



Telecommunication
Development Bureau (BDT)



Ref.: Circular BDT/DKH/CSD/115

Geneva, 9 February 2022

- Administrations of ITU Member States
- ITU-D Sector Members
- Academia
- Resolution 99 (Rev. Dubai, 2018)

Subject: Report on the strategic review of the ITU Centres of Excellence programme and information session

Dear Sir/Madam,

I am pleased to share with you the report on the strategic review of the International Telecommunication Union (ITU)'s Centres of Excellence (CoE) programme (Annex 1).

The World Telecommunication Development Conference (WTDC) Resolution 73 (Rev. Buenos Aires, 2017) instructs the Director of the Telecommunication Development Bureau (BDT), among others, to carry out a major strategic review of the CoE programme after the termination of the current cycle (2018-2022). Updates on the CoE programme were provided to TDAG 2021 in Annex 2 of Document TDAG-21/2-E. The report may assist Member States in revising Resolution 73, in preparation for WTDC 22.

The attached report was prepared by the Secretariat with the support of an external expert. It takes 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 currently participating in the programme, as well as the feedback received through surveys on ITU's work on capacity development from Member States and CoEs in 2020.

A virtual information session presenting the main recommendations of the report and providing an opportunity for questions and answers will be organized on 23 February 2022, from 12h30 – 13h30 CET. Delegates wishing to attend the information session should [register here](#).

You are invited to send written comments on the report to hcbmail@itu.int by 2 March 2022.

For further information, I invite you to contact the BDT's Capacity and Digital Skills Development Division at hcbmail@itu.int.

I look forward to your continued support to this important programme.

Yours faithfully,

[Original signed]

Doreen Bogdan-Martin
Director

Annex 1

ITU CENTRES OF EXCELLENCE PROGRAMME: STRATEGIC REVIEW 2021 AND RECOMMENDATIONS

CHAPTER 1 - INTRODUCTION

This report reviews the work of the ITU Development Sector's Centres of Excellence programme (CoE programme) during the period since 2015 and presents options/recommendations for its future. It has been prepared by the ITU Secretariat, with assistance from an external expert, in line with Resolution 73 (REV. BUENOS AIRES, 2017) of the World Telecommunication Development Conference (WTDC).

The report is structured as follows:

- Chapter 1 briefly summarises the history of the CoE programme and the objectives and methodology of this review.
- Chapter 2 reviews implementation, from 2015 to 2021, against the programme's objectives and aspirations, reports on the programme's strengths and weaknesses (including views of stakeholders), and identifies opportunities and threats associated with its work.
- Chapter 3 presents recommendations for the development and implementation of a new Centres programme from the beginning of 2023.

The history of the Centres of Excellence programme

The Centres of Excellence programme was first established in 2000/2001, with the aim of strengthening capacity-building in telecommunications/ICTs, initially in Africa and subsequently also in other emerging and developing market regions.

The programme's initial purpose was to build the capacity of two training centres in Africa – AFRALTI in Nairobi, Kenya and ESMT in Dakar, Senegal – to enable them to offer 'excellence' in training within their regions. Experience with these led to demand in other regions, and by the end of its first phase in 2006 the programme had expanded to include a further 25 Centres in four of the ITU's five other regions, the majority of these in the Americas. By 2009, halfway through the second phase, there were more than 60 Centres which together, that year, offered more than 80 courses and trained more than 2000 individuals, though the number of activities per Centre was (in consequence) significantly less than previously envisaged.

In its Resolution 73 (REV. HYDERABAD, 2010) WTDC resolved to continue the programme into ITU-D's next cycle, but to review its performance and objectives in the light of experience, changing technology and reduced funding. A first strategic review of the programme, undertaken in 2012, recommended substantial changes in the structure of the programme, including more careful selection of fewer Centres, a narrower focus on priority areas approved by WTDC, and improved quality assurance. These recommendations sought to make the programme more responsive to new and changing capacity development challenges that were emerging in the rapidly changing digital environment.

A revised structure for the programme, which implemented many of these recommendations, was introduced in 2014 and has since applied through two WTDC cycles (2015-2018 and 2019-2022). The resulting programme is described in Chapter 2.

In 2017, WTDC revised and expanded Resolution 73. This 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.'

Some adjustments were made to the strategy following a performance evaluation of the 2015-2018 cycle (see Chapter 2). In the current cycle (2019-2022), 31 Centres of Excellence were initially selected across the ITU's six regions (though only 27 of these are now operational). In the first three and a half years of this

cycle, these Centres delivered 232 courses – an average of 77 per year – significantly higher than the average of 45 courses per year achieved during the previous cycle.

Year	registered	trained	certified
2019	2279	Not measured	1594
2020	4147	Not measured	2958
2021	5472	2722	2276

During 2020 and 2021, implementation has been substantially affected by the COVID-19 pandemic, as a result of which only online courses have been approved and delivered since March 2020.

The ITU has continued to review its overall approach to capacity development, which encompasses the CoE programme. The ITU-D operational plan for 2020-2023 notes the desirability of partnerships that draw together academics, professional experts and other stakeholders. A feasibility study for a possible ITU training institute was undertaken by consultants in 2020/2021.

Objectives and methodology

While these wider capacity development initiatives have been taken into account, the present review is concerned specifically with reviewing the Centres of Excellence programme from a strategic perspective and with developing an appropriate framework for an improved programme in future. This represents the strategic review of the programme requested by WTDC in Resolution 73 (REV. BUENOS AIRES, 2017).

The objective for this report is to review and analyse the following aspects of the programme, with the aim of developing concrete proposals for strategic modifications to the programme going forward:

- o *Number of CoEs worldwide*
- o *Target audiences and training topics*
- o *Host entities for an ITU CoE (type of institutions, preconditions)*
- o *Quality assurance of content and course delivery*
- o *Duration/term of a CoE and exit criteria*
- o *Selection process*
- o *Branding of the programme*
- o *Business model*
- o *Governance model*
- o *Communication and marketing model*
- o *Link with ITU's Action Plans/work across the three bureaux*
- o *Resource requirements*
- o *Implications for Resolution 73*

This report draws on a variety of sources, both written and oral, including:

- studies of ICT capacity development, including reviews undertaken by and for the ITU;
- ITU reports, evaluations and other resources relating to the programme;
- reports and other information submitted by Centres of Excellence and other programme stakeholders; and
- aggregate responses to surveys undertaken as part of a recent overall review of ITU capacity development and training activities.

CHAPTER 2 – THE CURRENT PROGRAMME

This chapter describes the current CoE programme in principle and practice, summarises its strengths and weaknesses as perceived by stakeholders, and sets out the opportunities and threats that affect options for the programme's future.

It should be remembered, when considering the programme, that the Centres of Excellence do not stand alone. ITU and its Bureaux deliver a wide range of capacity development and training activities across their mandates, including conferences, courses and publications, often in partnership with other institutions. These in turn are part of a much wider ICT capacity development ecosystem that includes activities of international organisations and national governments, universities and training centres, and the private sector.

BDT's thematic priority on capacity development is concerned with the development and delivery of specialised training programmes and capacity development workshops for ICT professionals, within the ITU's thematic priorities, and with more general development of knowledge resources and training for digital inclusion.

The CoE programme is a core component of BDT activities to deliver capacity development for ICT professionals, and the Centres themselves are among the principal training delivery partners of the BDT. They operate within and alongside the ITU Academy, which is the main online gateway to ITU's capacity development activities and provides an information resource on training courses and knowledge resources as well as a fully-fledged e-learning platform for the delivery of online training.

As noted above, many organisations beyond the ITU provide training and capacity development in telecommunications and ICTs on commercial and non-commercial terms. Training providers in this wider ecosystem both complement and compete with CoEs: indeed, the institutions that hold CoE status are themselves part of this ecosystem, undertaking far more courses and activities outside the ITU than they do within the programme. The range of activities undertaken in this ecosystem is expanding, particularly where online training is concerned (and especially since the start of the pandemic). Some of this training is of high or very high quality. Some is poor but can still attract potential users where it is inexpensive.

