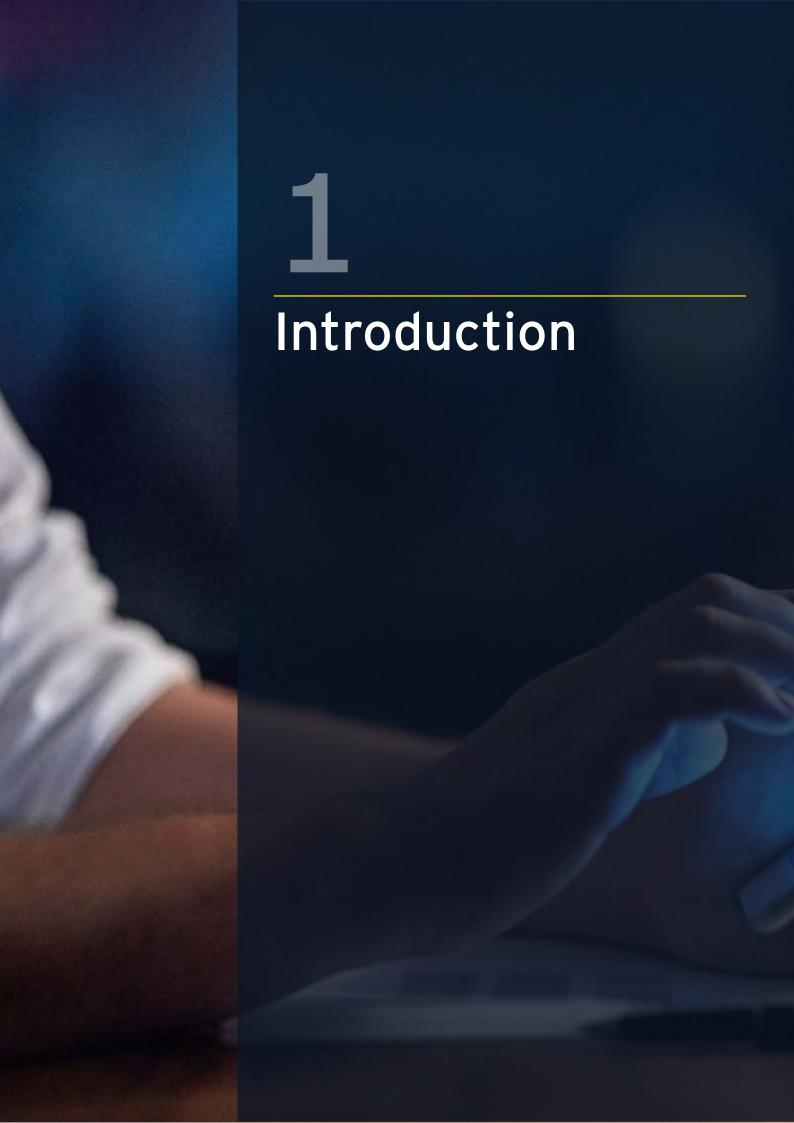


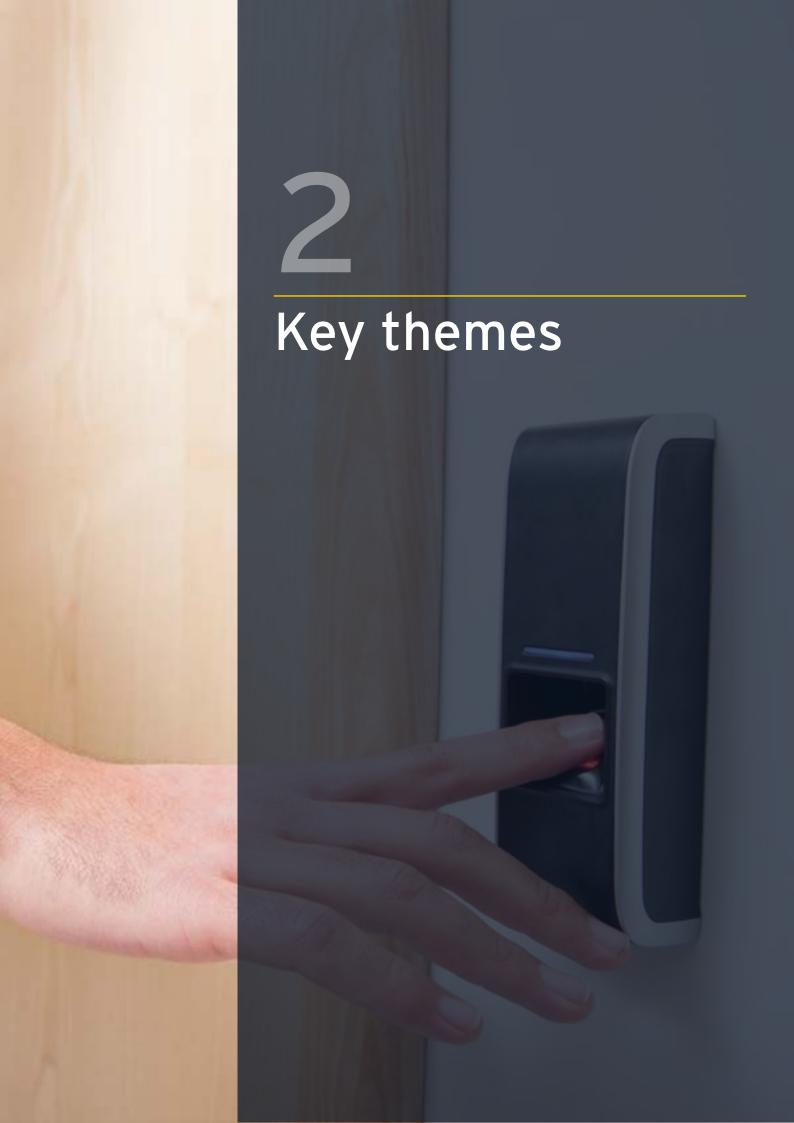


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EY teams are pleased to present the results of the 2020 Nordic survey on AML Transaction Monitoring (TM). This survey brings together insights from AML TM professionals across Nordic banks. Previously, EY teams conducted AML TM surveys in the UK in 2014 and at an EMEIA (Europe, Middle East, India and Africa) level in 2018. The 2020 survey focuses specifically on Nordic banks. Please find the 2018 EMEIA survey here.

