

D3.4 E-learning course structure and content





PROJECT NO.	696069
PROJECT ACRONYM	START2ACT
START DATE	01.03.2016
DURATION	36 months
DELIVERABLE ID	D3.4 E-learning course structure and content
DUE DATE OF DELIVERABLE	31.03.2017
LEAD BENEFICIARY FOR THIS DELIVERABLE	GEO

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DISSEMINATION LEVEL

- Public
- Confidential, only for members of the consortium (including the Commission Services)

DOCUMENT HISTORY

VERSION	DATE	NOTE	ISSUED BY
01	10.03.2017	First Draft Version	GEO
02	20.03.2017	Input from the E-learning Expert	GEO
03	23.03.2017	Review by partners	GEO
04	07.12.2017	Deliverable updated according to EASME's request – content included	GEO

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1. Introduction

The START2ACT E-learning platform is one of the four features of the Interactive Energy Saving Platform along with the Knowledge Base, the Energy Saving Competition and the Interactive Social Platform. The purpose of the E-Learning is to widen and diversify the means through which START2ACT interacts with its target groups and builds their capacities.

START2ACT will train people at young SMEs and startups in the topic of energy efficiency at the workplace and especially in the office environment. The project provides physical advisory activities and services (e.g. business breakfasts, on-site training for SMEs and mentoring for startups) in nine European countries. E-learning takes on a complementary approach to these physical activities by offering the target groups (i) a flexible and distant self-education on energy efficiency and (ii) a more structured and guided approach towards facilitating the easy uptake of the various energy saving options.

START2ACT has defined four objectives that will be conveyed through the E-learning modules.

OBJECTIVE 1:

Employees will understand the impact of their actions and that every individual counts in creating impact.

OBJECTIVE 2:

Employees will learn how to identify weak points and practices that lead to wasting energy and learn how to avoid such situations.

OBJECTIVE 3:

Employees will be encouraged to ask their managers for help when they are not able or are authorised to solve a problematic situation. They will learn that speaking out and taking a stake for energy efficiency pays off.

OBJECTIVE 4:

Managers will learn to be open for their employees' suggestions and engage them in the energy saving mission of the enterprise.

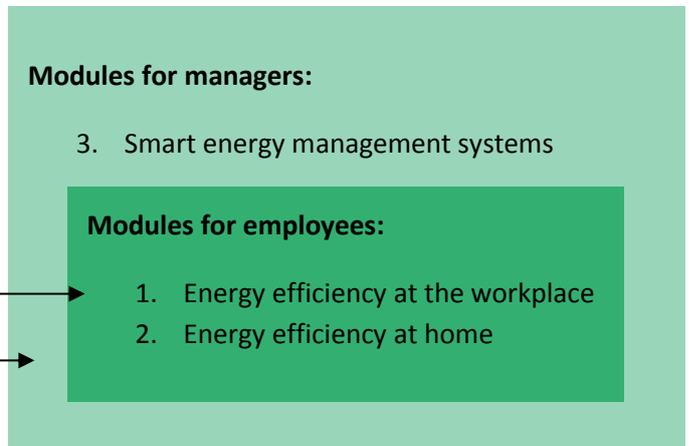


2. Structure

The course will be divided into two main sections according to the needs of two target groups. The employees and their managers/owners will learn to save energy through changing behaviour in those specific situations that apply for the respective group without unnecessary overlapping.

Employees will be provided with two basic modules.

Managers and owners, beyond these two modules, will get an additional module that applies for managerial situations.



At the end of each module there will be a short test to check the student’s new knowledge. The aim of the test is to strengthen the four objectives (see introduction) and foster the ability of the user to apply the earned knowledge in everyday situations. Besides that, the results will provide important data on behaviour and behaviour change of the users in energy efficiency. The student can test how well she/he acquired the presented information on the topic. If the student scores below a previously defined threshold she/he will be advised to revisit a certain chapter.

