MOBILITY OF THE FUFURE

By Götz Wehberg

November 2020

Introduction
Götz G. Wehberg

Currently
- Partner at Infosys and Leader Supply Chain
- 20+ years experience in Consulting
- Founder of DSI Think Tank
- Acknowledged expert in digital transformation >>

Previously
- EVP at Capgemini – Global leader
- Senior Partner at Deloitte – SCM Leader
- Principal at Kearney – Supply Chain expert

Personal
- PhD in Supply Chain Management
- Married 20 years with two sons
- Lives in Bonn / Germany

>> For more info

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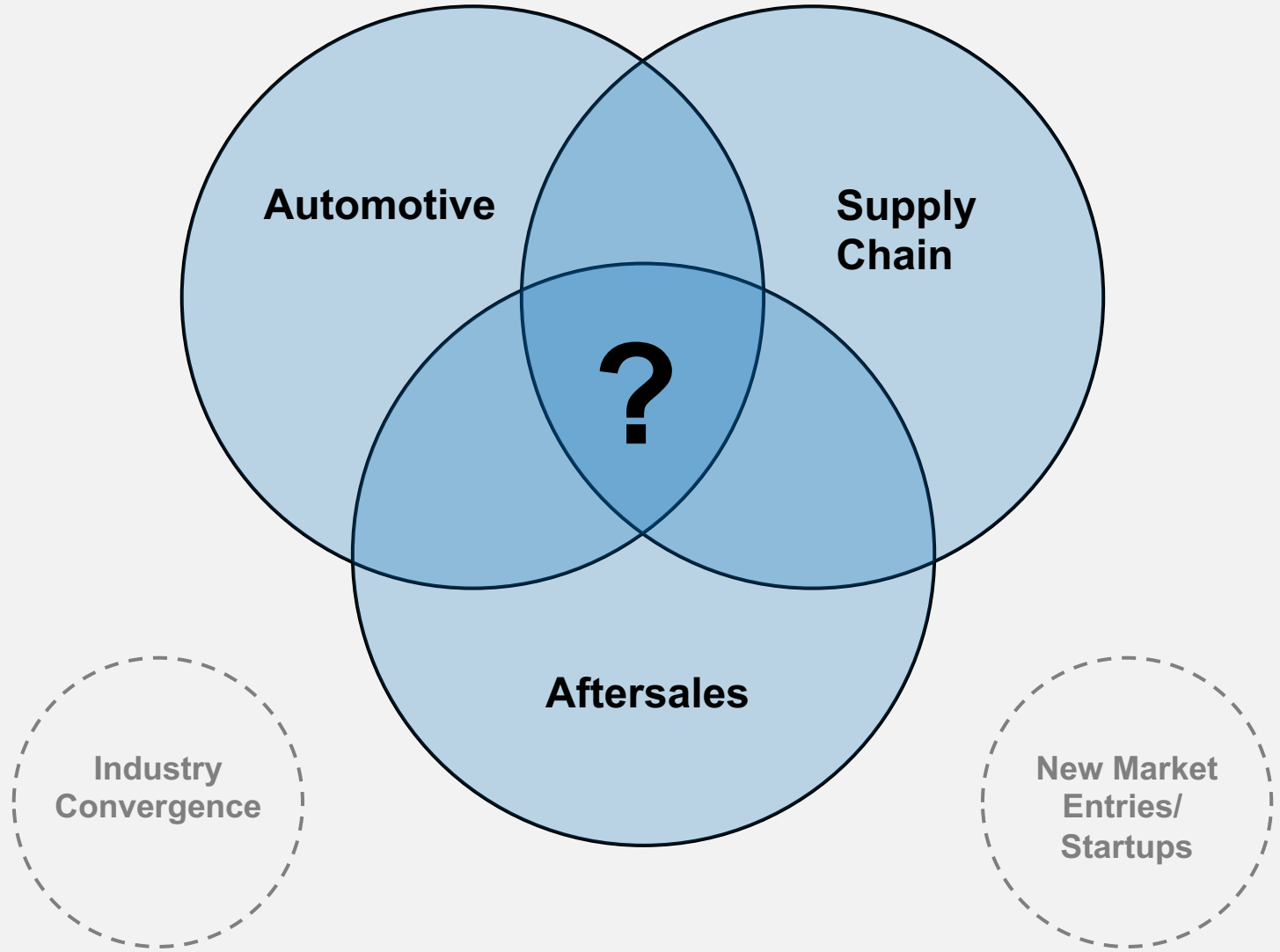
For OEM`s Spare Part Logistics, 3+ Angles Make a Difference

