Issue 6 October 2020

ASSET

A holistic and Scalable Solution for Research, Innovation and Education in Energy Transition

What's inside?

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 837854.

Editorial

This is the sixth issue of the Newsletter of the ASSET project, which is released every three months.

In this issue, we will continue introducing the project goals and approaches, present the list of available courses, and provide an update of the project activities. Additionally, we talk with one of our Ambassadors (Antonio Disi) from Italy and we continue with the presentation of ASSET partners, this time we will have the pleasure to introduce our partners from Ecopower and Alborg University. The final part includes the organization of workshops, events and preparation of the third roadshow event in Belgium. All previous newsletters are available here.

Don't forget to subscribe to our channels to learn more about ASSET and stay tuned with us!

For further information please look at our website and social network profiles on

https://www.energytransition.academy

Twitter, LinkedIn, Facebook and YouTube.

Courses

During the next month of November, we will launch a new MOOCs provided by different partners with a duration from three to nine weeks. All the courses are free, and to enroll you need to be registered on the EMMA platform. To see the list of available courses where we included all additional information, outcomes, and teacher's team, follow this link.

ASSET Ambassadors: An interview with Antonio Disi

ASSET Ambassadresses & Ambassadors are professionals involved in the energy transition process and challenges who share ASSET's scope and objectives and decided to endorse the project. They are selected on the basis of their acknowledged working experience and their personal commitment.

ASSET Ambassadresses & Ambassadors support the ASSET project: by giving visibility to ASSET within their professional networks and by supporting the dissemination of news and information related to the project activities and results.

Antonio Disi is one of our first ambassadors from Italy. He has a Degree in Architecture at the University of Naples and a Master in Urban Planning at the Polytechnic University of Turin.

He has more than 20 years of experience in sustainable development and rational use of energy. During the last 10 years, he has worked in the field of energy efficiency, communication, and behavioral change at ENEA (National Agency for New Technology, Energy, and Economic Sustainable Development).

Antonio Disi, architect and energy efficiency expert. You are a technician, but you mostly work as a popularizer of energy efficiency issues. What or who pushed you to embody this role?

It is not by chance if I became a popularizer, it is something I decided when I was a child. My inspirer was Gennaro Savastano, who, in the little village where I was born, was known as "Don Gennaro the scientist"! He was a domestic appliances repairman, a tiny man, always leaned over the worktable where he piled up radios, televisions, and blenders. He was very capable in his work but, most of all, he owned a great imagination. He didn't probably study so much, but he soundly figured out how those machineries worked, and thus he was able

to rephrase it in its own language. He was the first person who explained to me how a refrigerator and a laundry machine work and I never forgot it. What most fascinated me was his capability to be clear and professional without being boring while, if anything, being amusing and funny. Speaking or writing in a tricksy and complex language is easier. If you want to be clear and simple, you cannot cheat you need a special talent and a real comprehension of the phenomenon.

Many years have passed, but Don Gennaro represents an example for me, and I still try to employ his own tools: knowledge and expertise, imagination, and a lot of humor, which goes together with sharpness.

Within the energy efficiency overall strategy, which is the influence of accurate information and effective communication?

Even when making efforts, not communicating is impossible, someone stated it long before me! Thus, it would be nonsense to believe that an epochal change like the energy transition from fossil fuels to renewable sources should not require a tremendous flow of information among all the involved actors.

A specific communication strategy is also necessary because energy transition is not a technological issue, but encompasses also significant social and human aspects and involves our guiding values.

Energy efficiency and energy-saving policies and programs extensively rely on targeted actions focused on raising public awareness, inducing behavioral changes, and training people towards sustainable energy consumption models.

Thanks to these actions, an overall reduction of energy consumption by up to 20% can be achieved within short timeframes and without significant economic investments.

Nevertheless, deliver information is not enough. Knowledge gaps are not only caused by the lack of information, but they are mainly linked to the way information is delivered and to their effectiveness in changing our receptiveness and our way of thinking.

