Moving Markets:
Push or Pull – The Oleochemical Perspective

Emery
Oleochemicals

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Content

EMERY OLEOCHEMICAL GROUP @ A GLANCE

MARKET-BASED SOLUTIONS

Providing you a Competitive Advantage in natural-based product development

Ag Agro Green

Bl Bio-Lubricants

Ep Eco-Friendly Polyols

Gp Green Polymer Additives

Ob OleoBasics

Hp Home & Personal Wellness

THE SUPPLY CHAIN CERTIFICATION SYSTEM (SCCS): WHO ARE THE PLAYERS

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Who are the players?

All Palm-based operators who

- Take legal ownership AND
- Physically receive RSPO CSPO/CSPKO
- Want to claim this in the market place!

- **First operators: Palm Oil Mills & Refineries**
- **Mid-operator: Ingredient Manufacturers**
  - Oleochemical & its derivatives
- **Last operator: End Product Manufacturers**
  - The manufacturers (HPC, Cosmetics, Plastics, Coatings, etc) that uses the oleochemical products designed and intended for consumption or end–use in any way e.g. Retailers (Walmart, Tesco, etc.)

The First Operator – Upstream

Palm Oil Mills & Refineries

RSPO Certified Oil

- **CSPO,CSPKO, etc.**
  - Palm Oil Input Product

Non-Certified Oil

- **CPO,CPKO, etc.**
  - Palm Oil Input Product

Other Fats & Oils

- Coconut
- Soybean, Rapeseed
- Tallow
- Etc.

Primary, Semi-finished and Finished Products.

SUPPLY Chain Models:

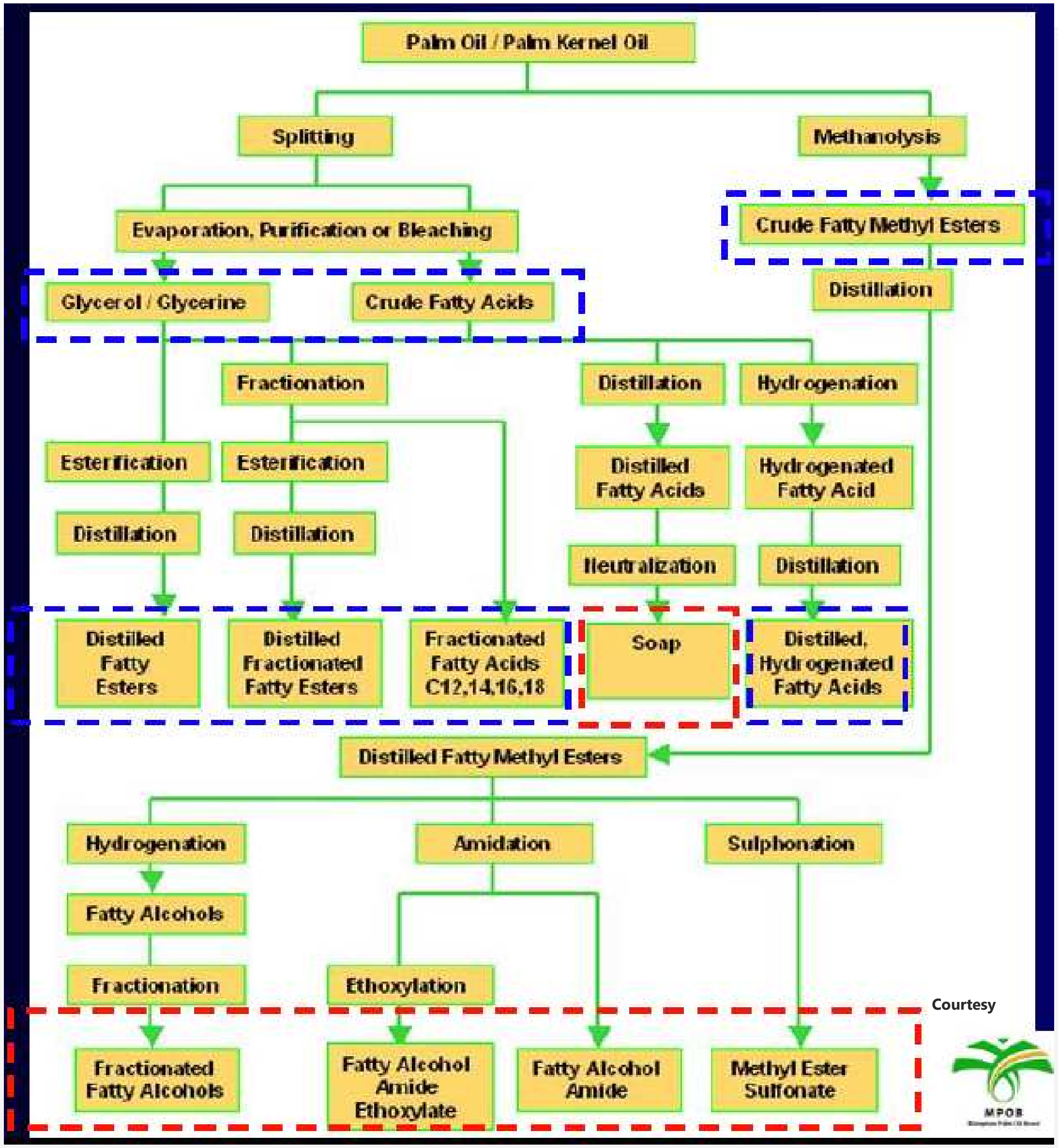
Identity Preserved (IP); Segregation (SG); Mass Balance (MB); Book and Claim (B&C)

