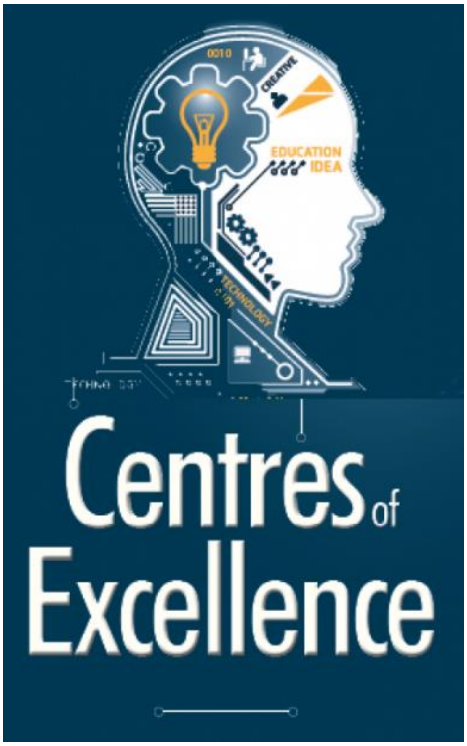



# ITU CENTRES OF EXCELLENCE PROGRAMME

Report on the 2019-2022 Cycle

# Contents

# Introduction

The Centres of Excellence (CoE) Programme was first launched by ITU in 2000 as an initiative aimed at developing capacity of two institutions in Africa. As the demand for training and development continued to grow, the programme evolved into one of ITU's major training delivery mechanisms. The objective of the programme shifted from a focus on institutional capacity development to the establishment of regional networks of Centres who could partner with, and become the training delivery arm of, ITU. Over the years, the centres operated with a goal of supporting ITU to meet the need of its member states to build capacity in the field of information and communication technologies (ICTs), offering training targeted to policy makers, ICT professionals and executives using different training modalities.

Between 2000 and 2014, the number of Centres increased in all regions, amplifying the demand for quality monitoring. In 2015, the ITU launched a new strategy for the CoEs which introduced several changes to the programme, including the reduction of the number of centres from 60 to 36 centres globally. The centres were also selected for a period of four years, aligned to the World Telecommunication Development Conference (WDTC) and introducing cycles to the programme. The first cycle ran over the years 2015-2018 and the second cycle 2019-2022.

For the 2019-2022 CoE cycle, a total of 31 centres were selected based on their capacity and experience to deliver quality training in priority areas in accordance with ITU's thematic focus. Five of the selected training institutions withdrew during the cycle for different reasons. Subsequently, a total of 27 centres were operational within the programme throughout the cycle.


*Image 1: ITU Centres of Excellence for the 2019-2022 cycle*

This report provides a review of the CoE programme during the cycle. It is composed of four sections. The first section provides a global overview of the implementation of the

programme, including its main activities and features. Section 2 presents the CoE training courses delivered at a global and regional level. Section 3 analyses the results of a survey focusing on the CoE perspectives on the cycle. Section 4 describes the strategic review of the programme that was carried out in 2021, and presents its conclusions, leading to the establishment of the new ITU Academy Training Centres programme as a successor to the CoE programme.

# 1. Overview of the 2019-2022 cycle

The operations of the CoE programme during this cycle were to a large extent impacted by the COVID-19 pandemic, which hit the world in early 2020. While the first year of the cycle was characterized by onboarding the CoEs, given that several Centres were new to the programme, the second year faced a severe slowdown in activities, in particular for those Centres who had predominantly focused on face-to-face course delivery. While the shift to online learning had been going on for some time, in 2020, the digitalisation of course delivery was accelerated by COVID-19, which forced the training institutions to put 100% of their course offerings online. Furthermore, the economic impact caused by the pandemic led to a decline in training course participation in some countries and among certain target groups.

This section provides an overview of ITU's main activities related to the management of the CoE programme during this cycle. This includes the governance of the programme through steering committee meetings, the management of training delivery through the ITU Academy platform, networking and collaboration efforts through global meetings and webinars as well as marketing and promotion initiatives.

***Governance of the CoE programme***

As part of the governance of the programme, ITU organized regional steering committee meetings to provide a platform for CoEs to discuss their performance, present their training plans for the year and exchange experiences. During these meetings, the training plans were also approved, and the annual regional training catalogue developed.

A total of 36 steering committee meetings were held during the cycle, with two meetings per year per region from 2019-2021, and one meeting per region in 2022, except for the CIS region. In 2019, the Europe and CIS regions held combined steering committee meetings. In 2020, the CIS region had one meeting and in 2021 and 2022 the region had no steering committee meeting as they had only one CoE operational at this time. While all 2019 meetings were held face-to-face, hosted by CoEs in their respective countries, the steering committee meetings conducted between 2020-2022 were all held virtually.

The issues that were discussed during the steering committee meetings covered strategic issues pertaining to the programme, which included updates on changes in the programme by ITU, introduction of new processes such as the quality assurance process, discussions on the implementation of courses as well as confirmation of timelines and training fees. The operational processes and procedures of the programme were also key discussion points during those meetings. During the four-year period, the Centres highlighted the following issues which were common across regions:

- To ensure alignment to the objective of the programme, CoEs should offer courses that are within the mandate of the ITU. CoEs should ensure that all submissions of training course outlines are complete to support efficient evaluation of courses by ITU.
- CoEs should be creative in marketing their courses, including the use of digital and social marketing tools to reach out to more clients.

- CoEs expressed the need for support from ITU and other partners in developing online courses.
- CoEs should approach clients such as policy makers, regulators and private companies and discuss training solutions to meet the training needs of these clients in the face of rapidly changing technologies.
- Determining training fees continued to be a challenge for the centres. On one hand, charging low training fees is not sustainable for the CoEs, and higher training fees negatively affect participation levels on the other hand. There is a need to explore other options of financing courses, such as sponsorships.
- In order to remain relevant, train-the-trainer programmes for staff of CoEs were proposed, especially when new technologies emerged.
- ITU should develop a more dynamic framework for CoEs to collaborate and exchange experiences. In this respect, a global meeting for all CoEs during this cycle was proposed.
- ITU should play an advocacy role with partners and regulators so that they can help subsidize training courses or sponsor them fully. The use of Universal Service Funds for training purposes was proposed as one area where ITU could facilitate discussions.

***ITU Academy platform***

The training delivered throughout the cycle was managed via the ITU Academy, the main online gateway to ITU's capacity development activities. The platform's optimized functionality provided the necessary technical and logistical support for the administration of the CoE courses, including user management (such as course enrolment, progress tracking), collection of fees, and certification.

Globally accessible to all registered participants and operating 24/7, the ITU Academy facilitated the delivery of training courses throughout the CoE cycle accommodating various modalities (online self-paced, online instructor-led, blended). From the point of view of the training content, the ITU Academy hosted course core materials, assessments, documentation as well as peer learning initiatives and discussion forums. Catering to both learners and tutors, it supported instructors on course creation, design and training quality standards, such as the monitoring and end-of-course reporting and evaluation.

***Collaboration and networking***

To facilitate networking of the centres at a global level, a virtual global meeting was organized by ITU in May 2021. The main objectives of this meeting were to gather CoEs' inputs into the network's strategic issues, promote standardisation of work across the network and open channels of communication between the centres. The meeting was attended by 54 participants representing ITU CoEs from all the six ITU regions. For two days the CoEs had the opportunity to collaborate and share knowledge through presentations, group discussions and polls. The Centres shared experiences on new training methodologies, marketing strategies and training assessment. During this meeting, the CoEs also discussed challenges faced by trainers to assess online learning as well as to administer online assessments securely. They discussed the options provided by LMSs to reduce the challenges and how the ITU Academy platform features can assist with this. They also discussed features which they find helpful in the ITU Academy.

In an effort to continue to facilitate collaboration and networking of CoEs across regions, ITU organised a webinar in 2022. This webinar, which focused on "Online Learning Best Practices" was part of the support provided by ITU to help the CoEs in developing and improving online training delivery. The webinar provided the CoEs with practical examples and additional tools in online learning design and delivery, to address some of the challenges which the centres had been facing. The webinar was delivered by ITU in collaboration with UNITAR and ITC-ILO.

In addition to networking and collaboration activities facilitated by the ITU, the centres also collaborated among themselves to deliver courses together. Some of the notable collaborations include delivery of courses by ANTEL and UBP in the Americas region, AFRALTI and ESMT in the Africa region, AFRALTI and ICTP in the Europe region, and AFRALTI and IoT Academy in the Asia Pacific Region.

***Marketing and promotion***

Marketing and promotion of courses remained a challenge for the CoEs throughout this cycle. While efforts were made by both the ITU and the CoEs, it was clear there was still a lot that could be done to increase uptake of CoE courses.

During this cycle, courses were promoted by the CoEs using the CoEs' selected advertising media, and by the ITU through the ITU Academy platform. Discussions were held with the CoEs on how these strategies can be enhanced and the following recommendations were adopted.

- To use promotional tools that are accessible globally and have a world-wide presence.
- Multiple promotional strategies to be used together to complement each other, increasing the chances of reaching different society segments.
- To use strategies based on current technologies to reach the market earlier than other providers and in time for the annual training planning of potential clients.
- Intentionally planning and committing to specific promotional activities annually.

As part of implementing these recommendations, and as a response to the recurring request by CoEs for support to promote courses, the ITU and CoEs adopted the below promotional plan, which was implemented, and progress reported regularly during the steering committee meetings.

| Activity | Description | Medium | Impact | Implementer |
|---|---|---|---|---|
| **Include courses as part of events.** | If an event is held in X topic, when advertising the event, list the courses linked to that topic which are available on the ITU Academy platform, especially on the event website. | Event webpages and other promotional materials | This will expand the target market for the CoE courses | ITU |
| **Promote participation of CoEs in ITU regional and global capacity development events** | Provide a space for CoEs to showcase their work at ITU capacity building events. | Events | This will provide a regional and global marketing platform for CoEs as well as opportunities to network | ITU |
| **Provide information on review of courses** | On the ITU Academy website, provide information on reviews of courses done by attendees for public viewing. | ITU Academy website | This might encourage some participants to take the courses when they are re-run and improve visibility of the outcome of the CoE courses. | ITU |
| **Send push messages on upcoming courses** | Provide option for visitors of the ITU Academy to indicate their interest in receiving information on future courses. An update is sent to them once a month on the upcoming courses in the areas of interest they indicated. | ITU Academy website, emails | This will allow ITU to send targeted messages to potential participants who have indicated their preferences, thus increasing the chances of enrolment | ITU |
| **CoEs to publish reviews of the courses by their respective attendees** | CoEs encouraged to ensure end of course evaluations are analyzed, and results shared with ITU for publishing of the ITU Academy website | ITU Academy website | This will encourage other participants to take the CoE courses if they see they are well rated by previous participants | CoEs |
| **CoEs to create social media promotional content.** | CoEs to create snapshot videos and or ppt slides (social media compatible) of what the course will be about to be used on social media platforms | Videos and ppt slides | This will expand the target market for the CoE courses | CoEs |
| **CoEs to use social media to promote courses.** | Post at least 1 promotional message per course on 1 social media platform and tag ITU's respective accounts to increase visibility when advertising new courses | Social media platforms | This will expand the target market for the CoE courses | CoEs |
| **CoEs to include variety of incentives for taking courses** | CoEs can prepare their courses in modular version. If three courses are taken on the same topic one can earn a discount for the third module. Or discount applied for the second course taken with the same CoE, etc. | Incentives highlighted on course catalogue | This will encourage the participants to return to the same CoE for additional courses | CoEs |
| **Use the Steering Committee (SC) platform to plan promotional strategies and monitor progress** | As part of the SC agenda, include a session on recommendations for new promotional strategies and report on progress made | SC meetings | Assessing progress on implementing the promotional strategies will allow planning for more strategies or re-aligning if necessary | ITU/CoEs |

# 2. Training delivery

This section provides an overview of the training that was delivered by the CoE programme during the cycle. Statistics on both course modalities and participation are presented in the below, which demonstrate the impact of the programme and highlight patterns over the four-year cycle. The training delivery at the global level is discussed first, followed by an analysis for each of the six regions.

