ONWELO

The Future Happens Today – how the financial industry can benefit from AI in data science and cloudification

Dariusz Ossowski • Digital Finance Conference

Data Analytics in Finance – Trends

DATA-DRIVEN DECISIONS

- Using **data in decision processes** throughout the organization is becoming more popular
- **No-code** and **low-code** solutions increase access to the data for business units
- Better access to data leaves **more time** for employees to focus on more “human” domains

DATA PLATFORMS

- Unified **data platforms are more in demand** than point solutions
- Platforms give companies **more autonomy in creating agile data solutions** tailored to their needs
- They allow to create **end-to-end solutions** that are **more efficient** than a set of point solutions
- They also improve **data sharing** between different units

GENERATING VALUE FROM DATA

- Data assets are more often treated **as a product**, with teams that take care of them
- These data products address specific needs – and **generate** value for companies
- CDOs have new responsibilities: **demonstrating what value** data generates and creating a holistic **strategy** to increase that value

Sources: Gartner Identifies the Top Trends in Data and Analytics for 2024, Gartner and McKenzie's approach to data-driven enterprises in 2024 - Conciliac EDM, The data-driven enterprise of 2025 | McKinsey

AI in Finance – Trends

PRACTICAL USE OF AI

- AI, including Generative AI, is **already used** in financial sector – both in **backoffice** and in **customer service**
- Using AI **positively impacts** companies' results, both reducing costs and increasing revenues
- **Banks** are one of the sectors where using Generative AI can bring **the highest benefits**
- Examples of AI solutions: **chatbots** in apps, **predictive models** and **recommendation engines**

EMPLOYEES VS AI

- Using AI makes employees **more effective**, but only **if it is used properly**
- **Employees might be concerned** with increasing usage of AI – especially because **public sentiment towards AI is worsening**
- Companies should invest in **AI literacy** of their employees for both **increasing effectiveness and addressing their concerns**

RISKS AND REGULATIONS

- Companies consider **privacy, security and reliability** as main risk areas of using AI
- AI companies use **different benchmarks** in the field of **responsible AI** – that makes it harder to **compare various models**
- Number of AI regulations is increasing, they include **AI Act in EU** and **Executive Order on AI in the USA**
- Compliance issues are even more **important in financial sector** – which is usually strongly regulated

Sources: https://aiindex.stanford.edu/report/, https://www.gartner.com/en/newsroom/press-releases/2024-04-25-gartner-identifies-the-top-trends-in-data-and-analytics-for-2024, https://www.forbes.com/sites/michaelabbott/2024/01/16/the-top-10-banking-trends-for-2024--the-age-of-ai/

Onwelo – Where AI Meets Data Analysis

UNISTORE

- Unified **data platform** available out of the box for every major cloud provider
- Enables **creating delta lake house** in days instead of weeks
- Enables effective **data cleansing, information gathering** and **business data analytics**
- Client can select from a **wide range of tools, modules and functionalities**

DATA EXPLORER

- **Text to SQL** tool that enables business users to work effectively with data
- **No-code solution:** user asks question in natural language and gets the response based on SQL database
- Leverages possibilities of **language models (GPTs)**
- Similar solution can be used in **customer service**, e.g. by providing **intelligent product search** in app / on website

AI ASSISTANTS

- Chatbots based on **Generative AI** with specified **functionalities**
- Various **use cases**: customer service in mobile applications, first line of support automation, onboarding tools for employees
- Increased **reliability** thanks to ability to use defined **knowledge base**
- Possible **integration** with other tools, so chatbot can **perform specific tasks**

Cloud in Finance – Trends

XAAS AND MULTICLOUD

- **Scalability:** easily scales with business needs
- **Diversity of Cloud Providers:** utilizes services from multiple cloud providers (AWS, Azure, GCP, IBM, OCI, Alibaba and more)
- **Operational Agility:** enhances business flexibility to adapt to market changes
- **Focus on Core Business:** allows companies to focus on their core business by outsourcing IT management
- **Cost Efficiency:** reduces upfront costs and shifts to a predictable operating expense model

