



Transforming the
market to make
sustainable palm oil
the norm

RSPO

Roundtable on Sustainable Palm Oil



Ten Years of RSPO Sustainable Oil Palms

What are the technological challenges?

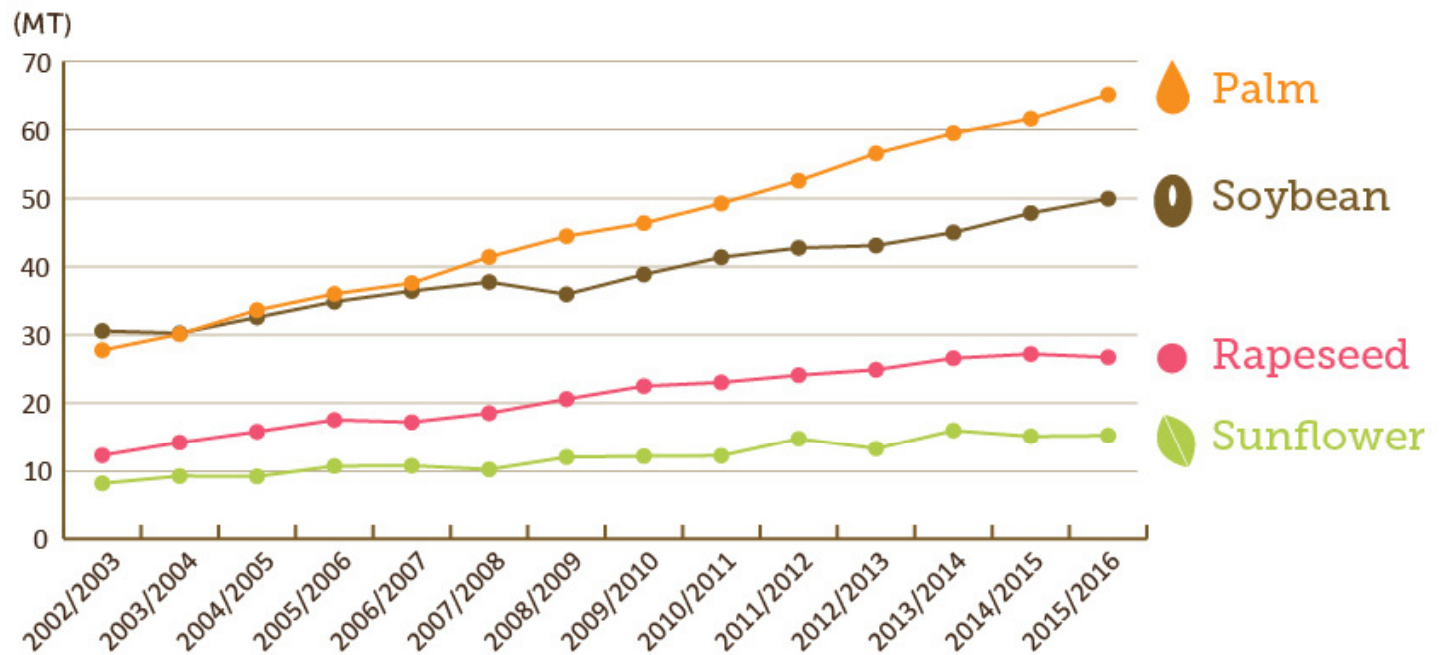


Jan van Driel
RSPO Head of Certification



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Global demand for vegetable oil is growing fast



Source: Oilseeds - World Markets and Trade, USDA, June 2015

Why is palm oil so popular?