Since oil permeated and shaped our culture, our infrastructures, and our overall economic system, the energy transition will require a comprehensive re-thinking of themes like wealth, beauty, success, community, and many other concepts that inform our society and ourselves.

And thus, what better way to help us understand our present and imaging our future than recurring to human disciplines? Art, philosophy, music, writing, storytelling can effectively support our efforts towards a successful energy transition.

Institutional communication is the only effective way? Can we employ alternative informal but incisive communication strategies and means?

Knowledge and information transfer are the starting point to achieve energy efficiency targets, but, to the same extent, is necessary to share benefits, perspectives, and also limits with the involved stakeholders. It is necessary to build a common communication code, based on a shared language and set of values, between the source and the targets of the information.

Institutional communication is fundamental, primarily for its credibility and impartiality. For example, in Italy, the ENEA energy agency played a significant role to inform and train citizens, companies, and public administrations on renewable energy sources and energy efficiency measures over the last four decades. Last in order of time is the "Italy in class A" campaign (www.italiainclassea.enea.it), focused on the implementation of the national energy efficiency strategy.

Nevertheless, to reach its final targets (citizens) with maximum effectiveness, the institutional communication should flow through intermediary subjects (media and companies), who decode the initial message and encode it again, enriching it with new meanings and values, and broadcasting it again towards the final targets.

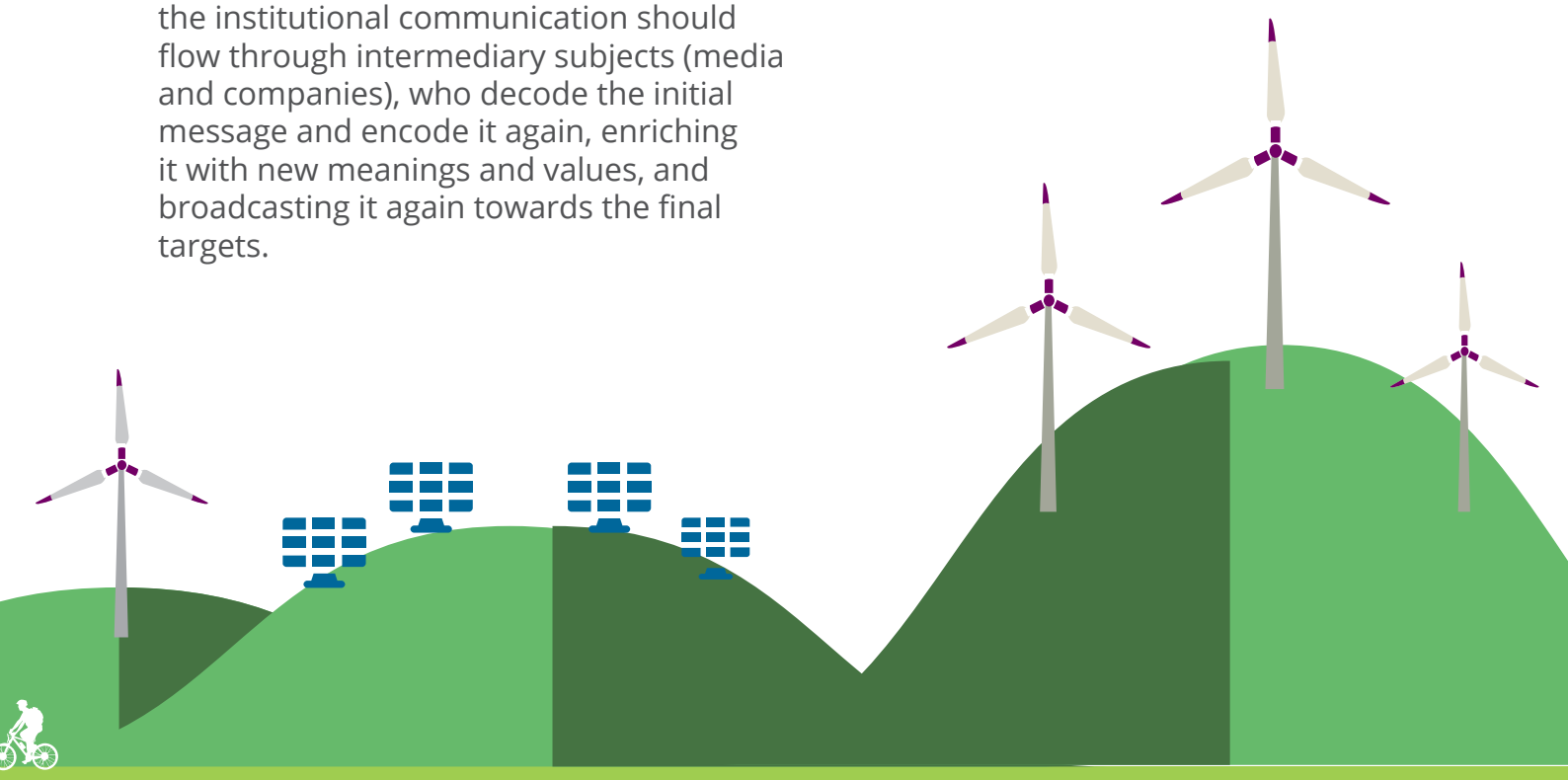
In your works and performances, you employ sarcasm and humor to speak about energy issues. Is this register effective or you run the risk to downplay the importance of the message itself?

