

EPLAN

efficient engineering.

EPLAN Training Academy **Professional qualification**



PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT

FRIEDHELM LOH GROUP



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Training course locations Nordic:



- Denmark**
 - Köpenhamn, Delta Park 37
Vallensbaek strand
 - Vejen (facility Solar A/S), Industrivej
Vest 43
- Finland**
 - Vantaa, Tammiston kauppatie 35
 - Pirkkala, Kenkätie 4
- Sweden**
 - Ängelholm, Rittalgatan 1
 - Stockholm, Mänskärsvägen 7, Kungens
Kurva
- Norway**
 - Oslo, Vestveien 18, Ski

As a member of EPLAN Nordic, we offer basic and advanced trainings in our location in Finland, Denmark, Sweden and Norway to offer wider scope of language options to our international customers.

Maximising potential with EPLAN training

As individual as your company

The EPLAN Training Academy is the central contact for all qualification questions relating to engineering. The extensive training and further education programme offers EPLAN users every possibility for personal and professional improvement.

In addition to the wide range of standard training courses, the EPLAN Training Academy also conducts company-specific training courses. Here, the learning content and timeframe are tailored to the individual wishes of the company. Concrete task formulations from the Engineering department can serve as the basis for the training course and can be used for training purposes to ensure the greatest possible degree of practical relevance.

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Customer service Finland

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The company

EPLAN Software & Service develops CAE solutions and advises companies in the optimisation of their engineering processes. Customers benefit from increased efficiency in product life-cycle management through standardised processes, automated procedures, and consistent workflows achieved using the EPLAN Experience programme.

EPLAN offers tailor-made concepts for system installation, setup and integration into IT-/PLM system environments based on standard engineering solutions. The range of services offered cover customisation, consulting and training. The development of specific and standardised interfaces to ERP, PDM and PLM systems ensures data consistency in product life-cycle management. Systematic, customer-based global support as well as innovative development and interface expertise are EPLAN's factors of success. As part of the Friedhelm Loh Group, EPLAN gives you continuity and security for your investment.

Professional. Practical. Profitable.

Successful learning

It's all about Engineering

Clear structures. Regulated processes. Assured training quality. Professional training courses with a high proportion of practical content and streamlined learning concepts offer everybody – from beginners to professionals, from fluid power designers to switchgear engineers – more productivity right from the start.

Productivity in focus

EPLAN offers ...

- ... a modular, individually-tailored training and further education concept;
- ... well-founded training courses with success potential;
- ... proof of technical knowledge and competence with the title "EPLAN Certified Engineer".

You will learn ...

- ... easy introduction to/professional utilisation of the software;
- ... how to apply modern engineering methods;
- ... internationally-valid documentation standards and their application.

Your benefits:

- Transfer of up-to-date know-how
- More productive use of software
- Perfection of workflows
- Quality improvements, time saving, cost reduction
- Investment security

Consistent practical relevance

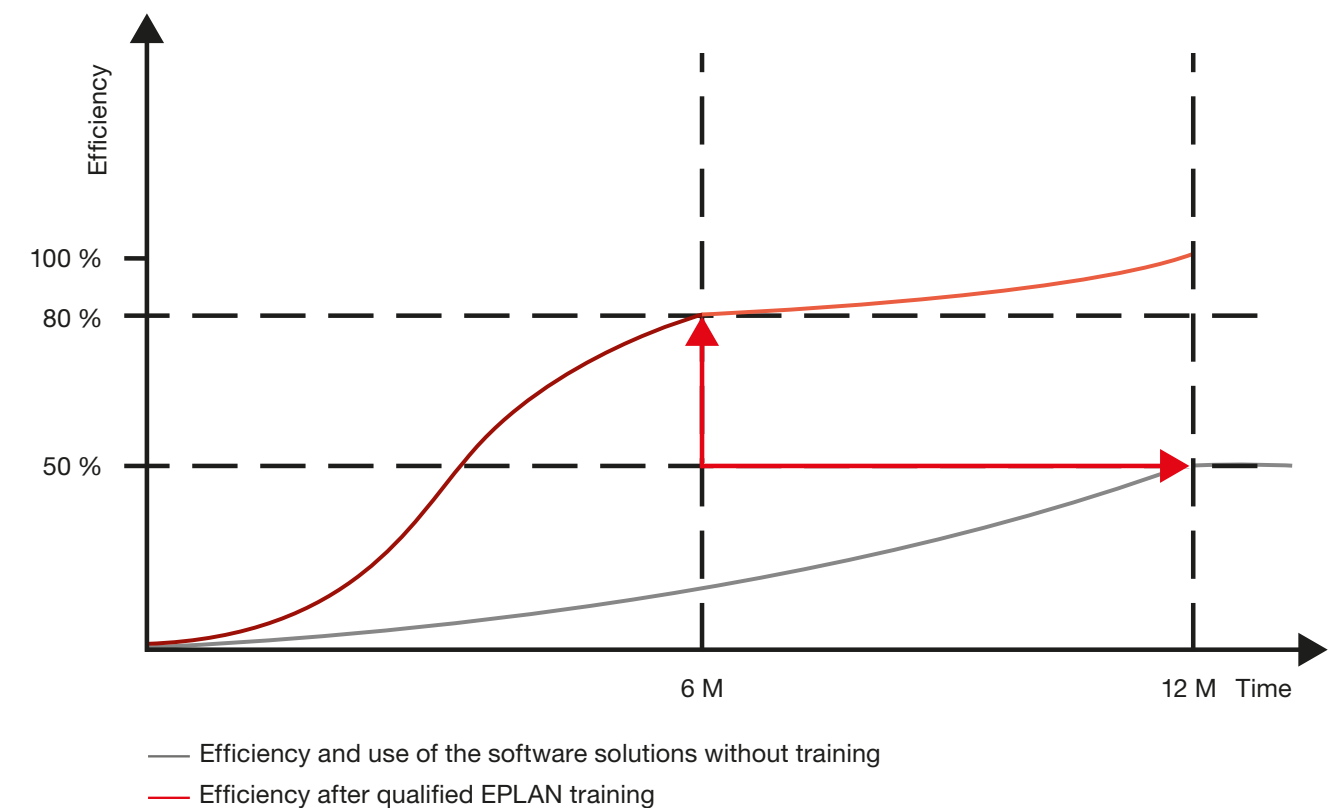
Easy introduction – Steep learning curve

