

#### ITU CENTRES OF EXCELLENCE NETWORK FOR THE

#### EUROPE REGION

#### **DRAFT REPORT**

OF THE

4<sup>TH</sup> STEERING COMMITTEE MEETING

## DRAFT FOR COMMENTS BY STEERING COMMITTEE BY 16 OCTOBER 2020

9 OCTOBER 2020

Online Meeting



#### 1. INTRODUCTION AND OPENING

The 4<sup>th</sup> Steering Committee Meeting of the ITU Centres of Excellence for Europe for the 2019-2022 cycle was held online, on 9 October 2020. The Meeting was organized by the ITU and supported by RRT, Republic of Lithuania. <sup>1</sup> The Steering Committee Meeting was attended by 26 delegates including Centres of Excellence (CoEs), representatives from 3 Administrations of the Member States hosting CoEs, 3 other ITU Member States, and the ITU Secretariat. The list of participants is attached to this report (Annex 1).

The meeting was officially opened by Ms Inga RIMKEVIČIENĖ, Head of International and Public Relations Division, Strategy Department, Communications Regulatory Authority of the Republic of Lithuania and the Chair of the CoE Steering Committee, who thanked for a productive year 2020 and congratulated all ITU Centres of Excellence for Europe to their successful delivery of training courses despite of COVID-19 pandemics. Remarks were also provided by Ms Lidia STĘPIŃSKA-USTASIAK, Deputy Director of Department of Foreign Affairs, Office of Electronic Communications, Republic of Poland and the Chair of the ITU Group on Capacity Building Initiatives, who underlined importance of capacity building and digital skills development and recalled few initiatives undertaken at the GCBI level. Mr Jaroslaw PONDER, Head of the ITU Office for Europe and Ms Susan TELTSCHER, Head of the ITU Capacity Building and Skills Development Division, delivered the opening remarks on behalf of the ITU, recalling the main objectives of the meeting.

### 2. CONFIRMATION OF THE COE STEERING COMMITTEE COMPOSITION, CHAIR AND ADOPTION OF AGENDA

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 Hosting CoEs: Federal Republic of Germany, Republic of Lithuania, Republic of Poland
- Other Member States: Cyprus, Czech Republic, Greece, Moldova
- ITU Secretariat

Mr PONDER invited the meeting to reconfirm the Steering Committee Chair of the 4<sup>th</sup> Meeting of the Steering Committee following consultations with Member States. The meeting confirmed the continuation of the chairmanship of the Republic of Lithuania represented by Inga RIMKEVIČIENĖ, Head of International and Public Relations Division,

<sup>&</sup>lt;sup>1</sup> This meeting was originally planned as 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.



Strategy Department, Communications Regulatory Authority of the Republic of Lithuania.

Ms RIMKEVIČIENĖ thanked the meeting for the reconfirmation and chaired the 4<sup>th</sup> Steering Committee Meeting of the CoE Network for Europe (2019-2022 cycle).

Mr PONDER served as the Secretary of the Meeting.

Proposed draft agenda was adopted by the meeting (see Annex 2).

#### 3. REVIEW OF THE IMPLEMENTATION OF 2020 ACTVITIES

Ms TELTSCHER presented an overview of the implementation of CoE activities highlighting dynamics of the implementation at the global and regional level. She emphasized the fact that Centres of Excellence adapted quickly to the new reality impacted by the COVID-19 pandemics. She stressed the need to monitor performance and work towards improving performance, a topic that would be further discussed later in the day. As of 8 of October, European ITU Centres of Excellence offered 26 Trainings out of which 15 were already implemented and 8 were cancelled. Overall 835 people were trained, out of which 582 were certified. In comparison to 2019, ITU Centres of Excellence network experienced significant growth of trained people and the training delivery did not finish yet. In 2019 out of 21 trainings planned 16 were implemented. 650 people were trained and 557 were certified. For more details please see Annex 4.

Even though the European Centres of Excellence Network serve as an example at the global level, some of European CoEs still face the challenge of organizing trainings, attracting the audience and keeping the institutional commitment to organize at least two successful trainings per year per specialization; in particular year 2020 was mentioned as challenging taking into account the COVID-19 outbreak.

