INDUSTRIEVEREINIGUNG
VERSTÄRKTE KUNSTSTOFFE
FEDERATION OF REINFORCED PLASTICS

Trends and Developments in the European Composites and NFRP Markets

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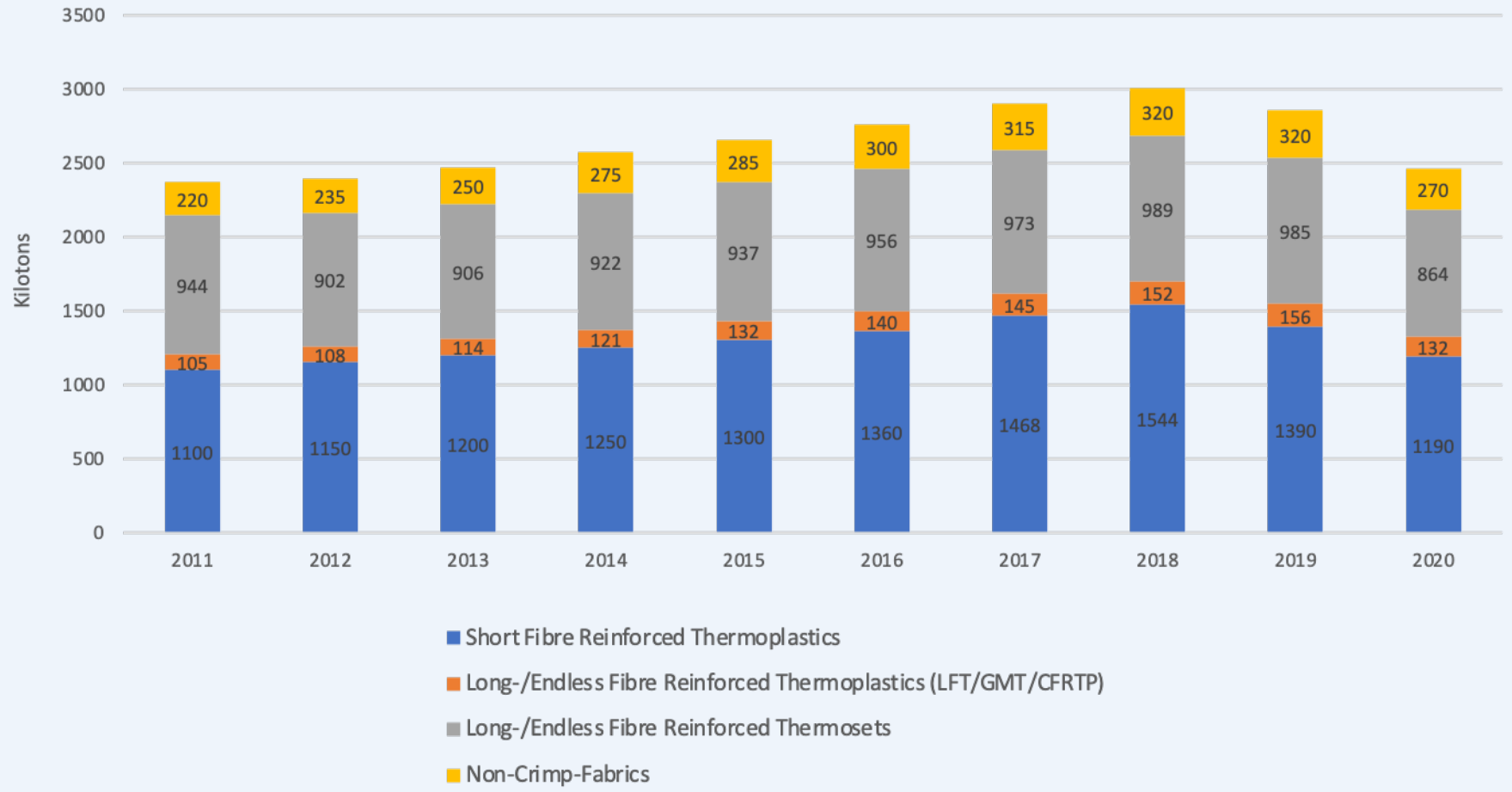
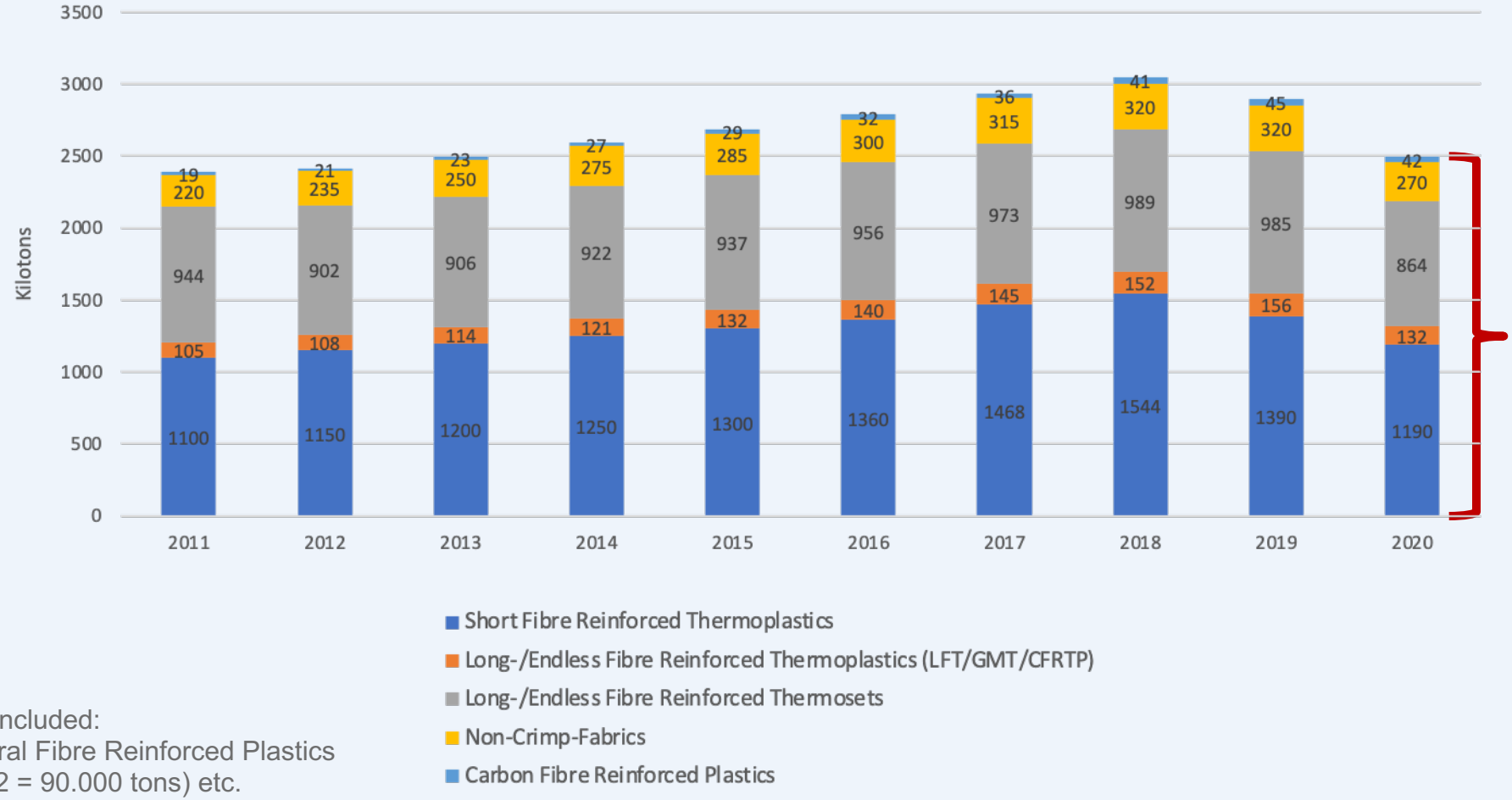
The Worldwide Composites Market - Facts

