NCI Agency
Annual Report 2021
—
Maintaining NATO's Edge

NATO Communications and Information Agency

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1. Executive Summary

The strategic context in which the NATO Communications and Information Agency (NCI Agency) operates in support of the Alliance, has changed significantly in the past year. The retrograde from Afghanistan and now the developing crisis in Ukraine caused by Russia's invasion, have brought into ever sharper focus the need for the Agency to be completely aligned with NATO's strategic priorities and able to support its operational requirements.

This annual report sets out the Agency's key achievements over the last year in our delivery to all our stakeholders. It provides an overview of the areas we are working on in collaboration with our
strategic partners to ensure the Agency is fit for purpose for the challenging years ahead.

NCI Agency Operations

Operations & Exercises

- NATO operations and exercises remain the Agency's priority. Overall, in 2021, the Agency deployed over 332 staff, including NATO civilians, military staff, and contractors (Interim Workforce Capacity (IWC)).

- We provided Communications and Information Systems (CIS) support until the end of the Resolute Support Mission Retrograde, compiled NCI Agency lessons learned and contributed to the wider NATO lessons learned process.

- The NCI Agency endeavours to keep pace with NATO's political agenda, which throughout 2021 has put increased focus on Deterrence and Defence of the North Atlantic Area (DDA) and Business Continuity Planning. In hindsight, the Agency's actions taken in this area have proven helpful in terms of supporting NATO's approach towards Russia's war against Ukraine.

- The Agency delivered technology and expertise to support vital NATO and national exercises, including: DYNAMIC MANTA 21, GRIFFIN LIGHTNING 21, JPOW 21, STEADFAST ARMOUR 21, STEADFAST INTEREST 21-2, STEADFAST JUPITER 21, STEADFAST JACKAL 21, and STEADFAST LEDA 21.

Capability/Service Delivery

- In the area of capability and service delivery, major achievements included:

  » Air Command and Control System (ACCS) Theatre Missile Defence Capability Final System Acceptance (FSA);
  » IT Modernization (ITM) Bridging Solution, Recovery Inc. 1 Project Proposal, Bridging Solution delivered hardware;
  » Comprehensive Air Command and Control (AirC2) Capability Architecture;
  » Enabling crisis management;
  » Technological and architectural support to NATO HQ for a new artificial intelligence (AI) project;
  » Academy training of 8,500 students and delivery of AirC2 Voice Communications equipment to Allied Nations;
  » Installing NATO Secret (NS) Video Teleconference (VTC) and Voice Service for Allied Nations;
  » Delivering CIS hardware to Allied Nations and installing NATO-to-Nation gateways in support of the Alliance Federation;
  » Alliance Ground Surveillance (AGS) connectivity to NS Wide Area Network and the Agency continued to provide 24/7 Satellite Communication (SATCOM) services in support of AGS integration;
  » SATCOM Anchor Component (SAC) Kester continues to anchor operational traffic 24/7 and in October 2021 the Agency granted the Provisional System Acceptance of the second large station in Verona, Italy.
  » Continuing to deal with increased requirements for virtual meetings during successive waves of COVID-19. For example, we regularly supported over 25,000 NS VTC virtual meetings throughout 2021, compared to an average of approximately 5000 meetings per month pre-pandemic.

- There were 14 framework agreements signed in 2021 with Nations, multinational and other NATO organizations for cooperation on Consultation, Command, Control, Communications, Intelligence, Surveillance and Reconnaissance (C4ISR) activities, Programmes of Work (PoW) and service support.

- In 2021, the Agency delivered services in accordance with 189 separate agreements with Commands, Nations, Partners, multinational organizations, and others.

- The number of signed Service Support Packages (SSPs) for services with non-common funded customers reached its highest recorded number last year.

Capability Development

- In 2021 the ITM Remediation Phase 1-3 and Mitigation Tranche 1 project deployed 300 REACH, 1994 PAN mobility laptops, 505 Thin Clients and 40+ multifunctional devices. The Polaris ITM Bridging Solution, Recovery Inc. 1 Project Proposal was delivered to the Investment Committee (IC). We understand what a critical capability this is in terms of addressing operational risk and systemic obsolescence and it remains the General Manager's top priority after operations.

- Other areas of important development included: AirC2 and Ballistic Missile Defence (BMD) with delivery of the ACCS Theatre Missile Defence Capability; Alliance Ground Surveillance and Next Generation Satellite Communication Services. Cyber security was also developed with the delivery of the Security Incident and Event Management Capability. This is a high-capacity system to help cyber defenders track what occurs on NATO's networks.

- We are working closely with the newly formed Office of the Chief Information Officer (OCIO) to address areas of risk identified in the Cyber Adaptation work completed in 2021.

External Stakeholder Engagement

- In 2021, as part of the NCI Agency's Strategic Plan goal 'Building Partnerships', the Agency continued to invest in its relations with Allied industries across the Atlantic by hosting its second virtual industry event, NITEC Connect. The event was attended by more than 1,400 participants and attracted more than 450 new companies. It focused on enhancing NATO's resilience through stronger partnerships. Different kinds of collaboration were explored, ranging from NATO's relationships with industry partners to a new framework for collaborating with not-for-profit organizations.

- The Agency also hosted a NATO Space Pitch Day in partnership with the NATO Space Centre. Six top qualifying teams pitched their proposals to improve Space situational awareness at the event. The winner had the opportunity to interact closely with the NATO Space Operational Community, providing further demonstrations and increasing common understanding of requirements and capabilities.

Financial Performance

- The COVID-19 crisis continued throughout 2021. Some forecast risks materialized and certain programmes were delayed due to travel restrictions, reduced access to implementation sites, challenges with industry in delivering the contracted work and emerging supply chain issues. However, by the end of 2021, the Agency assessed that COVID-19 impacts decreased from 100 to 20 NATO Security Investment Programme (NSIP) projects out of 234 active projects.

- Despite the continued challenges from the pandemic, the Agency maintained its financial and business continuity, with its mobile and committed workforce delivering on projects and services. Secure remote working solutions were also enabled and delivered to many Agency customers and stakeholders.

- The NCI Agency's 2021 total revenue amounted to 816.5 million EUR; this is a 5.3% increase compared to the previous year. This increase in overall Agency revenue is mainly due to NSIP acquisition revenue, largely in relation to a few major NSIP projects/programmes such as the Polaris ITM Programme, ACCS, Cyber Technical Refresh, SATCOM, and Resolute Support Electronic Counter Measures, in addition to the delivery of non-NSIP projects.

- In 2021, the net operating result shows a surplus of 25.5 million EUR[1], of which 21.2 million EUR will go to the Operating Fund (2.6 % of the total revenue).

- The Project and Service revenues were up 7.5% compared to prior year, an indication of higher fulfilment of incoming demand for project and service delivery.

- The Agency will continue to exercise prudent financial management, increase fidelity in our corporate planning and provide traceability to achieve break-even in line with the Financial Plan. The Agency will provide training for our staff to implement these processes while driving efficiencies.

Agency Internal accomplishments

Business Operations Management Improvements

- Developed the NCI Agency Strategic Plan for 2022-2026 to achieve the Agency Supervisory Board's (ASBs) Strategic Direction and Guidance (SD&G), with implementation through the Functional Area Operational Plans.

- Continued improving the corporate planning process to allow for early consultation with the ASB for guidance.

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[1]   The details of this surplus are provided under Chapter 5.

- Delivered the Agency's third Multi-year Investment Plan 2022 – 2026, embedded within the 2022 – 2024 Business Plan[2] and reflected in the 2022 – 2024 Financial Plan[3].

- Delivered the Agency's third Multi-Year Investment Plan 2022 – 2026, embedded within the 2022 – 2024 Business Plan and reflected in the 2022 – 2024 Financial Plan.

- Continued the Agency's risk management process that removes hierarchical barriers and allows timely decision-making for the successful delivery of planned objectives and milestones.

- Reached Initial Operating Capability of the Enterprise Service Operations Centre.

- Outsourced the Agency's Customer Satisfaction Survey and the results indicated some progress has been made while certain gaps remain.

- The matrix team professionalized the Acquisition function as a pilot, developed the high-level Professionalization Framework and is transitioning to the Chief People Office for implementation across the Agency's professions.

- Established and matured the Chief Technology Officer (CTO) function, consolidating engineering and architecture specialists.

- Matured the Crisis Management and Business Continuity function.

Facility Upgrades

- The Agency completed several important facility upgrade milestones in cooperation with the Agency's Host Nations (HNs):

  » Completed staff and technical asset relocation into the renovated building in The Hague.
  » Continued to collaborate on the design of the NCI Agency Digital Enterprise Centre (NDEC) facility in Camp Casteau, Mons with the HN Belgium.
  » Executed the lease and began implementation of works for the Interim Facility in Braine l'Alleud.

Future Challenges and Opportunities

The Agency will ensure it is postured to support the challenges facing NATO due to the dynamic and evolving geo-political, security, economic and climate-based changes impacting the world. NATO 2030 and the new strategic context will provide the Agency with many opportunities to demonstrate its worth and the skills, dedication and expertise of its people and industry partners. Together we develop and deliver solutions to emerging operational requirements and enable agile consultation between the Allies and NATO Partners.

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[2]   AC/337-D(2020)0032 dated 11 December 2020 and AC/337-D(2020)0032-AS1 dated 18 December 2020
[3]   AC/337-D(2020)0032 dated 11 December 2020 and AC/337-D(2020)0032-AS1 dated 18 December 2020

2. Introduction

2.1 Foreword by NCI Organisation, Agency Supervisory Board Chair

Mr Secretary General, Your Excellences,

It is my honour to convey the NATO Communications and Information Organisation (NCI Organisation) 2021 Annual Report. Since I started my tenure in July 2021, I have continued the efforts performed by my predecessors, focusing on the fulfilment of ASB responsibilities as depicted in the NCI Organisation Charter. My intent has been to contribute to fostering an effective governance function that helps to improve NCI Agency performance and at the same time, facilitates the inclusiveness of all stakeholders. Although this is not an easy task, my assessment is that we are moving forward in the right direction and that significant progress has been made in 2021.

Dr. Luis Astorgas, Agency Supervisory Board Chair

Let me share in a few lines some of the relevant accomplishments and important events of the NCI Organisation during the past year that are reflected in this annual report.

The Board appointed Mr Ludwig Decamps as new General Manager, starting his tenure in July 2021. From the very beginning, he has embraced a transformational approach for the NCI Agency, aiming to solve identified challenges and shortfalls following the SD&G approved by the Board in December 2020. The SD&G set four main focal areas for the NCI Agency: reinforcing its core business, developing an adaptive support to NATO's core tasks, strengthening Enterprise cyber space and cyber resilience, and enhancing NATO digital modernization. The SD&G directs the NCI Agency to focus on core business and to outsource where appropriate, thus enabling the NCI Agency's mission. The SD&G also directed
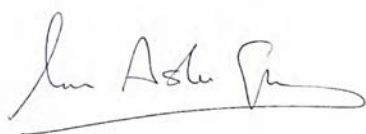
the General Manager to develop a new NCI Agency Strategic Plan in accordance with the SD&G objectives. The 2022-2026 Strategic Plan incorporated the needs and visions of different stakeholders and main customers after an extensive consultation process. My expectation is that this Strategic Plan will deliver significant improvements in performance and efficiency in the following years.

Several initiatives were implemented in 2021 to improve transparency and control at governance level. Two such initiatives were the change of the functional reporting line of Internal Audit from the General Manager to the ASB, and the new Personnel Establishment Policy limiting the workforce growth without ASB authorization. These initiatives helped to strengthen monitoring and compliance of NCI Agency performance and its financial execution.

Upon my arrival in July, the NCI Agency had to support the Retrograde from Afghanistan, with efforts in terms of people, systems and services deployed to the operational theatre until the very last hours of the Resolute Support Mission and beyond. Looking just at NCI Agency performance, I was very impressed by the commitment of Agency staff under difficult and risky circumstances. This commitment from NCI Agency staff to NATO Missions and NATO values is not an isolated event. During my tenure, I have repeatedly witnessed that commitment, and it has given me confidence in the future of the NCI Agency. More critically, the Russian invasion of Ukraine is already requiring the NCI Agency to respond and reprioritize its regular tasks to meet the requirements of the NATO Enterprise. Again, this would not have been possible without NCI Agency staff commitment well beyond their regular duties, and it is fair that this behaviour is known and valued.

We are aware that there is room for improvement. In that regard, the Board will continue to mature its governance structure in the coming years, enhancing processes between the Board, the Enterprise, the NCI Agency and its main customers. This will ensure improved financial and workforce planning and decision-making, placing a greater emphasis on continuous and transparent reporting. I believe this report provides a good summary of the progress the NCI Agency made in 2021 and the operations it successfully executed, as well as the Board's actions to strengthen organizational governance.

Sincerely,

Dr Luis Astorga

Chair Agency Supervisory Board, NCI Organisation

2.2 Foreword by NCI Agency, General Manager

I am pleased to present the Annual Report for 2021, my first as General Manager, having assumed this responsibility on 01 July 2021. The report highlights some significant achievements as well as some challenges we faced in 2021.

In only my first month, we collectively faced the unexpected events in Afghanistan. Having been planning for a transition to a civilian-led phase, we quickly had to re-adjust and manage the orderly drawdown of our networks and evacuation of personnel. I am proud of the way the Agency personnel in theatre, their colleagues back in Europe and our industry partners worked calmly and professionally to manage this dangerous situation. It is clear that our earlier retrograde planning and re-configuration prepared us well to react to the unexpected, and we are fortunate to have extremely talented and dedicated people in our organization. Regrettably, as I write this foreword, we are again collectively being put to the test in our support to the developing crisis in Ukraine. I am confident that we will rise to this challenge and the Agency is already supporting our operational partners as required.

Ludwig Decamps, General Manager NCI Agency

Behind operations, the Agency's priority is preparing for them and supporting our partners to do so. You will see that despite COVID-19, we have delivered technical support and connectivity to the full range of exercises and collective and individual training as required by the Strategic Commands. This often goes unnoticed, as it should, but it requires a great deal of planning, coordination and effort from across the whole Agency team in order for it to be successful and enable the vital training that the NATO Command Structure (NCS) and NATO Force Structure (NFS) needs to maintain NATO forces' high readiness. The Agency has also continued to defend NATO's networks 24/7. Throughout 2021, some major zero-day vulnerabilities such as Log4J have been successfully managed thanks to the great commitment and professionalism of our staff working under difficult COVID-19 circumstances and during non-social hours.

Closely following operations and exercises, there are some strategically important initiatives ongoing in NATO in which the Agency is playing and will continue to play an important role. These include the Cyber Adaptation effort which has become critical to ensuring the current and future resilience of our information and communications technology

infrastructure. We are working closely with the Office of the Chief Information Officer and others to support this vital work. The ITM programme is a crucial component to enable Cyber Adaptation as it will address many of the obsolescence issues and other risks which we are facing in the cyberspace domain. I am pleased that the ITM Bridging solution is now authorized and we will press ahead in delivering this much needed new capability and back-end refreshment to the operational community. We have also been focused on ACCS during 2021 and ensuring our compliance with governance as we manage progress through the agreed milestones in 2022. You will see in this report many other areas of progress across the capability portfolio and a sound performance in service delivery, but we have much to improve upon and are approaching this effort with determination and clarity of purpose.