Your entitlement – a partnership of equals

EPLAN uses the feedback from over 7,000 participants each year to continuously improve the range of courses, methods and practical relevance.

The EPLAN Training Academy offers:

- Training courses with concrete design exercises
- Target-orientated coordination between learning material and exercises
- Extensive international training documents
- Small groups with max. 12 participants
- Impetus for application with experience sharing



The EPLAN Training Academy is accredited according to DIN ISO 29990:2010.

This certified quality standard confirms that the EPLAN Training Academy offers training of the highest level. It is the international standard for vocational education and training.

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Basic training

Systematic, simple, structured, and consistent design. Efficient and consistent design is based on a structured approach. Use EPLAN Electric P8 to quickly and simply create reliable electrical engineering documentation. Learn the basics of the system through a practise-based and detailed design task. Design electrical constructions according to the latest standards. Learn efficient design methods to quickly create high-value schematic documentation.

Course features:

Creation of standards-compliant EPLAN designs

- Create and structure an electrical engineering design
- Create projects according to IEC 81346 and IEC 61355 standards
- Electrical engineering design knowledge and basic Windows knowledge

Professional creation of high-quality schematic documentation

- Device-based creation of schematics
- Create schematics using standards-compliant components
- Design 2D control cabinet layouts

Universal application of PLC components

- Device-based application of analogue and digital peripherals

Learning about practical automation options

- Automate procedures for multiple projects

Quality checking of electrical engineering designs

- Logical and functional testing of schematic documentation

Automated creation of manufacturing and assembly documentation

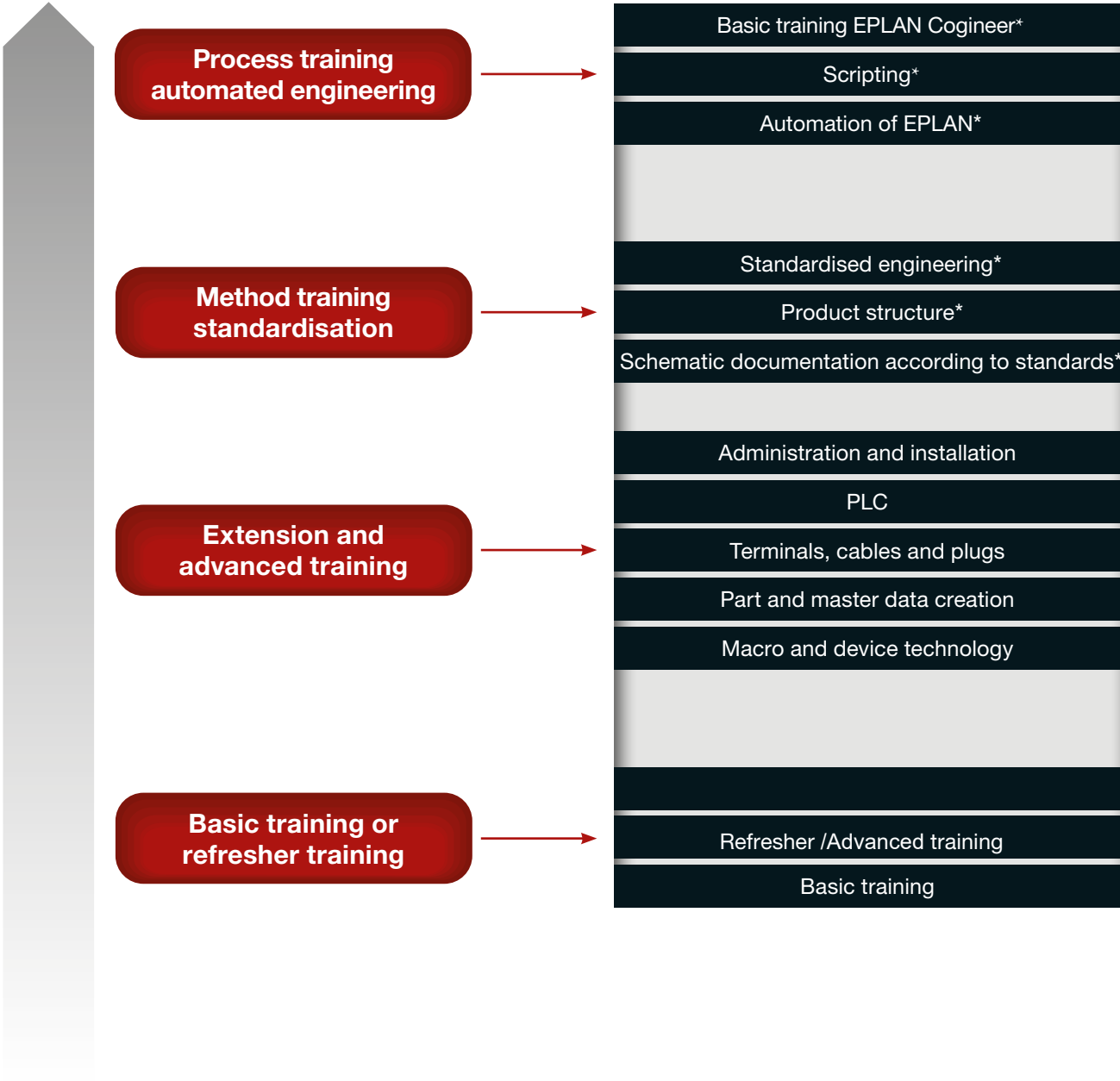
- Create parts list for manufacturing and order processing
- Create assembly-compatible manufacturing documentation

