GSS-VET

Geothermal & Solar skills

VOCATIONAL EDUCATION AND TRAINING

WP7 / D 7.4.2

Reports on the dissemination events – GREECE

Erasmus + Sector Skills Alliances 575891-EPP-1-2016- 1-EL-EPPKA2-SSA

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7.4 REPORT ON DISSEMINATION EVENTS

7.4.2 In Greece

GSS-VET

Geothermal and solar skills - Vocational education and training

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1. Introduction

This report presents the results of the Public Awareness activities carried out in Greece during the course of the project.

The aim of the various events organized was to present the project in an interactive way, to know the attitude opinion of the selected target groups, to share experience and opinions on its activities, methodology, planned outcomes, and efficiency.

During the project, the following events were planned:

- Round tables at the beginning of the project – for presenting its objectives and actions;

- Presentation of the project in various events involving interested stakeholders.

- Final Conference of the project.

- Media related work for the dissemination of the aims and results of the project.

2. Events organized

Greek partners have presented the project aims and results in various meetings and events (stakeholders participation ranged from 10 to 200+ per event).

On 6/4/2017, a **workshop** was organized by HELAPCO in Athens with the participation of members of the association in order to present them the overall aims of the GSS-VET project. HELAPCO's members were also regularly informed on the project via e-mails, the association's website (https://helapco.gr/gss-vet/), and regular updates during Board meetings as well as during the General Assemblies of the organization.

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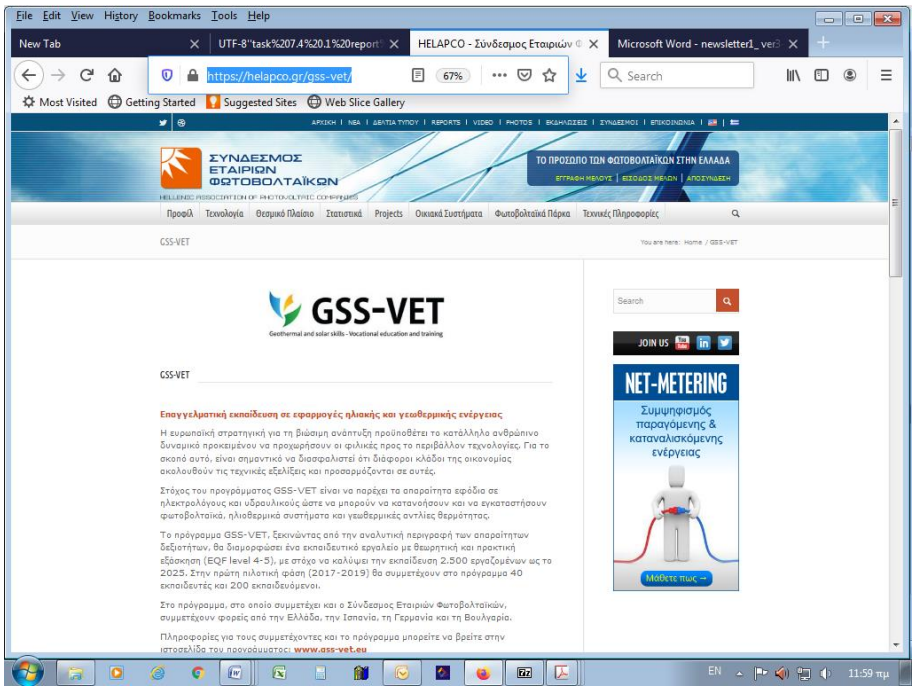

Workshop in Athens, 6/4/2017 with HELAPCO members

A questionnaire was also distributed during this workshop on the needs and priorities for training and appropriate skills which was taken into account especially for the needs of WP2.

GSS-VET
Geothermal and solar skills - Vocational education and training

HELAPCO

PV SKILLS

Objective of this questionnaire is to investigate what skills and competencies are required to work in the PV sector considering that the market is entering a new phase of development. Three major aspects have been considered: (a) theoretical knowledge needs, (b) labour skills and (c) professional ethics andattitude.

A. GENERAL INFORMATION

A1. Enterprise's employees:

☐ Less than 5 ☐ 6 up to 15 ☐ 16 up to 50 ☐ higher than 50

A2. What is your company's present service supply orientation in energy sector?

☐ Design/Studies
☐ Manufacturer
☐ Installations
☐ Sales
☐ Other/ what; _____

A3. How many years are you involved in PV installations?

☐ Less than 1 years
☐ 2 to 3 years
☐ 4 to 10 years
☐ more than 10 years

A4. Is there any further need for trained technicians/other staff for PV installations:

☐ Not at all ☐ Little ☐ Some ☐ A lot ☐ Very much

B. What practical skills do you consider essential for PV system installers/technicians and other involved staff:

	No	A little	Important	Very	Extremely important
Legislative issues related to PV deployment	☐	☐	☐	☐	☐
Best practices in PV installation	☐	☐	☐	☐	☐
Best practices in O&M of PV systems	☐	☐	☐	☐	☐
Health and safety issues related to PV installation	☐	☐	☐	☐	☐
PV plus storage (on-grid)	☐	☐	☐	☐	☐
PV plus storage (off-grid)	☐	☐	☐	☐	☐
Financing of PV projects and new business models	☐	☐	☐	☐	☐
Smart grids – smart buildings – Electric vehicles – New technologies	☐	☐	☐	☐	☐

C. Please, describe other practical skills that you consider essential PV system installers/technicians and other involved staff:

An **event** was organized in Chania by HMU (ex TEIC) on 18/5/2018 in cooperation with the Commercial Chamber of Chania, presenting the project's aims to ca. 20 stakeholders. Other project partners (ECTE, HELAPCO) have also attended this event.

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Παρουσίαση του Προγράμματος

"GEOTHERMAL AND SOLAR SKILLS IN CONTINUOUS VOCATIONAL EDUCATION AND TRAINING"

(GSS-VET)

Η εκδήλωση θα πραγματοποιηθεί την Παρασκευή 18 Μαίου 2018 στις 19:30 στην αίθουσα του ΕΒΕΧ στα Χανιά (Ελευθερίου Βενιζέλου 4, 4ος όροφος).

Πρόγραμμα Εκδήλωσης

19:15 - 19:30:	Προσέλευση - Εγγραφές
19:30 - 19:50:	Παρουσίαση του Προγράμματος, Ε. Καραπιδάκης, Αναπληρωτής Καθηγητής ΤΕΙ Κρήτης
19:50 - 20:15:	Περιγραφή διαδικασίας εκπαίδευσης και των προγραμμάτων που θα διαμορφωθούν, Φ. Μαυρομματάκης, Καθηγητής ΤΕΙ Κρήτης
20:15 - 20:30:	Εφαρμογές των γεωθερμικών αντλιών θερμότητας σε κτίρια στην Κρήτη, Ν. Μπαγορδάκης, Σύμβουλος Μηχανικός
20:30 - 21:00:	Ερωτήσεις - Συζήτηση

Το έργο GSS-VET έχει ως στόχο να αντιμετωπίσει και να θεραπεύσει το κενό των απαιτούμενων γνώσεων και δεξιοτήτων Επαγγελματικής Εκπαίδευσης και Κατάρτισης σε θέματα εφαρμογής γεωθερμίας και φωτοβολταϊκής τεχνολογίας.

Το έργο GSS-VET απευθύνεται σε τεχνίτες υδραυλικούς και ηλεκτρολόγους εγκαταστάτες που επιθυμούν να αποκτήσουν πρόσθετες γνώσεις και να βελτιώσουν τις δεξιότητες τους σε εφαρμογές γεωθερμίας και φωτοβολταϊκής τεχνολογίας.

Το έργο GSS-VET θα υλοποιήσει ενα πρόγραμμα επαγγελματικής πιστοποιημένης εκπαίδευσης και κατάρτισης για τεχνικούς εγκατάστασης γεωθερμικών, ηλιοθερμικών και φωτοβολταϊκών συστημάτων, δημιουργώντας και εφαρμόζοντας καινοτόμες μεθόδους διδασκαλίας και πιστοποιημένες αποκτηθείσες γνώσεις και δεξιότητες.

TEI of Crete
Technological Educational Institute of Crete

ECTE

TÜV AUSTRIA CYPRUS

HELLENIC ASSOCIATION OF PHOTOVOLTAIC COMPANIES

Chania Development Corporation

CHANIA CHAMBER OF COMMERCE AND INDUSTRY
ALWAYS BESIDE YOU

ТЕХНИЧЕСКИ УНИВЕРСИТЕТ СОФИЯ

IGA
International Geothermal Association

AlecopGroup
Knowledge & Technology

EUROPEAN LABOUR INSTITUTE

Instagi.

Bundesverband Geothermie

SEC

Hochschule Bochum
Bochum University of Applied Sciences
BO

SQLearn

Το συγκεκριμένο έργο υλοποιείται στα πλαίσια του Ευρωπαϊκού Προγράμματος Erasmus+ KA2: Cooperation for Innovation and the Exchange of Good Practices - Sector Skills Alliances.

