

Energy Efficiency in light of Global Trends in Durable Goods

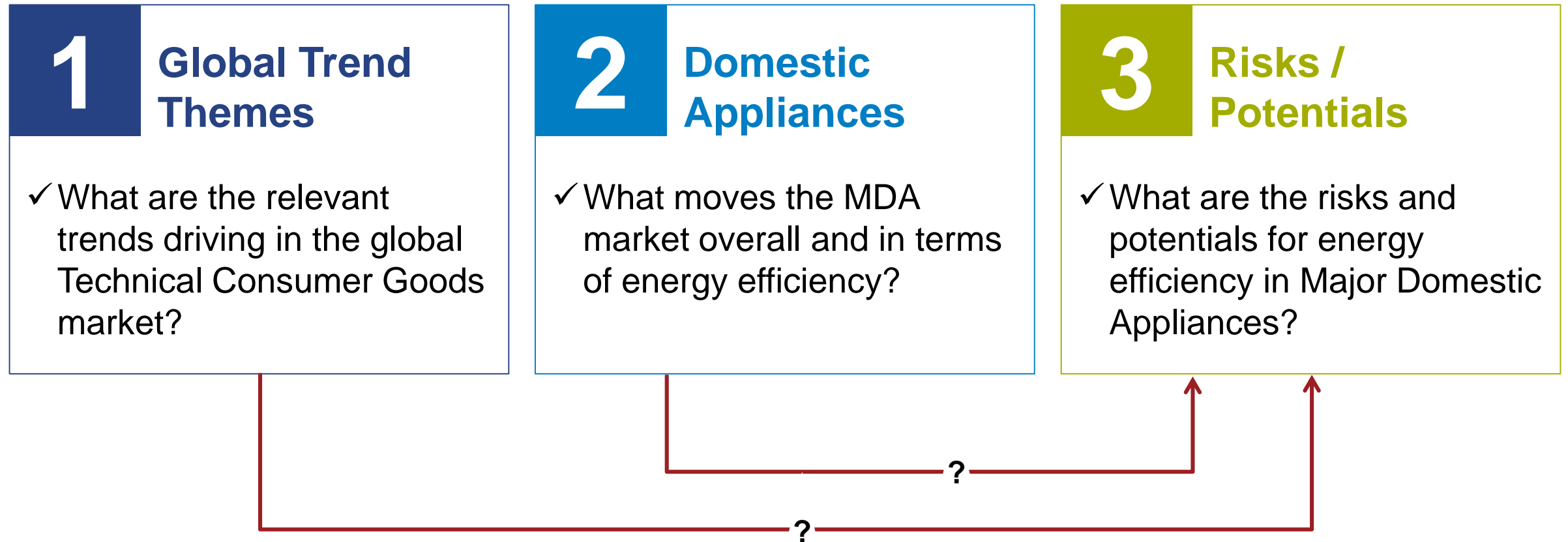
Risks and potentials -
focus Major Domestic Appliances (MDA)

Norbert Herzog | Global Strategic Insights



Energy Efficiency in light of Global Trends in TCG

Core Insights



5 Global Trend Themes drive the technical consumer goods market

Rich experiences

delivered through



Impactful

from production to innovation



Performance

- Enablement of rich experiences
- Manifestation via high-end features

Simplification

- Simplify recurrent tasks
- Smart
- Voice Assistants bring next level connectivity

Premium

- Aspirational Products express Identity
- Pamper the “Me”

