



A holistic and Scalable Solution for research,  
innovation and Education in Energy Transition

# Brussels Roadshow

*Feeding the demand and ensuring the  
supply for energy transition skills*

28 October 2020



# Welcome and Opening

**Emin Aliyev**  
ASSET Partner, EASE



# Agenda

---



10.00 – 10.05: Welcome and opening

10.05 – 10.15: Keynote speech

10.15 – 10.25: ASSET project presentation

10.25 – 10.35: Smagrinet – A sister project's point of view

10.35 – 10.50: Q&A and Introduction to the Sessions

10.50 – 11.40: **Session 1:** Fueling Each Other with Knowledge and Skills

**Session 2:** Feeding the Demand for Energy Transition Skills

11.40 – 11.50: Coffee break

11.50 – 12.20: Highlights from each session

12.20 – 12.30: Closing remarks and main takeaways



Please,

- Turn on your camera
- Turn off your microphone
- Ask questions in the chat
- Write the number of your parallel Session on your name (i.e.: *1 – John Smith, 2 Mary Johnson*)



# Keynote speech

**Felix Rohn**

Policy Officer, DG EMPL UNIT E2 - Skills and Qualifications







#SocialRights

# European Skills Agenda

for sustainable competitiveness and social  
fairness and resilience



# WHY?

- **Green** transition
- **Digital** transition
- Lessons from **COVID-19** (digital, health, resilience)
- **Recovery** (high unemployment)



# HOW? – BUILDING BLOCKS

**1. A Pact for Skills**  
including upscaling  
sectoral Blueprints

**Joining  
forces**

- 2. Strengthening skills intelligence**
- 3. National Skills Strategies and Public Employment Services**
- 4. Recommendation on VET**
- 5. European Universities**
- 6. Skills to support twin transitions**
- 7. STEM graduates, entrepreneurial and transversal skills**
- 8. Skills for Life**

**Skilling  
for a job**

**Tools for  
lifelong  
learning**

- 9. Individual learning accounts**
- 10. Micro-credentials**
- 11. Europass**

**Unlocking  
investment**

- 12. Framework to unlock Member States' and private investments in skills**



# HOW? – BUILDING BLOCKS

## 1. A Pact for Skills including upscaling sectoral Blueprints



Joining  
forces

# HOW? – BUILDING BLOCKS

2. Strengthening skills intelligence
3. National Skills Strategies and Public Employment Services
4. Recommendation on VET
5. European Universities
6. Skills to support twin transitions
7. STEM graduates, entrepreneurial and transversal skills
8. Skills for Life

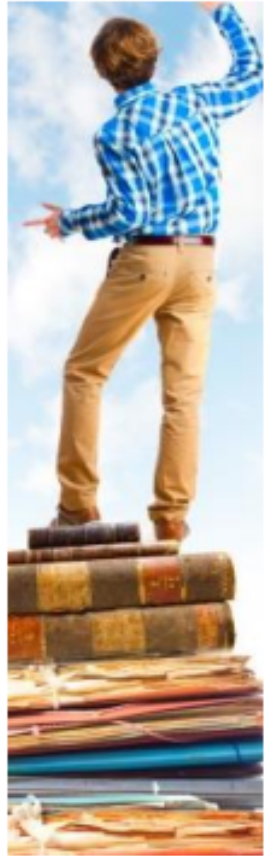


# A 'Skills Insight' mechanism

**Develop new  
skills intelligence**

**Present it  
in user friendly  
and tailored  
formats**

**Support  
Member  
States to  
establish or  
improve  
National Skills  
Information  
Systems**



# EU support for strategic national upskilling effort



**A national skills strategy  
in each Member State,  
committing all government  
departments,  
involving all  
stakeholders.**

**Join forces with the  
European Network of  
Public Employment Services**





## Vocational education and training (VET)

### Proposal for a Council Recommendation

**More modern,  
flexible,  
inclusive,  
excellent,  
work-based,  
equipping  
young people  
and adults with  
skills for jobs**



**Global reference for  
skills development  
Support to  
apprenticeships  
Platforms of Centres of  
Vocational Excellence  
European Vocational  
Core Profiles**



## Rolling out the European Universities initiative

Innovative long-term transnational alliances between higher education institutions under the Erasmus programme.

