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| **TD** |
| **Source:** | Rapporteur, TSAG RG-WP |
| **Title:** | Consolidation of SG restructuring proposals on principles |
| **Purpose:** | Discussion |
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| **Keywords:** | Work programme; SG restructuring; principles;  |
| **Abstract:** | This TD is an updated version of the consolidation of SG restructuring proposals on principles reflecting proposals provided so far. Revision marks show the difference from [TD841R1](https://www.itu.int/md/meetingdoc.asp?lang=en&parent=T17-TSAG-200921-TD-GEN-0841). |

This TD is an updated version of the consolidation of SG restructuring proposals on principles reflecting proposals provided so far. Revision marks show the difference from TD841R1.

**Notes:**

* Some of the proposals appear to fit in more than one category and thus show-up in more than category.
* The titles/scopes of the seven categories might be amended slightly; suggestions for such amendments are shown within the proposals in *italics* (for consideration).

Annex A:
Mapping to proposals in contributions to seven high-level study group structure principles

| High level SG structure principles | Reference |
| --- | --- |
| **A: Optimized structure** | TSAG-R7, Annex A |
| 1. The number of study groups could be appropriately adjusted as required. However, it would be inadvisable to pursue the reduction of the number of study groups for the sake of reduction itself. The advantages and disadvantages of various re-structuring solutions deserve a holistic study.
 | [C105](https://www.itu.int/md/T17-TSAG-C-0105)-R1 (China Telecom, Huawei, MIIT China) |
| 1. Ensure that a structural environment exists to ensure that high priority tasks (as defined by the membership) can be undertaken in the most efficient and effective manner possible.
2. Identify and remove redundant activities, which attract minimal or no response from ITU-T participants.
 | [C110](https://www.itu.int/md/T17-TSAG-C-0110) (Canada) |
| *Balance among SGs*1. The new SG structure should be well balanced in the context of the size and complexity. (Role and responsibility, Number of Questions and Participants)
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. SG I (SG9+SG16): Multimedia & Cable TV
* It is supported in principle. Since there has been not much close cooperation between the two groups, a detailed review and way to enhance the synergy effects through integration of relevant sub-groups are further required.
1. SG II (SG16+SG20): Digital Services
* It is supported in principle. The meaning and scope of digital services need to be clarified further compared to multimedia services. Some common issues for the multimedia/digital services and terminal aspects need to be taken into account for proper work allocation considering that digital services closely related to interaction with terminal functions.
1. SG III (SG11+SG13): Networks, Protocols & C&I
* It is supported in principle. Participants in these two groups have similar expertise and many standardization work issues are closely related so that merging of relevant groups may not cause any serious problem. Even if there is no integration between groups, at least the principle of holding a joint meeting of these groups should continue.
1. SG IV (SG2+SG3): NNAI, Economic & Policy
* It is supported in principle. The detailed organization structure of the new group needs to be further discussed for the efficient operation.
1. SG V (SG5+SG12+SG17): Common Functions & Capabilities
* Not supported for the following reasons:
	+ Neither synergy nor advantage are expected, as there is no common topics among three study groups.
* In addition, from the security’s point of view, Korea supports SG17 (security) to keep as a separate study group in the next study period for the following reasons:
	+ According to the data collected by [Juniper Research](https://www.wvxu.org/post/latest-cyber-security-threats-be-aware), in 2019 cybercrimes have already accounted for $2 trillion dollars in losses, Forbes estimates the total losses could reach three times that number by 2021, and according to [Gartner,](https://www.gartner.com/en/newsroom/press-releases/2018-08-15-gartner-forecasts-worldwide-information-security-spending-to-exceed-124-billion-in-2019) Worldwide spending on cybersecurity is forecasted to reach $133.7 billion in 2022. Security standardization activities will contribute prevention of damages resulted from cyber-attacks.
	+ SG17 is already a big study group, as it has 14 Questions, there were 206 participants from 41 countries for the August 2019 SG17 meeting, and 132 work items under development by SG17, as of January 2020.
	+ In the preparation process in SG17, many new emerging security technologies that SG17 needs to study in the next study period were identified. They are autonomous driving security, DLT, AI /ML related security, IMT 2020(5G) and IMT 2030 (6G) security, New ICT services and applications such as smart city, smart factory, smart health, smart energy, distributed identity management, and Quantum based security.
