

TeachHy

Teaching Fuel Cell and Hydrogen Science
and Engineering Across Europe within
Horizon 2020



Robert Steinberger-Wilckens
University of Birmingham
www.teachy.eu
r.steinbergerwilckens@bham.ac.uk

TeachHy
3rd Project Gathering 30-Nov-2020



TeachHy Team Overview



Project duration:
01-11-2017 – 31-10-2022



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TeachHy - Teaching Fuel Cell and Hydrogen Science and Engineering Across Europe



Objectives

- establishing a blended learning MSc course to be delivered by a network of European universities
- establishing a focal point of advanced education in FCH technologies
- offering CPD and public educational materials and certified professional courses
- developing means of offering virtual and distance access to laboratory facilities
- implement public-facing material on the NET-Tools platform
- offering subscription/licensing of universities to the TeachHy concept

State of the Art

- no comparable online or blended learning offerings

TeachHy Motivation



- many universities cover single topics in FCH in courses such as Physics and Chemistry (thermodynamics, electrochemistry), Chemical & Mechanical engineering etc.
- within the EU only one (!) university offers an FCH MSc degree
- many universities are willing to contribute to FCH MSc programmes but can only cover about ~30% of the necessary lecturing material and capacity
- a number of 50 to 200 university MSc courses are needed to cover the HR demands by 2030 (~50,000 trained engineers/scientists)

→ how can the missing ~70% of teaching be supplied?

→ how can quality of teaching be assured in a high number of newly developed programmes?

TeachHy Actions

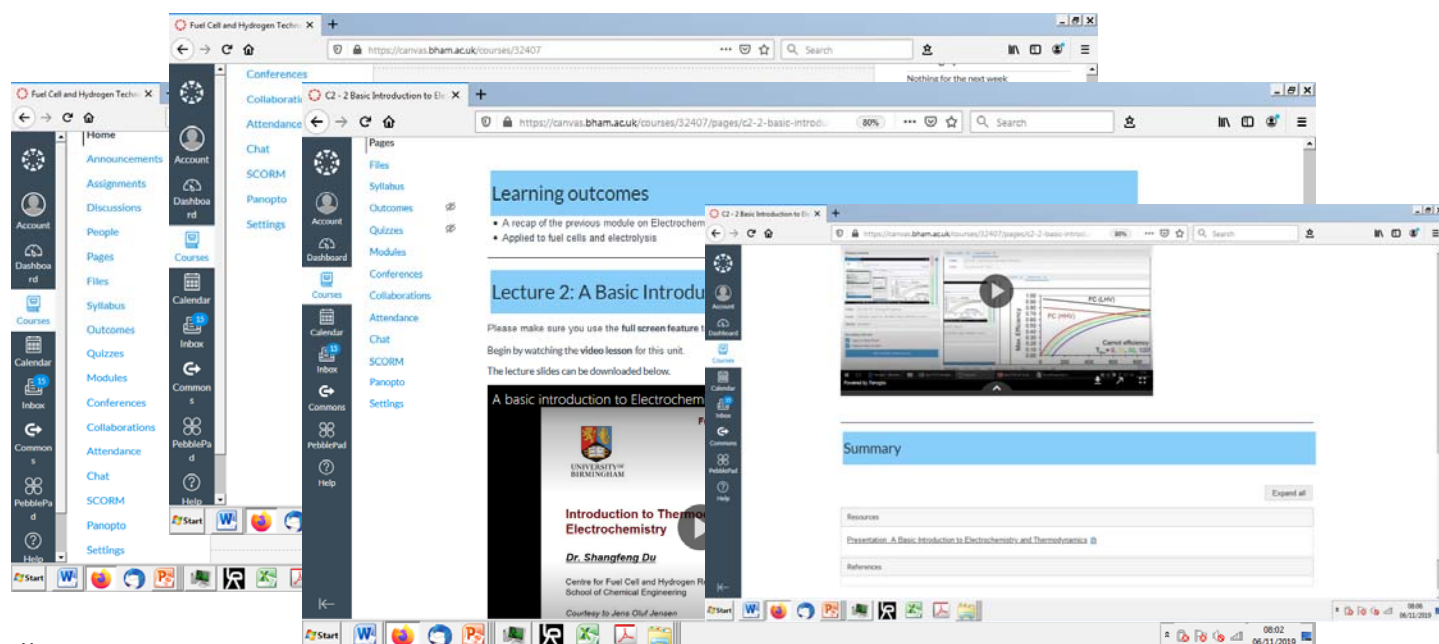
Project Deliverables

- implementing prototype full 12-month MSc programme on UoB LMS system
- running full or modified programmes (18 & 24 months) at other consortium partners
- adapting TeachHy content to CPD needs
- running CPD courses at TU Delft and RU Groningen, as well as with partnering organisations
- translating content to make access easier across Europe and build vocabulary

Project Associate Network

- offering modules and whole MSc programme to universities outside the consortium
- offering licensing and distance delivery of modules
- offering support with exams, labs, and research projects

TeachHy - CANVAS LMS Implementation Example



Lessons Learned

Accreditation procedures

- diversity of accreditation models at universities
- reluctance of university administrations to accept external contributions
- 'ownership' of modules

Financial issues

- divergence of university financing models and tuition charges
- reluctance of funding of educational activities - resulting in underfunding, considerable unpaid und unrecognised university input

Post-Project Business Plan

- establishment of a post-project business entity to maintain and update educational material database
- license model to have content implemented on local LMS, receive help in delivery (incl. exams, lab work, research projects), or run externally led modules
- implementation of CPD schemes
- cooperation with various educational initiatives:
CPD in Saarland for automotive networks, Austria for automotive company, and Germany for group of logistics companies

Building on Previous Projects And Programmes



Interactions with projects funded under EU programmes

- TrainHy – MSc course based on syllabus developed by TrainHy
- HySafe – Hw safety module from HySafe
- KnowHy – blended learning and CPD approach



Interactions with national and international-level projects and initiatives

- IPHE – Educational Activities – represented by Jürgen Garcke on Advisory Board
- EPSRC Supergen H2FC Hub – use of Educational Portal
- T.I.M.E. network – network partners



Interactions with private projects and initiatives

- JESS – Joint European Summer School – cooperation on module development and delivery



Where to find us ...



Facebook group



Linkedin entry



Twitter feed



dedicated web site

www.TeachHy.eu

with blog and regular newsletter



**Thank you for your attention and
happy to answer any questions!**

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