EUROSAI
INNOVATIONS

THE DANISH NATIONAL SOCIAL APPEALS BOARD

ADMINISTRATIVE OFFICE

CASE-MANAGING UNITS

| Case creation | Obtaining necessary documents | Obtaining supplementary information | Medical assessment | Appeals meeting or deliberations in writing |

WAITING TIME
Average case processing time: 9.3 weeks
(26,175 cases)

ADMINISTRATIVE OFFICE

CASE-MANAGING UNITS

Complaint → Preparing the case → → Case processing → Decision

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AIM
Increasing the impact of audit and judicial functions
Contributing to accountability and transparency
Creating value for stakeholders
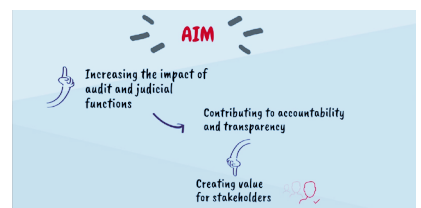
FOLKETINGET RIGSREVISIONEN

PROCESS MINING - DIGGIN' THE DATA MINE

The amount of data produced every day is growing exponentially. During the last 15 years, the majority of public-sector processes have been digitalised and actions that were formerly performed manually have been automated. This is particularly true in Denmark – the country that in 2018 was named the world leader in public digitalisation by the UN. This digitalisation generates huge amounts of data, from which our audits can benefit.

Rigsrevisionen's strategy for 2018 to 2020 pledge to focus our performance audits on economy, efficiency and effectiveness. To fulfil this pledge, it was only natural to tap into the opportunities of digitalization and perform more data-driven audits. To do so, an environment had to be created that made it possible to try out new methods and test new software. Rigsrevisionen therefore established and commissioned an inhouse analysis team that, among other tasks, was made responsible for testing new methods and software (read more about it in the August newsletter: link). One of the team's first projects was to test process mining in a performance audit.

WHAT WE DID

Our first test of process mining was a study on case-processing times and the efficiency of the Danish National Social Appeals Board. The purpose of the study was to assess whether the Ministry of Economic Affairs and the Interior ensured that the Social Appeals Board's case-processing times and efficiency regarding social, employment and industrial injury appeal cases were at a satisfactory level. Process mining allowed us to make our analyses on the full population of cases and not just on a sample.

First, we identified 18 key events in the National Social Appeals Board's case processing. Then we extracted log files from the board's case management system by matching the 18 events to the logs in the system. We used this data to calculate the time spent on each event as well as the time span between events. The figure below illustrates 5 of the events in the process.

WHAT IS PROCESS MINING?

Process mining is an analytical discipline for discovering and analyzing processes by extracting readily available knowledge from the auditee's case management systems. In practice process mining is the combination of a process model and the corresponding event logs.
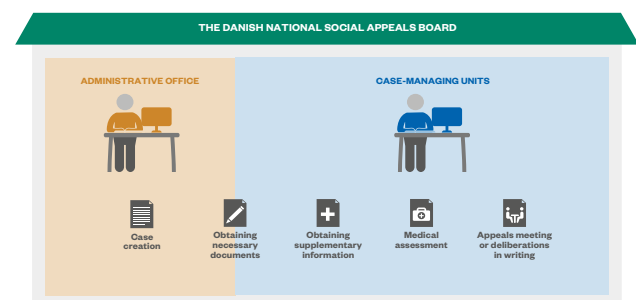
The process model:
The process model is a map of the business administrative procedures or events to complete a task.

Event log:
The event log is a "digital footprint" recorded every time a given event occurs.