- Relatively cheap
- Most versatile
- High yielding
- Most widely produced

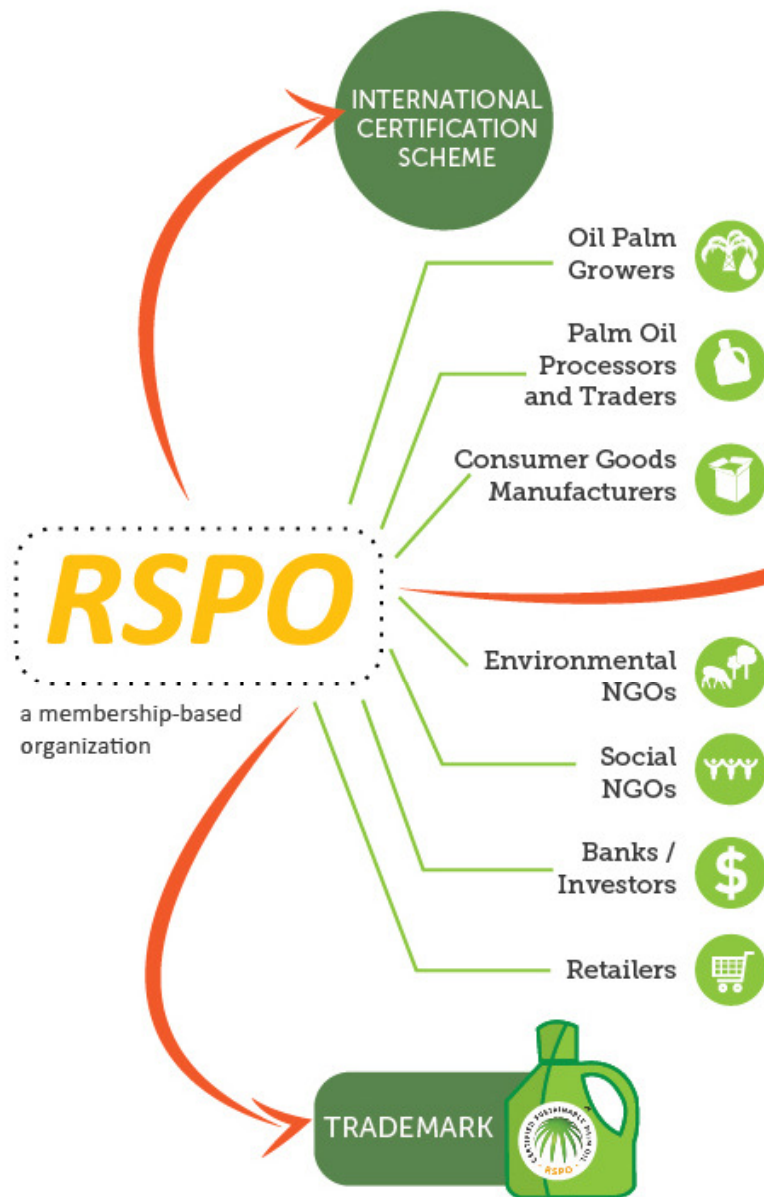
2004

The RSPO was established in 2004 to promote the production and use of sustainable palm oil for People, Planet, and Prosperity.