Standardisation of templates

- Create evaluations based on company requirements
- Create schematics with reusable schematic-sections (macros)

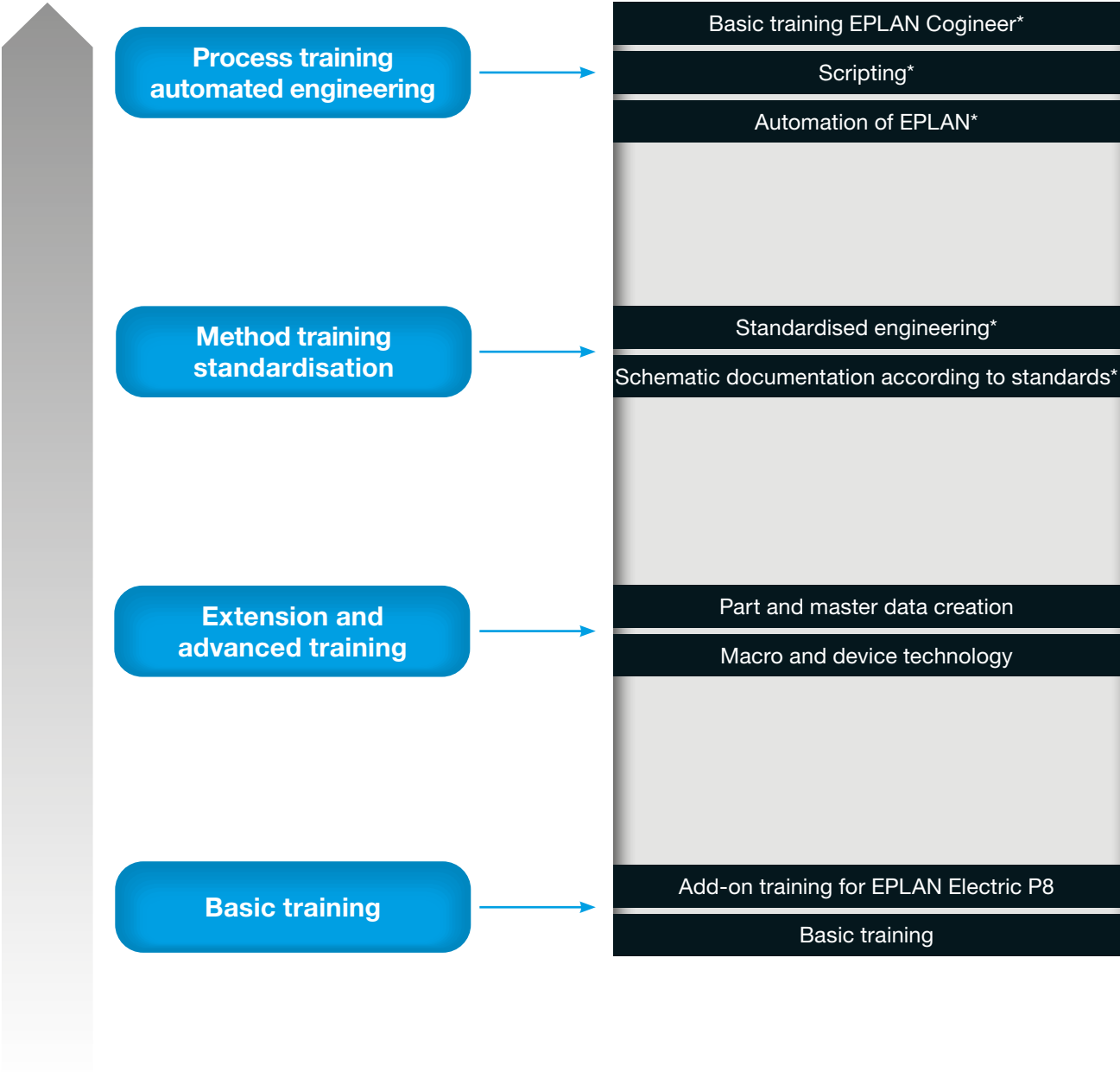


Training overview EPLAN Electric P8



Training overview

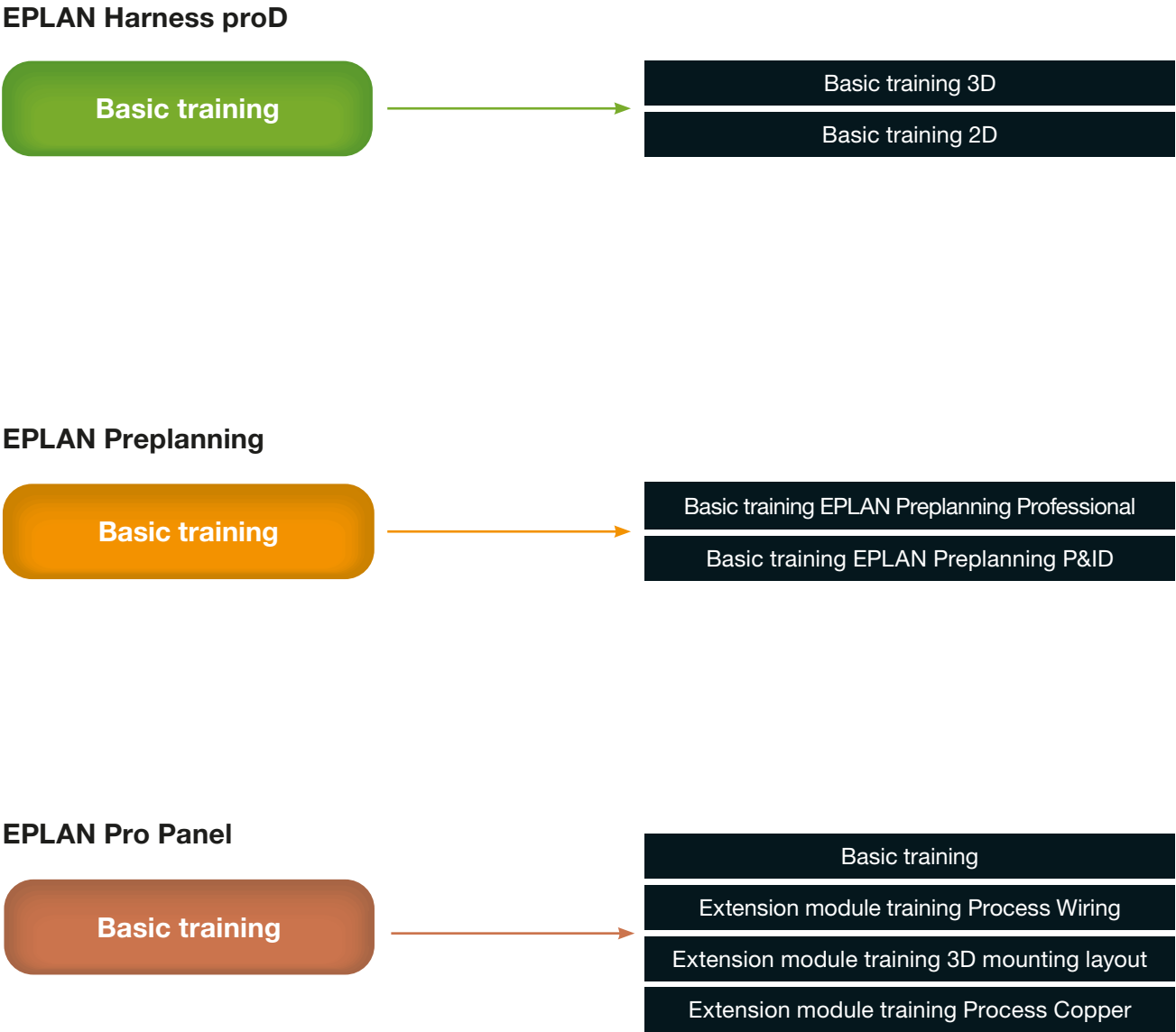
EPLAN Fluid



* These training courses can be attended by EPLAN Electric P8 and EPLAN Fluid users, and are delivered on demand basis

