

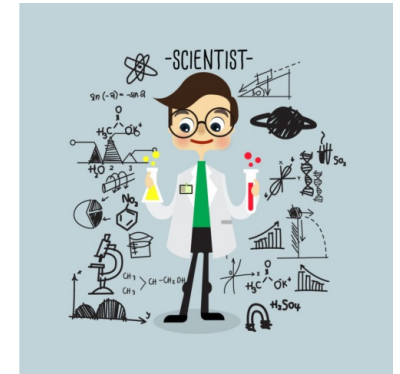
LIGHTWEIGHT VEHICLES 2017

**LIGHTWEIGHT SOLUTIONS FOR FUTURE MOBILITY**

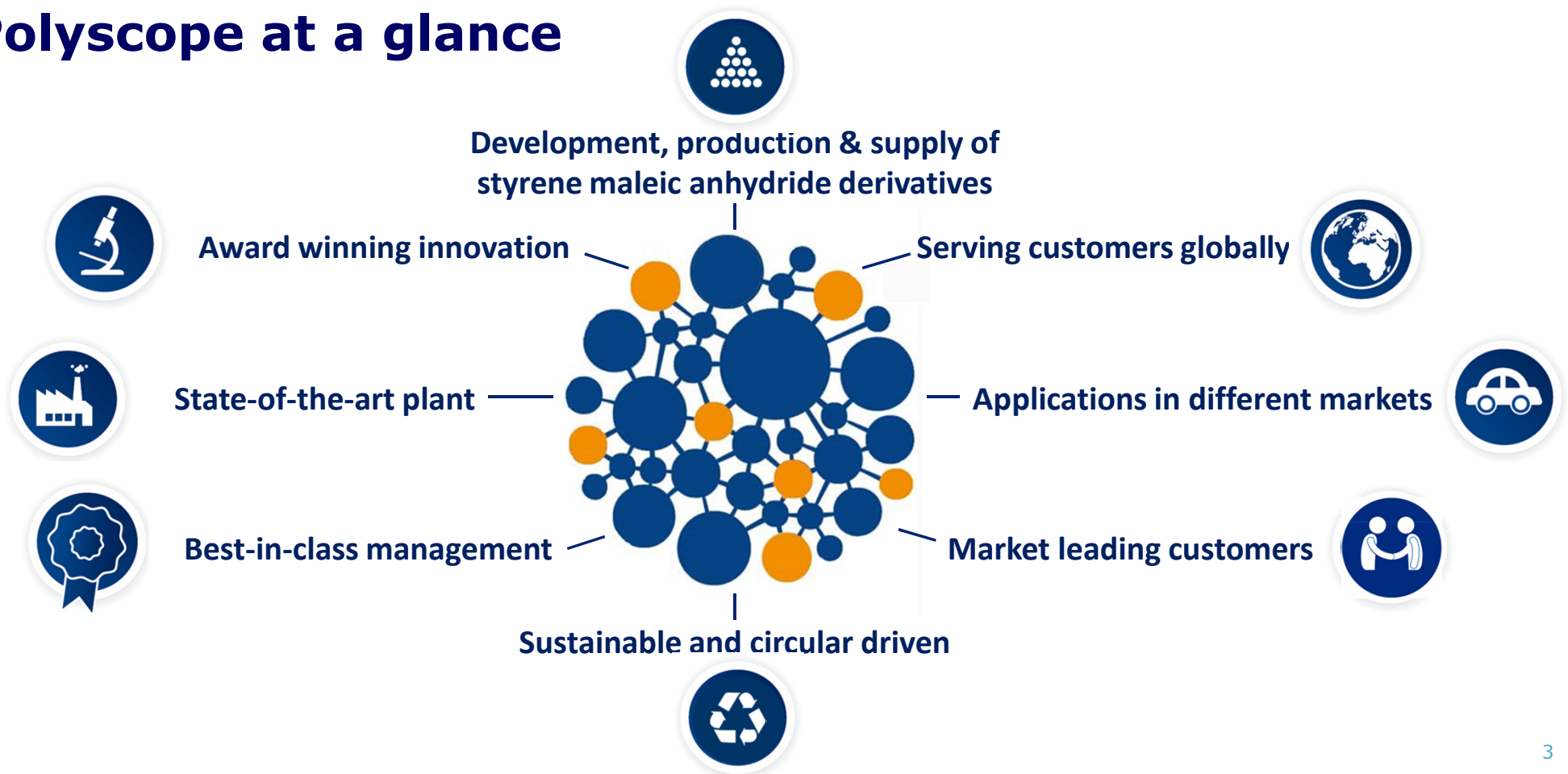
[www.polyscope.eu](http://www.polyscope.eu)