SECURITY RESILIENCE

- **Data Protection and Privacy:** ensuring the confidentiality, integrity, and availability of sensitive financial data
- **Compliance and Regulatory Challenges:** GDPR, PCI-DSS, SOX, and others that mandate rigorous data protection standards
- **Identity and Access Management:** hugely important in cloud environments to prevent unauthorized access to sensitive financial information
- **Enhanced Data Encryption**: focusing on advanced encryption in transit and at rest

RESPONSIBLE OPERATION

- **ESG Integration and Investments Decisions:** integral to risk assessment and investment decision-making processes
- **Climate Risk Management:** using sophisticated cloud-based tools to assess and manage the risks associated with climate change
- **Reporting and Transparency:** leveraging cloud-based solutions to gather, analyze, and disclose ESG

Sources: https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2024/01/future-of-it-final.pdf

Use of AI in Cloudification – Trends

USE OF AI IN THE CLOUD

- **Scalability:** AI-driven auto-scaling and workload optimization enable cloud environments to scale dynamically to meet changing demands
- **Cost Savings:** cost optimization and budget forecasting help organizations reduce cloud costs and optimize spending, maximizing ROI
- **Innovation:** insights and recommendations drive continuous improvement and innovation in cloud operations, leveraging new opportunities and technologies

CYBER SECURITY

- **Treats and Anomaly Detection:** monitor potential cyber attacks and deviations from normal behavior – identification of patterns and predict potential threats
- **Security Automation:** automation of routine cybersecurity tasks such as patch management, vulnerability assessments, and compliance checks
- **Automated Response:** automatic initiation of actions to mitigate the risk to minimize damage from attacks

AI FOR ESG

- **Environmental Impact:** analysis of environmental data to monitor pollution levels, energy consumption and more
- **Social Impact:** track labor conditions, diversity metrics, and community engagement efforts effectively
- **Governance:** aid in detecting fraud and ensuring compliance with regulatory requirements through automated monitoring and analysis

Sources: https://assets.kpmg.com/content/dam/kpmg/xx/pdf/2024/01/future-of-it-final.pdf

Onwelo – Where AI Meets Cloudification

DEVOPS

- **Automated Quality Assurance:** AI analyses test results in real time, identifying patterns to predict potential failure points
- **Efficient Operations:** predicts usage and dynamically allocates resources based on workload demands
- **Enhanced Deployment:** analyses historical deployment data and monitors new releases for anomalies
- **Continuous Improvement:** identified bottlenecks and suggests improvements

SOC

- **Enhanced Cybersecurity Protection:** continuous monitoring of systems, detecting and responding to cyber threats in real-time
- **Incident Management and Response:** identify and analyze security incidents, minimizing their impact and the response time
- **Advanced Threat Analysis:** tools and techniques in the SOC allow for in-depth threat analysis and understanding of sophisticated attacks

AI FOR ESG ENHANCEMENTS

- **Data Analysis and Reporting:** complex ESG data aggregation, enabling real-time reporting and insightful sustainability analytics
- **Operational Efficiency and Decision Making:** predictive analytics for optimizing operations, reducing resource wastage, and strategic planning
- **Innovative Solutions and Stakeholder Engagement:** stakeholder interaction and problem-solving in critical areas like education and healthcare access

Cloud Migration of a Financial Application

Aion Bank Case Study

JOURNEY TO THE CLOUD

Starting point

- **Virtual machines-based** environment
- No version control
- No back-up policy
- Outdated **operating systems (Ubuntu 18.04)**
- Poor resources management

ONWELO

We deliver your ideas

Business Case – Aion Bank

FLEXIBLE SOLUTIONS SUPPORT THE GROWTH

Business reasons for app migration

Environment management difficulty
Unstable work of the environments and documentation deviations / deficiencies

Maintenance costs optimization
Getting a more performant environment while keeping the maintenance costs low

Architecture change toward scalability
Switching from virtual machines to containers

App stability improvement
Reduction of application unavailability risk for end customers

EFFECTIVE BUSINESS NEEDS FULFILMENT

Why has Aion Bank chosen Onwelo?

