

**12th CONCAWE Symposium
Future of Specialty Products
Waxes**

Dr. Dirk F. Danneels
European Wax Federation

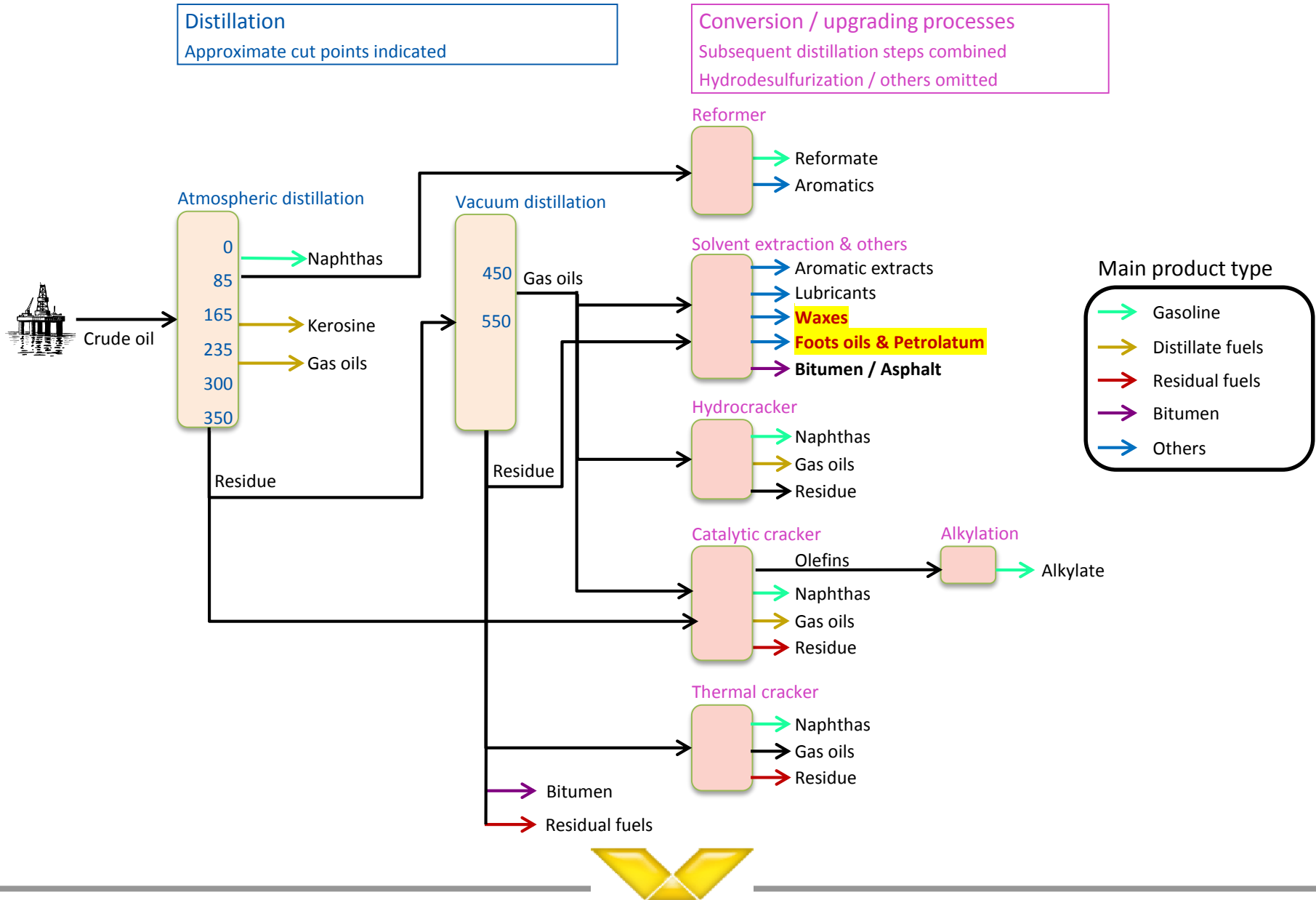


Specialty Petroleum Substances

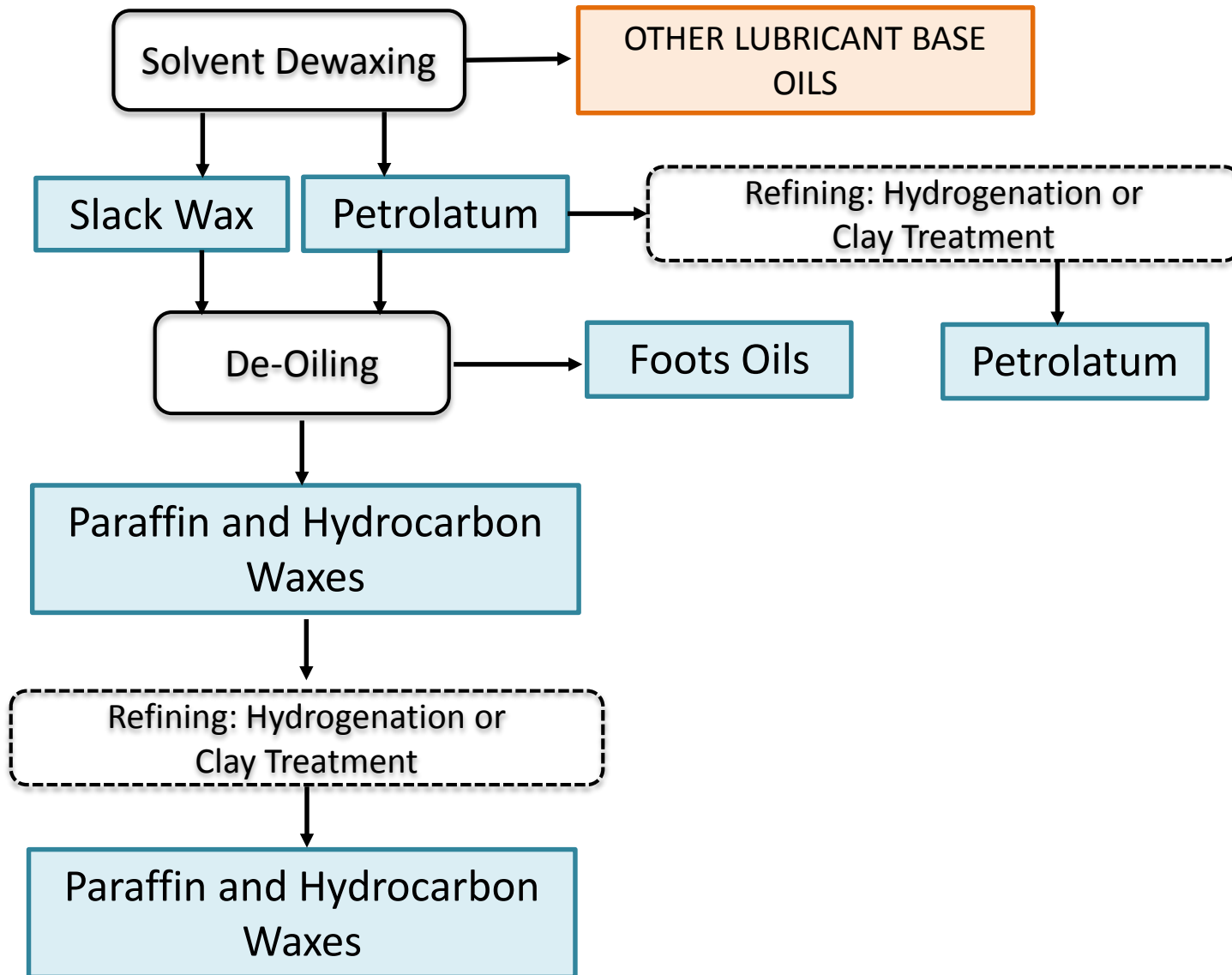
- Side stream of lube oil production
- Wax definition:
 - Solid at 20°C (soft and flexible to brittle and hard)
 - Melts above 40°C without decomposition
 - Low viscosity little above melting point
- Complex supply chain including additional purification and blending steps
- Tight quality specs imposed by regulators and customers
 - Food contact, pharmaceutical and cosmetics



