The Global BIG DATA Analytics In Power & Utilities Industry Forum

27-28-29 November 2023

EXPECTED SPEAKERS:

Frederico Cabral CoE Data Science & Monetization Lead **Galp**	**Fawad A. Qureshi** Global Industry Field CTO **Snowflake**	**Dr Kamal Radi** Senior Specialist – SCADA & EMS Smart Grid Solutions| **ESB International**	**Michal Hodinka** Enterprise Architect, Retail IT Office **innogy Ceska republika**	**Dr Yashar Ghiassi-Farrokhfal** Associate Professor **Rotterdam School of Management (RSM)**	**Shubham Rajvanshi** Principal Consultant **ISG**
Dr. Tobias Krauss Head of Data Analytics, **Netze BW**	**Abed Ajraou** Head of Data & Insight **E.ON Next**	**Rodriguez Asensio, Miguel** Lead Data Scientist **Iberdrola**	**Brian Magee** SCADA / EMS / DMS ENGINEER **ESB International**	Theo Borst Head of Business Development Consultancy **DNV**	**Kaustav Basu** Lead data Scientist Eneco
Malte Lorbach Lead Data Scientist **Alliander**	João Fontes Machado Data Analytics & Automation Specialist **EDP**	Matteo Masotti Head of Data Competence Center **Enel**	Frank Gebhardt Project leader Lead Engineer (AI) UNIPER Technologies	Romina Medici Head of Data Management & Governance E.ON	Mihail Ivanov Product Manager Digitalization **ZF Group**

INTRODUCTION

Artificial intelligence is changing the way that many industries operate and has huge potential to transform the utilities industry. Utilities are turning to big data capabilities to help them improve asset maintenance, integrate DERs, improve demand response, and increase online customer facing applications.

The Global Big-Data Analytics in Power & Utilities Forum **27- 28-29 NOV 2023** Amsterdam offers content for decision-makers and experts of technology strategy, analytics, data-science, and innovation from leading Energy companies. Learn how Data and analytics leaders can leverage AI to anticipate, shift and accelerate transformation in the face of disruption, uncertainty, and opportunity.

The exponential growth of data analytics in power and utility industries has motivated worldwide response by forming big data analytics in power and utility summits. Numerous transformations have been witnessed in the application of modern technologies by industries leading to the growth in volumes and variety of data and its analytics. These summits have witnessed a huge gathering of experts and decision-makers from the European powers and utilities industry to discuss trends and challenges of digital technologies data analytics and build business relationships. Therefore, the forthcoming summits to be held in Amsterdam will certainly provide the best platform for discussing a lot of topics on big data dynamics on power and utilities.

WHO SHOULD ATTEND

Chief Utilities Officers and Executives
Engineers and Operations Specialists
Utility Industry Regulators
Federal, Provincial and Municipal Government and Agencies
CIOs, CTOs, COOs, Directors of IT
Customer Services Executives
Regulatory, Policy and Standards Administrators
Academic and Research Professionals
Compliance and Consumer Protection Agents

Data Analytics,
Digital & Data Science,
AI & Machine Learning experts,
Big Data Engineers,
Data Managers,
Architects and IT practitioners
Vendors and Product Service Providers
Analytics Platforms & IT Solutions
Smart Grid/Soft Grid Developers
Automation, Hardware & Software Infrastructure
Storage and Security
Management and Technology Consultants

ARE YOU INTERESTED IN SPEAKING OR SPONSORING?

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08.30 REGISTRATION AND MORNING COFFEE

08.50 OPENING ADDRESS FROM THE CHAIRPERSON

How to avoid failure in our data science projects and how to maximise the value for these projects?

09.00
CASE STUDY

CASE STUDY: WHAT MAKES MAJOR PROJECTS SUCCESSFUL?