Training overview

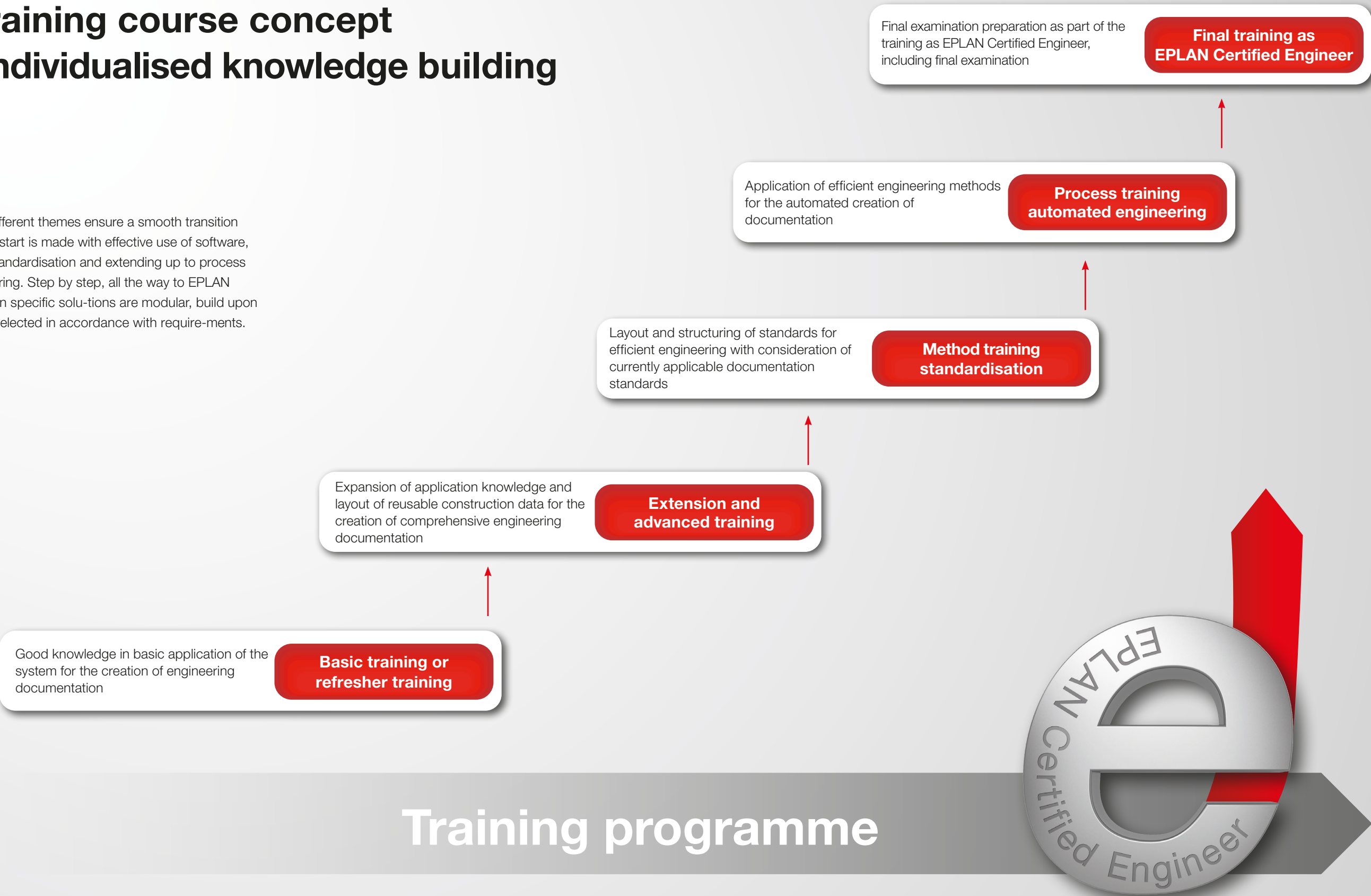
Further basic trainings



Modular training course concept supports individualised knowledge building

Step by step to improved efficiency

Training courses focusing on different themes ensure a smooth transition towards increased efficiency: a start is made with effective use of software, followed by subjects such as standardisation and extending up to process training for auto-mated engineering. Step by step, all the way to EPLAN Certified Engineer. All application specific solu-tions are modular, build upon one another and can be freely selected in accordance with require-ments.



Training programme



Complete training

Training programme to become an EPLAN Certified Engineer

