International Commission on Illumination
Commission Internationale de l'Eclairage
Internationale Beleuchtungskommission

CIE Code of Procedure

CIE 2021   **Version 07/2021**

THE INTERNATIONAL COMMISSION ON ILLUMINATION

The International Commission on Illumination (CIE) is an organization devoted to international co-operation and exchange of information among its member countries on all matters relating to the art and science of lighting. Its membership consists of the National Committees in about 40 countries.

The objectives of the CIE are:
1.   To provide an international forum for the discussion of all matters relating to the science, technology and art in the fields of light and lighting and for the interchange of information in these fields between countries.
2.   To develop basic standards and procedures of metrology in the fields of light and lighting.
3.   To provide guidance in the application of principles and procedures in the development of international and national standards in the fields of light and lighting.
4.   To prepare and publish standards, reports and other publications concerned with all matters relating to the science, technology and art in the fields of light and lighting.
5.   To maintain liaison and technical interaction with other international organizations concerned with matters related to the science, technology, standardization and art in the fields of light and lighting.

The work of the CIE is carried out by Technical Committees, organized in six Divisions. This work covers subjects ranging from fundamental matters to all types of lighting applications. The standards and technical reports developed by these international Divisions of the CIE are accepted throughout the world.

A plenary session is held every four years at which the work of the Divisions and Technical Committees is reported and reviewed, and plans are made for the future. The CIE is recognized as the authority on all aspects of light and lighting. As such it occupies an important position among international organizations.

LA COMMISSION INTERNATIONALE DE L'ECLAIRAGE

La Commission Internationale de l'Eclairage (CIE) est une organisation qui se donne pour but la coopération internationale et l'échange d'informations entre les Pays membres sur toutes les questions relatives à l'art et à la science de l'éclairage. Elle est composée de Comités Nationaux représentant environ 40 pays.

Les objectifs de la CIE sont :
1.   De constituer un centre d'étude international pour toute matière relevant de la science, de la technologie et de l'art de la lumière et de l'éclairage et pour l'échange entre pays d'informations dans ces domaines.
2.   D'élaborer des normes et des méthodes de base pour la métrologie dans les domaines de la lumière et de l'éclairage.
3.   De donner des directives pour l'application des principes et des méthodes d'élaboration de normes internationales et nationales dans les domaines de la lumière et de l'éclairage.
4.   De préparer et publier des normes, rapports et autres textes, concernant toutes matières relatives à la science, la technologie et l'art dans les domaines de la lumière et de l'éclairage.
5.   De maintenir une liaison et une collaboration technique avec les autres organisations internationales concernées par des sujets relatifs à la science, la technologie, la normalisation et l'art dans les domaines de la lumière et de l'éclairage.

Les travaux de la CIE sont effectués par Comités Techniques, organisés en six Divisions. Les sujets d'études s'étendent des questions fondamentales, à tous les types d'applications de l'éclairage. Les normes et les rapports techniques élaborés par ces Divisions Internationales de la CIE sont reconnus dans le monde entier.

Tous les quatre ans, une Session plénière passe en revue le travail des Divisions et des Comités Techniques, en fait rapport et établit les projets de travaux pour l'avenir. La CIE est reconnue comme la plus haute autorité en ce qui concerne tous les aspects de la lumière et de l'éclairage. Elle occupe comme telle une position importante parmi les organisations internationales.

DIE INTERNATIONALE BELEUCHTUNGSKOMMISSION

Die Internationale Beleuchtungskommission (CIE) ist eine Organisation, die sich der internationalen Zusammenarbeit und dem Austausch von Informationen zwischen ihren Mitgliedsländern bezüglich der Kunst und Wissenschaft der Lichttechnik widmet. Die Mitgliedschaft besteht aus den Nationalen Komitees in rund 40 Ländern.

Die Ziele der CIE sind:
1.   Ein internationales Forum für Diskussionen aller Fragen auf dem Gebiet der Wissenschaft, Technik und Kunst der Lichttechnik und für den Informationsaustausch auf diesen Gebieten zwischen den einzelnen Ländern zu sein.
2.   Grundnormen und Verfahren der Messtechnik auf dem Gebiet der Lichttechnik zu entwickeln.
3.   Richtlinien für die Anwendung von Prinzipien und Vorgängen in der Entwicklung internationaler und nationaler Normen auf dem Gebiet der Lichttechnik zu erstellen.
4.   Normen, Berichte und andere Publikationen zu erstellen und zu veröffentlichen, die alle Fragen auf dem Gebiet der Wissenschaft, Technik und Kunst der Lichttechnik betreffen.
5.   Liaison und technische Zusammenarbeit mit anderen internationalen Organisationen zu unterhalten, die mit Fragen der Wissenschaft, Technik, Normung und Kunst auf dem Gebiet der Lichttechnik zu tun haben.

Die Arbeit der CIE wird durch Technische Komitees geleistet, die in sechs Divisionen organisiert sind. Diese Arbeit betrifft Gebiete mit grundlegendem Inhalt bis zu allen Arten der Lichtanwendung. Die Normen und Technischen Berichte, die von diesen international zusammengesetzten Divisionen ausgearbeitet werden, sind auf der ganzen Welt anerkannt.

Alle vier Jahre findet eine Session statt, in der die Arbeiten der Divisionen berichtet und überprüft werden, sowie neue Pläne für die Zukunft ausgearbeitet werden. Die CIE wird als höchste Autorität für alle Aspekte des Lichtes und der Beleuchtung angesehen. Auf diese Weise unterhält sie eine bedeutende Stellung unter den internationalen Organisationen.

CONTENTS

1 Preamble

1.1 Introduction

This document gives the procedures to be used in the conduct of the affairs of the Divisions of the Commission Internationale de l'Eclairage (CIE). The purpose of this document is to provide an administrative and working framework for the technical activities of the CIE.

1.2 Information about this edition

This 2021 edition of the Code of Procedure is a major update of the 2019 edition. The main changes concern:

1) The Code of Ethics
2) The Collaboration Platform and circulation of documents
3) The Standardization Strategy and Policy
4) The Policy on Liaison with External Organizations
5) Collaboration with external organizations
6) Division Members and Division Associates
7) Liaison Representatives and Division Correspondents
8) Interdivisional TCs (within CIE) and Joint TCs (with other organizations)
9) Types of technical publications
10) Drafting and approval procedures of technical publications
11) The acknowledgement of main contributors to the preparation of International Standards
12) Planning schemes of events

For questions or comments on this CoP please contact ciecb@cie.co.at.

1.3 Abbreviated terms

The following abbreviated terms are used throughout this document and in any other CIE communications:

Table 1 – List of abbreviated terms

AD*	Approval Draft	IS	International Standard
ADD	Associate Division Director	ISC	International Scientific Committee
AM	Associate Member	ITC	Interdivisional Technical Committee
ANC	Associate National Committee	JTC	Joint Technical Committee
AR	Activity Report	LR	Liaison Representative
BA	Board of Administration	NC	National Committee
CB	Central Bureau	PS	Position Statement
CD*	Committee Draft	RF	Research Forum
CoP	Code of Procedure	SDO	Standards Developing Organization
CP	Collaboration Platform	SM	Supportive Member
D, DIV	Division	TA	Technical Amendment
DA	Division Associate	TC	Technical Committee
DC	Division Correspondent	TCC	TC Chair
DD	Division Director	TCCo	ITC/JTC Co-chair
DDC	Division Directors Committee	TCM	TC Member
DE	Division Editor	TN	Technical Note
DIS	Draft International Standard	ToR	Terms of Reference
DM	Division Member	TP	Tutorial Panel
DMA	Alternate Division Member	TR	Technical Report
DMT	Division Management Team	VP	Vice-President
DMV	Voting Division Member	VPP	Vice-President Publications
DR	Division Reporter	VPS	Vice-President Standards
DRR	Division Reporter Report	VPT	Vice-President Technical
DS	Division Secretary	WD*	Working Draft
ED*	Enquiry Draft	WP	Work Programme
FDIS	Final Draft International Standard	WSP	Workshop Panel

* To distinguish between drafts of the different publication types (TR, TN) the respective draft designation (WD, CD, ED, AD) may be followed by a "/" and the abbreviation of the publication type, e.g. 'CD/TR'

2 General requirements

2.1 Code of Ethics

All people who are working for the CIE, either as staff or as a volunteer, shall adhere to the CIE Code of Ethics.

In the case of concern that someone does not conduct themselves in accordance with the Code of Ethics, this should be notified to Central Bureau (CB) for further action.

At the start of all meetings the Chair shall remind the participants that by remaining in the meeting they agree to abide by the CIE Code of Ethics. This includes agreeing to treat all matters discussed in the meeting as confidential and not circulating such matters outside the CIE and this group convened for this meeting without proper agreement.

2.2 Collaboration Platform (CP)

All agendas, meeting minutes, electronic ballots and other meeting documents as well as drafts of technical publications, ballot results and responses to the comments made in the ballot on drafts and supportive material shall be circulated by posting them in the respective assigned workspace of the CP with a notification to whom it concerns.

The use of other online platforms for the circulation of documents such as Google Docs is not permitted.

2.3 Circulation of documents

Documents of Technical Committees (TCs), Division Reporters (DRs), Divisions or Board of Administration (BA) are to be treated as confidential, unless explicitly stated otherwise. They shall not be sent to other parties unless this is allowed by the Statutes, Bylaws, this Code of Procedure (CoP), the BA, President or General Secretary (GS).

Example 1: TC members are not permitted to share entire drafts with anyone not listed as a member of that TC. They may consult about specific details with a colleague, subject to the approval of the TC Chair.

Example 2: NCs/ANCs and DMVs receiving drafts of technical publications shall circulate them within the NC/ANC for collecting comments to formulate a response, but are not permitted to share the document outside the NC/ANC.

2.4 Personal information

Collection and storage of personal information shall follow the European General Data Protection Regulation (GDPR). The CIE does not share personal information outside the organization without the consent of the individual. Personal information is collected for the operational needs of the CIE, e.g. to share meeting minutes.

3 Organizational structure

3.1 Board of Administration (BA)

The BA is responsible for the overall direction of the technical work and is responsible for

a) approval of Terms of Reference (ToR), Division Strategies and Work Programmes (WP) of the Divisions, including the standardization work programmes of the Divisions;
b) approval and re-approval of the Division Officers as required;
c) approval of establishment of Technical Committees (TCs);
d) approval of appointment of Technical Committee Chairs (TCCs) and Technical Committee Co-chairs (TCCos);
e) re-approval of TCCs as laid out in 3.3.3.3 and 3.3.3.5;
f) approval of disbanding of TCs;

g) monitoring the progress of the technical work within the Divisions with the assistance of the Central Bureau and taking appropriate action;

h) approval of publications;

i) approval of Expert Symposia, Tutorials and Workshops;

j) making recommendations to the hosting of Quadrennial Sessions and Midterm Meetings to the General Assembly;

k) reviewing on a regular basis the list of organizations with which CIE has a formal agreement and to identify possible other organizations where CIE could benefit from such an agreement, in line with the CIE Policy on Liaison with External Organizations and taking into account the efforts of CIE to maintain such agreement;

l) encouraging the CIE NCs and ANCs to connect to and, where possible, engage with national mirror committees of other Standards Developing Organization (SDOs) with which CIE has a formal agreement, like ISO National Standards Bodies (NSBs) and IEC National Committees (NCs), to support the collaboration at global level.

3.2 Division Directors Committee (DDC)

The DDC is chaired by the Vice-President Technical (VPT). Vice-President Publications (VPP), Vice-President Standards (VPS) and all Division Directors (DDs) are members. The VPT may also invite other stakeholders as guests to specific DDC meetings.

The DDC shall meet at least semi-annually to

a) coordinate and adjust the technical work of the Divisions ;

b) coordinate the overlap of, and the common interest in, the work of the Divisions;

c) recommend the Lead Division and the sequence of the listing of the other participating Divisions in case of Interdivisional Technical Committee (ITCs);

d) approve proposals for Research Fora and monitor their activities.

In case of non-availability of a DD another member of the DMT appointed by the DD shall attend the DDC to represent the Division.

3.3 Divisions

3.3.1 General

The Division is responsible for the conduct of the approved Work Programme (WP) within the procedures given in this document. Each Division should advise the Board of Administration (BA) through its Division Director (DD) on policy and on the operational aspects of the technical activity of the Commission as well as on the scope of technical activities as stated in its WP.

3.3.2 Structure and operation

3.3.2.1 Division Officers / Division Management Team (DMT)

The DD, in consultation with the Voting Division Members (DMVs), shall nominate a Division Secretary (DS) and a Division Editor (DE). These nominations shall be approved by the BA.

The function of the DS and the DE is to support the DD in the "day-to-day" running of the Division.

The DD, Associate Division Director(s) (ADD(s)), DS and DE are referred to as Division Officers and form the DMT. They do not need to be DMs. Upon appointment they become ex-officio Division Members (DMs). The roles of DD, ADD(s), DS and DE do not have voting rights in the Division.

It is the task of the DMT to review the documents originating from their Division at the interval specified in 7.2, 7.3 and 7.4.

The DMT shall meet at least semi-annually. The DMT shall monitor the progress of the Division activities and shall provide support to TC Chairs (TCCs) and Division Reporters (DRs) in the timely completion of their work.

3.3.2.2 Division Director (DD)

The functions of a DD include

a) promoting the objectives of the CIE within the Division;

b) coordinating the WP of the Division, especially between Division meetings;

c) calling and chairing meetings of the Division and the DMT;

d) reminding all TC Chairs (TCCs) to send a progress report and a detailed WP as required and, if not provided in a timely manner, propose to appoint a new TCC or to close the TC;

e) representing the Division in the BA;

f) implementing policies and directives of the BA;

g) keeping the Vice-President Technical (VPT) and Central Bureau (CB) informed on major developments of work and of changes in the organization of the Division.

Each DD shall, with the approval of the Division, appoint Liaison Representatives (LRs) whose function is to provide liaison and maintain technical interaction with other international organizations, which each have a formal agreement with CIE (see also 3.3.6 and 3.4).

3.3.2.3 Associate Division Director (ADD)

The DD, in consultation with the DMVs, may nominate ADDs. These nominations must be approved by the BA. The duties and tasks of the ADD should be drawn up by the DD together with the ADD, to suit the requirements of the Division. Tasks and appointment of each ADD should be reviewed every two years.

3.3.2.4 Division Secretary (DS)

A DD shall, with the approval of the Division and the BA, appoint a DS to administer the Division. The duties and authority of the DS should be drawn up by the DD together with the DS, to suit the requirements of the Division. Duties of the DS comprise

a) to maintain an up-to-date list of DMs and their contact data;

b) to circulate material to DMs, President, VPT and CB;

c) to prepare a calling notice for Division meetings at least three months prior to the date of the meeting. This notice should include a call for agenda items (see also 3.3.8.4);

d) to circulate an agenda at least four weeks prior to the Division meeting (see also 3.3.8.4);

e) to circulate a call for nominations for DD ten months prior to the Quadrennial Session;

f) to prepare and distribute to all DMs and other attendees the minutes of Division meetings (see also 3.3.8.5), including the current list of DMs, eight weeks after the meeting at the latest;

g) to collate comments to the minutes;

h) to organize ballots on Division proposals, in coordination with the DMT, e.g. on new TCs, and to send the results together with any comments and responses to these comments to the proposer, the DMs and CB;

i) to conduct ballots at Division meetings, the results to be included in the minutes.

3.3.2.5 Division Editor (DE)

A DD shall, with the approval of the Division and the BA, appoint a DE whose function is to ensure that the publications of the Division are technically consistent and prepared in accordance with instructions of the VPP and CB and the guidance given in the respective clauses of this CoP.