Borderless shopping

- Shopping 24/7 everywhere
- Omnichannel
- Mobile shopping on the rise

Developing economies

- High impact
- Risk: Fluctuation
- Maturing economies expand regionally

Rich experienced delivered through **Performance**



Performance as the enabler to deliver on the need for rich experience

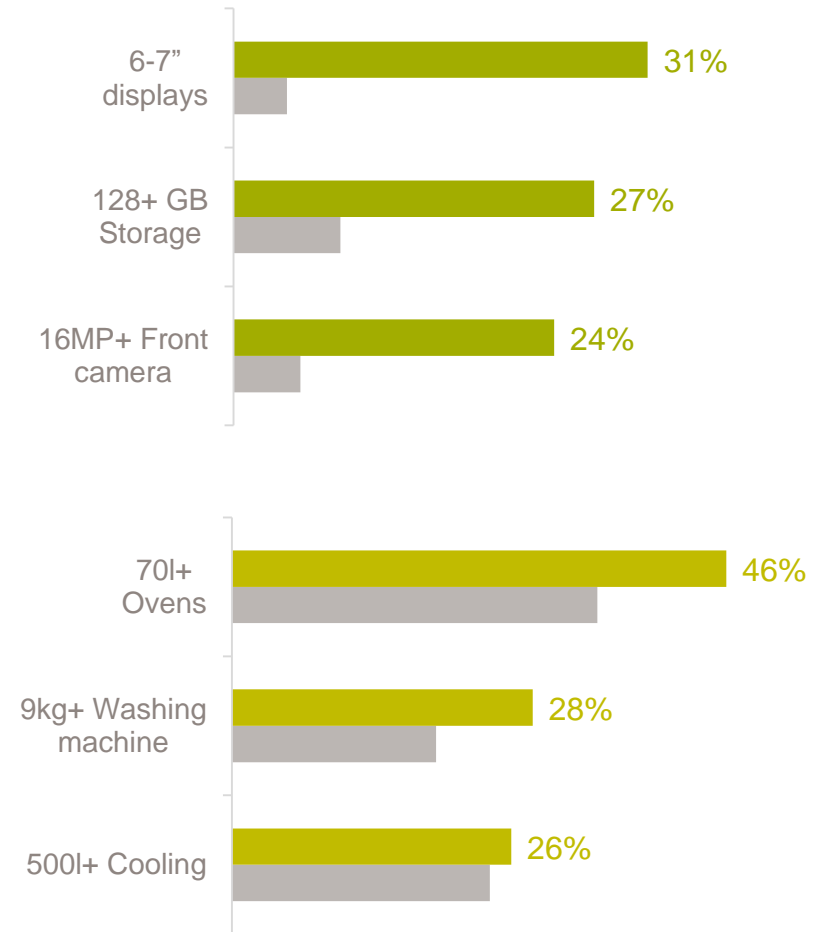
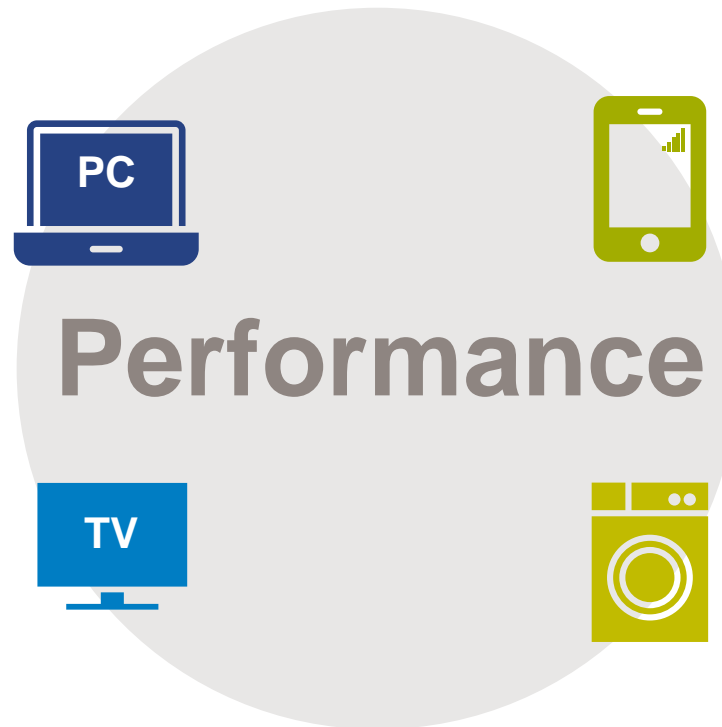
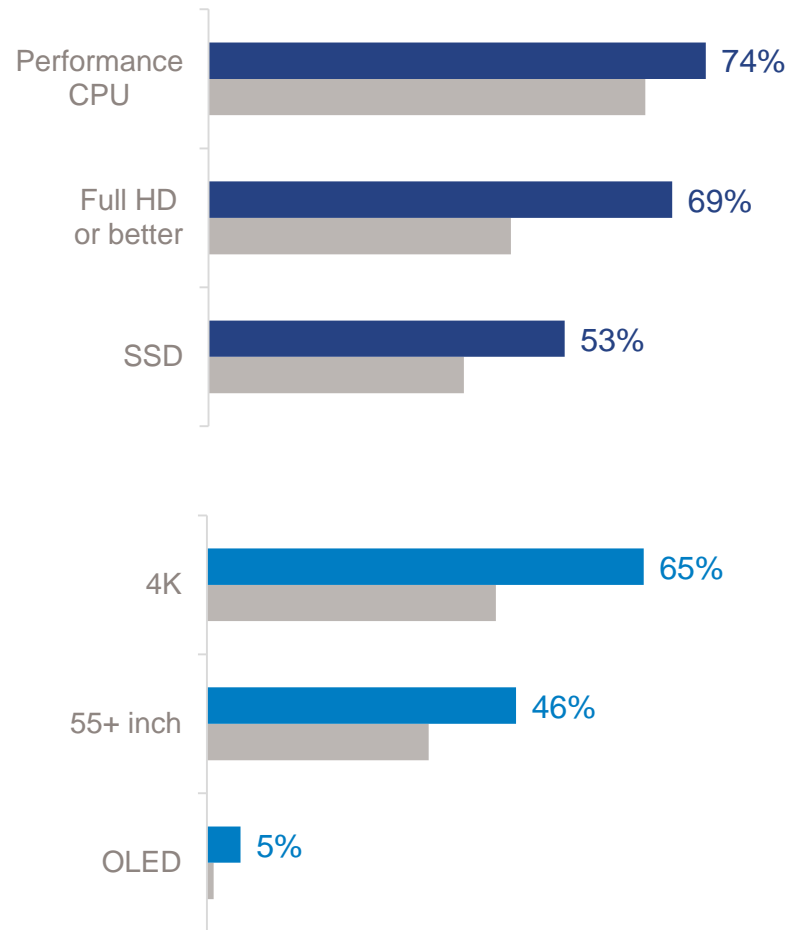
Value % 2018 vs 2016 (in grey)

“I value experiences more than possessions.”

