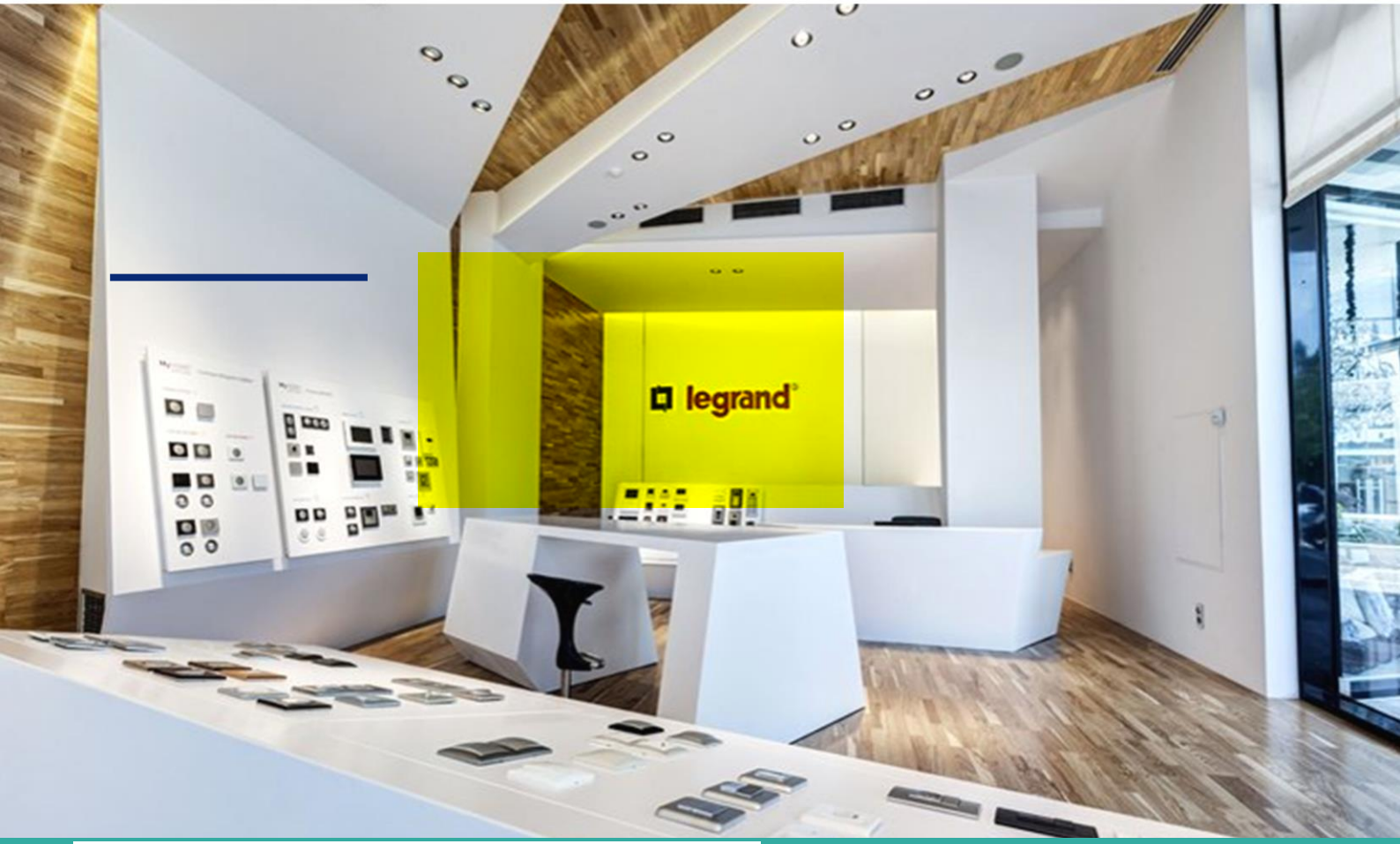


DEMAND PLANNING PROCESS

INPUTS FOR RFI

APRIL 2022

VISION Project

legrand

Privileged & Confidential document

1 OBJECTIVE OF THE DOCUMENT

The objective of this document is to provide you info around VISION project. This project aims at reviewing existing process, organization and tool for sales forecasting process.

So we advice you to read this document prior to completing excel RFI.

2 CONTENTS

3 PROJECT STAKES

Study, build and deployment of a new forecast process has been launched end of 2021, called VISION project.

Vision project – Customer service focus

1 - Why « VISION »?

- Improve **customer service & satisfaction**
- Increase **business focus** in end-to-end supply chain
- **Reactivity / flexibility** to answer customer needs
- **Service level improvement** / all channels
- Current SC context: market shares at stake !

BEST OF US
Giving our best to improve the customer experience

3 - Process & organization

- Improve **business** inputs / data
- Improve **forecasting accuracy**
- Review / make process more **robust**
- Timing: decrease process **response time**
- **Expertise** & organization: improve tools mastering
- Redefine key « must have »

2- Proposed study

- **Listen**
- **Understand**
- **Rethink**
- **Opportunities?**
- **« Intelligence »?**

