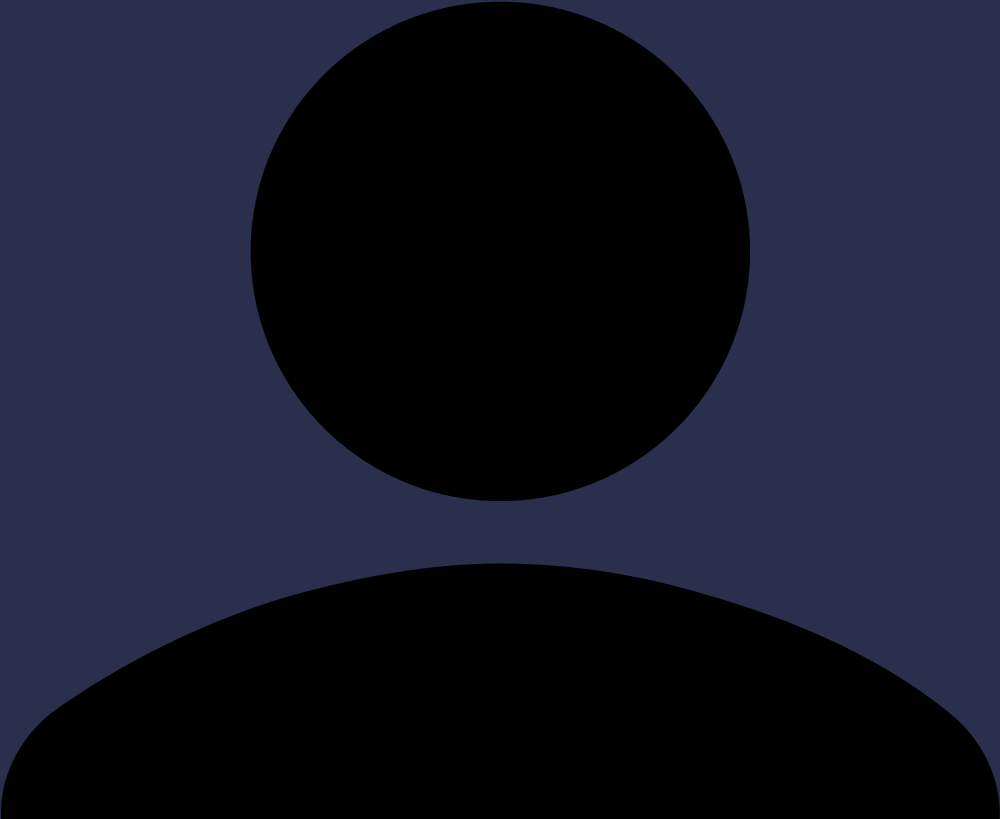
richer
insights

 Linckr

...



Part 2:
How our design decisions
might influence the
users' perception of Solid.

