

Future urban mobility

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Global megatrends

URBANISATION



- By 2050 68% of population will live in urban areas. (United Nations, 2014)
- Today, 64% of all travel happen within urban environments. By 2050 total amount of urban kilometers traveled is expected to triple. (Arthur D. Little, 2016)

- Growing congestion and parking problems
- Loss of time/productivity
- Increased pollution levels
- Restricted mobility for cars

SUSTAINABILITY



- We would need 1.5 Earths to renew the resources and absorb de CO₂. (WWF, et al., 2012)

- Rationalization of car usage
- Demand for greener cars
- Regulations on CO₂ emissions
- Restrictions on access to city centers

SMART CITIES



- Smart traffic management is expected to grow 18,3% every year until 2019. (Mobility-Trends, June 2014)

- Shift to integrated mobility
- Parking limited, and dedicated spots for shared mobility
- Proliferation of small and sustainable urban vehicles
- Smart traffic flow management

CONNECTIVITY



- By 2019, there will be 24 billion networked devices globally. (VNI Global IP Traffic Forecast 2014 – 2019, Cisco 2015)

- Integration of connectivity services
- Greater on-board connectivity (Wi-Fi and 4G)
- V2V and V2X communication

NEW OWNERSHIP



- By 2020, there will be -5% of owned cars
- By 2020, it is estimated that over 40M cars will be replaced
- 55% of Europeans are willing to share (UBS Report, 2016)