## 2.1 Global level

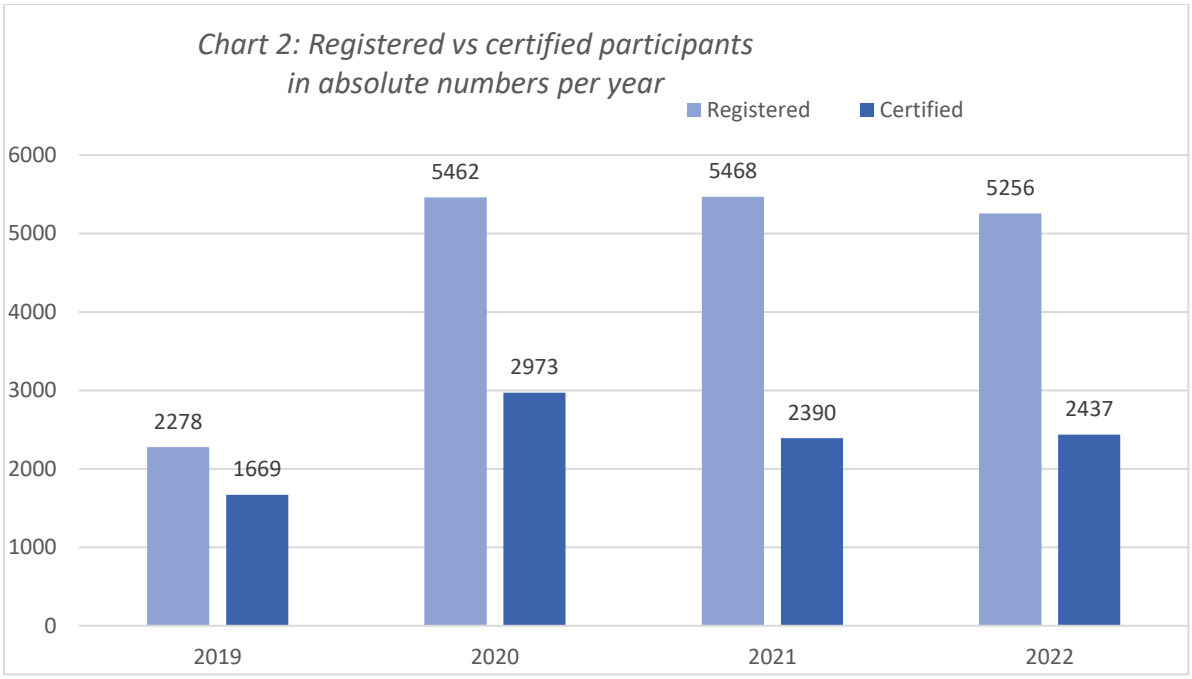
Over a period of four years, the Centres successfully delivered a total of 324 courses. A comparison of the number of courses planned with those delivered shows an implementation rate of 60% over the 4-year period (Table 1).

Table 1: Training courses planned and delivered during the cycle

| | 2019 | 2020 | 2021 | 2022 | 4 years |
|---|---|---|---|---|---|
| Courses planned | 146 | 141 | 142 | 120 | **549** |
| Courses delivered | 94 | 66 | 77 | 87 | **324** |
| Implementation rate | 64% | 47% | 54% | 73% | **60%** |

Table 1 show that each year the Centres planned for more courses than were delivered, with the biggest difference observed in the year 2020 (due to the initial disruption caused by the Covid-19 pandemic). The data show an amelioration of the situation, starting from 2021, with the situation further improving in 2022 when Centres opted for an adaptive approach to the planning of courses (in order to realistically address the during- and post- pandemic training delivery challenges), resulting in an implementation rate of 73% for the last year of the cycle.

This cycle yielded a significant outreach, with a total of 13,367 participants registered by the Centres. ITU distinguishes between participants registering for a course and those completing the course and receiving a course certificate (certified). Chart 2 shows the variation in terms of certifications across the full cycle: an increase in the first two years when the number of certified participants almost doubled, followed by a slight dip in 2021, then a rise in the last year.




A breakdown of the percentage and the ratio between registered and certified participants[1] is available in Table 2.

Table 2: Certified vs. registered course participants during the cycle

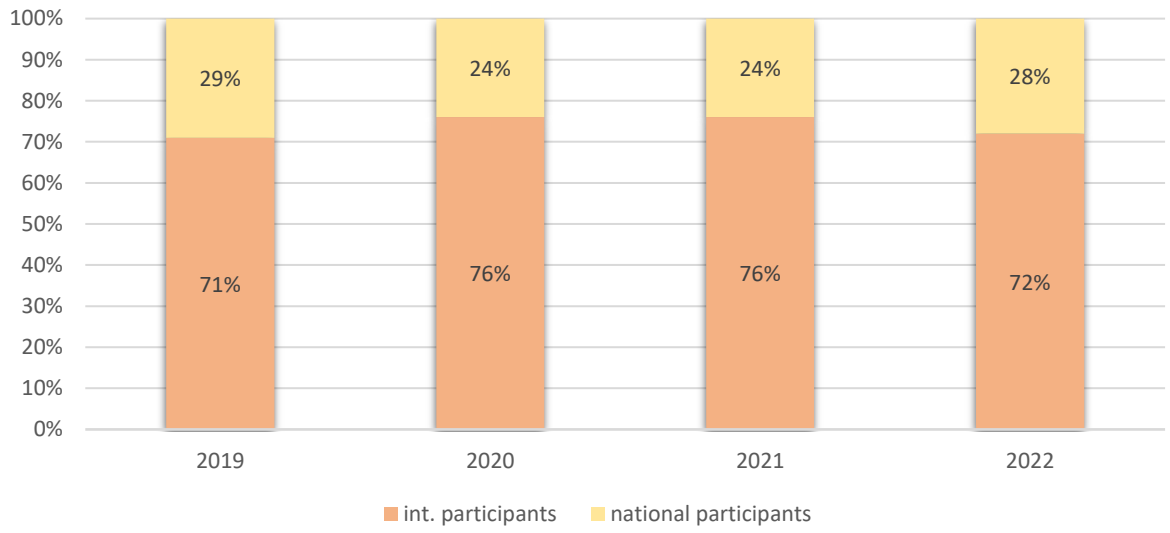
| Certified (vs. registered) | 2019 | 2020 | 2021 | 2022 |
|---|---|---|---|---|
| **Percentage** | 73% | 54% | 44% | 45% |
| **Ratio** | 2.74 | 1.19 | 0.77 | 0.86 |

Of significant mention in analysing this aspect is the increase in the number of *free* courses offered by the CoEs in 2021 and 2022. The observed tendency is that participants more often enrol into a free course without necessarily successfully completing it and earning a certificate.

The goal of the Centres of Excellence programme was to offer capacity development activities to the ITU membership worldwide. It is therefore important to examine the global outreach of the programme prompted by the geographical spread of the audiences trained by the CoEs during this cycle. Chart 3 shows that the network managed very well to target an international audience with a stable rate of around 70-75% of course participants whose nationality was different from the country where the CoE was located (Chart 3).

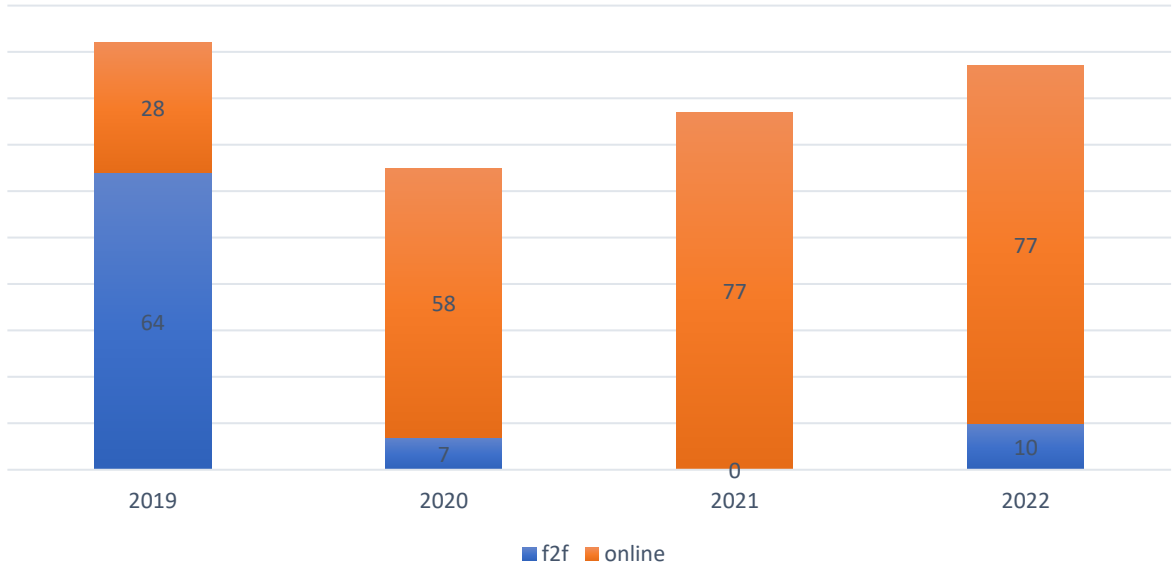
[1] A distinction is made between participants who have attended the training (trained) and those who have also received a certificate at the end (certified), depending on their performance. Training participants who successfully completed a course (score at least 60% of the course) earn a certificate or digital badge.

*Chart 3: Proportion of international participants*




In order to gain a comprehensive understanding of the full CoE cycle across the four years this report also analyses the methodology of the training delivered. Chart 4 illustrates that in 2019 two thirds of the courses were delivered using a face-to-face delivery mode. In line with an industry shift to favour distance learning methodologies due to the pandemic, in 2020, the majority of the courses were delivered fully online, a trend that continued in 2021 when all courses were delivered online. It is worth mentioning that due to the pandemic's restrictions, ITU asked all CoEs to not deliver face-to-face courses from March 2020 to March 2022. Once restrictions were partially lifted in 2022, some CoEs started again to conduct face-to-face training, as shown in the chart below.

*Chart 4: Number of delivered courses face-to-face vs. online*



## 2.2 Regional level

This sub-section of the report focuses on training delivery of the CoE courses per each of the six regions and provides a detailed breakdown. An overview of the implementation rates is presented in Table 3.

Table 3: Training courses planned and delivered during the cycle at regional level

| | Africa | Americas | Arab | Asia-Pacific | CIS | Europe |
|---|---|---|---|---|---|---|
| Courses planned | 156 | 82 | 118 | 85 | 17 | 91 |
| Courses delivered | 75 | 51 | 46 | 78 | 11 | 64 |
| Implementation rate | 48% | 62% | 39% | 92% | 65% | 70% |

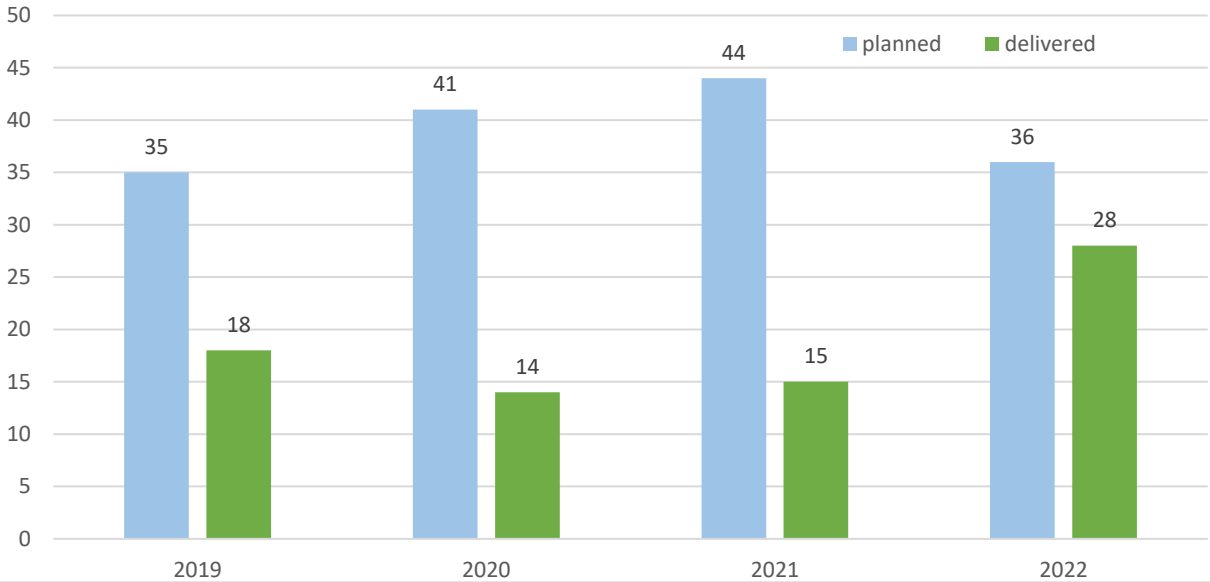
*Note: global implementation rate = 60%*

