

# ***DATA+AI SUMMIT 2023***

## ***San Francisco***

***06/27/2023***



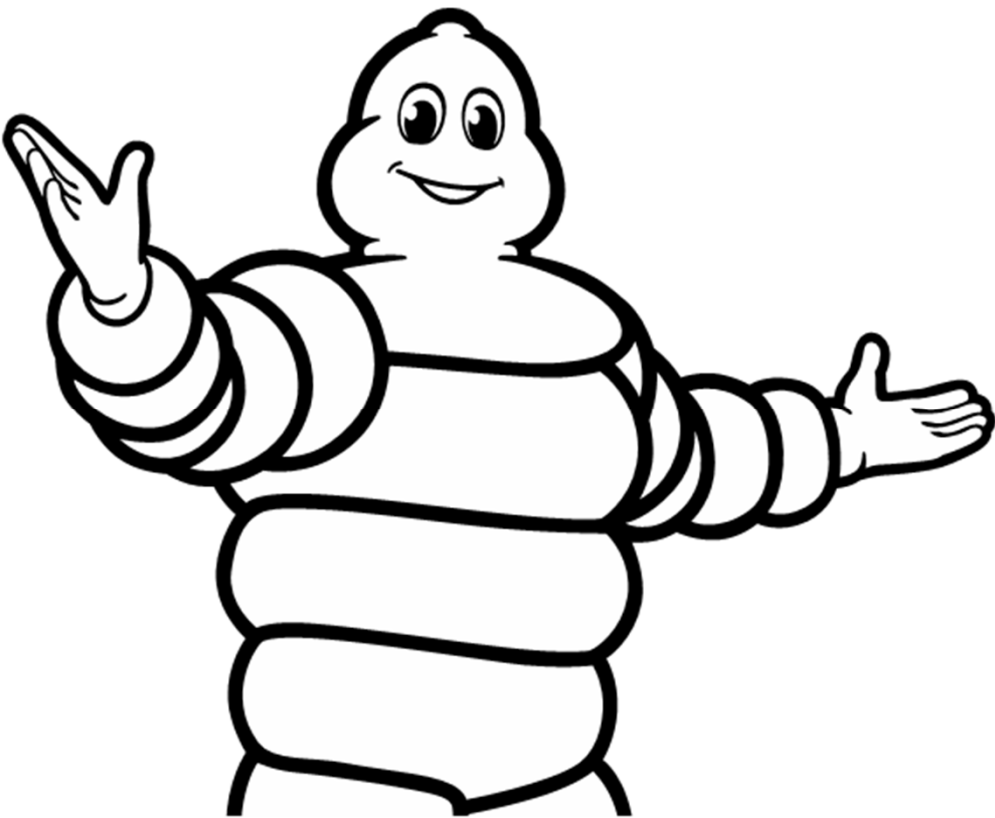








# Who are we?



Philippe Leonhart

SmartAutomation & Digital  
Transformer



Fabien Cochet

IT Expert on Data&Analytics









## KEY FIGURES 2021

**125,000**  
people

A presence in  
**177**  
COUNTRIES

**123**  
Production sites

**7,900**  
Distribution  
centers

**€23.795 BN**  
sales

**€1.845 BN**  
Net profit

**247**  
Filed patents

**€2.966 BN**  
Operating income

**€682 M**  
invested  
in R&D





## **OUR "ALL SUSTAINABLE" APPROACH**



**“**Our vision of the future is built on one conviction: tomorrow, everything will be sustainable at Michelin. All our decisions are based on achieving a better balance between human, economic and environmental issues.**”**

**FLORENT MENEGAUX**  
CEO MICHELIN







# **THREE FIELDS OF ACTIVITY, SOURCES OF SUSTAINABLE GROWTH**

**20 TO 30% OF OUR SALES  
WILL COME FROM OUR  
ACTIVITIES AROUND AND  
BEYOND TIRES IN 2030**





# **THE 6 LEVERS FOR TRANSFORMATION TO SUPPORT THE ROLL-OUT OF THE 2030 STRATEGY**

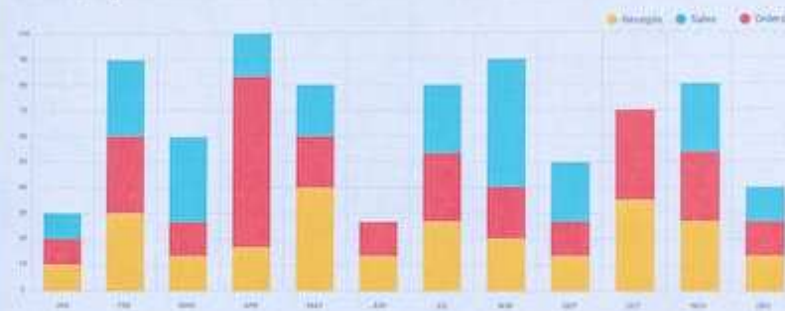






**HOW DO WE  
BECOME DATA  
DRIVEN ?**

Our company

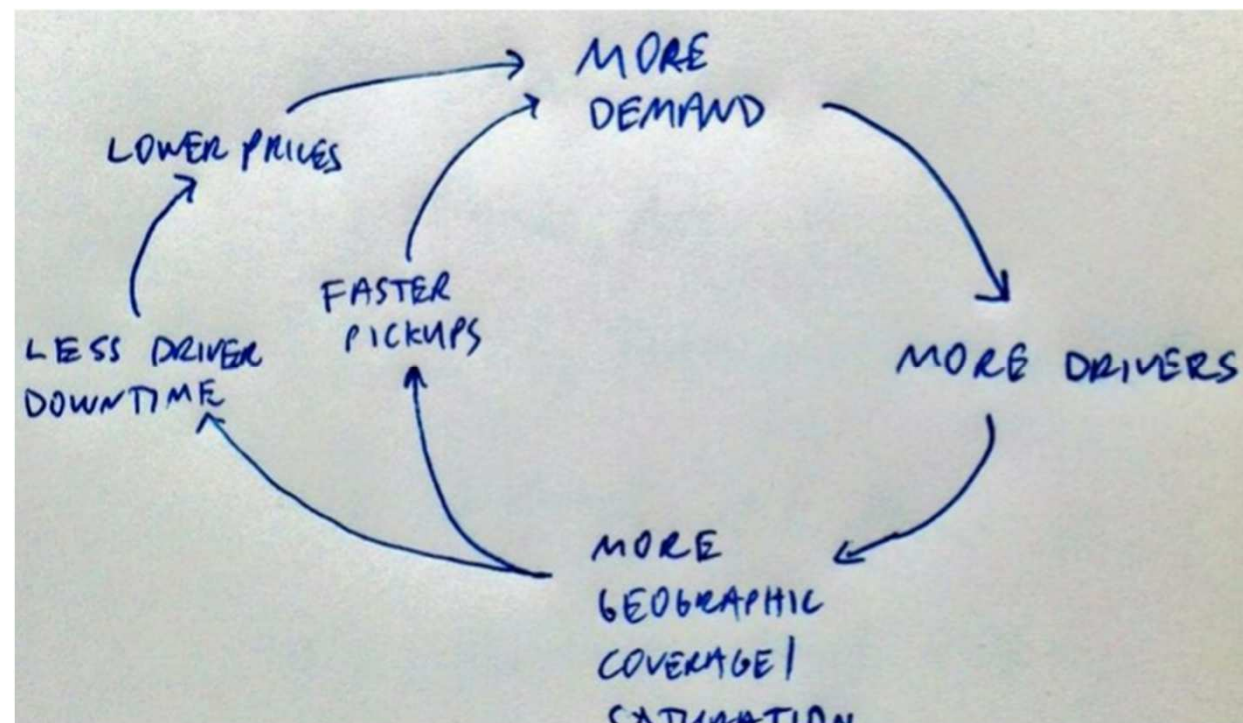
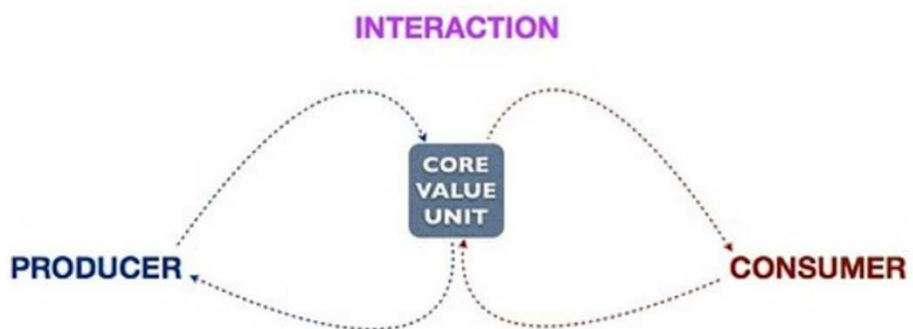