→ Support from **CGI consulting firm**

→ Process of interviews and workshops to define forecasting stakes & targets

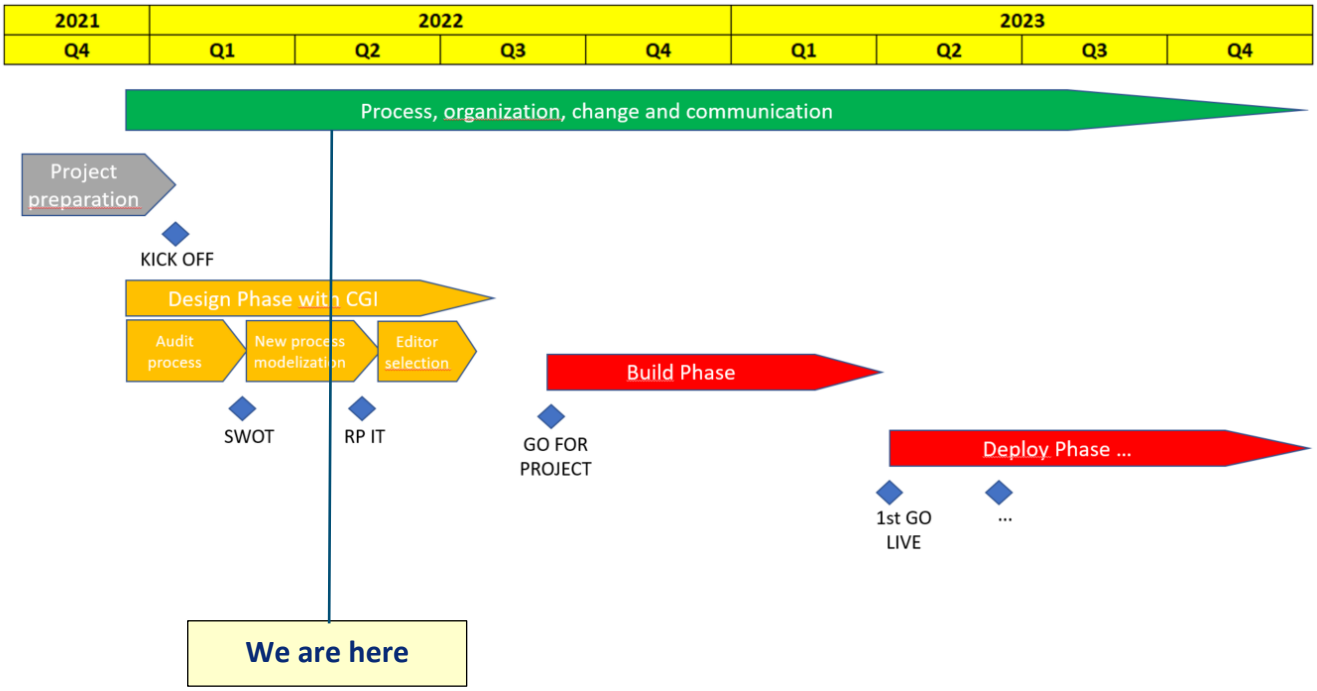
→ Tools definition

4 - Scope & tools

- **Local business vs Global offer & global SC**
- 1 common tool for local needs and SC demand consolidation
- Flows & projects, multichannel…
- Interfaces (customers data, salesforce, market data, etc?)
- Digitization

4 Project planning

4.1 Global planning with roll out



Deploy phase will be **progressive**. (No Big Bang to secure business criticity of forecasts).

Duration of the global deployment phase:

- Deployment schedule still have to be defined within the next 3 years.
- Deployment will also consider new perimeters.

4.2 RFI planning

Response timing from RFI to editor selection

	Date
Sending of the RFI	End of April 2022
Deadline for the RFI answer	**May 11th 2022**
shortlist done by Legrand	End of May 2022
work with short-listed editors	From June until end of July 2022
editor selection	End of July 2022

Important :
. If you can not ***answer before May 11th***
Or
. If you have ***no resource to begin a project before end of 2022***

to save your time and our time, do not respond to our RFI

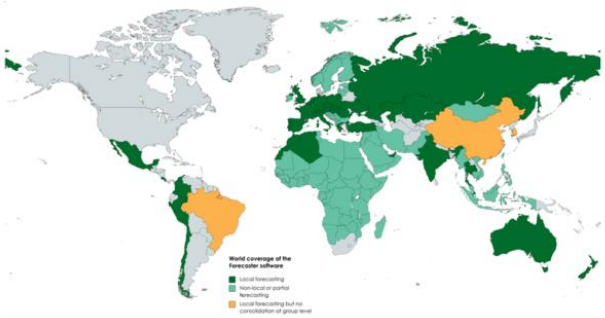
TOP 3 is short-listed for further consultation

5 Scope

5.1 Geographical scope

From existing use …

… To a GLOBAL deployment on ALL Legrand countries



Current perimeter:

- 3 zones
- 33 countries
- 55 key users

Zone	Country	Database	Group Turnover %	Forecast coverage %
APMEASA	13	14	20%	35%
Europe	18	20	40%	90%
LNCA	2	2	40%	2%
Total	33	36	100%	45%

Targeted: Global scope
Standardized process and tool

VISION: End-to-end supply chain project

Demand	Operations	Purchasing
All zones Customers Market Trends Projects Etc.	S&OP Production planning Capacity Resources (headcount) Increased complexity Etc.	Suppliers RM & components securing Supply longer lead times

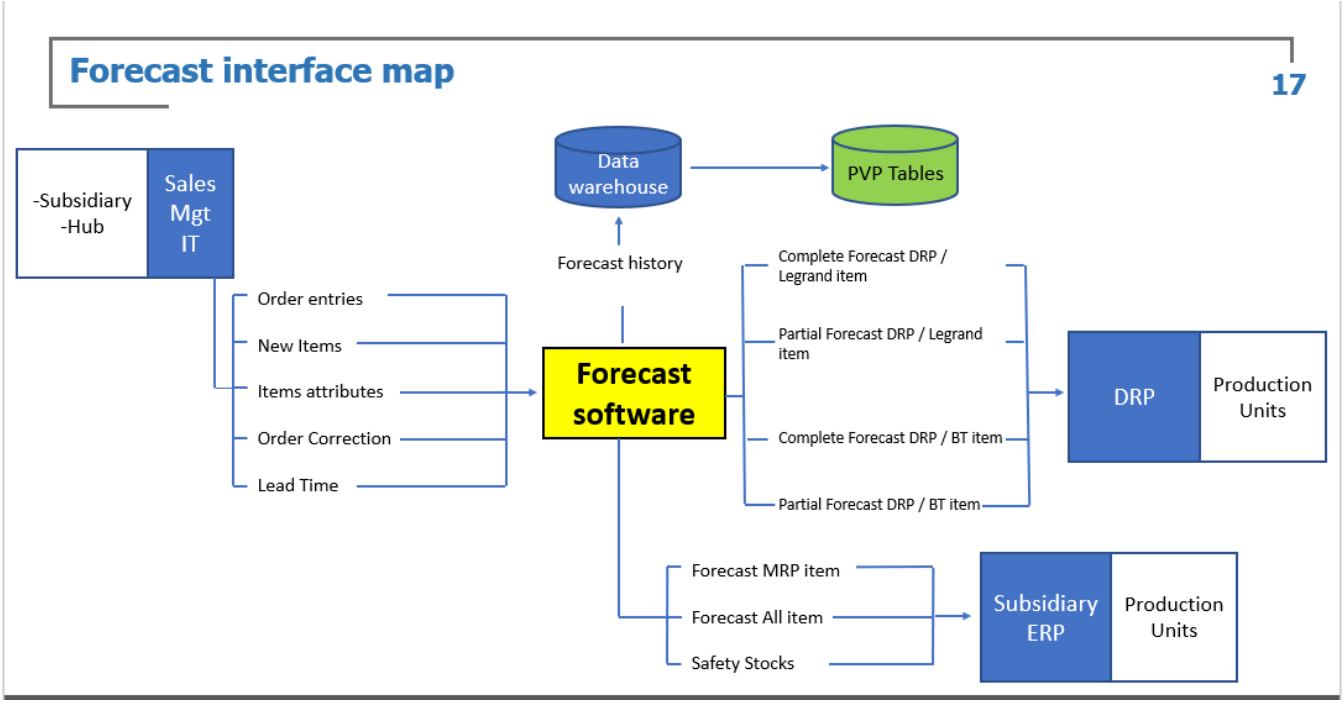
Legrand operates on a global market, with facilities in nearly 90 countries and products sold in nearly 180.

