

The global CFRP market 2015

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The global CFRP market 2015



Source: Wikipedia

The global CFRP market 2015

Overview

1 **The global Carbon Fiber market**

- 1.1 By manufacturer
- 1.2 By region
- 1.3 By application



2 **The global Carbon Composites market**

- 2.1 By matrix
- 2.2 By process
- 2.3 By region
- 2.4 By application



3 **Trends and outlook**

4. **Conclusion and sources**

1 The global Carbon Fiber market

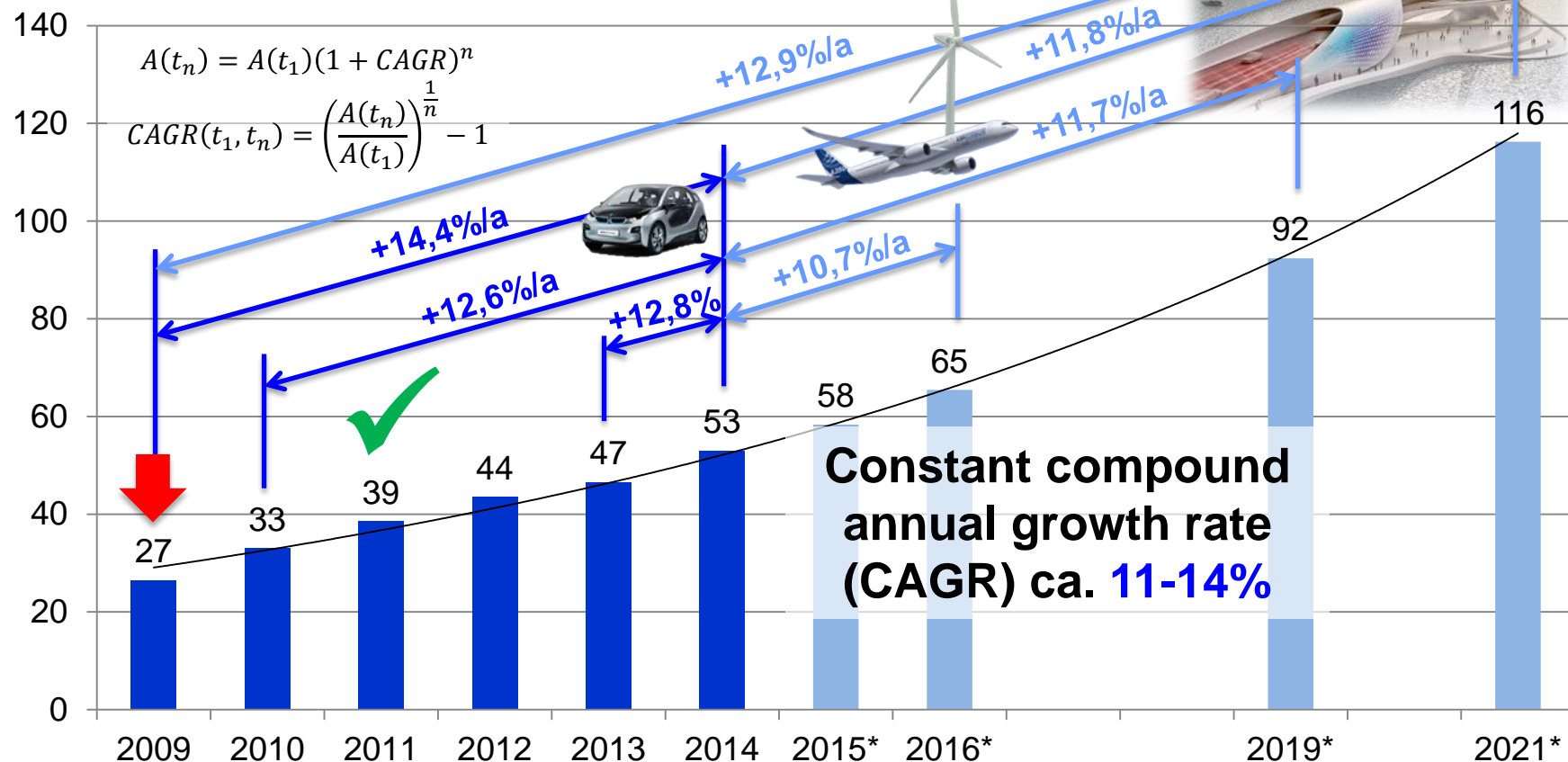


Carbon fiber plant of SGL Automotive Carbon Fibers (ACF) in Moses Lake in 2014 and 2015 (small image), source: BMW and SGL ACF

1 The global Carbon Fiber market



Global demand of Carbon Fibers in thousand tonnes from 2009 to 2021 (* estimations)

