

# Helping industry and society with CERN knowhow on AI and data analytics

CERN Knowledge Transfer Group

IML Industry Day 20/10/2020

# CERN Knowledge Transfer in a nutshell

## WHY?

- Part of CERN ambition: create positive impact beyond High Energy Physics
- Accelerate innovation with industry & institutes in CERN Member States

## HOW?

- Seek societal & industrial challenges that can benefit from our CERN knowhow
- Setup projects of mutual interest using our data science or AI capabilities
- CERN may obtain industrial or EU/national funding a topic of common interest

## RESULT?

- CERN contributes to societal challenges in automotive, medical, fraud detection, etc
- CERN experts also may learn from use cases and technology as used in industry
- May help advance groundbreaking scientific discoveries



Machine learning to improve vaccine production at Sanofi.

ZENSEACT (Volvo Cars Company) teams up with CERN on fast machine learning using FPGAs.



Bundesdruckerei (Berlin) works with CERN on next generation ideas for cryptography and data management



Collaboration with CORMEC and WUR to support national banks and regulators to detect trading anomalies in stock market

# Project AI4I: better understanding our uniqueness

- CERN KT wants to better understand our unique capabilities in data science in general and in AI specifically for creating more impact:
    - What do we have that is unique? Which knowhow? Software? Hardware?
    - How do our data science techniques compare with those used in industry?
    - Which use cases outside High Energy Physics could benefit most?
- => To be used to scout for partnerships in areas that are also of CERN interest!

Please let us know if you are interested to think along and share with us your ideas! Email to [knowledge.transfer@cern.ch](mailto:knowledge.transfer@cern.ch)