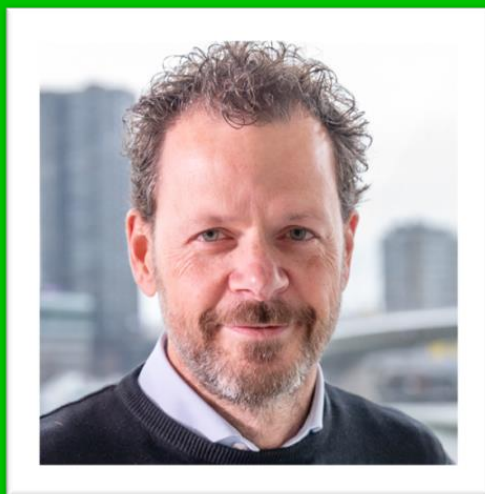


Telco-grade data space services

Making data space participation as easy as using wireless telephony



Rutger Borst
Proposition Manager



2016...

The start of our data
sharing journey



KPN started with data processing services

Ambition Dutch government to improve flow of traffic by standardizing data exchange from A to Z

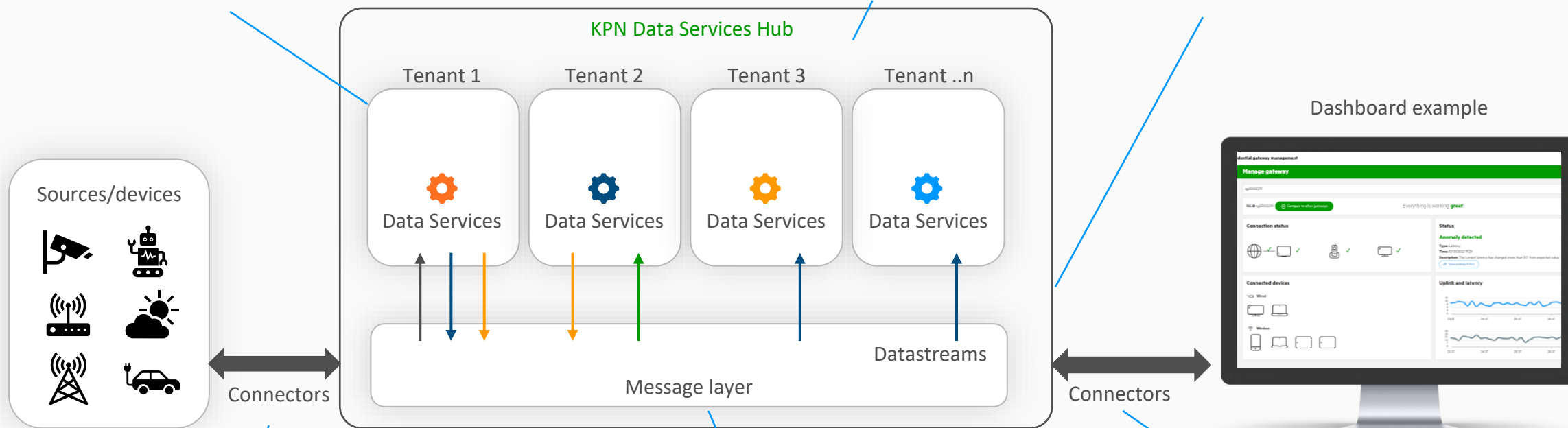
The result is a Platform as a Service

Data Services Hub is built to provide efficient access to data securely

Multi-tenant: Separate environments to consume and edit data. Protection of data and IP.

Made up of fully open-source components (best-of-breed). Prevents lock-in and saves costs.

Cloud-agnostic and runs live on Azure and AWS. Optimize cloud costs.



Connectors for scalable, secure and generic disclosure of data sources

Message layer (Kafka) for exchanging data with other tenants and services

Connectors to connect with applications and devices outside the platform



The next step for KPN...