In my initial months leading the Agency I have established clear priorities for the way we should operate the current business and how we should improve for the future. We have been working hard to develop a new Strategic Plan for the next five years to deliver this change. I have taken into account NATO 2030 and the emerging strategic context, the Strategic Direction and Guidance from the ASB and the needs of all our stakeholders. To achieve this, we consulted widely during the second half of 2021 in order to ensure that our plan met the needs and interests of all our stakeholders, including the Allies, NATO Headquarters, the Strategic Commands and industry.

What we have developed, I believe, is a well-structured approach which will:

- Run the business' by addressing our in-year execution and concurrent planning for the following year through an enhanced corporate planning process which engages our customers and governance early, to prioritize demand and plan the required resources in a more effective manner;

- Improve the business' through a set of operational plans which support the goals of the Strategic Plan with clearly defined and measurable outcomes. We have baselined our maturity and will track and report on progress over the next three years in a 'crawl', 'walk', 'run' cycle of development across a range of outcomes. These include professionalization of the workforce, improving Programme, Portfolio and Project Management, and a Smart Sourcing approach to improve our capacity generation though different channels, including industry and not-for-profit partners. These are just three examples.

We have transitioned our internal organization into a matrix structure and will continue to build on the sound foundation we have built in 2021, by embarking on this significant change programme over the next three years.

I will conclude by returning to the theme of the whole team effort I mentioned earlier in this foreword. The Agency can only deliver its capabilities and services by drawing on all the talent and expertise we hold in our people and by harnessing the capabilities brought by industry. We also need the support and guidance of our stakeholders and customers to keep us aligned with their needs. I am sure you will agree that when corralled together, this makes an extremely formidable team, as we can see in the many examples in the report of how we have overcome challenges together. There is much work to do to maintain NATO's Edge, but I strongly believe we are on the right trajectory.

Ludwig Decamps

NCI Agency General Manager

2.3 Strategic Context

The retrograde from Afghanistan in 2021 and the evolving Russian war against Ukraine in early 2022 brought into sharp focus the Agency's need to be postured to support operations and the political consultation process. Looking ahead, NATO 2030 and the new strategic context will guide the Alliance in the next decade and we must be fully engaged in this process, supporting our strategic partners where necessary in addressing evolving challenges. The NATO Military Authorities are forging ahead with implementation of NATO Command Structure Adaptation and developing new strategies and doctrine for the next decades.

In meeting our mission today, the Agency is constantly having to address systemic obsolescence which weakens our resilience and introduces significant risk for our operational partners. The delay to ITM from the failed contract has exacerbated this risk.

Related to this, we have a constant and serious threat posed by cyber-attacks. The Cyber Adaptation process has highlighted improvements in areas that require significant Agency effort to address. The Cyber Adaptation Roadmap contains work-strands for which the Agency is central such as Asset, Configuration, Patch, Vulnerability management (ACPV). These areas require prioritization and allocation of resources.

Maintaining our effectiveness during the COVID-19 pandemic has also required us to maintain discipline and sound organizational protocols to continue to deliver the required capabilities and services to the operators. Although the impact of the pandemic appears to be easing, we need to remain vigilant and ready to respond if needed.

Finally, in assessing the needs of our customers, it is clear there is a high demand for what the Agency delivers in both capability and services. This demand exceeds our current capacity and we need to be innovative in how we prioritize and create new capacity.

In response to these strategic issues, the Agency has concentrated its effort in a number of important areas during 2021:

• We have continued to develop our Crisis Management and Business Continuity posture. We have made significant progress in these areas which have contributed to the ability of the Agency to respond effectively to crises, ensuring resilience and enabling business continuity for our customers.

• We have engaged constructively with Allied Command Operations (ACO) to understand their evolving requirements stemming from DDA, and with Allied Command Transformation (ACT) concerning the longer term needs evolving from the NATO Warfighting Capstone Concept (NWCC). We have contributed to their planning and identied areas where the Agency will need to adapt in the future. Most recently, this includes work on digital transformation and helping to define the Alliance vision for this alongside the other stakeholders;

• We have prioritized the ITM recovery and mitigation effort, allocating significant resources;

• For Cyber Adaptation, we have been supporting the team in NATO HQ with Subject Matter Experts (SMEs) who helped to develop the report. We are now actively engaged with the OCIO in developing the roadmap which will shape the delivery of the required improvements;

• We have formed a Smart Sourcing team to develop a range of options for gaining support from industry and not-for-profit organizations, as well as looking to re-balance our workforce to where it adds the most value;

• We have engaged with the DIANA initiative to see how best we can bring innovative technologies into the capability delivery process;

• Finally, we have committed to the NATO HQ climate initiative to ensure we as an Agency are doing what is needed to address this challenge.

We will need to remain flexible and adaptable to what is an extremely dynamic and challenging strategic environment, now and in the medium to long term.

3. Corporate Governance

The Chair of the NCI Organisation Agency Supervisory Board via the NCI Organisation Independent Secretariat, hereby summarizes the Board's activities in exercising organizational governance in 2021.

As set out in the NCI Organisation Charter, the ASB is accountable to the North Atlantic Council (NAC) for the organizational governance of the NCI Agency, multinational programmes, Communications and Information (C&I) Partnerships and other agreements with external customers. The Board is comprised of representatives from each NATO Nation who collectively have decision-making authority, the Secretary General's Liaison Officer, and other stakeholders, including the NATO CIO and the NCI Agency's main customers who act in an advisory role.

2021 was a year of major change for the NCI Organisation. Starting with the Board's recruitment and selection of Mr Ludwig Decamps as the new NCI Agency General Manager, the appointment of Dr Luis Astorga as the new ASB Chair, and the selection of a new Vice Chair, Mr Matthew Warren (ASB Principal, United States). The Board monitored the leadership transition in the NCI Agency and welcomed the drive for change demonstrated by the General Manager's update to the Board after 90 days in office.

Consistent with its responsibilities to the NAC, the ASB strengthened its role in organizational and staff governance in addition to providing strategic direction, operational guidance, financial oversight and performance monitoring and control. A prime example of these efforts was the implementation of a new meeting structure, which enabled greater coordination of strategic decision-making and more effective communication through regular engagement between the governing body and NCI Agency leadership. Thus, ASB Principals met twice in Plenary session to take key decisions and the ASB and sub-committees met on a monthly basis in ASB Informal, ASB Permanent Sessions, Finance Committee and Audit Committee meetings.

The Board, through focus sessions, approved a scoping paper for developing a Governance Directive which will elaborate upon the authority and responsibilities set out in the NCI Organisation Charter and further articulated through the NCI Organisation internal rules and procedures. The scoping paper, which covers fourteen lines of development and is planned to be concluded in November 2022, envisages structural changes in the ASB, particularly through the functional reporting of Internal Auditand further integration of the ASB

meeting structure. Critically, these changes will be supported through key enablers, including further strengthening of the NCI Organisation Secretariat and review/reiteration of the ASB Chair and Vice Chair Role and Responsibilities.

The SD&G 2022-2026 was approved in December 2020, with four focal areas: strengthening core business, adaptive support to NATO's core tasks, strengthening cyber space and cyber resilience, and enhancement of digital modernization. These areas reflect the Board's continuing drive for the NCI Agency to deliver efficient business processes, optimize business output to its customer base and ensure provision of Command, Control and Communications support to NATO's core tasks and its emergent strategic vision. They also reflect the need to ensure maintenance of NATO's technological edge as a key enabler of the Alliance's ability to deter and defend, through Cyber Adaptation and continued development of the Digital Workplace. The Board has continuously stressed to NATO the critical nature of the strategic goals that flowed from these objectives.

In the second half of 2021, following NAC consideration of the Resource Policy and Planning Board's (RPPB's) Customer Funded Regulatory Framework Review, the ASB, its Finance Committee and Audit Committee have delivered work-strands in response to the RPPB's recommendations. This review has brought improvements to the operations of the organization through enhancements to capability and service delivery and strengthening governance processes. A mechanism to fund NCI Agency internal investments through Customer Rates was established, as was an NCI Agency internal investments reserve. The majority of the recommendations resulting from an independent study on overhead costs were implemented and governance was engaged to address Asset management issues and approve a 'get well' plan. This plan aims at ensuring an Unqualified International Board of Auditors for NATO (IBAN) Audit opinion on NCI Agency Financial Statements. Asset management was also a key focus for the Board in the context of its oversight of the Agency's role in cyber defence. The Board welcomed the NCI Agency's renewed focus on excellence in delivery and sought a comprehensive action plan to address challenges in capability delivery. As part of this plan, the Board guided the NCI Agency in the elaboration of a revised procurement directive.

After careful Finance Committee and ASB evaluation of the Agency proposal to use temporary office facilities at Braine-l'Alleud (Waterloo), an agreement was reached on the interim facility. The temporary office space will host

approximately 500 staff currently based at Mons and who are required to vacate Building 302 as part of the programme delivery for the new Supreme Headquarters Allied Powers Europe (SHAPE) HQ facility. To address long-term workforce planning concerns expressed by Allies, the Board agreed to engage in a contract with an external consultancy to provide an independent expert opinion on the current and future workforce requirements of the NCI Agency. The scope and timelines were agreed in December and a final report is expected to be delivered to the ASB at the November 2022 Plenary. As a further response to concerns on workforce planning, the Board approved a revised Personnel Establishment Policy on the basis of a Finance Committee recommendation. The policy established a process for out-of-cycle requests for additional workforce strength. Moreover, the Board notes that, despite repeated requests from Nations through both the Finance Committee and the ASB, the NCI Agency Directive on the recruitment, appointment and extension of Senior Personnel (G22 and above), was not completed by 31 December 2021 as tasked. The revised date for completion of this task is now 30 June 2022.

The ASB Audit Committee undertook extensive deliberations, both formal and informal, and decided to change the functional reporting line for Internal Audit (IA). This change addressed outstanding IBAN observations and aimed to ensure organizational independence of the IA Function in compliance with internationally accepted IA standards and NATO Financial Regulations. The ASB Audit Committee's decision was an opportunity for strengthening of the IA function as a fundamental component of sustaining good governance and for increasing the credibility of the NCI Organisation among stakeholders. The nations identified the importance of IA function and pledged full support to address significant and strategic risks to the NCI Agency, while providing independent assurance on risk management, control and governance.

In light of reinforcing the independence of the ASB Secretariat, as per the ASB's input to the RPPB Customer Funding Regulatory Framework review and strengthening of governance, the Secretariat hired an Executive Officer and an Executive Assistant and moved the provision of Human Resources (HR) services from the NCI Agency to ASG-EM's HR Staff Services. The independence of the Secretariat is facilitating the governance decision-making process, as per the principals of corporate governance.

4. Operating Performance

4.1 Revenue by Customer Segment and Funding Budget

The Alliance continues to undergo change due to internal and external factors and 2021 brought significant additional requests for support as well as increased demand and challenges to the NCI Agency due to the continued global pandemic.

As in previous years, the revenue targets for 2021 were developed through a thorough analysis of projected demand vs available capacity as well as outcomes from the Quarterly Annual Financial Report (QAFR) for the NSIP and third-party procurements. The Business Planning process further matured after several annual cycles, while the Agency's Workforce Planning continues to develop and ultimately improve the

Agency's overall demand-to-capacity planning capability. However, it also shows shortfalls in the Agency's ability to satisfy demand. Looking ahead, the Agency is putting more and more attention towards Smart Sourcing of non-core business to address these capacity issues through the development of a Sourcing Strategy and the introduction of a Sourcing Advocate.

In 2021, overall service/project revenue performance (operating + acquisition + external CIS) for 2021 was 798.7 million EUR, 88% of the forecast set for the year of 911.1 million EUR.

Reference	Operating (OP)	Acquisition (ACQ	External CIS (ECIS)	Total OP + ACQ + ECIS	Financial and Other	Total
Financial Statements 2021[4]	357.0 MEUR	227.7 MEUR	214.0 MEUR	798.7 MEUR	17.8 MEUR	816.5 MEUR
Approved Financial Plan 2021[5]	316.7 MEUR	322.4 MEUR	272.0 MEUR	911.1 MEUR	4.0 MEUR	915.1 MEUR
% FS Actuals vs FP Approved Target	113%	71%	79%	88%	N/A[6]	89%
For info: Updated Financial Plan 2021[7]	358.9 MEUR	299.8 MEUR	228.1 MEUR	886.8 MEUR	4.0 MEUR	890.8 MEUR
% FS Actuals vs FP Updated Target	99%	76%	94%	90%		92%

Table 1 – 2021 Revenue Achievement against the Approved Financial Plan Targets (updated Financial Plan during 2021 execution provided for info)

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[4] As per Unaudited NCIO Financial Statements 2021 – NCIA/FC/2022/003397 and NCIA/FC/2022/03389 dated 31 March 2022
[5] As per Approved Financial Plan 2021 – 2023 AC/337-D(2020)0031-FINAL dated 15 January 2021 and AC/337-D(2020)0031-ADD1 dated 25 June 2021
[6] % not applicable given the different nature of revenues included in this category
[7] As per Updated Financial Plan 2021 – AC/337(FC)N(2021)0010 provided for information on 21 June 2021

