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# European Payment Infrastructures Under Renovation

## IMPACT ON FINANCIAL INSTITUTIONS

Bottomline commissioned a report from Aite-Novarica to examine the payments landscape in the UK & Europe leveraging their expertise and, also incorporating input from reliable public sources, including the ECB, central banks, SWIFT, the Euro Banking Association (EBA), the European Payments Council (EPC), and other market infrastructures. Additionally, Aite-Novarica Group also conducted qualitative interviews with European FIs, regulators, industry organizations, and the financial services technology community to gather or validate additional perspectives and source additional information.



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## The Detail

This report provides an overview of the major market infrastructure initiatives now underway for account-to-account (A2A) payments in the European Economic Area (EEA) and individual European markets (including the U.K.) and the implications of these changes for FIs and other stakeholders in the near to medium term. The analysis summarizes the current state of complex regulatory and technical infrastructure initiatives, including but not limited to areas such as the single Euro payments area (SEPA), the Nordic P27 project, and open banking initiatives. The study includes a discussion of pan-European initiatives such as SEPA instant payments, as well as regional/local initiatives in Austria, Belgium, France, Germany, Luxembourg, the Nordic countries, Switzerland (including Liechtenstein), and the U.K.



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**Given the increasingly dynamic and complex environment outlined in the previous sections, banks and other FIs are strongly motivated to invest in payments modernization to compete for new business while reducing costs and maintaining compliance obligations.**



## WHY IS THIS WORTH READING?

The European payments market is in a state of unprecedented change.

The digitalization of commerce continues to drive customer demand for payment solutions that are faster, more transparent, less risky, and cost-efficient. Instant payments are becoming the norm, facilitated by new settlement infrastructures such as the Target Instant Payments Settlement (TIPS) system. With the arrival of open banking, new payment models are emerging to compete with card payments as the dominant online payment method. These commercial drivers are underpinned by a constantly evolving regulatory regime mandating change and ongoing improvements with no end in sight. In the face of these developments, FIs need to modernize their payments infrastructures to stay compliant and create new customer value.

### SUMMARY AND KEY FINDINGS

Major trends such as the move to instant (real-time) payments and regulatory initiatives to increase competition and reduce fragmentation are reshaping the European payments landscape. This Aite-Novarica Group report provides an overview of the major market infrastructure initiatives now underway for account-to-account (A2A) payments in the EU and individual European markets, and the implications of these changes for financial institutions (FIs) and other stakeholders in the near to medium term. Key findings from this report are as follows:

**With the arrival of open banking, new payment models are emerging to compete with card payments as the dominant online payment method.**

- European FIs are working hard to implement a significant number of large infrastructural projects, including the migration to new clearing and settlement platforms (T2, TIPS, P27) and the migration to ISO 20022 messaging standards.
- FIs' resources are already constrained. Still, they need to prepare for upcoming regulatory changes, such as the expected requirement to adhere to the SEPA instant payments (SCT Inst) scheme, new requirements resulting from the review of the second Payment Services Directive (leading to a "PSD3"), and regulatory initiatives to stimulate open banking and open finance.
- Given this increasingly dynamic and complex environment, banks and other FIs are strongly motivated to invest in payments modernization to compete for new business while reducing costs and maintaining compliance obligations.
- Payments modernization is a top priority, but qualified resources with payment expertise in-house are scarce, requiring FIs to look for outsourced solutions. FIs generally prefer to buy software solutions—cloud-based, Software-as-a-Service (SaaS) solutions, in particular—rather than develop them internally.

## EXPECTED CHANGES AND IMPACT ON BANKS AND OTHER FIS

This section specifies the expected changes for banks and other FIS for Euro payments in each domain, starting with the payment facilitation domain (Table D).