	+ Visibility is critical for SG17 to liaise or cooperate with other counterparts such as ISO/IEC JTC 1/SC 27, IETF, ETSI, and 3GPP.
	+ The operation of the merged SG might be very difficult to run since there are more than 40 Questions as of Jan. 16, 2020.
1. SG VI (SG15): Transport
* Supported. There are independent and distinctive standardization works and enough participants. Also, it is well recognized group in the market.
1. SG12 addresses QoS/QoE issues for networks and services, which are closely related to SG11/SG13 and SG16 work issues. Therefore, co-location meeting mechanism need to be considered for collaboration and synergy with experts of networks and services. The detailed collaboration ways for efficient management and operation of groups need to be further discussed.
 | [C117](https://www.itu.int/md/T17-TSAG-C-0117) (Korea) |
| 1. To develop a well-organized SG structure which reflects the emerging technologies, market trends, members’ demands and ITU-T mission, the following needs for SG restructuring have to be satisfied:
* The need to resolve the overlap issues among SGs. Such requirements could be identified via reviewing the scope and mandates of the current SGs.
* The need to create new SGs to keep pace with the changing industry. Such requirements could be identified via the deliverables and activities of the Focus Groups established in this study period.
* The need to merge the SGs without a sufficient number of participants, contributions or outcomes. Such requirements could be identified via the statistics of the participants, contributions and published recommendations of SGs activities.
* The need to maintain an appropriate number of SGs with clear scopes and mandates which will favour active participations and contributions in the SGs activities.

When we decrease the number of SGs and broaden the scope of each SG, we indeed pose great challenge to the members; To send a group of experts to participate in a single SG event so as to cover all different research areas respectively? Or to send a single super strong and experienced expert to cover all research areas within a certain SG? In this circumstance, the less important areas will gradually dropped off and leading to a gradual decline in a continuously decreasing number of participants and contributions, ultimately leading to the decline of the meeting scale, impact and scope of ITU-T SGs. | [C119](https://www.itu.int/md/T17-TSAG-C-0119) (China Telecom) |
| 1. Maintain ITU-T core advantages in the next 4-8 years. Firstly, strengthen the current active and productive Study Groups, the participants and contributors of existing study groups should be consolidated and encouraged. At the same time, excessive merger and reorganization should be prevented to avoid releasing wrong signals and losing expert resources, and further weaken the influence of ITU-T, which will cause irreparable long-term losses to ITU-T. It’s also recommended through careful quantitative analysis of the metrics, to appropriately adjust the individual study group which is not active in Questions or Working Parties and has low productive efficiency.
 | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
| 1. Strengthen organizational structure reform and work mechanism innovation are the core driving forces for the development and prosperity of ITU-T. Enhancing the internal vitality of the study group is the key to the success of the SGs restructuring. It is suggested

1) to optimise the internal structure and the scope of Questions in a Study Group, in response to the standardization requirements of ITU-T members in a fast and timely manner;2) to learn and refer to the internal and external best practices (excellent cases) to carry out innovation and reform within the Study Group and improve working methods. | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
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| 1. When discussing the restructuring proposals, it should be assumed that SG can be classified into the following categories: the most stable – SGs with the established ecosystem, including regional groups; the least extensible – SGs which have a sufficient amount of work and experts, which further increasing will result in a manageability crisis in them; other (possibly restructure ready) – SGs with relatively disparate questions or those questions where involvement of SGs should be reviewed (or have already been proposed to review).
2. The ITU-T SG restructuring should not be an end in itself and should not lead to the creation super SGs whose volume of questions and number of participants may result in either increasing their management time and costs or in a total loss of their manageability.
3. Distribution and redistribution of the questions between SGs to be considered at TSAG in September 2020, taking into account discussions in the Study Groups and at Regional Preparatory Meetings.
 | [C125](https://www.itu.int/md/T17-TSAG-C-0125) (Russia) |
| 1. The requirements for true synergies in the new study groups and their associated risks
2. Keep SG15 as it is
3. Not to split security into multiple working parties or study groups and rather regroup it in one study group.
4. A structure which considers the reality of resources and the maturity of the topics by regrouping all the work in one entity rather than diluting it across study groups, for example regrouping all Quantum activities in one working party in one study group, another example being the OID and Directory community to keep together and protected (other examples to be considered, e.g. DLT).
 | [C129](https://www.itu.int/md/T17-TSAG-C-0129) (Broadcom) |
| 1. Identifying overlaps on scope and mandates of the current SGs.