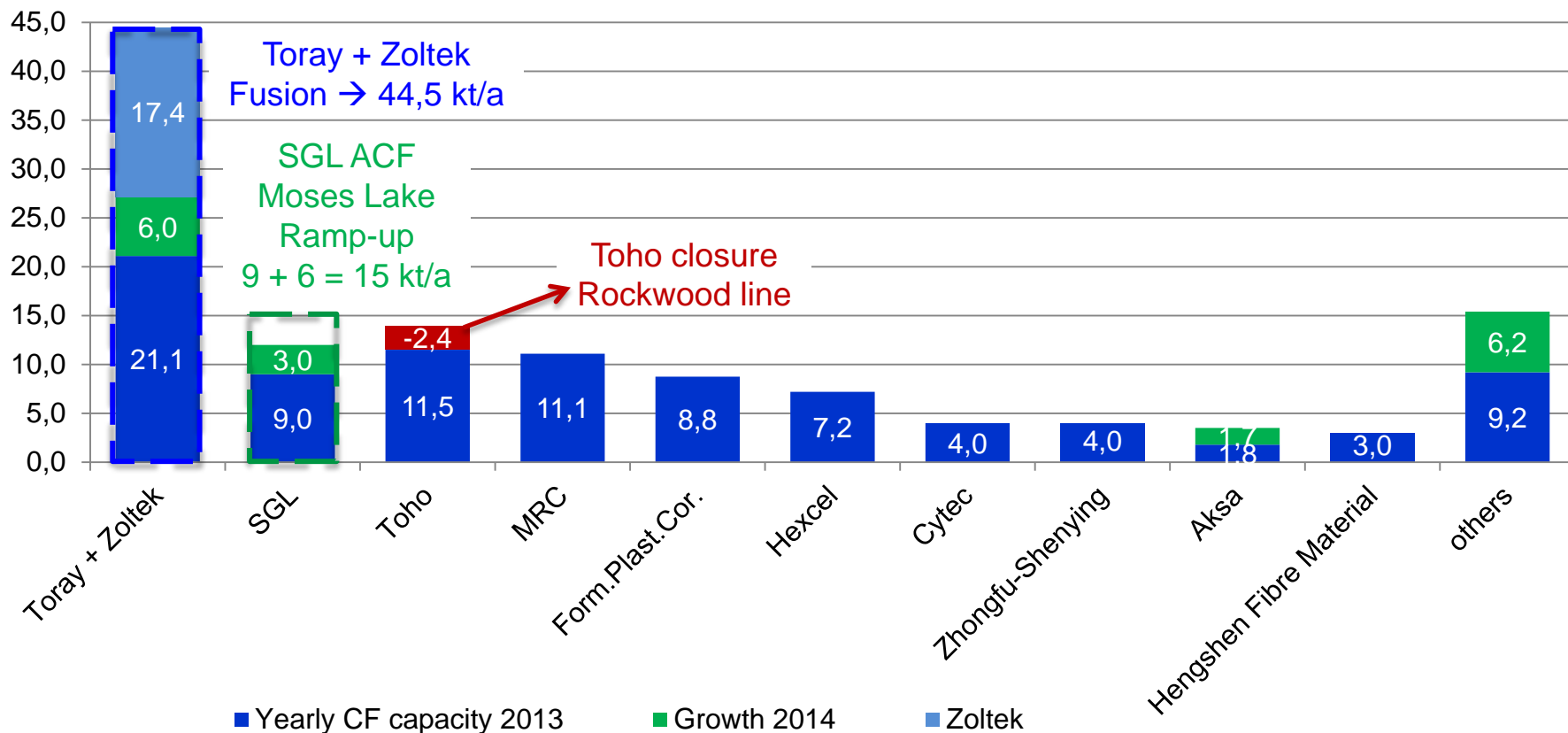


1 The global Carbon Fiber market



1.1 By manufacturer

Annual, theoretical CF capacity by manufacturer in thousand tons (2014).
 $\Sigma = 125$ kt (2013: 105 kt \rightarrow +19%)

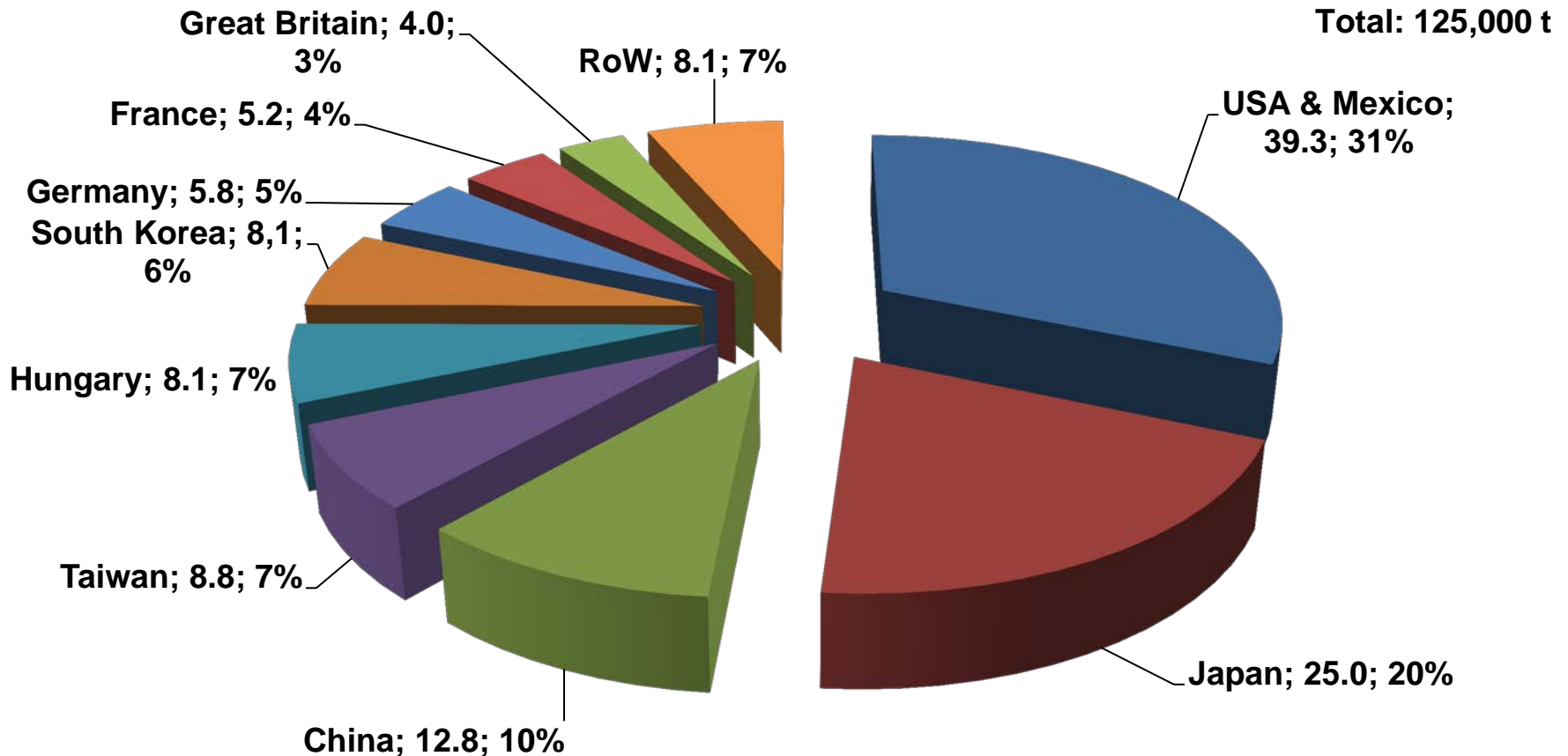


1 The global Carbon Fiber market



1.2 By region

Annual, theoretical CF capacity by regions in thousand tons (2014).