MODULES	CHAPTERS	SUBJECT	DURATION IN MINUTES
1 Energy efficiency at the workplace	Light	<ul style="list-style-type: none"> Importance of energy efficiency in the lighting area. Recommendations and quick wins towards energy efficiency. 	5-10 mins
	HVAC	<ul style="list-style-type: none"> Why is it important? Explaining effects of taking energy efficiency measures in heating and cooling. Recommendations and quick wins towards energy efficiency 	5-10 mins
	Office equipment	<ul style="list-style-type: none"> Importance of energy efficiency in the office equipment area. Recommendations and quick wins towards more energy efficient use of your equipment. 	5-10 mins
	Test	Test your practical knowledge; interactive hot-spot exercise	
2 Save energy at home		<ul style="list-style-type: none"> Importance of energy efficiency at home Recommendations and quick wins towards more energy efficient use at home. 	5-10 mins
	Test	Test your practical knowledge; interactive hot-spot exercise	
3 Manager module, Smart Energy Management Systems	Procurement	<ul style="list-style-type: none"> What is procurement? Why to save energy via procurement? Recommendations and quick wins towards more energy efficient procurement. 	5-10 mins



	Metering and monitoring	<ul style="list-style-type: none">• Importance of metering and monitoring for achieving energy efficiency.• Recommendations and guidelines.	5-10 mins
	How to engage and involve all staff members?	<ul style="list-style-type: none">• Importance of involving all staff in the actions on energy efficiency.• Recommendations and behaviour science.	Max. 5 mins
	Test	Test your practical knowledge	



3. Working templates

The START2ACT E-Learning modules follow a path of interactive participation as the topic energy efficiency in the everyday life itself requires proactive behaviour from everyone. This idea is embodied in the title START2ACT and each E-learning module aims at providing the user with the important **theoretical** as well as **practical** knowledge to starting to act on energy efficiency.

3.1 Presentations

Each E-learning module builds up in the first instance the **theoretical** knowledge of the user. The aim is to assist the user in cognitively approaching and understanding as to why it is important and beneficial to behave energy efficient in the respective topic area of the module. The theoretical knowledge will be conveyed via **presentation slides**. The presentation slides will introduce the student to the new material with the use of visual elements, such as photos and explanatory animations. This way the amount of text will be kept minimal and the attention of the user is focused on the main message.



Figure 1: Exemplary Presentation slide for START2ACT E-learning, chapter Lighting.

3.2 Interactive Hot Spot Exercise

Based on this first step each E-learning module engages the user subsequently to build a **practical** knowledge in the specific topic area of the module. On this way, START2ACT focuses the user on acting on energy efficiency and changing the own behaviour towards a more energy conscious approach in everyday life at work and at home. By **interactive hot spot exercises**, the user can practice what she/he just learned in the theoretical part. The exercises will simulate the office context with photos of office situations. The student has to put himself in a specific situation, has to find the weak point and discover how she/he can solve the problem. The student will click on “hot spots” in order to discover the environment or to respond a question. Each response is followed by visual feedback.

