

Evidence on Collecting Professional Development Units (PDU)

(1) Certified Systems Engineers shall permanently maintain and develop their knowledge in systems engineering. This is necessary in view of the continuous change of environment, technology, processes and standards. The expiration date of the certificate and the opportunity of collecting PDU support the initially mentioned goal.

(2) Independently from the certificate level 120 points are needed to receive a renewal of the certificate. It is possible to transfer up to 30 points into the next period in case of gaining more than 120 points in the current period.

(3) Earning PDU is possible through activities required for sustaining or expanding the capabilities and knowledge of systems engineers. The following rules apply for earning PDU:

(4) PDU can be collected through activities in categories participation on events by the GfSE and related organizations (INCOSE, Chapter), training, publication and in employment as systems engineer. The table hereafter defines applicable PDU and upper limits for the listed activities. Limitations and an elaboration are written after this table:

PDU Activities	Earning Rate	Renewal Period Limit
Technical Society Participation		
Be a GfSE/INCOSE member	5 / year	15
Attend events organized or supported by GfSE/INCOSE (for corporations see web site or newsletter)	1 / hour	72
Attend GfSE/INCOSE workshops or committees/working groups (including telephone conferences and content related work) or submission of max. 5 SE-ZERT questions	1 / hour effort	no limit

PDU Activities	Earning Rate	Renewal Period Limit
Supporting activities in schools (STEM), universities etc.	1 / hour effort	30
Perform leadership role in committees or working groups of GfSE/INCOSE	administrative (e.g., committee) = 20/year leading a working group = 15/year others (e.g., projects) = 10/year	60
SE Course Work and Publication		
Complete a technical course with exam	2 / semester period per week	no limit
Attend course, tutorial, seminar, or webinar	1 / hour	no limit
Teach for vocational education, tutorials, seminars, or webinars	2 / hour	40
Write and publish articles on systems engineering and presentations on conferences or receive acceptance information for SE-ZERT questions	5 / article acceptance	no limit
Write and publish books on systems engineering	30 / book (primary author) 10 / book (coauthor)	no limit
Create and publish content in business oriented social media relating to systems engineering and mentioning own SE-ZERT seal	2 / article	20
Leaving comments to content in business oriented social media and mentioning own SE-ZERT seal	1 / article	10
Systems Engineering Job Function Participation		
Receive patent award	10 / patent	no limit
Serve as systems engineer for a product or service	15 / year	45
Inject and teach results from GfSE/INCOSE events or working groups into organization	1 / hour	30

PDU Activities	Earning Rate	Renewal Period Limit
Special Conditions		
Force Majeur, caused by crisis, catastrophes, pandemic, wars, etc. Valid: Corona 2020 & 2021	Level A / B: 30 / year Level C / D: 14 / year	Level A / B: 30 Level C / D: 14 For year 2020 & 2021
Transfer up to 30 points into the next period	1-30 points submitted from the certification body	30

(5) The certification body does not certify courses or activities in advance. The certificate owner is responsible to verify if a course or activity the related requirements satisfies.

(6) A PDU relates to a complete hour of training or volunteer task. The spend time shall be rounded to full hours.

(7) PDU shall be collected in more than one category.

(8) Typical activities not applicable for PDU include:

- permanent employment
- self-study
- networking event with no technical content
- participation on product demonstrations or at fairs for trade, industry etc.
- participation in courses, seminars, tutorials and company internal vocational education with no technical content
- participation of language courses or general IT training

Limitations and elaboration

A) Technical Society Participation

(1) Activities in the category «Technical Society Participation» shall support the sharing of experiences between systems engineers. The following PDU can be earned:

(2) For each year of GfSE or INCOSE membership 5 PDU can be earned.

(3) For each hour attending in events organized or supported by GfSE/INCOSE 1 PDU can be earned. Events include conferences and panels.

(4) For each hour participating in national or international workshop or volunteering in committees/working groups 1 PDU can be earned. Validation is with result

documents listing the names of contributors. For a day event a maximum of 8 PDUs can be earned.

(5) Owner of a valid level B certificate can submit a proposal with 5 exam questions. For the preparation 1 PDU per hour can be earned, but it is limited by 20 PDUs per period.

(6) Perform a leadership role in committees or working groups of Chapters/INCOSE results in earning PDU.

(7) Typical activities not applicable for PDU include:

- self-studies,
- networking events with no technical content,
- participation on product demonstrations or at fairs for trade, industry etc.

