Quanthena

Quant-as-a-Service – your Quantitative Finance Lab

Quanthena

Quantitative Finance
Consulting for Investment,
Asset and Risk Management

about us

"… where thoughtful disagreements thrive. "

Quanthena is where experienced and disruptive Quants, Finance and Machine Learning practitioners open-mindedly challenge each other while enthusiastically taking on the most challenging problems in Investment and Risk Management.

"Quant-as-a-Service…"

As an integral part of your organisation, we operate as a quantitative finance research and implementation lab, enabling you to rapidly transform your ideas to high quality production ready software, with measurable business value. We also set-up dedicated teams to work on your long-term projects.

core team

Dr. Ulrich Moosbrugger, CFA, CQF

Quantitative Portfolio Manager

"… over 24 years of combined experience. "

Ulrich and Marcel bring together over 24 years of hands on experience in running fundamental, systematic, statistically-driven, scalable trading strategies, as well as conceptualising, implementing and supporting trading, investment and risk management operations. Also, with a strong professional track record in Quantitative research, data collection and analysis, prototyping, back testing, and performance monitoring, modelling, valuation and pricing of a wide range financial securities, they founded Quanthena to focus on a data-driven approach to support decision making in Trading, Investment and Risk Management.

Marcel Awasum, CQF

Quantitative Analyst

Data-driven modelling with Machine Learning and Natural Language Processing algorithms in

Modelling,
Valuation and Pricing

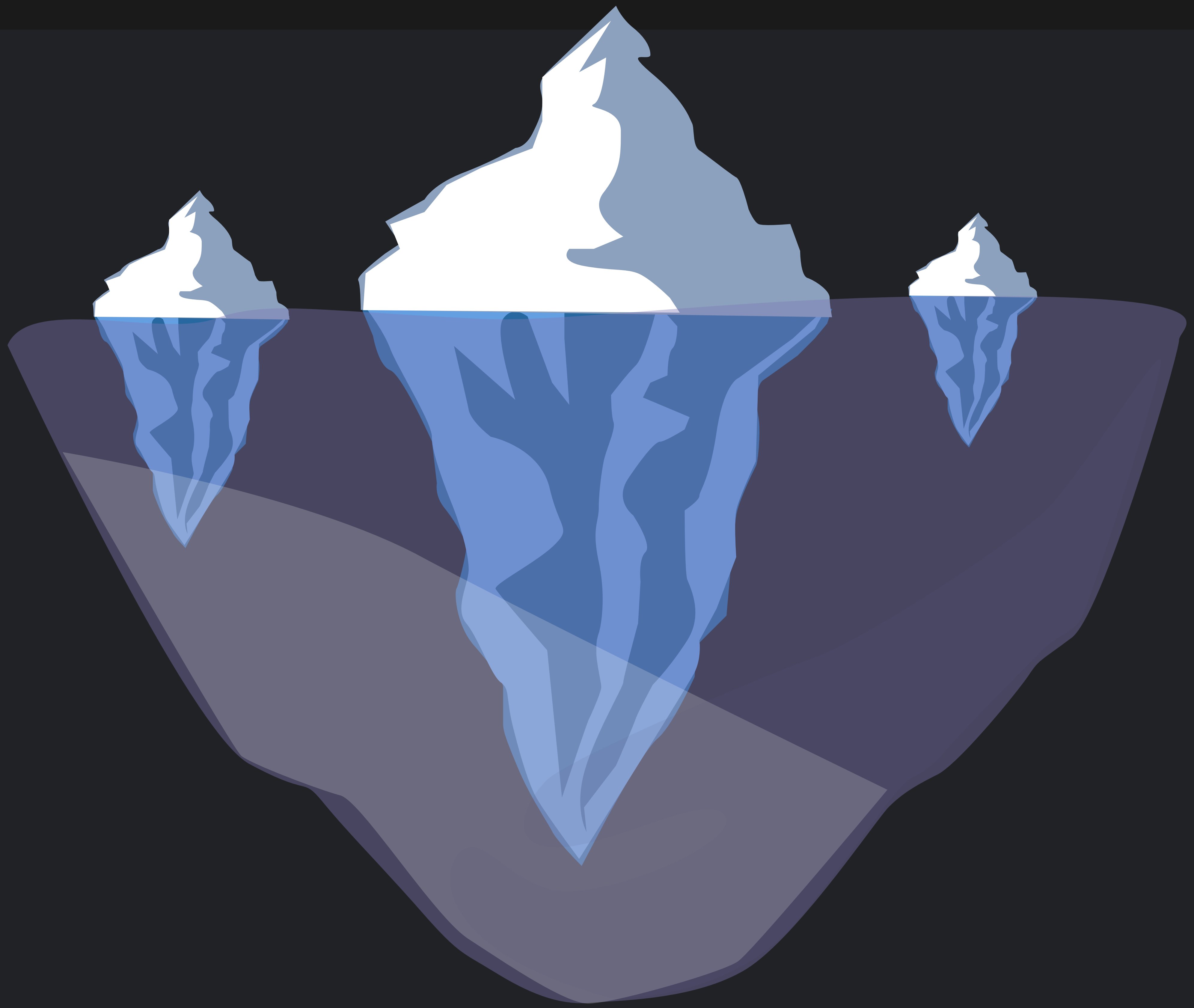
Systematic Investment
and Trading Strategies