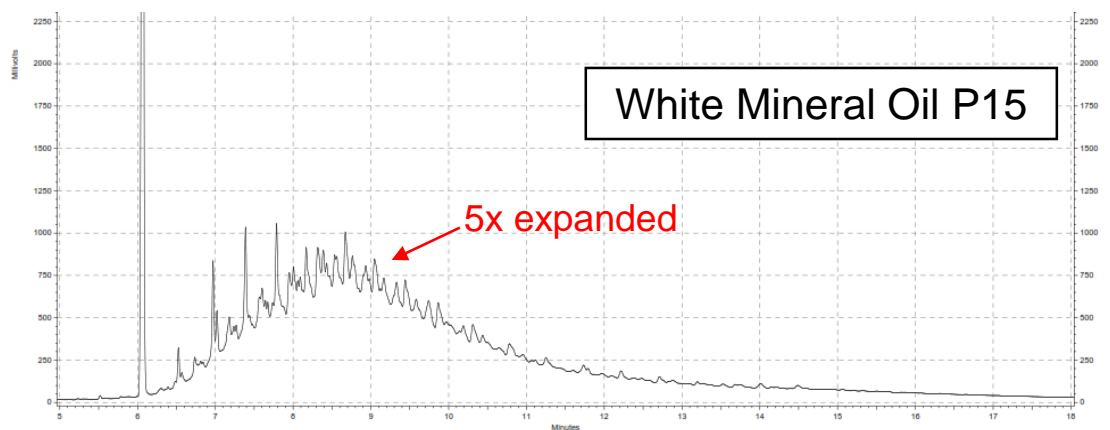
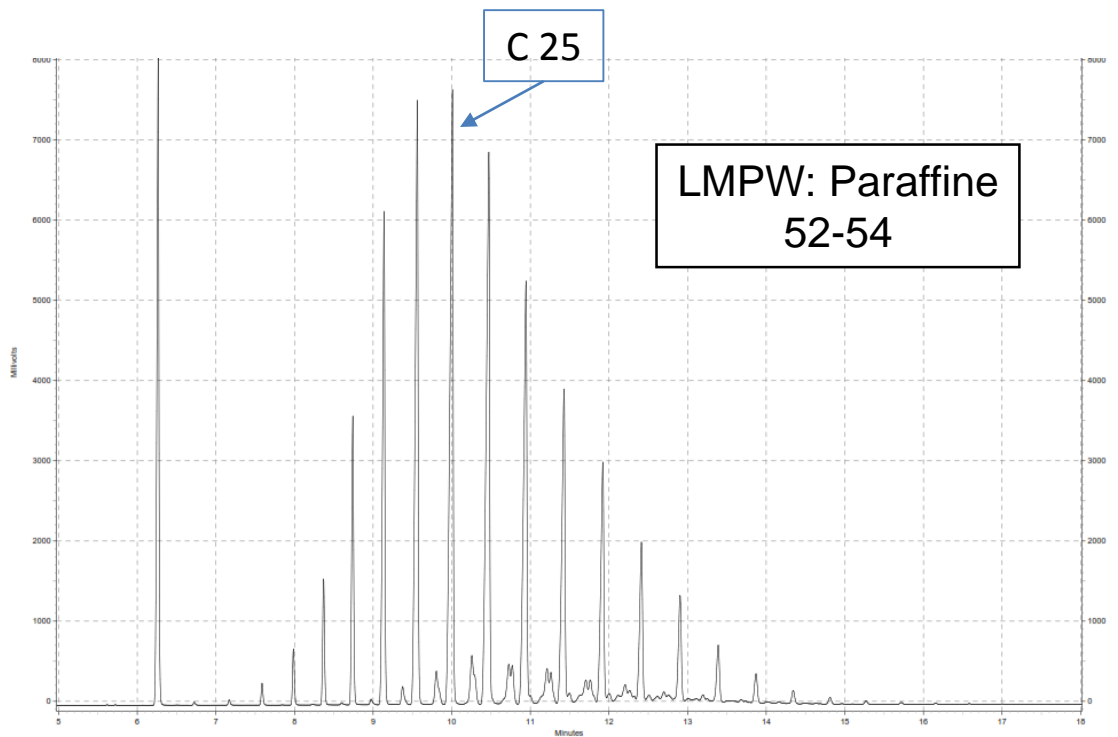
Fractionation and Chemical Processing (simplified)



