



L'ORÉAL

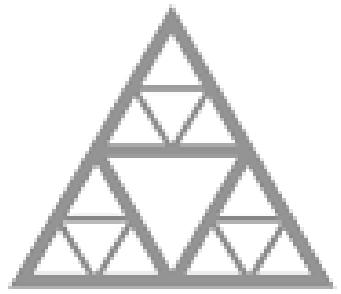
FINAL PRESENTATION

Data remediation for the supply chain

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Our Project Team

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L'ORÉAL

01

Context and issues

02

**Understanding and analyzing
the data**

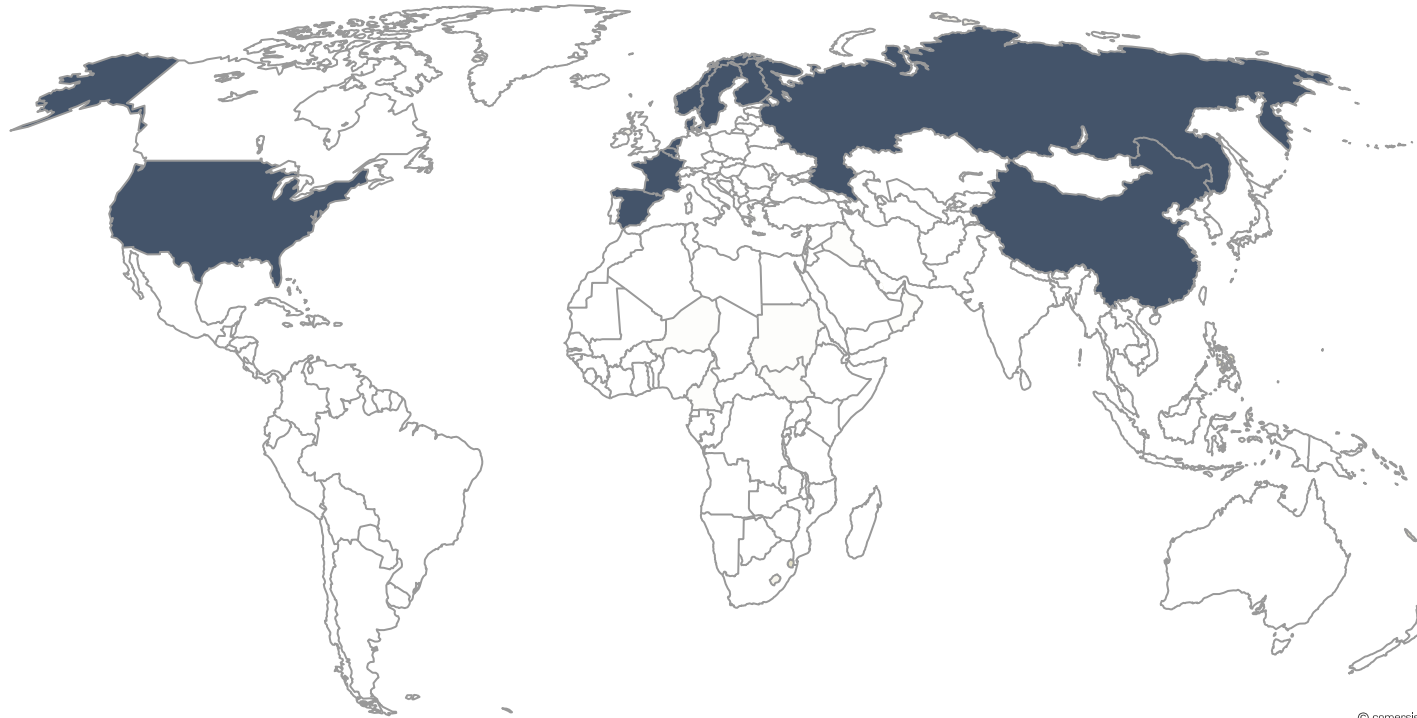
03

Harmonization suggestions

04

Data governance suggestions

L'Oréal operates worldwide and different SAP systems are used for each country



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For our project we will focus on :

- France
- Russia
- Spain
- US
- China
- Northern Europe

L'Oréal's project is a global revision of the SAP systems to regroup everything under the same system

Our project is part of this global project and aims to harmonize data between different SAP

It consists of 2 steps :



1. Distribution Channel Harmonization



2. Language Management Harmonization

Stakes



Supporting L'Oréal's digital transition



Harmonize the data on an international scale



Understand and analyze raw data



Handle a large volume of data (using PowerBI)

We have a 4-step methodology for data harmonization

Step 1

Understand the data provided and add additional tables if necessary

Step 3

Identification of current problems (duplication, lack of data)