The CoE programme needs to locate itself within this wider ecosystem. WTDC Resolution 73 recognises that 'partnerships and cooperation between ITU centres of excellence and with other education centres contribute to effective training of specialists.' ITU and UNDP are collaborating to assess digital capacity requirements and map existing capacity development initiatives in support of the UN Secretary-General's *Roadmap for Digital Cooperation*.

The current programme's structure and operational modalities

By the time of the 2012 strategic review, the CoE programme had delivered over 950 activities with some 30,000 participants. The review was, however, critical of a number of aspects of the programme as it stood. The number of Centres had proliferated without the application of rigorous selection criteria to validate their 'excellence'. As a result, the review suggested, 'ITU has effectively lost control of the use of its brand/name by Centres, which poses a significant element of reputational risk.' ITU members nevertheless valued the programme and wished it to continue with improvements to its structure and operations. Changes were also required because the original financial basis for the programme, TELECOM Surplus Funds, was no longer available.

The new strategy that was applied from the programme cycle 2015-2018 implemented a number of significant changes to its operation and management. In particular:

- A competitive application and selection process was introduced, with each Centre being selected for a four-year period aligned with the cycle of WTDC meetings.

- The number of Centres was limited to a maximum of six in each ITU region. In practice, six Centres were initially selected in four regions (AFR, AMS, ARB and ASP), with fewer selected in the remaining two (EUR, CIS).
- Selection was to be associated with selected priority areas relevant to ITU expertise and needs. These were to be agreed by WTDC ahead of four-year implementation cycles, with individual Centres selected for their expertise in, and expected to focus on, one or at most two of them.
- Centres of Excellence were to be financially self-sustaining through course fees, sponsorship or a mix of both. Fees were to be collected by BDT and then redistributed with a revenue-sharing element between ITU and the Centres.
- Additional measures were introduced to monitor, assess and improve quality of performance by individual Centres and the programme overall.

Some refinements to implementation were made following the revision of Resolution 73 in 2017 and a performance evaluation of the first three years of operation of the revised strategy, which was carried out by the ITU Secretariat in 2018. As a result, several new features were introduced in the 2019-2022 cycle, including:

- a comprehensive review of operational processes and procedures;
- more flexibility on the topics chosen as priority areas;
- more flexibility on tuition fees (including the option to offer free courses);
- an exit clause for non-performing CoEs;
- refocusing of regional steering committees on the performance and operations of CoEs; and
- more rigorous monitoring of CoE activities and training materials.

A separate Resolution establishing an advisory Group on Capacity Building Initiatives (GCBI) (Resolution 40) stressed the need for BDT to 'systematize its numerous human skills development and capacity-building activities, treating them in a holistic, coordinated, integrated and transparent manner to meet the overall strategic objectives' of ITU-D 'and make the most efficient use of resources.'

A comprehensive revision of the manual of *Operational Processes and Procedures for the ITU CoE Network* was undertaken in 2018, to reflect the new features described above and to provide the basis for implementation in the current cycle (2019-2022).

In addition to these changes, BDT took action in a number of other areas that affected the CoE programme:

- In 2019, the ITU Academy platform and its e-learning functionalities underwent a comprehensive review and redesign. The new platform has been made more user-friendly and includes many new features to enhance online training delivery. This e-learning platform is at the full disposal of the CoEs and use of online training surged during 2020, following the start of the COVID-19 pandemic. BDT also enhanced the support provided to CoEs in their use of the ITU Academy platform, for instance by delivering online tutorials.
- The new results-based-management (RBM) approach that was introduced in BDT in 2019/20 facilitated and strengthened collaboration between the Thematic Priority (TP) on Capacity Development and other Thematic Priorities.
- In 2020, a new quality assurance process on BDT training content was developed and introduced, in line with the new RBM/Theory of Change and TP approach. This defines in detail the process for the development of BDT training content with the objective of strengthening its quality, including the training content offered under the CoE programme.

The programme in principle and practice

This section summarises the current programme and considers aspects of it in *principle* (as set out in the manual of *Operational Processes and Procedures* and subsequently managed) and *practice* (its measurable outcomes).

Governance

The current programme is managed by a team within the Capacity and Skills Development Division in BDT. This team's work with CoEs is supported by ITU personnel in regional offices, who act as focal points for programme activities, and by a network of CoE steering committees, one in each ITU region.

These steering committees include ITU HQ and regional representatives and the Centres themselves, as well as some representatives of governments and in some cases GCBI members. They were originally expected also to include representatives of governments hosting CoEs and selected experts from within the sector, but this wider participation has not materialised in practice. Each regional steering committee has met once or twice each year since the beginning of the present cycle, to agree a training plan built around course proposals made by Centres, determine fees and agree revenue-sharing arrangements, and address other issues raised by ITU or Centres.

Since 2020, course proposals have also been subject to review, before discussion at steering committee meetings, by thematic priority leads within ITU-D, who seek to ensure that they meet ITU goals and standards.

Priority areas

A number of priority areas have been selected for each four-year cycle based on WTDC outcome documents. Ten themes were selected for the 2015-2018 period, when Centres were restricted to one or two themes each. This restriction was criticised by some Centres because it prevented them from leveraging value from Centre status, offering a wider range of courses and addressing emerging issues.

A larger number of themes was offered for the 2019-2022 cycle, with greater regional variation, and Centres have been allowed to seek selection for up to three of these. Some flexibility has also been introduced to include courses that focus on additional topics in response to unanticipated demand in some regions. In the event, fourteen themes were taken up by different Centres.

Table 1 identifies the priority areas chosen by CoEs in the previous and current cycles:

Table 1: Priority areas for CoE programme, 2015-2022

(* indicates number of Centres per theme; some Centres offer courses on more than one theme)

2015-2018	2019-2022
Broadband access *****	Wireless and fixed broadband *****
Policy and regulation *****	Digital broadcasting ***
Digital broadcasting ***	Conformance and interoperability *
Conformance and interoperability ***	Spectrum management ***
Spectrum management *****	Cybersecurity *****
Cybersecurity *****	ICT applications ***
ICT applications and services *****	ICTs and the environment *
ICT & climate change mitigation & adaptation *	Internet governance *
Capacity building in Internet governance **	Digital inclusion *

Annex 1

e-Waste **	Smart cities and communities **
	Internet of Things *****
	Innovation and entrepreneurship ****
	Digital economy **
	Big data and statistics *

Selection of Centres

Prior to 2014 there were no standard criteria for the selection of Centres. Potential Centres were recommended to the BDT, often by Member-States, and in almost all cases these Centres were approved. This resulted in an unmanageably large number of Centres undertaking very few activities per Centre, with little quality assessment.

A competitive application process was introduced in 2014 in order to reduce the number of Centres to a more manageable level, improve the standard of Centre performance, facilitate the pursuit of 'excellence', and increase the value of CoE status to approved Centres by enabling each to offer more courses within the programme.

This competitive process was undertaken for each four-year programme cycle. Applications for Centre status in the current programme have been invited ahead of each cycle from appropriately qualified institutions, which can be international or national, public or private, academic or professional in character. Applicant institutions must identify the priority area(s) for which they wish to be considered, and must be endorsed by their host governments.

Applications at the start of the 2019-2022 cycle were evaluated by ITU Headquarters in consultation with Regional Offices, using a scoring process that was concerned with:

- a) *Expertise, recognition and competence in priority areas:*
 - *Familiarity with selected priority areas*
 - *Trained staff with expertise in priority areas*
 - *International recognition in the priority areas*
 - *Facilities related to priority areas*

- b) *Institutional quality and capacity to implement CoE activities:*
 - *Quality of training materials*
 - *Quality of delivery*
 - *Quality of instructors*
 - *Methods of delivery*
 - *Ability to work with international partners and agencies in the delivery of training*
 - *Experience of delivering training to international participants*
 - *Promotion of training activities (marketing and promotion plan, including digital marketing)*
 - *Financial and human resources available to implement CoE activities*
 - *Ability to collect and administer fees from national and international participants and to make international bank transfers*
 - *Sponsorships*

- *Ability to hire international experts*
- *Ability to conduct training activities outside the home country*

Based on these criteria, 31 Centres were selected from 64 applicants for Centre status.

