





Ruben Verborgh
Professor of Semantic Web Technology
IDLab – Ghent University Belgium

Katrien Mostaert
Program manager Informatie
Vlaanderen Belgium

Streamlining governmental data processes by putting citizens in control of their own data – Solid





# Difficulties for governments in Flanders today

- Governments create lots of authentic personal data
- Re-use of these data is restricted because of GDPR and the unbalanced relationship between citizens and government
- Ownership of official data lays within administrations
  - Citizens can't easily re-use their own official data for their own purposes
- Personal data such as e-mail accounts or telephone numbers are difficult to keep up to date







### Challenges for citizens and governments

- Can governmental processes be streamlined by putting citizens in control of their data?
- How can citizens share their data with government administrations within the context of GDPR?
- How can citizens reuse their personal data stored in government systems in a different context?













- data are centralized in platforms / data and application are "integrated"
  - this hurts innovation: developers depend on centralized platforms (e.g. facebook, ...) for identity and data
  - people lose control of their data and cannot easily switch to other apps (customers are locked in)
  - high vulnerability data are centralized in platforms

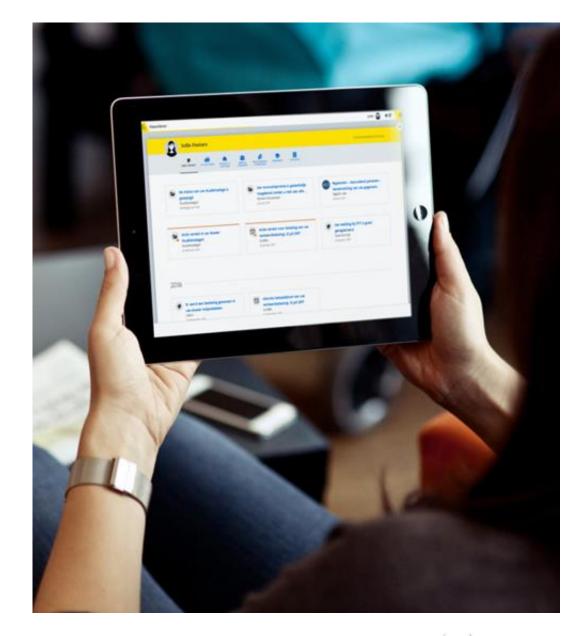






### Project in Flanders: Solid and my citizen profile

- Solid: Web-based ecosystem that separates data from their applications by providing people with their *personal data pod*, in which they can store data independently of the applications that they or others use to access that data
- My citizen profile: an application which provides an overview of all authentic government information and status information of interactions with the government
- Project: how can Solid's decentralized principles tackle some of these challenges?







### People choose where they store every single piece of data they produce

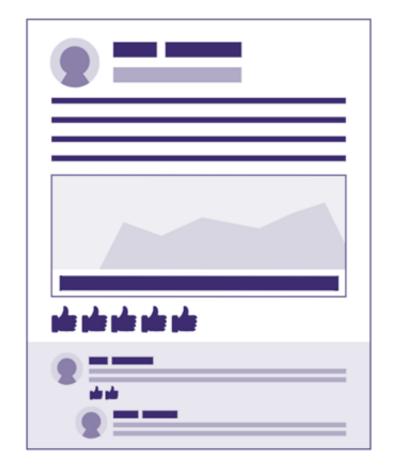
Author's name and latest profile picture stored in author's personal data pod

Work-related opinion about an article stored in data pod of author's company

Discussed article title and photo stored in news website's data pod

**Likes on this post** each one in different individuals' data pods

Comments on this post each one in different individuals' data pods

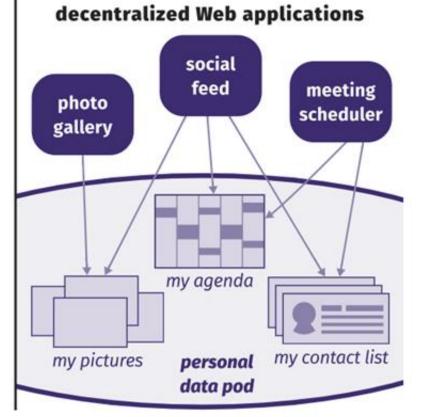






## They can grant apps and people access to very specific parts of their data

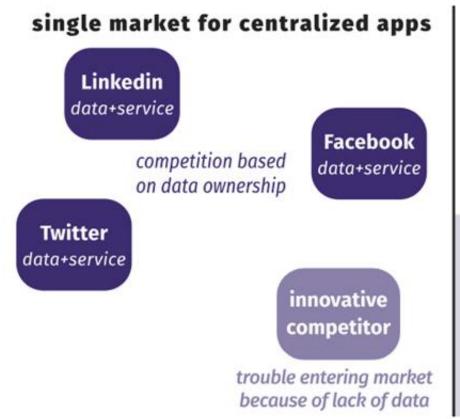
#### centralized Web applications LinkedIn Facebook my contact list 1 my contact list 2 multiple data silos my pictures 1 Doodle my agenda 1 my agenda 2

