PROCESS

EXASCALE LEARNING IN MEDICAL IMAGE DATA:
PATTERN RECOGNITION SYSTEM AS A DIAGNOSIS SUPPORT TOOL

PROCESS

ARTIFICIAL INTELLIGENCE

ANALYSIS
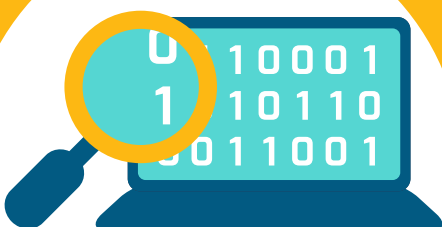
DATA

DIAGNOSIS

WHAT IS ABOUT?
WHAT IS THIS FOR?

Exascale learning in medical image data aims to improve the diagnosis of cancer detection by applying artifical intelligence in the analysis of tissue images and biopsies
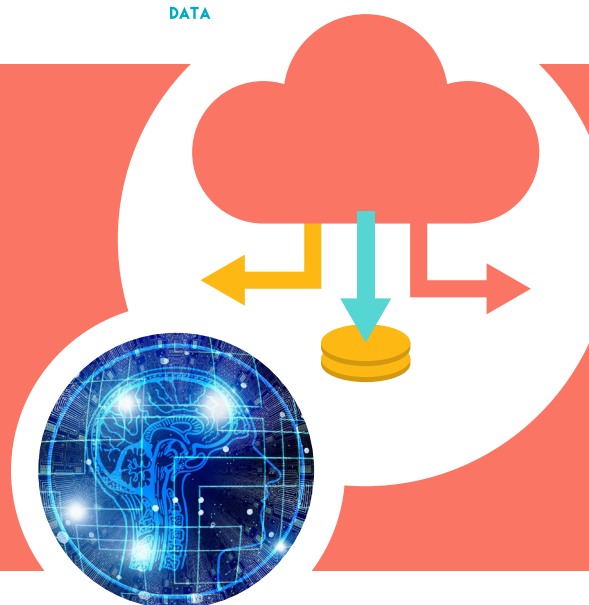
WHY WE DO IT

PROCESS can help to automate and simplify the tasks of data treatment and analysis in digital histopathology, with an optimal use of GPUs.

So, artificial intelligence can be used for scrutinizing medical images to speed up the search for patterns that help detect cancer.

HOW WE DO IT

The Use Case employs existing image databases, such as CAMELYEON. A new infrastructure, Camnet, has been built, with three layers:
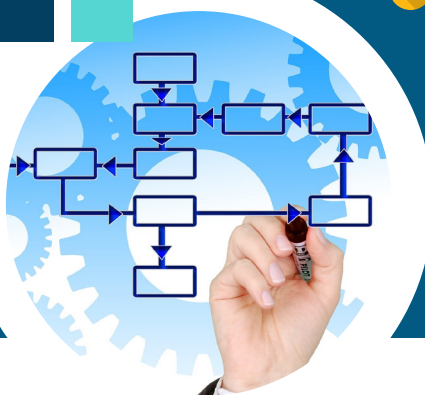
1) Data pre-processing and patch extraction

2) Local and distributed training

3) Performance boosting and interpretability.

The system allows the distribution of training across multiple computational centers

WHAT WE WILL GET

✓ A more efficient and precise image analysis solution for medical professionals.

✓ Accuracy in diagnosis.

✓ Faster results.

Lufthansa Systems

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