ITU CENTRES OF EXCELLENCE NETWORK FOR THE EUROPE REGION

FINAL REPORT

OF THE

2ND STEERING COMMITTEE MEETING

19-20 NOVEMBER 2019

Trieste, Italy

1. INTRODUCTION AND OPENING

The 2nd Steering Committee Meeting of the ITU Centres of Excellence for Europe for the 2019-2022 cycle was held in Trieste, Italy, on 19-20 November 2019. The Meeting was organized by the ITU and hosted by the Abdus Salam International Centre for Theoretical Physics (ICTP). It was attended by 12 delegates including Centres of Excellence (CoEs), representatives from 2 Governments hosting CoEs, one ITU Member State, and the ITU Secretariat. The list of participants is attached to this report (Annex 1).[1]

The meeting was officially opened by Prof. Sandro SCANDOLO, Director, Research Division, ICTP of ICTP, Italy. Mr Jaroslaw PONDER delivered the opening remarks on behalf of the ITU, recalling the meeting's main objectives.

The outgoing Chair, Lidia STĘPIŃSKA-USTASIAK, Deputy Director of Department of Foreign Affairs, Office of Electronic Communication, Republic of Poland, delivered opening remarks thanking for a productive year 2019 and congratulated all ITU Centres of Excellence for Europe to their successful delivery of training courses in 2019.

2. CONFIRMATION OF THE COE STEERING COMMITTEE CHAIR

Mr PONDER invited the meeting to confirm the Steering Committee Chair for the year 2019/2020 following consultations with Member States. The meeting confirmed the

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[1] This meeting was originally planned as a joint meeting of Steering Committees for Europe and CIS. Due to the unavailability of the representatives from the CIS region the meeting was held as Steering Committee for Europe only.

chairmanship of the Republic of Lithuania represented by Inga RIMKEVIČIENĖ, Head of International and Public Relations Division, Strategy Department, Communications Regulatory Authority of the Republic of Lithuania.

Ms RIMKEVIČIENĖ thanked for the nomination and took chairmanship of the 2ⁿᵈ Steering Committee Meeting of the CoE Network for Europe (2019-2022 cycle). She reminded that the lack of digital skills may be a huge problem in professional live. According to a OECD report on the future of work, during the last 10 years, 40 % of jobs were created in digitally intensive sectors, yet 6 out of 10 workers from OECD countries lack basic computer skills. The digital divide may become a digital skills divide. And this should be the main target of the Centres of Excellence.

Mr PONDER recalled the composition of the Steering Committee of the CoE Network for Europe for the cycle 2019-2022 as follows:
- Centres of Excellence: FEEIT (North Macedonia), ICTP (Italy), ISS (Germany), NIT (Poland), NRD Cyber Security (Lithuania), ONAT (Ukraine)
- Member States: Republic of Poland (Hosting ITU CoE), Republic of Lithuania (Hosting ITU CoE), Republic of Bulgaria (Observer)
- ITU

3. REVIEW OF THE IMPLEMENTATION OF 2019 ACTVITIES

Presentation by the outgoing Chair

Ms STĘPIŃSKA-USTASIAK shared her thoughts on the regional priorities on capacity building in the Europe region. She drew attention to the future digital agenda driven by the data economy, robotisation, new business models, among others. She underlined the importance of targeting new audiences, pricing, marketing, tools, quality, as well as relevant topics. She drew attention to the fact that 14% of jobs face a high likelihood of automation and another 32% are likely to face significant change over the next 10 to 20 years. The risk of massive technological unemployment can be mitigated by developing skills, up-skilling, and re-skilling. She underlined while the delivery of training is becoming increasingly challenging, it provides an exciting opportunity to design a variety of specialized trainings with the ultimate aim to enabling a society to gain maximum benefit from the technological development.

Presentation by ITU

Ms TELTSCHER presented an overview of the implementation of CoE activities, both globally and regionally. At the global scale (AFR, AMS, ARB, ASP, CIS, EUR regions) 144

courses were planned, 75 courses were implemented and 21 had upcoming status. She emphasized the fact that almost one third of planned courses for 2019 were not implemented, which reflects insufficient performance of the network as a whole. She stressed the need to monitor and find new ways to improve performance, a topic that has been further discussed later in the day.

As of 14 November, the ITU Centres of Excellence trained 1839 participants around the globe in 2019, including 530 in Europe. More than 80% of course participants were certified. Out of the 6 Centres of Excellence in Europe, 3 delivered face-to-face courses and 2 focused on delivering online courses only. Details on the performance of the European CoEs are presented below.