GfK Consumer Life Study

45%↑

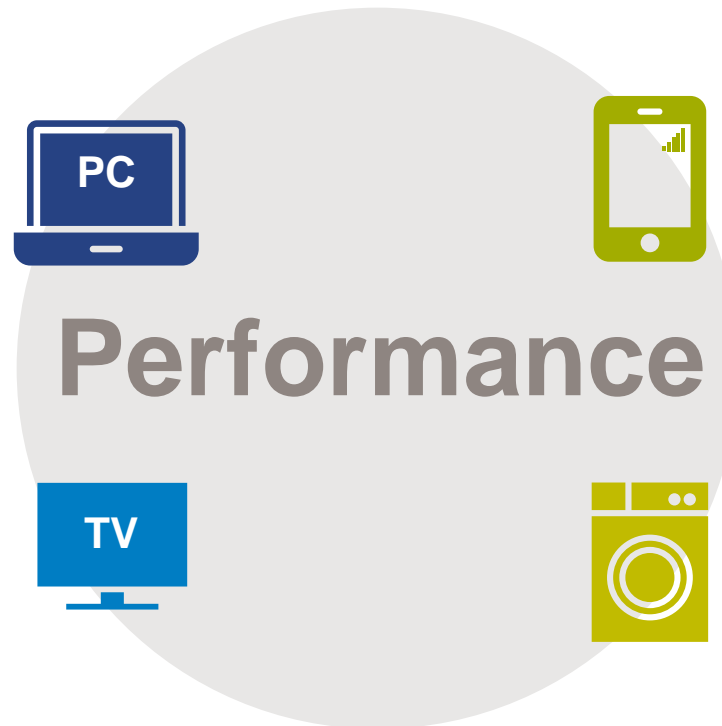
global respondents agreeing



Performance as the enabler to deliver on the need for rich experience

Why would the consumer care?

- ✓ Superior and immersive gaming experiences
- ✓ Mobility, design and lifestyle in ultra thin form factor
- ✓ More pleasure in superior picture quality format
- ✓ Size matters and bigger is better, when it comes to TVs



- ✓ Capturing and sharing high quality moments in life
- ✓ Having enough storage to take my world with me
- ✓ Enjoying flexibility and convenience
- ✓ Demonstrating premium touch

Energy Efficiency in light of Global Trends in TCG

Core Insights

1

Global Trend Themes

- ✓ What are the relevant trends driving in the global Technical Consumer Goods market?

2

Domestic Appliances

- ✓ What moves the MDA market overall and in terms of energy efficiency?

3

Risks / Potentials

- ✓ What are the risks and potentials for energy efficiency in Major Domestic Appliances?

5 key themes drive the technical consumer goods market

Rich experiences

delivered through



Performance



Simplification



Premium



Borderless shopping



Developing economies

Impactful

from production to innovation

BUT WHAT ABOUT SUSTAINABILITY ?

5 Key Themes in Home Appliances

Rich Experiences

delivered through

MDA specific

Impactful
from Production to Innovation



Simplification

Premium

Borderless Shopping

Sustainability

Developing Economies

- Simplify recurrent tasks
- Smart
- Voice Assistants bring next level connectivity

- Aspirational Products express Identity
- Pamper the “Me”

- Shopping 24/7 everywhere
- Omnichannel
- Mobile shopping on the rise

- Responsibility for resources
- Energy label marketing
- Enabled by product innovation

- High impact
- Risk: Fluctuation
- Maturing economies expand regionally

“

**I feel guilty when I do something
that is not environmentally
friendly**

45%

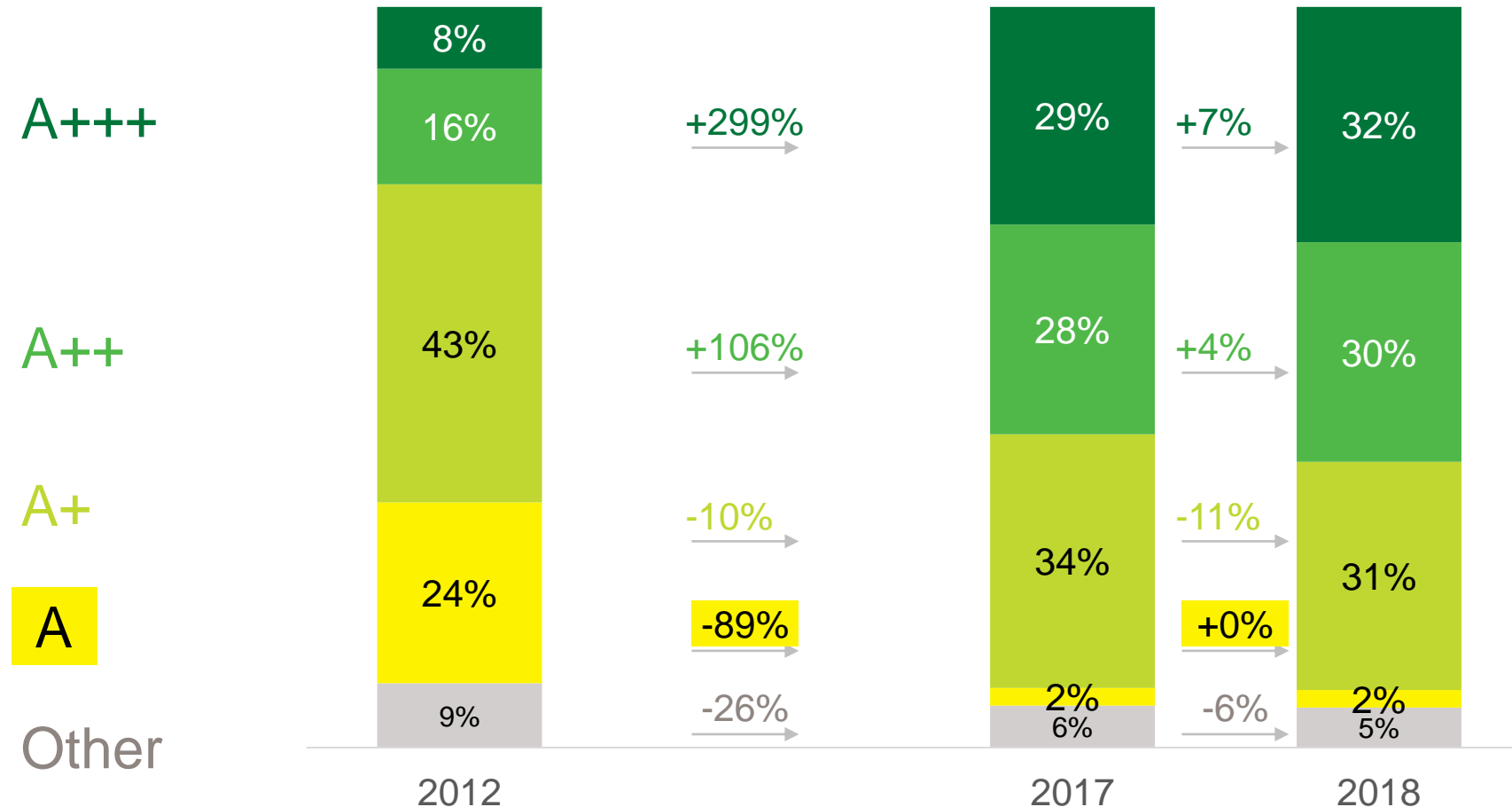
Global respondents agreeing - up from 37% in 2015