# Welcome

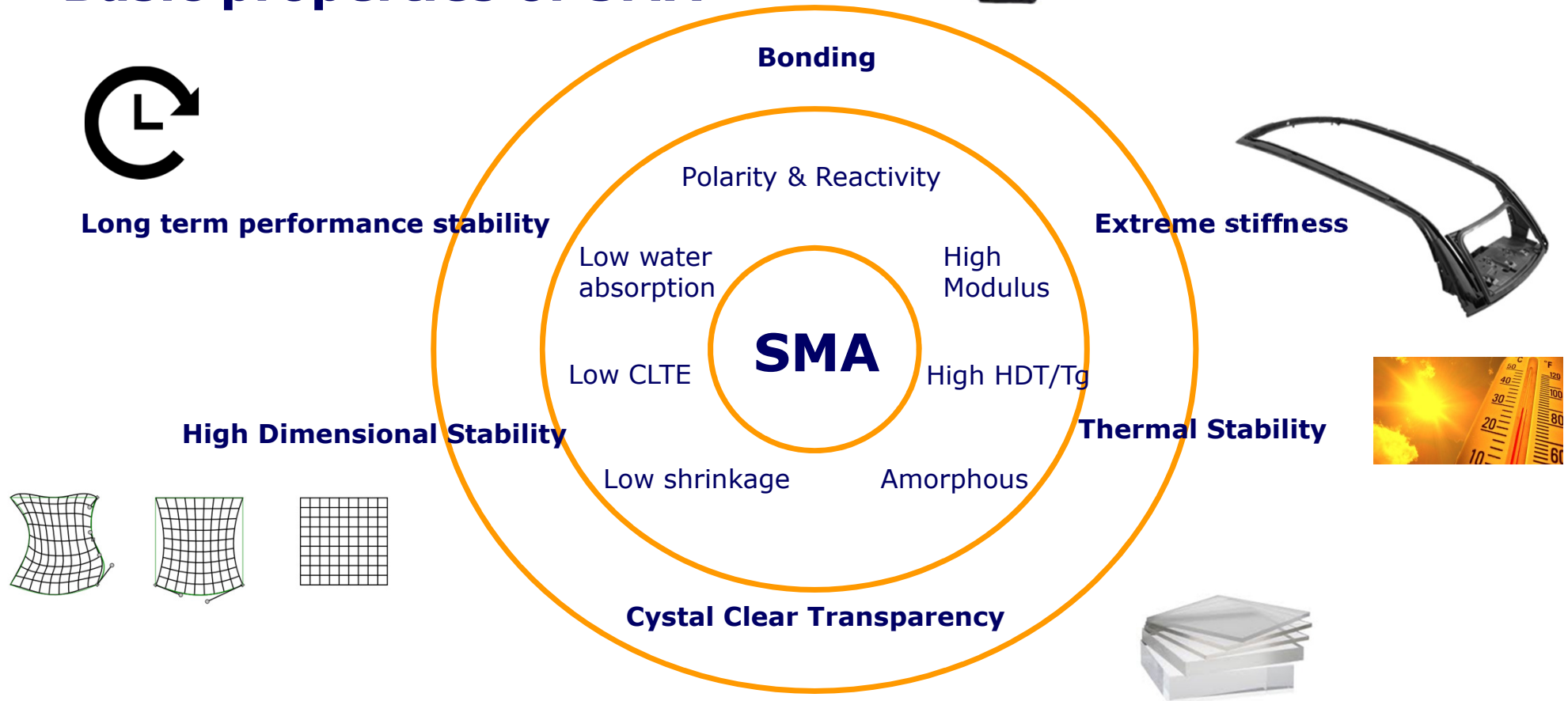
- Polyscope's purpose of conference
  - Share our thoughts on lightweight solutions
  - Collect your thoughts on lightweight solutions
- Introduction of Polyscope
- Market trends and effects on structural parts
- Our thoughts on these trends
- Developing a solution



## Polyscope at a glance



## Basic properties of SMA



## Where are we now?

- Leader in innovative solutions for automotive structural parts
- Working on compound diversification
  - SMA and SMI based compounds branded XIRAN® and XILOY™
  - Focus on combinations of new materials and technology
  - Meet automotive requirements like weight reduction and ultra high stiffness



