



CARUSO: ÖKOSYSTEM UND PLATTFORM

TELEMATIK, DATEN UND MARKTPLATZ DIGITAL INS ROLLEN GEBRACHT

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ULRICH KEIL (CARUSO DATAPLACE)

Digitization



Technologie verändert
Medien / Daten
durch
Digitale Produkte

Digitalization



Technologie verändert
Märkte / Industrien
durch
Digitale Prozesse

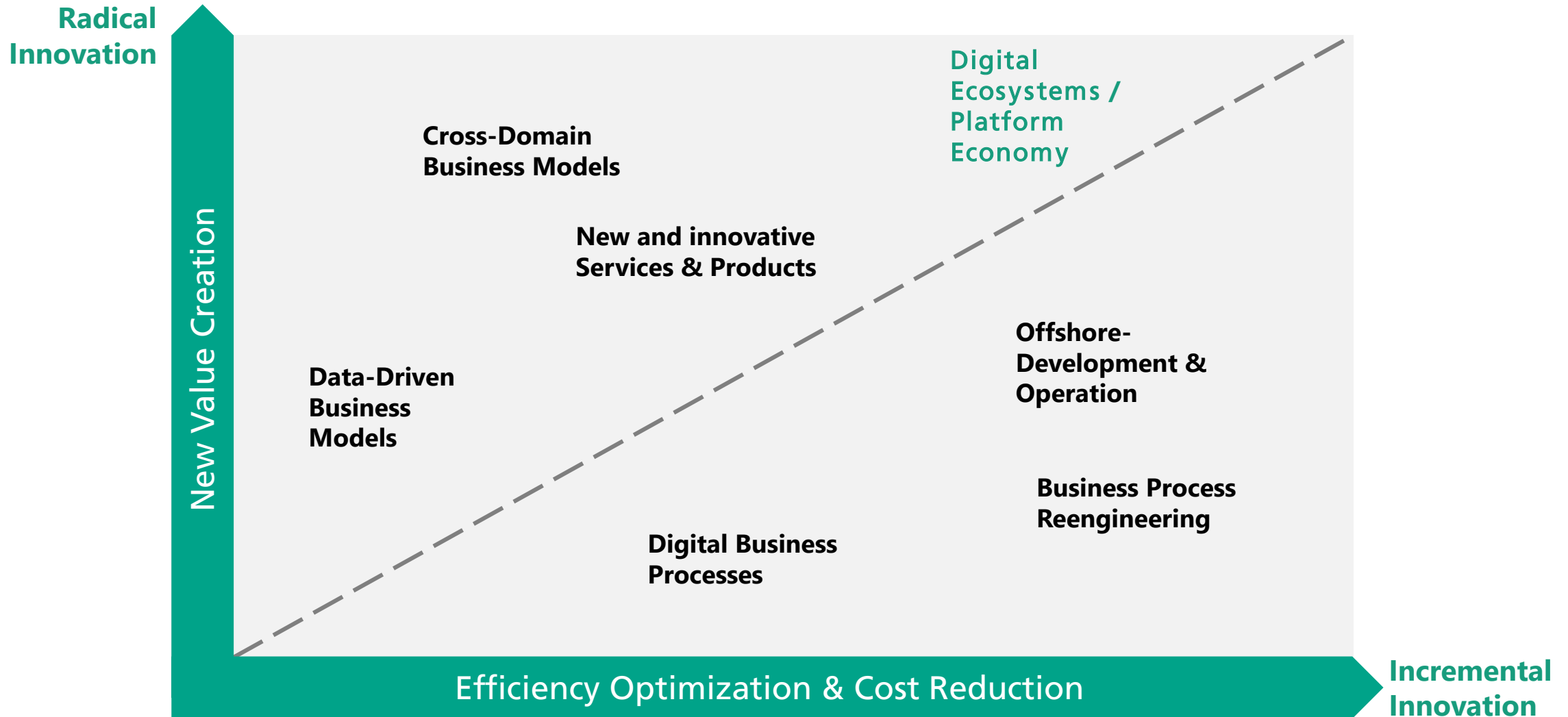
Digital Transformation



Technologie verändert
Wirtschaft / Gesellschaft
durch
Digitale Geschäftsmodelle



DIGITIZATION | DIGITALIZATION | DIGITAL TRANSFORMATION





Smart Farming