Items that the DE must ensure are attended to in the final Working Draft (WD) version, prior to submission to CB for preparation of a Committee Draft (CD), include:

a)   accuracy and consistency of the technical content;

b)   consistency of the WD with the Terms of Reference (ToR);

c)   use of proper English throughout the text;

d)   quality of figures and diagrams (e.g. adequate resolution);

e)   adherence to the CIE template file in the preparation of the WD (see 6.1.5), including the "Instructions for the Preparation of CIE Publications" (see Clause 8) and the "Guidelines for Notation to be used in CIE Publications" (see Annex C).

f)   adherence to the guidance concerning the type of technical publication provided in Annex B.

The DE is responsible for the adherence to these items. The DE may reject a WD and return it to the responsibility of the TCC if one or more of these items are not fulfilled.

3.3.2.6 Division Members (DM)

Each National Committee (NC) shall be entitled to appoint one Division delegate as DMV and one as non-voting DMA to each Division. Each Associate National Committee (ANC), Associate Member (AM) and Supportive Member (SM) shall be entitled to appoint one non-voting DM to each Division. The individuals in the roles of TCC, DR, LR or member of the DMT shall be ex-officio DMs without voting rights. Individuals may serve in multiple roles, some of which may have voting rights.

DMVs shall

a)   participate in Division ballots;

b)   represent the interests of their NC in the technical field of the Division where applicable;

c)   advise their NC on Division activities where applicable.

All DMs should

a)   participate in the work of the Division;

b)   recommend items for the WP of the Division;

c)   recommend TCCs;

d)   monitor technical activities within the Division.

A DMA can attend Division meetings without voting rights. If the DMV is unable to attend a Division meeting, the DMA may attend in his/her place with voting rights. If neither the DMV nor the DMA is available for the meeting, the NC may appoint a member of their NC or the DMV from another country as his/her proxy. In such a case, the Division should be notified of the proxy not less than seven days prior to the meeting (except in exceptional circumstances). In either case, the Division will notify CB of the proxy.

3.3.2.7 Division Associates (DA)

Experts no longer having an official role in the Division will, with their consent, be registered as DA.

DCs will be registered as DAs.

Any expert who does not already have a role in the Division may apply to become a DA. For such an application, the expert shall fill out the CIE Division Associate Application Form and send it to CB with a copy to the DS.

CB will check the form for completeness. The DMT shall review the application. If the outcome of the review is negative, the DS shall inform CB within four weeks, including a justification for declining the application. In either case CB will advise the expert of the outcome of the

application and in the case of acceptance the CIE Roster will be updated, along with access to Collaboration Platform (CP).

The DA has no voting rights in the work of the Division but has access to Division meetings and the CP workspace for DAs.

3.3.3 Technical Committees (TC)

3.3.3.1 General

Each Division shall make proposals for WPs, to be submitted to the BA for approval, to be carried out by TCs, which may be operating in one Division, multiple Divisions or together with an external organization according to a formal collaboration agreement:

a) TCs involving more than one CIE Division are called Interdivisional Technical Committees (ITCs).

b) The term "TC/ITC" is used in this CoP when it concerns both, TCs operating in one CIE Division and TCs involving more than one CIE Division.

c) TC/ITCs in collaboration with external organizations and in accordance with a formal collaboration agreement with CIE are called Joint Technical Committees (JTCs).

d) Provisions in this CoP concerning any kind of TC are referred to as "TC(s)".

A TC/ITC is usually responsible for one work item of the WP of the Division(s), restricting the scope of activity to the ToR adopted by the Division(s) and approved by the BA. Only in exceptional cases, a TC/ITC may be assigned more than one work item.

A JTC may be responsible for more than one work item of the WP, adopted by the Division(s) and approved by the BA, if these work items are undertaken with a joint technical committee or a joint working group from an external organization that is permitted to work on more than one work item in parallel or consecutively.

3.3.3.2 Proposal and scope of work

The procedure for the establishment of a TC, the approval of an additional work item for a TC or a change of the ToR including the scope of work and timeline, is described below and summarized in Figure A.1 and Table A.1.

a) Any party with an interest in the scope of CIE may prepare a TC proposal for the development of an International Standard (IS), a Technical Report (TR), and possibly in addition a Technical Note (TN), by completing the TC Proposal Form for consideration by the relevant Division.

b) A TC shall comprise at least five initial members from five different countries having expressed their intention to participate actively in the work of the TC. One of these initial members must be willing to serve as TCC.

c) The proposal shall be submitted to the DMT.

d) The DMT shall review the proposal for compliance with the rules and policies of the CIE and may also provide a recommendation on further development of the proposal.

e) Once the outcome of the DMT review is positive, the DD shall forward the proposal to the other DDs.

f) The DDs shall review the proposal to check if there is an interest from their Divisions or a possible recommendation for adjustment of the proposal.

g) Proposals for a work item from an external organization in collaboration with CIE, shall be sent to the DDs for review by their Divisions.

h) Coordination of a possible adjustment of the proposal in consultation with the proposer is the responsibility of the relevant DMT(s).

i) The nominee for a TCC is to be endorsed by or belongs to the statutory members of the Commission (see CIE Statutes, 4.1).

j) In the role of TCC the individual shall be an ex-officio DM without voting rights, in addition to any other role they might have in the CIE.

k) If more than one Division is involved and the proposal has been approved (see 3.3.10), the DDC will recommend which Division will be the Lead Division. The nominated chair of the Lead Division will be the chair of the ITC, the chair(s) nominated by the other Division(s) will be co-chair(s). Co-chairs have the same relation to their Division as the TCC has to the Lead Division.

l) The DD(s) shall send the proposal to the Division(s) that initiated the proposal and to other possibly interested Division(s), including a nomination for a TCC and, in the case of ITCs, TCCo(s), for discussion and approval in their Division(s).

m) In the case of a proposal for a work item in collaboration with an external organization, CB will inform the other organization about the interest of the CIE Divisions.

n) Any proposal for an IS shall be sent by CB to the Joint Advisory Group (JAG) of ISO/TC 274 (ISO/TC 274/JAG) asking ISO/TC 274 to find out whether they are interested in a collaboration on this project, and if so, to receive a recommendation from the JAG on the route of collaboration. Depending on the recommendation of the JAG:

- If ISO/TC 274 is not interested, the DD may progress the proposal to the next step in the approval stage.

- If ISO/TC 274 is interested, the ISO/TC 274/JAG recommends a collaboration route. If the route is:
  - Route 1 – Informative relation: The DD may progress the proposal in CIE in the usual way.
  - Route 2 – Collaborative relation: The DD may progress the proposal in CIE; experts proposed by ISO/TC 274 shall be registered as members without voting rights to the TC/ITC.
  - Route 3 – Integrated liaison: The DD (of the Lead Division) shall convert the TC/ITC proposal into a proposal for a JTC, including WP.

o) The DD (of the lead Division) shall make a formal recommendation to the BA for the establishment of the TC.

p) The BA shall decide by letter ballot on whether or not to approve the establishment of the TC. This approval may be conditional (e.g. a modification of the proposed ToR or a change of the nominated TCC or TCCo(s)). However, in the case of a JTC, nominee(s) for TCCo(s) from the external organization do not need approval by the BA. In the case of an ITC or JTC, nominee(s) for TCCo(s) can be approved at a later date.

q) In the case of a proposal for a work item in collaboration with an external organization, CB will inform the other organization about the outcome of the BA decision.

r) If the BA ballot outcome is disapproval, the proposal is referred back to the involved DDs.

s) If the BA ballot outcome is approval, CB will contact the designated TCC with instructions on how to proceed to initiate the work of the TC, including advice on the TC number. CB updates the TC database and the Roster.

t) During the initiation process of the new TC:

- the TC may further be populated with TCMs. The TCC shall appoint TCMs following the guidelines given in 3.3.3.6;

- CB shall receive contact details, signed Membership Application Form and signed Copyright Agreement Form of all TCMs including the TCC and, in the case of ITCs, TCCo(s);

- the TCC shall attend at least one training session on the use of the CoP and CP.

u) If the requirements for the initiation process of the new TC are not met, the approvals for the TC are considered null and void and the project is cancelled. CB will inform the BA and the TCC that the TC has not met the requirements and is therefore not established.

v) If the requirements for the initiation process of the new TC are met, the TC will be included in the list of active TCs, both in the TC database and on the CIE website, and the CP workspace will be created.

w) In the case of a proposal for a work item from an external organization in collaboration with CIE, CB will inform the external organization about the outcome of the process.

x) The TC shall be established for a four-year term initially, with the TCC and, in the case of ITCs, TCCo(s) also appointed for a four-year term. The term starts when the requirements for the establishment of the TC according to t) are completed (see also Table A.1, Stage 6).

3.3.3.3 Operation

TCs shall maintain their membership with at least five members from five different countries.

TCs shall do their utmost to reach a unanimous (in the case of TRs and TNs) or consensus decision on the content of the Working Draft before the formal voting stage, independent of the required outcome of the ballot. If necessary, the TC may conduct one or more informal ballots on specific work items before proceeding to the formal WD ballot, in order to highlight areas of potential dispute and address these accordingly.

All TCMs shall be encouraged to put forward their views, even if these are not in accordance with the rest of the TC. Minority opinions shall be discussed constructively and not dismissed out of hand. Equally, those raising contentious issues have a responsibility to act in a reasonable manner; no TCM shall impede the progress of a TC without sound, relevant and justifiable scientific or technical reasons.

TCCs must act impartially (see also CIE Code of Ethics), both when putting forward their own opinion and when considering the views of TCMs; the opinions of all TCMs (including the TCC) must be treated equitably.

The TCC, TCCo(s) if any, ToR and detailed WP for each TC as well as its progress shall be reviewed by their Division(s) at least annually. Any proposed changes to TCC, TCCo(s) if any, or ToR shall be submitted by the DD (of Lead Division) to the BA for approval. In the absence of progress the Division should consider the dissolution of the TC (see 3.3.3.4 b)).

At the end of the four-year term, the requirement for continuation of the work of the TC and the appointment of the TCC or TCCo(s) if any shall be the subject of a formal vote within the relevant Division(s). Based on this vote, the DD (of the Lead Division) shall make a formal recommendation to the BA. The BA shall decide whether the work shall continue. If continuation is agreed, this shall be for a further four-year term (or shorter period if the BA so decides).

In cases of TCs with more than one work item (see 3.3.3.1) there may be more than two four-year terms, subject to progress reviews and Division and BA approval.

3.3.3.4 Dissolution

Any of the following circumstances may lead to the dissolution of a TC:

a) A TC shall be dissolved when the publication stage has been completed. No further action of BA and Division is required in that case.

b) When a TC is not progressing its work in accordance with its WP, there shall be a review by the DMT, which shall result in a recommendation for further actions, including the possibility of dissolution of the TC. The review may include VPT, VPP, VPS and CB. The decision to dissolve the TC shall be made by the BA.

c) A JTC shall be dissolved when the respective joint technical committee or joint working group from the other organization is dissolved or when there is no active work item or no work item is foreseen in the immediate future.

Regardless of the reason for dissolution, the TCC shall send all relevant material that has not been uploaded to CP to CB for archiving. CB will close and archive the CP workspace of the TC.

3.3.3.5 Technical Committee Chair (TCC)

The TCC with the support of TCCo(s), in the case of an ITC, is responsible for calling meetings, preparing the agenda and circulating the draft publication. The TCC is responsible for keeping a record of the meetings and preparing the minutes. This documentation shall be circulated within the (participating) Division(s) as agreed with the DD (of the Lead Division) and published in the relevant CP workspaces with copies of minutes sent to CB.

If the TCC is temporarily lacking resources, they may appoint an Associate TC Chair to support them in the work of the TC. Such appointment shall be notified to CB.

The TCC and TCCo(s), if any, shall normally serve for only one four-year term, although this may be extended to two terms with the formal agreement of the Division(s) and the BA.

The functions of a TCC include:

a) Nominating TCMs.

b) Ensuring that TCMs provided signed Copyright Agreement Forms and transmitting them to CB.

> NOTE If the Copyright Agreement Forms of the TCMs are not filed with CB the TC will not be considered as active and therefore neither included in the TC database nor on the CIE website.

c) Coordinating the work of the TC, specifically ensuring that all knowledge and viewpoints are considered, that the TC keeps to its ToR and to its time schedule.

d) Managing the TC. This includes the organization of regular meetings to facilitate engagement of the TC members and progress of the work.

e) In the case of an ITC care should be taken that there is a balance between all Divisions concerned.

f) Identifying, if a TN is proposed, in discussion with the TCMs, that a TN is the most appropriate form of publication.

g) Taking care that all relevant information, such as WP, target dates, drafts and related email exchanges, is stored in the CP workspace of the TC.

h) Conducting TC meetings and keeping records and minutes.

i) Having responsibility for preparing drafts of publications and to ensure that TCMs are properly involved in any stage of the publishing procedure.

j) Reporting to its Division. The TCC shall report the status of the TC to the Division Director(s) twice a year: at the Division meeting and six months later. The format of the report will be determined by the Division.

k) Examining, from time to time, personal and/or working commitments to see whether these still permit effective leadership of the TC. If in doubt, this should be discussed with the DD(s). Possible solutions include the change of the TCC.

If the TCC does not provide a report, then regardless of the length of time for which the TC has been running (i.e. even for TCs less than four years old) there must be a formal vote at the Division meeting to decide whether the TC should continue and, if necessary, to identify a new TCC.

The functions of a TCCo include:

a) Nominating TCMs from their Division to the TCC.

b) Supporting the TCC in managing the ITC, including the organization of meetings, taking into account a balance between all Divisions concerned.

c) Undertaking the same activities towards his/her Division as the TCC to the Lead Division such as reporting the progress of the ITC.

d) Taking over the responsibilities of the TCC if the TCC is unavailable. The sequence of the participating Divisions, as established in the proposal and recorded at CB, determines which TCCo shall take over first.

3.3.3.6 Technical Committee Members (TCM)

A TCC appoints TCMs. In order to generate TCMs a "Call for Experts" will be circulated by CB to all statutory members and liaison organizations in question after the approval of the TC by the BA.

a) TCMs must be experts within the work item referred to in the WP of the particular TC. They need not be DMs. TCMs are not DMVs, unless already so by virtue of another position.

b) TCMs shall give their own expert opinion and they do not represent anyone else.

c) The membership of a TC should represent the range of knowledge and viewpoints that exist. For an ITC or JTC, the number of members may be limited to balance between Divisions or between the CIE and the other organization, respectively.

d) Anyone wishing to join a TC shall write to the TCC, copied to CB, by giving a clear commitment to actively participate in the work of the TC (if accepted as a TCM) by using the CIE Technical Committee and Research Forum Membership Application Form and the signed Copyright Agreement Form.

e) Experts from external organizations who participate in the TC according to the formal collaboration agreement with the CIE should contact CB, including the forms mentioned in d), for registration. CB shall contact the TCC to advise of the expert participation.

f) In the case of an IS, those NCs/ANCs in whose territory participating experts are residents or where their companies have their headquarters will be informed by CB on their participation.

g) An NC may, if it so wishes, make it a requirement that anyone within their country who participates in a TC must be a member of the NC. Any such requirement must be notified to CB. A list of NCs with this requirement will be maintained by CB.

    NOTE 1   This requirement cannot be applied should an NC not have the possibility of individual membership.