Courses implemented per region, November 2019

Planned vs implemented per region, November 2019

Total planned, implemented and upcoming courses: 144:75:21
Not implemented: 48

Participants trained vs certified, November 2019

Total participants trained (CoE network): 1839
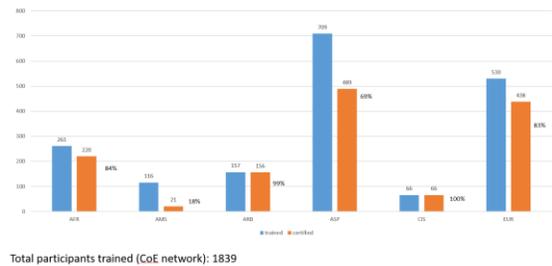
Modes of delivery (implemented courses), November 2019
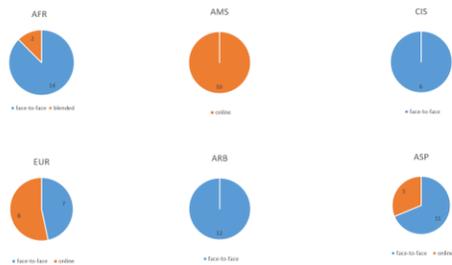
Europe region, courses implemented, November 2019
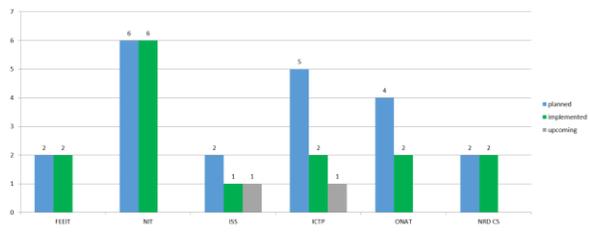
Europe region, participants trained vs certified, November 2019
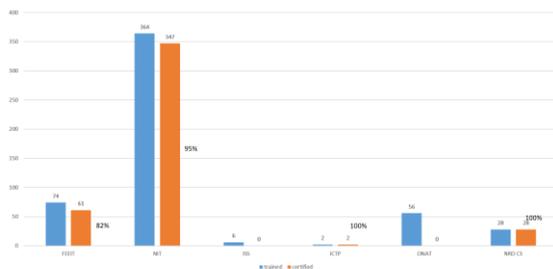
Modes of delivery, Europe region
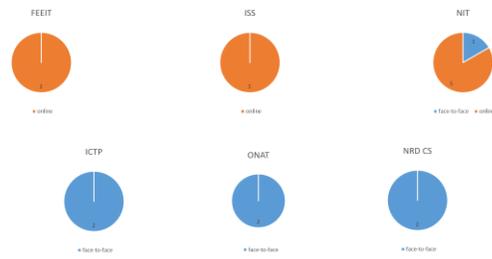
Presentations by Centres of Excellence

The Chair invited the CoEs to present their detailed 2019 activity report, including challenges faced in the implementation of training courses.

ONAT, Ukraine (remote participation)

ONAT implemented two out of four planned courses, one of them also available in remote participation. Significant efforts were dedicated to ensure promotion of the courses during the last 6 months, including adding advertisement on TV. Before the end of the 2019, implementation of a third course is planned for mid-December. Training Reports have been submitted to the ITU secretariat which will be issuing the certificates. The two implemented courses were delivered for free. One of the courses took place in the CIS region, upon clearance by the CIS CoEs, and in line with the outcomes of the February 2019 Steering Committee Meeting. All ONAT's courses are delivered face-to-face with an option of remote participation.

Courses planned	Original dates	Final dates	Status	NB of participants	End-of training reports
Building broadband telemedecine networks and providing e-Health services at the local, regional and national levels	16.05.19 – 17.05.19	NA	not implemented	NA	NA
Features of 5G technology implementation at the local (some towns), regional (district, region) and national level	16.05.19 – 17.05.19	NA	not implemented	NA	NA
Automation of broadband networks designing. Selecting the most appropriate solutions to build network	16.10.19	14.11.19	Implemented	25	Submitted
The use of adaptive technologies to transmit video over radio channels	7-8.10.19	07.11.19	Implemented	31	Submitted

FEEIT, North Macedonia

FEEIT has implemented one e-learning course while the second one is ongoing. FEEIT continued its successful collaboration with the National Institute of Telecommunication (Poland) in delivering e-learning and face-to-face training courses. FEEIT courses are attended by a large number of participants from all over the world, and include national regulators, government organizations and ministries, network and service providers,

telecom and IT companies, students from universities, professors from academia and instructors from training centers.