Research & Analysis

Data Remediation

Step 2

Data analysis

Step 4

Proposed solutions to address the problems identified

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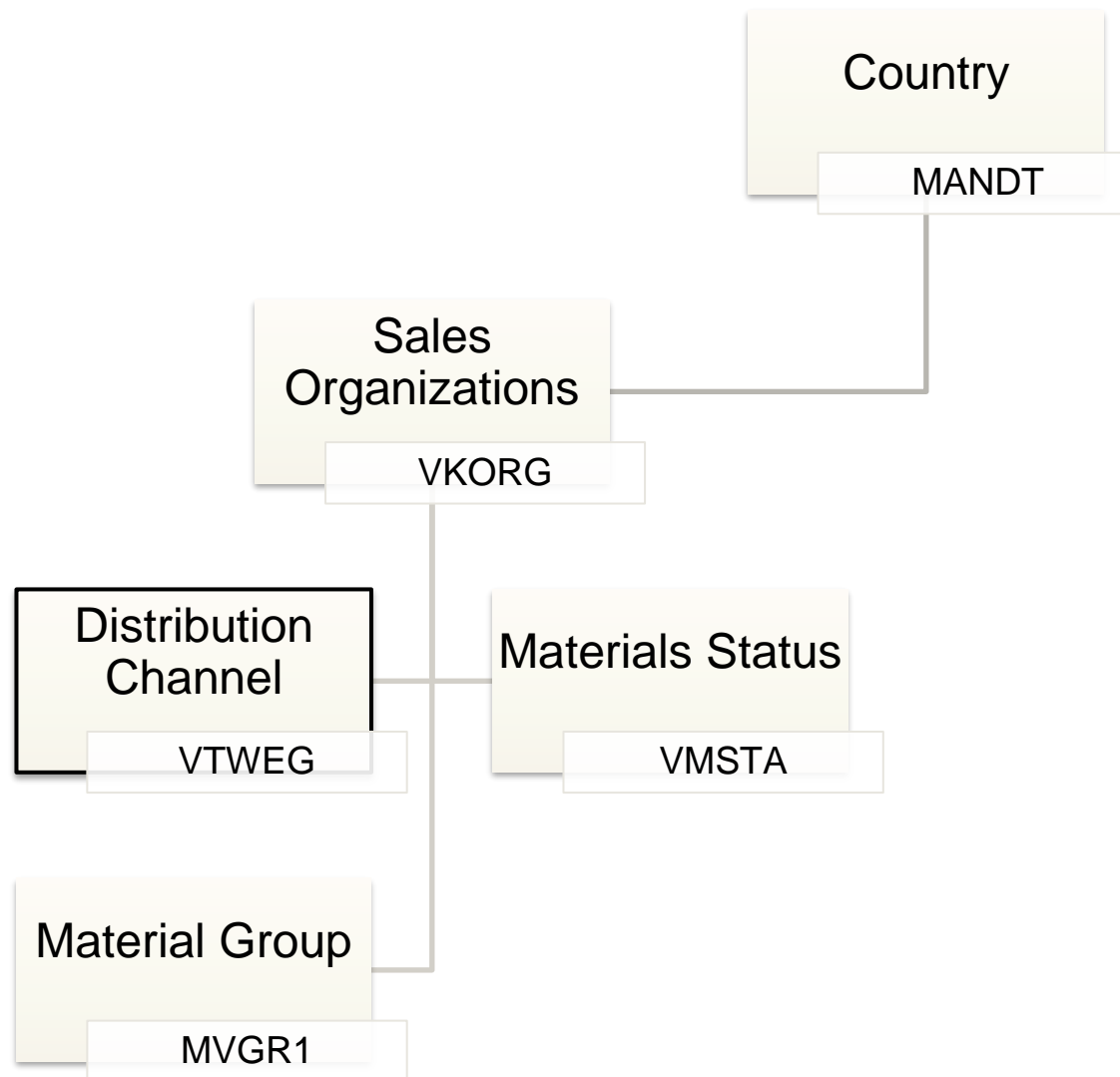
03

Harmonization suggestions

04

Data governance suggestions

We focus on the most important part of the hierarchical structure concerning the distribution channel



Country:
France, Spain, etc.

Sales Organizations:

[REDACTED]
[REDACTED].

Distribution Channel:

[REDACTED], etc.

Materials status:

[REDACTED] etc.