    NOTE 2   This requirement does not apply to TCCs as they are approved by the BA.

h) NCs for which the requirement in g) applies, should monitor the membership of TCs periodically and inform CB of any non-compliant TCMs. In case of any non-compliance, CB will notify the relevant TCCs. CB should then inform the prospective TCM that he/she must join his/her NC in order to remain as a TCM and suspend the TCM from further involvement in the work of the TC until NC membership is confirmed. However, a TCC is authorized to invite any needed experts as TCMs for appropriate reasons, thereby overruling the NC membership requirement (e.g. if the TCM has expertise that is essential to the work of the TC which is not available from other TCMs). In this case the TCC must inform CB of this decision and the reason for it; CB will forward this information to the relevant NC.

i) On receipt of an application to join the TC, the TCC shall review the existing TC membership and the activity of each TCM, to assess whether the new applicant will bring relevant, currently lacking expertise to the TC, or make a valuable contribution to the work of the TC in some other way.

j) If the TCC feels that the current membership adequately fulfils the need for a range of knowledge and viewpoints in the work of the TC and that the new applicant will not assist in the more rapid completion of the work, they should first discuss this with DD and then write to the new applicant, copied to DD and DS, explaining the decision. In making this decision, although the technical expertise required within the TC should be the first priority, consideration should also be given to the following points:

    • the international nature of the CIE and the desirability of having inputs from a number of different NCs or ANCs (but not necessarily all),

    • the desirability of involving TCMs at early or developmental stages in their careers.

k) The TCC shall review the TCM list annually. If, during this review, the TCC identifies a TCM who has been inactive for some time, this TCM shall be formally contacted by TCC to determine whether the TCM is still interested in the work of the TC and asking for a commitment to contribute to a specific area of the TC's work (as in point c) above for

potential new TCMs). Unless a sufficiently positive response is returned, the TCM should be removed from the membership list.

l)   Those TCMs who have made a significant contribution to the work of the TC/ITC and to the preparation of a CIE technical publication shall be acknowledged as Authors of that technical publication – for details see 6.1.2.

3.3.4 Division Reporters (DR)

3.3.4.1 Appointment/Discharge of a Division Reporter (DR) and internal publication of a Division Reporter Report (DRR)

Each DD may, with the approval of the Division, appoint an individual as DR, whose function is to inform the Division on relevant technical subjects, by provision of a DRR. See also Figure A.2.

The tasks and objectives of the DR shall be defined through ToR, which should be prepared by the DR nominee and submitted to the DMT. If at the appointment of a DR the intended output is a TN, which shall be on a topic not already covered by a TC, then this shall be explicitly expressed in the ToR.

The DMT shall review the proposal for compliance with the rules and policies of the CIE and may also provide a recommendation on further development of the proposal.

The DD shall inform CB about the appointment of the DR after approval by the Division.

The individual in the role of DR shall be an ex-officio DM without voting rights, in addition to any other role they might have in the CIE. A DR may be advised by experts in the topic specified in the ToR.

For the preparation of a DRR the template file for DRRs shall be used. If the ToR specify that the intended output of the DR is a TN, the DRR may also be drafted as an initial WD for a TN or the content list of the intended TN. The DRR is intended for circulation to the DMs only and is not intended for publication outside the Division. However, upon the completion of the DRR the Division may decide to make the content of the DRR publicly available as a TN – see 3.3.4.2. It is the responsibility of the DR, in discussion with the DMT, to identify that a TN is the most appropriate form of publication. The criteria for the publication of a TN can be found in 5.1.4.

The Division shall discharge the DR after presentation of the DRR to the Division, unless the DR will continue to prepare a TN.

3.3.4.2 Publication of a TN by a DR – proposal

The procedure for publishing a TN prepared by a DR is described below and summarized in Figure A.2 and Table A.1.

a)   The DR shall complete the TN by DR Proposal Form for consideration by the Division; this includes a WP. The ToR shall define that the WD is based upon the DRR.

b)   The proposal shall be submitted to the DMT.

c)   The DMT shall review the proposal for compliance with the rules and policies of the CIE and may also provide a recommendation on further development of the proposal.

d)   The DD shall make a formal recommendation to the BA for the development of TN by the DR.

e)   The BA shall decide on whether or not to approve the development of the TN by the DR, depending on its assessment of the submitted TN by DR Proposal Form, which shall include an evaluation of compliance with the criteria required for a TN.

f)   If the BA ballot outcome is negative, the proposal is referred back to the DD.

g)   If the BA ballot outcome is positive, CB must receive contact details and the signed Copyright Agreement Form of the DR as well as those from the assisting experts.

h) In absence of the Copyright Agreement Forms within four weeks, the approval for the TN by the DR is considered null and void and the project is cancelled.

3.3.5 Research Fora (RF)

The function of an RF is to provide the opportunity for researchers to discuss ideas and exchange data on a given scientific or technical topic, and where there is insufficient scientific knowledge to start a new TC. Members of an RF can be individuals who express an interest in the given topic, as it applies to their participation.

An RF may be proposed to the DDC, by recommendation from a Division or from the VPT, with the name of the proposed convener, by submission of the completed RF proposal form. The RF will be established by approval of the DDC.

An RF shall have shared space within the CP which is accessible to the RF members. There is no requirement for an RF to produce a deliverable, but the RF may formulate proposals for TCs, DRs, expert symposia, trainings or other outreach activities for presentation to the relevant Division(s).

The DDC shall review the list of RF annually to determine whether the topics remain relevant. RF thus determined to have outlived their usefulness will be dissolved and their CP spaces shall be archived.

An RF shall be led by its convener, who normally serves for one four-year term, which may be extended by another four-year term with the approval of the DDC. The RF convener shall provide an annual report (activity summary) on the discussions taking place over the previous year. CB will advise the convener to submit a report eight weeks prior to the DDC meeting during which the annual reports of RFs will be reviewed. The annual report shall be submitted to CB four weeks prior to the DDC meeting for circulation to the DDC.

3.3.6 Liaison Representatives (LR)

To avoid duplication of work and to secure a good cooperation CIE has formal collaboration agreements with other organizations (see also 3.4).

Liaisons with these organizations at the organizational level are maintained by CB.

Each DD shall, with the approval of the Division, appoint LRs whose function is to provide liaison and maintain technical interaction with technical bodies of the organizations the LR is appointed to. Liaisons should operate bidirectionally, whereby each organization appoints its own LR. Wherever possible a bidirectional liaison by the same person has to be avoided. The individual in the role of LR shall be an ex-officio DM without voting rights, in addition to any other role they might have in the CIE.

LRs from the other organization's relevant body have observer status and ensure the technical liaison with the other organization; they are registered as DM without voting right. They shall accept the CIE procedures, including copyright and intellectual property rights (IPR). Persons in the capacity of representatives of the other organization are not eligible for a management role of the technical committee.

The formal collaboration agreement of the CIE with the respective organization applies.

The responsibilities of LRs from the CIE to the external organization are:

a) Review all documents in general circulation within that (technical committee of the) organization for applicability to the work of the CIE. Forward appropriate documents, within the scope of the LR, together with a cover letter explaining their importance in relationship to CIE work, to CB and to the relevant CIE Division for entry into the document register and for distribution to its members. To make this possible CB has to ensure that the LR's name is on the mailing list of the organization to which they are an LR.

b) Send copies of applicable CIE documents explaining the importance of the document to the work of the organization in liaison to CB, which will then forward it to that organization.

c) Actively work to resolve conflicts between CIE and the organization to which they are in liaison. This should involve not merely understanding the positions of both CIE and the other organization but consistently working to resolve any differences. The LR has the responsibility of preparing input documents to CIE as expert contributions suggesting appropriate resolutions where there are conflicts.

d) As necessary, attend meetings of the organization to which they are in liaison. Although LRs are not expected to attend all meetings of the organization, they are expected to have adequate resources so that they are able to attend meetings when it is necessary.

e) Prepare written reports for the relevant CIE Division on the progress of work in the organization to which they are in liaison. Prepare a liaison report and report orally on the status of their liaison work at meetings of the relevant CIE Division. Send copies of all reports to CB.

3.3.7 Division Correspondents (DC)

If a Division wishes to establish a relationship to (a technical committee of) another organization not in liaison with CIE, the Division may either request the GS to establish, with the approval of the BA, a formal collaboration agreement, or the Division may appoint a DC.

The responsibility of a DC is to inform the Division about activities of the organization the DC is appointed to, with the understanding that permission has been given by the other organization to share this information. Likewise, CIE information (e.g. documents) shall not be shared by the DC with the other organization without the prior approval of CB. The DC shall be registered as a DA.

3.3.8 Meetings of Divisions

3.3.8.1 Scheduling of meetings

Meetings of Divisions shall be held at least annually, either in person, online, or as a hybrid meeting. It is recommended that each Division draw up a programme of meetings for at least two years ahead. In doing so, account should be taken of the international nature of the CIE activity. CB shall be informed of this programme.

In the case of meetings held in conjunction with Quadrennial Sessions and Midterm Meetings CB will support the coordination of the scheduling for these meetings.

3.3.8.2 Constituents of meetings

The constituents of a meeting are the DMT, DMVs (DMAs), other DMs and TCCs. If any DMV is unable to attend a meeting of the Division, the DMV may delegate the vote to an alternative representative (DMA, if one is appointed) from the NC or to another constituent of the meeting. In either case the DD must be informed in writing prior to the meeting.

Observers may attend without voting rights on approval by the DD.

3.3.8.3 Chair of the meeting

The chair of a Division meeting shall be the DD. If unable to attend, the DD may appoint another member of the DMT to chair the meeting.

3.3.8.4 Agenda and meeting procedures

All materials for the meeting shall be submitted to the DS six weeks before the meeting. The draft agenda shall be circulated to the DMs four weeks before the meeting.

The business shall be conducted according to an agenda. All documents shall be circulated by the DS from the CP workspace for DAs at least four weeks before the meeting, so that constituents can come to meetings fully briefed and meeting time is used efficiently. Documents intended for DMs only shall be uploaded to the CP workspace of the Division.

Those who intend to attend the meeting are required to register using the procedures advised by CB. Attendance implies agreement to abide by the CIE Code of Ethics and to treat the matters discussed in the meeting as confidential.

The business should be conducted according to normally accepted procedures, i.e. formal items should be dealt with by motion, with each speaker limited to one contribution. Written contributions should also be considered within any debate. Minority viewpoints should not be inhibited and time should be given, if required, for general debate on policy.

At the start of all meetings the Chair shall remind the participants that by remaining in the meeting they agree to abide by the CIE Code of Ethics. This includes agreeing to treat all matters discussed in the meeting as confidential and not circulating such matters outside the CIE and this group convened for this meeting without proper agreement.

3.3.8.5 Meeting minutes

The DS is responsible for keeping a record of the meeting, circulating an attendance list and preparing minutes.

The minutes shall record the essentials of the meeting, including decisions, minority viewpoints, actions required and persons responsible to carry out these actions.

The attendance list and minutes of each Division meeting shall be sent to the constituents, VPT and CB and at the same time shall be uploaded to the relating folder of the CP. The minutes as well as documents for information shall be uploaded by the DS to the CP workspace for DAs within a timeframe of eight weeks after the meeting.

3.3.9 Meetings of Technical Committees

It is advisable to hold TC meetings, whenever possible, electronically or in connection with Division meetings or other CIE events. The meeting agenda shall be circulated four weeks in advance of the meeting. Details of the meeting calendar should be sent to the responsible DMT.

TC meetings shall be open to all interested parties. However, the TCC should clarify that non-members are welcome only in an observer capacity; the work of the TC should not be impeded by their presence. In the case of an integrated meeting of a JTC with a joint technical committee or a joint working group in liaison with CIE, participants from the other organization shall contact CB for registration. Attendance implies agreement to abide by the CIE Code of Ethics and to treat the matters discussed in the meeting as confidential.

An attendance list shall be circulated at each TC meeting. It shall be, together with the meeting minutes, available in the TC workspace of CP.

At the start of all meetings the Chair shall remind the participants that by remaining in the meeting they agree to abide by the CIE Code of Ethics. This includes agreeing to treat all matters discussed in the meeting as confidential and not circulating such matters outside the CIE and this group convened for this meeting without proper agreement.

3.3.10 Division ballots

Except for ballots on drafts of technical publications, Divisions decide by a simple majority (number of positive votes cast exceed the number of negative votes cast). A Division meeting requires a quorum of at least half of the DMVs or their alternates to be present; if there is no quorum, the meeting is considered informal and decisions cannot be taken.

Letter ballots should be prepared using the Division Letter Ballot Template and should be referenced by a letter ballot number, which shall be obtained from CB. Letter ballots shall be circulated from CP.

NOTE   For ballots on drafts of technical publications see 6.1.3.

3.4 Collaboration with external organizations

There are different types of collaboration between CIE and external organizations, some of which are handled through formal long-standing agreements and specific agreements focussing on joint ad-hoc projects. Collaboration can only take place in accordance with the established CIE Policy on Liaison with External Organizations

When starting new work items or other activities in collaboration with other organizations, it shall be verified that such new work or activities are not in conflict to existing formal collaboration agreements of CIE with other organizations. For the joint development and approval of documents, the formal collaboration agreement of CIE with the respective organization and this CoP apply. In the absence of agreements defining the formal collaboration no joint development of a publication is possible.

Liaison with SDOs and other organizations is established by the GS with approval of the BA and maintained by the GS; the GS may delegate technical matters to an LR to the other organization or committee.

Liaison arrangements should be reviewed at least once every two years.

For coordination with organizations without a formal agreement with CIE see 3.3.7.

4 Events

4.1 Types of events

CIE holds several types of events as detailed below and summarized in Table 2.

Table 2 – Types of CIE events

	CIE Conference at Quadrennial Session or Midterm Meeting	CIE Expert Symposium	CIE Tutorial	CIE Workshop	CIE Topical Conference
Time	Periodic	Needs based	Needs based	Needs based	Needs based
Proposal	Procedure for approval of date and location of Session/Midterm as per Bylaws	Division(s)	Division(s)	Division(s)	NC/ANC
Topic	Scope of the CIE Divisions	A focused topic	Tutorial based on specific CIE publication(s)	A focused topic (One or more Divisions involved)	A focused topic of strong interest to the region.
Administrative Organization	CIE and NC	CIE and Host	CIE and Host	CIE and Host	CIE and NC/ANC
Scientific Organization	CIE	Division, Host, CIE CB	Division	Division	CIE
Call for papers	Yes	Yes	No	Possible	Yes
Proceedings	Yes	Yes	No	No	Yes
ISC	VPT, all DDs, and from Divisions	mainly from related Division(s)		Division led workshop or tutorial planning committee	VPT and from the NC/ANC and related Division(s)
Contents (possible)	Oral paper sessions (with invited talks) Poster sessions Workshops (with invited talks) (Panel discussions Tutorial)	Oral paper sessions (with invited talks) Poster sessions (Tutorial)	Tutorial presentations	Workshop presentations, (poster papers)	Oral paper sessions (with invited talks) Poster sessions Workshops (with invited talks) (Panel discussions Tutorial)

CIE Quadrennial Sessions and CIE Midterm Meetings are official meetings of the CIE. These events incorporate administrative meetings, technical meetings and a conference. The procedure for bidding for a CIE Quadrennial Session or a CIE Midterm Meeting is given in 4.3.

Beside conferences within CIE Quadrennial Sessions and CIE Midterm Meetings, CIE also holds other conferences (e.g. CIE Topical Conferences) based on respective decisions of the BA.

All CIE Conferences cover a wide range of topics of relevance to the work of the CIE. CIE Conferences require the formation of an International Scientific Committee (ISC), comprised of VPT, chairing the ISC, VPP, delegates from the relevant Divisions and representation from the local host. The function of the ISC is to plan and organize the scientific content of the conference. CIE Conferences will include presentations from invited speakers, oral presentations and poster presentations selected from the abstract submission process. Papers resulting from presentations to a CIE Conference are published as a set of CIE Proceedings.

CIE Symposia are similar to CIE Conferences except that the topic is highly focussed on one aspect of the work of the CIE, usually limited to the scope of a Division. CIE Symposia require the formation of an International Scientific Committee (ISC) comprised of members from within

the relevant Division(s) and representation from the host of the symposium. The function of the ISC is to plan and organize the scientific content of the symposium. CIE Symposia can include presentations from invited speakers, oral presentations and poster presentations selected from the abstract submission process. Papers resulting from presentations to a CIE Symposium are published as a set of CIE Proceedings.