- Paradigm shift from traditional ownership to sharing economy

Disruption for the automotive sectors

C

Connected



A

Autonomous



S

Shared & Services

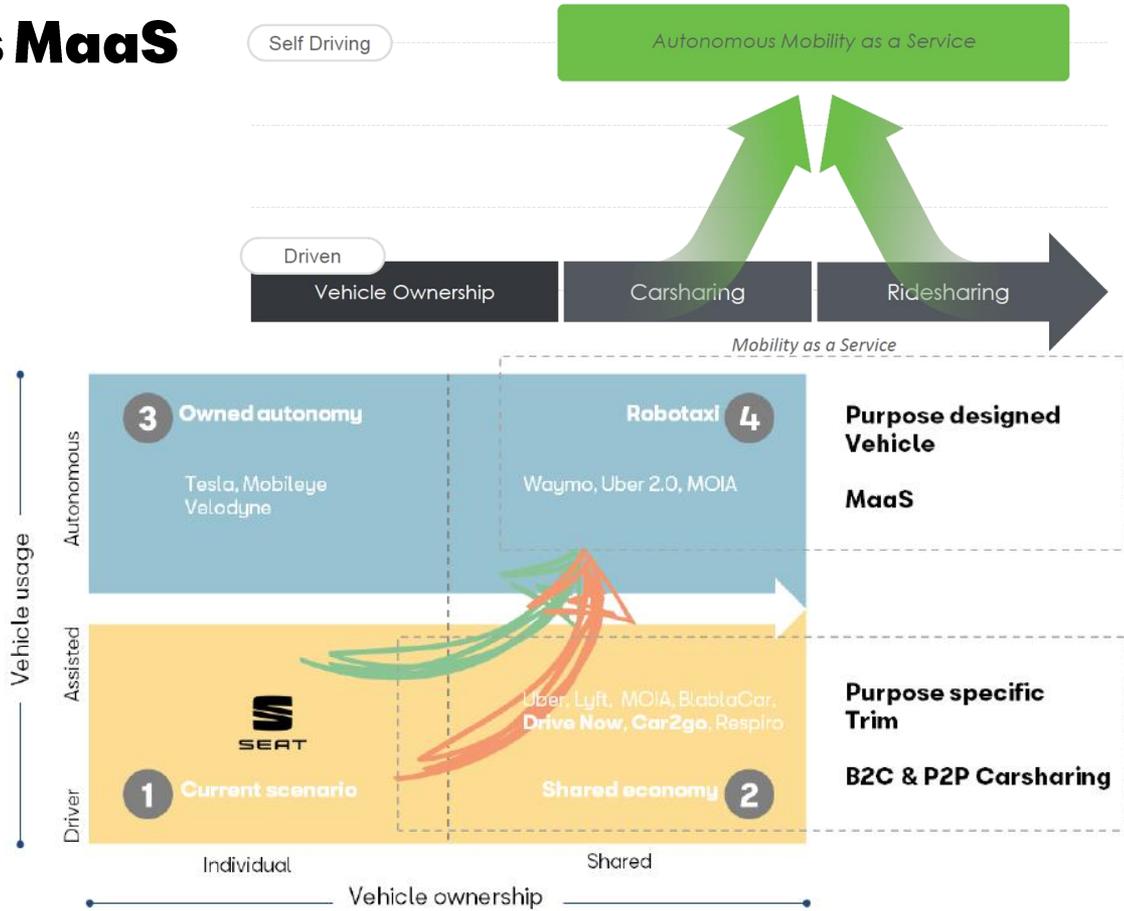


E

Electric

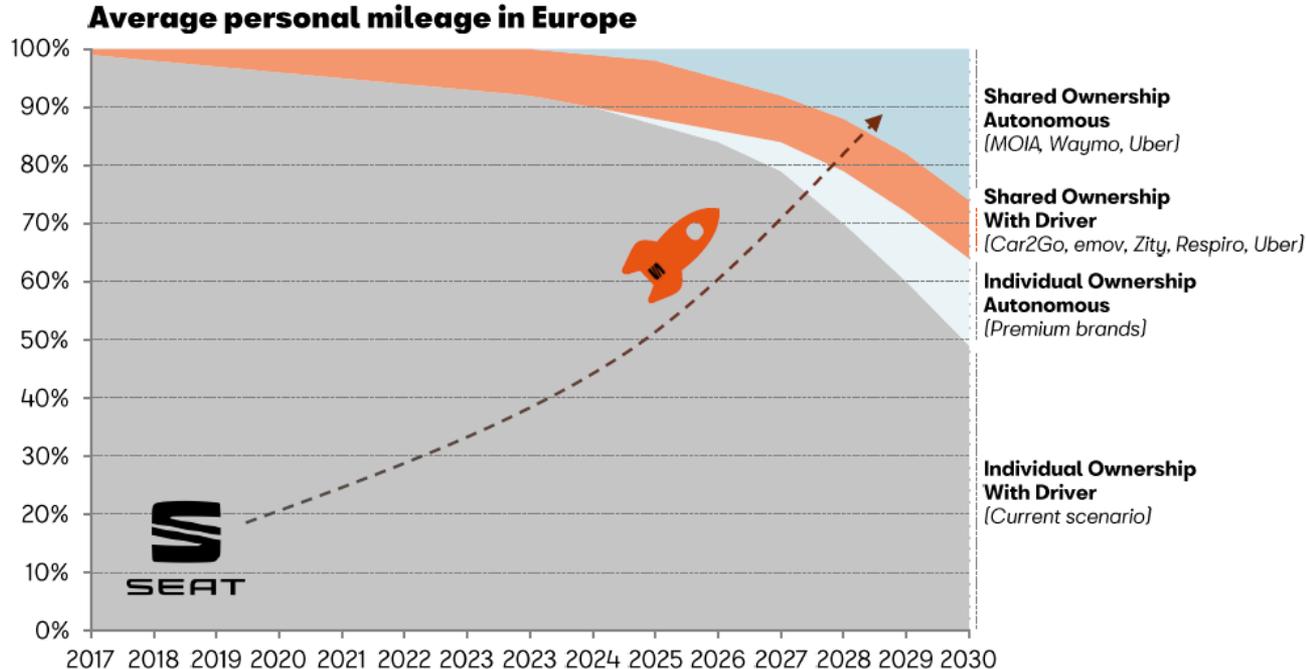


Towards MaaS



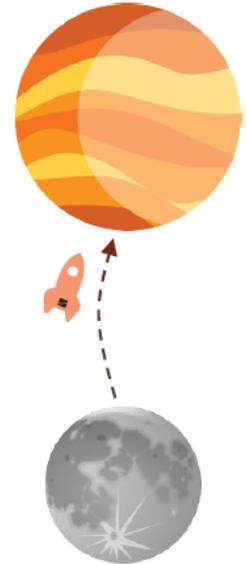
The mobility services revolution

By 2030, **less than 50%** of travelled km will take place in **individually owned & manually driven** cars. The availability of **autonomous** driving technology is the **catalyst** for **shared ownership exponential growth**.