THE DANISH NATIONAL SOCIAL APPEALS BOARD

ADMINISTRATIVE OFFICE — CASE-MANAGING UNITS

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With this data, a vast array of possible analyses emerged. One was to calculate the unproductive waiting time in the case flow between the initial administration of the case and the assignment of the case to a caseworker. The illustration below shows that for the 26,175 cases that were settled in 2018, the average waiting time was 9.3 weeks, before a case was assigned to a caseworker.
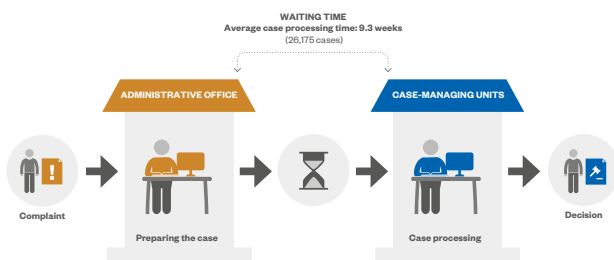
The audit also highlighted areas where the National Social Appeals Board should focus their efforts to reduce case processing times. By pinpointing the factors that contributed the most to the long case processing times, the analysis provided the National Social Appeals Board with valuable information. For instance, the analysis showed that the processing time for a certain type of cases was prolonged by 117%, when the board was reliant on external actors to provide additional information needed to process a case.

In addition, process mining made it easy to calculate the number of cases distributed among the units within the organisation. When we added expenditure and hours spent on each case to that equation, we were able to compare efficiency across units and calculate the potential for efficiency improvements.

To sum up, process mining provided insights on and explained the length of case processing within the Danish National Social Appeals Board. Rigsrevisionen's study indicated that the Social Appeals Board could improve both its case flow and efficiency, and thereby it added value, not only to the audit, but also to the auditees. (Read the first chapter of the report).

WHY PROCESS MINING?

There are many reasons for diggin' the data mine by using process mining. To mention a few:

- **Audits of this type offer better and often new insights into the auditees' organisation.**

- **Process mining can be used to conduct a vast array of analyses relevant for a SAI, such as compliance, segregation of duties, productivity benchmarking, efficiency etc.**

- **Process mining enables analysis of great amounts of data.**

- **Process mining analysis often results in visual process maps (depending on software) that are a great vantage point to engage in dialogue with the auditees.**

- **Auditees may start using process mining analysis themselves to improve their governance.**

NATIONAL AUDIT
OFFICE OF LITHUANIA

HAS THE NATIONAL AUDIT OFFICE OF LITHUANIA ACTUALLY ENTERED THE VIRTUAL OFFICE WITHIN HALF A DAY?

Živilė Kindurytė, Head of Strategic Planning and Analysis Division, Audit Development Department

Innovations and quality

It is difficult to precisely determine when our audit office started living with innovations; without much looking back, we see the steps recorded five years ago.

The National Audit Office Strategy 2020 adopted in 2015 besides the more understandable and usual values for our community – professionalism, cooperation, responsibility - included innovation value. A link between institution's organisational culture, creativity and innovation is examined analysing factors behind the progress, and supreme audit institutions have all the necessary prerequisites for that as a high level of expertise is concentrated and creativity is encouraged there, in addition to internal motivation. The value of innovation has always existed in our office; it has also promoted the optimisation of processes.

The implementation of the NAO Strategy foresaw a plan for this year to analyse modernisation opportunities of the NAOL office, and we only timidly used to mention the virtual office as a scenario possible someday... Maybe with the next Strategy 2025? We had our doubts if it was the right time to change the established information dissemination and communication channels and ways. We analysed, tried, prepared the ground for e-audit...

The NAO Strategy envisaged "Quality" as the direction for organisational strengthening; that same year, our office introduced ISO 9001 quality management standard. During the five years, the quality management principles of ISO have become our daily principles of operation, which was confirmed by ISO auditors this year.

With the introduction of quality management system all NAOL activities were grouped into 10 processes: three key functions, management and support processes. A consistent optimisation of processes allowed to reduce activity costs and achieve that currently 85% of documents are drafted electronically, although this number does not reach 50% in the public sector of Lithuania. Principles of quality management leadership and analysis of relations with our stakeholders are enabled by the adopted reputation management policy. Public trust is growing. Today we are pleased with the assessment of external audit stating that the quality management system has become a part of our organisational culture.

The literature highlights[1] that one of the crucial conditions for an institution's innovation and development is the support of its management, the commitment of managers to lead organisational changes and invest in the establishment of quality policy and procedures necessary for the introduction of innovations[2] .