#### **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**

As of today, none of the trainings that had been planned for 2020 was implemented. ONAT proposed new dates for 4 courses to take place in November and December. Implementation of the courses will need to be confirmed by the ITU team, taking into



account feasibility of servicing of those meetings by the ITU Academy. All proposed meetings would be run online. ONAT will contact ITU during the week of 11 October to finalize the planning.

Courses planned	Delivery Mode	Original dates	Final dates	Status	NB of participant s	End-of training reports
Automation of broadband networks designing . Selecting the most appropriate solutions to build network.	face-to- face	24- 25SEP20	9-10 DEC	planned		
Building broadband telemedicine networks and providing e-health services at the local, regional and national levels	face-to- face	14- 15MAY2 0	14-15 DEC	planned		
Features of 5G technology implementation at the local, regional, and national level	face-to- face	11- 12JUN20		cancelled		
Features of 5G technology implementation at the local, regional, and national level	face-to- face	02- 03JUL20		cancelled		
The use of adaptative technologies to transmit video over radio channels	face-to- face	05- 06NOV2 0	5 NOV 2020	planned		
Technical operation of information networks	face-to- face	14- 15MAY2 0	16-18 DEC	planned		

#### FEEIT, North Macedonia

FEEIT has implemented one e-learning course while the second one is going to be held in November. 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. Last course was attended by 285 participants from 53 countries. Series of recommendations on how to attract the audience were presented for consideration by other Centres of Excellence.

Courses planned	Delivery mode	Original dates	Final dates	Status	NB of participant	End-of training
	mode	uates			S	reports



Future broadband internet, cloud computing and IoT	online instructor- led	26MAY- 22JUN20	26MAY- 22JUN20	implemented	285	Submitted
Mobile broadband Internet, 5G and future services	online instructor- led	17NOV- 14DEC20	17NOV- 14DEC20	confirmed	-	

#### ISS, Germany

ISS focused on the implementation of three online self-paced courses and one face-to-face training. Cybersecurity Technique course was taken by 2 participants.

Courses planned	Delivery mode	Original dates	Final dates	Status	NB of participants	End-of training reports
Cybersecurity Technique	online self- paced	01JAN- 31DEC20		Ongoing	2	
Cyber Incident Response	online self- paced	01JAN- 31DEC20		Ongoing	0	
Industrial cybersecurity and incident response	face-to- face	09-11SEP20	9-11NOV20	Unknown		
Information security management system	online self- paced	01JUN- 31DEC20	15JUL- 31DEC20	Ongoing	0	

#### NIT, Poland

NIT delivered almost all planned courses in the field of Internet Governance, Wireless and Fixed Broadband. One course was cancelled due to the COVID related travel restrictions which prevented instructor to travel. The representative of NIT shared his insights on the successful strategy for CoE performance that resulted in high participation going beyond 500 participants for 2020.

Courses planned	Delivery mode	Original dates	Final dates	Status	NB of parti- cipants	End-of training reports
Strategic aspects for Internet Governance and Innovations	online instructor- led	03-10FEB20	03-10FEB20	implemented	54	received
Wireless Access Technologies to Internet Network	online instructor- led	09- 16MAR20	09- 16MAR20	implemented	38	received
Security and QoS in Internet Network	online instructor- led	13-20APR20	13-20APR20	implemented	64	received
Legal, regulatory and technical aspect of cloud computing in international	online instructor- led	15-22JUN20	15-22JUN20	implemented	22	received



data transfers						
Technical, Business and Regulatory aspects of 5G networks	online instructor- led	24-31AUG20	24-31AUG20	implemented	217	received
QoS technologies and regulation for fixed and mobile	online instructor- led	28SEP- 05OCT20	28SEP- 05OCT20	implemented	130	pending
Key aspects and Governance of Internet of Things, Big Data and Artificial Intelligence	face-to-face	22-230CT20	22-23OCT20	cancelled		
Legal aspects of artificial intelligence in business, household and public sector	online instructor- led	08-09DEC20	7-14DEC20	Confirmed changed into online		

#### NRD Cyber Security, Lithuania

NRD CS implemented one face-to-face course with remote participation facility. The representative of NRD CS shared the practical experience gained through the first year of CoE activities.

