



3DEXPERIENCE®

Transportation & Mobility

Succeeding with Connected Cars

Olivier SAPPIN

VP, Transportation & Mobility Industry

Fast-paced Innovation

80% of automotive innovation
driven by **Electronics & Software**



Shift from Product Design to
Connected Experience Business



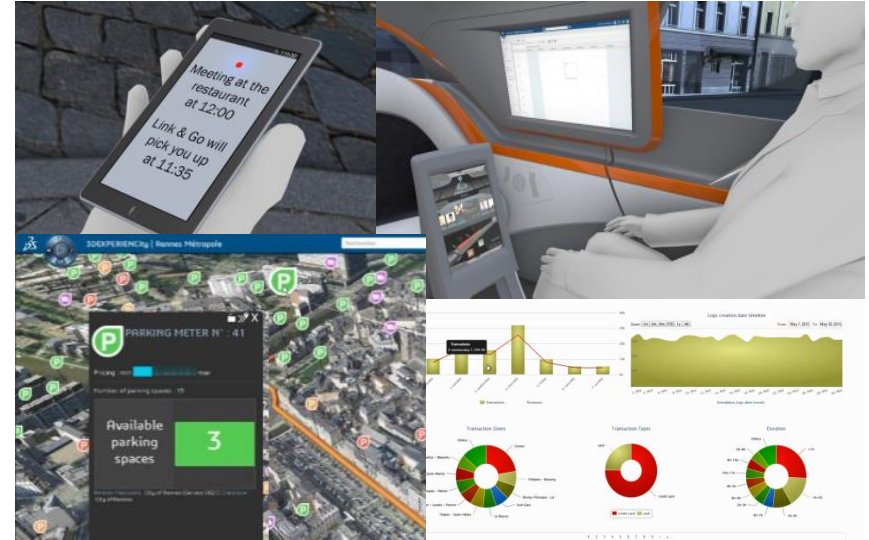
Mobility Experience



Mechatronics Systems



Mechanical Component



Cars are becoming high tech



Automotive Electronics exhibits: +25% floor space vs. 2015 , 200 000 sqft

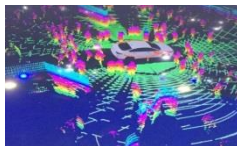
Carmakers



Automotive Suppliers



High-Tech Providers



New players



Autonomous Vehicle



Connected Car Experience



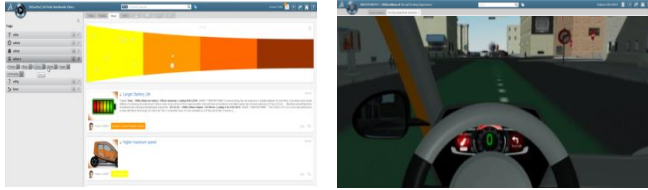
Electro-mobility



Mobility as a Service



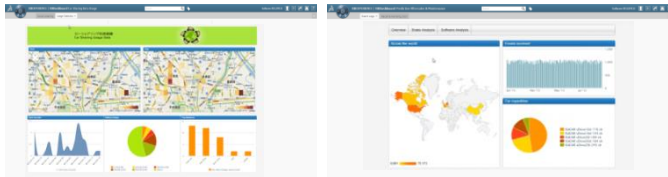
3DS Innovation for the Car of the Future