"Innovation leader is the person in the organisation who puts innovations on organisation's agenda and promotes, organises and implements innovations whatever his position or functions. Due to his personal beliefs or the needs of competition his is "obsessed" by a wish to provide the organisation's clients with new products of ever higher quality".

Product quality and uniform style are inseparable

Implementation of the NAO Strategy 2020 and co-ordination of quality management in our office are concentrated at the top management level, therefore, innovations and changes are promoted and implemented in a consistent and coordinated manner: maintaining quality management requirements, optimising processes while keeping a uniform quality level of the key activities. Today we may compare public audit, EU audit and budget policy monitoring processes, look for the best practices, exchange them and make sure that all our products are compliant not only with auditing standards and other requirements but are also understandable and useful to our clients.

In implementing the NAO Strategy 2020 plans and peer review recommendations, we have changed the organisational structure, which allows to more easily plan our work, maintain efficient process management and concentrate various competences according to need. This contributed to a different approach to usual NAOL activity processes and to changes in audit planning and performance. Not for nothing they say that innovations are hampered by organisation's segmentation "culture and provisions that make initiative and non-traditional problem solving unattractive and challenging to the organisation's staff"[3].

1   Bandzevičienė, R. Psychology of Innovation Management, Mykolas Romeris University, 2011.

2   Klein, K., Conn, A., & Sorra, J. (2001). Implementing computerized technology: An organizational analysis. Journal of Applied Psychology, 86, pp. 811-824.

3   Kanter, R. M. (1988). When a thousand flowers bloom: Structural, collective and social conditions for innovation in organizations // Research in Organizational Behavior, 10, pp. 123-167.

The values chosen by the NAOL and the 10 QMS processes help us to move consistently in the chose direction.

Situation update: Mid-March 2020

All 295 staff members have moved to a virtual NAOL office… in a single day! Today 99% of us are teleworking. It took us only half a day to connect to a new environment for e-meetings, communication and work.

Have we always been ready for this and only needed a decisive step? Most probably, yes. And time will show if this was the best way to introduce innovations.

Over the last two years when introducing and optimising processes, a possibility of telework and flexitime appeared, reputation management process was adopted, live web streaming of the management meetings was made available for every staff member. In 2019, 40% of staff used the remote work option at least once.

What helped us to mobilise? We will find out if this was the most efficient solution following the assessment of our experience, however, certainly, our rapid actions in extraordinary circumstances were supported by the change management that is structured in accordance with quality management system and established in our activities as well as by communication facilitating the introduction of even unplanned changes.

Changes and innovations are stimulated by the same factors, and that path of innovation process from a vision while developing the NAO Strategy, to initiation in strategic measures, to preparation and testing enabled numerous efficient process changes during the last five years of existence of our quality management system and the Strategy. Innovation researcher Rosabeth M. Kanter[4] argues that the highest proportion of innovations are developed by organisations that have integrating structures, structured communication networks inside and outside the organisation when collaboration and teamwork are emphasized.

Obviously, these are only a few steps towards the e-NAOL, and we will test a large number of solutions by 2025 assessing which of the current changes have been most efficient for our performance.

It is only clear that the practical one-day introduction of the recent changes in the NAOL was the result of a consistent following of the quality management and organisational culture path that is paved with creativity and innovation of all NAOL staff members.

Cour des comptes
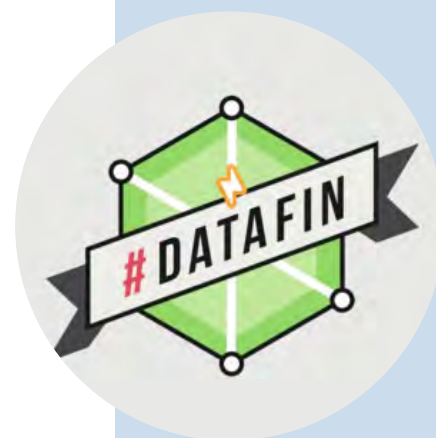
HACKATHON AT THE SENATE:
OPENING THE SOURCE CODE OF THE COUR DES COMPTES' LOCAL GOVERNMENT FINANCIAL ANALYSIS APPLICATION - A SIGNIFICANT STEP TOWARDS GREATER TRANSPARENCY

