



**Nestlé** Good food, Good life

# Safety and compliance of food contact materials, a brand owner prospective

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Joint EDQM-AESAN symposium on “Recent developments in food contact materials and articles”

Madrid, 18 Septemebr 2024

# Outline

- The requirements applicable to food Packaging
- How Nestlé assess the safety and compliance of novel materials
- The flow of information in the supply chain
- Considerations

# Our need: Fit-for-purpose food-grade packaging

## Delivering safe and nutritious food



**SAFETY & QUALITY**



**PRE-PORTION**



**AVOID FOOD WASTE**



**INFORMATION**

## Adapting to product and geography



**PRODUCT SENSITIVITY**



**CLIMATE**



**ROUTE-TO-MARKET**



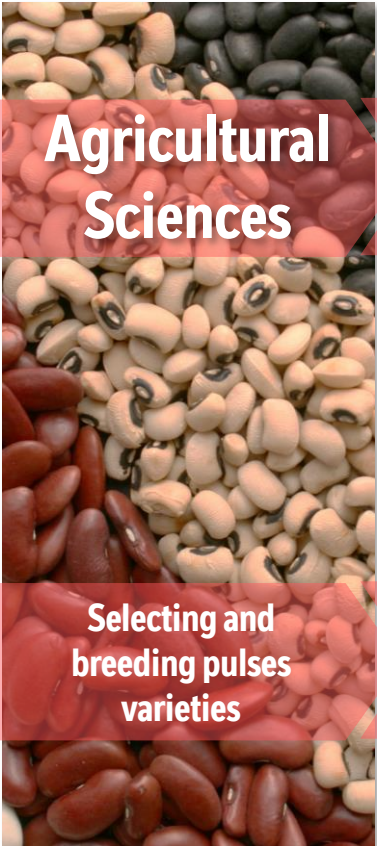
**LEGISLATION**

# Worldwide network



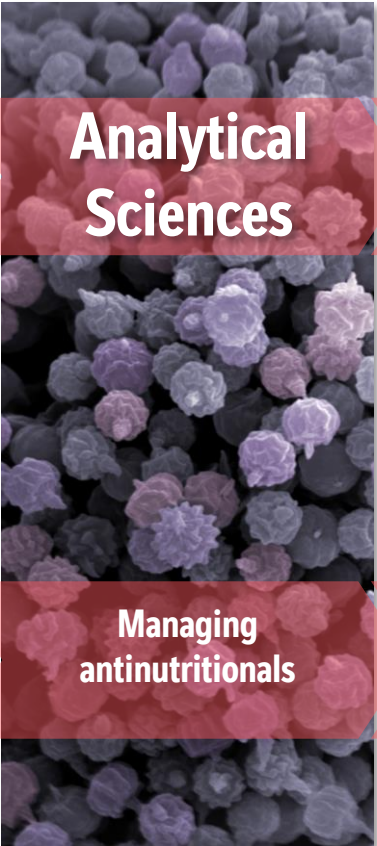
# Different expertise

is required for the development of innovations – e.g. plant-based meat, fish, egg and dairy alternatives