Business items





## Data Platforms

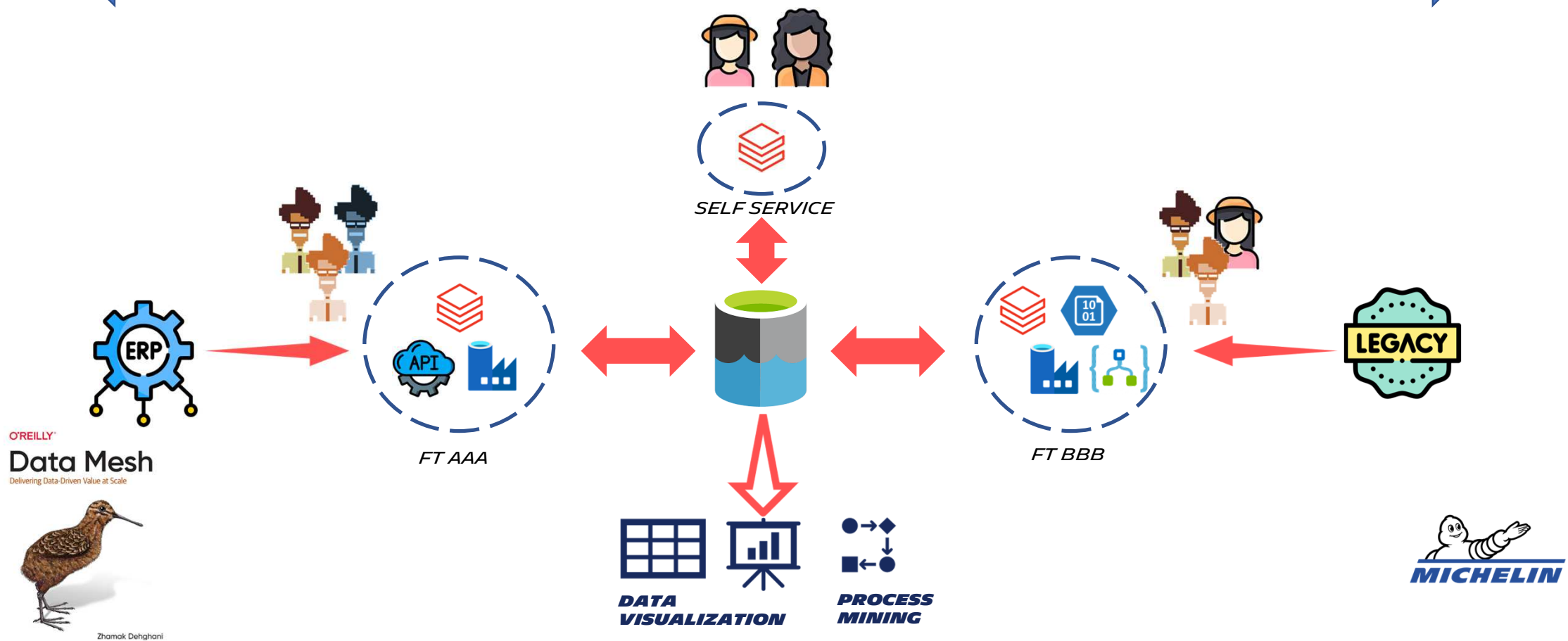






# The Corporate Datalake

DATA GOVERNANCE / DATA QUALITY



***NICE TO MEET YOU !***

***DOCBS***



a worldwide community of  
services

**6**

Support functions

**3 400**  
**FTEs**



***PERSONNEL***



***FINANCE***



***PURCHASING***



***O2C & LOG***



***BUSINESS  
PROCESS  
MANAGEMENT***



***DATA OFFICE***



# ORDER TO CASH : at a glance!

## ACTIVITÉS



Customer Contact Center



Invoice to Cash



Centre d'Excellence

## MARCHÉS



Original Equipment (OE)



Replacement (RT)



Business support  
Services & Solutions



Ventes divers

## LOCALISATIONS

9 Customer Contact Centers (7 RT & 2 OE),  
1 Consumer Care, 1 Shared Service Center &  
1 Center d'Excellence. **820 EMPLOYÉS**



## PROCESSUS O2C



Customer  
Account



Operational  
forecast



Customer  
order



Order  
fulfillment



Delivery



Invoicing



Customer  
payments



Cash  
application



After-sale  
Request

## CHIFFRES CLÉS

**2,500,000** Lignes de commandes  
**700,000** Appels traités  
**50,000** Réclamations  
**2,500,000** Factures

## ***O2C DATA DRIVEN***

Simplifier / réduire la quantité de texte

***AS IS  
HISTORIC  
INDUSTRIAL  
COMPANY***

- Value of Data for infrastr
- Need for data and automated reporting pulled by lean management
- Usage of Data is very manual with excel as primary tool
- Sharing of Data / Usage of shared Data :
  - Mix of data store and extraction of data in live application.
  - Too few Data in CDL & not used due to bad experiences.

***TO BE  
DATA AS AN  
ASSET***

- Value of shared Data across silo is understood
- Need for data and automated reporting to enhance customer service
- Usage of Data is enhanced through availability in lake, state of the art preparation tool and data visualization
- Recurrent reports are refreshed automatically
- Data of the stream is shared in CDL and combined to data from other streams for more insights.
- Allow first experimentation with data science, AI

***NEXT STEP  
DATA DRIVEN***

- Leverage machine learning to support complex decision
- Empowered, augmented human being



# DATA FOR CUSTOMER SERVICE IMPROVEMENT

## KEY EXAMPLES

**ORDER  
CAPTURE**

Improve

À garder?

## DATA REQUIRED

Michelin price vs competition price  
Target vs. Achievement for given offer  
Lack of availability of competition

**PORTFOLIO  
IMPROVEMENT**

Propose best option in case of  
unavailability  
Detect and solve issue order execution  
flow  
Anticipate cancelation

Available alternative for non  
available tires  
Order portfolio history  
Evolution of availability and prices  
on the market

**COST TO SERVE**

Propose targeted simplification

Cost to serve for practices vs  
customer vs turnover generated

**PERIMETER**



**O2C & LOG**



## **Europe Remplacement (RT)**



**2 million order lines  
≈ 30% of group turnover**



**(RE)Understand core Data  
Engineer rich dataset  
Automatize the reporting  
Versatility proof**



## ***LOGISTIQUE Europe + Intercontinental***



**300M€/year  
Keep factories running  
Manage crisis**



**Automatize reporting  
Facilitate diagnosis**



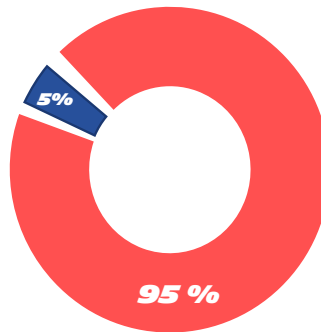
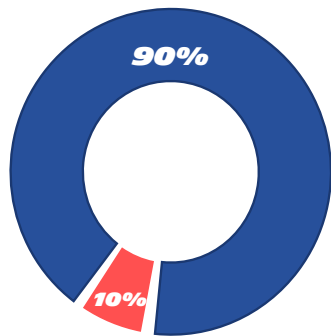
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## ***AUTOMATIZE REPORTING***