Centres: geographical distribution

A maximum of six Centres has been selected within each region for each implementation cycle. In practice:

- 32 Centres were selected for the 2015-2018 round, of which 26 were operational.
- 31 Centres were originally selected for the 2019-2022 round. Of these, two withdrew before the cycle began, and a further two have withdrawn during the cycle.

Courses

In the current programme, each Centre offers a number of courses, approved by its regional steering committee, through an annual training catalogue. Additional courses may, exceptionally, be agreed during the course of the year. While courses may be developed specifically for delivery through CoEs, in practice the majority are established courses already delivered by the Centres outside the programme or rely heavily on materials from such established courses.

This reliance on established content is unsurprising as the scale of CoE activity is marginal to the overall level of activity within their parent institutions, and as the programme bars Centres from making profit on CoE activities, making cost recovery an administrative priority. The average number of courses actually delivered per Centre was two per year in the first three and a half years of the 2015-2018 cycle, a little over three during the first (pre-COVID) year of the present cycle and five in 2020-2021.

Courses in the current programme may be face-to-face, online or blended learning. The majority are of short duration, typically five days for face-to-face courses and four weeks for part-time online courses. Face-to-face courses tend to have fewer registered participants, perhaps because the costs of travel and accommodation deter both individuals and employers.

In the period before 2014, the majority of courses were held face-to-face except in the AMS region where all courses were online. The proportion of online courses in other regions increased during the 2015-2018 cycle, though these remained rare in the AFR and ARB regions and no online courses were delivered in the CIS region. The COVID-19 pandemic has meant that during the majority of 2020 and 2021 it has only been possible to hold courses online.

The transition from face-to-face to online activity has proved much easier in some regions and for some Centres than others. Some Centres have requested support from ITU in order to facilitate transition. ITU has responded by providing online tutorials and bilateral support.

A substantial proportion of courses approved at steering committee meetings has been cancelled each year, sometimes because of insufficient demand from potential participants, sometimes for financial or administrative convenience within Centres. The proportion of cancellations during 2019, the last year before the COVID-19 pandemic was just under 40 per cent of those planned, while that in 2020 and 2021 during the pandemic has been 54 per cent and 41 per cent respectively. There has also been extensive rescheduling of courses from the timetable proposed in annual catalogues. These cancellations and reschedulings are administratively wasteful in terms of ITU programme management and undermine the confidence of users in the programme.

There is significant variation in the quality of courses, in terms of content and training methodology, with some Centres performing to high standards while some have failed to match standards that are now available from alternative providers.

Participants

The majority of course participants in the current programme come from government and regulatory departments, and are from middle tiers within their organisations, whether technical, professional or managerial.

There is significant variation in the national origin of participants between regions in the current programme. In the first three and a half years of the 2015-2018 cycle, just over 60 per cent of participants came from countries other than that in which the Centre that offered the course was located. Not surprisingly, national and regional diversity is more common in online courses than in those held face-to-face. Centres in the EUR region attract a substantial proportion of participants from other countries, including a significant proportion from other regions. The AMS and ASP regions have seen relatively even splits between national and international participants during the 2015-2018 cycle, while the AFR, ARB and CIS regions have shown much less geographical diversity. In some Centres, a high proportion of participants comes from the domestic (national) markets of the countries in which they are located, which limits the opportunity for cross-cultural exchange and sharing of experience that had been anticipated.

Certificates of achievement are offered to participants in all CoE courses through the ITU Academy. The programme requires that these are based on assessments of trainees' actual performance, not of mere attendance.

Marketing

Marketing of courses in the current programme is primarily the responsibility of Centres, using their own advertising mechanisms, contact points and targets. Centres that have marketed courses more extensively and assiduously have generally been more successful in attracting larger numbers of participants.

Some marketing support is provided by the ITU. Each Centre's proposed training activities are uploaded to and advertised through the ITU Academy website and through monthly course campaign mailings to users who have opted to receive marketing emails. Information concerning CoE course offerings is distributed by ITU through an annual training catalogue that is sent to national ITU contact points and through monthly communication with all ITU Academy users (numbering around 20,000 at the end of 2021).

ITU has established a specific space on the ITU Academy platform for testimonials on CoE courses, included CoE course offerings in information shared during ITU events, and provided CoEs with speaking opportunities during such events where they can promote their offerings.

A number of factors, however, constrain the extent to which ITU can directly promote CoE activities.

- The ITU Academy is unfamiliar to many within the sector who might benefit from courses, particularly those within the private sector.
- The timing of the catalogue has proved a challenge. Course proposals are currently made by individual Centres and assessed by thematic priority leads in ITU/BDT (see below) before consideration by regional steering committees. They are often published late in the year, after HR departments have allocated training budgets. Efforts to secure earlier provision of course proposals have been unsuccessful.
- ITU sends the course catalogues to its national focal points, who are usually in government or regulatory departments. They are encouraged to distribute the catalogues to HR managers within their own organisations, as well as others in the sector such as private companies. (No evidence is available to assess whether this is done.)

Quality assurance

In the current programme, each CoE signs a Cooperation Agreement with ITU, in which it agrees to deliver 'training activities to a national and international customer base' in the priority areas for which it has been chosen.

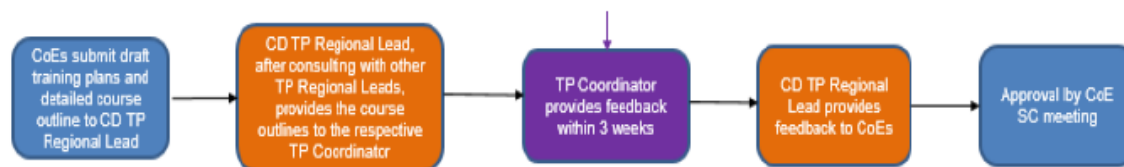
A framework of five Key Performance Indicators (KPIs) was established to enable regional steering committees to monitor and evaluate each Centre on an annual basis:

- a) number of training activities implemented by the CoE;
- b) number of participants per course;
- c) number of international participants per course;
- d) level of satisfaction of trainees as indicated through evaluation forms completed after training; and
- e) timely submission of reports on each training activity by CoEs to ITU.

These evaluation criteria are, with the exception of d) (participant evaluations), quantitative or procedural rather than qualitative. Participant feedback forms – which enable some assessment of qualitative indicator d) – are generally positive, but lack granularity and cannot be followed up in detail with current resources.

Since the end of 2020, course proposals have been subject to review, before discussion at steering committee meetings, by thematic priority leads within BDT, who seek to ensure that they meet ITU goals and standards. The process for approval is illustrated in Figure 1.

Figure 1: Course approval procedure



This process has helped to align CoE training course content more closely with other ITU work and to strengthen the link between the CoE programme and BDT’s operational activities. This has proved valuable in helping to ensure quality of content. BDT also envisages developing a means of assessing the quality of training delivery, for instance by assessing in more detail the experience of participants in selected courses.

It is clear that there is considerable variation in the performance of different Centres, in terms of the numbers of courses delivered (and those cancelled or rescheduled), the number of participants per course and the quality of course delivery. Poor performance can in principle lead to removal of CoE accreditation by the Director, BDT, but this has not happened in practice. Where it does occur, poor performance undermines the concept of ‘excellence’ embedded in the programme’s name.

Business model

The financial arrangements put in place for the current programme in 2014 expect Centre activities to be financially self-sustaining and achieve cost recovery through one or more of three main funding sources: training fees, financial contributions from partners, and donations from governments or other organisations. Where fees are charged, cooperation agreements between ITU and Centres suggest that these should cover ‘all costs and expenses arising from or relating to the implementation of the Activities,’ but do not specifically identify which costs and (particularly) overheads may be included.

