**SUMMARY OF ASTAP WORK PLANS**

**(As of ASTAP-36)**

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| **Number** | **Title** | **EG** | **Target**  |
| 1 | Handbook to introduce ICT solutions for the community in rural areas  | BSG | ASTAP-36 |
| 2 | Guideline on setting up national ICT standardization regime  | BSG | ASTAP-37 |
| 3 | Practical experience in combating counterfeit and stolen mobile devices | ITU-T | ASTAP-37 |
| 4 | Technical solutions for optical cable rural backhaul connectivity together with relevant ITU-T standards and its implementation | ITU-T | ASTAP-37 |
| 5 | Status report for standardization activities on e-waste and rare metals (ASTAP-36/OUT-14) | GICT&EMF | ASTAP-36 |
| 6 | Status report of Asia Pacific regional activities on human exposure to EMF (EMF impact) (ASTAP-36/OUT-13) | GICT&EMF | ASTAP-36 |
| 7 | APT Members’ status on the deployment of green or environment friendly ICT projects (ASTAP-36/OUT-12) | GICT&EMF | ASTAP-36 |
| 8 | The status report of RF-EMF exposure assessment from mobile phone base stations in Asia Pacific region | GICT&EMF | ASTAP-38 |
| 9 | Guidelines on application of ICT Trust index to APT members countries | FN&NGN | ASTAP-37 |
| 10 | APT report on Guidelines for 5G network sharing and co-construction (ASTAP-36/OUT-16) | FN&NGN | ASTAP-36 |
| 11 | APT report on Future network services in beyond 5G era | FN&NGN | ASTAP-37 |
| 12 | APT Report on Low-altitude Network and Key its Technologies | FN&NGN | ASTAP-39 |
| 13 | Local-area resilient information sharing and communication systems | DRMRS | ASTAP-37 |
| 14 | Cascade free space optical and millimeter-wave communication system for small-cell access networks | SACS | ASTAP-37 |
| 15 | Seamless access system for wideband THZ services | SACS | ASTAP-38 |
| 16 | Fiber-wireless bridge system for seamless access network in high-frequency band | SACS | ASTAP-39 |
| 17 | Requirements and framework of IoT older person are solution (ASTAP-36/OUT-19) | IOT | ASTAP-36 |
| 18 | Guidance for Emergency Medical Services in the Digital Age | IOT | ASTAP-37 |
| 19 | IoT Ecosystem Development Activities in APT Member Countries | IOT | ASTAP-38 |
| 20 | Guidelines for IoT Security (for manager) | IS | ASTAP-37 |
| 21 | Guideline of decentralized identity (DID) technology and its application | MA | ASTAP-37 |
| 22 | Problems and requirements on CDN services in COVID-19 in Asia-Pacific region | MA | ASTAP-37 |
| 23 | Metaverse use cases in Asia-Pacific region | MA | ASTAP-38 |
| 24 | Relay Services for Accessible Emergency Communication  | AU | ASTAP-38 |
| 25 | Guide on developing accessible mobile application for the APT countries | AU | ASTAP-38 |
| 26 | Accessible IoT Applications and Smart City Services in the AP Region | AU | ASTAP-38 |
| 27 | Framework for Evaluating Usability of Natural User Interactions | AU | ASTAP-38 |

**detail Workplan for EG BSG**

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| **Number** | BSG-1 |
| **Title** | HANDBOOK TO INTRODUCE ICT SOLUTIONS FOR THE COMMUNITY IN RURAL AREAS |
| **Output Document Type** | Report |
| **Group/Chairman** | EG BSG / Mr. Dao Ngoc TUYEN |
| **Editor(s)** | Masatoshi Mano, TTC Japan (mano@s.ttc.or.jp) |
| **Scope** | Collecting ICT pilot project cases including e-Agriculture and Aquaculture, e-Education, e-Environment, e-Healthcare, e-Disaster risk management, Smart City and so on in rural communities and generalizing the knowledge of them |
| **Purpose** | Providing the actual and valuable information to start the related new ICT application projects |
| **Related Documents** | The APT Report on Handbook to introduce ICT solutions for the community in rural areas [APT/ASTAP/REPT-13 (Rev.4), June 2021] |
| **Related Organization** | The Telecommunication Technology Committee (Working Group on BSG) |
| **Timelines** | Aug. 2014: Approval of APT/ASTAP/REPT-13Sept. 2015: Approval of APT/ASTAP/REPT-13 (Rev.1)ASTAP-28: Issuing a questionnaire on smart city application case studiesASTAP-29: (1) Approval to add the e-aquaculture project (APT/ASTAP/REPT-13 (Rev.2))(2) Postponement of questionnaire on Smart City use case deadlineASTAP-30: Report on summary of Smart City use case responseASTAP-31: Contribution of draft revised HANDBOOK (Rev.3) and move to approvalASTAP-33: Contribution of draft HANDBOOK (Rev.4) to add a case study on the e-Healthcare solution and move to approvalASTAP-35: Contribution of draft HANDBOOK (Rev.5) to add a case study on IoT and RFID and move to approvalASTAP-36: Contribution of draft HANDBOOK (Rev.6) to add a case study on the e-Agriculture solution using IoT and move to approval |

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| **Number** | BSG-2 |
| **Title** | Guideline on setting up national ICT standardization regime |
| **Output Document Type** | Guideline  |
| **Group/Chairman** | EG BSG / Mr. Dao Ngoc TUYEN |
| **Editor(s)** | Mr. Shizhuo ZHAO, CCSA, P.R.China (zhaosz@ccsa.org.cn)Mr. Iwata Hideyuki, TTC, Japan (iwata@s.ttc.or.jp)Mr. Ken SUGAWARA, ARIB, Japan (k-sugawara@arib.or.jp)Mr. Yoshiaki KUMAGAI, ARIB, Japan (y-kumagai@arib.or.jp)Mr. Kihun KIM TTA, Rep. of Korea (channel@tta.or.kr)Mr. Ratnam N.A., MTSFB, Malaysia (ratnamna@gmail.com)Mr. Thaib Mustafa, MTSFB, Malaysia (thaibmus@tm.com.my) (**Leader of editors**) |
| **Scope** | The Guideline will provide: * Rationale for establishing a national standardization regime such as national standard development organization/ committee;
* Various models of SDOs/committee to be considered and recommended for APT Members which would suit to their circumstance;
* Role and mission of the organization/committee
* Role and responsibilities of various stakeholders such as government, industry, academia, etc.;
* Practical recommendations to operate the organization/committee.