CIE Tutorials are intend to give training on a specific topic, work or publication of the CIE. CIE Tutorials can include practical aspects. CIE Tutorials require the formation of a Tutorial Panel (TP), the TP is comprised of members from the relevant Division(s), presenters at the Tutorial and representation from the host of the tutorial. The function of the TP is to develop the tutorial presentations for the tutorial.

CIE Workshops are intended to present material and promote discussion on a specific topic of interest to the CIE. CIE Workshops require the formation of a Workshop Panel (WSP), the WSP is comprised of members from the relevant Division(s), presenters at the Workshop and representation from the local host. The function of the WSP is to develop the content and structure of the workshop. If a Workshop allows for the presentation of poster papers that will complement the outcome of the Workshop, a CIE abstract submission process will be available, and it is the function of the WSP to review these submissions.

4.2 Initiation and approval of CIE Symposia, Tutorials and Workshops

Each event that is given on behalf of CIE has to be approved by the BA before publicizing it or agreeing on it with a contracting partner.

The following procedure will apply:

a) The Division(s) develops the proposal for the event. The proposal shall include the following information:

1) Type of training: symposium, tutorial or workshop (or combination). Note that for symposia an invitation for the submission of papers from participants will be available as will symposium proceedings.

2) Title and scope of the training.

3) Division(s) involved and initial members of the ISC, TP or WSP.

4) Name of hosting institute or organization, host point of contact, confirmation that the host is able to undertake this role.

5) Date of proposed training, taking into account other CIE Events.

6) Likely number of attendees.

b) The proposal shall be approved by the Division(s).

c) The proposal shall be reviewed at a Division Directors Meeting, or by correspondence within the Division Directors Committee (DDC).

d) The approved and reviewed proposal shall be sent to Central Bureau (CB) for circulation to the BA for further approval.

e) If approved CIE Scientific Services GmbH shall establish a contract with the host for the purpose of hosting a CIE Event.

f) The host shall form their own local organizing committee (LOC) and, depending upon the size of the event, might need to contract the services of a professional conference organizer (PCO).

g) The ISC, TP or WSP along with the LOC shall develop materials to publicize the event (these will be included on the webpage for the event), including:

1) Outline/purpose of the event.

2) Topics of the event – to be used for abstract submission for papers in the case of a symposium.

3) General information about the location of the event as provided by the proposed host.

4) The ISC, TP or WSP determines matters such as invited speakers/tutors/presenters. The fee waiving, if any, of such individuals is up to the discretion of CIE Scientific Services GmbH and the host.

PowerPoint presentations shall be prepared on a CIE template, as provided by CB on an as-needs basis, and carry only the CIE logo and not the one of the institution that a trainer/speaker is affiliated to. However, the first slide of the presentation may show this additional logo.

To ensure compliance with CIE Policies the contents of each training or similar activity has to be reviewed by a CIE Training Review Panel to ensure compliance with CIE Policies.

Each training has to be evaluated by a CIE Standard Evaluation Form, as provided by CB on an as-needs basis, which will be circulated to participants as an online questionnaire after the training was completed.

4.3 Proposals for hosting of CIE Quadrennial Sessions and Midterm Meetings

a) A call for proposals is sent out to the National Committees (NCs). The timelines for sending proposals are:

- Quadrennial Session – six years before expected time of Session (around the time of the preceding Midterm Meeting)
- Midterm Meeting – four years before expected time of the Midterm Meeting (around the time of preceding Midterm Meeting)

b) If the CIE has already received any proposals at the time of sending the call for proposals, the call for proposals should mention the proposal(s) already received.

c) Submitted proposals should include a venue (city), approximate time of year (month), and hosting organization (usually an NC and any other supporting organizations).

d) Proposals shall refer to the requirements outlined in the CIE Scientific Services GmbH Standard Contract.

e) The call for proposals states deadline date as below for each type of meeting:

- Quadrennial Session - three months before the preceding Quadrennial Session.
- Midterm Meeting - three years before the expected time of Midterm Meeting.

f) Bids received will be circulated to the BA when they are received and to the General Assembly (GA) at the deadline, the GA (NCs) will have six weeks to send comments to the BA on the bids. The BA will consider the bids and all comments for final selection by a letter ballot. The final approval by the GA depends upon the type of meeting:

- Quadrennial Session – The proposal of the BA will then be tabled to the GA meeting at the preceding Quadrennial Session, where the final selection will be approved.
- Midterm Meeting – The proposal of the BA will then be circulated to the GA for final approval by letter ballot.

NOTE   There will be no bidding for CIE Symposia, CIE Workshops, CIE Tutorials, and CIE Topical Conferences. These meetings are proposed on an as-needs basis, proposals are reviewed by the DDC and approved by the BA.

5 Publications

5.1 Technical publications

5.1.1 General

CIE is a scientific organization issuing informative publications and an international Standards Developing Organization (SDO) issuing normative publications.

CIE issues technical publication types as listed in Table 3. Guidelines to determine the type of technical publication can be found in Annex B.

Table 3 – Types of CIE technical publications

Informative publications	Normative publications
Technical Report	International Standard
Technical Note	
Digital Product	
Ancillary publications to the above	
Supplement	
Amendment	
Corrigendum	
Series	

CIE may issue joint technical publications in collaboration with other organizations through a formal agreement, if the agreement provides for it; see the CIE Policy on Liaison with External Organizations. Publication types of these collaborating organizations may be considered in that case.

Examples: Technical Specification (TS) and Publicly Accessible Specification (PAS) as in Table A.2.

5.1.2 International Standards (IS)

An IS is a "document, established by consensus and approved by a recognized body, that provides, for common and repeated use, rules, guidelines or characteristics for activities or their results, aimed at the achievement of the optimum degree of order in a given context. Standards should be based on the consolidated results of science, technology and experience and aimed at the promotion of optimum community benefits" (ISO/IEC Guide 2 (ISO/IEC, 2004)).

ISs are often used for reference by legislation or in third party contracts or occasionally by other standardization bodies.

An IS will often be preceded by a TR, but not necessarily.

Criteria to support the choice for publishing a draft as CIE International Standard or another document are given in Table B.1.

CIE International Standards may refer to CIE Technical Reports or CIE Technical Notes as "Normative References".

5.1.3 Technical Reports (TR)

CIE Technical Reports will normally be two kinds, a "survey" or a "guide". They will contain documentation of knowledge and experience within specific fields of light and lighting with recommendations as to how this documentation should be used by interested parties at large. A TR would usually be a necessary preliminary to a CIE or joint CIE/ISO/IEC International Standard.

Since a TR of the survey type will often represent the state of the art, it is to be expected that it will contain a range of knowledge and viewpoints. Some TRs may use the word 'Guide' in the title to reflect documentation of desirable practice within specific fields of light and lighting. TRs published as CIE Guides may be used as a basis for international or national standards.

5.1.4 Technical Notes (TN)

A CIE Technical Note is a concise technical paper summarizing information of fundamental importance to CIE members and other stakeholders. A TN may be made freely publicly available on the CIE website.

A TN may be prepared by a Technical Committee (TC) or by a Division Reporter (DR).

The following criteria apply to a TN:

- It demonstrates CIE's leadership in the fields covered by the scope of the CIE.
- It is concise and shall be contained within a 10-page limit (excluding the title page, foreword, contents list, references list). In rare circumstances there can be exceptions to this criterion, which need approval of the Vice-President Technical (VPT), Vice-President Publications (VPP), Vice-President Standards (VPS), General Secretary (GS) and relevant Division Director(s) (DD(s)); approval is to be sought prior to the development of the TN.
- It is limited to one specific technical issue.
- More than three stakeholders have been identified as benefitting from the TN.

5.1.5 Supplements

A new document that cannot be treated as a stand-alone publication, but must be read in conjunction with another (main) CIE publication, shall be issued as a Supplement to the main publication. Procedures shall follow the general rules for approval of publications.

5.1.6 Series

Where several documents are closely linked, but each can be read as a stand-alone document, these shall be issued as separate parts of a publication series.

NOTE   Occasionally it may be decided after a CIE publication has been published that it should preferably form the first of a series of linked publications.

5.1.7 Technical Amendments

A Technical Amendment is a technical paper that alters and/or adds provision to a previously agreed existing CIE publication, and which shall be incorporated into the respective publication during the next regular review. It shall be withdrawn as soon as its content has been incorporated into the publication which it is related to.

As amendments change the contents of a publication they should undergo the same drafting and approval procedure as the publication itself.

5.1.8 Technical Corrigenda

A Technical Corrigendum is issued to correct either

- a technical error or ambiguity in a CIE publication inadvertently introduced either in drafting or in printing and which could lead to incorrect application of the publication, or
- information that has become outdated since publication, provided that the modification has no effect on the technical elements of the publication in question.

NOTE   Technical Corrigenda are not issued to correct errors that can be assumed to have no consequences in the application of the publication, for example minor printing errors.

Suspected technical errors or outdated information shall be brought to the attention of the TC Chair (TCC) or DD concerned. After consultation with the Division Management Team (DMT)

the Division Secretary (DS) shall submit to Central Bureau (CB) a proposal for correction, with an explanation of the need to do so.

VPT, VPP and CB shall decide, in consultation with the Division concerned whether to publish a Technical Corrigendum or a corrected or updated reprint of the existing edition of the publication.

The Technical Corrigendum shall form part of the publication and is identified after the title of the publication.

NOTE   No more than two separate documents in the form of Technical Corrigenda or Technical Amendments shall be published modifying a current TR or IS. The development of a third such document shall result in publication of a new edition of the related publication.

5.2 Position Statements (PS)

CIE Position Statements (PSs) are developed in response to significant questions and comments from external parties on matters of strong interest to the CIE. A PS shall reflect the Commission's stance on the specific topic and outline the current and future work of the CIE in this area. A PS may be developed jointly with external parties. As a PS should be a response to a very current matter it is expected that PSs shall be developed in a period no longer than four weeks from notification of the matter.

The procedure to develop a PS is:

- A proposal of a BA member to develop a PS is submitted to the GS for Board of Administration (BA) notification.

- The proposal should include a brief description of the issue and potential members of a task group for drafting the PS. The task group is coordinated by the GS and usually includes relevant DDs, relevant TCCs, and some TC members, but is not limited to these.

- The task group develops a draft. It should usually be completed within two weeks.

- The draft is submitted by GS to the BA for approval by a simple majority. The balloting period is one week.

- In case of a positive voting result, the PS will be posted on the CIE website.

5.3 Proceedings

Submissions to CIE Conferences and Expert Symposia take the form of extended abstracts. These are reviewed in a double-blind process, managed by CB. Since 2013 the abstracts of accepted papers are made available on the CIE website. Full papers are published in proceedings, with each paper allocated a Document Object Identifier (DOI).

CIE Conference and Symposium Proceedings as well as CIE Session Proceedings shall include

- full papers of keynotes,

- full papers of oral presentations,

- full papers of poster presentations,

CIE Session Proceedings include a Volume 2, in which are published:

- quadrennial reports of the Officers of the Commission,

- quadrennial reports of the Divisions,

- reports of workshops held at the Session.

6 Development and revision of technical publications

6.1 General rules and procedures

6.1.1 General

The drafting and approval procedures for CIE technical publications are described in the following and in Annex A. Guidelines to determine the type of technical publication can be found in Annex B.

For the joint development with external organizations and the parallel approval of draft publications, this CoP and the formal collaboration agreement of CIE with the respective organization applies.

The time frame of any process stage as given in the respective tables in A.4 and A.5 might be extended by Central Bureau (CB) if the stakeholders are not able to respond to comments in a timely manner. Absence or slow response by the stakeholders shall be escalated by CB to the relevant Division Director(s) (DD(s)) and subsequently to the Vice-President Technical (VPT).

6.1.2 Acknowledgement

Those who have made a significant contribution to the writing of a CIE technical publication shall be acknowledged as "Authors". The TCC and, if applicable, the Associate TC Chair will be identified in the list. Those listed as authors shall be formally recognized TC Members (TCMs) and, in the case of a DR developing a TN, experts who assisted.

Where a member or expert has taken a less active role, acting as an advisor rather than a contributor to the work, this may be acknowledged in the final report by inclusion in a list of "Advisors".

TRs and TNs shall include names of authors and advisors. CIE International Standards shall not include any author or advisor names.

For all CIE technical publications names of authors and advisors, for ISs names of the main contributors, shall be published on a publicly accessible webpage of the CIE with a CIE statement that the publication is the outcome of joint work in a committee, which work was approved and released by the CIE.

For a joint publication of a JTC the formal collaboration agreement applies.

TCMs who have not contributed to the work of the TC/ITC shall not be acknowledged, regardless of the length of time for which they have been a formal member.

The TCC shall maintain a list of all current members and ex-members, including notes on the contributions each one has made to the work of the TC, to aid in the preparation of the lists of Authors and Advisors in the final document and to ensure that these lists are accurate. The TCC shall keep records of these contributions by using the CP.

Before publication, the TCC shall notify all current and, if possible, also former members of the TC of whether or not they will be listed as Authors or Advisors in the final document, with a deadline for response (typically one month). In case of disagreement, the TCM should appeal first to the TCC, with evidence of the contribution made. If necessary, the TCM may invoke independent arbitration from a Review Panel consisting of DD, VPP, VPT, VPS and CB; in this case the Review Panel shall have the final decision on who should be listed.

Where a TR includes a separate Minority Opinion Report (see also 6.1.4), the Authors of each part of the report shall be clearly identified, both in the main part of the TR and at the start of the Minority Opinion Report. If appropriate, Authors of the Minority Opinion Report may also be listed as Authors or Advisors for the main part of the report, if their contribution to the main part of the report warrants this acknowledgement.

6.1.3 Ballots on drafts

CIE technical publications are recognized around the world as encapsulating the state of the art of knowledge and experience in their given topic areas. This is achieved through the free exchange of information and expertise between TCMs and the testing and refinement of that knowledge via scientific and technical debate. TCs are therefore encouraged to explore issues that may be contentious or open to different interpretations prior to voting.

CIE technical publications involve a number of ballots before publication. These shall be electronic ballots, circulated from CP.

Eligibility to vote may be restricted based on provisions in the CIE By-Laws.

The following ballot results are required:

- A WD for an IS is approved by consensus[1], meaning absence of rejections during the vote. If consensus is not achieved, see 6.1.4.

- A WD for a TR or TN is approved by unanimity, meaning approval from all those who vote (no negative votes allowed, abstentions are not counted as a vote). If unanimity is not achieved, see 6.1.4.

- A CD, DIS/ED or FDIS/AD is approved if two thirds of the votes cast are positive and not more than one quarter of the number of votes cast are negative (abstentions are not counted as a vote).

Negative votes shall be accompanied by a statement giving the reason. Negative votes are not counted if the reason is not given.

Abstentions shall be accompanied by a statement giving the reason for the abstention; in the case of Division and NC ballots, DMVs and NCs should also indicate whether this is due to a lack of consensus or a lack of experts in the scope of the balloted draft.

In case of parallel voting by two or more voting bodies, the draft is only approved if the ballot result from each of those voting bodies is positive.

6.1.4 Dispute resolution

If it proves impossible to reach consensus or a unanimous decision on a WD within the TC, the TCC or any TCM may invoke independent arbitration from a Review Panel consisting of DD, VPP, VPT, VPS and CB. This panel will consider the points of dispute and decide from the following options within a deadline of one month:

- Over-rule the minority view. This option will usually only be taken if the point of dispute falls outside the Terms of Reference (ToR) of the TC; in this case some other action will be put in place to address the point of dispute, e.g. a new DR.

- Refer back to the TC for further debate. This option will be taken if the Review Panel feels that the point(s) of dispute have not been adequately discussed within the TC. In this case a time period of no more than six months will be allowed for the TCMs to hold further discussions before referring again to the Review Panel.