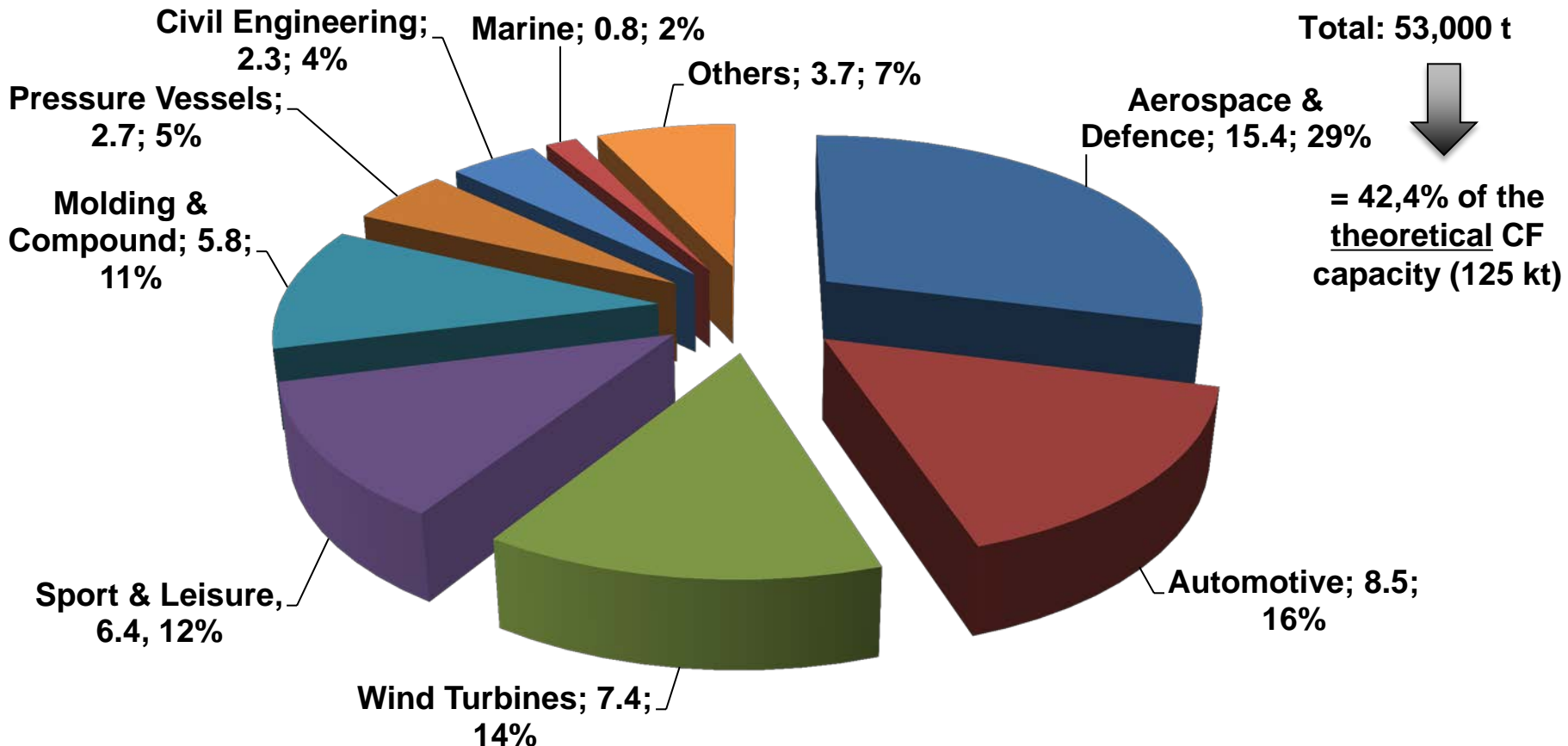


1 The global Carbon Fiber market



1.3 By application

Global CF demand (PAN based) in thousand tons by application (2014)