Xavier BAILLY, Regional auditor, Digital Liaison Officer, PhD Student, Laboratory Art-Dev, UMR 5281
Maria Eugenia HEYACA, Deputy Director of Methodology and Data, Court of accounts

On 24-25 January, multiple French public actors held a hackathon at the French Senate centered on analyzing the financial data of local authorities. This event, which highlights the on-going digital transformation of our organisations, also helps to further it by bringing together Information technology (IT) developers, data-scientists, civil society and administration experts.

For this second iteration of the "#datafin" hackathon, tens of new data sets were made available by the participating gov-ernment entities, to be the base of the 18 challenges that were developed over the two days. The audit institution took the opportunity to open the source code of its proprietary financial analysis software, Anafi. This opening, awaited by civil society and universities, was motivated by both a desire for higher transparency and a will to make use of the collective intelligence to enrich and improve the tool, thereby improving the quality of the audits of local authorities.

In June 2018, the French Budget Directorate, the Court of accounts, the National Assembly and the interministerial Directorate of Digital affairs and national Information and Communication Systems (DINSIC) organized the first #data-Fin hackathon on public financial data. Following the success of the first event, that saw over 130 participants, a second #dataFin hackathon was organized over two days at the beginning of 2020, and focused on local government finances.

1- Strong enthusiasm for public sector data

The session once again demonstrated the great appetite of civil society and institutions for local public sector data. The different teams took on 18 challenges. The topics selected highlighted a variety of trends and expectations in terms of data mining and analysis. Some of them are, we believe, worth mentioning.

On the institutional side, some projects focused on revenues and their modulation by law. Two challenges attempted to assess the impact of legislative amendments by simulating the impact of rural funding to local authorities. The aim was to give parliamentarians the opportunity to set the criteria laid down by the law and to measure their impact, in particular by visualizing eligible municipalities on a map.

Another challenge, carried by an urban area and then by the observatory of finance and local management, underscored the difficulties of the *"intercommunality"* (the grouping of different communes or municipalities for the management of selected local services) in France. The goal was to identify the cross-flows of capital between communes and intercommunal bodies. These flows, encompassing both operations and investments, can be highly complex, hence the need for financial departments to identify and rationalize them.

Several trends emerged as well on the side of the civil society. First we saw significant interest in making open public data clean and standardized, i.e. usable. Two challenges centered on the automatic conversion to a widely used file formats (.csv) of public data (namely public procurement data and municipal budgets) from more complex formats to handle.

The financial performance of local authorities as well as the assessment of the value-add of local public services in the territories also gave rise to multiple proposals. The development of indicators appealed to many participants, be it on the financial health of local authorities (through ratings), the availability of local public services and their impact on the quality of life, as well as the possibility for citizens to optimize the budget spending of their local authorities, through the interactive participation.

Finally, some projects, in anticipation of the forthcoming Olympic Games in Paris, aimed to monitor the associated expenditure, particularly in the area of public procurement.

2- The anticipated opening of the source code for the financial application of regional audit institutions

For some years now, French audit institutions have been engaged in an effort to increase transparency with citizens and to fulfill their national and international commitments in this area.

France's membership to the Partnership for Open Government was made official on the premises of the Court of accounts in April 2014. At that time, France pledged to participate in the transparency and openness initiative, which echoes Article 15 of the Declaration of the Rights of Man and of the Citizen: *"Society shall have the right to hold any Public Official accountable for its administration".* The Court contributes to two commitments of the French action plan *"for transparent and collaborative public action" (plan d'action français « pour une action publique transparente et collaborative »):* making data from the financial jurisdictions available and involving

citizens in its work. The hackathon was a great opportunity to advance this process.

On this occasion, French audit institutions have taken what appears to be an unconventional step: making available in open format the source code of one of their proprietary tools.