Operate telco-grade data space services

KPN has 8 years of experience in Data Plane

Now our focus turns towards Control Plane & combination of both planes

Dataspace Protocol V1.0 → ISO Standard

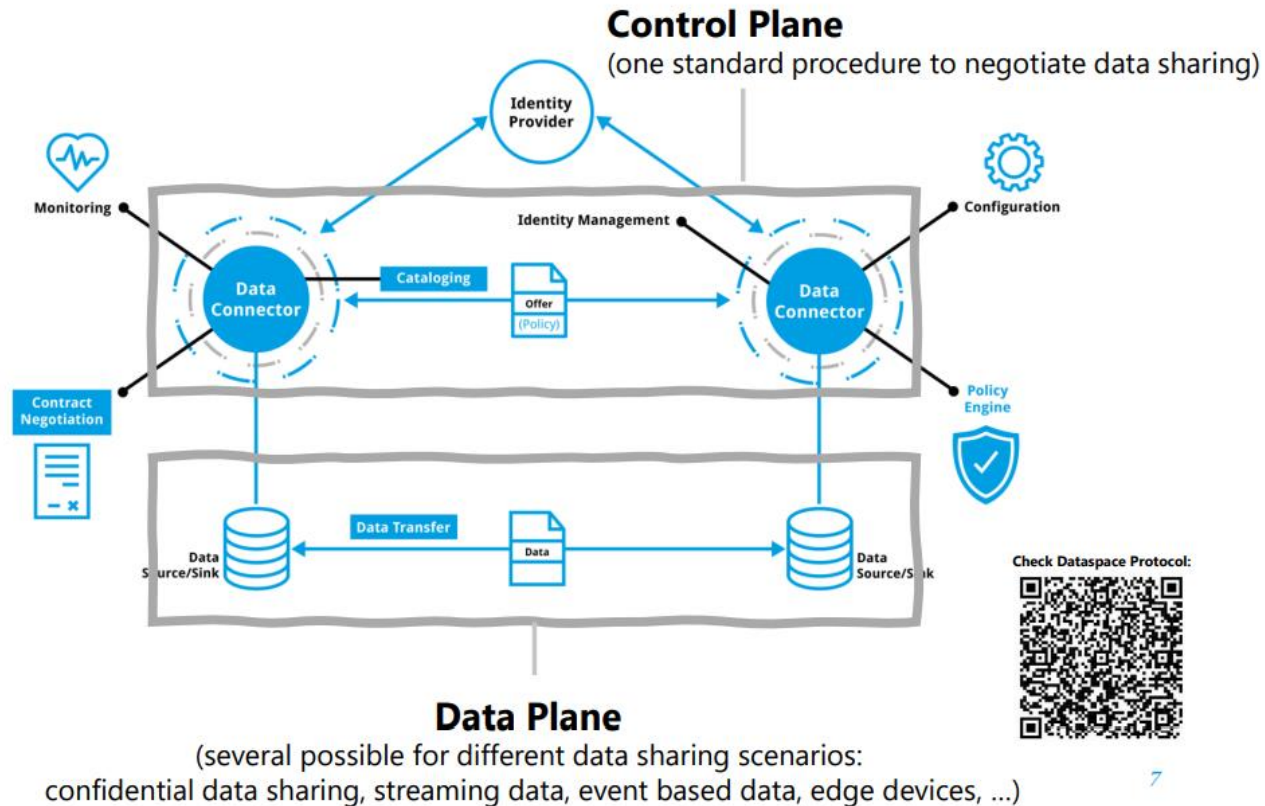
Enables standardized data exchange across different data space instances.

INTERNATIONAL DATA SPACES ASSOCIATION

Control Plane decides who can access the data and how.

Data Plane is where the action (data sharing) happens.

Conceptually divided, can be combined practically



Data Space technology can be challenging

Many topics to consider when scaling data access outside your own company

Access

Many protocols are, expensive to maintain

Data is locked in applications

Control

I don't know what data I have and with whom I shared what

Takes too much time to setup pipelines between multiple parties

Trust

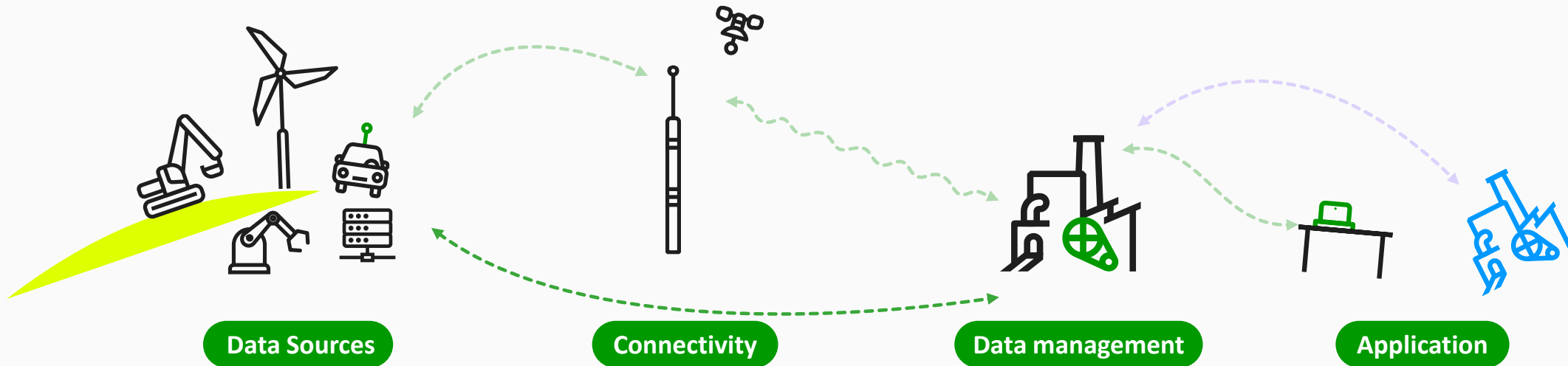
Data is **unreliable** due to changing formats or parts missing