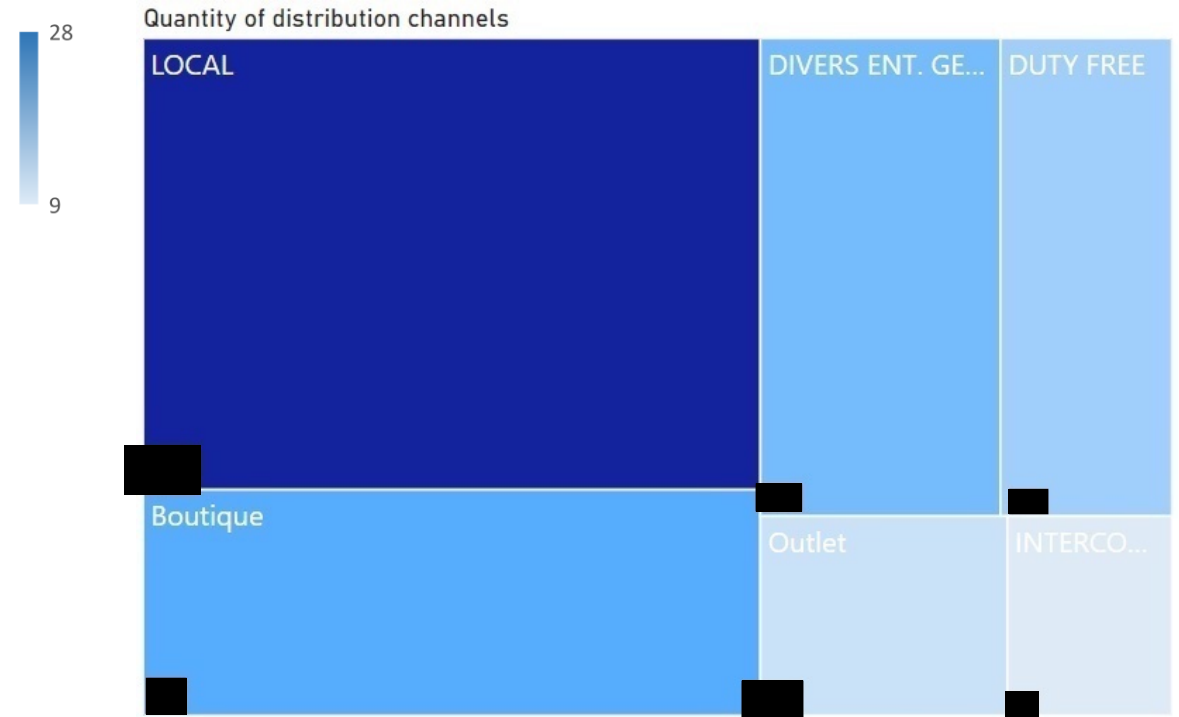
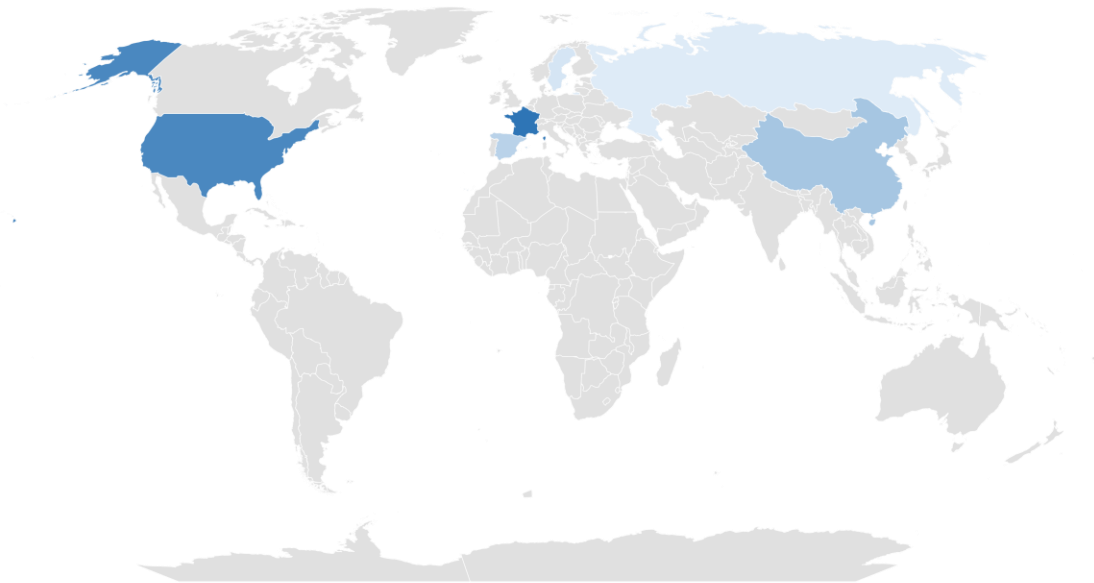
Material Group:

[REDACTED], etc.