***DELIVER ADDED VALUE WITH INSIGHTS  
PROVIDED THE EFFICIENT WAY***

***TODAY***

***TOMORROW***

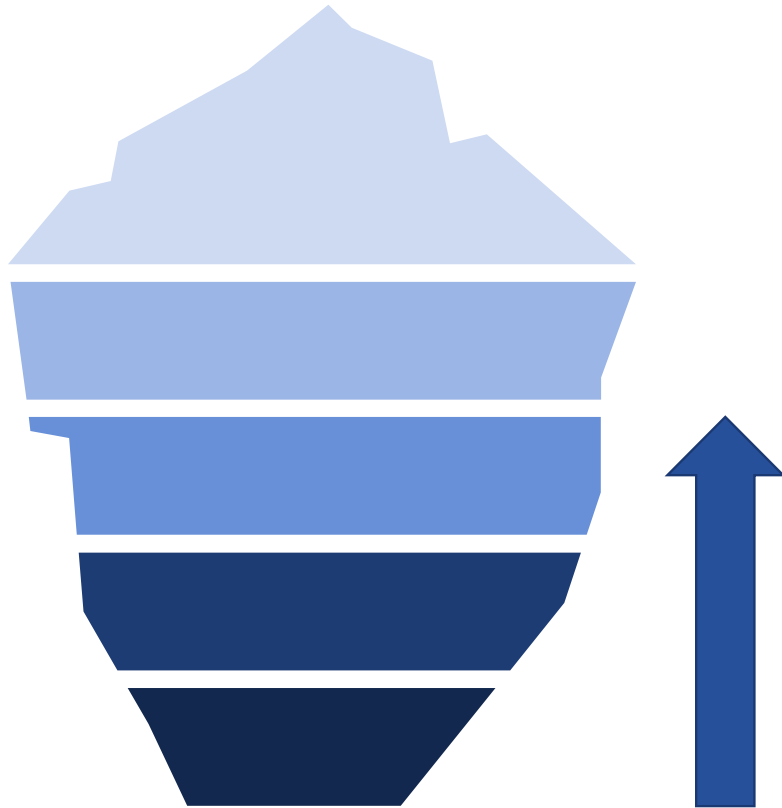


- Analyse, share and decide
- Manual and repetitive tasks to reproduce recurrent reporting



# Expectations

# Be GREAT at BASICS



**Prescriptive Analysis**

**Predictive Analysis**

**Descriptive Analysis**

**Curated Data**

**Exposed Data**





“

## HOW TO?

### **AUTOMATE RECURRENT CHARTS**

Support steering with  
automatically updated data

### **FACILITATE ADHOC ANALYTICS**

Deliver insights for  
strategic decisions,  
validate projects

### **SUPPORT EXPERIMENTATION BASED ON DATA**

Data available in the cloud,  
ready to be used

## MAIN COMPONENTS

### **CENTRALIZED STORAGE OF ALL USEFULL DATA**

One reference data source

Data as “raw” as possible

Ideally keep Data scheme :  
Doc of SI = Doc of stored Data



**CORPORATE  
DATA LAKE**

### **AUTOMATIC UPDATE OF RECURRENT REPORT**

Automated refresh of  
recurrent  
Dashboard/Charts/Indicators

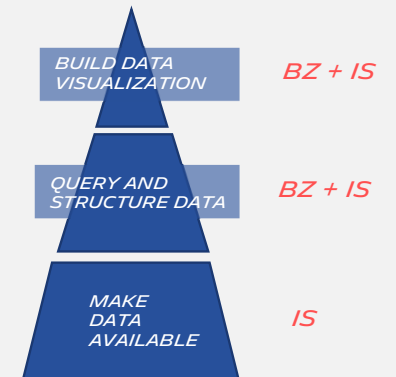


## ORGANIZATION

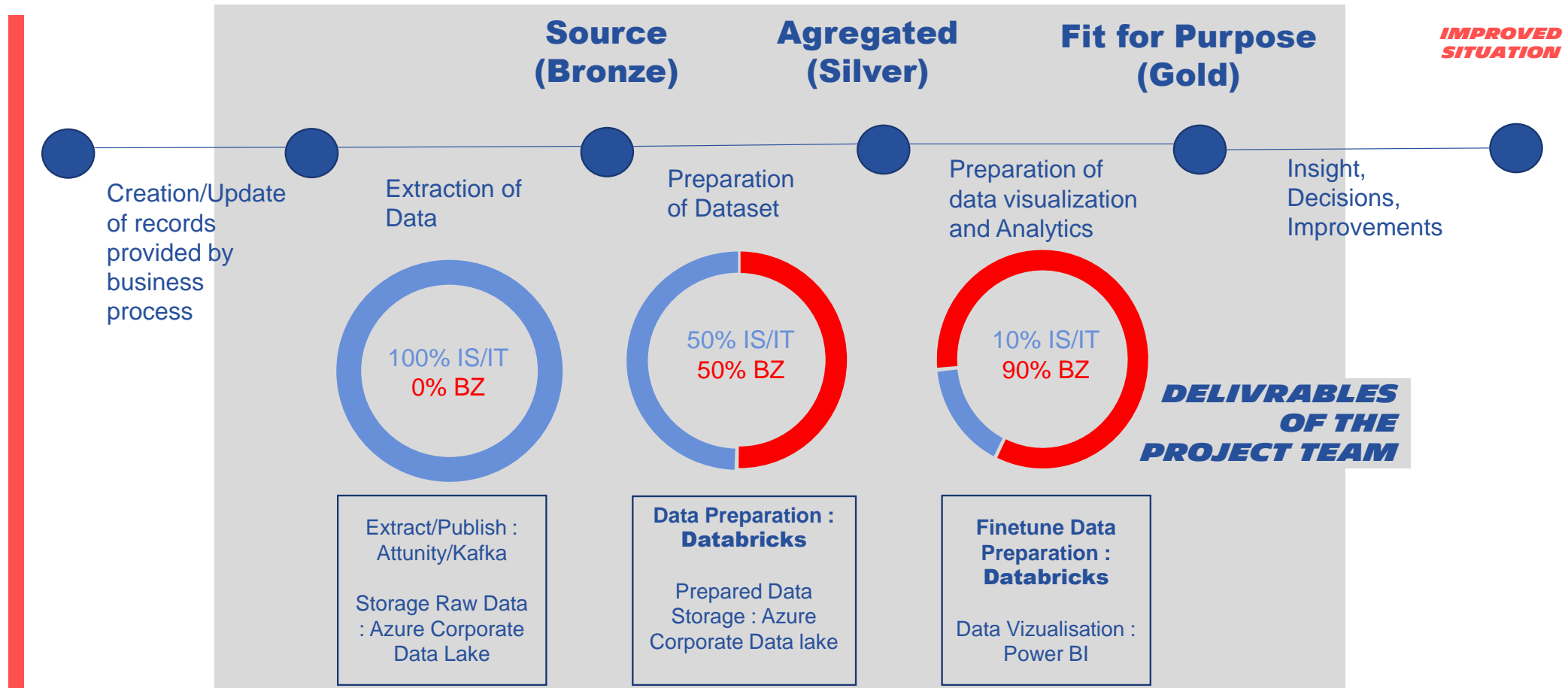
### **IDENTIFY ORGANIZATION TO DELIVER INSIGHTS**

In traditional tools, data  
visualization build by IS/IT

Experimentations show  
opportunity to leverage business  
experts trained on data  
visualization