Previous Onwelo cooperation record
Successful implementation and support of previous projects

Knowledge of the environment
Onwelo has already maintained the environment Aion Bank has decided to migrate and has known its shortcomings

High technical competencies
Onwelo has a team of top-qualified professionals

Flexible teams
Onwelo was able to dynamically allocate specific competencies as per the project phase requirements

FLEXIBILITY OF THE PROFESSIONAL TEAM

How did Onwelo manage to cater for the changing project requirements?

Effective cooperation
Cross-national and cross-cultural teams of engineers and developers

Knowledge transfer from the previous vendor
Knowledge transfer across teams

Availability of the team
Possibility to substitute a professional in case of his / her longer unavailability

Business Case – Aion Bank

EFFECTIVENESS MEASURED WITH THE CHALLENGES ACHIEVED

What difficulties have been overcome?
How to avoid problems in the future?

Incomplete documentation
Well-functioning environment is the one that is properly documented

Availability
Project decision-makers in the loop.
Short decision-making time

Tight schedule
We need to have “Plan B” in case of unexpected

Project scope changes
The chosen technologies can change within the project duration (3rd party software)

LESSONS LEARNT FOR THE FUTURE PROJECTS!

How to better prepare for the project?
How not to make the same mistakes twice?

Up-to-date documentation
This is the key to effective management

Enforcing / Augmenting operations team during testing
The operations team needs to be staffed properly to handle the heavy workload

Effective key decision making
In case of emergencies some decisions need to be taken on the spot and in no time

Critical path design
Proper planning of most important tasks and interdependencies among them.

Regular status meetings
Mistakes made need to be detected, reported and corrected ASAP

Business Case – Aion Bank

5+

5+ years of ongoing cooperation

150

150 FTE – Onwelo engineers involved in the project

4

4 countries covered by Banking services (Belgium, Poland, England, Germany) – 30+ BaaS clients

PROJECT GOAL:

The goal of our collaboration was to create a digital Bank-as-a-Service platform with modern Web & App front end that would enable Aion Bank to diversify on the market. The platform has custom build back-office modules and multiple integration services described as the integration Business Case

SCOPE OF SERVICES:

- End-to-end bespoke software delivery incl. Web & Mobile App and integration services to custom build core banking platform
- Cloud computing and manager services
- Project governance & IT management services

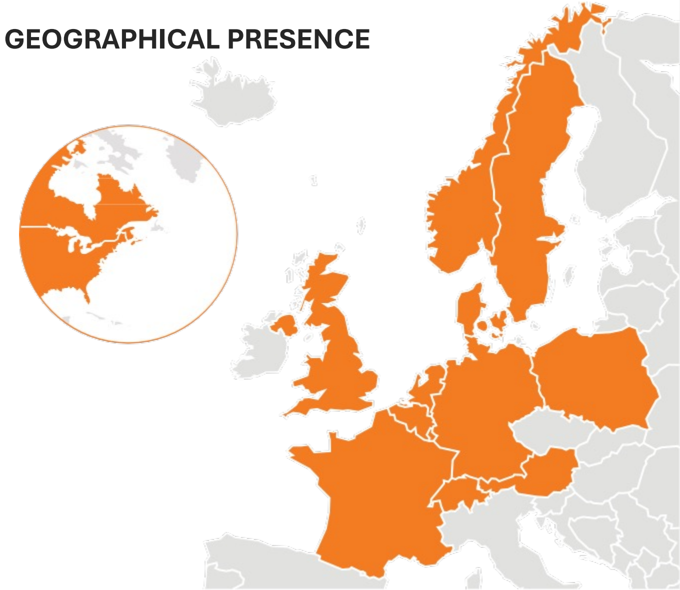
OUTCOME:

Client has built a complete banking platform, that is currently offered on the market in SaaS / BaaS model

VODENO aion bank ONWELO METRO FINANCIAL SERVICES

Onwelo – Business overview

GEOGRAPHICAL PRESENCE



Company offices & local presence

- **USA:** New York, **Germany:** Leipzig, **Switzerland:** Lucerne
- **Poland (7 biggest cities):** Warszawa, Kraków, Katowice, Kielce, Gdańsk, Lublin, Łódź

Global delivery markets

Denmark, Norway, Sweden, Germany, Austria, Luxemburg, Switzerland, Netherlands, Belgium, France, Great Britain, USA, Canada, UAE, Poland and others

OFFER

Discover the power of innovation at Onwelo, where our cutting-edge IT solutions are growing businesses worldwide. With us, your business will keep up with change and stay ahead. Join the leaders of your industry with us.