- Equip students with the most advanced knowledge and skills in their field

A framework and a taxonomy of skills for researchers





## Skills to support twin transitions

### Digital

Digital Education Action Plan

Digital Skills and Job Service Platform

EU ICT-Jump-Start trainings

European Digital Skills Certificate

### Green

European competence framework on education for climate change and sustainable development  
Definition of a core green skills set

Taxonomy of skills for the green transition





## STEM graduates, entrepreneurial and transversal skills

**Make STEM  
studies, careers  
and teaching  
more attractive**

**Foster science  
education**



**Framework  
and resources  
to validate  
transversal  
skills**

**Support aspiring  
entrepreneurs**

**Promote  
entrepreneurial  
skills in  
education and  
training**

# Skills for Life


**Resilience,  
health,  
media,  
civic,  
green**

**literacy**



**New  
priorities  
for the  
European  
Adult Learning  
Agenda**

# HOW? – BUILDING BLOCKS



**Tools for  
lifelong  
learning**

**9. Individual learning  
accounts**

**10. Micro-credentials**

**11. Europass**



## Initiative on individual learning accounts



Assess how a EU initiative on individual learning accounts could improve access to training, guidance, validation and support people managing their transitions in the labour market





# European approach to micro-credentials



A new initiative to support the quality, transparency and take-up of micro-credentials across the EU. It will:

- **Develop European standards which address requirements for quality and transparency.**
- **Explore the inclusion of micro-credentials in qualifications frameworks,**
- **Make it easier for individuals to store and showcase to employers acquired micro-credentials through Europass and its Digital Credentials.**

- Create CV
- Create Cover Letter

# *europass*

## *Take the next step*

Your free, personal tool for learning and working in  
Europe

**Create your free Europass**



European  
Commission



# HOW? – OBJECTIVES

By 2025:

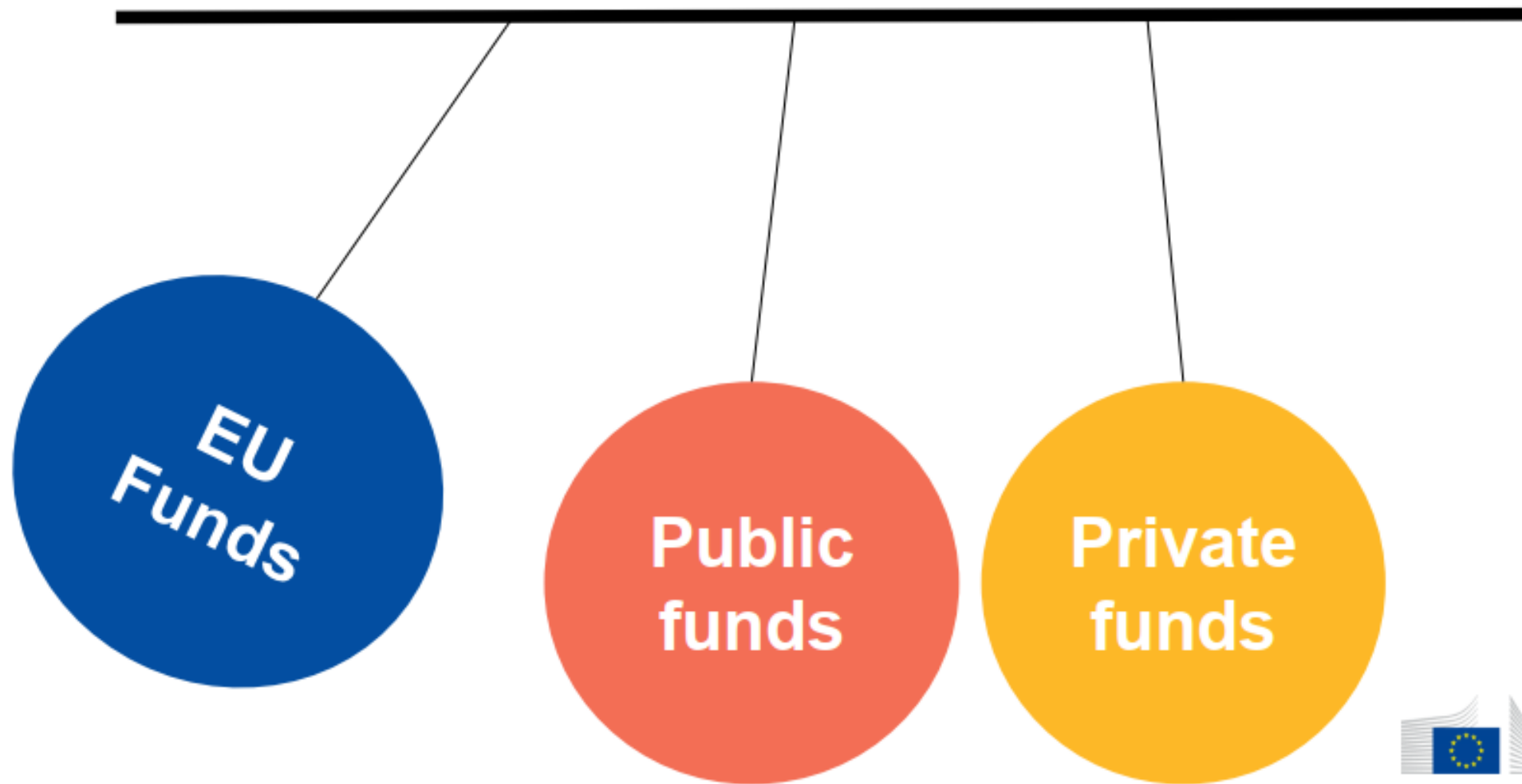
- **50% of adults** take part in learning
- **30% of low-qualified adults** take part in learning
- **20% of unemployed people** with a recent learning experience
- **70% of adults** have at least basic digital skills