The overall demand from external customers and ACT was much higher than the Agency's official planning assumptions for the year; in 2021 the Agency saw over-execution in the ACO, ACT and External Customer Accounts. It is also important to note that the 2021 Financial Plan and Business Plan updated figures were significantly reduced based on Nations' guidance while the estimates for ACO Projects was set conservatively in line with Resolute Support Mission Retrograde planning.
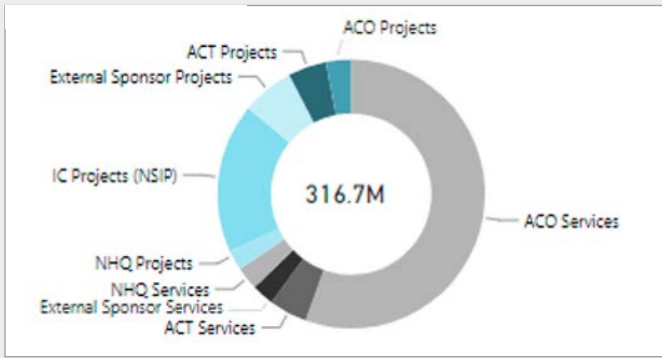
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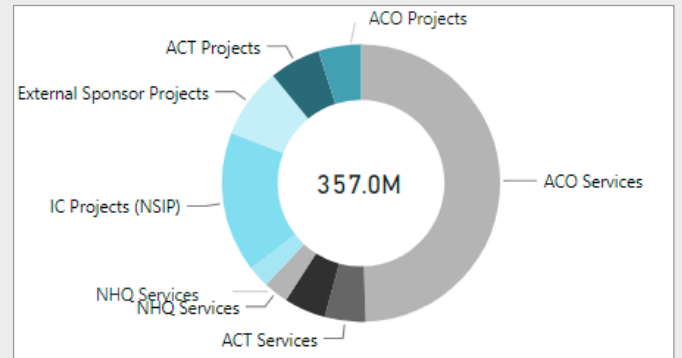
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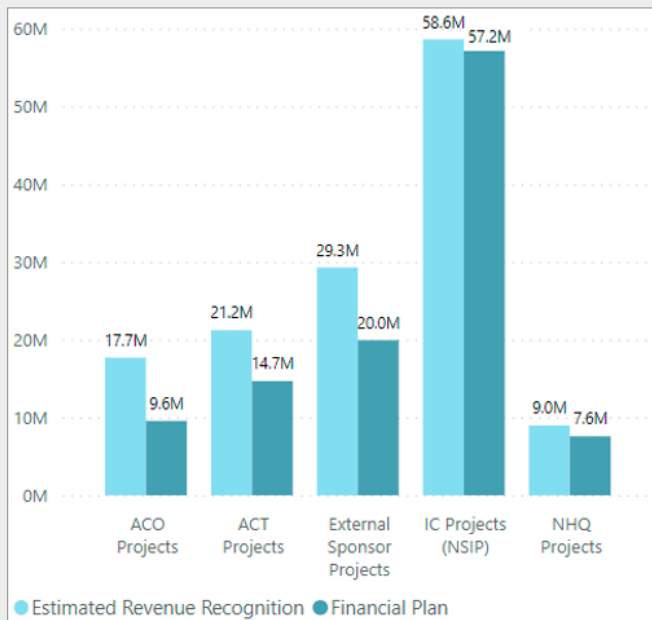
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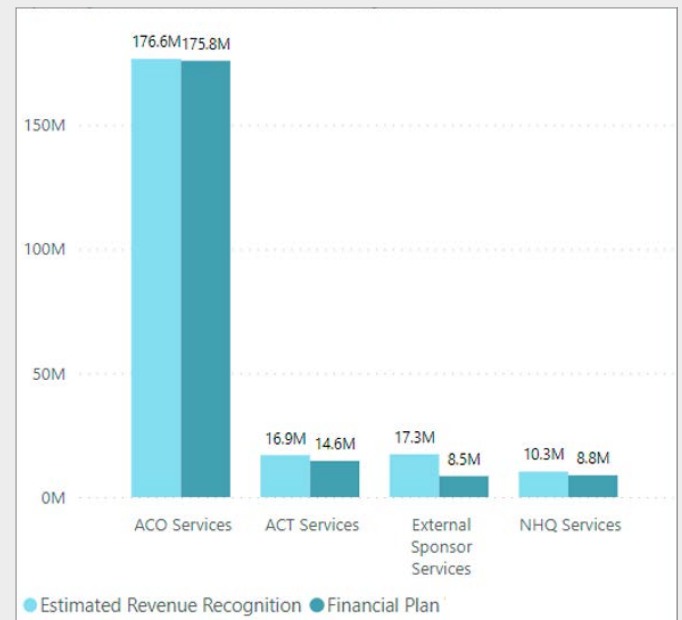
Figure 4 – 2021 Operating Revenue – Estimated Revenue Recognition (Services)

4.2 Contracting Value by Funding Budget

In 2021, the NCI Agency awarded 500.3 million EUR in contracts with Industry. 215.1 million EUR, representing 43% of the total value, was funded through the Military and Civil Budgets and 132.4 million EUR (26%) through the NATO Security Investment Programme. Contracts awarded under multinational funding represent 38.8 million EUR and 8% of the overall value. Contracts placed under the Agency Operating Cost amount to 113.9 million EUR or 23% of the overall value, and 83% of these procurements correspond to the Advisory and Assistance Services framework contracts.

There is a decrease in the global procurement volume in comparison to 2020, primarily due to the closure of the Resolute Support Mission and delayed contract awards owing to COVID-19 impacts.

The perceived decrease in the volume of contracts awarded under Military and Civil Budgets is due to multiple multi-year contracts awarded and reported in 2020.

Funding Source	Awarded EUR Value
MB/CB	€ 215,158,251
NSIP	€ 132,441,730
Multinational	€ 38,775,010
Operating Cost	€ 113,938,802
Grand Total	€ 500,313,793

Table 2: NCI Agency 2021 Contracting Value by Funding Budget

4.3 Contract Value by Nations and Funding Budget

Across the national industries, the highest cumulative value of contracts was placed with industries from Belgium, United States, United Kingdom and France. The total value contracted with these national industries amounts to 345.7 million EUR and represents 62.8% of the total contracted volume.

After that, the national industries with the total volume of contracts above 10 million EUR includes France, Netherlands, Norway, Germany, Poland, and Italy. The total volume of contracts placed with the industries of these nations amounts to 207.36 million EUR and represents 41% of the total volume.

Country	Awarded EUR value	Percentage
Belgium	€ 110,596,385	22.11%
United States	€ 83,332,012	16.66%
United Kingdom	€ 77,190,918	15.43%
France	€ 74,582,182	14.91%
Netherlands	€ 44,259,239	8.85%
Norway	€ 31,332,432	6.26%
Germany	€ 24,920,714	4.98%
Poland	€ 21,755,462	4.35%
Italy	€ 10,506,788	2.10%
Afghanistan	€ 3,448,172	0.69%
Slovakia	€ 2,981,879	0.60%
Türkiye	€ 2,969,550	0.59%
Bulgaria	€ 2,931,561	0.59%
Spain	€ 2,909,634	0.58%
Portugal	€ 2,115,746	0.42%
Canada	€ 1,434,432	0.29%
Croatia	€ 952,691	0.19%
Ireland	€ 603,994	0.12%
Romania	€ 589,320	0.12%
Switzerland	€ 417,635	0.08%
Greece	€ 318,377	0.06%
Denmark	€ 224,238	0.04%
Hungary	€ 112,517	0.02%
Ukraine	€ 33,086	0.01%
Albania	€ 21,648	0.00%
Latvia	€ 18,493	0.00%
Lithuania	€ 16,063	0.00%
Luxemburg	€ 12,885	0.00%
Iceland	€ 12,413	0.00%
Austria	€ 11,082	0.00%
Sweden	€ 6,987	0.00%
Finland	€ 2,288	0.00%
Estonia	€ 1,977	0.00%
Slovenia	€ 1,500	0.00%
Czech Republic	-€ 310,508	-0.06%
Grand Total	**€ 500,313,793**	**100%**

Table 3: NCI Agency 2021 Contract Value by Nations

4.4 Operations, Missions, Activities and Exercises

Support to operations and exercises remains the Agency's top priority. In total, last year we deployed 332 staff comprising of NATO civilians, military and contractors to different theatres of operations.

2021 was a significant year, bringing to a close the Agency's and its predecessors' 20 year commitment to supporting NATO's mission in Afghanistan. We would like to pay a special tribute to all the personnel who deployed to theatre over this period, helping to prevent any terrorist attacks from Afghanistan harming our people and countries. In this fine tradition, Agency staff acquitted themselves well during the final weeks and eight NATO Meritorious Service Medals were awarded to those personnel who displayed outstanding courage and dedication during the close-down and re-deployment from theatre.

As this report is finalized, the Agency is also supporting the NATO HQ and NATO Military Authorities in the developing Russian war against Ukraine.

The Agency's support to operations in 2021 is summarized in the table on the next page:

RESOLUTE SUPPORT MISSION, Afghanistan

The Resolute Support Mission was a non-combat mission which provides training, advice and assistance to Afghan security forces and institutions. It was a follow-on mission to the International Security Assistance Force effort.

The NCI Agency, through the planning function within its Operations and Exercises Service Line, coordinated all operational requirements from Joint Force Command Brunssum (JFCBS) and prepared an annual support plan. It ensured that all the planned requirements were delivered through projects both on time and within budget to ensure delivery of required NATO services and guarantee support to the communications equipment that is critical to NATO operations.

The Agency delivered Cost Reimbursable (CR) Operation and Maintenance (O&M) projects for a total of 77 million EUR: 8.3 million EUR in NCI Agency service support cost and 68.7 million EUR in external CIS costs.

RSM and transition to a diplomatic support to the Government of the Islamic Republic of Afghanistan

The Agency continued to deliver additional command and control (C2) facilities, significantly enhanced RSM retrograde phase and executed the implementation of many Crisis Urgent Requirements (CURs). However, following a constantly evolving security situation with the Taliban attacking the city of Kabul, escalations resulted in the extraction of all Civilian personnel (NCI Agency Crisis Establishment, NATO Mission Civilian and Reconnaissance and Security Strike Group (RSSG) Contractor staff). The last of the personnel extractions took place on 24 August as Theatre became a rapidly deteriorating and hostile environment.

KOSOVO FORCE (KFOR)

NATO's mission in Kosovo, KFOR, contributes to maintaining a safe and secure environment as mandated by the United Nations Security Council Resolution 1244. In this, NATO cooperates and assists the United Nations, the European Union and other international actors as appropriate.

In 2021, the Agency supported KFOR and NATO Headquarters Sarajevo (NHQSA) with the requested services, but we have identified a need to work with the operational customer on an updated support plan. Although the NCI Agency KFOR Crisis Establishment post allocation was deleted, third line support is still being provided by the Agency.

The Agency delivered CR O&M projects for a total of 3.5 million EUR: 1.2 million EUR in NCI Agency service support cost and 2.3 million EUR in external CIS costs. For NHQSA/European Union Force Bosnia and Herzegovina (EUFOR now known as Operation Althea), the Agency delivered CR O&M projects for a total of 1.2 million EUR: 0.5 million EUR in NCI Agency service support cost and 0.7 million EUR in external CIS costs.

NATO MISSION IRAQ

The NATO Mission Iraq is a non-combat training and capacity-building mission which aims to strengthen the country's ability to fight the Islamic State of Iraq and the Levant (ISIS), and provide for its security.

During 2021, the NCI Agency supported Joint Force Command Naples (JFCNP) with planning effort to prepare for the possible extension of mission NMI. After the general election in Iraq last October, the political situation remains fragile and NMI objectives have not changed.

The NCI Agency liaised with JFCNP to coordinate the delivery of requested levels of support. It also ensures the efficient delivery of these requirements to enable the continuance of the NATO mission.

The Agency delivered CR O&M projects for a total of 5.5 million EUR: 3.1 million EUR in NCI Agency service support cost and 2.4 million EUR in external CIS costs.

NATO SUPPORT TO TÜRKIYE (NS2TUR)

NATO support to Türkiye is meeting the request from the Turkish government for NATO to augment Türkiye's air defence capabilities to defend the population and territory of Türkiye from the hostilities in Syria.

NATO AFRICAN UNION COOPERATION (NAUC)

NATO supports the African Union (AU) with the build-up of its security architecture. It also assists the AU in its peacekeeping missions and provides capacity-building support as well as expert training support to the African Standby Force (ASF) at the AU's request.

OPERATION SEA GUARDIAN

NATO's flexible maritime operation, Sea Guardian, is currently performing situational awareness, counter-terrorism at sea and maritime capacity building activities in the Mediterranean Sea. It supports the Alliance's core tasks of collective defence, crisis management and cooperative security.

SUPPORT TO AIR POLICING IN EUROPE

The NATO integrated air and missile defence system provides the backbone supporting the planning, tasking and execution of all Alliance air operations in support of the Alliance's collective defence task. Peripheral and legacy systems complement NATO AirC2 at the higher headquarters and for certain functions.
In Europe, air policing and BMD are permanent 24/7 missions to which the Agency is fully committed.
NATO air policing is a peacetime mission which aims to preserve the security of Allied airspace. It is a collective duty and involves the continuous presence of fighter aircraft and crew ready to react quickly to airspace violations. The directorate for Air and Missile Defence Command and Control (AMDC2), together with four CIS Support Units (CSUs), continually supports the mission, ensuring the availability of the Battle Management, Command, Control, Communications and Intelligence (BMC3I) systems that contribute to the integrity of NATO's airspace in SACEUR's Area of Responsibility.

NATO Operation ALLIED SOLACE (OP ALSO)

This NATO operation is military support provided for the evacuation of selected Afghan individuals from Afghanistan.
OP ALSO was carried out at the BECHTEL camp in Kosovo, partially relying on KFOR infrastructure while remaining independent of KFOR. The Agency provided support for Deployable CIS (DCIS) and the provision and configuration of radio assets for the security of the camp. Initially this operation was to finish the 31 December, however, it was finally extended until 31 March 22.

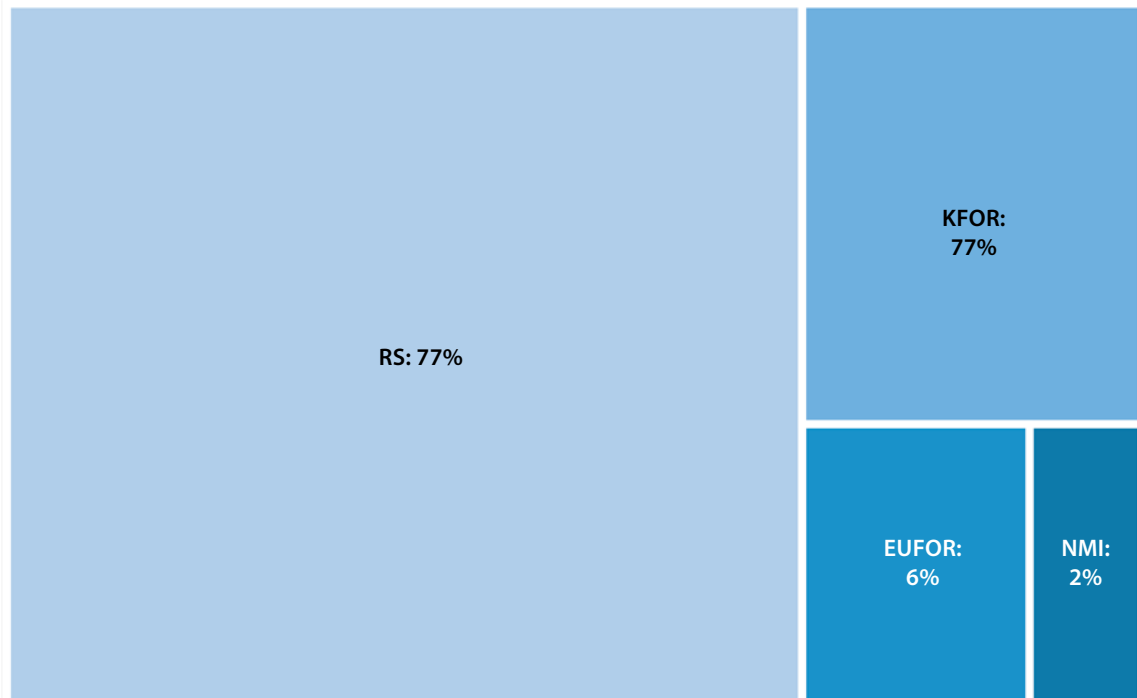**Table 4 – Agency Support to NATO's Missions**

Figure 5: NCI Agency 2020 Personnel Deployments

The chart shows:
- RS: 77%
- KFOR: 77%
- EUFOR: 6%
- NMI: 2%

4.5   Support to Exercises

The Agency continues to provide planning support and essential connectivity to NATO's exercises in accordance with the Military Training and Exercise Programme. Overall, the Agency supported over 104 exercises by providing various SMEs in CIS, C4ISR and cyber security. Of those, more than 40 were coordinated by the Agency's Operations and Exercises (OPEX) Service Line as a multi-Service Line and CSU effort that involved the NATO Command Structure and NATO Force Structure. All of the exercises required tight, exercise-specific timelines and in some cases consisted of several projects to ensure coherency and consolidated support in accordance with the financial framework. In all cases, the expected level of support was achieved or exceeded and resulted in excellent training opportunities for NATO and the national elements involved. The major exercises supported in 2021 are summarized below:

Steadfast Cobalt 21 (STCO21)

Steadfast Cobalt, the largest NATO CIS exercise in 2021, received primary focus. Nearly 1100 participants from 14 Nations and 22 HQs, agencies and supporting units in locations throughout Europe, took part in STCO. It's the largest NATO led C4ISR exercise in terms of scale and scope. In support of the standby NATO Response Force (NRF) 22, the Agency completed further enhancements to DCIS systems, allowing them to deploy in support of exercise STCO21, the dedicated exercise for the preparation of the NRF. The Agency accomplished all assigned tasks and COM NRF 2022 has been provided with a Mission Network (MN) that would enable the C2 of the NRF units with caveats. Most of the C4ISR requirements for NRF 2022 are met and the test cases success-rate was the highest seen in recent Steadfast Cobalt exercises. STCO21 was successful in demonstrating interoperability between NRF MN and the US EUCOM National Mission Network (EMN1) for audio-based collaboration, informal messages, logistics and situational awareness services (the latest one via file sharing between NATO NCOP an US EUCOM GCCS-J). It also proved interoperability for Voice and Video services between static the NATO Bi- SC AIS NS domain and eFP Network. Finally, STCO21 verified the DCIS in a contested Electronic Warfare environment operating under the SATCOM and through the Electronic Protective Measures Modem System.