I make extensive use of humor since it is capable to put people in a positive frame of mind and thus, they are more receptive to catch and understand the message I'm putting forward.

The levity of humor does not affect the message's significance. On the contrary, it deprives the message of the heaviness and moralism which often characterize environmental and energy themes.

Sarcasm is the "tool" that I employ to analyze reality and facts from a detached and external point of view, which enables me to build an emotional message and to guide the audience towards an increased awareness.

If you are keen on having an example of what I mean and how I work, have a look at my summer song "You broke me the climate", which is about energy poverty.



ASSET for Energy Citizens, Policy Makers and Industry

Some of the benefits we offer to Policymakers and Industry:

- Awareness of innovation and green technologies related to the energy transition
- A direct communication channel to demand the development of tailored educational programs
- Free multidisciplinary and flexible courses and contents related to the different aspects of the energy transition process, ranging from technology and software issues to environmental, economic, and social themes, which are prepared by renowned academic institutions and acknowledged training actors.

Why Energy Citizens should join the ASSET Community?

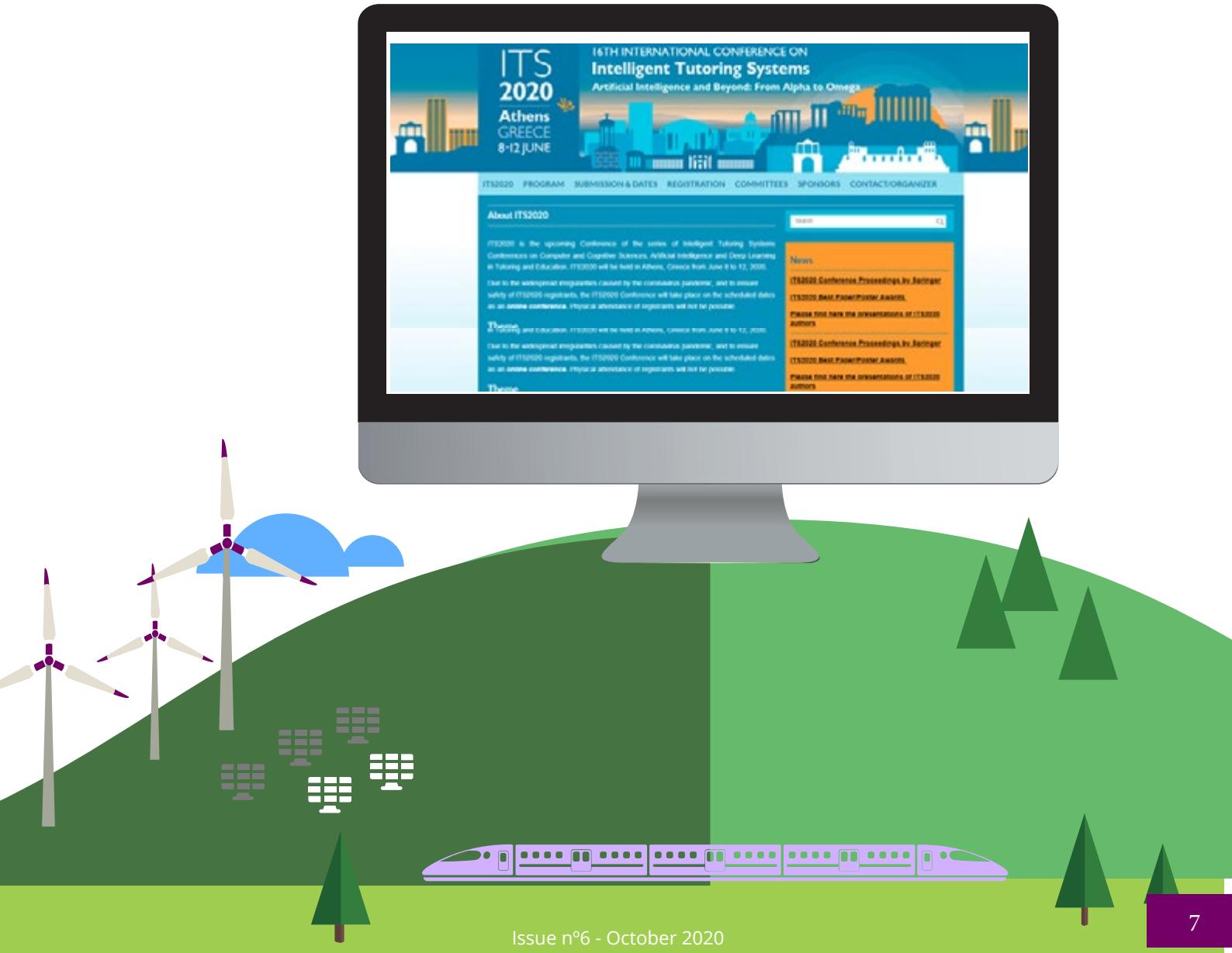
- Map your needs: which knowledge, competences, and skills do you need to make informed decisions about your energy behavior?
- Track your route: build your training or upskilling path, by selecting appropriate resources, services, and courses within the ASSET educational offer;
- Empower yourself: exploit your new actionable knowledge and take advantage of your new skills to find a new job, to improve your energy awareness and to bring your own contribution to the local and global energy transition process!

