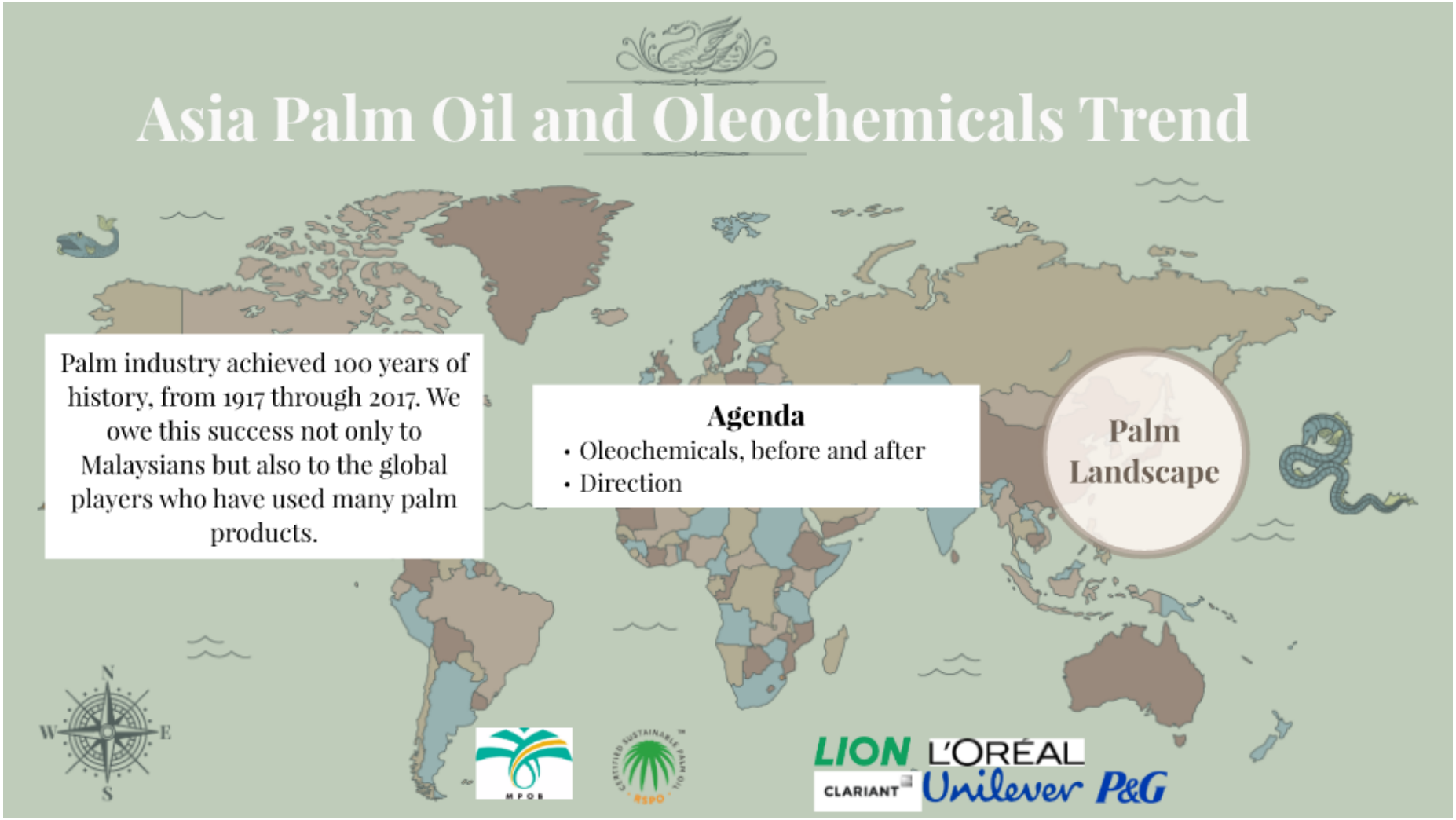