Is consumer attitude translating into selling best-in-class energy labels?



Massive increase of top energy label classes since 2012 and continuing

European major domestic appliances market: energy label development (units)



Source: GfK PoS Tracking, EU 10: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE, units %, MDA 5: Washing Machines, Tumble Dryer, Fridges, Freezers, Cooking

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Clash of two worlds

Energy hungry



Performance

- Enablement of rich experiences
- Manifestation via high-end features



Energy saving (or energy efficient)



Sustainability

- Responsibility for resources
- Energy label marketing
- Enabled by product innovation

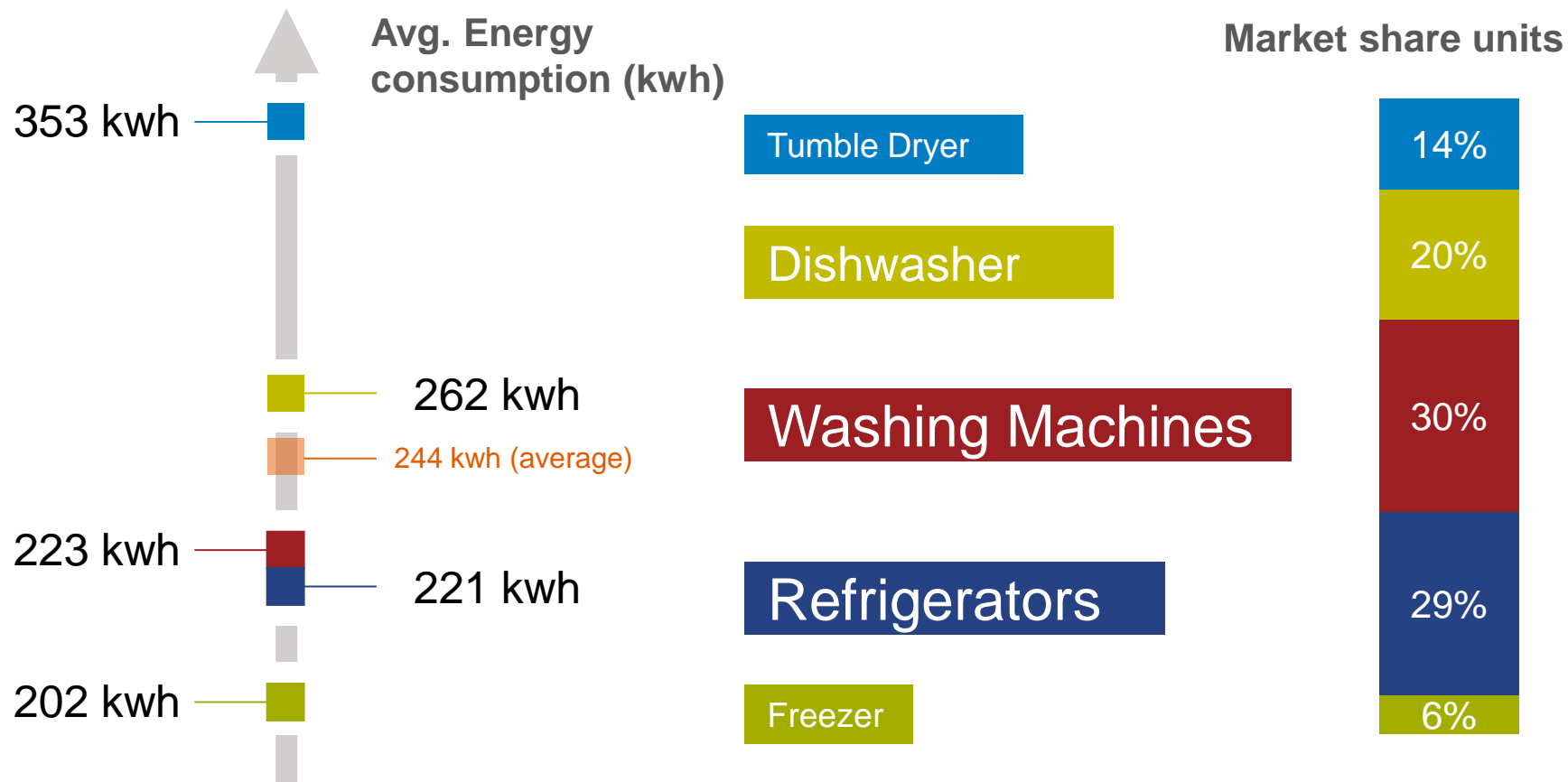
What does “energy hungry” mean?



