



Data Transformation: Your role and keys to success as business leaders

Data Ready!

February 2022



... as Data leaders !

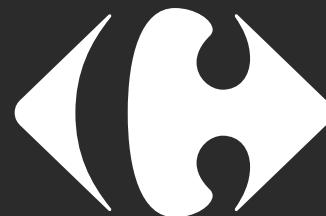
Your responsibility: make the best out of our **data gold mine**



Our **gold mine**: a unique, extremely rich and granular data...

80

Millions customers



9

Integrated countries

ARGENTINA
BELGIQUE
BRASIL

SPAIN
FRANCE
ITALY

POLAND
ROMANIA
TAIWAN

(over 30 countries partners and ~13 000 stores)

With various profiles

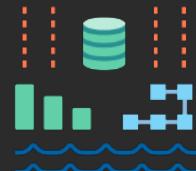
FAMILIES

TRADITIONALS

YOUNG

DIGITAL

B2B



10 BILLION TRANSACTIONS

Your role as senior business leaders in our Data transfo



Channel the
energy



Be bold with data & AI;
fail, learn & build 'muscles'



Activate people to
make change happen



Channel the
energy



Be bold with data & AI;
fail, learn & build ‘muscles’



Activate people to
make change happen



Channel the energy

Identify opportunities that scale: scale is king

Focus on unicorns and channel the energy

Define question, steer and be ready to break things



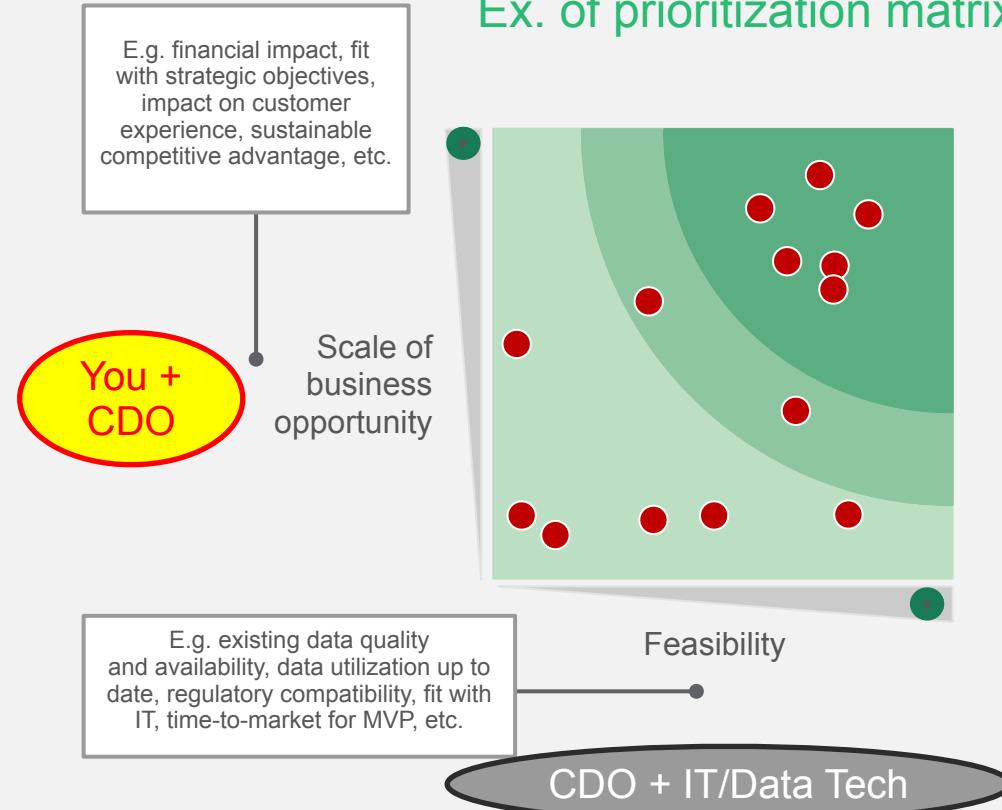
Be bold with data & AI;
fail, learn & build 'muscles'



Activate people to make change happen



Scale is king
and you are
accountable



Let's release our unicorns!



What is a unicorn?