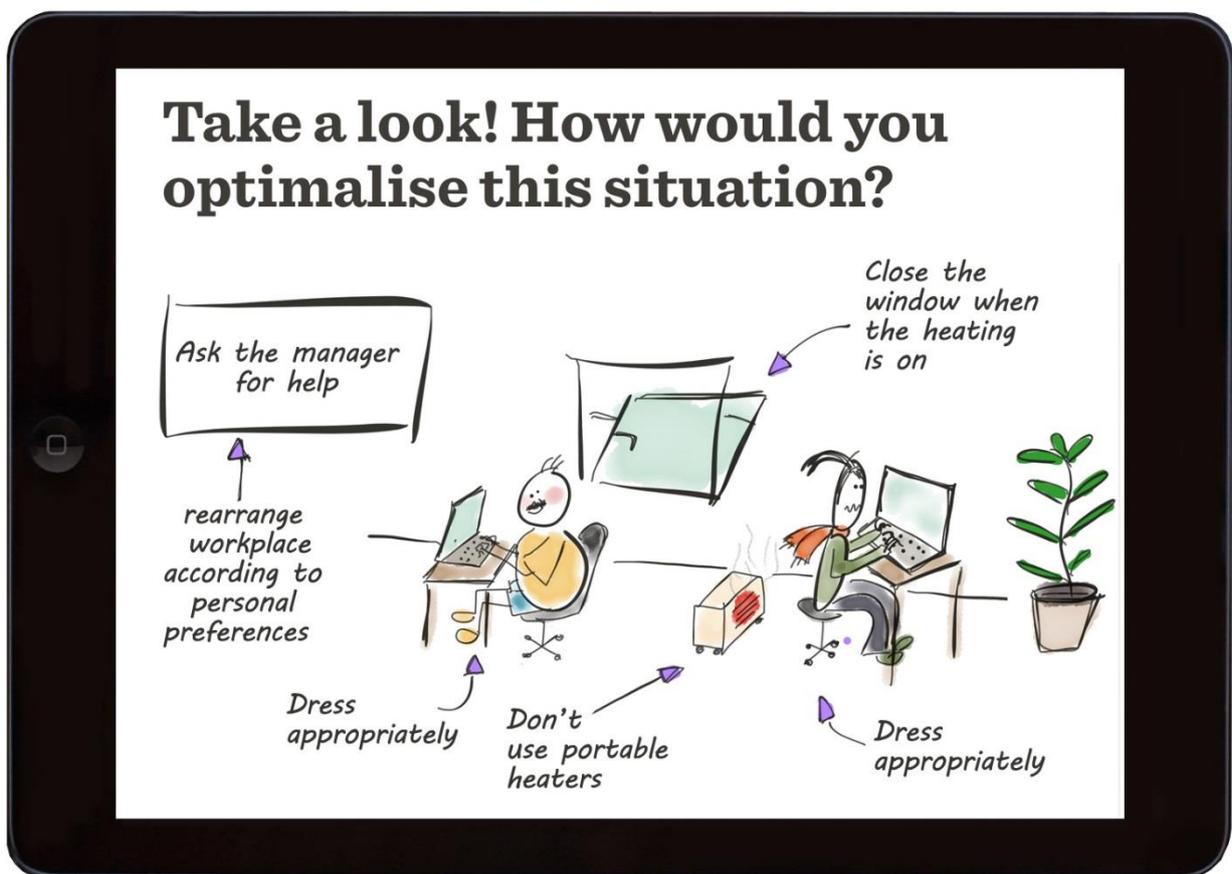


Figure 2: Exemplary sketch with explanations for the hot spot exercise at the end of the modules.

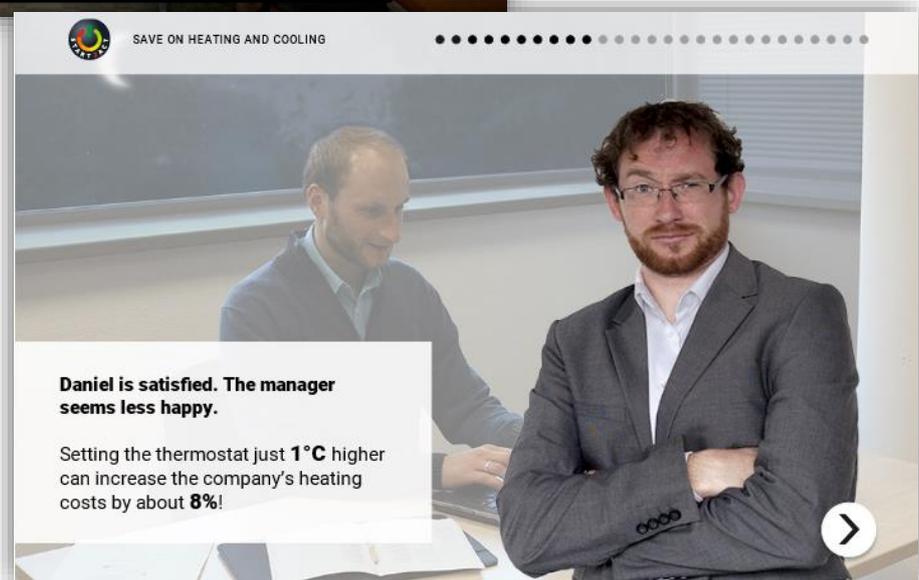
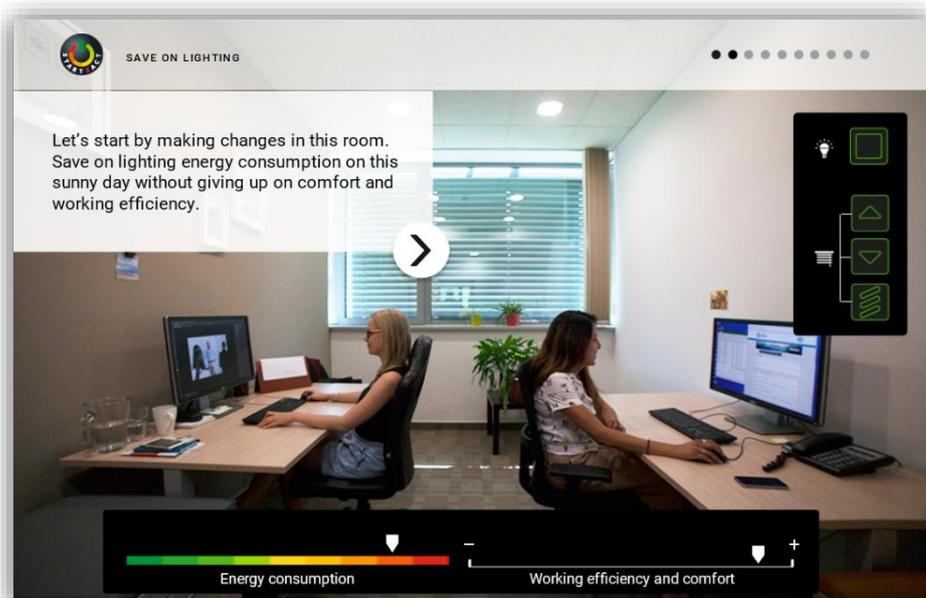
The presentation slides and interactive exercises will alternate for optimal learning results.