**TABLE D: DEVELOPMENTS IN THE PAYMENT FACILITATION DOMAIN**

| INITIATIVE                                                 | WHAT IS CHANGING                                                                                                                                                                                                                                                        | IMPACT                                                                                                                                                                                                                                                                                                                                                                                         |
|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SWIFT migration to ISO 20022</b>                        | November 2022 marks the start of migration to ISO 20022 (MX) for cross-border payments and reporting (CBPR+), with a coexistence period with MT messages until November 2025.                                                                                           | All SWIFT members must prepare for migration to SWIFT MX (and parallel support of MT).                                                                                                                                                                                                                                                                                                         |
| <b>Revision of the Payment Services Directive ("PSD3")</b> | The European Commission has mandated the European Banking Authority to review PSD2 regarding the impact and application of the directive and any suggestions for possible improvements and amendments. The organization has recently delivered its review. <sup>1</sup> | All PSPs should prepare for further legislation of payment services in the EU and budget for mandatory investments to stay compliant. The new legislation will take a few years to be enforced, but the impact can be substantial. For instance, the European Banking Authority wants to address the expansion from access to payment account data to access to other types of financial data. |
| <b>New or adapted SEPA rulebooks</b>                       | The next version of the rulebook for SRTP is expected by the end of November 2022. The new SPAA rulebook consultation is running until September 2022.                                                                                                                  | FIS should decide if they want to adhere to these rulebooks and budget for investments in the required infrastructure.                                                                                                                                                                                                                                                                         |

Source: Aite-Novarica Group

<sup>1</sup> "EBA Replies to European Commission's Call for Advice on the Review of the Payment Services Directive," European Banking Authority, June 2022, accessed June 26, 2022.

Table E describes the changes and resulting impact in the clearing and settlement domains for euro payments.<sup>2</sup>

**TABLE E: DEVELOPMENTS IN THE CLEARING AND SETTLEMENT DOMAINS**

| INITIATIVE                                                        | WHAT IS CHANGING                                                                                                                                                                                                                   | IMPACT                                                                                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Enforcement of SCT Inst</b>                                    | The European Commission will present a legislative initiative (regulation) on instant payments in the second half of 2022 to reach full reachability for SCT Inst and accelerate the rollout of instant payments in the EU.        | Adherence to SCT Inst is expected to become mandatory. All banks in the EU should prepare to allow their customers to send and receive instant payments. The new regulation may also cap instant payment pricing (to the level of regular SCT) and require banks to confirm the payee's account (name/IBAN check) to the payor. |
| <b>Launch of the new T2 settlement platform by the Eurosystem</b> | The Eurosystem has launched a project to replace Target2 with a new real-time RTGS system called T2 and optimize liquidity management across all Target services. The new consolidated platform will be launched in November 2022. | All Target2 banks must migrate to the new T2 platform by November 2022.                                                                                                                                                                                                                                                         |
| <b>Migration of EURO1 to ISO 20022</b>                            | EBA Clearing and its technology partner SWIFT kicked off the ISO 20022 migration project in 2018. The EURO1 ISO 20022 migration deadline was moved from November 2021 to November 2022.                                            | All EURO1 banks must support ISO 20022 by November 2022.                                                                                                                                                                                                                                                                        |

Source: Aite-Novarica Group

<sup>2</sup> See also the consultation on the open finance framework initiated by the European Commission, "[Targeted Consultation on Open Finance Framework and Data Sharing in the Financial Sector](#)," European Commission, May 2022, accessed June 26, 2022.

# PAYMENT INFRASTRUCTURE DEVELOPMENTS IN THE NORDIC COUNTRIES

The Nordic region (Denmark, Finland, Norway, and Sweden) is one of the most advanced digital markets. These countries are heading toward a cashless society. In Sweden, the percentage of the population paying cash for their last purchase fell from 39% to 9% between 2010 and 2020. The mobile wallet Swish is used more often than cash.

Online shopping is also very popular in the region. According to Eurostat, 92% of the Norwegian population made purchases online in 2021, topping the European list, ahead of Denmark (91%), the Netherlands (89%), and Sweden (87%).

To meet the changing needs of an increasingly cashless society, the Riksbank is piloting a digital currency (the e-krona), a "central bank digital currency." One of this pilot project's aims is to protect the Swedish krona against the rise of decentralized cryptocurrencies.

In June 2019, the Nordic banks announced the P27 Nordic Payments Platform. They plan to build the world's most advanced, innovative, and efficient payments system. It is the first system to enable real-time payments with different currencies (Danish, Norwegian, and Swedish crowns and euros). Participants

will be able to send and receive funds in the Nordic market while saving costs and gaining greater security.