Washing and Cooling are the biggest categories – with below average energy consumption. Dishwasher and Dryer reveal high energy consumption.



Annual energy consumption compared to product group size



Potentials for energy efficiency?

- Largest potential is evident for largest categories, i.e. washing machines and cooling
- On the other hand, highest average energy consumption is visible for tumble dryers and dishwashers

Refrigeration market:

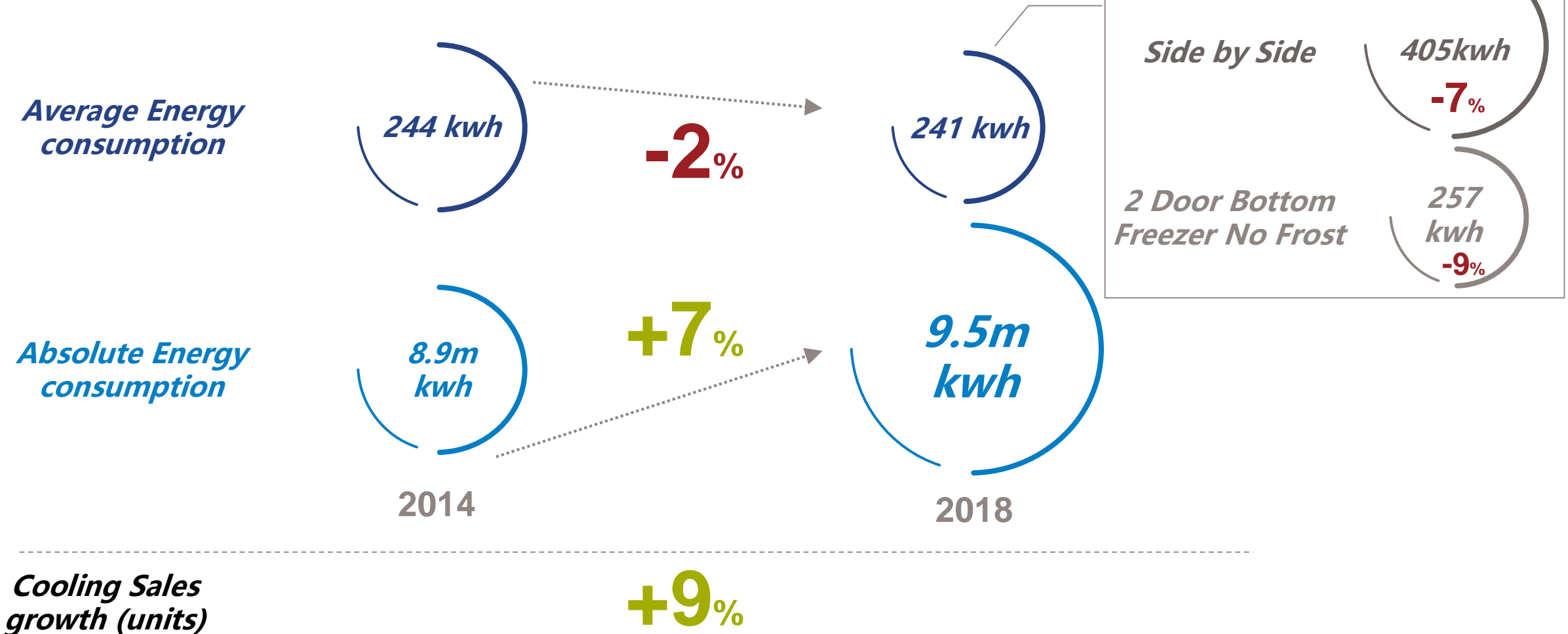
Risk: Product mix has a strong impact on energy consumption



While average energy consumption slightly decreases, growing sales upturn total absolute sales of appliances sold



