



CONFINDUSTRIA  
Veneto SIAV S.P.A.

*open innovation*

# **Modular product architecture**

## Benefits of Modular Architecture

Uberto Cortese - SIAV  
Maurizio Scabbia – Open Innovation

# Benefits of integral architecture

- Better performances (especially in terms of size, shape and mass)



# Benefits of modular architecture

- Use
  - Increased variety
  - Upgradable products
  - Improved quality
  - Easier maintenance
- Production
  - Economies of scale
  - Flexibility
- Design
  - Faster and cheaper innovation
  - Leverage fixed development costs on multiple products
  - Easier work coordination



# Benefits of modular architecture

## Increased variety

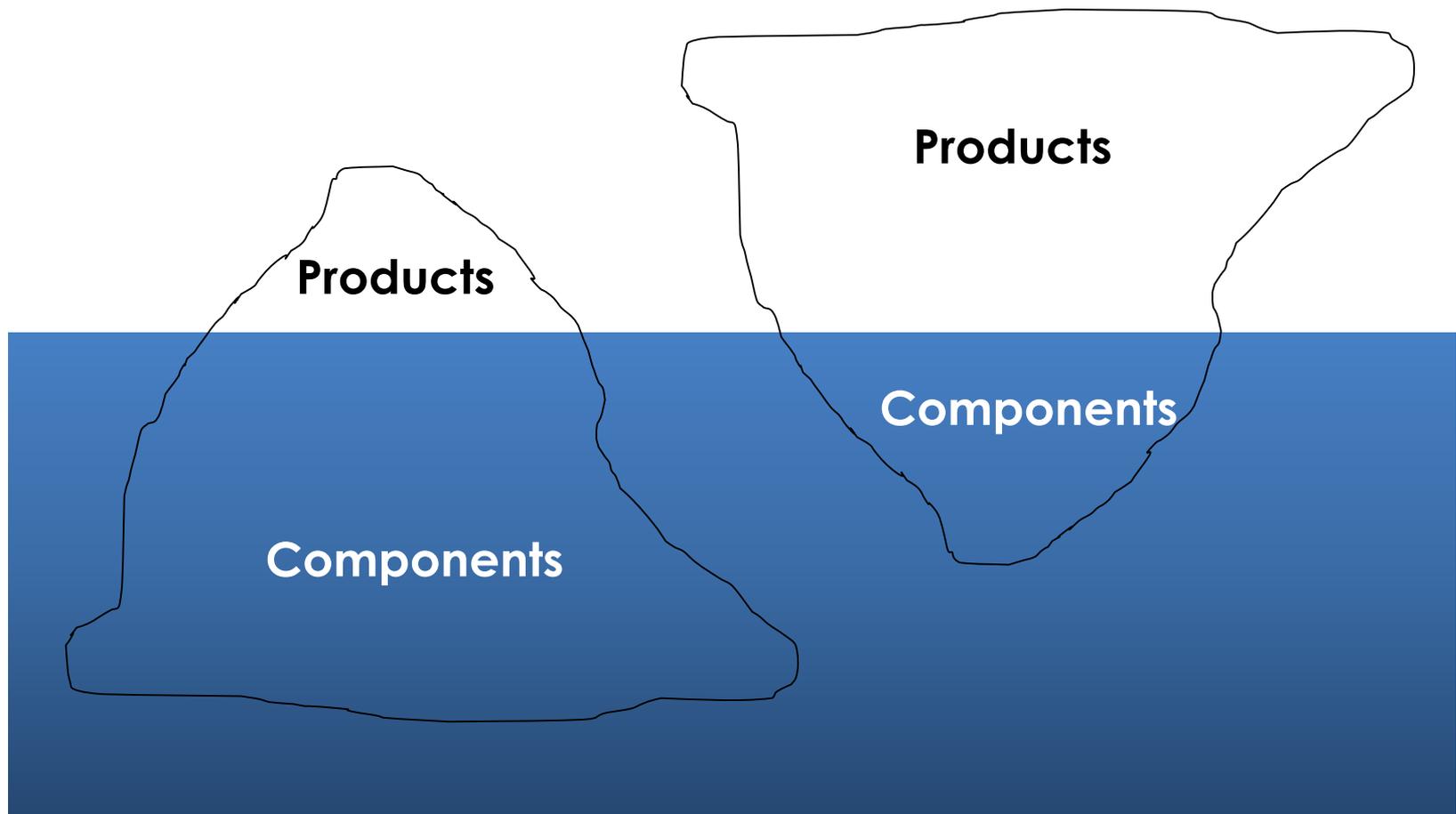


# Benefits of modular architecture

Increased variety