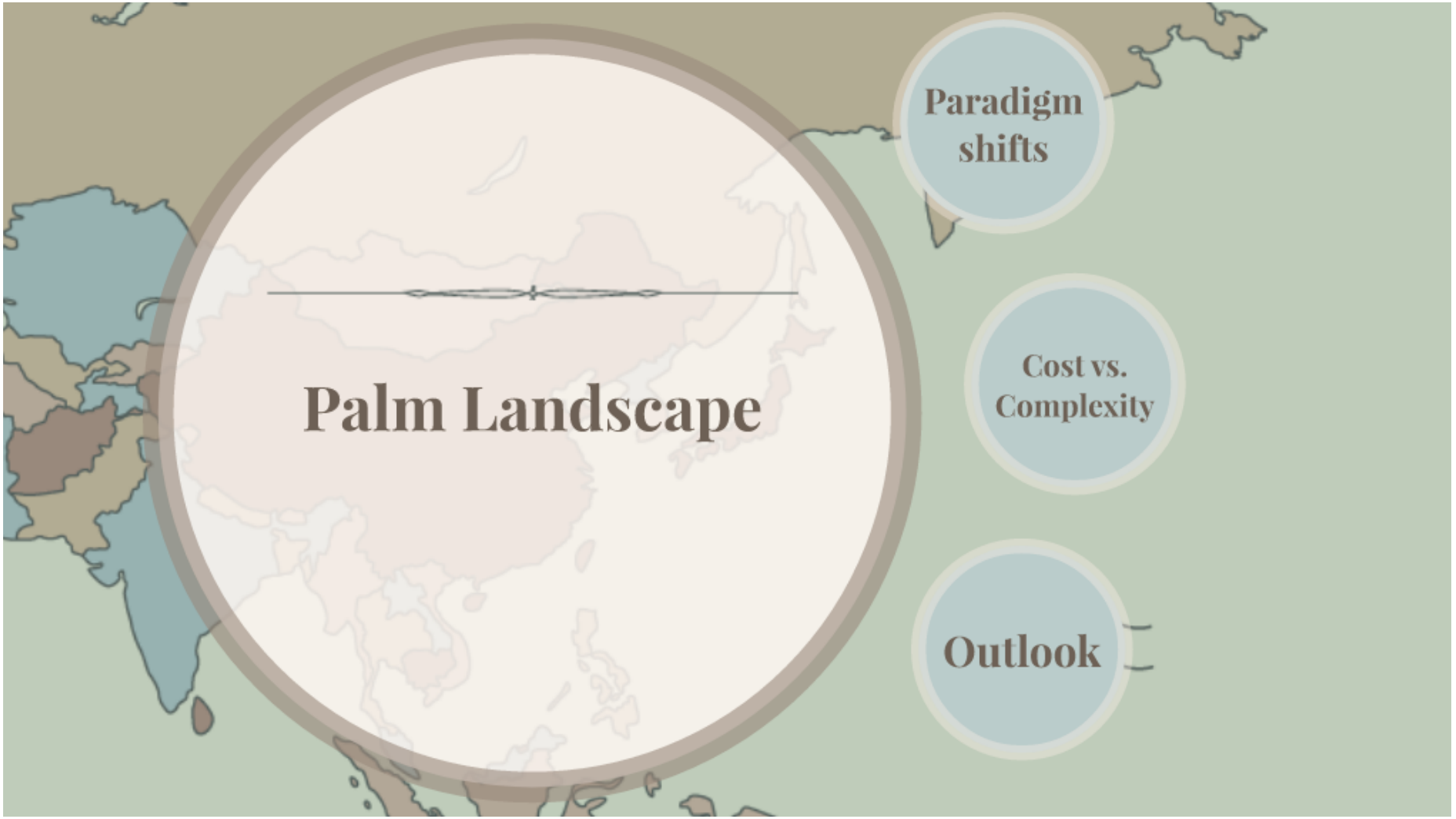