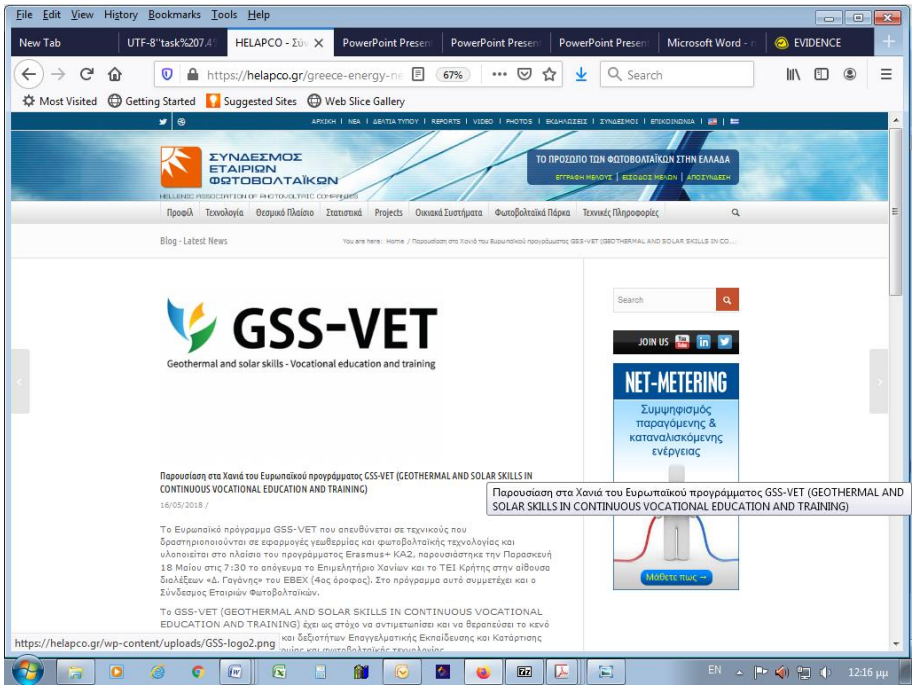
Agenda of Chania event, 18.05.2018

HMU - Chania 18.05.2018

HMU - Chania 18.05.2018

Presentations by HMU during the Chania event

Εργαστήριο Σύγχρονων Ενεργειακών Συστημάτων - CES
Σελίδα
Εισερχόμενα
Ειδοποιήσεις 10
Στατιστικά στοιχεία
Εργαλεία δημοσίευσης
Σας αρέσει
Ακολουθείτε
Κοινοποίηση
Εργαστήριο Σύγχρονων Ενεργειακών Συστημάτων - CES
Δημοσιεύτηκε από Anastasia Katsamaki [?] · 16 Μαΐου στις 6:31 μ.μ.
Το έργο GSS VET υλοποιείται στα πλαίσια του Erasmus+ KA2: Sector Skills Alliances. Η ομάδα έργου αποτελείται από 16 φορείς από 4 χώρες όπου συντονιστής φορέας είναι το ΤΕΙ Κρήτης.
Στόχος του έργου είναι η σχεδίαση και υλοποίηση πιστοποιημένης επαγγελματικής και εκπαιδευτικής κατάρτισης τεχνικών εγκατάστασης γεωθερμικών, ηλιοθερμικών και φωτοβολταϊκών συστημάτων.
Η παρουσίαση του προγράμματος θα γίνει την Παρασκευή 18/5 στις 19:30 στο Εμπορικό και Βιομηχανικό Επιμελητήριο Χανίων. Η εκδήλωση είναι ανοικτή για κάθε ενδιαφερόμενο που επιθυμεί να την παρακολουθήσει.
Παρουσίαση Ευρωπαϊκού προγράμματος ERASMUS+ Geothermal and Solar Skills in continuous Vocational Education and Training
TEICRETE.GR
Απήχηση: 125 άτομα
Προώθηση δημοσίευσης
Μου αρέσει!
Σχολιάστε
Κοινοποιήστε
Natasa Tsakiridou, Antonis Tsik και Vagelis Tzirakis
Εργαστήριο Σύγχρονων Ενεργειακών Συστημάτων - CES
Δημιουργία ονόματος χρήστη Σελίδας
Αρχική σελίδα
Δημοσιεύσεις
Βίντεο
Φωτογραφίες
Πληροφορίες
Κοινότητα
Προώθηση
Διαχείριση προωθήσεων


GSS-VET
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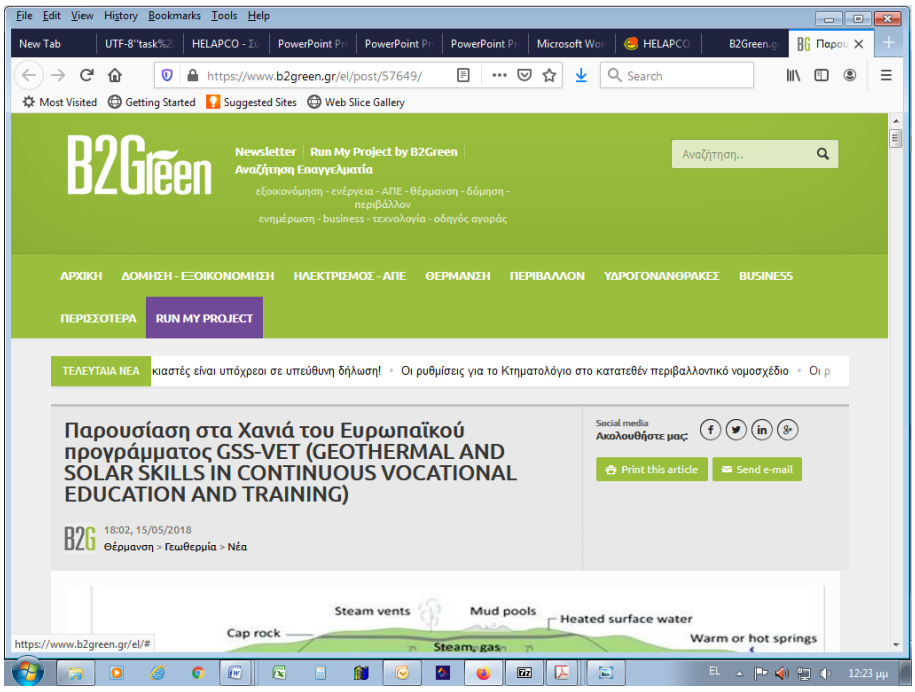
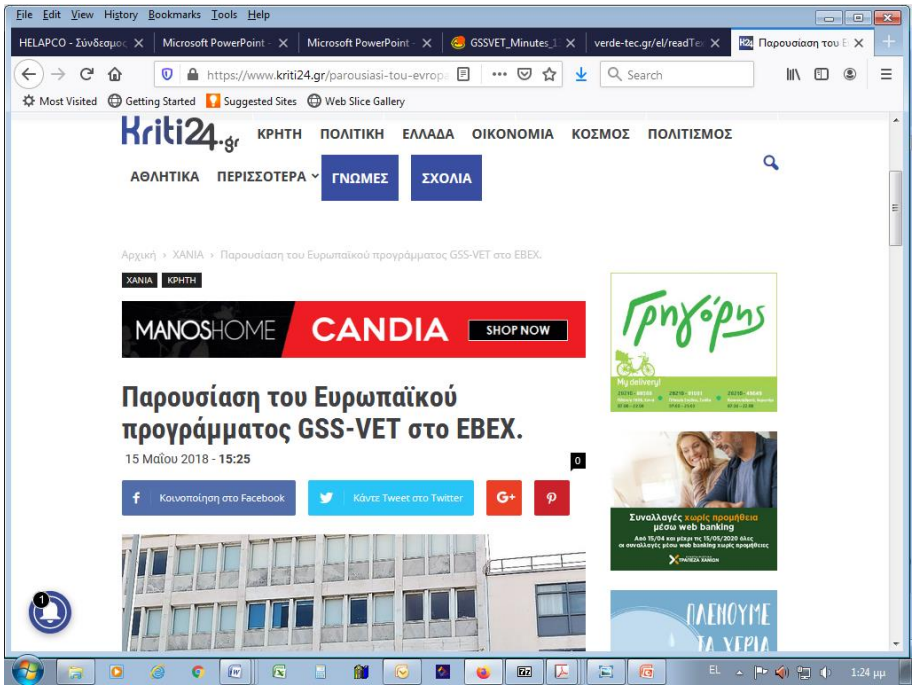
ΣΥΝΔΕΣΜΟΣ ΕΤΑΙΡΙΩΝ ΦΩΤΟΒΟΛΤΑΪΚΩΝ
ΤΟ ΠΡΟΣΩΠΟ ΤΩΝ ΦΩΤΟΒΟΛΤΑΪΚΩΝ ΣΤΗΝ ΕΛΛΑΔΑ
NET-METERING
Συμψηφισμός παραγόμενης & καταναλισκόμενης ενέργειας
Παρουσίαση στα Χανιά του Ευρωπαϊκού προγράμματος GSS-VET (GEOTHERMAL AND SOLAR SKILLS IN CONTINUOUS VOCATIONAL EDUCATION AND TRAINING)
Παρουσίαση στα Χανιά του Ευρωπαϊκού προγράμματος GSS-VET (GEOTHERMAL AND SOLAR SKILLS IN CONTINUOUS VOCATIONAL EDUCATION AND TRAINING)