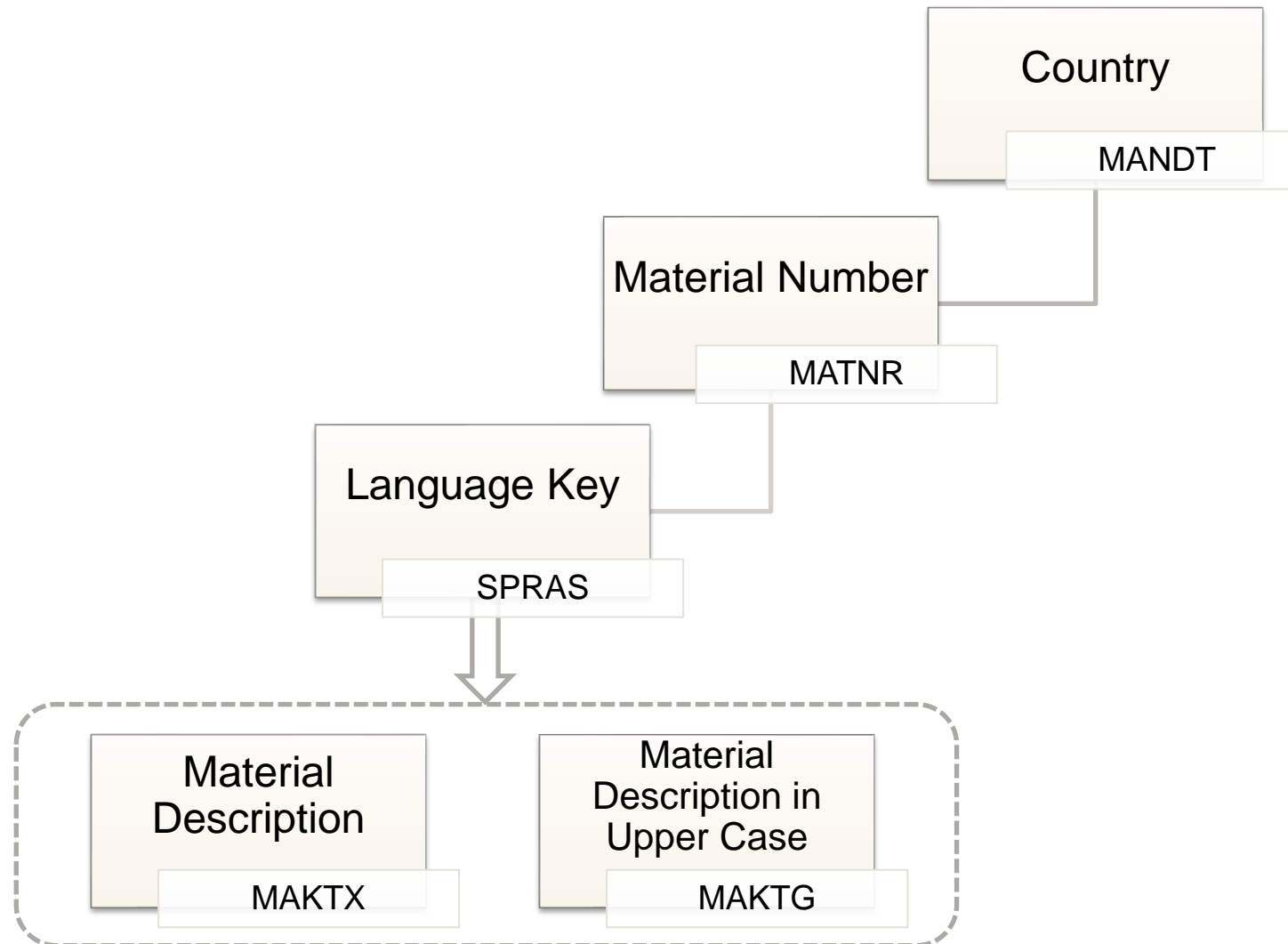
We focus on the most important part of the hierarchical structure concerning the distribution channel

Quantity of Sales organization (VKORG) per Country (MANDT)

For MANDT 48 (France) and Sales Organisation 420 :



We focus on the most important part of the hierarchical structure concerning the language management



Country:
France, Spain, etc.

Material Number:
Code for different products.