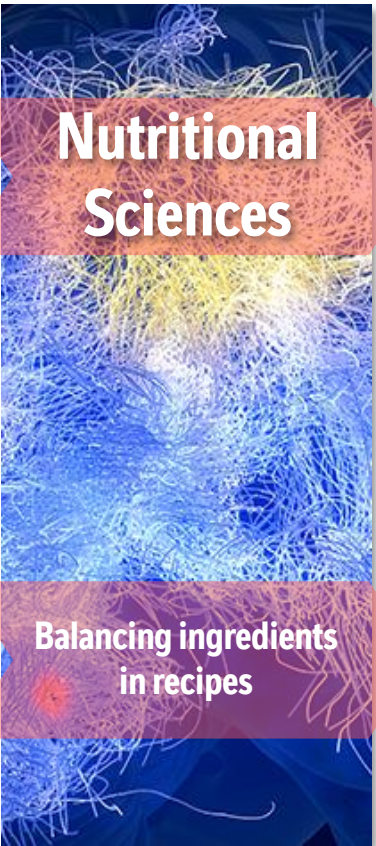
**Agricultural Sciences**

Selecting and breeding pulses varieties



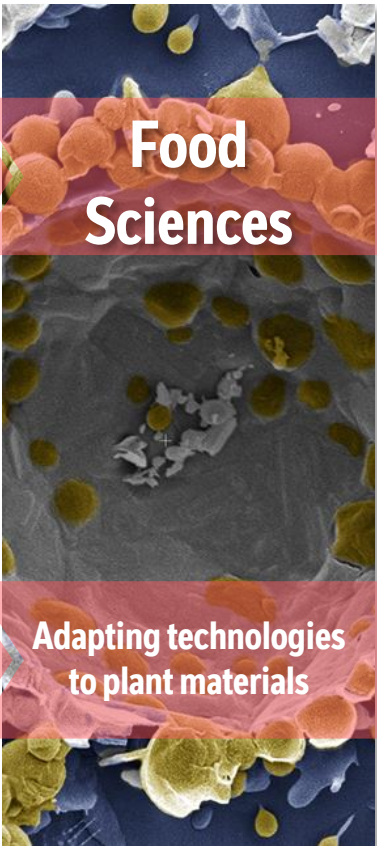
**Analytical Sciences**

Managing antinutritionals



**Nutritional Sciences**

Balancing ingredients in recipes



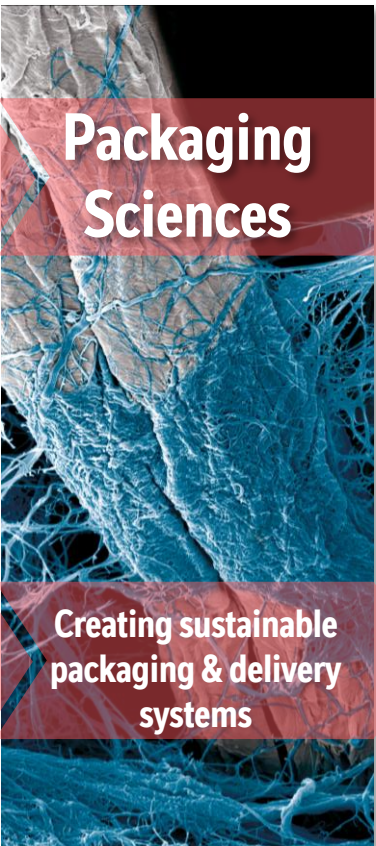
**Food Sciences**

Adapting technologies to plant materials



**Culinary Expertise**

Developing local recipes for retail and restaurants



**Packaging Sciences**

Creating sustainable packaging & delivery systems

# Nestlé's Vision & Commitments for Packaging



## Vision

“None of our packaging ends up in landfills or as litter”

September 23, 2024

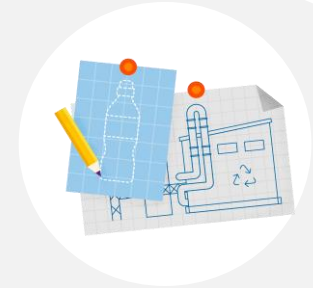


## Our commitments for 2025



### REDUCE

our use of virgin plastics by **1/3**



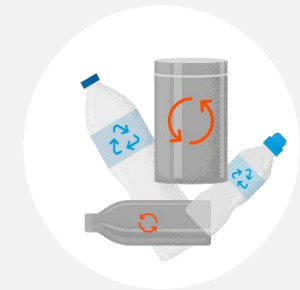
### DESIGN

over **95%** of plastic packaging for recycling systems\*



### INTEGRATE

**30%** recycled content into our packaging materials



### ENGAGE

in the development of collection, sorting & recycling systems wherever we operate

\*while working toward 100% recyclable or reusable



# Nestlé Institute of Packaging Sciences



Focus on fundamental, cross-category research to ensure reaching of our 2025 commitment.



50+ scientists conducting cutting edge research for development and assessment of safety and performance of novel materials.