The survey ran between Q2 and Q4 of 2020. Interviews were conducted directly with the participants, simultaneously noting the comments and discussion topics. The 2020 Nordic TM survey compares TM programs between Nordic countries, as well as between banks of different sizes. Some of the results are compared with the EMEIA responses to assess the Nordic banks in an international context.





The Nordic banks are investing in TM, but the maturity level of TM solutions among Nordic banks is lower in comparison with the financial institutions that participated in the 2018 EMEIA survey. There are also significant differences depending on the size of the bank. From the survey, three themes emerge:



Lower level of maturity in the Nordics

In general, the current maturity of TM capability and operations in the Nordics is lower than that of respondents of the 2018 EMEIA survey. For example, the Nordic banks typically have less mature methods of developing scenarios and lower average conversion rates of alerts to Suspicious Activity Reports (SARs) than the financial institutions in EMEIA. Several differences were also recognized in the investigation process, e.g., Nordic banks tend to have a less automated investigation process compared to financial institutions in EMEIA.



Significant differences in TM operations depending on the size of the banks in the Nordics

The alert investigation processes in large banks in the Nordics typically have several levels. In contrast, small and medium-sized banks often have a simpler end-to-end process with limited quality assurance. There is also a difference in the number of resources dedicated to processing alerts, with large banks having fewer alerts per investigator than small and medium-sized banks. Large banks have considerably higher conversion rates of alerts to SARs per alert compared to small and medium-sized banks. Large banks expressed higher satisfaction with their current TM systems than small and medium-sized banks.



Increased investments in TM, including new technologies, among the Nordic banks

Nordic banks are exploring the possibilities of new technologies in the TM field to improve both the effectiveness and the efficiency of their TM operations.

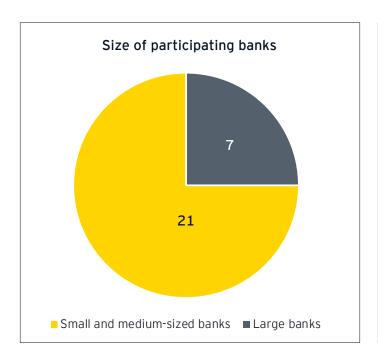




The survey was targeted at leaders and key personnel involved in AML TM operations. Questions were shared with the participants beforehand and discussed throughout the interviews.

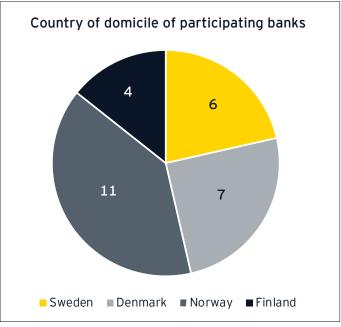
The 28 participating banks were from Sweden, Norway, Denmark and Finland, representing both sizes of banks (Figure 1).

Figure 1 – Survey participants by size and country of domicile



The participants in the survey have been divided into two groups:

- 1. Large banks, defined as banks with total assets above EUR80 billion, typically operating in several market areas. However, the category of large banks also includes banks that operate only in one Nordic country but have gained a significant domestic market share.
- 2. Small and medium-sized banks, defined as banks with total assets below EUR80 billion and operating only in one of the Nordic countries, focusing mainly on retail customers.