In order to develop the Guideline, this Work Plan will commence with examining the real needs of developing countries in standardization in particular, setting up national regime for standardization. |
| **Purpose** | This Work Plan and the Guideline will facilitate the understanding of the needs of standardization framework as well as assist APT Members in setting up a national regime in particular a standard development organization or committee. |
| **Related Documents** | <http://www.itu.int/en/ITU-T/gap/Documents/NSSGuidelines.pdf>  |
| **Timelines** | ASTAP-29: Initiation of the work plan; ASTAP-30: Nominating editorASTAP-31: Improving the editors members. Send templates to SDOs to get contribution on establishing and running SDO. ASTAP-32: Discuss the commonalities and differences of SDO’s models. Develop the framework for the Guideline;ASTAP-34: Organize Stardardization workshop for information from SDOsASTAP-35: Holding a Standardization Workshop under EG BSG to get feedback from developing countries and identify possible way forward ASTAP-36: Developing initial content of the first draft of guideline based on the contributions from APT membersASTAP 37: Discussing and Finalizing the draft guideline |

**detail Workplan for EG ITU-T**

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| **Number** | ITU-T-1 |
| **Title** | Practical experience in combating counterfeit and stolen mobile devices |
| **Output Document Type** | Report |
| **Relevant EG** | WG PSC, EG BSG  |
| **Editor(s)** | Kaoru Kenyoshi (kaoru.kenyoshi@nict.go.jp) |
| **Scope** | Collect information challenges faced by APT member countries and share technical and legal solutions and best practices to combat counterfeit and stolen mobile devices among APT member countries. |
| **Purpose** | Providing practical and useful information to mitigate negative impact of counterfeit and stolen mobile devices.  |
| **Related Documents** | Solution for Combating Counterfeit Mobile Handsets: A case of Nepal (ASTAP-31/INP-09) |
| **Related Organization** | ITU-T SG11 |
| **Timelines** | ASTAP-31: Initiate a new work itemASTAP-32: Introduction of ITU-T SG11 activities with regards to combating counterfeit and stolen mobile devicesASTAP-33: Revise draft APT report with contributionsASTAP-37: Finalize APT report  |

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| **Number** | ITU-T-2 |
| **Title** | Technical solutions for optical cable rural backhaul connectivity together with relevant ITU-T standards and its implementation |
| **Output Document Type** | Report |
| **Relevant EG** | WG PSC, EG BSG |
| **Editor(s)** | Kaoru Kenyoshi (kaoru.kenyoshi@nict.go.jp) |
| **Scope** | Collect and share use cases in ASTAP member countries regarding implementation of affordable optical cable broadband connectivity in rural area. |
| **Purpose** | Providing practical and useful information to facilitate local community’s toward getting broadband connectivity in an affordable manner. |
| **Related Documents** | Development of new ITU Standards on High-speed Broadband Services for Rural communities, Global Plan Inc., Japan ([ASTAP-31/INF-15](https://www.apt.int/sites/default/files/2019/06/ASTAP-31-INF-15-_Okamura.docx)) |
| **Related Organization** | ITU-T SG15 |
| **Timelines** | ASTAP-31: Initiate a new work itemASTAP-32: Introduction of ITU-T SG15 activitiesASTAP-33: Revise draft APT report with contributionsASTAP-37: Finalize APT report  |

**DETAIL WORK PLAN OF EG GICT & EMF**

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| **No.** | GICT & EMF WI-1 |
| **Title** | Status report for standardization activities on e-waste and rare metals |
| **Output Document Type** | Status report |
| **Relevant EG** | EG GICT & EMF |
| **Editor(s)** | Dr. Bum Sung Kim/ KITECH, Republic of Korea |
| **Scope** | The scope of this report introduces e-waste & rare metal related strategies, activities & management systems of international organizations as well as APT member countries. |
| **Purpose** | The purpose of this report is to share information related to E-waste & rare metals in order to raise awareness on the possible hazards & values of E-waste and rare metals. |
| **Related Documents** | ASTAP-23-OUT-14Rev.2, ASTAP-24-OUT-25, ASTAP-25-OUT-06Rev.1ASTAP-28/INP-45 ASTAP-29-INP-41, ASTAP-29-INP-66, ASTAP-29-TMP-37ASTAP-30/INP-50. ASTAP-30/TMP-04ASTAP-31/INP-51, ASTAP-31/INP-52, ASTAP-34/INP-33ASTAP-35/INP-09, 10 ASTAP-36/INP-15 |
| **Related Organization** | APT member countries |
| **Timelines** | ASTAP-26: Request for members’ contribution ASTAP-27: Member countries contributions and presentations update on the progress of the reportASTAP-28: Member countries contributions and presentations request for members’ contribution and draft status report ASTAP-29: Member countries contributions and presentationscase study and best practices ASTAP-30: Final report was approved in the ASTAP30 closing plenary and published as APT-ASTAP-REPT-30-Ewaste and Rare metalsASTAP-33: Discussion to prepare the 1st amendment and agreement to carry it out at the ASTAP 34ASTAP-34: 1st amendment task will be carried out. Contributions are needed to update the contents of the report.ASTAP-35: Draft 1st amendment version of the report 30 was approvedASTAP-36: Draft 1.1 revision of the report was prepared for approval |