2. Mapping various questions and work items under each SG.
 | [C134](https://www.itu.int/md/T17-TSAG-C-0134) (India) |
| 1. Standards developed by the ITU-T should be inherently technical in nature, designed to ensure good uptake on an industry-wide level and have global-scale applicability, and apply to all ITU Regions. Standards should be developed with the necessary expertise and background needed and required for a substantive outcome.
2. The number of study groups should not exceed 11. The current number of ITU-T Study Groups is 11 and although this can be seen as a stable number, it may not be the most efficient and effective structure. A reduction in the overall number of study groups could allow for more efficient and accessible work in the ITU-T Study Groups. This is because most member states have trouble covering all the ITU-T study groups and many member states can only attend one or two. Conversely, if more study groups were to be established there would be more overlap between study groups and also between study group meetings and additional meetings (such as Focus Groups and Joint Coordination Groups). Overall, more study groups would likely result in a less participation.When establishing Focus Groups, Joint Coordination Groups, Global Standards Initiatives or workshops, care should be taken to not duplicate existing work already undertaken in the ITU-T study groups and other groups as well as outside of the ITU in other SDOs.
3. Questions within study groups should be limited in number and general in scope. This will help to facilitate engagement and participation by members as well as efficiency in work item allocation amongst questions. When there are many study questions these should be merged and streamlined. The focus of the work should be on work items in each study question rather than increasing the overall number of study questions. This focus on work items creates a streamlined management and organisational process and allows for work items to be reviewed, discussed and developed in a more efficient and transparent manner.
4. Standardisation of new and emerging technologies should be integrated into existing study groups with similar issues and merged into study questions, where applicable and agreed by the ITU membership.
 | C157 (Finland, France, Germany, Sweden, The Netherlands, and United Kingdom) |
| 1. A-1) This principle could be identified via the comprehensive analysis report on statistics metrics of each SG’s participants, contributions, published Recommendations and their influence to the industry in 2017-2020, provided by TSB and TSAG. The restructure proposal from SGs should be respected and taken into account.
2. A-2) It’s recommended to strength the current active and productive Study Groups. The internal restructuring and innovation within these SG are the most fundamental driven force of ITU-T’s success. Study Group could work in a more flexible way to set up, adjust or terminate its Questions, even Working Parties on demand of the requirements from ITU-T members and industry on the new standards for the emerging ICT areas.
3. A-3) It’s recommended to appropriately adjust the individual study group which is not active or productive with significantly reduced participants, contributions and published recommendations than last study period.
4. A-4) The SG restructure is not a simple recombination of existing Working Parties of many SGs. Excessive and unnecessary merger should be prevented to avoid many negative effects, such as the instability of management teams and reorganization the works of many SGs, the loss of members and experts, the slow progress of standardization, weaken the influence of ITU-T, disruption the continuity of existing standardization ecosystems, and etc. That will be irreparable long-term losses to ITU-T.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. A-1) To ensure an optimized structure, there should be comprehensive analysis on statistics metrics of each Study Groups participants, contributions, published Recommendations, outputs of both the Study Groups and Rapporteur Groups, and their influence to the industry in 2017-2020, provided by TSB and TSAG could be undertaken to facilitate this principle. The proposals on modification of WTSA Res.2 agreed by SGs should be taken into account.
2. A-2) The strengthening of the current active Study Groups should be undertaken based on the analysis of metrics. The internal restructuring within these Study Groups are an important driving force of ITU-T’s success.
3. A-3) Where appropriate, adjust the individual Study Groups that are not active due to a decline in participants, contributions and published Recommendations for the last study period after an appropriate analysis and review has been carried out to determine the Study Group’s feasibility.
4. A-4) To ensure the stable operations of the Study Groups, excessive merger and reorganization should be prevented, if appropriate.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **B: Clear mandates** | TSAG-R7, Annex A |
| 1. Consolidate the leading position of SG16 in multimedia and digital services field and introduce AI, blockchain, edge computing technology to support more intelligent connectivity applications.
