ARTIFICIAL INTELLIGENCE

STUDY GROUP LEMANS

#IALeMans - Batch 03 - 08 et 09 juin 2018

le mans innovation
se saisir du hasard

<ÉCOLE DE LA FILIÈRE NUMÉRIQUE/>

imie

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BIENVENUE !

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PRESENTATION

QUI - QUOI - POURQUOI

14 AVRIL 2018

DEROULEMENT

09H00 PRESENTATION

09H30 TOUR D'HORIZON DE L'APPRENTISSAGE AUTOMATIQUE

10H00 ECHANGES ROUND 1

10H15 DATA DATA DATA

10H30 PAUSE

10H45 TP MACHINE LEARNING

11H30 TP DEEP LEARNING

12H30 ECHANGES ROUND 2 + FEEDBACKS

13H00 FIN

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APPRENTISSAGE AUTOMATIQUE

INTELLIGENCE ARTIFICIELLE - MACHINE LEARNING - DEEP LEARNING

PRINCIPE D'ENTRAINEMENT D'UN ALGORITHME AUTO-APPRENANT

APPRENTISSAGES SUPERVISÉ - NON SUPERVISÉ - PAR RENFORCEMENT

CAS D'USAGE

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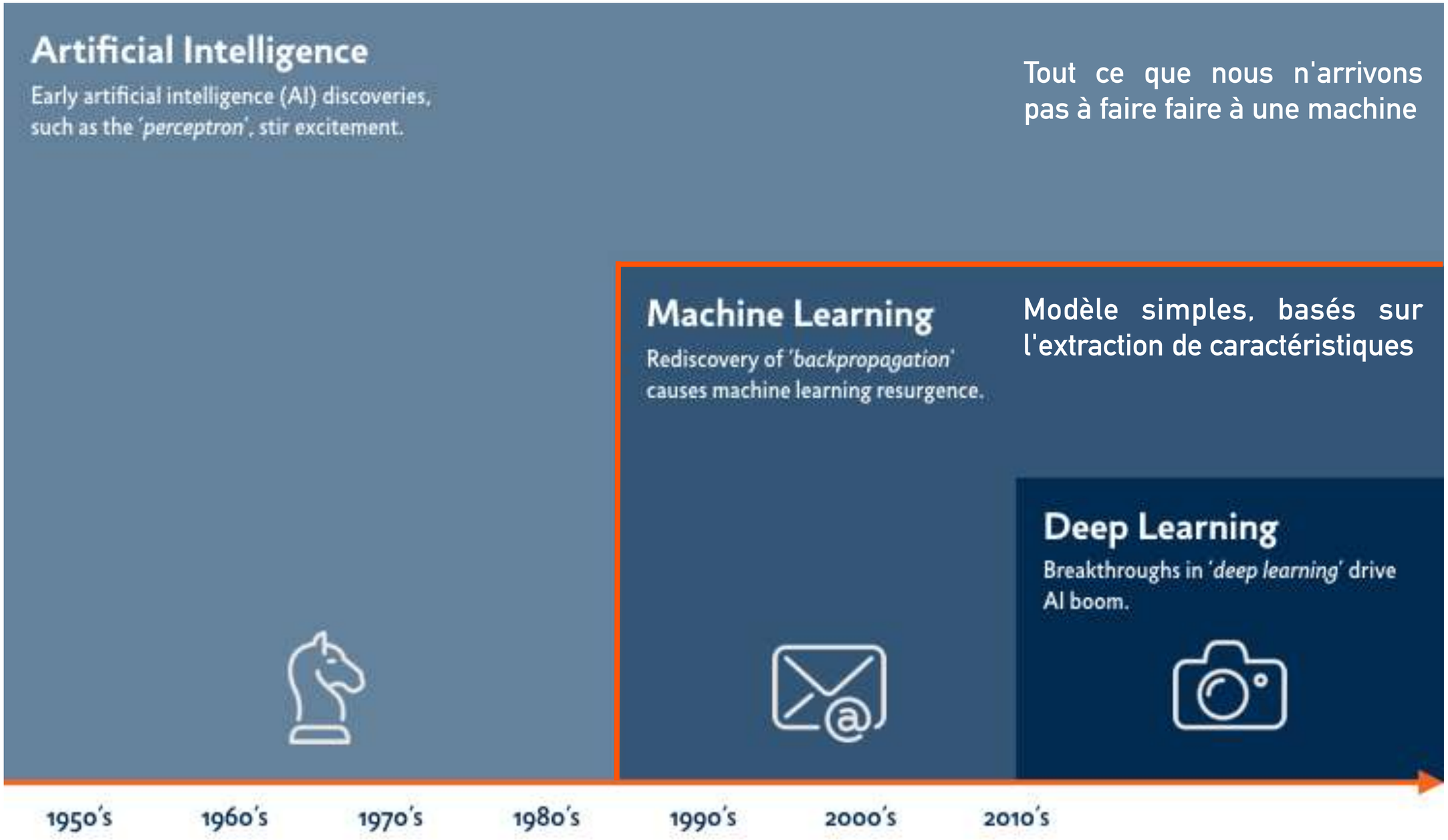
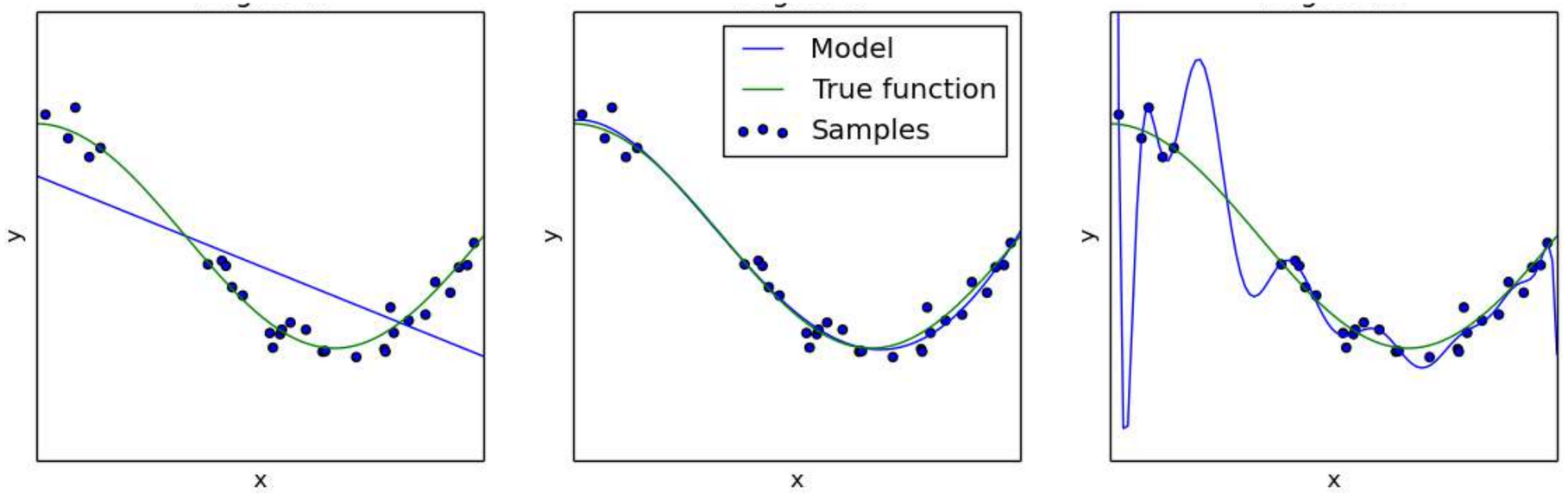
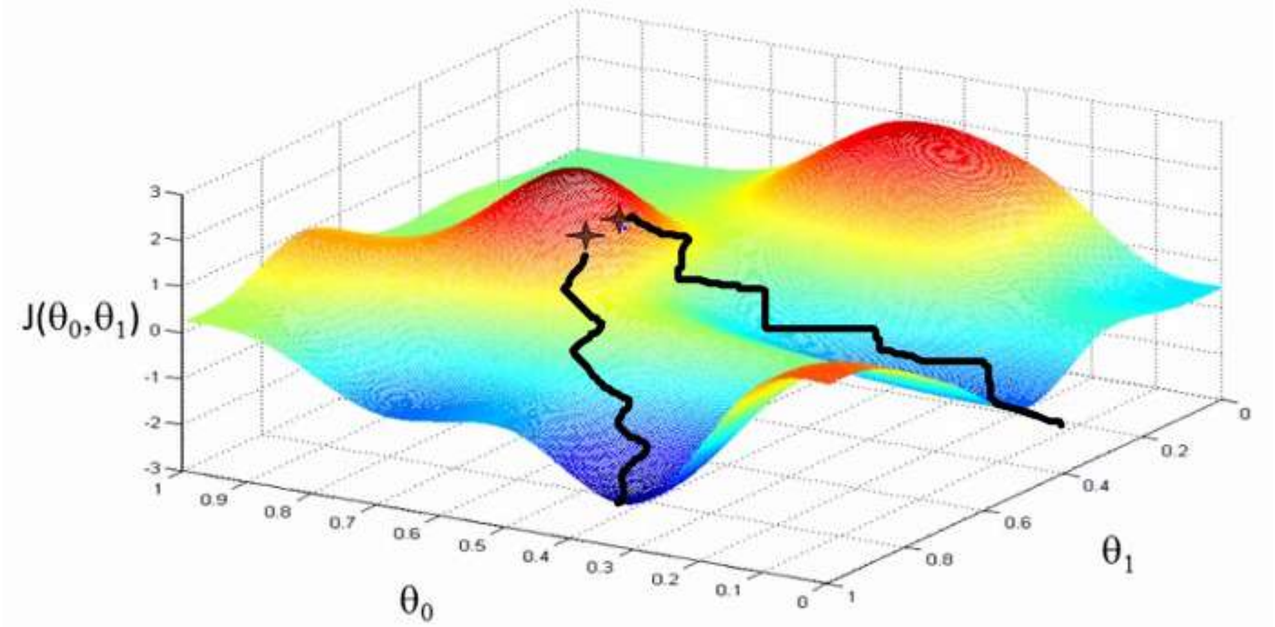
INTELLIGENCE ARTIFICIELLE - MACHINE LEARNING - DEEP LEARNING