- Only for a TR:
  The TR to include a separate Minority Opinion Report. This option will be chosen if the point of dispute is important from a scientific or technical perspective and is felt to be of significance to the potential readership of the TR despite the fact that it deviates from the majority view.

The TCC or any TCM may involve the Review Panel at any stage in the TC's work. If a ballot has already been held, the results of the ballot shall be considered by the panel members as part of their deliberations. Unless the Review Panel recommends otherwise, a new ballot shall be conducted as soon as the recommendations from the panel have been implemented.

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1 Definition of consensus: see ISO/IEC Guide 2, 2004, 1.7.

6.1.5 Templates for drafts and commenting forms

For the preparation of the WD, and all other subsequent drafts, the relevant CIE template file for the technical publication shall be used:

- CIE_International_Standard_Sample.docx
- CIE_Technical_Report_Sample.docx
- CIE_Technical_Note_Sample.docx

At any stage comments on drafts shall be submitted on the Commenting Form.

The actions taken shall be recorded in the column "Responses" in the Commenting Form(s).

TCCs shall compile the voting results on the WD in the Ballot Result Form.

6.1.6 Circulating and archiving drafts and ballot forms

The drafts and ballot forms shall be uploaded to the relevant CP workspace with a notification to whom it concerns.

WDs shall not to be circulated outside the membership of the relevant CP workspace.

6.2 Drafting and approval stages

Figure A.3 provides a schematic overview of the different drafting and approval stages.

The stages of the drafting and approval process are listed in Table A.1. For each stage and for each technical publication type the following details are given: the time frame and possible variation of the stage, the eligibility of CIE bodies to vote, the process owner and other stakeholders involved in the process.

For collaboration with ISO, the Partner Standards Developing Organization (PSDO) Agreement and the Implementation Guide (IG) to the PSDO Agreement between ISO and CIE , containing working arrangements with ISO/TC 274, apply.

a) Table A.1 provides the CIE process stages for CIE technical publications and ISs prepared by the CIE in collaboration with ISO according to Routes 1 or 2 (see also 6.5.2).
b) Table A.2 provides an informal summary of the ISO procedures for joint development projects according to Route 3 (see also 6.5.2).

NOTE: The information in Table A.1 and Table A.2 supplements the body of this CoP.

6.2.1 Preliminary stage

If, during the preparation of the Terms of Reference (ToR) for a Technical Committee (TC), it appears that there are uncertainties, conflicts, insufficient material, or incomplete research, a preliminary stage should be considered. This is an optional stage to undertake preliminary work before the TC is established. Preliminary work may be informal, or may include appointing a Division Reporter (DR) (see 3.3.4) or establishing a Research Forum (RF) (see 3.3.5), whatever is appropriate to support the drafting of explicit ToR.

6.2.2 Proposal stage

Refer to 3.3.3.2 for the establishment of TCs to draft an IS or TR and possibly also a TN. Refer to 3.3.4 and 5.1.4 for DRs to draft a TN.

After the proposal has been approved, the TC, under the direction of the TC Chair (TCC), or the DR, proceeds to the preparatory stage.

6.2.3 Preparatory stage – Working Draft (WD)

The TC, directed by the TCC, or the DR works out a Working Draft (WD) according to the work plan and timetable, which will usually take several iteration steps. Each WD version shall be

numbered sequentially. All versions shall be uploaded and circulated through the Collaboration Platform (CP) (see also 2.2).

No matter how minor the change, a new draft number and date must be added to the front page. It is also useful to indicate where changes have been introduced since the previous draft. This should be done by using the "Track Changes" option of the word processing program.

After finalization of the WD, the Division Editor (DE)[1] shall review the WD in order to ensure that the publication is technically consistent and prepared in accordance with the guidance given in the respective clause of this CoP (see also 3.3.2.5). Any deficiencies in the document shall be resolved in cooperation between the DE and the TCC, with support of the TC or DR. Only after approval by the DE shall the WD Ballot take place following the procedure for WDs in 6.1.3.

The TCC or the DR conducts the WD ballot in the TC or in the Division Management Team (DMT), respectively.

The TCC or the DR completes the Ballot Result Form on WD, collects the comments, compiles them in one Comment Form, and addresses them within the TC or DMT, respectively. The actions taken have to be recorded in the column "Responses" in the Commenting Form. In case of any dispute within the TC or DMT, or need for clarification, the TCC or DR shall consult the other stakeholders.

If the WD ballot fails, a new version of the WD shall be prepared, taking into account the responses to the comments; the further WD process of review by the DE and ballot of the WD shall be repeated until the ballot result is positive. In the case of repeated negative results, see 6.1.4 on the matter of a lack of unanimity or consensus.

If the WD ballot result is positive:

- The TCC or the DR sends the WD together with all documents used for the preparation of the WD, the completed Ballot Result Form and the completed Commenting Form to CB.
- If no technical issues were raised during the WD ballot or during the review by CB, the committee stage (see 6.2.4) shall be skipped; proceed to the enquiry stage (see 6.2.5).
- If technical issues were raised during the WD ballot or during the review by CB, proceed to the committee stage.

6.2.4 Committee stage – Committee Draft (CD)

CB prepares a formatted CD in cooperation with the other stakeholders, taking into account the responses to the comments from the WD ballot and from review by CB.

CB conducts a CD ballot in the TC or DMT respectively.

After the CD ballot, CB compiles the comments and forwards them, together with the ballot result, to the TCC or DR with the request to address the comments within the TC or the DMT respectively. The actions taken have to be recorded in the column "Responses" in the Comment Form. In case of any dispute within the TC or DMT, or need for clarification, the TCC or DR shall consult the other stakeholders.

If the CD ballot fails, a new version of the CD shall be prepared, taking into account the responses to the comments; the further CD process and CD ballot shall be repeated. Alternatively, the Division(s) may intervene and decide that this work item shall:

- return to the preparatory stage, or
- return to the preparatory stage with revised ToR,
- be cancelled.

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[1] In the case of an ITC only the DE of the lead Division shall participate in this process.

The decision of the Division(s) requires approval of the BA.

If the CD ballot result is positive, proceed to the enquiry stage (see 6.2.5).

6.2.5 Enquiry stage – Enquiry Draft (DIS/ED)

In the case of an International Standard (IS) the document for enquiry is called Draft International Standard (DIS), in the case of a Technical Report (TR) or Technical Note (TN) it is called Enquiry Draft (ED).

CB prepares the formatted DIS/ED in cooperation with the other stakeholders, taking into account the responses to the comments from the committee stage or, if the committee stage was skipped, from the preparatory stage.

It might happen that a Division wishes to extend the (default) time frame for the ED ballot for a TR. In this case the (lead) Division Director (DD), with approval of the Division(s) shall inform CB about this within the timeframe indicated for the preparation of the ED for a TR.

After finalization of the DIS/ED:

- CB conducts the DIS/ED ballot.

- In the case of a DIS, the DIS is published as an official CIE technical publication. CB will arrange for distribution of the document and prepare a press release, which is circulated to the CIE members, the BA and suitable journals. An announcement of publication will be included in the CIE Newsletter.

- In the case of an ISO/CIE IS revised by the CIE according to Routes 1 or 2, CB will make arrangements for parallel voting in CIE and ISO/TC 274. In this case CIE is eligible to submit comments and to vote, ISO/TC 274 may only provide comments and advise about their agreement. For the further procedures see the Implementation Guide (IG) to the PSDO Agreement between ISO and CIE.

After the DIS/ED ballot, CB compiles the comments and forwards them, together with the ballot result, to the TCC or DR, to address the comments in the TC or DMT, respectively. The actions taken have to be recorded in the column "Responses" in the Comment Form. In case of any dispute within the TC or DMT, or need for clarification, the TCC or DR shall consult the other stakeholders.

If the DIS/ED ballot fails, a new version of the DIS/ED shall be prepared, taking into account the responses to the comments. The further DIS/ED process and DIS/ED ballot shall be repeated.

If the DIS/ED ballot result is positive:

- If no technical issues were raised during the DIS/ED ballot or during review by CB, the approval stage shall be skipped; proceed to the publication stage (see 6.2.7).

- If technical issues were raised during the DIS/ED ballot or during review by CB, proceed to the approval stage (see 6.2.6).

6.2.6 Approval stage – Approval Draft (FDIS/AD)

In the case of an IS the document for approval is called Final Draft International Standard (FDIS), in the case of a TR or TN it is called Approval Draft (AD).

CB prepares the formatted FDIS/AD, in cooperation with the other stakeholders, taking into account the responses to the comments from the DIS/ED ballot.

CB conducts an FDIS/AD ballot, with only "yes/no/abstention" voting; no comments allowed except for editorial notes.

In the case of an ISO/CIE IS revision by the CIE according to Routes 1 or 2, CB will make arrangements for parallel voting in CIE and ISO/TC 274. In this case CIE is eligible to vote,

ISO/TC 274 may only provide advice about their agreement. For the further procedures see the Implementation Guide (IG) to the PSDO Agreement between ISO and CIE.

If the FDIS/AD ballot fails, the FDIS/AD shall be referred back to the TCC or DR to consider the reasons for the negative votes with the assistance of the other stakeholders. The TCC or DR shall provide a justified recommendation to the Division(s) with the following options:

- prepare another FDIS/AD and repeat the approval stage;
- return to the enquiry stage;
- cancel the project.

The decision on which option shall be conducted is to be taken by the Division(s). The decision of the Division(s) requires approval of the BA.

If the FDIS/AD ballot result is positive, proceed to the publication stage (see 6.2.7).

6.2.7 Publication stage

CB prepares the final publication, taking into account the responses to any editorial comments from the approval stage or, if the approval stage was skipped, from the enquiry stage, if necessary with the other stakeholders.

CB arranges for distribution of the document and issues a press release, which is circulated to the CIE members, the BA and suitable journals. An announcement of the publication will be included in the CIE Newsletter.

If the publication is an IS, the preceding DIS is withdrawn by CB.

6.3 Change of publication type of a (draft) CIE technical publication

A proposal to change the publication type of a (draft) CIE technical publication into another type of CIE technical publication shall be treated as a new work item of the WP of the Division, whereby the draft or published document may serve as initial version of the WD, and requires Division and BA approval.

During such a conversion, apart from the review of the technical content, attention shall be paid to the use of expressions in the respective types of CIE technical publications; see Annex B.

6.4 Conversion of an external document into a draft CIE technical publication

A document from an external party may be converted into a CIE technical publication only with agreement of the external party and after Central Bureau (CB) has settled copyright and possible other relevant details, if not already covered by a formal collaboration agreement with the external party.

After CB has settled these arrangements, the procedures in 6.3 apply as well as the formal collaboration agreement if any or other arrangements made by the CIE with the other organization.

6.5 ISO/CIE and IEC/CIE joint technical publications

6.5.1 ISO/CIE, IEC/CIE or ISO/IEC/CIE International Standards adopted from a CIE International Standard

Clause F.2 "Fast-track procedure" of the ISO/IEC Directives, Part 1 (ISO/IEC, 2020) provides several options for adoption of a document of an external organization as a joint publication. Such options may be used for a CIE International Standard (IS) that may be of interest for expert communities for which CIE is normally not in the area of interest.

If there is an interest in applying the ISO or IEC fast-track procedure, approval of the relevant Division(s) and the Board of Administration (BA) is required prior to submission of the document by Central Bureau (CB) to ISO or IEC.

NOTE 1   Concerning ISO: All mentioned options may be used by the CIE since CIE is a "category A liaison", an "international standardizing body recognized by the ISO", and CIE is "an organization having entered into a formal technical agreement with ISO". The option to enter the FDIS stage with a CIE IS is preferred and confirmed by the PSDO Agreement between ISO and CIE, Clause 3.

NOTE 2   Concerning IEC: Adoption of CIE ISs as joint IEC/CIE ISs is an option, permitted by Clause 3 of the Memorandum of Understanding between CIE and IEC (1992) and according to the ISO/IEC Directives, Part 1, Clause F.2 "Fast-track procedure" (ISO/IEC, 2020).

If approval has been given on both sides to adopt a CIE IS as a joint IS, ISO and/or IEC will submit the CIE IS to their member bodies for acceptance as a joint ISO/CIE, IEC/CIE or ISO/IEC/CIE Draft International Standard (DIS). If the DIS receives the required majority, it will be published as a joint ISO/CIE, IEC/CIE or ISO/IEC/CIE IS.

If the DIS does not receive the required majority, the ISO or IEC member body objections shall be communicated to CB. CB consults Vice-President Technical (VPT), Vice-President Publications (VPP), Vice-President Standards (VPS), Division Director(s) (DD(s)) and, if still available, the Technical Committee (TC) Chair (TCC) on possible harmonization and a recommendation on whether this harmonization is:

− editorial and could be undertaken by CB, after which CB should start the approval procedure at the enquiry stage;

− technical and should be assigned to a TC, and if the TC is existing, at which drafting stage the harmonization should be started. CB should then request the relevant DD(s) to conduct the recommended actions.

After CIE approval of the revised document, CB sends the document again to ISO and/or IEC.

6.5.2 ISO/CIE development of technical publications

The Implementation Guide (IG) to the PSDO Agreement between ISO and CIE applies to (the development of) all deliverables from ISO/TC 274 and those from CIE as a Standards Developing Organization (SDO) – see 5.1.

The IG prescribes that the focus on standardization work shall be as follows:

a) CIE develops the fundamental and basic standards in all domains covered by its scope;

b) ISO/TC 274 develops application standards, based upon fundamental and basic publications of the CIE and/or common practice or other application publications, in lighting situations of all domains covered by its scope (which is a subset of the CIE scope).

A proposal to draft a CIE IS shall be sent to the Joint Advisory Group (JAG) of ISO/TC 274 (ISO/TC 274/JAG) for requesting the interest of ISO in collaboration and, if so, for a recommendation on the mode of collaboration with ISO/TC 274, prior to BA approval.

For proposals of other types of CIE technical publications, submission of a proposal for a recommendation of ISO/TC 274 is not required, and would only be for information.

CIE may join in developing other types of ISO publications if proposed by ISO/TC 274, resulting in ISO/CIE technical publications of the respective type.

The IG provides three routes of collaboration (IG, A.4.3), whereby Route 3 is the default route:

• Route 1 – Informative relation:

One organization is fully entrusted with a specific work item and keeps the other fully informed of all progress through liaison mode.

• Route 2 – Collaborative relation:

One organization takes the lead in the activities, but the work sessions and meetings may receive representatives from the other.

- Route 3 – Integrated liaison:

  Joint Working Groups (JWGs) ensure integrated meetings for handling together the realization of deliverables on equal terms. One of the organizations shall have the administrative lead, which is recommended by ISO/TC 274/JAG on the basis of the focus of the organization, as described above. The ISO/IEC Directives, Part 1 (ISO/IEC, 2020) shall apply; Table A.2 describes the harmonized process stages and the CIE bodies which are eligible to vote in the parallel approval stages.

6.5.3 IEC/CIE standards development

The 1992 supplement between CIE and IEC to the 1986 MoU between CIE, ISO and IEC, Clause 3.2 permits joint development of ISs in those areas where the domains overlap or complement each other.

6.6 Numbering of CIE publications

The issuing of publication numbers is the sole responsibility of CB. Publication numbers are fixed only when the document has completed the full approval procedures in case of informative technical publications. In the case of normative technical publications, a CIE International Standard receives a number already before entering the enquiry stage (i.e. for the publication of the Draft International Standard (DIS)). If a publication is supposed to be part of a series, the TCC shall inform CB accordingly.

