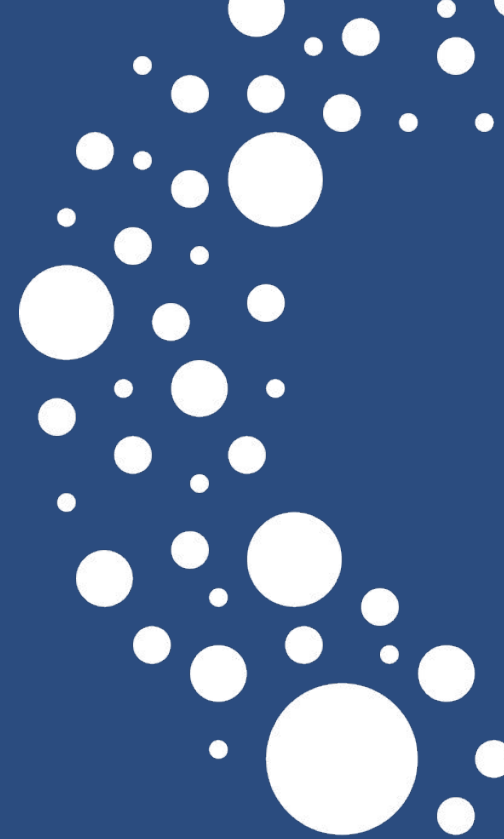


# Capturing SOLID's Value

Actors, business models and lessons learned



# About me

## Prof. dr. Tom Haegemans

- Co-Founder Digita  
*R&D and marketing*
- Professor at KU Leuven  
*Management information systems*
- PhD in Business Economics, MSc in MIS, BSc in Applied ICT

## Brusselse start-up Digita ontwart uw online dataspoor



Wouter Janssens, Lauro Vanderborcht en Tom Haegemans (v.l.n.r.). 'Met Digita willen we orde scheppen in de berg data bij grote bedrijven.' @Karoly Effenberger / Digita

MARIE VAN OOST | 24 januari 2020 00:00

Digita, een start-up die werkt aan een datakluis om persoonlijke gegevens te beheren, heeft de Brussels Innovative Starters Award gewonnen. 'Gebruikers beseffen niet hoe

DataNews Rubrieken ▾ Het magazine Voordelen voor abonnees Abonneren

## Brusselse start-ups Digita, CitizenLab en Veoware Space krijgen elk half miljoen euro

24/01/20 om 07:37 Bijgewerkt om 09:32 Bron: DataNews



**Els Bellens**  
Els Bellens is redactrice bij Data News.

Innoviris, het Brusselse Instituut voor Onderzoek en Innovatie heeft zijn 'Innovative Starter Awards' uitgereikt. De prijzen gaan naar drie ambitieuze Brusselse start-ups die elk een half miljoen aan investeringen krijgen.

10 Keer gedeeld 

**DeMorgen.**

TUUR | VOOR U UITGELEGD | TECH & WETENSCH

## Brusselse start-ups ontvangen elk half miljoen euro



# Content

1. Lessons learned
2. Actors and business models in a Solid ecosystem



# Content

1. **Lessons learned**
2. Actors and business models in a Solid ecosystem



# Common feedback and lessons learned

From my experience as the cofounder responsible for R&D and marketing at a Solid startup

Common responses when talking to companies about Solid...

1. Solid? What?
2. WTF is a pod?
3. So you want us to share our customer data with our competitors?
4. So... I am not allowed to store any personal data anymore?
5. OK... But, what can I do with it?
6. When I move house, I just need to change the data in my pod?
7. What about other technologies like blockchain?



# 1. Solid? What?

Truth: For 'normal' people, "Solid" has as much meaning as "http/html"

Why not use a term that many people do know?