B2Green
Newsletter | Run My Project by B2Green
Αναζήτηση Επαγγελματία
ΑΡΧΙΚΗ
ΔΟΜΗΣΗ - ΕΞΟΙΚΟΝΟΜΗΣΗ
ΗΛΕΚΤΡΙΣΜΟΣ - ΑΠΕ
ΘΕΡΜΑΝΣΗ
ΠΕΡΙΒΑΛΛΟΝ
ΥΔΡΟΓΟΝΑΝΘΡΑΚΕΣ
BUSINESS
ΠΕΡΙΣΣΟΤΕΡΑ
RUN MY PROJECT
Παρουσίαση στα Χανιά του Ευρωπαϊκού προγράμματος GSS-VET (GEOTHERMAL AND SOLAR SKILLS IN CONTINUOUS VOCATIONAL EDUCATION AND TRAINING)
Steam vents
Mud pools
Heated surface water
Cap rock
Warm or hot springs
Steam, gas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ΚΡΗΤΗ
ΠΟΛΙΤΙΚΗ
ΕΛΛΑΔΑ
ΟΙΚΟΝΟΜΙΑ
ΚΟΣΜΟΣ
ΠΟΛΙΤΙΣΜΟΣ
ΑΘΛΗΤΙΚΑ
ΠΕΡΙΣΣΟΤΕΡΑ
ΓΝΩΜΕΣ
ΣΧΟΛΙΑ
MANOSHOME
CANDIA
SHOP NOW
Παρουσίαση του Ευρωπαϊκού προγράμματος GSS-VET στο EBEX.
15 Μαΐου 2018 - 15:25

On **10.10.2018, HELAPCO** has presented the aims of the project during a 2-day **Conference** in Athens, focused on Energy Efficiency, Local Development and Entrepreneurship, organized by A-Energy (https://www.a-energy.gr/index.php/en/sinedrio/2013-06-18-08-27-33/2018mainmen/10102018).

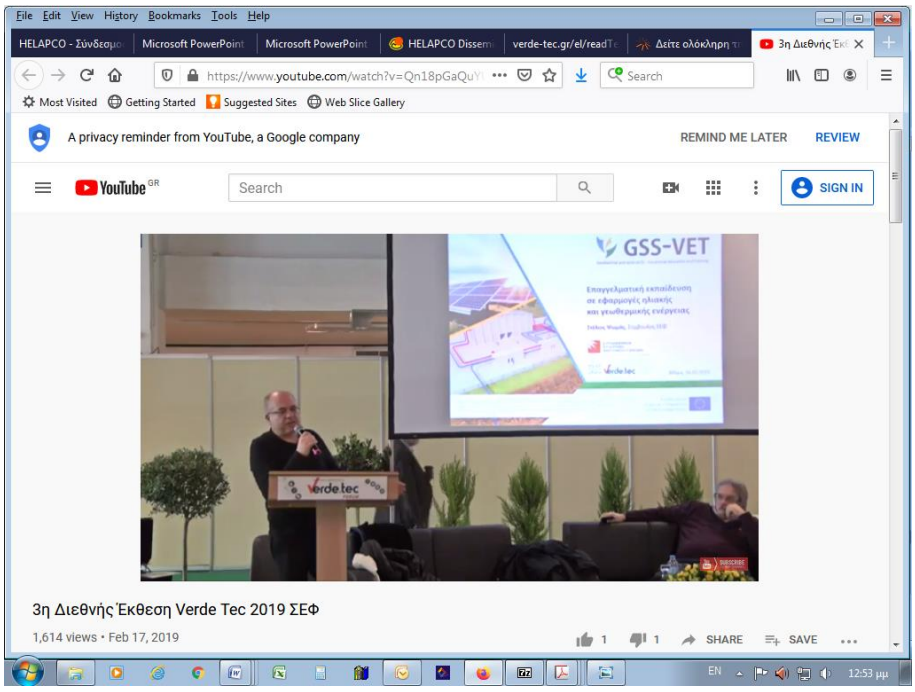
HELAPCO - "Energy Efficiency, Local Development and Entrepreneurship" Conference, 10.10.2018, Athens

Presentation (10.10.2018) by Stelios Psomas, Policy Advisor, HELAPCO

A **Workshop** was organized by **HELAPCO on 16.02.2019** on the occasion of the **VerdeTec Exhibition** in Athens. This workshop was attended by hundreds of stakeholders and there was also a livestream of the event by the most influential energy oriented website in Greece energypress.gr.

HELAPCO - VerdeTec Exhibition, 16.2.2019, Athens

Presentation (16.02.2019) by Stelios Psomas, Policy Advisor, HELAPCO



https://www.youtube.com/watch?v=Qn18pGaQuYU

Final Conference, 13.02.2020, Athens

A two days meeting (13-14/2/2020) with the participation of interested stakeholders took place in Athens, as the GSS-VET project approached its final stage.

During the first day of the Consortium meeting, there was an intensive programme including presentations about the market status and outlook as well as the training needs of the three markets covered by the project, i.e. Solar Thermal, Geothermal, and Photovoltaics. Two senior experts from the Greek Center for Renewable Energy Sources and Saving (CRES), namely Dr. Charalampos Malamatenios and Dr. Constantine Karytsas have given valuable insights for the two first markets respectively, while HELAPCO, organizer of this event, has analyzed the situation and trends of the PV market.

The agenda included presentations of the training material for all three technologies, a detailed presentation of the project e-platform and the Certification scheme for trainees, and concluded with a discussion on how training will continue after the end of the project. Following the pilot phase of training, the e-platform will be open to anybody wanting to follow the courses online and be certified according to the standards set by the project.

The event was attended by various stakeholders including experts, academics from Greek Universities, people working in renewable energy markets, and/or energy providers, as well as representatives of environmental organizations and journalists (45 stakeholders in total).

2. AGENDA	
Day 1 (13/2/20)	
9:00 - 9:30	Presentation of the GSS VET Project to stakeholders (HMU – E. Karapidakis)
9:30 - 10:00	Greek Solar Thermal Market (status – outlook and training needs) (CRES – C. Malamatenios)
10:00 - 10:50	Presentation of the Solar Thermal training material (ALECOP – J. Rosel)
11:30 - 12:00	Greek of Ground Source Heat Pump market (status – outlook and training needs) (CRES – K. Karytsas)
12:00 – 12:50	Presentation of the Geothermal training material (GGA – A. Deinhardt)
14:00 – 14:20	Greek Photovoltaic Market (status – outlook and training needs) (HELAPCO – S. Psomas)
14:20 – 15:00	Presentation of the Photovoltaic training material (HMU – F. Mavromatakis)
15:00 - 15:45	Presentation of the project e-platform (SQ-Learn – E. Gerasimopoulou)
16:00 - 16:30	Certification scheme for trainees (TUV Austria – V. Vardalachou)
16:30-17:00	How training will continue after the end of the project (All participants in the workshop)

ΣΥΝΔΕΣΜΟΣ ΕΤΑΙΡΙΩΝ ΦΩΤΟΒΟΛΤΑΪΚΩΝ

Αθήνα, 10.2.2020

Επαγγελματική εκπαίδευση σε εφαρμογές ηλιακής και γεωθερμικής ενέργειας

Workshop για παρουσίαση του εκπαιδευτικού υλικού στις 13/2/2020

Παρουσίαση του εκπαιδευτικού υλικού για την επαγγελματική εκπαίδευση σε εφαρμογές ηλιακής και γεωθερμικής ενέργειας θα γίνει την Πέμπτη 13/2 στο ξενοδοχείο ΤΙΤΑΝΙΑ στην Αθήνα από τους συμμετέχοντες στο ευρωπαϊκό Πρόγραμμα GSS-VET. Στο workshop θα γίνει επίσης παρουσίαση της κατάστασης και των προοπτικών των αγορών ηλιοθερμικών συστημάτων, γεωθερμικών αντλίων θερμότητας και φωτοβολταϊκών από ειδικούς επιστήμονες του ΚΑΠΕ και τον Σύνδεσμο Εταιριών Φωτοβολταϊκών ο οποίος συμμετέχει στο πρόγραμμα GSS-VET.