Manufacturing Processes Specialty PS



Comparison wax and Oil Chromatograms



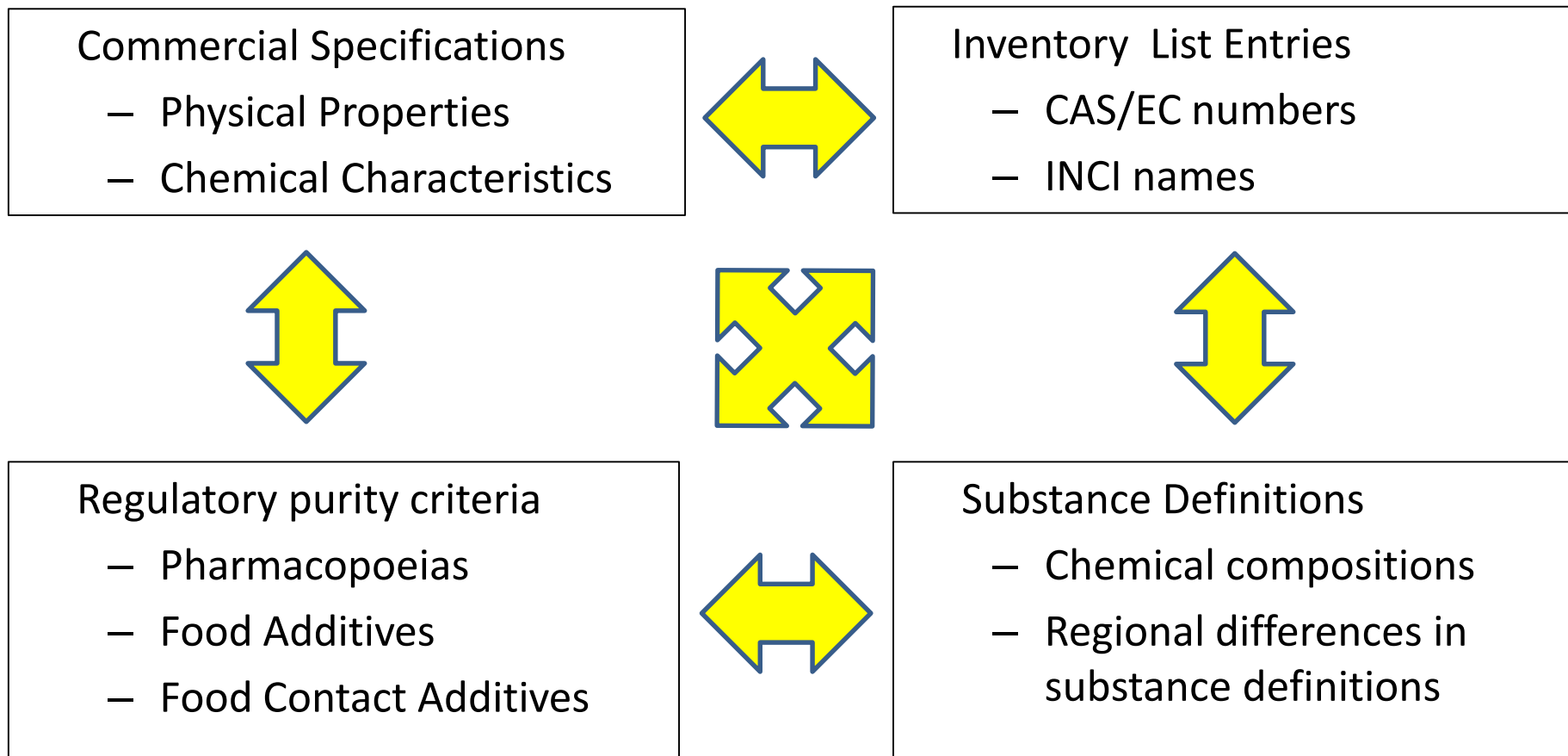
Functional Properties and Uses of MHC Waxes

Etymology: Paraffin (n.) coined c. 1830 by German chemist Karl von Reichenbach (1788-1869), irregularly from Latin parum "not very, too little," probably related to parvus "little, small" (see parvi-) + affinis "associated with" (see affinity).