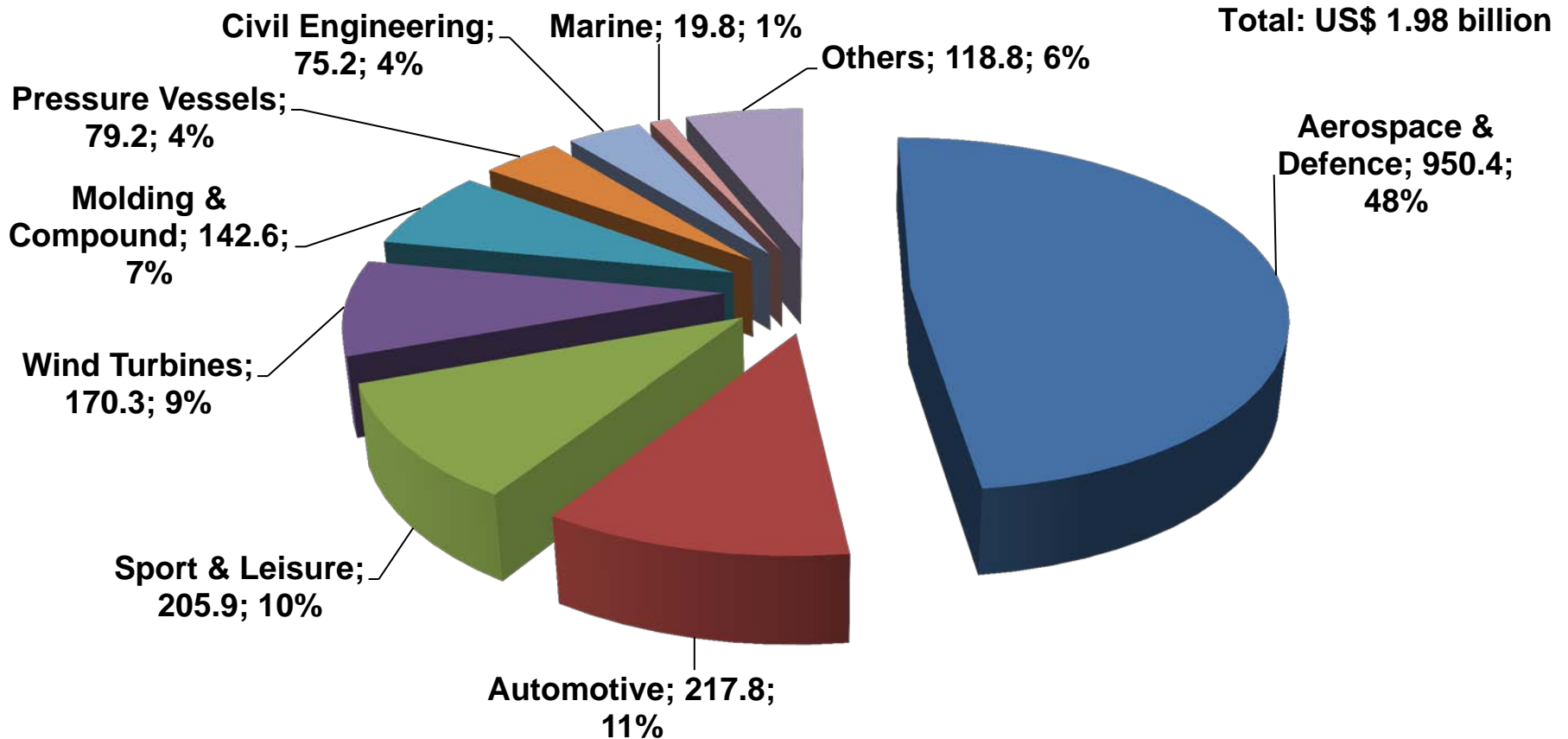


1 The global Carbon Fiber market

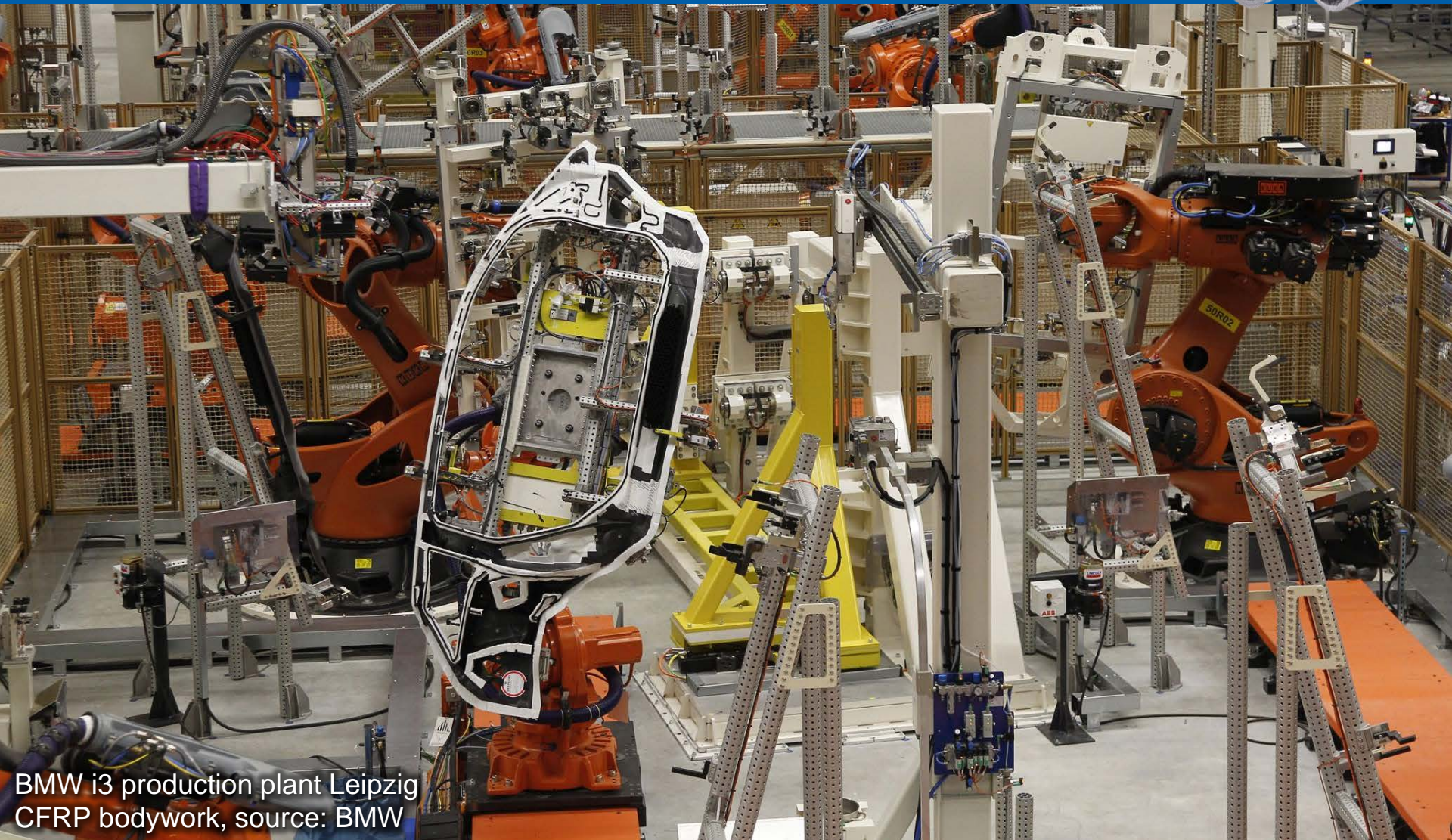


1.3 By application

Global CF revenues in US\$ million by application (2014)