Where fees are charged, ITU currently collects them on Centres’ behalf and then distributes them to Centres after taking a revenue share which is (normally) 20 per cent. This business model was introduced in 2014 in order to facilitate revenue-sharing and assist Centres that do not have mechanisms for online fee collection, but is administratively burdensome. Revenue-sharing is unpopular with some Centres, which struggle to achieve cost recovery for some courses.

An assessment of strengths and weakness, opportunities and threats

A variety of stakeholders was consulted during research for this report including the programme management team, other BDT divisions and regional focal points, Centres and members of the GCBI. All recognised that the current programme has substantial value but that adjustments would improve its ability to fulfil its potential. Some of the principal issues raised during discussions and interviews are included in the analysis above.

An assessment of strengths, weaknesses, opportunities and threats in respect of the current programme was undertaken for this review. The principal concern of this assessment was to identify ways in which a new programme to commence in 2023 could improve performance and add greater value to the ITU, Centres and participants. Table 2 summarises the key points raised in that assessment.

The recommendations in Chapter 3 build on this. The following general points should be noted in this context.

Centres recognise that BDT staff concerned with the programme are strongly committed to building a successful programme which delivers training to a high standard, and have a strong understanding of its strengths, weaknesses and potential for improvement. Effective staffing for the new programme will be crucial to enabling its success.

Discussions with Centres during the 2012 review of the earlier programme, as well as CoE responses to a survey carried out in 2020, identified four main values which they felt they gained from CoE status: identification with the ITU brand, which they believed enhanced their reputations; access to experts resourced through ITU; access to ITU events and activities; and the opportunity to network with other Centres.

The performance evaluation conducted towards the end of the 2015-2018 cycle found that 92% of Centres were positive and 59% very positive about their experience, for broadly similar reasons: cooperation with the ITU, brand value, access to markets, and the opportunity to network with other Centres. Areas of criticism included arrangements for marketing, and the limited potential value resulting from restriction to a single priority area of work. These views seem to have changed little since 2018, though additional opportunities and problems have arisen from the enforced transition to predominantly online course delivery.

Regional focal points have played an important part in overseeing the current programme and have a thorough knowledge of the current programme's strengths and weaknesses in their regions. Proposals in the next chapter suggest that the new programme should move towards a global rather than a regional structure for programme delivery but regional expertise will continue to be invaluable in programme design, needs assessment and evaluation of prospective Centres.

Thematic priority leads value the programme's potential to contribute to implementing ITU/BDT priorities. The new programme proposed in the next chapter responds to the opportunity for stronger integration between Centres and wider ITU thematic priorities, which should add value to programme stakeholders across the board.

Annex 1

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).	

Chapter 3: Analysis and recommendations

The Centres of Excellence programme has been running, with variations, since 2001. It has both strengths and weaknesses, which are described in Chapter 2. Among the former:

- It has delivered thousands of training opportunities to participants from the telecommunications/ICT community, building expertise in a wide range of aspects of telecommunications/ICT particularly among participants from governments and regulatory bodies.
- Its courses receive a generally positive response from their participants and are clearly valued by ITU members.

At the same time, however:

- The scope and scale of the programme have been insufficient to attract many potential Centres, particularly those with established global reputations, because of the limited added value that the current strategy affords them.
- High cancellation rates and, in some cases, low participation rates have undermined the programme's ability to deliver fully against ITU's/WTDC's expectations.

The COVID-19 pandemic of 2020/2021 has substantially affected delivery of the Centres programme during its current four-year cycle (2019-2022). In particular, it has required transition from programming that was, in most regions, predominantly face-to-face, to delivery that is almost exclusively online. That transition has proved easier in some regions and for some Centres than others, with more problems arising in regions with poorer and/or more expensive connectivity.

This strategic review of the programme recommends that it should be revitalised, refreshed and renamed, in the light of experience before and during the pandemic, to meet the fast-changing context of telecommunications/ICTs in the 2020s. Implementation of proposed changes will be the responsibility of BDT.

1. Relaunching the programme

Recommendation 1.1:

The programme should be relaunched, with a new name, from 2023. It should be more strongly associated with the ITU Academy and operate under its umbrella.

The Centres of Excellence programme has evolved substantially since it was established twenty years ago. Its current structure and approach need to adapt to suit the changing requirements of Member-States and Sector Members. The shift of emphasis towards online training that has occurred during the pandemic – which should be maintained – requires that the association between the programme and the ITU Academy be strengthened.

ITU should formally relaunch the Centres programme in January 2023, following completion of the current cycle, drawing a clear line between the current programme and its successor, which will improve the quality, delivery and responsiveness of activities in the evolving communications ecosystem.

The programme should be renamed in order to demonstrate this evolution and to clarify and build its new dynamic. Its new identity should be closely associated with the ITU Academy, which has become the principal access point and umbrella for ITU capacity development activity and is a brand well-known to Member States.

Recommendation 1.2:

The new programme should be named "ITU Academy Training Centres".

This relaunch will require amendments to Resolution 73, for adoption at WTDC in 2022.

2. Objectives

Recommendation 2.1:

The relaunched programme should have clear objectives, aligned with those of ITU/BDT, and a clear strategy for delivering these into the future.

Its overall purpose should be:

- to add value to the ITU and to its Members;
- to reinforce ITU goals and support ITU priorities; and
- to build on the ITU's strengths, responsibilities and capabilities

by delivering a high-quality programme of activities for Member States and Sector Members within the ITU's overall range of capacity development activities.

The programme should be more closely integrated with – and act as the capacity development arm for – ITU priorities and operational activities. A closer relationship between the programme, BDT thematic priorities, operational, project and other activities concerned with implementing these will help achieve this purpose. BDT colleagues responsible for thematic priorities and regional activities should therefore be involved in needs assessment, in the selection of priority areas (which should reflect those of ITU/BDT as a whole), and in the selection of Centres themselves.

Recommendation 2.2:

The programme should have a clear, brief, defining mission statement which encapsulates its purpose.

The review suggests that this could be as simple as:

The goal of the [name] programme is to develop the institutional and individual capacity of the ITU Membership.

The word 'excellence' in the current programme's name has caused confusion because it is unclear whether it represents an aspiration or a claim. The term 'centres of excellence' is also used, with a variety of meanings, by other UN and international agencies. Renaming and rebranding the programme will end this confusion and emphasise the new programme's distinctive new identity.

The programme should continue, through the selection of Centres and through a stronger focus on quality assurance, to aim for excellence in all aspects of capacity development, including high standards of course development, content, training methodologies, delivery and assessment (see 'Quality assurance' below).

3. Strategy

Recommendation 3.1:

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.

The programme should be integrated and, importantly, coordinated with the ITU's and BDT's overall mandate, programmes and thematic priorities, both globally and regionally. It should not support activities that do not fall within the mandate or thematic priorities.

Synergies should be developed between the programme and ITU/BDT's broader goals, enabling the Centres to become training delivery partners for the broader mandate, programmes and priorities. This will require more engagement with other parts of BDT in its development and oversight.

The programme should seek to maximise the value added to the ITU and its Members from available resources (ITU staffing and the capabilities of the selected Centres).

Recommendation 3.2:

It should therefore 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.

The proposals in this chapter set out a framework for achieving this. The review recommends that this should be developed during the first half of 2022, drawing on expertise across the BDT and wider ITU, pending revision of Resolution 73 (which called for a major strategic review) at WTDC (scheduled for June 2022) and introduction in January 2023. Discussions concerning its development should include:

- ITU staff concerned with the current programme and wider capacity development work;
- thematic priority leads; and
- regional offices (including regional focal points for the current programme).

It should include assessment of capacity development needs and priorities (see below).

4. Programme schedule

Recommendation 4.1:

The programme should be continuous, rather than tied to the WTDC cycle.

The current programme is scheduled on a four-year cycle coincident with that of WTDC. This cycle has included the selection of priority areas (which Resolution 73 requires WTDC to agree), and then of Centres to be selected to deliver training in those areas for the following four years.