https://www.legrandgroup.com/en/world-presence

5.2 Current interface map

This schema represents the interfaces for one database of the forecast tools. As there are 33 databases for the 33 countries, all the listed interfaces are duplicated.

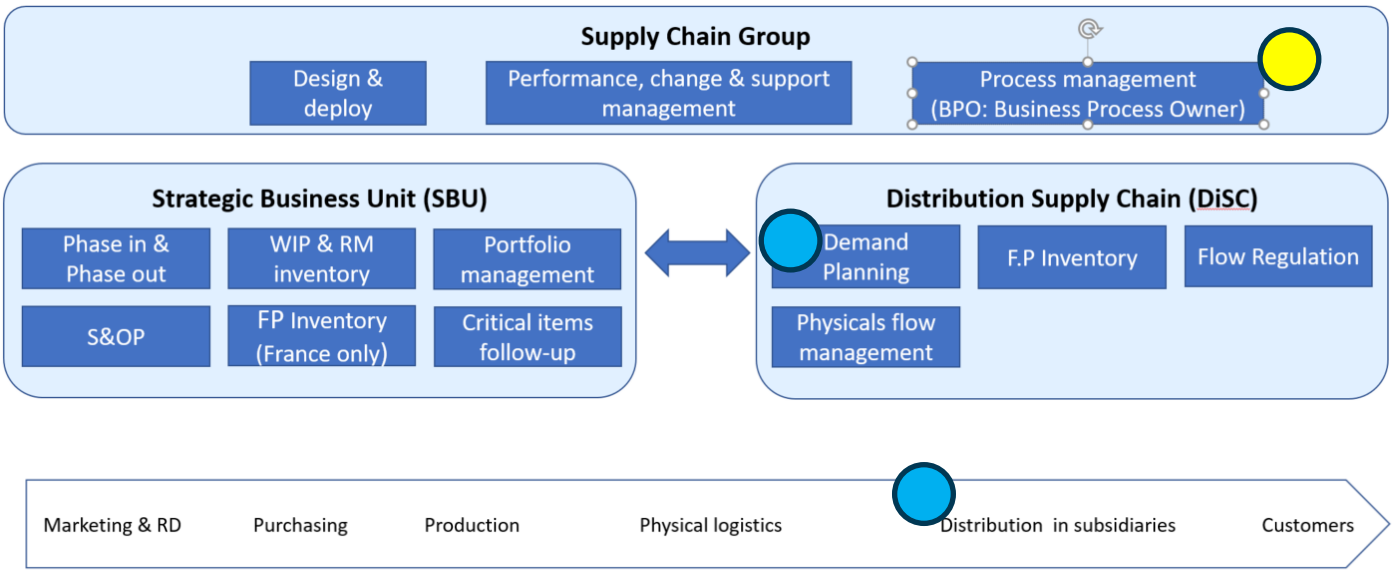
ERP is highly heterogenous between countries, but the interfaces are standardized.



5.3 Data volume – TARGET estimate

Forecast pyramid	level	Estimated target volumetry
Product	*Product*	*150 000*
	Nomenclature	*7500*
	Sub family	*2500*
	Family	*1500*
Customer	*Company*	*500*
	Distribution channel	*4*
Sale Geography	*Market*	*100*
	Country	*45*
	Area	*20*

6 Organization



6.1 Business profiles for Demand planning

1. **Business process owner = central – part of Supply Chain Group team**
   Corresponds to business support level 3
   Owner of the process
   In charge of audit on process
   Help key users to define actions plan to improve process
   Is the only contact with the editor

2. **Key users = 1 per zone (3 zones)**
   Corresponds to business Support Level 2
   Relay of business process owner to train and support local demand planner
   Animator of demand planner network for his zone
   Key user is a local demand planner with higher expertise on demand planning process & tool