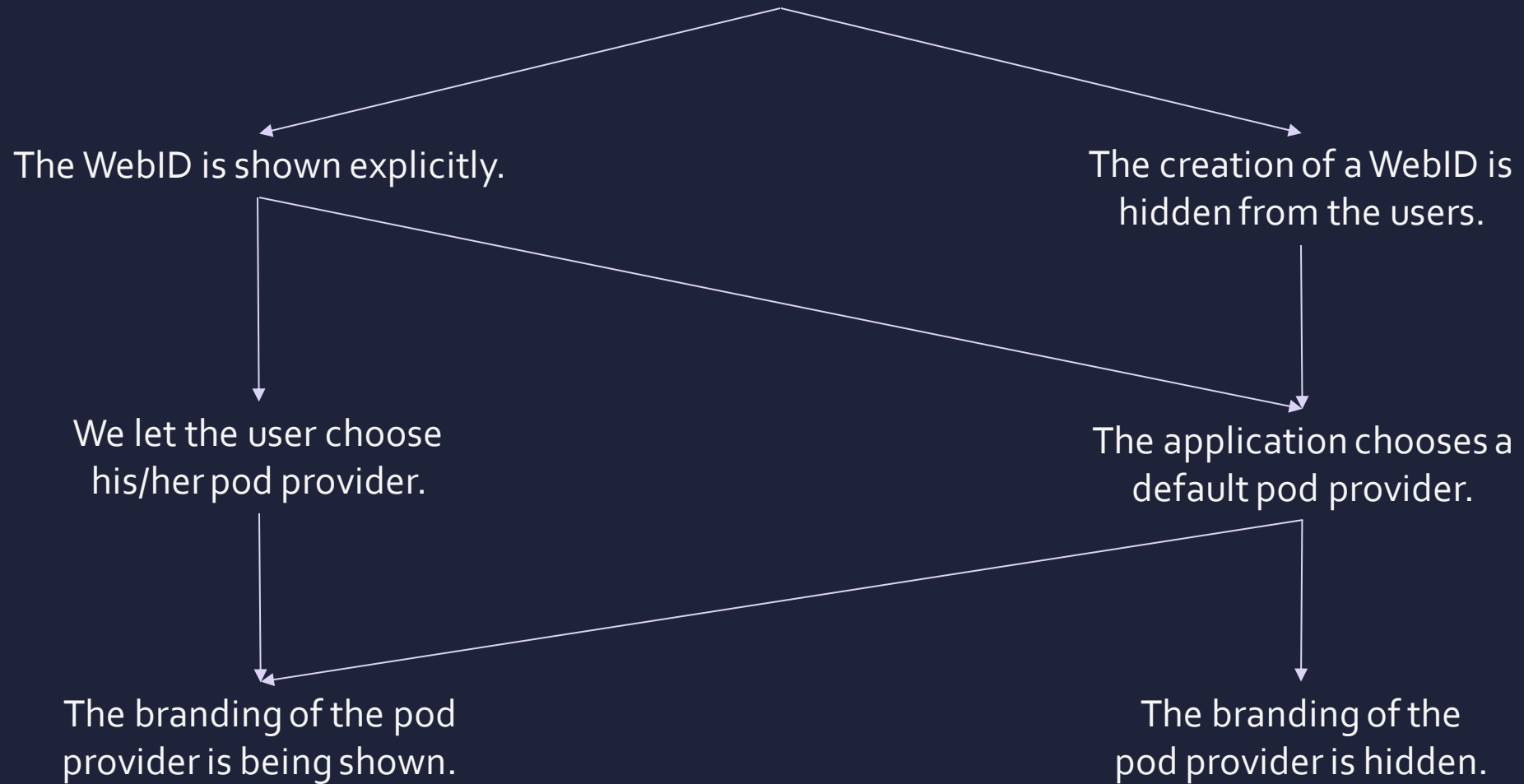


The image or 'mental model'
that people will have of Solid,
pods & WebIDs will depend on
how they are confronted with it.

The scenario

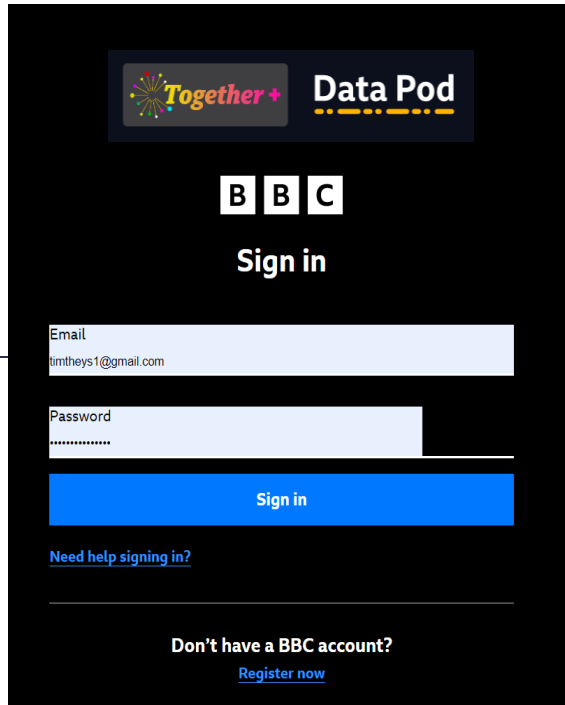
A user creates an account for an application that makes use of Solid pods.