I need certain assurance on locations, **compliance** checks and access control

Share

Who assures my data is only used for the specified goal

Expensive to build many connections with **different parties**



To exchange data securely, reliably and at scale with Telco Grade service

Access



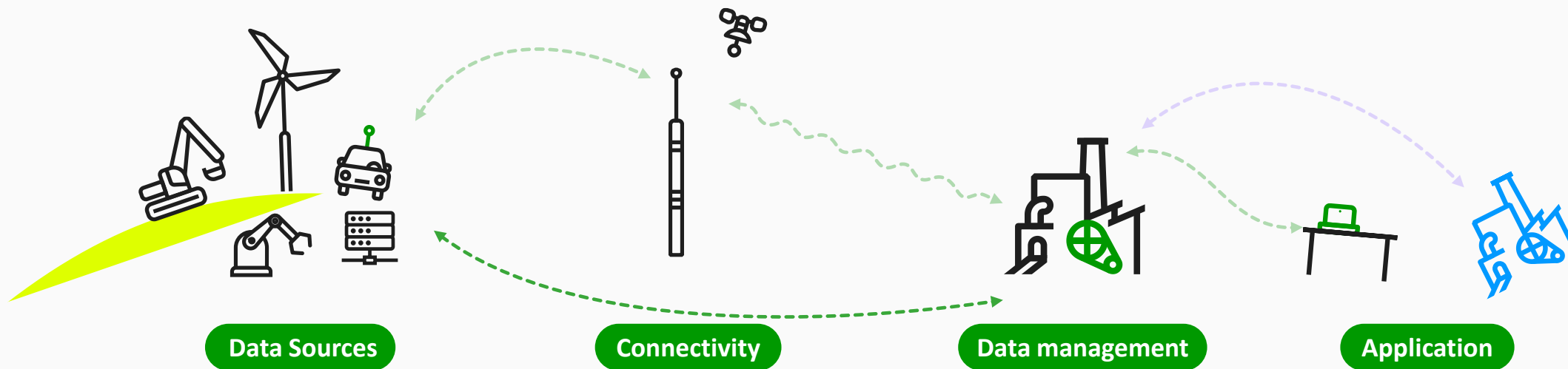
Control