Co-Design of Mobility Experiences on a social platform



Simulation of Vehicle & Infrastructure Systems



Mobility and Car Information Intelligence





Immersive Vehicle Configurator

Experience your car

Mobility Services



Monitor Vehicle & Services through Data Analytics

Design More With Less Engineering Efficiency



Automated Engineering

Master System Complexity, Design right the first time



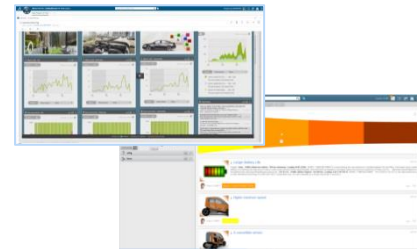
SYSTEM ARCHITECTURE



PROGRAM COCKPIT

Keep program on track

Be more creative and collaborative to realize customer's dream



SOCIAL INNOVATION

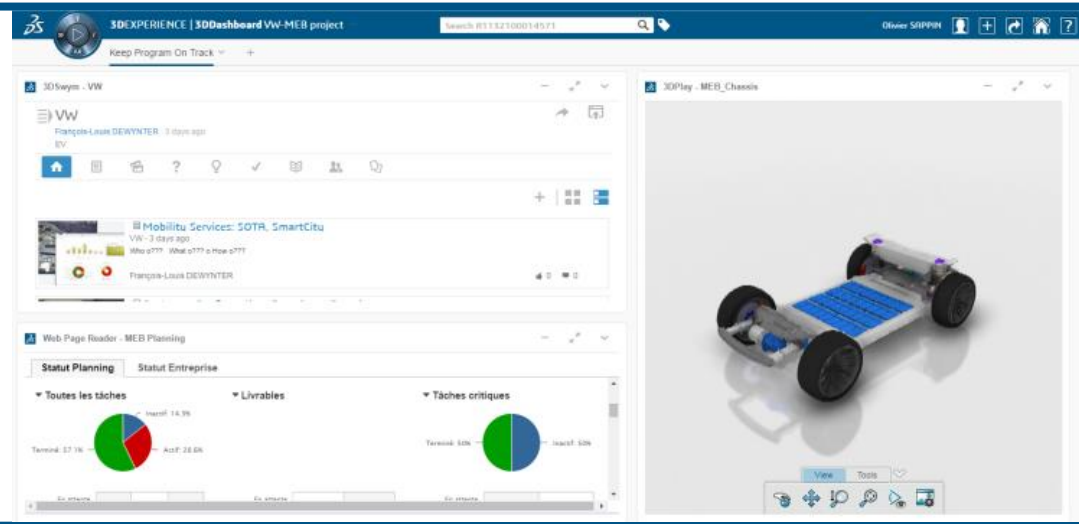


Program Cockpit

Who  Car Line Manager & teams

Get 360° view of all program KPIs to take the right decision

- Save 18 months on a classic 48 Month car program
- Increase quality by raising completeness of digital data to 95% at Styling Freeze



Social Innovation

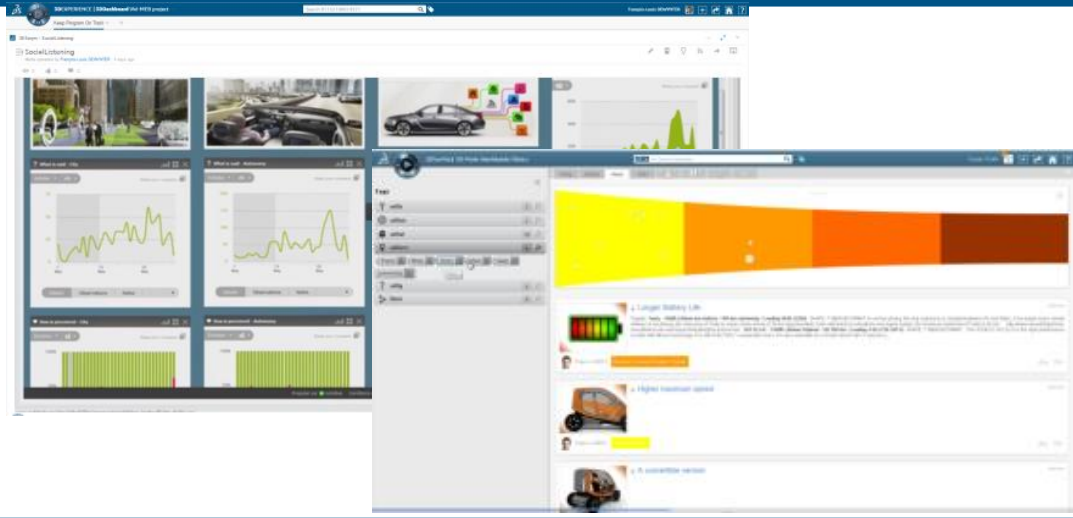
Who



Market Analyst, Chief Designer,
Product Manager

Be more creative and collaborative to realize customer's dream

- Validate 100% of new Car Interior experience with Virtual Consumer Clinics
- Increase number of alternatives study