Courses planned	Delivery mode	Original dates	Final dates	Status	NB of partici pants	End-of training reports
Building an effective cybersecurity team	face-to-face	04-07MAY20	5-8 OCT20	implemented	19	pending
Incident response practice hands-on scenario-based training	face-to-face	07-10SEP20	30NOV- 03DEC20	Canceled		

#### ICTP, Italy

ICTP planned 4 courses for 2020. Only one course was implemented so far. Other course was planned for November. There was no agreement with ITU Centre of Excellence from Kenia on the fee sharing. Private sector lecturers were integrated in the curriculum which was greatly welcomed by the participants.

Courses planned	Delivery mode	Original dates	Final dates	Status	NB of partici pants	End-of training reports
Data Science: technical & business aspects for open innovation	online self- paced	03-14AUG20	1SEP- 31DEC20	unknown no participants	0	
Trends and advances in Data Science Machine Learning and Artificial Neural Networks	online self- paced	17-21AUG20	1SEP- 31DEC20	unknown	0	



5G technologies for IoT	online instructor- led	28-30SEP20	28-30SEP20	implemented	4	Pending
Applications of satellite based IoT networks	online instructor- led	16-17NOV20		confirmed		

All presentations made are available on the website: <a href="http://academy.itu.int">http://academy.itu.int</a> and on the ITU Office for Europe website: <a href="https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2020/4thSC/Remote.aspx">https://www.itu.int/en/ITU-D/Regional-Presence/Europe/Pages/Events/2020/4thSC/Remote.aspx</a>

The following issues were raised during the discussions:

- Impact of COVID-19
- Performance of CoEs
- Need for stronger marketing of courses and related actions to be undertaken by CoEs and ITU.

# 4. DISCUSSION ON STRATEGIC AND OPERATIONAL ISSUES RELATED TO THE IMPLEMENTATION OF THE COE NETWORK ACTIVITIES, INCLUDING EXTERNAL ASSESSMENT OF ITU CAPACITY DEVELOPMENT ACTIVITIES, PROCESS OF QUALITY REASSURANCE AND GLOBAL COE MEETING

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

- Work of the ITU Secretariat on the process of quality reassurance which requires close coordination of outlines of the courses with the ITU leads of the thematic priorities of the BDT;
- Proposal of inclusion of up to two ITU Staff in each of the CoE courses with the aim of strengthening of the process of the quality reassurance in Europe;
- Proposal of holding the ITU Global CoE Meeting.

The Steering Committee endorsed all proposals and made the following observations:

- CoEs welcomed proposal of the ITU Secretariat to share with them the template of the outline to be submitted to the ITU Secretariat and Thematic Priority leads for their approval. It was noted that the outline will be composed of:
  - Overall objective of the training
  - Expected learning outcomes
  - Delivery method
  - Assessment criteria
  - Grading method
  - Certification process
  - For the face-to-face courses we would need to have information on COVID-19 and measures applied;



- CoEs agreed to provide an outline and short description of planned trainings in two weeks' time in order to build the Training Catalogue for the next Steering Committee meeting. This Catalogue will be then used as a communication tool around the region;
- Up to two ITU Staff will be permitted to attend CoE courses for free under the condition that they will be participating as students only. There should be no expectation that they would perform any other task than learning. It is also assumed that after the training they would provide an executive report to ITU Academy team assessing the quality of trainings;
- It was proposed that the Global Meeting of CoEs includes breakout rooms sessions to facilitate networking between CoEs with particular thematic focus.

#### Other items addressed include:

- Open offering of ITU to provide constant support to the Centres of Excellence in implementing their courses;
- Overall review of capacity building and skills development of ITU, including the series of interviews: Depending on the results of this review, there might be implications for the future of the Centres of Excellence. The outcomes of this exercise are expected to be finalized in early December;
- Possibility to engage with other CoEs to provide joint trainings: It is up to the CoEs to develop partnerships. ITU Secretariat should not be seen as part of those arrangements.
- Steering Committee agreed to hold the next Steering Committee meeting around the 15th of November in a shorter format (1h 30min). Meeting should mainly focus on the final endorsement of the Training Catalogue. In addition, CoEs would be interested in the discussion on the following:
  - o Mechanisms strengthening the 2021 delivery, including marketing and promotion
  - Clarification on the exact nature of online trainings: self-learning mode (readings, training questions and test) or web-based training (graphic, interactions, storytelling approach).
- CoEs committed to provide within two weeks' time detailed outlines of the trainings plans for 2021 and corresponding inputs to the training catalogue to be developed for consideration of the next Steering Committee meeting;



• To ensure the quality and transparency of the training, it is suggested to space out the dates of the trainings. Moreover, the final dates, methodology and information have to be submitted at least 1 month before the training.

