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Certification Programme

# Lightweight Professional



This activity has received funding from the European Institute of Innovation and Technology (EIT), a body of the European Union, under the Horizon 2020, the EU Framework Programme for Research and Innovation





## Materials for Lightweight Design – how to treat them right

Reducing the weight of structures has become a critical point of focus for many different sectors, such as machine building, transportation and civil construction. The appropriate handling of raw materials in lightweight design structures is the key success factor for preserving resources and reducing costs. Unfortunately, practical experience often shows that designing and handling rules for new materials are not being respected. The professional training concept underlying the Lightweight Professional courses addresses this issue.

### What will you learn in this programme?

Participants will be able to identify and differentiate the steps involved in developing lightweight products. They will learn how to use, design, construct and set up processes with specific lightweight materials in the correct way to fully utilise the potential of lightweight strategies.

### Is this course for you?

The courses are aimed at employees in industry whose work involves planning the manufacture of lightweight products, and at employers who want to start manufacturing products based on lightweight concepts. The basic level is designed both for managers, engineers and technical staff. The advanced and expert levels are for technical specialists.

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# Lightweight Professional Programme at a glance

The Lightweight Professional programme is an international, modular training programme developed by leading European lightweight material experts. It delivers high quality content and ready-to-use practical knowledge. Participants will experience an open atmosphere with the opportunity to exchange experiences with other participants and industrial branches.

**Type of training** Online training

**Course duration** The scope of this training is based on a 40-hour classroom course. The e-learning format includes learning materials and videos for self-paced learning independent of time and place, self-assessment questions, as well as live online tutorials for exam preparation.

**Language** English

**Course contents** Lightweight design guidelines, lightweight materials, cost- and life cycle-assessment methodologies, specialized instruction on different lightweight materials and additional transversal perspectives on lightweight materials

**How the course is organized** The programme comprises 3 levels:  
– Introductory Module (Basic Level),  
– Material Modules (Advanced Level) and  
– Transversal Modules (Expert Level)

**Course fees** For further information, please visit our website: [www.lightweightprofessional.com](http://www.lightweightprofessional.com)

# Become a Certified Expert in Lightweight Design

The Lightweight Professional programme offers an open and flexible design that allows you to pick and choose different modules according to your interest and needs. You can select and build your desired path: starting from Basic to Expert Level Certification.

**Certification** The courses follow the requirements of ISO EN 17024 and are certified by an external accreditation body. The certificates confirm that successful course participants have acquired expertise and practical knowledge in the relevant area.

**Certification requirements** **Basic Level Certification:**  
– Completion of Introductory Module and successful examination

**Advanced Level Certification:**  
– Completion of the Basic Level Certification  
– At least 4 Material Modules and successful examination

**Expert Level Certification:**  
– Completion of the Basic Level Certification  
– Completion of the Advanced Level Certification  
– At least 4 Transversal Modules and successful examination

**Additional information** Each module of the Lightweight Professional course can be taken individually, regardless of whether or not you intend to take sufficient modules to be awarded one of the Lightweight Professional certificates. It is recommended to have previously completed the Introductory Module.

Discover our flexible modules. Get the skills you need to advance your career.

## Expert Level

### Transversal Modules

The Expert Level Transversal Modules extend the knowledge and experience acquired in the Advanced Level by providing a more in-depth product lifecycle perspective on an array of related issues. The modules offer state-of-the-art insights into different topics such as Recycling, Multi-material Design, Eco-Design, Sustainable Materials Usage, Ecological Technology Planning and Production System Design.