- Expert Advisory Services
- Technology uplift by business cases
- AI driven transformation
- Integrated systems solutions
- Comprehensive Managed IT Services

WITH ONWELO, YOU WILL...

Digitize and modernize with our cloud transformation services

Cut costs with our tech-driven operational enhancements

Gain insights from our industry experts

Quickly adapt to new directions with our diverse service offerings

Benefit from the collaborative power of our expert know-how

Enhance the key processes in your business

We deliver your ideas

Diversified base of global clients

(clients logotypes)

ONWELO GROUP IN NUMBERS

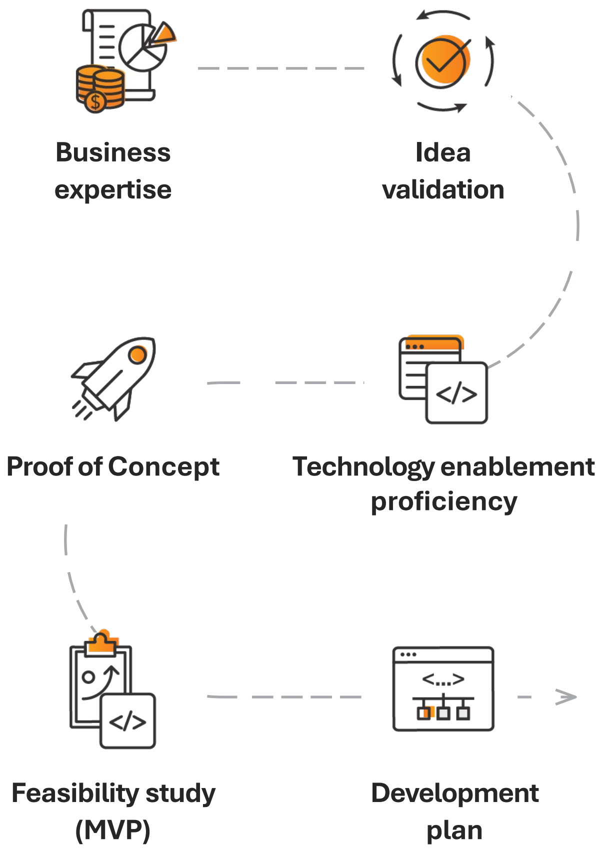
150+	**300+**	**60**	**20**	**10**	**700+**	**14**
Customers worldwide	Implemented projects (Europe & USA)	Master Service Agreements	Delivery markets	Offices in Europe & the US	Employees	Onwelo Group entities

Services areas

DELIVERY DIVISIONS

- **Software Development**
  Software & system architecture, project & resource management, application development, UX/UI design, cloud architecture, testing, system maintenance
- **Mobile Solutions**
  Comprehensive app development from A to Z, consulting & analysis, information architecture, post-deployment support & product development
- **Test Factory Center**
  Manual and automated testing: integration tests (SIT), system tests, acceptance tests (UAT), regression tests, performance tests, test strategy and management
- **Data & Analytics**
  Data Lake, Data Warehouse, ETL / ELT processes, Big Data solutions, Data Science and Machine Learning, Artificial Intelligence, NLP, analytics, reporting, BI, data architecture, strategy & roadmap development
- **Cloud Transformation Services**
  Cloud strategy & migration, end-to-end cloud support, cloud-based DevOps solutions
- **Cloud Managed Services**
  Cloud system analysis, concept development and transformation, comprehensive Managed Services
- **Cyber Security**
  Secure cloud infrastructure, penetration testing (pentests), cyber security audits, Security Operations Center (SOC)
- **Intelligent Automation**
  Robotic Operating Model, RPA infrastructure design, automation potential analysis, process analysis & reengineering, RPA/AI/ML/IDP bot development and maintenance
- **Onwelo Solutions**
  Financial & Tax and reporting, electronic document management systems, processes digitalization based on modern low-code workflow platform

ADVISORY



We deliver your ideas

Thank you!