Courses planned	Original dates	Final dates	Status	NB of participants	End-of training reports
NGN Evolution, Future Networks and Ultra-broadband Internet	28.05.19 – 24.06.19	28.05.19 – 24.06.19	Implemented	74	Submitted
Wireless and Mobile Ultra-broadband: LTE-A PRO, WLAN, AND 5G NR	19.11.19 – 16.12.19	19.11.19 – 16.12.19	Implemented	120	

ISS, Germany

ISS focused on the implementation of two online self-paced courses. The "Cybersecurity Techniques" course was taken by 7 participants but none of them have taken the final test (yet). No feedback on the courses has been given by the participants except some technical issues encountered. The level of participation was significantly lower than expected by ISS. ISS raised the issue of having open dates for the courses, as participants do not follow a schedule and in many cases do not finish the courses until the end. There are no deadlines and no motivation to finish the course in a specific timeline. ISS's main issue is to increase the number of participants in the future applying a better outreach strategy including marketing via social media.

Courses planned	Original dates	Final dates	Status	NB of participants	End-of training reports
Cybersecurity techniques	April	01.07.19 – 31.12.19	Implemented	7	
Cyber incident response	June	01.07.19 – 31.12.19	Ongoing		

NIT, Poland

NIT delivered all planned courses in the field of Internet Governance and, Wireless and Fixed Broadband. The representative of NIT shared his insights on the successful strategy for the CoE performance that resulted in high participation.

Courses planned	Original dates	Final dates	Status	NB of parti-cipants	End-of training reports

Outcome report – Centre of Excellence – Steering committee meeting 2019

Strategic Aspects for Internet Governance and Innovations	04-11.03.19	04-11.03.19	Implemented	72	Submitted
Wireless Access Technologies to Internet Network	8-15.04.19	8-15.04.19	Implemented	78	Submitted
Legal and regulatory barriers to the introduction of cloud services in the EU	20-27.05.19	20-27.05.19	Implemented	19	Submitted
Security and QoS in Internet Network	26.08.19 - 02.09.19	26.08.19 - 02.09.19	Implemented	97	Submitted
Technical, business and regulatory aspects of 5G Networks	30.09.19 - 07.10.19	30.09.19 - 07.10.19	Implemented	103	Submitted
QoS Technologies and Regulation for Fixed and Mobile	24.10.19 - 25.10.19	24.10.19 - 25.10.19	Implemented	8	Submitted

NRD Cyber Security, Lithuania

NRD CS implemented two face-to-face courses as planned. The second hands-on training attracted more participants than expected and this showed the importance and relevance of the topic in attracting a greater audience. The representative of NRD CS shared the practical experience gained during the first year of CoE activities.

Courses planned	Original dates	Final dates	Status	NB of participants	End-of training reports
Governing Cyber Security at the National Level: Best practices and lessons learned	7-10.05.19	7-10.05.19	Implemented	7	Submitted
Incident Response Practice: Hands-on scenario-based training	17-20.09.19	17-20.09.19	Implemented	21	Submitted

ICTP, Italy

ICTP planned 5 courses for 2019. While all courses were implemented, only two courses had participants coming through the ITU Academy portal and paying for the course. All other participants were sponsored by ICTP. One of the issues mentioned was that participants need to register through both the ICTP and ITU Academy portal. As lessons learnt for the year, ICTP raised the need to dedicate more time to outreach and communication campaigns. A solid marketing strategy will be required as well as a stronger coordination with the African CoE network.

Courses planned	Original dates	Final dates	Status	NB of partici pants	End-of training reports
CODATA/RDA Advanced Workshop on IoT and Big-Data Analytics	19-23.08.19	19-23.08.19	Implemented	1	Submitted
CODATA/RDA Research Data Science Summer School	12-16.08.19	12-16.08.19	NA	0	Not Submitted
Technical Aspects of Wireless Solutions for the Internet of Things (IoT)	02-04.09.19	02-04.09.19	Implemented	1	Submitted
IoT Entrepreneurship	06-08.11.19	06-08.11.19	NA	0	Not Submitted
CODATA/RDA/ICTP/TWAS Research Data Science Summer School in West Africa	18-22.11.19	18-22.11.19	On-going		

All presentations are available on the ITU Academy website: http://academy.itu.int and on the ITU Office for Europe website https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2019/2nSC/2ndSC.aspx

The following issues were raised during the discussions:
- Marketing strategies of the CoEs need to be further developed and consequently implemented in order to target relevant stakeholders;
- Further strengthening of promotion of courses amongst the ITU membership would be of high value;
- Partnering with other ITU Centres of Excellence within the region and outside is strongly encouraged;
- All actions to be undertaken in regions other than Europe require clearance of the ITU CoE network from that region.