Join Our Community to become an active Energy Transition driver clicking here!

Learning graph model assessment

ASSET organized in the framework of the International Conference on Intelligent tutoring systems 2020 a workshop for the assessment of the ASSET Learning graph model and accompanying tools by academia representatives outside the project. The assessment was focused on the benefits related to the creation of new educational programmes and the re-use of learning materials. The response was very positive, they considered it was a valid and replicable learning model.

Ass. Prof. Leligou and Ass. Prof. Karkazis (both members of the ASSET team) presented to the 50 attendees the ASSET learning graph model and tools and prompted them to use them. After they interacted with the ASSET tools, they were asked to answer a questionnaire and provide feedback and comments.



Based on the questionnaires collected from the 50 participants (with 14 different affiliations),

- 92% consider the learning graph concept valid (8% say “maybe”)
- 70% believes that the use of the learning graph tool will save more than 10% of the time needed for preparing a new educational programme (with 60% of them considering they will save more than 25%)
- 90% believe ASSET concept is valid and replicable in other sectors
- 76% consider that the ASSET learning graph tool is easy or very easy to use
- 83% are satisfied or very satisfied with ASSET value proposition.

They were also asked if they would be interested in joining the established community and sharing their own learning materials and structures openly. The results (shown in the figure below) indicate that more than 70% are willing to join and share their materials and structures.

Additional material:

With respect to the validity of the concept of the learning model, as shown in the figure on the left below a, 92% consider that the concept is valid and only 8% seemed not to be absolutely positive.