**INTEGRATED ARCHITECTURE**

**MODULAR ARCHITECTURE**



# Benefits of modular architecture

## Upgradable products

**OLD BRAKES...**



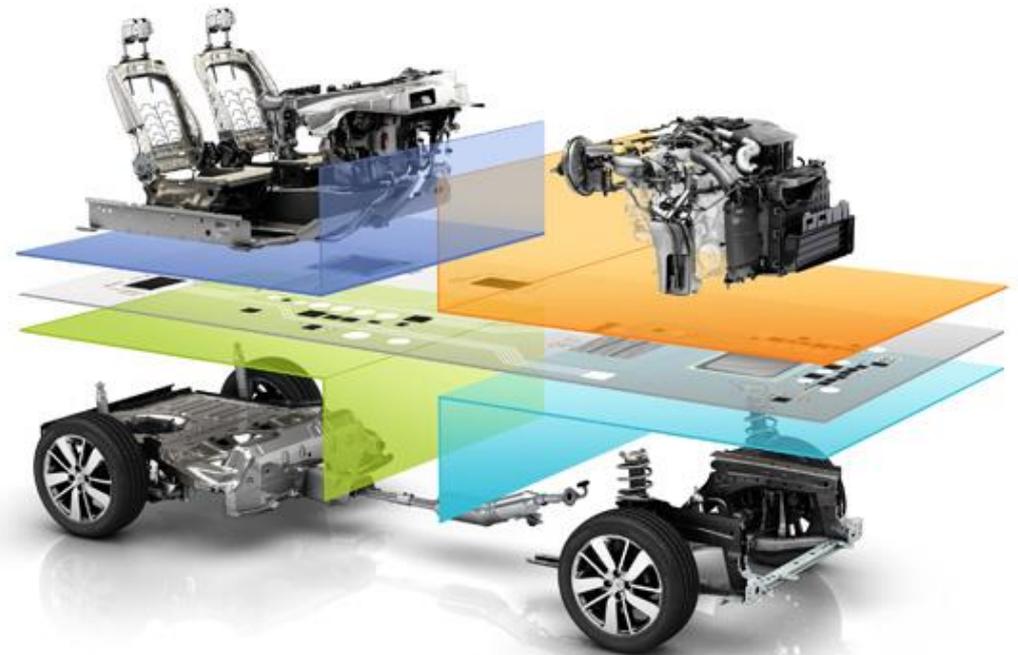
**NEW BRAKES... SAME BICYCLE**



# Benefits of modular architecture

## Economies of scale

- The same component is used in more than one product:
  - Economies of scale
  - Quality
  - Easier Maintenance

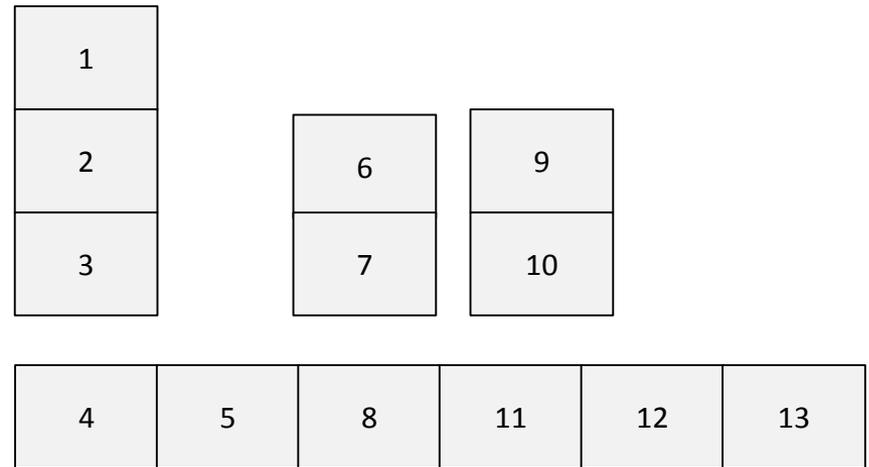


# Benefits of modular architecture

Increased production flexibility



‘Much of a manufacturing system’s ability to create variety resides not with the flexibility of the equipment in the factory, but with the architecture of the product.’  
(Ulrich 1995, p.428)



Shorter main production line

# Benefits of modular architecture

Faster and cheaper innovation

- Innovation inside one single module:
  - Is easier to realize
  - Does not impact other modules

