THE MAIN RESEARCH

- Summarizes the drivers and inhibitors of global supply and demand of ornamentals

- Forecast period till 2030

- Identifies demand opportunities at the level of specific cities and key consumer groups

- Key Finding: only three key groups will shape global demand by 2030:
  - China’s Urban Billion
  - Working-age population in North America
  - Old and retired in the Western World
WORKBOOK ON PRODUCTION & MARKETS

General outline for global production trends; new workbooks with country deep dives are underway

Presents developments in production areas of our own classification model
WORKBOOK ON CHINA

- Collaboration with a local expert committee
- Including an in-depth, 3-month consumer research
- Multi-channel retail survey
- Resulted in profiling of consumer target groups
- Developed case studies for the four largest metropolitan clusters
Today: THREE KEY TAKE AWAYS:

1. Demand will drive Supply:
   Ornamentals are perishable; supply cannot be kept in stock or pushed at any price.

2. Spending rises to meet Income
   In the changing world; socio-economic and demographic factors will determine demand.

3. The Power of Plants:
   *Biophilia* will help identify the demand profile and position our products.
DEMAND: WHY WE BUY
WHAT WE BUY

- Age
- Income
- Education
- Ethnicity
- Marriage, Childbirth
- Working life and Retirement
- Confidence in society, government
- Happiness
- Spare time, leisure
SO...WHERE IS THE SPENDING GROWTH?

- 1970-1985: 45% population growth
- 1985-2000: 47%
- 2000-2015: 58%
- 2015-2030: 75%

- 1970-1985: 55% per capita consumption growth
- 1985-2000: 53%
- 2000-2015: 42%
- 2015-2030: 25%

AIPH
GROWTH PATH OF THE WORLD'S CITIES

- Urban areas < 0.5 mln
- Cities 0.5-1 mln
- Medium cities 1-5 mln
- Large cities 5-10 mln
- Mega cities >10 mln

AIPH
THEY WILL SHAPE DEMAND IN 2030

1. The working middle class in China who by 2030 will have grown up in a China with a more liberal open economy than generations before them.

2. The working-age population of North America, a large group of consumers who generally have a tendency to keep spending despite facing income pressure.

3. The growing population of retiring and elderly people living in ageing developed economies of the mature domestic producers in the western world.
31 years, 251 days, 7 hours, 46 minutes, and 40 seconds
SUPPLY:

YOU ARE A € 200 BILLION BUSINESS
SUPPLY: CLASSIFICATION
ORNAMENTALS IN CHINA
CHINA’S MIDDLE CLASS GROWTH
Cost of living compared to Beijing:
+23%

Cost of living compared to the national average:
+42%

Public Greenspace per inhabitant:
3,57 sqm
(2,62 sqm National)

Total urban green space:
41,246 ha.