## We develop thermoplastic composite solutions

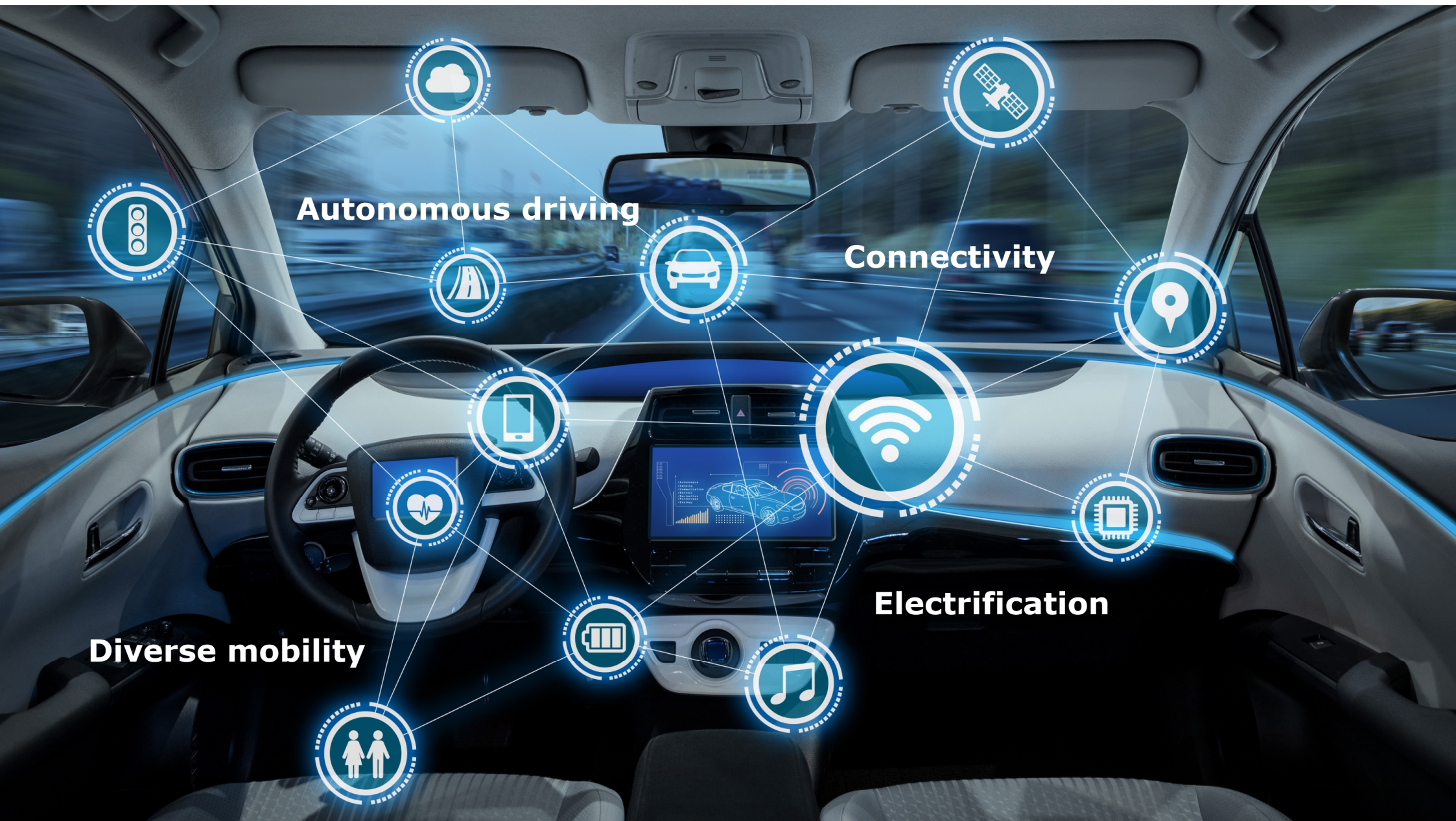


Fiat 500 stamped-steel sunroof frame



Citroën DS3 thermoplastic sunroof frame





**Autonomous driving**

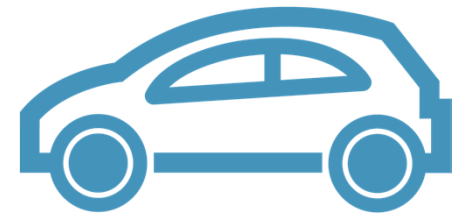
**Connectivity**

**Electrification**

**Diverse mobility**

## Effects of these trends on structural parts

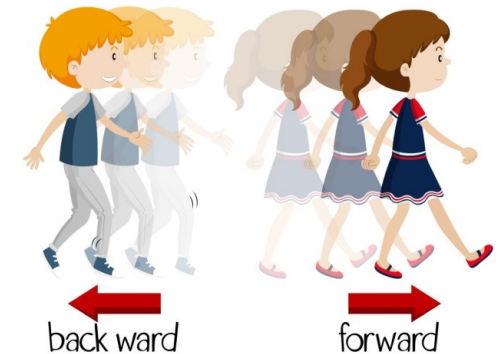
- Even higher need for light weight parts
- Need for high durability parts
- Need for “green” parts
- Cost and safety remain important issues





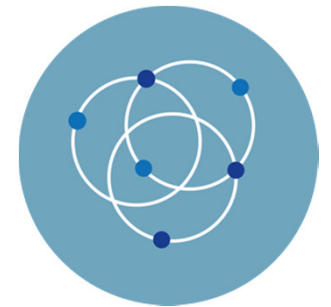
## But the market seems to be moving backward in SRF...

- Is weight reduction still an interesting business model?
  - Sunroof frame market plastic to steel
- Will steel be re-introduced?
  - Due to compensations in the BIW
- Are composite solutions future proof?
  - Recyclability
  - Long term performance



## Our thoughts on lightweight solutions

- Advanced materials
  - Thermoplastic composite solutions
  - Fit for recycling, re-use or re-manufacturing