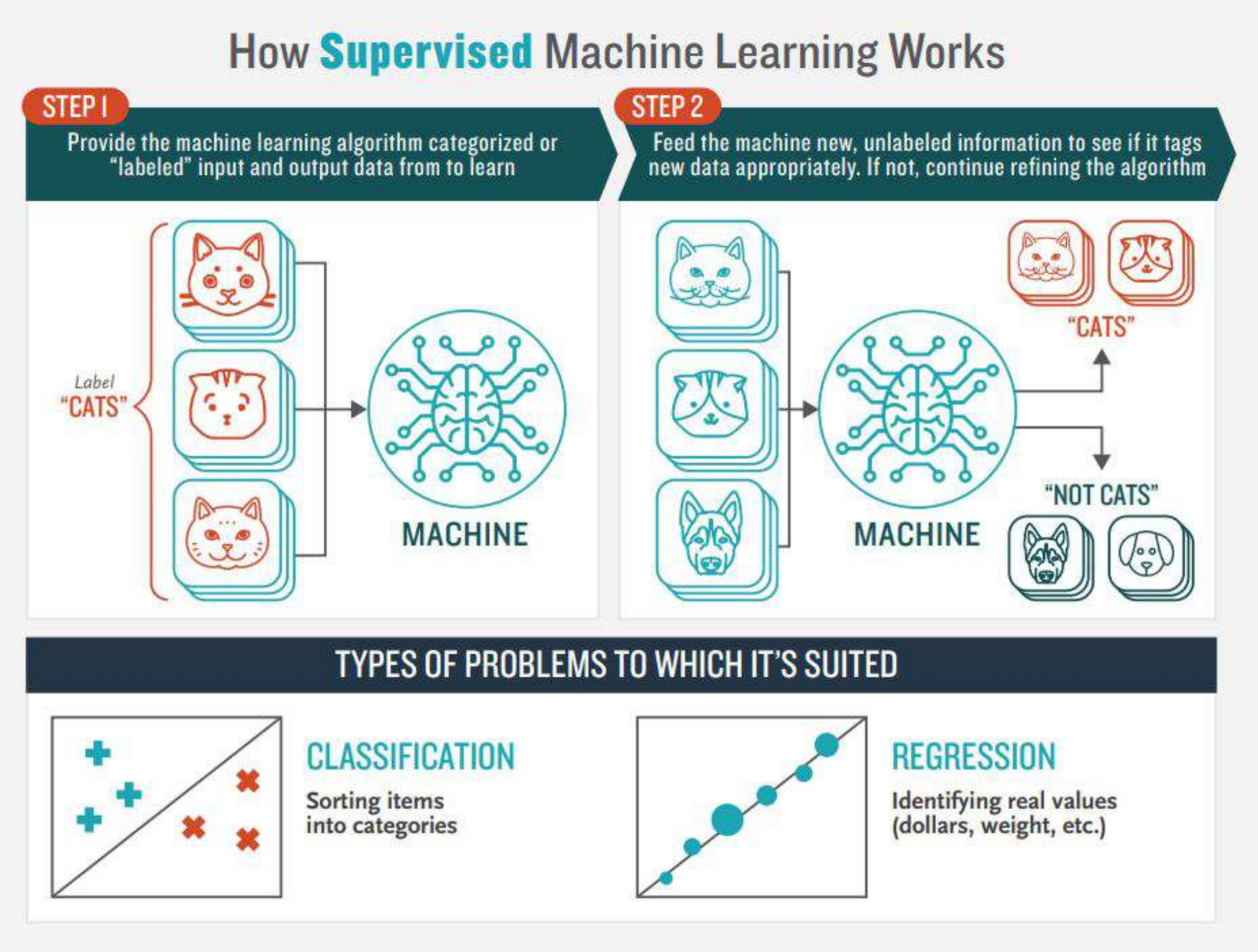


PRINCIPE D'ENTRAINEMENT D'UN ALGORITHME AUTO-APPRENANT

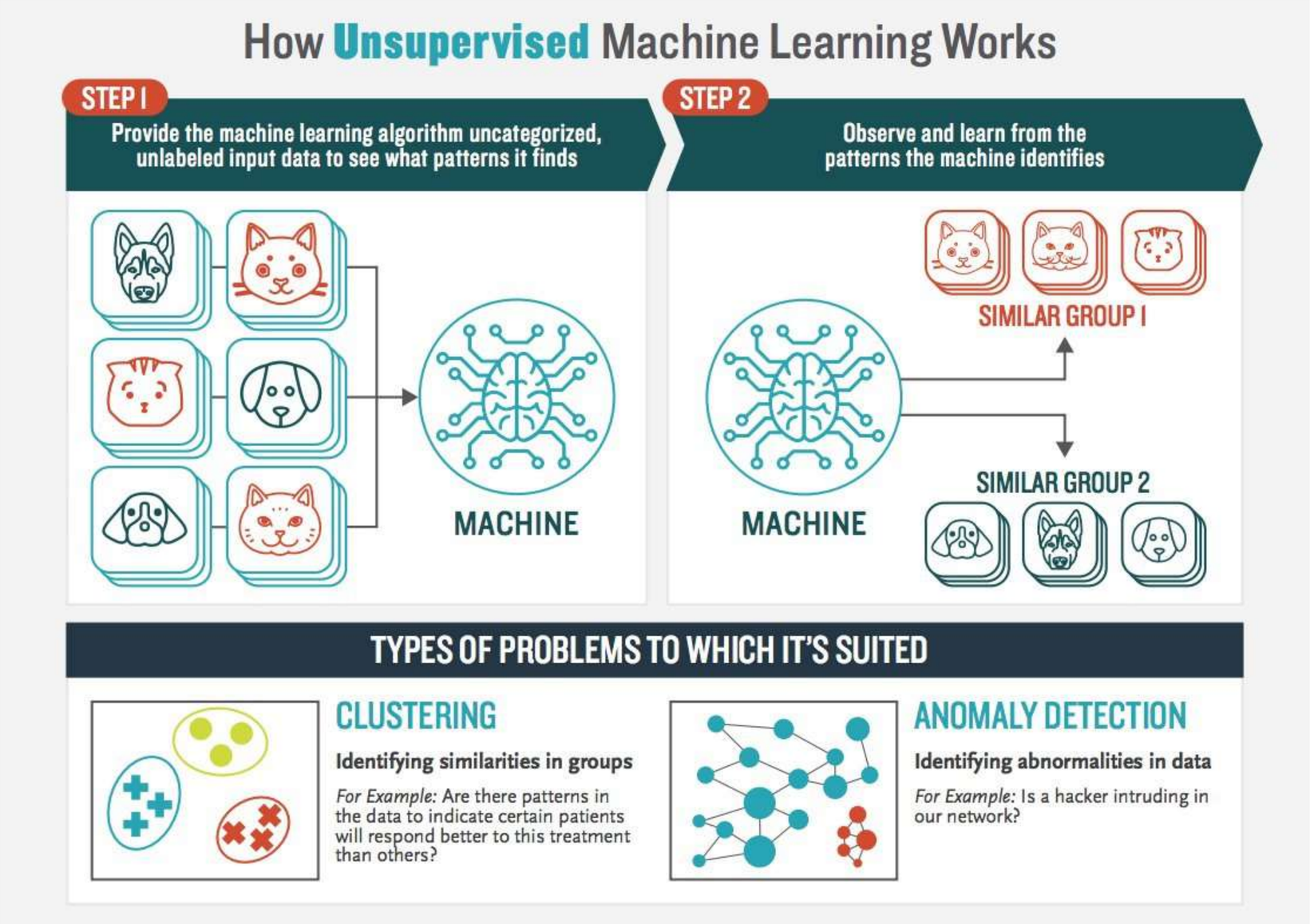




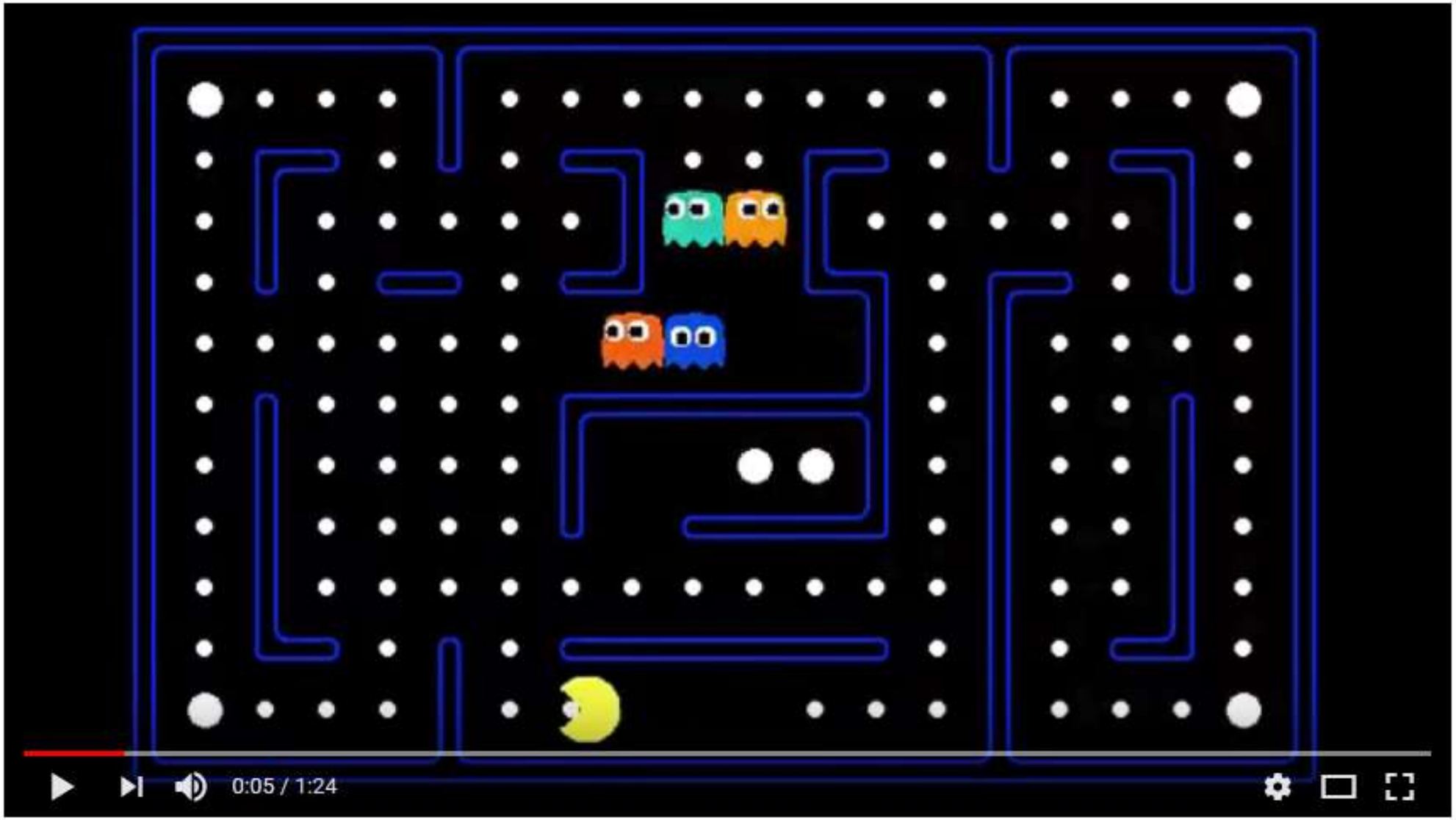
APPRENTISSAGES SUPERVISÉ - NON SUPERVISÉ - PAR RENFORCEMENT



APPRENTISSAGES SUPERVISÉ - **NON SUPERVISÉ** - PAR RENFORCEMENT



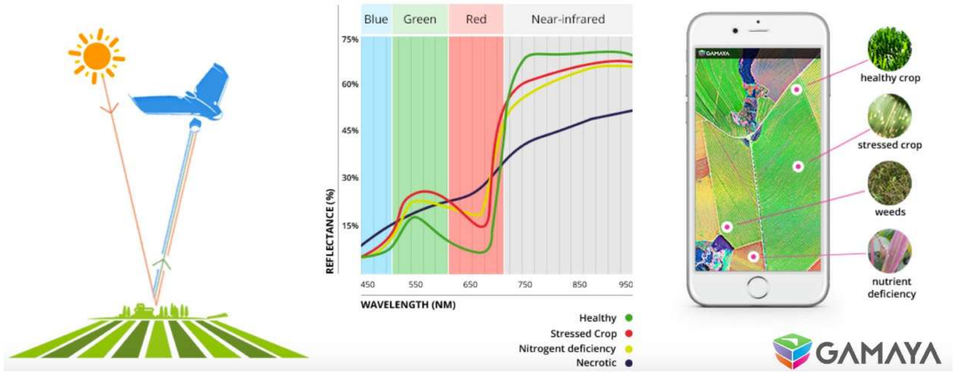