Το πρόγραμμα GSS-VET

Η ευρωπαϊκή στρατηγική για τη βιώσιμη ανάπτυξη προϋποθέτει το κατάλληλο ανθρώπινο δυναμικό προκειμένου να προχωρήσουν οι φιλικές προς το περιβάλλον τεχνολογίες. Για το σκοπό αυτό, είναι σημαντικό να διασφαλιστεί ότι διάφοροι κλάδοι της οικονομίας ακολουθούν τις τεχνικές εξελίξεις

Snapshot of press release regarding the 13.02.2020 event

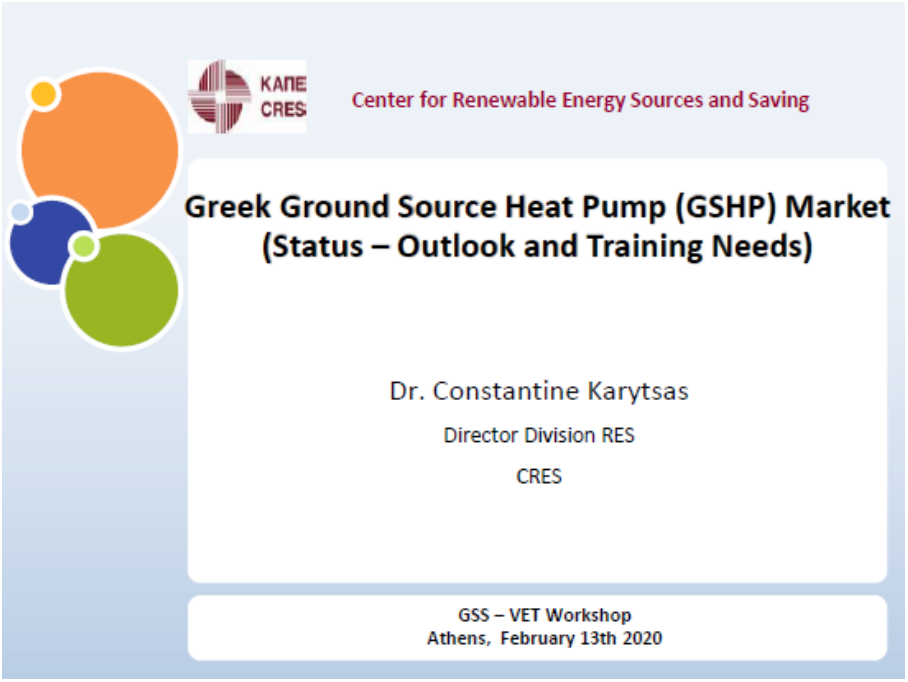
Final event, Athens, 13.2.2020, President of Greek PV Association addressing the event

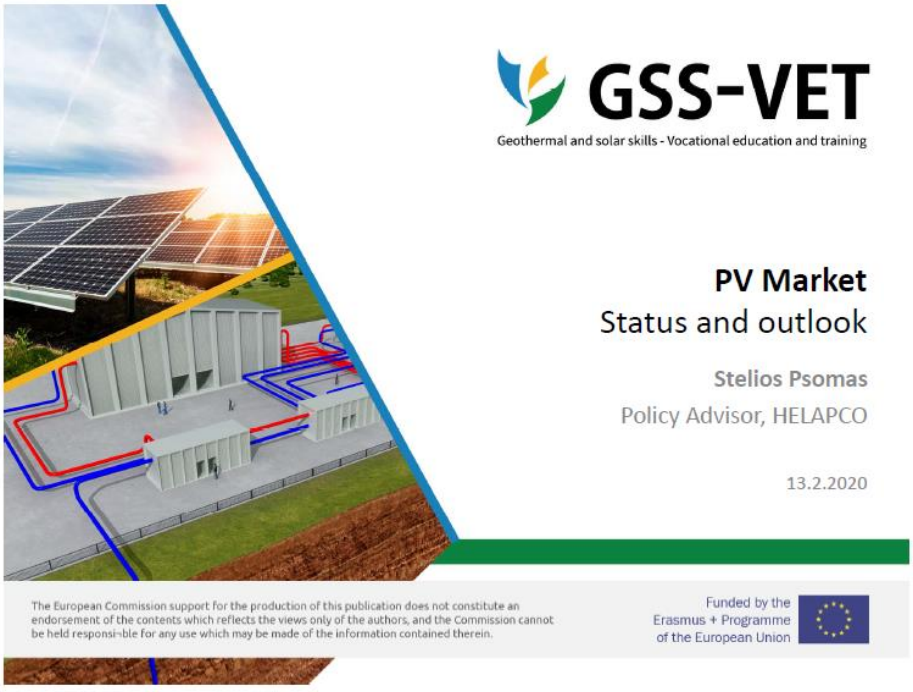
Final Conference, 13.2.2010, Athens

Presentation by Emmanuel Karapidakis, HMU

Final event, Athens, 13.2.2020, Solar Thermal Market presentation

Final event, Athens, 13.2.2020, Geothermal Market presentation


ΚΑΠΕ
CRES
Center for Renewable Energy Sources and Saving
Greek Ground Source Heat Pump (GSHP) Market
(Status – Outlook and Training Needs)
Dr. Constantine Karytsas
Director Division RES
CRES
GSS – VET Workshop
Athens, February 13th 2020


GSS-VET
Geothermal and solar skills - Vocational education and training
PV Market
Status and outlook
Stelios Psomas
Policy Advisor, HELAPCO
13.2.2020
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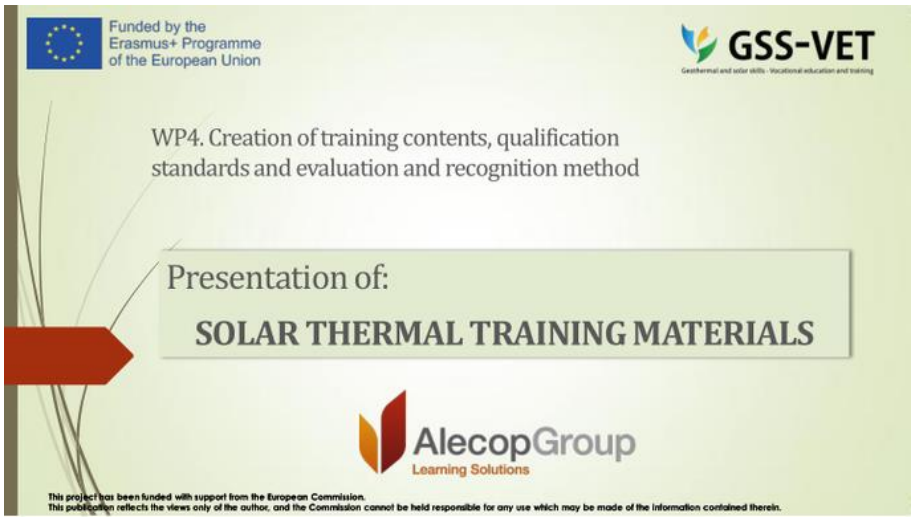
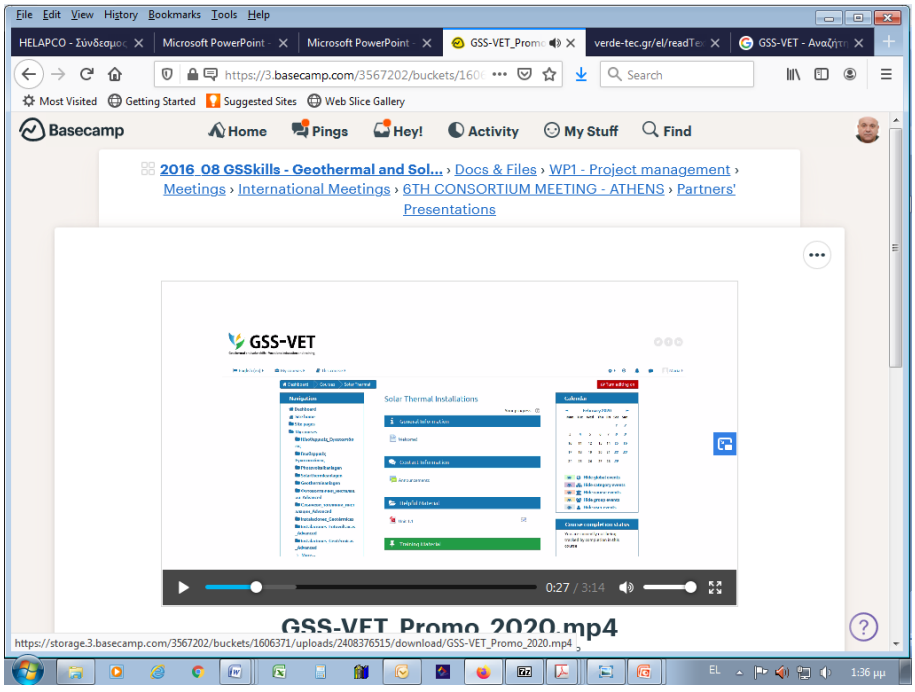
Presentation by HMU