2 The global Carbon Composites market

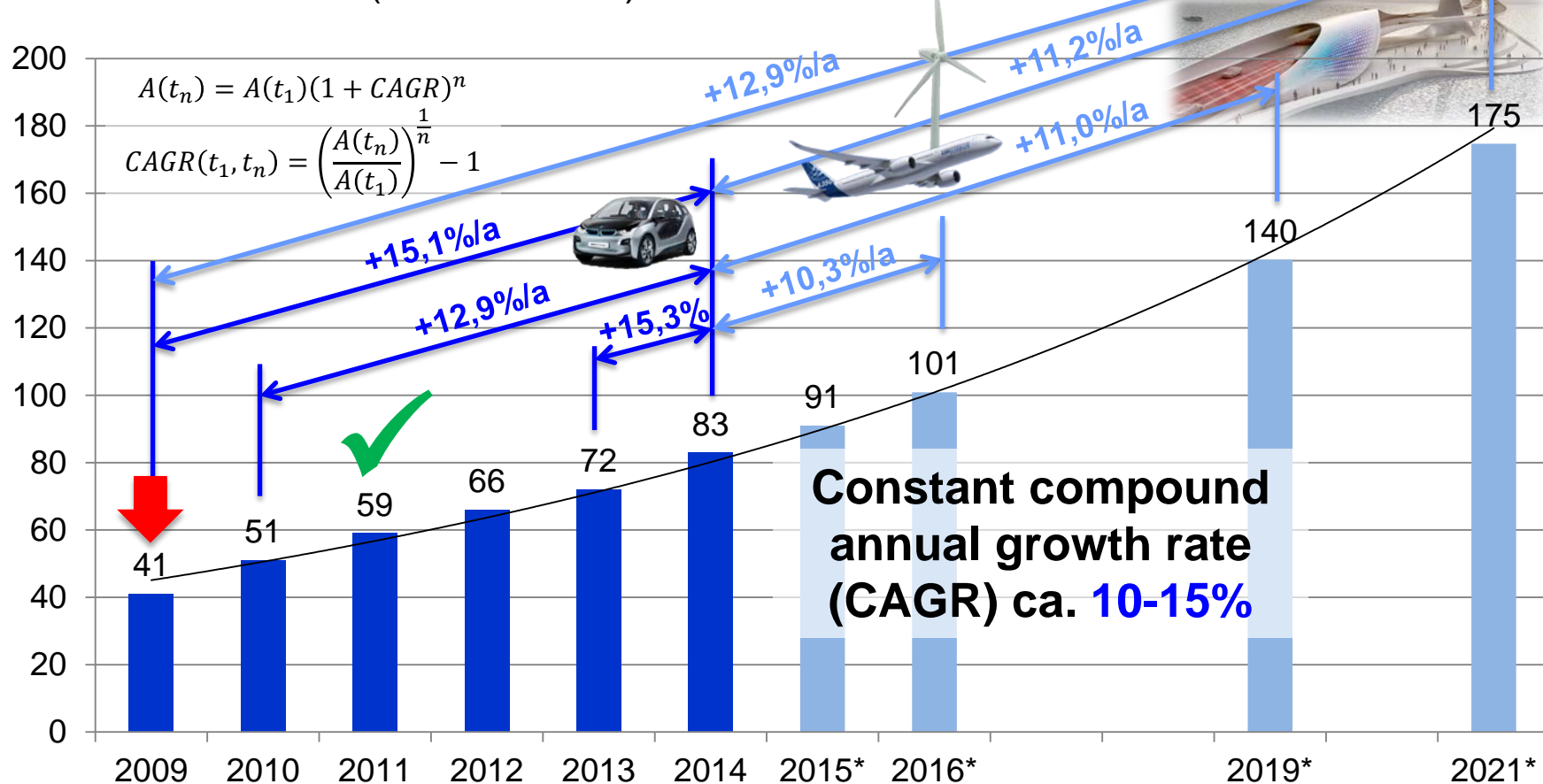


BMW i3 production plant Leipzig
CFRP bodywork, source: BMW

2 The global Carbon Composites market



Global demand of CFRP in thousand tonnes from 2009 to 2021 (* estimations)

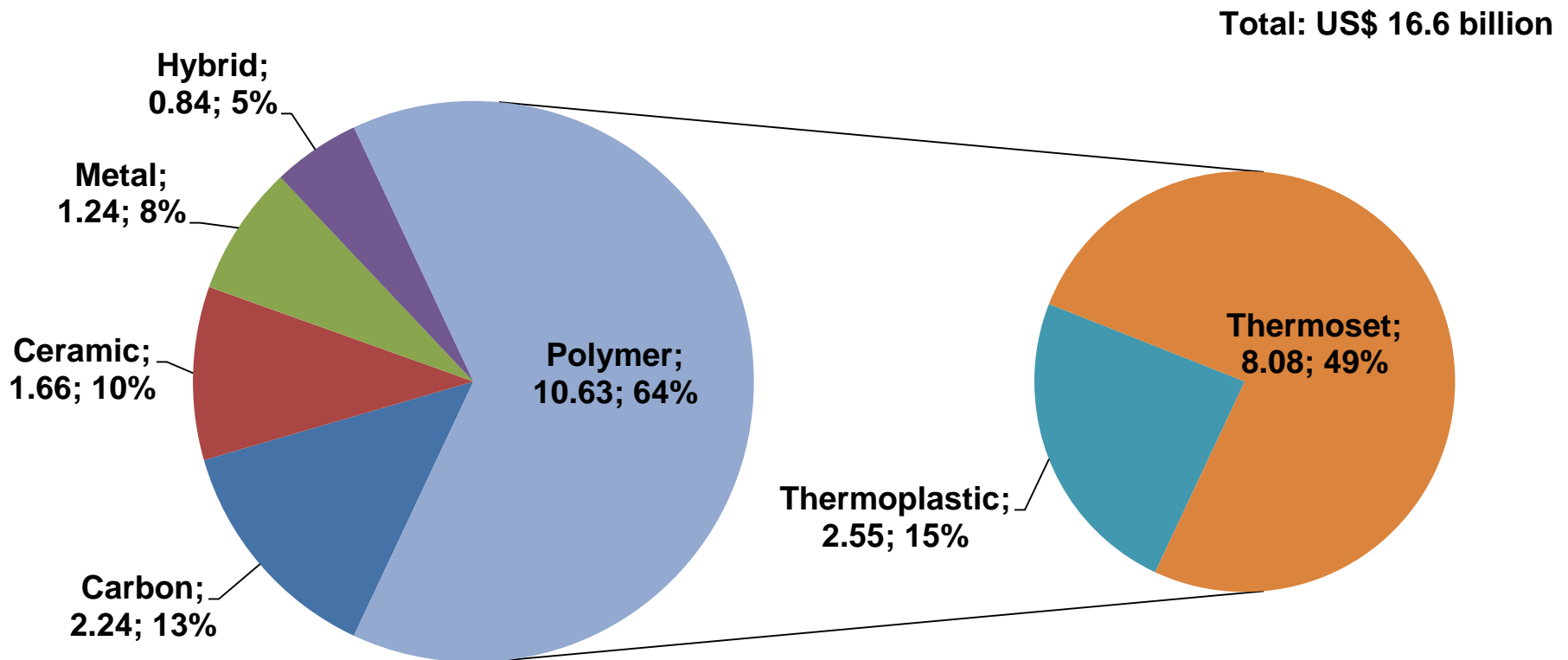


2 The global Carbon Composites market



2.1 By matrix

CC revenues in US\$ billion by matrix (2014)