## Advanced Level

### Material Modules

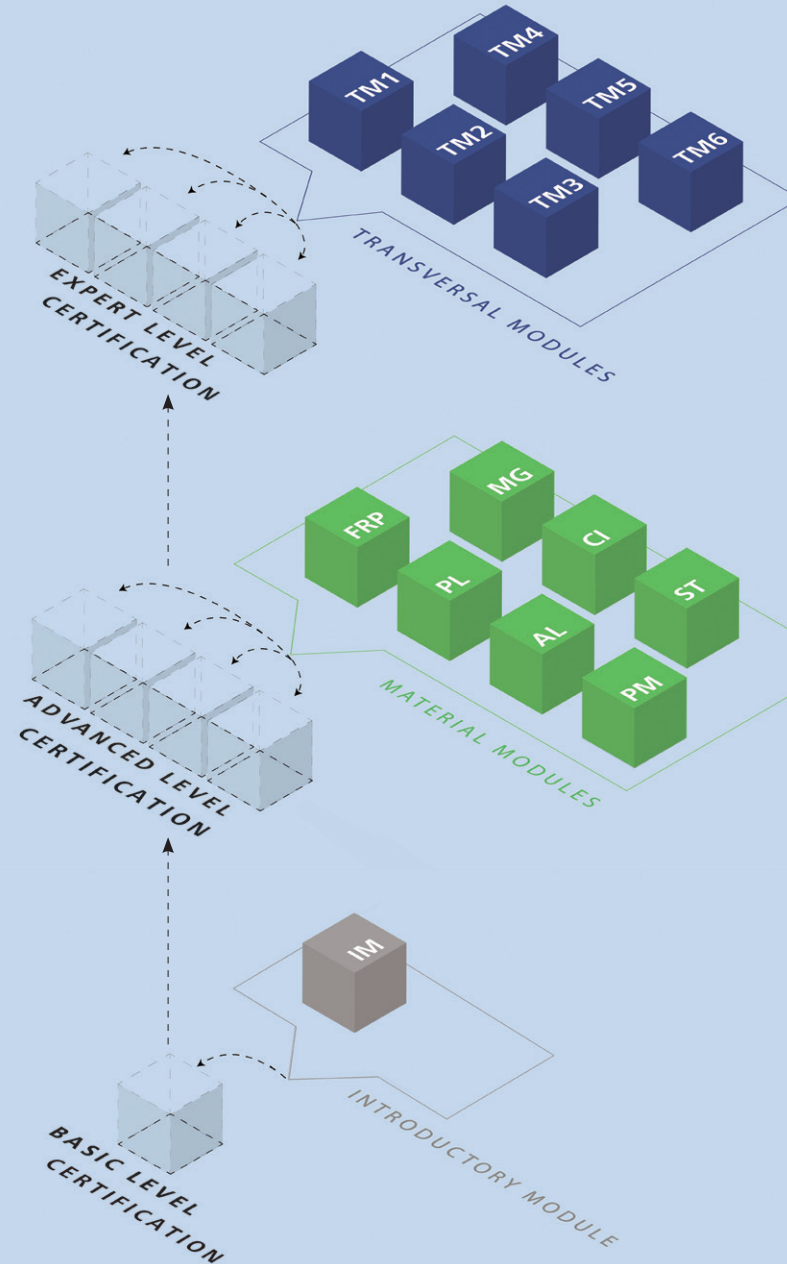
The Advanced Level Material Modules build upon the Introductory Module and provide specific material information and knowledge. The Advanced Level includes specialized individual Material Modules on the following topics: Fiber-reinforced Plastics (FRP), Powder Metallurgy and Additive Manufacturing (PM), Steel (ST), Magnesium (MG), Advanced Cast Irons (CI) and Polymers (PL), Aluminium Light Alloys (AL).

## Basic Level

### Introductory Module

The Introductory Module (IM) provides an overview of key aspects of lightweight design and strategies. After successful completion of the basic level "Introductory Module" (IM) of the lightweight professional training courses, participants are able to:

- Identify and differentiate the steps in the process to develop a product in order to critically assess the advantages and disadvantages of lightweight design for specific cases and different materials.
- Identify company key figures and components to develop products using a lightweight approach.



[www.lightweightprofessional.com](http://www.lightweightprofessional.com)

For all further details, visit our website.

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**Register online now at**

**[www.lightweightprofessional.com](http://www.lightweightprofessional.com)**