Refillables, recyclable high-performance barrier papers, recycled content in plastics, and compostable materials are in scope of research.

# One packaging material & several requirements



- ✓ Positive list systems in Europe differ among Member States for many materials.
- ✓ Test requirements are fragmented and mainly referring to tests for plastic.
- ✓ The Mutual Recognition Principle is often of difficult applicability.
- ✓ National legislations are often not updated since years.
- ✓ The industry is under increasing pressure to evaluate the potential risks caused by NIAS\*.
- ✓ Risk assessment guidances for NIAS are available

\*Non Intentionally Added Substances



# Packaging safety/compliance for novel packaging materials


## GOVERNANCE OF PACKAGING SAFETY/COMPLIANCE FOR NOVEL PACKAGING MATERIALS, ISSUED SEPTEMBER 2020.

Many times this is really Identification 80.016

Replaces none

GUIDANCE ON SAFETY AND COMPLIANCE ASSESSMENTS OF NOVEL BASE MATERIALS AND NOVEL PACKAGING

Classification Document type: **Guideline**

 Confidentiality: [LevelOfConfidentiality]

**Nestlé Packaging Safety and Compliance Governance for Novel Food Contact Materials**

Packaging is an integral part of "quality and compliance" by design, protecting the integrity, quality, freshness and safety of foods across the supply chain up to consumption. Hence, manufacturing safe and compliant packaging materials that are used in direct contact with food is of crucial importance and is today firmly embedded in Nestlé's overall Quality & Safety roadmap.

Following on from the recent Nestlé commitments on Sustainable Packaging, the introduction of novel packaging materials requires significant acceleration. Novel packaging materials will also require particular attention in terms of potential migration of chemicals from the packaging into food products. In the context of regulations, the roles and responsibilities of market Regulatory and Scientific Affairs and market affiliates, as previously described, remains unchanged.

The roles and responsibilities for the Packaging Safety and Compliance process for novel food contact materials between Corporate Quality and Corporate Regulatory and Scientific Affairs, the Nestlé Institute of Packaging Sciences and Nestlé Product Technology Centres are as follows (see Appendix 1):

- **Assessment of Novel Base Materials**  
The Nestlé Institute of Packaging Sciences leads the safety and compliance assessment of any novel base material, i.e. those materials that are not yet used in the Nestlé packaging portfolio, nor having an established assessment protocol (e.g. recycled polyolefins, biodegradable materials, coated barrier papers, etc).
- **Assessment of Novel Packaging Materials**  
The final validation of any novel packaging material in combination with the specific product application is the responsibility of the Nestlé Product Technology Centres for their specific category, while the Nestlé Institute of Packaging Sciences is providing scientific support.
- **Verification and Surveillance of Novel Packaging Materials**  
Corporate Quality owns the Global Standards, Guidelines and Processes for packaging safety. The technical Managers in the markets have the responsibility for the final approval of packaging materials, according to food safety and local regulatory requirements. Together with Corporate Quality, the market will define the frequency and requirements for periodical material re-evaluation.