4. DISCUSSION ON STRATEGIC AND OPERATIONAL ISSUES RELATED TO THE IMPLEMENTATION OF THE COE NETWORK ACTIVITIES

Ms Susan TELTSCHER of ITU presented a number of strategic and operational issues related to the global CoE network performance and implementation. These included:

- Issues related to the performance of some of the CoEs and how to address them;
- The possibility of phasing out non-performing CoEs;
- A global assessment of the current ITU capacity development activities, including the CoE network, planned for 2020;
- Operational issues related to the implementation of training, including the use of the ITU Academy portal;

Following the presentation, a discussion regarding those issues took place and concluded as follows:

- Marketing of the courses needs to be improved and a segmentation of target groups should be done to make the targeting process more efficient;
- A capacity development gap and needs analysis at the regional and national level is challenging but should be done;
- Reaching the right audience remains a challenge and requires significant efforts by CoEs to build their communities;
- Contacts with the national Governments of the countries hosting the CoEs are very important as Administrations might naturally promote training offerings;
- Promotion of the training offerings by Administrations might be of high value as they have access to huge networks of potential customers. Focal points of Administrations would need to receive a clear message on what exactly would be expected from them, including executive guidelines containing key messages and a list of groups of stakeholders and potential communication channels;
- Sending targeted emails would be advisable;
- Personalized mailings to recurring attendees would be also advisable but it is necessary to investigate details related to the compliance with GDPR, particularly in case of online participants from different regions;
- Sending of invitations well in advance is important. For instance, ICTP is interested in sending invitations already 6 months prior to the event;
- More effective use of ITU Academy for sharing information might be of high value for CoEs;
- Special efforts need to be done by the CoEs in the coming year as by the end of 2020 the assessment of the performance will lead towards the phasing out of non-performing CoEs;
- Ongoing discussion on the proposal of creation of an ITU Training Institute should be monitored. Input of CoEs to the feasibility study would be of high value. Some CoEs raised concern on possible overlaps with the role of the ITU Academy and the ITU CoEs;
- In the context of the further evolution of the global CoE programme, a mapping of training needs was mentioned as an area of focus that requires more efforts. Attendees discussed the roles of ITU and CoEs in identifying such needs and the Chairwoman underlined that this is CoEs' roles;
- HR managers prepare training plans for their staff usually at the beginning of Q4. The ITU CoE training catalogue should be possibly ready not later than October to maximize its potential.

5. TRAINING PLAN 2020

Each CoE made a presentation on the training plans for 2020, including details on the content, expected target audience and price. Following the presentations, the Steering

Committee discussed and agreed on the ITU CoE network for Europe training courses for the coming year in the field of broadband, cybersecurity, and ICT infrastructure, presented in the table below.

ONAT, Ukraine (remote participation)

ONAT will implement the two courses not implemented this year for next year while keeping the same requirements. In addition, the course on features of 5G technology will be planned to be implemented twice during the year. The proposed dates are not final. However, ONAT should provide by December the final confirmed dates for its two first courses.

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Building broadband telemedicine networks and providing e-Health services at the local, regional and national levels	ONAT	14-15 May*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)
Features of 5G technology implementation at the local (some towns), regional (district, region) and national level	ONAT	11-12 June*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)
Features of 5G technology implementation at the local (some towns), regional (district, region) and national level	ONAT	2-3 July*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)
Automation of broadband networks designing. Selecting the most appropriate solutions to build network	ONAT	24-25 September*	Kostanay, Kazakhstan	Free (in Russian)	Face-to-face (remote participation is possible)
The use of adaptive technologies to transmit video over radio channels	ONAT	5-6 November*	Odessa, Ukraine	Free (in Russian)	Face-to-face (remote participation is possible)

Note: * Dates are the question of the final reconfirmation by 15 December 2019

FEEIT, North Macedonia

FEEIT courses will be delivered as planned and mentioned in the table below.

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Future Broadband Internet, Cloud Computing and Internet of Things	FEEIT	26 May - 22 June	Online	150 USD	Online
Mobile Broadband Internet, 5G and Future services	FEEIT	17 November – 14 December	Online	150 USD	Online

ISS, Germany

The two current self-paced courses will be accessible next year. In addition, the institution has planned to provide two new courses during the second half of the year, including one face-to-face and another self-paced course.