We heard many "aha's" when we talk about a **personal data web**



## 2. WTF is a pod?

Common questions:

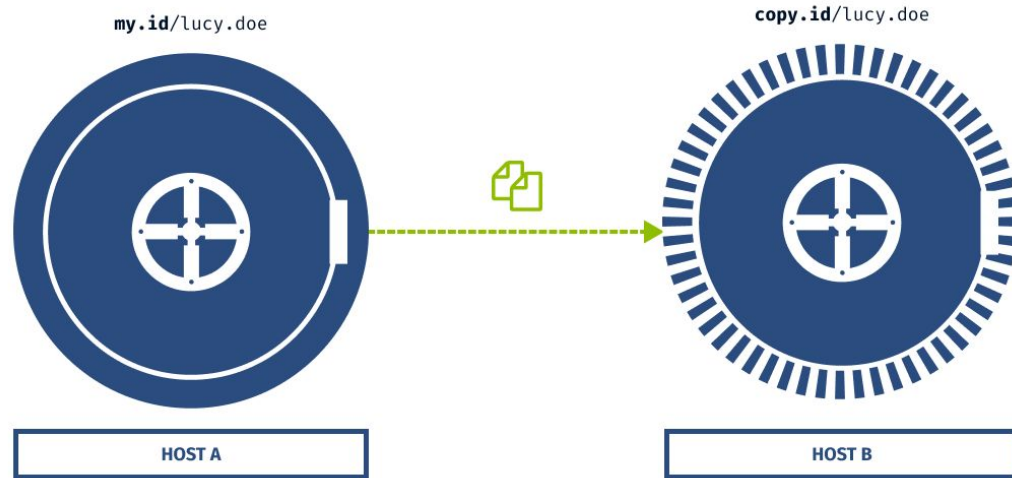
- How is it written? Pot?
- What does it do?
- Is it secure?

We are able to avoid these questions when we call it a **virtual data vault**



### 3. So you want us to share our customer data with our competitors?

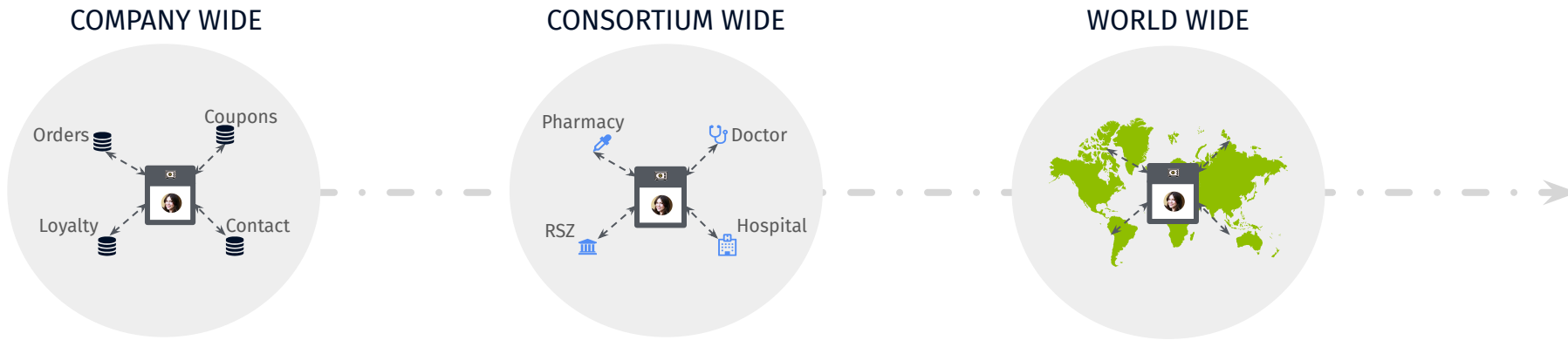
Let's not forget: Solid supports ultimate data portability





# 3. So you want us to share our customer data with our competitors?

Our answer: only if you want to



## 4. Am I not allowed to store a copy anymore?

Of course you can store a copy...