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| **No.** | GICT&EMF WI-2 |
| **Title** | Status report of Asia Pacific regional activities on human exposure to EMF (EMF impact) |
| **Output Document Type** | Status Report |
| **Relevant EG** | EG GICT&EMF |
| **Editor(s)** | Dr.Juno An/IFRE, Republic of Korea |
| **Scope** | The scope of this Status Report cover international regulations and guidelines, related international activities of EMF exposure, national policy, regulation and guideline for EMF exposure, awareness and education outreach activities of EMF exposure in the APT member countries. |
| **Purpose** | The purpose of this Status Report is to share existing regional activities and best practices in order to raise awareness on the human exposure to EMF. This document can be a reference for future standardization activities. |
| **Related Documents** | ASTAP-24-OUT-25, ASTAP-25-TMP-16, ASTAP-26-INF-15, ASTAP-27/INP-46, INP-47, INP-09, TMP-05ASTAP-30/INP-51, INP-47, INP-49ASTAP-31/INP-54, INF-08, TMP-57, ASTAP-34/INP-22, INP-23ASTAP-35/INP-11, ASTAP-36/INP-45 |
| **Related Organization** | APT member countries |
| **Timelines** | ASTAP-26: Request for members’ contribution ASTAP-27: Member countries contributions and presentations Update on the progress of the reportASTAP-28: Member countries contribution and presentations, draft the status reportASTAP-29: Finalize the report and approved in the ASTAP 29ASTAP-31: 1st amendment draft report was approved in the ASTAP plenary and published as APT-ASTAP-REPT-29-R1-Human exposure to EMFASTAP-33: Discussion to update the report and agreement to carry it out at the next ASTAP 34 meetingASTAP-34: Develop the draft 2nd amendment of the report based on the input documents from the member countries for approval at the Plenary of ASTAP34 ASTAP-35: 2.1 revision of the report was approved.ASTAP-36: 2.2 revision was prepared for approval |

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| **No.** | GICT & EMF WI-3 |
| **Title** | APT members’ status on the deployment of green or environment friendly ICT project |
| **Output Document Type** | Report |
| **Relevant EG** | EG GICT&EMF |
| **Editor(s)** | Mr. Ratnam N. A./ MTSFB, Malaysia |
| **Scope** | To collect use cases from any implementation of green ICT projects or applications from APT members and affiliate members including green ICT policies and strategies with key successful factors or challenges. |
| **Purpose** | To develop a report which will be a reference to prepare APT guideline for best practices and environment friendly policies for effective ICT deployment methods.  |
| **Related Documents** | ASTAP-28-INF-10, ASTAP-29-TMP-10, ASTAP-30/INF-12,ASTAP-31/INP-30, ASTAP-31/TMP-07, ASTAP-34/INP-19ASTAP-35/INP-50, 56ASTAP-36/INP-50-R1 |
| **Related Organization** | APT members and affiliate members |
| **Timelines** | ASTAP-28: Propose work plan  Request for members’ contribution ASTAP-29: Contributions and presentations, Update the report ASTAP-30: Update and present 1st draft report  Member countries contribution and presentationsASTAP-31: Update and 2nd draft report, Extend deadline to ASTAP-32ASTAP-34: Presentation on the status of the work itemThe EG meeting agreed to produce a Questionnaire again to circulate it to member countries to collect related case studies and best practicesASTAP-35: Reviewed the responses of questionnaireASTAP-36: Draft final report of the WI for approval |

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| **Number** | GICT&EMF WI-4 |
| **Title** | The status report of RF-EMF exposure assessment from mobile phone base stations in Asia Pacific region |
| **Output Document Type** | APT/ASTAP Technical report |
| **Group/Chairman** | EG GICT&EMF Exposure/Dr. Samyoung Chung |
| **Editor(s)** | TaeWook Hwang, Samyoung Chung, Nur Akbar Said, Jongchan KimNadia Hazwani Yaakob |
| **Scope** | This report will include the topics related to the RF-EMF exposure assessment from mobile phone base stations. In addition, any contribution on the measurement and calculation results of the EMF for the radio base stations will be welcomed. Regardless of the frequency bands, all mobile communications of 3G, LTE, and IMT2020 are targets to assess the RF-EMF exposure assessment for the base stations. This report will also contain the information on the related activities of the international standard developing organizations (SDO) of ITU-T and ITU-D, IEC TC107, IEEE and any other related international activities on EMF exposure assessment.  |
| **Purpose** | To share the information on the RF-EMF exposure assessment results from the mobile phone base stations with the APT member countries. The technical report can be used as one of the guidelines on how to assess the EMF exposure levels for the target sources and evaluate the status of electromagnetic environment in the areas of communication base stations |
| **Related Documents** | APT-ASTAP-REPT-29, ITU T K.91, IEC 62232 (2022) |
| **Related Organization** | IEC TC106, ITU-T Q3/5, ITU D Q7, IEEE |
| **Timelines** | The input document, ASTAP-36/INP-23 which proposing to create a new work item on EMF assessment, was presented. The EG agreed to set up a new work item for this topic EMF assessment for mobile base stations.The EG GICT& EMF, ASTAP 37 meeting will discuss and draft the 1st version report based on the input documents in 2025.The final version of this report will be completed based on input documents of the participants and will be published in 2026 |

**Detailed Work Plan of EG FN&NGN**

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| **Number** | FN&NGN-1 |
| **Title** | Guidelines on application of ICT Trust index to APT members countries |
| **Document Type** | Report |
| **Group/Chair** | FN&NGN-EG / Dr. Joon Won LEE  |
| **Editor(s)** | Dr. Joon Won LEE |
| **Scope** | To make the guidelines of ICT trust index application to APT members countries. |
| **Purpose** | To emphasize the importance of ICT trust area.To facilitate the application of trust index to APT member countries. |
| **Related Documents** | Recommendation ITU-TY.3052: Overview of trust provisioning for information and communication technology infrastructure and services.Recommendation Y.3057(ex Y.trust-index) : A trust index model for information and communication technology infrastructures and services(Approved at Dec 2021)Recommendation Y.trust-arch.Functional architecture for trust enabled service provisioning(planed 07/2023) |
| **Related Organization** | ITU-T SG13 (Q16/13) |
| **Timelines** | ASTAP31: Initiate a work itemASTAP32: Follow-up ITU-T SG13 activitiesASTAP33: Follow-up ITU-T SG13 activitiesASTAP34: Review of ITU-T RecommendationsASTAP35: Review of ITU-T Recommendations ASTAP36: Review of ITU-T RecommendationsASTAP37: Final report |