In practice, this has proved insufficiently flexible to respond to the balance between supply and demand for training that has become evident during delivery, and to meet rapidly changing needs within the sector.

Within this four-year cycle, each Centre's activity has also been tied to annual schedules that have been agreed through regional steering committee meetings and made available through catalogues issued towards the end of prior years. This one-time annual scheduling has also proved unsatisfactory, with a high proportion of courses subsequently rescheduled by Centres. This is inconvenient to users and wasteful of resources.

The new programme should be continuous, rather than tied to the four-year cycle of WTDC. This will enable more flexible and responsive adoption of priority themes, responding to the needs assessment process described above, and allow more flexibility in the recruitment of appropriate Centres.

Recommendation 4.2:

Scheduling of the course portfolio should also be continuous, rather than tied to annual catalogues issued at a single point in time. An initial programme of agreed activities should, however, be available from the start of the new programme in January 2023.

Annual programming meetings should be replaced by continuing dialogue between Centres and BDT, enabling courses to be made available as and when appropriate. This will be easier with online than in-person courses, as the former continue to predominate within the programme. It should enable better matching of supply and demand, and reduce the incidence of cancellations and rescheduling.

The performance of the programme should continue to be assessed annually within BDT, through TDAG, and reported at quadrennial meetings of WTDC.

5. Needs assessment

Recommendation 5.1:

The programme as a whole should be guided by a needs assessment overview. This should reflect global, regional and sub-regional needs and priorities.

To maximise value in practice, the programme needs:

- to address issues and levels of capacity development that are important to Members and fall within the ITU/BDT mandate (this section); and
- to reach out effectively to participants who would benefit from access to the courses it delivers (see 'Marketing' below).

A comprehensive assessment of Members' overall capacity development requirements is beyond the scope and scale of this programme. Any comprehensive assessment should reach across all of its capacity development and related work, should consider different regional requirements, and would require frequent revision. That is a matter for BDT/ITU as a whole, not this review.

However, substantive needs assessment is required to align the work and potential of this programme more closely with Members' priority requirements, and thereby maximise value added by the programme. Without some form of needs assessment, the programme will be inefficient and fail to realise its full potential.

Recommendation 5.2:

An initial overview assessment should be undertaken in early 2022, and annual overviews of needs should be included in annual programme reviews.

An overview of needs specific to the scope and capabilities of the new Centres programme, and concerned with ITU priorities, should, however, form a central part of the dialogue, proposed in 'Strategy' above, between ITU staff concerned with the current programme and wider capacity development, thematic priority leads and regional focal points. Regional offices should consult with regional communications organisations as part of this process.

An initial overview along these lines should be undertaken through a request for input from these sources and subsequent discussion during the first four months of 2022, with the aim of identifying both:

- a) overarching priority themes for the programme for the ITU (see below); and
- b) more specific needs within those themes as these vary between and within different Member States and regions.

This should first guide decisions concerning the selection of priority areas and Centres during 2022; and then guide decisions concerning the courses offered by Centres within these overall priorities.

An annual request for input from and dialogue between these three groups (staff concerned with the current programme and wider capacity development, thematic priority leads and regional focal points) should refresh/adjust the second element (b) of this needs assessment, to ensure that the programme retains its focus on the needs of potential course participants.

6. Programme delivery and the ITU Academy

Recommendation 6.1:

The programme should become primarily online, conducted through the ITU Academy, but continue to deliver face-to-face courses where these are more appropriate.

During its first four-year cycle (2015-2018), the current programme, like its predecessors, has been delivered in most regions primarily through face-to-face activities. (The Americas region has, exceptionally, long delivered all activities online.)

The COVID-19 pandemic has accelerated movement, that was already underway, towards online training by all providers in the ICT sector. It has made it impossible for Centres to deliver face-to-face courses during the majority of 2020 and 2021, and ITU has encouraged online delivery of all courses since March 2020.

This transition to online training, including adaptation of course materials and training methods, has proved easier to achieve in some regions and for some Centres than others.

The ITU has taken the opportunity of the pandemic to strengthen the ITU Academy platform for online capacity development. Use of the platform is required for all online courses undertaken by Centres in the current programme. Centres are not permitted to use their own or other proprietary platforms as alternatives.

There are considerable advantages to online delivery in terms of the reach, scope, scale and cost-effectiveness of activities that can be undertaken. However, not all courses appropriate for delivery through the Centres programme can be undertaken online. Some, such as those that require hands-on experience with equipment, can only be delivered face-to-face. Some participants also prefer face-to-face activity, sometimes because they consider online courses inferior or feel that they offer a less substantial – rather than different – learning experience.

While accommodating face-to-face courses where hands-on experience is required, the new programme should consist primarily of online activities conducted through the ITU Academy, in line with wider training trends within the sector. Online courses are also more environmentally friendly. In line with ITU efforts to become more environmentally sustainable, online training would help ITU achieve its Environmental Management Strategy (EMS) Plan targets (aligned with the UN's Strategy for Sustainable Management) to reduce its Greenhouse Gas Emissions (GHG).

Centres in the new programme will need to develop appropriate online content and improve online teaching methodologies in order to fulfil this. The ability to deliver quality online courses should be a substantial factor in the selection/approval process for all Centres included in the new programme.

The ITU Academy should continue to be the required delivery option for online Centre courses. This will strengthen its role as a provider of online training, and as the ITU's principal mechanism for capacity development. Continual enhancement of the Academy platform will be required to keep it aligned with the latest training practice.

7. Programme scope

Recommendation 7.1:

The programme should be structured globally, while continuing to respond to regional differences in priorities and training needs.

The current programme is structured regionally. This is more appropriate for face-to-face courses, where regional delivery reduces travel costs and enables sharing of hands-on experience, than it is for online courses.

In practice, online courses offered through the programme now attract participants from all regions. There are also benefits in cost-effectiveness (increasing the number of participants per course) and in enabling participants from all regions to benefit from courses that might not be available at the same level in their own regions.

While one (or at most two) of the priority areas selected for the programme at any one time may be regional or quasi-regional (see below), most will be broad global themes that allow/enable scope for regional variations which respond to differences in circumstances, priorities and training needs.

The new programme should facilitate global access, to participants from all regions, to all courses that are offered, while continuing to reflect regional diversity in the range of Centres (see below under 'Selection of Centres') and to enable courses that respond to different regional needs, priorities and languages within

priority areas (see below). It should facilitate collaboration between Centres that have global and regional expertise, in order to improve the quality of training content and delivery.

Recommendation 7.2:

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.

Since its inception, the programme has mostly offered capacity development for middle-ranking technical and professional personnel. This remains the appropriate level for the new programme. While some Centres may be able to deliver high-end capacity development for senior managers, this should not be the focus of their involvement in this programme.

The current programme is most used by personnel from government departments and regulatory agencies, who are more familiar with the ITU (and the ITU Academy) than those in private sector businesses. This is likely to continue, but more can and should be done to broaden the range of participants, not least because such diversity is beneficial to the learning environment (see 'Marketing').

8. Priority areas

Recommendation 8.1:

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.

The current programme includes 14 priority areas at both global and regional levels – considerably more than was envisaged at the last review in 2012. These differ between regions. Individual Centres were invited to select up to three priorities from those adopted for their region during the selection process.

This opportunity to deliver courses in three, rather than fewer, priority areas has not proved successful. The average number of courses that has been delivered per Centre in 2019-2021 has been 8.5, which has been insufficient to deliver activities on more than two priorities in the majority of cases. Demand for courses in some priorities has been low, leading to cancellations and/or delivery of courses with too few participants to recoup costs or have sufficient impact.

Priority areas are, however, valuable in ensuring that the programme targets issues of importance for the ITU and Members (including those in which ITU has particular responsibilities or expertise, such as spectrum management), and in enabling it to address the diversity of regional as well as global needs.