The Mid Operator:
Ingredient Manufacturers

Oleo BASICs

Complexity of the Oleochemical Process involving different & multiple Carbon chains

Oleo DERIVATIVEs



The Last Operator:
End Product Manufacturers

Formulators of End Products to Retailers

Presence of Oleochemicals & its derivatives in our Day-to-Day Products

CURRENT STATE OF THE SUPPLY CHAIN CERTIFICATION STORY (SCCS): THE OLEOCHEMICAL PERSPECTIVE

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RSPO Derivatives Commitments Snapshot

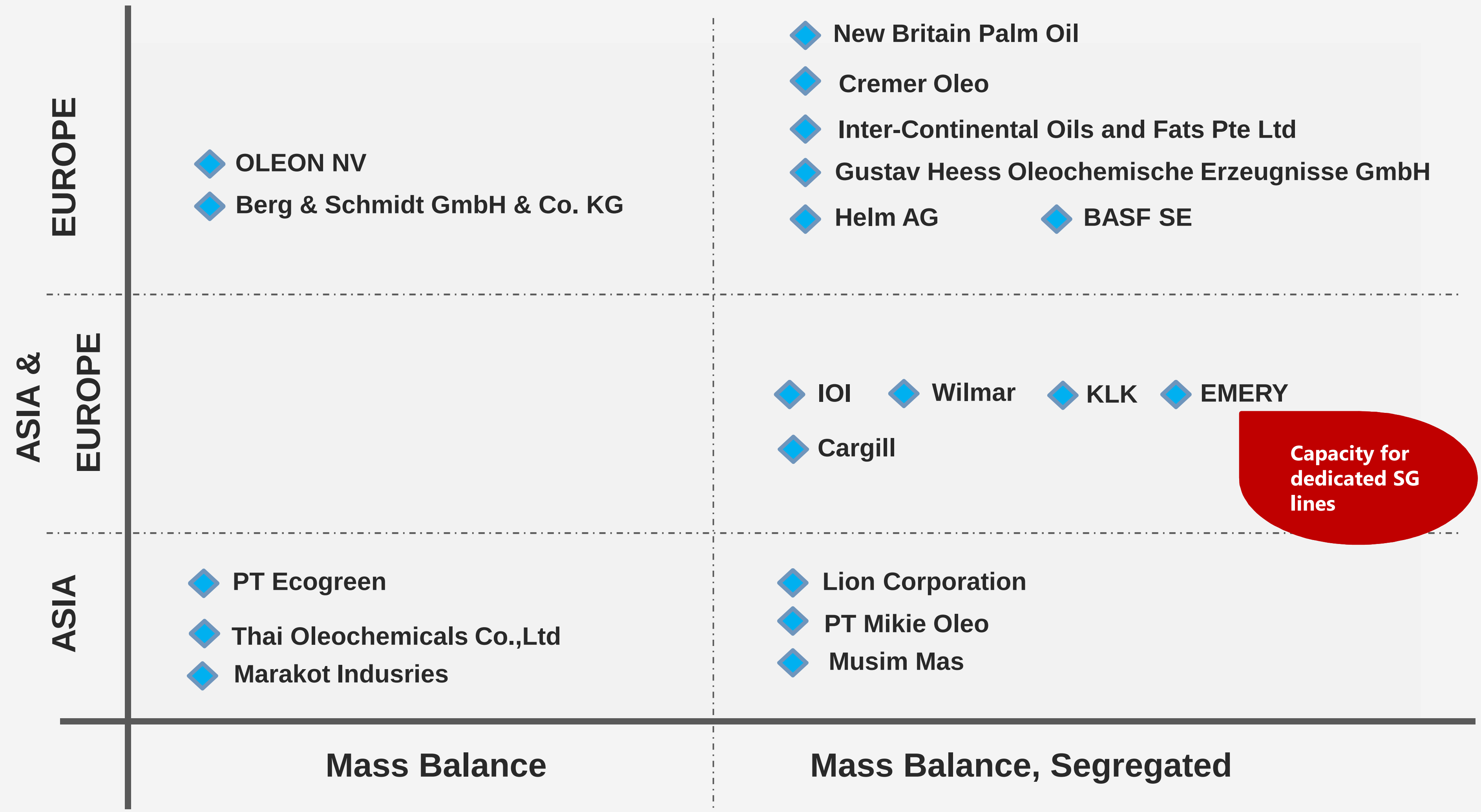
mt	Before 2015	After 2015	Not Disclosed
>10,000	Kao Corporation (79,800) Johnson & Johnson (76,431) Henkel (68,154) Colgate-palmolive (65,616) Reckitt Benckiser (47,951) Associated British Foods plc (21,275) Walter Rau Lebensmittlewerke (20,000) Beiersdorf (16,790)	Unilever (200,000)	
<10,000	Lion Corporation (6,000) United Biscuits (5,615) Peerless Holdings (5,000) Hj Heinz (2,935) PZ Cussons PLC (1071)		Oriflame Cosmetics (5775) Werner & Mertz (2377)
Not Disclosed	L'Oreal (By 2012) BASF (By 2015) Lindt & Sprungli (By 2015) Procter & Gamble (By 2015) Evonik Industries AG (By 2015) Natura Cosmetics (By 2015)		Yves Rocher Aarhuskalshamn AAK L'occitane