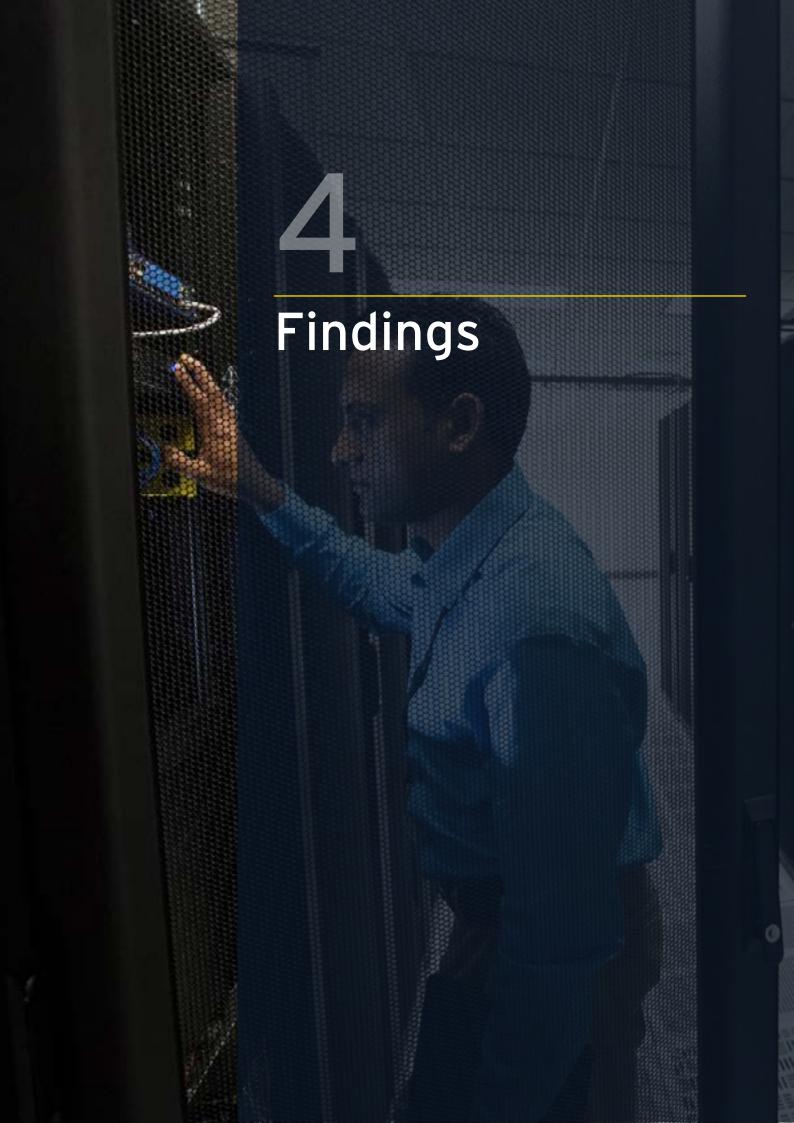


The graphs illustrating the responses to the survey questions are presented as a percentage of participants.

Where relevant, the Nordic survey results have been compared to the 2018 EMEIA survey results.

Participants of the 2018 EMEIA survey represented financial institutions from various sectors: corporate banking, retail banking, private banking, asset management and markets. 35% of these financial institutions were considered medium-sized and 65% large according to their total assets.

The following pages provide a detailed analysis of the survey responses. They have been categorized into seven overall findings.



## **Findings** 1. Nordic banks consider themselves less mature than financial institutions in EMEIA

The survey participants were asked to rate themselves using a maturity model, which describes the relationship between TM operational costs and residual AML risk, divided into six different stages. The stages are illustrated and described in detail in the Appendix.

Many respondents rated themselves as being in Stage 3, which is classified as having an improved coverage of AML risks, but not yet having reached a stage of rationalization. In the 2018 EMEIA survey, the EMEIA institutions placed themselves between Stage 3 and Stage 4 (see Figure 3).

Figure 2 – Where would you place your TM on the following maturity model?

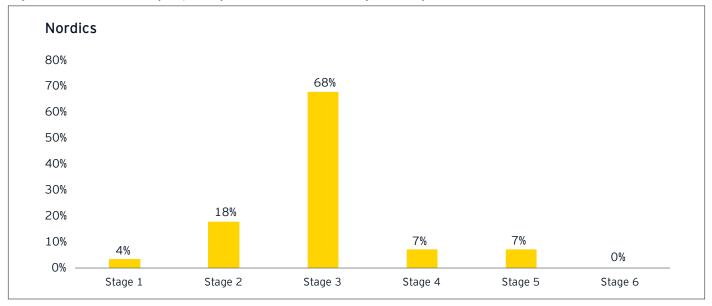
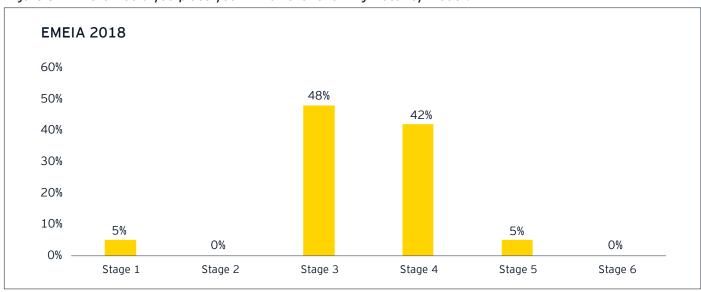


Figure 3 – Where would you place your TM on the following maturity model?

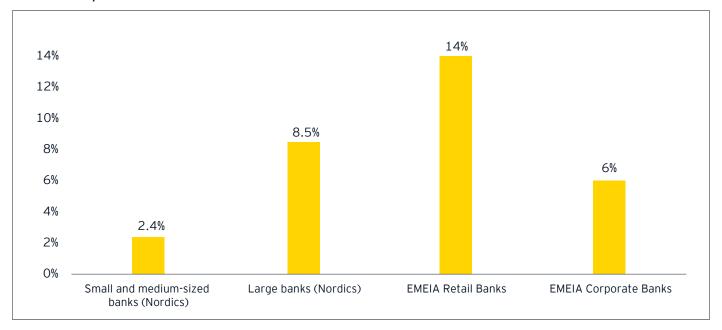


## 1. Nordic banks consider themselves less mature than financial institutions in EMEIA (cont'd)

Overall, Nordic banks had a lower average of submitted SARs (to the Financial Intelligence Unit) per transaction monitoring

alerts generated, especially compared to retail institutions in the 2018 EMEIA survey.

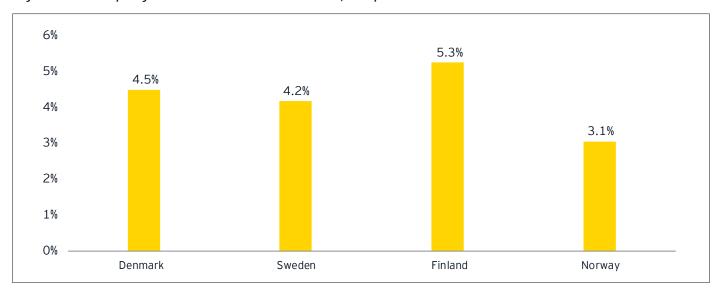
Figure 4 - SARs per generated alert for Nordic banks, compared to retail and corporate institutions in the 2018 EMEIA survey



The average number of SARs per alert is quite even among the Nordic countries. Generally, large banks had a higher average of SARs per alert compared to small and medium-sized banks. Participants from Norway were mainly small and

medium-sized banks, and this is reflected in the lower SAR average for Norway. Similarly, half of the participants from Finland were large banks, which translated into a higher SAR average for Finland.