APPRENTISSAGES SUPERVISÉ - NON SUPERVISÉ - **PAR RENFORCEMENT**



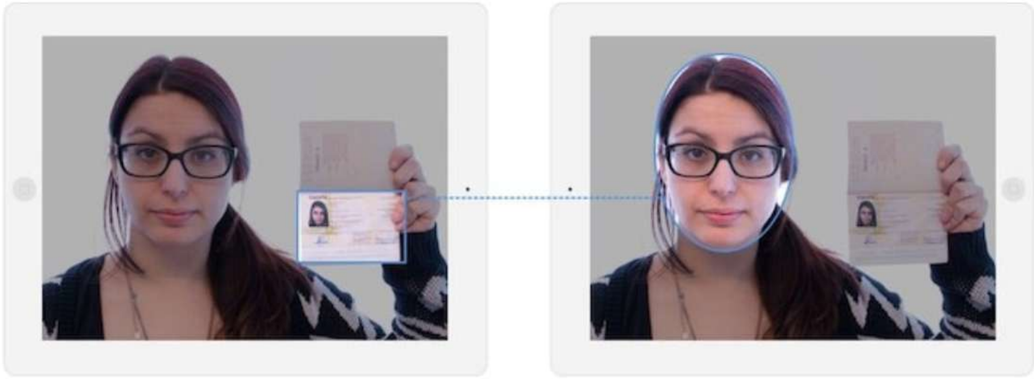
Neural network learns to play pacman

https://youtu.be/t5--kLRI4UE

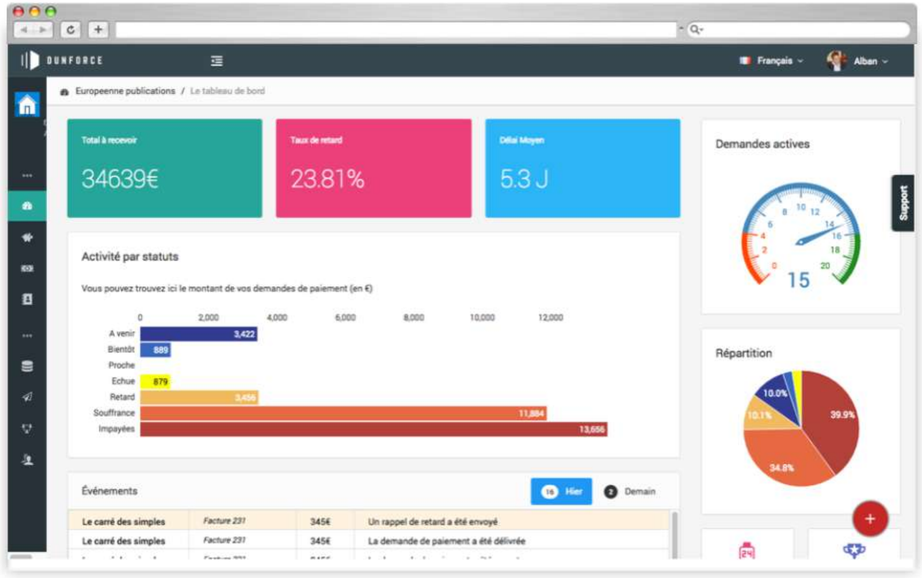
CAS D'USAGE



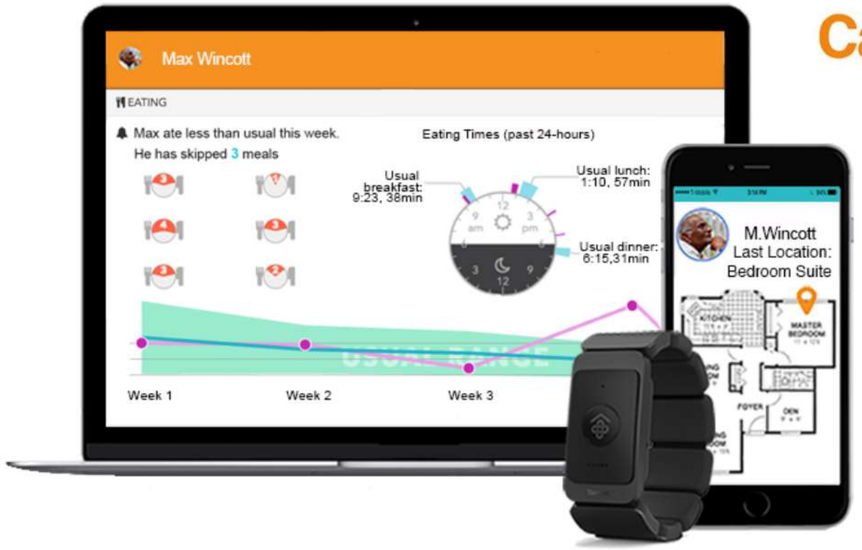
onfido



DUNFORCE



CarePredict



CAS D'USAGE

allomedia

InstaDropper

myrtill.lemans