- **Worldwide Composites Market 2020: 10 million tons**
  - **Decline World compared to 2019 (11,7 million tons): 14%**
  - **Decline Europe compared to 2019: 13, 8%**
- **Different regional development: Americas, Asia & Europe**
  - **Market share Europe ≈ 1/4 of world market**
- **95% of the Reinforcements are Glass Fibres**
- **Carbon Fibre Reinforced Plastics: Market share of 1-2% / High growth rate**
- **Shortfibre Reinforced Thermoplastics are the biggest market segment**
- **Thermosets are still the biggest group in the field of Long- and Endlessfibre systems**

The European Composites Market – Glass Fibre Reinforcements



The European Composites* Market



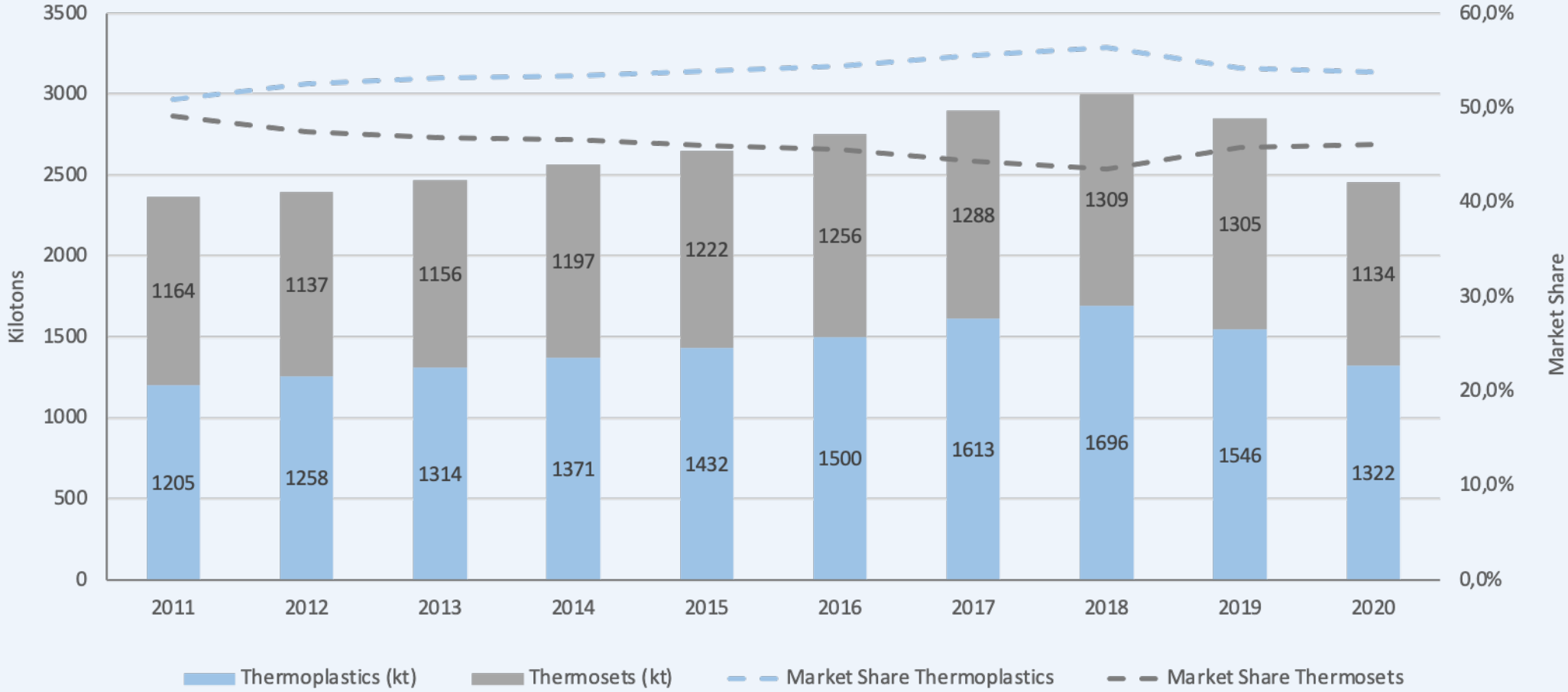
*Not included:
Natural Fibre Reinforced Plastics
(2012 = 90.000 tons) etc.