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Cybersecurity Technique	ISS	01.01.20 - 31.12.20	Self-paced	250 USD	Self-paced
Cyber Incident response	ISS	01.01.20 - 31.12.20	Self-paced	250 USD	Self-paced
Information security management system	ISS	01.06.20 - 31.12.20	Self-paced	250 USD	Self-paced
Industrial Cybersecurity and Incident Response	ISS	09-11.09.20	Ettlingen, Germany	1250 USD	Face-to-face

NIT, Poland

NIT will be conducting 5 trainings in 2020 as it did in 2019. However, the QoS technologies will be an online course and not a face-to-face course as was the case in 2019. In addition, the institution will be implementing two new face-to-face courses in Warsaw and one e-learning course. Topic and title has been discussed by the Steering Committee and might be modified. The course "Legal and regulatory barriers to the introduction of cloud services in the EU" of 2019 will be replaced by a new e-learning course on "Legal, regulatory and technical aspects of cloud computing in international data transfers".

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Strategic aspects for internet Governance and Innovations	NIT	3-10.02.20	Online	150 USD	Online
Wireless Access Techonologies to internet network	NIT	9-16.03.20	Online	150 USD	Online
Security and QoS in Internet Network	NIT	13-20.04.20	Online	150 USD	Online
Legal, regulatory and technical aspects of cloud computing in international data transfers	NIT	15-16.06.20	Online	150 USD	Online
Technical, Business and Regulatory Aspects of 5G Networks	NIT	24-31.08.20	Online	150 USD	Online
QoS Technologies and regulation for fixed and mobile	NIT	28.09.20 – 05.10.20	Online	150 USD	Online

Key Aspects and Governance of Internet of Things, Big Data and Artificial Intelligence	NIT	22-23 October 2020	Warsaw, Poland	500 USD	Face-to-face
Legal Aspects of artificial Intelligence in Business, Household and Public Sector	NIT	8-9 December	Warsaw, Poland	500 USD	Face-to-face

NRD Cyber Security, Lithuania

For 2020, NRD-CS will replace their course on the "Best Practices and lessons learned in governing Cybersecurity at the National level" by another course focused on team building skills in cybersecurity. The other course will stay unchanged.

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Building an effective Cybersecurity team	NRD-CS	4-7 May	Vilnius, Lithuania	800 USD	Face-to-face
Incident Response Practice Hands-on scenario-based training	NRD-CS	7-10 September	Vilnius, Lithuania	800 USD	Face-to-face

ICTP, Italy

ICTP will be conducting a new set of course this year. All course registrations will only be channelled through the ITU Academy platform. One course might be delivered in Mozambique.

Training course topic	CoE	Dates	Venue	Training fee	Type of training
Data Science: technical & business aspects for open innovation	ICTP	10-12 August	Trieste, Italy	400 USD	Face-to-face
Trends and advances in Data Science, Machine Learning and Artificial Neural Networks	ICTP	13-14 August	Trieste, Italy	400 USD	Face-to-face
5G Technologies for IoT	ICTP	28-30 September	Trieste, Italy	300 USD	Face-to-face
Applications of Satellite Based IoT Networks	ICTP	16-17 November	Trieste, Italy	200 USD	Face-to-face

Following the presentations, the Steering Committee discussed and agreed on the ITU CoE network for Europe training courses for the coming year. The table with the agreed courses for the region is attached here as Annex 3.

6.   UPDATE ON ITU ACTVITIES

Ms TELTSCHER gave an update on recent activities in the field of capacity development, covering the following aspects:

- ITU Academy: more than 10'000 users and over 150 courses advertised in 2019 (mostly by CoEs); a reminder to online tutors to register themselves and that all course participants should also register. Enrolments for paid courses should occur only after payments are in effect, not before. All required documents should be provided to ITU on a timely basis;

- Partnerships: ITU continues to engage with partners in the work on capacity development. A new MoU was signed with Huawei, which includes possible collaboration between Huawei and the CoEs;

- Development of training materials: CoEs are strongly encouraged to make use of the training material developed by ITU for their course delivery;

- Digital Transformation Centres (DTC) Initiative: a new initiative launched by ITU in partnership with Cisco, to provide digital skills at the basic and intermediate level;

- ITU publication "Digital Skills Insights" 2020 edition: the call for papers is now open;

- Group on Capacity Building Initiatives (GCBI): GCBI is working on the development of a guide on capacity development taxonomies to help harmonize and standardize terminologies across ITU;

- 2nd ITU-Academia Partnership Meeting: will take place from 2-3 December 2019 in Atlanta, Georgia, hosted by Georgia Institute of Technology;

Mr PONDER provided an exhaustive presentation on the 2019 activities by the ITU Office for Europe, highlighting plans for 2020. All actions are implemented in line with the ITU Regional Initiatives adopted by the WTDC-17, being treated as the regional priorities and focusing on ICT infrastructure, digitization, digital inclusion, cybersecurity, and innovation. He underlined that training opportunities of ITU Centres of Excellence continue to serve as substantive and complementary deliverable of ITU at the regional level. He also drew attention to the importance of referring in the training materials to the ITU work, including reports, studies, manuals, recommendations, data, others.

