TINDECO

Financial Services

Investment Management

Redefined

September 2020

Executive Summary

- Tindeco was founded in 2010 and has offices in Zug, Switzerland and Edinburgh, UK.
- Our senior staff have decades of experience managing money in leading roles. They developed Tindeco VISION to meet the gaps they identified as users of buy-side investment management technology.
- Our senior staff have decades of experience designing, developing and implementing mission critical financial software.

- Tindeco VISION is an award-winning investment management platform for asset and wealth managers.
- VISION for Wealth Managers is targed at private banks and independent asset managers.
- VISION for Asset Managers is targeted at fund managers and institutional asset managers.

- VISION provides a ground-breaking set of tools to help you automate your business to reduce costs.
- VISION enables you to offer highly customised investment products on a scalable and economic basis
- VISION enables you to extend your product palette to offer more desirable investment products e.g. maximum drawdown, risk parity, capital preservation, multi-strategy

Tindeco’s Technology Footprint

Delivers a Broad Set of Capabilities Across Front, Middle and Back Office

	Front Office		Middle Office		Back Office		
	Regulatory CRM	Idea Generation	Portfolio Construction	Portfolio Optimization & Execution	Operations	Compliance & Regulation	Client Services
Capabilities	Investment Objective Management	Analytics	Portfolio Structuring	Hedge Optimization	Market Data Integration	Post Trade Compliance	Client Reporting
	Investment Suitability	Systematic Strategy Creation	Capital Preservation	Pre-Trade Compliance	Reconciliation	Regulatory Reporting	Client Interviews
	Risk Profiling	Big Data Analysis	Target Returns	Order Execution	Custodian Bank Integration	Regulatory Dashboard	Client Communication

<u>What is Unique About Tindeco VISION In This Footprint?</u>

- All above solutions in a single, fully integrated platform
- Highly flexible design to meet the needs of any Asset / Wealth Manager
- Scalable Cloud solution

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Tindeco VISION Modules

Tindeco VISION is based upon modern cloud architecture which allows you to flexibly consume the VISION services. VISION supports you in designing your products and managing your daily workflows.

Common Data Repository

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Tindeco VISION Awards

Tindeco has been named one of the world's top 100 WealthTech companies. A panel of analysts and industry experts selected Tindeco from a list of over 1,200 companies produced by FinTech Global. The award went to the companies with the most innovative technology, who are solving significant industry problems and/or are generating cost savings or efficiency improvements across the investment value chain.

Since 2017, WealthBriefing has consistently selected Tindeco VISION to be best-in-class. VISION has won 7 awards and been named the Best Portfolio Management system, Best Risk Management System and Best CRM system.

WealthBriefing judges are an international panel of leading experts.

Competition is fierce with global titans such as SS&C Advent and Charles River winning the Best Portfolio Management system award for the 4 years prior to Tindeco's win in 2019.

Scottish Enterprise awards SMART grants to companies developing new technologies judged to be unique in the marketplace and potentially disruptive.

Tindeco has been awarded two SMART grants.

2014 SMART Grant for VISION Portfolio Structuring

2016 SMART Grant for Portfolio Structuring and VISION Quantitative Strategies

The Power of Integration

The award-winning **Tindeco VISION** is a comprehensive solution providing **Compliance, Risk, Trading, Audit, Reporting, Data Management as well as Portfolio Construction and Analytics** in a single application with a **modular design**. Each module has access to the Common Data Repository.

The database contains data from banks, market data providers and is enriched with data calculated by **VISION's Analytics Library.**

Each module has direct access to the all of the data. This makes VISION **fast** and ensures **consistency** of numbers across the modules.

Integration also **faciliates complex tasks** like pre-trade compliance checks. Such tasks require multiple systems to work together in real time. This is difficult with systems which are not truly integrated. Pre-trade compliance usually requires the portfolio manager to enter a trade and send it to the order management system, which then calls on **VISION CRM** (to understand the compliance settings and investment restrictions) and then on **VISION Risk** (to calculate metrics which can be compared to limits).

Compared to platforms which are created from different systems, **VISION reduces both the cost of market data** (which otherwise needs to be licensed sepately in each system), and **interface development and maintenance**. VISION is also more **responsive and accurate**.