- Startup valued at > 1B€
- Corporations typically have P/E of 10-20 (Carrefour P/E = ~12 in 2021)
- Analytics use cases with 50-100M€ impact create 1B€ valuation increase

Instead of building “long list” of use cases,
identify unicorns and select pilots



Identify
50-100M€
impact use cases

Select 3
pilot unicorns with
immediate value
potential

Big bet #1

Assortment automation



Define **80% of assortment automatically**

Select relevant products for each store to **cater to customer / local needs**

Collaborate

between stores and central merch



MVP (FR): Q2 2022

Global roll-out : 2023

Big bet #2

Data-driven promo



Measure **promo mix effectiveness¹** and **collateral impacts²**

Recommend **optimal promotion leaflets**, inframe, structure and SKUs

Deliver promos that are **truly personalized** (1-to-1)



MVP (promo optimizer): Q1 2022

MVP (1-to-1 promo): Sept. 2022

Big bet #3

Ultra-personalized digital experience



Improve and simplify our **e-comm recommendation algorithms** (cross-sell, up-sell...)

Pursue **search engine personalization**



Future of e-recos roadmap: Oct. 2021

Alternative basket: Mid 2022

1. Simulating uplift, cannibalization, halo, storage effect... ; 2. Stock, shrinkage, negotiation...



Data analytics answers the question it was asked based on the **available data**:
be clear and value-driven!

Your role: Frame, steer ... and break things



**Set the goal & control the data
exist for your problem**



**Define success of PoC and
conditions to fund scale-up**



**Discover required change mgmt
and weigh in very strongly to
break things if needed**

Role of Analytics Factory: Build, test, run model



Collect data



Build and select "Features"



Choose algo & train model



Validate: Backtest & live test



Run model at scale



Channel the
energy



Be bold with data & AI;
fail, learn & build 'muscles'



Activate people to
make change happen



Channel the
energy



Be bold with data & AI;
fail, learn & build ‘muscles’

Be fearless, you need to
demystify A.I.!

‘Think different’: Be ready to
fail, iterate, measure value
and pivot

Know when to build or buy A.I.



Activate people to
make change happen

5 myths on A.I. ...

.. and my view on them

A.I. is new and futuristic ➤

No, topic is evolving fast since ~2005, but first development dates back to the 40s

A.I. is deep learning and neural networks ➤

Not only, far from it! There is a wide array of techniques with different flavors or machine learning on structured and unstructured data

You need mountains of data for A.I. ➤

No, some techniques are based on problem definition (e.g. optimization) others can start without data and improve over time (e.g. Bayesian)