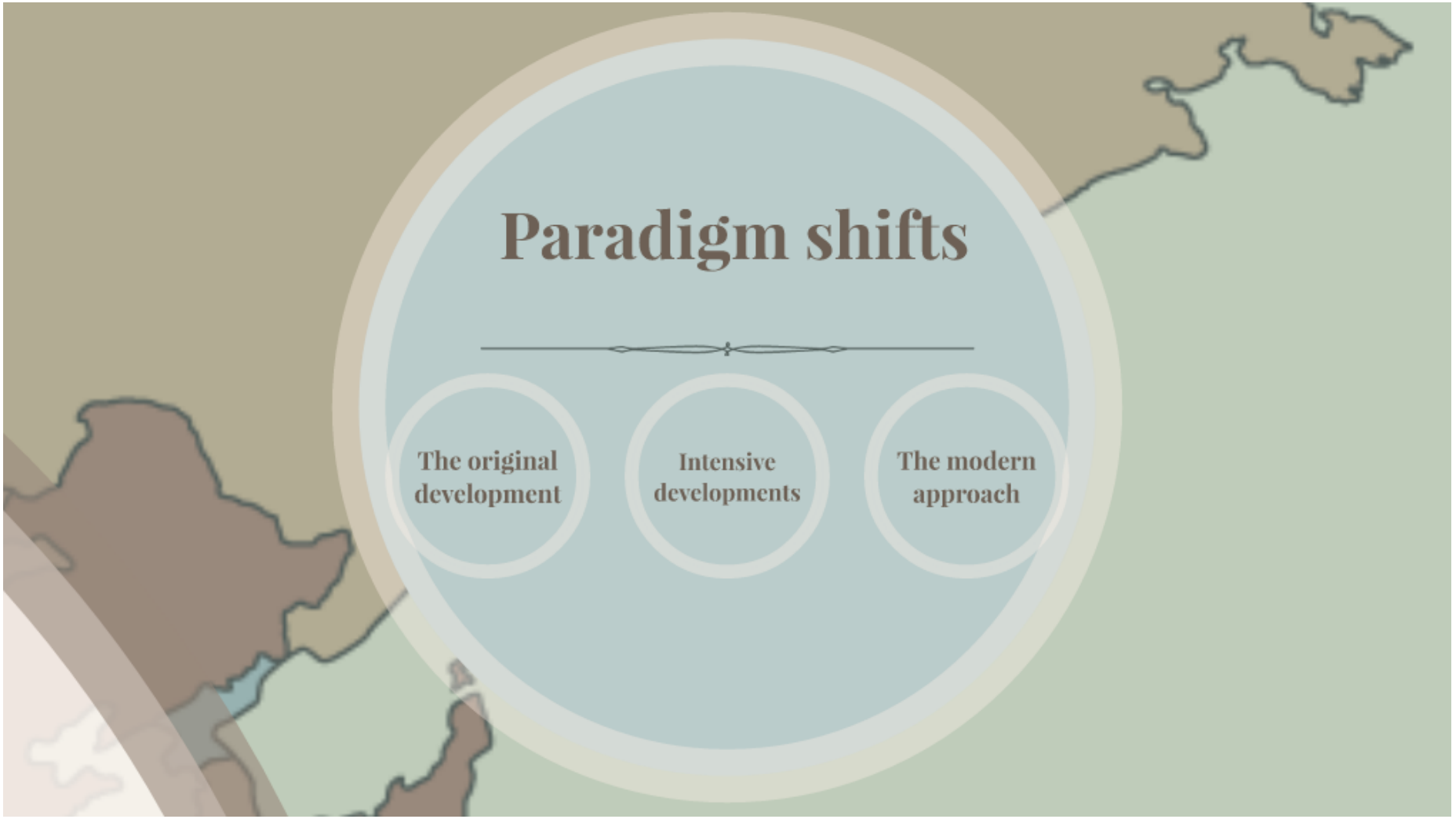