- Partner up with suppliers and OEM's to enhance knowledge and speed up developments → the circular approach



## The circular approach

Bringing parties from the entire value chain together will lead to:

- A much better understanding of why certain demands are translated into the supply chain and therefore
- A value optimization can start (quality, safety, car performance, innovation and system cost).

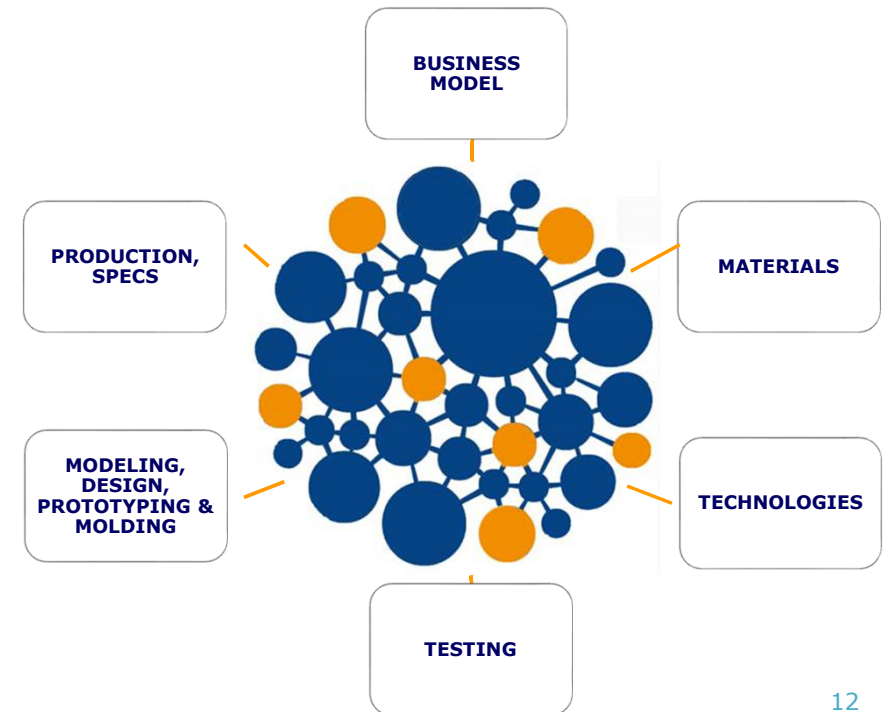


## Circular Sunroof System Program

Thermoplastic composite solution to reduce the BIW weight

- Balanced function integration
- Use of re-cycled glass / carbon fiber
- Designed to re-manufacture

‘Building on trust and confidence to accelerate innovation and business’





## How do you see market developments?

- Is weight reduction still an interesting business model?
  - Sunroof frame market plastic to steel
- Are composite solutions future proof?
  - Recyclability
  - Long term performance
- Will steel be re-introduced?
  - Due to compensations in the BIW