## ***BUILD : PROCESS, ACTORS, TOOLS***





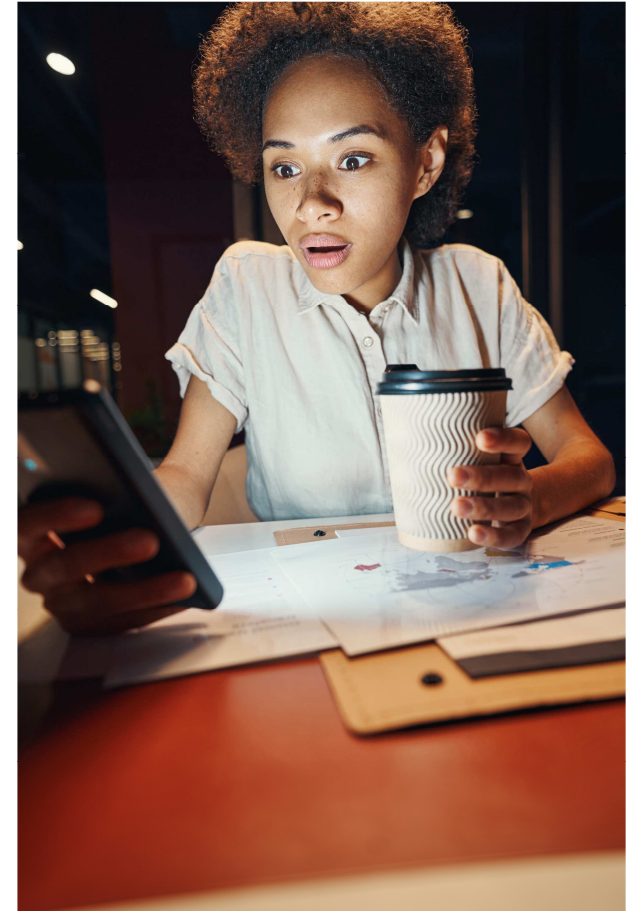
## ***KEY LEARNINGS***

**Fear of the prompt can be beaten**

**Business can create scripts (fast)**

**Business need IT to make scripts better**

**Collaboration is key for sustainability**



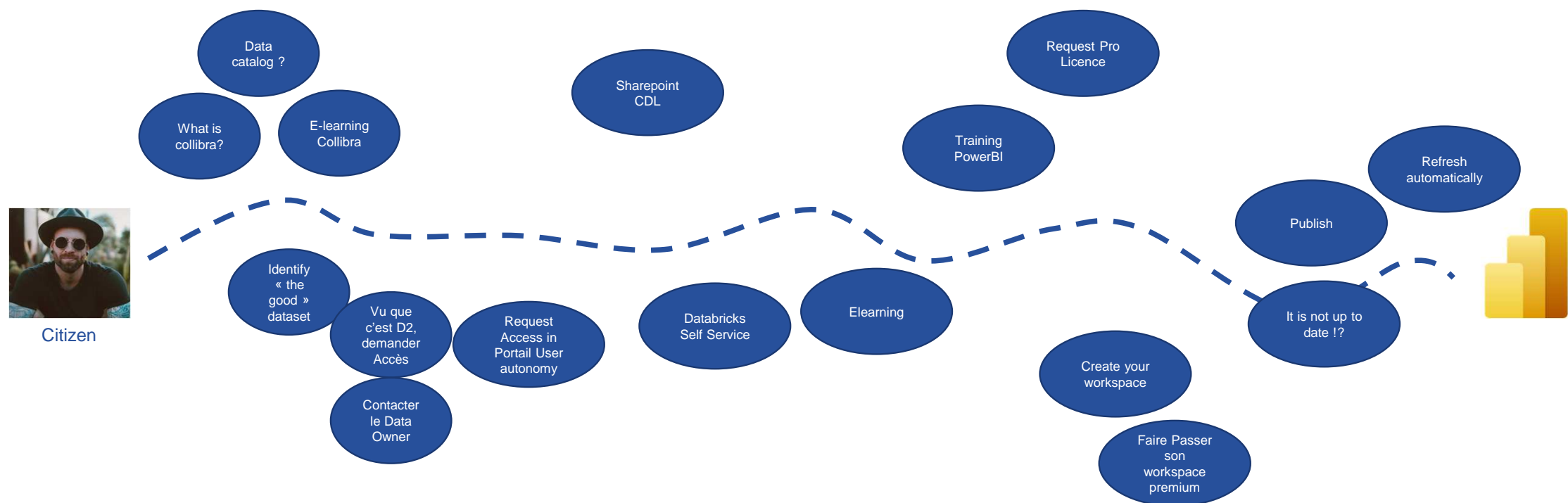
***HOW TO SUPPORT DATA CITIZEN  
JOURNEY ?***