Myrtill chausseur spécialiste enfant, bébé, ado. #conseils #cuir, #lemans

www.myrtill.net

Nouveau Post Instagram

Vous rêvez de ces petites chaussures enfants cuir rouge pour votre superman ? Dispo du 23 au 32 en semelle noir ou blanche

Suggestions

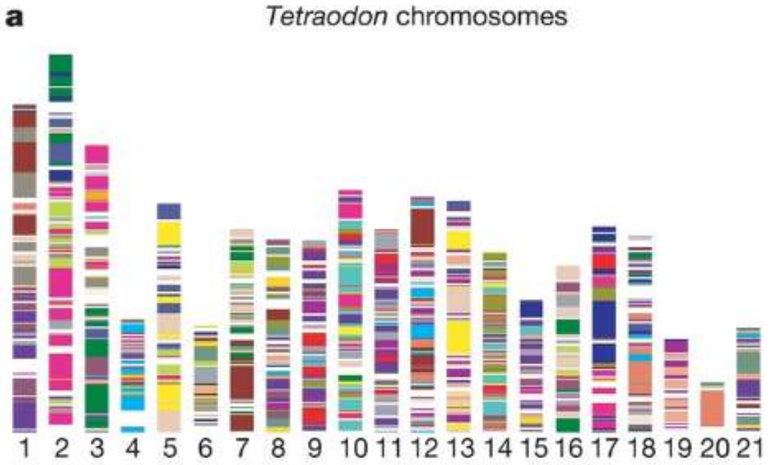
hashtags #superman #instakids #lemans #dealoftheday #babyshoes #red