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| **Number** | FN&NGN-2 (Completed) |
| **Title** | Guidelines for 5G Network Sharing and Co-construction |
| **Output Document Type** | Report |
| **Relevant EG** | EG FN&NGN |
| **Editor(s)** | Ms. Hua Zhang(China Telecom, zhanghua111@chinatelecom.cn)Mr. Hang SU (China Telecom, suh6@chinatelecom.cn)eHyeyoung E. LEE(TTA, Rep. of Korea)Tong Wu(China) |
| **Scope** | The scope of this work item is followings:1)Research topic of 5G Network sharing and Co-construction* . Detailed aspects are;

- Shared network standards and classification- Key technologies of 5G network sharing and co-construction - Planning and construction of 5G network sharing and co-construction - Regulation and accounting/settlement of 5G network sharing and co-construction - Operation and optimization of 5G network sharing and co-construction - Prospect of global mobile communications network sharing and co-construction* 2) the usage of network sharing in APT member countries.
 |
| **Purpose** | The purpose of this work item is to introduce 5G Network sharing and Co-construction technologies and relevant standards including use cases on 5G Network sharing and Co-construction for practical usage in APT member countries. |
| **Related Documents** | * ASTAP-34/INP-28;
* ASTSP-35/INP-49(updated one is ASTAP-35/TMP46 )
 |
| **Timelines** | ASTAP-34: Initiation of the work item and submission of draft reportASTAP-35: Continuous surveying of key technologies and operation issues on 5G Network sharing and Co-construction in various APT member countriesASTAP-36: Submission of finalized report |

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| **Number** | FN&NGN-3 |
| **Title** | future services in beyond 5G era  |
| **Output Document Type** | Report  |
| **Relevant EG** | EG FN&NGN  |
| **Editor(s)** | Hideki Yamamoto (OKI) |
| **Scope** | Collecting use cases of B5G network services and report them. The scope of the first target is about the services by autonomous network, autonomous mobile robots, and CDN functions over B5G using virtualized network infrastructure.43 |
| **Purpose** | Providing the actual and useful information to start the related new standardization project. |
| **Related Documents** | * ASTAP-34/INP-34;
* ASTAP-34/INP-35.
* ASTAP-35/INP54(Questionnaire, Updated one is ASTAP35/TMP43)
 |
| **Related Organization** | ITU-T FG-AN |
| **Timelines** | ASTAP-34 (April 2022): Approval of new work plan.ASTAP-35 (April 2023): Approval of questionnaire ASTAP-36 (TBD 2024/5): Discussion of the draft report based on the answers to questionnaire .ASTAP-37 (TBD 2025/5): Approval of finalized draft APT report |

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| **Number** | FN&NGN-4 |
| **Title** | Low-altitude network and its key technologies |
| **Output Document Type** | Report |
| **Relevant EG** | EG FN&NGN |
| **Editor(s)** | Ms. Hua Zhang (China Telecom, zhanghua111@chinatelecom.cn) |
| **Scope** | The scope of this work item is followings:1)Research topic of low-altitude network and key technologies. Detailed aspects are;- Introduction of UAVs and low-altitude network- Typical application scenarios of UAVs for low-altitude network- Main technical challenges of low-altitude network - Key enabling technologies of low-altitude network - Low-altitude network architecture and functionalities- Low-altitude network construction and optimization* 2) Outlook and suggestion of develop low-altitude network
 |
| **Purpose** | The purpose of this work item is to introduce low-altitude network and its key technologies for research usage in APT member countries. |
| **Related Documents** | * TBD
 |
| **Timelines** | ASTAP-36: Initiation of the work item and submission of draft reportASTAP-37: Continuous surveying of key technologies and operation issues on low-altitude network and key technologies among APT member countriesASTAP-38: Revise draft APT Report with analysis of the questionnaireASTAP-39: Submission of finalized report |

**DETAILS WORK PLAN OF EG DRMRS**

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| **Number** | DRMRS-1 |
| **Title** | Local-area resilient information sharing and communication systems |
| **Output Document Type** | APT Report |
| **Relevant EG** | EG DRMRS |
| **Editor(s)** | Dr. Toshiaki KURI (NICT, kuri@nict.go.jp)Dr. Masugi INOUE (NICT, inoue@nict.go.jp) |
| **Scope** | The scope of this work item are follows:1) to survey on technical specifications on local communications and information sharing without public network services. Detailed study points are;* An overview of local-area information sharing and communication system without public network services in peacetime and during/after disaster;
* resilient capabilities and specifications based on both network-layer and information-layer technologies;
* its use cases.

2) and to show guidelines for the usage of the system in APT member countries. |
| **Purpose** | The purpose of this work item is to introduce technical specifications and use cases on local-area resilient information sharing and communication systems for practical usage in APT member countries. |
| **Related Documents** | * ITU-D SG2 Question 5/2 Output Report "Utilization of telecommunications/ICTs for disaster preparedness, mitigation and response"
 |
| **Timelines** | ASTAP-33: Initiation of the work itemASTAP-34: Submission of initial text of draft reportASTAP-35: Submission of updated textASTAP-36: Submission of updated textASTAP-37: Submission of finalized report |