Portfolio and
Risk Management

our unique approach

The real solution is deep inside your data.

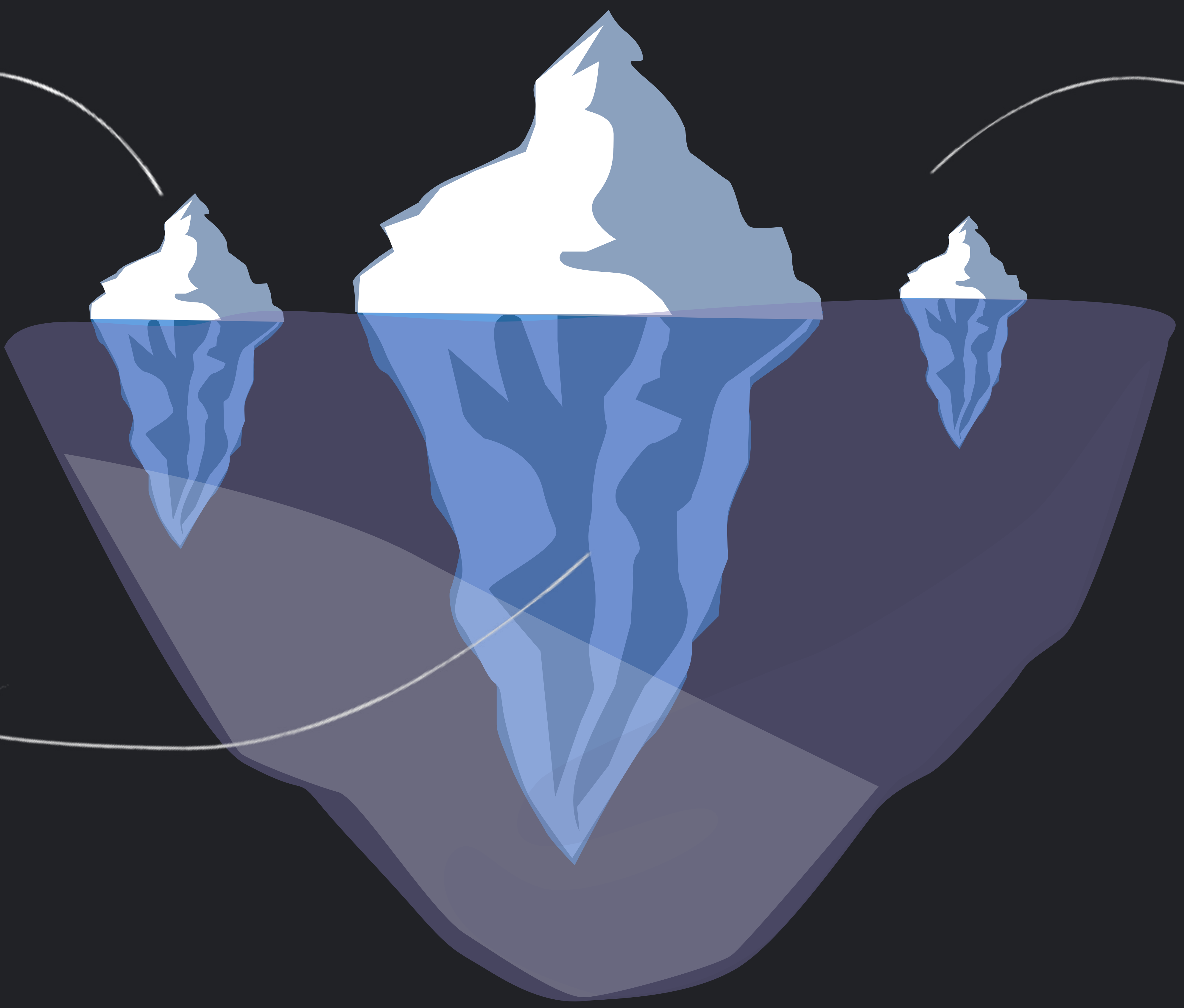
Mathematical models are perfect in theory but the reality is always different. Data is the only most accurate version of reality, so we can only rely on data and quantitative finance concepts in building resilient models. This is our approach.