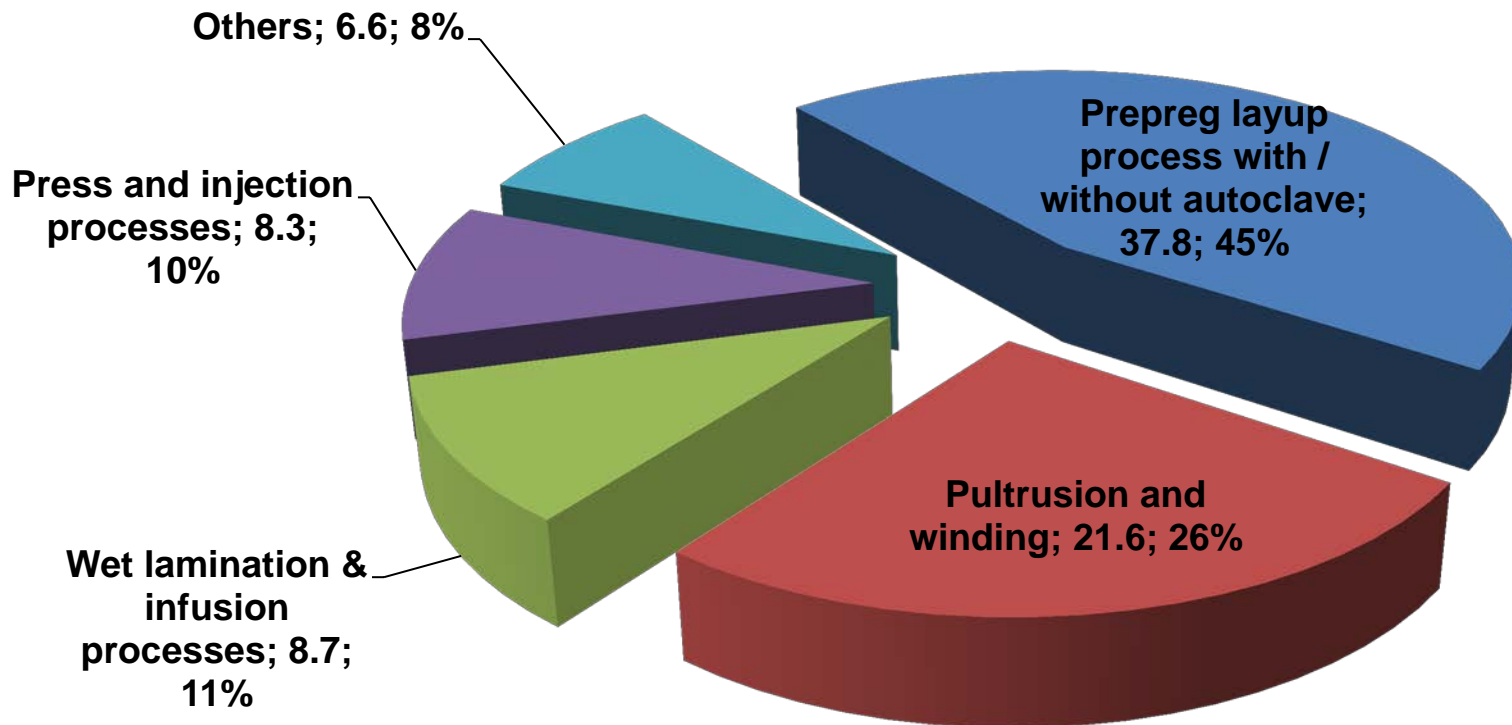
2 The global Carbon Composites market



2.2 By processes

With CFRP production processes generated amounts in thousand tonnes (2014)

Total: 83,000 t



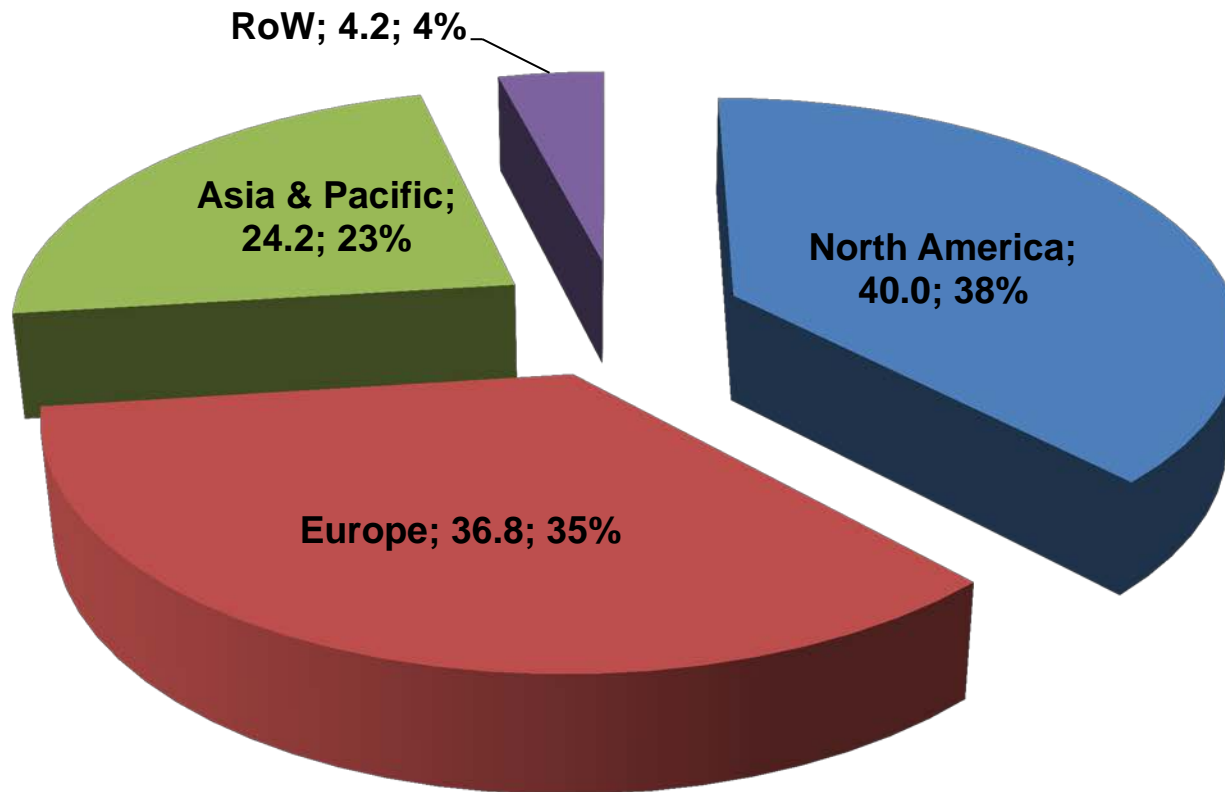
2 The global Carbon Composites market



2.3 By region

CC demand in thousand tonnes by region (2014)

Total: 105,200 t



2 The global Carbon Composites market



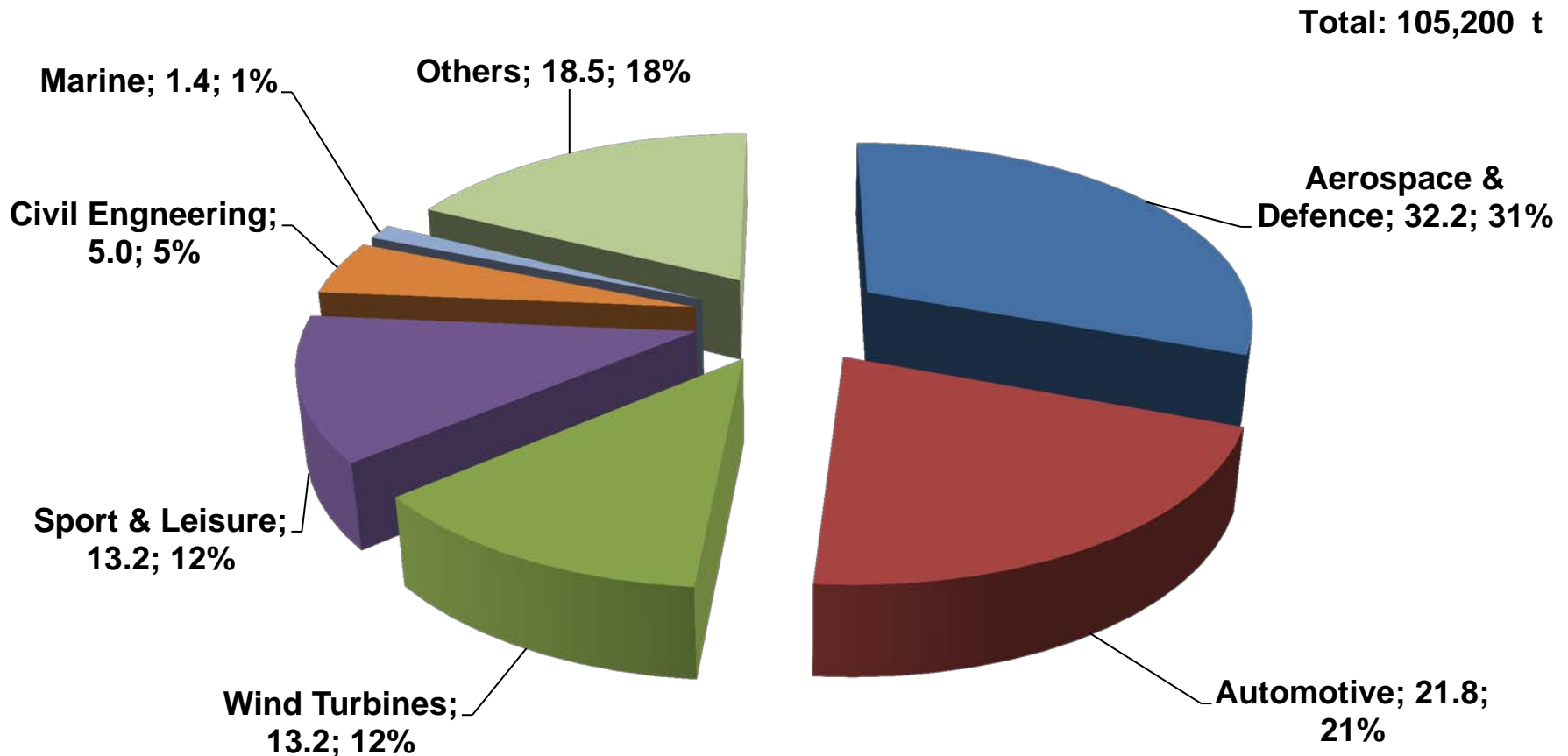
Rotor blade production at Aalborg plant, source: Siemens