**DETAILS WORK PLAN OF EG SACS**

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| **Number** | SACS-1 |
| **Title** | CASCADED FREE SPACE OPTICAL AND MILLIMETER-WAVE COMMUNICATION SYSTEM FOR small-cell access networks |
| **Document Type** | Report |
| **Group/Chairman** | EG SACS / Dr. Hiroyo OGAWA |
| **Editor(s)** | Dr. Pham Tien Dat, Japan (ptdat@nict.go.jp) |
| **Scope** | This report provides the technical specifications and the application use cases of the hybrid wireless system based on free-space optical communication and millimeter-wave communication systems. Specific specification of the transceiver and network is also provided in the transmission of the signals. |
| **Purpose** | To provide technical guidance to APT member countries to implement hybrid wireless system based on free space optical and millimeter-wave communication systems utilized in mobile fronthaul/backhaul and indoor access networks. |
| **Related Documents** | APT/ASTAP/REPT-03: Characteristics and requirements of optical and electrical components for millimeter wave radio on fiber systemsAPT/ASTAP/REPT-09: APT Report on Direct Single-Mode-Fiber Coupled Free Space Optical Communications to Expand the Flexibility in Fiber-Based ServicesAPT/ASTAP/REPT-11: Wired and wireless seamless connections using millimeter-wave radio over fiber technology for resilient access networksITU-T G.640: Co-location longitudinally compatible interfaces for free space optical systemsITU-T G.9803: Radio over fiber systemsITU-T G.9991: High-speed indoor visible light communication transceiver – System architecture, physical layer and data link layer specification |
| **Related Organization** | ITU-T SG15 (Q2/15) |
| **Timelines** | ASTAP-33* + - Develop a new workplan
		- Initiate the work on free space optical and millimeter-wave communication systems

ASTAP-34* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report
		- Prepare a liaison statement if necessary

ASTAP-35* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report

ASTAP-36* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report ASTAP-37
* Finalize the draft new APT Report and submit to the Plenary
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| **Number** | SACS-2 |
| **Title** | SEAMLESS ACCESS SYSTEMS FOR WIDEBAND THZ SERVICES |
| **Document Type** | Report |
| **Group/Chairman** | EG SACS / Dr. Hiroyo OGAWA |
| **Editor(s)** | Dr. Tetsuya Kawanishi, Japan (kawanishi@waseda.jp) |
| **Scope** | This report provides the technical specifications of the seamless access systems for wideband THz services. Specific specification of the optical networks or signal processing in the seamless access systems is also provided to mitigate impact of the THz wave interference. |
| **Purpose** | To provide technical guidance to APT member countries to implement seamless access systems for wideband THz services. |
| **Related Documents** | APT/ASTAP/REPT-03: Characteristics and requirements of optical and electrical components for millimeter wave radio on fiber systemsAPT/ASTAP/REPT-04: Technology trends of telecommunications above 100GHzAPT/ASTAP/REPT-11: Wired and wireless seamless connections using millimeter-wave radio over fiber technology for resilient access networksITU-T G.9803: Radio over fiber systems |
| **Related Organization** | ITU-T SG15 (Q2/15) |
| **Timelines** | ASTAP-33* + - Develop a new workplan
		- Initiate the work on seamless access systems for wideband THz services

ASTAP-34* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report
		- Prepare a liaison statement if necessary

ASTAP-35* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report

ASTAP-36* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report
		- Prepare a liaison statement if necessary

ASTAP-37* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report
		- Prepare a liaison statement if necessary

ASTAP-38* + - Finalize the draft new APT Report and submit to the plenary
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| **Number** | SACS-3 |
| **Title** | FIBER–WIRELESS BRIDGE SYSTEM FOR SEAMLESS ACCESS NETWORK IN HIGH-FREQUENCY BAND [or revison of APT/ASTAP/REP-11 or 20] |
| **Document Type** | Report |
| **Group/Chairman** | EG SACS / Dr. Hiroyo OGAWA |
| **Editor(s)** | Dr. Pham Tien Dat, Japan (ptdat@nict.go.jp) |
| **Scope** | [This report provides the technical specifications and guidance of the fiber-wireless bridge systems for seamless access systems in high-frequency radio bands such as millimeter-waves and terahertz-waves. Specific specification of the optical networks, signal processing, optical-radio conversion systems in the seamless access systems is also provided to realize millimeter-wave and terahertz-wave radio system with small penalties.] |
| **Purpose** | To provide technical guidance to APT member countries to implement fiber-wireless bridge system in high-frequency radio bands |
| **Related Documents** | APT/ASTAP/REPT-03: Characteristics and requirements of optical and electrical components for millimeter wave radio on fiber systemsAPT/ASTAP/REPT-04: Technology trends of telecommunications above 100GHzAPT/ASTAP/REPT-11: Wired and wireless seamless connections using millimeter-wave radio over fiber technology for resilient access networksITU-T G.9803: Radio over fiber systems |
| **Related Organization** | ITU-T SG15 (Q2/15) |
| **Timelines** | ASTAP-35* + - Proposal of new APT report
		- Initiate the work on fiber-wireless bridge for seamless access systems in high-frequency bands

ASTAP-36* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report or a revision of APT/ASTAP/REPT-11 or 20
		- Prepare a liaison statement if necessary

ASTAP-37* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report or a revision of APT/ASTAP/REPT-11 or 20
		- Prepare a liaison statement if necessary

ASTAP-38* + - Consider the input contributions
		- Continue drafting a working document of a draft new APT Report or a revision of APT/ASTAP/REPT-11 or 20
		- Prepare a liaison statement if necessary ASTAP-39
		- Finalize the draft new APT Report or a revision of APT/ASTAP/REPT-11 or 20 and submit to the plenary
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**DETAILS WORK PLAN OF EG IOT**

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| --- | --- |
| **Number** | iot-1 |
| **Title** | Requirements and Framework of IoT Older Person Care Solution |
| **Output Document Type** | APT Report |
| **Group/Chair** | EG IOT / Dr. Toru Yamada |
| **Editor(s)** | Dr. Gopinath Rao Sinniah |
| **Scope** | The scope of this work item is followings:* Introduction to older person care ecosystem including the need for older person care solutions
* Use cases of older person care solution
* Requirements of the older person care solution
* Existing older person care solutions that have been deployed and challenges within the scope of implementation
 |
| **Purpose** | Monitoring of older person people remotely would reduce the anxiety of the family members. As the aging nations are increasing, it is crucial that a proper system is in place to monitor the older person people. As such, it is important to provide the requirements and framework of an IoT older person care use case that will benefit countries. The purpose of this are* Provide report on the use cases of older person care solution
* Provide report on the requirements of older person care solution
* Provide report on existing solutions from APT member countries
 |
| **Related Document** | ASTAP-36/TMP-06(Rev.1) |
| **Timelines** | ASTAP-36 (2024): To ask approval for the final output at plenary |
| **Relevance to APT Strategic Plan** |  |