Angles of Business Model Evolution



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Digital Natives Like “Dawn Digital” Behave Differently

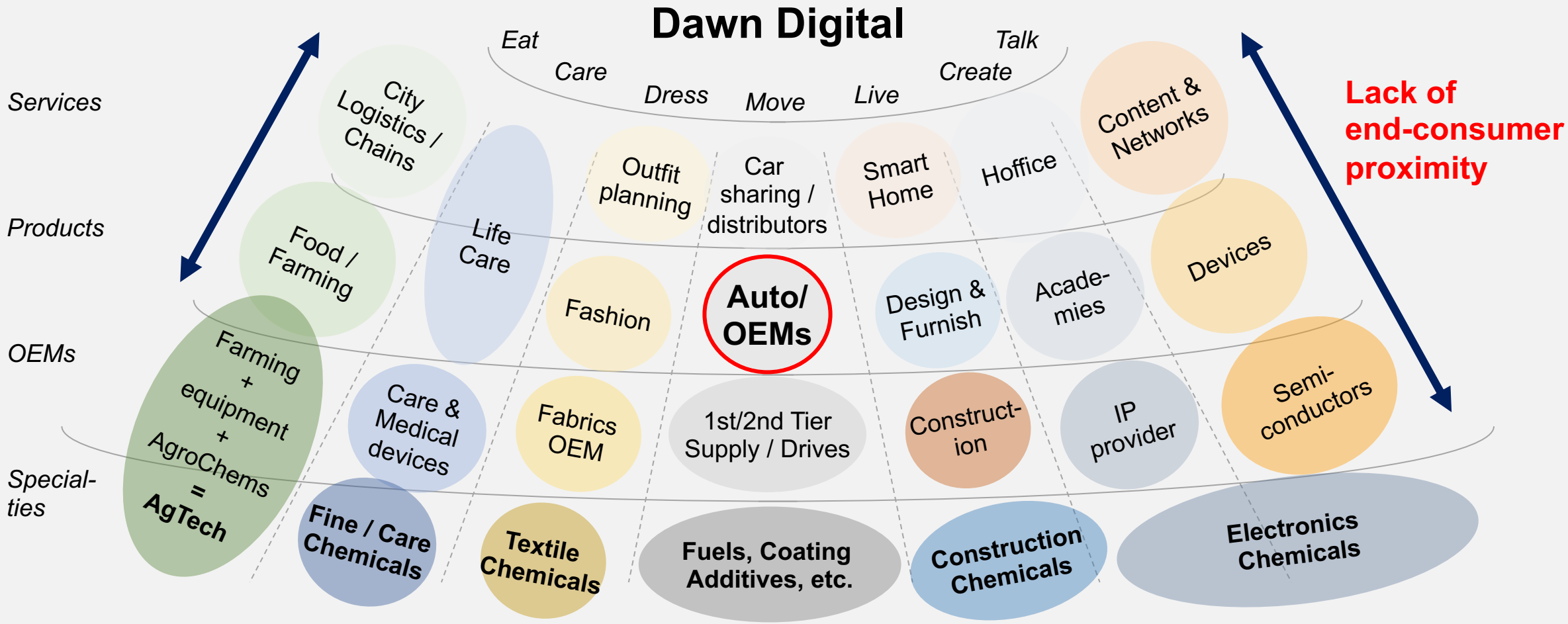
Basic Consumer Needs and *Dawn Digital’s* Behaviour

Eat: She’s always shopping, however, she’s never in line
Care: She’s never been to a doctor, but she visits her doctor every week
Dress: Her T-shirt is connected to the web
Move: She doesn’t know how to drive, however, she’s driving all the time
Live: She’s never ever been “lost,” and her tattoo unlocks her door
Create: Her superior is a robot
Talk: She never logs on, but she is indeed always online

Basis: Clay, Mashall, Glynn 2017; Wehberg 2018

Current automotive players are being challenged...