# HOW? – UNLOCKING INVESTMENT



## EU investment in skills 2021–2025

61,5

**European Social Fund Plus**

**Erasmus**

**HORIZON 2020** (Marie-Curie Actions)

**InvestEU**

**EGF**

**European Solidarity Corps**

**Digital Europe Programme**

16.2

4.9

2.9

1.1

0.8

0.5

+ resources from  
the Recovery  
and Resilience  
Facility

+ European  
Regional  
Development  
Fund

+ Technical  
support  
instrument



European  
Commission

# Transparency of skills and qualifications

- ESCO is the European multilingual classification of Skills, Competences and Occupations
- The European Qualification Framework aims at making qualifications more transparent and comparable and so portable across border
- The EU Skills Panorama and Skills-OVATE are online tools providing central access to data, information and intelligence on skill needs in occupations, sectors and countries.
- Europass is an EU service that helps people communicate their skills, qualifications and experience in most European countries, using standardised documents that are available in 27 languages.

→ <https://ec.europa.eu/social/main.jsp?catId=1215&langId=en>



index Startpage.com Search results Eddie-Education-Energy-Digi Google What's on? 23 October 2020

http://www.eddie-erasmus.eu/ Search

My EMPLnet European Skills Agend... Pact for Skills Blueprint Skills Agenda: Worksp... Pact for Skills - Home Erasmus+ Europass Startpage.com - The ... Google

★ Bookmarks ×

Search bookmarks

- Job opportunities EEAS
- Commission Directory
- Recovery plan & MFF
- Employment, Social Affairs & In
- Eurostat Statistical Services
- CEDEFOP Skills Panorama
- Cedefop Skills-OVATE
- CEDEFOP European Skills Index
- CEDEFOP Anticipating and mat
- CEDEFOP Defining "green skills
- EStructural&InvestmentF Data
- Database on Immigrants in OEC
- Emigration and Its Economic Im
- Eurostat - Skills data
- ILO "Skills for Employment"
- ILO "Sectoral approaches"
- OECD Skills for jobs dataviz
- OECD Skills Outlook 2017
- OECD Skills for jobs: Country pr
- OECD "Skills for Jobs Indicators"
- Learning Opportunities & Qual

EDDIE Education for Digitalisation of Energy

The Project Tools and Deliverables News Events Media Corner Contact

With the support of the Erasmus+ Programme of the European Union

# EU Erasmus+

## EDucation for Digitalisation of Energy

About the project Contact us

### Description

EDDIE is a four-year Erasmus+ EU funded collaborative project creating a Sector Skill Alliance (SSA) to develop

### EDDIE at a glance

Type of action: Sector Skill Alliance  
Grant Number: 612398  
Start Date: 01/01/2020

### Objective

The objective of the project to develop a Blueprint Strategy for the Digitalisation of the

Privacy - Terms

Type here to search

12:46 26/10/2020 FRA

<http://www.eddie-erasmus.eu/>

# ASSET project presentation

**Nadia Politou**

ASSET coordinator, ATOS







A holistic and Scalable Solution for research,  
innovation and Education in Energy Transition

# ASSET: *just for energy transition drivers!*

*Nadia Politou - ATOS*

*28 October 2020*



# The ASSET project



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



Funded by EC



May 2019 → April 2021



11 partners from  
6 EU countries: ES, IT, BE, DK, DE, EL

# Motivation and challenge

---



- Europe is transitioning towards a low carbon society
- To lead this transformation Europe must:
  - upskill staff with multidisciplinary competencies
  - strengthen societal understanding of low carbon importance
  - Intensify research, liaised with industry
- A closer industry-academia relationship is needed due to:
  - the volume and diversity of audience
  - act very fast for EU actors to catch the energy transition hype
  - Introduce interdisciplinarity in university programmes



To deliver the **framework** and the **tools**  
to **create** and **share**  
**KNOWLEDGE** and **COMPETENCES**  
needed for *energy transition*.