System Architecture

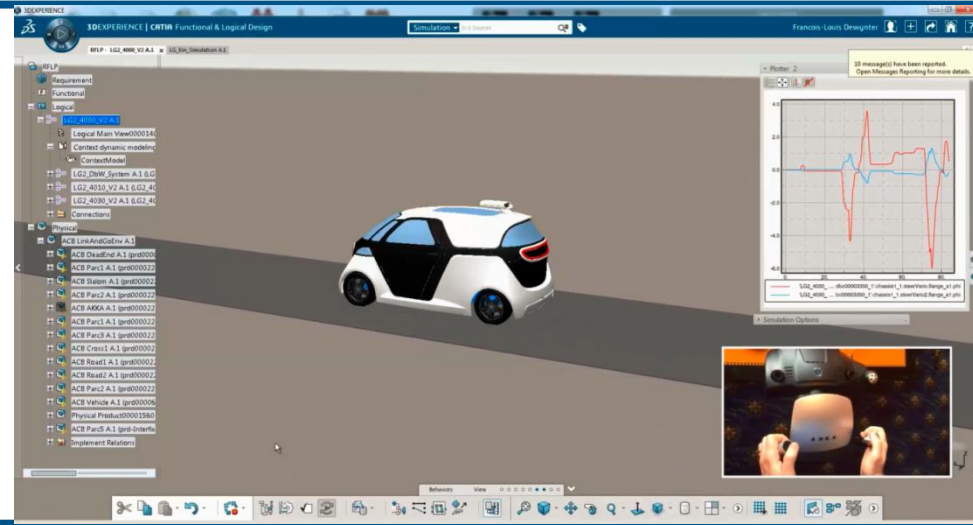
Who



System Architect, System Engineer

Master System Complexity, Design right the first time

- **Reduce Warranty Cost** by getting 100% compliant with Functional safety standards (ISO26262)
- **Reduce development time by 30%**



Design More With Less

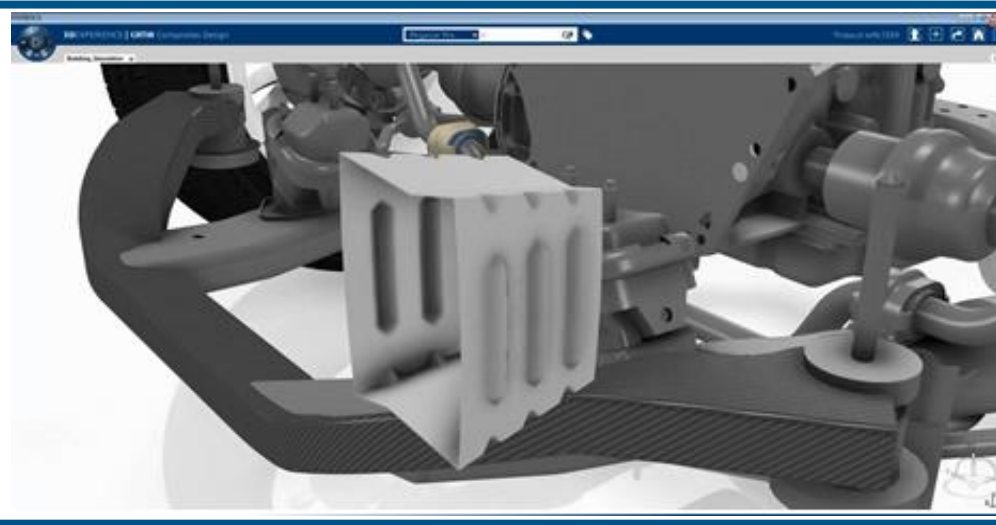
Automated Engineering

Who



Mechanical Engineer

- Monitor vehicle mass to **reduce vehicle weight by 30%**
- **Reduce cost of Composite** material development & manufacturing



Experience your car

Immersive Vehicle Configurator

Who  Sales & Marketing Director

- Reduced number of dealership and get full Virtual Connected Car experience at showroom and events



