

# To Infinity with

**Euroclear Finland  
modernizes with  
TCS BaNCS for  
Market Infrastructure**

# Euroclear Finland



By **M Anand**, Head of Product Development, TCS BaNCS for Market Infrastructure, and **Samuel Johnson**, TCS Program Manager for Euroclear Finland



**Euroclear Finland** has completed the full replacement of multiple legacy core systems with **Infinity**, powered by TCS BaNCS for Market Infrastructure.

**Infinity** now serves as **Euroclear Finland's** core system for securities issuance, safekeeping, management of investors and their accounts, settlement of on-exchange and over-the-counter (OTC) trades, account transfers and portfolio transfers, corporate actions, and management of rights and restrictions. **Infinity** also supports core depository functions and legal requirements pursuant to Finnish proprietary rights and restrictions. It provides comprehensive support for both ISO 15022 and 20022 standards for the entire settlement cycle and for corporate actions processing.

The momentous achievement of a CSD core transformation gives **Euroclear Finland** one of the most advanced market infrastructure implementations in Europe, positioning **Euroclear Finland** and the Finnish capital markets as a leader in terms of investor-friendly benefits and capabilities.

The initiative started in 2012 when **Euroclear Finland** sought to align its corporate actions processing with emerging European market harmonization efforts along with the push to standardize on ISO 20022.

At the time, **Euroclear Finland** was running two separate settlement systems, one for fixed income and another for equities. An extensive internal

analysis determined that retrofitting the legacy systems for new standards and regulations would have been unwieldy and an expensive proposition.

With these considerations in mind, **Euroclear Finland** made the strategic decision in late 2012 to deploy a single, standards-based settlement solution, making it the first CSD in Europe to undertake a full replacement of its legacy core systems. "We were doing what nobody had done before in Europe — to replace their core CSD system" says Hanna Vainio, CEO, **Euroclear Finland**.

The RFP process took less than six months, which in March 2013 led to the selection of TCS BaNCS as the centerpiece of **Euroclear Finland's** technology transformation. "TCS BaNCS was a



**Hanna Vainio,**  
CEO,  
**Euroclear  
Finland**

## cover story

# FAST FACTS

### **Euroclear Finland**

is part of the Euroclear Group, a trusted provider of post-trade services including settlement, safe-keeping, and servicing of domestic and cross-border securities for bonds, equities, warrants, mutual funds, and other financial instruments.

### **Euroclear Finland**

services 22 Depository Participants and Settlement members and 13 Issuer Agents, and provides safekeeping for over 1.4 million accounts and over 3.5 million holdings.

### **Euroclear Finland**

also provides issuance services and manages over 7,000 securities across various financial asset classes.



"One Team, One Goal" in Chennai.

clear choice, and as soon as the first team from Chennai arrived in Helsinki, we were off to a quick start," says Vainio.

**Euroclear Finland**'s objective was to replace multiple legacy systems with **Infinity** — a single, integrated, modern, standards-based system for all asset classes, including fixed income, equities, warrants, and mutual funds, and with significant enhancements and upgrades to issuance and post-trade services.

The complexity of the initiative was intensified by the direct holding model in Finland, in which end investors' holdings are held directly by the CSD. **Euroclear Finland** handles more than 1.4 million directly-held accounts as CSD, which is more than any other CSD in Europe. In addition, the CSD had to handle connectivity and messaging for a host of participants including custodians, issuers, foreign CSDs, CCP's and the Central Bank.

On top of managing a complex transformation for its entire internal operations, **Euroclear Finland** also faced the challenge of coordinating these major changes with the ongoing IT transformations of their clients, including Northern Europe's largest banks.

"Our clients are involved with their own development initiatives, from consolidating systems to reinventing entire lines of business," says Vainio. "We needed to make sure that whatever we launched was synchronized with what they are doing."

To convey the detailed requirements to stakeholders in different countries and time zones, **Euroclear Finland** placed considerable effort into clear communications. "We tried to be very comprehensive in our documentation, including service descriptions and functionality at each layer of our services," says Vainio. "We were pleased to hear good feedback from market participants for the quality of our documentation."

## Stakeholder-centric implementation

**Euroclear Finland**'s legacy IT architecture, with its dual settlement systems, permitted a phased approach to replacement – first, fixed income and money markets; and second, equities.

"We knew that equities would be more complex given the extensive functionality and support for corporate actions," says Vainio. "That's why we included ISO 20022 messages and other base capabilities during the first phase."