2. Maintaining the integrity and consolidation of SG16 as a gateway to link ICT and OT technical standards is proposed in the overall study group re-structuring. SG16 can share its experience, methodologies and competence within ITU-T.
3. Industrial requirements to be taken into account at the upcoming WTSA-2020, such as industrial digital transformation, by adjustment of the work priorities of the ITU-T. While consolidating great advances in standards for inter-connection, ITU-T should elevate its influence at the service layer, and put more resource at those study groups including SG16.
 | [C105](https://www.itu.int/md/T17-TSAG-C-0105)-R1 (China Telecom, Huawei, MIIT China) |
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| *Alignment with ITU strategic goal and objective*1. The direction of restructuring work should be aligned with the strategic goal and objectives of the ITU.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. Each study group needs to have a clear mandate, avoiding overlapping with the other study groups, and providing technical experts with a proper organization and effective working method to develop specific ICT standards professionally. TSAG needs to strengthen the rationality analysis of the existing SG structure and the regular review of WTSA Resolution 2. After sufficient evaluation by TSAG and its members, if some Questions of two SGs have highly relevant is confirmed, it is recommended to make appropriate adjustments and mergers at Question level to maintain the relative stability of the Study Groups.
 | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
| 1. Recognize and create a strategic approach to collaboration and improve coordination
	1. Like ISO and others, recognize and tackle proactively and strategically the overall issue of collaboration and coordination across Study Groups, both for a better industry RoI but as well for a better quality, harmonization and composability of Recommendations
	2. Attack the problem as pragmatically as the industry does as an integration of domains issue
	3. This could be achieved by a spectrum of mechanisms in the next study period, e.g.
		1. a Correspondence Group opened to anyone under TSAG
		2. a Focus Group attached to TSAG (like what ISO/IEC JTC 1 has done with its AG8, and in collaboration with it)
		3. the first leading to the second
2. On specific issues, review the ITU-T Structure in the same spirit of TSAG-C129
	1. Regroup all Quantum activities in one working party in one SG and whilst there is no ideal candidate, propose to consider the following SGs in this order of priority: SG17, SG15, SG13
	2. Consider similar granularity in the structure for topics such as DLT, AI, etc. to better “align” ITU-T to the granularity of other SDOs and concentrate the resources.
	3. Keep SG17 and move some other security Questions addressed in other SGs to SG17 aligned with SG17 LS/I to TSAG on the topic TSAG-TD896.
	4. Keep SG15 as it is.
 | [C155](https://www.itu.int/md/T17-TSAG-C-0129) (Broadcom) |
| 1. Identifying overlaps on scope and mandates of the current SGs.
 | [C134](https://www.itu.int/md/T17-TSAG-C-0134) (India) |
| 1. Care should be taken to avoid duplication of standardization work between ITU-T study groups, and other ITU sectors, as well as with other global standards development organisations (SDOs). Instead, the development of standards in the ITU-T should ensure maximum coordination and harmonisation with other SDOs in the development of international standards. This requires all ITU-T study groups undertake a detailed gap analyses for proposed new work, and where duplication of work is identified, a dialogue and coordination process should be specified and used to resolve the issue. Communication between the ITU and other SDOs should occur to ensure that duplication does not happen on a global scale that could lead to conflicting requirements.
 | C157 (Finland, France, Germany, Sweden, The Netherlands, and United Kingdom) |
| 1. B-1) Each Study Group should have the responsibility to develop a clear mandate with leading study group roles, avoiding overlapping with the other study groups.
2. B-2) TSB and TSAG should strengthen the rationality analysis of each SG’s mandates by completely review of WTSA Resolution 2. After sufficient evaluation, if it’s confirmed that some Questions of two SGs have highly similarity in the specific topic, it is recommended to make appropriate adjustment or merge them at Question level by the collaboration of related Study Groups.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. B-1) Each Study Group should have the responsibility to develop a clear mandate with leading Study Group roles, avoiding overlap with the other Study Groups.