Mobility Services

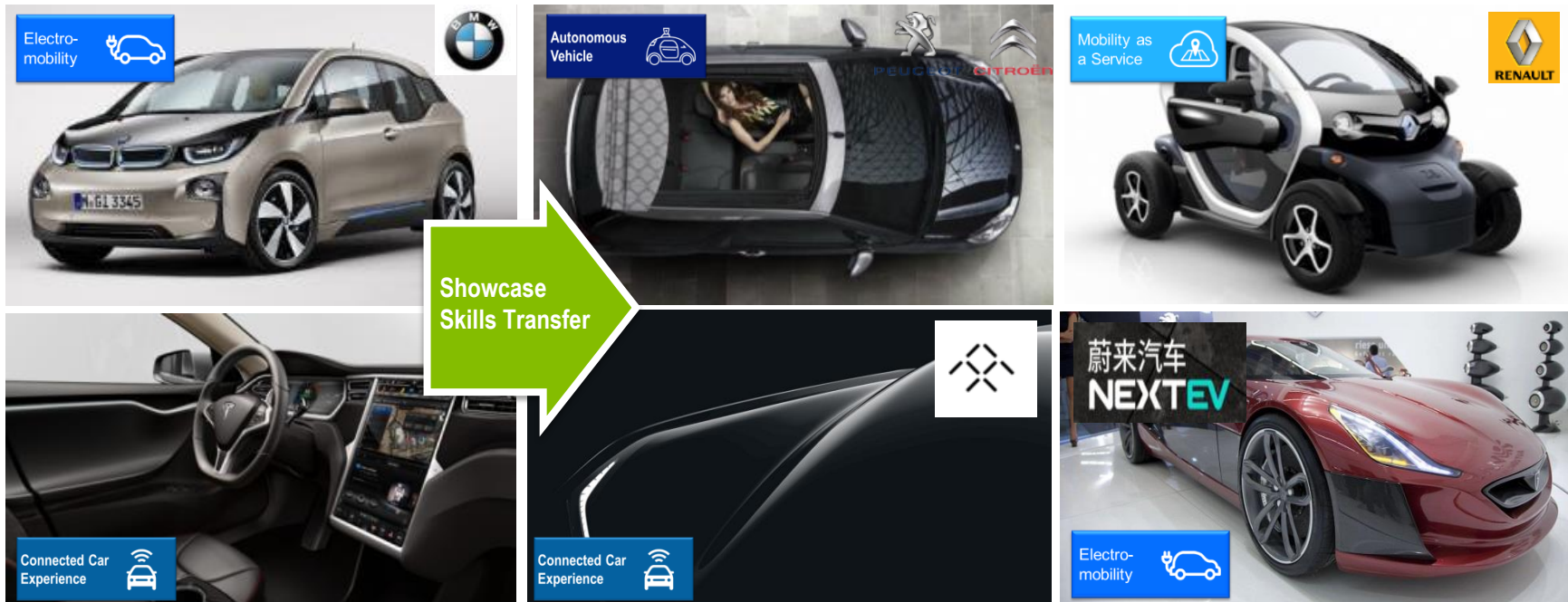
Who  On board software engineer

Monitor Vehicle & Services through Data Analytics.

- Anticipate vehicle issues by providing preventive maintenance software updates.
- Collect & Learn from connected vehicle data to develop new mobility services.



Increasing business with traditional player & new entrants

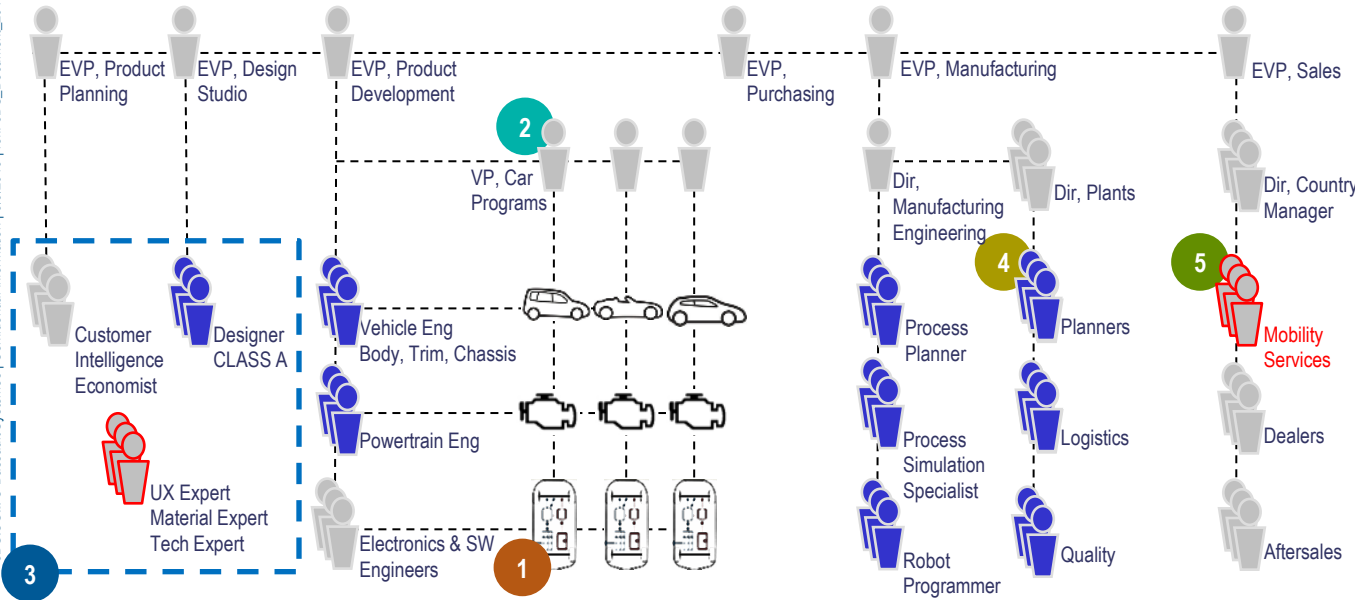


Connected Car

Organization impact & DS opportunities



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- 1 Increasing need for **Electronics & SW Engineers**
- 2 Shift of responsibility from Engineering siloes to **Car Programs** including Test traceability
- 3 Creation of **Innovation lab** to invent new mobility concept
- 4 Manufacturing shift from volume to **mass customization**
- 5 Car makers evolving to **Mobility Services Providers**