MiGROS

AAK

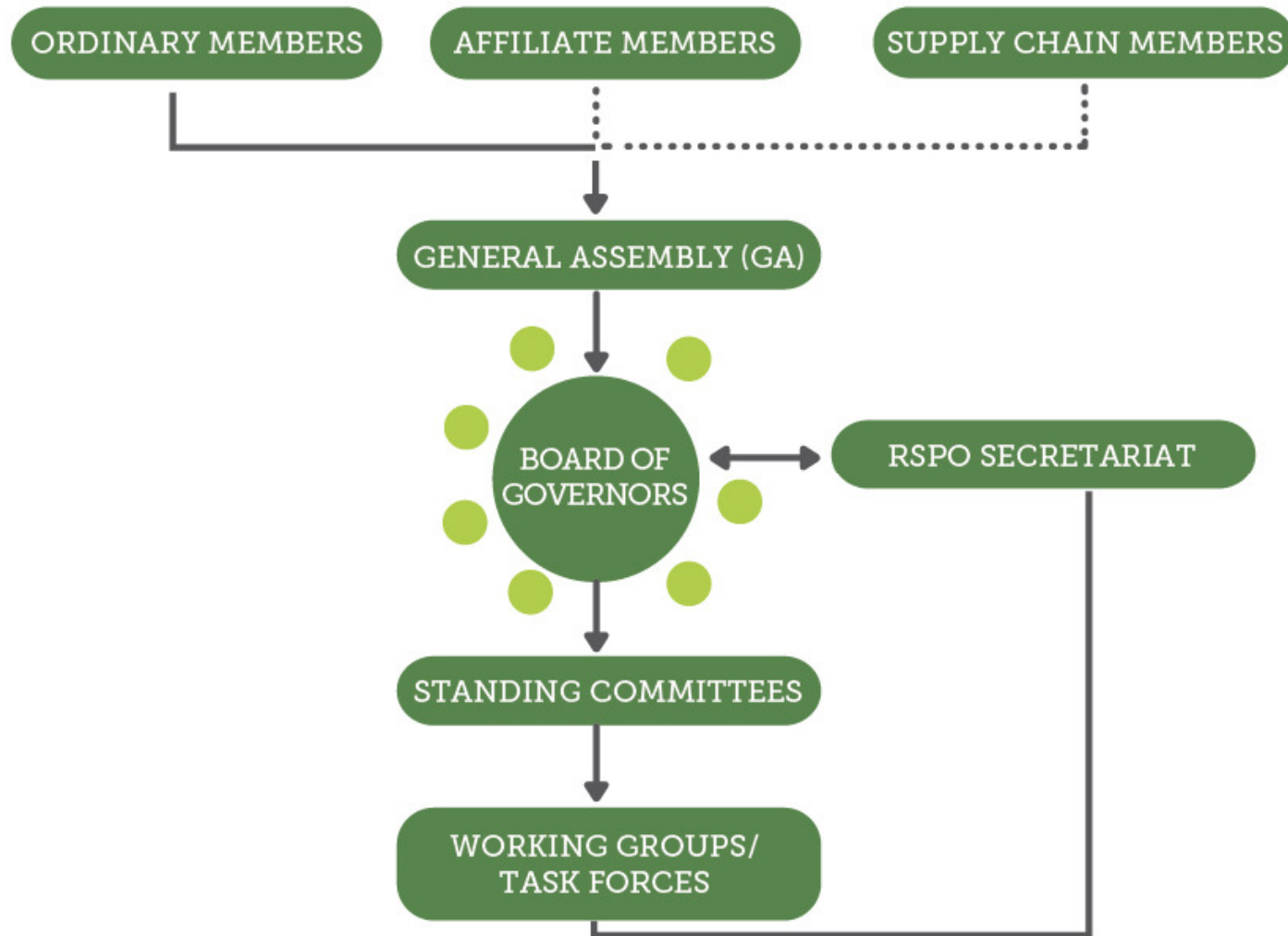


8 PRINCIPLES

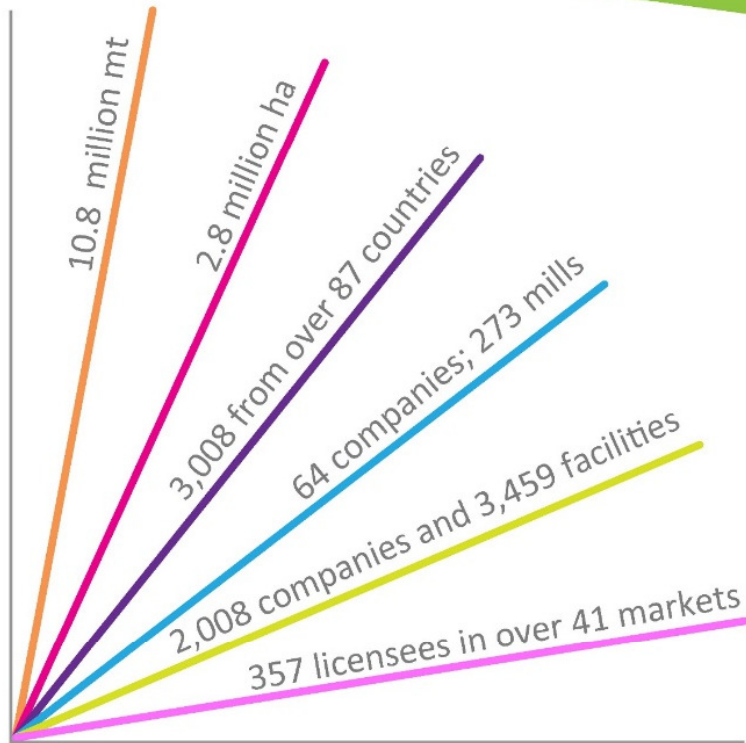
for growers to be RSPO certified

- 1** Commitment to transparency
- 2** Compliance with applicable laws and regulations
- 3** Commitment to long-term economic and financial viability
- 4** Use of appropriate best practices by growers and millers
- 5** Environmental responsibility and conservation of natural resources and biodiversity
- 6** Responsible consideration of employees, and of individuals and communities affected by growers and mills
- 7** Responsible development of new plantings
- 8** Commitment to continuous improvement in key areas of activity

HOW RSPO OPERATES



RSPO WORLDWIDE IMPACT



- CSPO Volume
 Grower's Certification
- Certified Area
 Supply Chain Certificates
- Membership
 Trademark Licensees



+18%
of palm oil globally is certified by the RSPO

As of mid-2015, RSPO certified palm oil plantations cover an area approximately 47 times the size of Singapore island - and this continues to grow fast.