Figure 5 - SARs per generated alert for Nordic banks, comparison between countries



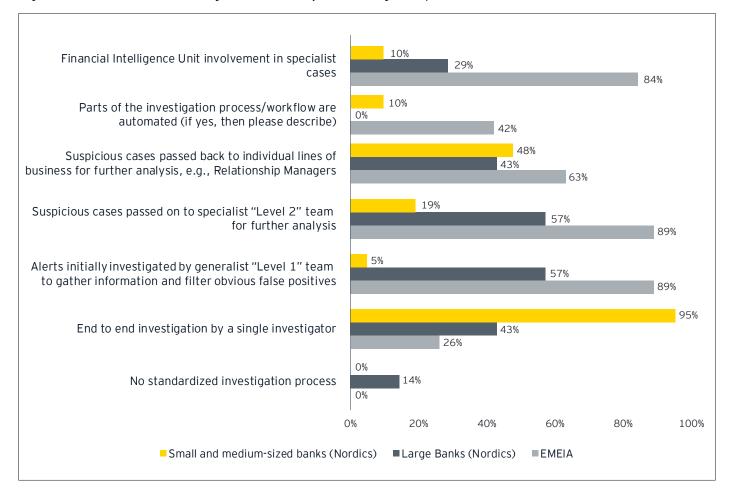


Comparing the 2018 EMEIA survey results with that of the 2020 Nordic survey, there is a clear difference in the investigation process between the participants for those surveys.

Only a few Nordic banks have automated parts of the investigation process, and none of the large Nordic banks have invested in automation. This stands in contrast to the institutions in the 2018 EMEIA report, of which 42% identified initiatives in Robotic Process Automation (RPA) to assist investigators procuring data more quickly and consistently.

EMEIA institutions, more often, separate the investigation process into Level 1 and Level 2 teams and/or have a Financial Intelligence Unit involvement in specialist cases. The large Nordic banks are more comparable to EMEIA institutions, but there is still a significant difference both in terms of establishment of an FIU function and running an investigation process with more levels. That difference is even larger when comparing small and medium-sized banks with EMEIA institutions.

Figure 6 - Which of the following best describe your investigation process or workflow?

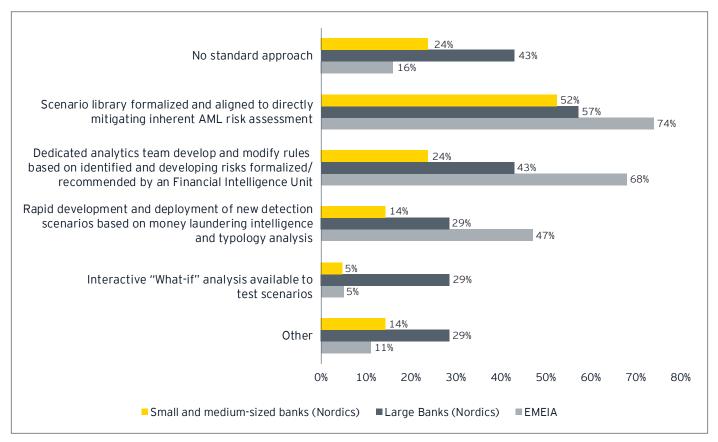


## 1. Nordic banks consider themselves less mature than financial institutions in EMEIA (cont'd)

TM scenario maintenance, development, tuning and optimization can be used by financial institutions with different maturity levels. In the survey, the responses from small and medium-sized banks in the Nordics indicate a lower maturity level in the use of TM scenarios. The large banks in the Nordics were found to have a slightly higher maturity level than the other Nordic banks, but still not at the same level as the respondents in the 2018 EMEIA survey.

Some of the large banks used alternative ways of TM scenario development and maintenance. For example, one of the large banks that responded "Other" used a dedicated team, which is responsible for the scenario development end-to-end process. Another large bank conducted a yearly analysis of the success of all scenarios and triggers used.

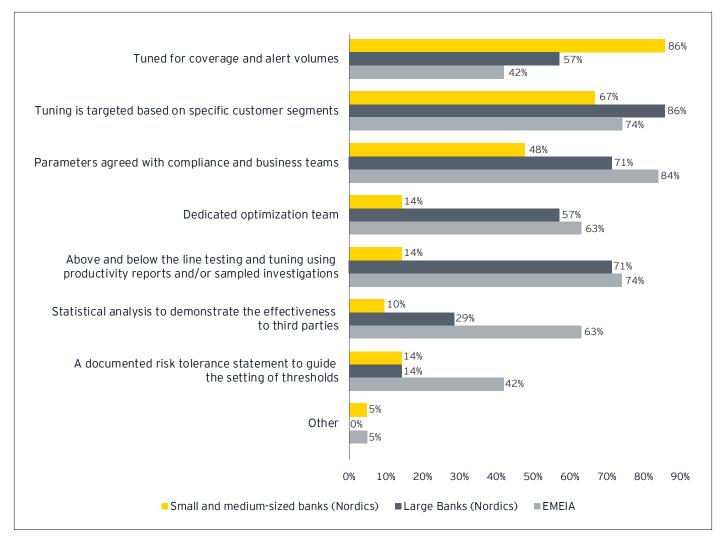
Figure 7 – How are your TM scenarios developed and maintained?





Small and medium-sized banks primarily focus their tuning on coverage and alert volumes based on specific customer segments. On the other hand, large Nordic banks are closer to the EMEIA respondents with a more mature approach but still lacking behind on some parameters, as in not having documented risk tolerance statements to guide the threshold setting.

Figure 8 - What tools and techniques do you use to tune and optimize your TM scenarios?