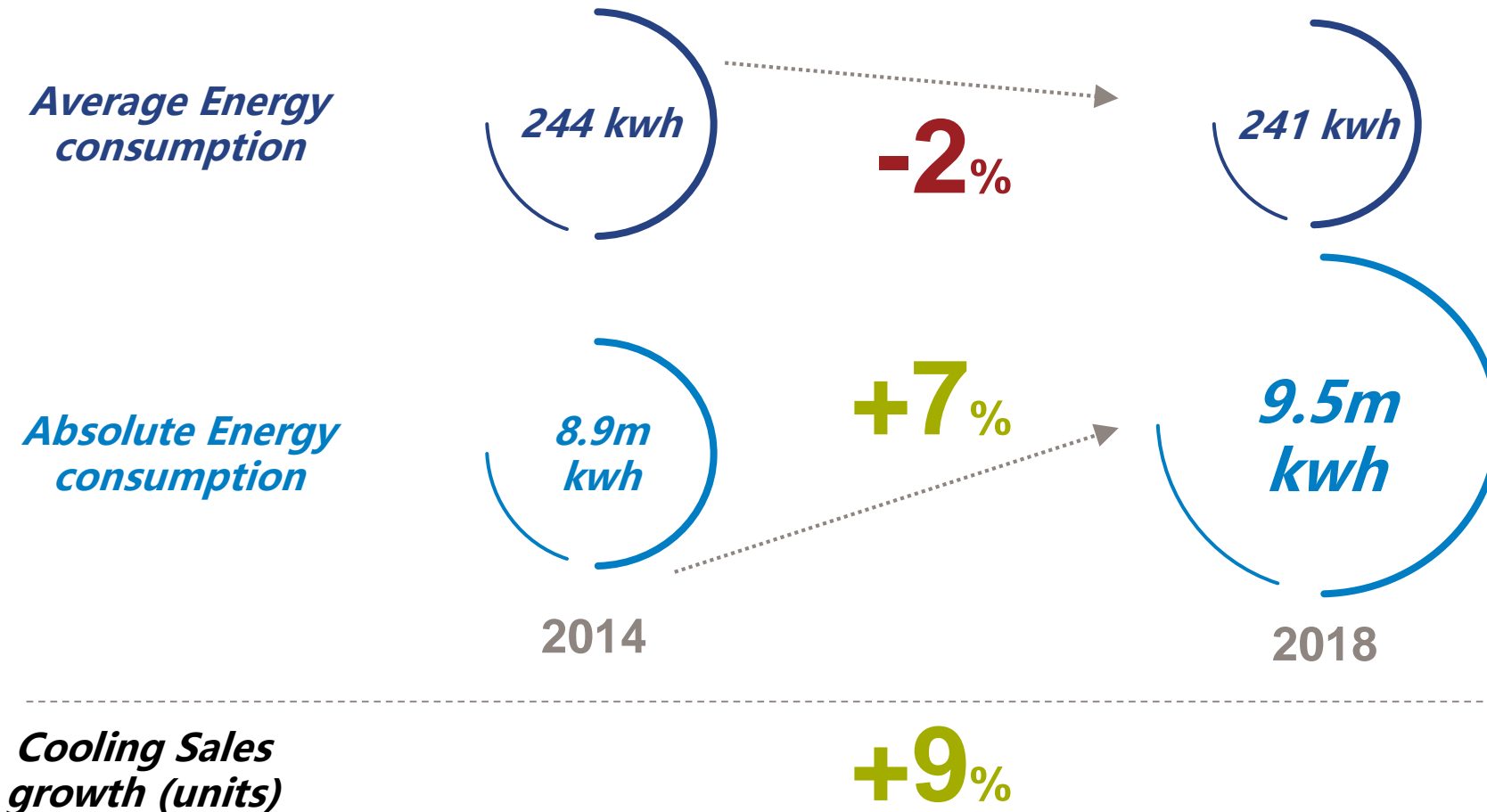
Average vs. absolute energy consumption Cooling (kwh)



While average energy consumption slightly decreases, growing sales upturn total absolute sales of appliances sold



Average vs. absolute energy consumption Cooling (kwh)



Trend collision

- Energy efficiency is increasing on a comparable model level
- Consumer's demand for appliances providing better experiences (being larger and hence offering more convenience) limits average energy consumption savings
- Adding market dynamics of more appliances being sold, the net result is an increase in energy consumption