mentions : @Le_Loup_Blanc

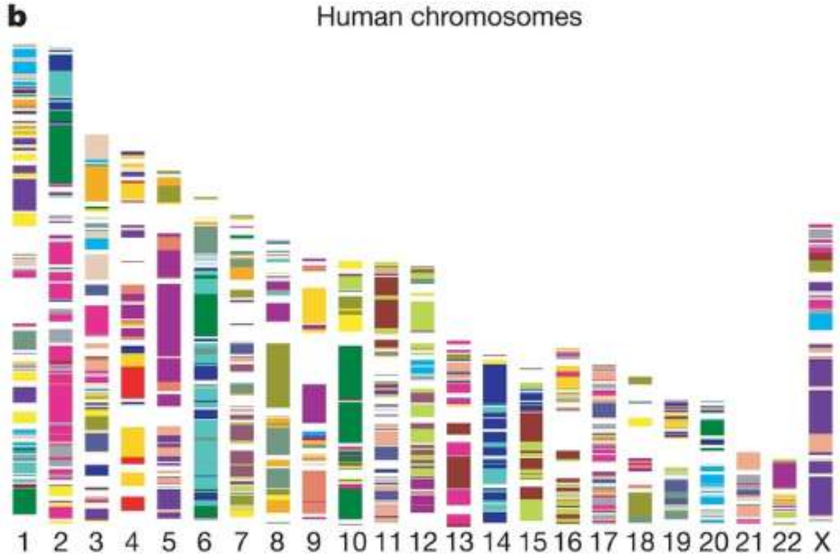
image : ★★★★

lien ecommerce : www.myrtill.net/products/baby-red-02351.html

CAS D'USAGE



GÉNOMIQUE



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ECHANGES

CE QUE VOUS EN FEREZ

OPÉRATIONS REPETITIVES

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DATA | DATA | DATA

DATA DRIVEN VS DATA INFORMED

DATA + HUMAINS > ALGOS

CYCLE DE PREPARATION

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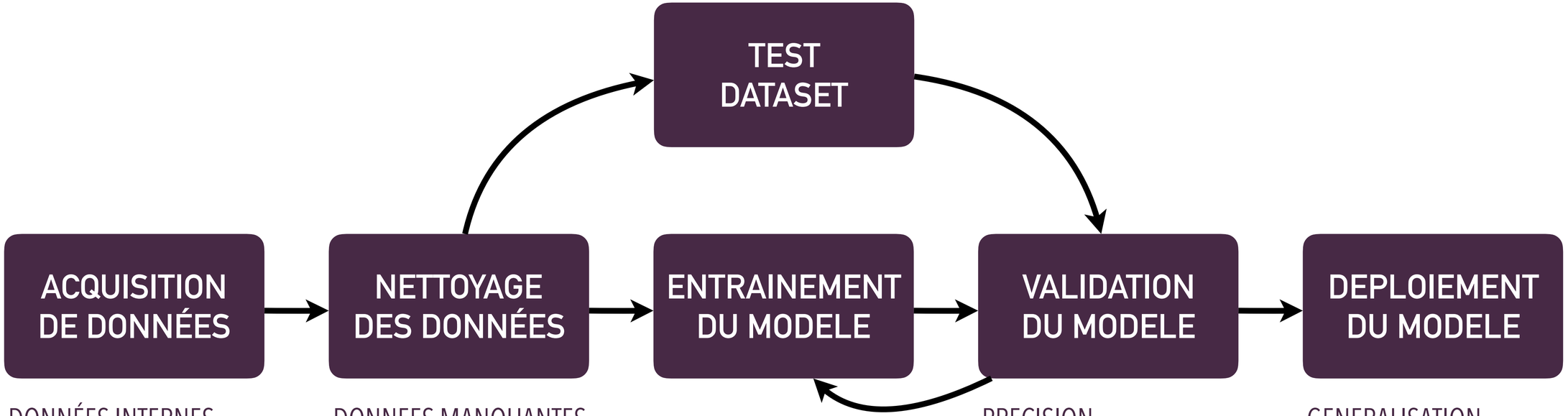
https://medium.com/conversations-with-tyler/garry-kasparov-tyler-cowen-chess-iq-ai-putin-3bf28baf4dba

CYCLE DE PREPARATION DE VOS DONNÉES



DONNÉES INTERNES
DONNÉES WEB
OPEN-DATA

DONNEES MANQUANTES
GENERATION DONNÉES
STANDARDISATION
NORMALISATION
LABELLISATION
EMBEDDINGS
BRASSAGE

PRECISION
RAPPEL
MATRICE DE CONFUSION

GENERALISATION

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TP MACHINE LEARNING

OUTILLAGE

SCENARIO - OBJECTIF - STRATEGIE

CORPUS DE DONNÉES

ENTRAINEMENT ET VALIDATION

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OUTILLAGE

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TP DEEP LEARNING

OUTILLAGE

SCENARIO - OBJECTIF - STRATEGIE

CORPUS DE DONNÉES

ENTRAINEMENT ET VALIDATION

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ECHANGES

VOS DONNÉES ACTIVABLES
ET CELLES AUXQUELLES
VOUS N'AVIEZ PAS PENSÉ

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FEEDBACKS

MERCI !

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SCÉNARIO - OBJECTIFS - STRATEGIE

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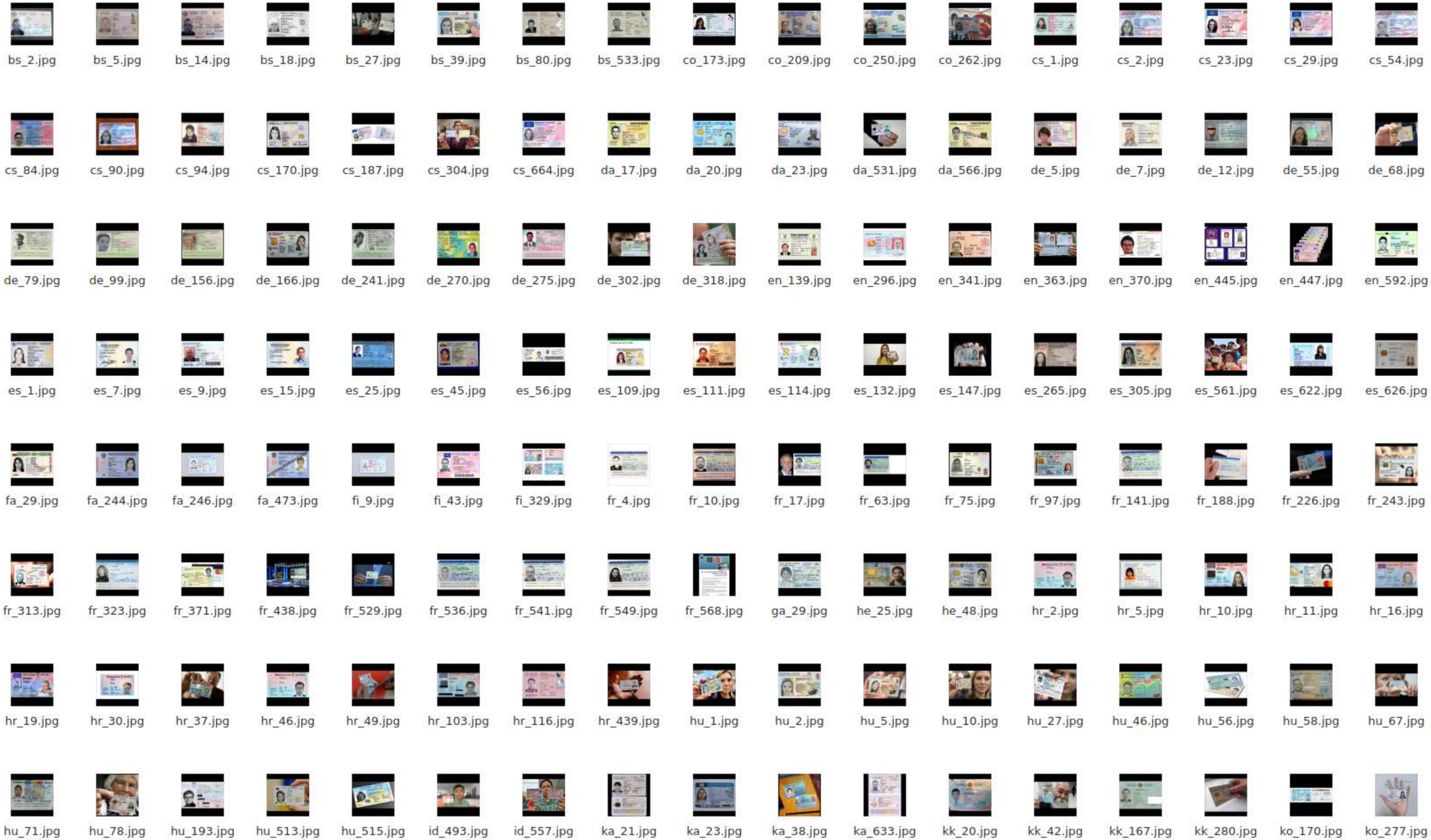
CORPUS DE DONNÉES : 3 classes "anything", "inside", "identity"