NRP – Market & Processing

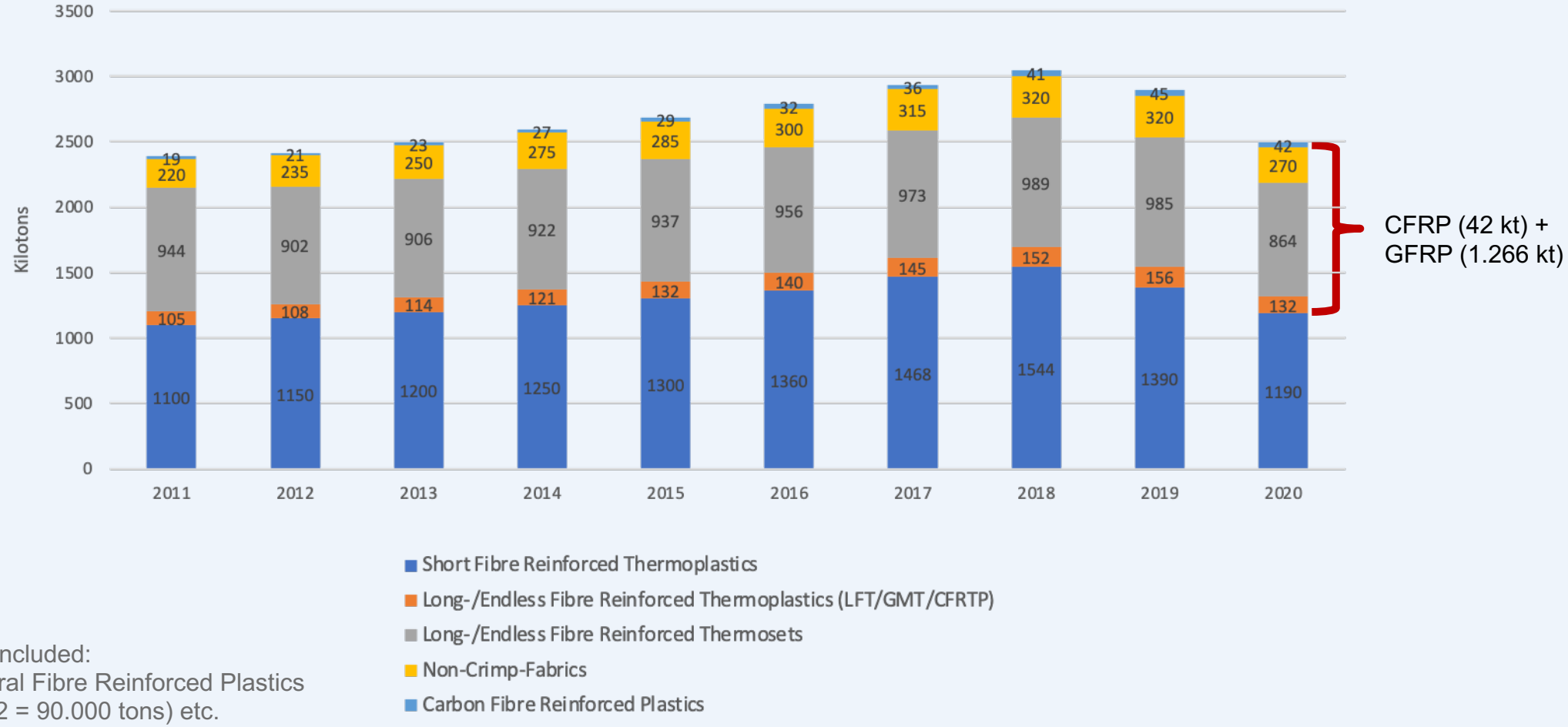
- **With NRP, weight savings of 5 to 30% can be achieved compared with pure plastics**
- **NRP are used for years in large-scale production in the automotive industry for interior and now also for initial exterior components.**
- **Thermoplastic or thermoset natural fiber-reinforced materials can be processed by numerous conventional methods (e. g. compression molding, pultrusion, injection molding or extrusion)**
- **Natural fibers as reinforcement in components offer technological, economic and ecological advantages, also and especially from a sustainability point of view**