## ASSESSMENT OF NOVEL MATERIALS – ASSESSMENT OF SAFETY/COMPLIANCE/PERCEPTION RISKS

Step 0: Check material is novel



Step 1: Pre-assessment compliance



Step 2: Compositional analysis and regulatory assessment



Step 3: Validation of novel packaging solutions



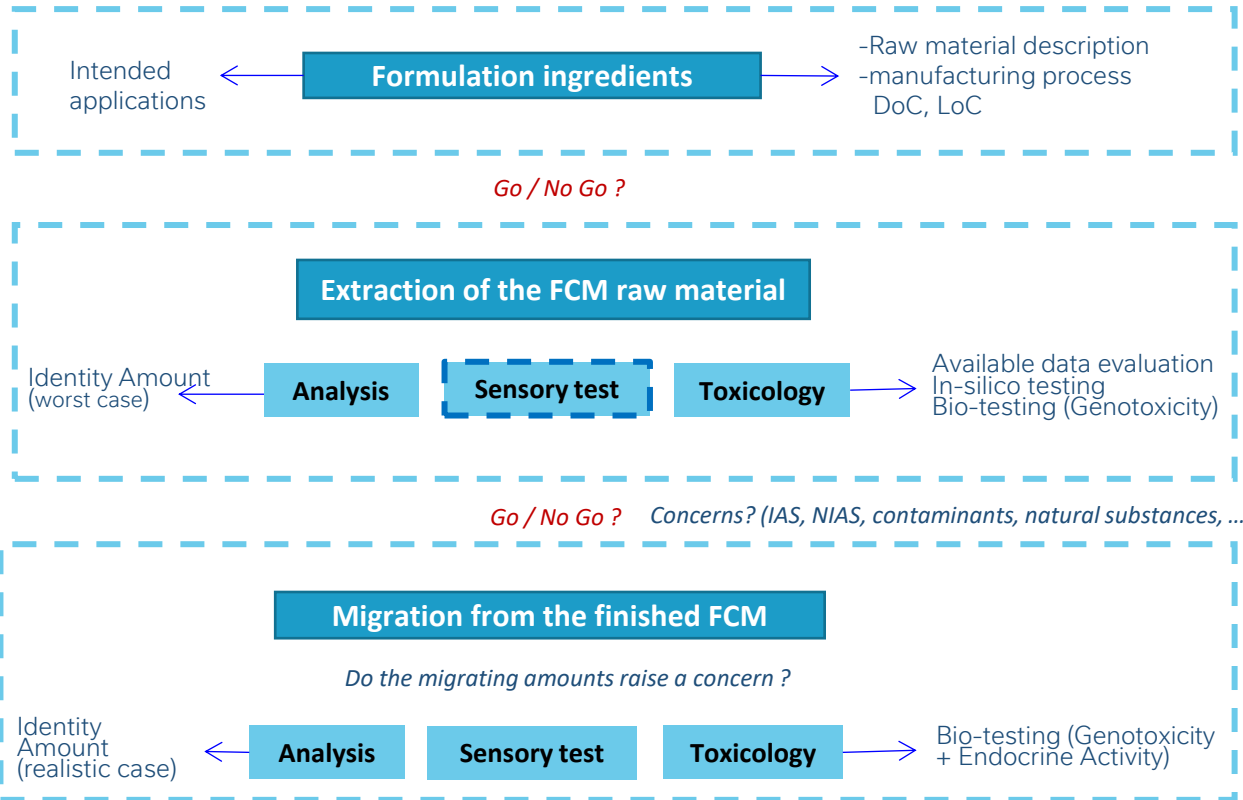
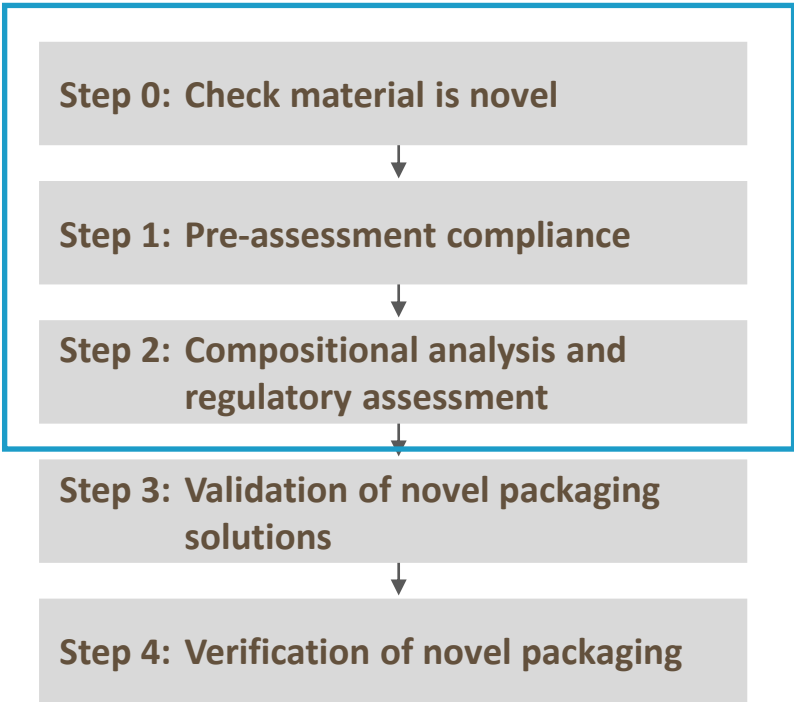
Step 4: Verification of novel packaging