With respect to “the time they estimate that could be saved through the use of the learning graph concept and the accompanying tool”, nobody declared they consider no time will be saved. A small percent, (namely 22%) consider they will save time, but this will be less than 10%, while a significant percentage of 42% consider they will save more than 25% as shown in figure on the right. This is considered a major success as this was one of the main targets of our work. Saving time in the preparation and development of a new educational programme is anticipated to release a significant part of the professors /tutors/ instructional designers’ effort which can be devoted to delivering the programmes to additional or larger audiences.

Team Presentation

Logical Soft (Italy)

Logical Soft srl, located in the north of Italy in the Lombardia Region, is an Italian software house founded in 1985 that develops software solutions for the construction industry. Moreover, Logical Soft provides training, technical assistance, and rapid software updates to comply with new regulations and technologies. Over 15.000 customers in civil engineering, architecture, and thermodynamics fields are currently using our technical software as well as utility companies and government agencies. For instance, regarding the ENERGY EFFICIENCY topic, the software developed by Logical Soft is applicable for the design, certification, diagnosis, and dynamic simulation of buildings and helps users solve easily simple applications and complex engineering problems; Dedicated wizards define quickly any configuration of plant systems and thermal bridges. The seismic and structural analysis software is used to perform seismic analysis on concrete, masonry, timber, and steel of both new and existing buildings.

Logical Soft also supports universities and research centres with a dedicated academic program. With over 130.000 attendants at conferences and courses organized throughout Italy every year, the company is constantly in touch with the Italian professional network of designers and engineers, and networked with a large community of public stakeholders involved in research and innovation

Role in the project

LOGICAL SOFT

One of main missions of Logical Soft is to bring innovation in the energy sector, as such its involvement in ASSET will create the opportunity to a) bring industrial stakeholders in the energy sector in direct contact with ASSET academic partners so as to deliver back and disseminate the new educational and research offering to shape the new generation of engineers, and b) to offer industrial stakeholders higher quality education/ training services, constantly up-to-date with research and innovation results.

LOGICAL SOFT is also contributing in learning content preparation as capacity building activities of energy management and training and knowledge for professional figures are two out of five ASSET strategic goals. Especially, LOGICAL SOFT will additionally exploit ASSET learning models and components in delivering itself training to employers of the energy sector.

ECOPOWER (Belgium)

Ecopower is a recognized (by Belgian law) citizen cooperative for renewable energy, founded in 1991 on the ICA model according to the internationally recognized rules for cooperative entrepreneurship. Ecopower is a member of REScoop Flanders, the Flemish federation of citizens cooperatives for renewable energy, and of REScoop Belgium and REScoop Europe. Together we want to harvest part of the ambient energy for our own use.

Ecopower is owned by nearly sixty thousand cooperative members. Ordinary citizens who jointly make a resolute decision to save energy, to invest in renewable energy, and to do business sustainably, hence the cooperative business model. Together they own the renewable energy installations and the energy produced: wind turbines, solar panels, small hydropower plants, and the pellet and wood briquette factory.

Cooperative members help determine Ecopower's policy and future. Ecopower is managed democratically, there are no reserved

seats on the Board of Directors. At the annual general meeting, each partner has one vote. Anyone who co-invests can also become a customer and purchase the energy produced at home. Ecopower is not a commercial but a cooperative supplier, electricity supply is a service to the partners at cost price.

Anyone can become a cooperative member of Ecopower. And all members can also become Ecopower customers for their electricity. In this way, everyone can gain access to the renewable energy sources of their own region, thus opting for local renewable energy for and by citizens, from their own projects.

Aalborg University (Denmark)

Aalborg University (AAU) in Denmark has been providing students with academic excellence, cultural engagement, and personal development since its inception in 1974. AAU offers education and research within the fields of natural sciences, social sciences, engineering, humanities, technical and health sciences. AAU creates knowledge that changes the world and its problem-oriented approach to research, education, knowledge dissemination and collaboration makes a difference and creates change. All university programs have been based on problem-based learning (PBL ... PDF), where students work in groups applying problem-oriented methods in preparing projects of a high academic standard. The PBL-based pedagogical model of the University has become both nationally and internationally recognized by universities, researchers and students as an advanced and efficient learning model. Thus, UNESCO has placed its only Danish Chair in PBL at Aalborg University.