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| --- | --- |
| **Number** | iot-2 |
| **Title** | Guidance for Emergency Medical Services in the Digital Age  |
| **Output Document Type** | APT Report |
| **Group/Chair** | EG IOT / Dr. Toru Yamada |
| **Editor(s)** | Dr. Teerawat Issariyakul |
| **Scope** | The scope of this work item is followings:Provide information of Emergency Medical Service in member countries. The EMS policy makers can use the blueprint as a starting point, and customize the blueprint according to the context of their countries.  |
| **Purpose** | To providing a best practice for integrating digital technology into pre-hospital emergency care. |
| **Related Document** | ASTAP-35/TMP-28 |
| **Timelines** | ASTAP-31 (2019) Project initializationASTAP-33 (2021) Survey, collect, and analyze related standards ASTAP-34 (2022) Consider input contributionASTAP-35 (2023) Use case preparationASTAP-37 (2025) Submission of report |
| **Relevance to APT Strategic Plan** |  |

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| --- | --- |
| **Number** | iot-3 |
| **Title** | IoT Ecosystem Development Activities in APT Member Countries  |
| **Output Document Type** | APT Report |
| **Group/Chair** | EG IOT / Dr. Toru Yamada |
| **Editor(s)** | Nur Akbar SaidFita Indah Maulani |
| **Scope** | The scope of this work item are follows:* 1) to conduct survey on IoT. Detailed study points are;

An overview of IoT information sharing, education, regulation, standardization and collaboration amongst government, service provider, network provider, system integrator, technology provider, media and community/public for IoT development in the APT member countries; Comprehensive capabilities, coverage and specifications based on sensor/device-layer, network/gateway layer, platform-layer and application-layer technologies; its use cases.2) to show guidelines for the IoT stakeholder collaboration in APT member countries. |
| **Purpose** | The purpose of this work item is to introduce best practice specifications and use cases on IoT ecosystem development for potential vertical industries in APT member countries. |
| **Related Document** | [ASTAP-36/TMP-05(Rev.1)](https://www.apt.int/sites/default/files/2024/05/ASTAP-36-TMP-05-R1-DRAFT_APT_REPORT-IOT-ECOSYSTEM.docx) |
| **Timelines** | ASTAP-34: Initiation of the work itemASTAP-35: Submission of initial text of draft survey reportASTAP-36: Submission of updated reportASTAP-38 Submission of finalized report |
| **Relevance to APT Strategic Plan** |  |

**DETAILS WORK PLAN OF EG IS**

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| --- | --- |
| **Number** | IS-1 |
| **Title** | Guidelines for IoT Security (for manager) |
| **Output Document Type** | Guideline  |
| **Group/Chair** | EG IS / Hiroshi TAKECHI |
| **Rapporteur (s)** | Heuisu Ryu and Dongil Seo |
| **Scope** | This document summarizes various security technologies, considerations for initiating IoT solutions and IoT solution management which can be included in IoT solution.This document is for better understanding of IoT security technologies for managers using IoT solution. This document provides the technical references of IoT security to IoT solution developing companies. |
| **Purpose** | This document is for better understanding of IoT security technologies for managers using IoT solution. Besides, this document is for providing the technical references of IoT security to IoT solution developing companies. |
| **Related Document** |  |
| **Timelines** | Final output: ASTAP-37 |

**DETAILS WORK PLAN OF EG MA**

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| --- | --- |
| **Number** | MA-1 |
| **Title** | Guideline of decentralized identity (DID) technology and its application |
| **Output Document Type** | Report |
| **Group/Chair** | EG MA / Hideki Yamamoto  |
| **Editor(s)** | Mr. Yue Jing (CAICT, jingyue@caict.ac.cn)Mr. Xiaoyu YOU (CAICT, youxiaoyu@caict.ac.cn)Ms. Haihua Li (CAICT, lihaihua@caict.ac.cn) Ms. Jingxuan Li (CAICT, lijingxuan@caict.ac.cn)  |
| **Scope** | The scope of this work item is followings:1. To survey information on technical recommendations, specifications, standards etc, on decentralized identity or decentralized identifier (DID) or verifiable credentials (VC), which are mainly in W3C, DIF, IEEE, and ITU-T.  Detailed aspects are:
* General architectural frameworks for decentralized identity and verifiable credential
* Key technologies for DID and VC
* Use cases for DID and VC
1. To survey industries actions on DID and VC
2. To consider suggestions or guidelines for the usage of DID in APT member countries and report them
 |
| **Purpose** | The purpose of this work item is to provide suggestions or guidelines for the usage of DID in APT member countrieswith the survey of technologies, use cases and industrial actions. |
| **Related Documents** | * W3C “Decentralized Identifiers (DIDs) v1.0 Core architecture, data model, and representations”
* W3C “Use Cases and Requirements for Decentralized Identifiers”
* W3C “Verifiable Credentials Data Model v1.1”
* W3C “Verifiable Credentials Use Cases”
* “Self-Sovereign Identity and IoT”, Sovrin Foundation SSI in IoT Task Force, August 2020.
 |
| **Timelines** | ASTAP-34: Initiation of the work itemASTAP-35: Output of Questionnaire to survey DID technology and solutionsASTAP-36: Submission of initial report based on the result of the questionnaireASTAP-37: Submission of finalized report |