Structured training programme

The EPLAN Certified Engineer (ECE) training programme turns EPLAN users into certified engineering experts. A coordinated package of training units, practical phases, feedback discussions and online training courses guarantees rapid learning success.

User questions are answered by experienced trainers in online training sessions. An online training session takes 60 minutes and is limited to 12 participants. You just need an internet compatible EPLAN workstation and an headset or telephone.



Online-Training

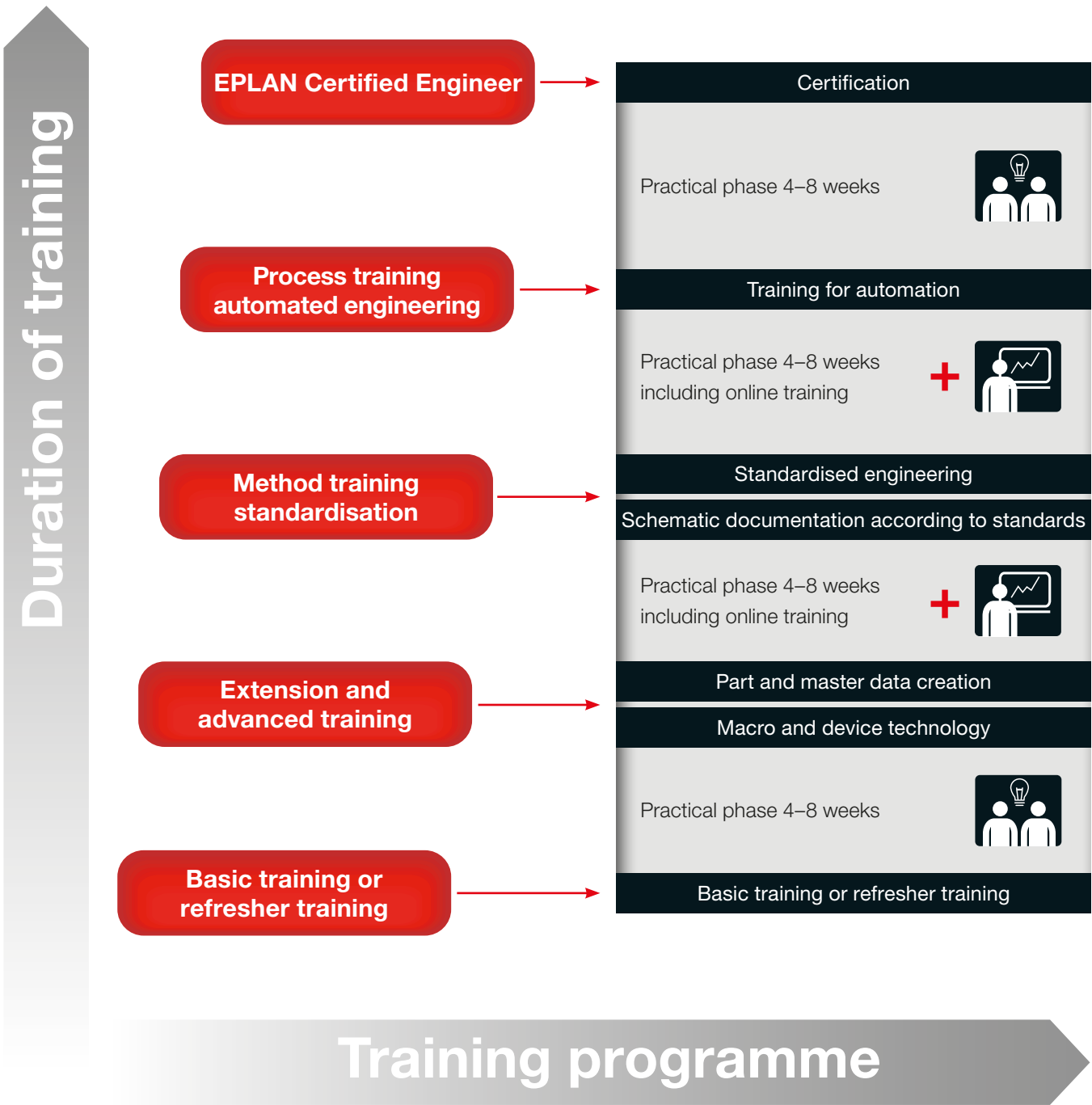


Feedback

Depending on their prior knowledge, each participant starts with either basic or refresher training. Indepth training follows at regular intervals.

