

# Chargers of Electric Vehicles in Learning

*Electric mobility is expanding at a rapid pace...*

To stay ahead of development in the market for electric mobility, there is a vast need to educate future electricians about the key technical elements of Electric Vehicle (EV) charging.



*The number of charging points worldwide was estimated to be approximately 5.2 million at the end of 2018, up 40% from the year before.*

**Electric  
mobility is  
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pace**

# Educate future electricians about EV charging

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To stay ahead of development in the market for electric mobility, there is a vast need to educate future electricians about the key technical elements of Electric Vehicle (EV) charging.

Within the C-Evil project, partners from Hungary, Slovakia, Romania, Greece, Turkey, Spain and the Netherlands join forces to develop new learning and training materials on EV chargers in order to fill the gap in electricity education.

The growing number of electric vehicles needs more and more EV chargers which require adequate electricity professionals who can install, operate and maintain the equipment properly. Expert partners will provide a special

knowledge that can be taught to electricians or future professionals (VET students). Together with the VET partners, they will elaborate materials that can be used anywhere in the EU. The materials will cover the main areas connected to EV chargers such as charger types, electric connections, licencing and permitting, installation, electricity standards, management, maintenance and error maintenance. We will put special focus on not only the hardware part of the EV chargers, but also on its software features, i.e. smart management applications.



# The C-Evil project



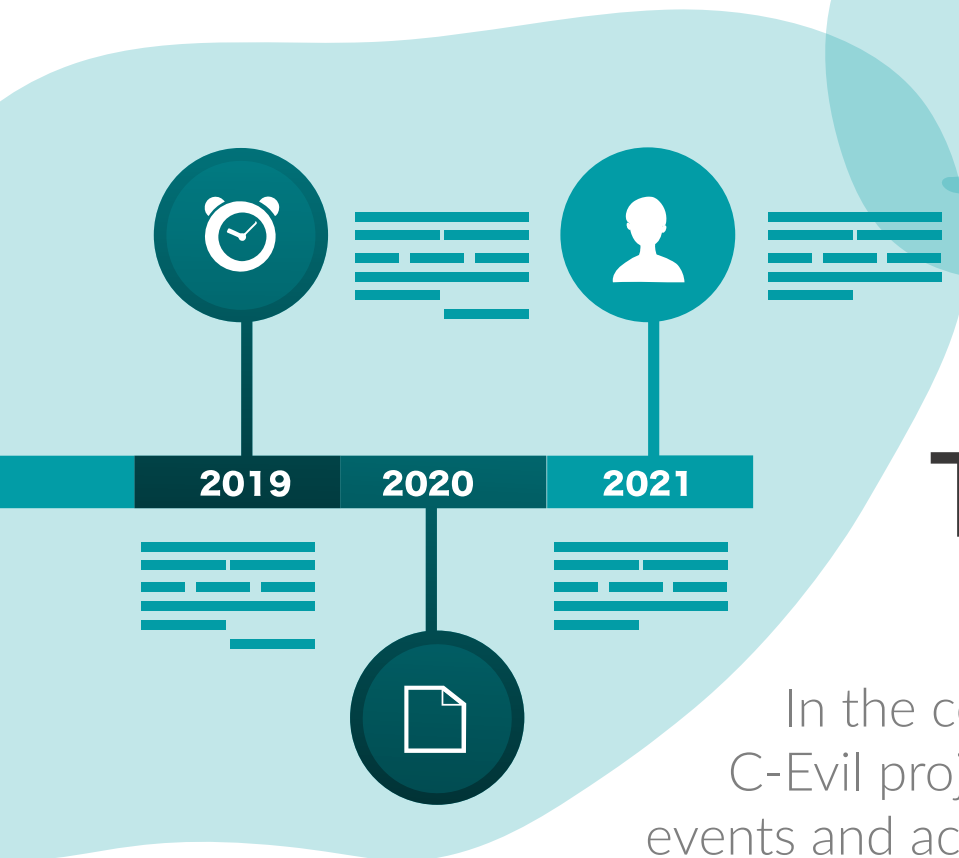
# Target group

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Our main target groups are electricians, both in work and unemployed, and future professionals who would like to compliment their skills.

The project will also indirectly target VET teachers and trainers as well as professionals from the electric mobility sector.

The C-Evil partnership will also work with their wide network of contacts in the government and social sectors.



## Timeline

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In the course of the two year C-Evil project various meetings, events and activities will be carried out in all of the partner countries.

The project started in October 2019 and will run until September 2021.

# Project outputs

Within the C-Evil project, partners join forces to develop new learning and training materials on EV chargers in order to fill the gap in electricity education. Within the 2-year project, C-Evil will develop the following outputs:



## ‘Train the trainer’ materials

The training material supports VET trainers and teachers who will use our project results in the classroom and those professionals who will get to know the content in distance learning. The result is a complex and comprehensive set of training material: it can be useful for those who have some initial knowledge about the topic, and also for those who know nothing about EV chargers. The materials contain many practical aspects, but users of the material can also dive in the theoretical background.

The content of the developed training materials on EV charging has been fully piloted with expert partners and is ready to be used by trainers and teachers across Europe.

The train the trainer materials can be downloaded [here](#).



# Learning objectives and curriculum

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How do students learn best about electric vehicle chargers? Blended learning! So besides the necessary theory that vocational students need to make their own, meeting experts from the field is indispensable. C-Evil adapts guest lectures, site visits and lots of examples from the field in their learning materials.

The learning objectives and curriculum can be downloaded [here](#).

# Set of learning materials

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At this stage of the project, training content is elaborated, teachers have already been introduced to it, and they have provided feedback and recommendation. In order to facilitate understanding, training material will be adapted in a student and user-friendly way.



# Guidelines for stakeholders

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EV charger training materials are intended to spread not only in the project partners' institutions and in their network but also in other organisations in the territory of the European Union. Project partners will prepare guidelines for the most important stakeholders: VET institutions, VET teachers and electrical professionals in the participating countries and in Europe.

# Project partners

Within the C-Evil project, partners from Hungary, Slovakia, Romania, Greece, Turkey, Spain and the Netherlands join forces to develop new learning and training materials on EV chargers in order to fill the gap in electricity education.



CAM Consulting, Hungary

Vocational Training Center of Kecskemét, Hungary

Colegiul Stefan Odobleja, Romania

Learning Hub Friesland, The Netherlands

Italian-Slovak Chamber of Commerce, Slovakia

Services Extremeños Enseña, Spain

EGE University, Turkey

Avaca Technologies, Greece



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in Learning

[www.c-evil.eu](http://www.c-evil.eu)

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