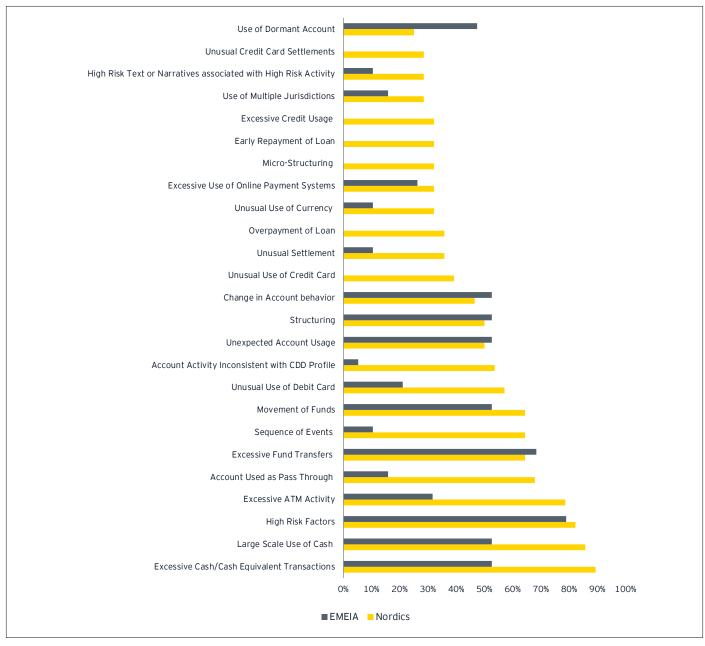


#### 2. Nordic banks use different scenarios

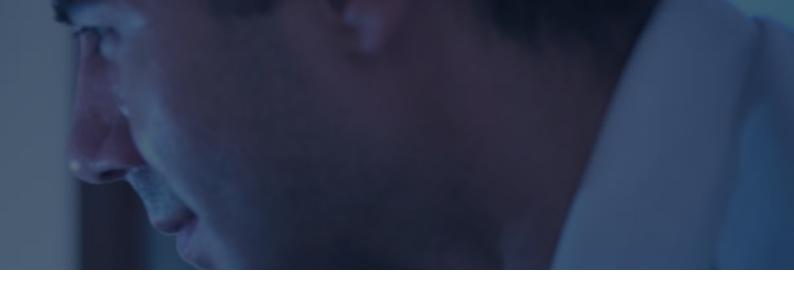
One of the main differences between the Nordic banks and the institutions in the 2018 EMEIA survey is the focus of the TM scenarios. The Nordic banks focus more on scenarios targeting cash use and customer accounts used as pass-through.

In EMEIA, scenarios such as patterns of fund transfers between accounts and branches located in areas associated with terrorism are widely used. However, those scenarios are not commonly used among the Nordic banks.

Figure 9 – Which of the following scenarios do you use in your TM platform?



Note that the survey covered 54 scenarios, of which the top 25 scenarios used by the Nordic banks are presented in Figure 9.



#### **Nordics**

#### The five most used scenarios among the Nordic banks

- Excessive Cash/Cash Equivalent Transactions (89%)
- Large Scale Use of Cash (86%)
- High Risk Factors (82%)
- Excessive ATM Activity (79%)
- Account Used as Pass Through (68%)

#### The five least used scenarios among the Nordic banks

- Patterns of Recurring Originators and Beneficiaries in Fund Transfers (0%)
- Low Priced Securities (0%)
- Excessive Loss (0%)
- Redeeming Products Instantly or within a Short Period of Time with an Apparent Disregard for Fees (4%)
- Known and Unknown Remitter and Beneficiary Names (4%)

#### **EMEIA**

#### The five most used scenarios among the EMEIA financial institutions

- High Risk Factors (79%)
- Excessive Fund Transfers (68%)
- Branches Located in Areas associated with Terrorism or Financial Crime (63%)
- Patterns of Fund Transfers between Multiple Accounts (63%)
- Unexpected Account Usage (53%)

#### The five least used scenarios among the EMEIA financial institutions\*

- Patterns of Recurring Originators and Beneficiaries in Fund Transfers (0%)
- Excessive Loss (0%)
- Early Repayment of Loan (0%)
- Overpayment of Loan (0%)
- Unusual Use of Credit Card (0%)

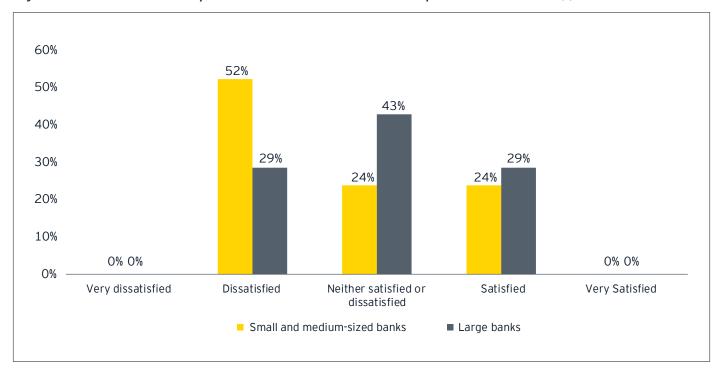
<sup>\*</sup>There were 14 scenarios in the survey that were not used by any of the respondents in the EMEIA report.

#### 3. Large banks are more satisfied with the effectiveness of their TM solution than small and medium-sized banks

Overall, large banks are more satisfied with the effectiveness of their TM solutions than small and medium-sized banks, of which more than half responded that they were dissatisfied with their solution. Reasons for dissatisfaction include complexity and a lack of user friendliness of the TM systems.

Some of the larger banks commented that the TM system was difficult to update and that it is a challenge to construct new scenarios and triggers. A common concern for both groups was that of low system precision, which generated many false positives.

Figure 10 - How satisfied are you with the overall effectiveness of your AML TM solution(s)?





An investigator in small and medium-sized banks investigates a higher number of alerts per investigator than in larger banks in the Nordics. The data from the banks showed great variance across both groups. The small and medium-sized banks had between 44 and 1.350 alerts per alert investigator per month, though most were within the range 130 to 480. The large banks had between 33 and 194 alerts per investigator per month. For comparison, the retail and corporate banks in the 2018 EMEIA survey had an average of 143 alerts per investigator per month.