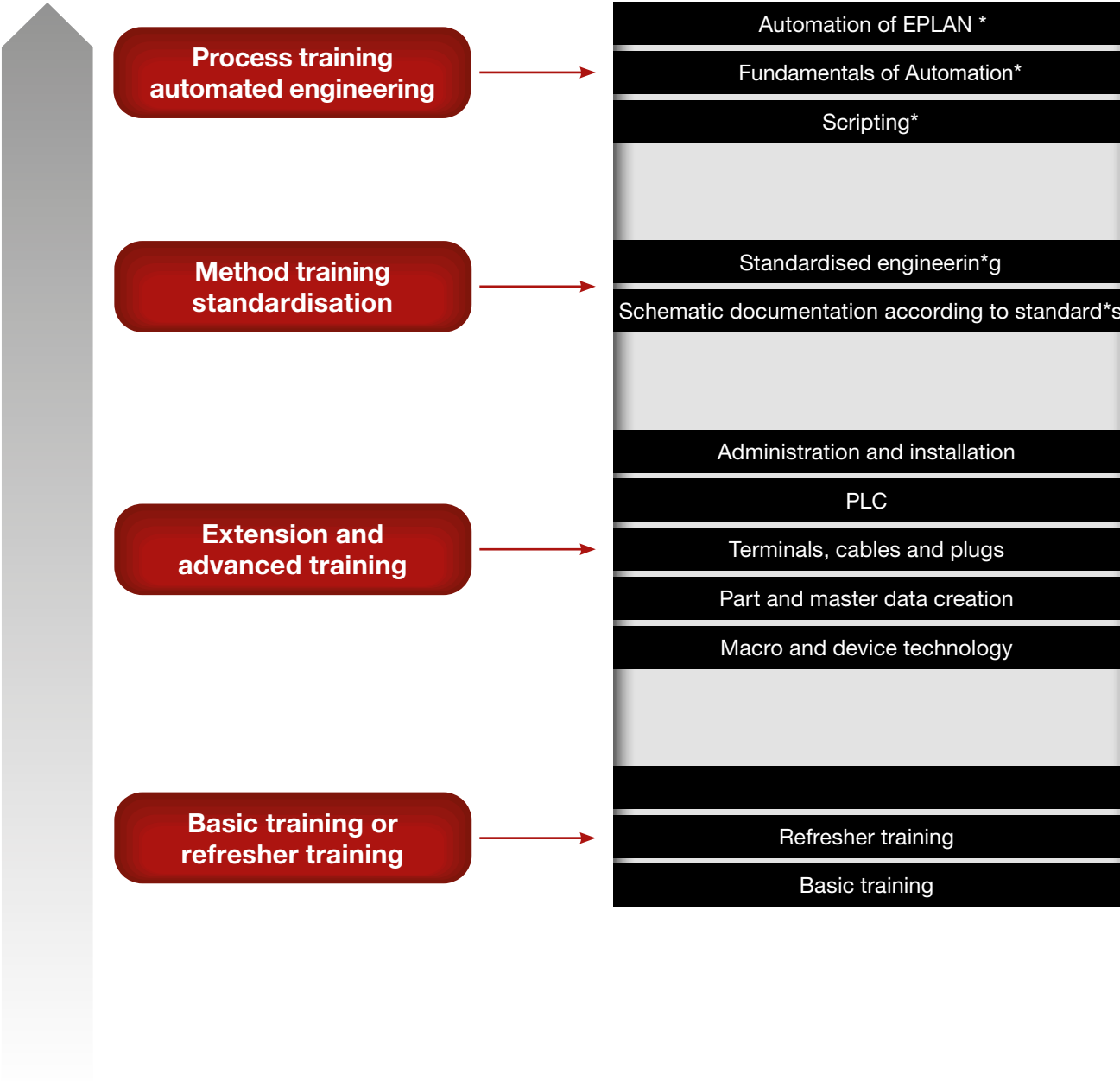
Final examination with honours


The final examination takes place after about six months at the Rheinische Fachhochschule Köln (University of Applied Sciences, Cologne). It has created quality standards in the field of electrical engineering and design and is the independent registered accredited examining body for the ECE examination. Participants sit the examination online from anywhere in the world and thus document their extensive acquired know-how. Continuous re-certification is required to keep your knowledge up to date. This takes place every two years.



EPLAN Electric P8

Training course overview









 All solution-specific training courses marked with "e" are a component of the EPLAN Certified Engineer training programme.







EPLAN Electric P8

Training courses at a glance

Basic training	Refresher training
Basic training (4 days) <ul style="list-style-type: none">Design in accordance with IEC 81346 and IEC 61355 standardsLearning and application of various design methodsCreation of complex schematic documentationAutomatic creation for manufacturing and build documentsPreparation of design data and further processing in third-party systems	Refresher training (2 days) <ul style="list-style-type: none">Learn about and apply new design methodsDiscovery and application of automation optionsCreation of documents for manufacturing and buildProfessional application of new features in the latest version

This training course can only be booked by existing EPLAN users, not new users.