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| **Number** | ma-2 |
| **Title** | Problems and requirements on CDN services in COVID-19 in Asia-Pacific region |
| **Output Document Type** | Report |
| **Group/Chairman** | EG MA/Hideki Yamamoto  |
| **Editor(s)** | Hideki Yamamoto (OKI) |
| **Scope** | Collecting the status, problems and requirements of CDN services in each county in COVID-19 pandemic. CDN services may be provided by global platformers, local telecommunication service providers or local CDN specific providers.  |
| **Purpose** | Providing the actual and useful information to start the new standardization projects about CDN issues to resolve the problems in Asia-Pacific region when another pandemic will happen. |
| **Related Documents** | Input document (ASTAP-34/INP-36)Questionnaire (ASTAP-35/OUT-19)Questionnaire (2nd Edition) (ASTAP-36/OUT-XX)  |
| **Related Organization** | ITU-T SG16 |
| **Timelines** | ASTAP-34 (April 2022): Approval of new work plan and discussion of the draft questionnaire.ASTAP-35 (April 2023): Approval of questionnaire.ASTAP-36 (May 2024): Approval of questionnaire (2nd Edition).ASTAP-37 (2025): Discussion of the draft report based on the answers to questionnaire and approval of the report. |

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| **Number** | MA-3 |
| **Title** | METAVERSE USE CASES IN ASIA-PACIFIC REGION |
| **Output Document Type** | Report  |
| **Group/Chairman** | EG MA/ Mr Hideki Yamamoto  |
| **Editor(s)** | Hideo Imanaka (NICT) |
| **Scope** | Collecting use cases of metaverse in Asia-Pacific region and reporting them.  |
| **Purpose** | The objective of this questionnaire is to gather information on the metaverse use cases in APT member countries. It aims to be one of the guidelines for implementing metaverse applications in APT countries. |
| **Related Documents** | Input document (ASTAP-35/INP-37)Questionnaire (ASTAP-35/OUT-19)Questionnaire (2nd Edition) (ASTAP-36/OUT-XX)Liaison statement (ASTAP-36/OUT-XX) |
| **Related Organization** | N/A |
| **Timelines** | ASTAP-35 (April 2023): Approval of this work plan and questionnaire ASTAP-36 (May 2024): Discussion of the result of questionnaire and approval of the questionnaire (2nd Edition)ASTAP-37 (2025): Discussion of the draft report based on the answers to questionnaireASTAP-37 (2025): Workshop toward metaverse standard and commercialization.ASTAP-38 (2026): Discussion of the draft report based on the contributions and approval of the report. |

**DETAILS WORK PLAN OF EG AU**

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| **Number** | AU-1 |
| **Title** | Relay Services for Accessible Emergency Communication  |
| **Output Document Type** | Report |
| **Relevant EG** | Accessibility & Usability |
| **Editor(s)** | Wantanee Phantachat, Nattanun Thatphithakkul, Analanda Chotimongkol, Chatchawarn Hansakunbuntheung, Jessada Jongsukvarakul, NSTDA (Thailand), Yong Lee, Center for Accessible ICT (Republic of Korea) and Jee-In Kim, Konkuk University (Republic of Korea) |
| **Scope** | The report describes the status and the use cases of relay services for accessible emergency communication in the AP region. The report can be used to promote relay services for accessible emergency communication in the APT countries. The current issues, use cases and their improvement are discussed. The status and work plans of the APT countries in relay services for accessible emergency communication are also discussed. |
| **Purpose** | The report aims to provide with general understanding of the status and the use cases of relay services for accessible emergency communication in the AP countries. It is also aimed to identify standardization issues of the relay services for accessible emergency communication in the region. The relay service for accessible emergency communication providers can have information for their operations and improvements of the relay services for emergency communication accessible by persons with hearing and speaking impairments in the APT countries. The standard developers, who deal with national as well as international standards, are also able to utilize the report. |
| **Related Documents** | ASTAP-31/INF-21 “Relay Service with Accessible Emergency Communication”**ASTAP-34/INP-12** “**A Proposed Research Survey on the current status of the APT countries' relay services for accessible emergency communication”****ASTAP-35/INP-08 “**Proposed research survey on the Current Status of the APT Countries' Relay Services for Accessible Emergency Communication” |
| **Related Organization** | TTA, KATS and NIA, KoreaTTC, JBMIA and JISC, Japan TISI, NECTEC and NBTC, Thailand and the APT countriesITU-T Q26/16 |
| **Timelines** | 2019 ASTAP-31 ~ 2022 ASTAP-34: Initiation and discussion on the direction of the report2023 ASTAP-35: Approval of a questionnaire, detailed planning and preparing a draft. Collection of inputs from the APT countries2024 ASTAP-36: Progress report of the survey. Extension of collection of inputs from the APT countries2025 ASTAP-37: Discussion and submission of the final report2026 ASTAP-38: Publication of final report  |

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| --- | --- |
| **Number** | au-2 |
| **Title** | Guide on developing accessible mobile application for the APT countries |
| **Output Document Type** | Guideline |
| **Relevant EG** | Accessibility & Usability |
| **Editor(s)** | Hark Sohn, SCE Inc, Republic of Korea (Email: mediamen@gmail.com)Jee-In Kim, Konkuk University, Republic of Korea (Email: jeeink@gmail.com)Yong Lee, Center for Accessible ICT, Republic of Korea (Email: ylee@caict.re.kr) |
| **Scope** | The report describes the mobile accessibility development guide that APT member countries can use to improve mobile accessibility. The report includes a development guide that reflects the mobile environment and characteristics of member countries by conducting a fact-finding survey. |
| **Purpose** | The target group of the output document is standards developing organizations (SDOs) of each APT member country concerning accessibilities of mobile applications. The outcome of the study shall be used to apply mobile accessibility standards and best practices according to the mobile usage environment and characteristics of APT member countries and to review the mobile app accessibility of each member country. |
| **Related Documents** | ASTAP-33/TMP-15 “Report of surveying mobile accessibility in the AP region”ASTAP-34/INP-25 “A proposal for the project was presented and discussed during the ASTAP-34 meeting” **ASTAP-35/INP-33 “Guidelines on developing accessible mobile applications for APT countries”****ASTAP-35/INP-34** **“Questionnaire surveying the status of mobile application accessibility in the AP region”** |
| **Related Organization** | TTA, KATS and NIA, KoreaTTC, JBMIA and JISC, Japan TISI, NECTEC and NBTC, Thailand and the APT countriesITU-T Q26/16 |
| **Timelines** | 2022 ASTAP-34: Proposal for new APT Report2023 ASTAP-35: Initial draft APT Report, Propose and circulate a fact-finding survey questionnaire (Through formal APT email circulation, and EG-AU e-mail correspondence group)2024 ASTAP-36: Revise draft APT Report with analysis of the questionnaire2025 ASTAP-37: Revise draft APT Report with analysis of the questionnaire 2026 ASTAP-38: Finalize the APT Report |