Upon registration



BBC watch party

Login with BBC account



The login screen features the BBC Together+ Data Pod logo at the top. Below it is the BBC logo and a 'Sign in' button. There are input fields for 'Email' (containing 'timtheys1@gmail.com') and 'Password' (masked with dots). A blue 'Sign in' button is positioned below the password field. At the bottom, there is a link for 'Need help signing in?' and a section for users without a BBC account, including a 'Register now' link.

BBC Together+ Data Pod

BBC

Sign in

Email
timtheys1@gmail.com

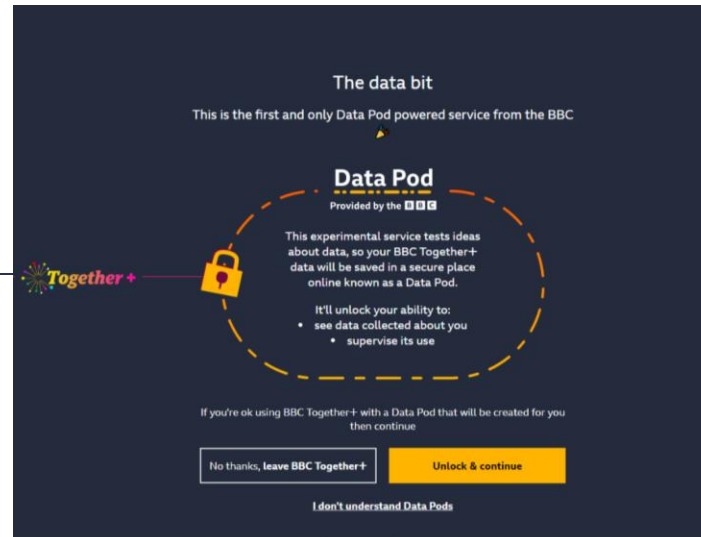
Password
.....

Sign in

[Need help signing in?](#)

Don't have a BBC account?
[Register now](#)

Information screen



This screen explains the Data Pod service. It states that this is the first and only Data Pod powered service from the BBC. It describes the Data Pod as a secure place where experimental service data is saved. It lists two unlocked abilities: seeing data collected about the user and supervising its use. A note mentions that if the user is ok with BBC Together+ and a Data Pod, they can continue. At the bottom, there are two buttons: 'No thanks, leave BBC Together+' and 'Unlock & continue'. A link 'I don't understand Data Pods' is also present.

The data bit

This is the first and only Data Pod powered service from the BBC

Data Pod
Provided by the BBC

This experimental service tests ideas about data, so your BBC Together+ data will be saved in a secure place online known as a Data Pod.

It'll unlock your ability to:

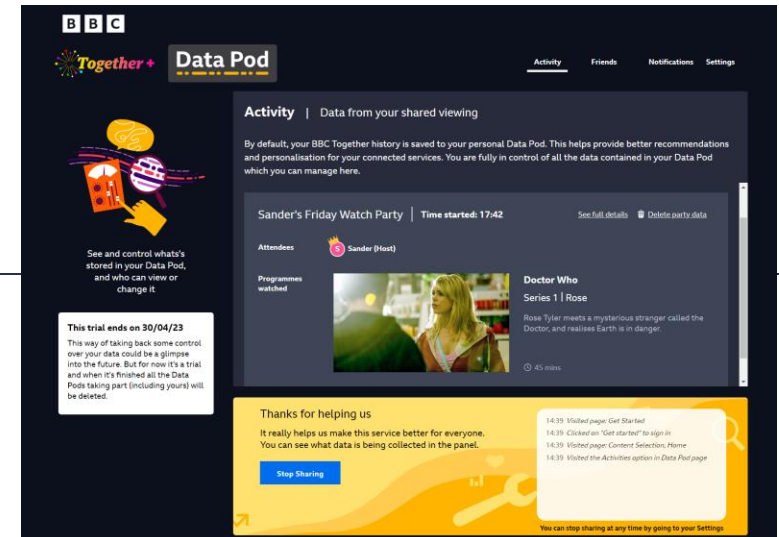
- see data collected about you
- supervise its use

If you're ok using BBC Together+ with a Data Pod that will be created for you then continue

[No thanks, leave BBC Together+](#) [Unlock & continue](#)

[I don't understand Data Pods](#)