Registration and/or detailed information: please contact your local EPLAN customer service

EPLAN Electric P8

Training courses at a glance

Extension and advanced training

Macro and device technology (1 day)

- Fundamentals for efficient administration of partial circuits (macro project)
- Creation and structuring of macros for multiple reusability
- Creation of variable macros and assignment of value sets
- Takeover and central administration of macros from the EPLAN Data Portal

Extension and advanced training

Part and master data creation (1+1 day)

- Easy creation of company or customer-specific standard sheets and forms
- Management of simple part data and administration of part accessories
- Using part and part data from the EPLAN Data Portal
- Convenient linking of manufacturer-specific data

Extension and advanced training

Administration and installation (1 day)

- Installation of EPLAN software
- Central administration of user settings
- Identify changes within a project via revision management
- Connection of part databases
- Long-term archiving of electronic documents

Method training standardisation

Schematic documentation according to standards (2 days)

- Overview of standards and their effect on the CE declaration of conformity
- Structuring principle of IEC 81346 in EPLAN Electric P8
- Representation rules for documents in accordance with the IEC 61082-1:2006 standard
- Document designation DCC/KKS (IEC 61355)
- Designation of signals and connections (IEC 61175)



Extension and advanced training

Terminals, cables and plugs (1 day)

- Defining terminals and terminal strips in the project
- Placement of multi-level terminals and shielded cables in the project
- Convenient use of distributed terminals in the schematics diagram
- Administrate plug pins and sockets in the project

Extension and advanced training

PLC (1 day)

- Efficient utilisation of PLC cards and PLC I/O
- Data exchange between planning and PLC programming
- Replacement of card or PLC manufacturers in an existing project
- Convenient creation of manufacturer-specific device data

Method training standardisation

Standardised engineering (2 day)

- The right way to standardisation in CAE engineering
- Establishment of an efficient system environment for standardisation
- Creation of company-specific project templates or basic projects
- Automated evaluations with structured templates

Process training automated engineering

Scripting (2 days)

- Introduction to EPLAN command language scripting
- Structure and layout of a script
- Activate and control EPLAN functionalities via scripting
- Passing data automatically to other programs
- On demand in countries



Registration and/or detailed information:
please contact your local EPLAN
customer service

EPLAN Electric P8

Training courses at a glance

Process training
automated engineering



Fundamentals of Automation (4 days)



- Adaptation of an existing macro projects for reuse in automation software
- Definition of report templates
- Structure and use of rules
- Automatic generation of schematic documentation including evaluations
- On demand in countries

Process training
automated engineering

Automation of EPLAN (2day)

- EPLAN Cogineer training





EPLAN Training Package:

EPLAN Certified Engineer (ECE)

Process training
automated engineering



Training for automation (2 days)



- Introduction to EPLAN command language scripting
- Structure and layout of a script
- Activate and control EPLAN functionalities via scripting
- Conveyance of basic knowledge for preplanning, project options and EEC

EPLAN Certified Engineer

Certification (2 days)

- Deepen expert knowledge in a targeted manner
- Preparing for the ECE examination
- Attend the ECE examination