CROM

CROM is an European leading research center, affiliated to the Department of Energy Technology at Aalbort University, and dedicated to the sustainable development on a multi-disciplinary energy framework, providing reliable and optimal cutting-edge solutions applied to AC and DC microgrids, shipboard, offshore and maritime applications, and space electric power systems, among others. With more than 10 years of experience, CROM currently comprises world-class laboratories, having so far more than 50 members, including researchers, PhD students, and visiting scholars. As a major research center, CROM has established a close international cooperation with industry firms, universities, and research institutions. Please see our ongoing research/industrial/PhD projects here www.crom.et.aau.dk

Role in the Project and Team

Josep M. Guerrero

Mashood Nasir

Juan C. Vásquez

CROM, AAU team leads the project development at two main fronts. Firstly, exploiting its large and diversified experience in collaborating with the industry, the CROM team facilitates the industry-academia dialogue by pursuing various mobility support mechanisms and defining guidelines for future inter-sectoral mobility implementations. AAU team actively manages the ASSET community forum, responsible for stimulating the dialogue between industrial and academic partners. Secondly, the team coordinates the piloting and delivery of educational programs developed under the umbrella of the ASSET project. The team also manages the evaluation of the ASSET educational proposition from the student as well as the teacher's perspective.

CROM provides active support on the various aspects of the development of the project including learning material development, short programs development, MOOC development as well as various dissemination and communication activities. In addition, CROM is designed and is delivering five short programs and five MOOCS in renewable energy, smart, and flexible energy systems.

At AAU, the most important facilities relevant to ASSET are the AC Microgrid Research Lab, the DC Microgrid Research lab, and the IoT Microgrid living Lab (https://www.et.aau.dk/...). AAU will use this experimental-research-oriented laboratory environment, to offer training to one group of 10-course participants and another group of 10 engineers from the industry.