7.   PARTNERSHIP BUILDING

ICTP, in its capacity as hosting organization of the Steering Committee, provided an exhaustive presentation on the Center. The Abdus Salam International Centre for

Theoretical Physics is an international research institute for physical and mathematical sciences that operates under a tripartite agreement between the Italian Government, United Nations Educational, Scientific and Cultural Organization (UNESCO), and International Atomic Energy Agency (IAEA). ICTP aims at:

- fostering the growth of advanced studies and research in physical and mathematical sciences, especially in support of excellence in developing countries;

- developing high-level scientific programmes keeping in mind the needs of developing countries, and providing an international forum of scientific contact for scientists from all countries;

- conducting research at the highest international standards and maintaining a conducive environment of scientific inquiry for the entire ICTP community.

More than 25% of students are women and ICTP is highly supporting gender equality. ICTP has a long tradition in capacity building in developing countries and is strongly advocating for building partnerships in the field of knowledge development.

A special video bridge between the Steering Committees of Europe and Africa was held (both meetings took place at the same time - the African meeting in Dakar, Senegal), with the aim of providing the opportunity to strengthen the collaboration between ITU CoEs of the two regions. Special interest was expressed to collaborate in the field of 5G, IoT, Big Data, Machine Learning, Cybersecurity, for example by providing exchange of experts or organizing joint courses. The work of ICTP in the Africa region was highly appreciated. A concrete proposal of activities in Africa was made by ICTP (i.e. organizing a training in Mozambique) and endorsed by both Steering Committees.

It was also proposed that ITU considers organizing a Train-the-Trainer course for the CoEs in Africa with the support of the CoEs from Europe in the fields mentioned above.

8. DISCUSSION AND ADOPTION OF DRAFT REPORT

Following the discussions, the meeting agreed as follows:

a) The Steering Committee (SC) agrees to keep interacting during the year including holding at least one online SC meeting during the year. The Chair and the ITU will facilitate the interaction.

b) The meeting agreed on the importance of using the ITU Academy platform and encouraged more delivery of online training. All course participants (for both face-to-face and online courses) need to register through the ITU Academy.

c) The need for CoEs to actively promote their activities (in addition to ITU's promotion) is very important. The use of direct marketing to potential participants is key in this regard.

d) CoEs are highly encouraged to use ITU content and while developing the content take into account the work of the ITU on the issue. The ITU Secretariat will endow all Centres of Excellence with the syllabus developed for the purposes of CoE trainings (the use of material is for free). CoEs are expected to share the content of the courses with ITU prior to the delivery of the course.

e) The meeting took note and agreed on the ITU's efforts in disseminating information on CoE courses to the ITU Membership and its networks in the Europe region, including:

   a. dissemination of the regional training course catalogue twice a year (early-year and mid-year) by the BDT Director, informing of all courses planned in a particular region for the coming semester;

   b. submission of the training course catalogue to the Com-ITU of CEPT and dissemination of communication/invitation to the focal points of ITU Membership on each course by the ITU Office for Europe;

   c. strengthening of request to the ITU Membership focal points to disseminate information on ITU Centres of Excellence offerings and courses through their regional and national networks, while equipping them with communication tools and executive guidelines; and

   d. dissemination of information on the training opportunities through social media, as well as national and industry events;

f) A revenue share of 20% (ITU) and 80% (CoE) was agreed upon with the CoEs.

g) CoE are encouraged to cooperate with each other. Should a CoE want to implement a course in another region, the CoE network of that region needs to be notified and agree to the action to be undertaken.

h) CoEs that had not specified the exact dates of their training courses, were requested to do so by 25 November 2019.

i) In order to maintain effectiveness of delivery and assurance of quality of the courses, it was agreed that the maximum number of courses offered should be limited accordingly.

j) The meeting took note of the preparations of a study commissioned by the ITU secretariat towards the in-depth analysis and review of current training and capacity-building activities undertaken by ITU, and the feasibility of setting up an ITU training institute, to be reported to the ITU Council-20. CoEs declared their readiness to provide their inputs, should this be required.