Picture Source: www.avk-natur.de

Glass Fibre Reinforcements – Main Material Systems



The European Composites Market



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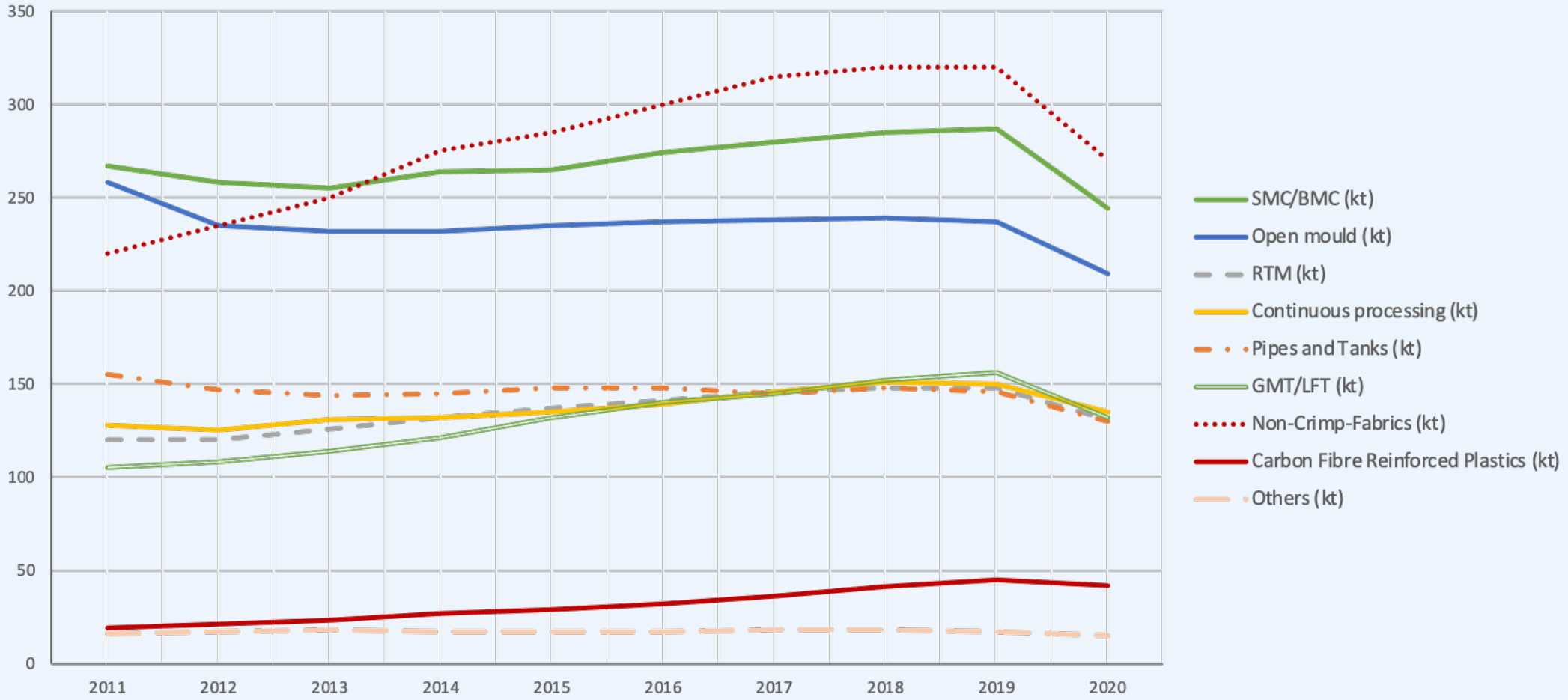
European GFRP & CFRP Market