Presentation by GGA

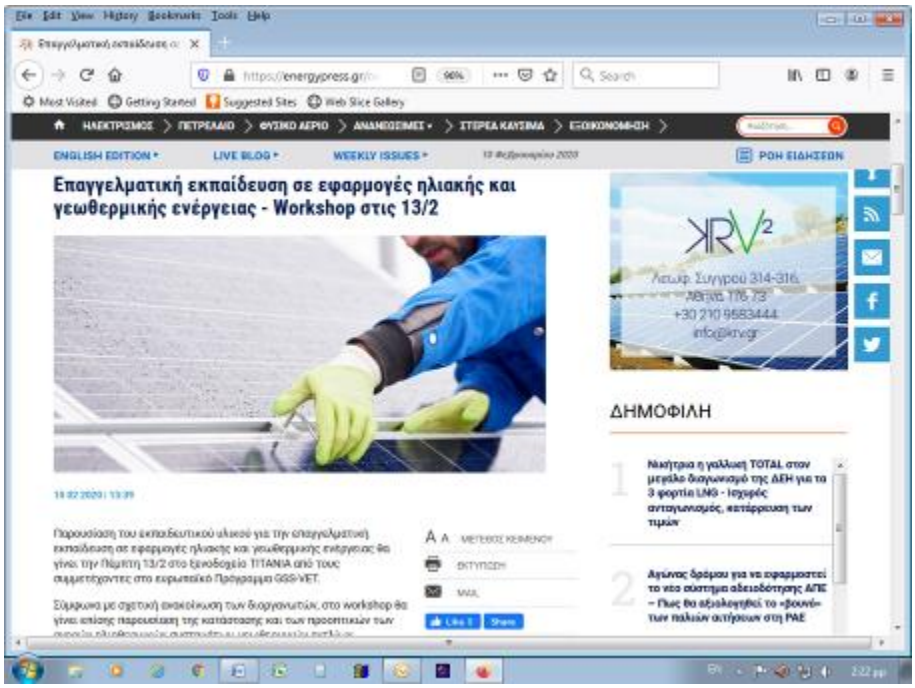


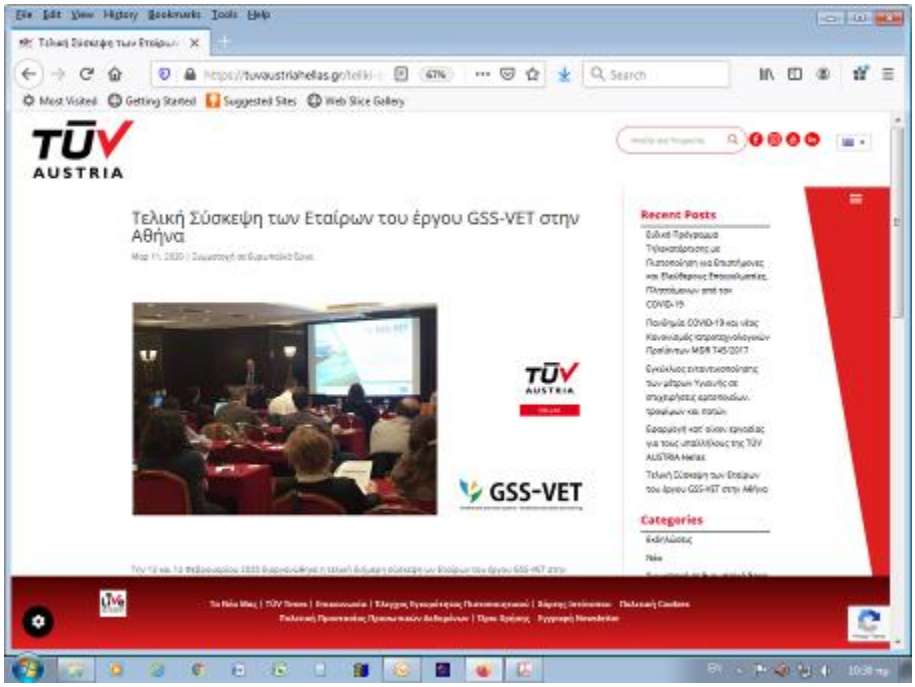
Presentation by Alecop



Presentation of the e-platform by SQ-Learn

Presentation by TÜV Austria


Επαγγελματική εκπαίδευση σε εφαρμογές ηλιακής και γεωθερμικής ενέργειας - Workshop στις 13/2
ΔΗΜΟΦΙΛΗ


TÜV AUSTRIA
Τελική Σύσκεψη των Εταίρων του έργου GSS-VET στην Αθήνα
GSS-VET

Information about the project was also sent to various stakeholders and the media. Stakeholders included:

- Members of HELAPCO (both companies and individuals). Company members were asked to convey any messages to their staff (in the number of hundreds).
- EBHE (Solar Thermal Association, www.ebhe.gr)
- Federation of Plumbers (OBYE, www.obye.gr)
- Federations of Electricians (ΠΣΠΗΜΤ - http://www.hlektrologoi-tei.gr & ΠΟΣΕΗ - http://www.poseh.gr/)
- The Hellenic Confederation of Professionals, Craftsmen & Merchants (GSEVEE) which has been involved in RES related VET projects in the past (gsevee@gsevee.gr)
- Independent companies offering services in geothermal heat pumps
- Environmental organizations such as Greenpeace, WWF who are particularly active on renewable energy

From: info@helapco.gr
Sent: Thursday, January 30, 2020 11:56 AM
To: Helapco
Subject: Ο ΣΕΦ οργανώνει εκδήλωση στις 13/2 στο πλαίσιο του προγράμματος GSS-VET

Αγαπητά μέλη,

Θα θέλαμε να σας ενημερώσουμε ότι **ο ΣΕΦ οργανώνει εκδήλωση στις 13/2 στο πλαίσιο του προγράμματος GSS-VET (επαγγελματική εκπαίδευση σε εφαρμογές ηλιακής και γεωθερμικής ενέργειας www.gss-vet.eu).**

Στόχος του προγράμματος GSS-VET είναι να παρέχει τα απαραίτητα εφόδια σε ηλεκτρολόγους και υδραυλικούς ώστε να μπορούν να κατανοήσουν και να εγκαταστήσουν φωτοβολταϊκά, ηλιοθερμικά συστήματα και γεωθερμικές αντλίες θερμότητας.

Το πρόγραμμα GSS-VET, ξεκινώντας από την αναλυτική περιγραφή των απαραίτητων δεξιοτήτων, έχει διαμορφώσει ένα εκπαιδευτικό εργαλείο με θεωρητική και πρακτική εξάσκηση (EQF level 4-5) και μια πλατφόρμα e-learning, με στόχο να καλύψει την εκπαίδευση 2.500 εργαζομένων ως το 2025. Στην πρώτη πιλοτική φάση (2017-2020) θα συμμετέχουν στο πρόγραμμα 40 εκπαιδευτές και 200 εκπαιδευόμενοι.

Στο πρόγραμμα, στο οποίο συμμετέχει και ο Σύνδεσμος Εταιριών Φωτοβολταϊκών, συμμετέχουν φορείς από την Ελλάδα, την Ισπανία, τη Γερμανία και τη Βουλγαρία.

Η ημερίδα θα διεξαχθεί στις 13/2/2020 στο ξενοδοχείο ΤΙΤΑΝΙΑ στο κέντρο της Αθήνας. Επισυνάπτουμε το αναλυτικό πρόγραμμα.

Όσα μέλη επιθυμούν να συμμετάσχουν, είναι καλοδεχούμενα.

Ο Πρόεδρος Ο Γραμματέας
Δρ. Σ.Καπέλλος Δ. Βαρβιτσιώτης

One indicative mail inviting HELAPCO members to the Final event

Funded by the Erasmus+ Programme of the European Union

Workshop "Participation of local authorities and stakeholders", 20 July 2020

The workshop "Participation of local authorities and stakeholders" was hosted by the Regional government of Crete, in the regional council room, in the city of Heraklion. The target group of the meeting was composed of local authorities responsible for policy education and training in the Crete region. During the workshop, it was presented the GSS-VET project, its original objectives, its aims, and the final outcomes. Special attention was given to the exploitation of project results for having the best possible direct and indirect impact on regional employment and training systems, the possible utilization of the GSS Vet training contents. Finally, it was a discussion on the possible impact of the GSS VET in aspects of Crete's strategic plan for education and Life-Long Learning, which is under development.

GSS-VET

Erasmus + Sector Skills Alliances
575891-EPP-1-2016- 1-EL-EPPKA2-SSA

Co-funded by the Erasmus+ Programme of the European Union

Geothermal and Solar Skills in VET

WORKSHOP - VET POLICY MAKERS
30th JULY 2020, HERAKLEION, GREECE

VENUE: REGION OF CRETE, Eleftherias Square, HERAKLEION 71201

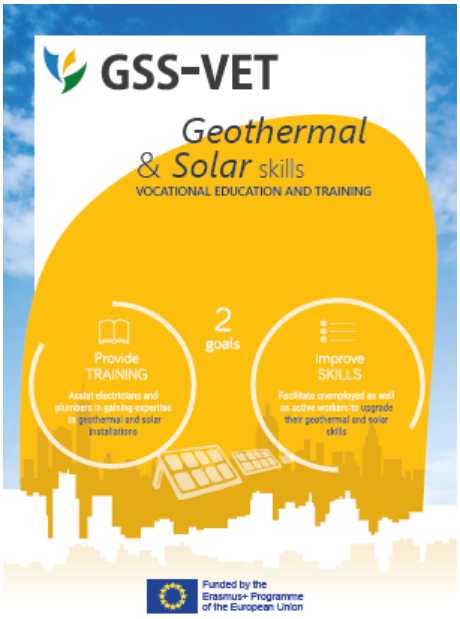
PARTICIPANTS REGISTRATION SHEET

#	NAME	SURNAME	COUNTRY	EMAIL	ORGANISATION NAME	ORGANISATION ADDRESS	SIGNATURE
1	Emmanuel	Karapidakis	GR	karapidakis@hmu.gr	hmu	www.hmu.gr	
2	Marini	Markaki	GR	marinimarkaki@hmu.gr	HMU	www.hmu.gr	
3	Fotis	Marromatakis	GR	fotis@hmu.gr	HMU	www.hmu.gr	
4	Androulakis	Rodamantho	GR	rodamanthoand@gmail.com	ECTE	www.ecte.gr	
5	Konstantinos	Flouris	GR	kflouris@crete.gov.gr	Region of Crete	crete.gov.gr	
6	Niki	Stamataki	GR	nikistamataki@hotmail.com	Region of Crete	crete.gov.gr	
7	Efi	Kontentaki	GR	kontentaki@crete.gov.gr	Region of Crete	-"-	
8	KOUSTANTINOS	ANDROULAKIS	GR	costas@ecte.gr	ECTE	www.ecte.gr	
9	Ioannis	Katsigiannis	GR	katsigiannis@hmu.gr	Institute of energy, environment and climate change	katsigiannis@hmu.gr	

3. Creation of a brochure

Based on a public awareness campaign strategy in an earlier stage of the project, a public awareness brochure was prepared by HELAPCO and translated by partners in all languages and was also printed in English (150 copies), Greek (250 copies) and Bulgarian. The brochure was distributed in the Final event of the project, as well as during a PV Conference organized by HELAPCO on February 19th 2020 (400+ participants) and was also used for drafting articles and blogs on the website.