### 2.2.1 Africa Region

| CoE | Country | Priority Area(s) |
|---|---|---|
| Digital Bridge Institute (DBI) | Nigeria | Cybersecurity and Innovation & Entrepreneurship |
| Ecole Supérieure Multinationale des Télécommunications (ESMT) | Senegal | Digital Broadcasting, Spectrum Management and Digital Economy |
| Ecole Supérieure Africaine des Technologies de l'Information et de la Communication (ESATIC) | Côte d'Ivoire | Cybersecurity, Wireless & Fixed Broadband and Internet of Things |
| African Advanced Level Telecommunications Institute (AFRALTI) | Kenya | Spectrum Management and Digital Broadcasting |
| Ecole Nationale Supérieure des Postes, des Télécommunications et des TIC (SUP'PTIC) | Cameroon | Digital Economy, Innovation & Entrepreneurship and Wireless & Fixed Broadband |
| National Computer Board (NCB) | Mauritius | Cybersecurity |

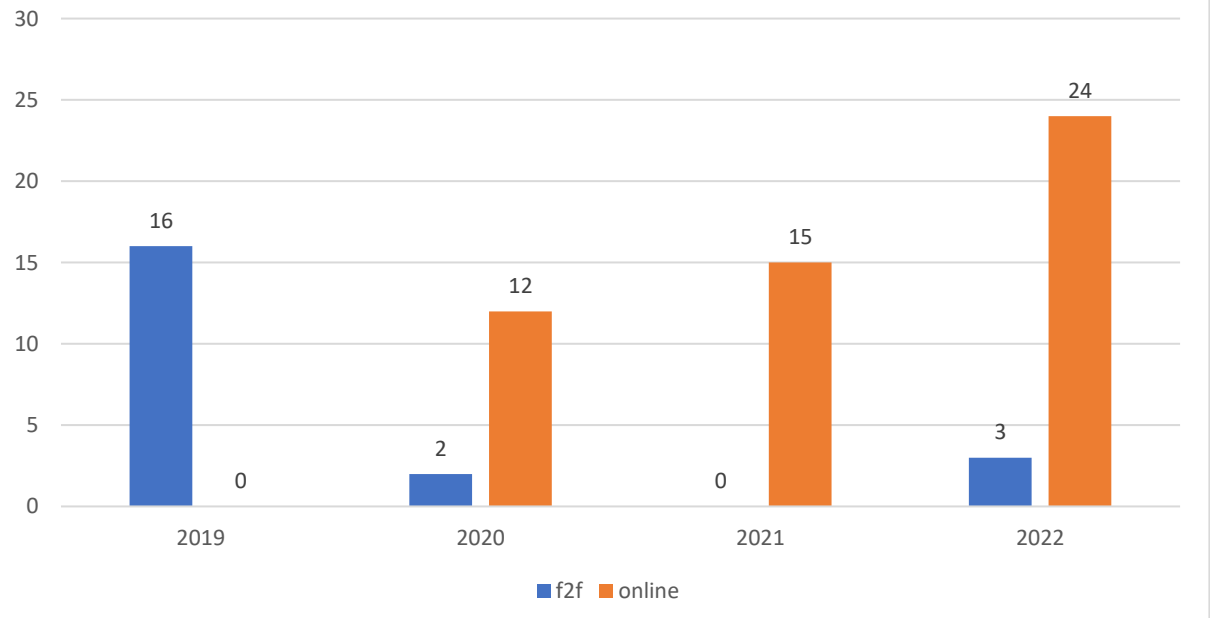
Six Centres of Excellence were operational in the Africa region covering different priority areas (see above table). During the 2019-2022 cycle, 75 out of 156 planned courses were conducted in the region, which represents an implementation rate of 48% (compared with the global rate of 60%). Examining the evolution of the number of implemented courses over the entire cycle, it is notable that the implementation rate was already rather low in 2019, before the pandemic, and it remained low during the two years of the pandemic. However, in 2022, the Africa region demonstrated a clear recovery with 28 out of 36 planned courses delivered (a 78% implementation rate), as shown in Chart 5.

*Chart 5: Africa region - Number of courses planned vs. delivered*




In terms of the delivery modality of the courses, a major shift to online training is noticeable during the cycle. While in 2019 no courses were held online, the situation changed drastically in 2022, with 24 out of 28 implemented courses delivered online. Similar to the Arab region, the Africa region had to completely shift their training delivery mode from an approach that was based 100% on face-to-face training in 2019 to 100% online delivery in 2021. This testified the CoEs' strong capacity to adapt and deal with the challenges brought by the COVID-19 pandemic.

*Chart 6: Africa Region - Number of courses delivered face-to-face vs. online (without blended courses)*

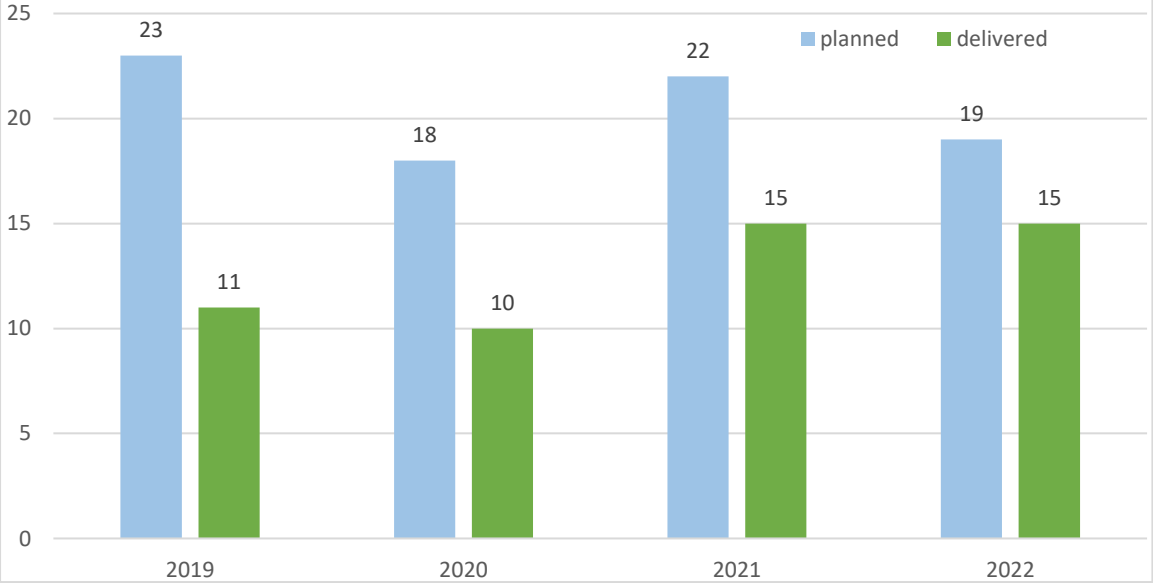


### 2.2.2 Americas Region

| CoE | Country | Priority Area(s) |
|---|---|---|
| Instituto Nacional de Investigación y Capacitación de Telecomunicaciones - Universidad Nacional de Ingeniería (INICTEL UNI) | Perú | Cybersecurity |
| Instituto Nacional de Telecomunicações (INATEL) | Brazil | Digital Broadcasting and Wireless & Fixed Broadband |
| Administración Nacional de Telecomunicaciones (ANTEL) | Uruguay | Wireless & Fixed Broadband and Innovation & Entrepreneurship |
| Universidad Técnica Particular de Loja (UTPL) | Ecuador | Smart Cities & Communities |
| Universidad Blas Pascal (UBP) | Argentina | Innovation & Entrepreneurship, Internet of Things and Smart Cities & Communities |

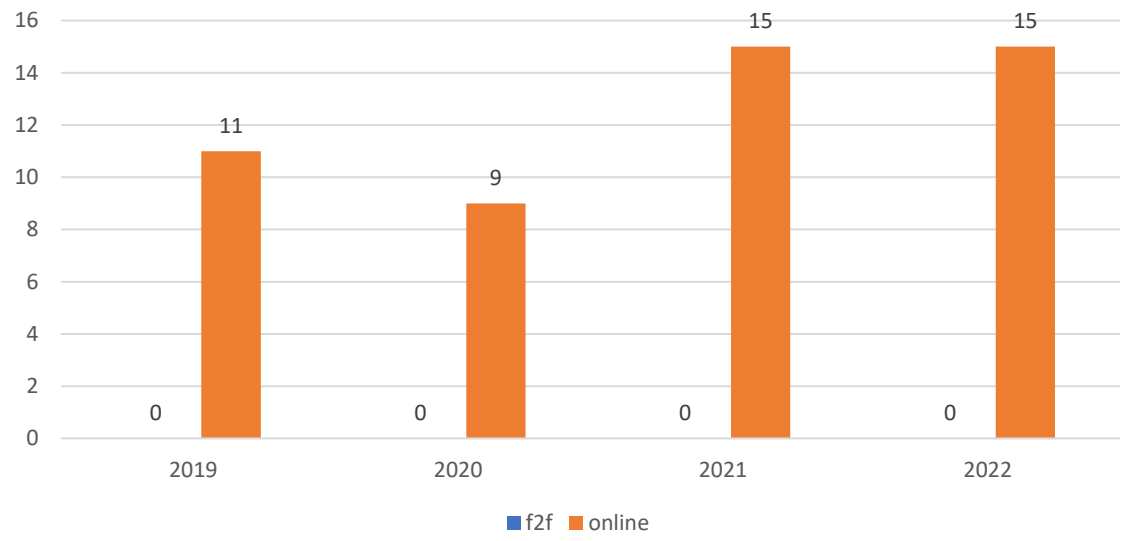
In the Americas region five Centres of Excellence were operational during this cycle. They implemented 51 out of 82 planned courses over the four-year period (Chart 7), corresponding to an implementation rate of 62% (compared to a global implementation rate of 60%). Compared to the global average and some of the other regions, although noticeable, the Americas region shows more moderate fluctuation in the implementation of planned courses from one year to another.

*Chart 7 : Americas Region - Number of courses planned vs. delivered*




As for the methodology employed for the training delivery, Chart 8 demonstrates that the CoEs in the Americas region already delivered all their courses online in 2019. This makes it the only region where no CoE had to adapt their delivery approach at the onset of the pandemic.