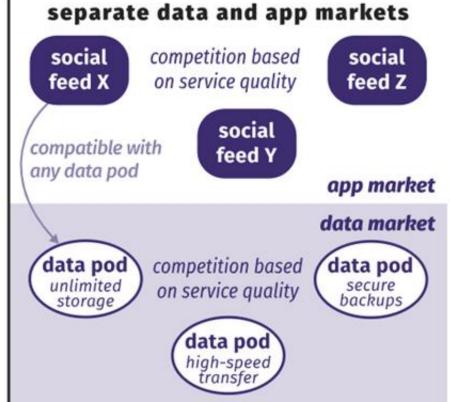






### Separating app and storage competition drives permissionless innovation

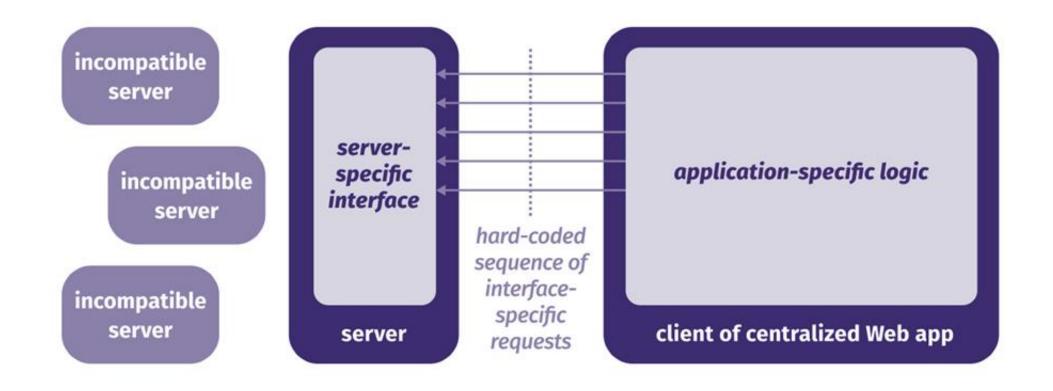








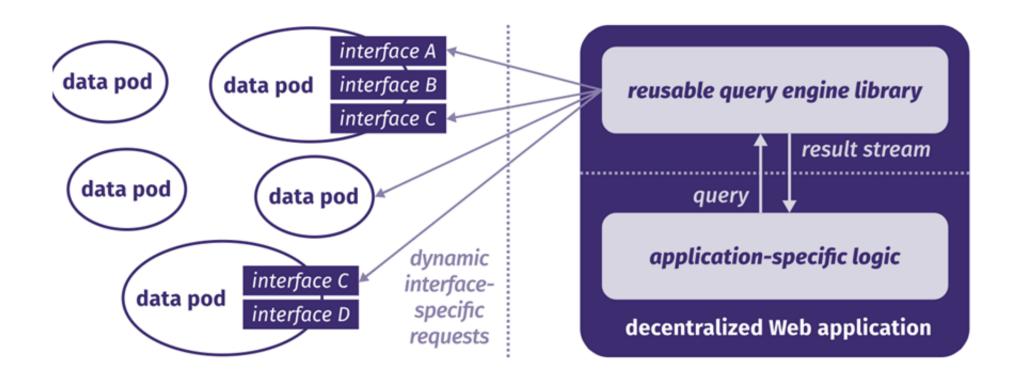
### The current approach to APIs doesn't play well with decentralization