#### 5. TRAINING PLAN 2021

Based on a series of presentations on the training plans for 2021, including details on the content, expected target audience and pricing, the list of 2021 planned trainings has been established.

#### **ONAT, Ukraine**

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
Automation of broadband networks designing: Selecting the most appropriate solutions to build a network	ONAT	19-20 May	ITU Academy Platform	175 USD	Online
Building and operating LAN in schools and educational organization (GIGA project)	ONAT	9-10 June	ITU Academy Platform	175 USD	Online
Building broadband telemedicine networks and providing e-health services at the local, regional and national levels	ONAT	15-16 September	ITU Academy Platform	175 USD	Online
Technical Operation of information networks	ONAT	10-11 November	ITU Academy Platform	175 USD	Online
ICT infrastructure Co Deployment with Transport and Energy Infrastructure	ONAT	23-24 November	ITU Academy Platform	175 USD	Online

#### **FEEIT, North Macedonia**

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
<ul> <li>"Future Broadband: Ultra-broadband Internet, Clouds, IoT and Artificial Intelligence"</li> <li>Internet technologies, QoS, Cybersecurity and Internet Governance</li> <li>Future ultra-broadband Internet access: NG-PON, Carrier Ethernet, Submarine and Satellites</li> <li>Future Cloud Computing, IoT/BigData and Artificial Intelligence by ITU</li> </ul>	FEEIT	25 May – 21 June 2021	Online	150 USD	E-learning



<ul> <li>Future ultra-broadband Telecoms, clouds/IoT/AI and OTT data services</li> </ul>					
<ul> <li>"Future mobile and wireless broadband:</li> <li>LTE-A-Pro, WiFi, Satellites, 5G NR and Al"</li> <li>Mobile broadband: LTE-Advanced/LTE-A-Pro, mobile Internet QoS and spectrum management</li> </ul>	FEEIT	16 November- 31 December 2021	Online	150 USD	E-learning
<ul> <li>Future wireless broadband: WiFi Next Generation and Satellite broadband access</li> <li>Future mobile broadband: 5G New Radio (NR), 5G NG Core and Artificial Intelligence</li> </ul>					
<ul> <li>Future mobile services: eMBB, URLLC, massive MTC, IoT/BigData/AI and mobile OTT services</li> </ul>					

#### ISS, Germany

Dates and exact type of training should be determined at the later stage. ISS is currently implementing a component of the ITU Global Cyberdrill. Based on this experience it will be decided what format of the training will be applied next year.

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
Cyber Incident Response	ISS		ITU Academy platform	250 USD	E-learning
Cyber Security Techniques	ISS		ITU Academy platform	250 USD	E-learning
Information security management system	ISS		ITU Academy platform	250 USD	E-learning
Industrial cybersecurity and incident response	ISS		If possible face-to-face. If not, ITU Academy platform	250 USD	If possible face-to- face, if not: e-learning
Risk Management	ISS		ITU Academy platform	250 USD	E-learning



#### NIT, Poland

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
Strategic Aspects for Internet Governance and Innovations	NIT	3 – 10 February 2021	Online	150 USD	e-learning
Wireless Access Technologies to Internet Network	NIT	9 – 16 March 2021	Online	150 USD	e-learning
Security and QoS in Internet Network	NIT	13 – 20 April 2021	Online	150 USD	e-learning
Legal, regulatory and technical aspects of Cloud Computing in international data transfers elearning	NIT	15 – 22 June 2021	Online	150 USD	e-learning
Technical, business and regulatory aspects of 5G networks e-learning	NIT	24 – 31 August 2021	Online	150 USD	e-learning
QoS Technologies and Regulation for Fixed and Mobile e-learning	NIT	28 September – 5 October 2021	Online	150 USD	e- learning
Key aspekty and Governance of Internet of Things, Big Data and Artificiall Intelligence	NIT	22 – 23 October 2021	Online	150 USD	e- learning
Legal Aspects of Artificial Intelligence in business, household and public sector	NIT	7 – 14 December 2021	Online	150 USD	e- learning