B) SE Course Work and Publication

(1) The category «SE Course Work and Publication» shall promote the technical development of certificate owners and motivate to share the knowledge. The following PDU can be earned:

(2) Attending a technical education with successful exam earns 2 PDU per semester period per week. (e.g., having 3 class hours over a semester results in 6 PDU for that semester)

(3) For each hour attending courses, tutorials or seminars webinars can 1 PDU be earned. The content shall largely correspond with the systems engineering functional areas.

Those are:

- Requirements Management
- Risk and Opportunity Management
- Baseline Control
- Technical Planning
- Technical Effort Assessment
- Architecture/Design Development
- Qualification, Verification, Validation
- Process Definition
- Tool Support
- Systems Engineering Training
- System Integration
- Quality Assurance
- Specialty Engineering

(4) For each hour teaching for vocational education, tutorials or seminars can 2 PDU be earned. The training must not be part of the ordinary job.

(5) For the publication of a systems engineering article can 5 PDU be earned.

(6) Level B certificate owner can earn 5 PDU if the submitted SE-ZERT questions are accepted and fulfill the requirements set by the certification body. The evidence is a mail from the certification body.

(7) For writing and publication of a systems engineering book as author can 30 PDU be earned. For contributing to a systems engineering book can 10 PDU be earned.

(8) For the creation and publishing of content in business oriented social media such as Xing, LinkedIn, YouTube videos (min. 2 minutes), or analogous platforms 2 PDU per content can be earned. The limit is 20 PDU per renewal period. The content shall be structured analogous to an article with introduction/thesis, rationale, summary. Alternatively, the content may include links to downloadable artifacts. The use of hash tags (#) and references to INCOSE, a chapter or SE-ZERT are encouraged.

Earning of such PDU is bound to the two conditions hereafter:

- The content needs to be marked with the seal of the certified systems engineer, or alternatively with the corresponding text „Certified Systems Engineer (GfSE)“ and the seal number.
- The content needs to be public and accessible during the recertification.

(9) For commenting of content in business oriented social media, (see 8) 1 PDU can be earned with a limit of 10 PDU per renewal period. Comments shall relate to topics oriented to GfSE, INCOSE, a chapter or SE-ZERT. The use of hash tags (#) and references to INCOSE, a chapter or SE-ZERT are encouraged. Multiple comments to one content count as one comment only. Earning of such PDU is bound to the two conditions hereafter:

- The comments need to be marked with the seal of the certified systems engineer, or alternatively with the corresponding text „Certified Systems Engineer (GfSE)“ and the seal number.
- The comments need to be public and accessible during the recertification.

(10) Typical activities not applicable for PDU include:

- networking events with no technical content,
- participation at product demonstrations or at fairs for trade, industry etc.
- participation of language courses or general IT training with no relevant to the job
- self-studies
- repeated teaching of courses with no renewing of content
- publications on social media platforms such as TikTok, Instagram, WhatsApp, Signal, Twitter, etc.
- simple actions on social media such as “like” or “retweet”

C) Systems Engineering Job Function Participation

(1) It can be assumed that a major part of the work of certificate owner is systems engineering related. PDU in the category «Systems Engineering Job Function Participation» shall honor activities beyond the ordinary work. This includes:

(2) For a patent award 10 PDU can be earned.

(3) Per year in the role of a systems engineer for a product or service 15 PDU can be earned.

(4) Typical activities not applicable for PDU include:

- company internal presentations or publications, company internal sharing of knowledge and paid jobs as consultant

D) Special Conditions

(1) Force majeure is considered within this paragraph and it governs the earning of PDU in case of crisis, catastrophes, pandemic, wars, etc. The regulations are not free to choose. They underly the decision of the international SE-ZERT® Board and listed below:

Force majeure	Valid	Description
Corona Pandemie	2020 & 2021	Every owner of a valid certificate can add for the year 2020 and 2021 the following PDU into the renewal table: Level A and B: 30 PDU Level C and D: 14 PDU The needed PDU of 120 are still valid.

(2) Carryover of a maximum of 30 PDU to the subsequent period. This will be communicated by the certification body when the certificate is renewed.

Documentation of the Professional Development for the Renewal

(1) The professional development shall be documented in the available renewal table Doc-Nr. GfSE-ZT-007.

(2) Name, level, certification number and validity of certificate must be filled into the renewal table “record PDU activities”

(3) The table along with the other documents for the renewal shall be submitted to the SE-TREC GmbH.

Liability

(1) **Obligation to cooperate:** The owner of the certificate must submit changes with respect to new address, personal Email address, loss of certificate to SE-TREC GmbH immediately.

(2) **Obligation to give information:** The owner of the certificate is obliged to provide evidence for the renewal on request within 7 days.