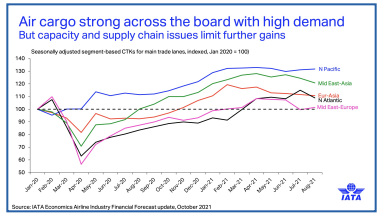
European Composites Market – Trends in Applications

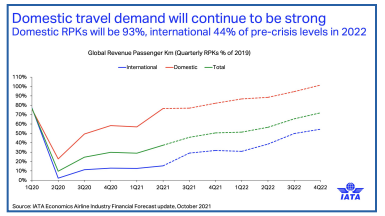
- **Mobility - Automotive**
  - Passenger cars: Challenging market environment
    - Corona consequences not yet been overcome
    - Industry shutdown, consumer reluctance / weak core markets,…
    - Single events – e. g. Ever Given / Suezkanal
    - Disruptions / delays in the logistics chains - Shortage of raw materials / price increase
    - Semiconductor / chip shortage
    - Structural change in the automotive industry
  - Commercial vehicles: Market is also declining; reason mainly semiconductor shortage, less lack of buying interest (Sales figures decline, Profit increases!!)
  - Caravans – 2020 second best year in history (2019-2020 +20,8%) – 2021 = Slight decline; stagnant supply chains & shortage of semiconductors

NRP – Advantages

- High specific stiffness, good damping behavior & low tendency to splinter
- Low thermal conductivity and expansion coefficients compared to (thermoplastic) plastics
- Possibly positive climate properties, moisture management (e. g. textile covers with wool, cellulose fibers, upholstery with rubber hair....)
- Cost-effective raw material
- Natural fibers are independent of fossil raw materials
- Economic viability demonstrated by large-scale production
- Based on renewable resources
- Favorable CO2 and energy balance
- Problem-free thermal recycling
- Occupational physiological advantages
- Cradle-to-cradle concepts possible if necessary
- …

European Composites Market – Trends in Applications





- **Mobility - Aerospace**
  - Sharp decline in passenger numbers 2019/2020
  - Especially significant recovery in the Cargo segment after first shock
- **Construction / Infrastructure**
  - Less drastic cuts than in the mobility sector
  - The market reacts to changes in mid/long term - investments often planned over the long term
  - 2020 – a record year

- **Electric/Electronic**

  - Consumer Goods as well as construction elements were less affected by corona crisis as the mobility sector
  - Emerging markets/chances, e. g. telecommunication, e-mobility, urban mobility, smart cities (increasing demand for electronic components)