Steadfast Defender 21 (STDE21)

STDE is a SHAPE sponsored multi-level Live Exercise (LIVEX) that trained and evaluated a wide range of NCS, NFS, and National Force Elements in the transatlantic reinforcement of Very High Readiness Joint Task Force (VJTF) Deterrence Operations in Southern Europe. It was conducted in two parts, the first part training Joint Force Command Norfolk (JFCNF) and NATO Maritime Task Groups in securing North Atlantic Sea Lines of Communication. The second part involved JFC-NP projecting VJTF units including NATO Rapid Deployable Corps (NRDC) Türkiye Initial Command Element and VJTF21 elements to the designated training area in Romania to join USAREUR-led Exercise SABER GUARDIAN LIVEX. The NCI Agency successfully delivered the entire scope of IT services requested through four different CRs and unique projects for more than 10,000 users from Norfolk, USA to Cincu, Romaina. One of the major achievements was the successful organization and coordination of a team consisting of military, civilian and IWC components. In addition, the NCI Agency CELL (DNOC) was established during Battle Staff Training and LIVEX with working hours from 08:00-22:00. SMEs from various Service Lines were responsible for the urgent solving of any complex issues in the Mission Network.

Coalition Warrior Interoperability Exercise 21 (CWIX21)

Coalition Warrior Interoperability eXploration, eXperimentation, eXamination eXercise (CWIX21) is an annual NATO Military Committee-approved event, designed to bring about continuous improvement in interoperability for the Alliance. It is led, directed and managed by ACT, while NATO and Partner Nations sponsor and highlight interoperability capabilities. The main aim of CWIX21 was testing and improving the interoperability of NATO and national C4I systems, with a secondary mission to explore innovative solutions to interoperability challenges. With the coordination of the OPEX team, the Agency enabled experimentation and exploration of innovative concepts in areas such as data science and data-centric security.

Steadfast Jupiter 21 (STJU21)

STJU21 was a SHAPE sponsored strategic-operational-tactical level Command Post/Computer Assisted Exercise (CPX/CAX). The exercise trained and evaluated the NRF22, Multinational Corps North-East (MNC NE) and Theatre Advisors in planning for and conducting a pre-Article 5 Deterrence in Major Joint Operations (MJOs) in the Northern part of NATO Strategic Direction East (NSD E). The NCI Agency was dedicated to providing planning and level 1-3 support in order to enable the successful execution of STJU21. Throughout the plan-

ning period, Agency SMEs contributed design and technical advice to the exercise where NATO Static CIS was concerned, as well as executed on requirements from static warfighting headquarters participating in STJU21.

Two significant operational requirements identified were with SHAPE and the Joint Warfare Centre (JWC). CSU Mons worked with a compressed schedule to setup the SHAPE Crisis Action Team exercise areas and CSU Stavanger worked with JWC to provide a suitable venue to host the majority of the headquarters of the Rapid Reaction Corps France (RRC-FRA) as the Land Component Command (LCC) of NRF22. During the exercise, the Agency also deployed personnel to provide augmented on-location support at Stavanger, Ramstein and Brunssum, while all service lines continued to provide expert level 2 and 3 support remotely. In coordination with NCISG and JFCBS J6, an Agency team deployed to form part of the Mission Network Operations Centre (MNOC) at Brunssum. This team was under the direct supervision of the MNOC Head (JFCBS J6) to provide close support and liaison for time critical and operationally sensitive issues. The Agency supplied over 1,400 pieces of equipment from the CIS Sustainment Support Centre (CSSC) and provided over 5,000 hours of non-Service Level Agreement (SLA) work. The preparation effort was higher than usual due to necessary adjustments to NRF baseline provided by STEADFAST COBALT 21 earlier in the year. In the end, the Agency was able to provide full support, including a Response Cell at JFCBS and was a key enabler for the successful certification of NRF22 forces.

Steadfast Leda 21 (STLE21)
STLE is a land-focused exercise training NRF and MJO+, the Agency was challenged by classification issues that resulted in a complete restructuring of the CIS setup at a very late phase of the exercise preparation. STLE21 also served as the evaluation venue for NRDC-ESP (CREVAL) as a Warfighting Corp Headquarters.

BALTOPS 50
BALTOPS 50 was the 50th iteration of a major multinational maritime exercise and one of the largest maritime exercises in Northern Europe. It strives to reinforce maritime cooperation, planning and interoperability between NATO Allies and Partner Nations, to assure Nations of NATO's commitment to the security and stability of the region. The core aim of the exercise was to deliver high-end training across the entire spectrum of naval warfare, including anti-air warfare, air-maritime integration, anti-surface warfare, anti-submarine warfare and MCM, Joint Personnel Recovery as well as Amphibious and Maritime Interdiction Operations. As a proof of concept, STRIKFORNATO (SFN) used BALTOPS 50 to exercise C2 from the static HQ in Oeiras, Portugal with a small footprint on USS MOUNT WHITNEY.

SFN needed limited but crucial support from the NCI Agency in order to successfully conduct and participate in the exercise. No other entity would be able to provide those services within the short lead times required. The NCI Agency support to SFN in BALTOPS 50 is one example of our agility and robustness in support of challenging operations despite the presence of COVID-19 restrictions.

Table 5 - NCI Agency Support to Major Exercises

4.6   Capability Delivery

The Agency is responsible for a very wide portfolio of capability delivery. The major elements are summarized in the following sections.

Air and Missile Defence Command and Control (AMDC2)

The Agency continued to provide dedicated support through delivery and support of AirC2 Interim & Legacy systems, Air Command, Control and Information Services (AirC2IS) and ACCS Portfolio. The team performed 1992 product deliveries of AirC2 systems to address security and operational needs at 600 user sites. ACCS Level of Capability 1 core software was delivered with a mature and stable baseline. BMD delivered Tranche 21 with an operational acceptance of all abilities (six abilities with limitations), while important operational issues were improved: secure RAP dissemination; secure digital communication with Aircrafts (L16 and Multifunctional Information Distribution System terminal sunset); Link 22 innovation through Cloud Concept; and AirC2 Architecture light of the new AirC2 Concept of Operation. The first NATO Deployable Air Defence Radar was successfully delivered to the NATO Deployable Air Command and Control Components (DACCC). The DACCC communications systems contract will enable the current communications suite to be replaced with a more modern Voice Over Internet Protocol (VOIP)-based communication system. ISO re-certification for Integrated Air and Missile Defence was achieved with development of the AMDC2 Quality Management System 2.0.

IT Modernization (ITM)

In 2021 the ITM Remediation Phase 1-3 and Mitigation Tranche 1 project deployed 300 REACH, 1994 PAN mobility laptops, 505 Thin Clients and 40+ multifunctional devices. A settlement was agreed in June 2021 with the ITM contractor to transfer the full ownership of ITM hardware and software to the NCI Agency, while a subsequent paper on re-use of General Dynamics Information Technology (GDIT) assets was staffed to International Staff Norway In December 2021. ITM completed an urgent uplift of aging NATO Unclassified (NU) infrastructure in HQ Maritime Command (MARCOM) by utilizing the pre-deployed NU (Protected Business Network) equipment platform from GDIT as part of a planned GDIT Equipment Re-use Case. In line with the Core Services Programming Strategy developed by ACT, Polaris developed a project proposal for ITM Increment 1 (Operational Network) and issued REV1 in December with the overall project cost estimated at 224 million

EUR. The funds requested for ITM Mitigation Tranche 2 and remaining ITM Remediation projects were successfully authorized by the IC in December.

SATCOM

The Agency continued to provide 24/7 SATCOM services in support of AGS integration, as well as wider intelligence, surveillance and reconnaissance and local CSU support, assisting the NATO AGS Force (NAGSF) to attain its Initial Operational Capability declaration at the first quarter of 2021. SAC Kester continues to anchor operational traffic with 24/7 shift teams following Provisional Site Acceptance. In October 2021, the Agency granted the Provisional Site Acceptance of the second large station in Verona, Italy.

Cyber

In a continuous effort to improve the Cyber Hygiene posture of NATO CIS, the NATO Cyber Security Centre (NCSC) enhanced the NCI Agency's internal Vulnerability Management Standard Operating Procedure. The NCI Agency Cyber Security Strategy aligned with NATO-wide Cyber Adaptation and ASB Strategic Direction and Guidance was approved by the Agency's Executive Management Board. The Capability Package 120 (CP120) project, delivering an update to the Security Incident and Event Management (SIEM) capability, achieved FSA, the first major delivery of the CP. IC authorizations for a Crisis Response Operations Urgent Requirement (CUR) 2026, CP120 Cyber Defence and CP122 cryptographic projects were acquired. The multinational C&I Partnership Project was extended two further years despite COVID-19 and resourcing issues.

NATO Digital Workplace (NDW)

The NDW Programme assumed additional responsibility for a wide range of ongoing efforts to enhance current consultation and collaboration services provided by the Agency. The NS VTC Assurance Project, aimed at increasing the resiliency of the NS VTC Network, was implemented successfully during Q1 2021. This project also increased the number of concurrent sessions available due to increased demand experienced during the COVID-19 pandemic. The NDW Programme team held the first NATO Digital Workplace Conference on 5-6 October 2021. The conference covered state-of-the-art digital collaboration solutions and hands-on experience from NATO and Industry. The NDW Senior User Group was initiated with participation from key Senior Principals throughout NATO. The NDW is formally established as a Business Area from 01 January 2022 after the ASB approval of Agency Directive Number 1.

NCI Academy

The NATO Communications and Information Academy (NCI Academy) provided 719 courses to 6652 students in 2021 and enabled the delivery of high demand courses such as TOPFAS, LOGFAS and VoIP as live online courses. The Academy Conference, held in October 2021, further brought customers together to discuss training delivery and support to business arrangements. The Academy Training Network capability, including the security accreditation required for online course delivery, was enabled. The pilot versions of the Training Management System were launched, allowing training iterations to be planned and coordinated interactively with customers. On 29 July 2021, the Agency submitted the NCI Academy Full Operational Capability (FOC) Peacetime Establishment to the Director General of International Military Staff.

Network Services and IT Infrastructure (NSII) Centre

The NSII supported a wide range of NATO operations, including NATO Mission Iraq, Kosovo Force and the successful closure of the Resolute Support Mission, including decommissioning of services. In addition, NSII delivered Alternate Light CIS in Q1 2021 to prepare for withdrawal from theatre and designed, built and delivered new DCIS systems for the Afghanistan Senior Civilian Representative Mission in Q2 2021 to replace CIS Afghanistan (Thales) after RSM withdrawal. Further to this, SATCOM supported Nation-

al Special Forces during this critical phase. One NSII staff member was on-site until less than one week before the last soldier left Kabul. NSII also delivered DCIS and SATCOM services to multiple locations in support of Mission Allied Solace to establish the deployable HQ in Kosovo. The NATO Communications Infrastructure Project, which is a part of Polaris, saw first sites migrating in July 2021, with Interim Security Accreditation achieved in August 2021. Significant improvement of VTC services was realized by establishing a cross-Service Line technical team. Furthermore, successful competition of the 100 Gbit Transport Core Segment resulted in marked savings and service improvements. The ROU Framework Contract for Multinational Corps - South East (MNC-SE) realized some critical achievements with static target architecture finalized and low and high-level designs delivered. Finally, BRASS LVA Phase-1 Project was completed successfully with no exception, below budget and within schedule.

Command and Control (C2) Centre

The C2 Centre continued throughout 2021 to support a diverse range of C2 capabilities and services in support of the NATO Command Structure, Force Structure and national operations and exercises. The C2 Centre also delivered core capabilities into the BMD programme and AirC2 in-service support PoW. It also led and managed the NATO Software Tools C&I Partnership, which expanded in 2021

with the addition of Finland to the participating nations. Key NSIP activities included: the continued management of the new NATO maritime C2 system, Triton; activities in support of the new NATO Common Operational Picture (NCOP) Increment 2 and NCOP for BMD; tools for operations planning functional area services (TOPFAS); Land C2 Information Services Increment 2 (Demeter) and Urgent Requirement; three Nuclear C2 projects; and the Chemical, Radio, Biological and Nuclear (CBRN) analysis tool. Significant support to the development of the ITM Recovery plan was provided, particularly in the areas of service integration and management and applications migration. C2 Centre continued to expand the use of the NATO Software Factory and mature its use of collaboration with industry partners. Significant IT service management support to NATO Command Structure, Force Structure and Nations for Functional Area Services in C2, Joint Intelligence, Surveillance and Reconnaissance (JISR), logistics and AirC2 was provided to a range of NATO operations including the end of RSM, KFOR, NMI and multiple exercises. Overall, service levels were met or exceeded throughout the year.

Joint Intelligence, Surveillance and Reconnaissance (JISR) Centre

In line with our vision to 'Assure information superiority for NATO', the JISR Centre continued to deliver an extensive range of ISR, Geospacial, Meteorological and Oceanographic (GeoMetOc) and Space services in support of operations and exercises. We have supported in the de-risking of capability implementation under the annual PoWs for ACT, NATO C3 Staff and NATO HQ's Defence against Terrorism. Of particular note are our ongoing contributions to maturing NATOs approach to Counter Unmanned Air Systems (C-UAS), enhancing the sharing of biometrics data to support Identity Intelligence and supporting the development of the C2 of Electronic Warfare Capability Programme Package and analysis of alternatives.

The JISR Centre has also been coordinating an initiative to address the critical shortfall in persistent surveillance identified by ACO. This is being realized through a joint ACO, NCI Agency, IS-DI initiative (Alliance Persistent Surveillance from Space), which is planned for five years. The aim is to establish an Alliance virtual constellation open to all Allies to participate on a voluntary basis.

The JISR Centre and NCI Agency have played a critical role in the physical connection of the AGS Core to NATO's CIS infrastructure.

