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*Innovation you can rely on*

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Capstone Project : Edhec Business School

# Why Treasury Management Matters

## **Cash is the lifeblood of a company**

A business can be profitable and still fail because of **cash shortages**.

Treasury management ensures the ability to **meet short-term commitments** (salaries, suppliers, taxes, debt).

A well-managed treasury allows a company to:

- avoid liquidity stress,
- optimize returns on cash,
- reduce financing costs,
- anticipate needs and negotiate better with banks.

## **The new financial context**

Interest rates are **volatile**.

Exchange rates are **fluctuating**.

Supply chains and payment cycles are **unpredictable**.

CFOs now need **real-time visibility** on their cash position.

 *“Cash is the barometer of a company’s financial health — and its first line of defense.”*

# The Current Market Landscape

## Audit and Consulting Firms


- Provide strategic diagnostics and one-off recommendations.
- **Strong analytical expertise**, but often limited operational follow-up. (not regulated so no way to manage financial operations)
- Expensive and not designed for continuous decision-making.
- Poor technical framework.

## Banks

- Offer cash management tools and hedging or financing products.
- Useful for daily operations, but advice is often **product-driven**.
- Limited transparency and lack of integrated forecasting capability.

## Software Providers

- Examples: Kyriba, Diapason, Agicap, Titan Treasury, Sage.
- Effective SaaS solutions, yet:
  - mostly focused on reporting, not decision-making,
  - costly for SMEs,
  - require complex integration with ERP and banking systems.
- No advice
- No way to manage financial operations

 *Today, companies have many tools — but no unified, intelligent view of their future cash position.*

# What KowiKan Brings to the Table

***The first consulting firm built on technology and experience, with a business model fully aligned with its clients' interests.***



## **Our Ambition**

To build an intelligent treasury management platform that offers:

- 360° view of cash positions (multi-bank, multi-entity, multi-currency),
- Automated forecasting,
- Interest rate and FX risk simulations,
- Smart recommendations on placements and funding.
- Ability to manage financial operations in platform



*KowiKan aims to become the new standard for intelligent treasury management.*

# Our Knowledge Stack



**Harry Markowitz**

🎓 American economist and pioneer of **Modern Portfolio Theory (MPT)**.

🏆 Nobel Prize in Economic Sciences (1990), shared with Merton Miller and William Sharpe.

💡 Demonstrated that **investors can optimize risk and return through diversification**, introducing the concept of the efficient frontier.

📊 His work laid the foundations of quantitative portfolio management, risk modeling, and asset allocation.



**Daniel Kahneman**

🎓 Israeli-American psychologist and founder of **behavioral economics**.

🏆 Nobel Prize in Economic Sciences (2002), awarded for integrating psychological insights into economic science, especially regarding human judgment and decision-making under uncertainty.

💡 Co-developed Prospect Theory with Amos Tversky, showing that **people value gains and losses asymmetrically and often act irrationally**.

📊 His work transformed our understanding of risk perception, bias, and decision-making in finance.

+

💡 30 years of real-world experience in FX, treasury, and financial advisory for banks, corporates, and family offices.

📊 Clear, independent business model — no product sales, no hidden incentives, only value-driven advisory.

# Our Tech Stack

## API Connectivity

- Real-time data integration through secure banking and Financial APIs.
- Unified access to accounts, payments, and market data across multiple entities.
- Enables automated reconciliation and forecasting updates — no more manual spreadsheets.

## Artificial Intelligence

- AI models analyze historical and real-time data to predict future cash flows with higher accuracy.
- Machine learning identifies seasonality, anomalies, and risk patterns.
- Combines data science and financial expertise to support proactive decision-making.
- Data Privacy : all AI models are open source and stored on our own infrastructure.

## Tokenization

- Converts real-world assets and financial contracts into secure digital tokens.
- Facilitates instant settlement, transparency, and traceability of transactions.
- Opens the door to new liquidity solutions.

# Capstone Project

## Objective

Students will design a **treasury forecasting and decision-making model** that integrates:

- cash flow forecasting,
- interest rate and FX risk analysis,
- investment and financing decisions,
- and a digital prototype or simulation.

## Expected Learning Outcomes

Students will learn to:

- Build a **robust cash flow forecast**,
- Analyze exposure to **interest rate** and **FX risk**,
- Propose **hedging and investment strategies**,
- Develop a **digital or automated model** (Excel, PowerBI, Python, Notion...),
- Communicate insights like a **modern CFO**.

# Project Structure

## 1. Cash Flow Forecasting

Model inflows and outflows over 3–6 months.  
Create base, optimistic, and pessimistic scenarios.  
Identify cash shortages or surpluses.

## 2. Interest Rate Risk

Identify variable-rate debt and simulate rate shocks (+/–100 bp).  
Estimate the impact on interest expenses and net results.  
Suggest hedging or refinancing strategies.

## 3. FX Risk

Map out foreign currency exposures.  
Quantify the impact of  $\pm 5\%$  currency moves.  
Suggest hedging (forwards, netting, natural hedging).