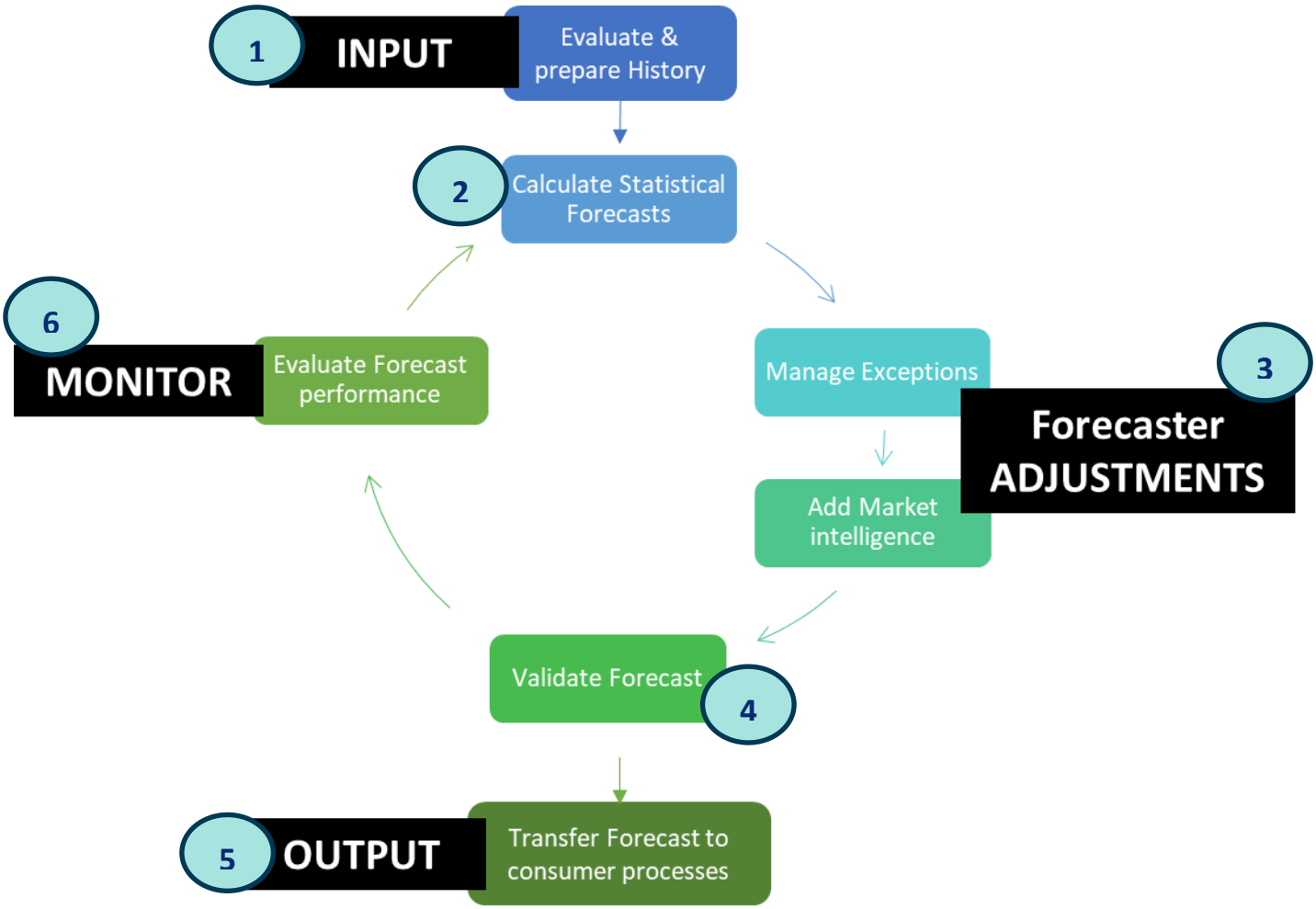
3. **Demand planners = members from local Supply Chain Team (subsidiary / HUB / DISC)**

6.2 Number of users (target deployment)

Profile	Number of users
Admin / BPO	*2*
IT Support	*2*
Demand Planner	*60-80 (target / deploy by steps)*

7 Process overview

7.1 Process steps



Standard process

No change on the steps sequence

« we don't reinvent demand planning standard process »

BUT changes in the detail of each step

What do we want to target ?

Improve efficiency of the process

Expected results

. Smooth demand planner activity, continuous enrichment all along the demand cycle

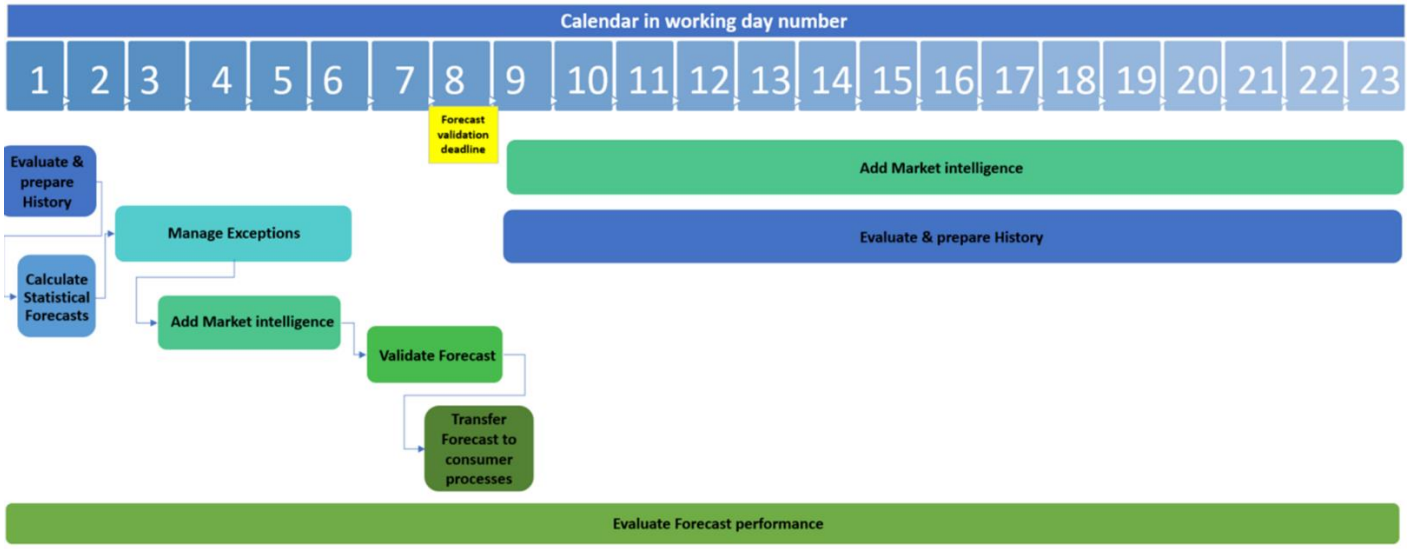
. **Ensure simple tool & process appropriation** to be able to manage backup or people turnover

. Robustify **forecast validation**

. Improve forecast accuracy and monitor process with **global shared KPI**

Leverages to gain efficiency

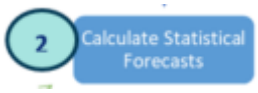
7.2 Process cycle: standard calendar



7.3 Forecast pyramids

Pyramids are key structure of the forecast database
Pyramid possible levels = working forecast levels for