Industry 4.0



Smart Mobility



Smart Health

Smart Energy

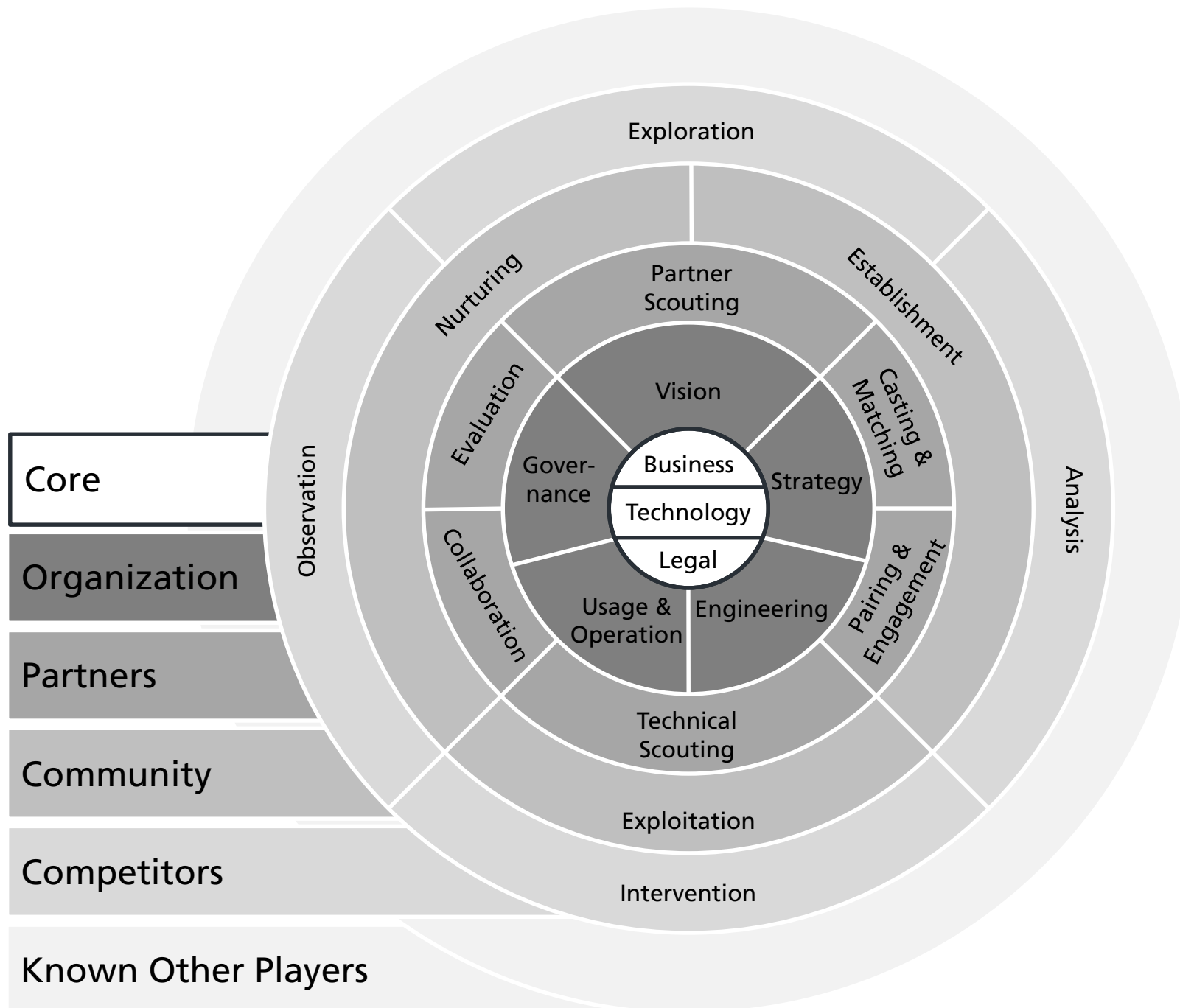


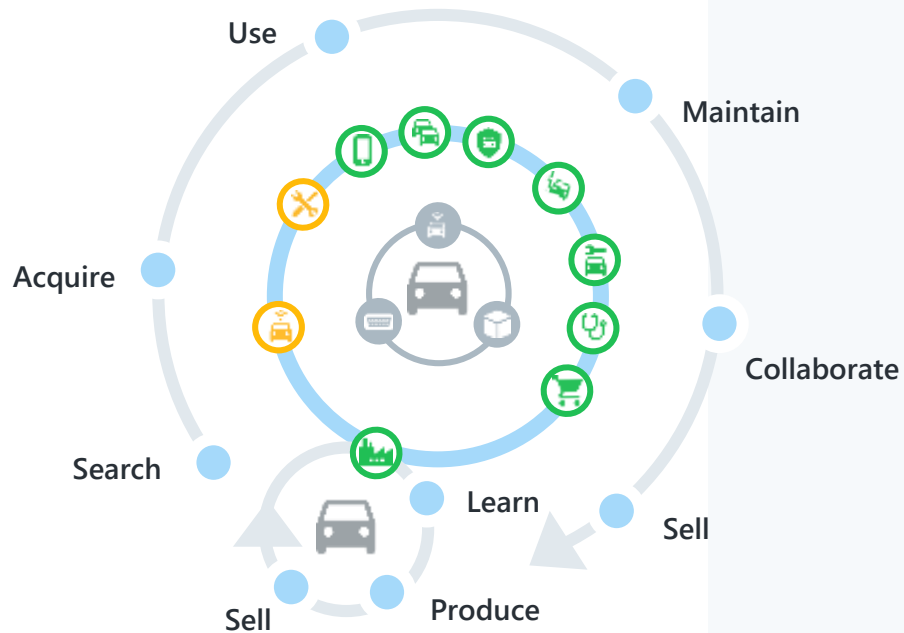
Smart X

Smart Rural Areas



Fraunhofer Ecosystem Reference Model





**EVERYTHING WE DO, WE DO
TO ENABLE THE PLAYERS IN
THE CONNECTED
AUTOMOTIVE AFTERMARKET
TO GROW THEIR SALES,
PROFIT, AND BRAND VALUE.**



CARUSO GmbH

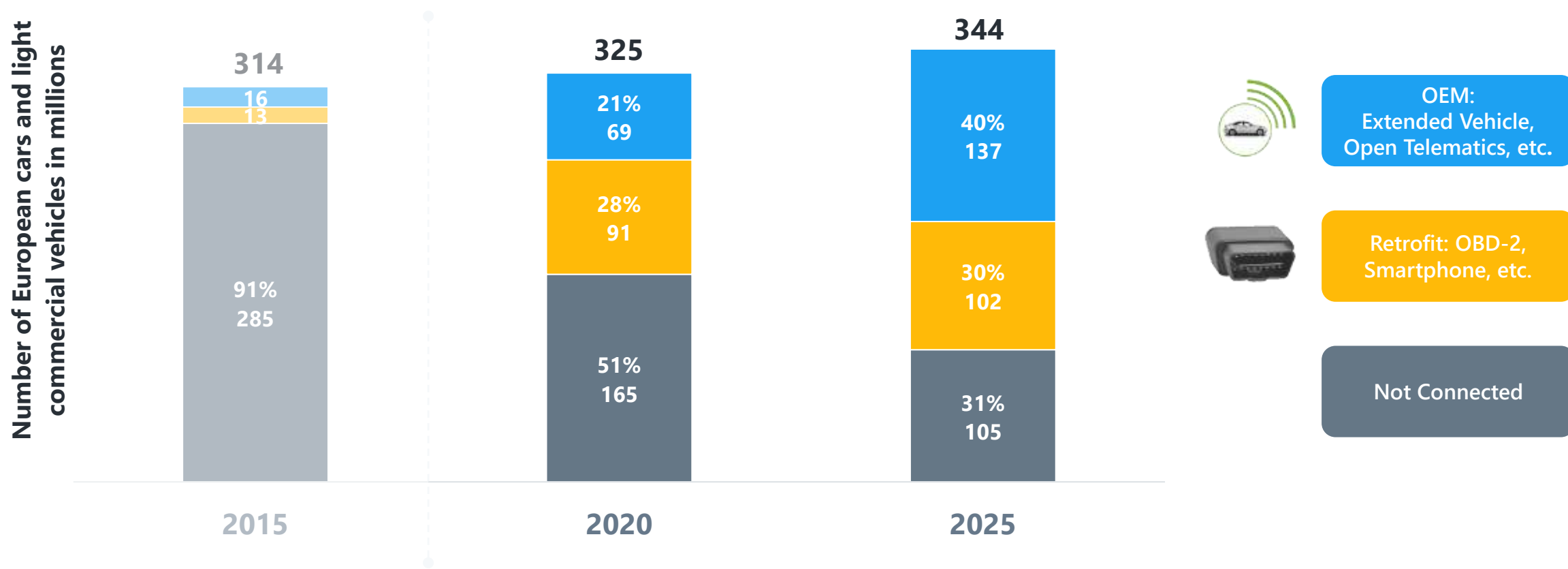
FOUNDED
MARCH 2017

MARKETPLACE GO LIVE
NOVEMBER 2017

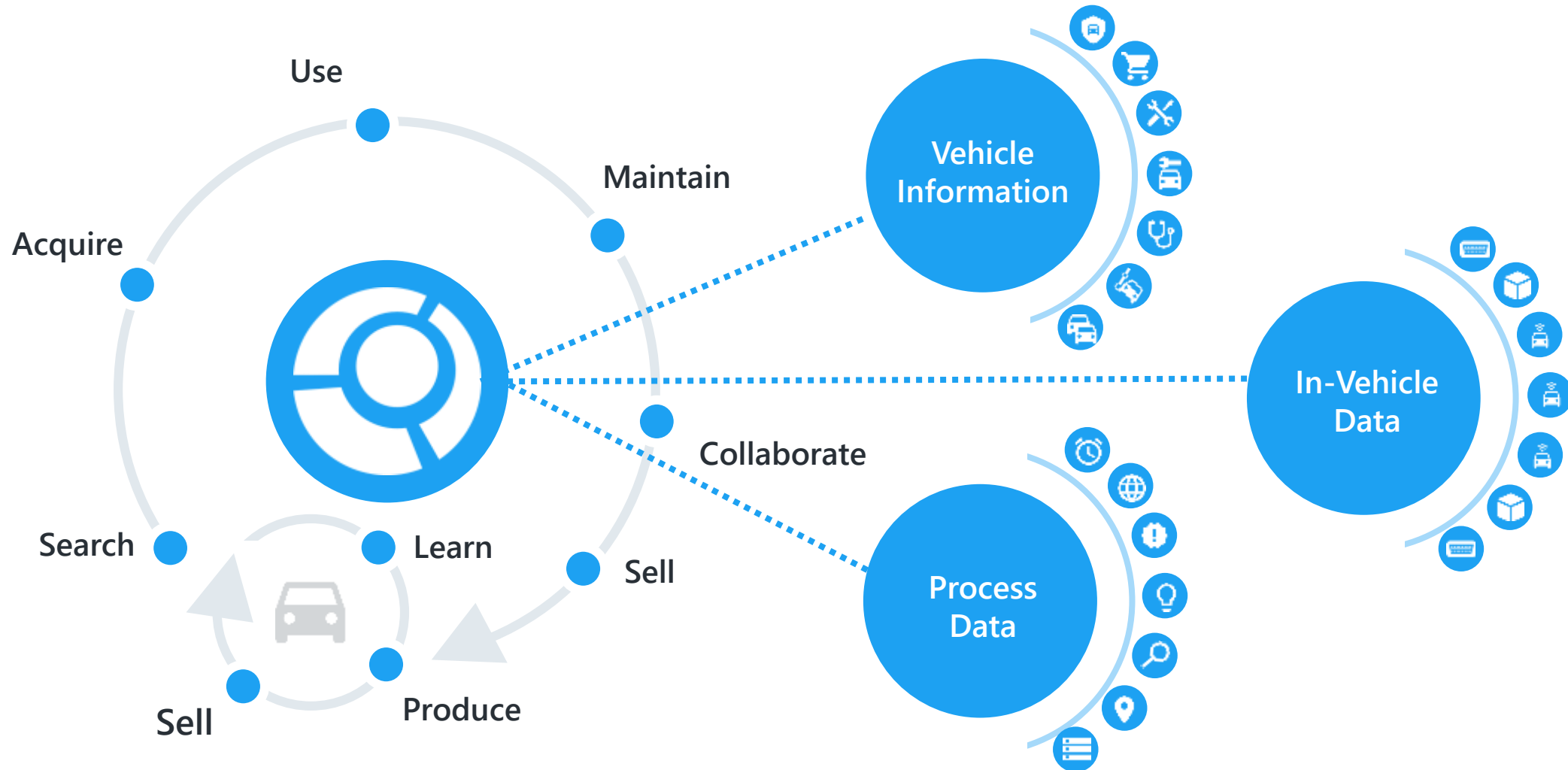
MANAGING DIRECTORS
Alexander Haid
Jürgen Buchert