2. B-2) TSB and TSAG should strengthen the analysis of each Study Group’s mandates by comprehensive review of WTSA Resolution 2, and make appropriate adjustment based on the collaboration of related Study Groups.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **C: Enhanced coordination and cooperation** | TSAG-R7, Annex A |
| 1. Maintain the cooperation between ITU-T and ISO/IEC JTC1 (MPEG) to ensure that VVC as the next generation video codec standard is completed on time and promote industrial adoption to strengthen SG16’s multimedia technical foundation. SG16 can be tasked with more forward-looking multimedia technologies study beyond VVC which may be well timed to work with communications technologies beyond 5G for the years beginning roughly in 2030.
 | [C105](https://www.itu.int/md/T17-TSAG-C-0105)-R1 (China Telecom, Huawei, MIIT China) |
| 1. In the emerging ICT areas that promote the implementation of the United Nations Sustainable Development Goals (SDGs) and facilitate the development of the global ICT standardization ecosystem, ITU-T needs to strengthen the cooperation with other standardization organizations, bridge the standardization gap, enhance the standardization influence, promote the prosperity and development of human society through ICT technologies and services.
 | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
| 1. Care should be taken to avoid duplication of standardization work between ITU-T study groups, and other ITU sectors, as well as with other global standards development organisations (SDOs). Instead, the development of standards in the ITU-T should ensure maximum coordination and harmonisation with other SDOs in the development of international standards. This requires all ITU-T study groups undertake a detailed gap analyses for proposed new work, and where duplication of work is identified, a dialogue and coordination process should be specified and used to resolve the issue. Communication between the ITU and other SDOs should occur to ensure that duplication does not happen on a global scale that could lead to conflicting requirements.
 | [RGWP-C3](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0003-R01.docx)R1 (UK) |
| 1. C-1) In the emerging ICT areas that promote the implementation of the United Nations Sustainable Development Goals (SDGs) and facilitate the development of the global ICT standardization ecosystem, ITU-T needs to strengthen the cooperation between SGs and also with other standardization organizations, in order to bridge the standardization gap, enhance the standardization influence, promote the prosperity and development of human society through ICT technologies and services.
2. C-2) Enhancing the coordination and cooperation between ITU-T SG and other international, regional and national SDO through JCA and other activities to develop a standard roadmap in addressing future standardization directions and establish a more effective and robust international ecosystem for ICT standardization.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. C-1) In emerging ICT areas that promote the United Nations Sustainable Development Goals (SDGs) and to facilitate the development of the global ICT standardization ecosystem, ITU-T should look to strengthen the cooperation between Study Groups and also with other standardization organizations, in order to bridge the standardization gap, enhance the standardization influence, promote the prosperity and society through ICT technologies and services.
2. C-2) Enhance the coordination and cooperation between ITU-T Study Groups and other international, regional and national SDOs through arrangements such as a JCA and other appropriate activities on common interested ICT topics, sharing standardization progress, and establish more effective and robust international collaboration between ITU-T Study Groups with other SDOs for Global ICT standardization.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **D: Cost-effectiveness and attractiveness** | TSAG-R7, Annex A |
| 1. Establish a better ecosystem for more industry verticals members’ participation. As this mix of technologies begins to connect virtually everyone and everything in the future, it is necessary to break inter-industry boundaries and achieve cross-industry integration and development. Meeting organization and schedule should be changed to support more efficient discussion. Industry trends and market requirement aspects should also be taken into account along with the technical view.
 | [C105](https://www.itu.int/md/T17-TSAG-C-0105)-R1 (China Telecom, Huawei, MIIT China) |
| *Strategic restructuring for strengthen competitiveness*1. The restructuring work should aim to pursue the competency and competitiveness of ITU-T in the global standardization environment.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| *Visibility*1. The key standardization area of ITU-T should be visible from the outside of ITU-T in the title new SG even when it is consolidated into by multiple current SGs.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. Enhance the attractiveness of ITU-T and attract more members, through timely publicizing the products (the recommendations, deliverables and various publications) and sharing knowledge within and outside ITU-T. Attract more new members to participate in and contribute to standardization work in SGs. Encourage the participation of the members from the developing countries and SME. Expand openness to the specialists in the new areas through Focus Groups and joint workshops.
 | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
| 1. Share the successful story of SG16 to invigorate the Study Group itself by timely responding to the demands of the market, industry and members, continuously expanding new areas and establishing new work items, attracting more members to participate in the standardization work, accelerating the formulation of standards and producing influential outcomes, etc. It is proposed to consider the successful experiences of SG16 for ITU-T SGs Restructure as listed in clause 2 of this contribution.
 | [C121](https://www.itu.int/md/T17-TSAG-C-0121) (CICT, China Telecom, Huawei, MIIT China) |
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| 1. The overall Return on Investment for the industry as a high priority.