## A NOT SO EASY PATH ....



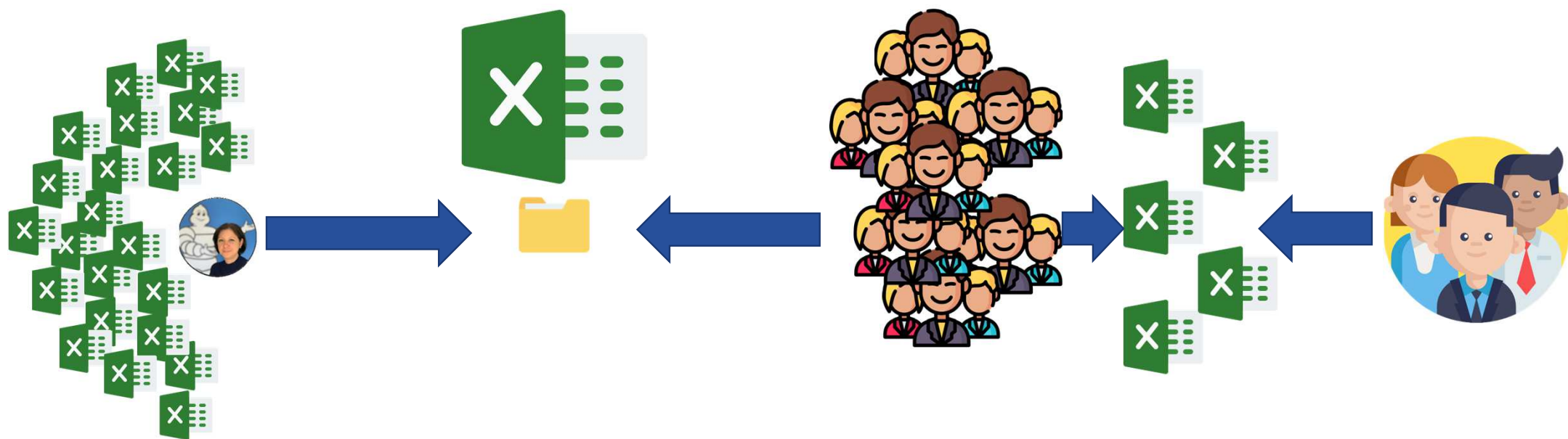


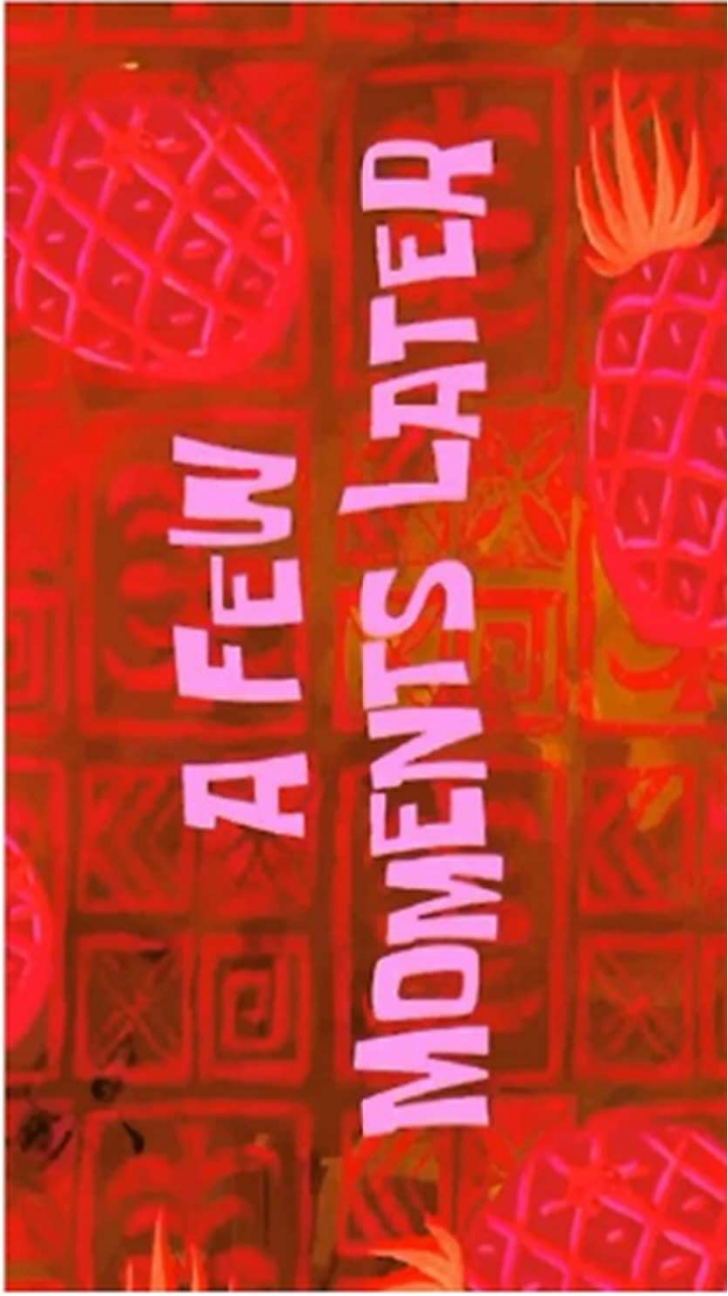
# ***SUCCESS STORY***

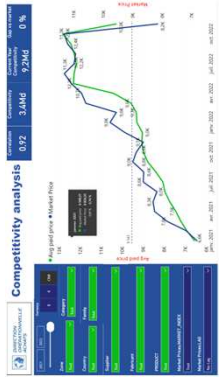
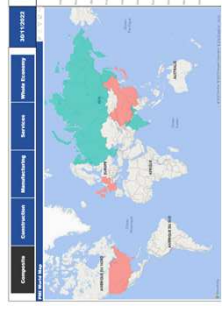
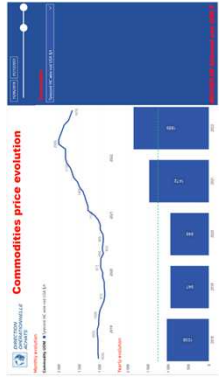
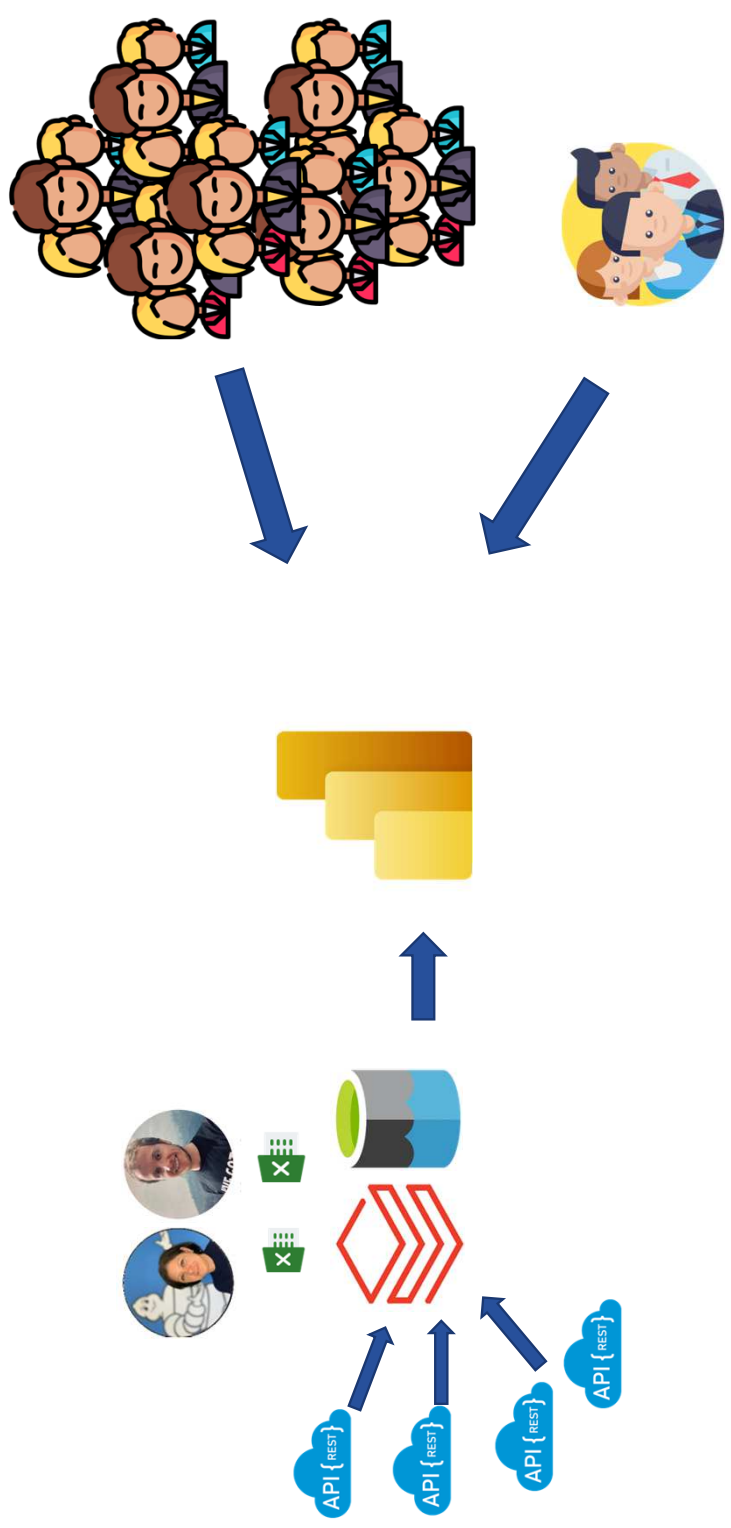
***«BASED ON REAL EVENTS»***





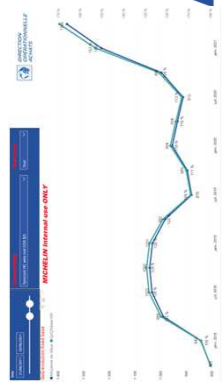






**Competitivity analysis**

Commodity	Price (USD)	Volume (tons)	Quality (kg/ha)	Yield (kg/ha)	Harvest (kg/ha)	Storage (kg/ha)	Transport (kg/ha)	Processing (kg/ha)	Marketing (kg/ha)	Export (kg/ha)	Import (kg/ha)	Balance (kg/ha)
Wheat	1.2	1.5	1.8	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5
Corn	1.5	1.8	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0
Soybeans	1.8	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5
Oil	2.5	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0
Natural Gas	3.0	3.5	4.0	4.5	5.0	5.5	6.0	6.5	7.0	7.5	8.0	8.5







« La captation d'une partie de la data se fait en automatique avec API ou autre.

Rapports PBI automatisés pour représenter des évolutions de prix des matières premières et prix marché de commodités, évolution de capacités de production, analyse de compétitivité prix d'achat vs prix marché etc

Autonomie d'utilisation CDL, utilisation des rapports PBI – assez élevé. Le besoin évolue dans le sens d'intégration de plus de data sur des domaines différentes énergie, logistique par zone – analyse d'évolution + corrélation par zone.