The source selection for INTEL-FS Spiral 2 commenced in 2021 and is expected to be formally completed in Q2 2022. This enhanced capability will deliver significant improvements to NATO's INTEL community and include new functionality for BMD, Collection Management and Signals Intelligence. The JISR Centre has also explored the use of Emerging and Disruptive Technologies (EDTs) that can be leveraged to support information superiority in the JISR Domain – in particular, machine learning and the use of new architectural approaches to enhance and further enable the sharing of data across NATO and with the Nations.

Independent Verification and Validation Quality (IVVQ)

IVVQ continued throughout 2021 to support a diverse range of independent test, verification, validation and assurance activities. These contributions included support to projects, change management, NATO interoperability, ACO operational acceptance, the Combined Federated Battle Laboratories Network, reference/test systems and the Audit Advisory Panel.

Service Support and Business Applications

The Host Nation Support Concept of Requirements Capability has been delivered on time and received high levels of customer satisfaction. Logistics Applications Service Delivery (LOGFAS) exceeded the service delivery KPI targets. A major overhaul was performed successfully in 2021 to align deployment and sustainment planning and execution to support ACO for the resilience and the enablement of SACEUR's Area of Responsibility.

Operational Analysis (OA) Centre

The support provided to our stakeholders covered several areas: Defence Planning, including support to the NATO Defence Planning Process (NDPP) and development of the 2021 NATO Capability Targets issued to the Nations; Alliance Future Surveillance and Control (AFSC), including further refinement of the requirements for this capability and development of an enterprise-level architecture; Federated Mission Networking (FMN), including key analytical support to the development of FMN Operational Requirements; and contribution to the Analytics and Data Science PoW. Significant OA support was also provided to ACO in 2021 for RSM, with in-theatre presence right up to the RSM drawdown and support to the analysis of lessons, as well as NMI with the provision of a structured, systematic assessment of potential risks for NATO as it considers expansion of the mission. The OA team has also continued its leading work in the NATO Ukraine C4 Trust Fund, including support to the Ukrainian Navy in establishing a roadmap for their C4 capabilities to support prioritization of areas for future NATO support. Another key achievement was the signature of a five-year agreement with the European External Action Service (EEAS) to provide OA support in the development and application of the EU Military Capability Development Process. International collaboration in 2021 led to a significant contribution from Agency OA analysts to a multinational study on the military impacts of COVID-19 on the Alliance, a report published through the Science and Technology Organization (STO). Finally, OA analysts have also supported entities within the Agency in delivering a dashboard to support decisions related to the management of NATO applications and tools.

4.7 Service Delivery

In 2021, the Agency delivered services totalling 295.7 million EUR in accordance with 189 separate agreements with Commands, Nations, partners, multinational organizations and others, as summarized in the table below.

Service Support Packages (SSP)	Service Level Agreements (SLA)	Total[8]
20.8 MEUR	287 MEUR	**304 MEUR**
142 Agreements	47 Agreements	**189 Agreements**

Table 6 – Number and earned value of 2021 SLA & SSP Agreements

In November 2021, the Costed Customer Service Catalogue (CCSC) v6.1, consisting of the approved service rates and service definitions, was released. CCSC v6.1 was used as the main vehicle for development and signature of Service Level Agreements with the Agency's customers. Regular workshops were held with key stakeholders to ensure that CCSC service descriptions improved and that service cost models are well understood.

For the first time in Agency history, in Q4 2021, an internal Service Level Agreement (iSLA) was signed for the provision of IT services to NCI Agency staff. The iSLA details services to be provided in 2022 at a cost of 26 million EUR, and defines the standards that are to be achieved for each of the services.

While collecting 2022 service requirements, the Agency worked with the 'Top 40' highest revenue-generating SSP

customers to improve overall situational awareness and minimize the lead time associated with customer acceptance of SSP offers. This collaboration allows for early negotiation while increasing the customer's knowledge of their overall requirements and staffing timelines.

In 2021, the COVID-19 pandemic continued to challenge the Agency's personnel and NATO users, leading to changing approaches for the delivery of IT operations. As of the end of the year, monitoring data has confirmed 2020 trends with some new patterns based on actions taken by the operational commands to move some operational business from mission networks to the consultation network. All data shows that the hybrid solutions are now an entrenched reality.

In 2021, the Agency continued to provide record numbers of monthly VTC call volumes:
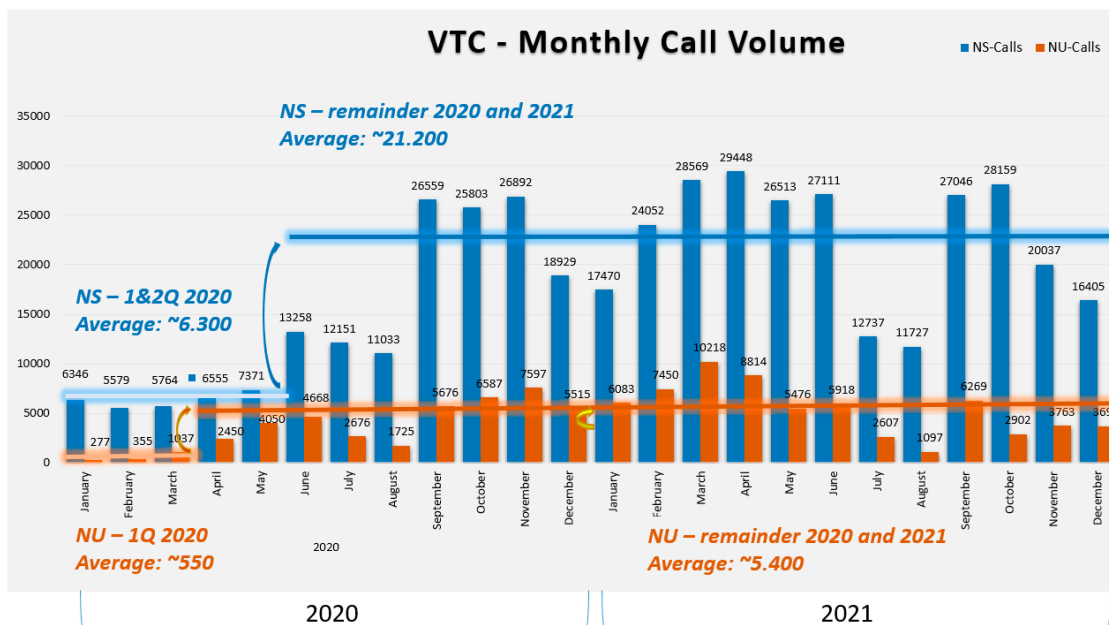
Figure 6 – VTC Monthly Call Volume

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8 Does not include AMDC2 PoW (89.2 MEUR); does include NCS-A (2.5 MEUR).

Over the course of the year, the Agency recorded an increase of communication tool utilization on NS in addition to the "return to office" traffic generated through VTC. Monitoring data shows an excess of twice the expected rate of desktop-to-desktop conferences, apparently due to exercise traffic (Steadfast Jupiter 2021) moved from the mission network to the consultation network as part of the aforementioned 'new way of working'.
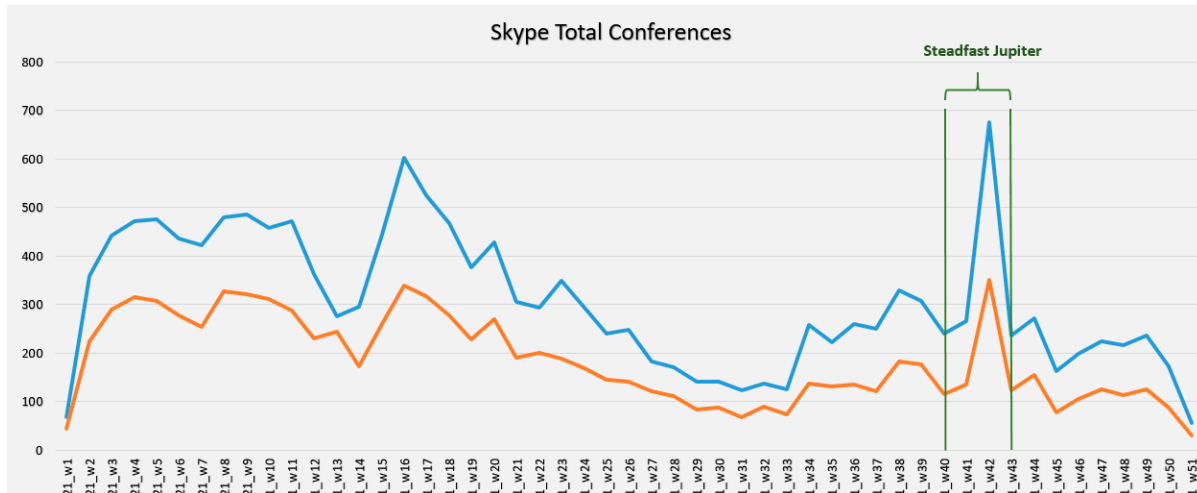
Figure 7 – Skype Total Conferences

In line with service agreements, the Agency continues to monitor service availability and incident fulfilment rates as primary KPIs.
The table below represents Service Availability for the full year. Based on current monitoring systems and techniques specified in the SLA, there is evidence of a positive trend of the overall service availability rate that increased from 99.5% in 2020 to 99.7% in 2021 (average rate). Overall service availability was within SLA targets for the majority of locations and slightly below for the Centralized SLA..

2021, SERVICE AVAILABILITY RATE %
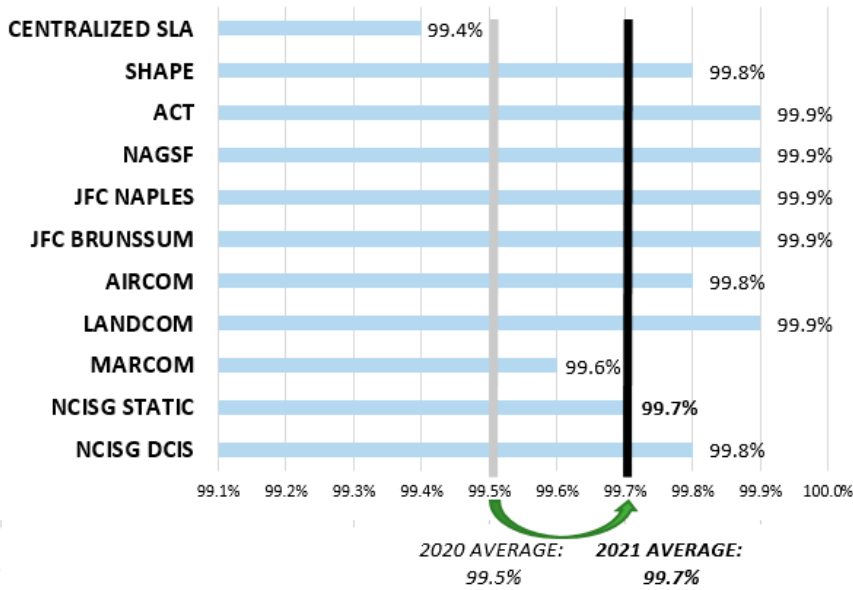
Figure 8: NCI Agency 2020 Service Availability %

In 2021, the overall incident fulfilment rate increased from 77% (2020) to 80% (2021)[9].

2021, INCIDENT FULFILMENT RATE %
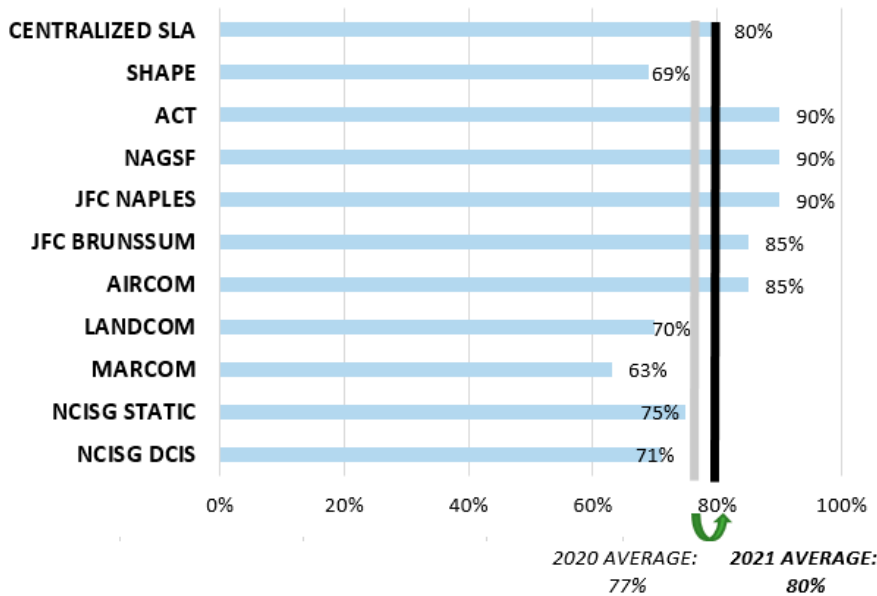
Figure 9: NCI Agency 2020 Service Incident Fulfilment %[10]

[9]   (Q1) Service Levels were maintained just as 80% which is the standard fulfilment target for the incidents while service availability was above the target of 99.5%;
(Q2) Overall Incident fulfilment KPI was above the target (87%) whereas DCIS and JFCNP performance was below that; average service availability was slightly below the target level;
(Q3) Overall Incident Performance decreased compared to Q2, while service availability improved;
(Q4) All results improved, however NCISG Static, LANDCOM and MARCOM remained in lower levels similar to the previous quarters.

Despite this overall good incident resolution performance, a more detailed study highlights an impact on high and critical incidents:

- Significant increase in the occurrence of high and critical tickets (107%);

- Significant increase in high and critical ticket breaches (158%);

- Increase trend in the backlog queues in NS (14.7%).

High and Critical Tickets Actuals: 2020 Q3-Q4 vs. 2021 Q3-Q4
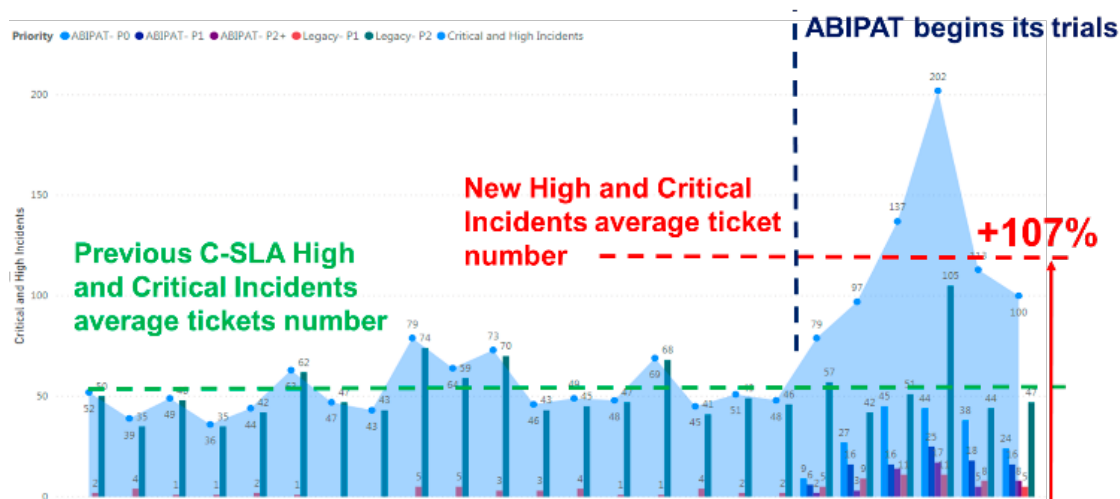
Figure 10: Analysis of Resolution Rate on High and Critical Tickets (2020 vs. 2021)[10]

Figure 11 – Percentage of Breached Critical and High Incidents

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ACO Baseline Incident Priority Assignment Table (ABI-PAT) – July to December 2021

The largest demand for high and critical incident resolution comes from Combined Air Operations Centres, MARCOM, AIRCOM, and JFCs. WPS001 Managed Services is by large the service most impacted by ABIPAT service.