"As we replaced our fixed income systems, we set the foundation for what we would then do in the equities markets," says Anu Puttonen, Head of Product Management for **Euroclear Finland**.

"Our clients interact with our systems on a daily basis, and so they were closely involved and engaged with what we are doing," adds Puttonen. "At the same time, we keenly understood that clients have their own priorities, and that whatever we launch has to be synchronized with their own development initiatives."

## Multi-tier engagement with participants

To gather detailed, ongoing guidance and feedback with clients, **Euroclear Finland** established several engagement groups for covering business changes, technical changes, project management, testing, and data migration. The engagement groups met regularly to uncover and resolve potential issues within their respective domains.

Overseeing the activities of the engagement groups, a Market Advisory Committee consisting of senior executives from **Euroclear Finland** and its key clients monitored the overall progress of the initiative.

**Euroclear Finland** established a dedicated team solely for client account management. "The client account management team was responsible for being the central contact point between us and our clients," says Puttonen. "They not only answered client queries, but also made sure that we understood what was going on with our client organizations."

Throughout the project, **Euroclear Finland** met regularly with the Finnish regulators, who were also key stakeholders. "We operate critical infrastructure for the financial markets, and so the success of **Infinity** was essential for risk management throughout the Finnish capital markets," says Vainio. "Our regulators supported us throughout the entire journey."

## Partnership approach

TCS worked in close partnership with **Euroclear Finland** throughout the **Infinity** initiative. TCS' onshore team in Helsinki sat alongside **Euroclear Finland** business analysts, IT teams, development and technology teams and business users.

"We had a team of almost 100 people on one floor, all sitting together, learning together and celebrating together, to create that 'One Team, One Goal' feeling," says Vainio.

To further build a collaborative culture, experts from both sides traveled often between India and Finland, and teams also met frequently with offshore teams via dedicated video conferencing facilities. Other collaborative approaches included the use of cloud-based issue tracking and project tracking software, training sessions, and sharing of detailed documentation between teams.

TCS created a dedicated offshore delivery center for **Euroclear Finland** at Chennai, staffed with development teams, testing teams, and SMEs with deep knowledge of the European landscape. A specialized team was also set up to handle the performance and other non-functional needs of the program.

Senior management teams from both TCS and **Euroclear Finland** provided strong governance and monitoring throughout the project. "There was a strong commitment at senior levels on both sides that this was a joint journey that we had to conduct

# AT A GLANCE



**Company:**  
Euroclear Finland

**Headquarters:** Helsinki

**Business Challenge:**  
To comply with regulatory demands while anticipating marketplace transformation.

**Solution:**  
Complete replacement of core solutions with Infinity, powered by TCS BaNCS.



"One Team, One Goal" in Helsinki.

together," says Philip Van Hassel, Program Director for Infinity at **Euroclear Finland**. "That senior-level support complemented the bottom-up effort to create a strong dialogue across teams, creating a perfect understanding of what we need to build."

All these approaches combined to bring out better results. "This was a challenging and ambitious program," observes R Vivekanand, Co-Head of TCS Financial Solutions. "For teams on the ground working under this kind of pressure, the important thing was knowing that the program had 'One Team, One Goal,' with complete alignment and the full support of top management from both sides."

"The commitment from TCS' senior management was 100 percent," remarks Vainio. "This exceptional commitment and cooperation from TCS, which continues today, gave us the ease to move forward in the face of challenges that we encountered."

TCS worked hard to meet the high expectations of **Euroclear Finland**. "We focused on collaboration to achieve the desired outcome through a combination of automation, agility, and close attention to detail," says R Vivekanand.

Through this collaboration, the TCS team had a crash course in Finnish culture. "The Finnish desire to 'perfect perfection itself' was something our teams came to understand very well," remarks R Vivekanand.

## Coordinated go-live

The first phase of the **Infinity** go-live was completed in February 2015 for fixed-income products, covering government bills, government bonds, corporate bonds, and other fixed income instruments. With this implementation, Euroclear replaced one of its main legacy platforms with TCS BaNCS Market for Infrastructure; consolidated all its reference data layers onto **Infinity**; and established the building blocks for the introduction of ISO 20022 standards to be further developed in the second phase of **Infinity** implementation.

The second phase of **Infinity** was completed in

May 2018, placing equities onto the consolidated, standards-based, multi-asset settlement system of **Euroclear Finland**.