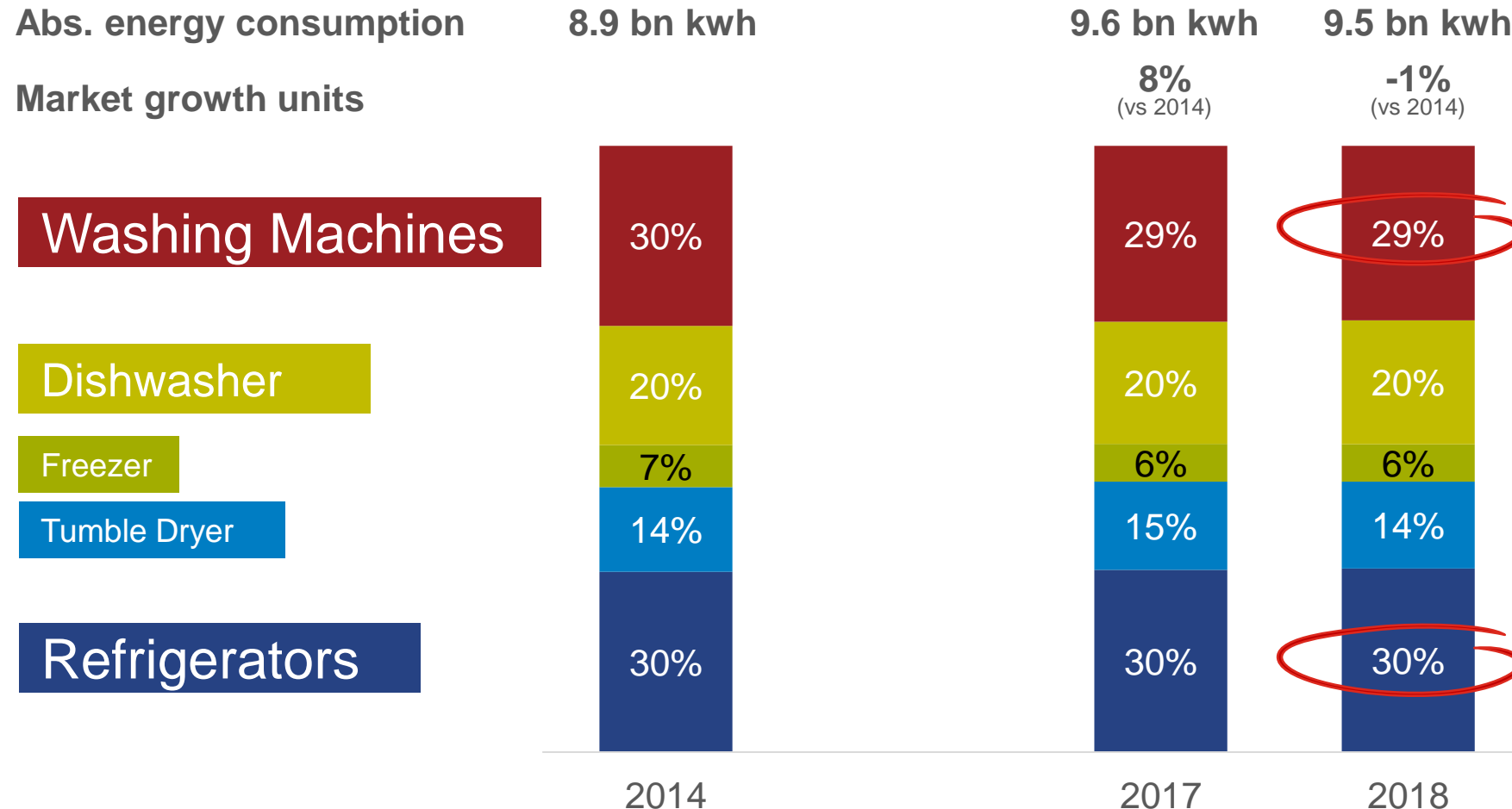
Potentials for energy savings



The highest impact can be achieved with Washing Machines and Refrigerators



Share of absolute energy consumption of all sold appliances (fleet consumption) in kwh



Source: GfK PoS Tracking, EU 3: DE, GB, FR, units %, MDA 5: Washing Machines, Tumble Dryer, Fridges, Freezers, Cooking

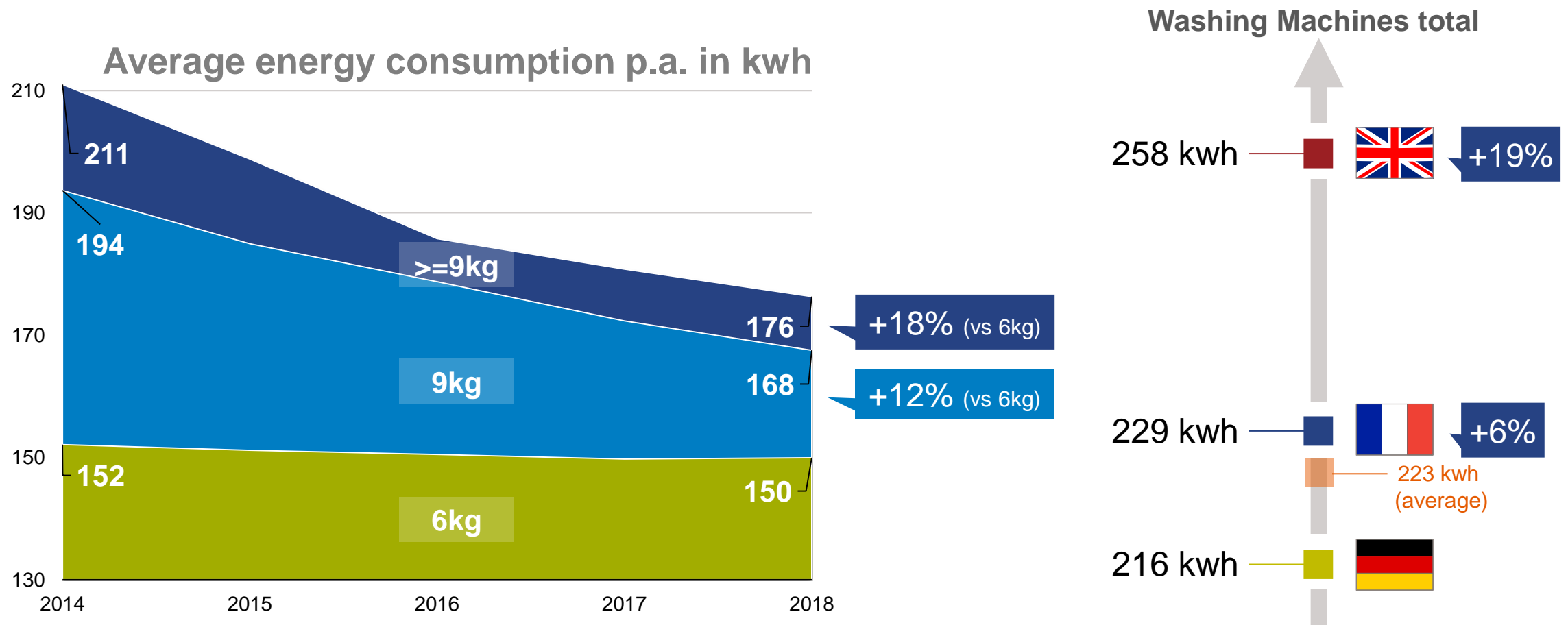
Case study **Washing Machines:** Regulations may challenge capacity increases



Regulations may challenge capacity increases –
9+kg washing machines consume 18% more energy p.a.