To avoid any undesired side effects on overall service delivery personnel performance (stress, saturation, etc.), the Agency has started high-level discussions with ACO leaders. The intent is to review the conditions, increasing urgency of incident tickets to high or critical (external review measures), together with consolidation and optimization of the service delivery model (internal efficiency measures).

From July 2021, the Agency, in agreement with ACO, began trials of the new ABIPAT intended to improve prioritization of incident tickets and provide greater fidelity on those services, people and locations that are critical for ACO. This approach will require internal consolidation and optimization measures to be taken in close cooperation with the ACO user community.

Throughout the year, CSSC coordinated the requirements, preparation and shipments of more than 5000 items belonging to the DCIS Equipment Pool for 13 exercises at 28 locations. CSSC also implemented more than 215 maintenance interventions in different locations across Europe in the context of DCIS SLA, as well as maintenance interventions in support of operational missions.

The CSSC SMEs completed full integration of the first reference system NATO Communications Gateway Shelters - Life Time Extension ALPHA, and prepared for the business delivery of three more systems in 2022- BRAVO, CHARLIE and DELTA.

4.8 Change Programmes

The Agency is committed to supporting our partners in maintaining NATO's Technological Edge. To do this we need to participate directly in these change initiatives, but we also have to drive change internally to ensure we remain ready to fulfil our role. Set out below are some of the highlights from these external and internal initiatives from 2021.

Building Resilience - The NCI Agency Responding to the Alliance's Ambition

Innovation

Through the Innovation Strategy, the CTO team plans to deliver value to the NATO Enterprise by keeping abreast of EDTs and enabling superior decision making. The NCI Agency's EDT tasks include the provision of collaboration platforms to support innovation, contributing to work on quantum technology, autonomy and the impact of hypersonics on AMDC2. These inputs build on NCI Agency expertise including work through ACT's Innovation Projects that cover EDTs and other emerging technologies such as the Internet of Things and augmented reality. The NCI Agency established a technical Innovation PoW portfolio led and managed by CTO, with the aim of aligning innovation and experimentation activities with applicable NATO and Agency technical policies, strategies, initiatives and capability roadmaps. The PoW also aims to effectively exploit new technology by ensuring that portfolio outcomes are effectively used throughout NATO C4ISR capability lifecycles and ICT services. This PoW portfolio includes the ACT PoW, the NHQC3S PoW and the EDT PoW. It will also include a programme in 2022 in support of the OCIO, established at NATO HQ in 2021.

4.9 Cyber Adaptation

2021 saw the completion of the NATO HQ-led Cyber Adaptation report and the establishment of the NATO OCIO. The Agency provided the Cyber Adaptation Task Force with full-time subject matter expertise. Since the delivery of the report to the NAC last summer, we have been working with the OCIO team and others to identify priorities for action, which includes ACPV management. We are also one of the leading partners developing the Cyber Adaptation Roadmap with the OCIO, which captures important work-streams that we must fulfil in order to build the resilience that our networks will require in the future. This area is a high priority for the General Manager following only support to operations and delivering ITM.

4.10 Multinational Collaboration on 5G (MN5G)

Throughout 2021, the initiative on MN5G development continued with high interest. Several Nations submitted Statements of Intent to the Agency, confirming interest in establishing the multinational project. The MN5G annual portfolio covered work on a refined PoW and the draft Memorandum of Understanding version one previously distributed to Nations. The MN5G PoW encompasses three main technical work packages plus project office support to MN5G.

4.11 Data Science

In 2021, the Agency worked to further exploit the data science and AI domains. The Agency contributed to the draft DIANA charter, in particular to the identification of the areas where the Agency will support DIANA innovation activities regarding integration and adoption of innovative solutions across and within the NATO Enterprise. Additional areas of contribution include the anticipation of strategic sourcing and lifecycle acquisitions for NATO capabilities in compliance with NATO financial and procurement regulations, and the establishment of multinational projects and partnerships to operationalize innovative technologies developed under DIANA.

4.12 The NCI Agency's Internal Change Programmes

Matrix Organisation

The Agency Directive Number 1 was approved by the ASB in December 2021. Leading up to this, the Agency had already been preparing and putting in place elements of the matrix structure. These changes included:

- The establishment of the CTO function, rejoining engineering expertise, architects and other SMEs under one functional area;

- Preparing for the establishment of a CIO function, reorganizing the former Directorate of Service Operations into Director of CSUs and Chief Service Operations functions;

- Running the NATO Digital Workplace as a programme until its formalization as a Business Area in January 2022;

Carrying out a professionalization pilot in the Chief Acquisition functional area which we will use to inform the wider professionalization of other functional areas under operational plans during 2022 and onwards.

Programme 2025

In March 2021, the General Manager presented his views on the NCI Agency Model for 2025+ and in July, following ASB approval, the Agency signed the lease agreement for the Interim Facility in Braine l'Alleud, Belgium. The building permit for the Interim Facility project was approved by the Braine l'Alleud Commune in December 2021 and preparatory activities are underway to establish necessary contractual work for a timely relocation of staff to the new facility in 2022. The Hague infrastructure project was also completed along with other key projects on the Interim Enterprise Service Operations Centre and Antenna Pad in Mons. We continued to collaborate on the design of the NCI Agency Digital Enterprise Centre facility in Camp Casteau, Mons with the HN Belgium. We standby ready to support the ASB Workforce Study which will further inform decisions on the future infrastructure required to support the Agency in its mission.

Enterprise Business Application (EBA)

At the beginning of 2021, the EBA Release 2 (Simple Procurement) went live. As part of Release 2, the Neo Champions Programme was launched with the first user accounts being activated. The programme has progressed with the November 2021 IC authorization of necessary funding for the remaining EBA Release 3 scope, Human Capital Management. The procurement as a cloud service is planned, with the Request for Quotation forecasted to be released by the end of Q1 2022. Following authorization by the Resource Policy and Planning Board (RPPB), the EBA Release 4 Invitation for Bid was released in June 2021 and its contract award is foreseen for Q1 2022. Release 4 is expected to bring forward Agency maturity related to resource management in the Agency Portfolio, Programme and Project Management (P3M) function.

Business Continuity and Crisis Management

The Agency is a full member of the NATO-level Crisis Management Task Force organization and is in constant coordination with ACO planners for CIS support. The Agency has a dedicated Crisis Management Task Force in place to inform Agency executives and focus decision-making, supported by the NCI Agency Crisis Coordination Group at the working level. In the broader context of crisis, the Agency has improved procedures for an expedited and prioritized business intake process, including coordination with the Cyberspace Operations Center (CyOC) for priorities within ACO. The SACEUR-GM NCI Agency C2 Arrangements can be activated to allow greater flexibility to meet crisis-time requirements if needed.

The NCI Agency Business Continuity Policy and Planning Directive (BCP&PD), and the Business Continuity Plans for each of our 27 Service Owners and CSUs have been produced. The overarching, HQ-level Agency Business Continuity Plan that caps these has also now been published. This plan is a key element of the Agency's Business Continuity Management System (BCMS) to meet the requirements of the NATO Business Continuity Policy, reflecting the Agency not only as service providers, but also as consumers of services. The Agency continues to work closely with all of the entities involved in the Business Continuity Advisory Group and has recently hosted a successful NAC Redeployment Business Continuity Exercise with NATO HQ staff at a remote location. The Agency BCMS is embarking on a coordinated maturity assessment with other NATO organizations within the scope of the NATO Business Continuity Policy, in preparation for an implementation report to the NATO Secretary General.

Chief of Service Operations (CSO) - Interim Enterprise Service Operations Centre (iESOC)

Ahead of the delivery of the future NDEC and central to improving our service delivery in the future, the Agency completed the iESOC in December 2021. Supported by the newly formed CSO function and a cross-Agency team of experts, it is already proving a game-changer in how we manage incidents. Our operational partners from the CyOC are also fully integrated into the iESOC, providing fast information sharing and re-prioritization between us and the commands. We will continue to develop our working procedures during 2022 and expect to see a marked change in our quality of service due to this new organization.

CSO - Asset Management Programme Office (AMPO)

The AMPO stood up in Q3 2021 to focus on: the implementation of vision, governance, innovation and drive for improvement across all Asset Management (AM) disciplines; definition, improvement and development of AM Process; implementation of modern data source and technology; optimization of NCI Agency "Logistics Job Family" professions and functions to implement best practices in AM capability; and transformation into a fully designed business function of NATO Enterprise Asset Management. Moreover, the AMPO covers the full breadth of AM across the NCI Agency, to include ICT hardware, non-ICT hardware, software, crypto, configuration management, intellectual property and disposal of assets.

Against the IBAN AM concerns and observations raised in 2021, the Agency moved out on an Asset Management 'Get Well' Programme with coordinated activities through the AMPO, which included project management support to data creation/population for Assets Under Construction.

Chief Information Officer

The Agency Chief Information Office was established and formally approved in December 2021. It assumed the roles of managing internal IT, leading the Agency cyber strategy which was drafted and delivered in mid-2021, leading on change management delivering two value streams for Request to Proposal and Request to Resource, and improving internal processes. In the future, the CIO will also coordinate and oversee progress on the Agency Operational Plans.

5. Financial Performance

5.1 Financial Statement Summary

Revenue	2021	21 FP	2020 (***)	2019 (****)
Operating (*) (**)	374.8	320.7	336.6	299.2
Acquisition	227.7	322.4	189.3	266.1
ECIS (**)	214.0	272.0	250.3	239.4
Total	**816.5**	**915.1**	**775.2**	**804.7**

Expenses	2021	21 FP	2020	2019
Operating (*) (**)	361.6	325.7	338.6	294.6
Acquisition	225.5	322.4	188.6	266.4
ECIS (**)	203.9	272.0	244.8	239.1
Total	**791.0**	**920.1**	**772.0**	**800.1**

(*)   Operating revenue/expenses also include financial and other operating revenues/expenses.

(*) (**) Operating and external CIS revenue/expenses include management reporting figures to retain comparability with the breakdown provided in the Annual Report.

(***)   2020 figures were restates as part of Financial Plan Statements 2021 preparation and release.

(****)   2020 figures were restated as part of Financial Statements 2020 preparation and release.

Breakeven	2021	21 FP	2020	2019
	25.5	(5.0)	3.2	4.6
Operating Fund	**2021**	**21 FP**	**2020**	**2019**
	49.4	6.4 M	28.2	25.8
Cash Balance	**2021**		**2020**	**2019R**
	186.7		171.7	63.4

Note 1: The operating revenue is predominantly earned from customers through project support costs and service support costs or any other levy aimed at recovering the Agency's direct and indirect operating costs.

Acquisition revenue is earned from capability development projects for goods and services procured from industry for customers, principally as part of the NATO Security Investment Programme (NSIP,) and for other NATO entities and the Nations.

External Communications and Information Systems (CIS) revenue is earned from goods and services procured from industry for the delivery of Information and Communication Technology (ICT)/CIS services to customers such as ACO, ACT, NATO Headquarters and the Nations, through Service Level Agreements (SLAs) and Service Support Packages (SSPs).

The operating fund is a source of working capital for deficits or a repository for surpluses that arise from Agency operations.

Note 2: The Financial Plan does not include a Cash Balance estimate.

Note 3: Rounding is used, as figures are expressed in million EUR.

5.2 Savings Achieved, Efficiencies and Losses

During 2021, the COVID-19 crisis endured, presenting both risks and opportunities. Risks materialized and certain programmes were delayed due to imposed travel restrictions reducing access to implementation sites, challenges with industry in delivering the contracted work and emerging supply chain issues. However, by the end of 2021, the Agency assessed that COVID-19 impacts decreased from 100 to 20 NSIP projects out of 234 active projects.

Despite this, the Agency maintained its financial and business continuity with its mobile and committed workforce delivering on projects and services. Secure remote working solutions were also enabled and delivered to many Agency customers and stakeholders.

Overall, the NCI Agency's 2021 total revenue amounts to 816.5 million EUR; this is a 5.3% increase compared to the previous year. This increase in overall Agency revenue is mainly due to NSIP Acquisition Revenue, largely in relation to a few major NSIP projects such as the PolarisS/ITM Programme, ACCS, Cyber Technical Refresh, SATCOM, and Resolute Support Electronic Counter Measures, in addition to delivery on non-NSIP projects.

The Project and Service Revenues were up 7.5% compared to prior year, an indication of higher fulfilment of incoming demand for project and service delivery.

In 2021, the net operating result is a surplus of 25.5 million EUR, of which 4.3 million EUR are allocated to reserved earnings and 21.2 million EUR go to the retained earnings i.e. operating fund (2.6 % of the total revenue).

The items allocated to reserved earnings mainly include the carry-over of funds for approved investments Braine l'Alleud and EBA Release 4, and other adjustments to the depreciation reserve and transition reserve.

The surplus is primarily a result of:

- 6.1 million EUR surplus impact from end of year accounting items that are not part of the Financial Plan:

  » +6.4 million EUR net reduction in provisions i.e. contract litigations outcome in favour of the Agency;
  » - 1.5 million EUR additional provision for untaken leave;
  » +2.7 million EUR net financial revenue mainly from realized foreign exchange gains and revaluations;

  » - 1.5 million EUR depreciation and amortization of assets.

- 19.4 million EUR surplus impact, of which main estimated business items:

  » +7.9 million EUR External CIS lower expenditure, partially due to COVID-19 impact and supply chain disruptions;
  » +7.5 million EUR in additional overheads recovery above the Financial Plan targets, from approximately 200 billable full-time equivalent hours (FTEs);
  » +3.5 million EUR in overheads underspent mainly due to delay in implementing the Interim Facility in Braine L'Alleud, COVID-19 impact to travel and training budgets, and Internal IT.

Planning

During 2021, the Agency Executive Leadership Team addressed improvements to the Corporate Planning and Execution Process with the aim of improving the way the Agency plans and executes its business to better deliver to the customers. Improvement actions are being implemented during 2022. This is underpinned by an Executive level commitment to trust, transparency and accountability towards achieving excellence in delivering to our customers.

Efficiencies

The Agency delivered on the planned 3.7 million EUR reduction in overheads in 2021 as mandated by the Nations, and the 6.5 million EUR reduction in the The NATO Command Structure Entities and Programmes budget contribution.

Processes and Tools

Asset Management initiated in the second half of 2021 is the highest priority programme within those included within 2022 - 2024 Agency internal investments. The programme objectives are: to increase the maturity of NCI Agency Asset Management processes; support the Agency's ability to account correctly for its assets in financial statements; support services and operations; inform the ACPV management process as part of cyber defence; and inform our asset replacement initiatives. A key objective is to address the lifting of the IBAN observation that led to qualification of the NCI Organisation Financial Statements. In 2021, the first steps were achieved in the area of Assets Under Construction in defining the required processes, data, reporting and EBA system requirements. These will be implemented with the Financial Statements 2022.

