Common Ground

What is it?

Common Ground is an open source movement focused on providing api-based components for government and proprietary software. The community consists out of municipalities, water boards, etc. Using Common Ground makes it possible to quickly create a Kubernetes environment and install components and applications.

In addition, Common Ground helps administrators (developers or non-developers) to easily set up and configure a Kubernetes environment for their common API's and user interfaces.
Who are we?

Website
Who are you?
Common Ground

De volgende video’s kunnen geraadpleegd worden om een duidelijk beeld te krijgen van Common Ground.
Common Ground

- Interaction Layer: Consists of user interfaces for the end user.
- Process Layer: The service and business processes fall within the process layer.
- Integration Layer: One of the focal points of Common Ground is that we stop copying data, and instead consult and mutate data at the source. This is what the Integration layer contains.
- Service Layer: The service layer contains components that offer APIs with which data from the data layer can be accessed.
- Data Layer: The data layer contains components that store or archive data.
IST: current ecosystem of municipalities
SOLL: Future ecosystem of municipalities

Layered application

- User interface
- Business Logic
- Integration
- Service
- Data
Transition IST → SOLL
Overview Common Ground

https://www.dashkube.com/commonground
Linked data: the challenges

- **Performance**
  - Many APIs to be invoked, often dependent on responses of previous invocations
  - Business logic cannot be progressively executed
  - As slow as the slowest API
  - Result: the application is not performant

- **Reliability**
  - Some APIs are more reliable than others
  - As weak as the weakest link

- **Documentation**
  - Many APIs is many locations for documentation of different quality
Solving problems of linked data

Serving the data through a gateway specific for linked data

- **Performance**
  - Caching data we are allowed to cache
  - Combining (extending) data that can be combined to one request

- **Reliability**
  - Cached data
  - Notifications for data changes

- **Documentation**
  - Single source of truth, documentation generated from the configuration
Challenges of a gateway

- Not all data can be cached, for example data that is mutated often
- Not all data is allowed to be cached, like sensitive personal information
On the upside: serving the people

Linked data can provide us with the tools of creating very useful applications

E.g. Virtueel Inkomstenloket: By aggregating data, the application can assess which benefits apply to you, and notify you if benefits no longer apply.

For vulnerable people requesting benefits is complex and a significant threshold. Using linked data means that it becomes much easier to claim benefits and stopping them when needed, because the data is already available in government systems.