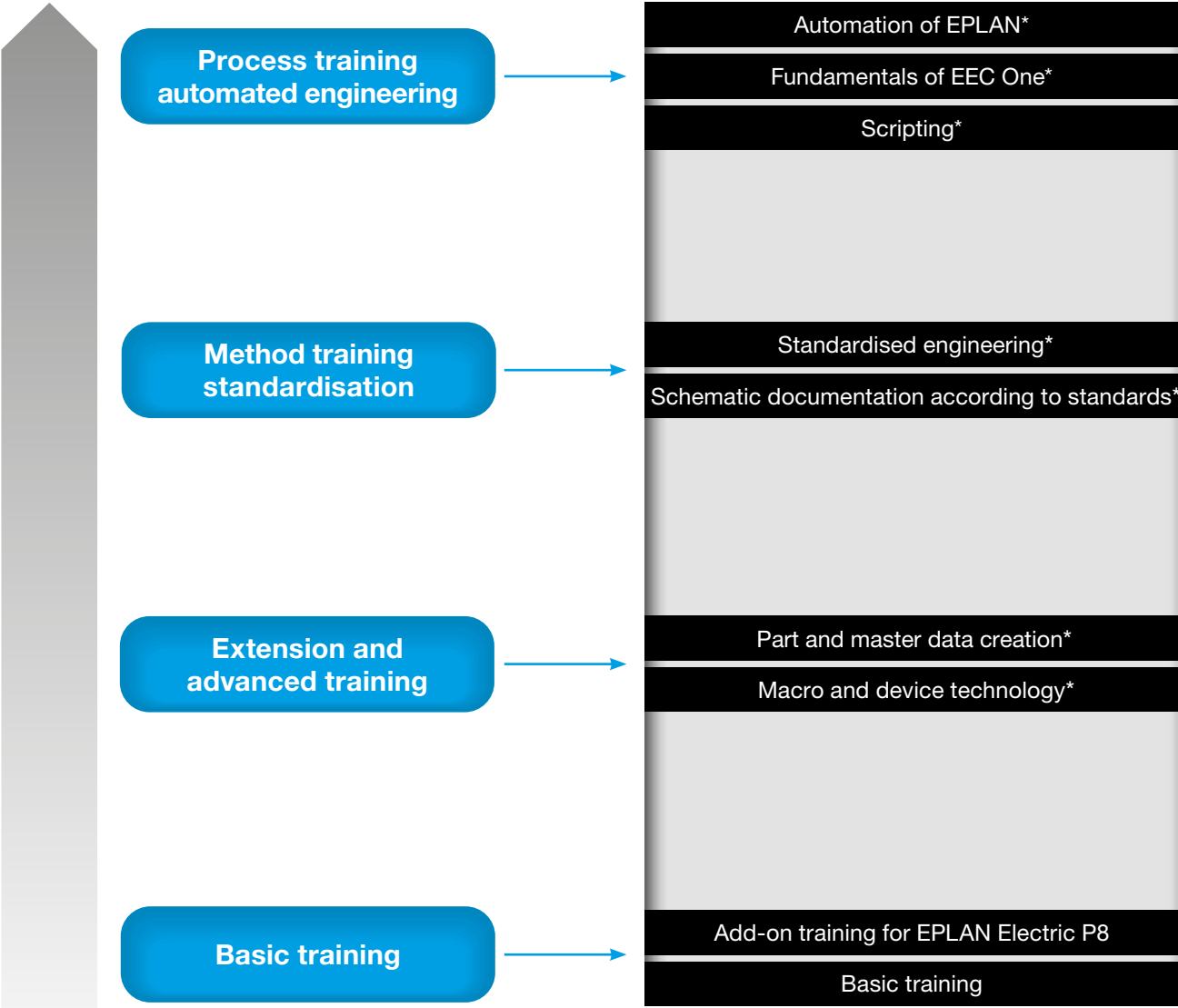




Registration and/or detailed information: please contact your local EPLAN customer service

EPLAN Fluid

Training course overview



* These training courses can be attended by EPLAN Electric P8 and EPLAN Fluid users, and are delivered on demand -basis.

EPLAN Pro Panel

Training courses at a glance

Basic training

Basic training (2 days)

- Fundamentals of the 3D mounting layout – working techniques and functionalities
- Creation of manufacturing drawings on the basis of model views
- Use of NC data in the 3D mounting layout
- Creation of high-quality 3D master data



Basic training

Extension module training Process Wiring (1 day)

- Definition of wiring holes and harness laying connections
- Create routing path networks
- Automatically determine wire and cable lengths
- Output of manufacturing data to production



Basic training

Extension module training 3D mounting layout (2 days)

- Basic knowledge of the 3D mounting layout – working techniques and functionalities
- Create 3D master data
- Equipping mounting plates
- Creation of manufacturing drawings on the basis of model views



Basic training

Extension module training Process Copper (1 day)

- Lay copper rails in the control cabinet
- Create bending tables
- Create formed busbars
- On demand in countries



EPLAN

Preplanning

Harness proD

Basic training

Basic training EPLAN Preplanning Professional

- Basic working technique in EPLAN Preplanning P&ID and EPLAN Preplanning Professional
- Pasting and editing planning objects
- Creating a planning object from an article
- Editing and recreating segment templates and segment definitions
- Data export and import

On customer demand, local language not guaranteed



Basic training

Basic training 3D

- Individual formboard design in 3D data
- Takeover of 3D data
- Individual definition of standard components such as plugs, cables, splices, etc.
- Fully-automated routing of wires and cables on predefined paths
- Manufacturing drawings – from 1:1 nail board to handy service documents



Basic training

Basic training EPLAN Preplanning P&ID

- Defining and describing machine/system segments for division into logical structures and units
- Creating initial graphical overviews as a general planning basis
- Defining “rough placeholders” for functions or components
- Defining and estimating initial quantity structures
- Creating parts lists for supporting calculation and acquisition of long-running products
- On customer demand, local language not guaranteed



Basic training

Basic training 2D

- Individual formboard design in 2D
- Individual definition of standard components such as plugs, cables, splices, etc.
- Fully automated routing of wires and cables on predefined paths
- Manufacturing drawings – from 1:1 nail board to handy service documents



Registration and/or detailed information: please contact your local EPLAN customer service

EPLAN Fluid

Training courses at a glance

Basic training

Basic training (4 days)

- Discover the fundamental operating principles of EPLAN
- Creation of designs in accordance with IEC 81346 and ISO 1219 standards
- Object-orientated creation of schematics with device lists
- Linking of the Festo product catalogue for effective design
- Automated creation for manufacturing documentation in accordance with assembly



Basic training

Add-on training for EPLAN Electric P8 (2 days)

- Creation of designs in accordance with IEC 81346 and ISO 1219 standards
- Linking of the Festo product catalogue for effective design
- Automated creation for manufacturing documentation in accordance with assembly
- Cross-references between EPLAN Fluid and EPLAN Electric P8



Method training standardisation

Schematic documentation according to standards (2 days)

- Overview of standards and their effect on the CE declaration of conformity
- Structuring principle of IEC 81346 or ISO 1219 in EPLAN Fluid
- Representation rules for documentation in accordance with the IEC 61082-1:2006 standard
- Document designation DCC (IEC 61355)
- Labelling of connections (ISO 1219)
- On demand in countries



Extension and advanced training

Macro and device technology (1 day)

- Creation of symbol macros in accordance with the acknowledged standards of fluid power engineering, refrigeration/air conditioning engineering and electrical engineering
- Central administration of fluid power macros from the EPLAN Data Portal
- Creation and representation of functional diagrams (in accordance with the VDI 3260 guideline) and GRAFCET diagrams (in accordance with the IEC 60848 standard)
- On demand in countries



Extension and advanced training

Part and master data creation (1 day)

- Easy creation of company or customer-specific standard sheets and forms
- Utilising part and data from the EPLAN Data Portal
- Convenient linking of manufacturer-specific hydraulic/pneumatic components
- Linking of the Festo product catalogue for effective design
- On demand in countries



Method training standardisation

Standardised engineering (2 days)

- The correct path to standardisation in mechatronic engineering
- Establishment of an efficient system environment for standardisation
- Creation of company-specific project templates or basic projects
- Automated evaluations with structured templates
- On demand in countries



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EPLAN

efficient engineering.

- Process consulting
- Engineering software
- Implementation
- Global support

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ENGINEERING SOFTWARE

IMPLEMENTATION

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FRIEDHELM LOH GROUP

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