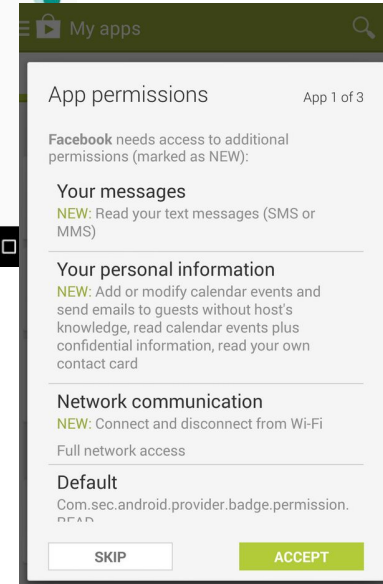
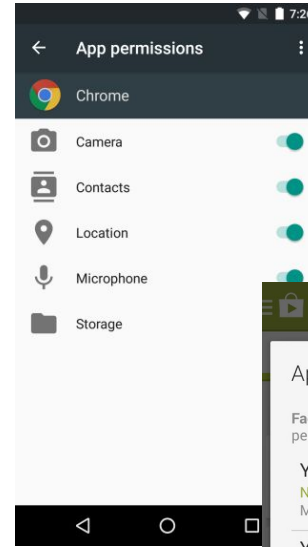
# 5. What can I do with it?

## Most important features

- Single interface to your data - even if it is stored disparately
- Data sharing and consent
- Less data duplication

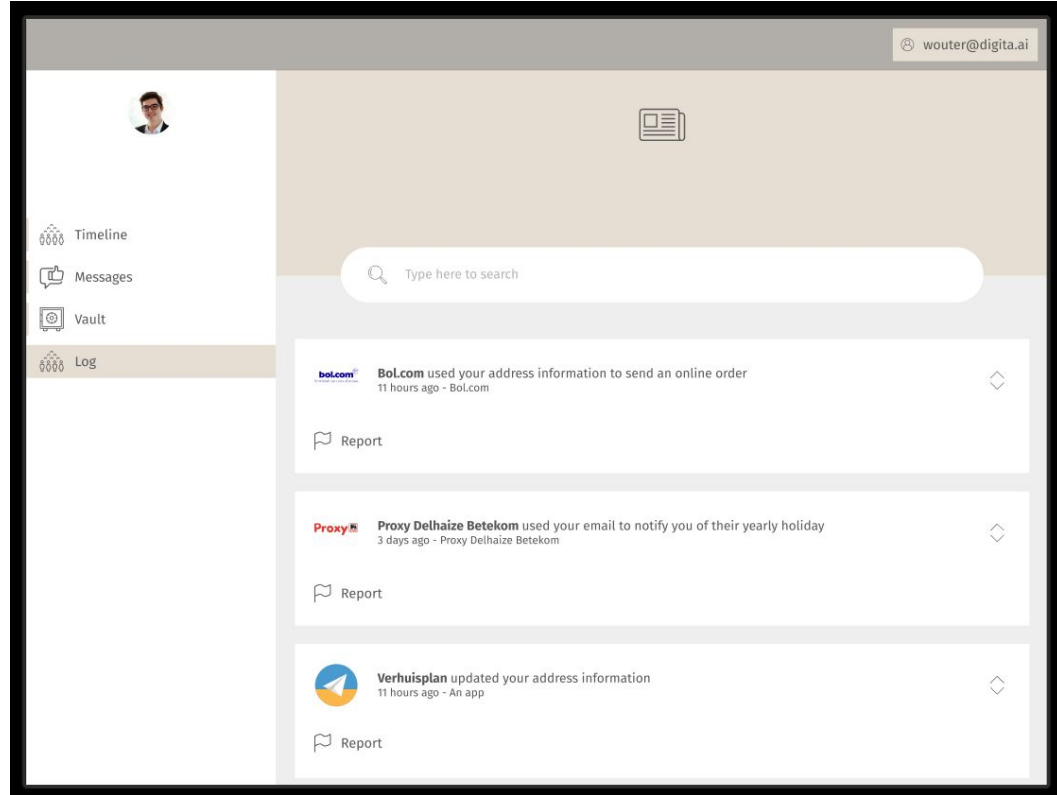
## Additional functional requirements:

- A posteriori privacy settings
- Trusted authorities and certificates



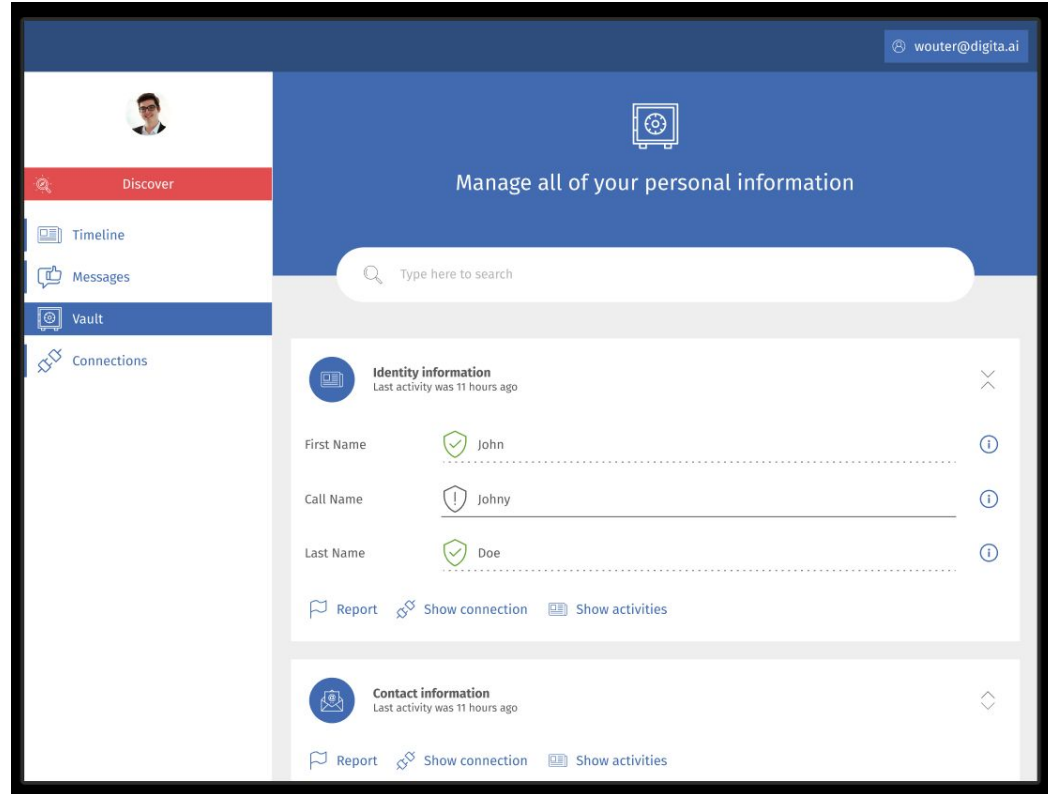
# 5. What can I do with it?

Example of a posteriori privacy settings



# 5. What can I do with it?

Example of use case for trusted authorities



## 6. When I move house, I just need to change the data in my pod?

Nope

In general, personal data changes at a key life event

- You move house
- You get married
- You divorce
- You die



## 6. When I move house, I just need to change the data in my pod?

Problem: companies have different processes to handle life events.

- Telco: Notify, Arrange appointment for new installation, Move, Execute new installation
- Bank: Notify, Move, Go to town hall to update info, Provide copy of ID for KYC reasons
- Supermarket: Send new information

There need to be apps that support life events... and for such apps, you can leverage the GDPR.



## 7. What about blockchain?

In the blockchain-world, there is a thing called “Self-Sovereign Identity (SSI)”.

Sadly, there are many blockchain-fanboys.

