**Summary**

# MOOC Week 1: Introduction

THE **ELIC PROJECT** is financed by the Erasmus+ EU Programme Strategic Partnerships for Adult Education; ELIC is an acronym that stands for Engineering Literacy Teachers as Medium for Change.

This Project aims to provide a didactical toolbox for teachers to increase engineering skills among secondary school pupils. In order to achieve this goal a MOOC (Massive Open Online Course) has been specifically designed for teachers of STEM (science, technology, engineering and mathematics) subjects.

The **ELIC MOOC** is an open educational resource (OER) addressed to secondary school teachers of STEM subjects that should help them to develop an engineering mind set amongst pupils aged 15-18 and increase their interest in engineering professions. The MOOC consists of 6 modules and runs over a 6-week period. Examples and experiments taken from automotive engineering are linked to content from different STEM subjects to show how knowledge of natural and technical sciences can be applied to real-world engineering problems.

To better learn from this MOOC a Facilitator and a Moderator are available every week to answer the questions that come up among the teachers.

• The Facilitator is the person that provides learning materials, tasks and assignments (e-tivities) to the topics present in the MOOC.

• The Moderator is the person that monitors the online learning process and actively supports learners in case of need.

A platform to post comments and questions is available for every single MOOC lesson, to allow teachers to interact with each other and also with the Moderator.

The first module (Week 1) of the MOOC is an introduction to explain how and when the lessons are launched and gives an overview of the contents. It aims to give a general introduction to the MOOC methodology, structure and requirements to get used to this online learning space and to understand how the ELIC MOOC is structured.

The second module (Week 2) introduces participants to electric motors in general, system engineering, and shows how electric motors are used in cars.

The third module (Week 3) develops the contents of internal combustion engines and to the impact on society and environment, from various perspectives.

The fourth module (Week 4) gives an introduction on how modern headlamps and rear lamps are used in cars and provides a system engineering understanding which allows teachers to assign experiments at school. Further, battery systems are explained in general, and how they are implemented into modern vehicles.

The fifth module (Week 5) focuses on “Hot Topics in Engineering” and discusses current issues in engineering, which include energy management, autonomous driving and cyber security.

The sixth module (Week 6) is the Recap week, where facilitators and moderators recap and summarize the highlight topics that have been discussed during the last five weeks. Further, learners have the chance to get the final certificate from the European Certification and Qualification Association, the ECQA.