DEVELOPMENT OF CONNECTED VEHICLES IN EUROPE

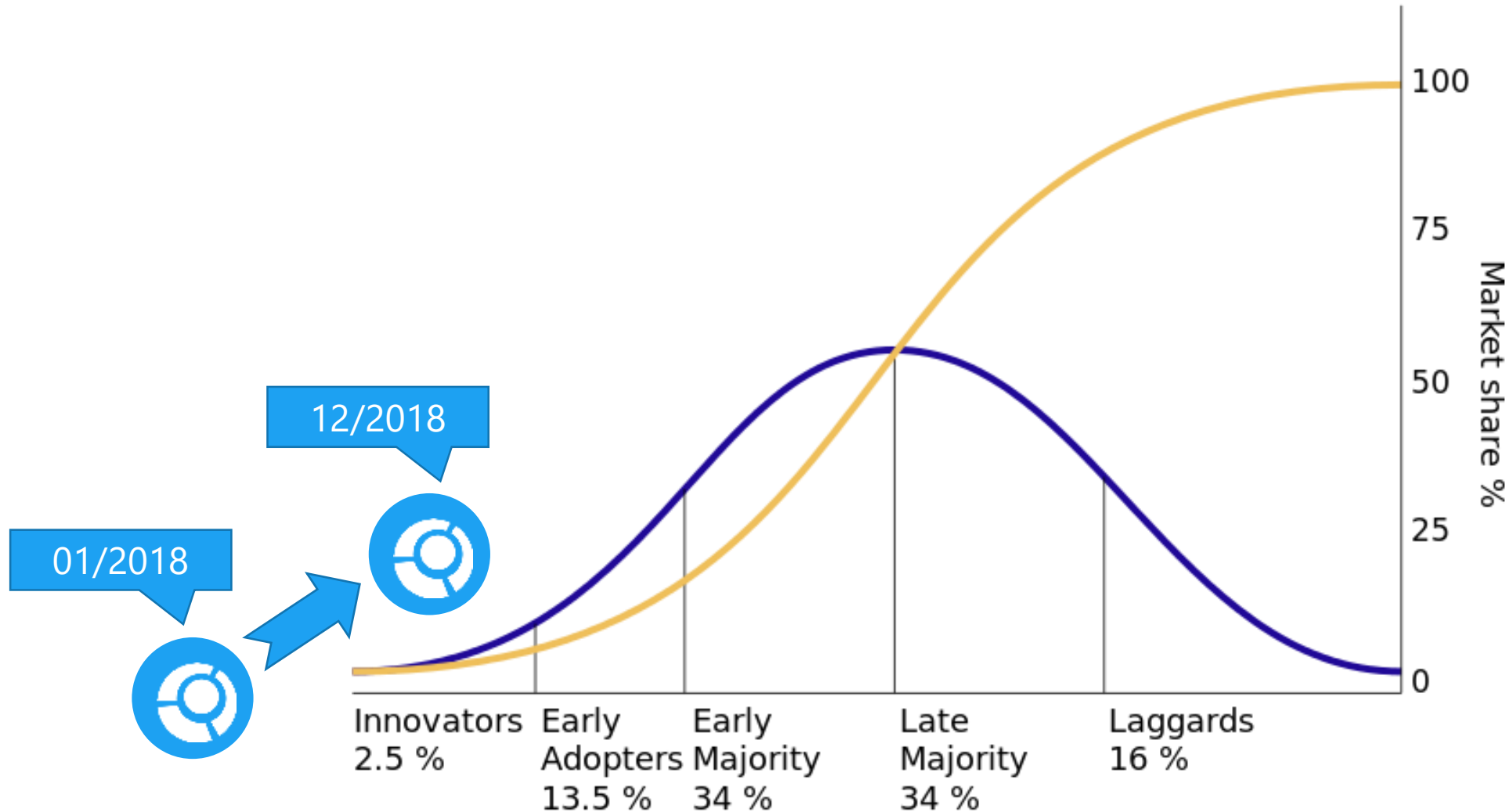
→ Retrofit suppliers (short-term) & OEM (long-term) become potential data suppliers