Probabilité de revenir – 100%  »





## ***BENEFITS FOR BOTH SIDES***



*SUPPORT, MENTORING*

*BETTER UNDERSTAND BUSINESS  
AND WHY WE DO WHAT WE DO*

*GET SOME FRESH AIR,  
OUT OF THE BOX THINKING*



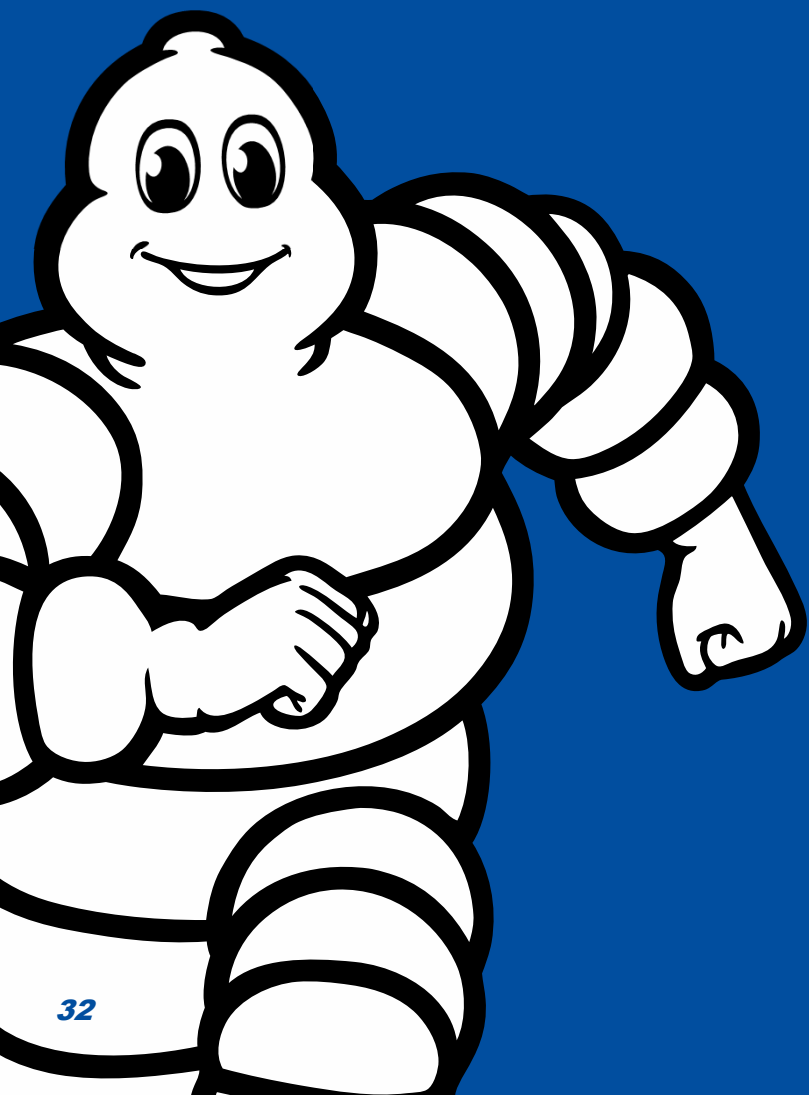
*GROW UP ON DATA TECHS*

*BETTER UNDERSTAND IT WORLD AND  
CONSTRAINTS*

*CAN RESHARE HER/HIS KNOWLEDGE  
WITH COLLEAGUES*

***WIN-WIN RELATIONSHIP***





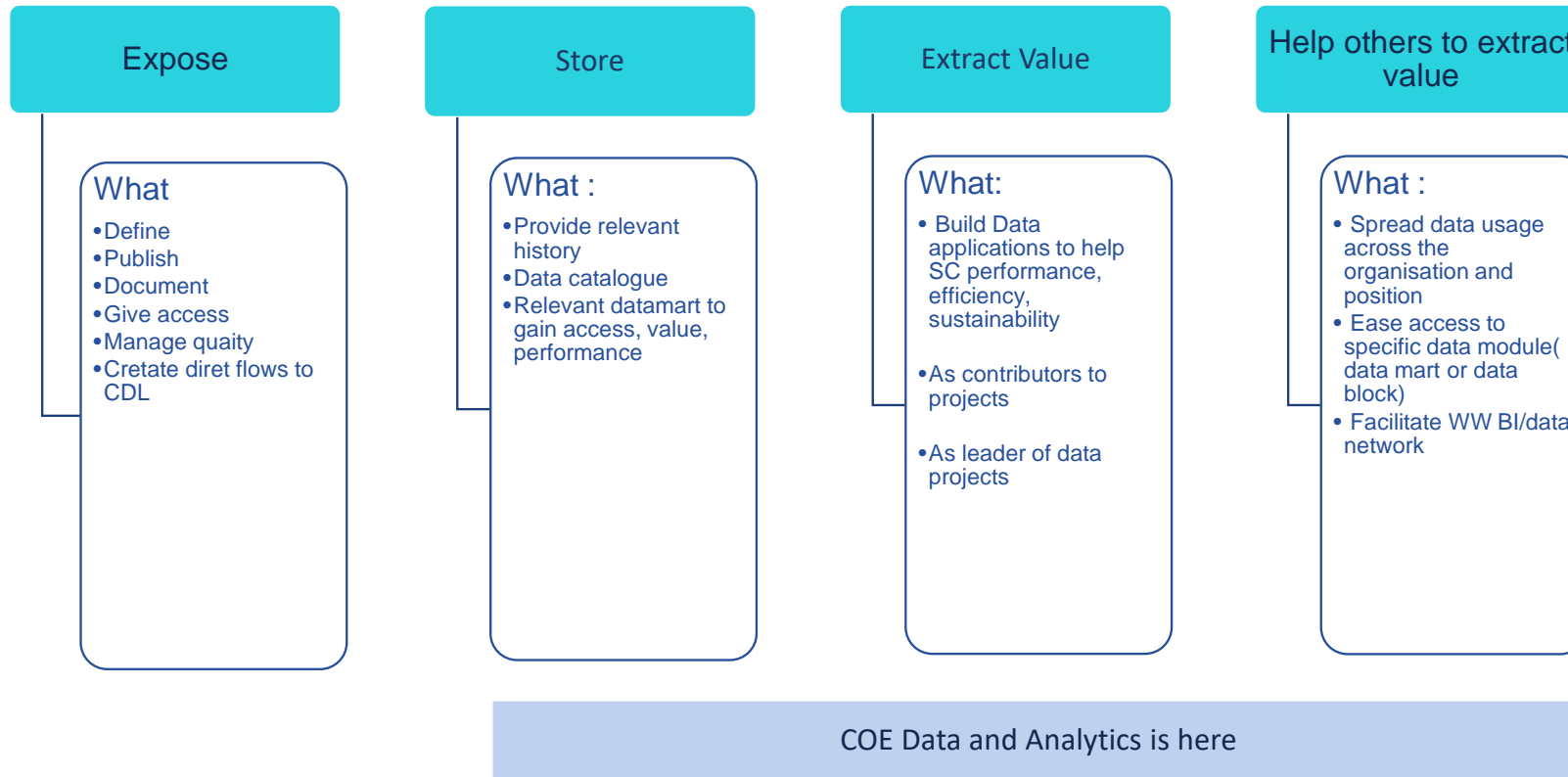
***THANK YOU !***

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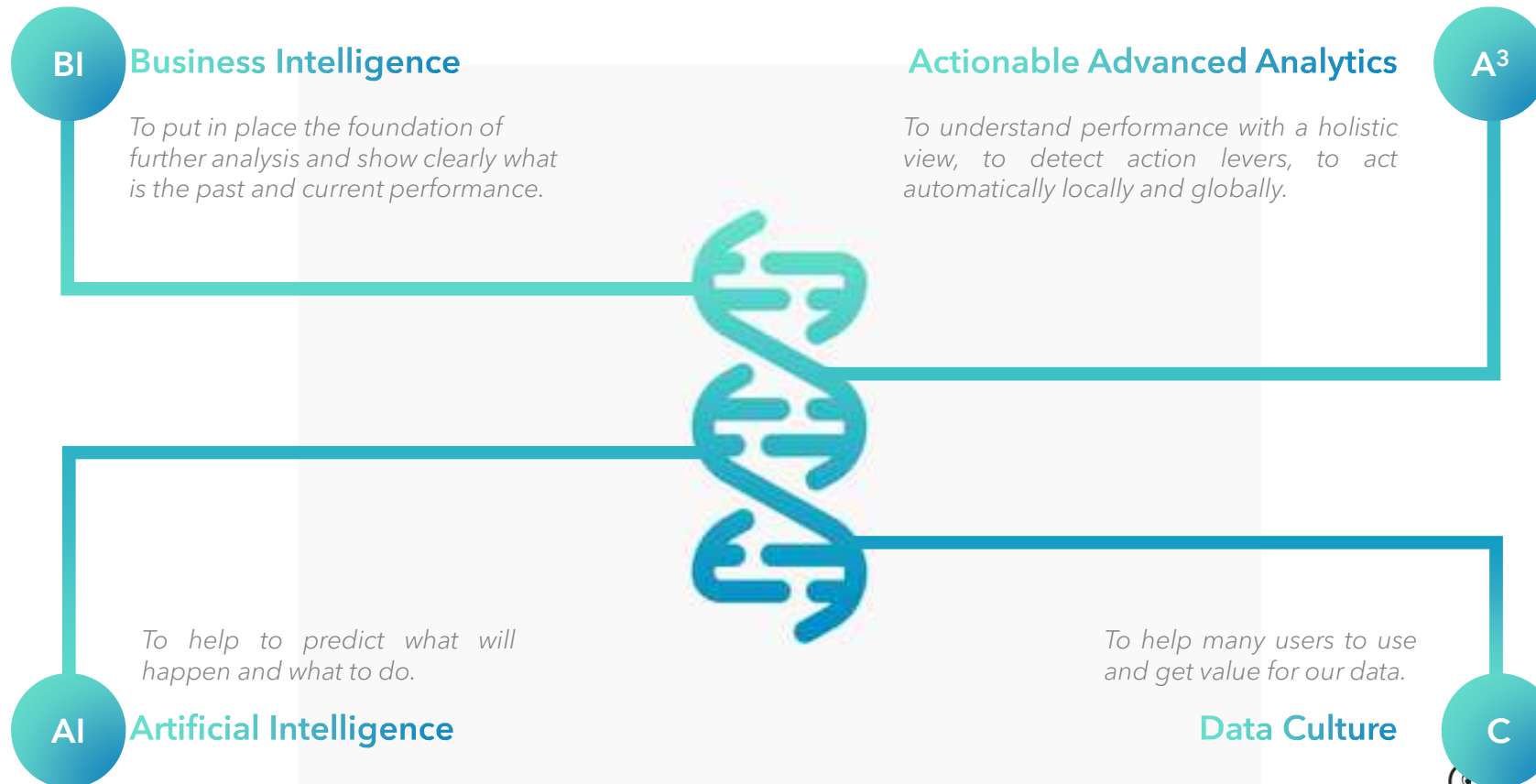


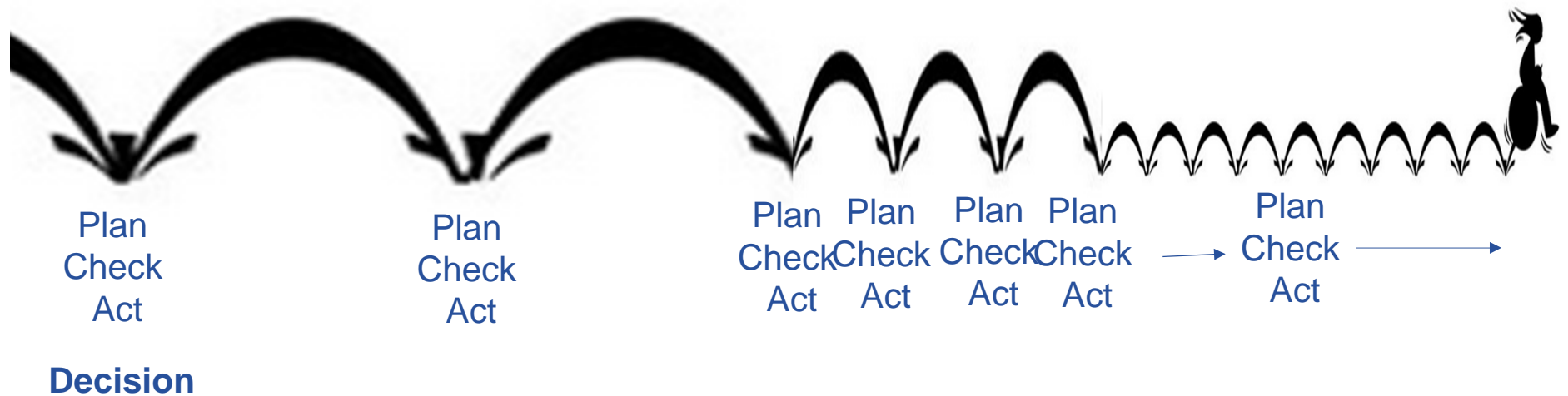