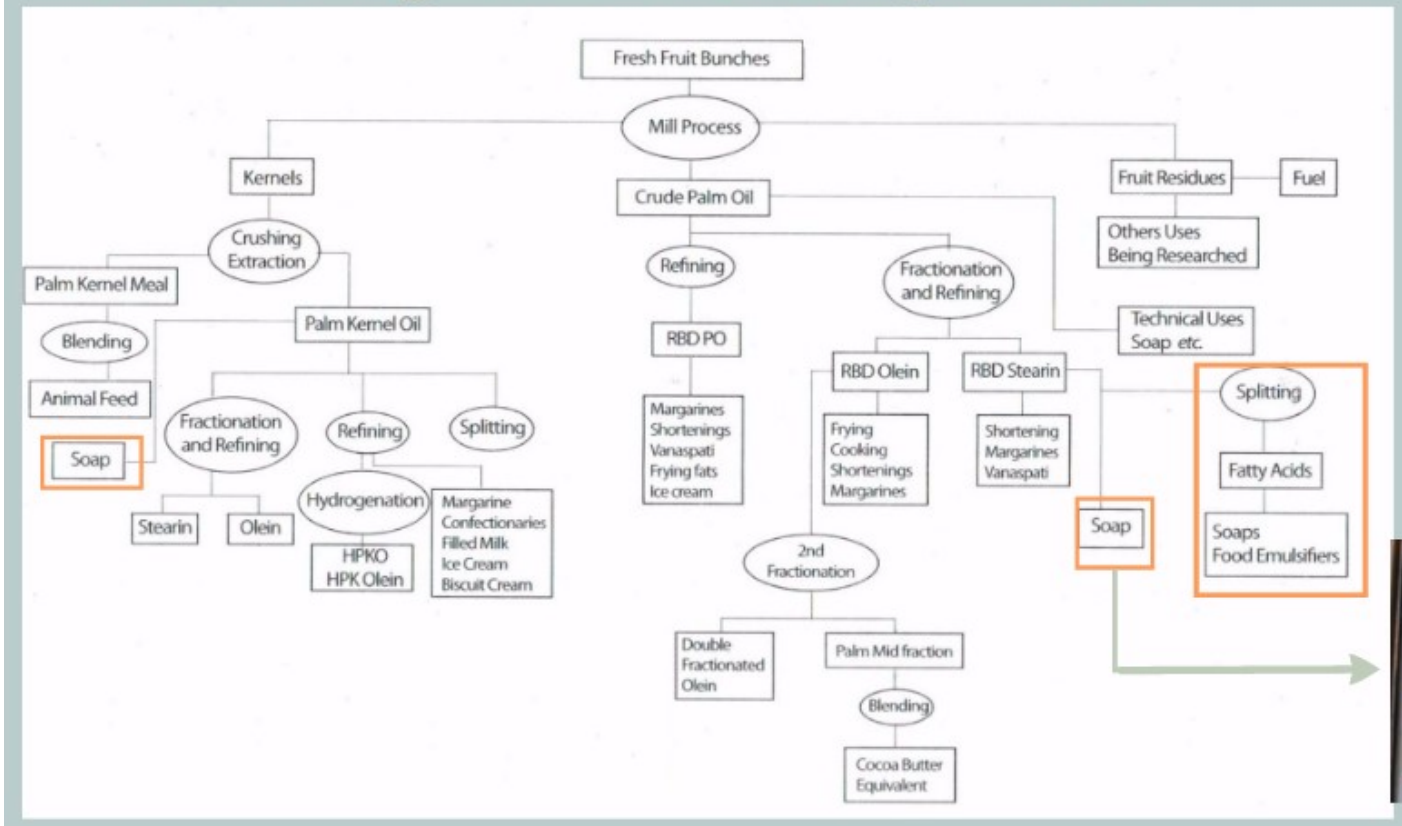