Each phase required extensive coordination across multiple stakeholders. Production support teams, which included business users and IT operations staff, ran "operational-day tests" simulating typical production scenarios as well as extreme volume scenarios. These tests enabled the people using and maintaining production systems to prepare for new processes. Leading up to the go-live, readiness was assessed through a comprehensive weekly "Go-Live Readiness" dashboard covering IT, business, and operational items.

Given **Euroclear Finland**'s role as market infrastructure, the entire Finnish marketplace had to switch over at the same time. Moreover, the calendar for the Finnish capital markets left only a small window of opportunity for the launch of **Infinity**. "It was an all-or-nothing challenge," says Van Hassel. "While we were getting ready, there was a question whether our clients would also make it at the same time, but we understood their challenges and worked with them closely throughout the transition."

In the first weeks following the launch, **Euroclear Finland** published daily reports on uptime and other issues to market participants. "We wanted to be entirely transparent," says Vainio. "Global custodians quickly escalate any issues to their own risk managers, who will no longer accept a simple note saying that something happened and was fixed — now, they want to hear about root causes, explanations, and much more."

"The first month was a bit bumpy with expected issues, the second month was much better, and after that it's been about 100 percent," says Vainio.

## Infinite Benefits

**Euroclear Finland** now has the capability to differentiate itself as a CSD by rolling out new services faster, at lower cost, and without needing to invent new protocols and standards. Customers can access these powerful capabilities through an easy-to-use, browser-based user interface, designed for depository participants, settlement members, and issuer agents.

"Through ECSDA [European Central Securities Depositories Association] and various other committees, the discussion about European harmonization has been happening for the past 15 years," says Vainio. "To turn this into a reality for Finland, we had to translate Eurozone regulatory expectations into local practices. This took quite a long time, but in the end, we created new features, new services, and new standards for the Finnish market."

With straight-through-processing (STP) delivering increased automation using ISO 15022 and ISO 20022 standards, the international capital markets will realize significant benefits both in enhancing their short-term capabilities and in preparing for the long-term evolution of the marketplace. The entire marketplace will also benefit from the improved, automated handling of corporate actions.

**From the perspective of Euroclear Finland's internal operations, the new solution makes significant improvements in several areas:**

**FIRST**, Infinity's integrated fees engine enables **Euroclear Finland** to implement tariff rules for safekeeping fees, settlement fees, and issuer agent fees. Earlier, these fee calculations were performed on separate systems, and the consolidation to a single platform has resulted in significant cost savings from operational efficiencies in reconciliation.

**SECOND**, the establishment of a common set of reference data, including business relations, accounts, and instruments, reduces costly errors and discrepancies. Now, any change in reference data is automatically reflected in all business components with no delay.

# cover story



**Anu Puttonen,  
Head of Product  
Management,  
Euroclear Finland**

**Philip Van Hassel,  
Program Director  
for Infinity,  
Euroclear Finland**



**THIRD**, IT footprints can now be scaled to better match business requirements. The future-proof solution of TCS BaNCS provides a layered, enterprise Java-based architecture that scales on demand, delivering high performance and high availability through clustering and parallel processing across multiple data centers. A separate reporting database allows **Euroclear Finland** to perform real-time reporting without affecting operational performance.

**FOURTH**, **Euroclear Finland** has been able to address all the business requirements associated for compliance with CSDR, GDPR, and TARGET2, at a faster speed and with greater efficiency than legacy systems would have permitted.

These comprehensive operational improvements support the development of additional innovative customer-facing solutions, thereby positioning **Euroclear Finland** for steady growth for years to come.

## Foundation for market growth

With the successful launch of **Infinity**, **Euroclear Finland** has made a significant step forward towards standardization, harmonization, and efficiency in the capital markets. “Clients now have a platform with a higher level of standardization, which provides a stronger foundation for building additional services and seeking cost and process efficiencies,” says Van Hassel.

**Infinity** also raises the profile of the Finnish marketplace. “For market participants in Finland, the cost of refreshing their systems, bringing in new software, and integrating with the marketplace will be substantially lower than what it would be in a marketplace reliant on proprietary standards and messages,” says TCS’ R. Vivekanand. “This establishes Finland’s capital markets as a global leader in terms of quality and efficiency.”

Vainio sees the entire effort as setting a positive example for the European capital markets. “We’ve always recognized that we’re the first movers here, but other markets can benefit from the journey that **Euroclear Finland** has completed,” she says.