The Administration's policy of openness has often been limited to the

publication of data only. In this, the administration relied on the supposed intrinsic value of the data: the possibility of reusing it without exhausting it as a resource. In theory, making data available was enough to *"unleash"* its value, based on the formula popularized in France by Simon Chignard[1] : "data is oil but with a plus". But data is a raw material that cannot always be exploited as such, and often requires transformation in order to extract real added value and meaningful information. This "refining" is carried out by computer applications that collect, integrate, process and restore data. In the field of local finances, the technical skills and business knowledge required are many and varied. For civil society, this is a tall order unless, as is the case for some banks or consultancy firms, they have the capacity to develop the appropriate tools.

The French legal framework is a strong incentive to making available the code of government application with the Law for a Digital Republic (*Loi pour une République numérique du 7 octobre 2016*) stating the need to open both data and administrative source codes. The new European directive, which came into force on 16 July 2019 on open data and the reuse of public

sector data, allows or even encourages this as well. Therefore, the French Cour des comptes seized the opportunity of the hackathon to make available the source code of an IT application developed in-house and dedicated to the financial analysis of local government accounts: Anafi[2] .

Tax administrations publish annual files containing an extremely large amount of data relating to the finances of local authorities including, among others, accounting balances and nomenclatures, and records of tax items. These files - whose structures are often heterogeneous - are, however, subject to significant usability constraints. The aim of the challenge driven by the Court of accounts was to develop a platform based on the Anafi software, that would help citizens make sense of this abundance of data, by simplifying the sorting (by type of entity and geography) and by producing automated analyses. It included a scorecard for the public to analyze the financial and fiscal situation of local authorities and to assess their evolution over time or in comparison to that of similar municipalities or local authorities.

This is not the first time a French administration has opened up the code of an in-house application - far from it - but it adds a significant contribution to the transparency efforts of public action by providing civil society with the means necessary for a robust and detailed analysis of local finances.

Datafin was also the opportunity to include, within the challenge, the improvement of the application documentation module, to help clarify financial and accounting terminology for the broader public.

Yet, the prospect of the opening of the Anafi code has required preparation and adaptation. From improving the interface, to switching environments (from the proprietary *BusinessObject* to a python environment), and having the code audited by a third party, the process was not a simple and straightforward one. While citizens can benefit henceforth from the software, external contributors can now also improve the tool. This is, going forward, a great gain for our institution: to use the strength of collective thinking to improve the Court's internal tools and continue to provide higher standards of analysis and oversight.

1   Datanomics, les nouveaux business models des données, Simon Chignard et Louis David Benyayer, éditions FYP, 2015.
2   Bailly, X., Pezziardi, A, *Les outils numériques renouvellent l'analyse des données financières des collectivités territoriales, l'exemple du bloc communal*, Gestion & Finances Publiques n°4, juillet-août 2018, pp. 49-52.

GOING THE EXTRA MILE FOR A GREATER AUDIT IMPACT: DEVELOPING A NEW COMMUNICATION STRATEGY

Emine Ersöz, Senior Auditor-SYL Team Leader The Turkish Court of Accounts

Introduction

In today's modern world, thanks to the technological progress and increasing globalization, people are communicating faster and more than they did in the past. For this reason, all entities, whether for-profit organizations, non-profit ones, or governmental agencies, should give priority to their stakeholders' expectations in order to operate efficiently. In this context, SAIs should also strive to enhance their engagement with their stakeholders for a greater audit impact since their main goal is to contribute to fiscal transparency and accountability in the public financial management system.

The mission of the Turkish Court of Accounts (TCA) is to perform audits, make legal judgements and guide auditees to contribute to accountability and fiscal transparency in the public sector. Therefore, communication is a significant tool to realize this mission successfully. Being aware of the importance of communication with stakeholders, the TCA has decided to develop a communication strategy for the 2019-2023 Strategic Plan period.