Data Pod



This screen shows the user's Data Pod activity. It includes a header with the BBC Together+ Data Pod logo and navigation links for Activity, Friends, Notifications, and Settings. The main content area shows 'Activity | Data from your shared viewing'. It explains that by default, BBC Together history is saved to the personal Data Pod. A section titled 'Sander's Friday Watch Party' shows the time started (17:42) and a list of attendees, including Sander (Host). It also shows a video thumbnail for 'Doctor Who Series 1 | Rose' and a description of the episode. A 'Thanks for helping us' section at the bottom explains that the service helps make the service better for everyone and provides a 'Stop Sharing' button. A sidebar on the right shows a list of activities, including 'Visited page: Get Started', 'Clicked on: Get started to sign in', 'Visited page: Content Selection, Home', and 'Visited the Activities option in Data Pod page'.

BBC Together+ Data Pod

Activity Friends Notifications Settings

Activity | Data from your shared viewing

By default, your BBC Together history is saved to your personal Data Pod. This helps provide better recommendations and personalisation for your connected services. You are fully in control of all the data contained in your Data Pod which you can manage here.

Sander's Friday Watch Party | Time started: 17:42 [See full details](#) [Delete party data](#)

Attendees [Sander \(Host\)](#)

Programmes watched

Doctor Who
Series 1 | Rose

Rose Tyler meets a mysterious stranger called the Doctor, and realises Earth is in danger.

45 mins

Thanks for helping us

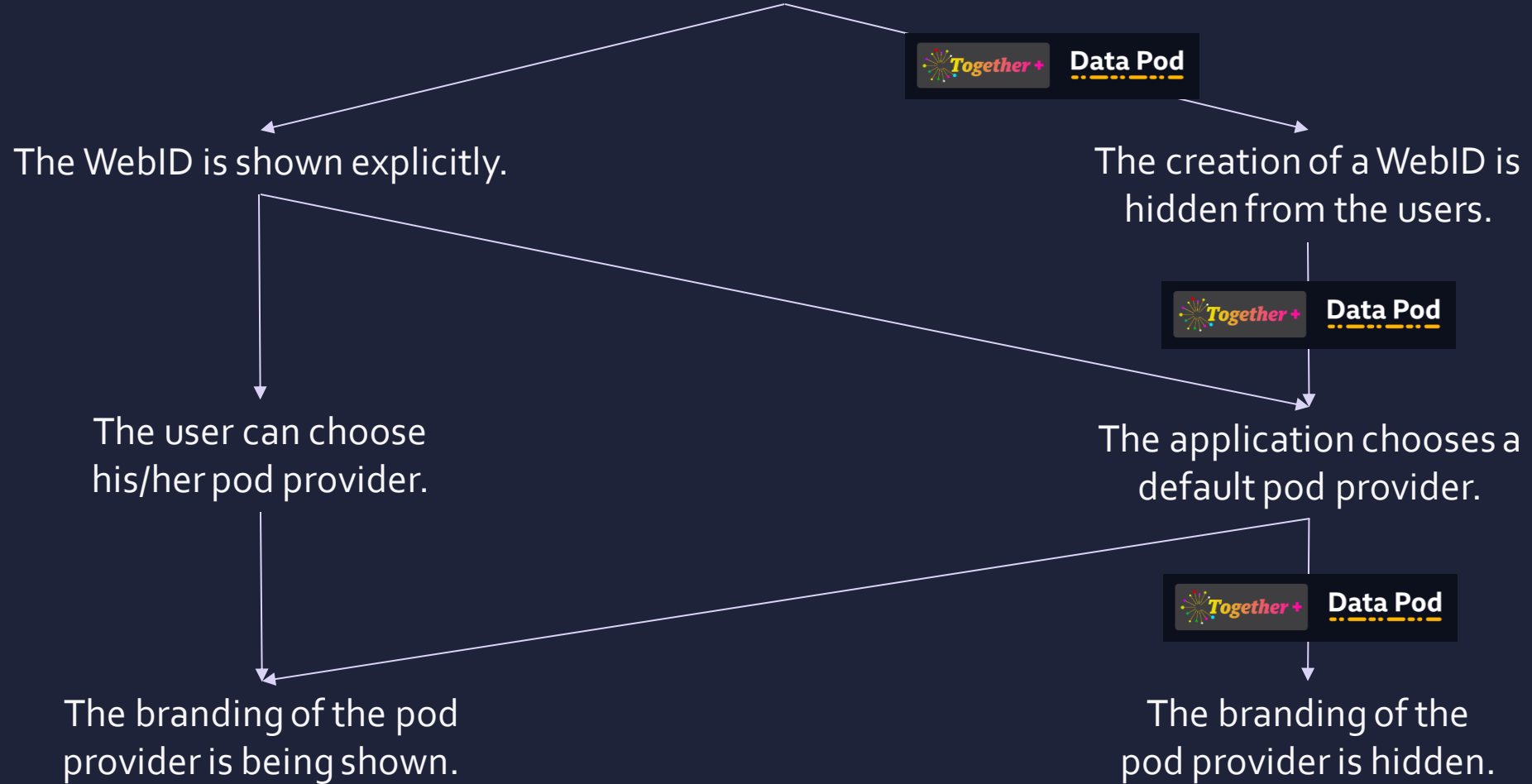
It really helps us make this service better for everyone. You can see what data is being collected in the panel.