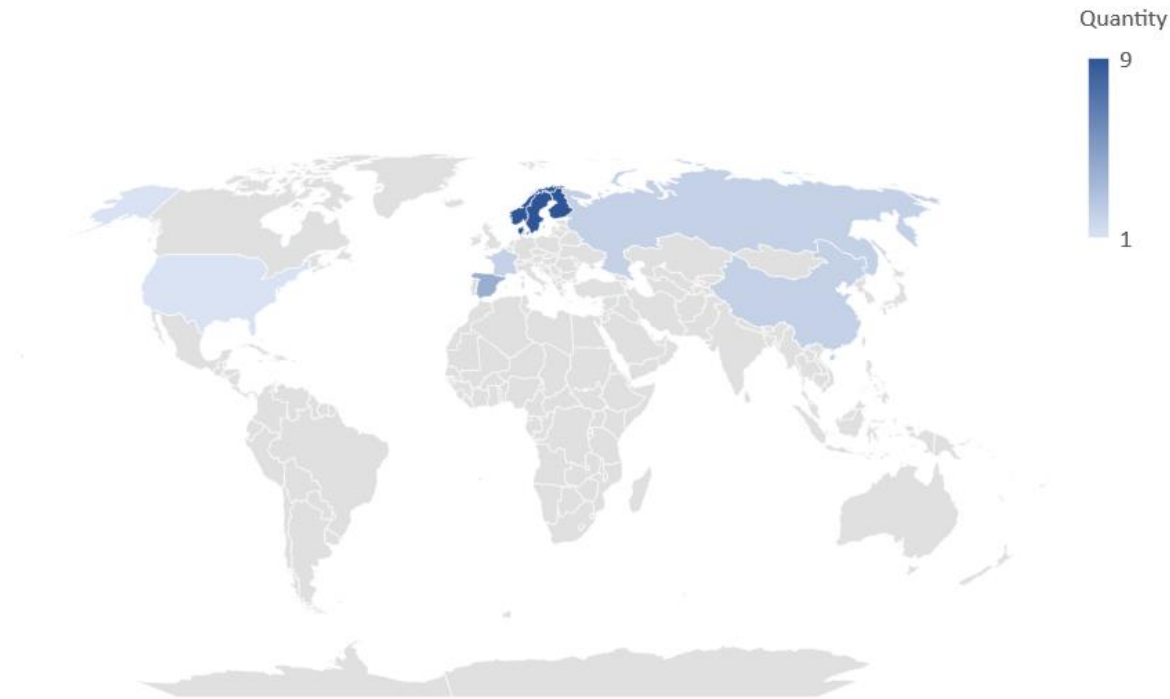
Language Key:
F: French, S: Spanish, etc.

Material Description:
[REDACTED], etc.

Material Description in Upper Case:
[REDACTED], etc.

We focus on the most important part of the hierarchical structure concerning the language management

Quantity of Language Used (SPRAS) per Country (MANDT)



For MANDT 70 (Northern Europe) and Language Used E (English) :

Quantity of Material Numbers by the same descriptions



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Recommendations on Distribution Channel duplicates and harmonization issues

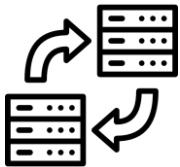
We identified 2 types of issues :



Distribution Channel Duplicates

Example : for the same country, the same code leads to the same definition

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT



Harmonization issues

Example : for different countries, the same code leads to the same definition

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

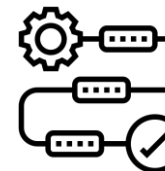
What we delivered :



A complete analysis of duplication and harmonization issues across distribution channels



The exhaustive list of issues and changes calculated on tables on PowerBI



A step-by-step methodology to resolve duplication and harmonization issues

Benefits of data cleaning of distribution channel

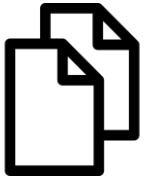
Duplicate suppression and harmonization

In our sample (██████products) :

- ██████ of products are affected by harmonization issues (██████)
- ██████ of products are affected by duplications of distribution channel (██████)

Recommendations on Material Number duplicates and language issues

We identified 2 types of issues :



Material Number Duplicates

Example : for the same country, different codes lead to the same product

MANDT	MATNR	SPRAS	MAKTX	MAKTG



Language issues

Example : The language key does not match the language of the description

MANDT	MATNR	SPRAS	MAKTX	MAKTG

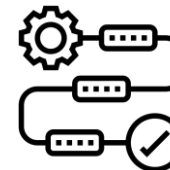
What we delivered :



A complete analysis of duplication and language issues across material number



The exhaustive list of issues and changes calculated on tables on PowerBI



A step-by-step methodology to resolve duplication and language issues

Benefits of data cleaning of material number

Duplicate suppression and language management

In our sample ([REDACTED] material number) :

- [REDACTED] of material number have a description that raises a conflict
([REDACTED])
- [REDACTED] of description have a material number which raises a conflict
([REDACTED])

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Data governance suggestions

The interest of our harmonization is the creation and exploitation of international KPI



Data Incompatibility

22 SAP systems where data is not harmonized between systems and within each system



Harmonization work

Our work consists in cleaning the data in each system and between the systems to make them compatible



Creation of new international KPI

Creation of international KPIs allowing the analysis of supply chain performance on a global scale

Our work is useful but how can we protect it ?

The harmonization and cleaning allowed us to have usable data, however the root cause of this problem is the poor management of data internally at L'Oréal.