Main features:

- **free** and **open** to everyone
- **multidisciplinary** and **holistic**
- **flexible** and **modular**
- based on a **collaborative approach**





# Project specific objectives



Create a **community** to involve the main energy transition actors (companies, training programme providers, policy makers, citizens)



Define a **conceptual framework** to speed up the creation of learning programmes, through the **learning graph tool**



Develop **innovative programmes** to train students, workers, trainers and citizens



Promote the **interdisciplinarity** in research, innovation and education services



Strengthen the collaboration between **academia** and **industry**



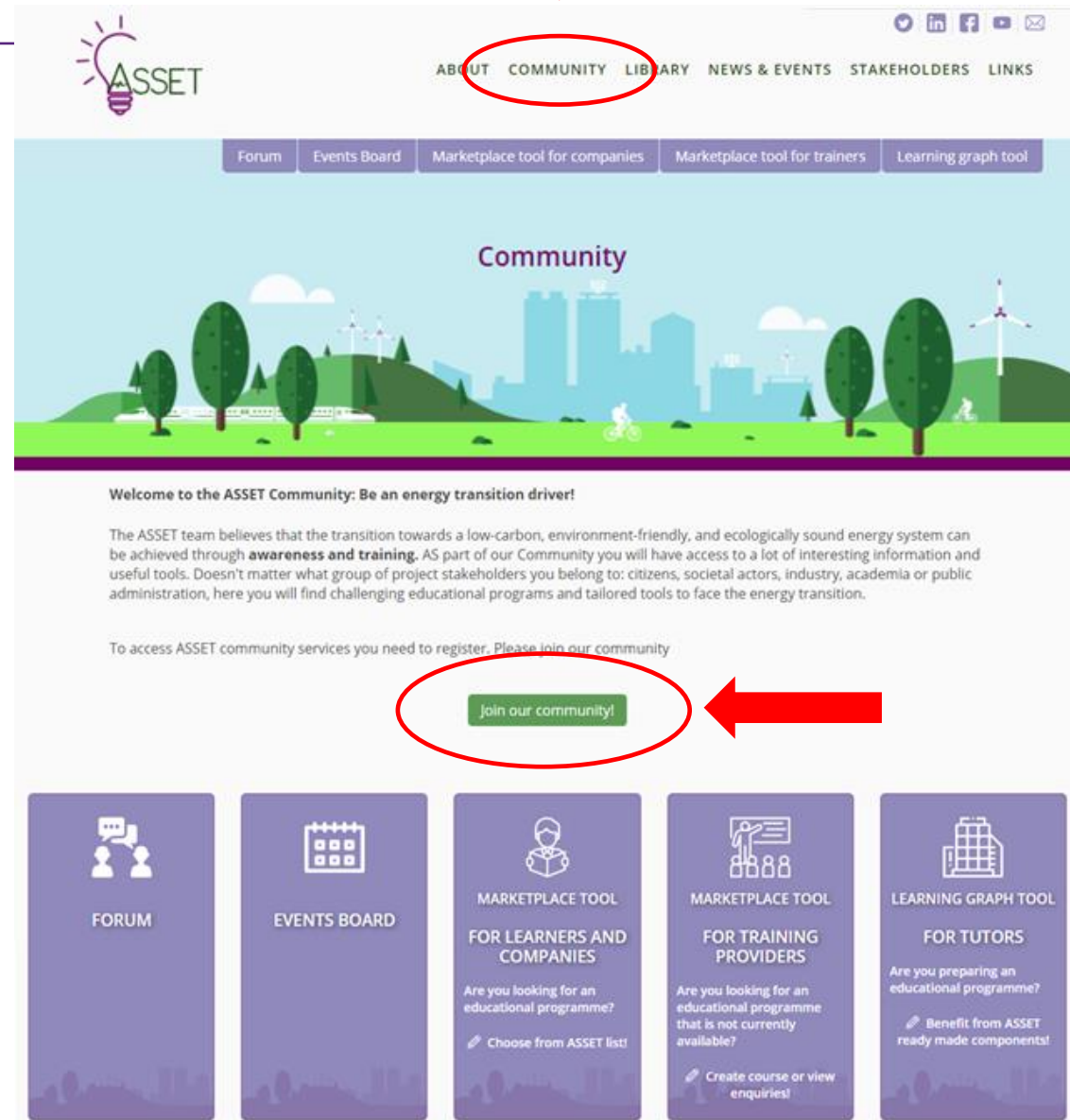
Support **teachers** and **trainers**



# The ASSET Community

[www.energytransition.academy](http://www.energytransition.academy)

Join us!