7 Maintenance of technical publications

7.1 General

It is the task of the Division Management Team to review the documents originating from their Division at the interval specified below in 7.2, 7.3 and 7.4. All CIE technical publications must be allocated to one of the status categories defined below. The status options are:

a) Current: Publications that have been published within the past three years (International Standard) respectively five years (Technical Report), or that have been confirmed as being current during the most recent review (see 7.3 and 7.4).

b) Under review: Publications that are undergoing a systematic review (see 7.3 and 7.4), or that have been identified as requiring revision/amendment during the most recent review.

c) Superseded: Publications that have been superseded by a more recent edition or publication.

d) Archived: Publications that have been identified during the most recent review (see 7.3 and 7.4) as being out of date and for which a decision has been taken that revision/amendment is not appropriate.

e) Withdrawn: Publications that have been identified during the most recent review (see 7.3 and 7.4) as being out of date and for which a decision has been taken that the information contained therein is damaging to the CIE (this category will rarely apply).

If, following review of an existing technical publication, it is found that the document requires significant updating, a revision shall take place. For that purpose, a proposal shall be drafted for a TC to prepare the revision.

7.2 CIE International Standards

Each CIE International Standard (IS) shall be subject to systematic review at the intervals defined below, in order to determine whether it should be confirmed, revised/amended, converted to another form of publication, or withdrawn. Reviews shall be carried out at intervals no longer than five years.

A systematic review will typically be initiated by one of the following:

a) on the initiative and as a responsibility of the lead Division, typically as the result of the elapse of the specified period since publication or the last confirmation of the document; or

b) as a default action by CIE Central Bureau if a systematic review of the IS concerned has not been initiated by the responsible Division within five years; or

c) at the request of one or more CIE National Committees.

The timing of a systematic review is normally based either on the year of publication or, where a document has already been confirmed, on the year in which it was last confirmed. However, it is not necessary to wait for the maximum period to elapse before a document is reviewed.

7.3 CIE Technical Reports and Technical Notes

Each CIE Technical Report (TR) and Technical Note (TN) shall be subject to systematic review at intervals no longer than five years, in order to determine whether it should be confirmed, revised/amended, converted to another form of publication, or withdrawn.

A systematic review will typically be initiated by one of the following:

a) on the initiative and as a responsibility of the lead Division, typically as the result of the elapse of the specified period since publication or the last confirmation of the document; or

b) as a default action by CIE Central Bureau if a systematic review of the TR concerned has not been initiated by the responsible Division within five years; or

c) at the request of one or more CIE National Committees.

The timing of a systematic review is normally based either on the year of publication or, where a document has already been confirmed, on the year in which it was last confirmed. However, it is not necessary to wait for the maximum period to elapse before a document is reviewed.

7.4 ISO/CIE and IEC/CIE technical publications

7.4.1 General

Reference is made to the formal collaboration agreement of CIE with the respective organization for reviewing procedures.

7.4.2 ISO/CIE technical publications

The systematic review of ISO/CIE publications shall be performed in parallel in ISO/TC 274 and CIE. Systematic review of the documents produced and maintained under the PSDO Agreement between ISO and CIE shall occur at intervals according to the ISO timing in the ISO/IEC Directives, Part 1 (ISO/IEC, 2020). Additional information is given in:

− PSDO Agreement between ISO and CIE, Clause 5. *Maintenance of published documents,* and

− Implementation Guide (IG) to the PSDO Agreement between ISO and CIE, A.4.3.5 *Maintenance procedures.*

The Joint Advisory Group (JAG) of ISO/TC 274 (ISO/TC 274/JAG) provides a recommendation on the basis of the ballot results to the secretariat having the administrative responsibility for the ISO/CIE publication, which is either CIE Central Bureau or the secretariat of ISO/TC 274.

All ISO/CIE publications on lighting fundamentals are under administrative responsibility of CIE and those on lighting applications are under administrative responsibility of ISO/TC 274. The maintenance procedures of the organization with the administrative responsibility apply. More information on this can be found within the IG.

The revision process for documents developed by the CIE and adopted by ISO or developed by the CIE under Routes 1 or 2 (see 6.5.2) is described in Table A.1. The revision process for jointly developed documents under Route 3 is described in Table A.2.

ISO/TC 274/JAG can recommend to prepare minor or major revisions:

a) Minor revisions of joint publications developed under CIE lead shall be drafted in the DIS preparation stage. The DIS is prepared by CIE Central Bureau, if necessary with the assistance of one or more relevant experts.

b) Major revisions of joint publications developed under CIE lead in Routes 1 or 2 shall be prepared by a CIE Technical Committee. The process stages according to Table A.1 apply; see also the Implementation Guide (IG) to the PSDO Agreement between ISO and CIE, A.4.3.1 and A.4.3.1. The preparatory stage takes place in CIE. From the enquiry stage onwards, the process shall be run in CIE and ISO/TC 274 in parallel. CB shall be contacted when the enquiry stage is approaching.

c) Major revisions of joint publications developed under Route 3, are prepared jointly by a JWG of ISO/TC 274 and a CIE JTC. The process stages according to Table A.2 apply.

7.4.3 IEC/CIE technical publications

The MoU between CIE and IEC (1992) does not prescribe maintenance procedures.

8 Instructions for the preparation of CIE publications

8.1 Introduction

The standard authoring tool for CIE publications is Microsoft Word.

This document is presented in such a way that it serves as an example of the rules that it provides.

For the handling of issues not covered in this document, especially regarding the preparation of International Standards, the ISO/IEC Directives, Part 2 in their current edition shall be consulted.

In order to take account of the needs of older persons and persons with disabilities CIE Technical Report 196:2011 *CIE Guide to Increasing Accessibility in Light and Lighting* (CIE, 2011) should be consulted (freely available for authors of CIE publications on request).

8.2 Language

CIE documents are written in English (United Kingdom). They may be translated by a National Committee or Associate National Committee following the CIE translation policy, in coordination with Central Bureau.

8.3 Clause

A clause is the basic component in the subdivision of the content of a document.

The clauses in each document or part shall be numbered with Arabic numerals, beginning with 1 for the first clause. The numbering shall be continuous up to but excluding any annexes (see 8.17).

Each clause shall have a title, placed immediately after its number, on a line separate from the text that follows it.

8.4 Subclause

A subclause is a numbered subdivision of a clause. A primary subclause (e.g. 5.1, 5.2) may be subdivided into secondary subclauses (e.g. 5.1.1, 5.1.2), and this process of subdivision may be continued as far as the fifth level (e.g. 5.1.1.1.1.1, 5.1.1.1.1.2).

Subclauses shall be numbered with Arabic numerals. A subclause shall not be created unless there is at least one further subclause at the same level. For example, text in Clause 10 shall not be designated subclause "10.1" unless there is also a subclause "10.2".

Each primary subclause should preferably be given a title, which shall be placed immediately after its number, on a line separate from the text that follows it. Secondary subclauses may be treated in the same way. Within a clause or subclause, the use of titles shall be uniform for subclauses at the same level, e.g. if 10.1 has a title, 10.2 shall also have a title. In the absence of titles, key terms or phrases (composed in distinctive type) appearing at the beginning of the text of the subclause may be used to call attention to the subject matter dealt with. Such terms or phrases shall not be listed in the table of contents.

8.5 Paragraphs

All paragraphs shall have the same style as given in the respective template. There shall be no difference between the first paragraph and following paragraphs.

8.6 Notes and examples

Notes and examples integrated in the text of a document shall only be used for giving additional information intended to assist the understanding or use of the document. These elements shall not contain requirements or any information considered indispensable for the use of the document.

Notes and examples should preferably be placed at the end of the clause or subclause, or after the paragraph, to which they refer.

A single note in a clause or subclause shall be preceded by "NOTE", placed at the beginning of the first line of the text of the note. When several notes occur within the same clause or subclause, they shall be designated "NOTE 1", "NOTE 2", "NOTE 3", etc.

A single example in a clause or subclause shall be preceded by "EXAMPLE", placed at the beginning of the first line of the text of the example. When several examples occur within the same clause or subclause, they shall be designated "EXAMPLE 1", "EXAMPLE 2", "EXAMPLE 3", etc.

8.7 Footnotes to the text

Footnotes to the text give additional information; their use shall be kept to a minimum. A footnote shall not contain requirements or any information considered indispensable for the use of the document.

Footnotes to figures and tables follow different rules (see 8.11.6 and 8.12.7).

Footnotes to the text shall be placed at the foot of the relevant page and be separated from the text by a short thin horizontal line on the left of the page.

Footnotes shall be referenced in the text by an Arabic superscripted number. The footnotes shall appear at the bottom of the page and the numbering shall start at 1 and shall be continuous throughout the document.

In certain cases, for example in order to avoid confusion with superscript numbers, one or more asterisks or other appropriate symbols may be used instead: *, **, ***, etc.; †, ‡, etc.

8.8 Lists

Lists should be introduced by a sentence (see Example 1), a complete grammatical proposition followed by a colon (see Example 2), or by the first part of a proposition (without a colon - see Example 3), completed by the items in the list.

Each item in a list shall be preceded by a dash or a bullet or, if necessary for identification, by a lower case letter followed by a parenthesis. If it is necessary to subdivide further an item in the latter type of list, Arabic numerals followed by a parenthesis shall be used (see Example 1).

EXAMPLE 1

The following basic principles shall apply to the drafting of definitions.

1) The definition shall have the same grammatical form as the term:
   - to define a verb, a verbal phrase shall be used;
   - to define a singular noun, the singular shall be used.
2) The preferred structure of a definition is a basic part stating the class to which the concept belongs, and another part enumerating the characteristics that distinguish the concept from other members of the class.

EXAMPLE 2

The various sources of measurement uncertainty can be divided into the following six groups:

− accuracy of measurement instruments,

− influence of the measurement procedure,

− influence of data elaboration methods,

− lighting system characteristics,

− weather conditions,

− electrical power supply conditions.

EXAMPLE 3

Vibrations in the apparatus may be caused by

- unbalance in the rotating elements,

- slight deformations in the frame,

- the rolling bearings, and

- aerodynamic loads.

To aid comprehension, it may be preferable not to continue a sentence after the end of the type of list given in Example 3.

8.9 Definitions

Definitions of terms which appear in the current issue of the International Lighting Vocabulary (ILV) should not be repeated in the report. A reference to the ILV (CIE, 2020) will suffice. This may be supplemented by simple explanations of terms in publications intended for non-specialist readers.

8.10 Abbreviations

Abbreviations should not be used alone in a document until the term has been introduced in full, e.g.: World Health Organization (WHO). Alternatively a list of abbreviations to be used can be given in the introduction to the document.

8.11 Presentation of figures

8.11.1 General

Figures shall be inserted at appropriate positions throughout the text, i.e. not grouped at the end of the document.

8.11.2 Designation

Figures shall be designated "Figure" and numbered with Arabic numerals, beginning with 1. This numbering shall be independent of the numbering of the clauses and of any tables. A single figure shall be designated "Figure 1".

For the numbering of figures in annexes, see 8.17.

8.11.3 Layout of figure designation and title

The figure designation and title (if present) shall be centred horizontally below the figure and laid out as in the example below:

Figure # – Caption for Figure #

The figure designation and title shall be separated by an m-dash ("—") or an n-dash ("–").

8.11.4 Layout of figure

Figures should be clear and precise. Colours and/or different line styles should be used to distinguish between different curves in a diagram. The font used in the figures should be the same as in the text.

8.11.5 Notes to figures

Notes to figures shall be treated independently from notes integrated in the text (see 8.6). They shall be located above the designation of the relevant figure and shall precede figure footnotes. A single note in a figure shall be preceded by "NOTE", placed at the beginning of the first line of the text of the note. When several notes occur in the same figure, they shall be designated "NOTE 1", "NOTE 2", "NOTE 3", etc. A separate numbering sequence shall be used for each figure.

Notes to figures shall not contain requirements or any information considered indispensable for the use of the document. In the case of an International Standard (IS), any requirements relating to the content of a figure shall be given in the text, in a footnote to the figure or as a paragraph between the figure and its title. It is not necessary that notes to figures be referred to.

8.11.6 Footnotes to figures

Footnotes to figures shall be treated independently from footnotes to the text (see 8.7). They shall be located immediately above the designation of the relevant figure.

Footnotes to figures shall be distinguished by superscript lower case letters, beginning with "a". The footnotes shall be referred to in the figure by inserting the same superscript lower case letter.

In the case of an IS, footnotes to figures may contain requirements.

8.12 Presentation of tables

8.12.1 General

Tables shall be inserted at appropriate positions throughout the text, i.e. not grouped at the end of the document.

8.12.2 Designation

Tables shall be designated "Table" and numbered with Arabic numerals, beginning with 1. This numbering shall be independent of the numbering of the clauses and of any figures. A single table shall be designated "Table 1".

For the numbering of tables in annexes, see 8.17.

8.12.3 Layout of table designation and title

The table designation and title (if present) shall be centred horizontally above the table and laid out as in the example below:

<div align="center">Table # – Caption for Table #</div>

The table designation and title shall be separated by an m-dash ("—") or an n-dash ("–").

8.12.4 Layout of table

If reasonable the width of the table should be 16 cm (21 cm − 2 × {page margin} cm).

The table shall be centred.

The first word in the heading of each column or row shall begin with a capital letter. The units used in a given column shall generally be indicated under the column heading.

EXAMPLE 1

Type	Length mm	Width mm	Luminance $cd \cdot m^{-2}$

As an exception to this rule, when all units are the same, a suitable statement (for example, "Dimensions in millimetres") shall instead be placed above the right-hand corner of the table.

EXAMPLE 2

<div align="right">Dimensions in millimetres</div>

Type	Length	Inside diameter	Outside diameter

8.12.5 Continuation of tables

When a table is continued over several pages, it may be useful to repeat the table designation, followed by the title (optional) and by "(*continued*)", as in the following example:

<div align="center">**Table # (continued)**</div>

The column headings together with any statement concerning units shall be repeated on all pages after the first.

8.12.6 Notes to tables

Notes to tables shall be treated independently from notes integrated in the text (see 8.6). They shall be located within the frame of the relevant table and shall precede table footnotes (see the following Example). A single note in a table shall be preceded by "NOTE", placed at the beginning of the first line of the text of the note. When several notes occur in the same table, they shall be designated "NOTE 1", "NOTE 2", "NOTE 3", etc. A separate numbering sequence shall be used for each table.

EXAMPLE

<div align="center">**Table 1 – Colour combination of fundamental colours and its distinctiveness based on the span of fundamental colour for older people at photopic level**</div>

	R	RY	Y	GY	G	BG	B	PB	P	RP	GRE	WHT	BLK
R		-	o	o	o	o	o	o	+	+	o	o	o
RY			+	o	o	o	o	o	+	+	+	o	o
Y				+	o	o	o	o	o	o	o	+	o
GY					+	+	o	o	o	o	+	+	+
G						-	+	o	o	o	+	o	+
BG							-	+	o	o	+	+	+
B								-	+	o	+	o	+
PB									+	o	+	o	+
P										-	+	o	+
RP											+	+	o
GRE												+	o
WHT													o
BLK													

NOTE 1 Symbol legend: [o] Extremely high distinctiveness, [+] Moderate distinctiveness, [-] Low distinctiveness

NOTE 2 Abbreviations of colour names: red (R), orange or red-yellow (RY), yellow (Y), green-yellow (GY), green (G), blue-green (BG), blue (B), purple-blue (PB), purple (P), red-purple (RP), grey (GRE), white (WHT), and black (BLK).

Notes to tables shall not contain requirements or any information considered indispensable for the use of the document. In the case of an IS, any requirements relating to the content of a table shall be given in the text, in a footnote to the table or as a paragraph within the table. It is not necessary that notes to tables are referred to.

8.12.7 Footnotes to tables

Footnotes to tables shall be treated independently from footnotes to the text (see 8.7). They shall be located within the frame of the relevant table, and shall appear at the foot of the table.

Footnotes to tables shall be distinguished by superscript lower case letters, beginning with "a". The footnotes shall be referred to in the table by inserting the same superscript lower case letter.