Priorities adopted for the new programme should be such as enable it to deliver maximum value, *i.e.* those:

- that are high priorities for Member States, particularly those with limited resources for capacity development (such as LDCs and SIDS);
- that are within the ITU mandate and in which the ITU has special responsibilities or expertise; and
- in which there is limited supply of equivalent high-quality training available from alternative providers at a cost affordable to Members.

Recommendation 8.2:

No more than six broad priority areas for the outset of the new programme should be identified, with the expectation that most or all of these will remain within the programme for the next three years. These should be identified through the needs assessment dialogue (described in 'Needs assessment' above) between capacity development personnel, thematic priority leads and regional offices.

These priority areas should be aligned to the core work of ITU/BDT and be reviewed on an annual basis in line with annual dialogue between the different parties.

Recommendation 8.3:

The maximum number of priority areas at any time should be six. Individual Centres should focus on one, two or (exceptionally) three of these, in which they have appropriate high levels of expertise.

These priority areas should be broadly defined and should usually have global resonance or resonance in the majority of regions. Examples of this breadth, for illustrative purposes, might be ‘spectrum management’, ‘access and inclusion’, ‘broadband deployment’, ‘regulation’ and ‘cybersecurity’.

Needs within these broad themes should and will vary significantly between regions, and the range of Centres should reflect this (so long as selected Centres meet the programme’s quality requirements). A variety of courses should be offered within these broad priorities that respond to the needs of different Member States and regions. As indicated below, Centres should be encouraged to cooperate in areas of common interest.

Recommendation 8.4:

One or at most two priority areas might focus more narrowly on priorities that are explicitly regional or relevant to particular types of country.

For instance, ITU has responsibilities to support telecommunications/ICT in countries with particular needs, such as Small Island Developing States (SIDS) and the particular needs of a group such as this (for instance in access and infrastructure) might be considered appropriate for inclusion as a priority area.

Circumstances may also arise where it would be appropriate to develop a priority area jointly with another UN agency or international organisation (for instance if a priority area concerns the interface between communications technologies and public policy, such as ‘ICTs and climate change’).

9. Number of Centres and level of Centre activity

Recommendation 9.1:

There should be fewer Centres, each offering a more focused programme of activities that attracts more participants.

The current programme includes a maximum of six per ITU region. 27 are currently operational.

Although the number of Centres is significantly lower than before the last major relaunch in 2014, this means that the number of activities per Centre – an average of less than three per Centre each year – is very low compared with the overall turnover of the institutions which hold Centre status. As a result, Centre activity has low priority within the work of institutions in the programme.

The new programme should include fewer Centres. This would ensure that each Centre was able to undertake a higher number of activities, improving its responsiveness to need and encouraging high-quality institutions to apply; be more attuned to online activities available to participants from within all regions; and allow greater focus in BDT on improvements to programme quality. It would thereby add greater value to the ITU, to Members and (by increasing turnover and revenue) to Centres.

Recommendation 9.2:

It is suggested that up to twelve Centres should be selected in 2022, with cooperation agreements lasting for three years, and that there should be a maximum of sixteen in the programme at any time. This would allow scope for additional Centres to be appointed year-on-year up to, but not necessarily up to, that maximum.

The range of Centres should reflect the need to deliver capacity development in priority areas and address differing contexts between and within regions. However, the quality of capacity development that can be provided should be the determining factor in selection while maintaining geographic balance to the extent possible.

The aim will be to ensure diversity in the range of Centres within the programme. It is intended that this will include at least one Centre in each ITU region, enhancing attention to the different regional and sub-regional dimensions of priority areas. Networking between Centres delivering courses within the same priority areas will reinforce the relationship between global, regional and sub-regional dimensions, to the benefit of participating Centres and course participants.

10. Attracting and retaining Centres

Recommendation 10.1:

The ITU should actively encourage high-quality institutions to apply for Centre status.

As noted above, the potential value added by the programme to the institutions hosting individual Centres is usually marginal. They derive and will derive far greater turnover and revenue from their other work. As a result:

- the current programme has found it difficult to attract or retain institutions which have very high status in their fields of expertise (these will gain little added value from Centre status); and
- institutions that apply for Centre status often see the primary benefit to them in the reputational value to them of association with the ITU.

The programme would benefit from the involvement of more high-quality institutions which have global reputations or are seen as leading training institutions in their regions. As well as providing high-quality training themselves, their participation would encourage other institutions with comparable reputations to engage. (See also 'Partners' below.)

Recommendation 10.2:

The programme should develop a value proposition to attract potential Centres.

The relationship between the ITU and Centres is important in attracting and retaining successful Centres and in encouraging commitment of resources to programme activities. This relationship should be mutually supportive and beneficial.

Discussion with Centres and reports from regional steering committee meetings indicate that most of the current Centres are positive about the support they receive from ITU staff but would welcome more assistance in profile development, promotion and marketing of courses and networking. BDT should develop a stronger value proposition for potential Centres built around these opportunities as well as increased turnover and course participation.

ITU should reach out to potential providers that are currently outside the programme but have relevant expertise and have demonstrated high standards of performance, and whose participation (as Centres or Partners) would enhance the programme. It should actively discuss participation with them, within the framework set out in the next section, and encourage expressions of interest from them. This outreach should begin during the first six months of 2022, so that any interested institutions can be considered for Centre status from the start of the new programme.

11. Selection of Centres

Recommendation 11.1:

Centres should be selected on a global basis, according to criteria concerned with quality, expertise and commitment.

The current programme requires quadrennial selection of Centres through a competitive process in which applicant institutions select up to three priority areas. This has proved inflexible, tying the programme into priorities that may not be appropriate throughout a cycle and making it difficult to address poor performance where this has arisen.

Recommendation 11.2:

The new programme should appoint Centres through a process built around expressions of interest and discussion with BDT staff.

Recommendation 11.3:

A request for expressions of interest in Centre status should be made during the second quarter of 2022, following the needs assessment overview described above. Expressions of interest should be welcomed from both existing and potential new Centres.

The BDT should discuss the potential value of Centre status under the new programme with potential applicants and actively encourage expressions of interest from them. The views of thematic priority coordinators and regional offices will be important in these discussions.

Discussions could include pre-screening of potential Centres, which should be mutually beneficial in helping BDT and potential Centres to consider their suitability. Entities which have expressed interest should be assessed following WDTA through a process involving:

- assessment of written documentation submitted by potential Centre;
- site visits by ITU regional staff to assess potential Centres on site;
- review of potential Centres' online training capabilities including knowledge of instructors on online delivery; and
- discussion between the BDT and potential Centres about programmes of activities which they could deliver.

This process and these criteria should be applied in the same way for existing Centres which express interest in continuing into the new programme, and for applicants that are not part of the current programme.

Recommendation 11.4:

As described above, BDT should select up to twelve Centres for inclusion in the programme from its inception in 2023.

Recommendation 11.5:

Cooperation agreements should be signed for an initial three-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.

Centres should be selected, both in this initial group and subsequently, on a global basis, according to criteria which are concerned with:

- quality, *i.e.* demonstrated excellence in delivering training in telecommunications/ICTs, including through online platforms;
- expertise in one or more of the priority areas that have been identified for the programme, including expertise related to developing countries; and
- commitment to working with the ITU and other Centres to deliver a high-quality programme of activities.

ITU capacity development staff, thematic leads and regional offices should be involved in the selection. A scoring system should be developed by BDT to facilitate evaluation.

As noted above, it is desirable that the range of Centres in the programme should reflect the need for both global and regional expertise, and an appropriate balance between Centres with global and regional capacity and expertise should be sought within this initial group of Centres. Some priorities will have particular resonance in particular regions. However, the desirability of this should not override the three criteria above, which are essential for ensuring quality of performance and the programme's credibility.

Centres should have a reasonable expectation of maintaining their role within the programme provided that they demonstrate quality, expertise and commitment in performance, and can deliver courses to a high standard within priority areas. However, Centres that do not meet adequate performance standards, as assessed in an annual review (see below), or cannot deliver courses to a high standard on new themes (as these change), should be terminated from the programme.

