DATA ECONOMY IN THE 4TH INDUSTRIAL REVOLUTION

Leveraging AI and ML thus raising the success quotient of your automation journey

THE LANDSCAPE OF
THE DATA ECONOMY

DATA ECONOMY

is an ecosystem of organizations for whom data is the main source or object of their business.

TODAY THE FIVE MOST VALUABLE FIRMS ARE ALL ACTIVE IN THE 'DATA ECONOMY'

TOP 5 VALUABLE FIRMS IN 2018...

ExxonMobil   GAZPROM   中国移动 China Mobile

BR PETROBRAS   PetroChina

4 out of 5 most valuable companies were active in natural resource extraction

TOP 5 VALUABLE FIRMS TODAY...

Apple   Google   amazon

Microsoft   facebook

All the valuable firms are active in the "data economy"

DATA FACTS

$721 BILLION
The annual global value contributed by AI, IoT, Blockchain and 5G (2029E)

$191 BILLION
The global market for AI services (2025E)

$923 BILLION
The global market for AI services (2025E)

✉ **294 billion** — emails

💬 **65 billion** — Whatsapp messages
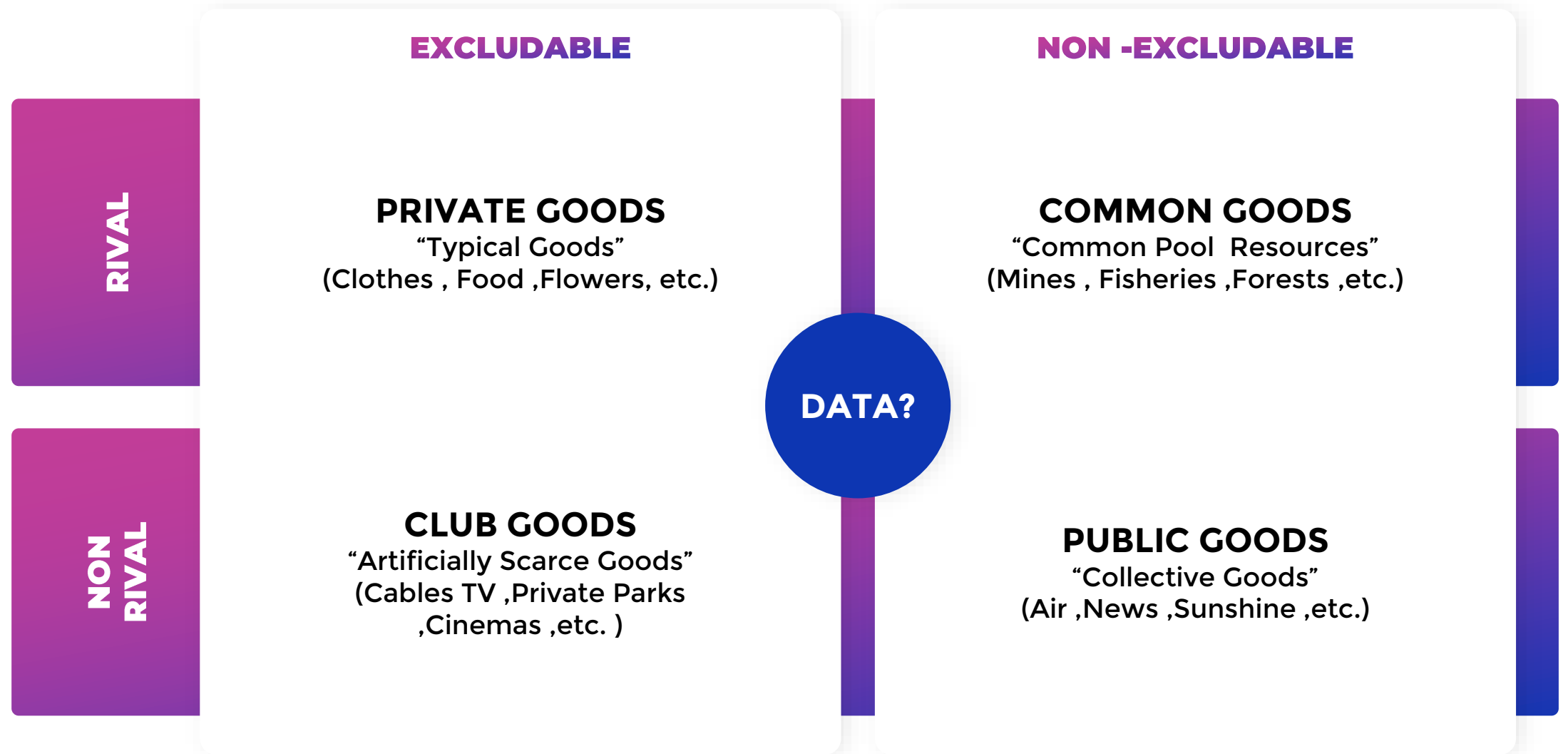
🔍 **5 billion** — Internet searches

19.4 billion — Active connected devices

f **4 petabytes** — Data created on Facebook

CATEGORIES OF DATA

EXCLUDABLE

NON -EXCLUDABLE

RIVAL

NON RIVAL

PRIVATE GOODS
"Typical Goods"
(Clothes , Food ,Flowers, etc.)