Improve the process of inserting new data

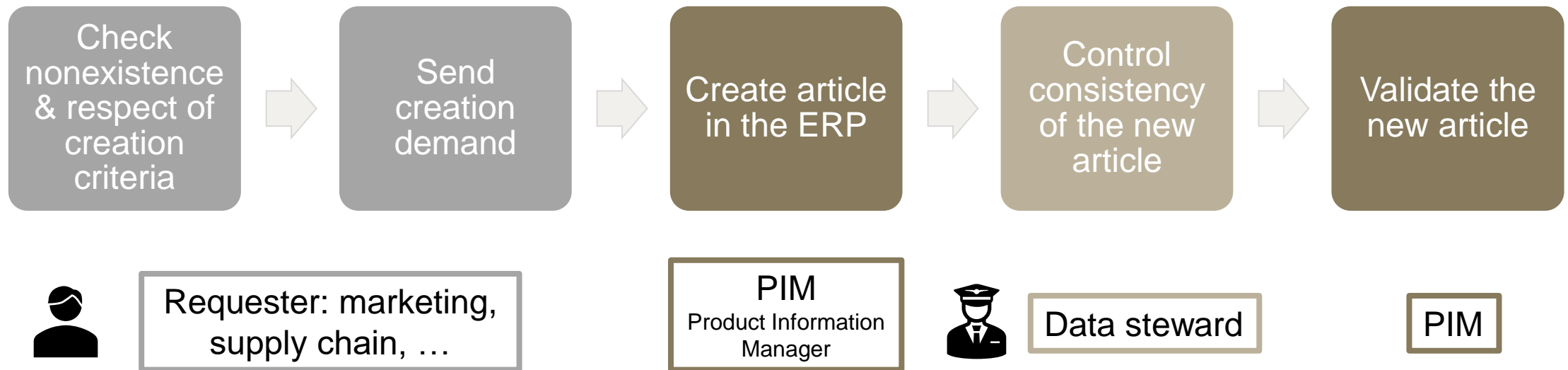
- Remove the possibility to enter data with free fields
- Encourage the use of constrained entries with drop-down lists
- Associate a description to each code
- Implement an advanced search to find a code



Implementing data governance

- Definition of an article entry process (requester, business referent, data steward)
- Suggestion of broadening data stewards' implication: having a transverse role to manage the data

Suggestion for an evolution of the article entry process in the ERP



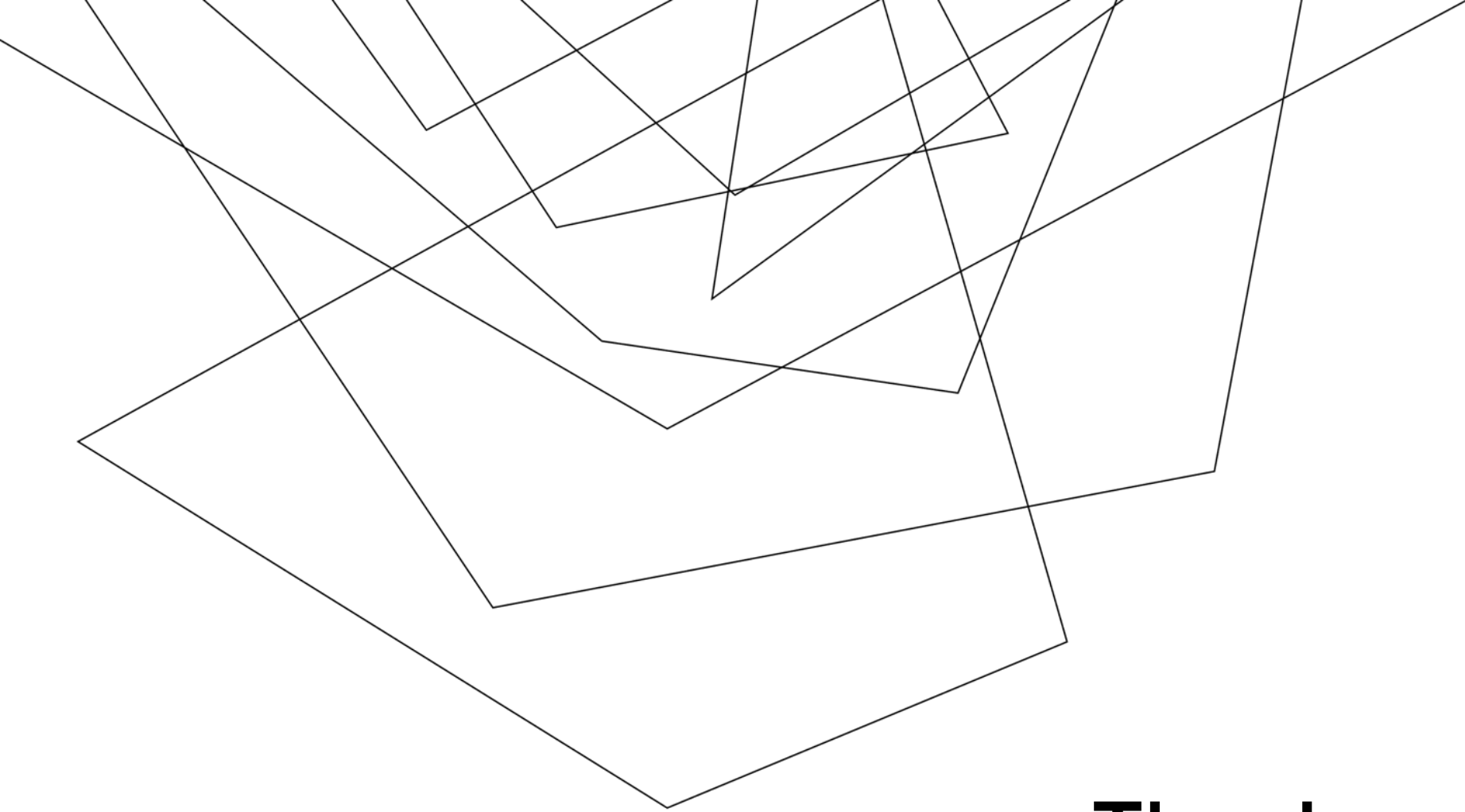
- Involve data stewards for consistency checks
- Implement weekly checks for more efficiency