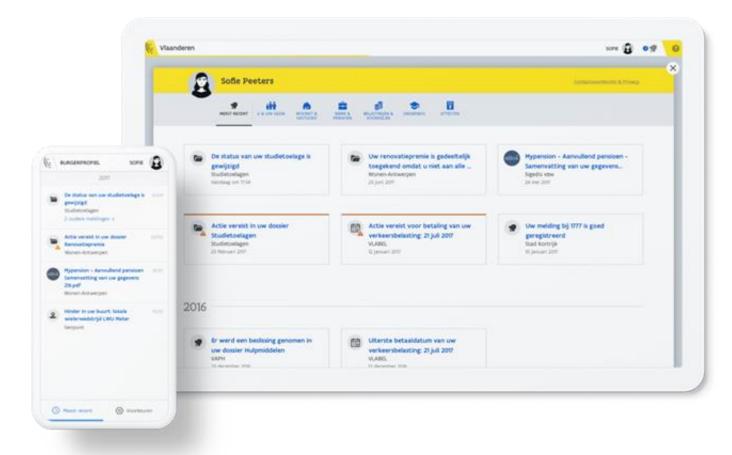
### When clients do not bind to specific requests, apps and interfaces can evolve independently







### My citizen profile: one personal digest of your government services



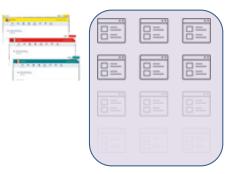


















Data from agency C





Platform for exchanging data Data from locality D



















Widget and front application



https://invis.io/5MDYYHSSP

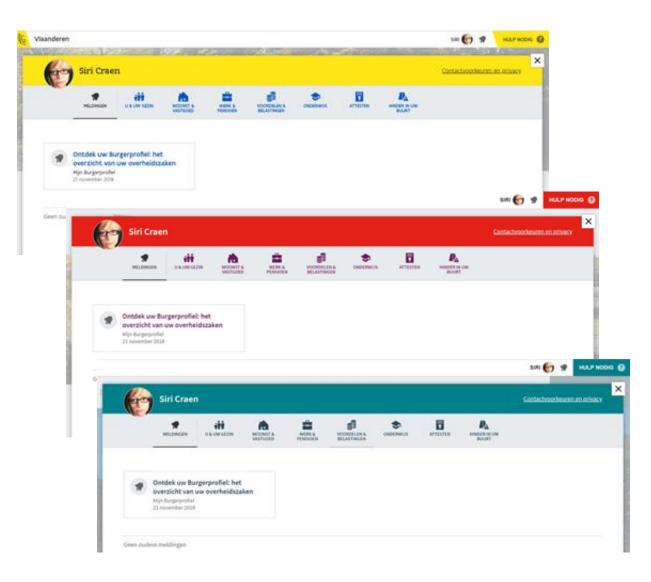




#### No wrong door

Citizens are always guided to the services they need, wherever they enter the government-network

https://invis.io/UVEKV6ZED

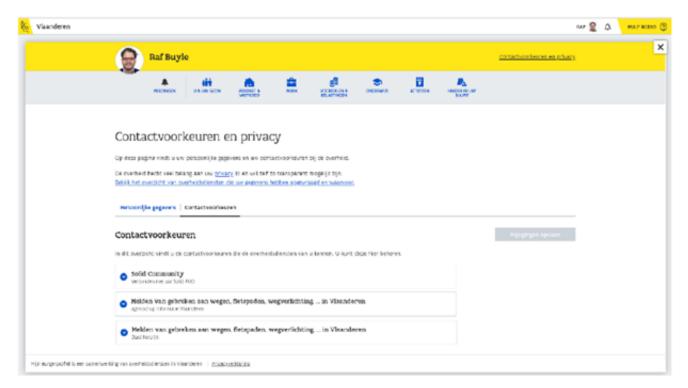






# Use case: a citizen can share personal information through his pod

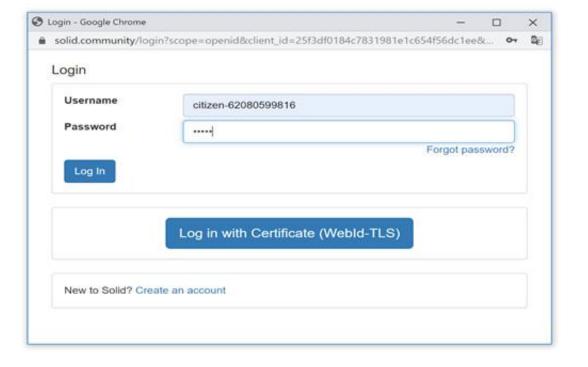
- A citizen can share an e-mail address with a government application
- The data remains in the pod
  - There are no copies
  - The e-mail is always up to date
- next step: a citizen can "download" government information to his pod and share this information with people/organisations of his choice