End-consumers' Needs and Market Landscape



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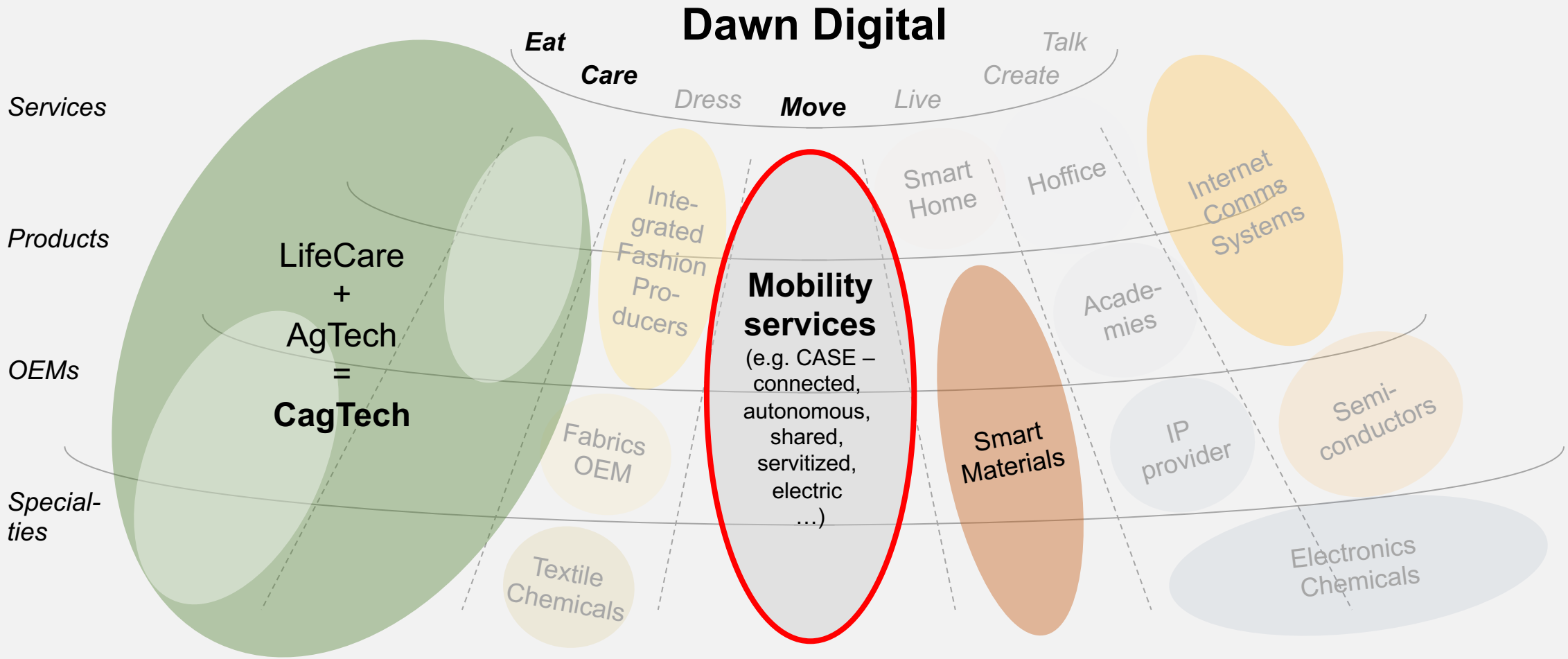
…and develop to mobility service providers and B2B2C…