- statistical forecast

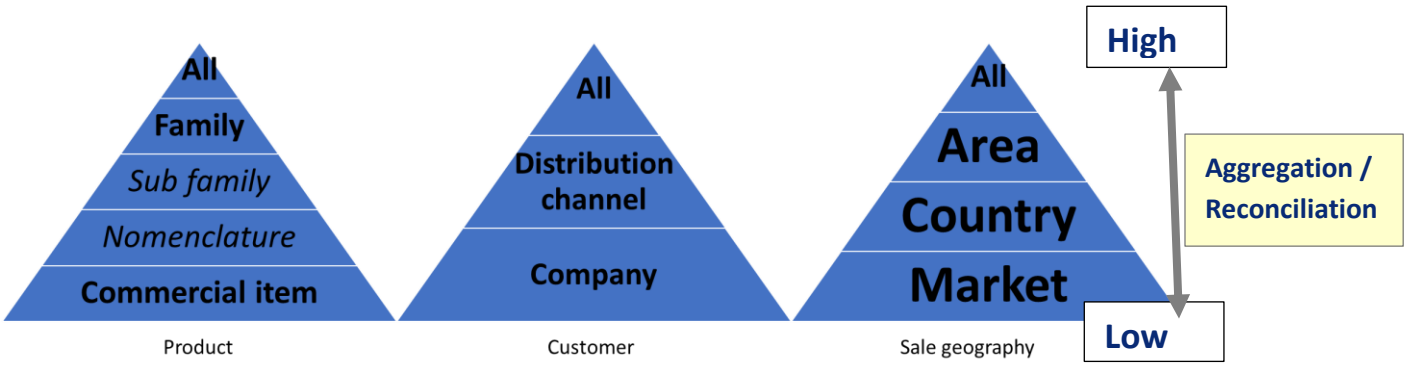


- Market intelligence (objective in % or in qty for a customer, commercial campaign)

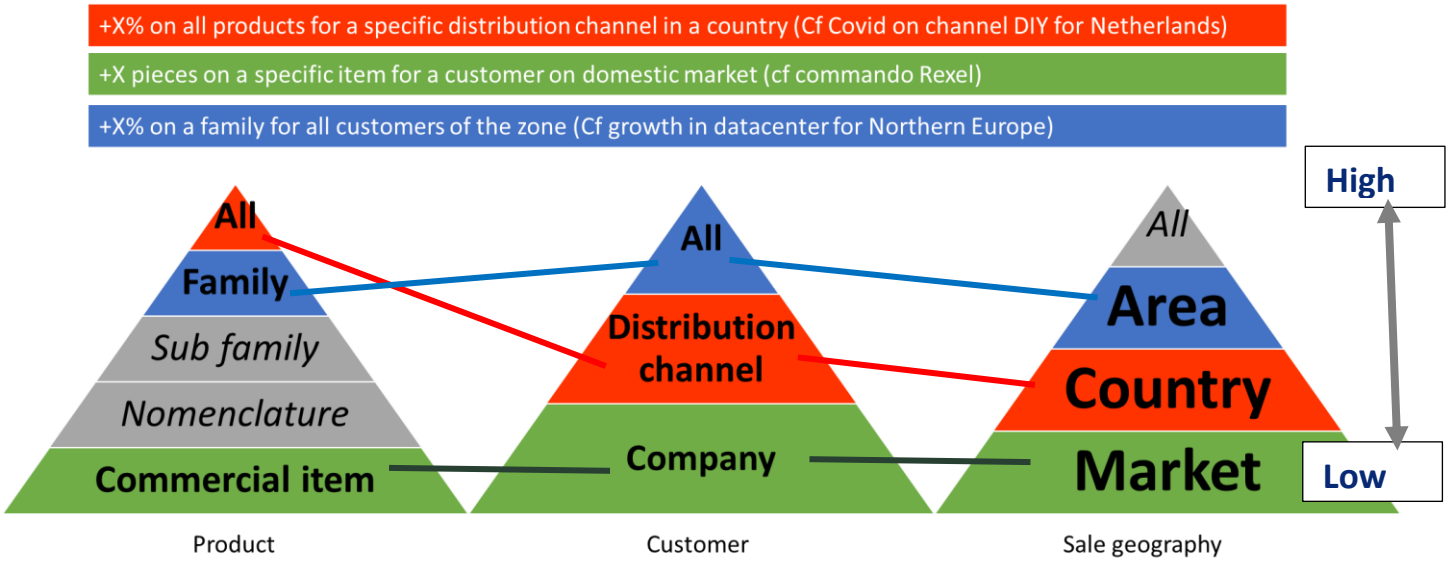
Linked to the pyramids DFU level: we need **DFU level matrix to aggregate and reconciliate forecasts** at a common level

➔ to analyze forecast at global view
➔ to publish forecasts at expected level

DFU definition = pyramids



Examples of use of DFU levels to add market intelligence



8 Detailed Process

8.1 Evaluate & prepare History

Objective of this stage:
1. Load history data month M-1
2. Prepare history to statistical forecast calculation (check all history not in « baseline » history are flagged not to be taken into account for sales forecast projection)
3. Check referential data are up-to-date

Main changes

1. Evaluate & Prepare history	People/organization	Process	Tool
1.1 Update of referential data		. Enrichment of ITEM data (SOP family for example) . Add CUSTOMER / SALE GEOGRAPHY data	
1.2 Loading of history		. Loading 1/ week to check on current month actual versus forecast	
1.3 Evaluate history just loaded (month M-1: actual versus forecast / actual M-1 versus actual M-2)		. Predefined reports and upper / lower limits to gaps (forecast accuracy) . Within the month : check on weekly update	. Reporting online
1.4 Cleansing of history	. Ability to adjust manually by exception		. Auto detection of peak . Flag of non baseline history

8.2 Calculate statistical forecast

Objective of this stage:
1. Prepare item segmentation
2. Calculate statistical forecast

Main changes

2. Calculate Statistical forecasts	People/organization	Process	Tool
2.1 Item segmentation			. Automatic calculation of item segmentation
2.2 Item set-up (trend, seasonality, profile ...)		. Manual adjustment (for NPI or key items)	
2.3 Calculate statistical forecast			. Large choice of statistical models . Automatic selection of model . NPI : tool is able to take into account actuals to adjust projection for ramp-up/ ramp-down
2.4 Factor calculation to run agregation and reconciliation		. Rules to define to calculation factor	