We need a way to better position blockchain based SSI vs Solid based SSI

Currently, we say

- Solid is a way to do SSI
- Compared to blockchain, Solid is much simpler and based upon proven technologies
- Blockchain and Solid are compatible (see Identity actor/business model)

Yet, we need additional research to improve this positioning...





# Our Solid vision in layman's terms

A set of rules that leads to a personal data web in which you own a virtual data vault

With such a vault

- You have a single interface to view all your data  
Even if copies of your data are stored at another party
- You can manage your privacy settings
- You can see what happened to your data and report inappropriate uses



# Content

1. Lessons learned
2. **Actors and business models in a Solid ecosystem**



# Creating vs capturing value

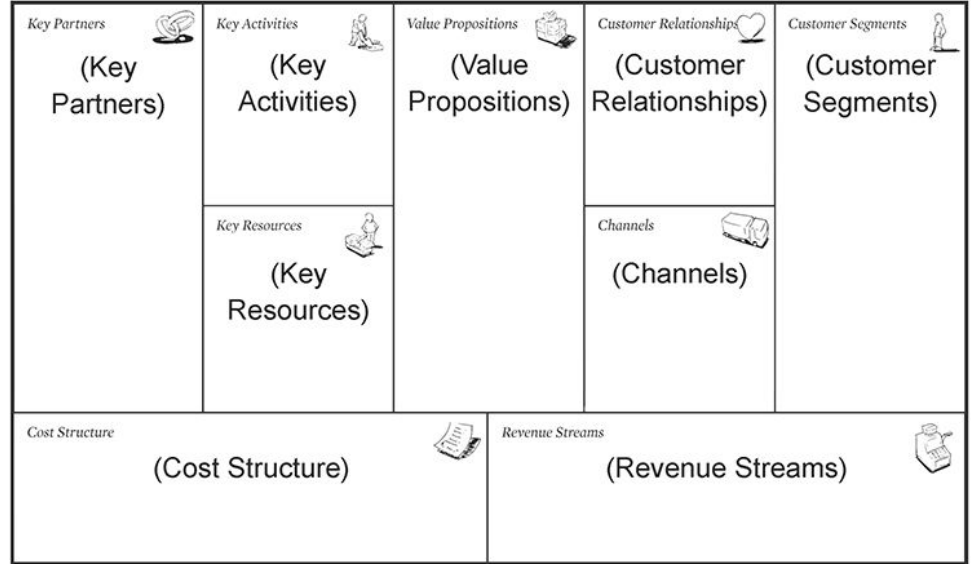
## In general:

Companies need to create value and be able to capture this value.

Solid creates value...

But... How to capture this value?

Business models state how value is captured.



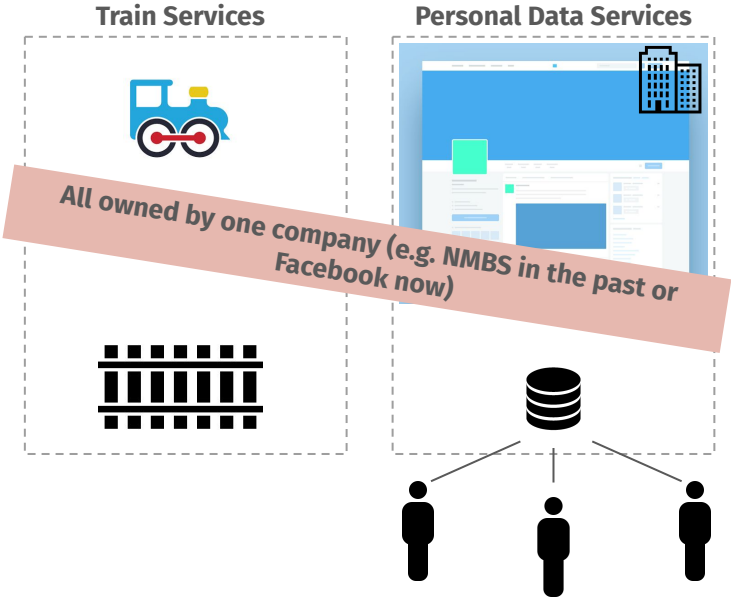
[www.businessmodelgeneration.com](http://www.businessmodelgeneration.com)

The templates here are made available on the same CC license terms as the original canvas.