#### NRD Cyber Security, Lithuania

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
Building an effective cybersecurity team	NRD	19-22 April 2021	Vilnius	800 USD	Face-to- Face (Case studies, exercises, lectures, Roundtabl e)
Incident response practice	NRD	08-12 November 2021	Vilnius	800 USD	Face-to- Face

#### ICTP, Italy



All courses were changed into online delivery. Interest exists in involving much more of the private sector speakers. Interest in partnership with Huawei was expressed. There is a cooperation framework existing between ITU and Huawei that could be possibly used to advance on this. There is a need for facilitation of collaboration between ITU Centres of Excellence of different regions.

Training course topic	СоЕ	Dates	Venue	Training fee	Type of training
Application of Satellites for IoT (English/Spanish) In this training activity we will cover IoT applications that can provide coverage even in areas of inexistent land infrastructure or in the oceans. Newer developments in GEO (geostationary), MEO (medium earth orbit) and LEO (low earth orbit) solutions will open innovative solutions. As controlling the cost per device is of essence for the success of IoT applications, we will cover the sustainability issue of satellite-based IoT applications.	ICTP	September 3 Days	Online	100 USD	E-learning
5G technologies for IoT The rapidly evolving field of IoT requires trained professionals capable of analyzing the best solutions for a given application. Experts from both the academia and the industry will provide the participants with the required tools to accomplish this task in a timely manner. Both proprietary and standard based solutions will be analyzed, presenting their respective advantages and limitations.	ICTP	November 3 Days	Online	100 USD	E- learning
Data Privacy, Security & Governance From self driving vehicles to smart platforms and cities data driven applications is a growing part of everyday life. This activity examines the key areas of privacy, security and governance in relation to artificial intelligence systems and maintaining human rights and the SDG goals.	ICTP	October 3 Days	Online	100 USD	E- learning
Speech and Natural Language Processing Voice enabled smart devices are now widely available . In many cases, they are driven by cloud	ICTP	August 3 Days	Online	100 USD	E- learning



based Machine			
Learning and Neural Network platforms			
systems that			
have been trained using massive			
amounts of data.			
This activity introduces the			
fundamentals of Natural			
Language Processing, Recurrent Neural			
Networks and the			
Data Science techniques that are useful			
for processing			
non-English Speech and Natural			
Language Processing.			
Language i rocessing.			

The Steering Committee took note on the plans of the ITU CoE Network for Europe training courses for the coming year in the field of broadband, cybersecurity, ICT infrastructure, as presented in the tables above.

Final list of the trainings will be agreed at the next Steering Committee meeting in line with quality reassurance policy.

#### 6. UPDATE ON ITU ACTVITIES

Mr PONDER provided exhaustive presentation on the 2020 activities by the ITU Office for Europe, highlighting 2020 activities, projects and plans for 2021. 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.

#### 8. ADOPTION OF DRAFT REPORT AND ADDITIONAL CONCLUSIONS

The Steering Committee agreed that ITU Secretariat will publish a draft outcome report on the day of the meeting with the deadline for comments by the 16<sup>th</sup> of October 2020.

The date of the next meeting of the Steering Committee should be identified for consultations and should target the week of 9 or 16 November.

Invitation to hold the face-to-face meeting in Vilnius, Lithuania has been reiterated by the Communications Regulatory Authority of the Republic of Lithuania.



#### 9. CLOSING

The meeting ended with closing remarks from Mr PONDER as well as Ms RIMKEVIČIENĖ, Chair of the Steering Committee.

The participants expressed sincere thanks to the Chair of the Steering Committee and appreciations for the efforts of the ITU Secretariat, in particular teams of the ITU Office for Europe and Capacity and Digital Skills Development Division, in facilitating smooth running of the meeting.