8.3 Manage exceptions / Add market intelligence

Objective of this stage:
1. Manage exceptions to fix alerts
2. Add marketing intelligence

Main changes

3. Manage Exceptions / Add Market Intelligence	People/organization	Process	Tool
3.1 Exception management		. Fix or comment exceptions . Priorization of exceptions to manage	
3.2 Add marketing intelligence	. Get accurate inputs from other services (marketing, SBU, sales)	. Ability to update forecasts at different level (adjustment in quantity / percentage) .Define pyramids & DFU notion . Persistence of changes : avoid to key again commercial actions .... after each calculation	. Mass update on selected perimeter
3.3 Run reconciliation process		. Sequencing of adjustements / statistical process / collaborative process	. Apply factors to calculate forecast at DFU level

8.4 Validate forecast

Objective of this stage:
1. Run scenario when necessary
2. Prepare validation meeting
3. Apply decision from validation meeting

Main changes

4. Validate Forecast	People/organization	Process	Tool
4.1 Run scenario		.Simulation (units: in pieces / in amount)	. Comparison on different scenario in parallel
4.2 Prepare validation meeting		. Define measures and forecast validation dashboard	. Reporting in demand planning tool
4.3 Run validation meeting		. Apply changes & comments + validate forecasts	

8.5 Transfer forecast to consumer processes

Objective of this stage:
1. Publish validated forecast
2. Be able to publish adjustments after monthly validation date

Main changes

5. Transfer Forecast	People/organization	Process	Tool
5.1 Calculation of forecast at SKU level	. data management of DFU to SKU table .DRP / MRP items		
5.2 Publication of validated forecast			.DWH
5.3 Partial forecast publication out of planning cycle	. RACI on forecast (RACI to review globally = not limited to forecast validation step)		

8.6 Evaluate forecast performance

Objective of this stage:
1. Check Forecast performance on shared KPI
2. Detect actions plan to improve process
3. Follow actions plan and results

Main changes

6. Evaluate Forecast performance	People/organization	Process	Tool
6.1 Evaluate forecast accuracy	. Shared KPI for intern benchmark within Legrand group		
6.2 Identify improvement plans	. Root cause analysis on poor forecast performance		
6.3 Improve process	. Ensure process monitoring is in place		

9 New Feature: Project demand

9.1 Project business requirements

Legrand business is split between flow demand and project demand. For instance, a project can be a big construction work (tower, power plant, etc.…) that generate a huge need at a single time.

Being able to manage project and flow demand in a single tool is a big stake for Legrand. Forecasting and managing projects bring additional business requirements:

Project management: business requirements

Main business needs:

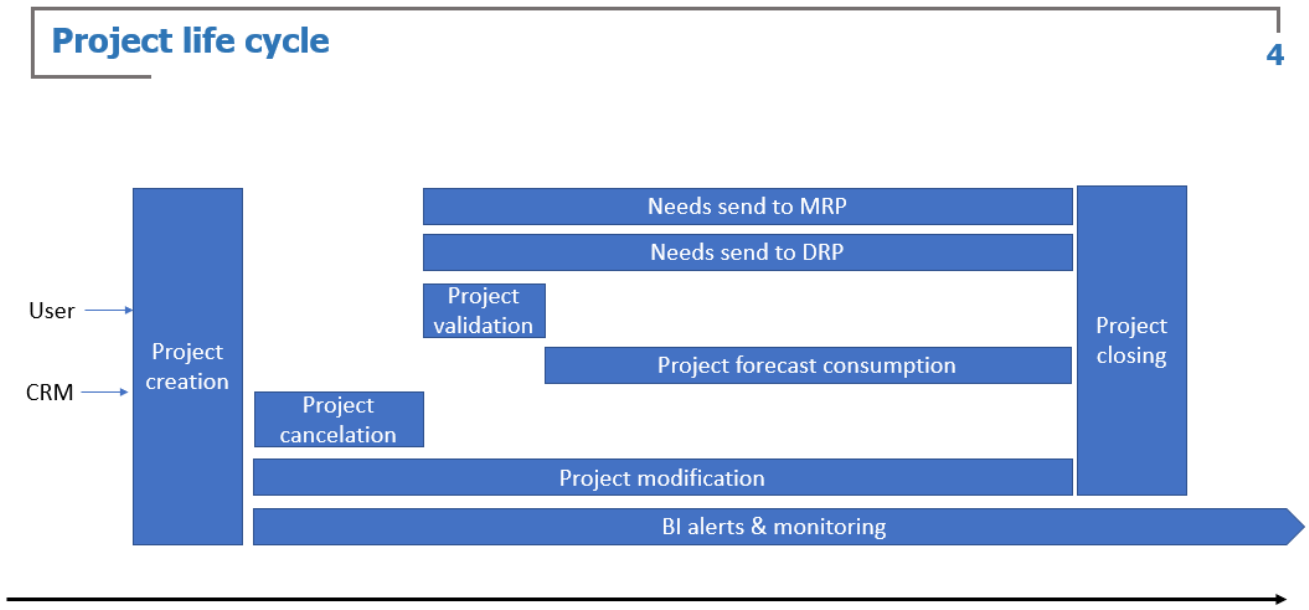
- Centralize project demand in one unique tool
- Manage actual projects
- Manage generic references to handle ETO
- Manage generic project to simulate demand on future project

What is project management ?