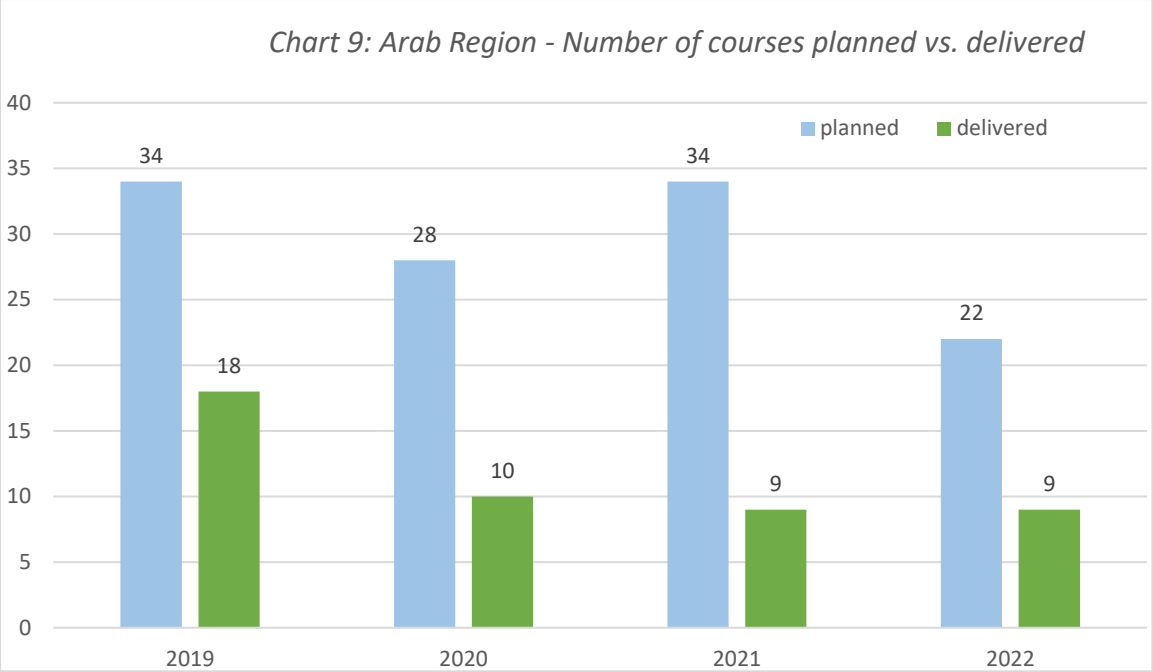
*Chart 8: Americas Region - Number of delivered courses face-to-face vs. online*



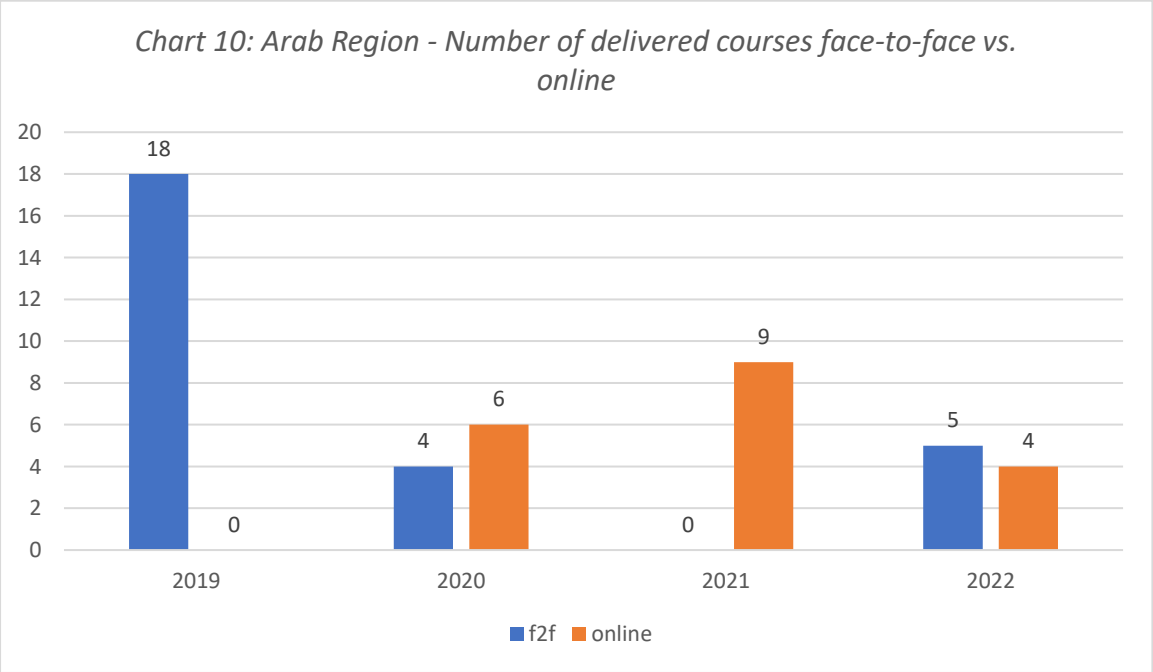

### 2.2.3 Arab Region

| CoE | Country | Priority Area(s) |
|---|---|---|
| Smart Tunisian Technopark (S2T) | Tunisia | ICTs & the Environment |
| Sudatel Telecommunications Academy (SUDACAD) | Sudan | ICT Applications and Wireless & Fixed Broadband |
| Naif Arab University for Security Sciences (NAUSS) | Saudi Arabia | Cybersecurity and Internet of Things |
| Centre International des Technologies de l'Environnement de Tunis (CITET) | Tunisia | ICTs & the Environment |

The Arab region had four Centres of Excellence that were selected for this cycle. A total of 46 courses were delivered by the CoEs in this region, which corresponds to an implementation rate of 39%. The implementation rate was at its lowest in 2021, when 9 courses out of 34 planned courses were delivered (i.e. 26%) (see Chart 9).




The delivery methodology started with 100% face-to-face courses implemented in 2019 and subsequently shifted to 100% online courses in 2021, which shows a strong resilience in adapting to the pandemic. Compared to other regions, CoEs within the Arab region moved to a more balanced and mixed delivery modality in 2022 (Chart 10) by delivering half of the courses online and a nearly equal proportion of them in a face-to-face format.

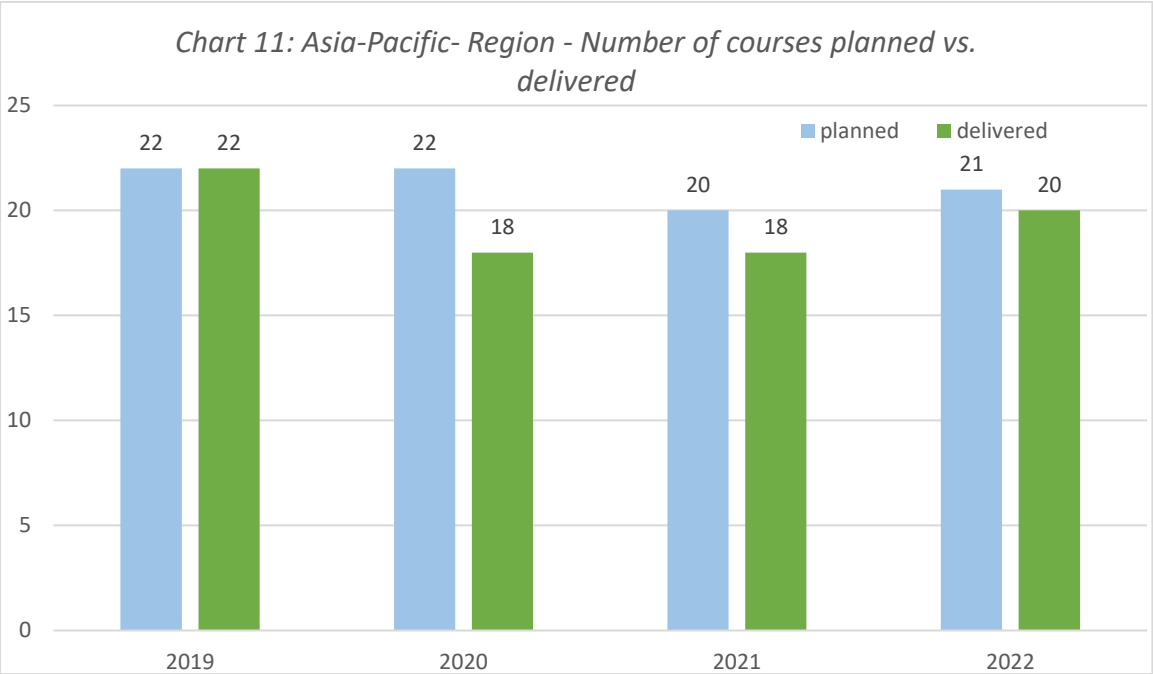


### 2.2.4 Asia-Pacific Region

| CoE | Country | Priority Area(s) |
|---|---|---|
| National Information Society Agency (NIA) | Rep. of Korea | ICT applications |
| Advanced Level Telecom Training Centre (ALTTC) | India | Wireless & Fixed Broadband, Internet of Things and Cybersecurity |
| China Academy of Information and Communications Technology (CAICT) | China | Conformance & Interoperability and ICT Applications |
| State Radio Monitoring Center (SRMC) | China | Spectrum Management |
| Wireless Communication Centre, Universiti Teknologi Malaysia (UTM) | Malaysia | Wireless & Fixed Broadband |
| IoT Academy | Iran | Internet of Things |

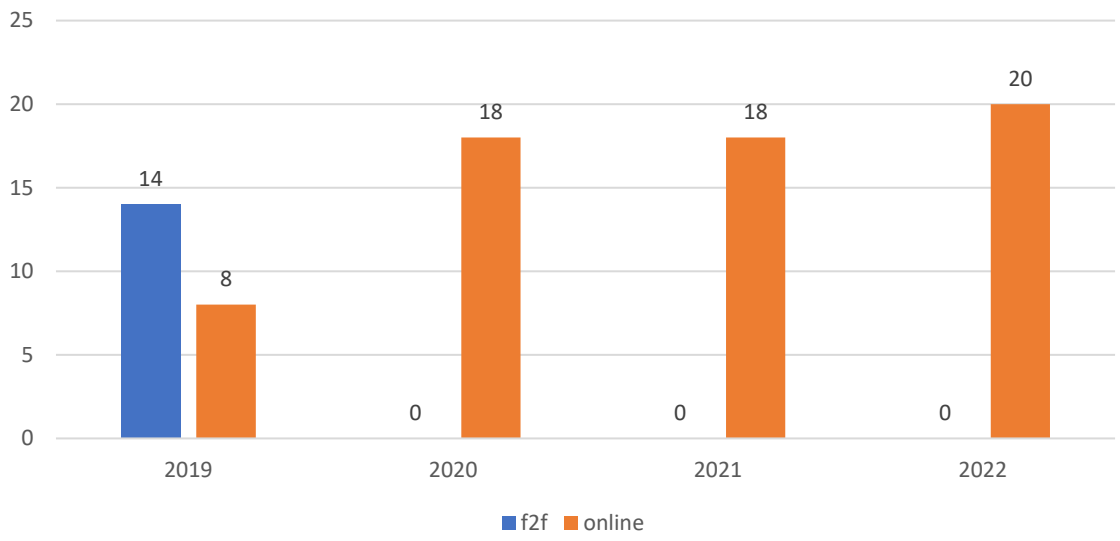
The Asia-Pacific region had five CoEs operational during this cycle. They delivered a total of 78 courses out of 85 courses planned, which corresponds to an implementation rate of 92% – significantly higher than the average global implementation rate of 60%. Notable is the fact that even during the peak of the pandemic in 2020 and 2021, the CoEs in the region were able to implement the majority of their planned courses, as shown in Chart 11.

*Chart 11: Asia-Pacific- Region - Number of courses planned vs. delivered*




With regards to the preferred methodology for implementing these trainings, the CoEs in the Asia-Pacific region delivered most of their courses face-to-face in 2019 and moved to 100% online delivery from 2020 onwards (Chart 12). This resulted in only a minor variation in the implementation rate, with a small decline from 100% in 2019 to 81% in the first year of the pandemic, then increasing to 90% in 2021 and 95% in 2022 – a solid indication of the adapted methodology's success.