VISION is **extremely flexibile by design**. For example, adding a new instrument type occurs at a low level and is immediately propagated across the entire system.

VISION PMS

Portfolio Management System: Slice and dice to develop insights.

VISION's PMS module is a comprehensive solution providing all your needs for **data management, audit, user rights administration, performance analytics, reporting and limit checking**.

VISION Portfolio Management System distinguishes itself from the competition via flexibility, speed and integration.

VISION's flexible asset model accommodates custom, private and exchange traded assets and is the foundation of VISION.

VISION's flexible interface which allows **multi-level slicing and dicing by any data field**. VISION automatically calculates aggregated figures for subgroups whenever they makes sense.

VISION has a built-in **Security Data Master –** you can add securities in seconds and customise the data source of each field you require individually. The ability to enter and continually **monitor investment compliance rules** benefits from its seamless data integration.

Your existing reports can be consumed and **injected with up-to-date numbers** while a library of custom reports is available.

VISION comes with **full look-through technology** and **flexible hierarchies of portfolios**. Single portfolios can be segmented into sub-portfolios, which may correspond to specific strategies and have their own benchmarks. Positions can be broken down into components or linked together (for structured products or funds or for trading ideas with multiple legs) and may be assigned their own benchmark which enables much better understanding of the sources of performance.

VISION PMS contains **sophisticated performance analytics** capabilities. You can **interactively analyse performance contribution and attribution on any group of assets between any two dates and in any currency with blinding speed**. Full risk-adjusted performance attribution is available for users who also license VISION Risk.

VISION is based upon **"new technology"** and a variety of **proprietary modeling techniques**. The unique modeling approach allows for the delivery of a range of unique features as well as a degree of flexibility generally absent in competitor platforms. **Full historisation** means that the system can be accurately rebuilt as it was on any date in the past.

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VISION Risk

Risk Management System: Flexible, Comprehensive and Rigorous

Award-winning VISION Risk is a **uniquely flexible and sophisticated product**.

By configuring default mapping / models your risk management process can be made **extremely efficient**.

VISION Risk allows you the flexibility to choose how you model the risks in your portfolios. This is critical since **the same position held in different portfolios should often be modeled differently**. It is also important to consider whether your objective is to allocate a risk budget within a portfolio or simply limit the risks at a portfolio level. **Different objectives generally require different models for best results.** You can also define your own custom risk factors.

Historical, parametric and full Monte Carlo risk models are available. The **Monte Carlo approach performs a full revaluation of all assets / factors** at each step for rigorous precision.

VISION measures risk **at portfolio level, for any group of portfolios or any group of assets**. VISION Risk also measures risk at a **very granular level**. Risk is broken down and attributed to positions in your portfolios. Factor attributions are also available. For instance, the risk of a bond traded in a foreign currency will generally be broken down into the following 7 risk types: the first four principle components of interest rate risk, credit risk, FX risk and non-systematic risk. All risks can be measured therefore on any group of assets, in any currency and over any time period.

Stress tests can be run interactively or on a scheduled basis. VISION offers out-of-the-box stress tests, customised stress tests as well as historical scenarios.

Pre-trade limit checking is easy with VISION Risk since it is fully integrated with **VISION PMS** and **VISION OMS**. Risk limits on any risk metric **can be set and monitored in real time or on a scheduled basis.**

VISION Risk excels at Fixed Income risk management. Bonds can be modeled according to their own data but full flexibility means that the user can also incorporate all bonds from the issuer (going back 10 years) as well as **full CDS and yield curve modeling**.

The flexibility to specify such a wide range of risk limits means that **VISION** supports the management of the most sophisticated strategies. With **VISION Risk** and **VISION PMS** full risk-adjusted performance attribution is available to help understand where your organization, your portfolio managers and clients are performing well - and when investigation may be warranted.

VISION CRM

CRM: Efficient Regulatory Compliance

Award-winning **VISION CRM** focuses on the regulatory aspects of Client Relationship Management.

VISION CRM is differentiated from its peers via its **full integration with the VISION CORE Technologies modules**.