Recommendation 11.5:

Additional Centres may express interest in joining the programme and may be added to the programme at any time, but the total number of Centres should not exceed sixteen.

The programme should be open to further expressions of interest in Centre status at any time, which should be assessed according to the same criteria. Further Centres may be added to the roster, up to a total of sixteen. Focusing resources on this number of Centres will improve the value added from participation in the programme both to and by Centres, improve cooperation and reduce competition between Centres, and improve programme management and cost-effectiveness.

While there will be no specific duration attached to Centre status, cooperation agreements will be limited to three years. Where Centres are selected to deliver capacity development on a particular training priority, their status should be linked to the continued need for activity within that priority.

The performance of all Centres should be reviewed on an annual basis, according to the three criteria of quality, expertise and commitment, on the understanding that poor performance will lead to the suspension or removal of a Centre. These annual reviews should include both desk assessment of performance and discussions with Centre management.

Recommendation 11.6:

The programme should encourage and facilitate cooperation between Centres working on the same training priority area.

Centres that are offering courses on the same or similar priority areas should be encouraged to work together, sharing resources and, where appropriate, content and tuition (shared content may, for instance, be translated to meet the needs of different language groups).

12. Programme Partners

Recommendation 12.1:

The programme should establish a new status of Programme Partners, in order to engage additional sources of support and expertise.

This status should be used to encourage organisations and businesses that are interested in supporting the Centres programme but do not wish to become Centres or are not equipped to be so.

The BDT already has strong relationships with a number of these including:

- international and regional communications agencies (*e.g.*, within the current programme, relationships with the International Telecommunications Satellite Organisation, ITSO, and the African Telecommunications Union, ATU);
- international businesses and business associations (for instance, BDT's partnership with Cisco in support of Digital Transformation Centres, DTCs, and ITU's cooperation on various issues with GSMA);
- universities, research centres and relevant non-governmental organisations.

Partnerships along these lines with international organisations and businesses or business associations could add significant value in three ways:

- building the reputation of the Centres brand and encouraging participation as potential Centres by higher-status institutions;
- providing content, resources and experts for inclusion in course delivery; and
- sponsoring courses and/or individual participants, thereby extending the programme's reach and potentially enabling participants who would otherwise be unable to attend.

Businesses and some other organisations may be willing to engage with the programme as part of corporate social responsibility agendas.

The status of Partners may be appropriate for some international capacity development entities with specialist expertise, such as universities departments and independent research centres, that are not interested in becoming Centres or have found that Centre status is not economically viable from their point of view.

ITU should identify and approach a number of potential Partners during 2022, especially those that are particularly relevant to priority areas identified through needs assessment, to explore potential interest in Partner status.

13. Courses

Recommendation 13.1:

The programme should continue to deliver (primarily) short courses, which should be mostly online.

The current programme primarily delivers short courses of about a week's duration, with full-time participation. During the pandemic, these have generally transferred online requiring about four weeks' part-time engagement.

As indicated above, the large majority of courses in the new programme will be delivered online through the ITU Academy. Course duration of around four weeks seems appropriate for the type of courses that Centres deliver. Experience should be reviewed a year into the new programme.

Recommendation 13.2:

Courses should be made available through a rolling portfolio rather than an annual catalogue.

Course schedules in the current programme have been timetabled through an annual course catalogue, which has been agreed through regional steering committee meetings.

This has proved to be unnecessarily rigid, and has contributed to the frequent rescheduling of courses during implementation year. It should be abandoned in favour of a rolling catalogue or portfolio of courses whose availability and timing are negotiated between Centres and BDT staff. This should improve both flexibility and administrative efficiency for both Centres and the BDT. Resulting courses should be marketed more regularly and effectively to target audiences (see 'Marketing' below).

Online training requires investment in online resources and training of staff in effective use of online training methods. Some existing Centres have found it difficult to adjust.

Recommendation 13.3:

The new programme should require Centres to have experience and high standards in online training as a requirement of inclusion.

Centres within the current programme that do not yet meet this requirement may be continued into the new programme provided that they commit to ensuring that they can deliver online training to high standards within the first year of appointment. Sharing of experience within the network may be helpful in this context.

In the current programme, most Centres use materials and resources that have been developed for other courses they deliver. This is appropriate, but course materials should always be consistent with ITU policies and programmes. As noted above, the programme overall would benefit from cooperation amongst Centres in the development and delivery of content, including adaptation of material between different language groups.

As indicated under 'Quality assurance', course outlines and preliminary content should be shared with ITU well in advance of publication, so that they can be assessed and quality-assured by thematic priority leads or other experts.

14. Quality assurance

Recommendation 14.1:

Quality assurance is essential to the programme's credibility and performance. High standards should be required throughout the new programme in order to build its brand and protect the ITU's reputation.

Quality – identified by the term 'excellence' – has been variable in the current programme. Although feedback reports from course participants are generally positive, some regions and some Centres have performed better than others. Some have underperformed against expectations.

Courses of the kind delivered through the programme are also delivered by a wide variety of other providers. The new programme should aim to match the standards of higher-quality alternative providers in course content, online training methodology and quality of contact between training personnel and course participants.

Quality assurance needs to take place at all stages and levels of the programme, including:

- the selection of Centres (see above);
- the development and presentation of course content;
- the delivery of training;
- assessment and evaluation of participants; and
- overall performance over time.

Recommendation 14.2:

Selection of Centres should include site visits by regional ITU staff.

Quality assurance in the selection of Centres should be improved by the inclusion of evaluation visits by regional ITU staff to prospective Centres and by review of prospective Centres' online training materials during the selection process.

Recommendation 14.3:

BDT Thematic priority leads should continue to review course content.

In recent years, BDT thematic priority leads have been asked to review and approve (or disapprove) proposed course outlines that have been submitted by Centres prior to preparation of course catalogues. This is a valuable check on the quality and relevance of course content, but is not part of thematic leads' core roles and is time-consuming from their point of view. Review by thematic leads should continue in the new programme but may need to be supplemented by the use of independent expert assessors.

Recommendation 14.4:

Course delivery should be assessed in greater depth.

Course delivery should be assessed as well as content. Feedback from participants and course reports by Centres have been used within the current programme. This should be continued in greater depth. More detailed assessment of course delivery should be considered where feedback reports fall below expected standards, including interviews with participants.

Recommendation 14.5:

Participant certificates require rigorous course assessment.

Participants value training certificates arising from participation, which (at least in some countries) can affect promotion and remuneration. As in the current programme, all certificates should be based on performance assessments, not mere attendance. Performance assessments should be challenging, in order to maintain participant engagement and course credibility.

Recommendation 14.6:

Revised (quantitative and qualitative) KPIs will be required.

The current programme's KPIs for overall performance are quantitative rather than qualitative. This is inadequate. Each Centre's performance in the new programme should be reviewed annually, with more attention paid to qualitative outcomes and more detailed scrutiny of Centres that have cancelled courses and/or received poor feedback assessments. Revised KPIs will be required for this, including definitions of expected performance and criteria for assessment of underperformance.

Recommendation 14.7:

Poor performing Centres should be terminated following annual reviews.

Where necessary, sanctions need to be applied to ensure that standards are maintained. The participation of Centres that do not perform satisfactorily should be terminated following unsuccessful annual reviews.

15. Marketing

Recommendation 15.1:

Both ITU and Centres should improve marketing for the new programme in order to encourage a wider range of participants.

As noted above, registrations for a significant number of courses in the current programme have been low, contributing to a high rate of course cancellations.

In some regions, the large majority of participants in face-to-face courses have been from Centres' domestic markets rather than their wider regions. This does not meet programme goals.

Regional steering committee meetings have frequently discussed the need for more effective marketing of the programme in order to increase registrations, improve diversity, enhance the financial viability of courses, and reduce the rate of cancellations.

The new programme should be more effectively marketed by both Centres and the ITU. This review makes the following suggestions.

Recommendation 15.2:

All courses – both fee-paying and fee-free – should be marketed through a rolling catalogue/portfolio on the ITU Academy website, regular mailings and social media.