Collaboration with the other projects: MERLON

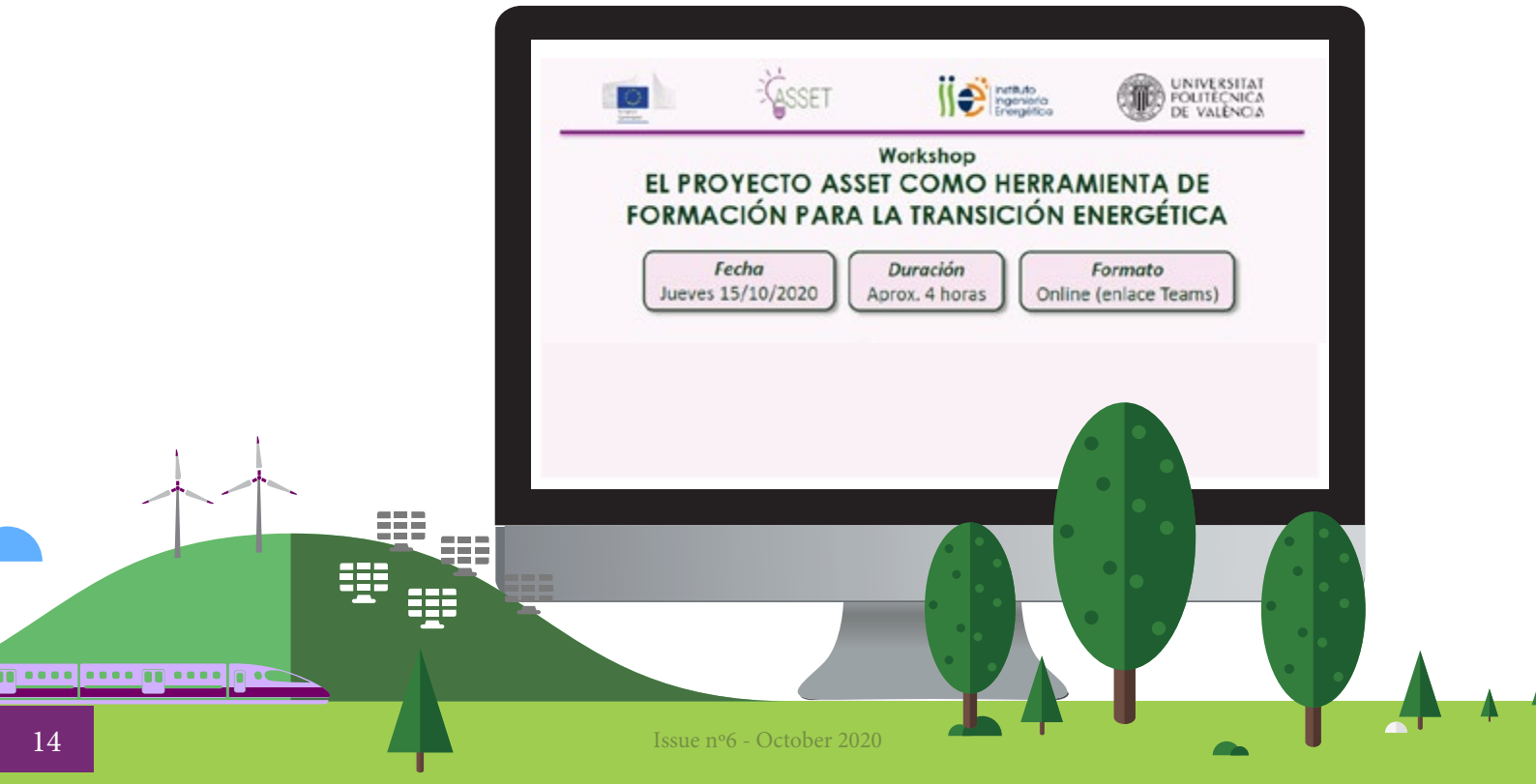
MERLON introduces an integrated modular local energy management framework for the holistic operational optimisation of #localenergysystems in presence of high shares of volatile distributed renewable energy sources. Optimisation in MERLON applies to multiple levels spanning optimal coordination of local generation as well as flexibility provision to facilitate maximum integration of renewable energy, avoidance of curtailment and satisfaction of balancing/ ancillary grid needs.

ASSET project as a training tool for energy transition

In October 2020, our partners from the Polytechnic University of Valencia organised a workshop titled: The ASSET project as a training tool for the Energy Transition".
The main objectives of this event are:

- Share the tools developed in the project and its methodology
- Present the EMMA platform and the courses

Evaluate the ASSET project tools in order to continue implementing improvements. The full report with the outcomes of the workshop will be available soon on our website.



III ASSET Roadshow Event in Belgium (online)

Did you miss our previous Roadshows?

Being a community, ASSET also organized two Roadshows in Italy and Spain, involving different sets of national, regional, and local stakeholders to discuss on different topics revolving around energy transition and education.

The third and final Roadshow will take place [in Brussels, Belgium] in the 28th of October 2020. Belgian and European policymakers and authorities will meet industries and representatives from different sectors representing numerous European organizations to engage in dynamic discussions aimed at understanding how policy can pave the way for effective cooperation in educating on the energy transition. The event will be divided into two sessions; the first will focus on how policy can facilitate the transmission and access to energy transition skills and knowledge while the second will be dedicated to how to feed this demand.

All additional information that includes the agenda and registration form is available here.

Stay tuned for more news!! Do you want to be part of the ASSET ecosystem, a community able to identify the competences needed for the energy transition and to deliver educational programmes? Please join our community!

Don't forget to subscribe to receive our newsletter! Below you can find the links to our pages on the respective channels...!

About us

ASSET team is a well-balanced consortium, consisting of eleven partners from six European countries.

http://energytransition.academy/

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https://energytransition.academy/newsletter

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