1) Collect and maintain project
2) Transfer to planification
3) Consume project prevision
4) Alert
5) Monitoring

-> For both DRP and MRP items

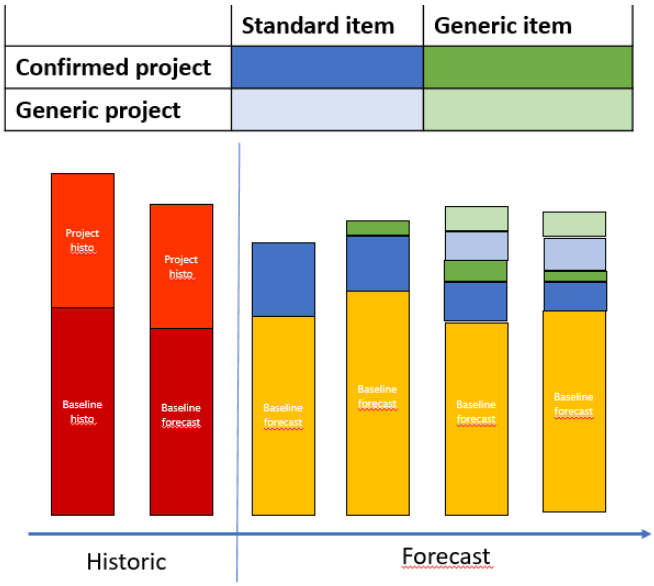
9.2 Project life cycle



9.3 Project within global forecast reporting

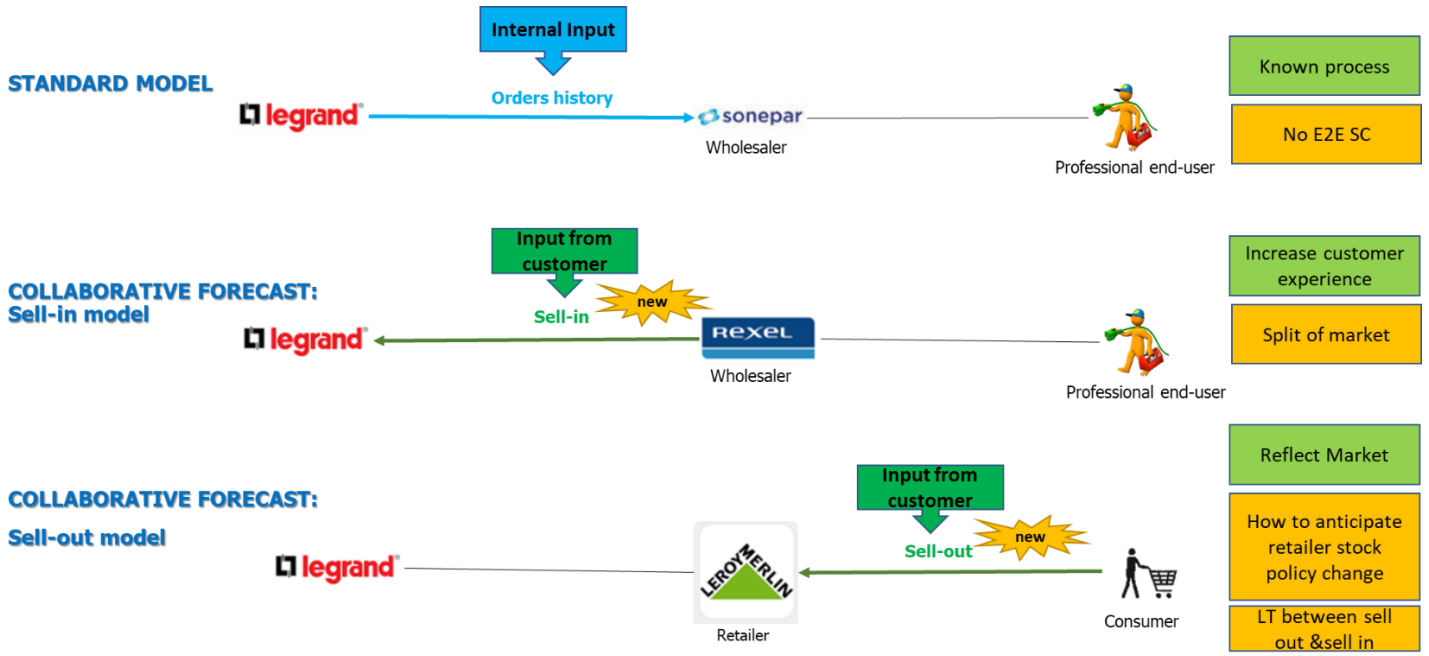
Definition:

- **Standard item**: item from Legrand catalog
- **Generic item**: virtual item that carries an amount of raw material and manpower requirements
- **Standard project**: real project
- **Generic project**: virtual project used to calculate needs in the future