#### **ANNEX 1: LIST OF PARTICIPANTS**

#### **Centres of Excellence**

- 1. Toni JANEVSKI, FEEIT, North Macedonia
- 2. Marco ZENNARO, ICTP, Italy
- 3. Dmytro CHERKASHYN, ISS, Germany
- 4. Swantje WESTPFAHL, ISS, Germany
- 5. Sylwester LASKOWSKI, NIT, Poland
- 6. Ruta JASINSKIENE, NRD Cyber Security, Lithuania
- 7. Vadym KAPTUR, A.S. Popov ONAT, Ukraine
- 8. Vladislav KUMYSH, A.S. Popov ONAT, Ukraine

#### **Member States Hosting the Centres of Excellence**

- 9. Inga RIMKEVIČIENĖ, Head of International and Public Relations Division, Strategy Department, Communications Regulatory Authority of **the Republic of Lithuania** (Chairperson of Steering Committee)
- 10. Lidia STĘPIŃSKA-USTASIAK, Office of Electronic Communications, **Republic of Poland** (Chairperson of GCBI)
- 11. Rafal Martoszewski, Chancellery of the Prime Minister, Republic of Poland
- 12. Mr. Aleksander Sołtysik, The Chancellery of the Prime Minister, **Republic of Poland**
- 13. Johann Gross, Federal Ministry of Economic Affairs and Energy, **Federal Republic of Germany**

#### **International Telecommunication Union**

- 14. Susan TELTSCHER, Head of Capacity and Digital Skills Development Division, ITU
- 15. Jaroslaw PONDER, Head of ITU Office for Europe, ITU
- 16. Elena STANKOVSKA-CASTILLA, Capacity and Digital Skills Development Division, ITU
- 17. Halima LETAMO, Capacity and Digital Skills Development Division, ITU



18. Sarah DELAPORTE, Project Officer, ITU Office for Europe, ITU

#### **Other Member States and Stakeholders**

- 19. Mr. Sergiu FINCIUC, Senior Consultant in the Cyber Security and Internet Section of the Ministry of Economy and Infrastructure, **Republic of Moldova**
- 20. Vassilios ARGYROULIS, Hellenic Telecommunications and Post Commission, **Greece**
- 21. Vilem VESELY, Ministry of Industry and Trade, Czech Republic
- 22. Joseph KARIS, ICT Standards Officer, Cyprus Organization for Standardisation, **Cyprus**
- 23. Henri HAXHIRAJ, Manager, Government Relations, atene KOM, Republic of Germany



## ANNEX 2: AGENDA OF THE 4<sup>TH</sup> MEETING OF THE STEERING COMMITTEE

Time	Items
12:30 – 13:00	Online networking and testing of video and audio
13:00 – 13:15	Opening
	Welcome remarks by ITU
	Remarks by the outgoing Chair
	Confirmation of and remarks by the incoming Chair
	Group picture and coffee break
13:15 - 14:45	Centres of Excellence presentations: 2020 implementation and training plans for 2021: ITU will share the current status of implementation for each CoE. Each CoE will report on the implementation of their 2020 activities. Each presentation should cover the courses that were implemented throughout the entire year (number of participants, feedback received, certificates issues etc), issues faced and lessons learnt, including those from COVID-19.
	Each CoE will also present their proposals for the training courses they are planning to deliver in 2021, including the topics, exact dates, training fees charged, audience targeted etc. CoEs are expected to deliver at least 2 training courses per priority area per year. In addition, CoEs may offer courses on emerging topics outside their priority areas if not covered by any other CoE in the region. The objective of the discussion is to agree on the draft training schedule for 2021.
	• ITU
	<ul> <li>Current status of implementation for each CoE</li> </ul>
	<ul> <li>A.S. Popov Odessa National Academy of Telecommunications (ONAT), Ukraine</li> </ul>
	o Discussion
	<ul> <li>Faculty of Electrical Engineering and Information Technologies, Ss. Cyril and Methodius University, Skopje (FEEIT), North Macedonia</li> </ul>
	o Discussion
	<ul> <li>Institute for Security and Safety (ISS) at the Brandenburg University of Applied Sciences, Germany</li> </ul>
	o Discussion
	The Abdus Salam International Center for Theoretical Physics (ICTP),