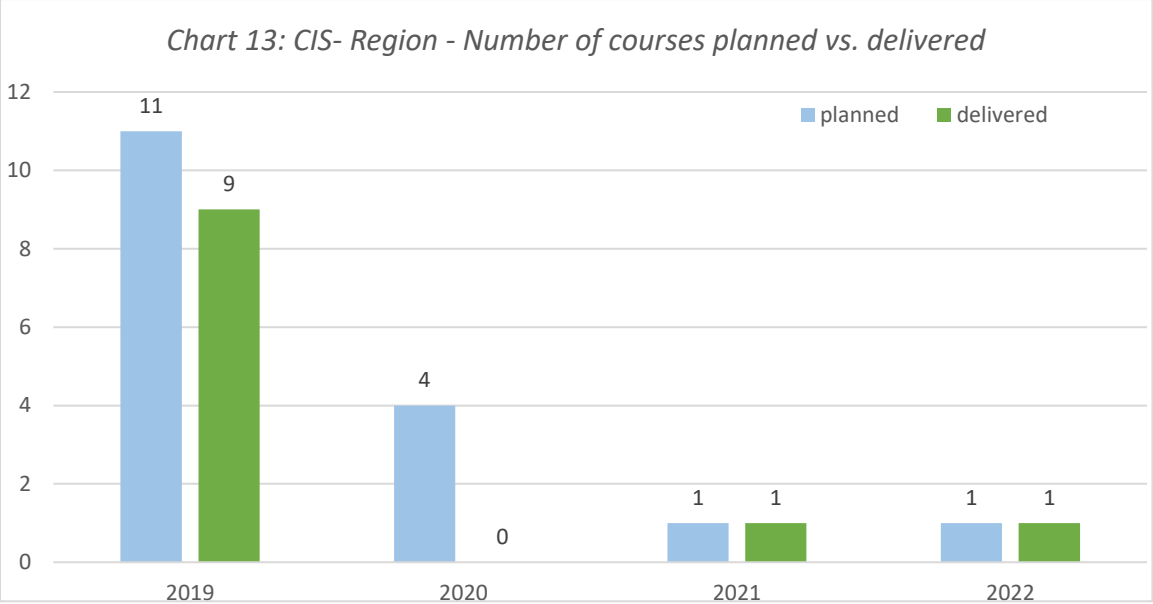
*Chart 12: Asia-Pacific-Region - Number of delivered courses face-to-face-to-face vs. online*




### 2.2.5 Commonwealth of Independent States Region (CIS)

| CoE | Country | Priority Area(s) |
|---|---|---|
| Academy of Digital Innovations (IET/KSTU) | Kyrgyz Republic | Cybersecurity and Digital inclusion |
| Belarusian State Academy of Communications (BSAT) | Belarus | Wireless & Fixed Broadband and Cybersecurity |

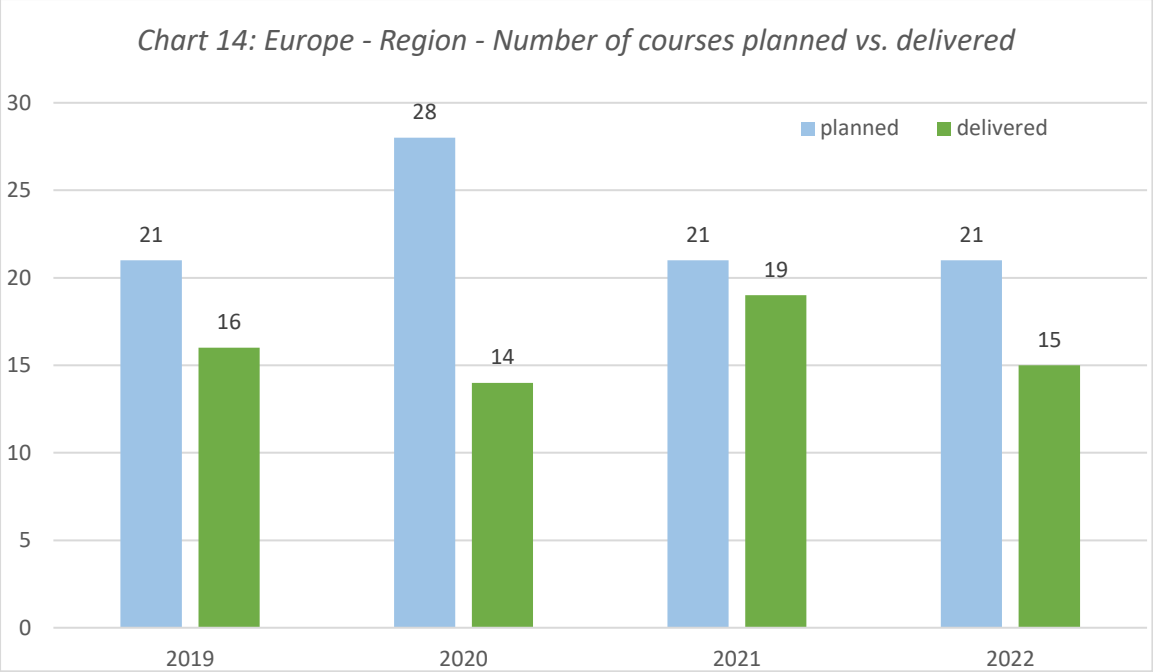
Two Centres of Excellence were selected in the CIS region initially for the cycle under review. Following the exit from the programme of the Belarusian State Academy of Communications (BSAT) in 2021, the Academy of Digital Innovations (IET) was the only de facto centre left in the region. BSAT was able to implement three courses in 2019 while IET implemented 8 out of 13 courses throughout the cycle. All courses were conducted through a face-to-face approach, except one course in 2021, which was delivered online.



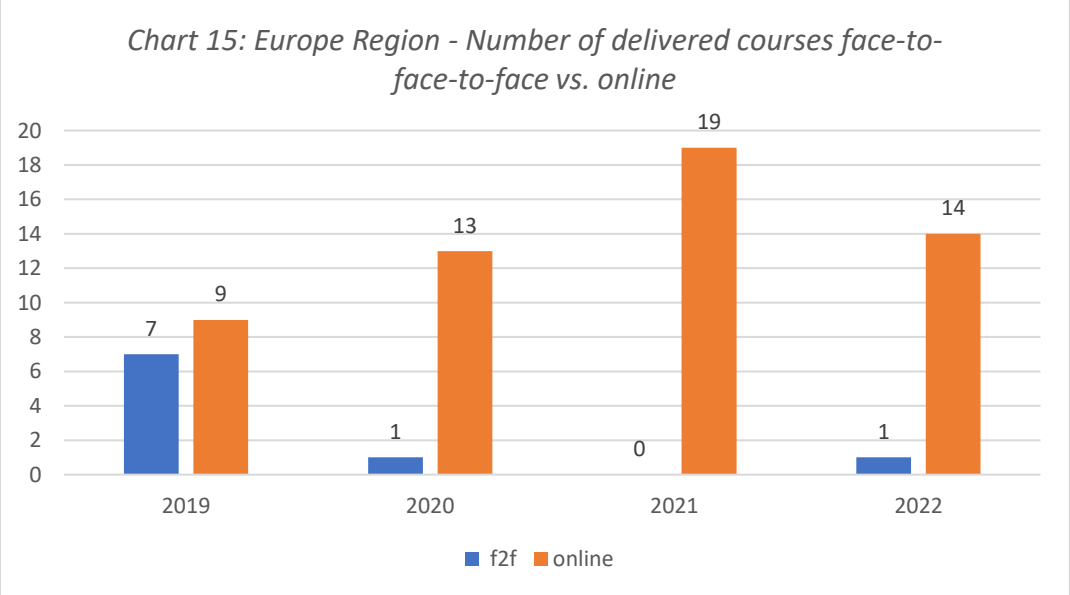

### 2.2.6 Europe Region

| CoE | Country | Priority Area(s) |
|---|---|---|
| Faculty of Electrical Engineering and Information Technologies, Ss. Cyril and Methodius University in Skopje (FEEIT) | Republic of North Macedonia | Wireless & Fixed Broadband |
| National Institute of Telecommunications (NIT) | Poland | Internet Governance and Wireless & Fixed Broadband |
| NRD Cyber Security | Lithuania | Cybersecurity |
| The Abdus Salam International Centre for Theoretical Physics (ICTP) | Italy | Internet of Things and Big Data and Statistics |
| Institute for Security and Safety (ISS) at the Brandenburg University of Applied Sciences | Germany | Cybersecurity |
| A.S. Popov Odessa National Academy of Telecommunications (ONAT) | Ukraine | Wireless & Fixed Broadband<br>Digital Broadcasting |

The Europe region was represented by six Centres of Excellence during this cycle. In 2021, ONAT was reorganized and merged with the new State University of Intellectual Technologies and Communications. Consequently, its independent legal authority was eliminated which resulted in its exit from the CoE programme. The CoEs in this region delivered 64 courses during the cycle, achieving an implementation rate of 70%. Chart 14 shows a drop in the implementation rate in 2020, due to the onset of the Covid-10 pandemic, with a recovery in 2021.




The Europe region delivered an almost equal number of courses face-to-face and online in 2019. In line with the trends noticed for the other regions, this changed in 2020 when almost all the courses were delivered online – a delivery methodology which remained dominant in 2021 and 2022. (Chart 15).



# 3. CoE feedback and inputs

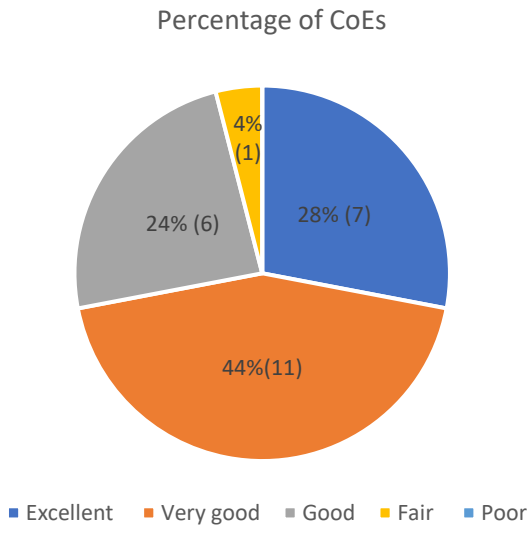
To facilitate an accurate analysis of the programme during the 2019-2022 cycle and to create an avenue for sharing lessons learned, in October 2022, each CoE was invited to complete an online questionnaire and asked to reflect on their experience in the programme. The survey covered several topics, such as the overall satisfaction with the programme, the shift to online delivery in the context of the pandemic, the different business models adopted by the centres, challenges in financing training activities as well as recommendations for improvement. The survey questionnaire is presented in Annex 1 of this report. This section discusses the results of the survey, for which 25 out of the 27 CoEs provided a response.

## 3.1 Overall experience: benefits and challenges

The first part of the survey focused on how the CoEs perceived the programme, their experience with running courses through the ITU Academy platform as well as the benefits and difficulties they encountered during this cycle.

The feedback received was strongly positive, centres were pleased with the programme, with 72% of respondents considering their experience as 'excellent' or 'very good' (Chart 16).

*Chart 16: How would you rate your experience as a Centre of Excellence during the cycle 2019-2022?*




Being part of the CoE network offered several **benefits** for the participating training institutions. Responding to the question which elements of the programme they most valued, 80% of centres ranked the 'Cooperation with ITU' first, while on average 'Better brand image' was ranked second. This shows that cooperating with ITU as the specialized UN agency in the field of telecommunications is perceived as the main value-add for training centres to

*Cooperating with ITU provided the main value-add for the training centres.*

participate in the programme. 'Network of cooperation' was ranked third on average, underlying that cooperation between the centres was also a very important aspect of the programme. The list was completed by other possible response categories, such as 'Access to ITU Curriculum' and 'Access to new markets' which came in after those previously mentioned (Table 4).

Table 4: What did you value most as a Centre of Excellence?

Distribution per individual ranking option.

| | 1 | 2 | 3 | 4 | 5 |
|---|---|---|---|---|---|
| Cooperation with ITU | 80% | 8% | 4% | 8% | 0% |
| Better brand image | 8% | 52% | 20% | 12% | 8% |
| Network of cooperation | 8% | 12% | 36% | 40% | 4% |
| Access to ITU curriculum | 4% | 12% | 24% | 20% | 40% |
| Access to new markets | 0% | 16% | 16% | 20% | 48% |

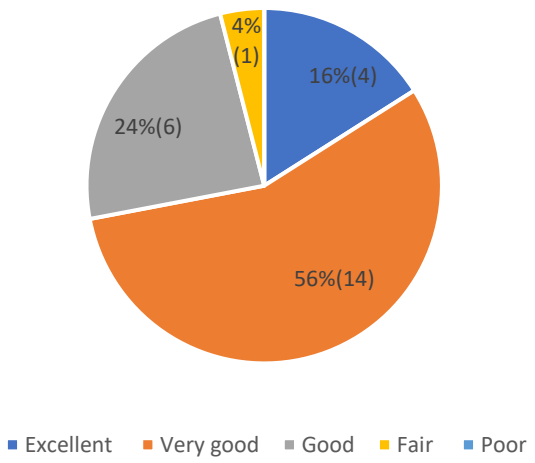
In the next part of the questionnaire, the CoEs were invited to share the **challenges** they encountered in training delivery during the four years. The most often mentioned answer was the difficulty in attracting a larger number of course participants. Another challenge mentioned by several respondents was the inability to match supply and demand due to a missing training needs assessment of the programme's target group which made it difficult for them to offer the appropriate training course. This was exacerbated in the context of changing training needs due to the pandemic, as reported by several respondents. Additionally, some centres pointed out that some participants did not have the required digital skills to attend online courses. Finally, some respondents highlighted the transition to online learning as a main challenge, which will be further discussed in section 3.2 below.