timeline

*source: RSPO Annual Communication of Progress 2011-2012

Snapshot of RSPO SCCS MB & SG Providers

Ex. for Palm Oil & Palm Products, Oleochemicals, etc

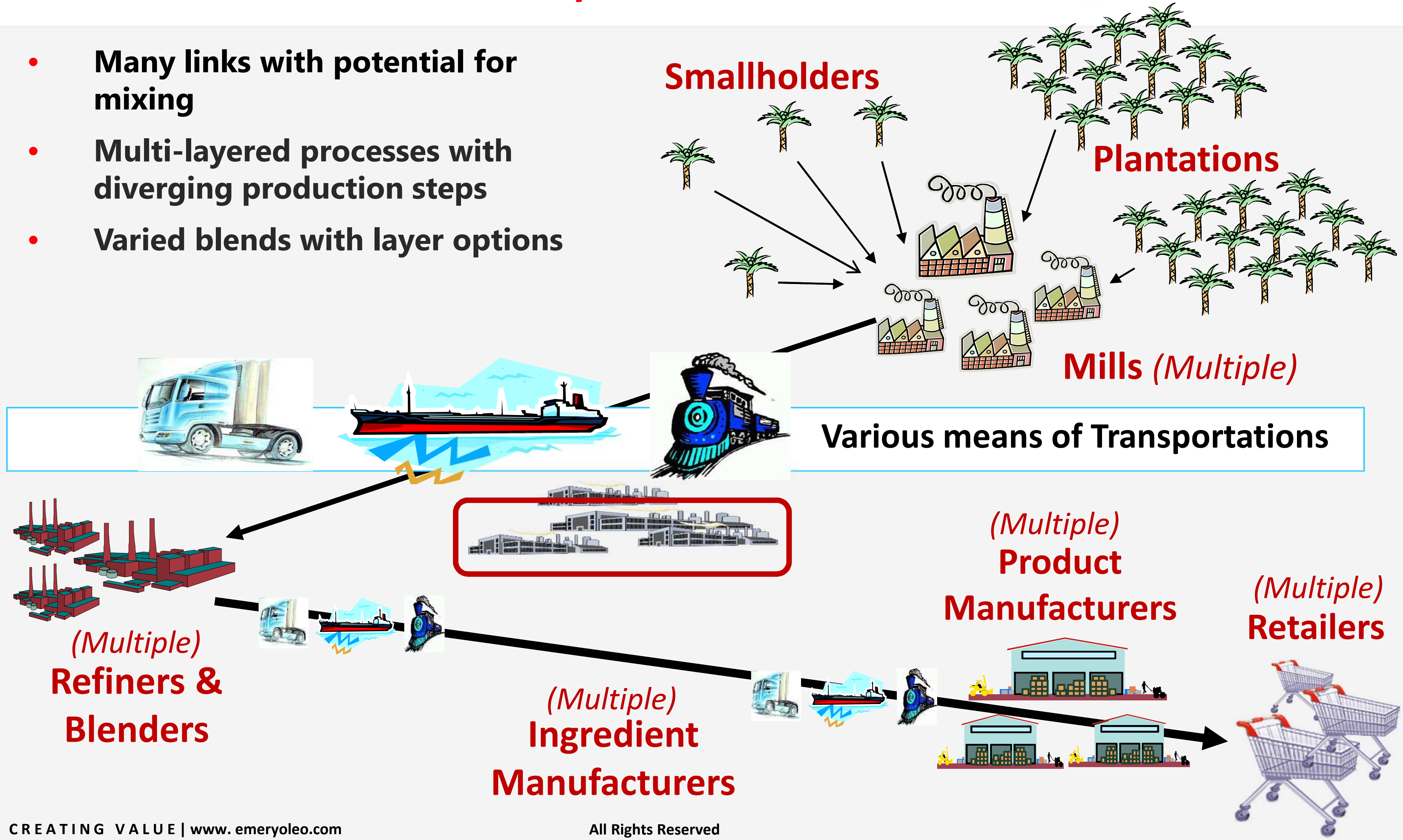


*source: RSPO Online Market Directory 2013

Complexities of the Supply Chain

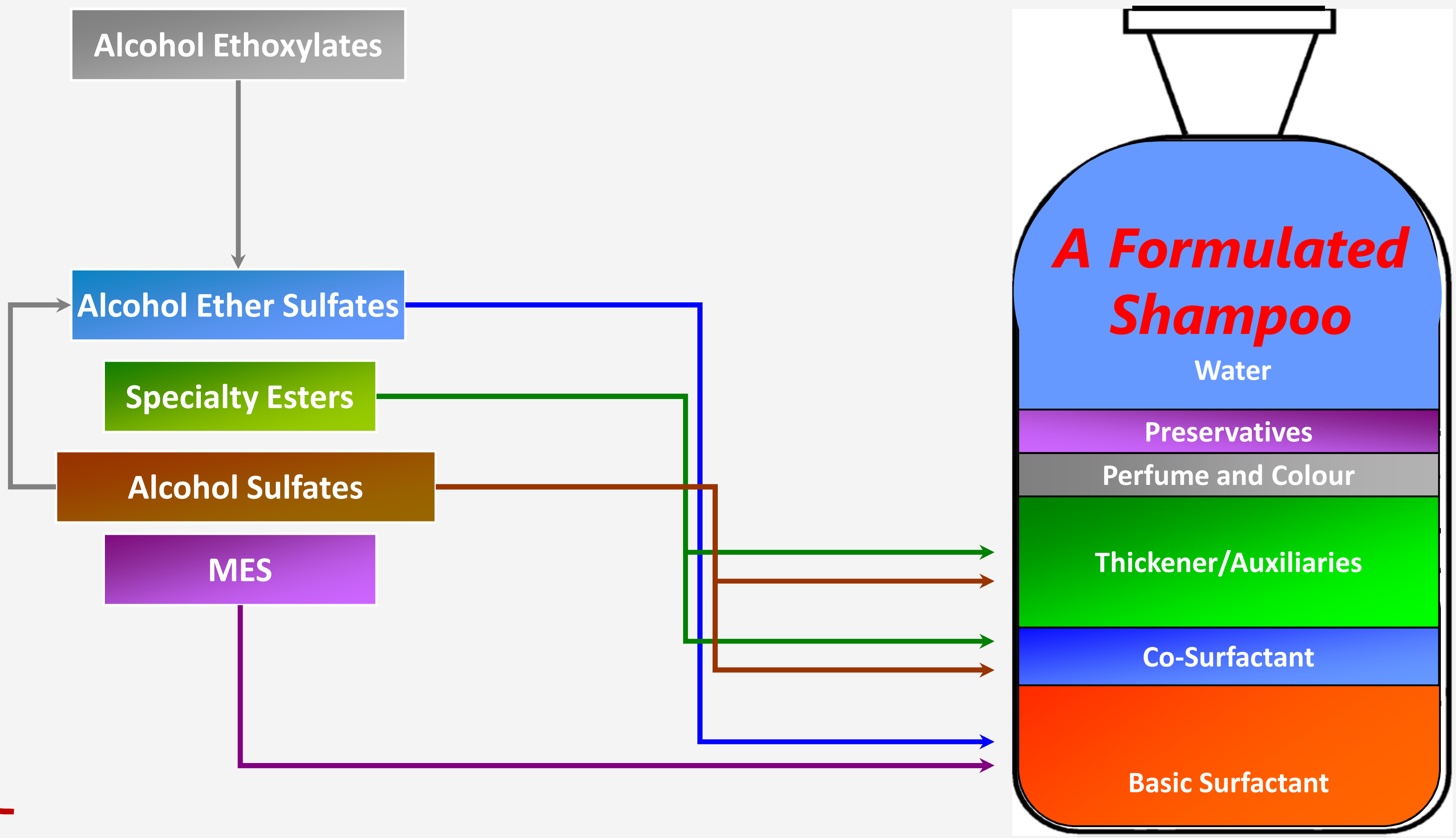
From First to Mid to Last Operator

- **Many links with potential for mixing**
- **Multi-layered processes with diverging production steps**
- **Varied blends with layer options**



Ingredient Manufacturers:
Home Personal Care (HPC) Markets Products

Multiple Ingredient Manufacturers required to produce these oleochemical derivatives