European Composites Market – Trends in Applications

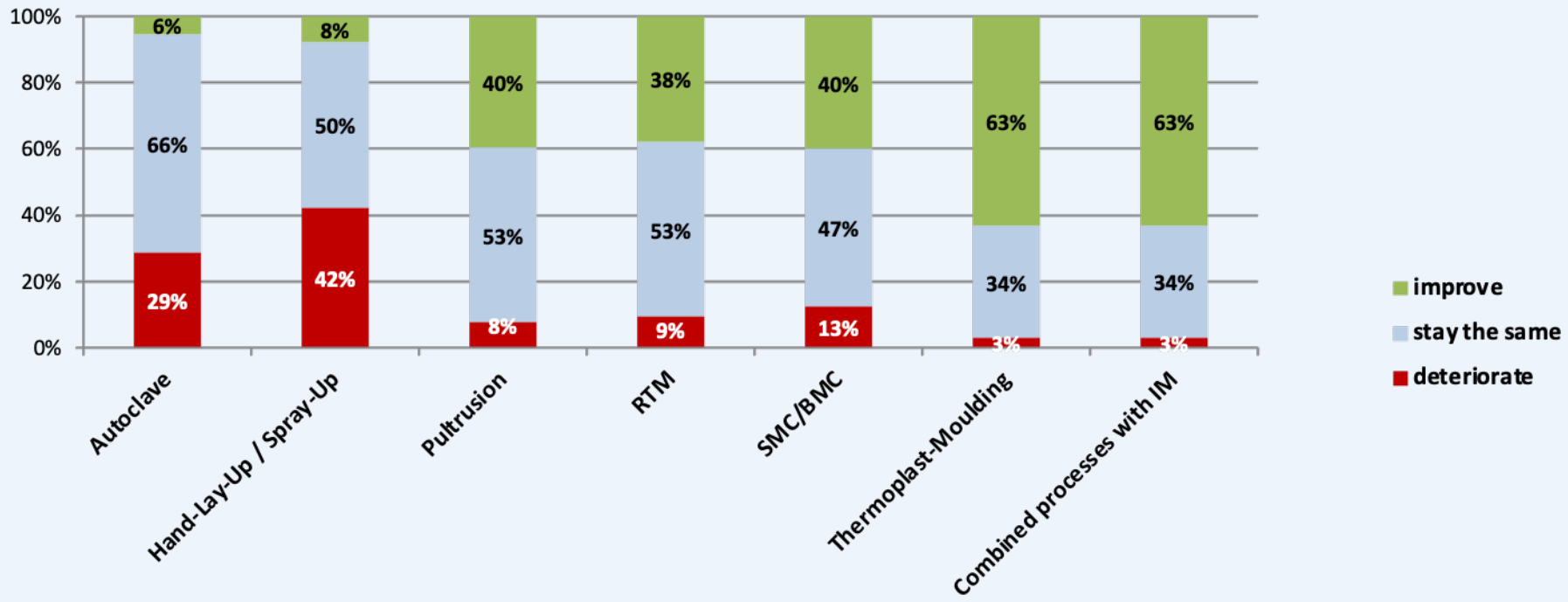
- **Sport/Leisure**
  - Contrary development in the market segment generally
    - Negative influence triggered by consumer uncertainty / lockdown
    - Partly increasing demand for GFRP due to the corona crisis, e. g. pools, specific sporting goods
    - Purchase decisions for expensive goods are less price-dependent
  - GFRP-Applications positive development over the last few months

Source: FNR, © Jakob Winter GmbH

Source: FNR, © NPSP Composieten B. V. (2011)

European Composites Market – Trends

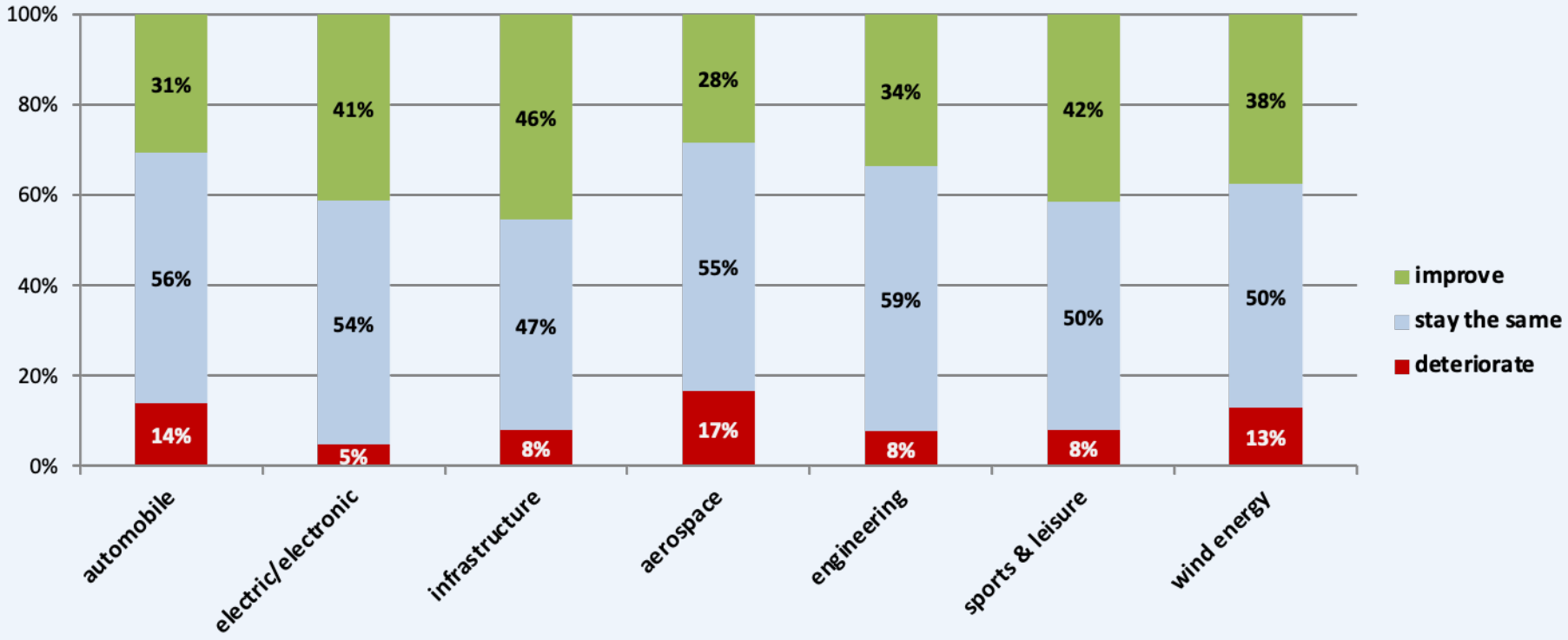
- **In June 2021 the respondents of the Composites Germany Market Survey believed that that the specified application processes will develop as follows over the next six months :**