P27 provides a common set of rails upon which common services such as bill payments can be offered. It also offers a gateway to access other ISO 20022 services, such as TIPS, and allows its users and owners to offer networked services for themselves and create a foundation for future cross-border connections.

<sup>3</sup> ["The Payment Behaviour of the Swedish Population,"](#) Riksbank, accessed June 26, 2022.

Table K summarizes key payment clearing and settlement infrastructure in the Nordic countries.

**TABLE K:**  
**KEY PAYMENT CLEARING AND SETTLEMENT INFRASTRUCTURE IN THE NORDIC COUNTRIES, 2016 VS. 2020**

| SYSTEM                            | TYPE       | TRANSACTIONS (MILLIONS) |          | TRANSACTIONS (EURO BILLIONS) |             | PARTICIPANTS   | MANAGING AUTHORITY    |
|-----------------------------------|------------|-------------------------|----------|------------------------------|-------------|----------------|-----------------------|
|                                   |            | 2016                    | 2020     | 2016                         | 2020        |                |                       |
| Kronos DKK and Kronos 2 (Denmark) | Settlement | 1.3                     | 1.7      | €96,351.90                   | €93,671.30  | 88 (direct)    | Denmarks Nationalbank |
| The IntradagClearing (Denmark)    | Retail     | 203                     | 221.4    | €4,630.10                    | €5,457.60   | 77 (52 direct) | Denmarks Nationalbank |
| The SumClearing DKK (Denmark)     | Retail     | 1,998                   | 2,315.50 | €2,033.30                    | €2,258.30   | 77 (52 direct) | Denmarks Nationalbank |
| Target2 (Denmark)                 | Settlement | 0.1                     | 0.2      | €4,107.70                    | €2,539      | 61 (27 direct) | Denmarks Nationalbank |
| Straksclearing (Denmark)          | Retail     | 115.5                   | 402.4    | €189.6                       | €389.4      | 71 (46 direct) | Denmarks Nationalbank |
| ARPP (Finland)                    | Retail     | N/A                     | 5.1      | N/A                          | €0.3        | 2 (direct)     | Bank of Finland       |
| BoF-RTGA and Target2-FI (Finland) | Settlement | 0.4                     | 0.7      | €10,811.90                   | €10.840     | 29 (26 direct) | Bank of Finland       |
| POPS (Finland)                    | Settlement | 0.4                     | 0.3      | €217                         | €165.2      | 10 (8 direct)  | Bank of Finland       |
| Bankgirot (Sweden)                | Clearing   | 991.7                   | 1,180    | €10,655.20                   | €12,914.80  | 26 (direct)    | Bankgiro-centralen    |
| Dataclearing (Sweden)             | Retail     | 144.2                   | 170.6    | €3,302.40                    | €4,461.80   | 34 (direct)    | Bankgiro-centralen    |
| RIX (Sweden)                      | Settlement | 4.5                     | 5.9      | €158.662                     | €128,162.80 | 38 (direct)    | Riksbank              |

Source: ECB, Aite-Novarica Group

## WHAT IS HAPPENING NOW IN THE NORDIC COUNTRIES

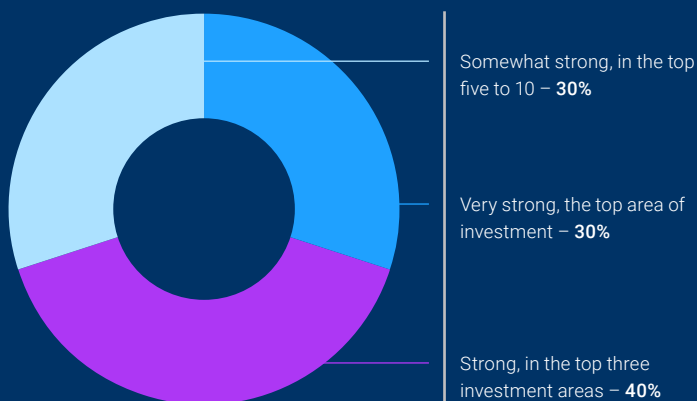
Almost all focus in the industry in the Nordic countries is on the ISO 20022 migration and the P27 developments:

- P27: P27 is expected to go live for Swish (mobile) payments in Sweden in November 2022 and SEK batch payments in May 2023. Then P27 will move on instant SEK payments by November 2024, acting as ACH toward TIPS in SEK. In Denmark, P27 will go live on Easter 2025 with instant DKK payments and in the autumn with DKK batch payments. There are also plans for services such as confirmation of payee, request to pay, and Nordic bill payment services. The planning for P27 in Finland is less clear; authorities there seek to secure daily payments in case of serious disruptions, which may affect the P27 rollout.<sup>4</sup>
- ISO 20022 migration: Nordic banks will generally follow the migration of the local central banks' RTGS systems—Denmark (Easter 2025), Sweden (Q1 2025), Norway (Q1 2025), and Finland (November 2022). Nordic banks plan to support cross-border payments and reporting plus (CBPR+) when possible. The combination of P27 with ISO 20022 migrations is a huge project that will lock up resources in the Nordic countries for the next three to five years.
- SEK settlement set to migrate to T2: The Swedish central bank (Riksbank) has decided to use the Eurosystem's T2 platform to settle large-value payments.<sup>5</sup> This means that the Eurosystem will support the settlement of non-euro currencies.

## THE NEED FOR PAYMENT MODERNIZATION

Given the increasingly dynamic and complex environment outlined in the previous sections, banks and other FIs are strongly motivated to invest in payments modernization to compete for new business while reducing costs and maintaining compliance obligations. Aite-Novarica Group research<sup>6</sup> indicates that payments modernization is a top priority for banks (Figure 4).

**FIGURE 4: IMPORTANCE OF PAYMENTS MODERNISATION**  
Q, How strong is the priority of payments modernization in your organization against other investigations? (N = 20)



Source: Aite-Novarica Group interviews with 21 retail banks, August to October 2020

Payments modernization appears at least in the top five to 10 priorities for the retail banks interviewed for this study. For five banks, payments is the top investment area, and another eight see it as one of the top three investment areas.

<sup>4</sup> "Authorities Seek to Secure Daily Payments in Case of Serious Disruptions," Ministry of Finance Finland, June 2022, accessed June 26, 2022.

<sup>5</sup> "Study of the Riksbank's Future Settlement Service," Riksbank, September 2021, accessed June 26, 2022.

<sup>6</sup> See Aite-Novarica Group's report [Payments Modernization in Retail Banking](#), December 2020.

## KEY AREAS FOR PAYMENTS MODERNIZATION

Banks are modernizing payments infrastructure across several dimensions to upgrade legacy systems and develop new technical capabilities (Figure 5).

**FIGURE 5: CAPABILITIES PRIORITIZED IN THE PAYMENT MODERNIZATION EFFORT**

Q: What technical capabilities do you plan to adopt as part of your modernization effort?  
(Select all that apply; Base 21)



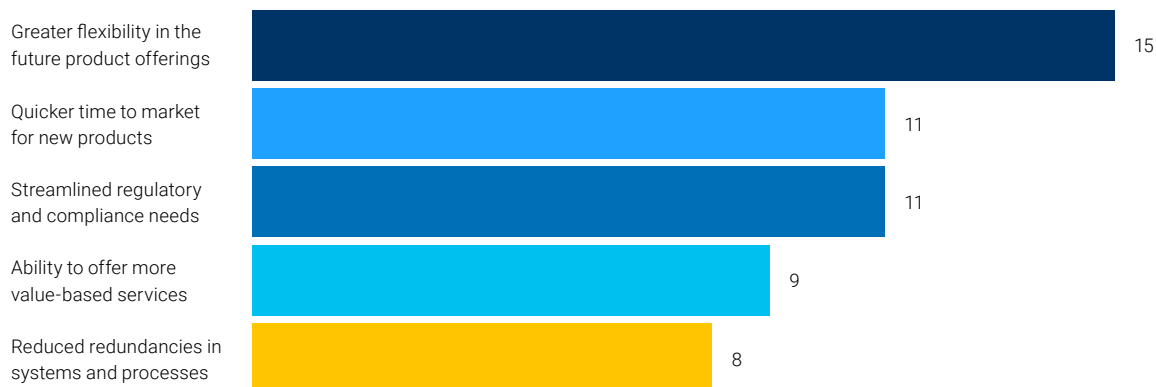
Source: Aite-Novarica Group interviews with 21 retail banks, August to October 2020

## RESULTS OF PAYMENTS MODERNIZATION

FIs engaged in payments modernization projects see clear benefits (Figure 7).