ENTRAINEMENT ET VALIDATION

Looking at pictures again

In [102]:
```
plot_val_with_title(most_by_correct(0, False), "Most incorrect Anything")
```

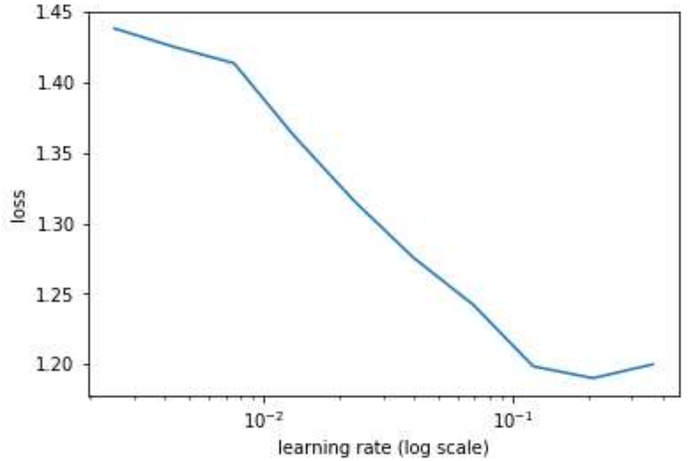
```
Most incorrect Anything
```

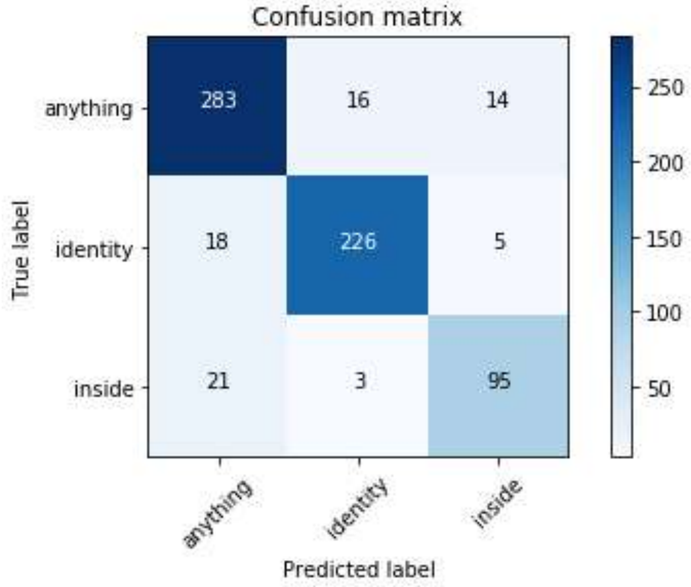
In [103]:
```
plot_val_with_title(most_by_correct(1, False), "Most incorrect Identity")
```

```
Most incorrect Identity
```

In [104]:
```
plot_val_with_title(most_by_correct(2, False), "Most incorrect Inside")
```

```
Most incorrect Inside
```