# ***WE ARE PART OF DATA GOVERNANCE PROCESS***



# ***SUPPLY CHAIN DATA & ANALYTICS***

## ***4 ACTIVITIES ( FOR THE MOMENT...)***





- Plan → pour aligner l'organisation
- Check → pour vérifier si le plan se réalise
- Act → pour adapter le plan à la réalité





**LA SC**  
**C'EST L'ART DE FAIRE CHAQUE SEMAINE UN PLAN FAUX**  
**SUR DES DONNEES FAUSSES EN TOUTE BONNE FOIS**  
**ET DE RECOMMENCER**

Plan → pour aligner l'organisation

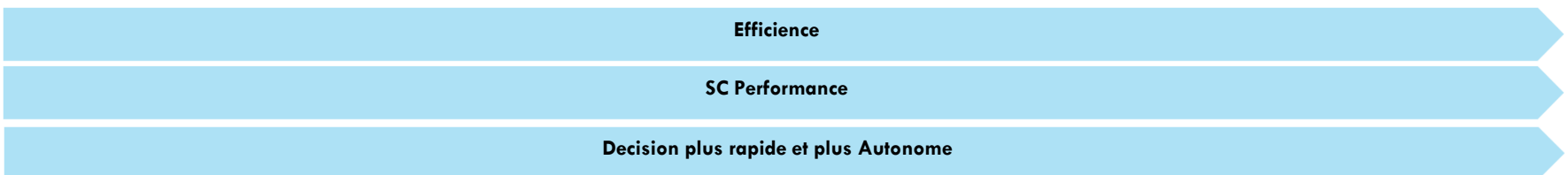
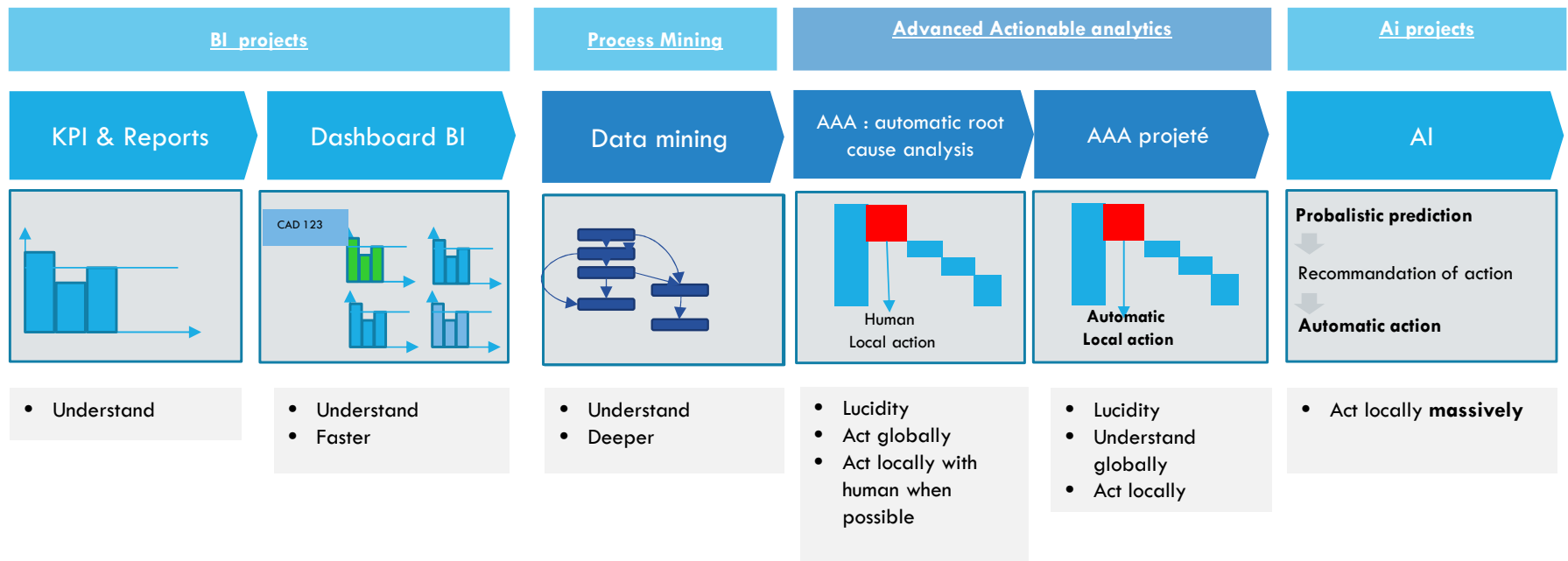
Controle → pour vérifier si le plan se réalise