Asia Palm Oil and Oleochemicals Trend
Palm industry achieved 100 years of history, from 1917 through 2017. We owe this success not only to Malaysians but also to the global players who have used many palm products.
Agenda
• Oleochemicals, before and after
• Direction
Palm Landscape
N
W
E
S
MPOB
RSPO
LION
L'ORÉAL
CLARIANT
Unilever
P&G

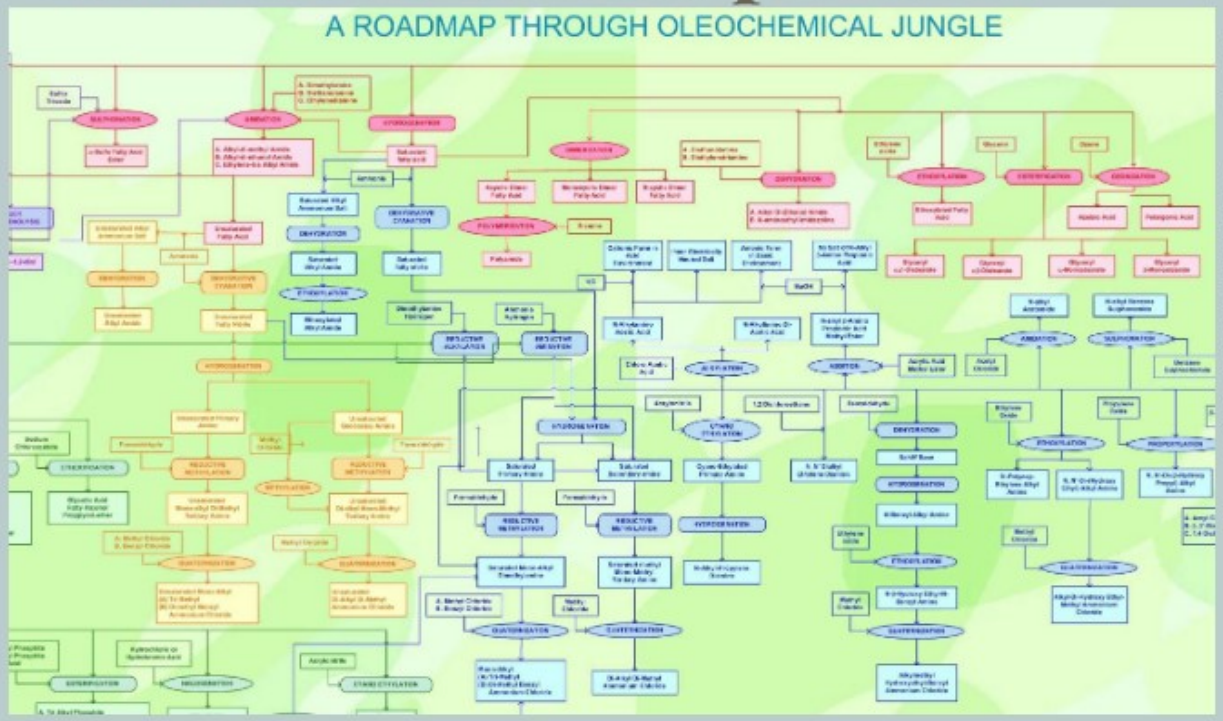

Palm Landscape
Paradigm shifts
Cost vs. Complexity
Outlook

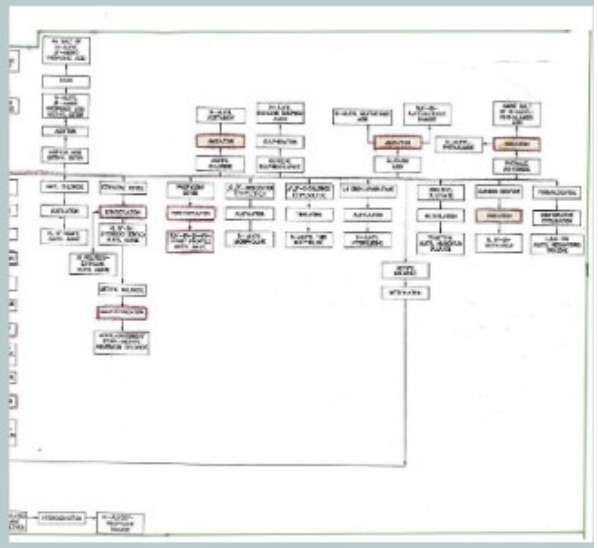

Paradigm shifts
The original development
Intensive developments
The modern approach