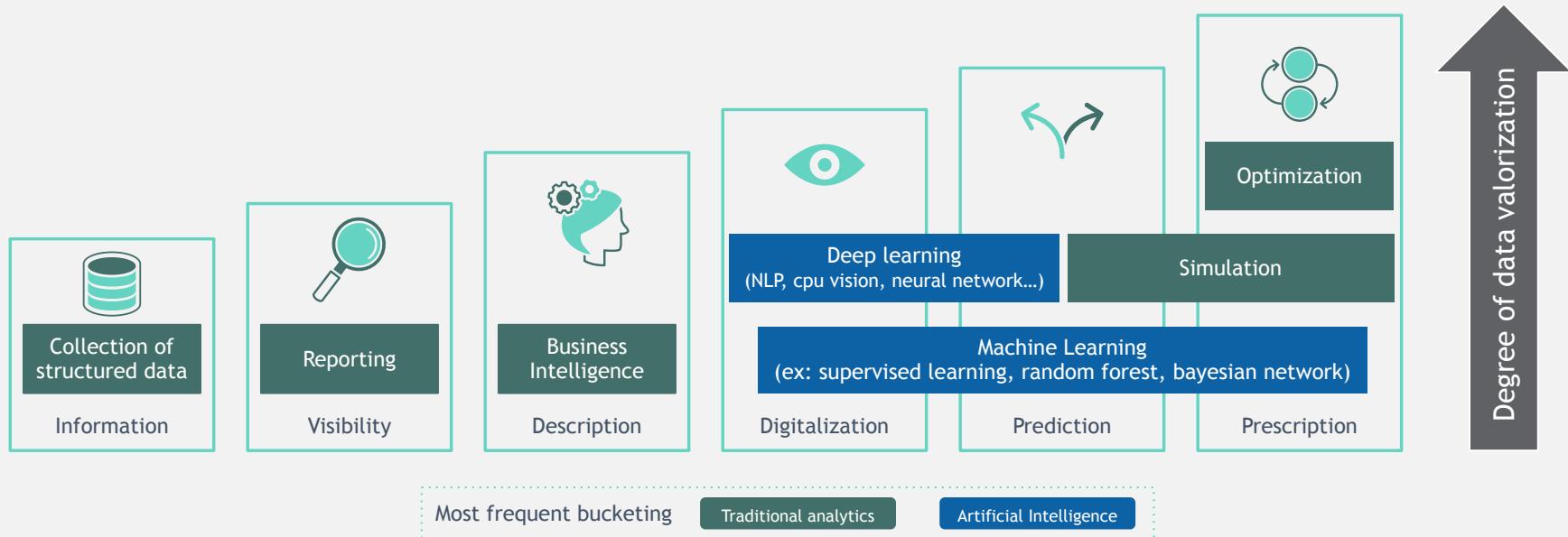
A.I. is extremely complex ➤

Not necessarily, there is a wide array of techniques and expertise level from very simple to very complex. Many toolboxes such as the ones from Google Cloud Platform have democratized A.I.

A.I. is only a technical topic for engineers & PhDs ➤

No, it actually all starts from business requirements first and change management is the key in the end. A good Data Scientist creates this link between business and data

Data analytics is a spectrum of techniques. Frontier between A.I. and non-A.I. is not fundamental



Think different: Iterative analytics delivery requires strong business leadership... and being ready to declare failure

Traditional
Project management



Agile, iterative
Project management



VALUE ?



VALUE++



VALUE+++

Fail

Fail



Customer feedback
in iterative process

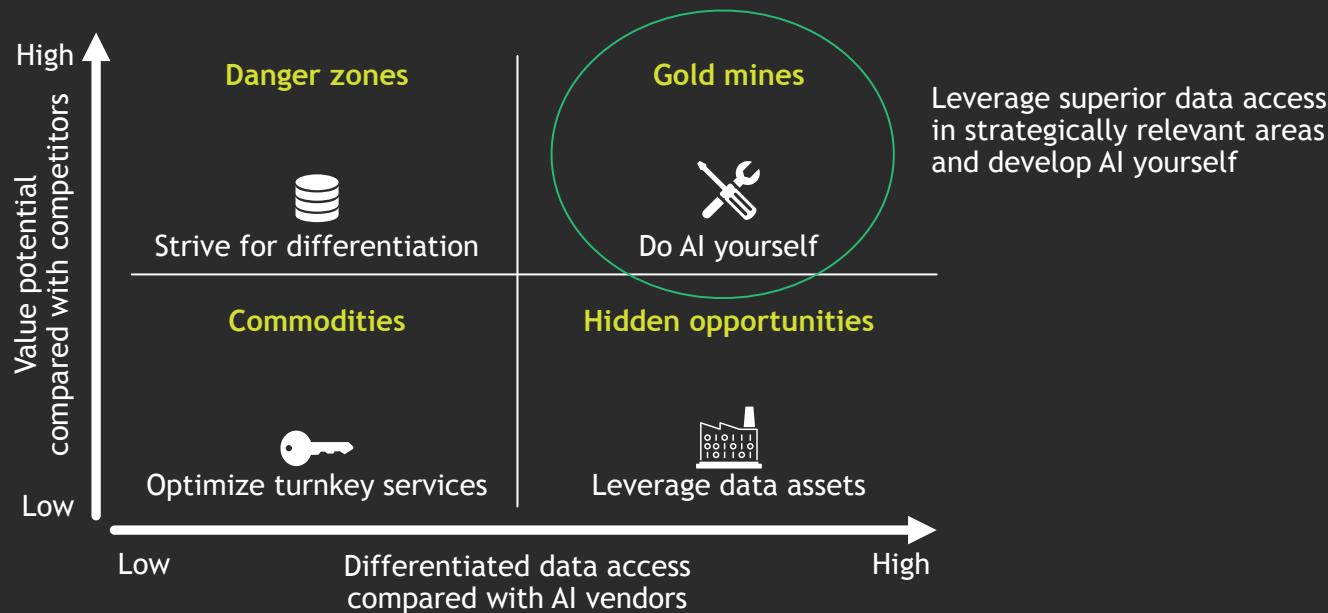
Be ready to fail - a real life illustration:

From fruit & vegetable products demand forecast ... to bakery & pastry forecast

- ❖ Project to predict **fruit & vegetables demand**
- ❖ **3-months of investigation and tests with lack of results** due to poor data quality
- ❖ **Pivot** to bakery & pastry forecast
- ❖ **After 5 months,** the project had saved 100 tons of pastries and bakery products
- ❖ Project is now deployed in market



Build-or-buy AI? Business leaders should guide the decision





Channel the
energy



Be bold with data & AI;
fail, learn & build 'muscles'



Activate people to
make change happen



Channel the
energy



Be bold with data & AI;
fail, learn & build 'muscles'



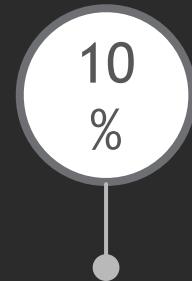
Activate people to
make change happen

10-20-70: disproportionately
invest on people & change

Sponsor data acculturation
initiatives in your scope/countries

Build data competencies
everywhere... it's never enough

The human factor is the key to transform data into value



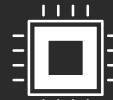
Algo or
Data Viz



+



Technology



+



People, Process
& Change



3 macro-objectives for Data Culture



Create
awareness on
Data potential



Build
capabilities



Embed **data-
oriented
behaviors**

We are launching a broad program to develop data acculturation at Carrefour's scale...
... and we need **your involvement and support in 2023 to extend its reach and impact !**



Extend our e-learning & large scale format for everyone

Data 101 on DRA e-learning platform

- Kokore partnership on data fundamental (May '22)
- Roles in data (Nov '22)

-Access to data visualization learnings

- Data Studio introduction (Nov '22)
- Data visualisation full content revamp (May '23)

Expansion of training for experts

- Google/Coursera certification (available in '22)
- 650 staff in France trained with OpenClassRoom (June-Nov '22); more to come in 2023 !
- Data Supermarket onboarding (May '23)



Deploy the data4all program to enable access to data to everyone

Access to the “Data Supermarket” to all Carrefour employee

- One single online portal for all data queries available mid-year 2023

Launch of the first ever Data Day global event

- Stay tuned for the event in 2023

Illustration: We cover all skills level with targeted trainings, from introduction to professional certification

Kokoroe

Short modules to cover data literacy available to all



Data



Démystifier le machine learning



Intelligence artificielle & Business : Décoder les opportunités



Data-Mania : comprendre l'enjeu business de la donnée



Comprendre l'impact de l'intelligence artificielle

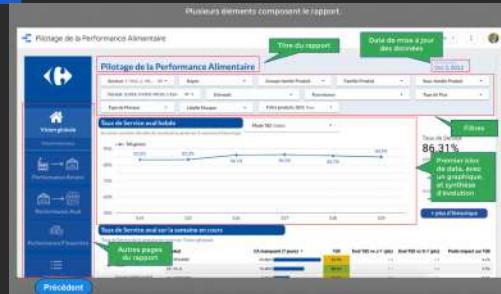


Retour vers le futur : découvrir les métiers de la data



Découvrir l'Analytics Factory

Data visualization updated learning program
To support new global tools



Updated picture based on RFP decision

Coursera

Expert trainings and certification on Google

Este Certificado profissional contém 8 cursos

Foundations: Data, Data, Everywhere

4.8 71 039 classificações

Ask Questions to Make Data-Driven Decisions

4.7 21 545 classificações



To realize our data ambition, we MUST build internal data competencies everywhere in the org - 50%+ in your business teams!

of “data experts” at Carrefour

As committed to investment community at the Digital Day in Nov 2021

3,000

data experts by 2026



To summarize your role, you have to...

You have control or at least clear influential role on all these items



Channel
the energy

Identify opportunities that
scale: scale is king

Focus on unicorns and
channel the energy

Define question, steer and
be ready to break things



Be bold with data & AI;
fail, learn & build 'muscles'

Be fearless, you need to
demystify A.I.!

Think different : Be ready to fail,
iterate, measure value and pivot

Know when to build or buy A.I.



Activate people to
make change happen

10-20-70: disproportionately
invest on people & change

Sponsor data acculturation
initiatives in your scope/countries

Build data competencies
everywhere... it's never enough