

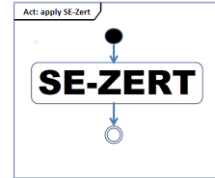
Evidence on Collecting Permanent Development Units (PDU)

(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) 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:

(3) PDU can be collected through activities in categories participation on events by the GfSE and related organizations, training, publication and in employment as systems engineer. The table hereafter defines applicable PDU and upper limits for the listed activities.

PDU Activities	Earning Rate	Renewal Period Limit
Technical Society Participation		
Be a GfSE or 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 workshops or committees/working groups (including telephone conferences and content related work)	1 / hour effort	no 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



PDU Activities	Earning Rate	Renewal Period Limit
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	5 / article	no limit
Write and publish books on systems engineering	30 / book (primary author) 10 / book (coauthor)	no limit
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

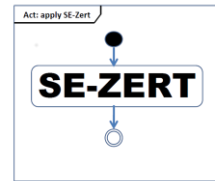
(4) The GfSE does not certify courses or activities in advance. The certificate owner is responsible to verify if a course or activity the related requirements satisfies.

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

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

(7) 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



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 or INCOSE 1 PDU can be earned. Events include conferences and panels.

(4) For each hour volunteering in committees/working groups 1 PDU can be earned. Validation is with result documents listing the names of contributors.

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

(6) 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.

SE Course Work and Publication

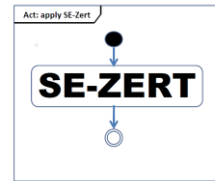
(1) The category «SE Course Work and Publication» shall promote the technical development of certificate owners and motivate to share the knowledge. The following PDU can be earned:

(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 capabilities defined in the INCOSE Systems Engineering Handbook.

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
- System 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) 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.

(7) 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

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 payed jobs as consultant

Documentation of the Permanent Development for the Recertification

(1) The permanent development shall be documented in the available table Dok-Nr. GfSE-ZT-007.

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