# The original development



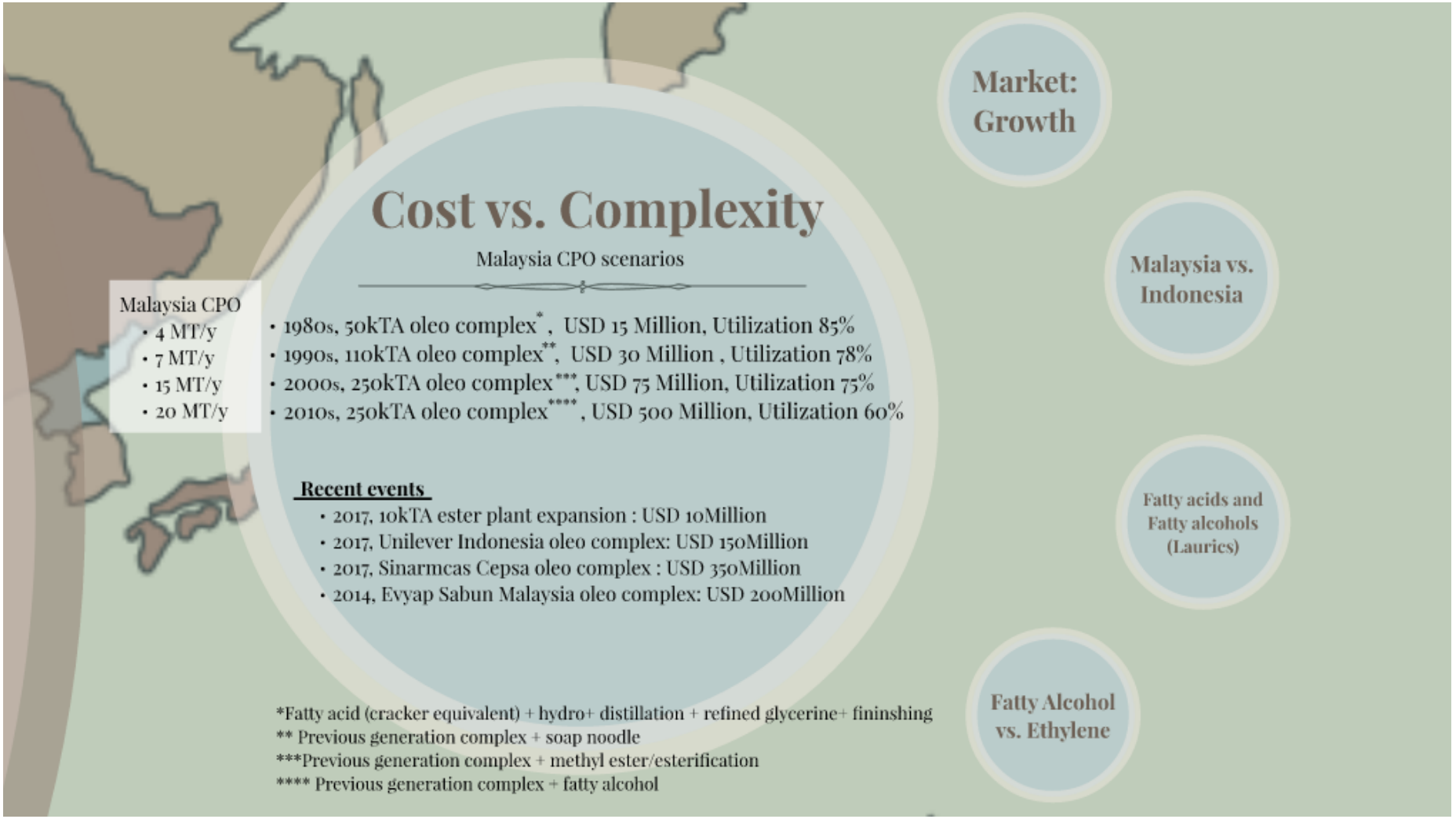

# Intensive developments



# The modern approach


New oleo complexes


Market: Growth
Malaysia vs. Indonesia
Fatty acids and Fatty alcohols (Laurics)
Fatty Alcohol vs. Ethylene
Cost vs. Complexity
Malaysia CPO scenarios
Malaysia CPO
• 4 MT/y
• 7 MT/y
• 15 MT/y
• 20 MT/y
• 1980s, 50kTA oleo complex*, USD 15 Million, Utilization 85%
• 1990s, 110kTA oleo complex**, USD 30 Million , Utilization 78%
• 2000s, 250kTA oleo complex***, USD 75 Million, Utilization 75%
• 2010s, 250kTA oleo complex****, USD 500 Million, Utilization 60%
Recent events
• 2017, 10kTA ester plant expansion : USD 10Million
• 2017, Unilever Indonesia oleo complex: USD 150Million
• 2017, Sinarmcas Cepsa oleo complex : USD 350Million
• 2014, Evyap Sabun Malaysia oleo complex: USD 200Million
*Fatty acid (cracker equivalent) + hydro+ distillation + refined glycerine+ fininshing
** Previous generation complex + soap noodle
***Previous generation complex + methyl ester/esterification
**** Previous generation complex + fatty alcohol

# Market: Growth

- Estimated 2018 market growth is at 3.7% per annum
  - Using 3.5 Million Ton/year of fatty alcohol demand as an example, this growth is equivalent to 130kTA new demand each year= One new fatty alcohol plant capacity every year!
  - Can the palm raw material growth rate support this growth?

- Reported utiliation rate of 60% can be grouped into 3 tiers
  - Tier 1: Efficient and integrated plants, with almost full utilization rate.
  - Tier 2: Established plants.
  - Tier 3: Stand alone/older inefficient plants taking up the slack.
  - 60% utilization rate does not reflect this heterogeneity.

