Sustainability. Today. Tomorrow.
A trend shaping global markets?

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Global Strategic Insights
Sustainability in light of Global Trends in TCG

Core Insights

**Global Trend Themes**
What are the relevant trends driving in the global Technical Consumer Goods market?

**Domestic Appliances**
What moves the MDA market in terms of sustainability?

**Risks / Opportunities**
What are the risks and potentials for energy efficiency in Major Domestic Appliances?

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The key ingredients of a rich experience

**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

Rich Experiences
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Rich Experiences

**BUT WHAT ABOUT SUSTAINABILITY?**
Sustainability is a strong consumer trend measurable in Major Domestic Appliances

**Sustainability**

- Responsibility for resources
- Enabled by product innovation and circular economy
- Potential in developing economies (pollution)
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I feel guilty when I do something that is not environmentally friendly

47%

Global respondents agreeing - up from 37% in 2015

Source: GfK Consumer Life®2019
Is attitude translating into behavior?
Massive increase of top energy label classes since 2012 and continuing

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

<table>
<thead>
<tr>
<th></th>
<th>A+++</th>
<th>A++</th>
<th>A+</th>
<th>A</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012</td>
<td>8%</td>
<td>16%</td>
<td>43%</td>
<td>24%</td>
<td>9%</td>
</tr>
<tr>
<td>2017</td>
<td>29%</td>
<td>28%</td>
<td>34%</td>
<td>34%</td>
<td>6%</td>
</tr>
<tr>
<td>2018</td>
<td>32%</td>
<td>30%</td>
<td>31%</td>
<td>31%</td>
<td>2%</td>
</tr>
</tbody>
</table>

- A+++: +299% increase, +7% increase from 2017 to 2018
- A++: +106% increase, +4% increase from 2017 to 2018
- A+: -10% decrease, -11% decrease from 2017 to 2018
- A: -89% decrease, +0% increase from 2017 to 2018
- Other: -26% decrease, -6% decrease from 2017 to 2018

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
Also Chinese label promotes more energy efficient refrigerators

China cooling appliances market: energy label development (units)

Grade 1
- Jan 14-Aug 14: 87
- Jan 15-Aug 15: 89
- Jan 16-Aug 16: 92
- Jan 17-Aug 17: 20
- Jan 18-Aug 18: 21
- Jan 19-Aug 19: 24

Grade 2

Grade 3

Source: GfK PoS Tracking, China Cooling
*Guobiao, national standard
Who needs to act now?
It’s Plastic Waste!
The top challenge

70%

- 70% of consumers perceive Plastic waste as one of top 5 environmental challenges.

It’s Manufacturers who need to act! (country index)

#1

- Manufacturers are held responsible mainly, esp. in Sweden (215%), Czech Republic and the Netherlands

But shoppers reveal strongly differing level to act themselves by country!
FOUR EXAMPLES OF DIFFERING STRATEGIC STARTING POINTS

Manufacturers in **environmentalist Germany** have a debt to pay to the shoppers…or will be punished in the future!

Manufacturers in **paradoxical Netherlands** can gain goodwill, especially when activating shoppers!

Manufacturers in **climate activist Hungary** should explicitly embed the topic of plastic waste in the context of climate change.

Manufacturers in **awakening Poland** should team up with the government to start addressing the issue of plastic waste in the wider context of pollution.

Source: GfK Plastic Waste study
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Clash of two worlds

Energy hungry

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

Performance

Energy saving
(or energy efficient)

Sustainability

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

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What is the challenge?
While appliances become a lot more efficient, the assortment mix offsets savings

Average energy consumption Cooling (kWh)

- Source: GfK PoS Tracking, EU 10: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE

- **Average Energy consumption**
  - **2014**: 244 kWh
  - **2018**: 241 kWh
    - **-2%**

- **Side by Side**
  - **2014**: 405 kWh
  - **2018**: 257 kWh
    - **-7%**

- **2 Door Bottom Freezer No Frost**
  - **2014**: 405 kWh
  - **2018**: 257 kWh
    - **-9%**

Source: GfK PoS Tracking, China
While appliances become a lot more efficient, the assortment mix offsets savings

Average 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

Source: GfK PoS Tracking, EU 10: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE
In China, only premium appliances become more efficient – No-Frost offsets savings

Average energy consumption Cooling (kwh)

**2 Door Bottom Freezer No Frost**
- **2014**: 229 kWh
- **2018**: 311 kWh
  - **Increase**: +22%

**4 Doors+ (#3 segment)**
- **2014**: 257 kWh
- **2018**: 311 kWh
  - **Increase**: +5%

**Side by Side**
- **2014**: 405 kWh
- **2018**: 311 kWh
  - **Decrease**: -9%

Average energy consumption

**244 kWh**
- **2014**: 241 kWh
  - **Decrease**: -2%

Source: GfK PoS Tracking, EU 10: AT, BE, ES, FR, GB, IT, NL, PT, SE

Source: GfK PoS Tracking, China
In China, only premium appliances become more efficient – No-Frost offsets savings

Average energy consumption Cooling (kwh)

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Not just a mix effect

- Strong increase in energy consumption in mass market segments like 3 Door regular (3 doors above each other). This is not due to significant capacity increase. The rise of No-Frost technology plays a major role.
- In more premium priced segments like 4Doors+ fridges, more energy efficient appliances came to market despite increasing capacity.

Source: GfK PoS Tracking, China
Opportunities - Washing Machines
Consumers do not put more laundry into their bigger washing machines, but wash (almost) the same amount of laundry independent of the washing machine’s rated capacity.

Source: University of Bonn: Angelika Schmitz, Farnaz Alborzi and Rainer Stamminger
Regulations may challenge capacity increases – 9+kg washing machines consume 18% more.

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

Source: GfK PoS Tracking, EU 10: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE, energy consumption, Washing Machines ex. Washdryers, A+++
Regulations may challenge capacity increases – 9+ kg washing machines consume 18% more.

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

- Levels of energy consumption between kg classes still vastly different
- While efficiency increases in high kg classes, a serious gap of 12%-18% remains

Source: GfK PoS Tracking, EU 10: AT, BE, DE, ES, FR, GB, IT, NL, PT, SE, energy consumption, Washing Machines ex. Washdryers, A+++

Take-away

✓ Opportunity

Potential to target “sustainable savvy” consumer target group with an honest energy efficient appliance

→ lower capacity & lowest absolute energy consumption

**Take-away**

**Target group:**
- Sustainable minded
- Well-off
- ...
Target group size potential, e.g. 10% (example only) of total consumers

**Business opportunity**

Honest green product to support brand credibility

**Washing Machines:**
Offer low absolute energy consumption (4-6kg load) with appealing features
- Inverter motor
- Smart functionalities
- A+++  
- 1600 rpm
- ...
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1. Global Trend Themes
   - Performance
   - Simplification
   - Premium
   - Borderless Shopping
   - Well-being
   - Sustainability

2. Domestic Appliances
   - Sustainability is a decisive trend for consumers!
   - Best-in-class energy labels keep on growing in relevance

3. Risks / Opportunities
   - Clash of 2 worlds: Performance vs. Sustainability
   - Consumer demand may further increase energy consumption: Regulation!
   - Opportunity: New honest washing machine targeted at energy savvy consumer