how we solve problems

:define

we define the problem and establish a theoretical solution with mathematical models on test-data



:deploy & improve

we deploy solution on live data, improve, retest and reuse

:develop & train

we then develop and train machine-/deep-learning models to make predictions on desired solution

“uncovered data-insights”

”unexploited problem area”

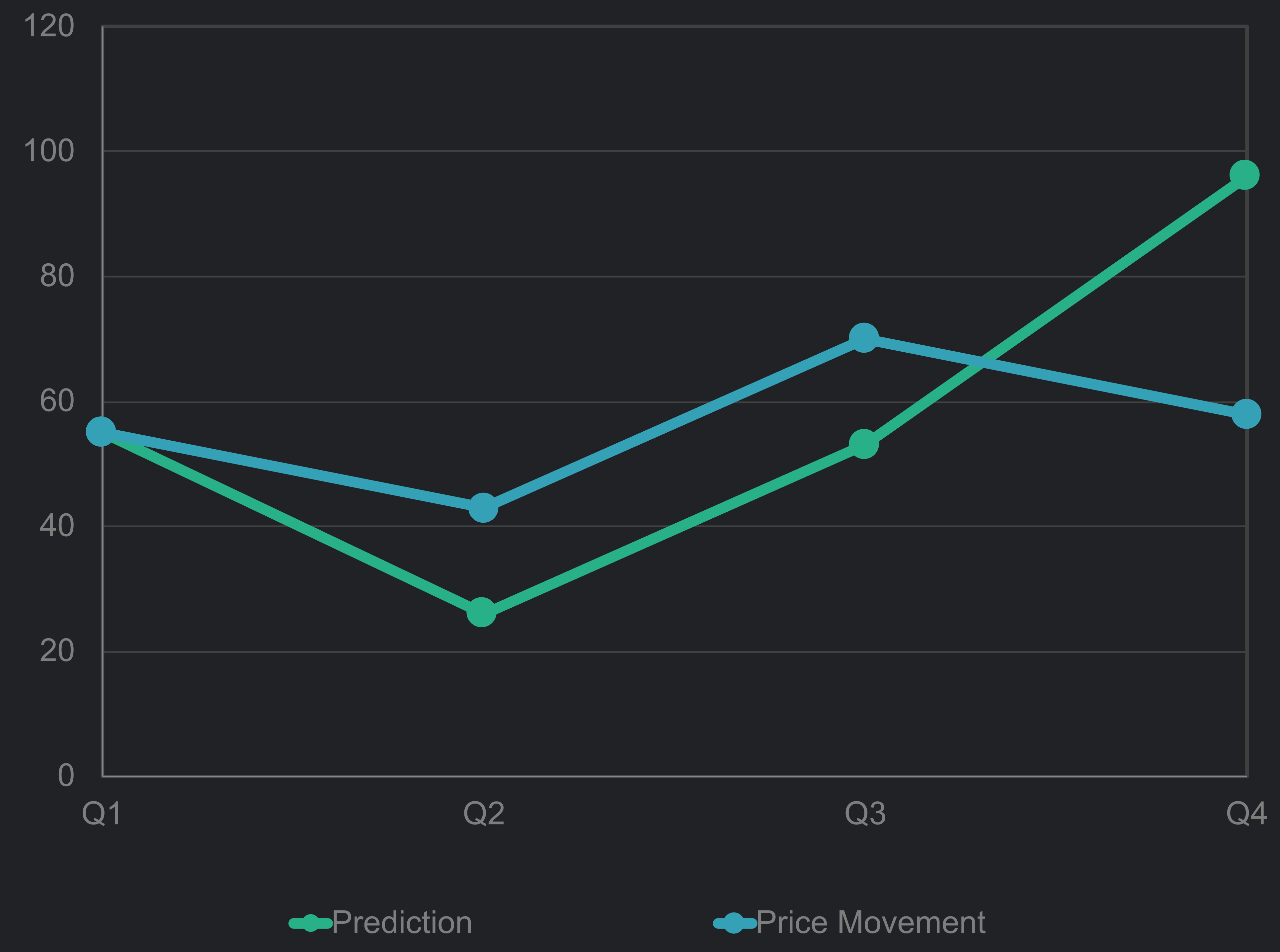
pricing and valuation

Strive for laser Precision.
Identify • verify • validate

We work as an integral part of internal teams to build pricing and validation models for interest rates, equities, commodities, foreign exchange, and credit derivatives products; as well as assess the impact of models on valuation, market, and credit risks.

- Identify, probe and validate derivative valuation and pricing models
- Design, implement & enhance XVA and price verification models
- Design alternative models and methodologies to assess model risk