Trust



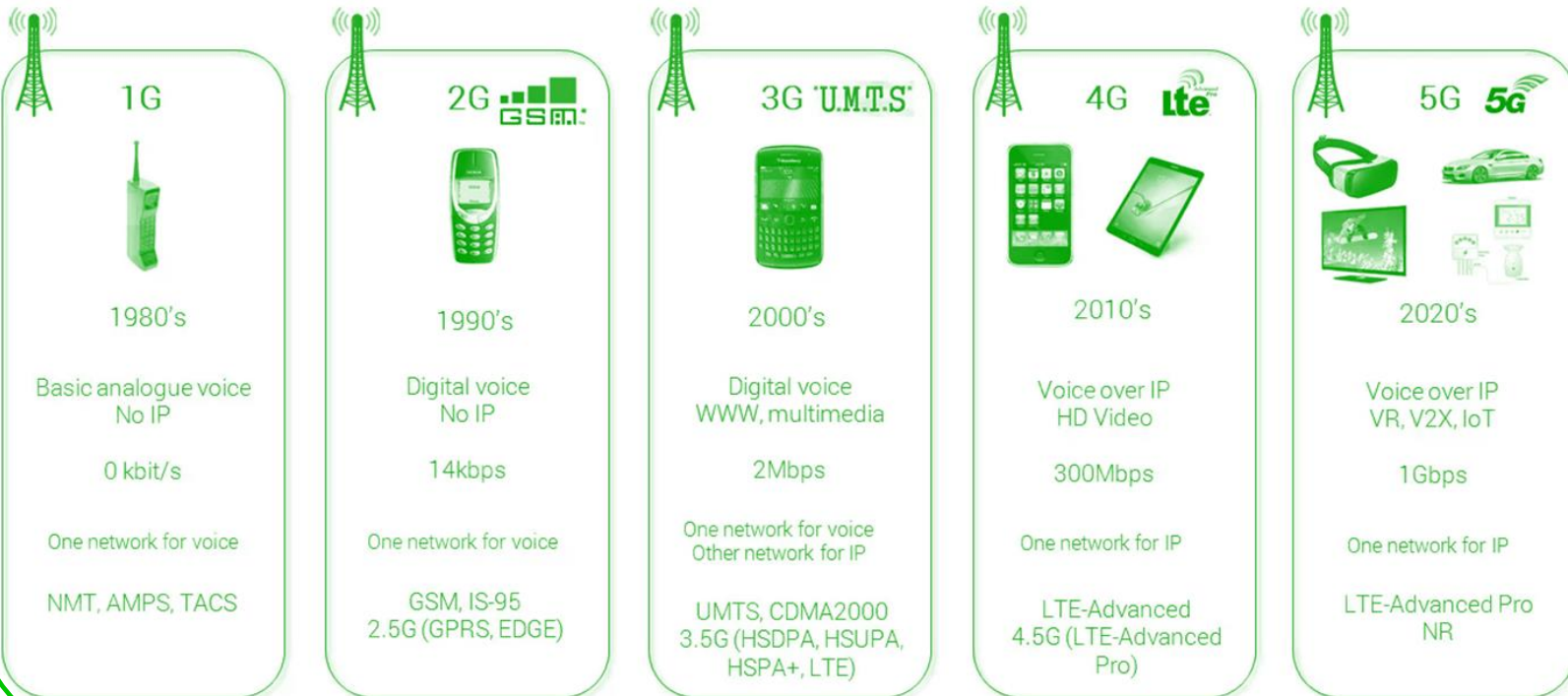
Share



Wireless networks have come a long way

Continuous developments of standards are executed out of sight of users

Mobile Wireless Networks - Evolution



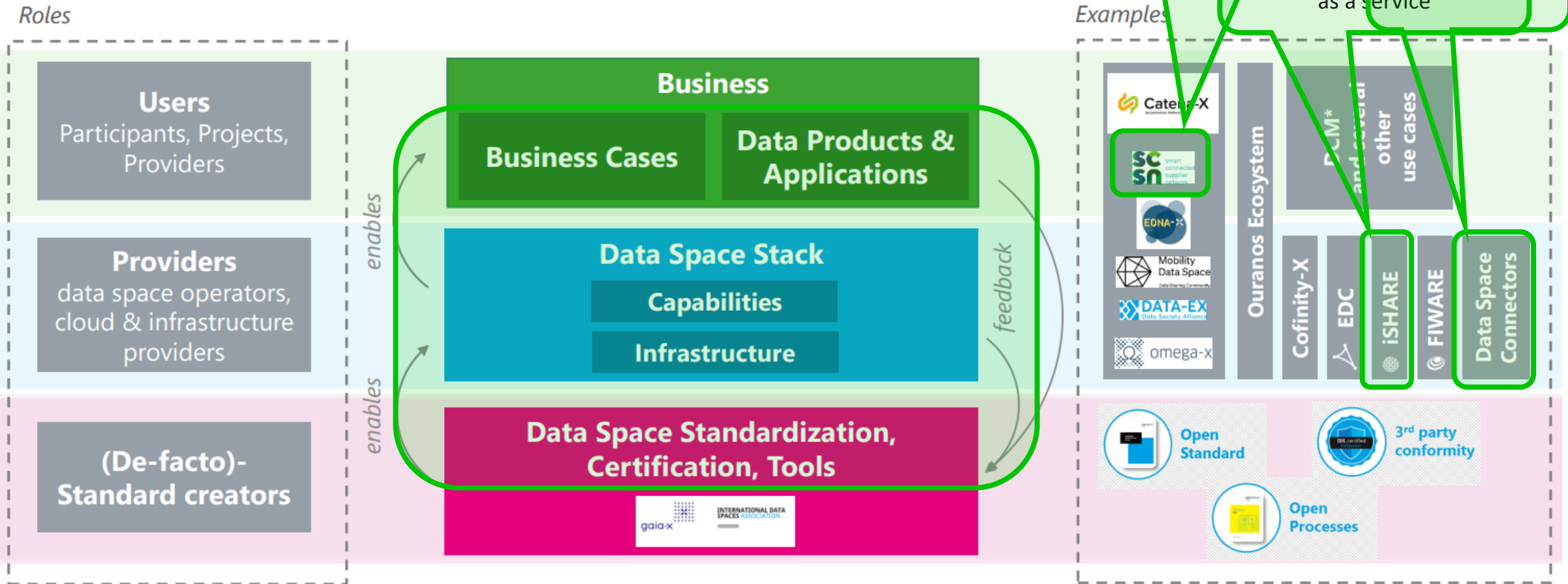
Our ambition is to make data space participation as easy as using a wireless service.