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| **Number** | au-3 |
| **Title** | Accessible IoT Applications and Smart City Services in the AP Region |
| **Output Document Type** | Report |
| **Relevant EG** | Accessibility & Usability |
| **Editor(s)** | Yong J. Lee, Center for Accessible ICT, KOREA (Republic of)Email: ylee@caict.re.krJee-In Kim, Konkuk University, KOREA (Republic of)Email: jeeink@gmail.com Hark Sohn, SCE Korea Inc., KOREA (Republic of)Email: mediamen@gmail.com |
| **Scope** | The report describes examples of accessible Internet of Things (IoT) and Smart Cities applications that provides useful services to citizens including persons with disabilities, those with age-related disabilities and those with specific needs. The use cases may include specific services for persons with disabilities as well as services for everyone that provides accessibility features for persons with disabilities. |
| **Purpose** | The report aims to provide use cases of possible application that provide accessibility services. There are many possible IoT applications and smart city services in various environments that provide accessibility services such as home automation services, IoT for work environments, transportation services, etc. For example, home automation services can increase the capacity for independent living for persons with disabilities, persons with age related disabilities and those with specific needs. The report shall provide understanding IoT applications and smart city services for persons with disabilities, and also promote and address the necessity and importance of accessibility considerations in IoT applications and smart city services developments. |
| **Related Documents** | ASTAP-31/INP-50 “Overview of ITU-T Recommendation Y.4204 Accessibility Requirements for Internet of Things Applications and Services”ASTAP-33/INP-28 “Accessible IoT Use Case – Preventive Safety Service System of Korea”**ASTAP-34/INP-24** “**Accessible IOT use case - accessible IOT services in a smart classroom for students with hearing disabilities”** **ASTAP-35/INP-29 “Accessible IOT use case – the result of a demonstrative experiment of the preventive safety system of Korea”****ASTAP-35/INP-30 “Proposed template for the report of accessible IOT use case”** |
| **Related Organization** | ETRI, TTA and NIA, KoreaTTC, JBMIA and JISC, Japan TISI, NECTEC and NBTC, Thailand and other APT countriesITU-T SG20/Q2, SG16/Q26 |
| **Timelines** | 2019 ASTAP-31: Initiation and discussion on the direction of the report2020 ASTAP-32: Collection of use cases from the APT countries2021 ASTAP-33: Collection of use cases from the APT countries2022 ASTAP-34: Collection of use cases from the APT countries2023 ASTAP-35: Approval of a template, send call for contribution.2024 ASTAP-36: Collection of use cases from the APT countries, and prepare the draft of the report.2025 ASTAP-37: Collection of use cases from the APT countries, and prepare the draft of the report.2026 ASTAP-38: Approval of the report |

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| **Number** | au-4 |
| **Title** | Framework for Evaluating Usability of Natural User Interactions  |
| **Output Document Type** | Report |
| **Relevant EG** | Accessibility & Usability |
| **Editor(s)** | Jamil Hussain, Fahad Ahmed Satti, Muhmmand Asif Razzaq, Cam-Hao Hua, Sungyoung Lee, Kyung Hee University and Jee-In Kim, Konkuk University (Korea) |
| **Scope** | The report describes a framework, which effectively incorporates the usability evaluation aspects for efficiency, effectiveness, and satisfaction, in order to produce a holistic usability index for any natural user interactions (NUI). The framework is specially focused on evaluating usability of NUIs |
| **Purpose** | The report aims to provide with a framework for evaluating usability of NUI. The usability determines the measure of successful completion of pre-specified tasks, by some specific users, in a controlled environment. The usability evaluations typically, focus on the “efficiency,” “effectiveness,” and “satisfaction”. * “Efficiency” measures resources to perform a specific task such as time taken by participants to complete each task.
* “Effectiveness” is universally considered as the ability to complete the tasks by the participants and termed as the fundamental usability metric.
* “Satisfaction” measures the user’s comfort level experience along with participants’ acceptance.

While each one of these is critically important and provides a stable measure, there is a lack of any standardized methodology for identifying and applying the relationship between these aspects especially in terms of categorizing and amalgamating user and system perspectives. The framework of usability evaluation should be standardized to improve performance and quality of NUI.  |
| **Related Documents** | ASTAP-31/INP-48 “A Framework for Evaluating Usability of Natural User Interactions”ASTAP-33/INP-26 “Use Case for Evaluating Usability of Natural User Interfaces”**ASTAP-34/INP-13 “Progress report on evaluating usability of natural user interfaces”** **ASTAP-35/INP-32 “A plan of developing a report on evaluating usability of natural user interfaces”** |
| **Related Organization** | TTA, KATS and ETRI, KoreaTTC, JBMIA and JISC, Japan TISI, NECTEC and NBTC, Thailand and the APT countriesITU-T Q26/16ISO/IEC JTC1 SC35 |
| **Timelines** | 2019 ASTAP-31 ~ 2022 ASTAP-34: Initiation and discussion on the direction of the report2023 ASTAP-35: Detailed planning.2024 ASTAP-36: Preparing a draft and collection of use cases from the APT countries2025 ASTAP-37: Preparing a draft and collection of use cases from the APT countries2026 ASTAP-38: Discussion and submission of the final report |