COMMITTED TO SMALLHOLDERS



109,415

Individual Smallholders

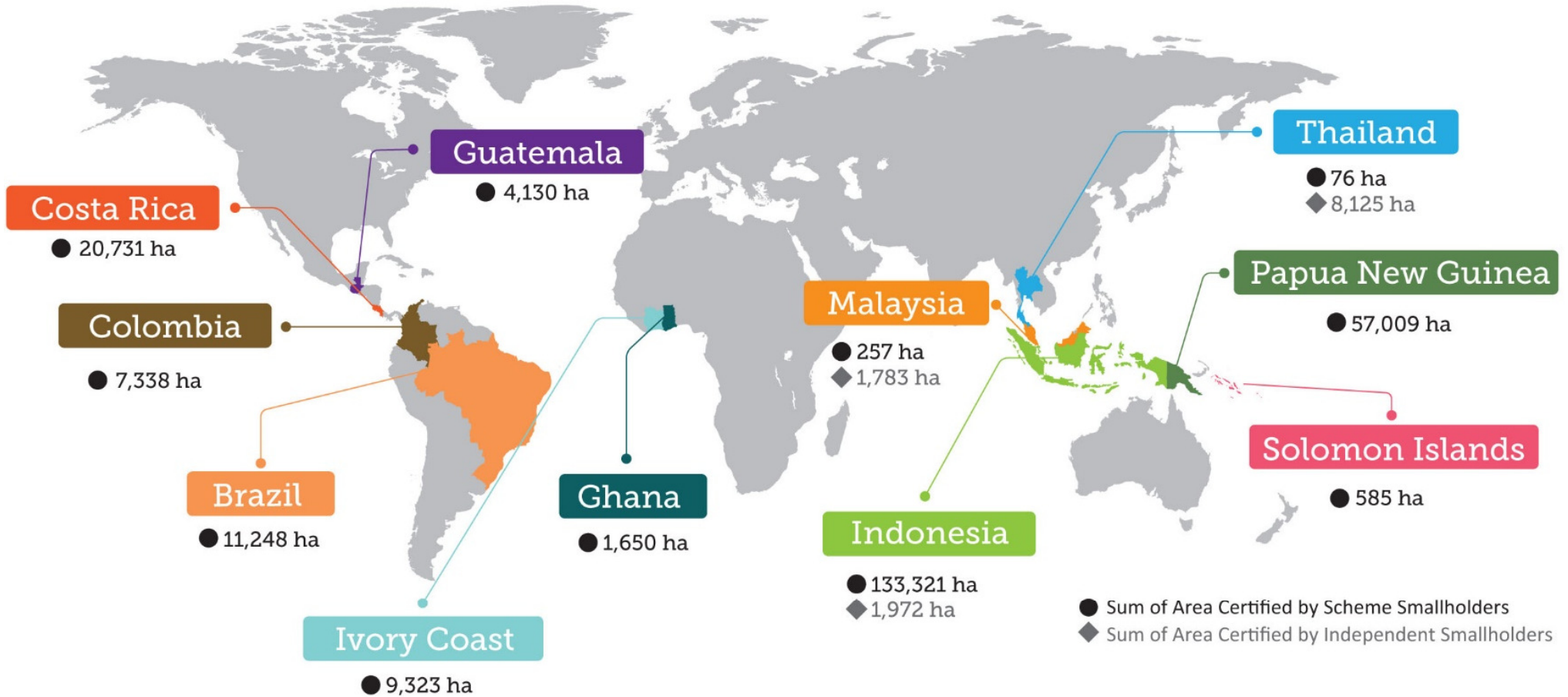


257,649

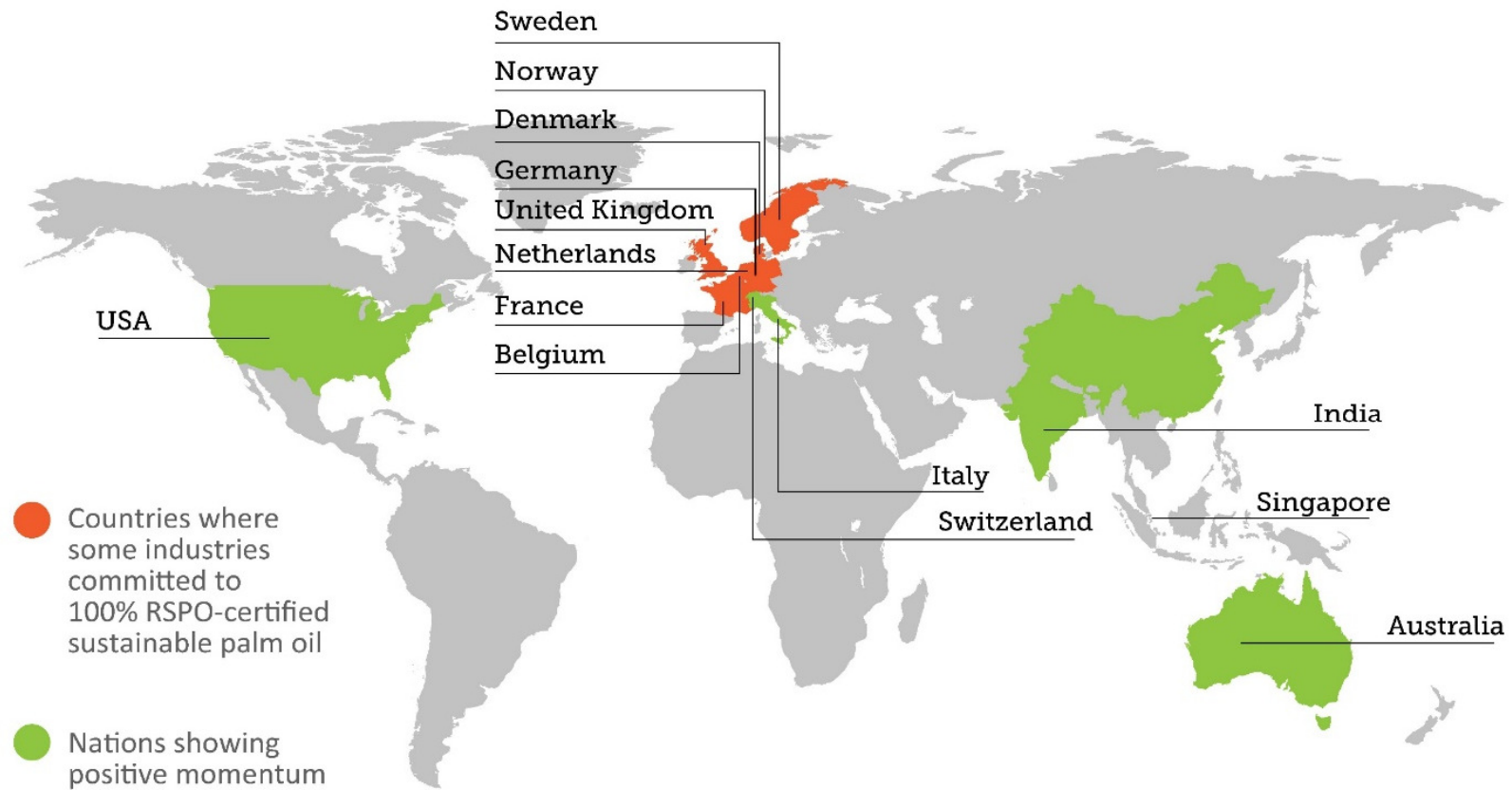
Hectares of Smallholders Certified Area

RSP0 supports smallholders to improve their livelihoods by targeting improved management practices, better quality fresh fruit bunches, increased yields and access to markets.

COMMITTED TO SMALLHOLDERS



RSPO Smallholders Support Fund grants up to 100% of certification cost to smallholders.



Some of the global companies committed to 100% RSPO certified sustainable palm oil