2 The global Carbon Composites market



2.4 By application

CC demand in thousand tonnes by application (2014)

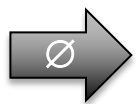
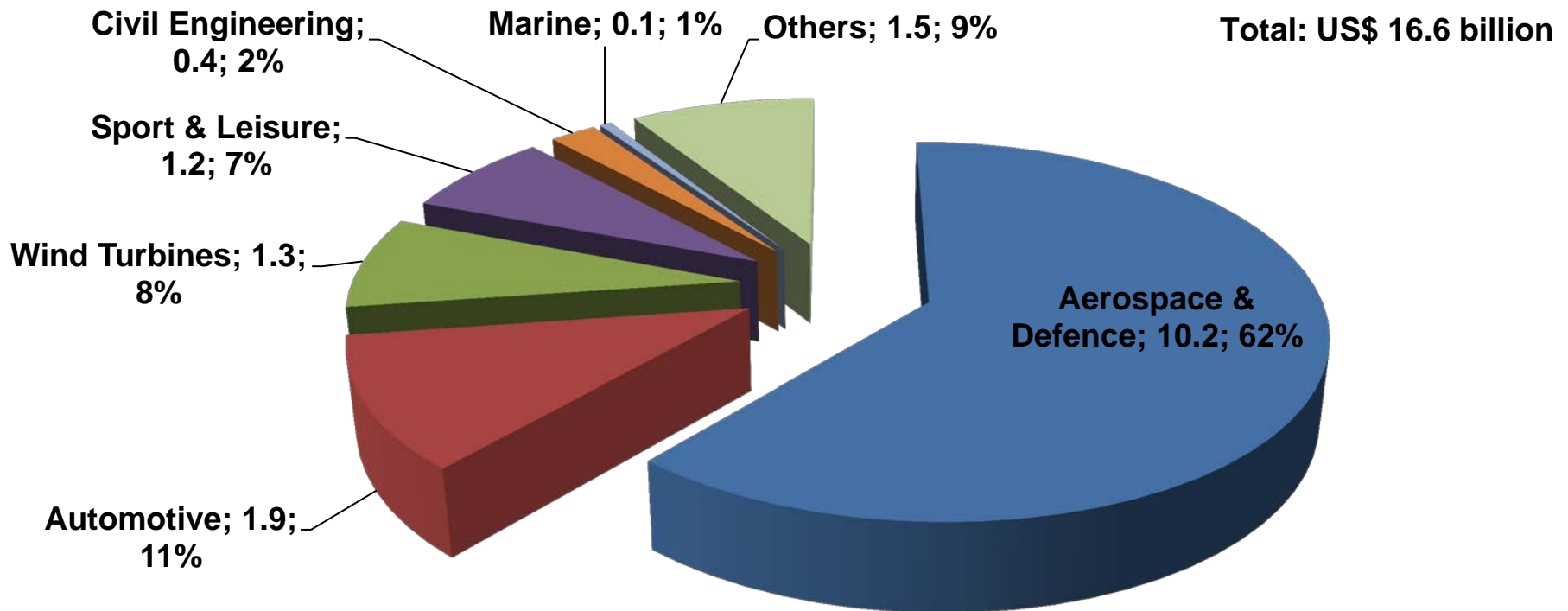


2 The global Carbon Composites market



2.4 By application

CC revenues in US\$ billion by application (2014)



Aerospace & Defence:	317 US\$/kg	Wind Turbines:	98 US\$/kg
Automotive:	87 US\$/kg	Sport & Leisure:	91 US\$/kg