It is part of the same application as the other **VISION CORE Technologies modules** and so shares a data model and analytics library with them. This ensures **consistent data** throughout an entire organization. At the same time, no interfaces between systems are necessary. This **saves time and costs** of developing and maintaining expensive interfaces between the individual systems that are used by each part of the business

VISION CRM helps you collect, manage and track all key client data and investment compliance issues required to fulfill **KYC, AML, FATCA, MiFID I, MiFID 2 and FIDLEG / FINIG** obligations.

VISION uses the results of your client onboarding process to **automatically identify and create compliance rules and quantitative limits** which are then checked on an ongoing basis. Pre-trade risk and compliance limits are facilitated via the integration with VISION Risk and VISION Order Management.

You can **model complex family relationships** taking account all of the different actors and entities involved e.g. Trusts, PoA holders, Settlors etc. A family's structure can be used to **automatically construct custom portfolio hierachies**. Limits can be set and compliance rules can be checked across entities.

The **VISION CRM** dashboard provides a comprehensive view across all portfolios. VISION sends alerts when breaches occur but is also **forward-looking** and prompts the relationship manager to review / update client information in a timely fashion. All **documents have an expiration date**.

Client contact events are recorded in the system and audited.

VISION CRM offers API integration with **third-party data sources** which ensure **crossborder product & service suitability**. Clients can choose with what provider they want to work (KPMG, Ernst & Young, APIAX, Investment Navigator). VISION CRM furthermore offers the integration to **Refinitiv World-Check** for KYC & compliance matters.

Tindeco also offers **compliance support services** to help ensure you are able to meet all of your compliance needs.

VISION OMS

Order Management System: Efficient Access to Execution

VISION Order Management delivers functionality for managing order workflows and connecting to execution platforms.

It is fully integrated with the **VISION CORE Technologies suite –** so it can receive orders from VISION PMS and kick-off pre-trade risk and compliance checks.

VISION OMS possesses a **Workflow Engine** which supports modular workflow designs. It is therefore **highly flexible** to enable the most efficient implementation of your specific front-office trading processes.

Multi-portfolio functionality makes rebalancing easy.

VISION OMS performs **order-aggregation and order-splitting functionality** to reduce trading costs for your clients, increase efficiency for you and ensure that clients all receive the same execution price.

Best execution information is managed and archived for audit purposes.

Partial fills are processed accurately in real-time where a real-time feed is available.

VISION OMS supports a variety of order types – and we are adding new order types quickly upon client interest.

VISION OMS offers using the industry standard **FIX protocol**. This enables you to quickly set up execution with **hundreds of potential counterparties**.

Trade capture is seamless even when trading bonds over the telephone if you use Bloomberg.

Integrated with **Bloomberg's EMSX and Fixed Income Trading** platforms as well as Interactive Brokers.

Tindeco VISION Reporting

Tindeco VISION provides various reports for any node in your portfolio hierarchy

(which represents one or a collection of portfolios which can be real or virtual)*

- **Portfolio Exposure Report**
  By asset class, region, currency, sector, market, bond rating, instrument type, any other group, single asset in currency terms, delta adjusted exposure or notional exposure

- **Trading Activity**
  Purchases und Sales
  By asset class, region, currency, sector, market, bond rating, instrument type, any other group, single asset

- **Risk Exposure / Exposure Report**
  By risk factor, asset class, region, currency, sector, market, bond rating, instrument type, any other group, single asset
  For historical, parametric and / or Monte Carlo risk measures
  For stress tests and simulated scenarios

- **Performance Report / NAV**
  Performance attributed to changes in prices, interest rates, credit spreads, fx, dividends, coupons
  Available for any group of assets within or across portfolios, in any currency, between any two points in time
  Brinson Fachler for multi-level attribution

- **Fees earned and paid out**
  Management and performance fees
  Exchange fees, broker fees, custody fees, etc.