We aim to manage the complexities throughout next generations of data space technology.

KPN facilitates Data Space Stack

Enable businesses and co-develop standards

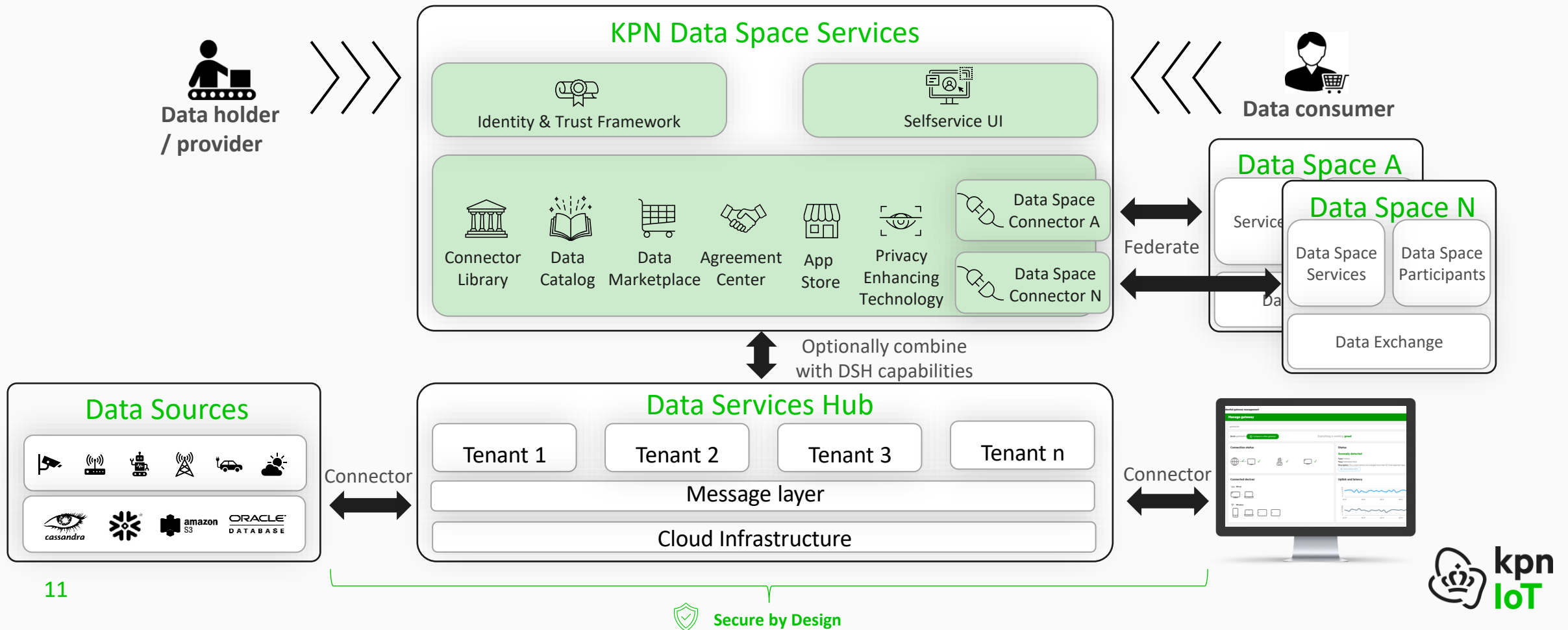
Dataspace Layer Model



*DCM – Demand and Capacity Management

Data Space Services: our ambition

Operate data space components for worry free secure data sharing between data holder and data consumer



Turning our ambition into reality here and now

Participate in EU context in embracing data space standards



Host and operate SCSN data space with over 300 participants



Host and operate telco-grade iSHARE Satellite as our first Identity & Trust Framework



Lower the barrier for data sharing by adding privacy enhancing technology



Collaboration with BDI in defining data space infrastructure standards

INTERNATIONAL DATA SPACES ASSOCIATION



KPN Data Space Services follow IDSA reference architecture model

Thank you for listening.

Please contact me for more information.



Rutger Borst

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