The brochure highlighted the importance of green jobs, the relevant EU policies promoting such jobs and related skills, and gave examples of the relevance of the GSS-VET project to the three RES markets covered by the training.



GSS-VET
Геотермални &
Соларни умения
професионално образование и обучение
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цели

GSS-VET
Geothermie
& Solar Skills
BERUFLICHE WEITERBILDUNG UND TRAINING
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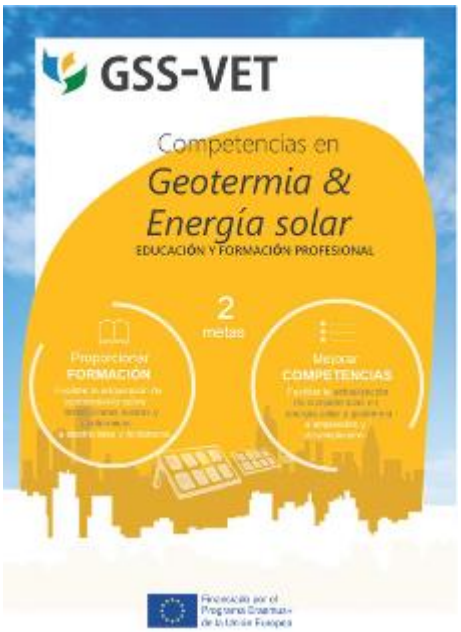
GSS-VET
Competencias en
Geotermia &
Energía solar
EDUCACIÓN Y FORMACIÓN PROFESIONAL
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GSS-VET
GSS-VET PARTNERS

THE *GSS-VET PROJECT*

The EU's strategy for sustainable growth puts innovation and green growth at the heart of its blueprint for competitiveness, leading to a whole new demand for environmental skills in the construction sector. However, training providers have not yet caught up with this new skills demand, creating an important skills gap in the current labour market.

Following the identification of skills needs, the scope of the GSS-VET project is to create an innovative training including work-based learning, ubiquitous learning and flipped classroom for geothermal and for solar energy system installers (ECQF level 4-5). The training content is focused on technical skills but also on transversal ones, including entrepreneurship, ICT, interdisciplinary skills and ability to work effectively with people from other disciplines.

For the above an e-Learning Platform has been designed with corresponding digitalized contents. 40 trainers and 200 workers will directly be trained during the project's lifetime, and thanks to the involvement of VET providers, sectorial organizations (including an EU umbrella), regional authorities and other associated partners, 2,500 workers will be trained by 2025.

GREEN JOBS AND SUSTAINABLE *GROWTH FOR EUROPE*

Climate protection is my job

- Renewables (RES) are the future of energy.
- RES protect climate and the environment.
- RES offer new employment opportunities, while careers in non-renewable energy fields seem to be fading away.
- RES create more employment than fossil fuels.
- RES offer new career opportunities for people involved in traditional energy sectors.
- Working with RES strengthens morale and job satisfaction. Two important parts of this are: being proud of what you do, and feeling as if your work contributes to the greater good.
- Jobs in the renewable industry usually pay comparatively well, and consistent salary growth tends to be very common in many countries.
- RES contribute to regional development and innovation, and promote decentralization and energy democracy.
- Promoting energy communities and self-consumption is strongly supported by European policies.

Taking a leading role, the EU is supporting a Green New Deal for achieving the targets of the Paris Agreement on Climate Change and a full decarbonization of the European economy by 2050. As most European countries are heading to decarbonization, many jobs in non-renewable energy fields seem to be fading away. It is important to offer new opportunities to people who feel threatened by this development. Training in new energy fields such as the ones covered by the GSS-VET project can offer new career opportunities for people involved in traditional energy sectors.

Even traditional craftsmen can find new career opportunities. As some renewable energy (RES) technologies (such as photovoltaics for example) are booming, new job opportunities can arise for electricians with no particular expertise on the field, provided that they are offered appropriate training. When reading about solar energy job trends, you often see a lot of focus on the high level, technical jobs. While it is true that there are many openings for people with degrees and experience in science, technology and engineering fields, the solar industry has plenty of opportunities in other areas. These include sales, labour, and support. There are even jobs in education for people pursuing solar energy jobs. Someone open to seeking out just a bit of training has an excellent chance of having a very successful solar career.

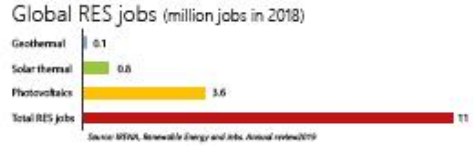
The importance of green jobs

Employment trends and patterns are shaped by a wide range of technical, economic and policy-driven factors. Such factors include:

- Robust EU policy on the promotion of renewables and sustainable growth.
- Governmental policies, including the degree of commitment to transforming the energy sector. Policy encompasses mandates, regulations and market design in support of deployment, as well as industrial policies to create and strengthen domestic value creation.
- The falling costs of renewable energy technologies continue to spur their deployment.
- Corporate strategies and industry realignments are important factors in this context, as portions of the supply chain become more globalized and geographically differentiated.
- An ever increasing number of communities are engaging in Green Cities initiatives thus promoting and supporting renewable energy.

An increasing number of countries derive socio-economic benefits from renewable energy. According to IRENA (International Renewable Energy Agency), global renewable energy employment reached 11 million jobs in 2018. The PV industry in particular was the largest employer (3.61 million jobs in 2018).

Global RES jobs (million jobs in 2018)



Source: IRENA, Renewable Energy and Jobs. Annual review 2019

The case of photovoltaics

Activity	Jobs
Project planning	1%
Manufacturing and procurement	22%
Transport	2%
Installation and grid connection	17%
Operation and maintenance	56%
Decommissioning	2%
Total person-days for 50 MW	229,055

Distribution of human resources required along the value chain for the development of a 50 MW solar PV plant, by activity (source: IRENA, 2017)

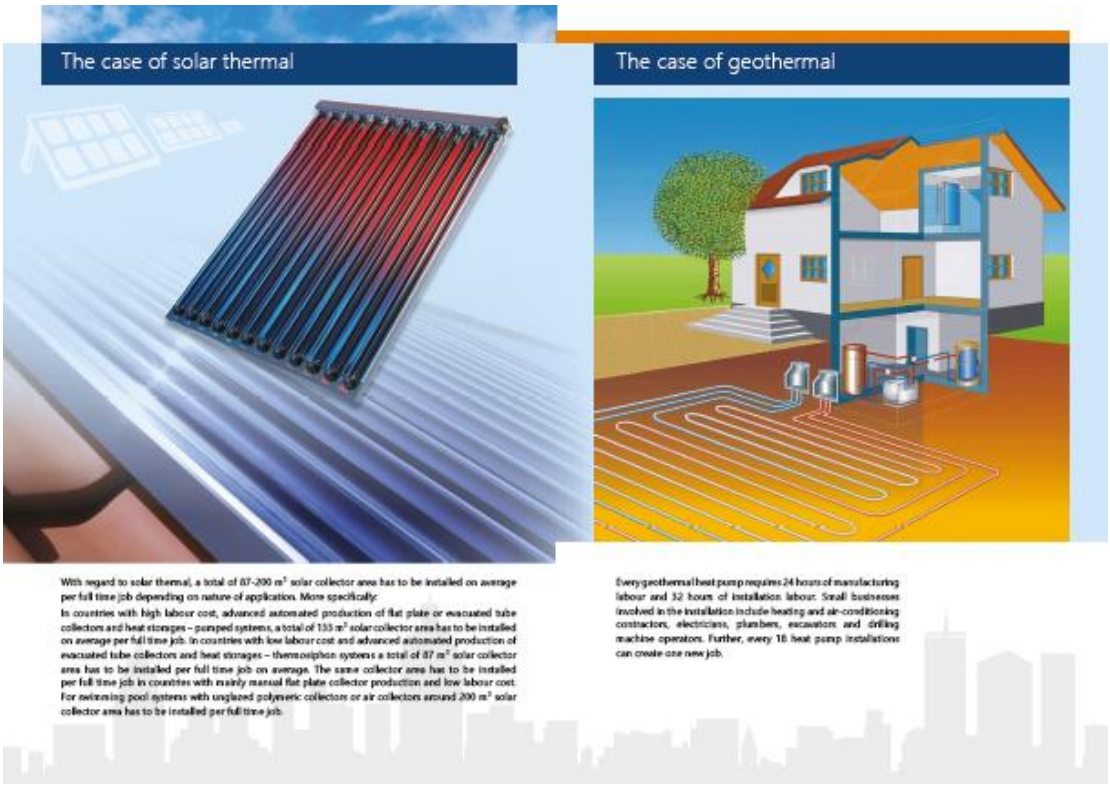
These jobs are created either locally (at the power station site) or in other regions and/or countries (when it comes to manufacturing of certain equipment). In order to estimate the national employment created, one has to take into account the local content of the equipment used. For most European countries, the local content when it comes to RES equipment is in the order of 15%. It is important to stress that the national added-value of RES projects is much higher than people often think. The national added-value in many European countries is in the order of 60%. With regard to indirect and induced employment, a 2.2 multiplier is often suggested.