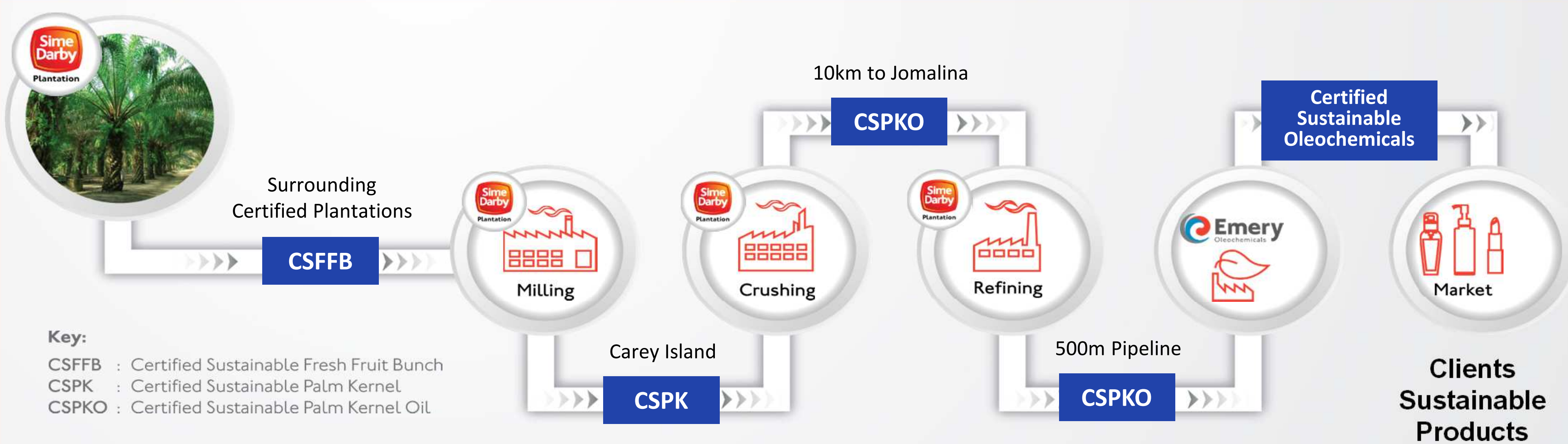


Multiple Oleochemicals derivatives are present in a formulated Shampoo

Emery's RSPO Approach

An Integrated RSPO Certified Derivatives Supply Chain Solutions Provider

MB ready now…Full SG Run ready by Q1, 2015 :
Market Pull Required!



THE MARKET "PUSH-PULL" EFFECT: POINTS OF CONSIDERATION

Points of Consideration

IP, SG or MB

Physical Traceability

- *- IP, SG & MB via the SCCS will ensure that the oil is from a **physical sustainable source***
- *- IP & SG ensures that the sustainable source is present in the **final products***

Complexities & Demands of the Supply Chain

- *The **complexities involved** can result in increased costs for Mid-Operators*
- ***Low volume demands** from downstream users will result in poor uptake by the mid-operators (Pull Factor)*

Unavailability of CSPO/CSPKO

- ***Unavailability of CSPO/CSPKO** will push most operators to utilize the B&C approach-*
- ***Poor commitment from** upstream players will result in the mid-operators unable to meet the commitments of their customers (Push Factor)*

Prospects for Use of CSPO/CSPKO by the Markets

- Pressure from NGOs for Governments to impose tariffs for non-certified PO/PKO use
- Level of awareness of RSPO and CSPO/CSPKO from the Markets

Points of Consideration

Book & Claims

Green Palm certificates

-***Use of Green Palm certificates do not*** *indicate that products in question contain palm oil* ***from sustainable sources***

Companies pay support fee

- *Green Palm certificates are akin to offset certificates, i.e.,* ***companies pay a support fee*** *to a sustainable grower, while* ***continuing to buy their oil from any non-sustainable source.***

Points of Consideration

Role of the Ingredient Manufacturers

Role of the Oleochemical Players

- ***Availability of palm derivatives*** *such as surfactants, glycerin and emulsifiers* ***from sustainable source*** *are critical*

As part of the Supply Chain

- ***Oleochemical Manufacturers need to be more involved & consulted*** *in order* ***to ensure the success of the RSPO SCCS***

Readiness of the Oleochemical Players

- *To have the* ***certification & the supply of certified sustainable oils ready*** *to meet the needs of the downstream user*

Finally,

Push Effect

Requirements to make it work

BENEFITS

Pull Effect

THANK YOU FOR YOUR ATTENTION

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