2. Develop a narrative behind the new structure as a key ‘selling message’ and mission statement including a clarity on the ultimate goals we need to reach.
 | [C155](https://www.itu.int/md/T17-TSAG-C-0129) (Broadcom) |
| 1. D-1) Ensure that SGs structure is able to attract intensive industry participation, and contribute to standardization work by many standard activities.
2. D-2) Focus Groups and joint workshops could expand openness to the specialists in the new areas. Timely promoting the products and sharing knowledge within and outside ITU-T could also increase the attractiveness.
3. D-3) Optimize the organization, procedure and experience of ITU-T e-meetings will improve the convenience for remote-participation and reduce the cost.
4. D-4) Effective and productive SGs leadership and management teams on standard strategy and working mechanisms.
5. D-5) Management of the meetings, participation of the member countries and logistical related operating issues due to the super-size of the SG with more Working Parties, should be solved and optimized.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. D-1) Ensure that the Study Groups structure maintain and attract industry participation, and contribute to the standardization work by many standard activities.
2. D-2) Optimize the organization, procedure and experience of ITU-T virtual meetings (e-meetings) will improve remote-participation, which can lead to reduced cost for both members and the ITU-T.
3. D-3) Ensure the effective and productive Study Groups’ leadership and management teams on standarization strategy and working mechanisms.
4. D-4) The management of the meetings, participation of the members and logistical related operating issues due to the large size of the Study Groups that lead to more Working Parties, should be solved and optimized.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **E: Efficient and productive working methods** | TSAG-R7, Annex A |
| 1. The entire system can work properly only when each module works properly. In order to improve the influence of ITU-T in the global standards and industry, each study group needs to adopt the most effective working methods according to the different characteristics and ecosystem of each technical field.
 | [C105](https://www.itu.int/md/T17-TSAG-C-0105)-R1 (China Telecom, Huawei, MIIT China) |
| *Efficient Management and operation of organization*1. Consideration should be given to improving the effectiveness of management and operation of the ITU-T SGs. Cooperative organizational structure and collaboration mechanisms, including co-location among groups should be devised to increase synergy of its standardization activities.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. The restructuring scheme of ITU-T SGs needs to adapt to the development trends of ICT technologies, respond to the needs of industry/market, and meet the demands of ITU-T members. Each SG needs in more flexible way to set up, adjust or terminate its Questions, even Working Parties on demand of its members, in quickly response to the requirement of ITU-T members on the new standards for the emerging ICT areas. ITU-T needs to seize the unprecedented development opportunity, adapt to the development trends of ICT technologies, respond to the needs of industry/market, meet the demands of ITU-T members, and accelerate the development of ICT technical standards in a faster and more flexible way, especially for ICT empowerment in vertical industries.
 | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
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| 1. A mechanism to improve the quality, harmonisation, coherency, composition and sustainability for our work in a uniform manner across study groups with a mechanism ‘a la’ Architecture Advisory Board (AAB), hoping that TSAG can approve a feasibility study and allowing to compensate to inherent defects on any imperfection of the future organization in front of heavy densification of the problems in the future.
2. How to include innovation in a top down approach and which balance between top down and bottom up approach.
3. Measures to name effective Vice Chairman in Study Groups.
 | [C129](https://www.itu.int/md/T17-TSAG-C-0129) (Broadcom) |
| 1. Collecting statistics of the participants, contributions received and published recommendations of various SGs.
2. Number of e-Meetings being conducted.
3. Outputs of Focus Group feeding into SG work.
4. Leadership opportunities available based on region/gender.
 | [C134](https://www.itu.int/md/T17-TSAG-C-0134) (India) |
| 1. E-1) Each study group should provide technical experts with a proper organization in Working Party and Question level to meet the requirements of members and related industry, and effective working methods to develop ITU-T Recommendations in a professional and productive way.