The European photovoltaic sector continues to prove its socio-economic value in Europe, both in terms of job creation and Gross Value Added (GVA).

The sector also highlights the importance of small-scale projects and regional development. In 2016, for example, rooftop PV installations supported almost 3 times as many jobs and GVA than large ground-mounted installations. This can be explained by their installed capacities and labour needs for installation, maintenance and operations. Furthermore, 75% of solar jobs are local jobs.

Respectively 75% and 73% of the share of jobs and GVA in 2016 was linked to the downstream activities of the PV value chain (i.e. development and installation of systems). Downstream activities of the PV value chain are more labour intensive than upstream activities.

Direct jobs and GVA are related to the PV industry specifically (e.g. manufacturing of PV modules, installation and maintenance of PV systems) while indirect jobs and GVA stem from supplying industries (e.g. transport, manufacturing of certain materials, professional services).



4. Presentation of project results in International Conferences

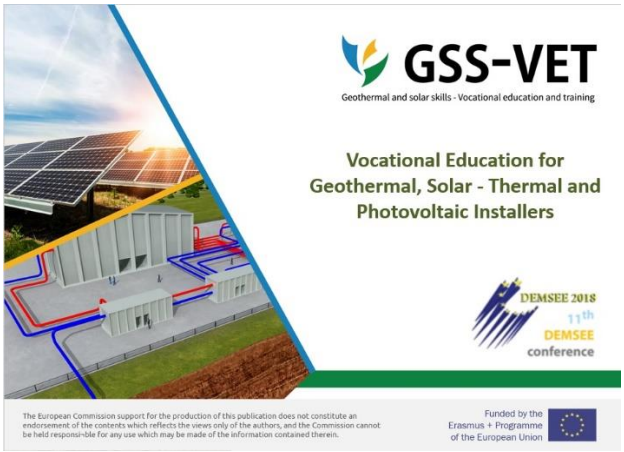
From Hellenic Mediterranean University of Greece, the project results, so far, have been presented in one International Conference. Also, the project results have been approved to be presented in one more International Conference in February 2021.

In DEMSEE (Deregulated Electricity Market Issues in South Eastern Europe) 2018 12th International Conference that took place in Frederick University in Nicosia, Cyprus, 20-21 September 2018 (http://www.demsee2018.org).

The paper presented in DEMSEE 2018 was the following:

Katsamaki A., Mavromatakis F., Karapidakis E. “Vocational Education for Geothermal, Solar-Thermal and Photovoltaic Installers”

The Acknowledgement written in the end of the paper was: This research has been financed by the European Commission funds through the Erasmus+ KA2 – Sector Skills Alliances Programme (Grand Agreement Number: 2016–2991/001-001).



In 30th Annual Conference of the European Association for Education in Electrical and Information Engineering (EAEEIE) that will take place in Prague, Czech Republic in 10-13 February 2021, two papers concerning GSS VET project have been approved to be presented.

These papers are:

Karapidakis E., Katsamaki A., Mavromatakis F., Markaki M.E., Katsigiannis Y. “Modernizing VET by Adapting Provision to Skills Needs in RES with Advanced Learning Models”

Katsamaki A., Markaki M.E., Mavromatakis F., Karapidakis E. “GSS-VET Project. Vocational Education and Training Process to Develop Working Skills for Technicians in Geothermal, Solar-Thermal and Photovoltaic Installations

[EAEEIE 2020] Submission No. 34

1 μήνυμα

EAEEIE 2020 <eaeeie2020@easychair.org> 2 Απριλίου 2020 - 2:20 μ.μ.
Προς: Anastasia Katsamaki <tesi@hmu.gr>

Dear Authors,

It is my pleasure to acknowledge that your abstract "Modernizing VET by Adapting Provision to Skills Needs in RES with Advanced Learning Methods" has been found relevant for EAEEIE 2020.

Please take your time to prepare the full paper now. Guidelines will be published on the conference portal (https://eaeeie.cvut.cz/authors/submissions/) soon.

Thank you!

Sincerely,
Jaromir Hrad, EAEEIE 2020 General Chair

[EAEEIE 2020] Submission No. 35

EAEEIE 2020 <eaeeie2020@easychair.org> 2 Απριλίου 2020 - 2:21 μ.μ.
Προς: Anastasia Katsamaki <tesi@hmu.gr>

Dear Authors,

It is my pleasure to acknowledge that your abstract "GSS-VET Project. Vocational Education and Training Process to Develop Working Skills for Technicians in Geothermal, Solar-Thermal and Photovoltaic Installations" has been found relevant for EAEEIE 2020.

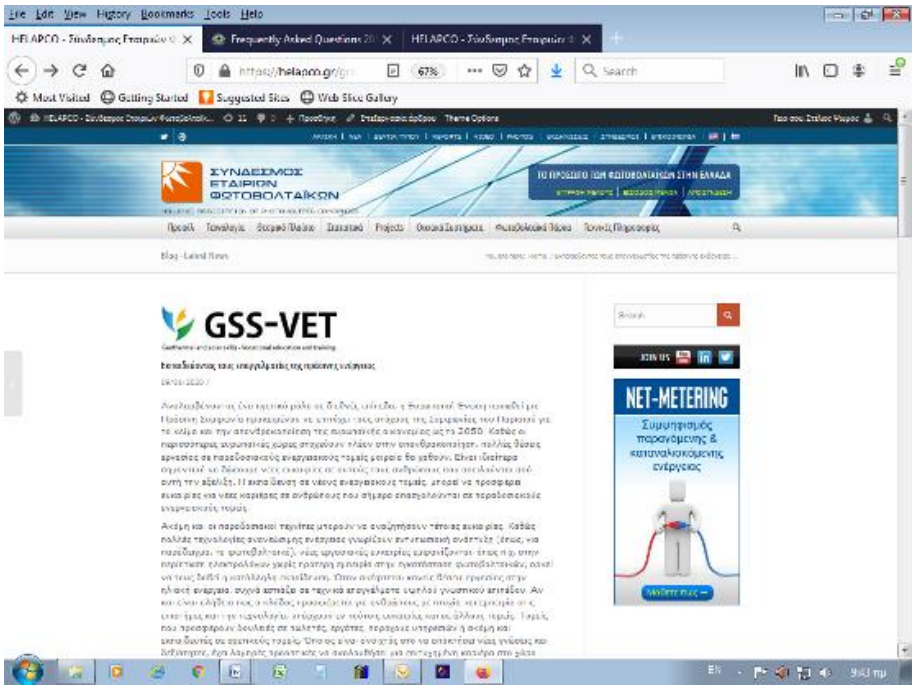
Please take your time to prepare the full paper now. Guidelines will be published on the conference portal (https://eaeeie.cvut.cz/authors/submissions/) soon.

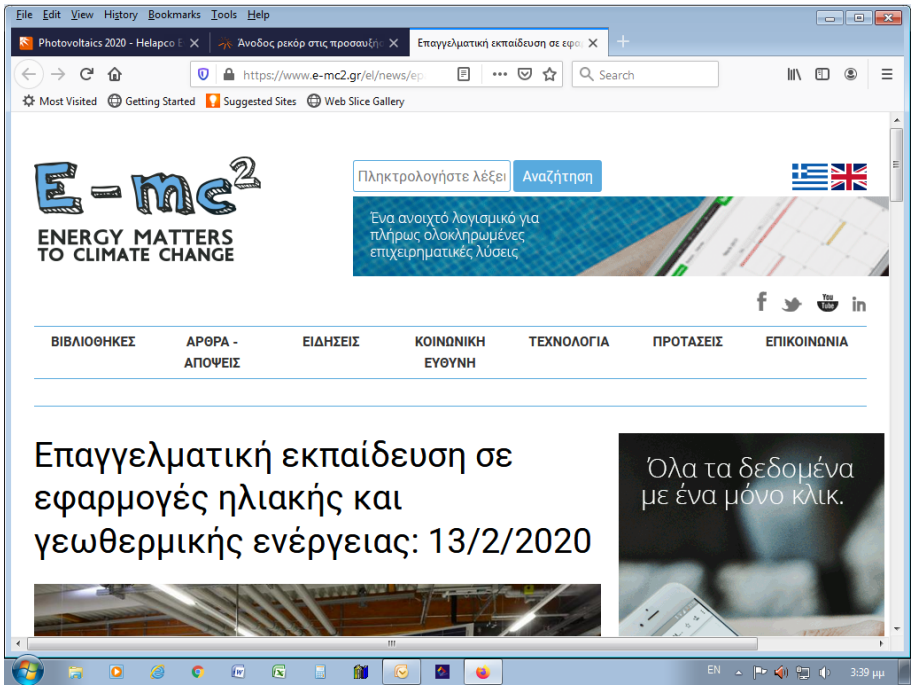
Thank you!