> *The difficulties brought on by the pandemic accentuated issues on attracting course participants and providing the required support.*

The CoEs were also asked about their experience with the ITU Academy platform. 72% of respondents considered the experience as 'excellent' or 'very good' (Chart 17).

*Chart 17 : How do you evaluate the user experience with the ITU Academy platform ?*

Percentage of CoEs




Centres were given the opportunity to share concrete **recommendations** on how to improve the training platform. Some made recommendations firstly on technical aspects such as adding new tools to support course creation or simplifying the registration process as well as the navigation on Moodle. The second main area of improvement pertained to communication, specifically the need for establishing channels between different levels of the programme (students/instructors and between CoEs). One respondent, for example, recommended creating an interactive dashboard to exchange information on courses between the CoEs, and another respondent proposed a communication channel between course instructors and students.

> *Increasing interaction and reporting were points highlighted among the recommendations for the ITU Academy platform.*

In terms of the **most valuable features of the ITU Academy platform**, the training catalogue was the most appreciated, being ranked by 52% of respondents first and by 16% of respondents second (Table 5).

Table 5: Which feature of the platform did you like most (percentage of responses)

Distribution per individual ranking option

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
|---|---|---|---|---|---|---|---|
| Training catalogue | 52% | 16% | 0% | 12% | 20% | 0% | 0% |
| Cost, registration, enrolment | 16% | 16% | 20% | 20% | 12% | 4% | 12% |
| Training reports | 24% | 8% | 24% | 4% | 16% | 16% | 8% |
| Create an account | 4% | 20% | 16% | 16% | 16% | 20% | 8% |
| Tutor rights | 0% | 20% | 16% | 20% | 12% | 24% | 8% |
| Payment options | 0% | 8% | 20% | 24% | 12% | 24% | 12% |

## 3.2 Experiences with online training delivery

The second part of the survey looked at the experiences of CoEs in transitioning to online training formats in the context of the pandemic.

Among the respondents, 8 out of the 25 CoEs that participated in the survey stated that they did not offer online training before the pandemic. A first set of questions was addressed to those CoEs who had not delivered any online training before and therefore had to develop this capacity from scratch. Responding to the question on what the greatest challenge was in adapting their training offer from F2F to online delivery, three main points were mentioned: limited social interaction with course participants, unstable Internet infrastructure and the transformation of practical training (e.g. which required a real working environment setting) into an online course.

Even though the remaining 17 centres had delivered some courses via online methodologies before the pandemic, globally speaking the majority of CoE training was delivered face-to-face. While some CoEs (notably in the Americas region) had extensive experience with online course delivery in the past, others (notably in the Africa and Arab regions) had delivered only a few online courses before the pandemic. Most of the CoEs had to go through a transition period to adapt to this new context.

CoEs were asked to **rank several online training tools** in terms of the highest benefit for their trainees. Videoconferencing was ranked first by 60% of the respondents and second by 20%, followed by pre-recorded videos. This shows that video formats are considered highly beneficial for training participants. 'Forums' and 'Quiz' tools were also considered beneficial, whereas 'Assignments' and 'Reading tasks' were considered less beneficial compared to the other options. CoEs seemed to have appreciated interactive tools which allowed for direct contact with the trainees, while some more asynchronous or complex assessment tools were less valued (Table 6).

> *All CoEs had to undergo a transition process to online training delivery and new tools in order to cope with the new context.*

Table 6: Which online training tools do you consider as most beneficial for your trainees? (Percentage of responses)

Distribution per individual ranking option

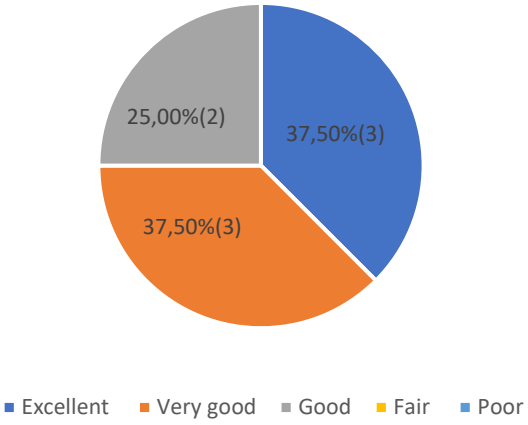
| | 1 | 2 | 3 | 4 | 5 | 6 |
|---|---|---|---|---|---|---|
| Videoconference | 60% | 20% | 0% | 8% | 4% | 8% |
| Pre-recorded videos | 20% | 36% | 12% | 8% | 8% | 16% |
| Forums | 0% | 12% | 28% | 36% | 12% | 12% |
| Quiz | 12% | 8% | 20% | 16% | 24% | 20% |
| Assignments | 4% | 12% | 24% | 4% | 40% | 16% |
| Reading tasks | 4% | 12% | 16% | 28% | 12% | 28% |

To assist the CoEs in conducting their courses online, ITU provided support in different ways during the pandemic, for example through standardized templates, one-to-one tutorials, as well as pedagogical support and webinars on how to create and deliver courses online. When asked about their level of satisfaction with the support offered by ITU, the majority of the CoEs delivering online courses for the first time were pleased, with 75% of the respondents indicating that the support had been 'excellent' or 'very good' (Chart 18).

*ITU provided valuable support for CoEs in overcoming the challenges of adapting training content for the online environment.*

*Chart 18 : How would you rate your experience with the support provided from ITU staff in the transition from face-to-face to online training?*

Percentage of CoEs (which did not deliver online training before the pandemic)




When asked about **improvements** that ITU could make in supporting the CoEs in online delivery, several recommendations were made:

- To provide guidelines and training on the topic of online training and training of trainers.
- To provide more technical support through regional ITU staff and to involve them in the delivery of the course.
- To support communication within the CoE network to exchange best practices in online delivery.

Building on the accumulated experience and collective best practices that the CoEs had as a result of this process of transitioning to online training delivery, they were asked to share insights about the future of face-to-face courses. The answers showed a mix of views. Most of the respondents thought that face-to-face formats would remain important. The reasons given were that participants would still demand face-to-face courses and increasingly so with the end of the pandemic. Moreover, for courses with a more technical/hands-on focus, face-to-face instruction would remain important. Other respondents thought that hybrid course delivery would be dominant in the future and that online training would be rather used to

supplement the face-to-face offer. On the other hand, some CoEs thought that face-to-face education would tend to disappear in the future, arguing that online training is more successful in terms of reaching a larger number of participants.

When asked what **advantages** they saw in online training, CoEs highlighted aspects that pertained to: cost reduction, larger audience and international outreach, better time management, better accessibility of training material, and less logistical issues.

> *Along with the advantages of online training delivery, challenges remain but so do opportunities in the area of learner engagement and quality of education.*

Finally, CoEs were invited to share their opinions on how online formats **impact the quality of education**, as well as to present their ideas for improvement. Despite the many advantages of online training mentioned above, several CoEs expressed concerns, such as: course participants missing classes more often, difficulties in the supervision of students, less social interaction, connectivity issues and shorter-lasting learning effects, especially for courses involving practical exercises. In contrast, some CoEs mentioned that online training delivery increased the quality of education through more regular assessments on the e-learning platform. The CoEs provided a variety of recommendations to ensure the quality of online training:

- Pedagogical aspects: increase participant commitment by offering challenges, inviting guests and experts, rewarding participants, using videoconferencing and shorter formats so that participants do not lose focus, engaging participants more in group discussions and presentations, and providing repeatable educational content (textbooks and lecture videos).
- New features: establish real-time voice communication on learning platforms for students and develop more online tools.
- Quality assurance: make sure that standards are met through pre-testing of courses.
- Delivery format: use more hybrid models.

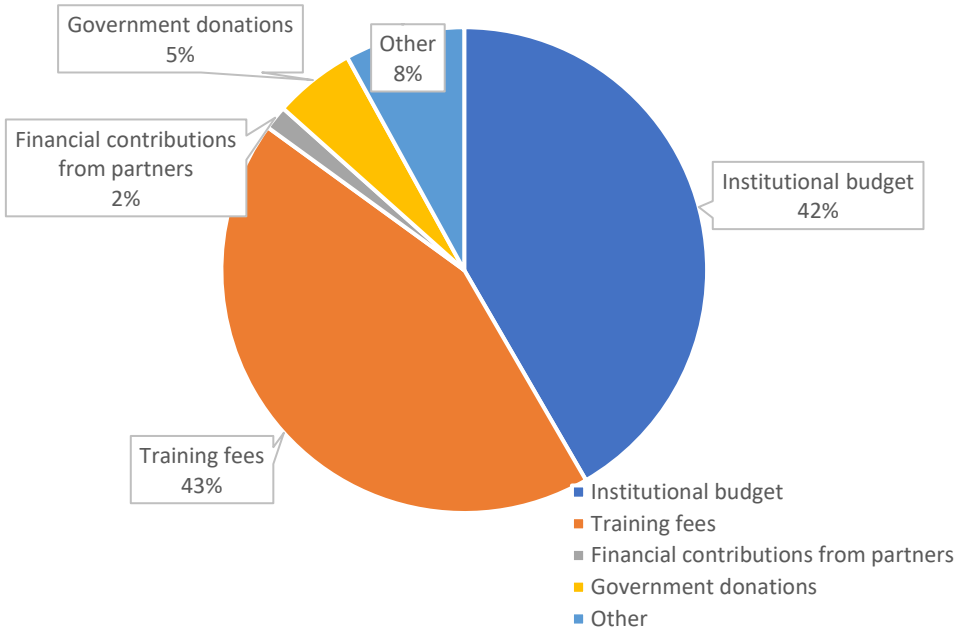
To conclude, through their unique experience in this cycle marked by the pandemic, while CoEs identified clear opportunities and challenges with online learning, face-to-face courses seem to remain important in the field of telecommunications, especially when it comes to training topics which include practical elements.

## 3.3 Funding and expenditures for programme implementation

The survey focused also on the financial resources mobilized by the CoEs for the implementation of the programme, which was based on a self-sustainable model. Survey respondents were asked to indicate which sources they used to fund training activities and to specify their relative importance in the overall budget allocated to CoE activities. A better understanding of the business models employed by the training centres is useful to develop future similar capacity development programmes.

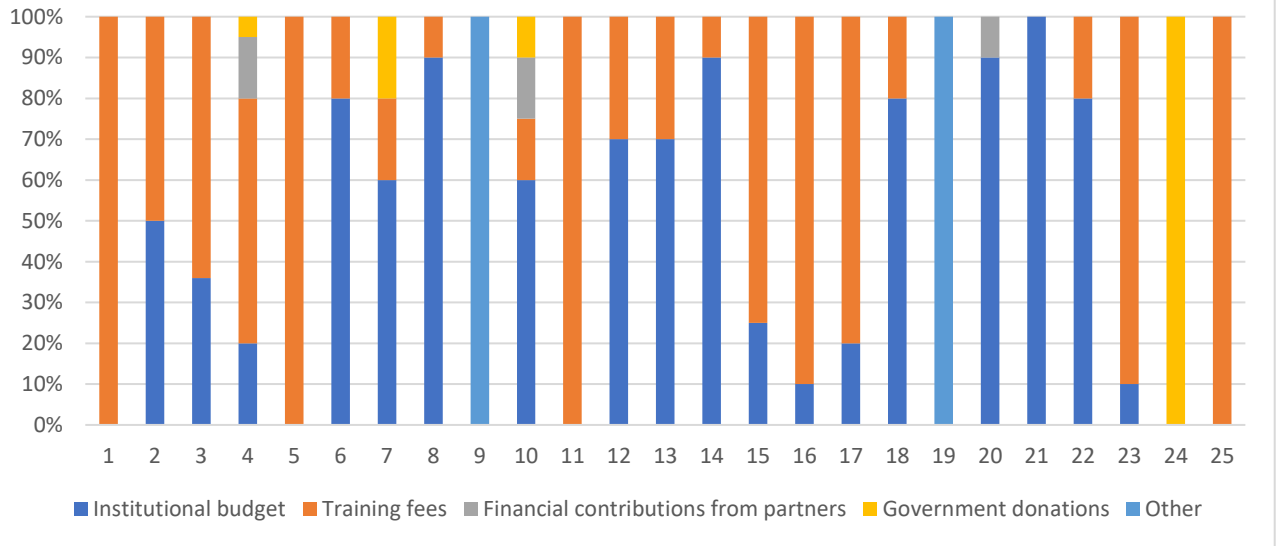
On average, the two main sources of funding for training activities, as ranked by the CoEs, were training fees (43%) and/or the institutional budget of individual centres (42%) (Chart 19).