Upcoming challenges and outcomes

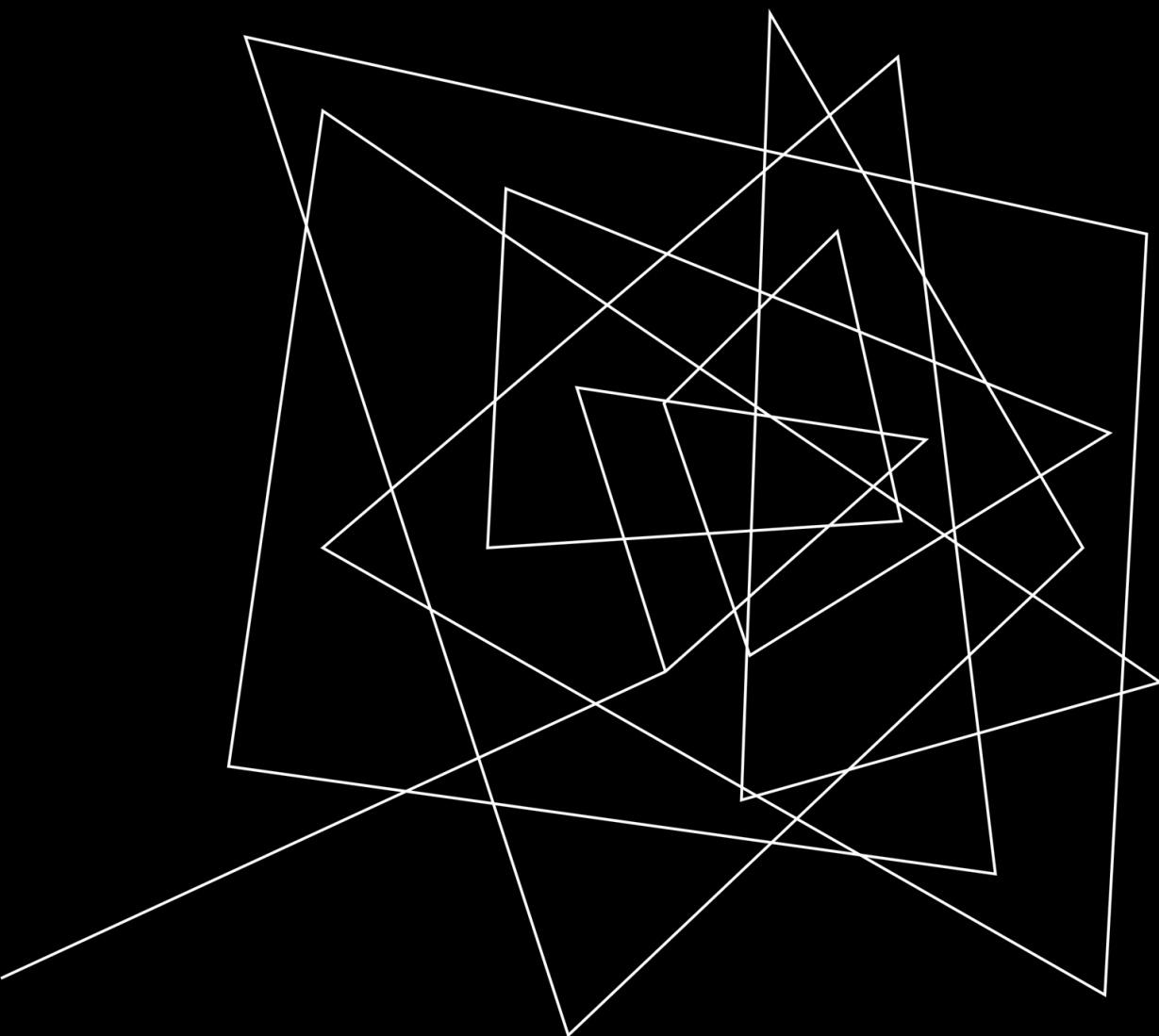


- Taking into account L'Oréal's supply chain **specificities**
 - How to include different product categories (professional, luxury) which have custom processes and statuses ?
- **Large-scale** implementation can raise difficulties
 - Different processing times in each country
 - Effort to convey information and create the right teams
- A necessary **adjusting time**
 - Time-consuming process
 - Frustration with the necessity to adjust to a new system