3 Trends and outlook

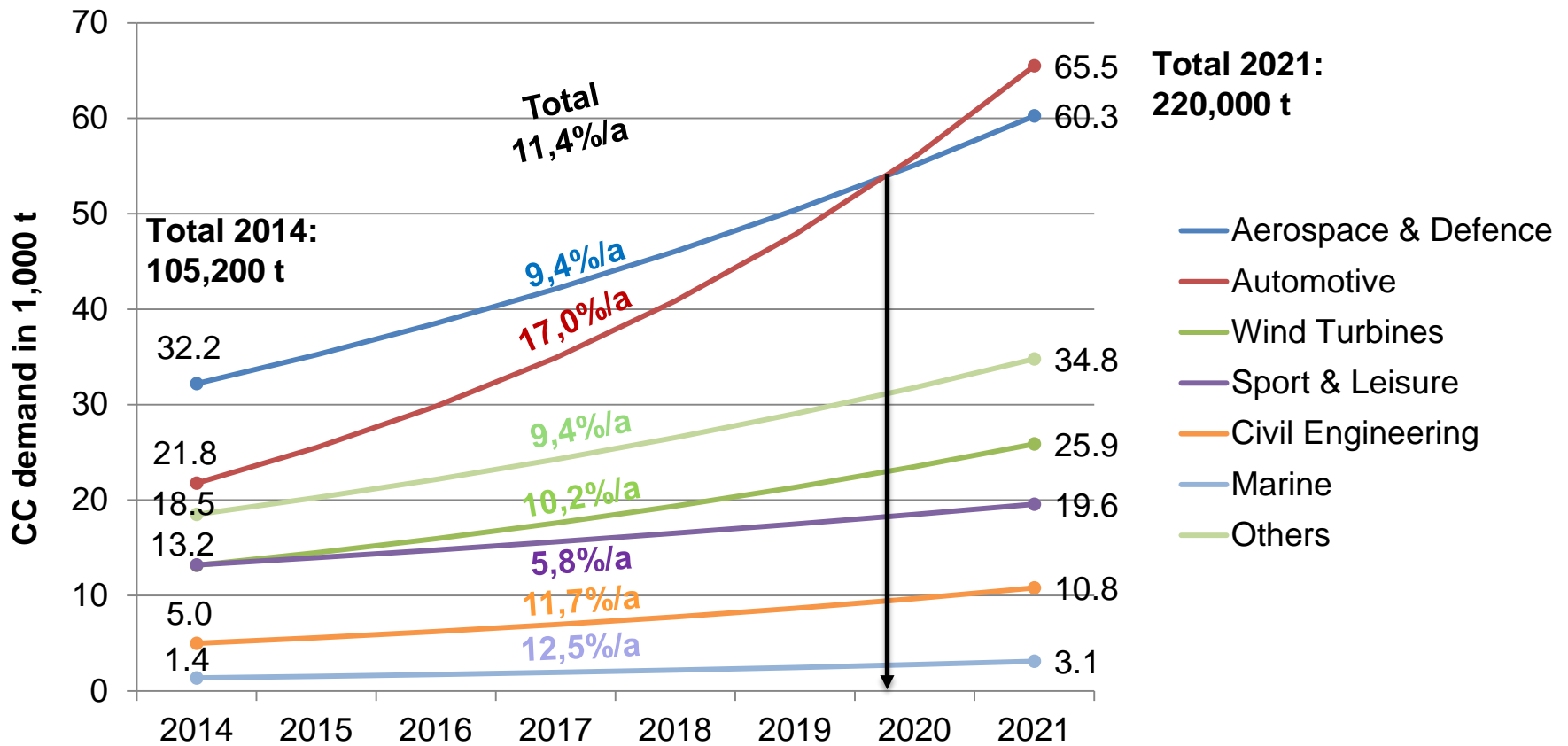


Installation of a textile reinforced concrete bridge in Kempten, source: Wikipedia

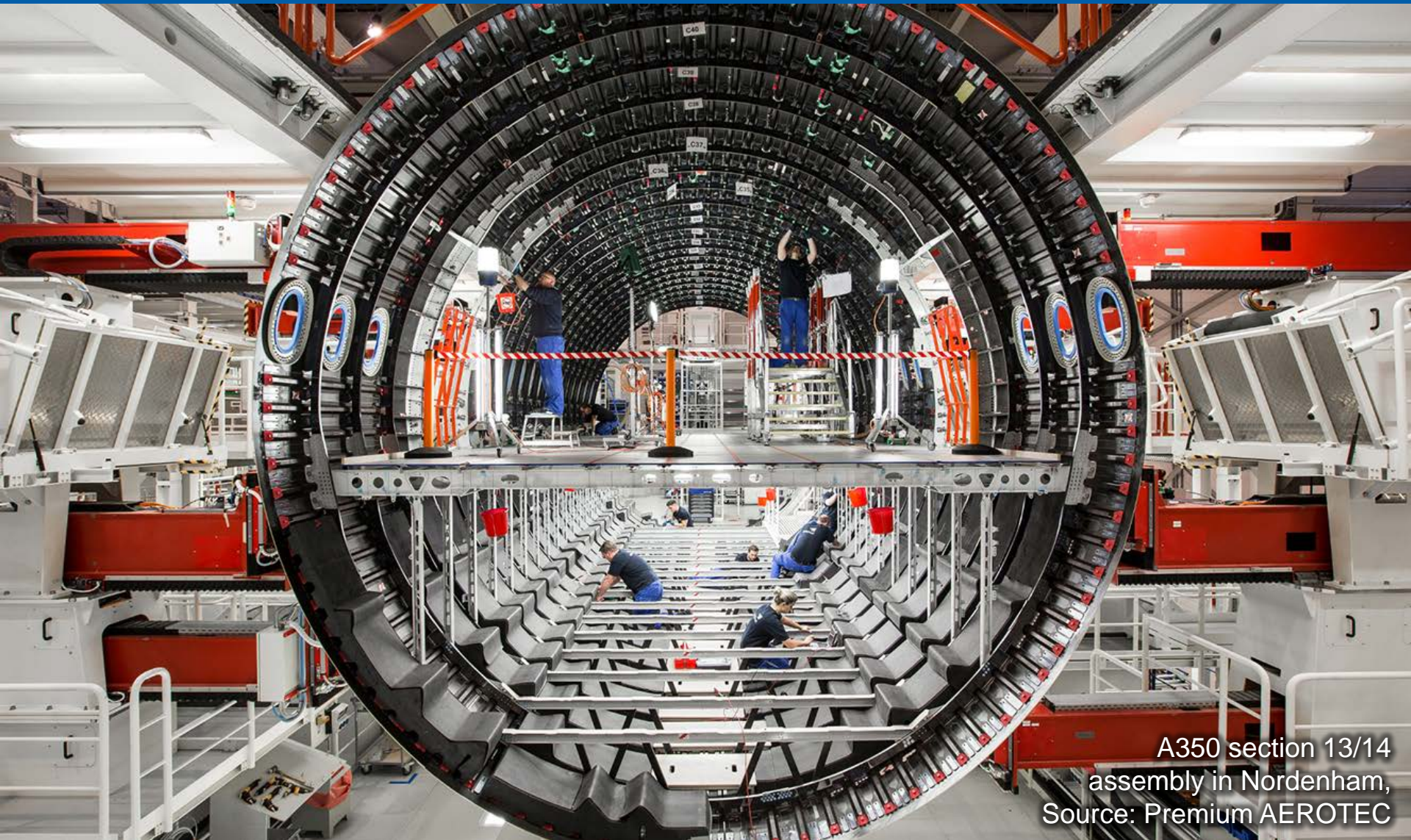
3 Trends and outlook



Estimated development of CC demand in thousand tonnes



4 Conclusion



A350 section 13/14
assembly in Nordenham,
Source: Premium AEROTEC

4 Conclusion

Core messages and forecast

- The global CF and CC market is and stays a promising business field with stable annual growth rates of **10-15% over several years.**
- The pressure of competition for CC increases because of hybrid lightweight material mixes (use of CC only where necessary and useful).
- Cost savings in material and production costs will be essential for an increasing share of CC in future applications.
- But: The market behaviour is more inertial than expected → positive as well as negative outliers not to be expected
- Stimulation by taxes and laws (e.g. in automotive and wind energy sector) can bring additional dynamics into the CF and CC market.

**Thank you very much for your attention.
Questions?**

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**CARBON
COMPOSITES**

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