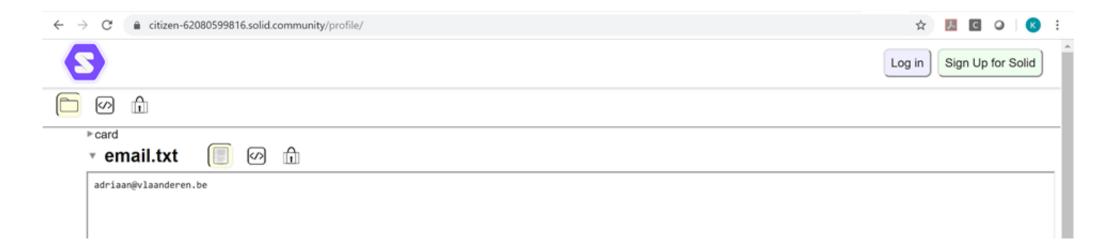
























#### Sharing for file email.txt

can read, write, and control sharing. Owners Demo2 C+ Editors None can read and change information can add new information, and read but not Posters None change existing information Submitters None can add new information but not read any Viewers can read but not change information MijnBurgerprofiel <sub>c+</sub>

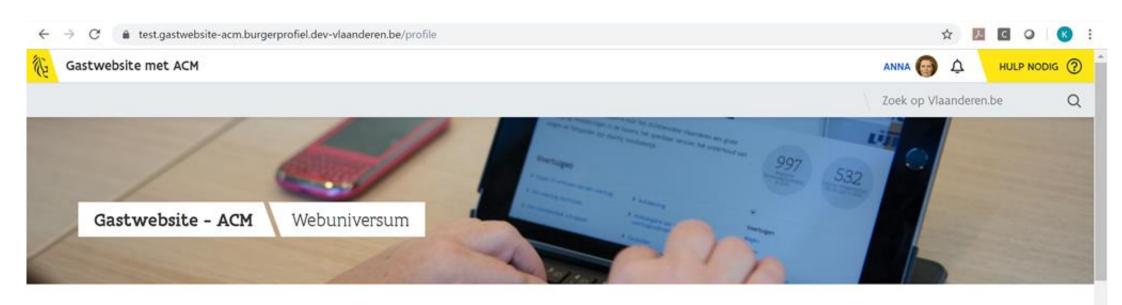
> Stop specific sharing for this file -- just use default for profile