- A major leap in L'Oréal's digital transformation
- Losing a little efficiency to gain more later
- Improving data quality on a global level
- Enabling the establishment of key performance indicators



**Thank you for your
attention**



Annexes

Distribution Channel Duplications

We have identified 2 types of issues :

1. **Duplicates**
2. Harmonization issues

VTWEG Duplicate

- Different VTWEG codes within a same country lead to the same VTEXT description

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

- Exception possible if the description is more of a status for the product

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

VTEXT Duplicate

- Different VTEXT description within a same country lead to the same VTWEG code

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

- Exception for language duplicates which can be kept

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

For language duplicates we suggest to add a SPRAS (Language Key) column to remove doubts

Distribution Channel Duplicate

How to choose which code/description to keep?

VTWEG Duplicate

1. Look at the use of the code for the other MANDTs and choose the code that is in line with the harmonization

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT
[Redacted]		
[Redacted]		

2. If this is not possible, count the number of occurrences and keep the code with the most occurrences to minimize the number of changes

VTEXT Duplicate

1. Look at the use of the code for the other MANDTs and choose the code that is in line with the harmonization

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT
[Redacted]		
[Redacted]		

2. If this is not possible, count the number of occurrences and keep the description with the most occurrences to minimize the number of changes

Distribution Channel Harmonization issues

Now that we have solved the priority problem of duplicates,
let's focus on the harmonization issues

VTWEG

- Different VTWEG codes lead to the same VTEXT description for different MANDT
- Solution : Look at the use of the code for the other MANDTs and choose the code that is in line with the harmonization

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

- If this is not possible, count the number of occurrences and keep the code with the most occurrences to minimize the number of changes

VTEXT

- Different VTEXT descriptions lead to the same VTWEG code for different MANDT
- Solution : Look at the use of the code for the other MANDTs and choose the code that is in line with the harmonization

VTWEG - Distribution Channel	VTEXT - Distribution Channel Description	MANDT

- In this case we can keep the “ ” description for the VTWEG code
- If this is not possible, count the number of occurrences and keep the description with the most occurrences to minimize the number of changes

Material group and status harmonization

Material group and status descriptions

- Not harmonized at a worldwide scale
MANDT use the same material group or status number to designate different products
- Duplicates are more numerous than in the case of the distribution channels

MANDT Client	SPRAS Language Key	VMSTB Description	VMSTA Distribution-chain-specific material status

MANDT Mandate	SPRAS Language Key	BEZEI Description	MVGR1 Material Group

Same methodology as the distribution channel to deal with duplicates and harmonization issues

MATNR Duplicate

- | | | | | |
|-------|-------|-------|-------|-------|
| MANDT | MATNR | SPRAS | MAKTX | MAKTG |
| | | | | |

- ## MATNR Harmonization issues

- MANDT MATNR SPRAS MAKTX MAKTG

- | | | | | | | | | | | |
|-------|---|-------|---|-------|---|-------|---|-------|---|---|
| MANDT | ▼ | MATNR | ▼ | SPRAS | ▼ | MAKTX | ▼ | MAKTG | ▼ | ↕ |
|-------|---|-------|---|-------|---|-------|---|-------|---|---|

Material number language issues

Wrong SPRAS

- On numerous material number, the SPRAS key language doesn't match to the MAKTG description

MANDT	MATNR	SPRAS	MAKTX	MAKTG

- Here, the SPRAS indicates Spanish while the MAKTG description is in English
- Solution : Try changing the language with an automatic language detector. Otherwise, change each code by hand

MAKTG duplicates

- For the same MATNR code and a different SPRAS key language, the MAKTG descriptions should be a translation while in some cases the descriptions have nothing to do with each other

MANDT	MATNR	SPRAS	MAKTX	MAKTG

- Solution : count the number of occurrences and keep the code for the MAKTG description with the most occurrences to minimize the number of changes
-
- For the same MATNR code and a different SPRAS key language, the MAKTG descriptions should be a translation while in some cases the descriptions are the same

MANDT	MATNR	SPRAS	MAKTX	MAKTG

- Solution : change the SPRAS with the right key language or translate the MAKTG description