	Italy				
	o Discussion				
	NRD Cybersecurity, Lithuania				
	o Discussion				
	National Institute of Telecommunications (NIT), Poland				
	o Discussion				
	Coffee break				
14.45 - 15:15	Discussion on strategic and operational issues related to the implementation of the CoE network activities, including external assessment of ITU capacity development activities, process of quality reassurance and global CoE meeting				
	• ITU (HQ)				
	• Discussion				
15:15 - 15:40	Update on ITU activities				
	• ITU				
	• Discussion				
15:40 – 16:00	Presentation of Draft Report and Adoption				
16:00	Closing				



#### ANNEX 3: IMPLEMENTATION OF COE TRAINING ACTIVITIES 2020 AS OF 9 OCTOBER 2020

COE	COURSES PLANNED	DELIVERY MODE	ORIGINAL DATES	FINAL DATES	STATUS	NUMBER OF PARTICIPANT S REGISTERED	NUMBER OF PARTICIPANT S CERTIFIED	END-OF TRAINING REPORTS
FEEIT	Future broadband internet, cloud computing and IoT	online instructor- led	26MAY- 22JUN20		implemented	285	260	received
FEEIT	Mobile broadband Internet, 5G and future services	online instructor- led	17NOV- 14DEC20		confirmed			
ICTP	Data Science: technical & business aspects for open innovation	online self-paced	03-14AUG20	1SEP-31DEC20	unknown	0		
ICTP	Trends and advances in Data Science Machine Learning and Artificial Neural Networks	online self-paced	17-21AUG20	1SEP-31DEC20	unknown	0		
ICTP	5G technologies for IoT	online instructor- led	28-30SEP20		implemented	4		pending
ICTP	Applications of satellite based IoT networks	online instructor- led	16-17NOV20		confirmed			
ISS	Cybersecurity Technique	online self-paced	01JAN- 31DEC20		ongoing	2		



ISS	Cyber Incident Response	online self-paced	01JAN- 31DEC20		ongoing	0		
ISS	Industrial cybersecurity and incident response	face-to-face	09-11SEP20	9-11NOV20	unknown			
ISS	Information security management system	online self-paced	01JUN- 31DEC20	15JUL-31DEC20	ongoing	0		
NIT	Strategic aspects for Internet Governance and Innovations	online instructor- led	03-10FEB20		implemented	54	45	received
NIT	Wireless Access Technologies to Internet Network	online instructor- led	09-16MAR20		implemented	38	29	received
NIT	Security and QoS in Internet Network	online instructor- led	13-20APR20		implemented	64	54	received
NIT	Legal, regulatory and technical aspect of cloud computing in international data transfers	online instructor- led	15-22JUN20		implemented	22	15	received
NIT	Technical, Business and Regulatory aspects of 5G networks	online instructor- led	24-31AUG20		implemented	217	179	received
NIT	QoS technologies and regulation for fixed and mobile	online instructor- led	28SEP- 05OCT20		implemented	130	108	pending
NIT	Key aspects and Governance of Internet of Things, Big Data and Artificial Intelligence	face-to-face	22-23OCT20		cancelled			



NIT	Legal aspects of artificial intelligence in business, household and public sector	online instructor- led	08-09DEC20	7-14DEC20	confirmed		
NRD	Building an effective cybersecurity team	face-to-face	04-07MAY20	5-8 OCT20	implemented	19	pending
NRD	Incident response practice hands-on scenario-based training	face-to-face	07-10SEP20	30NOV- 03DEC20	Cancelled		
ONAT	Automation of broadband networks designing . Selecting the most appropriate solutions to build network.	face-to-face	24-25SEP20	9-10 DEC 20	planned		
ONAT	Building broadband telemedicine networks and providing e-health services at the local, regional and national levels	face-to-face	14-15MAY20	14-15 DEC 20	planned		
ONAT	Features of 5G technology implementation at the local, regional, and national level	face-to-face	11-12JUN20		Cancelled		
ONAT	Features of 5G technology implementation at the local, regional, and national level	face-to-face	02-03JUL20		Cancelled		
ONAT	The use of adaptative technologies to transmit video over radio channels	face-to-face	05-06NOV20	5 NOV 2020	planned		
ONAT	Technical operation of information networks	face-to-face	14-15MAY20	16-18 DEC	planned		



Total	835	582