THE ENABLER FOR CONNECTED MOBILITY SERVICES



MARKET EVOLUTION

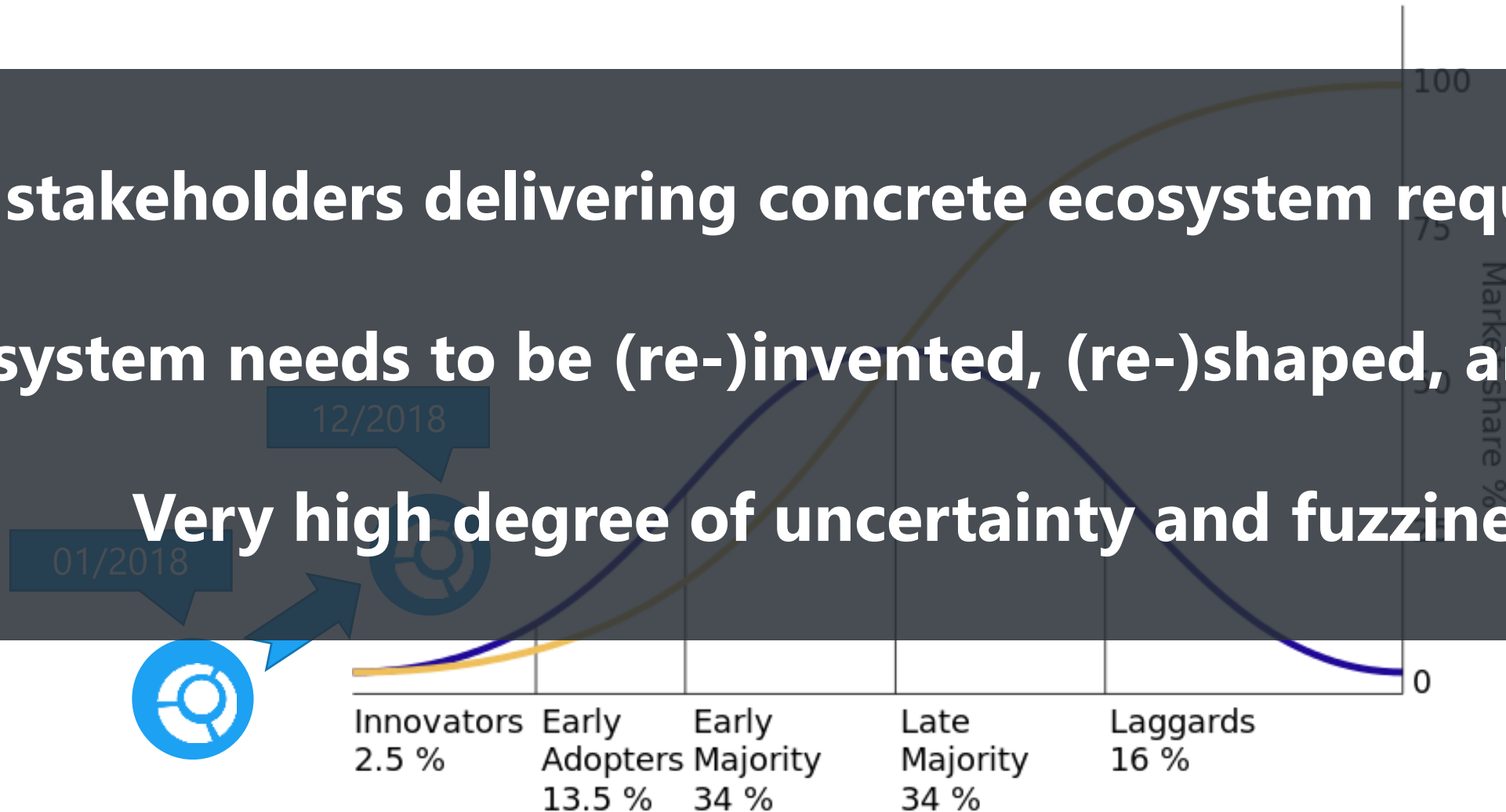


MARKET EVOLUTION

No stakeholders delivering concrete ecosystem requirements

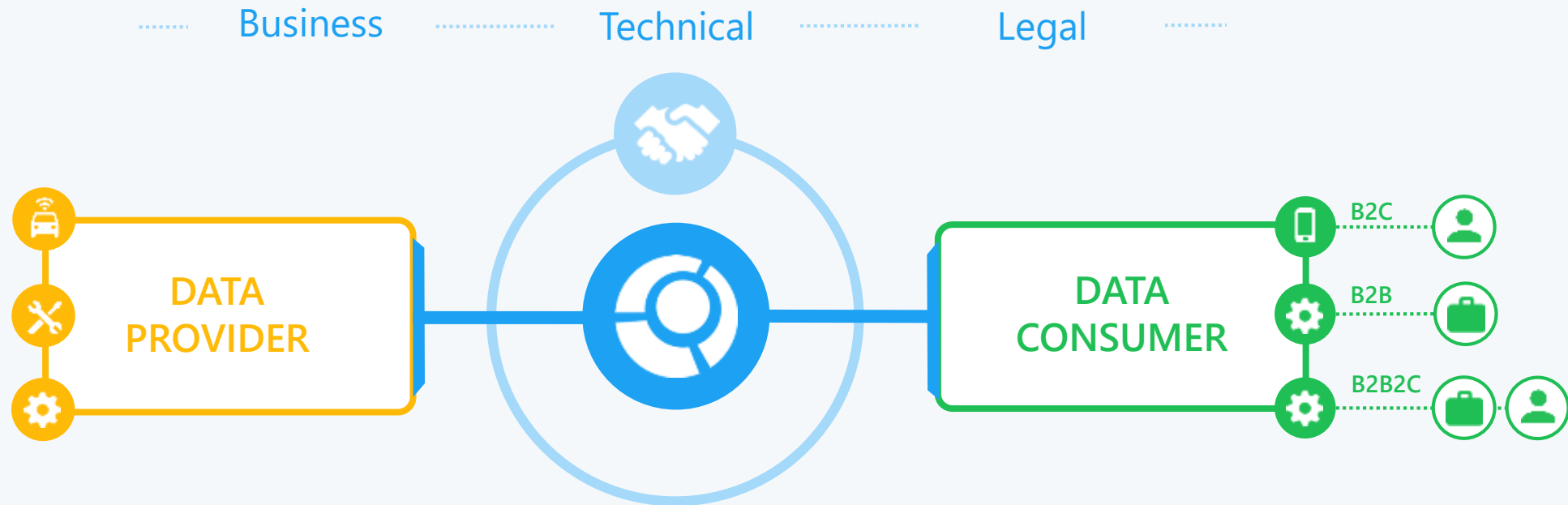
Ecosystem needs to be (re-)invented, (re-)shaped, and refined

Very high degree of uncertainty and fuzziness



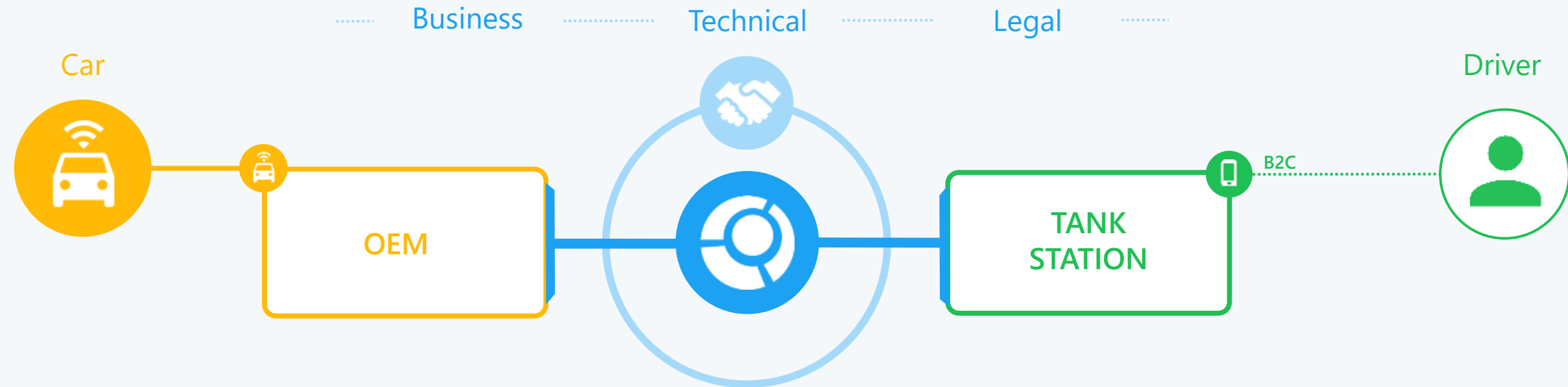
ECOSYSTEM WITH B2B MARKETPLACE PLATFORM

Brokering Data & Services



ECOSYSTEM WITH B2B MARKETPLACE PLATFORM

Example



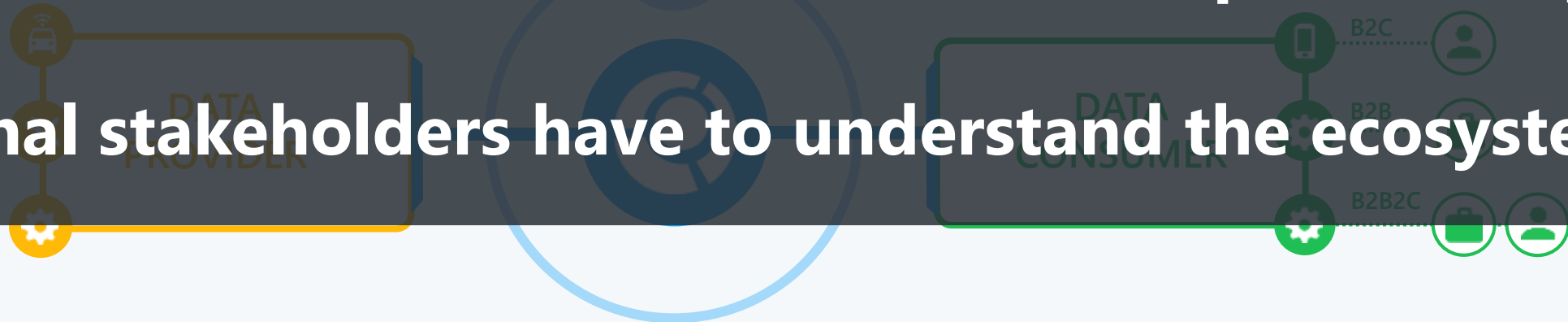
ECOSYSTEM WITH B2B MARKETPLACE PLATFORM

Brokering Data & Services

Communicate the ecosystem as simple as possible

Ecosystem architects: “the elevator in multiple buildings”

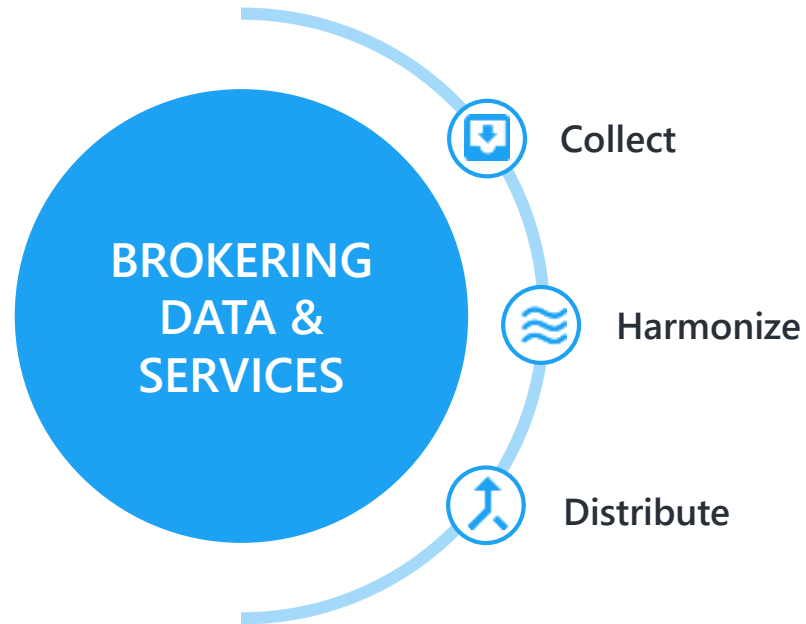
Internal stakeholders have to understand the ecosystem