The EBA system, which is an essential component to support Agency management and financial internal control systems, continues its roadmap of functionality releases. The programme went live with a portion of Release 2 asset management, HR and acquisition, and made preparations for the subsequent releases' contract award and implementation. Release 3 provides Advanced HR functionality and EBA Release 4 Enterprise Project Management replaces the MS-EPM toolset. Throughout 2021, EBA Stabilization efforts related to the in-service release 1 were prepared for implementation during 2022.

Customer Funding Regulatory Framework (CFRF) Review and Implementation of Actions

Following the comprehensive CFRF review in 2021, the Agency under ASB FinCom guidance and supervision, progressed on several CFRF actions within its purview. The Agency also supported the ASB Finance Committee Tiger Team throughout 2021 and significant progress was achieved in improving Agency Cost Accounting practices as well as categorization and allocation of overhead costs. There was also progress in securing a sustainable funding mechanism for Agency internal investments using the Customer Rates and setting up a dedicated investment reserve.

Maturing the Multi-Year Investment Process Supporting the Funding of Agency Internal Investments

During 2021, as part of the approved 2022 Business Plan and Financial Plan, the Agency provided the third iteration and a more mature Multi-Year Investment Plan covering Agency internal investments.

6. Audit

The Agency continues to develop the methods and processes used to monitor audit recommendations and improvements throughout the year. During 2021, management effectively closed five observations from the IBAN and 56 internal audit (IA) observations.

6.1 Internal Audit

The COVID-19 crisis continued creating unprecedented circumstances. While all IA processes could be performed remotely with the same level of control, this exceptional situation made fieldwork activities more difficult because of the travel restrictions and mobility constraints.

Despite the pandemic, 2021 can be characterized as another year of qualified success for IA, with the IA plan for the year successfully implemented. All audits were conducted in conformance with the International Standards for the Professional Practice of Internal Auditing.

The central major accomplishment during the reporting period has been the ability to respond quickly, with objectivity and value, to the changing priorities of the NCI Agency. Specifically, IA completed five advisory and 10 compliance engagements, and provided consultancy services in various areas. The engagements completed spanned several thematic areas and covered reviews of project management activities, operational processes, corporate and administrative processes and IT areas.

6.2 External Audit

In 2021, the IBAN led an external audit activity into the 2020 NCI Organisation Financial Statements. It issued a qualified opinion on the financial statements and compliance. The IBAN also conducted a performance audit on service rates. The special report provided recommendations to address the findings concerning the NCI Agency Service Rates level of effort estimation.

7. Execution Against Plans

In 2020 the ASB issued updated SD&G to the Agency. Accordingly, during 2021 we developed a new Strategic Plan for the next five years (2022-2026) which sets out how we intend to meet this SD&G. We have reported elsewhere in this report on our performance against Business and Financial plans, principally in sections four and five, thus, this section will describe the process we used to develop the new Strategic Plan, how we will operationalize it to run the Agency and how we intend to optimize our Annual Corporate Planning Process in future.

From mid-2021 onwards, the Agency set out on a broad consultative process with all our stakeholders. These engagements were structured to ensure we understood the vision of our governance in the SD&G, the needs of our customers and how the Agency's role could help them in meeting their mission, and the views of other stakeholders, including the Divisions in NATO HQ and industry. We shared widely the early and subsequent drafts of the plan and incorporated feedback from every quarter.

The final plan, approved just as this report is finalized, contains four strategic goals which together, deliver to the SD&G. The figure below depicts the SD&G in the centre (the 'what' we are required to do) and the surrounding Agency goals to meet this (the 'how' we will do it).

Figure 12 – ASB Strategic Directions and Guidance and Agency Strategic Goals

The Strategic goals are broken down into outcomes and each Functional Area lead is assigned a number of outputs which will deliver these tangible outcomes. Operational Plans have been developed by each Functional Area lead which sets out their required progress in these output areas over the next three years. We will report regularly to the ASB on our performance. The General Manager's performance management will be tied closely to the Strategic Plan outcomes and these performance objectives are also cascaded through the Agency performance management system.

Concurrent with developing the Strategic Plan, we have also reviewed and optimized our annual Corporate Planning Process which delivers the Business and Financial Plans. The new schedule involves earlier engagement with our customers on their demand, consultation with governance for guidance on prioritization, and the production of an annual Order Book that shows what will be delivered in the following year. We believe this new process will deliver better Business and Financial Plans and will allow us to manage expectations with both governance and our customer communities, improving delivery where it counts and increasing customer satisfaction.

8. Risk and Risk Management

The list below presents the top NCI Agency-level risks receiving close management attention:

ID	Agency-level risks to:	Exposure Trend*
1	Timely restoration of data and services following a major cyber attack	
2	Timely realization of benefits for Polaris/ITM Wave 1	
3	Timely realization of benefits for EBA	
4	Recruitment and retention of the necessary workforce, skills and management capacity to deliver the Business Plan	
5	Ability to ensure Agency Business Continuity	
6	Ability to meet surge requirements for unplanned Operation, Missions and Exercises	
7	ACCS - Risk to Air and Missile Defence Operations if the capability to be provided by ACCS is unavailable or degraded	
8	COVID-19 risk to business operations	
9	Ineffective management of crises and threats to service provision	
10	Delivering to NSIP program targets	
11	Timely satisfaction of NATO Command Structure Adaptation requirements:	
12	Programme 2025 - Delivery of planned outcomes	
13	Matrix implementation - Controlled changes in business operations	
14	Ability to support the successful implementation of NATO Cyber Adaptation	

The Agency's internal risk function facilitated the annual risk assessment at Director level as well as periodic reviews of key strategic and operational risks monitored and reported to management and stakeholders. In 2021, the Agency's risk function unit provided an extensive set of live and remote training events aimed at strengthening a culture based on prudent planning and careful management of risks. More than 85 individuals benefitted from risk management train-ing workshops. Direct support has also been provided to key initiatives (Polaris) supporting the submission of the project proposal including the quantified analysis of key risks. Direct support to the Agency's governing body is ongoing. The Agency's risk function delivered information briefings and support to workshops focused on identifying a viable model for strengthening the risk management processes at the Board level (development of a risk appetite framework).

9. Investing In People

9.1 Staff Management

In summary, the Agency:

- Consolidated its civilian workforce through the attraction of new talents and by developing existing staff members;

- Experienced a very low attrition rate on its civilian workforce (4.5%);

- Continued to lose military staff members, increasing the operational risk;

- Transferred posts from different entities to set up the Chief Technology Office (Service Strategy and architects across Service Lines and CSUs);

- Prepared for the set-up of the future NDW Centre and for the transfer of posts to the C2 Centre;

- Established a net number of 133 civilian posts (63 above what was planned in the PersE Plan 2021), mainly related to a more efficient satisfaction of customers'

demands through IWC Conversions or the Academy FOC. Also related to the support needed for Braine L'Alleud, all of which falls under the ceiling approved by ASB;

- Disestablished unnecessary posts (graduate posts, Service Strategy posts, posts linked to Resolute Support, etc.), most of which are non-billable;

- Transitioned to the new Academy structure;

- Increased the overall billability of the Agency's structure slightly (+0.4%), pending the overall realignment undergone under Finance's lead.

As a result of the Agency effort to offset the negative trend and increase its overall capacity to deliver services and capabilities, the civilian workforce increased by a net 168 staff (75.8 FTEs). To develop its workforce, the Agency also laterally transferred or internally selected (after standard competition) 163 staff members to occupy different or higher functions.

The Agency's workforce increased by a net of 108 staff (16.4 FTEs) during 2021, comprising of a net increase of 168 civilian staff (75.8 FTEs) and a decrease of 60 net military (59.4 FTEs). There was a significant increase in civilian staff with 248 new hires in 2021, 69% of which on billable posts. However, the new hires were offset by 80 civilian staff departures (stable compared to 2020), 77% of which were billable posts.

Lastly, the Agency operated with 540.5 IWCs FTEs, mostly employed as surge capacity (79%) on projects that would not justify the recruitment of civilian staff or for skills that are hard to find within the enduring workforce. IWCs working against posts depart upon civilian staff's arrival.

Overall, the Agency operated with 3150.2 FTEs in 2021, using its different workforce components to deliver services and capabilities to its customers.

The Agency had planned to create 50 posts for long-term IWC conversion in order to increase financial efficiency and operational stability. The execution showed potential for further savings while being resource neutral in enduring functions. This led to the creation of 87 posts (+74% compared to the plan). In order to harmonize processes and responsibilities across locations, the Agency transferred certain posts and related staff under one functional leader. These conversions were made in the Academy (5), Acquisition (2), Service Support and Business Application (2), Command and Control (17), Directorate of CSUs (2), Core Enterprise Services (23), Independent Verification and Validation (7), Finance (4), NCI Agency Enterprise Services (1), Human Resources (1), Network Services and IT Infrastructure (6), Joint Intelligence, Surveillance and Reconnaissance (2), Enterprise Service Operations Centre (1), CSUs (10) and the Chief Technology Office (4).
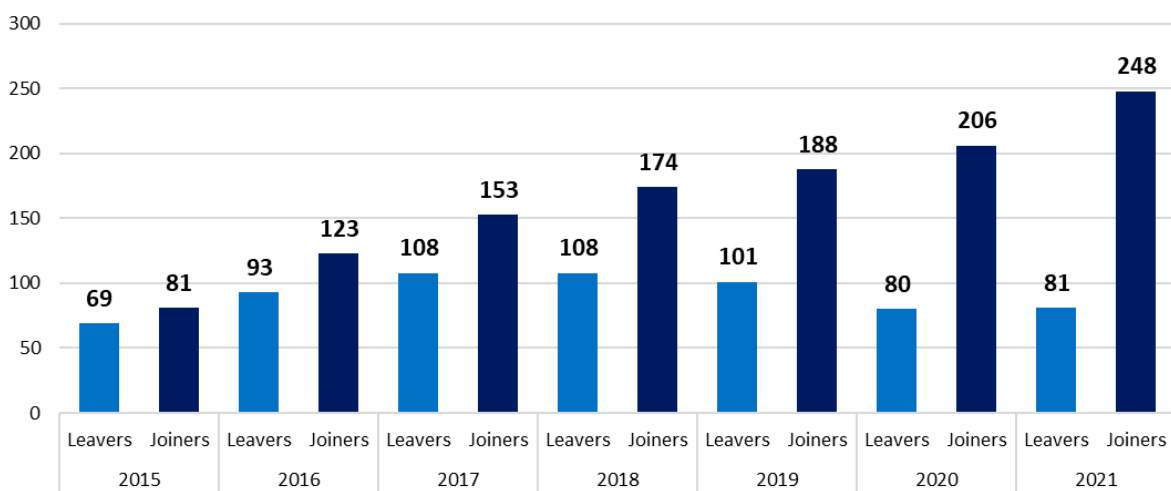
Figure 13: NCI Agency Staff Leavers and Joiner
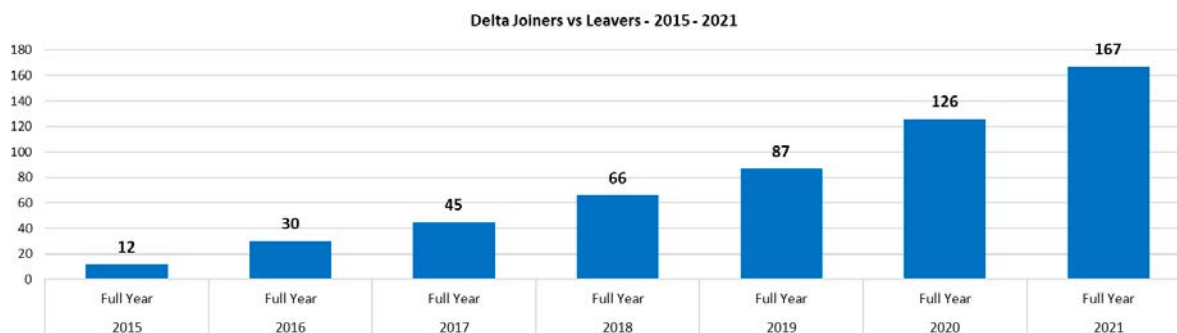
Figure 14: Delta Joiners vs. Leavers 2015- 2021

9.2   Gender, Diversity and Inclusion[11]

Our efforts to promote diversity within the Agency's workforce had positive results. 27.8% of newcomers were women compared to 25.2% in 2020, with an end of year ratio of 19% of woman (+1.4% compared to 2020). In addition, new civilian staff members came from 24 different NATO Nations, including the latest joining Nations. Moreover, the average age of the Agency's NIC population got slightly younger, showing the effort to bring young talent on board while keeping core knowledge in place.
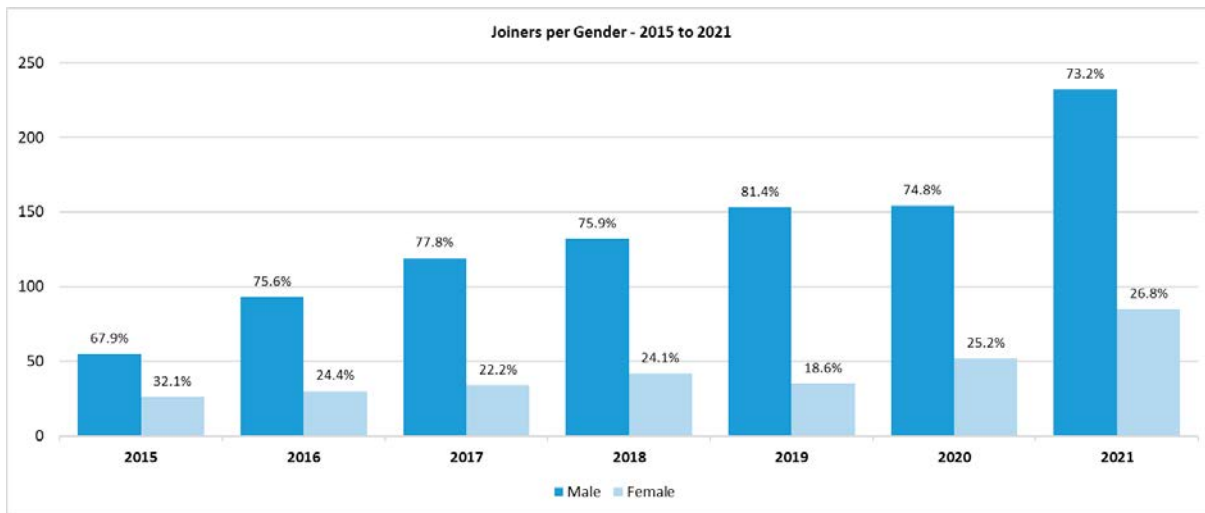
Figure 15: NCI Agency 2015-2021 Joiners Gender Comparison

9.3   Health and Safety

We are taking steps to further mature the Agency Health & Safety culture and planning. One such example is the establishment of Site Principals in each Agency location, who will be appointed in 2022 and hold responsibility for Health and Safety in their location on behalf of the General Manager.