[Stop Sharing](#)

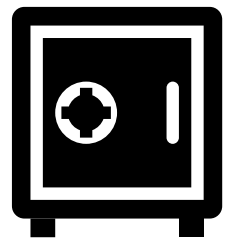
14:39 Visited page: Get Started
14:39 Clicked on: Get started to sign in
14:39 Visited page: Content Selection, Home
14:39 Visited the Activities option in Data Pod page

You can stop sharing at any time by going to your Settings

Upon registration



B B C



have improved
access control
over their
data.

have improved
transparency
over their
data.

the separation
of data
storage and
applications


reuse their
data across
services.

Karamel



Maak jouw eigen datakluis met use.id!

Maak nu een use.id Webld aan zodat je altijd eigenaar blijft van jouw data. Nadien kan je meteen inloggen in het platform.

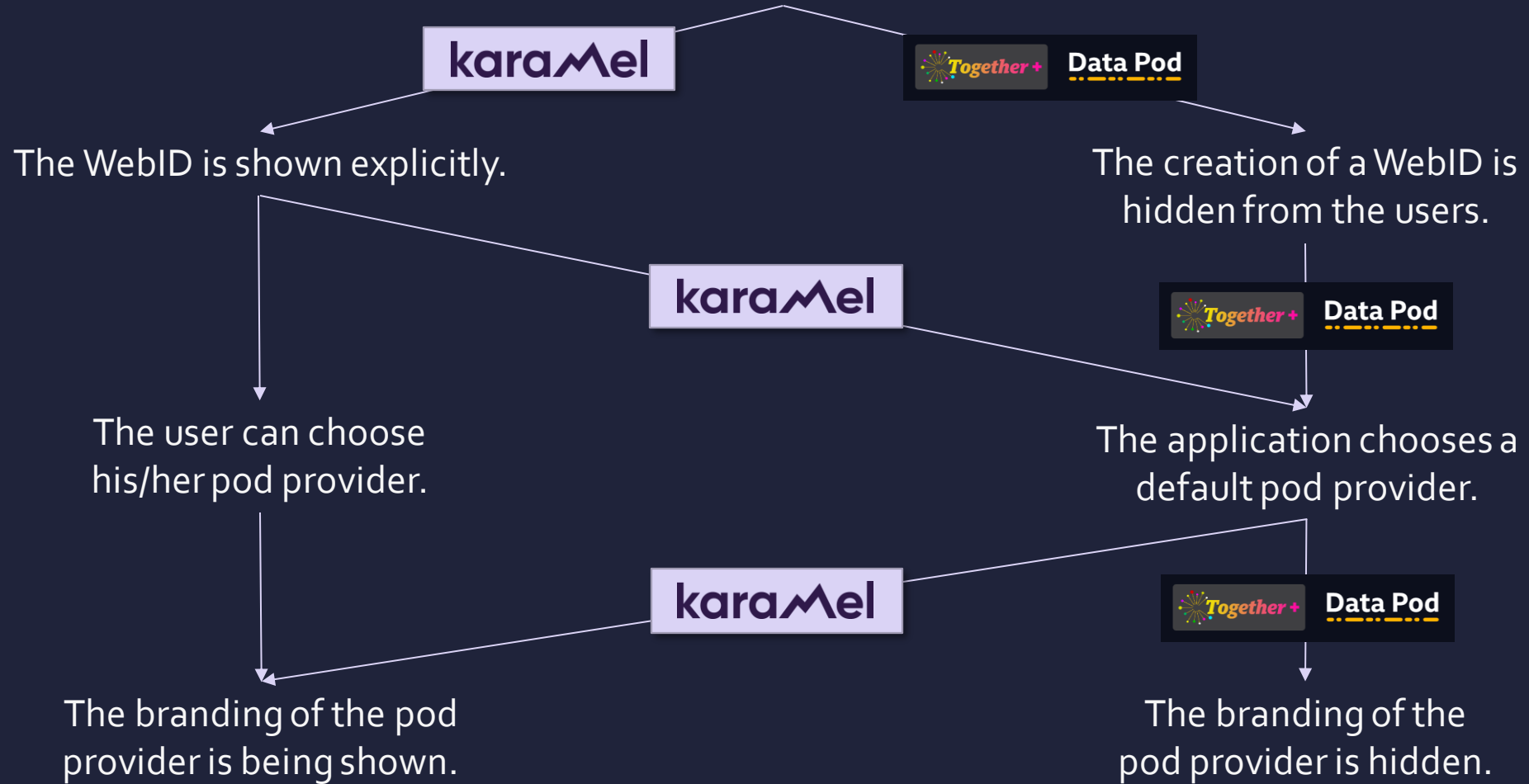
 use.id/

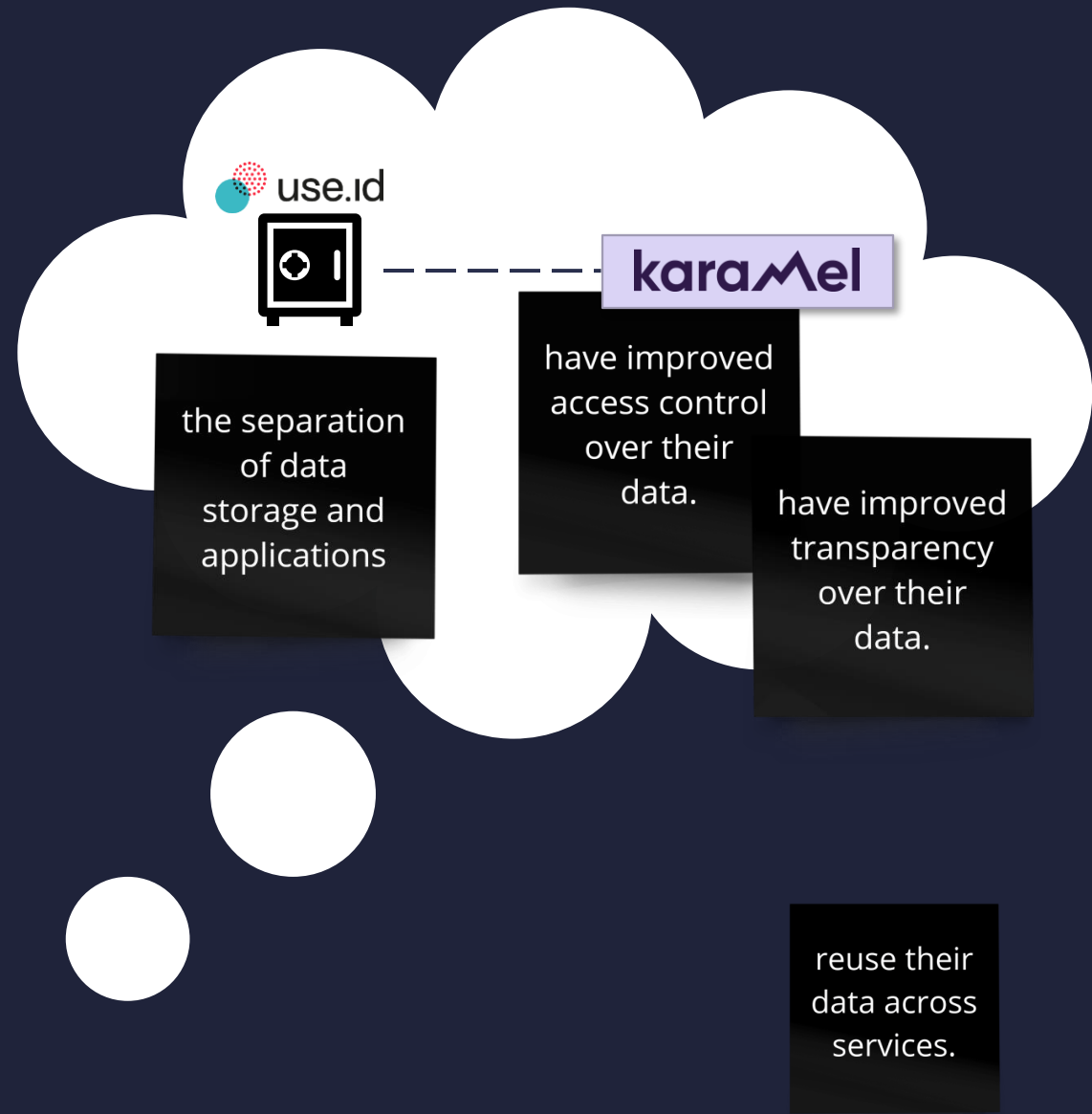
☐ Ik ga akkoord met de [gebruiksvoorwaarden](#).