Future Business Models



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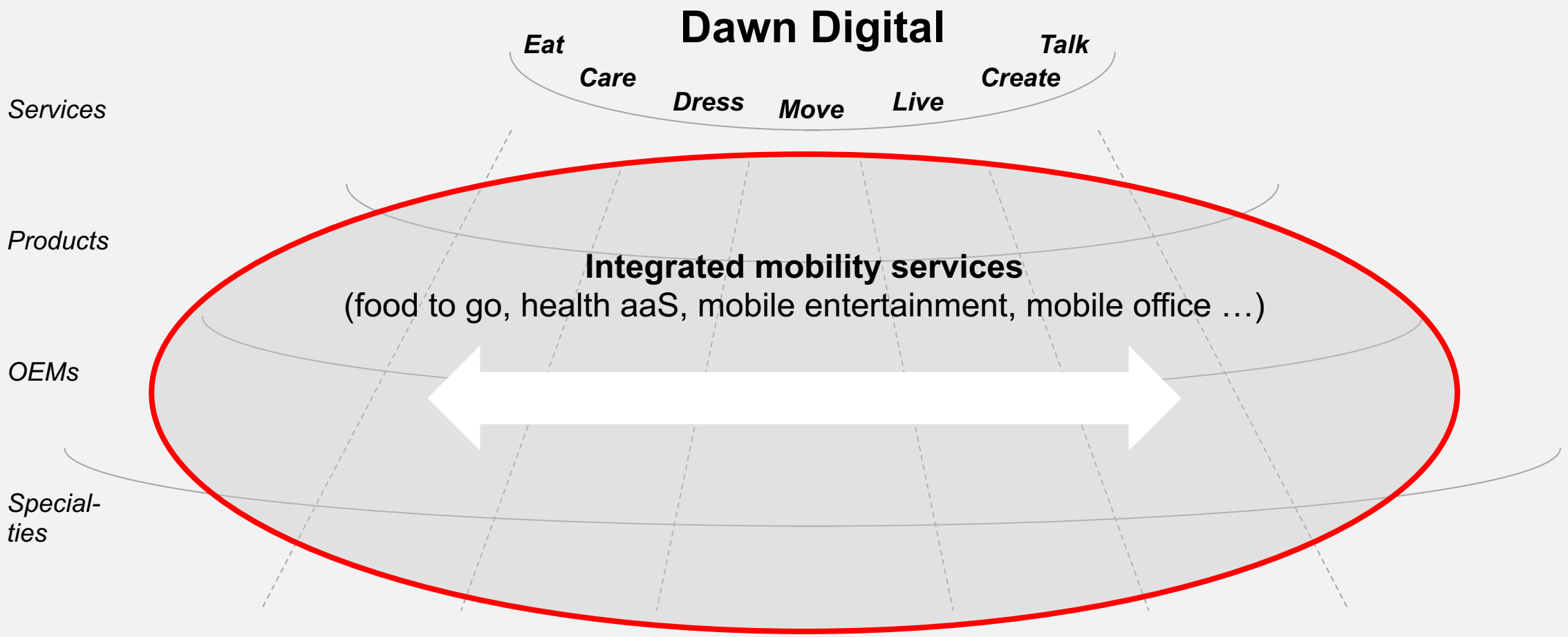
…which will integrate other end-consumer spheres, prospectively

Future Business Models



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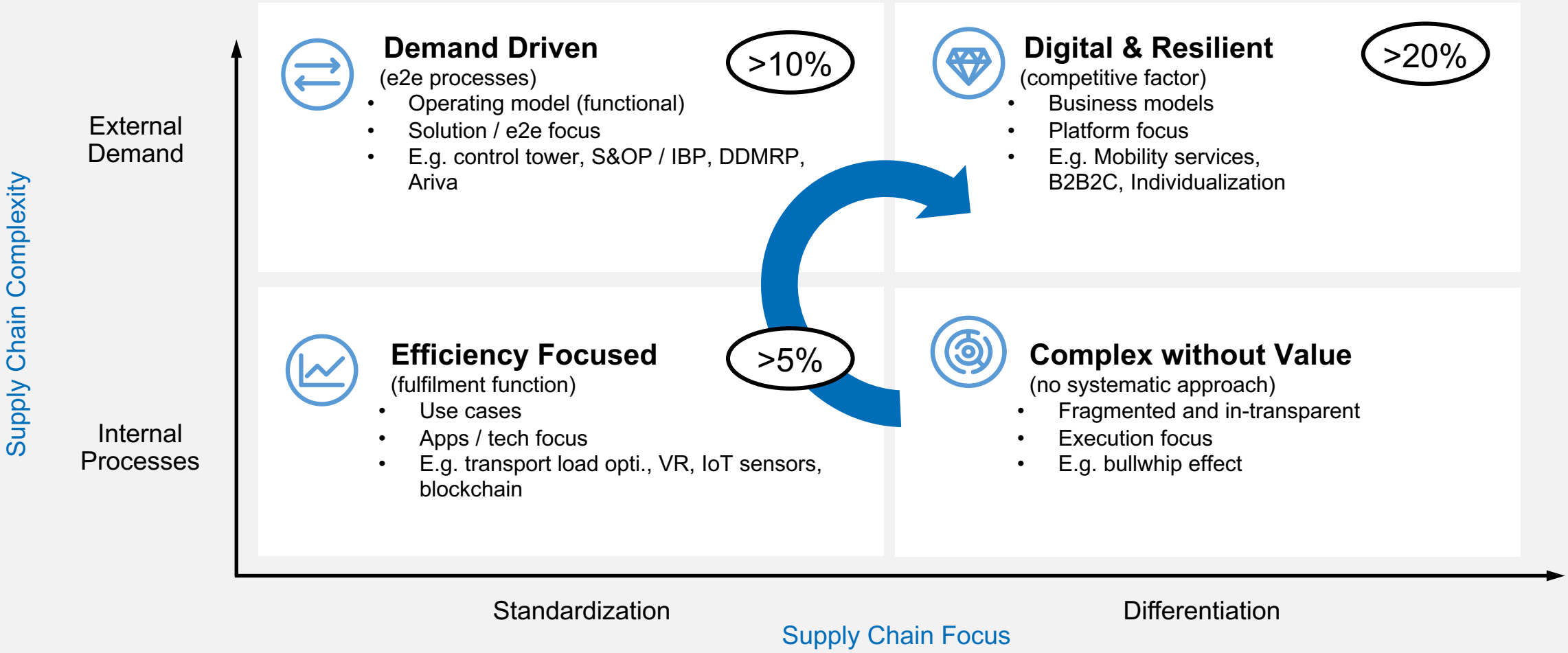
Supply chains must evolve towards digital and resilient
Stages of Supply Chain Maturity