Walmart



Nestlé

Johnson & Johnson

P&G

FERRERO

Mondelēz
International

HERSHEY'S

Kellogg's

L'ORÉAL

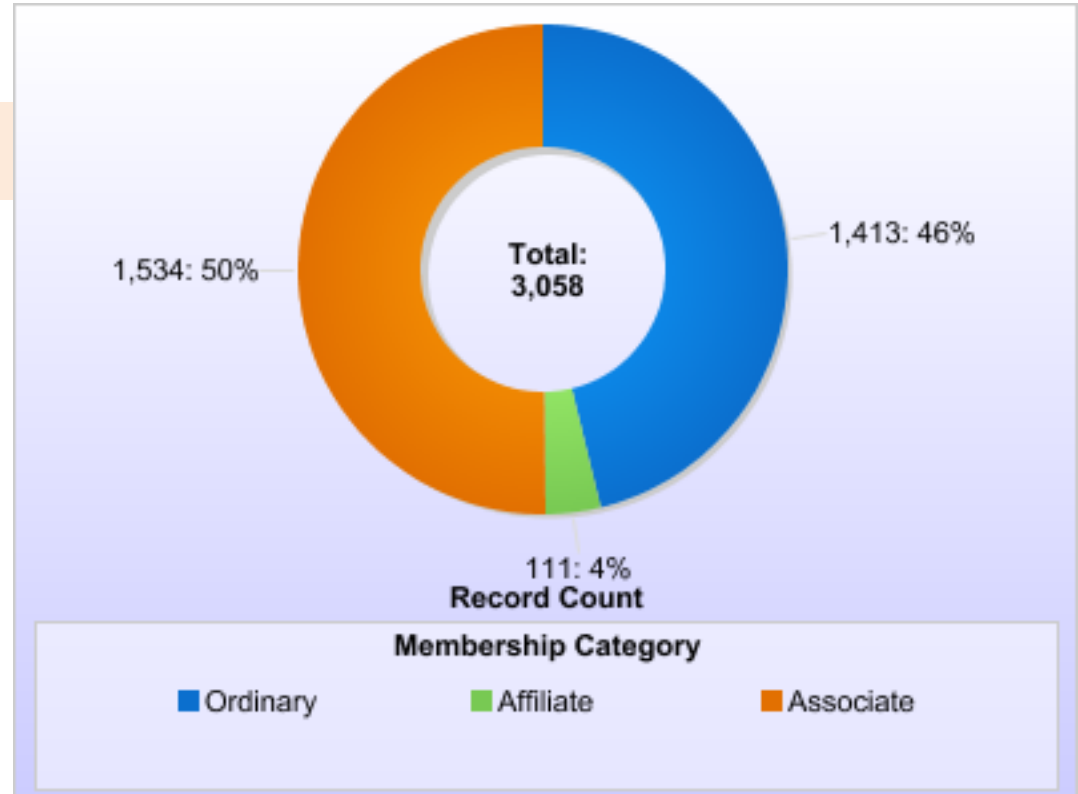
MARS
incorporated

Reckitt
Benckiser



RSPO Membership

RSPO Members	
Ordinary Members	1,413
Supply Chain Associates	1,534
Affiliate Members	111
TOTAL	3,058



Membership by Country



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PALM OIL SUPPLY CHAIN



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Anything to do for a chemical engineer??

○ Downstream:

- Retailer
- Distributor
- Product manufacturer
- Trader
- Refiner
- Storage company
- Transport company

○ Upstream:

- Mill
- Plantation



Downstream work for a Chemical Engineer

- **Retailers:**

- Retailers are not certified in RSPO because of very low risk. However, retailers use cooling and heating

- **Distributors:**

- Storage in warehouses and transport activities

- **Traders:**

- Only buying and selling
- No storage



Downstream work for a Chemical Engineer

- **Product Manufacturer and Refineries:**
 - **Role of Chemical Engineers in**
 - **Plant design (improvements)**
 - **Safety**
 - **Waste production**
 - **Yield**
 - **Energy consumption**
 - **Water/air/soil pollution**



Downstream work for a Chemical Engineer

- **Storage company:**
 - Design of piping and pumps
 - Energy consumption
 - Logistics
- **Transport company:**
 - Logistics



The 8 Principles of RSPO



1

Commitment to transparency



2

Compliance with applicable laws and regulations



3

Commitment to long-term economic and financial viability



4

Use of appropriate best practices by growers and millers



5

Environmental responsibility and conservation of natural resources and biodiversity



6

Responsible consideration of employees, and of individuals and communities affected by growers and mills



7

Responsible development of new plantings



8

Commitment to continuous improvement in key areas of activity

Highlights of some Principles

- **Principle 4 – Best practices**
 - **4.2 - Optimal and sustained yield**
 - use of POME (waste ?!)
- **Principle 5 - Environmental responsibility**
 - **5.1 - Environmental Impact Assessment**
 - **5.3 - Reduce/recycle/reuse waste**
 - **5.4 - Use renewable energy**
 - **5.6 - Reduce pollution and emissions**
- **Principle 8 - Continuous improvement**



Upstream work for a Chemical Engineer

- **Mill and plantation:**
 - **Very mature technology**
 - **Yield improvements**
 - **Energy reduction**
 - **Waste reduction**
 - **Effluent treatment**
 - **Safety improvements**
 - **Water/air/soil pollution reduction**



Upstream work for a Chemical Engineer

- **Mill and plantation:**
 - **Sterilising process**
 - **Condensate re-use**
 - **Water usage**
 - **Noise reduction**
 - **Dust reduction**
 - **Energy capture**
 - **Composting methods**



THANK YOU

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**RSPO will transform markets
to make sustainable palm oil
the norm**

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Find out more at www.rspo.org

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