In this respect, a project has started in May in line with the SAI Young Leaders Programme of the IDI (SYL Programme). The main objective of this project is to develop an agile and effective communication strategy. At its end, this project will switch the current communication practices to a new modern strategy through a well-directed change management.

Current Communication Practices of the TCA

In addition to internal stakeholders (TCA Staff), the external stakeholders of the TCA are the parliament, auditees, other audit institutions, NGOs, public and international organizations and other SAIs. The TCA's main communication tools with those stakewholders are the audit reports, audit demands from the parliament, public announcements when necessary and training and guiding activities upon requests. These indicate that the organizational communication has been outlined according to the requirements of legislation or activities provided upon request, but not practiced according to a communication strategy.

Current Communication Practices

PUBLIC

Press Releases

Judicial Decisions

Activity Report

Statement of General Conformity

Reports

Career Days

Strategic Plan

TCA Journal

Surveys

PARLIAMENT

Reports

Informative Notes

Budget Realization Reports

Statement of General Conformity

Special Reports

Speeches of TCA President in the Parliament

Auditees

Reports

Engagement Letter

TCA Journal

Training Programs

Judicial Decisions

Conferences

TCA Staff
1. Surveys
2. Tranining Programs
3. Conferences
4. Meetings

International Organizations and Other SAIs

Presidency and membership of international and regional organizations

Audit of international projects

Task forces

NGOs

Training programs and conferences

Audits

Bileteral agreements

Therefore, the new communication strategy is expected to shift the current communication practices to engagement for a greater audit impact and enhanced public recognition of the TCA.

What have we done so far ?

The SYL team of the TCA has been carrying out the change strategy on communication in the scope of the IDI's SYL programme since May 2019.

In this respect, TCA has prepared its 2019-2023 Communication Strategy.

The objective of this communication strategy is to ensure that the goals and objectives determined in the 2019-2023 Strategic Plan are achieved and to contribute to accountability and transparency in the public sector by increasing the impact of TCA's audit, judicial and guidance tasks.
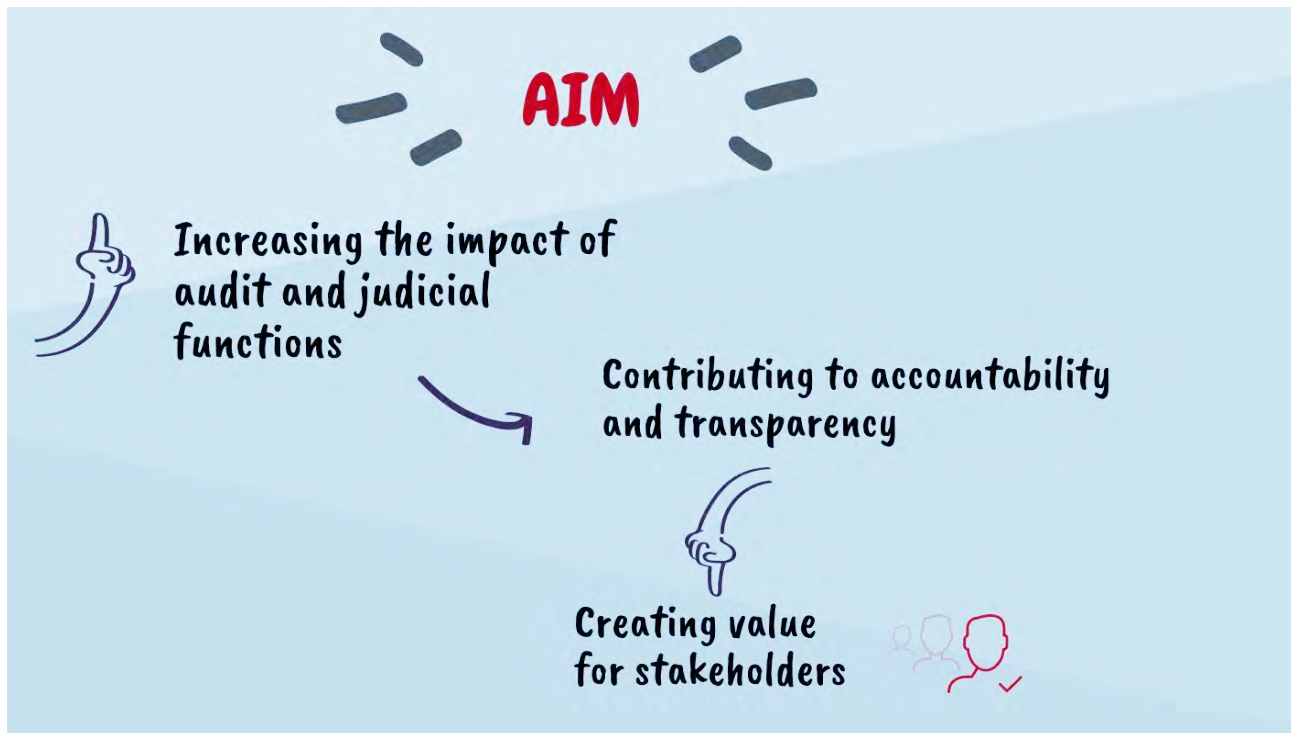
In this strategy, communication has been designed with a proactive approach, which goes beyond the reporting function between the TCA and its stakeholders, highlights feedback mechanisms and works in a two-way process. In addition to the traditional aims of communication strategies, in this strategy, communication plans have been developed in compliance with the role of the TCA in the fulfillment of the Sustainable Development Goals (SDGs) adopted by UN in 2015. Moreover, enterprise risks of the TCA have been taken into consideration, and the necessary communication channels have been developed to eliminate or mitigate the potential negative impacts of these risks on the audit and judicial activities of the TCA.