**FIGURE 7: BENEFITS OF PAYMENTS MODERNIZATION**

Q: What are the positive outcomes for modernization of payments in your organization?  
(Select all that apply; Base 21)



Source: Aite-Novarica Group interviews with 21 retail banks, August to October 2020

FIs see greater flexibility in future product offerings as the most prominent benefit. Payments modernization also supports quicker time to market for new products, improved infrastructure for managing compliance and operational needs, and the ability to offer more value-added services.

# BUY VS. BUILD

FIs generally prefer to buy software solutions (cloud-based solutions in particular) rather than develop them in-house. They are likely to develop or maintain mission-critical solutions in-house. However, respondents from FIs interviewed for this research indicate that qualified resources with payment expertise are very scarce, enforcing the need to look for outsourced solutions.

When purchasing a third-party processing platform, FIs apply the following key decision criteria:

- **Quality of the technology:** FIs require that a vendor's technology is secure, fast, and state of the art. Traditional legacy platform providers can offer robust and stable payment functionality, while newer entrants can deliver flexibility and the ability to implement new features/functionality quickly. In either case, the offering must be as stable and glitch-free as possible.
- **Geographic scope:** Commerce is global, and cross-border payments are increasingly important to consumers and businesses. Many FIs require a provider that can transcend borders and deliver functionality wherever clients are active.
- **Age of the platform:** Some core processing platforms available to FIs are 10 to 20 years old. While that helps ensure stability and reliability, technology has become increasingly sophisticated and cloud-based. FIs need a platform that allows them to compete effectively.

- **Stability and reputation of the company providing the platform:** Implementing a new payments software platform is complex and costly, and the relationship between the vendor and the FI client will be long term. The company offering the solution needs to be well regarded in the industry, stable, and in the business for the foreseeable future.
- **Flexibility and agility:** FI requirements are in constant transition. When coupled with the rate of change in the payments ecosystem, a vendor must be able to adapt quickly, support client-sourced changes, and deliver required new functionality as soon as demand is proven, and the solution is stable.

Interestingly, Aite-Novarica Group research indicated that price is not a primary decision factor.<sup>7</sup>

Technology vendors in the payments space should provide flexible, cloud-based solutions to banks to support their modernization journeys. Banks value partnerships over “**buy vs. build**” decisions, allowing vendors to establish longer-term relationships with their bank clients.

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<sup>7</sup> See Aite-Novarica Group's report [Aite Matrix: Payment Processing Platforms](#), January 2021.

## Conclusion

- The European payments market continues to evolve and change with a growing number of payment rail options available. European FIs increasingly need to be able to connect to a variety of systems simultaneously.
- Resourcing payments infrastructure modernization—and even operations—is becoming a significant challenge for many institutions, particularly as demand for these specialist skills and knowledge resources rises in all European markets at once. When possible, FIs and banks should rely on technology partners and service providers to help them resource these initiatives and manage ongoing challenges.
- European payment infrastructure modernization is an ongoing process. Multiple developments are happening at once, such as request to pay and mandatory SCT Inst participation rates. As rulebooks and capabilities evolve, banks and payment providers will need to handle multiple, simultaneous modernization projects.
- Despite the strong regulatory mandate of the ECB and the EU's appetite for SEPA harmonization, maintaining a competitive position remains a central plank of policy-making. As such, multiple systems will likely continue to exist simultaneously (e.g., TIPS, EBA's RT1), highlighting the need for connectivity.

**Major trends such as the move to instant (real-time) payments and regulatory initiatives to increase competition and reduce fragmentation are reshaping the European payments landscape.**



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