In the case of an IS, footnotes to tables may contain requirements.

8.13 Mathematical formulae

The preferred equation editor for mathematical formulae is MathType. If during the WD preparation stage the respective equation editor is not available, the built-in MS Equation Editor may be used. The style shown in the following example shall be followed.

EXAMPLE

$$v = \frac{l}{t} \tag{1}$$

where

v is the speed of a point in uniform motion;
l is the distance travelled;
t is the duration.

Formulae should be numbered, either sequentially throughout the document (i.e. 1, 2, …) or, in long documents, per clause (e.g. 1.1, 1.2, …). The formula number should be placed in line with the formula right-adjusted and in round parentheses.

8.14 References

8.14.1 References to elements of text

Use, for example, the following forms:

* "in accordance with Clause 3";
* "according to 3.1";
* "as specified in 3.1 b)";
* "details as given in 3.1.1";
* "see Annex B";
* "the requirements given in B.2";
* "see the Note in Table 2";
* "see 6.6.3, Example 2";
* "see 3.1, Equation (3)".

It is unnecessary to use the term "subclause".

8.14.2 References to figures and tables

Every figure and table included in the document shall normally be referred to in the text. Use, for example, the following forms:

- "shown in Figure A.6";
- "(see Figure 3)";
- "given in Table 2";
- "(see Table A.2)".

8.14.3 Bibliographic references

Bibliographic references shall be indicated in the text by using the Harvard style, i.e. by stating the first author or organization and the year of publication in brackets, e.g.: (Jerome, 1974) or (CIE, 1974). If more papers from the same source and year appear in the publication, some further identification should be used, e.g. name of further authors (Jerome, King, Pond, 1974) or (CIE 52, 1982) or (ISO, 1994a); (ISO, 1994b). The references shall be given in alphabetical order in a clause **References** at the end of the document (after any annexes, if available).

The guidelines for the preparation of bibliographic references given in ISO 690:2010 (ISO, 2010) shall be followed. The styles below shall be used for the basic information of the reference:

For an article: AUTHOR'S FAMILY NAME (capital letters), initials(s) of the first name(s). Year of publication. Title of the article. *Name of the journal (italic)*, volume (and issue) number, page numbers. If a Digital Object Identifier (DOI) is available for the publication, it shall be included in the reference.

EXAMPLE

ADRIAN, W. 1989. Visibility of Targets: Model for Calculation. *Lighting Res. Technol.*, 21, 181-188. https://doi.org/10.1177/096032718902100404

For a book: AUTHOR'S FAMILY NAME (capital letters), initials(s) of the first name(s). Year of publication. *Title of the book (italic)* (Page numbers if necessary). City of publication: Name of the publisher. If a Digital Object Identifier (DOI) is available for the publication, it shall be included in the reference.

EXAMPLE

BOYCE, P.R. 2003. *Human Factors in Lighting, 2nd ed.* New York: Taylor and Francis. https://doi.org/10.1201/9780203426340

For an official publication of an organization: Name of the organization, Year of publication. Number of publication (if applicable) *Title of the publication (italic)*. City of publication: Name of the publisher. If a Digital Object Identifier (DOI) is available for the publication, it shall be included in the reference.

EXAMPLE

CIE, 2019. CIE 231:2019. *CIE Classification System of Illuminance and Luminance Meters*. Vienna: CIE. https://doi.org/10.25039/TR.231.2019

8.15 Bibliography

A clause **Bibliography** can be introduced to list additional sources of information, not directly referred to in the text. The details of these publications should be shown in the same form as for **References**.

8.16 Trade and proprietary names

In spite of the inclusion of the disclaimer statements on the preface page of all publications, trade or proprietary names should be avoided; they should be used only where no other means can identify a material or product.

8.17 Annexes

Annexes shall appear in the order in which they are cited in the text. Each annex shall be designated by a heading comprising the word "Annex" followed by a capital letter designating its serial order, beginning with "A", e.g. "Annex A". In case of an International Standard the annex heading shall be followed by the indication "(normative)" or "(informative)", and by the title, each on a separate line. Numbers given to the clauses, subclauses, tables, figures and mathematical formulae of an annex shall be preceded by the letter designating that annex followed by a full-stop. The numbering shall start afresh with each annex. A single annex shall be designated "Annex A".

EXAMPLE Clauses in Annex A are designated "A.1", "A.2", "A.3", etc.

8.18 Table of contents

The table of contents is an obligatory preliminary element. The table of contents shall be entitled "CONTENTS" and shall list clauses and, if appropriate, subclauses with their titles (up to the third level). Terms in the "Terms and definitions" clause shall not be listed in the table of contents.

The table of contents shall be generated automatically and not composed manually.

8.19 Representation of numbers and numerical values, quantities, units, symbols and signs

The *Guidelines for notation to be used in CIE publications* shall be consulted (see Annex C)

8.20 Basic requirements

Table 4 – Basic requirements for the drafting of documents

DO	Keep the file structure as simple as possible. Use the character and paragraph styles predefined in the CIE templates, in order to avoid their reformatting at later stages. Use Arial as the standard font. Use the following language/dictionary settings: English – UK English or English (United Kingdom) [not English (United States) or any other type]. Use spell checkers. If available, use the MathType Equation Editor set to the values given in C.5.
DO NOT	Employ sophisticated formatting options except where they really add value to the comprehension of the text. Try and produce the final page layout; the final formatting of publications is carried out by CIE Central Bureau. Insert blank pages. Insert unnecessary section breaks. Use special fonts. Create your own fonts. Use colour unless necessary. Use shading unless necessary. Use dashed, dotted or dashed-dotted borders (especially those with a very small pattern); instead use borders with a solid (continuous) line. Nest a table within another table. Place graphical elements in mathematical expressions. Use fields to insert formulae or special symbols. Use the drawing capabilities of your word processor to produce graphical elements. Edit or format [i.e. crop, stretch, scale (enlarge/reduce), patch with text frames in order to correct or translate particular portions of text] figures (images) using word processing tools or other image processing programs. Figures shall only be edited using the graphics tool with which they were produced.

Annex A

Development and revision of CIE and ISO/CIE technical publications

A.1 Flow diagram for the proposal of a TC

Example:

Main pathway for a proposal for a TR in a TC involving one Division

Idea for a TC, change of ToR or scope

Proposal stage

1. Preparation of a proposal, ≥ 5 initial TC members
2. Submission to DMT for review and recommendation

Proposal complies — YES / NO

DD submission to other DDs

1. Proposal from external organization for a work item in collaboration
2. Submission to DDs

DDs review and submission to DIVs

1. DIVs evaluation; interest and possible recommendation
2. Coordination and adjustment by DMT with proposer

DIV Ballot for DIVs with an interest

DIV POS. > 1

DIV POS. = 0

DIV POS. = 1

DDC recommendation on the Lead Division

CB informs the external organization

Proposal for IS — NO / YES

CB Submission to ISO/TC 274/JAG for recommendation on possible collaboration

Route 3 (default; JTC) — YES / NO

DD conversion TC/ITC into JTC proposal

No interest, Route 1 or 2

BA Ballot — NEG. / POS.

1. Required forms
2. TCC Training

NO / YES

CB informs external organization

Project cancelled

To preparatory stage

Figure A.1 – Proposal of a TC for preparation of an IS, a TR, or a TN

A.2 Flow diagram for the proposal of a DR

Example:

Main pathway for a proposal for a TN by a DR

Preliminary stage

Need for information on a technical subject

1. Preparation of ToR by DR nominee
2. Submission to DMT for review and recommendation

DIV evaluation; interest and possible recommendation

NO   Proposal complies   YES

NO   DIV ballot   YES

Preparation of a DRR

DRR, published to DIV

Proposal stage

NO   DRR → TN   YES

1. Preparation of a TN proposal by DR
2. Submission to DMT for review and recommendation

YES   Proposal complies   NO

DD submission to CB

POS.   BA ballot   NEG.

NO   Required forms   YES

DR closed   Project cancelled   To preparatory stage

Figure A.2 – Proposal of a DR for preparation of a TN

A.3 Flow diagram for the drafting and approval stages of CIE technical publications

Main steps in each stage:

1. Prepare draft
2. Implement responses to comments from latest ballot (except original WD)
3. DE review (WD)
4. Conduct ballot
5. Collate comments
6. Respond to comments
7. CB review
8. Move on as indicated in this chart

From Proposal stage

Preparation and ballot **WD** — Preparatory stage

Ballot result — POS. / NEG.

Technical issues — NO / YES

Preparation and ballot **CD** — Committee stage

Ballot result — POS. / NEG.

All options see 6.2.4

Preparation and ballot **DIS/ED** — Enquiry stage

Ballot result — POS. / NEG.

Technical issues — NO / YES

Preparation and ballot **FDIS/AD** — Approval stage

Ballot result — POS. / NEG.

All options see 6.2.6

Preparation of publication — Publication stage

Publication and usually dissolution of TC

Figure A.3 – Drafting and approval stages of CIE technical publications

A.4   Process stages for CIE TCs and for DRs producing TNs

Table A.1 – CIE technical publications – ISO/CIE technical publications under CIE administrative responsibility, Routes 1 and 2 [1] (revision only)

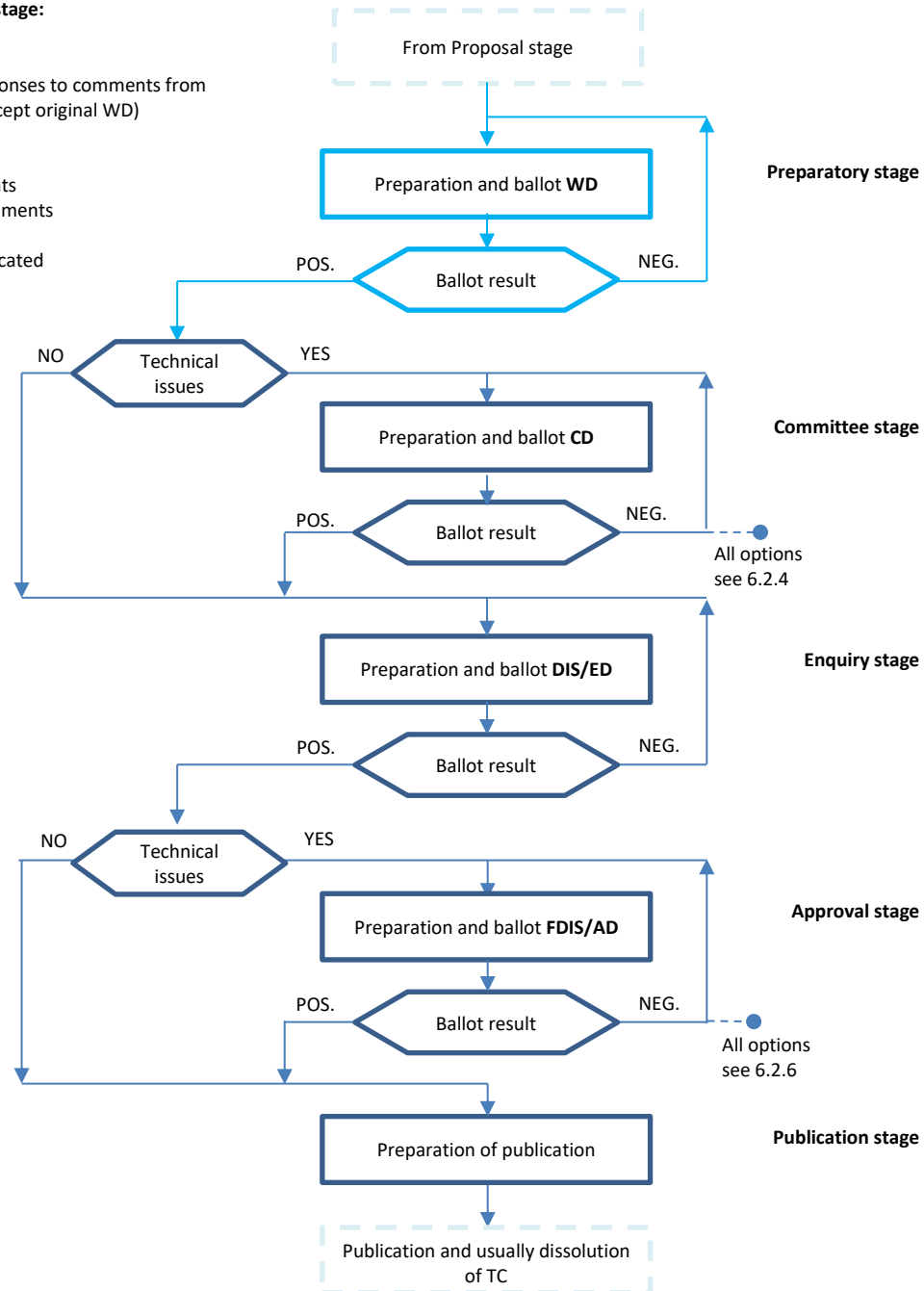| Process stage and no.		Process stage description for technical publication types			Time frame	Variation	Eligible to vote	Process owner	Other stakeholders
Preliminary	0	Preliminary work	by DR	DRR				DD	DR
			by RF					DDC	RF Convenor
Proposal	1	Proposal for: - TC - change of ToR/Scope - TN by TC or DR		IS, TR				DMT	DM, DA
				TN				TCC (DMT [f])	TCMs (DM [f], DA [f])
	2	Consultation of other DIVs		IS, TR, TN	2 weeks	SKIP if TN by DR	All DIVs	DD	DDs
	3	Ballot on the proposal		IS, TR, TN	4 weeks	SKIP if TN by DR	DIV(s)	DMT	
	4	Consultation of ISO/TC 274/JAG [a]		IS	< 2 weeks	Possibly TC/ITC → JTC		CB	
	5	Ballot on the proposal		IS, TR, TN	4 weeks		BA	CB	
	6	Initiation of a new TC		IS, TR, TN	< 12 weeks	SKIP if TC exists		CB	TCC
Preparatory	7	Preparation of	WD	IS, TR, TN	IS ≤ 24 months TR ≤ 36 months TN ≤ 6 months	According to work plan and schedule		TCC (DR [f])	TCMs (DMT [f])
	8	Ballot [b] on	WD	IS, TR, TN	4 weeks		TC (DMT [f])	TCC (DR [f])	TCMs (DMT [f])
Committee	9	Preparation of	CD	IS, TR, TN	4 weeks [c]	SKIP [d]		CB	TCC (DR [f])
	10	Ballot [b] on	CD	IS, TR, TN	4 weeks	SKIP [d]	TC (DMT [f])	1. CB 2. TCC (DR [f])	DE(s), DD(s), VPT, VPP, VPS
Enquiry	11	Preparation [e] of	DIS	IS	4 weeks [c]			CB	TCC (DR [f])
			ED	TR, TN					
	12	Ballot [b] on	DIS	IS	12 weeks		All DIVs, BA, NCs	1. CB 2. TCC (DR [f])	DE(s), DD(s), VPT, VPP, VPS
			ED	TR	8 weeks default; Divisions may extend to 12 weeks		All DIVs, BA		
				TN	4 weeks				
Approval	13	Preparation [e] of	FDIS	IS	4 weeks [c]	SKIP [d]		CB	TCC (DR [f])
			AD	TR, TN					
	14	Ballot [b] on	FDIS	CIE IS	8 weeks	SKIP [d]	DIV(s), BA, NCs	1. CB 2. TCC (DR [f])	DE(s), DD(s), VPT, VPP, VPS
				ISO/CIE IS	12 weeks				
			AD	TR, TN	4 weeks		DIV(s), BA		
Pub.	15	Publication		IS, TR, TN	4 weeks			CB	TCC (DR [f])

[a]   CB will handle any necessary liaison with ISO/TC 274; see Implementation Guide (IG) to the PSDO Agreement between ISO and CIE.
[b]   A draft is approved if the ballot results comply with the requirements in 6.1.3.
[c]   The time frame might be extended by CB if stakeholders are not able to respond to comments in a timely manner.
[d]   This stage shall be skipped if no technical issues were raised during the preceding ballot or during review by CB.
[e]   In case of preparing a revision of an ISO/CIE technical publication under CIE administrative responsibility, see Note a.
[f]   In the case of a TN prepared by a DR.