During the preparation works of the 2019-2023 Communication Strategy, strengths-weaknesses and opportunities-threats were primarily identified as a result of an analysis on the internal and external environment of the TCA via the SWOT method, and then stakeholders were determined. These stakeholders were prioritized based on their interests in and influences on the TCA activities and those having key roles were determined, and all stakeholders were categorized. Afterwards, stakeholder expectations were presented, and communication objectives and strategies to be implemented to achieve these objectives were developed for each stakeholder.

INTOSAI-P 12 defines the concept of stakeholder as a person, group, organization or system, which affects or is affected by the objectives, policies and activities of an entity.

Based on this definition and the prioritization works conducted, the TCA has identified seven main stakeholders. The TCA's main stakeholders are as follows:

1. Public (Citizens and Media)
2. Parliament
3. Auditees
4. Other Audit Institutions
5. NGOs
6. International Organizations and Other SAIs
7. TCA Staff

The communication strategies developed for the main stakeholders are given in the following table:

In the figure above, the strategies adopted for the stakeholders are indicated. There are three strategies adopted in communication with stakeholders:

➤ Approaching (the first interaction between TCA and stakeholders, opening up communication channels)

➤ Engaging (establishing more engagement)

➤ Positioning (after opening up communication channels and setting up engagement, taking a good position)

According to one of the adopted strategies above, different communication plans for each stakeholder were developed. For instance, citizens are the group with little interest despite their high influence on the TCA's activities, so there are some strategies and communication tools, such as simplified audit reports, to raise their awareness/interests in the TCA's works in the citizen communication plan.

Besides all these, as a short-term win, the SYL team has created a communication plan for international organizations. The TCA has an engaging strategy for international organizations; therefore, we aim at establishing more engagement with them. To ensure that,

the TCA has opened up new communication channels such as social media accounts, websites in different foreign languages and a website module for training requests from other SAIs. The SYL team has also developed a social media policy and created business processes of social media usage as a part of the implementation of the strategy.

Conclusion

Our starting point was a question: "Why don't SAIs go the extra mile to ensure that the stakeholders' expectations are met?" Every step we have taken so far has been shaped within this question in mind. Since we believe that SAIs' communications with the stakeholders are vital for creating a greater audit impact, we are trying to go beyond the line drawn by the legislation. We think, with a well-planned communication strategy, our organization will be more proactive in its relationship with stakeholders, thus engagement with our stakeholders will be more effective.