The assessment of human capacity needs at the regional and national level was identified as an instrumental milestone for the further evolution of the global CoE programme. CoEs committed to contributing in their capacity to the mapping of the needs and providing information to the ITU secretariat before the mid-year virtual meeting 2020.

k) While recognizing the important value of the training course catalogue, participants agreed on advancing the planning of the courses. It was agreed that the 2021 catalogue should be approved and disseminated across the region not later than October 2020 to maximize its' potential.

l) The next physical meeting of the Steering Committee will be hosted by the Communications Regulatory Authority of the Republic of Lithuania and will be held in September/October 2020 in Vilnius, Lithuania.

9. CLOSING

The meeting ended with closing remarks from Mr PONDER and Ms RIMKEVIČIENĖ, Chair of the Steering Committee. Participants thanked the ICTP for hosting the meeting.

ANNEX 1: LIST OF PARTICIPANTS

1. Inga RIMKEVIČIENĖ, Head of International and Public Relations Division, Strategy Department, Communications Regulatory Authority of The Republic of Lithuania (Chairperson of Steering Committee)

2. Lidia STĘPIŃSKA-USTASIAK, Counsellor, Deputy Director of Department of International Affairs, Office of Electronic Communications, Republic of Poland (Outgoing Chairperson of Steering Committee) and member of GCBI

3. Latinka RAZPOPOVA, Ministry of Transport, Information Technology and Communications, Bulgaria

4. Toni JANEVSKI, FEEIT, North Macedonia

5. Clement ONIME, ICTP, Italy

6. Marco ZENNARO, ICTP, Italy

7. Sandro SCANDOLO, ICTP, Italy

8. Dmytro CHERKASHYN, ISS, Germany

9. Sylwester LASKOWSKI, NIT, Poland

10. Ruta JASINSKIENE, NRD Cyber Security, Lithuania

11. Vladislav KUMYSH, ONAT, Ukraine (Remote)

12. Susan TELTSCHER, Head of Capacity and Digital Skills Development Division, ITU

13. Jaroslaw PONDER, Head of ITU Office for Europe, ITU

14. Elena STANKOVSKA-CASTILLA, Digital Skills Development Division, ITU (Remotely)

15. Lena LATTION, Project Officer, ITU Office for Europe, ITU (Remotely)

ANNEX 3: LIST OF COE TRAINING COURSES FOR 2020

No	Training course topic	CoE	Dates	Venue	Training fee	Type of training
1	Cybersecurity Technique	ISS	1 January – 31 December	Self-paced	250 USD	Self-paced
2	Cyber Incident response	ISS	1 January – 31 December	Self-paced	250 USD	Self-paced
3	Strategic aspects for internet Governance and Innovations	NIT	3 -10 February	Online	150 USD	Online
4	Wireless Access Techonologies to internet network	NIT	9-16 March	Online	150 USD	Online
5	Security and QoS in Internet Network	NIT	13-20 April	Online	150 USD	Online
6	Building an effective Cybersecurity team	NRD-CS	4-7 May	Vilnius, Lithuania	800 USD	Face-to-face
7	Building broadband telemedicine networks and providing e-Health services at the local, regional and national levels	ONAT	14-15 May*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)
8	Future Broadband Internet, Cloud Computing and Internet of Things	FEEIT	26 May - 22 June	ITU Academy platform	150 USD	Online
9	Information security management system	ISS	1 June – 31 December	Self-paced	250 USD	Self-paced
10	Features of 5G technology implementation at the local (some towns), regional (district, region) and national level	ONAT	11-12 June*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)
11	Legal, regulatory and technical aspects of cloud computing in international data transfers	NIT	15-22 June	Online	150 USD	Online
12	Features of 5G technology implementation at the local (some towns),	ONAT	2-3 July*	Odessa, Ukraine	100 USD	Face-to-face (remote participation is possible)