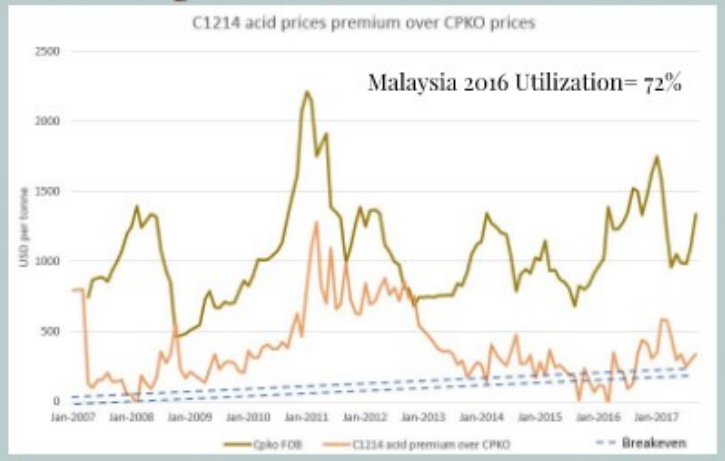
# Malaysia vs. Indonesia

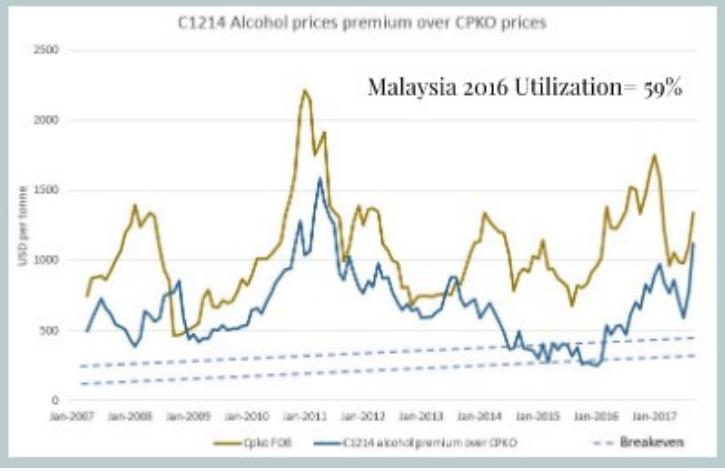
| 2013, 2015 data | | Malaysia | Dif. | Indonesia | Total |
|---|---|---|---|---|---|
| Planted Area | (MHac) | 5.2 , 5.6 | 5.3, 5.9 | 10.5, 11.5 | 15.7, 17.1 |
| CPO | (MT/Yr) | 19.2, 20.0 | 9.0, 13.0 | 27.8, 33.0 | 47.0 53.3 |
| CPKO | (MT/Yr) | 2.3, 2.3 | 3.2, 4.3 | 5.5, 3.3 | 7.8, 8.9 |
| Total Oil | (MT/Yr) | 21.1, 22.3 | | 33.3, 39.6 | |
| Oleo Capacity | | | | | |
| Fatty Acids | (MT/Yr) | 1.6, 1.8 | -0.1, 0.4 | 1.5, 2.2 | 3.1, 4.0 |
| F. Alcohol | (MT/Yr) | 0.45, 0.52 | 0.25, 0.58 | 0.7, 1.1 | 1.2, 1.6 |
| Soap Noodle | (MT/Yr) | 0.2, 0.2 | 0.1,0.1 | 0.3, 0.3 | 0.5, 0.5 |
| Total | (MT/Yr) | 2.3,2.5 | | 2.5, 3.6 | 4.8, 6.1 |
| Oleo : Oil ratio | (%) | **11%, 11%** | | **7%, 10%** | |

Indonesia can grow further based on palm oil availability.

Malaysia Palm Oil Revenue generation = RM 70 Billion/year
Oleo revenue generation = ~RM 14 Billion/year

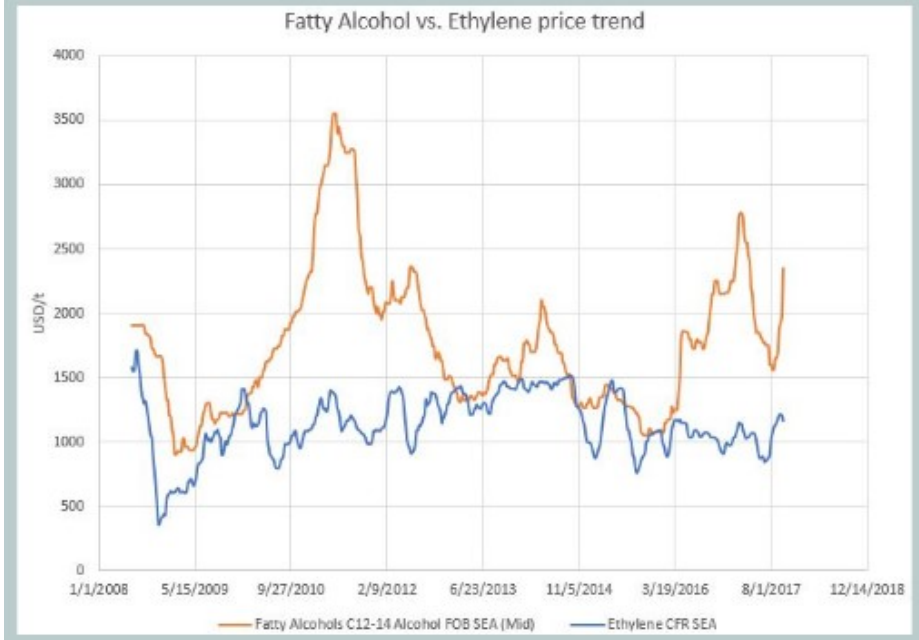
# Fatty acids and Fatty alcohols (Laurics)