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TRAITEMENT IMAGES

STRATEGIE PROJETS

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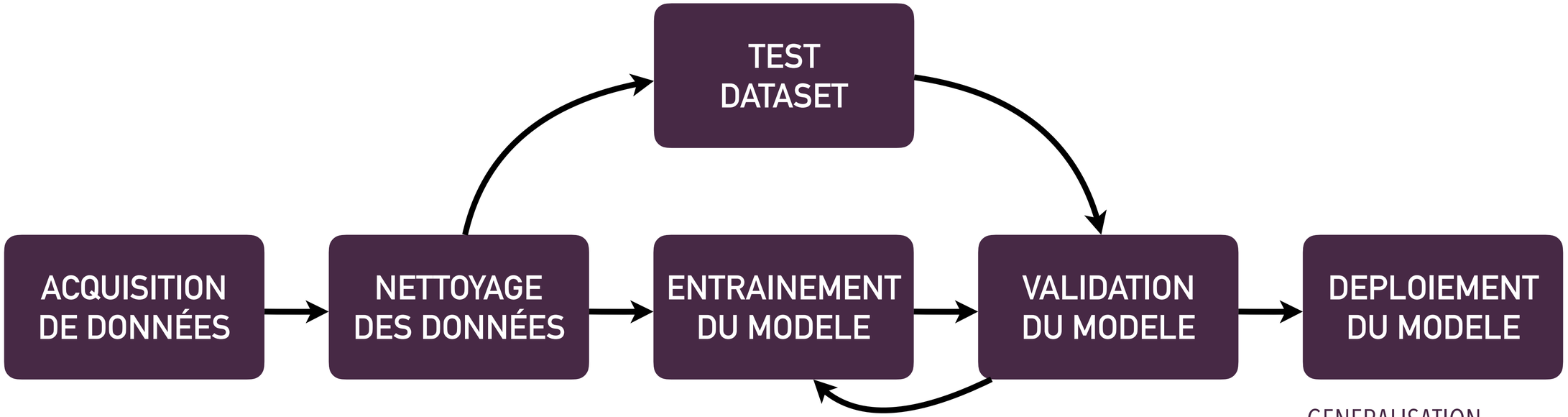
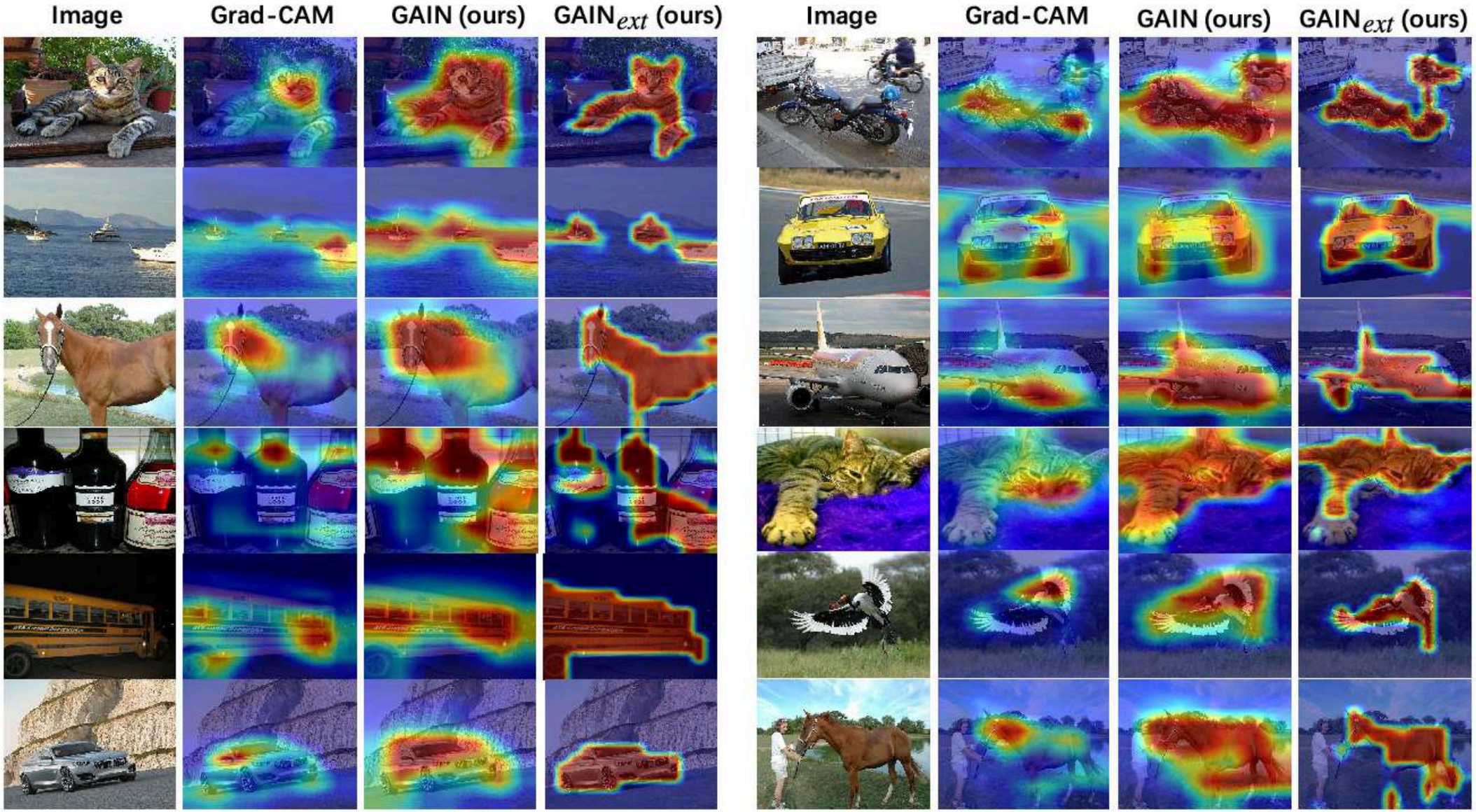
CONSOLIDATION