A reason for the difference can be that smaller banks usually have fewer complex customers and products, simplifying the investigation process. Also, the small banks have simple investigation processes with fewer formalized investigation steps, which means that investigators can handle more cases than investigators in large banks within the same amount of time. 94% of the small and medium-sized banks use an endto-end investigation process handled by a single investigator, while only 33% of the large banks use this process, often opting for more complex processes with additional formalized investigation steps (Figure 6).

Small and medium-sized banks generate more alerts per customer. On average, an alert is generated for 0.75% of the customers per month, compared to 0.43% for large banks.

Small and medium-sized banks investigate more than three times as many alerts for every SAR filing, compared to large banks, as illustrated in Figure 12.

The information provided by the banks indicates that part of the explanation may be that large banks focus on having fewer, more efficient scenarios compared to smaller banks, generating fewer unnecessary alerts. The large banks have ~12 scenarios on average, while the smaller banks have ~18 (answers provided to the question in Figure 9 on page 16).

Figure 11 - Number of alerts per alert investigator per month

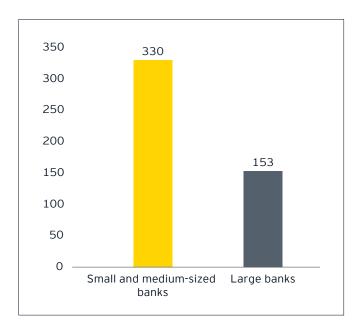
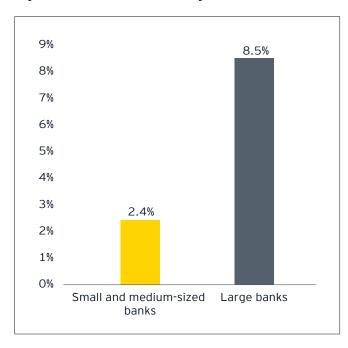


Figure 12 - SARs as an average of alerts

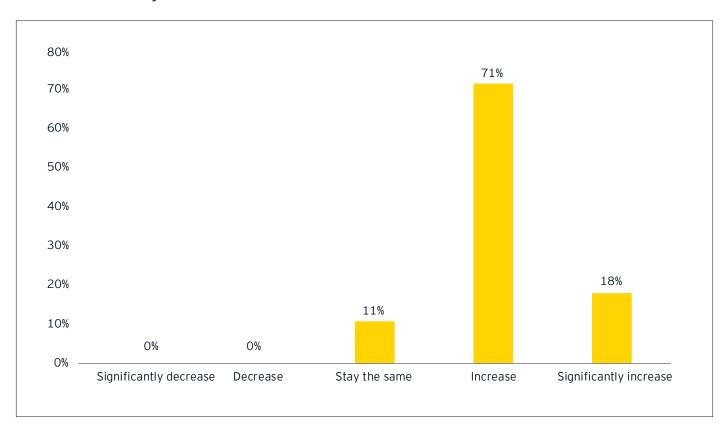


Investments in TM, including new technologies, are considerable and increasing among the Nordic banks

Most Nordic banks view themselves as being in Stage 3 on the maturity model, as illustrated in Figure 2 on page 11. Stage 3 is characterized by improved TM coverage of AML risks, which comes with a significant increase in technology and operational cost as banks extend system coverage, add new

rules, and lower thresholds. As shown below in Figure 13, 89% of the participants expect increases in TM costs over the next financial year. None of the participants expect costs to decrease.

Figure 13 – Excluding operational costs, in the next financial year, do you expect your spending related to transaction monitoring to...?



Technology investments that banks consider include better detection using machine learning and other more sophisticated analytics, efficiency improvements through automation of Level 1 investigations, and better tools, such as network analytics to help with more sophisticated cases.

All banks are investing in new technologies to some extent. Larger banks plan to invest more in technologies than small and medium-sized banks. Large institutions are investing across all areas to improve efficiency and effectiveness from a combination of technologies and techniques. At the same time, small and medium-sized banks are more targeted in their investments.

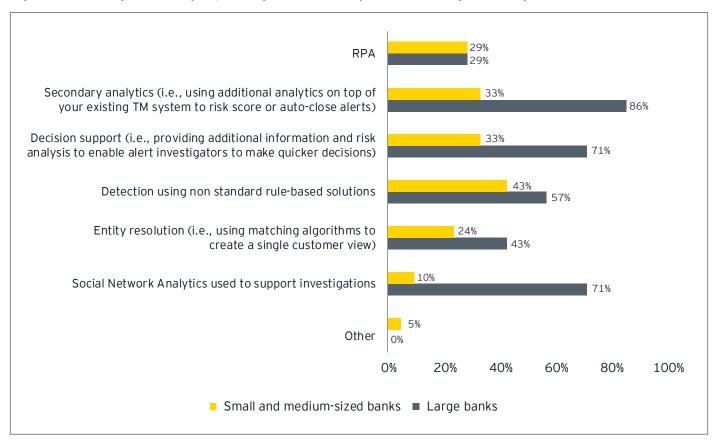
Nordic banks do not plan to invest in RPA to the same extent as the EMEIA institutions were according to the 2018 survey,

where 68% of respondents said they had or were planning to invest in RPA. Many of the Nordic participants noted that they did not see the benefits of investing in RPA when developing their TM systems.

71% of large Nordic banks invest in social network analytics to support investigations, while only 10% of the small and medium-sized banks do so. The large Nordic banks are also investing in social network analytics to a larger extent than the institutions in the 2018 EMEIA survey, where 42% of respondents either had or were planning to invest in social network analytics to support investigations.

In "Other" comments, one bank mentioned plans to retire some of the scenarios in the traditional TM system in favor of machine learning.

Figure 14 - Have you, or are you planning to invest in any of the following technologies?