Source: PWC, "EASCY", five trends transforming the automotive industry – Neutral scenario.

Mobility Services

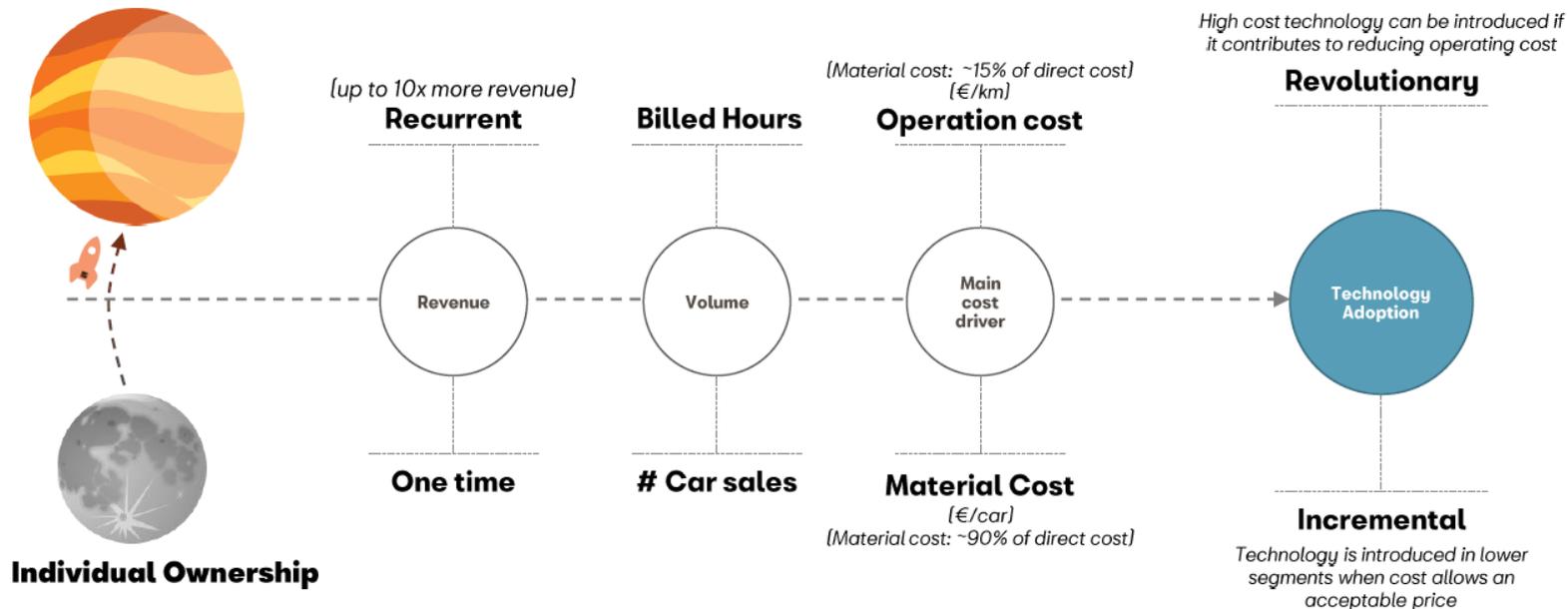


Individual Ownership

The mobility services revolution

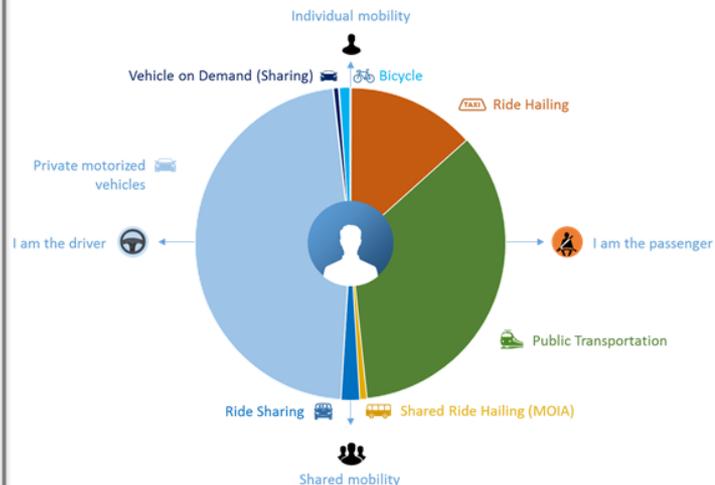
Divergent **product & technology portfolios** are to be expected for **both business models** given their contrasting **cost/revenue structures** and **magnitudes** as well as **use cases**.

Mobility Services



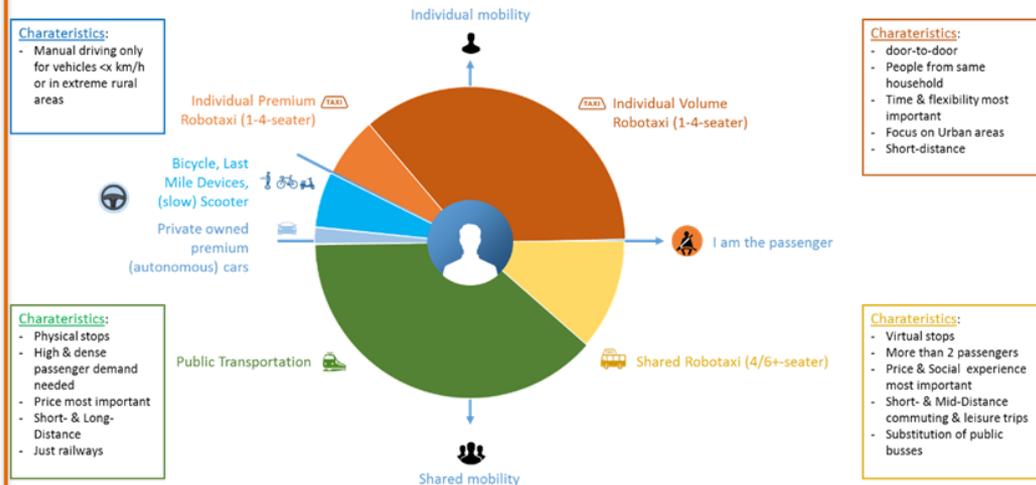
New mobility split

Mobility Split “today”



- / Differentiation mainly between **driving** or **being driven**
- / **Sharing** business models with high growths but extremely low percentage of overall PKM*

Mobility Split “future”



- / Users become **passengers** in nearly all modes of transportation (autonomous)
- / Market of **Individual & Shared Robotaxis** will be segmented & needs differentiation strategy from providers

Mobility driven by robotaxis

NEW KEY COMPETENCES TO DEVELOP

RIGHT PLACE
RIGHT TIME
RIGHT VEHICLE

Platforms
Community Intelligence

Fleet operations
Infrastructure
B2A relationships

Takeaways

- Urban mobility will change drastically in the next decades
- The biggest disruption in automotive industry history is starting
- The **connection of smart cities and connected vehicles** could enable a much more **efficient and safer mobility**, also before automated driving becomes reality
- Local pilots from different OEMs proved use cases' technical feasibility
- **Smart cities** bigger business nowadays in other sectors; business potential for **smart transportation** far to be completely exploited
- **Barriers:** Lack of standardization, cooperation between administration, automotive and ICT industries and interoperability between IoT smart cities providers

Gràcies!

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