## 4. Investment & Financing Decisions

Optimize short-term placements and funding choices.  
Compare costs and returns across scenarios.

## 5. Innovation / Digitalization

Automate calculations and visualization.  
Build dashboards, simulations, or simple APIs.

### Deliverables

#### Written Report (10–15 pages)

Context, modeling, results, recommendations, and digital proposal.

#### Prototype / Model

A working tool or dashboard demonstrating the logic.

#### Oral Presentation (10–12 min)

Clear, structured presentation to a mock financial committee.



# Timeline & Milestones

## Week 1 — Market Analysis & Research

### Foundations

**Objective:** Understand the current treasury management landscape and the academic basis of forecasting models.

### Tasks & Deliverables:

Conduct a **market analysis** of existing treasury solutions:

- Consulting firms (e.g. Big 4, advisory boutiques)
- Banks (cash-management offers, hedging services)
- Software vendors (Kyriba, Agicap, Diapason, Titan, etc.)

Identify their **strengths, limits, and innovation gaps**.

Build a **bibliography / literature review** on forecasting models:

- Statistical (ARIMA, exponential smoothing)
- Machine learning (LSTM, GRU, ensemble models)
- Academic references: *J.P. Morgan (2024)*, *Roy et al. (2025)*, *Fitranita et al. (2024)*

**Deliverable:** Short research paper (3–4 pages) summarizing key insights and sources.

## Week 2 — Data Modeling & Forecast Construction

**Objective:** Design and implement a baseline cash-flow forecast.

### Tasks & Deliverables:

Build or simulate a **dataset of inflows/outflows** (sales, salaries, suppliers, taxes, debt, FX flows).

Identify **recurring vs. non-recurring** items and seasonality.

Construct a **baseline forecast model** (central scenario).

Visualize expected cash position over 3–6 months.

**Deliverable:** Excel or Python-based model + explanation note (2 pages).

# Timeline & Milestones

## Week 3 — Scenario Simulation & Risk Analysis

**Objective:** Integrate uncertainty and market risks (interest rates and FX).

### Tasks & Deliverables:

Create **optimistic and pessimistic scenarios** (changes in sales, payment delays, rate/FX shocks).

Simulate the **impact of  $\pm 100$  bp interest-rate** and  **$\pm 5$  % FX** variations.

Propose **hedging or funding strategies** to mitigate risks.

**Deliverable:** Updated model + risk-analysis summary (charts + 2 pages commentary).

## Week 4 — Final Recommendations & Presentation

**Objective:** Summarize findings, formulate financial recommendations, and present results.

### Tasks & Deliverables:

Define a **cash-management strategy**: placement of surpluses, financing of deficits, risk mitigation.

Develop a **simple dashboard or visualization** (PowerBI, Notion, Excel, etc.).

Prepare a **10-minute presentation** for the final defense.

Submit a **concise final report (8–10 pages)** including:

- Market overview and research background
- Forecast methodology
- Scenario analysis and results
- Recommendations and innovation proposal

# Our Client



## Company Overview

European **textile and technology** company specializing in **smart fabrics** and **connected clothing**.

Founded in **2014**, headquartered in **Lyon (France)**, with subsidiaries in Germany and Japan.

Combines **traditional textile know-how** with **IoT and data-driven design**.

Exports represent **18% of turnover**, mainly to Japan (14%) and the U.S. (4%).



## Core Activities

- **Smart Textiles Division** → production of connected fabrics with embedded sensors (temperature, motion, heart rate).
- **Performance Apparel Division** → design of intelligent sportswear integrating Textronics' fabric technology.
- **Industrial Partnerships** → co-development with automotive and healthcare manufacturers.
- **R&D** → 8% of turnover invested annually in research and prototyping.



## Market Position

- Positioned between **industry and tech**, part of the **European "Industry 4.0" ecosystem**.
- Competes with firms like DuPont Smart Fabrics and Hexoskin on innovation; differentiates through **European manufacturing quality and integrated design**.
- Clients include **sports brands, medical device companies, and automotive OEMs**.

# Our Client

## Key Financials (FY 2024)

Metric	Amount	YoY Change
Revenue	€178.5 million	-4%
EBITDA	€8.7 million	margin 4.9%
Net income	€2.63 million	↓ vs. €6.8M in 2023
Total assets	€252.6 million	
Equity	€50.5 million	
Debt (E3M + 1.2%)	€20 million	variable rate
Cash position	€7.4 million	stable



TEXTRONICS

## Treasury and Risk Profile

- Multi-currency operations:
  - EUR 86% | USD 4% | JPY 14%.
- Exposure to:
  - **FX risk** on USD and JPY sales.
  - **Interest rate risk** on floating-rate debt (Euribor 3M).
- Key treasury priorities:
  - Forecasting and liquidity optimization.
  - Managing working capital cycles (DSO/DPO).
  - Hedging FX and rate exposures.



Q&A

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