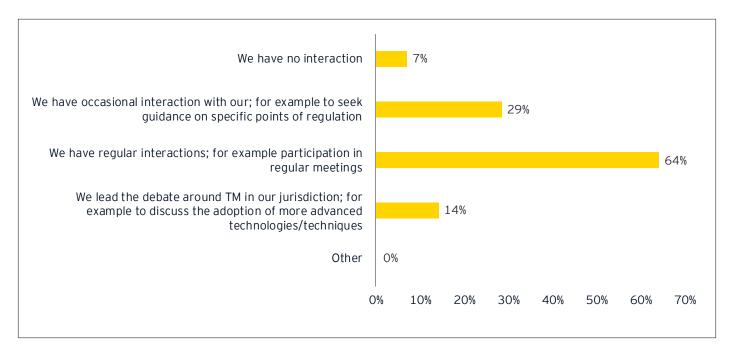


# Findings 6. Communication with regulators, supervisory authorities and industry groups is regular for Nordic banks, however, the banks expressed a desire to receive more guidance from supervisory authorities

Most banks have regular interaction with regulators, supervisory authorities and industry groups. Many banks expressed a desire to receive more guidance from the supervisory bodies than they currently do. While the interaction is regular, the banks wish that the interaction would provide more guidance.

The answers exhibited in Figure 15 also encompass interaction with industry groups. Several banks noted that they have regular interaction with industry groups, but they have little to no interaction with regulators or supervisory bodies. In fact, two banks had no interaction at all.

Figure 15 – How would you describe your level of interaction with your local regulator, supervisory bodies and industry group(s) specifically for matters relating to AML Transaction Monitoring?

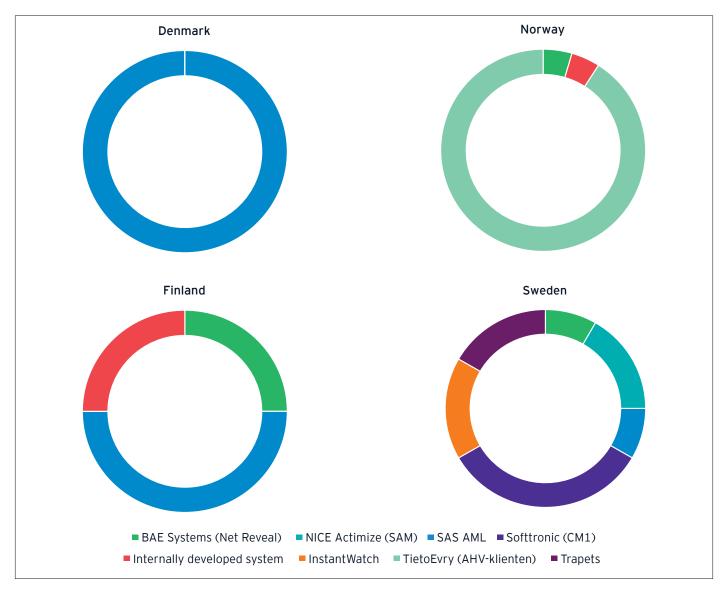


# Findings 7. One predominant TM system vendor in each Nordic country

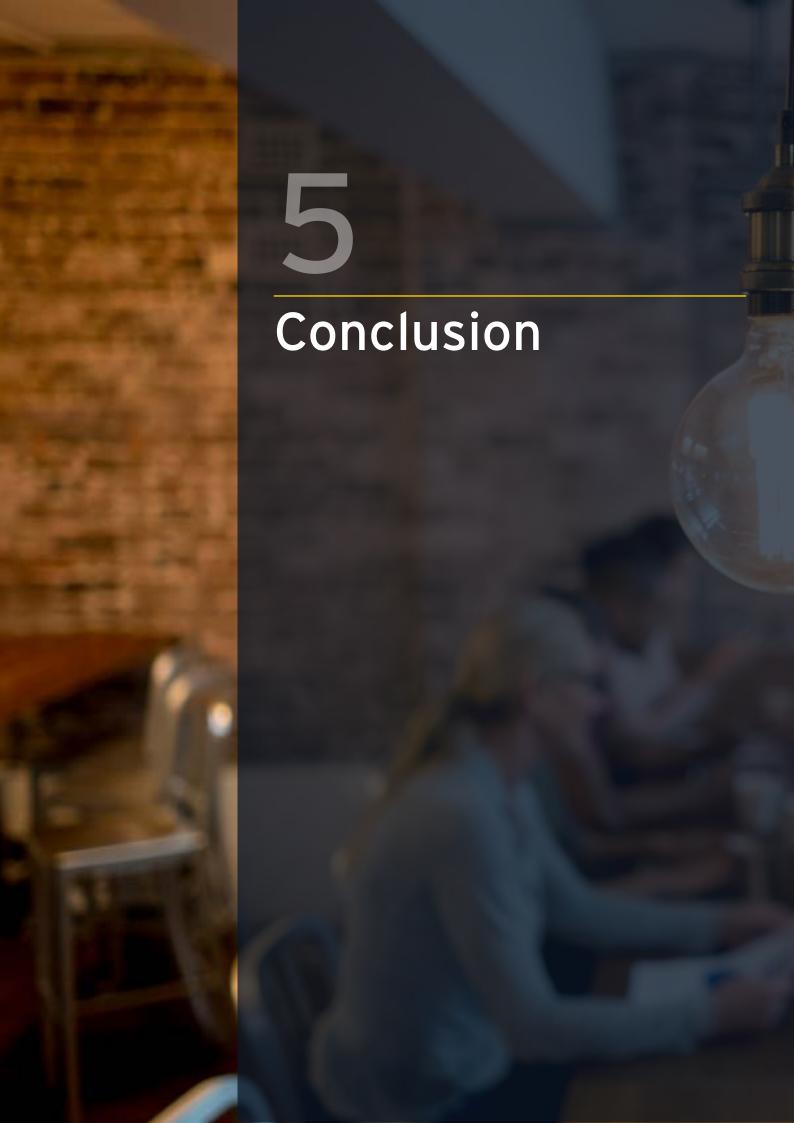
When the participating banks were split into groups based on their country of domicile, it was found that there tended to be one prominent vendor TM system in each market. The prominent TM systems found are:

- SAS AML in Denmark
- ► TietoEvry (AHV-klienten) in Norway
- SAS AML in Finland
- Softtronic (CM1) in Sweden (although Sweden is more diverse in terms of TM systems used)

Figure 16 - What vendor TM systems do you use?