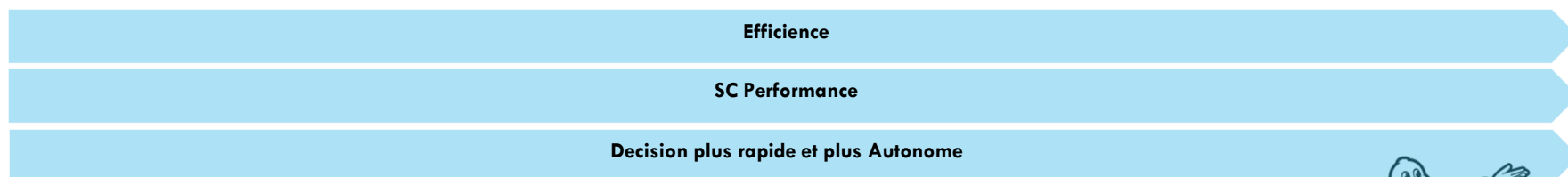
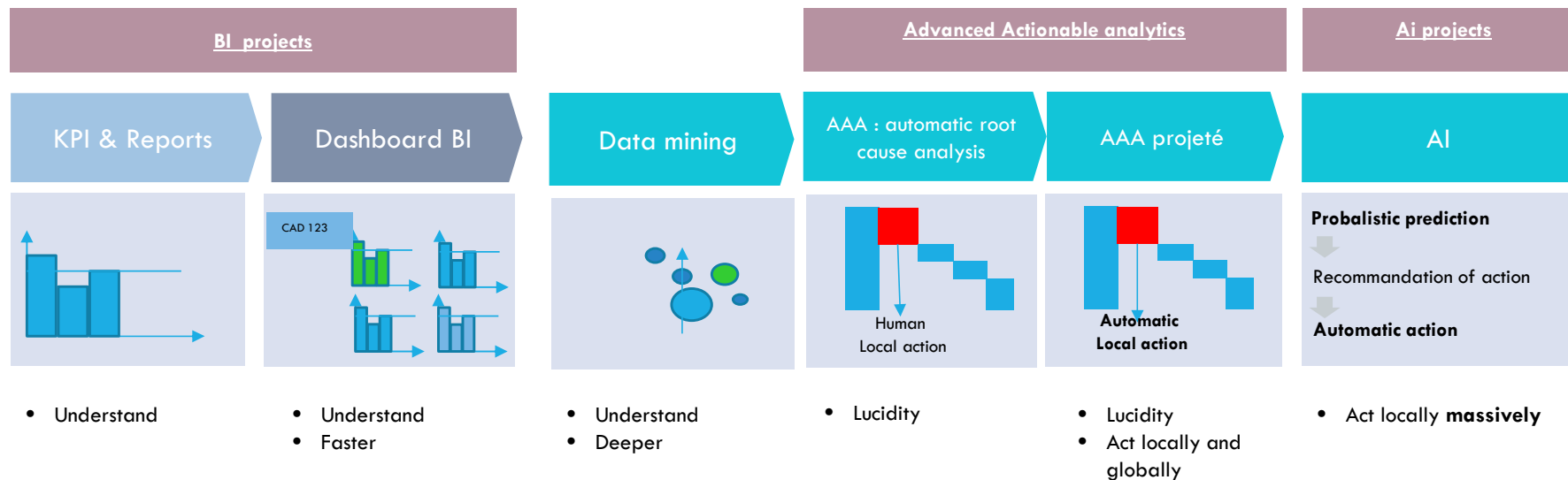
Action → pour adapter le plan à la réalité

Plan -



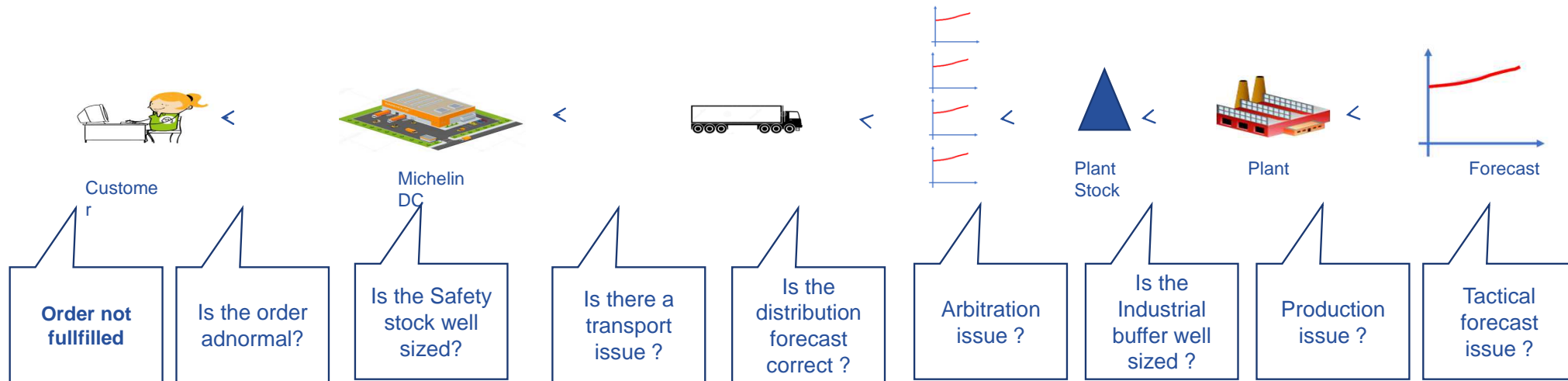
# COE DNA RANGE OF ACTIVITIES FROM BI TO AI THRU ACTIONABLE ADVANCE ANALYTICS AAA







## AAA : TOO MUCH DATA AND EVENTS TO ASSESS AND DRIVE SC PERFORMANCE



20 data to analyse for each order not full filled

4 millions data to analyse per week with a service level at 80%

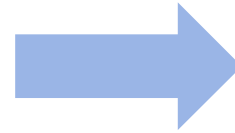
Efficiency loss

Partial vision  
no clear vision

Action on  
wrong causes

## NEW FIELD OF DATA USAGE : AAA (ACTIONNABLE ADVANCED ANALYTICS) TO FOCUS USERS ON RELEVANT ACTIONS FOR OPERATIONAL EXCELLENCE

AAA give **automatic root causes analysis** and relative weight for KPI, with comprehensive data accumulation.



- Efficiency and lucidity
- **To act on what matters**, globally and locally.
- **Subustainable reference for performance steering report.**

Comparison of ATF between EUC and EUN cause & Act on Qualité of forecast EUC