4. Content

The content of the START2ACT [E-learning course](#) is published on the project website as a submenu point under the Interactive Online Platform. As highlighted in section 5 Registration, this content is accessible after a quick and free-of-charge registration to better track the use of the E-learning platform and to provide the user with features that respond to individual progress (which chapter / test has been visited) as well as performance and certification within the platform.

Module 1 (Energy efficiency at work) and module 2 (Energy efficiency at home) have been published on the website and the user is able to visit the chapters of these modules and take self-assessment tests to earn the START2ACT certificate of completion.

The Module 3 (Smart energy management) is currently under preparation and will be published on the website in February 2018. The translation of the entire E-learning course has started already and the launch of all language versions of the separate chapters is foreseen for Spring 2018.



TEST YOUR KNOWLEDGE OF ENERGY EFFICIENCY AT HOME

How would you get these dishes clean in an energy efficient way?

- I would turn on the dishwasher and would activate the ECO program.
- I would avoid using the dishwasher and would rather wash them by hand.
- I would wash them in the dishwasher once it is fully loaded.

SAVE ENERGY AT HOME

ROOM TEMPERATURE: 22°C

WINTER TIME

Take a look at Ana's living room. Click on the green hotspots and learn how Ana can START2ACT and save energy.

SAVE ENERGY AT HOME

Dress warmly in the winter.
If you do not dress appropriately to the season, you will use more energy by heating your home to a comfortable temperature.

SAVE ON OFFICE EQUIPMENT AND OTHER APPLIANCES

What about this situation? Is the employee acting in an energy efficient way?

5. Registration

Before participating in one of the START2ACT E-learning modules we ask each user to register and create a START2ACT account. The data required to set up this account will only be used in the frame of the START2ACT activities, namely the interactive online platform, business breakfasts for energy efficiency, mentoring for startups and on-site training for SMEs. The data will not be used or given outside of the START2ACT [project consortium](#).

Figure 3 shows the START2ACT access button to the Interactive Energy Saving Platform that is available on the home page of start2act.eu. By selecting the 'E-learning' field of the button (bottom left) the user will be directed to the login/sign-up page and, having completed this process, receives free-of-charge access to all E-learning modules available.

The purpose of the E-learning account is to keep track of individual user achievements made within the separate modules and thus giving the possibility to make the progress of the respective user in the E-learning visible. This progress is intended to help each user to proactively identify, formulate and achieve personal aims in energy efficiency. Moreover, the E-learning modules are useful in the Energy Saving Competition as the completion of the modules and earned certificates can be credited as an additional achievement of the competition.

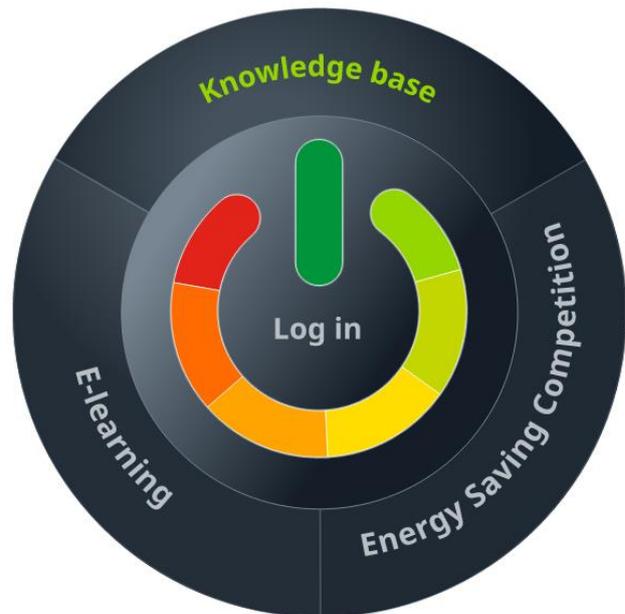


Figure 3: Access Button to the Interactive Energy Saving Platform on the START2ACT web page.