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% Ebitda upside Evolution path

OEM's SC operating model must anticipate the future

Example: Supply Chain Planning of the Future

Scope of Planning

- Demand Planning
- Supply Planning
- Network Optimization
- Production Planning & Scheduling
- Procurement Planning
- Transport Planning
- Finance Planning

Today's Design Principles

- Organization: SCOR oriented, central steering, network-optimized
- Offering: Product centric
- Sourcing: Integrated, asset / OEE driven
- Processes: Standardized/stable, cost efficient, S&OP, tracking & tracing (geo), CO2 footprint
- Talent: Engineering focused
- IT: Lights-off, algorithms, centralized data

Future Requirements

- Cross-functional, self-organized (>>) / democratic, continuously optimizing (>>)
- Service focused (aaS)
- Eco-system, asset light
- Individualized / make-to-order, value / risk oriented, dynamic forecasting, digital twin of everything (>>), SDG
- Diversity of people & talent
- Self-driving, machine learning, shared data

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>> For more info see video

Self-organization asks for new design principles

Self-organization Key Principles

Ants at Work
Role Model for Self-Organized Supply Chains

…of nature	…of supply chains
Recursion	• Consistency of Steering • Modular Across Hierarchy • Standardization Across Sites
Autonomy	• End-to-end Responsibility • >95% Online • Enforced Alignment • No Management Intervention
Redundancy	• Real-time Transparency • Sharing • One Data Lake
Self-reference	• Dynamic Forecasting • Continuous Improvement • Machine learning

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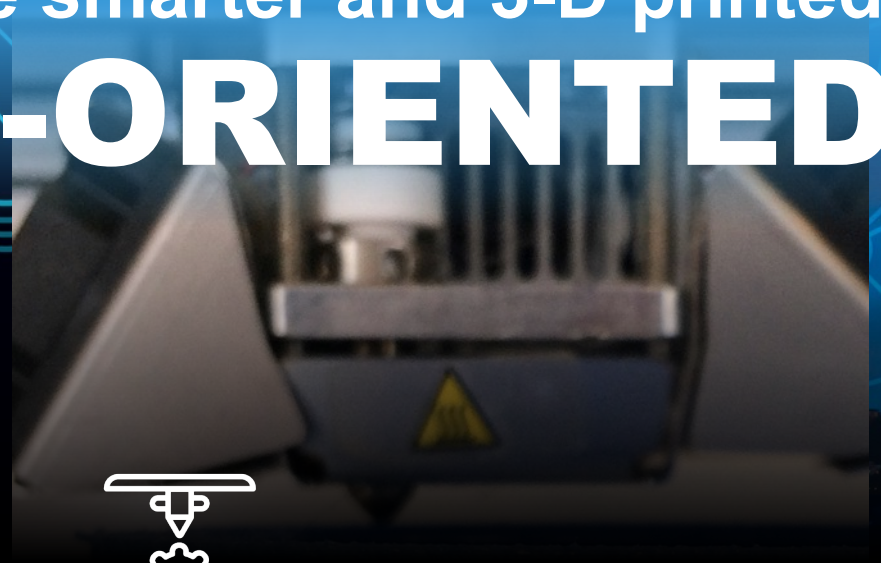
Spare parts become smarter and 3-D printed along with

SERVICE-ORIENTED MODELS



Smart & Green Spare Parts

- Connected spare parts based on IoT technology
- Remote analyses of asset history support predictive maintenance