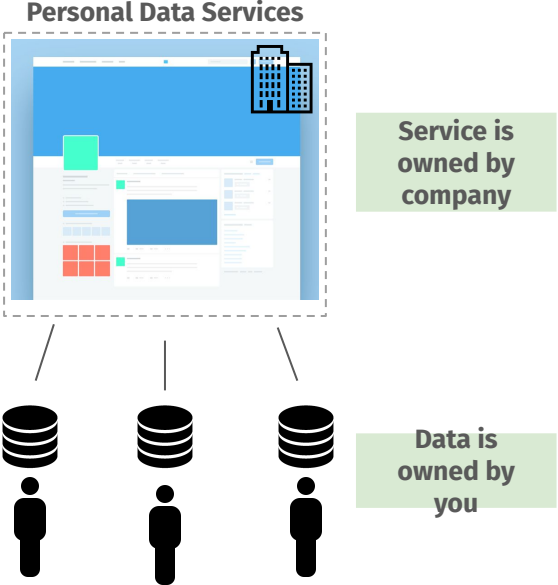
Business Model Canvas is a trademark of Alexander Osterwalder and Yves Pigneur. All rights reserved. © 2010-2019 Business Model Generation, Inc. All rights reserved.



# Solid makes it hard to capture value



Vertical desintegration removes market barriers



# The Ecosystem & Actors

## Intraweb

### Enterprise Client



## World wide web

### Consumer Client



### Storage Provider



### Identity Provider



### Enterprise Client



### Venture Builder



### Venture Operator



**Next slides: the world wide personal data web...**



## Consumer Client



## Storage Provider



## Identity Provider



## Enterprise Client



## Venture Builder



## Venture Operator



## Value proposition

- For consumers: a way to look at your digital vault
- For app builders: a way to easily distribute your app

