

# The Equalis experience with migrating to the Azure cloud

DTL Communities@Work 2018

Jointly building life science data solutions

Contribution to workshop

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Utrecht, 02-10-2018

EQUALIS

strategy & modeling

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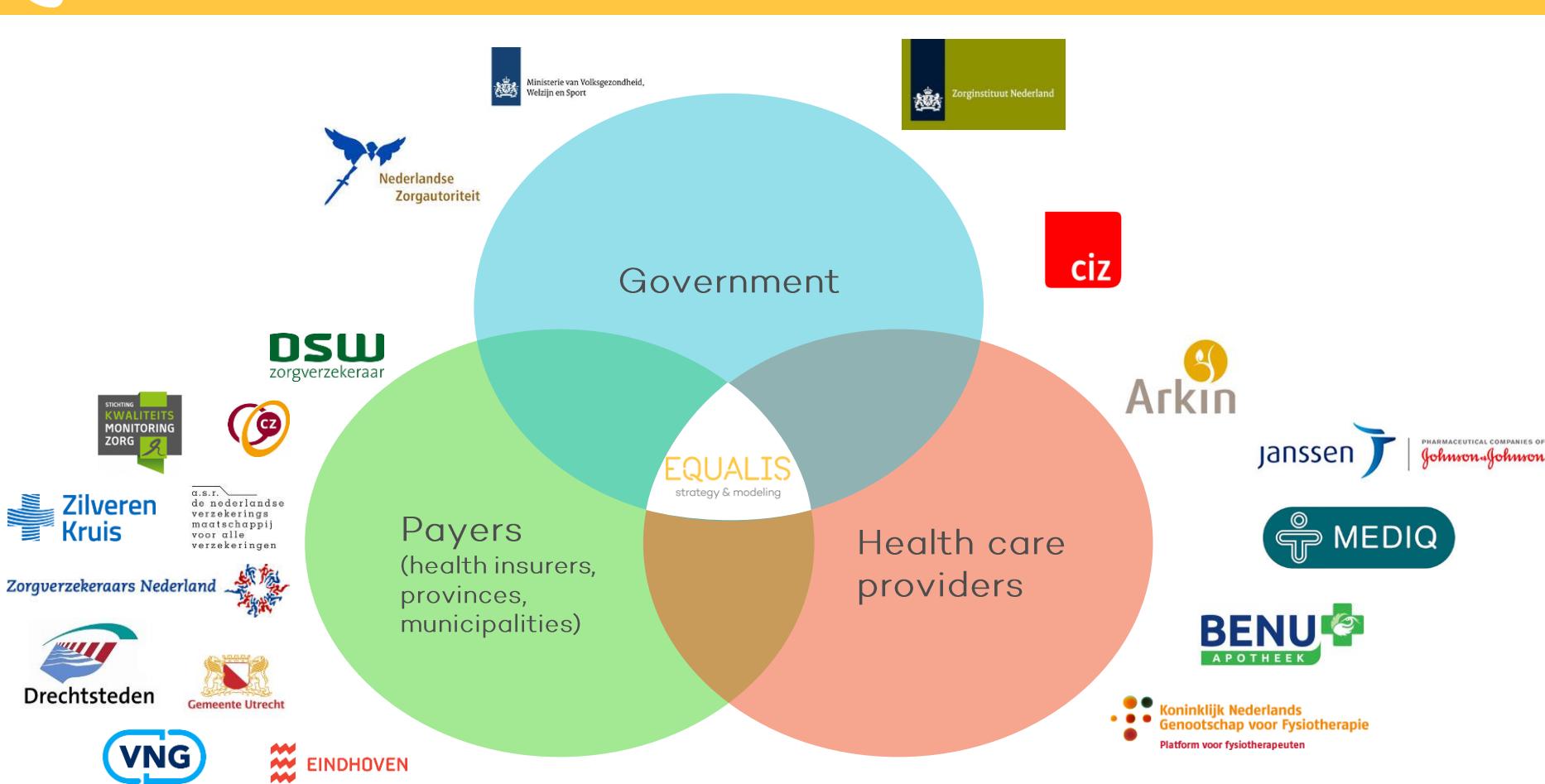
# Who We Are

- We are a consulting firm of health economists. We are a niche player and excel by combining the professionalism of consulting skills with the innovativeness of academic and data science knowledge.
- Our motive is to improve health care. We position ourselves – and are accepted – as a trusted third party among the many stakeholders.
- We deliver intelligence. Our focus is on transforming complex issues into practical solutions that fit our clients' goals. In addition, we guide them on their path to a data driven organization.

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# Equalis connects stakeholders, knowledge and data





# Why Equalis?

- We are top experts in the Dutch health care system, including the risk adjustment model (eEqualization).
- We focus on and help to clarify our clients' question (Question).
- We apply a strong analytical (eQuations) approach and base our advice on Qualitative and Quantitative research.
- We implement in close cooperation with our clients, so that their people can truly act and build upon our recommendations (Qualify).
- We connect (eQ) the different stakeholders in health care as a trusted third party (eQual).
- We provide meaningful insights into "Quality of Care" (Quality) and make it measurable (Quantify)

# Example project: risk equalization

- Prediction model
- 17 million records with all Dutch claims info (hospital, drugs, GP, etc.)
- Data extracted from databases of insurers, tax office, etc.
- Trusted third party (ZorgTTP): pseudonymization
- GDPR & BIR: juridical, technical and organizational measures



Source: <https://techcrunch.com/2016/02/19/optimizing-analytics-on-time-series-databases-a-supply-chain-perspective/?guccounter=1>



# Historical config

- **Office in The Hague**
- **Local server**

# Need for migration

- **Costs**
- **Scaling (up AND down)**
- **Security**

# Implementation

- Sogeti
- GDPR & BIR docs
- Penetration tests
- ISO

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Source: <https://www.telegraaf.nl/financieel/1358427/miljoenen-deal-voor-sogeti>; © DIJKSTRA B.V.



## Current config

- **Office in Utrecht @JIM**
- **Azure cloud (a.o. GDPR & BIR compliant)**
- **A new VM for each new project**
- **R (RStudio)**
- **GIT (Visual Studio)**
- **Sharepoint (for project docs)**
- **Shiny apps in Docker containers**
  - E.g.



# Next steps

- ◆ A new Docker container for each new project (i.e. one VM)
- ◆ New apps for Docker apps platform
- ◆ Personal Health Train?



# Take home message

- ◆ Outsource your migration to the cloud, but ...
- ◆ ... finding the right IT service provider may be quite a puzzle

# EQUALIS

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