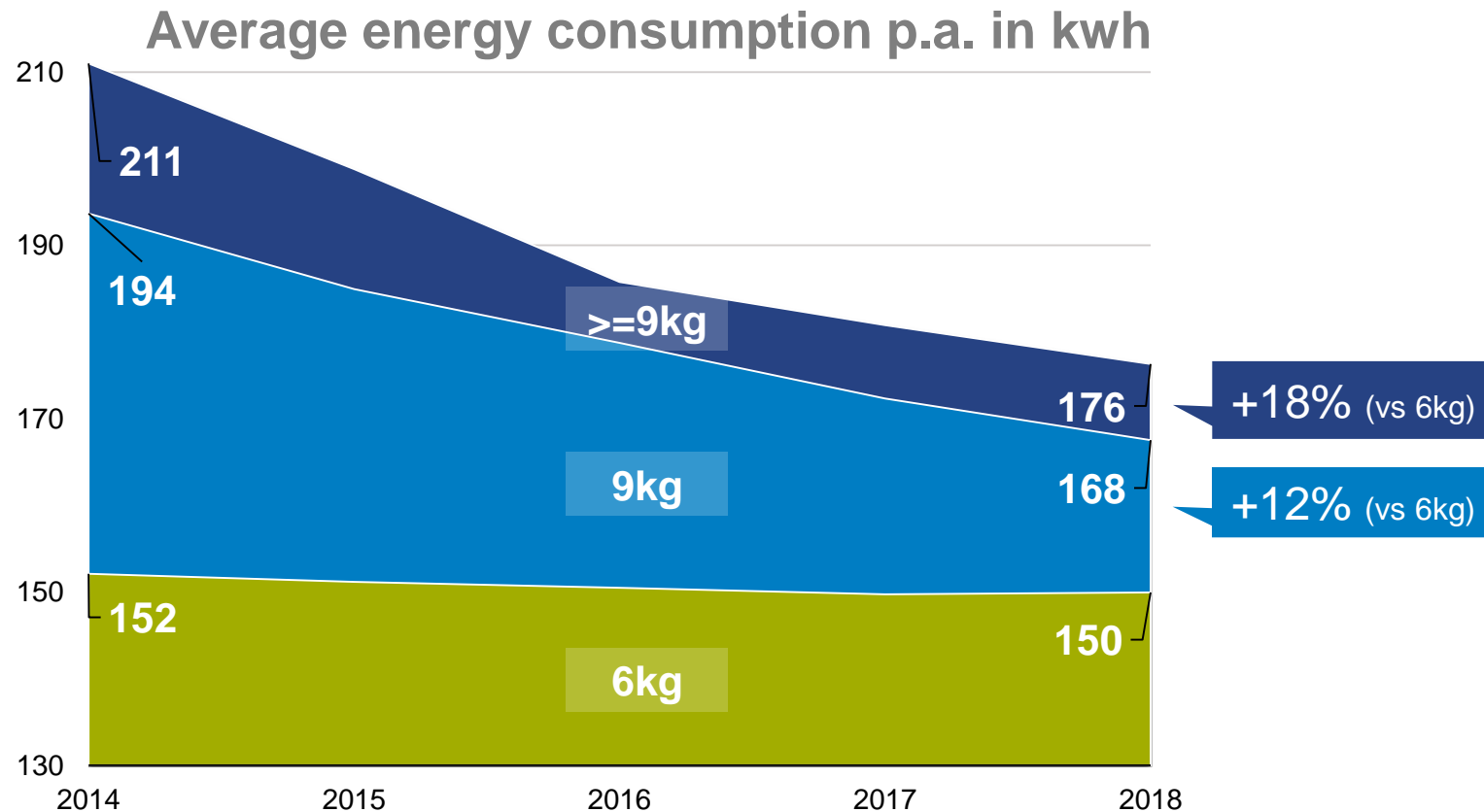
A+++ Washing Machines ex. Washdryers: Average Energy consumption



Regulations may challenge capacity increases –
9+kg washing machines consume 18% more energy p.a.



A+++ Washing Machines ex. Washdryers: Average Energy consumption



Washing Machines A+++

- Levels of energy consumption between kg classes still vastly different
- While efficiency increases in high kg classes, a serious gap of 12%-18% remains
- Challenging further capacity growth can only be achieved via regulation. Otherwise consumers' wish and industry push continue to drive large capacities.

Energy Efficiency in light of Global Trends in Technical Consumer Goods

Core Insights

1 Global Trend Themes

- ✓ Performance
- ✓ Simplification
- ✓ Premium
- ✓ Borderless Shopping
- ✓ Well-being
- ✓ Developing Economies

2 Domestic Appliances

- ✓ Sustainability is still a big trend for consumers!
- ✓ Best-in-class energy labels keep on growing in relevance

3 Risks / Potentials

- ✓ Clash of 2 worlds: Consumer wish for performance (energy hungry) vs. sustainability
- ✓ Without regulation, energy consumption increase is likely to continue
- ✓ Strongest potentials for savings in GB and France

Thank you.