Nestlé Institute of Packaging Sciences & Procurement

Nestlé Product Technology Centers

Markets

# Novel Packaging Materials – safety/compliance assessment



**SUPPLIER'S INFORMATION**

**COMPOSITIONAL ANALYSIS**

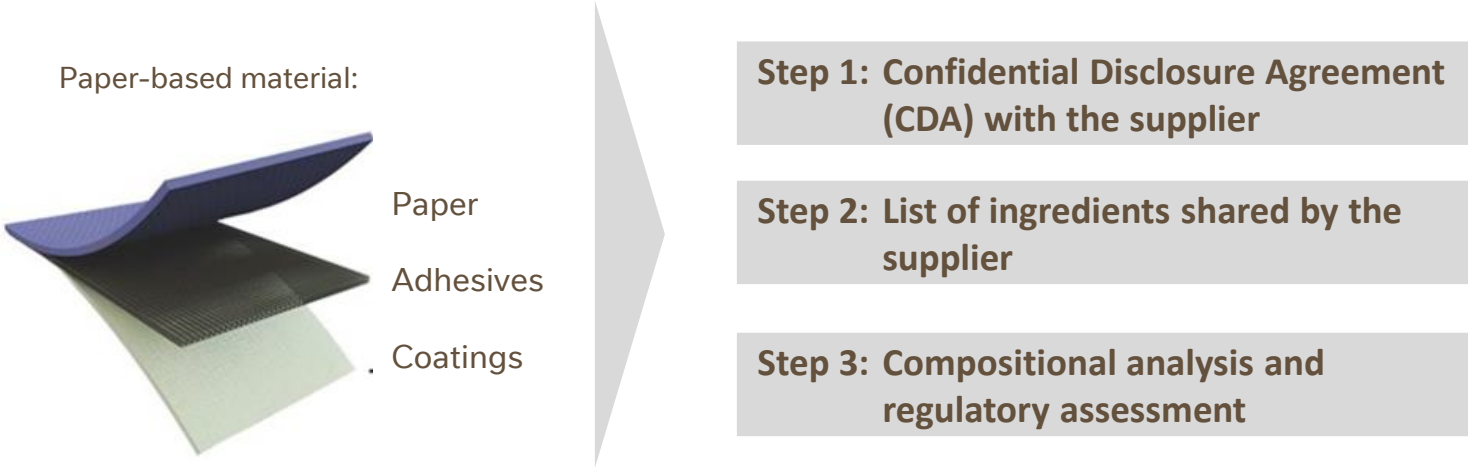
**MIGRATION ANALYSIS**

**Risk Assessment**

*Go / No Go ?*

# Novel base packaging materials and suppliers information

Novel base packaging materials: history of safety/compliance assessment not established (e.g.paper)



**\*LIST OF INGREDIENTS:** CHEMICAL IDENTITY, CAS RN, FUNCTION

# Key problem of list of ingredients translation to DoC

**List of Ingredients**

- Mixture A® ✓
- Substance A ✓
- Substance B ✓
- Substance C ✓
- Substance D ✓
- Etc.

**SUPPLIER  
TRANSLATION**

**Declaration of Compliance**

The product complies with:  
France, Italy, Germany legislations

.....

**The product contains:**

- Substance A
- Substance B
- Substance C
- Substance D

.....

**List of Ingredients**

- Mixture A® ✗
- Substance A ✗
- Substance B ✓
- Substance C ✓
- Substance D ✓
- Etc.