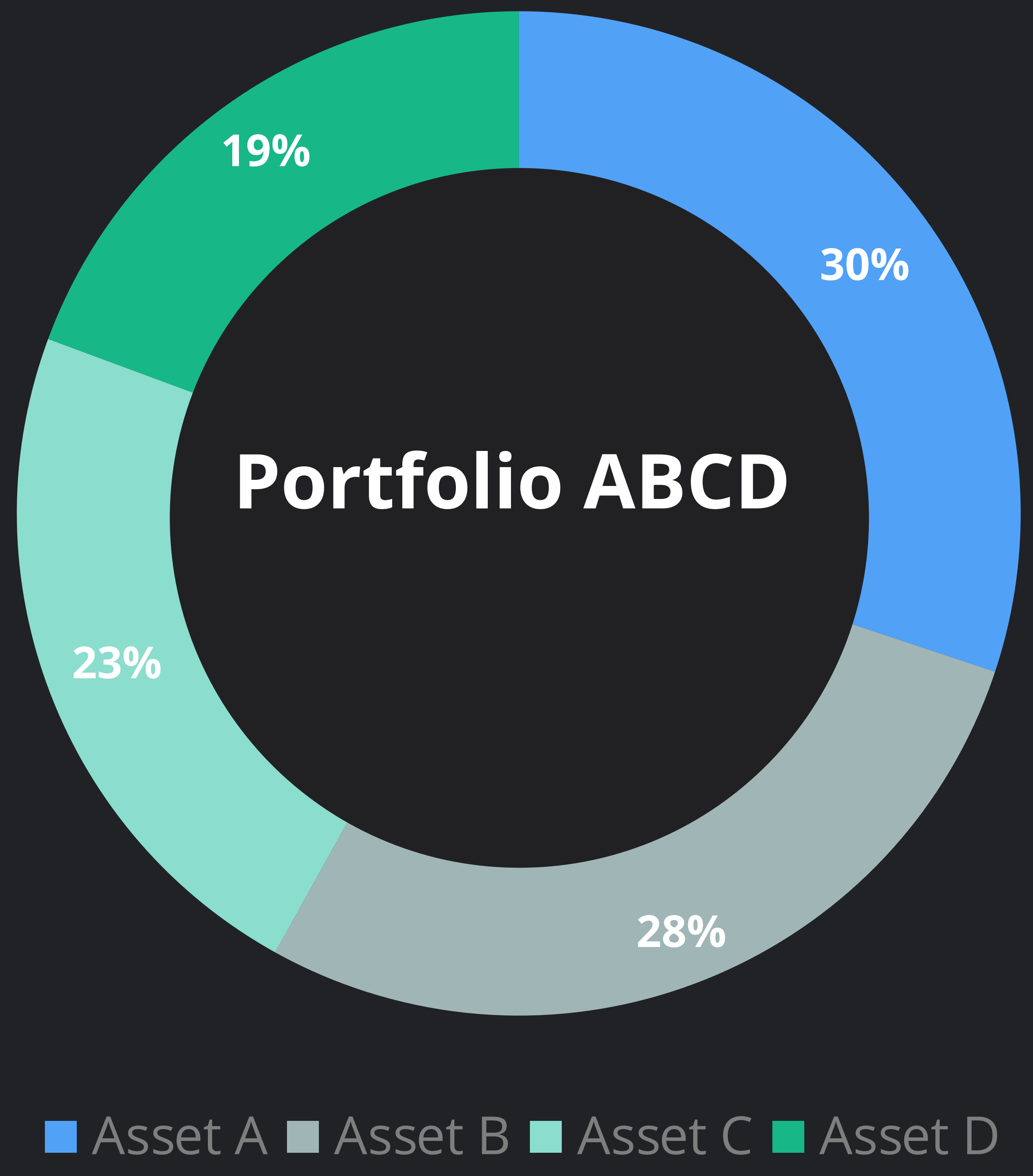
trading and investment strategies



Feel and touch Accuracy.
hypothesise • build • improve

With a given hypothesis, we carry out quantitative research on innovative machine and deep learning trading and investment strategies using technical indicators, fundamental and alternative datasets. We design, implement and back-test strategies on live market information, taking trading volume, transaction costs and cVAR constraints into consideration.

- Signal and strategy generation, implementation and back-testing
- Systematic macro trading strategy based on predictive signals
- Quantitative execution strategies and transaction cost modelling



The bird view Perspective.
Create • Measure • Optimise

We design, build and deploy macroeconomic, fundamental and statistical factors models, as well as deep learning and stochastic models in constructing, measuring and optimsing diversified portfolios; taking capital allocation constraints, risk budget, business cycles and yield curve changes into consideration.

- Portfolio construction, performance measurement and optimisation
- Market risk and ESG factors modelling & ESG Controversies monitoring
- Quantitative short and long term balancing strategies modelling

a few projects

Quantitative Portfolio Management at Deutsche Bank

- Developed quantitative risk-driven Investment management strategies
- Automated efficient portfolio management processes
- Developed Robo-Advisory multi-asset investment strategies - ROBIN
- Implemented client analytics using Machine Learning methods

Trading Systems Consultant at Nord LB

- Developed program to determine refinancing rates based on liquidity ratios
- Implemented Repo/Sec-Lending pricing templates and simulation views
- Designed solution to provide bond generic data across entire bank

Portfoliomanager/Model Valuation at Allianz Global Investors

- Directed €2.5B in assets – Liability & absolute return risk-overlay driven
- Built stochastic models for derivatives using Monte Carlo (C++/Quantlib)
- Develop quantitative investment methods
- Applied machine learning to create investment forecasting models