———————————
1   See Implementation Guide (IG) to the Partner Standards Developing Organization (PSDO) Agreement between ISO and CIE.

A.5 Process stages for CIE JTCs for joint development with ISO/TC 274

Table A.2 [1] – ISO/CIE technical publications, Route 3 [2]

Stage	Process stage description	Time frame [a]	IS excl. initial draft	IS incl. initial draft	TS	TR	PAS	ISO [b] eligible to vote	CIE eligible to vote
Preliminary (PWI)	Ballot on PWI	Usually 1 month	OPTIONAL	OPTIONAL	OPTIONAL	SKIP	OPTIONAL	ISO/TC	DIV
Preliminary (PWI)	Work on PWI	< 36 months							
Proposal	Work item proposal for IS, TS, TR or PAS	Undetermined							
Proposal		< 2 weeks				SKIP			Consultation of ISO/TC 274/JAG
Proposal	Ballot on work item proposal	12 weeks or 8 weeks if ISO/TC or CIE DIV agree (case by case)						ISO/TC	DIV, BA Subsequently
Proposal	First integrated meeting of ISO/JWG-CIE JTC	< 12 weeks							
Preparatory	Preparation of WD	ISO Development track: 18, 24 or 36 months		OPTIONAL		SKIP		ISO/JWG	JTC
Preparatory	Ballot on WD								JTC, DIV, BA [c,d]
Committee	Preparation of CD						SKIP	ISO/TC	JTC
Committee	Ballot on CD								JTC, DIV, BA [c,e]
Enquiry	Preparation of DIS				SKIP	SKIP	SKIP	ISO/TC	DIV, BA, NCs [c]
Enquiry	Ballot on DIS	12 weeks							
Approval	Preparation of FDIS		OPTIONAL	OPTIONAL	SKIP	SKIP	SKIP	ISO/TC	
Approval	Ballot on FDIS	12 weeks							DIV, BA, NCs [c]
Publication	Publication	6 weeks							

[a] The deadline for voting in ISO/TC 274 should be at least one week before the deadline in CIE when the work is under CIE lead; similar, the deadline for voting in CIE should be at least one week before the deadline in ISO/TC 274 when the work is under ISO/TC 274 lead; for further decision by the secretariat of ISO/TC 274 and CIE CB.

[b] If an ISO/TC has subcommittees (SC), it may also be an SC where TC is specified in this table.

[c] In case of parallel voting by two or more voting bodies, the ballot fails if the outcome of the ballot from at least one of those voting bodies fails.

[d] BA only in the case of a PAS.

[e] BA only in the case of a TS or TR.

_____

1 This table is based on an interpretation of the ISO/IEC Directives, Part 1, May 2019. Not all options are shown.

2 See Implementation Guide (IG) to the Partner Standards Developing Organization (PSDO) Agreement between ISO and CIE.

Annex B

Guidance on provisions in CIE technical publications

B.1   Verbal forms for expressions of provisions

Authors should consider the commonly used expressions in the different types of technical publications (see 5.1), summarized in Table B.1. Extended explanations can be found in the ISO/IEC Directives, Part 2, Clause 7 (ISO/IEC, 2018).

Useful language, formatting and presentation hints can also be found at the ISO house style webpage.

Table B.1 − Verbal forms for expressions of provisions

Provision	Verbal form	Comments
Requirement	"shall"	"…when objectively verifiable criteria to be fulfilled from which no deviation is permitted…" • Commonly used in an IS
Recommendation	"should"	"…a suggested possible choice or course of action…" • Commonly used in a TR • May also be used in an IS, e.g. when one option to comply to a requirement seems more suitable than another option
Permission	"may"	"…consent or liberty (or opportunity) to do something…" • Often used in a TR • Sometimes used in an IS
Possibility	"can"	"…expected or conceivable material, physical or causal outcome…" • Often used in a TR • Sometimes used in an IS

B.2 Suitability of a technical publication as a CIE International Standard

Table B.2 is to support the choice for publishing a draft as a CIE International Standard. See also the Standardization Strategy and Policy of the CIE.

Table B.2 – Criteria for CIE International Standards

Number	Criterion	Action
1.	Is the material based on consolidated results of science, technology or experience?	Yes: Suitable No: Is a preceding TR necessary?
2.	Does the material consist mainly of requirements or normative sets of data?	Yes: Suitable No: Is it better to be published as a TR?
3.	Is the documentation concise?	Yes: Suitable No: Does it need refining or otherwise is it better to be published as a TR?
4.	Might the publication be used for reference by public law, private law or a regulation?	Yes: Suitable No: May be suitable
5.	Is this work already ongoing elsewhere by a recognised SDO?	Yes: Discuss with relevant DD(s) No: Suitable
6.	Does the scope of the intended standard overlap with the scope of an SDO in liaison with CIE?	Yes: Joint work may be considered subject to pre-existing agreed ways of working No: Suitable
7.	Is a fundamental or basic standard proposed?	Yes: Suitable No: Possibly joint work; consult with relevant DD(s)
8.	Is enough fundamental or basic knowledge or common practice available?	Yes: Suitable No: Consider an informative publication or an RF

Annex C

Guidelines for notation to be used in CIE publications

C.1   General

The provisions for the notation of quantities and units as given in the ISO/IEC Directives, Part 2, Annex B, Table B.1 (ISO/IEC, 2018) apply to CIE publications, too. In the following some of the respective rules are listed, and additional explanations are given.

C.1.1

The default font for CIE publications is Arial 10 pt.

C.1.2

Quantity symbols shall be in italic Times New Roman font, or italic Word 'symbol' font in the case of Greek symbols.

C.1.3

Symbols for quantities and variables shall be in italics (see also C.1.4, C.2.5, C.2.6); symbols for units and for descriptive terms (e.g. r for relative) shall be in upright type.

C.1.4

Where spectral quantities are expressed in the form $X_\lambda(\lambda)$, the subscript λ indicates the quantity $\mathrm{d}X/\mathrm{d}\lambda$ and shall therefore be in italics.

C.1.5

Arabic numerals shall be used for all numbers, whether in formulae or free flowing text.

C.1.6

Every instance of a numerical value of a quantity shall be accompanied by the relevant unit for the quantity, e.g. 380 nm to 780 nm, not 380 to 780 nm.

C.1.7

Where numerical values of a quantity are given, the unit shall be expressed in abbreviated form (see also C.3.3), e.g. 380 nm, not 380 nanometres.

C.1.8

The unit symbols for degree, minute and second (for plane angle) shall follow immediately the numerical value; all other unit symbols shall be preceded by a space (also '%' and '°C').

C.1.9

Multiplication of numerical values shall be indicated by $\times$ from the Word 'symbol' font, e.g. $3 \times 4 = 12$ or $1,8 \times 10^{-3}$ (not $1,8 \,.\, 10^{-3}$ or $1,8 \cdot 10^{-3}$).

C.1.10

If mathematical operators are used, it must be clear whether this applies to a quantity or a numerical value; e.g. 20×30 m is not the same as 20 m $\times$ 30 m.

C.1.11

The decimal marker shall be a comma; for numbers less than 1 a zero shall be used before the decimal comma, e.g. 0,12.

C.1.12

Digits of numerical values either side of the decimal marker shall be split into groups of three using a fixed space e.g. 12 345,678 90; the exception is four digit numbers representing a year date, which should be written without a space, e.g. 2008.

C.1.13

Where used in the index and clause headings of documents, symbols shall always be in square brackets, but abbreviations, units and additional text shall be in round brackets.

C.1.14

All country abbreviations shall use the ISO country code.

C.2   Symbols for quantities and functions

C.2.1

Only SI quantities (BIPM, 2019), or quantities defined by the CIE in the International Lighting Vocabulary (CIE, 2020), shall be used.

C.2.2

Where a quantity has a symbol that is recommended within the SI, then this symbol shall be used.

C.2.3

Quantity symbols shall be single letters or symbols; multiple letters shall not be used.

C.2.4

Subscripts shall be used to distinguish between related quantities; e.g. the subscript v is used for photometric quantities, such as illuminance, and the subscript e for radiometric quantities, such as irradiance.

C.2.5

Subscripts shall not be italicized unless the subscript represents a variable; e.g. the symbol for illuminance is E_v (v not in italics).

C.2.6

Multiple subscripts shall be separated by commas, with the inclusion of a space after the comma if this is required to prevent italicized characters overlapping, and must maintain the convention for use of italics; e.g. spectral irradiance has the subscript e,λ with λ in italics.

C.2.7

Where a subscripted quantity is used with a bracket, with the bracketed quantity indicating a variable, the subscript shall be placed before the bracket, e.g. $L_\mathrm{e}(\lambda)$.

C.2.8

Variables with both a superscript and a subscript shall be set using the equation editor so that the superscript is placed over the subscript, e.g. ΔE_ab^{*} .

C.2.9

Where symbols use a 'dash', this shall be represented by the Word 'symbol' font character $\prime$ instead of the single quote character ', e.g. $u\prime$, $v\prime$ and not u',v'.

C.2.10

Symbols for mathematical functions, such as cos for cosine and log for logarithm, shall be in Arial font and should not be italicized.

C.2.11

Where several quantity symbols are multiplied together, these shall be separated by a space, e.g. $l = v\,t$.

C.2.12

Where a numerical value is multiplied with a quantity symbol, they shall be separated by a space, e.g. $l = 3\,t$.

C.2.13

Where quantities are divided by one another, the use of negative exponents is preferred, although the fractional form or divisor symbol may be used in cases where this cannot lead to any ambiguity or confusion; e.g. the following are all acceptable:

$$v = d_0 \log 0{,}05 \, (\log T)^{-1}$$

$$D = 1/\varPhi_m$$

$$q = \frac{L}{E}$$

C.2.14

Symbols for functions and function variables shall be in Arial font, or Word 'symbol' font in the case of Greek symbols.

C.2.15

Integrals shall include a space before the integrand symbol, the 'd' in the integrand shall not be italicized, like operators in general, and all other rules for symbols shall be observed, as in the following examples:

$$H_v = \int_{\Delta t} E_v \ \mathrm{d}t$$

$$\int \varphi(\lambda) \, \cos\varepsilon \ \mathrm{d}\lambda$$

C.3   Units

C.3.1

Only SI units or units recognized for use with SI (BIPM 2019) shall be used.

C.3.2

Only accepted abbreviations of units shall be used.

C.3.3

Abbreviations for units shall only be used in association with numerical values or quantity symbols; e.g. 'the resistance is 10 Ω', 'resistance measured in ohms' or a graph axis labelled 'R/Ω' are all acceptable but 'resistance measured in Ω' is not.

C.3.4

Names of units shall always be lowercase, e.g. watt.

C.3.5

Abbreviations for units shall be lowercase unless the unit is named after an individual; e.g. the abbreviation for the metre is m whereas the abbreviation for the watt is W.

C.3.6

Prefix symbols for mega and larger shall be capitalized, e.g. MHz for megahertz.

C.3.7

Prefix symbols for kilo and smaller shall be lower case, e.g. mm for millimetre.

C.3.8

Names, symbols, abbreviations and prefixes for units shall all be in Arial font, non-italic.

C.3.9

Where several units are combined for a given quantity, the units shall be separated by a mid-centred dot, e.g. A·s.

C.3.10

Negative exponents shall be used in cases where units are divided by one another, e.g. $cd·m^{-2}$, $W·m^{-2}·sr^{-1}$.

C.4 Checklist

Table C.1 – Checklist for drafting CIE technical publications

Guideline	Guideline reference(s)	Y/N?
All general text Arial 10 pt with all numbers in Arabic numerals?	C.1.1, C.1.5	
Symbols in correct font and correctly aligned? • Quantities and variables: Italic Times New Roman font or italic Word 'symbol' font for Greek symbols, and Word 'symbol' font for 'dash' symbol • Units, descriptive terms and mathematical functions: Arial, non-italics • Symbol 'dash' represented by ′ not ' • All subscripts with comma separators if appropriate, and only in italics if they represent a variable? • Subscripts before brackets, if used • Superscripts placed over subscripts, if both used	C.1.2, C.1.3, C.1.4, C.2.4, C.2.5, C.2.6, C.2.7, C.2.8, C.2.9, C.2.13, C.2.14, C.3.8	
Units, in abbreviated form, given for all numerical values of quantities?	C.1.6, C.1.7	
Space between numerical value and units?	C.1.8	
Multiplication of numerical values indicated by $\times$?	C.1.9	
Clear whether mathematical operator applies to a quantity or a numerical value?	C.1.10	
Comma used as decimal marker?	C.1.11	
Digits split into groups of three either side of decimal marker (except for year dates)?	C.1.12	
Correct use of brackets in index and clause headings?	C.1.13	
Country abbreviations use the ISO country code	C.1.14	
SI quantities and units used?	C.2.1, C.3.1	
SI symbols used for quantities where available?	C.2.2	
Quantity symbols all single letter or symbols?	C.2.3	
Space between multiplied quantities?	C.2.11, C.2.12	
Negative exponents used; fraction form or divisor symbol for simple cases only?	C.2.13	
Integrals have space before integrand symbol, with d not italicized	C.2.15	
Correct SI symbols used for units (including correct case for unit abbreviations and prefixes) and all in Arial font?	C.3.2, C.3.5, C.3.6, C.3.7, C.3.8	
Abbreviations for units only used with numerical values or quantity symbols	C.3.3	
Unit names all lowercase?	C.3.4	
Units separated by mid centred dot with negative exponents used for divided units?	C.3.9, C.3.10	

C.5   Recommended *MathType Equation Editor* settings

**Table C.2 – Recommended *MathType Equation Editor* settings
a) Setting 1: Format / Spacing...**

Line spacing	150 %
Matrix row spacing	120 %
Matrix column spacing	100 %
Superscript height	45 %
Subscript depth	25 %
Sub/superscript gap	15 %
Limit height	25 %
Limit depth	100 %
Limit line spacing	100 %
Numerator height	35 %
Denominator depth	100 %
Fraction bar overhang	1 pt
Fraction bar thickness	0,5 pt
Sub-fraction bar thickness	0,25 pt
Slash/diagonal fraction gap	8 %
Fence overhang	1 pt
Horizontal fence gap	10 %
Operator spacing (% of normal)	100 %
Non-operator spacing (% of normal)	100 %
Character width adjustment	0 %
Minimum gap	8 %
Radical gap (vertical)	17 %
Radical gap (horizontal)	8 %
Radical width (% of normal)	100 %
Embellishment gap	1,5 pt
Prime height	45 %
Box stroke thickness	5 %
Strike-through thickness	5 %
Matrix partition line thickness	5 %
Radical stroke thickness	5 %

Table C.3 – Recommended *MathType Equation Editor* settings
b) Setting 2: Style / Define...

Style	Font		Character format	
	Type 1 Base 13	True Type	Bold	Italic
Text	Helvetica	Arial		
Function	Helvetica	Arial		
Variable	Times	Times New Roman		☐
L.C. Greek	Symbol	Symbol		☐
U.C. Greek	Symbol	Symbol		☐
Symbol	Symbol	Symbol		
Matrix-Vector	Times	Times New Roman	☐	☐
Number	Helvetica	Arial		

Table C.4 – Recommended *MathType Equation Editor* settings
c) Setting 3: Size / Define...

Full	10 pt
Subscript/Superscript	80 %
Sub- Subscript/Superscript	70 %
Symbol	170 %
Sub-Symbol	120 %

References

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