The screenshot shows the ASSET Community website. At the top, the ASSET logo is on the left, and a navigation bar contains links: ABOUT, COMMUNITY, LIBRARY, NEWS & EVENTS, STAKEHOLDERS, and LINKS. The 'COMMUNITY' link is circled in red, with a red arrow pointing down to it from above. Below the navigation bar is a secondary bar with links: Forum, Events Board, Marketplace tool for companies, Marketplace tool for trainers, and Learning graph tool. The main header area features a large illustration of a sustainable city with wind turbines, solar panels, and green spaces, with the word 'Community' centered above it. Below this, a welcome message reads: 'Welcome to the ASSET Community: Be an energy transition driver!'. It follows with a paragraph explaining the ASSET team's mission and the benefits of joining the community. Below this text, a line states: 'To access ASSET community services you need to register. Please join our community'. A green button labeled 'Join our community!' is circled in red, with a red arrow pointing left to it from the right. At the bottom, there are five purple boxes, each representing a different service: FORUM, EVENTS BOARD, MARKETPLACE TOOL FOR LEARNERS AND COMPANIES, MARKETPLACE TOOL FOR TRAINING PROVIDERS, and LEARNING GRAPH TOOL FOR TUTORS. Each box contains an icon and a brief description of the service.

# The ASSET Community – for industry



Search for educational programmes

Did you find a suitable programme?

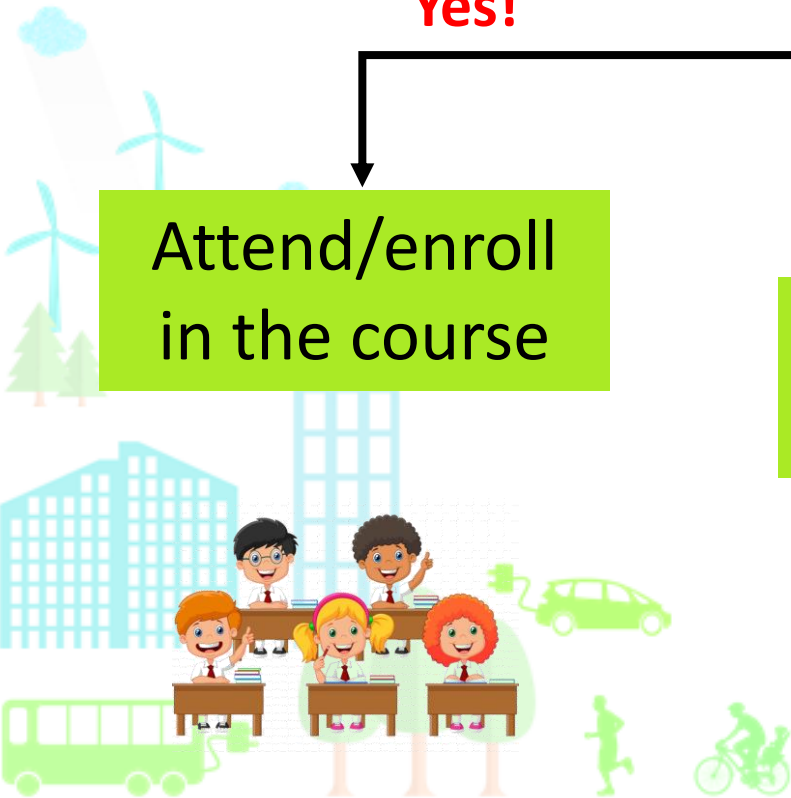
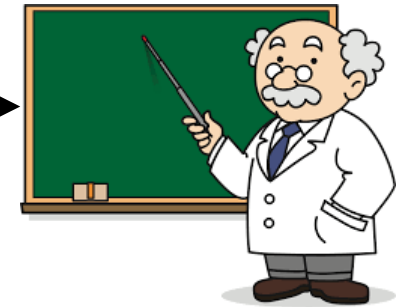
Yes!

Attend/enroll  
in the course

No...  
Help me!