Data Science needs :
The right mindset
The right technology
The right methodology
The right team

Abed Ajraou,
Head of Data & Insight,
E.ON Next

The Essence of Cloud Migration in Business Intelligence Software

09.45
CASE STUDY

Cloud Data and Analytics Architecture: Data Everywhere for Everyone

- Cloud platforms provide unique challenges and opportunities to design and architect an optimal
- Data and Analytics architecture
- Modernize your analytics and BI capabilities by selecting the products that best meet your needs.
- How to architect data and analytics stack

Michal Hodinka
Enterprise Architect,
Retail IT Office
innogy Ceska republika

10.30 COFFEE BREAK

11.00
CASE STUDY

Smart Load Management Systems

Smart Load Management System concept.
Designs of smart load management systems that can effectively be utilized during emergency energy demand Strategies to efficiently manage energy loads by energy and utility companies in the strategic balancing of energy demand
Developing smart load management systems that permit end-to-end network management through advanced control systems
Utilising the " Big Data", tools and strategies available through the following sources in drawing the policies Smart Load Management Systems:
- o Real Time SCADA data
- o Real Time Quality Management System Data in Smart Load Management Systems
- o Historical data warehouse systems
- o CIM data (Common Information Model)
- o Demand Side Management policies.
- o Short and long Term Load Forecasts
- o Artificial intelligence and business Indolence.

Impact of intermittence renewable Energy sources on the Load Management System.
Energy Market Systems impact on the Smart Load Management Systems.
End customer prospective of the load side Management.

Dr Kamal Radi
Senior Specialist – SCADA & EMS Smart Grid Solutions|
ESB International

Brian Magee
SCADA / EMS / DMS ENGINEER
ESB International

11.45
CASE STUDY

Decreasing lead time for connection upgrades with the help of computer vision @ Alliander

- How AI helps with the planning of your engineers
- Image recognition of assets in customers' homes

Malte Lorbach
Lead Data Scientist
Alliander

Remco Runge
Solution Lead AI
Ordina

12.30 **LUNCH**

13.30
CASE STUDY

Data opportunities throughout the energy lifecycle

- Generation: AI to improve decision making, production rates and maintenance tasks.
- Networks: using Big Data & AI as a core technology for even a smarter grid.
- Retail: AI at the core of smart solutions to improve customer experience.
- Quantum Technologies: the next big thing?

Rodriguez Asensio, Miguel
Lead Data Scientist
Iberdrola

14.15
CASE STUDY

Data Journey at Netze BW

- Data governance as a fundamental basis for data management
- Explanation of roles like data steward, data officers and tools to measure for instance data quality in our core systems like geoinformation systems, network management systems, SAP PM, SAP IS-U
- Setting up and development of a centre of competence in data analytics. What kind of approach, capabilities and IT-platforms are necessary.
- Selected Use Cases in the field of a distribution grid operator: e.g. predictive maintenance of gas pipelines and medium voltage grids, optimization of outage locations in medium voltage grids, digital twins of assets. This can be shown in our live systems

Netze BW
Ein Unternehmen der EnBW

Dr. Tobias Krauss
Head of Data Analytics,
Netze BW

15.00 COFFEE BREAK

15.30
CASE STUDY

wind farm operations and maintenance (O&M) with digitalization

- Importance of digitalization in the wind sector
- Digitalization at ZF Wind Power
- Enhancing wind farm operations and maintenance (O&M) with digitalization

ZF

Mihail Ivanov
Product Manager
Digitalization
ZF Group

16:15
CASE STUDY

Why do most of the Data Science projects fail?

- Do you know that more than 85% of Data Science projects fail?
- Do you want to avoid becoming part of the statistics?
- In this session we would talk about common pitfalls and how to avoid them.

snowflake®

Fawad A. Qureshi
Global Industry Field CTO

Snowflake

17.00 CLOSING REMARKS

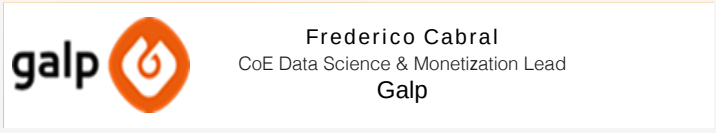
08.00 REGISTRATION AND MORNING COFFEE

08.20 OPENING ADDRESS FROM THE CHAIRPERSON

9.00
CASE STUDY

Implementing a corporate Data Science strategy in a integrated Energy Company

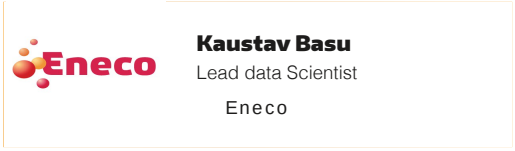
- Galp overview
- Data Scientist role and the DS Teams organization
- The Data Science journey – Ideation and PoCs; Projects; Product
- Collaborative & Agile developments
- Main challenges & Way-Forward