CARUSO DATAPLACE



Caruso is the B2B-Enabler



GOLDEN
RULES

1

You are the
service & solution provider

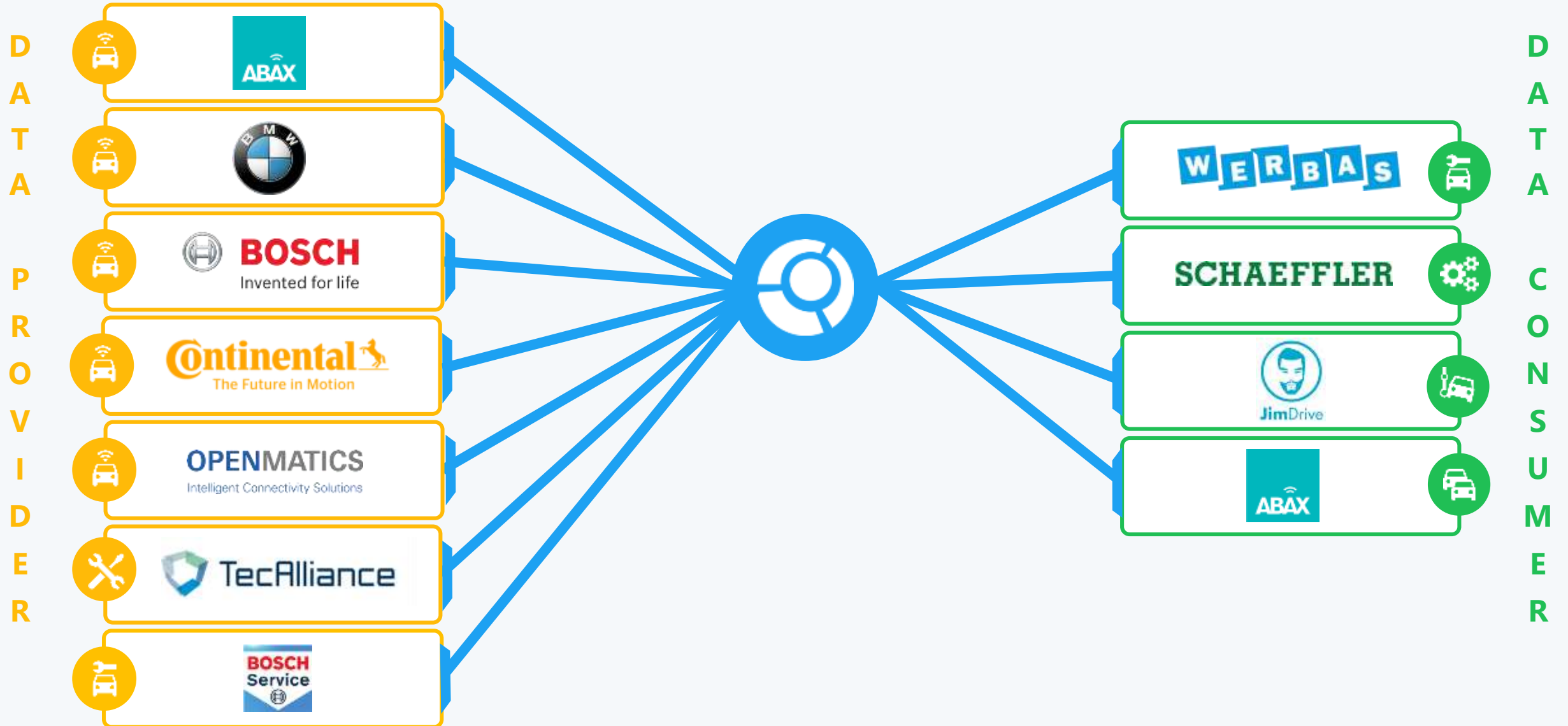
2

You own your data & services

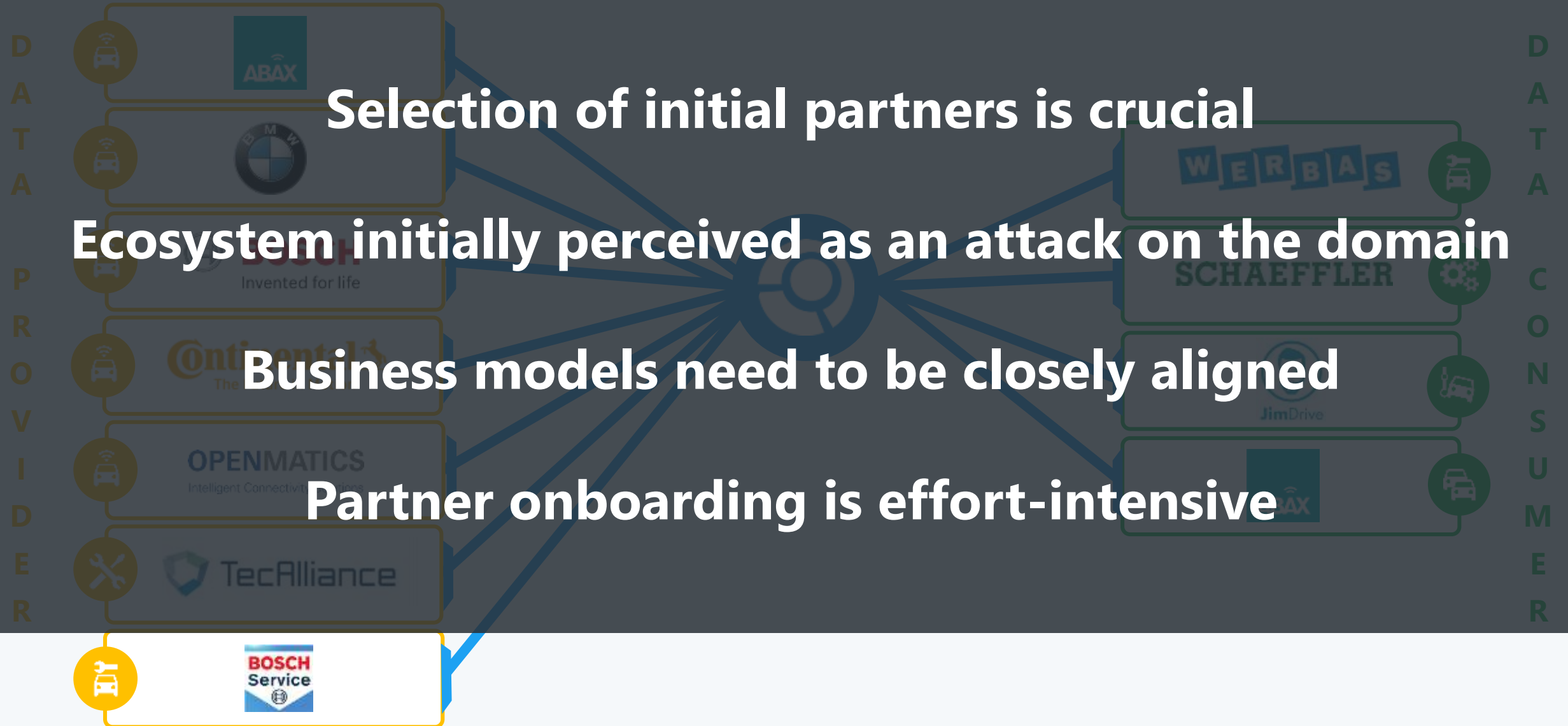
3

You have full control of
your data & service and prices

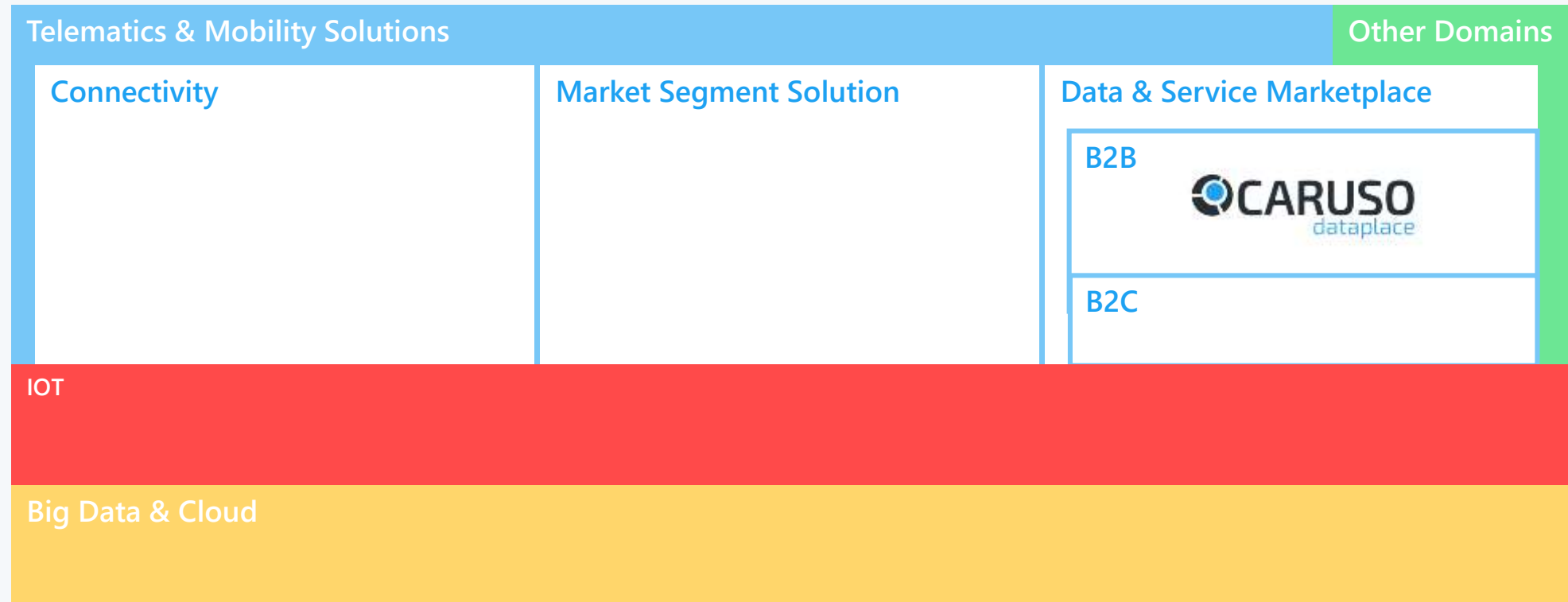
OUR INITIAL CONNECTED PARTNERS:



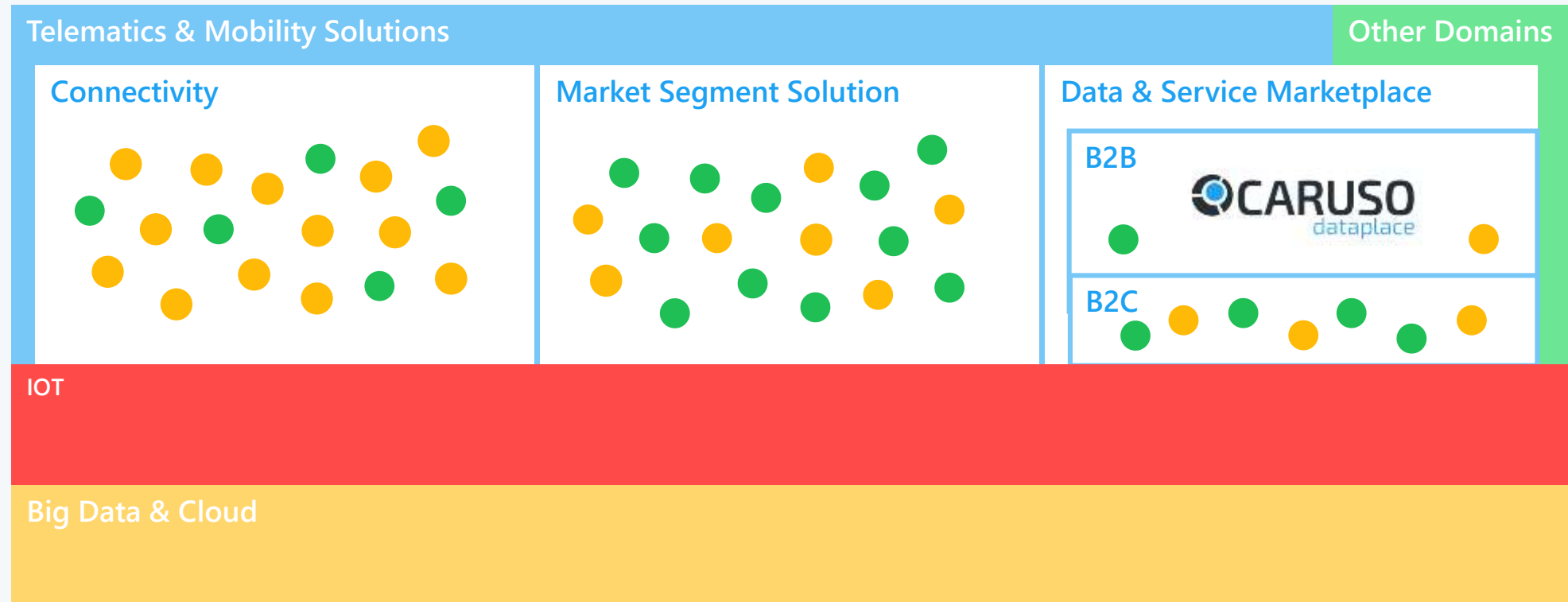
OUR INITIAL CONNECTED PARTNERS:



PLATFORM LANDSCAPE

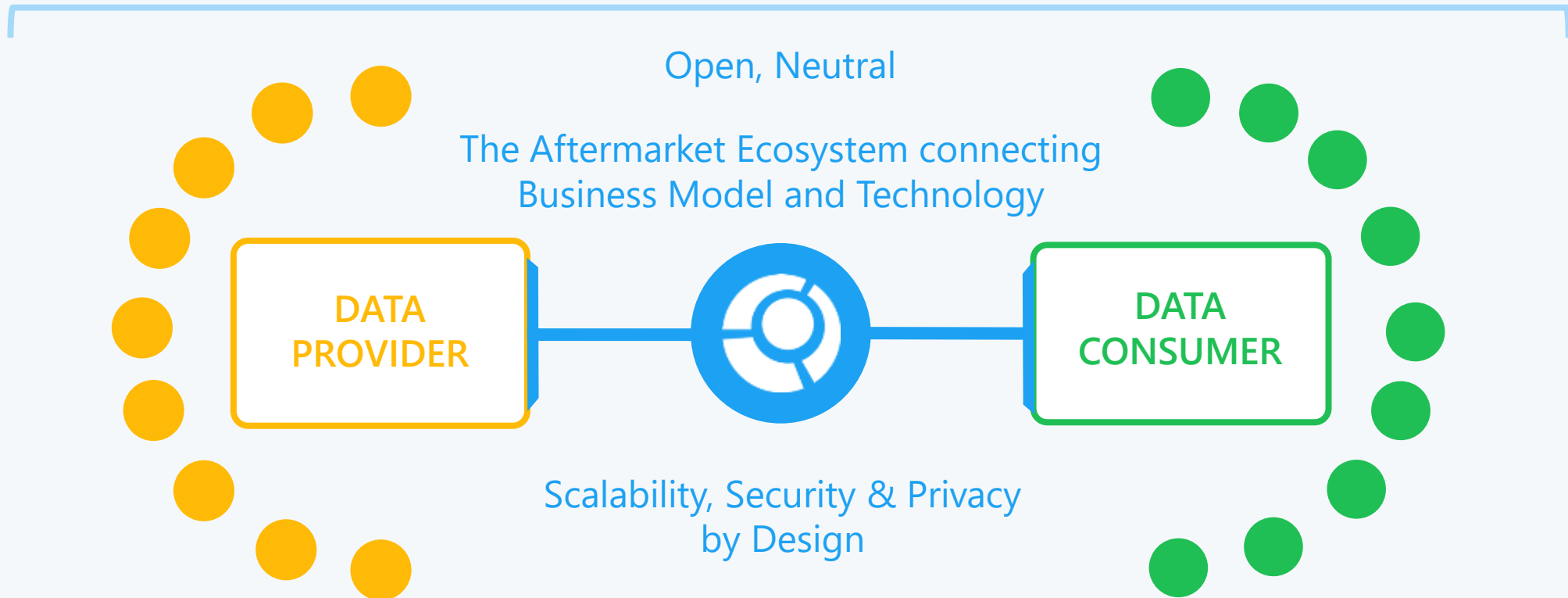


PLATFORM LANDSCAPE

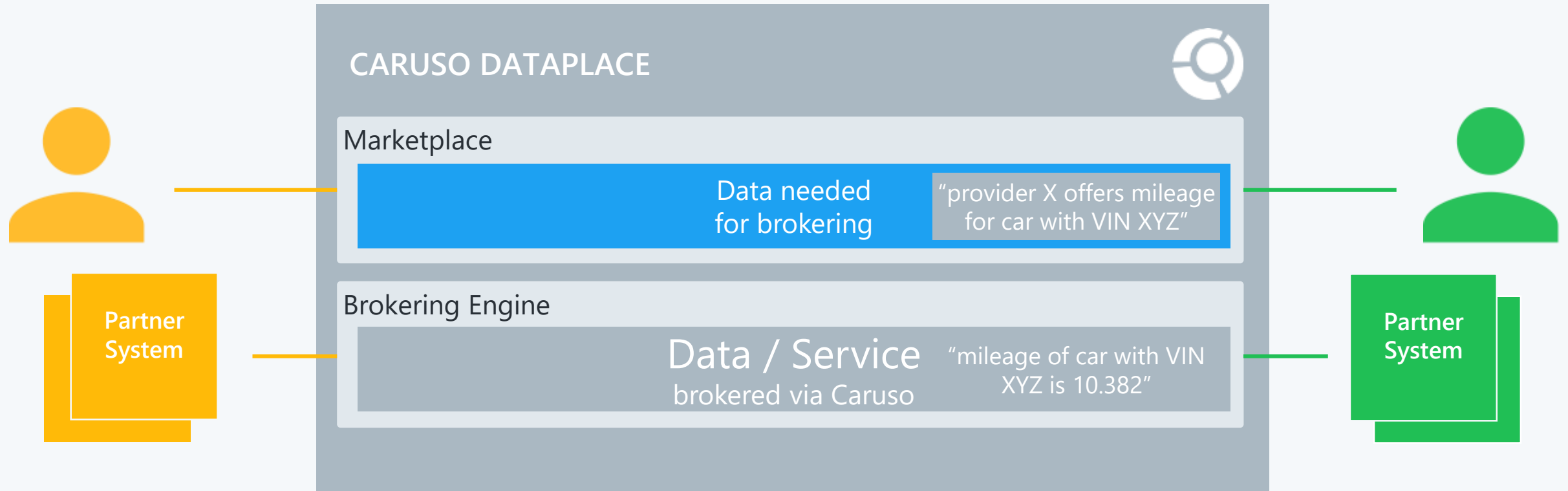


ECOSYSTEM OVERALL ARCHITECTURE

Ecosystem | Value Network



HIGH-LEVEL PLATFORM ARCHITECTURE

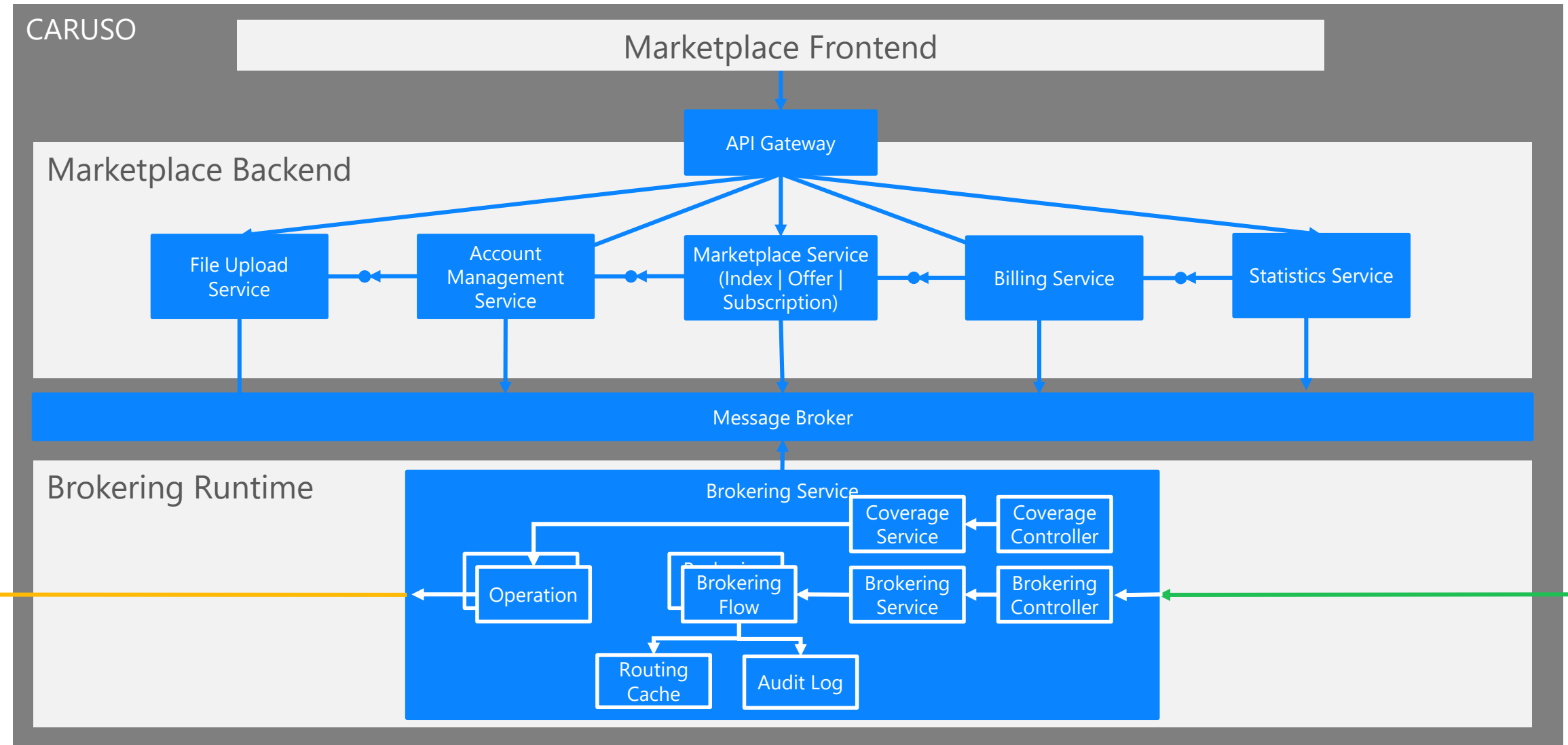


HIGH-LEVEL PLATFORM ARCHITECTURE

Ecosystem initiator sets many cornerstones

The more effort invested, the more obvious the result

CARUSO SYSTEM ARCHITECTURE OVERVIEW



CLASSIFICATION OF DATA ON CARUSO

Marketplace – Customer Interaction



Brokering Runtime – System Interaction



SCALABILITY

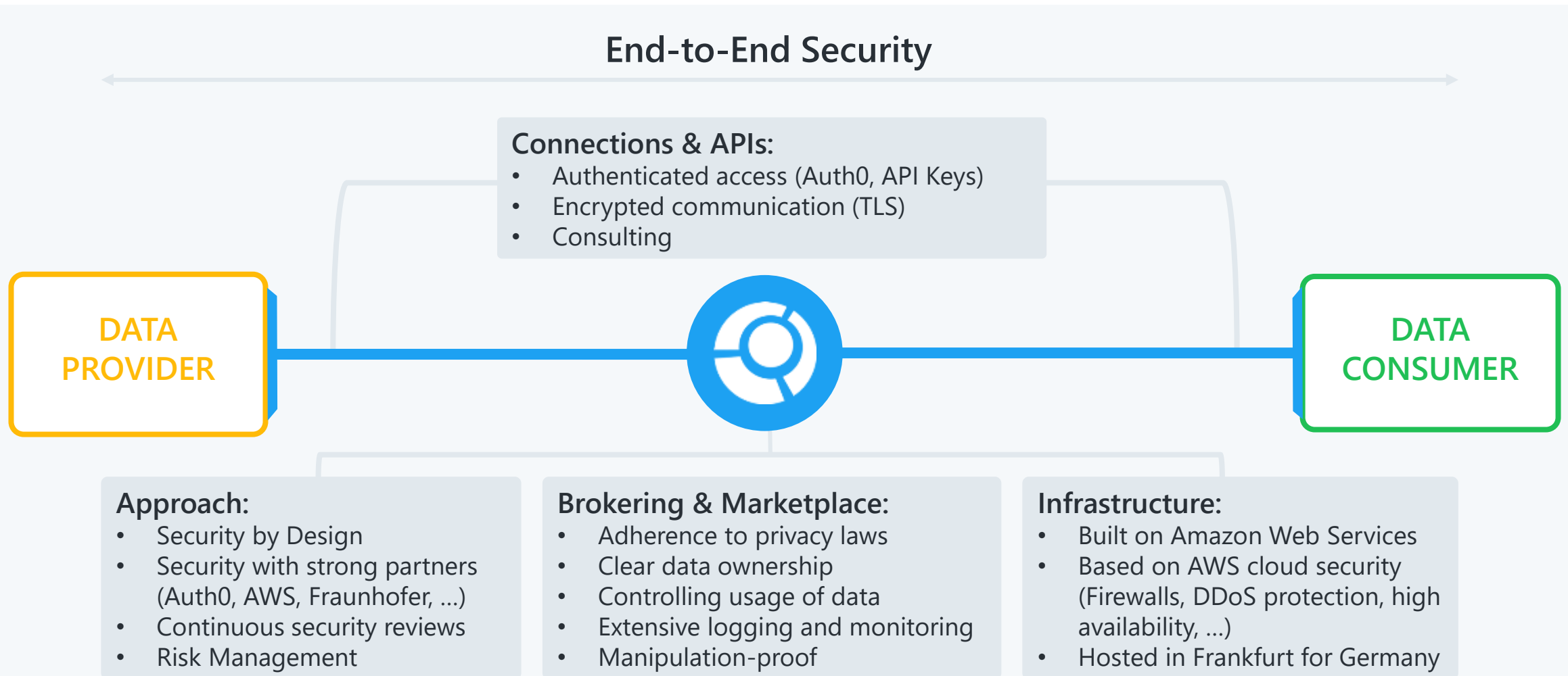


BASED ON AWS

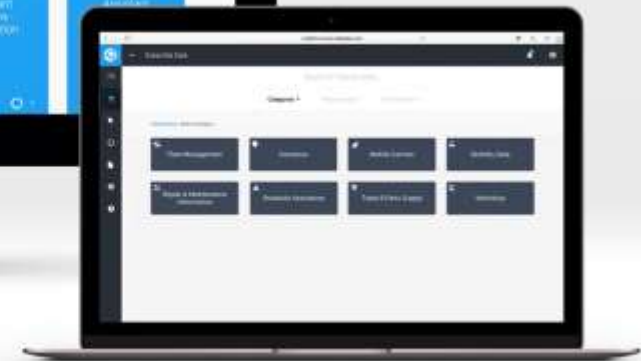
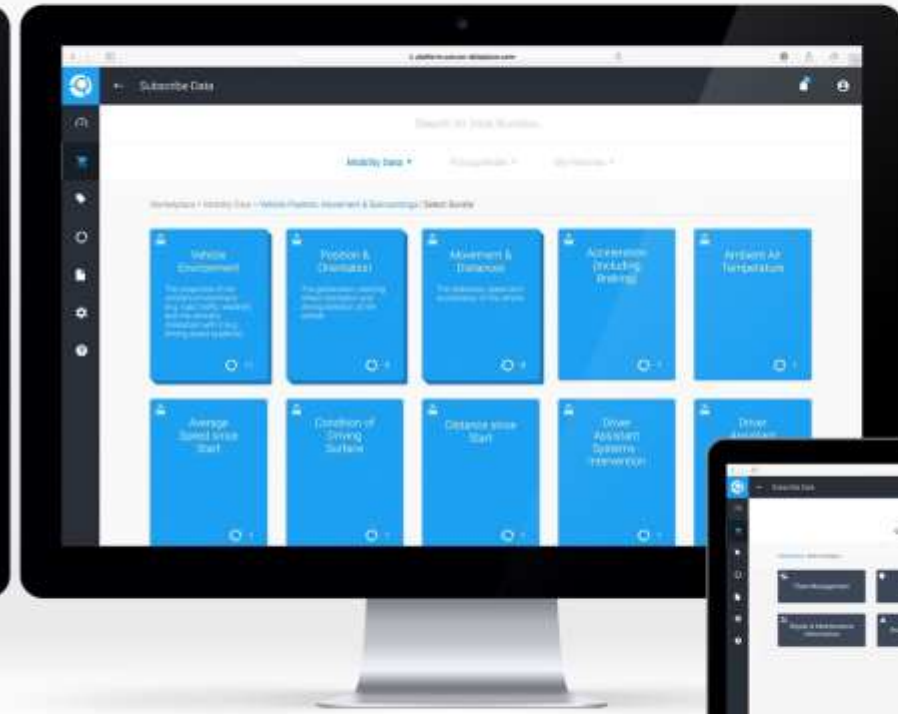
- Empower Caruso to grow along its envisioned scenarios
- Satisfy requirements for global availability
- Enable local deployments in any geographic region (e.g.: Frankfurt for the EU)



SECURITY



MARKETPLACE UI



VEHICLE DATA - CURRENT STATUS

Vehicle Position, Movement and Surroundings (65)

Movement and Distances (12)

Time, Position and Orientation (13)

Vehicle Environment – Driving Assist (10)

Vehicle Environment – Surroundings (10)

Trip Details (16)

Vehicle Identification (4)

Vehicle Health and Maintenance (42)

Maintenance (19)

Malfunctions – DTC (10)

Malfunctions – MIL (4)

Malfunctions – Occurrence (9)

Vehicle Non-Powertrain Hardware (76)

Tyres, Steering & Suspension (10)

Brakes (13)

Seatbelts (3)

Airbags (4)

Lights (5)

Heater and AC (9)

Wipers (3)

Doors, Windows & Locks (21)

ABS (2)

ESP (3)

Power Steering (1)

External Hardware (3)

Locks and Alarms (3)

Vehicle Powertrain Resources (57)