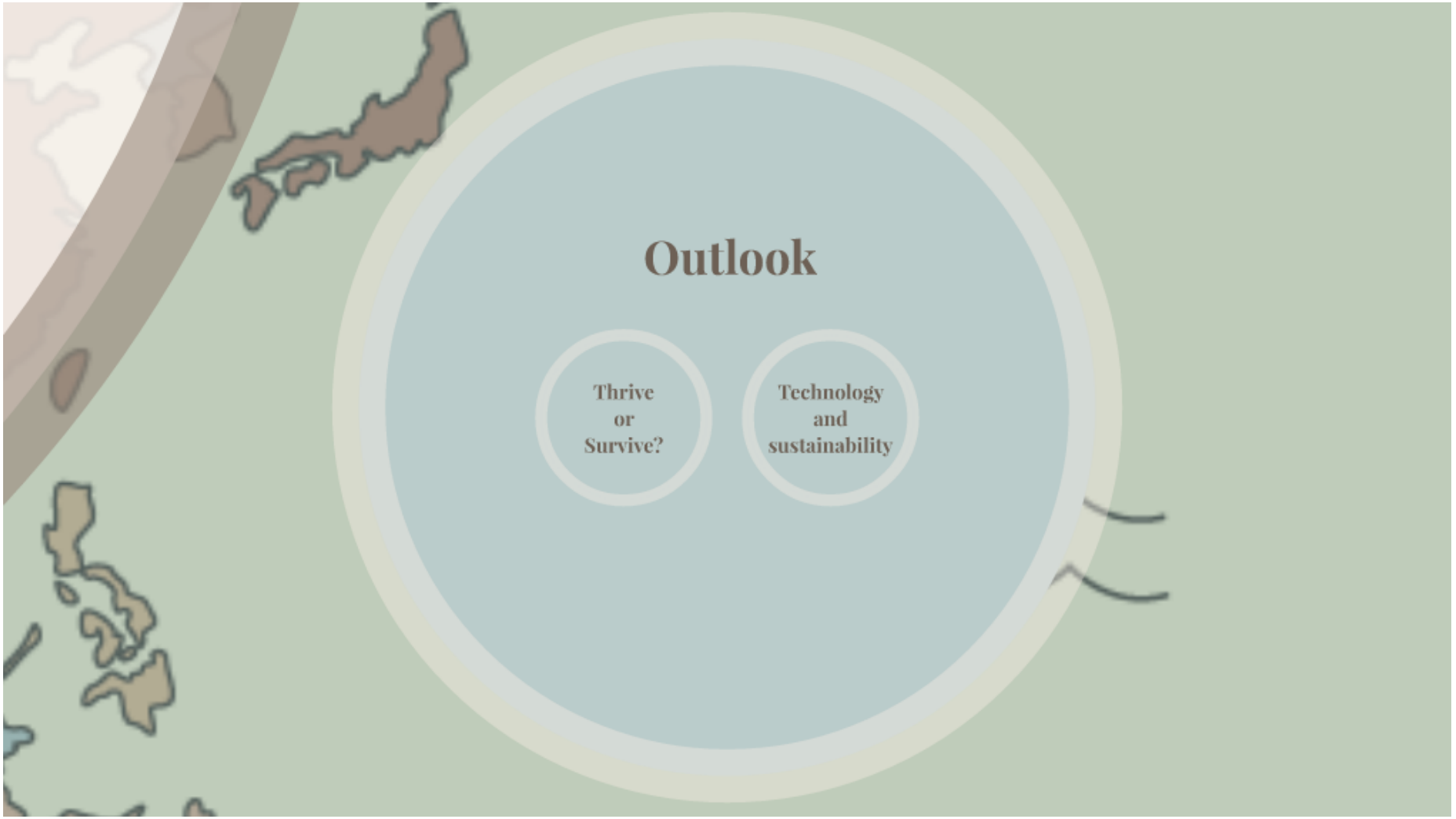




- Product premium moves in tandem with Asian CPKO.
- As result of new efficient production capacities, product spreads have narrowed. Cost-ineffective plants also forced to shutdown.
- Realization of by-product values are crucial to survive in this landscape.
- New plant has bettery efficiency and advanced processes to maximize value of palm oil molecules.

# Fatty Alcohol vs. Ethylene




- Fatty alcohol & EO converters both previously kept as separate.
- We are seeing more integration:
  - Wilmar buys ex-Huntsman ethoxylation,
  - KLK buys Kolb,
  - Musim Mas invests in ethoxylation unit in Europe,
  - Sanjiang produces natural alcohol in China,
  - CEPSA & Sinar Mas does alcohol JV in alcohol.
- Increasing integration of Oleochem and Petchem is inevitable!


Outlook
Thrive or Survive?
Technology and sustainability

# Thrive or Survive?

- New oleochemical plant investment is taking about USD500 Million to come to fruition.
- This investment cost is only sensible for large scale plantation companies, which explains the current trend of oleochemical expansion in Indonesia.

# Technology and sustainability

- New technologies continue to enhance industry competitiveness such as Sabah's Gamalux new oleo complex using waste oil from palm oil mills/spent bleaching earth.

- Sustainable palm oil through collaboration with RSPO and MSPO is a key focus.
  - Customers want increasing transparency in supply chain.
    - Bad for converter, good for upstream originators.

- Traceability an ongoing focus for Palm & Oleochemicals. How is the origin of synthetic based raw materials being traced?