Note: Some banks use two different systems. These systems are included in the graphs as half a response each.



In summary, the 2020 Nordic AML TM survey results show that the large Nordic banks are not at the same level in terms of efficiency and maturity as EMEIA survey participants were two years ago. Thus, not surprisingly, all Nordic institutions have been investing in TM in the last few years and will continue to do so.

Across the Nordics, there is no significant difference across countries besides the vendor choice, but there are substantial differences depending on the size of the institutions. Small and medium-sized banks generally have a rule-based set up with a simple investigation process, which allows them to handle more alerts per alert investigator, but they struggle with low precision of their scenarios. Large banks have started to implement advanced analytics and other more sophisticated solutions to have a higher rate of SARs per alert and be more satisfied with their TM solutions. This has led to a higher rate of SARs per alert for the large banks and they are generally more satisfied with their TM solutions than the small and medium-sized banks. However, there is still a need for further development to become more efficient and identify complex transactions.

Glancing forward, it is anticipated that the trend of investment in new technologies and advanced analytics to continue, but it will still take some time for the Nordic institutions to catch up. In the Nordics, as in the rest of EMEIA, we expect investment to expand to the application of advanced analytics, with improved model risk management techniques forming a more canonical approach. We look forward to seeing the results of this in our next survey.

To learn more about the EMEIA 2018 survey, click here.

#### EY thought leadership resources:

- Disrupting financial crime
- How to trust the machine: using AI to combat money laundering





Mette S Thomsen Director, Financial Services Consulting, Denmark EY Godkendt Revisionspartnerselskab +45 2529 6375

mette.s.thomsen@dk.ey.com



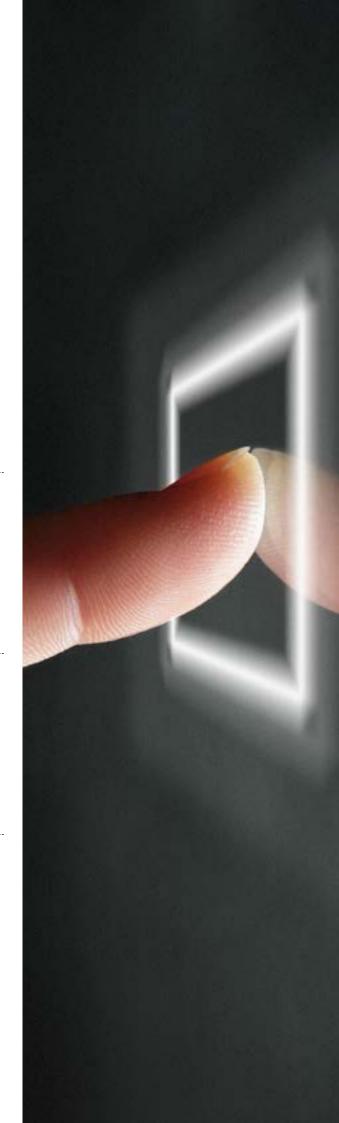
Eeva Wiik
Director, Financial Services Consulting,
Finland
Ernst & Young Oy
+358 40 5596797
eeva.wiik@fi.ey.com



Tove Albrektsen
Executive Director, Financial Services
Consulting, Norway
Ernst & Young AS
+47 982 06 924
tove.albrektsen@no.ey.com



Henrietta Sandelin Manager, Financial Services Consulting, Sweden Ernst & Young AB +46 72 230 87 88 henrietta.sandelin@se.ey.com







#### The maturity model described

Stage 1 - Introducing an AML TM solution: The first stage of maturity is implementing an automated TM solution, where one did not exist previously. This provides a minimal level of risk management with an initial, increasing operational cost.

Stage 2 - Stabilization of an AML TM platform: As a result of lessons learned from the initial solution implementation, institutions can achieve efficiencies and balance a basic level of cost and risk.

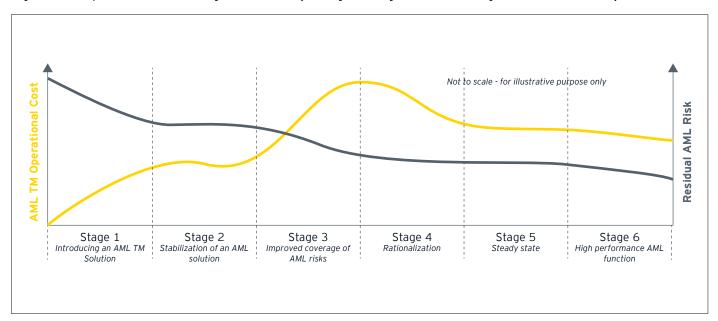
Stage 3 – Improved coverage of AML risks: Pressure from regulators and internal control functions demands that TM provide better coverage of AML risks. However, this results in a significant increase in technology and operational costs, as system coverage is extended, new rules are added and thresholds are lowered.

Stage 4 - Rationalization: Refinements in operational processes and systems management, and more effective application of analytical tools and methods, drive decreases in costs and further reductions in residual AML risk.

Stage 5 – Steady state: Mature governance, MI and a dedicated TM analytics function ensure new threats are effectively addressed while keeping operational costs under control.

Stage 6 - High-performance AML function: Leading-edge technologies and investigative processes are applied on an opportunistic basis to drive further cost reduction and improved risk management.

Figure 3 - Explanation of the stages of maturity (a higher stage indicates a higher level of maturity)



Note		

Note			

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