*Chart 19: Financial sources allocated to CoE activities*




A few centres financed CoE activities entirely through the training fees charged, whereas some others primarily used the institutional budget, as not all centres charged fees for their courses. In some rare cases, government donations were used (Chart 20).

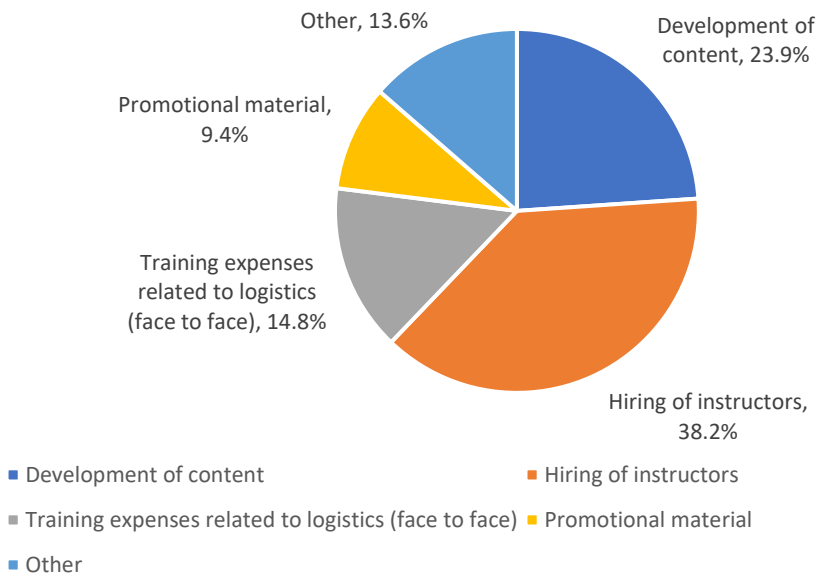
*Chart 20: Distribution of alllocated resources per individual respondent*




The top two expenses for the Centres which charged fees for all or some of their courses were hiring instructors and developing training content. Training expenses related to logistics to organize face-to-face training were ranked lower in the budget as the number of face-to-face

courses decreased in this cycle (see section 2.1). Only 9.4% of training fees were used for promotional materials (Chart 21).

*Chart 21: Use of training fees (in %)*




Looking at individual answers confirms that most CoEs used the training fees collected for two main activities, namely, to hire instructors and to develop content. Further analysis of the responses indicates that, on average, nearly 15% of the training fees were spent on logistical costs for face-to-face courses, while close to 10% were used for promotional materials.

> *Keeping relevance in an increasingly competitive market may be linked to tailoring solutions in order to attract new participants.*

CoEs were invited to share **challenges encountered in financing the programme** operations. Several respondents highlighted issues linked to the difficulty in recovering costs (when balancing the fees charged and the number of participants), which were exacerbated by the challenges of attracting new participants. Price dumping by third-party suppliers, as well as late payments and logistical expenses were also factors that contributed to the challenges. In terms of keeping a competitive edge versus other providers, one respondent highlighted: "*I believe that the future lies in providing tailor-made training solutions to governments and large companies. Entering the open market of courses does not make sense, the current offer is enormous and growing.*"

## 3.4 Recommendations on maximizing the impact of ITU training initiatives

In the final section of the questionnaire, CoEs had the opportunity to make general recommendations regarding the CoE programme and ITU capacity development initiatives. Among the different aspects raised, the following should be highlighted:

- Marketing and promotion: recommendations to promote courses to professional associations and to offer course packages to increase interest in ITU training. Respondents also called for increasing the presence of the programme on social media to reach a wider target audience.
- Accreditation of courses from internationally recognized institutions were mentioned as potentially helpful in increasing the appeal of the courses in the ITU catalogue.
- Modularization of certain courses in order to obtain credits for industry certifications was indicated as potentially increasing the attractiveness of ITU courses.
- Cooperation: another key point reflected throughout the responses was to further strengthen collaboration among the CoEs (e.g. in the form of joint courses).
- Quality assurance: several centres emphasized the importance of amplifying the monitoring and evaluation of the programme.
- Data analysis: more in-depth analysis of participants feedback and performance was recommended along with sharing the findings with the CoEs.

# 4. Strategic review of the Centres of Excellence programme and transition to the ITU Academy Training Centres programme

While the ITU CoE programme was launched in 2001, Resolution 73 on the CoE programme was introduced almost 10 years later, at WTDC-10. At that time, Member States requested the BDT Director, among other things, to carry out an analysis of the programme and develop a plan of action to improve it. A strategic review of the programme was carried out in 2012 and proposed a new approach, which was applied starting with the CoE cycle 2015-2018.

After the 2015-2018 cycle, a performance evaluation was carried out by the ITU Secretariat. As a result, several new features were introduced with the 2019-2022 cycle including a complete review of the operational processes and procedures of the programme.

In 2017, WTDC revised and expanded Resolution 73. The revised Resolution resolved 'that the activity of ITU centres of excellence should be continued and executed in accordance with the centres of excellence strategy,' and instructed the Director, BDT, 'to carry out a major strategic review of the ITU Centres of Excellence programme after the termination of the [next implementation] cycle.'

Therefore, a major strategic review of the CoE programme was undertaken by the Secretariat in 2021, with the help of an external expert. The review took into consideration the experiences of ITU staff responsible for managing and implementing the programme over the past two cycles, the views of CoE focal points who were participating in the programme at that time, as well as the feedback received through surveys on ITU's work on capacity development from Member States and CoEs in 2020. The work was specifically concerned with reviewing the CoE programme from a strategic perspective and with developing an appropriate framework for an improved programme in future. The aim of the review was to develop concrete proposals and recommendations for strategic modifications to the programme going forward.

The report[2] that resulted from the strategic review, addressed several observations on the current CoE programme, such as:

- the 4-year cycle of the programme makes it less agile and flexible;
- the number of Centres is too large to manage it effectively and ensure quality training;
- the selection process does not attract high-quality institutions;
- while some CoEs do very well, others struggle to deliver training courses or attract participants;
- the current business model (cost sharing between ITU and CoEs) is administratively burdensome;
- the annual planning of course catalogues through regional Steering Committee meetings is not effective (most courses and dates are changed during the year); and
- the current programme is not integrated well into the overall ITU-D capacity development work.

A SWOT analysis of the CoE programme was included in the report (see table below).

**Table 2: Summary of strengths, weaknesses, opportunities and threats**

| STRENGTHS | WEAKNESSES | OPPORTUNITIES | THREATS |
|---|---|---|---|
| The programme has delivered a considerable volume of capacity development to a good standard of training to a substantial number of participants. | Lack of interest from high-quality training providers to join the programme and anticipated difficulty in retaining those who currently participate. | The opportunity to integrate the Centres programme more closely with ITU/BDT priorities, responsibilities and expertise. | The risk that the programme will be unable to attract or retain high-quality providers with relevant experience in priority areas. |
| It is valued by Member-States, the majority of Centres and receives positive feedback from the large majority of participants. | Variable standard of performance by Centres, with poor standards in some, compounded by inadequate quality assurance and difficulty in removing poor performers. | The opportunity to focus the programme more effectively through needs assessment. | The risk that it will be unable to compete on price or quality with alternative providers of equivalent training. |
| Strong partnership with a number of established and experienced Centres within the overall programme. | Inflexibility in programming arising from the rigidity of the four-year cycle for both themes and Centres, compounded by the lack of needs assessment. | The opportunity to improve standards in the programme through more rigorous selection of Centres and better quality assurance. | Loss of interest in participation from target groups arising from the above. |
| Strong commitment to the programme of its management team in BDT, which is highly regarded by Centres. | Difficulty in offering Centres sufficient value in return for participation. | The opportunity to diversify training and improve quality through a shift to online delivery, with advantage to both ITU Academy and Centres brands. | Loss of support for the programme from Member-States. |
| Support from BDT thematic priority leads and regional offices in helping to match global and regional requirements. | High cancellation rates and low registration rates for some courses, arising from mismatch between supply and demand, poor marketing and low engagement by Centres. | The opportunity to extend the reach of the programme to a larger number of participants through better marketing of courses, and to reach a wider range of potential participants, including those beyond the ICT sector. | Risk of failure to provide adequate resources for programme management, including needs assessment and quality assurance. |
| Growing understanding of capacity development needs in ITU which can help to guide the trajectory of a new programme. | Varying levels and limited targeting of marketing of courses, leading to limited take-up of courses in some cases | The opportunity to build networking and partnership amongst Centres, which would improve the quality of training and add value to their wider work. | Risk that complex timetabling of decisions around WTDC will pose additional difficulties for transition to a more successful programme. |
| The ability of the programme to offer training in specialised topics at advanced level. | Overcomplicated and unsatisfactory business model which lowers value to Centres and absorbs administrative time. | The opportunity to engage additional support for the programme from Programme Partners (international organisations and businesses). | |

**Source**: Report on the Strategic Review of the ITU Centres of Excellence programme (2022).

Based on the evaluation and in-depth analysis of the current of the current programme, the report provided several recommendations for the way forward:

<u>Rebranding and relaunching:</u>

- The CoE programme should be rebranded and relaunched from 2023.
- It should be more strongly associated with the ITU Academy and operate under its umbrella.
- The new programme should be named ITU Academy Training Centres.

[2] The final report is available here: https://academy.itu.int/sites/default/files/media2/file/ITU%20CENTRES%20OF%20EXCELLENCE%20PROGRAMME_STRATEGIC%20REVIEW%202021%20AND%20RECOMMENDATIONS.pdf

Objectives and strategy:

- The relaunched programme should have clear objectives, aligned with those of ITU/BDT, and a clear strategy for delivering these into the future.
- The programme should have a clear, brief, defining mission statement which encapsulates its purpose.
- The programme should have a clear strategy for achieving its objectives within the overall programme of work of the ITU. Its Centres should become training delivery partners for ITU and BDT priorities and programmes. It should focus on issues:
    - that are high priorities for Member-States, particularly those with limited resources for capacity development;
    - in which the ITU has special responsibilities or expertise; and
    - in which there is a limited supply of equivalent high-quality training available from alternative providers at a cost affordable to (all) Members.

Schedule:

- The programme should be continuous, rather than tied to the WTDC cycle.
- The 4-year cycles of the current programme should therefore be discontinued.
- Scheduling of the course portfolio should also be continuous, rather than tied to annual catalogues issued at a single point in time.

Needs assessment:

- The programme should be guided by a needs assessment overview. This should reflect global, regional and sub-regional needs and priorities.
- An initial overview assessment should be undertaken in early 2022 and annual overviews of needs should be included in annual programme reviews.

Training programme and target audience:

- Course delivery should be primarily online, conducted through the ITU Academy, but face-to-face courses could be delivered where these are more appropriate.
- The programme should require Centres to have experience and high standards in online training as a requirement of inclusion.
- The programme should continue to deliver (primarily) short courses.
- The programme should be structured globally, while continuing to respond to regional differences in priorities and training needs. Centres should be chosen on a global basis while maintaining regional balance.
- The programme should continue to focus on middle-ranking personnel, and on personnel from government and regulatory agencies, but be more open to wider audiences.
- Courses should be made available through a rolling portfolio rather than an annual catalogue. Scheduling of course portfolio should be continuous (no annual catalogues).