As proposed above, the new programme should move away from the annual course catalogues developed for the current programme towards a rolling programme of courses negotiated between Centres and the BDT. This should be marketed through a rolling catalogue/portfolio available on the ITU Academy website and through regular mailings to relevant recipients, as well as social media channels.

No distinction should be made between fee-paying and fee-free courses in marketing by ITU/BDT and on the ITU Academy website.

Recommendation 15.3:

The portfolio should be marketed directly to HR departments as well as national focal points.

The rolling catalogue needs to be more effectively targeted than the present annual catalogue has been. In the current programme catalogues are sent to national ITU focal points in governments or regulatory bodies. These are not the most appropriate targets and may not circulate information about courses to those responsible for training in their own or (especially) other institutions in their countries.

Information about courses in the new programme should be circulated regularly and directly to HR managers of relevant organisations and departments that may provide participants (like those of all other training providers), as well as to these contact points.

Recommendation 15.4:

Courses should be marketed through thematic priority leads and regional offices, and at ITU global and regional events.

Thematic priority leads and regional offices should provide information about relevant courses to their networks. Information about the programme and courses should also be distributed at ITU global and regional events.

Recommendation 15.5:

Improvements should be made to marketing on the ITU Academy website, including institutional profiles and course endorsements.

16. Business model

Recommendation 16.1:

Courses should continue to be funded through a variety of mechanisms, including fees, sponsorship and support from governments or intergovernmental agencies.

Courses in the current programme are financed by fees, by sponsorship of courses or participants by Centres themselves or institutional third parties, and/or through support from governments or international agencies. As a result, some courses require fees from participants (or their employers) while others are free to participants. This variety of funding mechanisms should continue in the new programme.

As with other capacity development activities, administration of the programme is funded through the BDT regular budget.

Recommendation 16.2:

Centres should be able to recover costs, including overheads on programme activities, through this variety of mechanisms.

Most Centres are independent institutions which need at least to recover costs of course delivery to secure financial viability. It is normal for training institutions, including universities, also to make a margin on non-core activities undertaken for external partners.

Agreements entered into between the ITU and Centres under the current programme expect them not to make a profit on Centre activities. This should be revised.

It is essential, if the programme is to attract and retain high-quality providers, that Centres can at least recover costs, including overheads.

This review suggests that, in addition, Centres should be allowed to make a standard margin on Centre activity, within a cap on fees determined by the ITU to ensure that these remain affordable to all ITU Members and significantly below those of commercial alternatives. Increased numbers of participants should help to reduce fee levels, irrespective of how these are set.

Recommendation 16.3:

ITU should no longer collect fees on behalf of Centres, other than in exceptional circumstances. Revenue-sharing arrangements associated with fee collection should be ended.

The business model adopted for the programme from 2014 required BDT to collect fees on behalf of Centres. A revenue-sharing arrangement was introduced in order to facilitate this, funds derived from which have been used to assist development of some training courses and to support the holding of regional steering committees. This arrangement has, however, proved inefficient for both BDT and Centres, diverting BDT resources from work associated with improvements in programme quality and value.

Centres should normally collect their own fees in the new programme. In a few cases, Centres may have difficulties in collecting fees or enabling international currency transactions. In such cases, exceptionally, the

ITU may collect fees on their behalf but should charge a fee doing so, in order to cover its administrative costs.

Proposed changes to governance arrangements (see below) obviate the need to hold face-to-face meetings of regional steering committees which have been supported by the revenue-sharing arrangement.

Recommendation 16.4:

ITU should actively encourage and seek sponsorship from Partners for Centre courses and participants.

ITU should actively seek sponsors for courses and students in the programme, from Partners (see above) and international organisations (along the lines of the African Telecommunications Union's sponsorship of courses concerned with spectrum management in 2021 and 2022). Sponsorship from businesses could fall within corporate social responsibility budgets.

17. Governance

The management of the programme will continue to be the responsibility of the BDT. It will be led by the Director, through the Bureau's capacity development team. Adequate staffing levels need to be maintained to ensure effective programme relaunch and delivery of an improved programme of quality capacity development.

Recommendation 17.1:

The new programme should encourage global, thematic and regional networking amongst Centres. Thematic priority leads and regional offices will continue to play an important part in programme development and implementation.

As indicated above, the new programme should be structured globally, while continuing to pay attention to regional differences and priorities. Its development and implementation should be guided by BDT staff concerned with capacity development in conjunction with regional offices and thematic priority leads.

Recommendation 17.2:

An annual global meeting should become the principal focus for dialogue concerning the work of Centres within the new programme. This should take the place of regional steering committees.

Regional steering committees in the current programme were originally intended to enable dialogue between regional stakeholders (governments and businesses), regional Centres, ITU HQ and regional offices. In practice they have become programme management discussions between Centres and BDT, focused on reviewing training implementation and preparing annual schedules for course delivery. Few if any other stakeholders participate.

The new programme's more global approach and reduced number of Centres suggest that a global forum should provide the framework for programme dialogue in future rather than regional committees. This will enhance programme cohesion and integration with ITU's overall priorities and improve networking and cooperation amongst Centres concerned with the same priority areas.

Regional offices will continue to play an important part in programme management through needs assessments, advice on the application of priority areas at regional level, and the selection, oversight and evaluation of Centres located in their regions.

The first global meeting of Centres that was held online in 2021 provided a valuable opportunity to share experience and identify opportunities across the programme. A global meeting along these lines should become the principal mechanism for dialogue within the programme.

It should be a more substantial event than current regional steering committees and include separate sessions concerned with a) thematic and b) regional priorities as well as reviewing experience in the programme overall and considering methodological issues. Presentations from organisations with global

expertise, such as Programme Partners, and demand-side stakeholders from public and private sectors, should be included in order to diversify discussion and participation.

This global meeting could be held online or offline. The former would be more cost-effective and more likely to maximise participation. Offline meetings could be held within the framework of ITU Capacity Development Symposia if these continue to be held in person.

Recommendation 17.3:

The programme's work should be reported through BDT to TDAG and WTDC, in accordance with Resolution 73.

18. Provisional timetable

Recommendation 18.1:

As much preparation as possible should be completed before WTDC 2022 in order to enable selection of Centres to take place immediately following the conference.

The current programme ends at the end of 2022. The new programme should, ideally, be ready to begin from January 2023. The timetable for this is shorter than it seems because of the timing of WTDC.

It is proposed above that the new programme should be delivered through a rolling catalogue rather than an annual catalogue/portfolio.

These new arrangements will facilitate transition. The timing of WTDC means that it would not be possible to select Centres and develop a comprehensive course catalogue for 2023 after WTDC's meeting but before budget decision-making by HR managers in calendar 2022. The introduction of a rolling catalogue/portfolio will reduce the need to align with HR budget cycles and allow more flexibility in the planning and delivery of courses for BDT, Centres and HR managers alike. An initial programme of activities should, however, be available from January 2023.

The following timetable is therefore suggested. BDT needs to put necessary arrangements in place as soon as possible.

January to April 2022:

- Finalisation of proposal for new programme in consultation with Member States.
- Needs assessment overview along the lines described above.
- Selection of proposed priority areas through discussion between capacity development staff, thematic priority leads and regional offices.

May and June 2022:

- Discussions with existing and potential Centres to encourage expressions of interest.

June 2022:

- Meeting of WTDC and adoption of revised Resolution 73.
- Invitation to submit expressions of interest in Centre status, including both current Centres and new applicants (after conclusion of WTDC).

July to September 2022:

- Selection of Centres to join the programme from January 2023 including quality assurance visits to potential Centres by ITU regional personnel and consideration of possible course proposals relevant to proposed themes.

Annex 1

October to December 2022:

- Adoption and approval of initial portfolio of courses.
- Information campaign concerning the new programme addressed to Member-States, HR managers and other relevant professionals in the sector.

January 2023:

- Launch of the new programme and rolling catalogue of courses.