3D

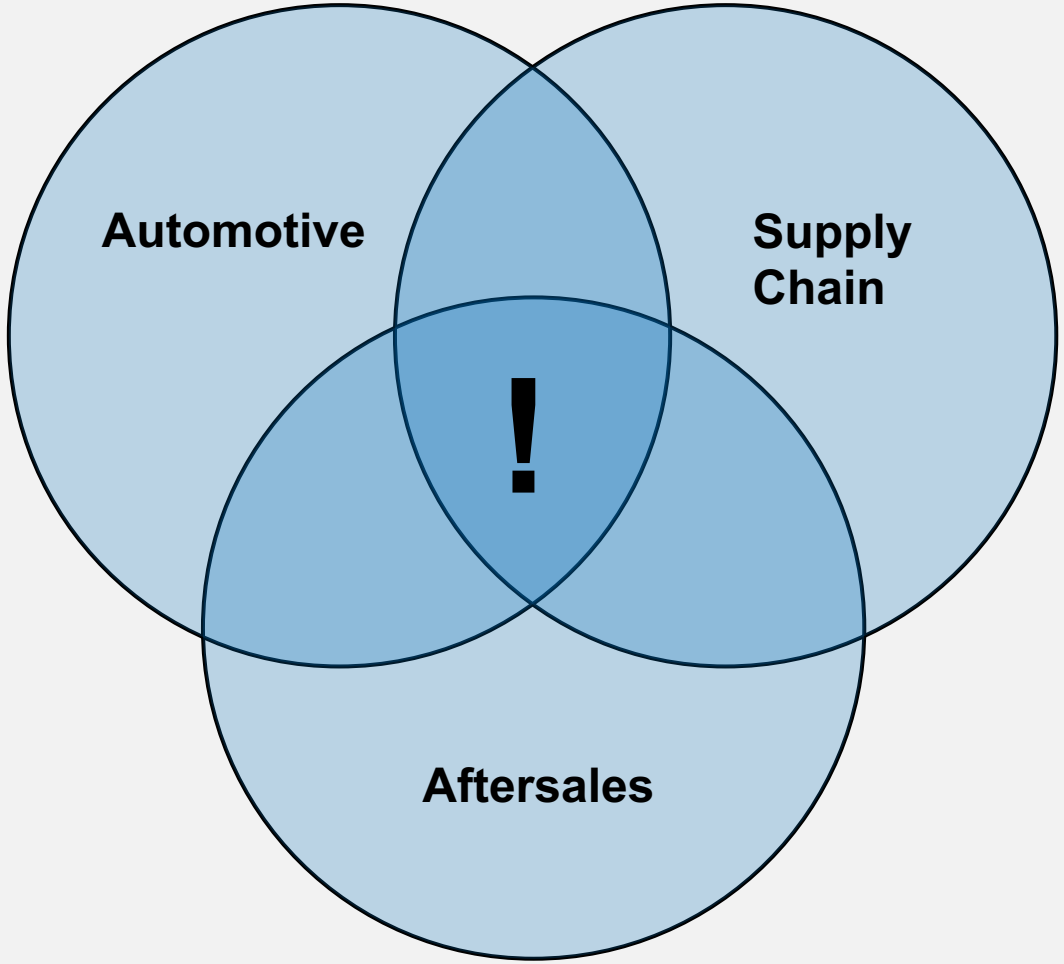
- Spare part production through 3D printing at scale
- Local production sites decrease distribution cost and reduce cycle times

Service-oriented Model

- Selling uptime or other services instead of parts
- Pricing upsides for focusing on customer value and results-oriented service levels

Any aftersales platform needs to be future-read and meet on-top requirements

On-top Requirements for Aftersales



- **B2B2C and Democracy** - ready for the long-tail
- **Double-sided Platform** - leveraging services
- **Multi-channel** - eCommerce type of
- **Eco-partnered** - e.g. last mile via city logistics partners
- **Make-to-order as Mainstream** - individualized offers
- **End-to-end visibility** - beyond geography
- **Predictive forecasting** - of both demand and disruptions
- **Continious optimization** - of network and beyond
- **Self-organization** - as future design principle
- **Second-degree Automation**
- **Green** - like net-zero
- **Servitized** - from selling parts to selling uptime
- **Cloud-based and Micro Services**
- **3D-enabled**
- **Connected with Vehicles and Parts** - remote diagnostics

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Thank You