2. E-2) Enhancing the internal vitality of each study group is very important, it’s suggested to learn and refer to the internal and external best practices (excellent cases) to carry out innovation and reform within the Study Group and improve working methods.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. E-1) Each Study Group should provide technical experts with optimized organization of Working Parties and Questions to meet the requirements of members and related industry, and effective working methods to develop ITU-T Recommendations in a professional and productive way.
2. E-2) Strengthening the effectiveness and efficiency of the internal operations of the Study Groups can assist with this principle. It’s suggested Study Groups should learn and refer to the best practices from other SDOs to improve working methods.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **F: Timely identification of standardization needs** | TSAG-R7, Annex A |
| 1. *Flexibility and Openness for emerging future technologies*
* The new SG structure should have flexibility and openness, to accommodate various evolving and new emerging technologies in the future.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. Strengthen organizational structure reform and work mechanism innovation are the core driving forces for the development and prosperity of ITU-T. Enhancing the internal vitality of the study group is the key to the success of the SGs restructuring. It is suggested

1) to optimise the internal structure and the scope of Questions in a Study Group, in response to the standardization requirements of ITU-T members in a fast and timely manner;2) to learn and refer to the internal and external best practices (excellent cases) to carry out innovation and reform within the Study Group and improve working methods. | [C120](https://www.itu.int/md/T17-TSAG-C-0120) (CICT, China Telecom, China Unicom, MIIT China, ZTE) |
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| 1. New and emerging areas that are not being covered by current SGs.
 | [C134](https://www.itu.int/md/T17-TSAG-C-0134) (India) |
| 1. F-1) ITU-T SGs needs to take innovation measures on internal organization to adapt to the development trends of ICT technologies, respond to the needs of industry/market, and meet the demands of ITU-T members, especially for ICT empowerment to vertical industries and digital transformation in a fast and timely manner;
2. F-2) The mechanism of Focus Group is a successful practice need to be encouraged and optimized to strengthen the study of SGs on new emerging ICT technologies and applications. It could be identified via the statistics on the activities, deliverables and their transformation to their parent groups of the Focus Groups established in this study period.
3. F-3) SDG related requirements from ITU members should be taken into account, such as digital transformation, by adjustment of the work priorities of the ITU-T. While consolidating great advances in standards for inter-connection, ITU-T should elevate its influence at the service and application layer, and put more resource at those study groups.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. F-1) ITU-T Study Groups should optimize internal organization to adapt to the development trends of ICT technologies, respond to the needs of industry, and meet the demands of ITU-T members;
2. F-2) The mechanism of Focus Group is a successful practice and need to be well managed to strengthen the study of Study Groups on new emerging ICT technologies and applications.
3. F-3) SDGs and inter-operability of Telcom/ICT related requirements from members should be taken into account, by adjustment of the work priorities of the ITU-T.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |
| **G: Support for bridging the standardization gap** | TSAG-R7, Annex A |
| 1. *Enhancement of effectiveness to increase participation from developing countries*
* ITU’s mission as the International Standardization Organization is to enhance operational effectiveness to encourage developing countries to participate in ITU standardization work.
 | [C116](https://www.itu.int/md/T17-TSAG-C-0116) (Korea) |
| 1. G-1) Improving the participation experience and meeting the requirements of the developing countries by sharing the best practices, publishing more guidelines on the implementation of ITU-T Recommendations and new ICT technical reports, and responding their requirements in a timely manner are very crucial for bridging standardization gap.
2. G-2) Enhancing the BSG training on ITU-T website and regional groups.
 | [RGWP-C4](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-200805/Contributions/T17-TSAGRGM-RGWP-200805-C-0004.docx) (MIIT, China) |
| 1. G-1) Encourage the participation of the members from the developing countries and SME according to WTSA Res.44 and PP Res. 209.
2. G-2) Enhance the training on bridging the standardization gap through ITU-T website and regional groups.
 | [RGWP-C2(201208)](https://extranet.itu.int/meetings/ITU-T/T17-TSAGRGM/RGWP-201208/Contributions/T17-TSAGRGM-RGWP-201208-C-0002.docx)(APT) |

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