**NESTLÉ  
TRANSLATION**

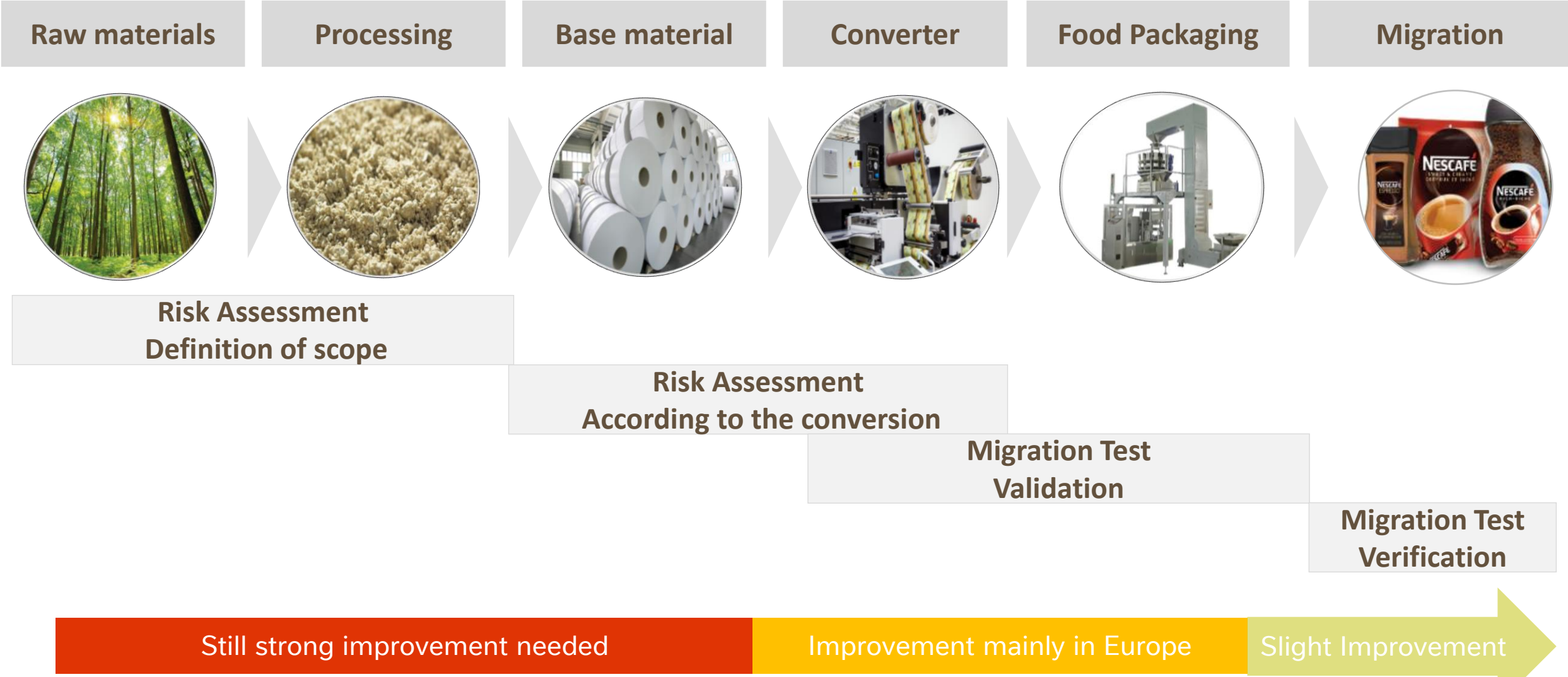
*Not Compliant*

*Case 1*  
**Commercial mixture non-food grade**

*Case 2*  
**Substance of Very High Concern**

*Case 3*  
**Substances not allowed for the application**

# Situation with supply chain: improvement in communication



Communication flow

# Some considerations



Sustainable development has been defined in 1987 by the Brundtland Commission:

*as the development that meets the needs of the present without compromising the ability of future generations*

- Safety and compliance assessment of innovative FCM\*s play a key role but it is not an easy task
- Harmonization of requirements in Europe for FCMs is welcomed
- Sharing of information in the supply chain is still a key element to validate the safety for the end stream user

\*Food Contact Materials