Account aanmaken

[Meer info over SOLID datakluisen](#)

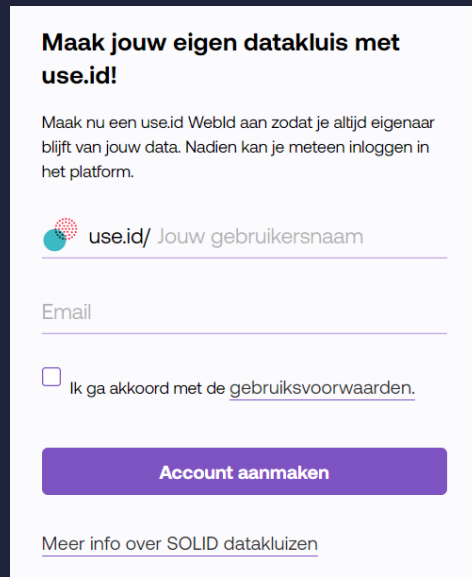
Upon registration






Upon registration

The WebID is shown explicitly.



Maak jouw eigen datakluis met use.id!

Maak nu een use.id WebId aan zodat je altijd eigenaar blijft van jouw data. Nadien kan je meteen inloggen in het platform.

 use.id/ Jouw gebruikersnaam

Email

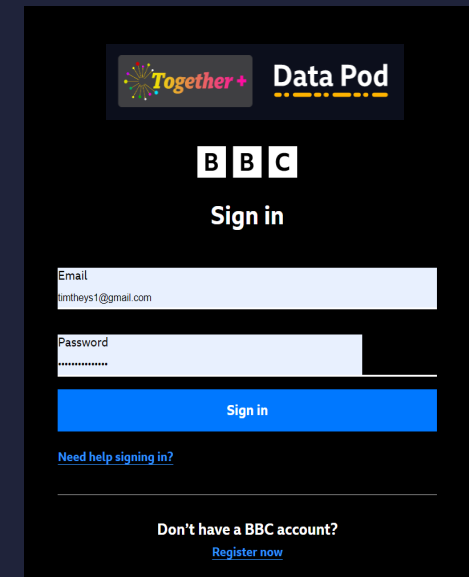
☐ Ik ga akkoord met de [gebruiksvoorwaarden](#).


Account aanmaken

[Meer info over SOLID datakluisen](#)

If users are not aware a WebID is created, they will also be unable to reuse it across services.

The creation of a WebID is hidden from the users.





BBC

Sign in

Email
lintheys1@gmail.com

Password
.....

Sign in

[Need help signing in?](#)

Don't have a BBC account?
[Register now](#)

Confronting the users with a WebID might be an extra hurdle, it's better to couple it to an existing account they know and trust.





Bedankt & nu tijd om te supporteren voor onze Rode Duivels 🐱

Tim.Theys@UGent.be



FLANDERS

<https://solidlab.be>



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