- Important functional properties
 - Lubrication and release
 - Moisture barrier
 - Keeping moisture in – Cheese Wax, Fruit Coating
 - Keeping moisture out – Paper and Board Coating
 - Solid at room temperature, low viscosity when molten
 - Viscosity modification, hot melt adhesives
 - Very inert and non-allergenic materials
- Non-food related uses
 - Candles (Fuel)
 - Rubber (Anti-ozonant)
 - Cable filler (Moisture protection)



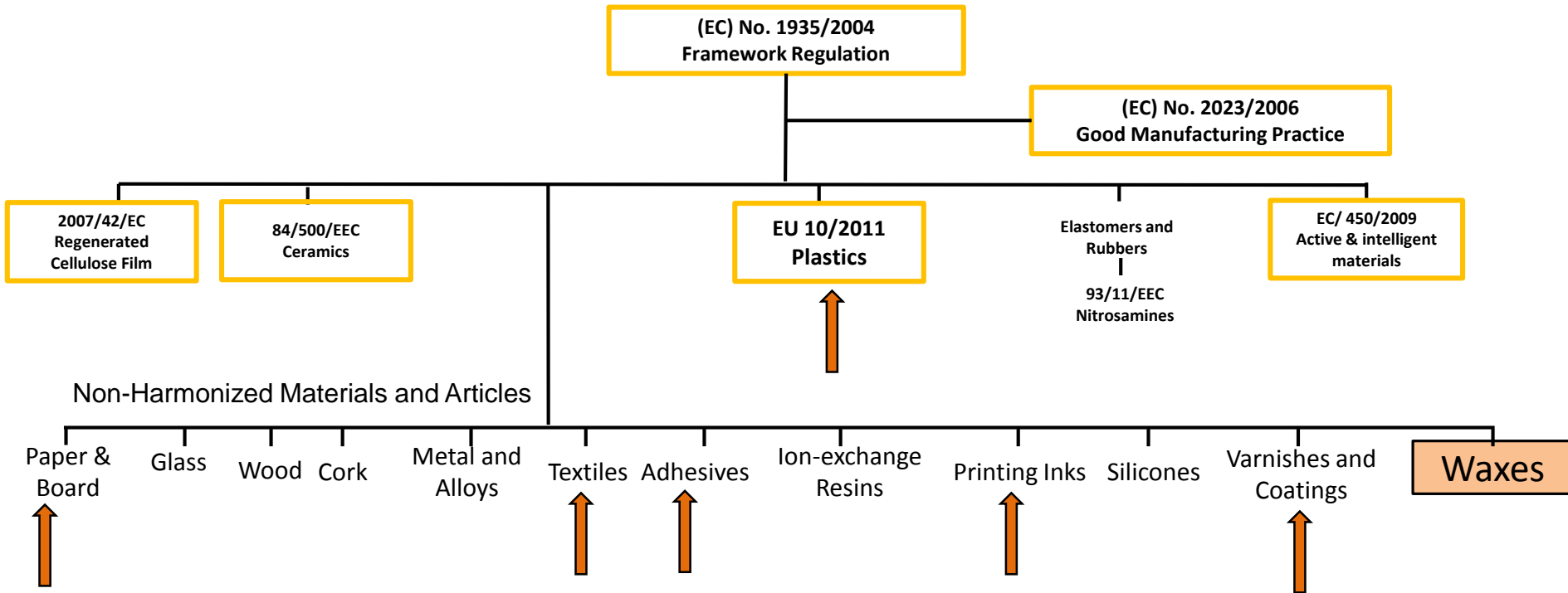
Multiple Framework Challenge



Need to comply with different, sometimes mutually incompatible requirements



EU Level Food Contact - Overview



Current Challenges

- Regulatory Framework
 - Uncertainty on harmonized EU Food Contact Material rules
 - Cross-Sector Group Food Contact Materials
- NGO Driven consumer concerns
 - MOSH/MOAH in food packaging and cosmetics
 - MOCRINIS 2 scheduled in October 2017