## Possible revenue stream

- Part of third-party app revenue



## Consumer Client



## Storage Provider



## Identity Provider



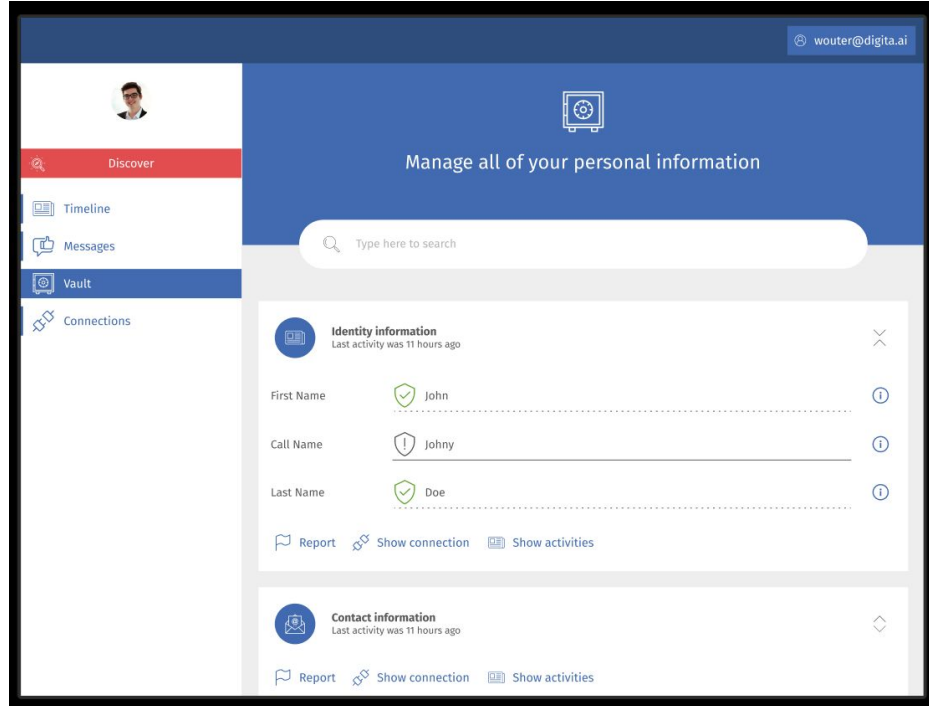
## Enterprise Client



## Venture Builder



## Venture Operator



Consumer Client



Storage Provider



Identity Provider



Enterprise Client



Venture Builder



Venture Operator



## Value proposition

- For consumers: a way to store your data securely and reliable
- For companies: a way to ensure continuous and reliable access to your connections

## Possible revenue stream

- Fee for people to access their private archive
- Storage-as-a-service





Consumer Client



Storage Provider



Identity Provider



Enterprise Client



Venture Builder



Venture Operator



We need a way to resolve URI's to pods

Two options:

- Centralised on domain name level (like ICANN) or on account level (like Hotmail and GMail)
- Decentralised... Blockchain?



Consumer Client



Storage Provider



Identity Provider



Enterprise Client



Venture Builder



Venture Operator



## Value proposition

- For consumers: a way to uniquely identify yourself
- For companies:
  - Guarantee uniqueness of URI
  - Guarantee completeness of data vault (e.g. insurance provider)
  - Resolve URI to pod

## Possible revenue stream

- Fee for ability to resolve large quantities



## Consumer Client



## Storage Provider



## Identity Provider



## Enterprise Client



## Venture Builder

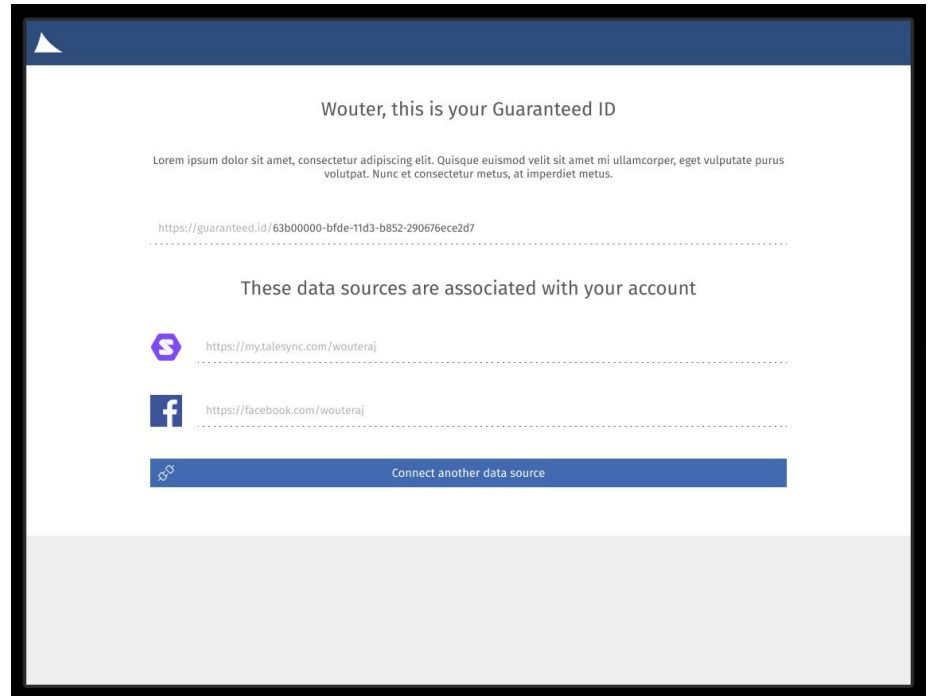


## Venture Operator



### Example: centralised on account level

People can register for a `guaranteed.id/xxx` URI and connect their data sources.