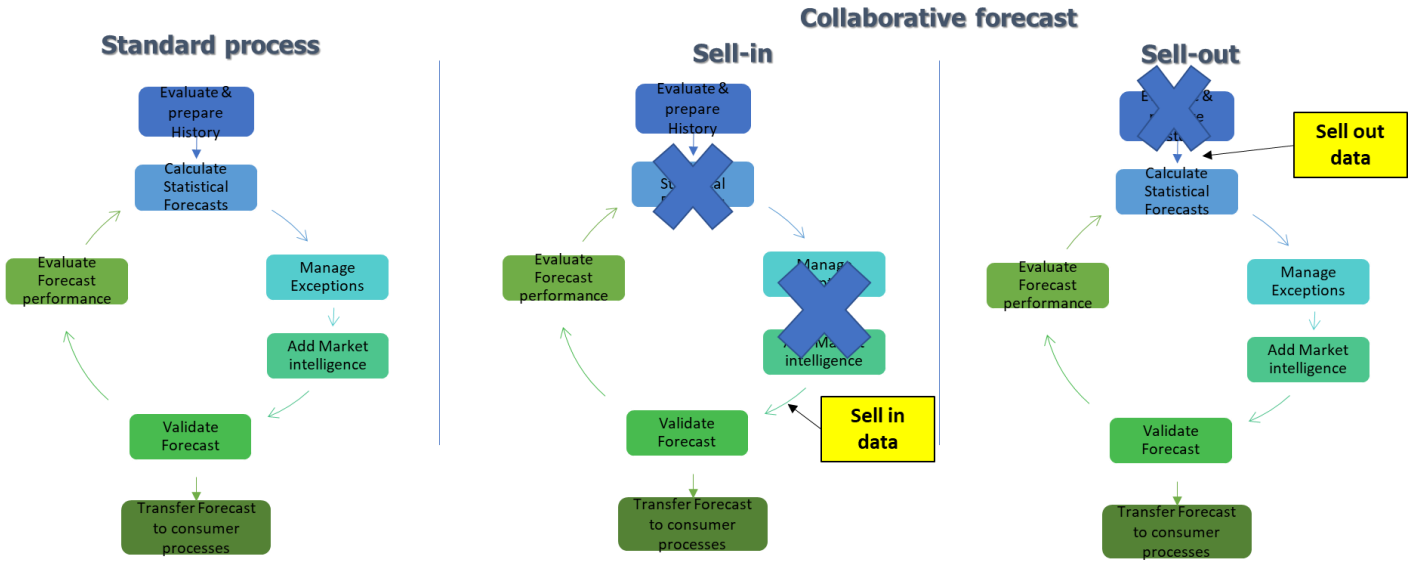


10 New Feature: Collaborative forecast with customers

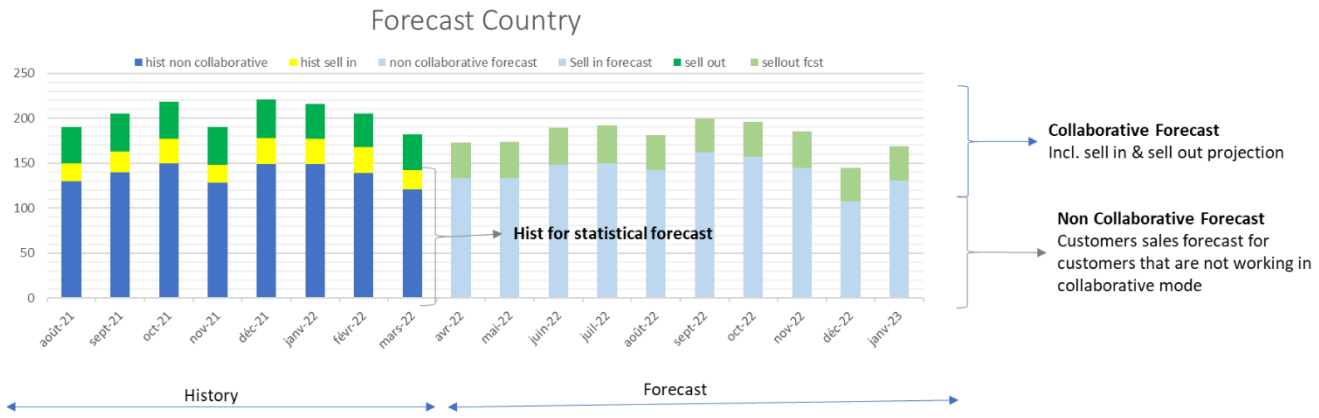
10.1 Collaborative forecast with customers



10.2 Impact on standard process



10.3 Example of reporting on global forecast with sell-in and sell-out

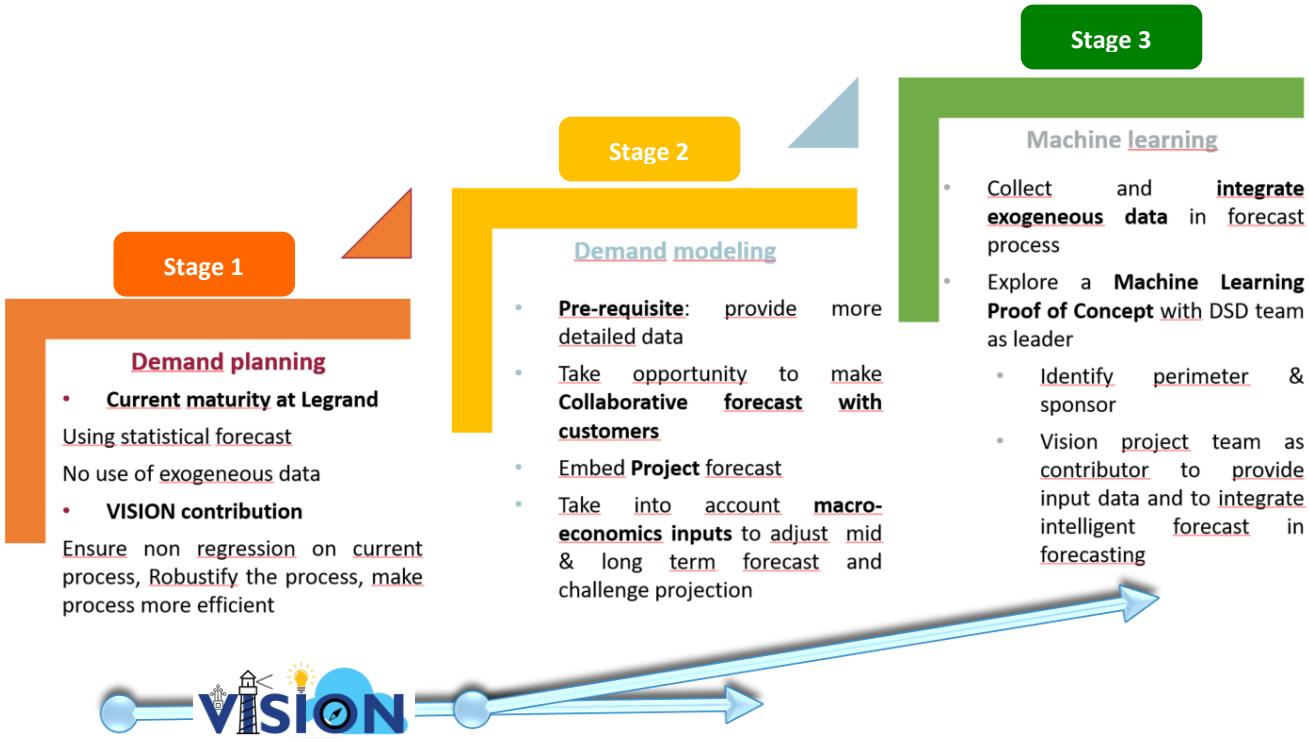


11 New Feature: Intelligent data

Strategy on VISION is to improve process thanks to Intelligent data leverage

To achieve this, we imagine progressive steps to go from current maturity to advanced demand process including « intelligent data »

Stage 1: **Reinforce Demand planning**
Stage 2: **Embed Demand Modeling**
Stage 3: **Experiment Machine Learning applied to forecasting**



We want anyway to consider Demand Modeling and Machine Learning from the initial BUILD phase to ensure target process and tool meet our ambitions.

⇔ It means that we want to **run POC** to validate and adjust process when necessary.