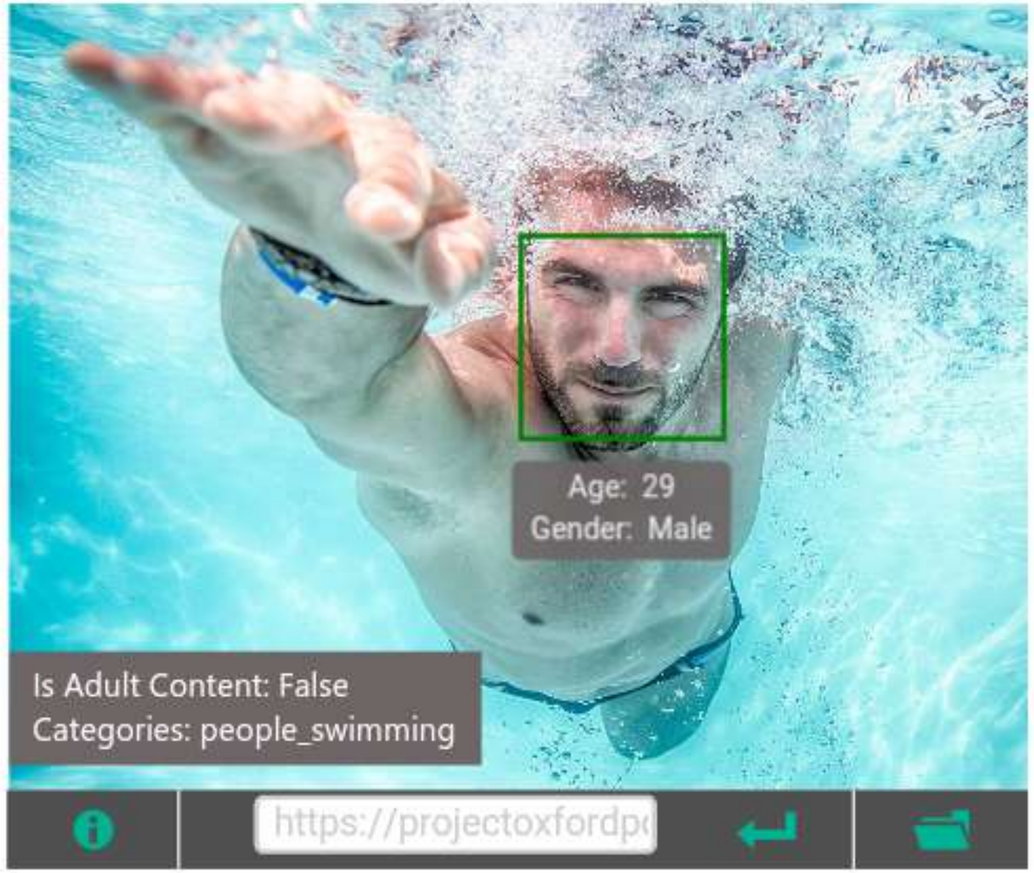
GENERALISATION

EXTENSION TRAITEMENT IMAGES



DETECTION D'OBJETS

EXTENSION TRAITEMENT IMAGES



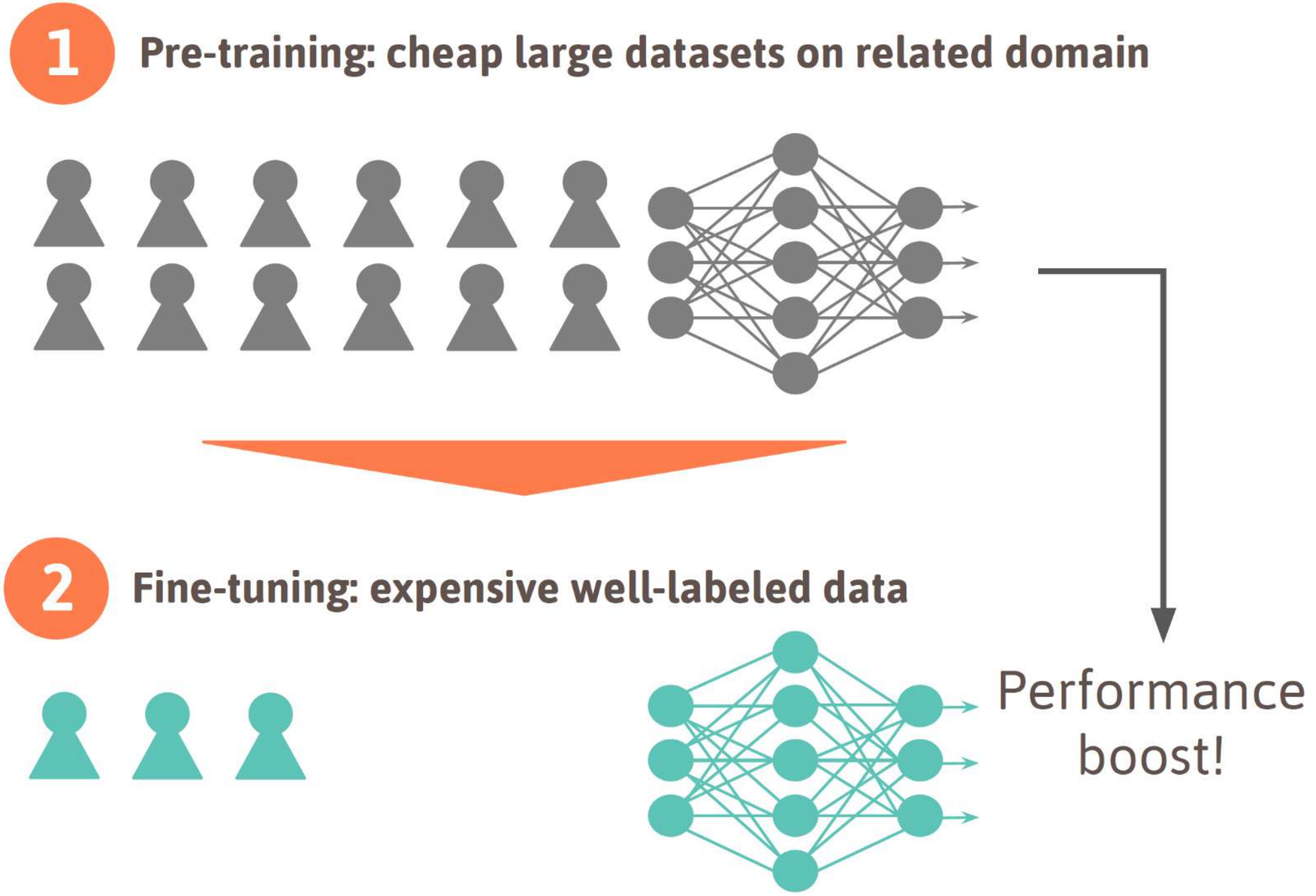
Features:

Feature Name	Value
Description	{ "type": 0, "captions": [{ "text": "a man swimming in a pool of water", "confidence": 0.7850108693093019 }] }
Tags	[{ "name": "water", "confidence": 0.9996442794799805 }, { "name": "sport", "confidence": 0.9504992365837097 }, { "name": "swimming", "confidence": 0.9062817096710205, "hint": "sport" }, { "name": "pool", "confidence": 0.8787589073181152 }, { "name": "water sport", "confidence": 0.631849467754364, "hint": "sport" }]

MULTI LABELLING

IMAGE DESCRIPTION

STRATEGIES

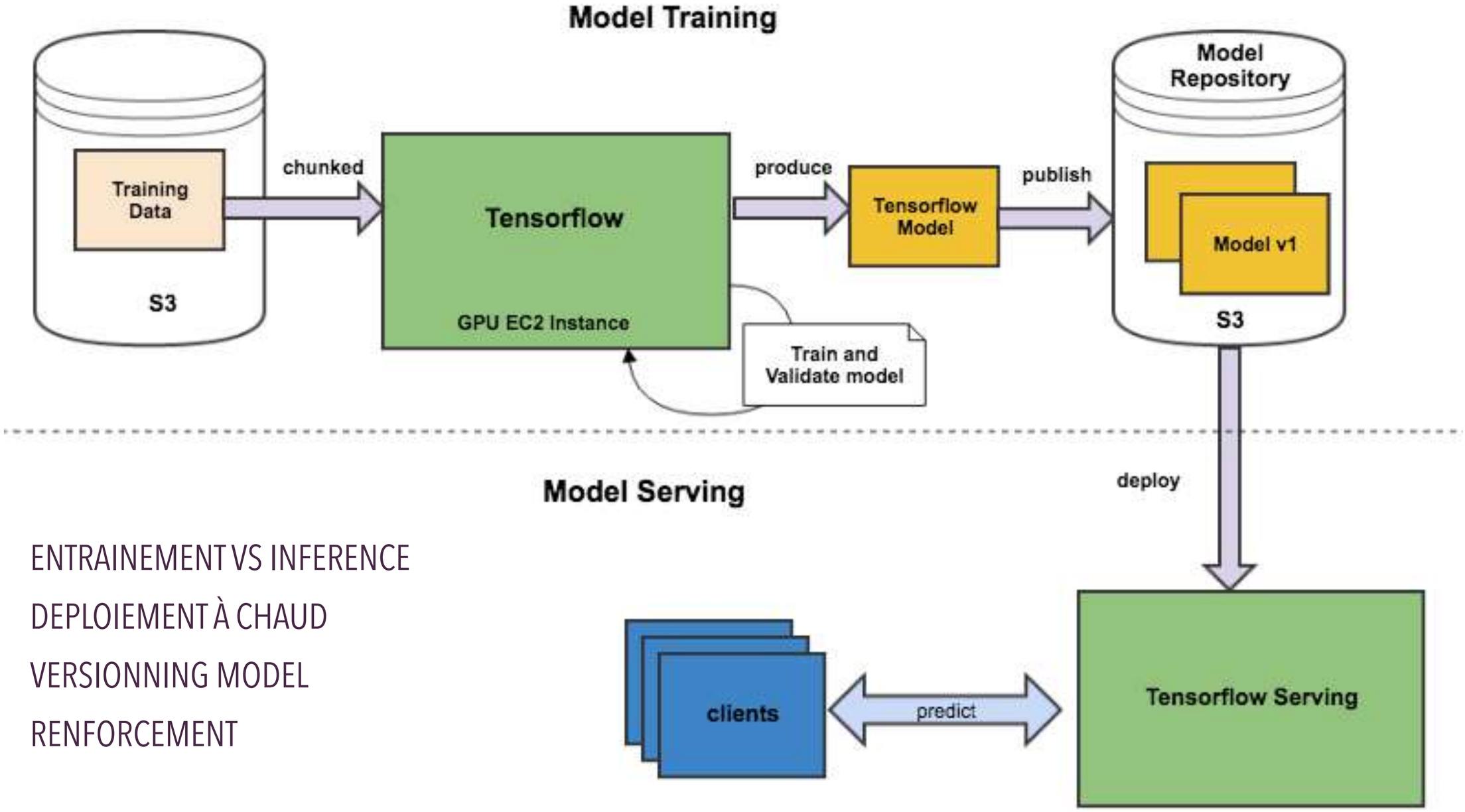


RE-TRAIN

SPECIALISATION

GOOGLE API VISION

STRATEGIES



ENTRAINEMENT VS INFERENCE

DEPLOIEMENT À CHAUD

VERSIONNING MODEL

RENFORCEMENT