Priority areas:

- The programme should focus on no more than six broad priority areas at any time, associated with ITU/BDT strengths, responsibilities and priorities, with the expectation that most or all of these will remain within the programme for the next three years.
- The programme should retain identified priority areas but focus these more clearly on areas of high demand that are consistent with the thematic priorities of ITU/BDT.

- Individual Centres should focus on one, two or (exceptionally) three of these, in which they have appropriate high levels of expertise.
- One or at most two priority areas might focus more narrowly on priorities that are explicitly regional or relevant to particular types of country (such as SIDS).

Selection of Centres, quality assurance and performance evaluation:

- The ITU should actively encourage high-quality institutions to apply for Centre status.
- There should be fewer Centres, each offering a more focused programme of activities that attracts more participants. There should be no more than 16 Centres at any time, with more rigorous selection, time-limited cooperation agreements, rigorous performance evaluation.
- New Centres should be allowed to apply and be included at any time up to that maximum.
- BDT should select up to twelve Centres for inclusion in the programme from its inception in 2023. Cooperation agreements should be signed for an initial 3-year period, which may be renewed subject to good performance and continued relevance to priorities.
- Performance should be reviewed annually with poor performing Centres liable to removal from the programme. Additional Centres may express interest in joining the programme and be added to the programme at any time, but the total number of Centres should not exceed sixteen.
- Quality assurance measures should be core to the programme. High standards should be required throughout the new programme in order to build its brand and protect the ITU's reputation.
- BDT thematic priority leads should continue to review course content. Course delivery should be assessed in greater depth. Participant certificates require rigorous course assessment. Revised (quantitative and qualitative) KPIs will be required. Poor performing Centres should be terminated following annual reviews.

Business model:

- Centres may charge fees on a cost-recovery basis. Courses should continue to be funded through a variety of mechanisms, including fees, sponsorship and support from governments or intergovernmental agencies. Centres should be able to recover costs, including overheads on programme activities, through this variety of mechanisms.
- ITU should no longer collect fees on behalf of Centres. Revenue-sharing arrangements associated with fee collection should be ended.

Governance:

- The new programme should encourage global, thematic and regional networking amongst Centres.
- ITU/BDT thematic priority leads and regional offices should continue to play an important part in programme development and implementation.
- An annual global meeting should become the principal focus for dialogue concerning the work of the Centres within the new programme. This should take the place of regional steering committees.

A draft report of the strategic review of the CoE programme and its main recommendations was shared with the ITU membership in February 2022, followed by a consultation meeting to present the recommendations and respond to questions from the Membership. Furthermore, the ITU

Membership was invited to submit written comments on the draft report. A final version of the report, incorporating the comments made during the information session as well as the written comments received was circulated to the ITU Membership in March 2022. The report provided the basis for revisions made by Member States to Resolution 73 at WTDC-22 (Kigali).

At WTCD-22, the revised Resolution 73 was adopted, including (among others):

- The rebranding of the programme to ITU Academy Training Centres (ATCs) (and renaming Resolution 73 accordingly).
- A request to the BDT Director to implement the results of the strategic review, with new ATC programme to be launched in 2023.
- A request to change the operational procedures document of the programme in line with the results of the strategic review.

Following the adoption of the revised Resolution, the ITU Secretariat started to prepare the transitioning from the CoE to the ATC programme. The Operational Guidelines[3] of the new programme were developed, according to the recommendations contained in the Strategic Review report, and the application process of the ATC programme was launched in November 2022. As a result, over 50 institutions from 35 countries applied to the new programme, of which 14 institutions were selected to start work under the new ITU Academy Training Centres programme in 2023.

[3] The Operational Guidelines are available here: https://academy.itu.int/sites/default/files/media2/file/ITU_ATC_Operational_Guidelines_Nov2022%20%281%29%20%281%29.pdf

# Annex 1: Centres of Excellence feedback survey questionnaire

## Part 1: About your organization

| | |
|---|---|
| 1. | Official name of institution: |
| 2. | Region: |
| 3. | Country: |
| 4. | Category of institution<br>☐ Ministry<br>☐ Private sector company<br>☐ Research institution<br>☐ Academic institution<br>☐ Other institution dealing with ICT<br>☐ Other training institution |
| 5. | Please specify the priority area(s) for your CoE for the cycle 2019-2022<br>☐ Wireless and fixed broadband<br>☐ Digital broadcasting<br>☐ Conformance and interoperability<br>☐ Spectrum management<br>☐ Cybersecurity<br>☐ ICT applications<br>☐ ICTs and the environment<br>☐ Internet governance<br>☐ Digital inclusion<br>☐ Smart cities and communities<br>☐ Internet of Things<br>☐ Innovation and entrepreneurship<br>☐ Digital economy<br>☐ Big data and statistics |

## Part 2: Overall experience

| 6.How would you rate your experience as a Centre of Excellence during the cycle 2019-2022? |
|---|
| ☐ poor<br>☐ fair<br>☐ good<br>☐ very good |

| |
|---|
| ☐ excellent |
| 7.What did you value most as a Centre of Excellence?<br><br>Please rank the answer options with 1 being the highest |
| ☐ Cooperation with ITU<br>☐ Better brand image<br>☐ Access to new markets<br>☐ Access to ITU curriculum<br>☐ Network of cooperation<br>☐ Other: _____ |
| 8. What have been your biggest challenges in delivering training as a Centre of Excellence? |
| |
| 9. Do you have any other comments concerning the overall experience? |
| |

## Part 3: ITU Academy

| |
|---|
| 10. How do you evaluate the user experience with the ITU Academy platform? |
| ☐ poor<br>☐ fair<br>☐ good<br>☐ very good<br>☐ excellent |
| 11. What improvements would you recommend ITU to make on the ITU Academy platform? |
| |
| 12. Which feature of the platform did you like most?<br>Please rank the answer options with 1 being the highest |
| ☐ Cost, registration, enrolment<br>☐ Catalogue of training<br>☐ Create an account<br>☐ Tutor rights<br>☐ Payment options |

| |
|---|
| ☐ Training reports<br>☐ FAQ<br>☐ Other: _____ |
| 13. Do you have any other comments concerning ITU Academy? |
| |

## Part 4: Online training delivery

| |
|---|
| 14. Did you provide online courses before the Covid-19 pandemic? |
| ☐ Yes<br>☐ No |
| 15. If no, what was the biggest challenge for you in adapting your training courses to be 100% online? |
| |
| 16. How would you rate your experience with the support provided from ITU staff in the transition from face-to-face to online trainings? |
| ☐ poor<br>☐ fair<br>☐ good<br>☐ very good<br>☐ excellent |
| 17. How could ITU staff improve the support of the delivery of online trainings? (Tutorial webinars, documentation, availability of ITU staff) |
| |
| 18. Which online training tools do you consider as most beneficial for your trainees?<br>Please rank them with 1 being the highest |
| ☐ Videoconference (e.g., Zoom)<br>☐ Pre-recorded videos<br>☐ Assignments<br>☐ Reading tasks<br>☐ Quiz |

| |
|---|
| ☐ Forums |
| 19. How do you foresee the future of face-to-face courses? |
| |
| 20. How has online training affected the quality of education and what should be done to raise the standards of online training? |
| |
| 21. What benefits do you see in online training? |
| |
| 22. Do you have any other comments concerning training delivery? |
| |

## Part 5: Resources

| |
|---|
| 23. How did you finance CoE activities?<br>Please indicate the approximate percentage for each response category of the total budget spent on CoE activities for the 4-year period.<br><br>Please enter only numbers without the percent sign. Please note that the answers need to add up to 100. |
| ☐ Institutional budget ----%<br>☐ Training fees ---%<br>☐ Financial contributions from partners ---%<br>☐ Government donations----%<br>☐ Other: _____ |
| 24. If your previous answer included “other” please specify |
| |
| 25. How did you use the training fees?<br>Please indicate the approximate percentage for each response category of the total of training fees spent for the 4-year period. |

Please enter only numbers without the percent sign. Please note that the answers need to add up to 100.

Development of content ----%

- Hiring of instructors---%
- Training delivery expenses related to logistics (face to face) ---%
- Promotional material ----%
- Other: _____

26. If your previous answer included “other” please specify

27.Which challenges did you encounter concerning the financing of CoE activities?

28.Do you have any other comments concerning resources?

## Part 6: Other

29. Do you have any other comments?

## Annex 2: List of CoEs (2019 – 2022)

| Africa Region | Country | Priority Area |
|---|---|---|
| Digital Bridge Institute (DBI) | Nigeria | Cybersecurity and Innovation & Entrepreneurship |
| Ecole Supérieure Multinationale des Télécommunications (ESMT) | Senegal | Digital Broadcasting, Spectrum Management and Digital Economy |
| Ecole Supérieure Africaine des Technologies de l'Information et de la Communication (ESATIC) | Ivory Coast | Cybersecurity, Wireless & Fixed Broadband and Internet of Things |
| African Advanced Level Telecommunications Institute (AFRALTI) | Kenya | Spectrum Management and Digital Broadcasting |
| Ecole Nationale Supérieure des Postes, des Télécommunications et des TIC (SUP'PTIC) | Cameroon | Digital Economy, Innovation & Entrepreneurship and Wireless & Fixed Broadband |
| National Computer Board (NCB) | Mauritius | Cybersecurity |

| Americas Region | Country | Priority Area(s) |
|---|---|---|
| Instituto Nacional de Investigación y Capacitación de Telecomunicaciones - Universidad Nacional de Ingeniería (INICTEL UNI) | Perú | Cybersecurity |
| Instituto Nacional de Telecomunicações (INATEL) | Brazil | Digital Broadcasting and Wireless & Fixed Broadband |
| Administración Nacional de Telecomunicaciones (ANTEL) | Uruguay | Wireless & Fixed Broadband and Innovation & Entrepreneurship |
| Universidad Técnica Particular de Loja (UTPL) | Ecuador | Smart Cities & Communities |
| Universidad Blas Pascal (UBP) | Argentina | Innovation & Entrepreneurship, Internet of Things and Smart Cities & Communities |

| Arab Region | Country | Priority Area(s) |
|---|---|---|
| Smart Tunisian Technopark (S2T) | Tunisia | ICTs & the Environment |
| Sudatel Telecommunications Academy (SUDACAD) | Sudan | ICT Applications and Wireless & Fixed Broadband |
| Naif Arab University for Security Sciences (NAUSS) | Saudi Arabia | Cybersecurity and Internet of Things |
| Centre International des Technologies de l'Environnement de Tunis (CITET) | Tunisia | ICTs & the Environment |

| Asia-Pacific Region | Country | Priority Area(s) |
|---|---|---|
| National Information Society Agency (NIA) | Rep. of Korea | ICT applications |
| Advanced Level Telecom Training Centre (ALTTC) | India | Wireless & Fixed Broadband, Internet of Things and Cybersecurity |
| China Academy of Information and Communications Technology (CAICT) | China | Conformance & Interoperability and ICT Applications |
| State Radio Monitoring Center (SRMC) | China | Spectrum Management |
| Wireless Communication Centre, Universiti Teknologi Malaysia (UTM) | Malaysia | Wireless & Fixed Broadband |
| IoT Academy | Iran | Internet of Things |

| CIS-Region | Country | Priority Area(s) |
|---|---|---|
| Academy of Digital Innovations (IET/KSTU) | Kyrgyz Republic | Cybersecurity and Digital inclusion |
| Belarusian State Academy of Communications (BSAT) | Belarus | Wireless & Fixed Broadband and Cybersecurity |

| Europe Region | Country | Priority Area(s) |
|---|---|---|
| Faculty of Electrical Engineering and Information Technologies, Ss. Cyril and Methodius University in Skopje (FEEIT) | Republic of North Macedonia | Wireless & Fixed Broadband |
| National Institute of Telecommunications (NIT) | Poland | Internet Governance and Wireless & Fixed Broadband |
| NRD Cyber Security | Lithuania | Cybersecurity |
| The Abdus Salam International Centre for Theoretical Physics (ICTP) | Italy | Internet of Things and Big Data and Statistics |
| Institute for Security and Safety (ISS) at the Brandenburg University of Applied Sciences | Germany | Cybersecurity |