9.45
CASE STUDY

Sustainable living through data science

- Eneco is a leading energy utility company based in the Netherlands.
- - Going beyond being a commodity supplier by offering energy services technology.
- - Customised energy insight services for over a million customers



10.30 COFFEE BREAK

11.00
CASE STUDY

-
-
-

11.45
CASE STUDY

Big Data in Photovoltaics: from PV plants to self-consumption units

João Fontes Machado
Data Analytics & Automation Specialist
EDP

Main differences between the supervision of a PV plant and a DG self-consumption park
Data Sources, Models and KPI
Fault detection and prediction

12.30 LUNCH

13.30
CASE STUDY

Assurance of Digital Twins

Theo Borst
Head of Business Development and Consultancy
DNV

A digital twin is a virtual representation of a system or asset, that calculates system states and makes system information available, through integrated models and data, with the purpose of providing decision support, over its lifecycle. The Energy industry has used digital twins for a long time, be it under different names, for example grid modelling tools, SCADA systems, and power flow models. Upcoming capabilities related to sensoring, data storage and data analytics (AI/ML) will enable Digital Twins to play an ever increasing role in efficient decision support for saving cost and driving innovation.
Examples of key drivers include:
Operational efficiency
Remote operations
Supporting sustainability goals
The market for digital twins is likely to grow with a factor of 3 from 2021 to 2026. Digital twins differ in scale and complexity. Different capability levels can be defined for the functional element of a digital twin mapped to the previously mentioned evolution of the functional element. The higher capability, the more value. But as the complexity increases, so does the risk that the digital twin may not deliver what buyers expect, and could leave operators wondering if they can trust information from a twin. DNV recommends that the following four aspects should be considered when assessing trustworthiness of a digital twin:

The organizational maturity – an assessment of the organization ' s capabilities to transform digitally, including people, tools, technology, processes and competence to develop and maintain qualified digital twins.
The quality of the digital twin – assess that the digital twin meets the stated requirements and with the right quality.
Risk of use – assess the risk of using digital twins to support decisions.
Continuous assurance – ensure and assess that digital twins remain qualified over the lifetime of the asset

14.15

Industry outlook and Latest market intelligence around Digital Transformations

- Where is the investment being focused?
- Where are we seeing the challenges?
- What are the lessons to be learned, and
- What enablers will Enterprises need in terms of strategy, leadership, employee skills and IT infrastructure?

Shubham Rajvanshi
Principal Consultant
ISG

15.00 COFFEE BREAK

Data Governance and Management Journey of E.ON

15.30
CASE STUDY

- Introduction
- About E.ON' s organization and complexity of it
- Data Governance and Management Journey of the E.ON Group
  Key Challenges and Lessons Learned

Romina Medici
Head of Data Management & Governance
E.ON

The Path towards Enel Platformization

16.15
CASE STUDY

What were the key enablers of Enel's digital strategy The technological drivers paradigms that Enel has
adopted to become a Platform company

Matteo Masotti
Head of Data Competence Center
Enel

17.00 CLOSING REMARKS

08.00 REGISTRATION AND MORNING COFFEE

08.20 OPENING ADDRESS FROM THE CHAIRPERSON

9.00 CASE STUDY

Implementing a corporate Data Science strategy in a integrated Energy Company

Towards an energy data market

- Why is data sharing an important matter in energy systems?
- What is the value of data and how can it be used as an incentive for data sharing?
- What are the KPIs and concerns in designing an efficient and secure energy data market?
- What are the feasible data sharing mechanisms (peer2 peer, central,.) ?

Dr Yashar Ghiassi-Farrokhfal
Associate Professor
Rotterdam School of Management (RSM)

9.30 CASE STUDY

Direct and indirect control of thermal process engineering with a neural network

- Improvement of operations from thermal process engineering with Artificial Intelligence (AI)
- Realized optimizations in a pilot project
- Practical examples for AI-Prediction and AI-Operator
- Data security
- Difference between the Uniper-AI-solution and common AI-solutions

Frank Gebhardt
Project leader Lead Engineer (AI)
UNIPER Technologies

10.30 COFFEE BREAK

11.00 CASE STUDY

12.30 LUNCH

15.00 COFFEE BREAK

17.00 CLOSING REMARKS

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Allan Bernard

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