Paris Session 2022





Al Center of Excellence Strategy: Scaling Al in Production in Energy Transmission

D2, PS1, Q. 1.8

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Group Discussion Meeting

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Establishing an AI Center of Excellence: Initial Vision

PROCESS -

Orchestrator

TOOL -

Support

- Provide data scientists and expertise in order to co-develop smart solutions
- Experts from partners
- On-demand student from coding school
- Internal Data scientists

Provide tool to the business to become self-sufficient in early Al

- Provide and support Al tools for the business (coding platforms, lowand no-code solutions)
- Provide trainings and coaching
- Provide tools and infrastructure for deploying ML models in production

A Center of Excellence provides expertise on the topic of AI.

3 key enablers required to provide this service to the business:

- 1. People Expertise
- 2. Tool Support
- 3. Process Orchestration

Provide coherent AI governance for all AI projects within the group

- Interface with other internal stakeholders to:
 - Define and prepare for future talent needs (HR)

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PEOPLE

Expertise

- Provision necessary data (Data team)
- Provision necessary ML Infrastructure (IT)
- Manage risks (Risk management)
- Consider new strategic orientation (Strategy)

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First 2 Al use cases in Elia Group: in system operations and outage planning, done with external DS partner

n system
and outage
business to harness the
power of their data via AI
and ML

2018

Al CoE founded, with

Establishing an AI Center of Excellence: First 2 Years

- "Al Demystification" course provided to entire business
- "Intro to Python for Data Wrangling" and "ML for Energy" courses developed
- Internal DS team increases from 1 to 5

ML Deployment infrastructure made available for AI CoE DS

PEOPLE - ML development tool

- ML development toolkit improved for internal DS
- Tooling improved and expanded for citizen DS

ructure made Main Learnings

- Education, at all levels and profiles, is the most important part step in accelerating AI adoption
- Clear project governance needed
- Focus on models in production is a must to escape the "proof-of-concept trap": Led to our focus on ML-Ops
- Translating between DS and the business is key. Hiring DS talent with a business focus at the start is important

PROCESS - Orchestrator

- Al Project governance defined: Al CoE Project Plan developed, defines main goals, potential risks, and evaluation criteria for each project phase.
- Educating all stakeholder on the process of Al projects was vital: uncertainty at start, how data products differ from other software products

Expertise

Alignment with IT, other parts of the business is always ongoing

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KPIs: No. Use cases: 2 Departments: 2 Internal DS: 1

2022

KPIs:

No. Use cases: 12 Departments: 6

Internal DS: 5 (+ 4 interns)

Establishing an AI Center of Excellence: New Operating Model

- Providing DS, ML Engineers to the business
- Training the business on ML project management
- Training citizen data scientists in their own teams



- ML Deployment infrastructure made available for AI CoE DS
 - ML development toolkit improved for internal DS
 - Tooling improved and expanded for citizen DS

- ML-aaS: managing ML Models in production
- Governance for citizen DS deploying own models
- "Production first" mindset



PROCESS-Orchestration

ML-Ops

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transformation to product culture Improved workflow for data scientists and

ML engineers: better tooling and governance support for moving from experimentation to deployment

aligned with organizational

More focus on good use case design: using new techniques like data thinking and AI by design to ensure strong user acceptance

Points for the Future

Integration of "production-first" mindset:

Deepening adoption with "First MVP Free" approach: AI CoE funds first ML MVP with new business departments: proving value of ML to new stakeholders

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