Place an enquiry for the educational  
programme you are looking for

Training  
programme  
providers





# The ASSET Community – for training providers



Advertise the educational programmes you offer



Find learning materials based on meta-data (EQF, learning model, scientific fields, learning outcomes, e.t.c.)



Inspect enquiries for educational programmes



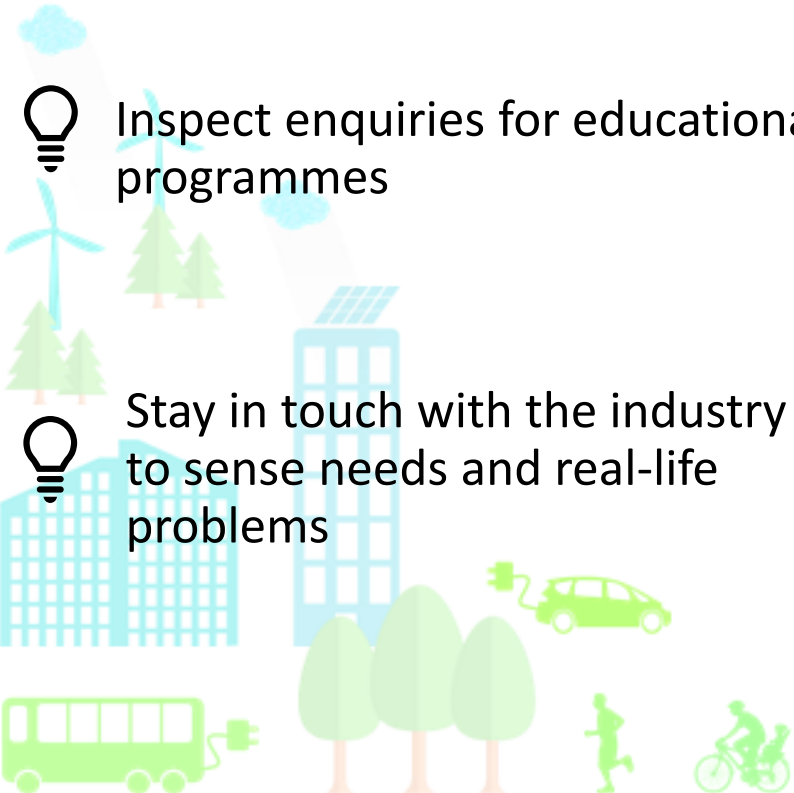
Find learning structures through the learning graph tool



Stay in touch with the industry to sense needs and real-life problems



Find learning materials from other principles and contact the tutor-professor to create interdisciplinary courses



# The ASSET Community – for citizens

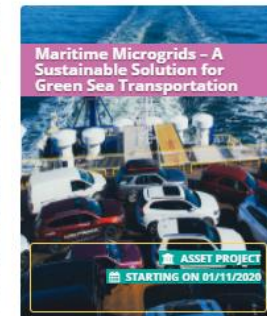
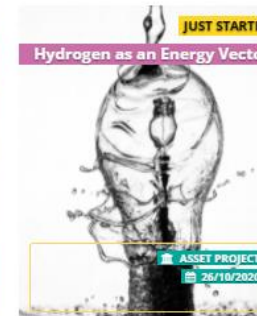
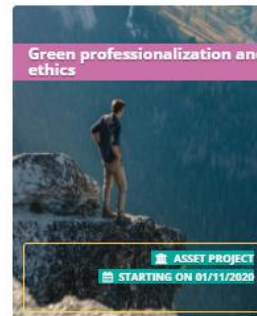
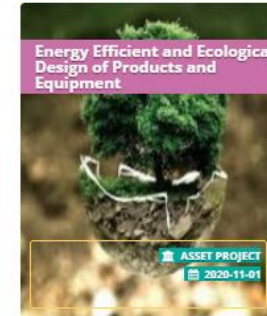
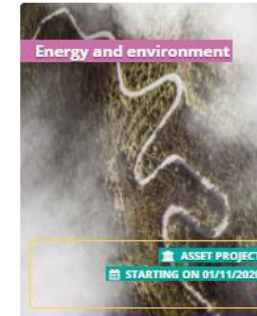
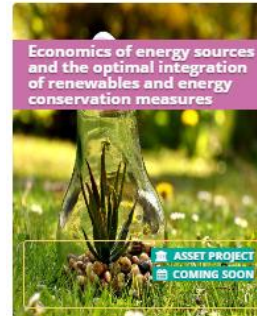