COMMON GOODS
"Common Pool Resources"
(Mines , Fisheries ,Forests ,etc.)

DATA?

CLUB GOODS
"Artificially Scarce Goods"
(Cables TV ,Private Parks
,Cinemas ,etc.)

PUBLIC GOODS
"Collective Goods"
(Air ,News ,Sunshine ,etc.)

CHALLENGES IN DATA ECONOMY

Most data exists in unrefined (or unstructured) form and it is non-trivial to convert it into structured data, the format needed for use in software.

Data owners use incompatible data models to structure their data which is kept in isolated silos although often sought-after by others.

No one has figured out how to price and exchange data efficiently yet.

FAILURE OF DATA MARKETPLACES

LACK OF TRUST AND SECURITY
Data owners fear the loss of control over their data
Companies worry that their data could be useful to other stakeholders

PRICING
customers are not prepared to pay the required price for the data due to unclear value or quality

ABSENCE OF LEGAL FRAMEWORKS
Legal uncertainty with regard to trading data. For instance, data as such is currently not protected by intellectual property rights.

Microsoft's Azure Data Marketplace

Examples of failed data marketplaces

Info Chimps

xDayta or Kasabi
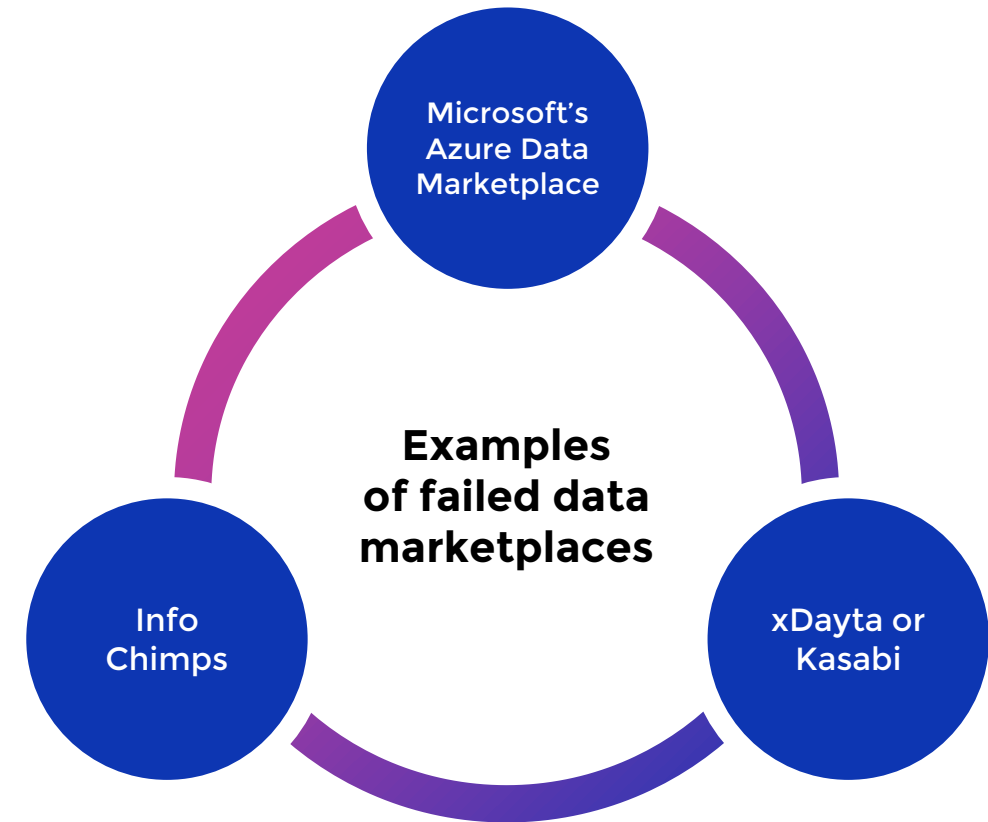
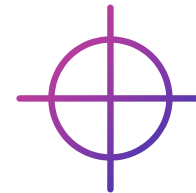# PREDICTIVE ANALYTICS & ECONOMIC DEVELOPMENT

The specific benefits of strong predictive analytics include

Enhanced data on existing companies

Ability to make data-driven decisions

Focused business development and marketing tactics

AI AND PREDICTIVE ANALYTICS IN DATA ECONOMY

1

Enables the marketing industry to compute predictions that offer a clearer picture of target audiences

2

Plays an important role in enlarging the pool of first-party data available to advertisers

3

AI-driven contextual targeting allows marketers to uncover granular user interests to take contextual-based approaches beyond high-level keywords

BENEFITS AND RISKS OF AUTOMATING OPERATIONS USING AI AND ML