Consumer Client



Storage Provider



Identity Provider



Enterprise Client



Venture Builder



Venture Operator



## Value proposition

- For companies:
  - Sync with pods of clients/employees
  - Sync internal data
  - Provide data lineage
  - Retain privacy information

## Possible revenue stream

- Software license



## Consumer Client



## Storage Provider



## Identity Provider



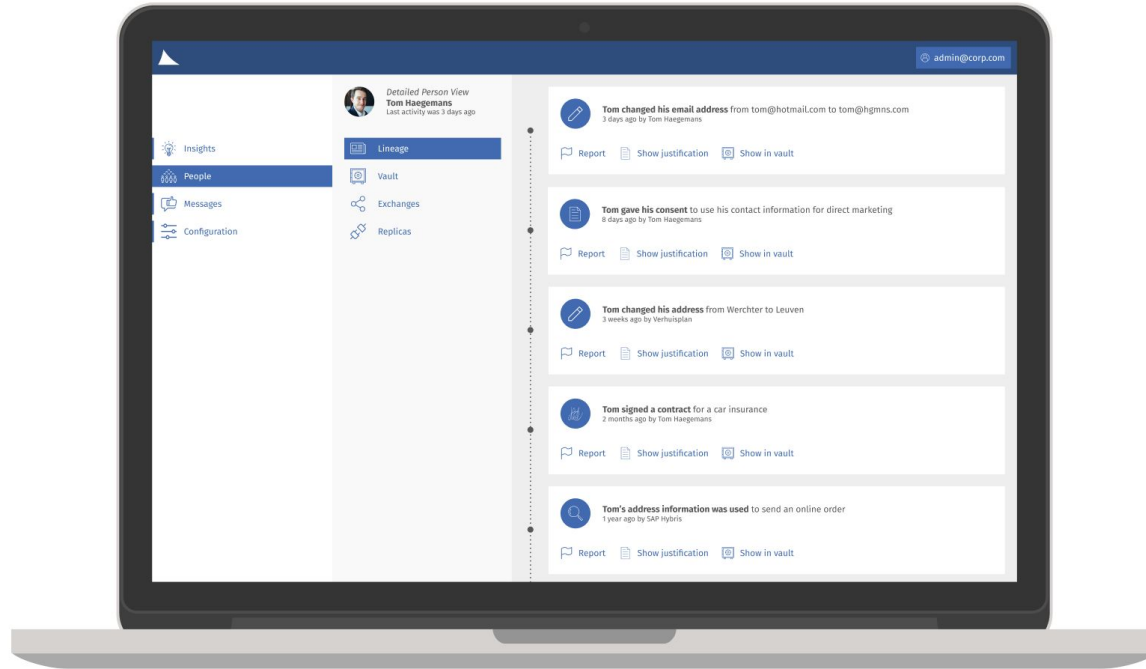
## Enterprise Client



## Venture Builder



## Venture Operator





Consumer Client



Storage Provider



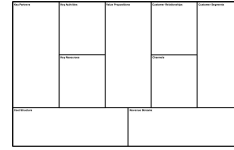
Identity Provider



Enterprise Client



Venture Builder



Venture Operator



## Value proposition

- For companies:
  - Easily create meaningful digital experiences
  - i.e. quickly build apps

## Possible revenue stream

- Software license



Consumer Client



Storage Provider



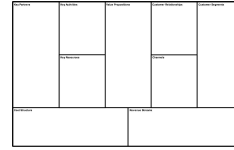
Identity Provider



Enterprise Client



Venture Builder



Venture Operator



## Value proposition

- Depends on venture

## Possible revenue stream

- Depends on venture





# Conclusion & Digita's Positioning

- We need many parties in a Solid ecosystem
- Digita can only be a small part
- Now, Digita is building software for actors out of necessity
- In the future, Digita wants to be a software vendor of an enterprise client (because that is our expertise)





# Thank you!

Feel free to contact me: [tom@digita.ai](mailto:tom@digita.ai)

We are always looking for good (remote) developers to join our team.