	regional (district, region) and national level					
13	Data Science: technical & business aspects for open innovation	ICTP	10-12 August	Trieste, Italy	400 USD	Face-to-face
14	Trends and advances in Data Science, Machine Learning and Artificial Neural Networks	ICTP	13-14 August	Trieste, Italy	400 USD	Face-to-face
15	Technical, Business and Regulatory Aspects of 5G Networks	NIT	24-31 August 2020	Online	150 USD	Online
16	Incident Response Practice Hands-on scenario-based training	NRD-CS	7-10 September	Vilnius, Lithuania	800 USD	Face-to-face
17	Industrial Cybersecurity and Incident Response	ISS	9-11 September	Ettlingen, Germany	1250 USD	Face-to-face
18	Automation of broadband networks designing. Selecting the most appropriate solutions to build network	ONAT	24-25 September*	Kostanay, Kazakhstan	Free (in Russian)	Face-to-face (remote participation is possible)
19	5G Technologies for IoT	ICTP	28-30 September	Trieste, Italy	300 USD	Face-to-face
20	QoS Technologies and regulation for fixed and mobile	NIT	28 September - 5 October	Online	150 USD	Online
21	Key Aspects of Internet of Things, Big Data and Artificial intelligence	NIT	22-23 October 2020	Warsaw, Poland	500 USD	Face-to-face
22	The use of adaptive technologies to transmit video over radio channels	ONAT	5-6 November*	Odessa, Ukraine	Free (in Russian)	Face-to-face (remote participation is possible)
23	Applications of Satellite Based IoT Networks	ICTP	16-17 November	Trieste, Italy	200 USD	Face-to-face
24	Legal Aspects of artificial Intelligence in Business, Household and Public Sector	NIT	8-9 December	Warsaw, Poland	500 USD	Face-to-face
25	Mobile Broadband Internet, 5G and Future services	FEEIT	17 November – 14 December	Online	150 USD	Online

ANNEX 2: IMPLEMENTATION OF COE TRAINING ACTIVITIES 2019

CoE	Courses planned	Delivery mode	Original dates	Final dates	Status	NB of partici pants	End-of training reports	Training fee (USD)
NIT	Strategic Aspects for Internet Governance and Innovations	online instructor-led	4-11 March	4-11 March	Implemented	72	Submitted	150
NIT	Wireless Access Technologies to Internet Network	online instructor-led	8-15 April	8-15 April	Implemented	78	Submitted	150
NIT	Legal and regulatory barriers to the introduction of cloud services in the EU	online instructor-led	20-27 May	20-27 May	Implemented	19	Submitted	150
NIT	Security and QoS in Internet Network	online	26 August - 2 September	26 August - 2 September	Implemented	97	Submitted	150
NIT	Technical, business and regulatory aspects of 5G Networks	Online	30 September - 7 October	30 September - 7 October	Implemented	103	Submitted	150
NIT	QoS Technologies and Regulation for Fixed and Mobile	face to face	24-25 October	24-25 October	Implemented	8	Submitted	500
ISS	Cybersecurity techniques	self-paced	April	1July-31dec	Ongoing	7	Not submitted	250
ISS	Cyber incident response	self-paced	June	1July-31dec 2020	Ongoing	0	Not submitted	250
FEEIT	NGN Evolution, Future Networks and Ultra-broadband Internet	online instructor-led	28 May-24 June 2019	28 May-24 June 2019	Implemented	74	Submitted	150
FEEIT	Wireless and Mobile Ultra-broadband: LTE-A PRO, WLAN, AND 5G NR	Online	19 November - 16 December	19 November - 16 December	Implemented	120	Not submitted	150
NRD CS	Governing Cyber Security at the National Level: Best practices and lessons learned	face-to-face	7-10 May	7-10 May	Implemented	7	Submitted	800
NRD CS	Incident Response Practice: Hands-on scenario-based training	Face to face	17-20 September	17-20 September	Implemented	21	Submitted	800

CoE	Courses planned	Delivery mode	Original dates	Final dates	Status	NB of participants	End-of training reports	Training fee (USD)
ONAT	Building broadband telemedecine networks and providing e-Health services at the local, regional and national levels	face-to-face	16-17 May	Autumn	Not implemented	-	Not submitted	150
ONAT	Features of 5G technology implementation at the local (some towns), regional (district, region) and national level	face-to-face	16-17 May	Autumn	Not implemented	-	Not submitted	150
ONAT	Automation of broadband networks designing. Selecting the most appropriate solutions to build network	face to face	16 October	14 November	Implemented	25	Submitted	Free
ONAT	The use of adaptive technologies to transmit video over radio channels	face to face	7-8 November	7 November	Implemented	31	Submitted	Free
ICTP	CODATA/RDA Advanced Workshop on IoT and Big-Data Analytics	face to face	19-23 August	19-23 August	Implemented	1	Submitted	500
ICTP	Technical Aspects of Wireless Solutions for the Internet of Things (IoT)	face to face	2-4 September	2-4 September	Implemented	1	Submitted	500
ICTP	CODATA/RDA/ICTP/TWAS Research Data Science Summer School in West Africa	face to face	18-22 November	18-22 November	NA	0	Not submitted	300
ICTP	IoT Entrepreneurship	face to face	6-8 November	6-8 November	NA	0	Not submitted	500
ICTP	CODATA/RDA/ICTP/TWAS Research Data Science Summer School in West Africa	face to face	18-22 November	18-22 November	On-going		Not submitted	300

Outcome report – Centre of Excellence – Steering committee meeting 2019