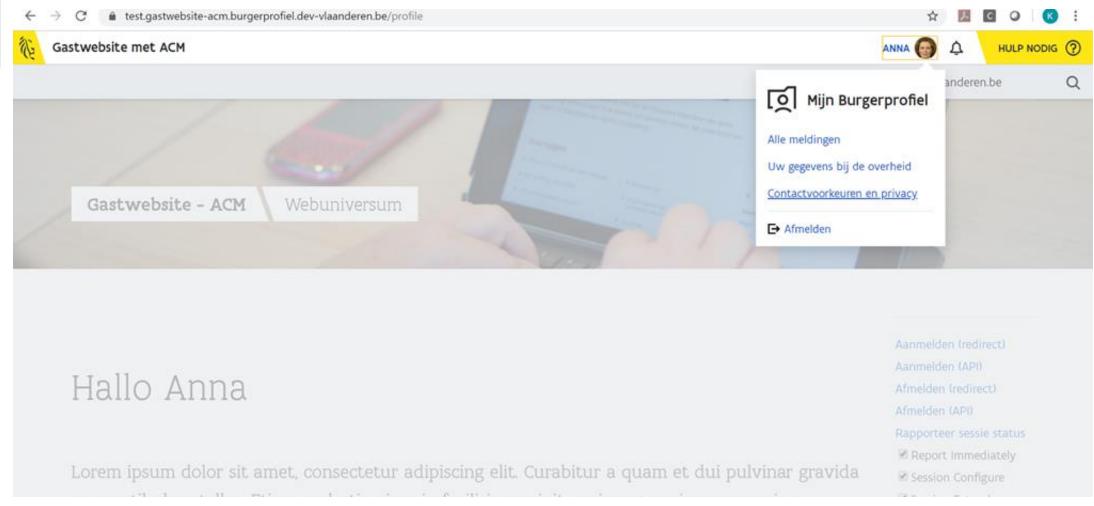


#### Hallo Anna

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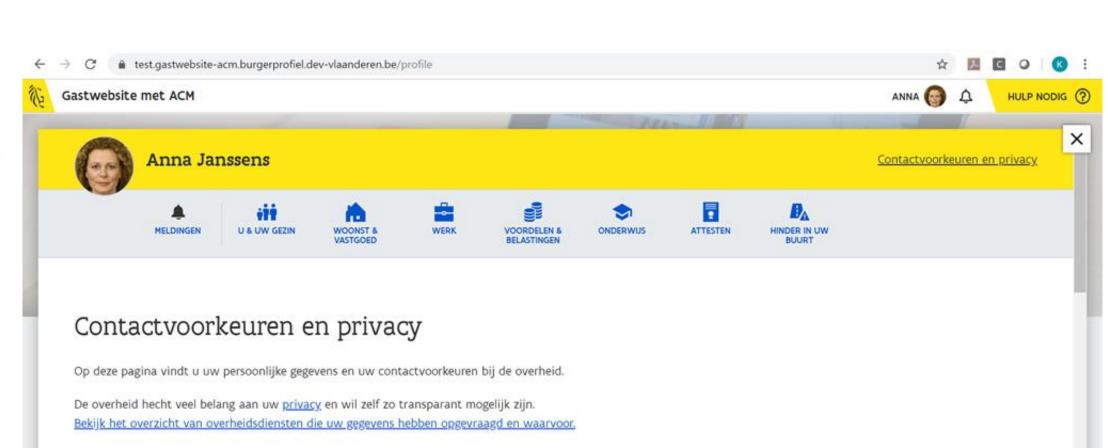












Persoonlijke gegevens Contactvoorkeuren

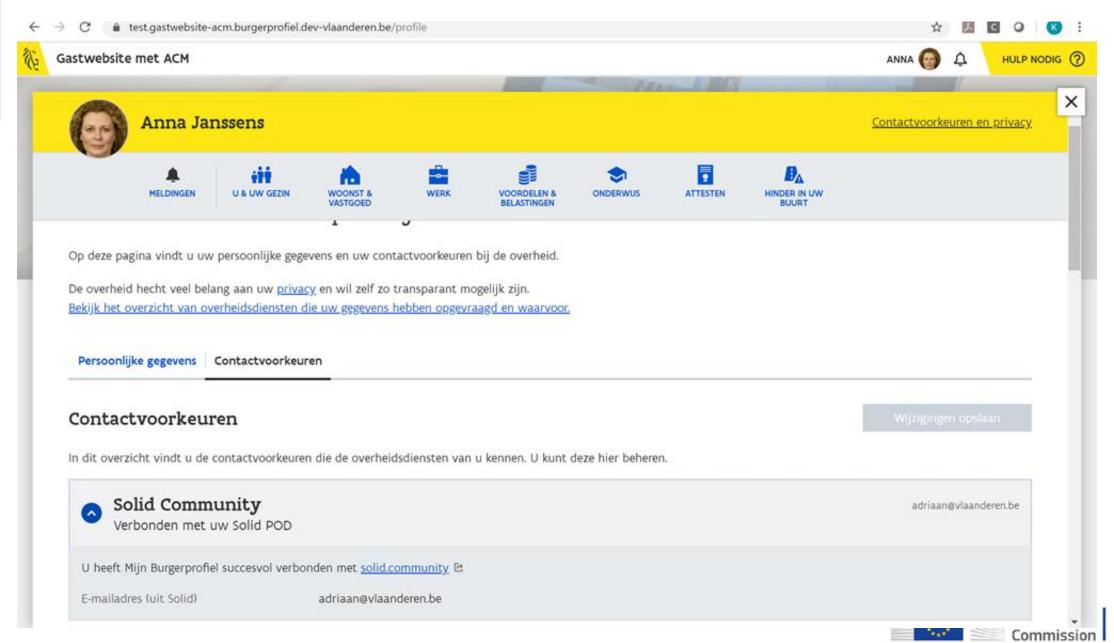
#### Contactvoorkeuren

In dit overzicht vindt u de contactvoorkeuren die de overheidsdiensten van u kennen. U kunt deze hier beheren.



adriaan@vlaanderen.be







#### Next steps

- Pilots with member states
  - Tackle challenges in other use cases
  - Within a member state (exchange experiences)
  - cross-member state collaboration
- Pilots with commercial partners
  - pod-suppliers
  - application-suppliers
  - Data-brokers







#### Imec

Imec aims to be the world-leading R&D and innovation hub in nanoelectronics and digital technologies.

As a trusted partner for companies, startups and academia we bring together brilliant minds from all over the world in a creative and stimulating environment.

By leveraging our world-class infrastructure and local and global ecosystem of diverse partners across a multitude of industries, we are accelerating progress towards a connected, sustainable future.





### Flanders information agency

The mission of the Informatie Vlaanderen agency is to develop a coherent, government-wide information policy and to support and help realise the transition of the Government of Flanders into an information-driven administration.