Massive Open Online Courses

16 MOOCs starting on 1/11/2020!

Forum

BROWSE THE EMMA OFFER  
FIND YOUR MOOC HERE



# ASSET Programmes offer



## Smart and Flexible Energy Systems

Multi-terminal DC grids

AC Microgrids

Power Quality in Microgrids

DC Microgrids

Challenges and solutions in Future Power Networks

Monitoring and distributed control for power systems

Implementation of automation functions for monitoring and control

Maritime Microgrids

Power Systems Dynamics

Case study on distribution grid operation

Optimization Strategies and Energy Management Systems

## Energy Storage

Hydrogen as energy vector

## Renewable Energy

New Materials for solar cells applications

Energy Integration of Renewable Sources to District Heating, Cooling and Power Systems

Energy and environment

Heat pump technology for smart production of heating and cooling using renewable sources (CBL Module)

## SSH and other cross cutting themes:

Corporate and institutional communication and Social Responsibility

Innovation and Diversity in engineering/Scientific Integrity

Understanding Responsibility in research and Innovation

Green professionalization and ethics

Socio-technical analysis

Innovation processes in the energy sector

Energy Efficient and Ecological Design of Products and Equipment

Economics of energy sources and the optimal integration of renewable energies and energy conservation measures

Behavioural change as a powerful drive to minimize the energy consumption while providing the same level of energy service





**For more information:**  
*[www.energytransition.academy](http://www.energytransition.academy)*

**Social Media Accounts:**

 <https://www.facebook.com/AssetH2020Project>

 [https://twitter.com/Project\\_Asset](https://twitter.com/Project_Asset)

 [www.linkedin.com/company/asset-project-h2020](http://www.linkedin.com/company/asset-project-h2020)



# Smagrinet – A sister project's point of view

**Karl Kull**

Smagrinet coordinator, Tallinn Technical University






**SMAGRINET**  
POWERING SMART GRID  
EXPERTISE IN EUROPE

# SMAGRINET



Karl Küll

28.10.2020/ASSET ROADSHOW





What we want to  
achieve





1. Increasing share of renewable energy
2. 55% in gross final primary energy consumption in 2050 to be green.
3. Investments for replacing the current electrical grids with smart grids
4. **The Green Deal**



# Core challenges with the transition







1. We are not the only ones doing a transition:

1. The automotive industry
2. The construction sector
3. Logistics
4. Others

The demand for engineers and understanding parties, is growing rapidly all over Europe – the demand has to be met.



## 1. Our experience and what we learned

1. Policy and economy webinars with the highest participation numbers.
2. AI/ITC sessions are second most popular.
3. Actual grid technical solutions and best-practice sessions have been less popular.



# What to do...







1. It is important that the knowledge on smart grids becomes common knowledge.
  1. Engineers have to understand the bigger picture of EU policies.
  2. Policy makers have to understand that changes are not cheap in the power and energy sector.
  3. General public has to understand that perpetuum mobile does not exist – technical solutions have their cons and pros.
2. That is the only way of transitioning.



1. Build-up of competent **public authorities**.
2. **Informing the civil society** of available solutions.
3. **When new tech arrives - service providers and professional end users** need to undergo training.
4. **Adequate policies and support schemes**.



What we have done  
about it





**TAL  
TECH**

ESTONIA  
[www.ttu.ee](http://www.ttu.ee)



Univerza v Ljubljani

SLOVENIA  
[www.fe.uni-lj.si](http://www.fe.uni-lj.si)



TECHNISCHE  
UNIVERSITÄT  
DRESDEN

GERMANY  
[www.tu-dresden.de](http://www.tu-dresden.de)

**LOBA®**

PORTUGAL  
[www.loba.cx](http://www.loba.cx)

**CIVITTA**

ESTONIA  
[www.civitta.com](http://www.civitta.com)



kaunas  
university of  
technology

LITHUANIA  
[www.ktu.edu](http://www.ktu.edu)



GERMANY  
[www.sense.tu-berlin.de](http://www.sense.tu-berlin.de)



ESTONIAN ELECTRICITY INDUSTRIES

ESTONIA  
[www.elektriliit.ee](http://www.elektriliit.ee)



UNIVERSITÉ  
DE LORRAINE

FRANCE  
[www.welcome.univ-lorraine.fr](http://www.welcome.univ-lorraine.fr)



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 837626





## 1. Knowledge and information A to Z packages:

1. **Smart grid engineering A to Z**
2. **ICT/cyber security**
3. **Policies and economy, SSH**