While good progress had been made after the establishment of the function within the Agency in 2016, for almost the last 2 years, the Agency's small Health & Safety resource has remained largely occupied by successfully mitigating the impact of the COVID-19 pandemic.

Other than dealing with COVID-19 related issues, Health and Safety work has been limited to immediate priorities such as technical inspections and testing. There have also been important contributions made to ensure the safety of new infrastructure project work and close engagement with Programme 2025.

In order to bolster the team, a Health and Safety Advisor has been appointed for The Hague site and we will also appoint a dedicated advisor on the new Braine L'Alleud site. This increased capacity, along with a much anticipated decline in the impact of COVID-19, will enable the Agency to re-energize its Health & Safety efforts and start developing more mature management and audit systems. Longer term, the aspiration remains for the Agency to achieve accreditation to ISO 45001 which forms part of Enterprise Services' new Operational Plan for 2022 onwards.

11. PO(2019)0355 (INV), NATO International Staff (IS) Diversity and Inclusion Plan, NATO Secretary General, 27 August 2019..

10. Customer Satisfaction

Having established a customer satisfaction baseline in 2020, the Agency again outsourced conduct of the 2021 Customer Satisfaction Survey to Ipsos. The Agency is pleased to report that customer satisfaction increased by 6% from 2020, to 61% very and fairly satisfied.

Y2021

20% Very + Fairly dissatisfied

61% Very + Fairly satisfied

9% 1% 22%
12%
18%
39%

N=147

Y2020

26% Very + Fairly dissatisfied

55% Very + Fairly satisfied

3% 1% 14%
22%
19%
41%

N=143

Very satisfied I Fairly satisfied I Neither I Fairly dissatisfied I Very dissatisfied I Don't know
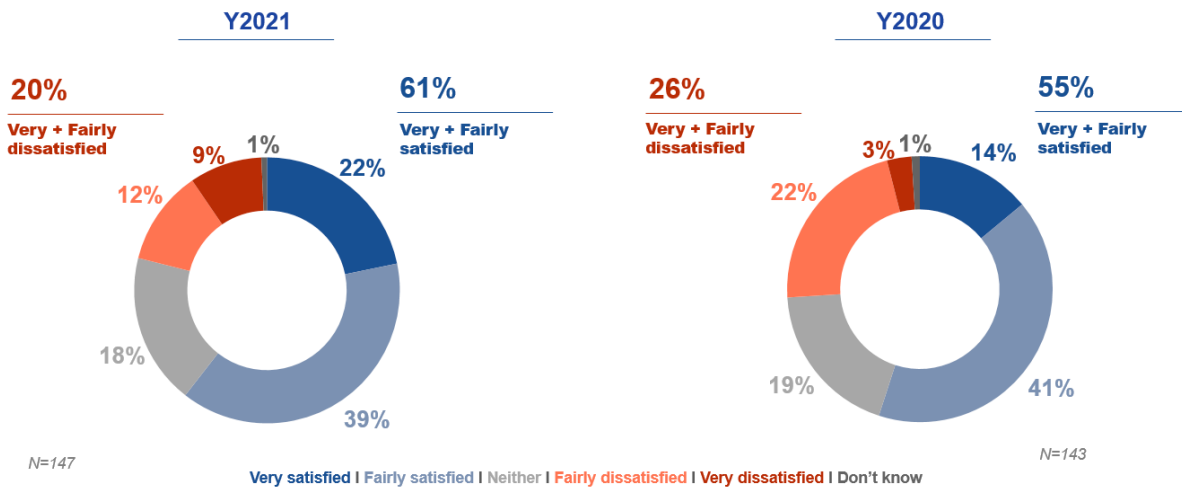
Figure 16 – Customer Satisfaction Survey

For the 2021 survey, the Agency invited 608 individual customers from every segment. The response rate fell 9% from 2020 to only 24% of invitees actually responding.

Internal customers accounted for 45% of respondents, where external customers accounted for 55%.

NSE 1% | NHQ Other 4% | Other 1%
NMR 6%
NFS 6%
Partner Nation 5%
MN Org / Agency 4%
NHQ IS/IMS 2%
ACT 11%
Nations 28%
ACO 32%

Figure 17 – Customer Participation to the Survey

Major takeaways from the 2021 survey are consistent with 2020. The Agency's support to operations and exercises and the commitment of our staff continue to be strengths, while there is still work to do with regard to our handling of customer requests and price proposals, and the clarity and transparency of pricing.

Strengths
- Costed Customer Services Catalogue: 65%
- Support to Operations: 71%
- Support to Exercises: 81%
- Interactions with Agency staff: 75%
- Training delivery: 65%

Opportunities
- Handling of customer requests: 56%
- Timeliness of receiving price proposals: 45%
- Complaints handling: 68%
- Clarity of pricing: 57%

Looking ahead, the Agency intends to take forward initiatives to improve customer satisfaction through the NCI Agency Strategic Plan 2022 – 2026, specifically through Strategic Goal 1: Excellence in delivery and Strategic Goal 4: Building strong, lasting partnerships across NATO.

Goal 1

Excellence in Delivery
Focusing our organic resources towards core business, driving towards better maturity and value of capabilities and services, always oriented towards Strategic Direction and Guidance

Desired Outcomes	Targeted Outputs
Optimized delivery	✓ Modernized P3SM practices ✓ Data-driven decisions ✓ Mature pricing and transparency ✓ Sourcing embraced
Optimized corporate plans and processes	✓ End-to-end alignment, coherence, streamlining of plans and processes ✓ Culture of quality
Fit-for-purpose Enterprise CIS	✓ In coordination with Strategic Partners, technology is brought into modernity ✓ With customers and stakeholders, NATO-wide planning, investment, acquisition, security accreditation processes adapted

Customer Value
- Improvements to project delivery & communication
- Improvements to service delivery and quality
- More transparent Costed Customer Services Catalogue
- Smart investment in future technologies
- Streamlined processes to ensure timely, cost-effective delivery

Goal 4

Build strong, lasting partnerships across the NATO enterprise
Success comes when we work together with strategic partners in an environment of trust, transparency and close cooperation – #WeAreNATO and will work to build strong partnerships across the enterprise

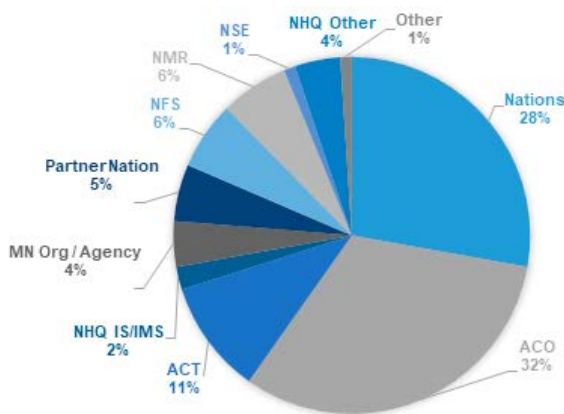| Desired Outcomes	Targeted Outputs
Strategic partners first	✓ Improved responsiveness to customer demands through a reinvigorated customer relationship management function ✓ Collaboration with partners in enabling crisis management and business continuity
Accessible partnerships with industry, non-profits and academia	✓ Deepened relationships with academia and R&D institutions, benefiting from best-in-class ideas to drive digital transformation ✓ Accessible relationships with industry through pre-competitive dialogue, agile acquisition processes, flexible procurement approaches, and smarter contracting
Bridges with NATO leadership	✓ Constructive, transparent relationships with boards, committees, NATO Command Structure, and other NATO bodies ✓ Compliance with the Common Funded Capability Delivery Governance Model ✓ Working with NATO CIO, a better unity of effort across the enterprise

Customer Value
- End-to-end, coherent approach to customer relationships
- Improvements to customer request / business intake handling
- Recurring, continuously improved (with your feedback) VOTEC
- Streamlined communication with customers and stakeholders alike

11. Outlook and Challenges

As described in the previous sections of this report, the political and strategic environment is currently dynamic and challenging. The Agency's place in the Alliance is to support our partners and customers with the capability and services they need to fulfil their mission. In doing so, we see some challenges but also opportunities.

The newly approved Strategic Plan, we believe, is a well-structured approach that will allow us to steadily improve the business as we need to, at the same time as running the business to meet the current needs of customers. This is an ambitious change programme and we will need the support of our stakeholders in striking the right balance between preparing for the future and meeting today's requirements.

To focus on what is important we have set clear priorities. In running the business, these include for our Business Areas, the support to Alliance operations and exercises closely followed by delivering ITM and then Cyber Adaptation. In each of these areas we have made progress in our ability to deliver, but we cannot afford to be complacent.

In improving the business, we have a sound basis in place with robust operational plans tied to delivering tangible outcomes. We must avoid the risk of these initiatives failing due to losing momentum as a result of the pressing priorities of the current situation. Our ability to resource both sides of this equation will be critical and we see Smart Sourcing and careful demand management as being key in this respect.

As a final note, we have seen from the recent past and the current crisis that our Agency, in common with other parts of the Alliance, finds a way to deliver when faced with difficult challenges. Our skilled and dedicated staff are key to this and they are the ones who, in forging strong partnerships with colleagues from across NATO, will make the difference.

Annex A: List of Acronyms

Acronym	Term
ABIPAT	ACO Baseline Incident Priority Assignment Table
AAS	Advisory and Assistance Services
ACCS	Air Command and Control System
AirC2	Air Command and Control
AMD	Air and Missile Defence
AMDC2	Air and Missile Defence Command and Control
AGS	Alliance Ground Surveillance
ACO	Allied Command Operations
ACT	Allied Command Transformation
AGS	Allied Ground Surveillance
ASF	African Standby Force
AU	African Union
ASB	Agency Supervisory Board
AoR	Area of Responsibility
AI	Artificial Intelligence
ACPV	Asset, Configuration, Patch and Vulnerability
BMC3I	Battle Management, Command, Control, Communications and Intelligence
BST	Battle Staff Training
BMD	Ballistic Missile Defence
BCAG	Business Continuity Advisory Group
BCMS	Business Continuity Management System
BCP&PD	Business Continuity Policy and Planning Directive
CIO	Chief Information Officer
CIV	Civilians
CSSC	CIS Sustainment Support Centre
C4ISR	Consultation Command, Control, Communications, Intelligence, Surveillance and Reconnaissance
CWIX21	Coalition Warrior Interoperability Exercise
C3	Command, Control and Communications

Acronym	Term
C2IS	Command and Control Information System
C&I	Communications and Information
CCSC	Costed Customer Service Catalogue
COVID-19	Coronavirus Disease
CPX	Command Post Exercise
CPX/CAX	Command Post Exercise/Limited Computer Assisted Exercise
CONOPS	Concept of Operation
CR	Cost Reimbursable
CSU	CIS Support Units
CTO	Chief Technology Officer
CAT	Crisis Action Team
CMTF	Crisis Management Task Force
CURs	Crisis Urgent Requirements
CFRF	Customer Funding Regulatory Framework
CSS	Customer Satisfaction Survey
DIANA	Defence Innovation Accelerator for the North Atlantic
DACCC	Deployable Air Command and Control Components
DCIS	Deployable CIS
DNOC	Deployable Network Operation Centre
DDA	Deterrence and Defence of the North Atlantic Area
EW	Electronic Warfare
EPM	Electronic Protective Measures
EDT	Emerging and Disruptive Technologies
EBA	Enterprise Business Applications
EP	Enterprise Project Management
ESOC	Enterprise Service Operations Centre
EUFOR	European Union Force
EM	Executive Management

Acronym	Term
EMB	Executive Management Board
FSA	Final System Acceptance
GDIT	General Dynamics Information Technology
GCCS-J	Global Command and Control System – Joint Services
H&S	Health and Safety
HN	Host Nation
HCM	Human Capital Management
IOC	Initial Operation Capability
IA	Internal Audit
IBAN	International Board of Auditors for NATO
IMS	International Military Staff
ISAF	International Security Assistance Force
IS	International Staff
IOT	Internet of Things
IC	Investment Committee
IfB	Invitation for Bid
IVVQ	Independent Verification and Validation Quality
JFC	Joint Force Command
JISR	Joint Intelligence, Surveillance and Reconnaissance
JWC	Joint Warfare Centre
KFOR	Kosovo Force
LCC	Land Component Command
LIVEX	Live Exercise
MJO	Major Joint Operation
MIL	Military
MTEP	Military Training and Exercise Programme
MN	Mission Network
MNOC	Mission Network Operations Centre
MN5G	Multinational Collaboration on 5G
MNC NE	Multinational Corps North-Est

Acronym	Term
MYIP	Multi-Year Investment Plan
NAUC	NATO African Union Cooperation
NAGSF	NATO AGS Force
NCOP	NATO Common Operational Picture
NCI	NATO Communications and Information
NCI Agency	NATO Communications and Information Agency
NCIO	NATO Communications and Information Organisation
NCISG	NATO Communication and Information System Group
NCS	NATO Command Structure
NCS-A	NATO Command Structure-Adaptation
NCSC	NATO Cyber Security Centre
NDW	NATO Digital Workplace
NDWP	NATO Digital Workplace (NDW) Programme
NFS	NATO Force Structure
NHQSA	NATO Headquarters Sarajevo
NITEC	NATO Industry Conference and TechNet International
NM	NATO MISSION IRAQ
NOR	NATO Office of Resources
OP ALSO	NATO Operation Allied Solace
NRF	NATO Response Force
NR	NATO Restricted
NS	NATO Secret
NSII	Network Services and IT Infrastructure
NSIP	NATO Security Investment Programme
NSD E	NATO Strategic Direction East
NS2TUR	NATO Support to Türkiye
NWCC	NATO Warfighting Capstone Concept
SLOC	North Atlantic Sea Lines of Communication
NDEC	NCIA Digital Enterprise Centre
O&M	Operation and Maintenance

Acronym	Term
OPEX	Operations and Exercises
OPSCEN	Operations Centre
QAFR	Quarterly Annual Financial Report
PersE	Personnel Establishment posts
PMO	Portfolio Management Office
PoW	Programme of Work
P3M	Programme, Portfolio and Project Management
PSA	Provisional System Acceptance
RRC	Rapid Reaction Corps
RFQ	Request for Quotation
RSM	Resolute Support Mission
RSM-R	Resolute Support Mission Retrograde
RPPB	Resource Policy and Planning Board
SAC	SATCOM Anchor Component
SIEM	Security Incident and Event Management
SOC	Service Operations Centre
SLA	Service Level Agreement
SSBA	Service Support and Business Applications
SSPs	Service Support Packages
STP	Service Training Packages
SA	Sourcing Advocate
SOP	Standard Operation Procedure
STCO	Steadfast Cobalt
STDE	Steadfast Defender
STLE	Steadfast Leda
STJU	Steadfast Jupiter
SD&G	Strategic Direction and Guidance
SFN	STRIKFORNATO
SME	Subject Matter Expert
SACEUR	Supreme Allied Command Europe

Acronym	Term
TOPFAS	Tools for Operations Planning Functional Area Services
VJTF	Very High Readiness Joint Task Force
VTC	Video Teleconferencing
VOIP	Voice Over Internet Protocol
WPS	Women, Peace and Security
WAN	Wide Area Network

Annual / Quarterly Report

Strategic Plan

People Strategy

Financial Plan

Business Plan

Environmental Strategy

Technology Strategy

Knowledge Management Strategy

NATO
OTAN

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