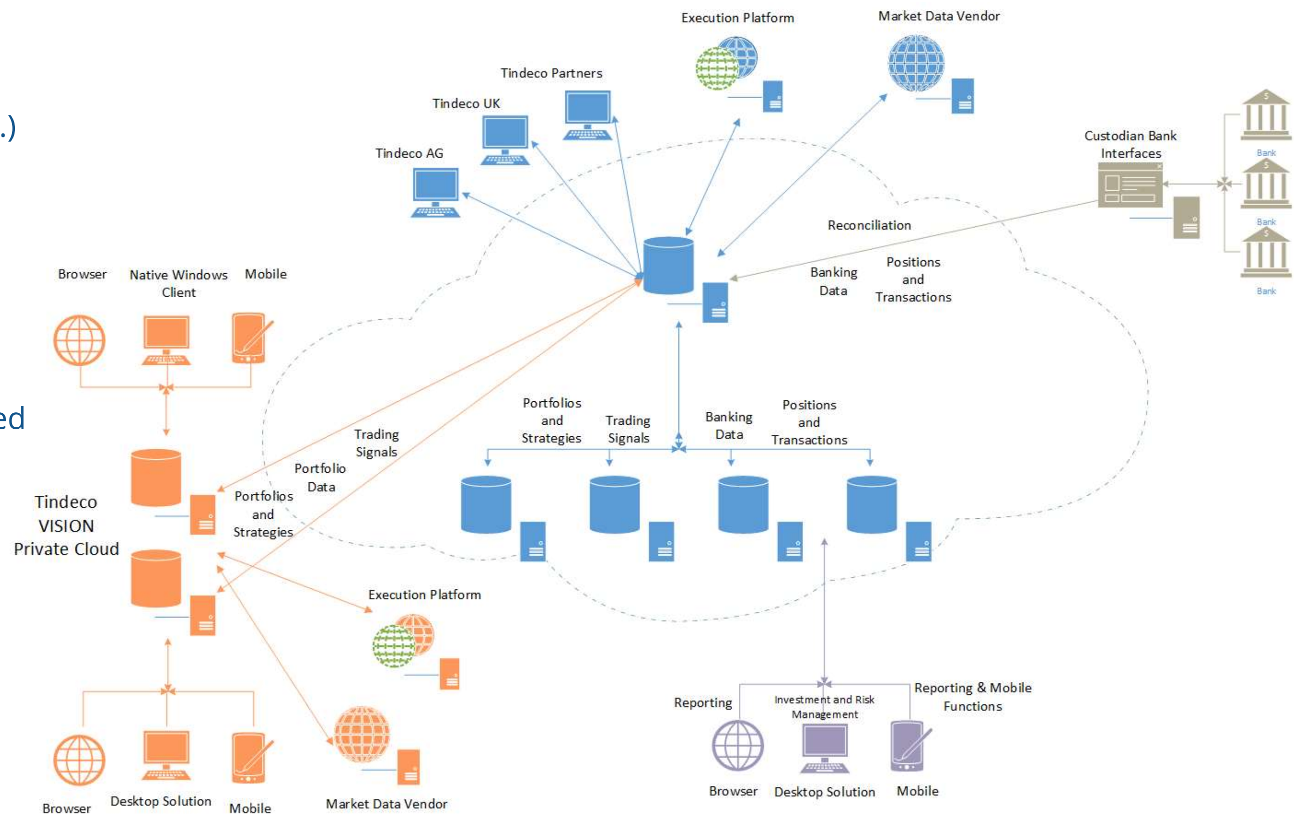
- **Inflows and Outflows Report**
  Deposits and Withdrawals
  Subscriptions and Redemptions

- **Portfolio Loss Report**
  MiFID II compliant portfolio loss reports

*The above stated list of reports is non-exhaustive!

Tindeco VISION Cloud

1) Built on the latest Cloud technology including Kubernetes, Kafka, Postgres
2) Can run on any Cloud platform (Google, Azure, AWS etc.)
3) FINMA approved datacentres for Swiss clients
4) Fully scriptable environment for easy deployment in clients' private clouds
5) Micro-services open architecture provides message based APIs so that VISION functionality can be consumed by third party applications
6) Enterprise scale achieved by fully extensible cloud technology
7) Cloud provides a natural distribution platform for the next generation of asset management products
8) HPC / HTC computational grid and data management capabilities



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