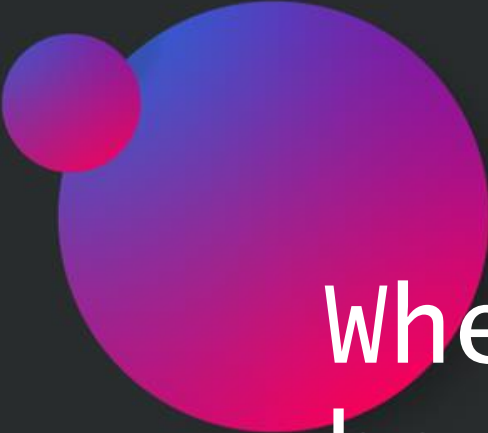
## 2. Three tiers of depth

1. **General public – short-term programs**
2. **Working engineers – short-term programs**
3. **Academia – educational modules and short term programs**




1. During the COVID situation it has become apparent that the programs are a vital part of re-education for the industry:

1. Information
2. Online



Where do we go from  
here?





1. Education through experience – the best teacher.
2. People and companies understand the need to change equipment and tech – saves or makes money.
3. The question rise during the energy transition
4. Why should entities choose a less lucrative investment option with a payback period of 8-15 years...





How do we make us feel the  
effect of the carbon footprint?





Thank you very much.



# Q&A



# Introduction to the Sessions





# Coffee break



# Highlights from Sessions 1 Industry and Research

Axel Thielmann, Fraunhofer

Mashood Nasir, Aalborg University



# Highlights from Sessions 2 Policy

Margot Vingerhoedt, ECOPOWER

Jacopo Tosoni, EASE



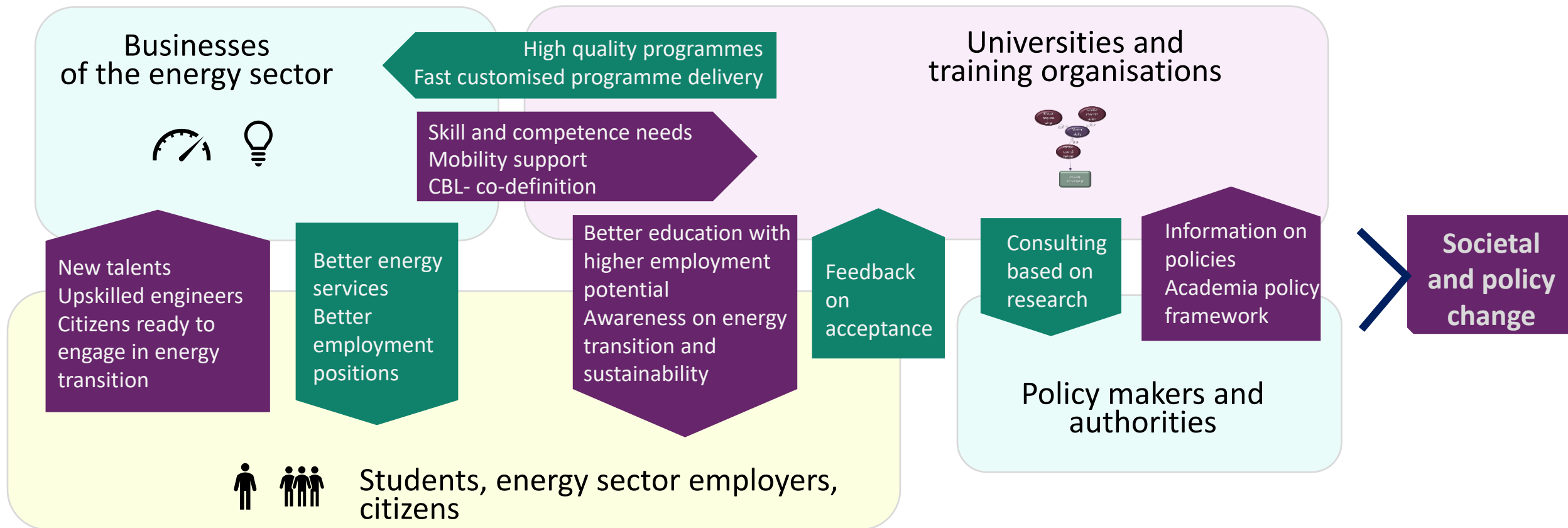
# Closing remarks and main takeaways

**Nelly Leligou**

ASSET Partner, University of West Attica









# Thank you all for joining!

Follow us on:

 <https://www.facebook.com/AssetH2020Project>

 [https://twitter.com/Project\\_Asset](https://twitter.com/Project_Asset)

 [www.linkedin.com/company/asset-project-h2020](http://www.linkedin.com/company/asset-project-h2020)