Source: Composites Germany - Composites Market Survey 1/2021 - 100% missing data resulting from rounding inaccuracies

European Composites Market – Trends

- **In June 2021 the respondents of the Composites Germany Market Survey believed that the composites application industries will develop very differently over the next six months:**



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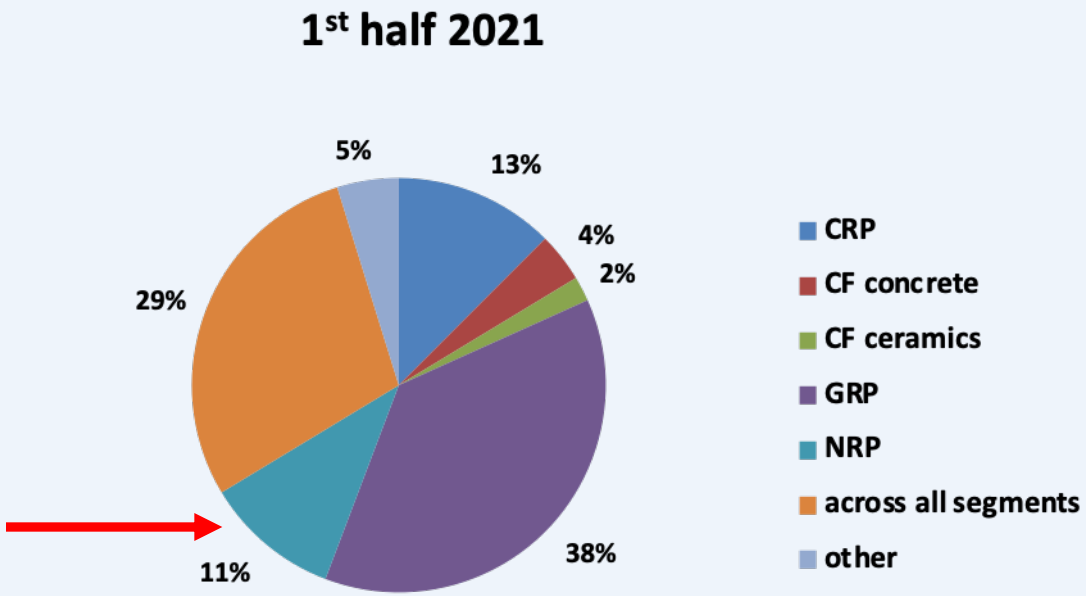
European Composites Market – Trends

- **Respondents where asked, in which segment will there be a substantial impetus for growth?**



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Thanks a lot for your attention

- let´s stay in contact -

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