Quantitative Analyst/ Machine Learning Consultant at dCentra

- Developed credit scoring modules for micro-loans using deep neural networks
- Developed forecasting model for loan repayment horizon
- Quant at Arbitrage Trading Ltd.:
  - Implemented seasonal and delta-hedging options trading strategy

Quantitative Analyst at Ergo Versicherungsgruppe AG

- Created economic scenario generators in C++ for Rates, Inflation
- Implemented large scale portfolio optimization programs
- Quantitatively analysed Portfolio-Creditrisk in the context of HGB

Trading Systems Consultant at Talanx Asset Management

- Integrated in-house trading system with Bloomberg over live trading interfaces
- Optimised and CVA and counterparty risk models
- Managed trading environment, infrastructure, enhancements through CI

six reasons why work with us

save time and hiring costs

- You start your project immediately without the costly recruitment process. You save time and overhead costs like agent fees, signing bonuses and relocation allowances.

lower hiring risk

- Hiring is costly; and undoing a wrong hire, even more. We enable you to determine if we are the right fit for your project with the help of a risk-free project evaluation and proposal.

minimal management overhead

- You manage results, objectives and relationships not tasks and people; as such you can focus on your core-business.

measurable project progress and risks

- Our lean project management methodology with responsive and tight feedback loops enables you to evaluate progress timely and make informed decisions.

Value-driven and high quality delivery

- We focus in delivering real business value using proven methods, high quality and documented code. We help you to systematically achieve your project goals by designing and building functional prototypes to progressively test and validate your hypothesis.

long-term technology and research partner

- We employ proven state-of-the-art technology on your solutions and our commitment to research and innovation in AI-technology and finance ensures your long-term competitive advantage against your peers.

speak to us

Schedule a 30 minutes call

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