Ornamental spending per capita:
€76,70

Difference to China National average captia spending:
+63%
<table>
<thead>
<tr>
<th>Summary</th>
<th>2017</th>
<th>2030</th>
<th>CAGR</th>
<th>Total growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>National average per capita spending</td>
<td>€ 28</td>
<td>€ 58</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Target area adjusted annual capita spend on flowers and plants</td>
<td>€ 40</td>
<td>€ 131</td>
<td>16%</td>
<td>224%</td>
</tr>
<tr>
<td>Target Area adjusted annual capita spend on major life events (services)</td>
<td>€ 11</td>
<td>€ 22</td>
<td>7,5%</td>
<td>105%</td>
</tr>
<tr>
<td>Target area adjusted annual capita spend garden or outdoor space</td>
<td>€ 14</td>
<td>€ 29</td>
<td>7,3%</td>
<td>102%</td>
</tr>
<tr>
<td>Target Area annual public spending per capita on city parks and urban green</td>
<td>€ 11</td>
<td>€ 24</td>
<td>8%</td>
<td>112%</td>
</tr>
<tr>
<td>Total annual per capita spending on ornamentals in target area (public spend not ppp adjusted)</td>
<td>€ 77</td>
<td>€ 206</td>
<td>12%</td>
<td>168%</td>
</tr>
<tr>
<td>Market Value target area adjusted only middle and upper class segment flowers and plants</td>
<td>€ 3.235.500.969</td>
<td>€ 11.767.432.712</td>
<td>18,8%</td>
<td>264%</td>
</tr>
<tr>
<td>Market Value target area adjusted only middle and upper class garden and outdoor space</td>
<td>€ 128.841.484</td>
<td>€ 509.454.170</td>
<td>21,1%</td>
<td>295%</td>
</tr>
<tr>
<td>Market value annual city spending on urban green (public funds)</td>
<td>€ 1.296.318.652</td>
<td>€ 2.748.195.544</td>
<td>8%</td>
<td>112%</td>
</tr>
<tr>
<td>Total market value ornamentals in target area</td>
<td>€ 4.660.661.107</td>
<td>€ 15.025.082.427</td>
<td>15,9%</td>
<td>222%</td>
</tr>
<tr>
<td>Value share of the target area in total ornamental market of China</td>
<td>11,65%</td>
<td>17,72%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Difference to national average capita spend</td>
<td>63%</td>
<td>72%</td>
<td></td>
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</tr>
</tbody>
</table>
DOMESTIC PRODUCTION IN CHINA

Source: Chinese Ministry of Agriculture Statistic Bureau
BASKET VALUE TOP-5 FLOWERS

Sources: China MOA (China Ministry of Agriculture, AIPH Statistical Yearbook 2017)
Primary production → Trader/agent → processing → wholesale → retail → consumer

Production:
- Small scale and dispersed
- Seasonality
- Inefficient production systems
- Large post harvest loss

Value Chain:
- Inflexible value chain (long)
- Inefficiencies (small transport unit volumes)

Demand:
- Growing purchasing power leads to more demand for high quality ornamentals
- Freshness
- Growing consumer awareness on quality
SUMMARY

• The combined total consumer spending in the four metro clusters flowers and plants amounts 16 billion euro in 2017 (40% of total China) which is expected to grow to € 57.5 billion in 2030

• Additionally, the local governments of these four areas spend € 4,6 billion per year on City parks and urban green, for maintenance as well as new installations and replacement. In 2030 we project this to be € 9.8 billion per year.

• The combined forecast market value for China will be in the range of € 100 billion in consumer and public spending.
THE KEY OPPORTUNITY
Four Gentlemen

• Poetry Cultural/Spiritual context
• Seasons
• 4 flowers symbolise seasons

The Chinese clearly relate ornamentals to ancient poetry as they frequently post ancient poems in their captions. In addition, they also create their own poems inspired by the ornamentals.

The Chinese also frequently use phrases about the “Four Gentleman” in their captions. The Four Gentleman are four flowers: the plum blossom, the orchid, the bamboo and the chrysanthemum, which represent the seasons winter, spring, summer and autumn respectively.

Consider using poetry and the Four Gentlemen language in your Marketing communication as that strongly resonates with your audience.
Functional Benefits

- Health & Wellbeing
  - TCM
  - Airpurification

The Chinese are well aware of the polluted air in their country. However, the air purifying component of certain plants/flowers does not seem as common knowledge since it was barely used in captions. Some professionals and influencers however did emphasize on the air purifying components.

Consider leveraging this air purifying benefit more by emphasizing this in your communication for relevant plants and flowers. Also use scientific sources for your claims as these are widely available.
On Weibo there are many micro and macro influencers who post relevant content for the ornamentals industry. These influencers could be used for example to emphasize benefits of certain plants (e.g. being air purifiers) or give recommendations on how to perfectly grow well known plants like Clivia plants.

Consider collaborating with these influencers in your strategy. Influencers have a smaller but loyal following (50-100k), like for example Huang Huang Heddy who is a male interior designer. Macro influencers have a bigger following (>1M), like for example the well-known fashion blogger Seoul style. Further deep-dive is needed to identify size and potential of these collaborations.