Fuel – Consumption (10)

Fuel – General (17)

Oil (12)

Coolant (8)

Air (8)

Vehicle Powertrain Hardware (223)

Combustion (30)

Drive Battery (11)

ECUs (31)

Engine Status (16)

Electric Vehicle Battery (30)

Exhaust (39)

Ignition (30)

Transmission (19)

Particulate Filter (17)

Mobility Services (12)

POI / Recommendations (5)

OEM Services (7)

Auxiliary Devices (4)

Dongle (3)

Mobile Phone (1)

Vehicle Data

Digital Fuel for the Connected Car Economy

A Study on the Data Needs for Mobility Services



MARKETPLACE UI

Get partners into the ecosystem, invest into the platform

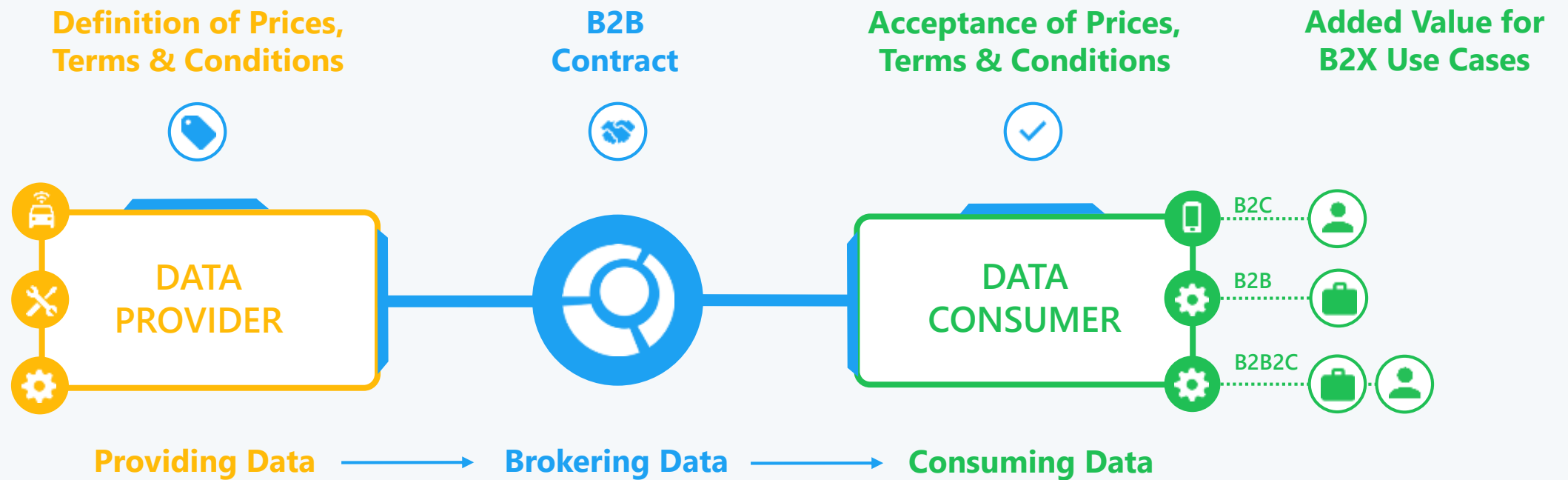
Demonstrate with a mix of real and mocked partners

Become concrete quickly, a prototype system can help

Consider when to switch from prototype to product mode



THE BUSINESS MODEL



Ecosystem architecture is more than the architecture of a software system:

Overall partner landscape with roles of partners

Aligned business models

Relationships: flow of data, services, money, legal relationships

Platform as the central and connecting element

End-to-end interplay of all IT-systems to achieve quality

End-to-end processes across partners to achieve overall quality

Competitors

Known Other Players



Smart Farming



Industry 4.0



Smart Mobility



Smart Health



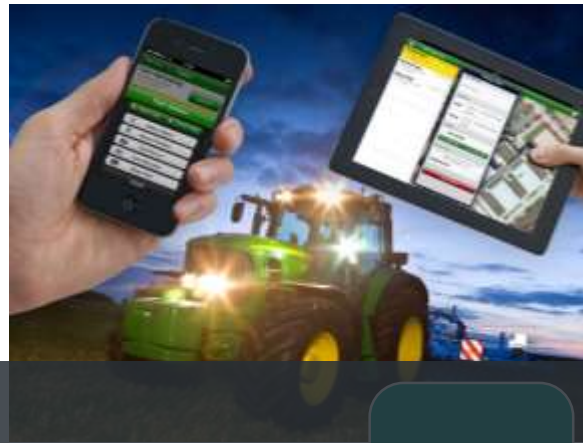
Smart Energy



Smart X

Smart Rural Areas





Industry
4.0

4.0

4.0

Smart
Farming

Smart
Mobility

Ecosystems are available to learn from

Watch carefully what is transferrable

Smart
Health

SMART
Ecosystems

Smart
Energy

Smart
Rural
Areas

Smart X





THANK YOU.