Sincerely,
Jaromir Hrad, EAEEIE 2020 General Chair

5. Dissemination through the media

Indicative coverage in electronic media is given below:


ΣΥΝΔΕΣΜΟΣ ΕΤΑΙΡΙΩΝ ΦΩΤΟΒΟΛΤΑΪΚΩΝ
GSS-VET
NET-METERING
Συμψηφισμός παραγόμενης & καταναλισκόμενης ενέργειας


E-mc2
ENERGY MATTERS TO CLIMATE CHANGE
Πληκτρολογήστε λέξει
Αναζήτηση
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ΑΡΘΡΑ - ΑΠΟΨΕΙΣ
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ΚΟΙΝΩΝΙΚΗ ΕΥΘΥΝΗ
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Επαγγελματική εκπαίδευση σε εφαρμογές ηλιακής και γεωθερμικής ενέργειας: 13/2/2020
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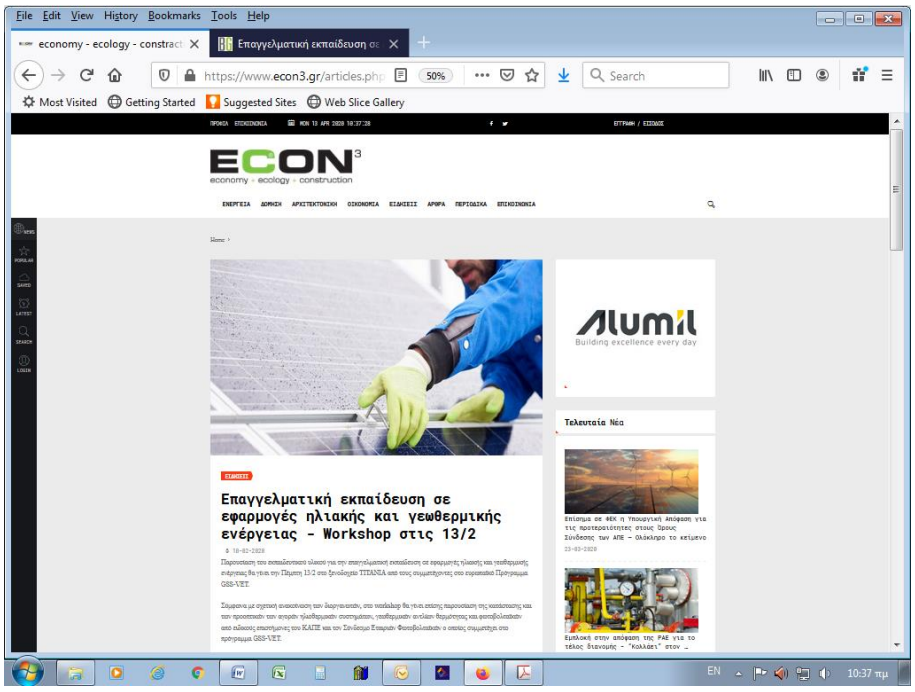
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Alumil
Building excellence every day
Τελευταία Νέα
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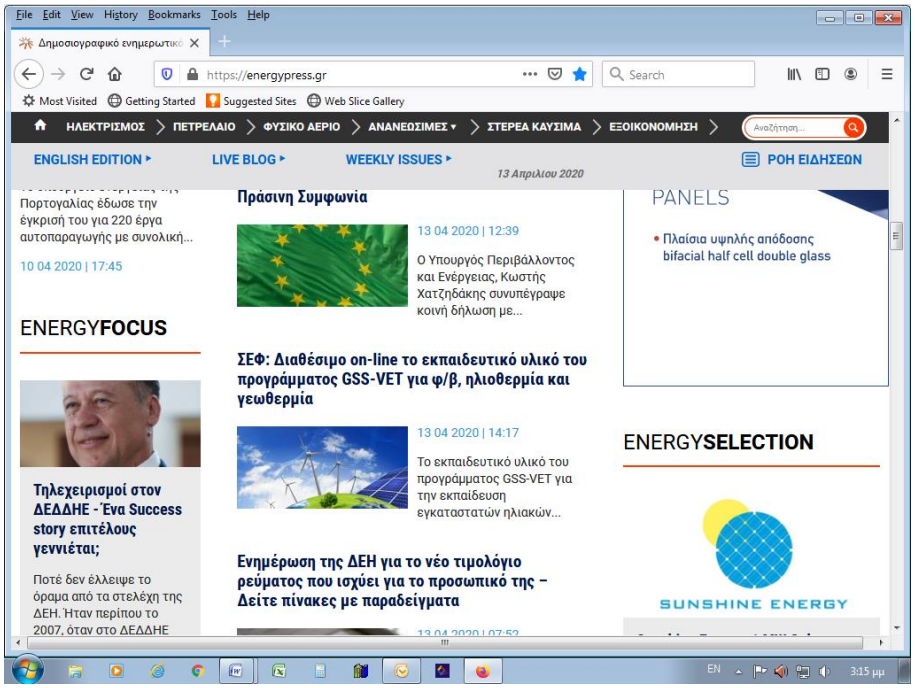
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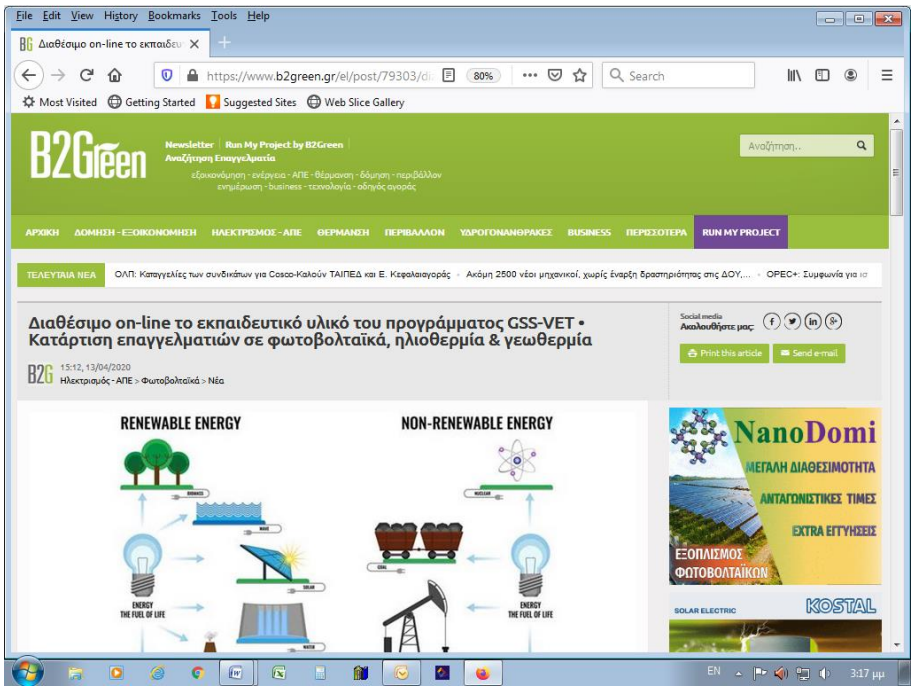
ΑΝΑΝΕΩΣΙΜΕΣ
ΣΤΕΡΕΑ ΚΑΥΣΙΜΑ
ΕΞΟΙΚΟΝΟΜΗΣΗ
ENGLISH EDITION
LIVE BLOG
WEEKLY ISSUES
13 Απριλίου 2020
ΡΟΗ ΕΙΔΗΣΕΩΝ
Πράσινη Συμφωνία
13 04 2020 | 12:39
Ο Υπουργός Περιβάλλοντος και Ενέργειας, Κωστής Χατζηδάκης συνυπέγραψε κοινή δήλωση με...
ΣΕΦ: Διαθέσιμο on-line το εκπαιδευτικό υλικό του προγράμματος GSS-VET για φ/β, ηλιοθερμία και γεωθερμία
13 04 2020 | 14:17
Το εκπαιδευτικό υλικό του προγράμματος GSS-VET για την εκπαίδευση εγκαταστατών ηλιακών...
Ενημέρωση της ΔΕΗ για το νέο τιμολόγιο ρεύματος που ισχύει για το προσωπικό της – Δείτε πίνακες με παραδείγματα
PANELS
Πλαίσια υψηλής απόδοσης bifacial half cell double glass
ENERGYFOCUS
Τηλεχειρισμοί στον ΔΕΔΔΗΕ - Ένα Success story επιτέλους γεννιέται;
ENERGYSELECTION
SUNSHINE ENERGY


B2Green
Διαθέσιμο on-line το εκπαιδευτικό υλικό του προγράμματος GSS-VET • Κατάρτιση επαγγελματιών σε φωτοβολταϊκά, ηλιοθερμία & γεωθερμία
RENEWABLE ENERGY
NON-RENEWABLE ENERGY
NanoDomi
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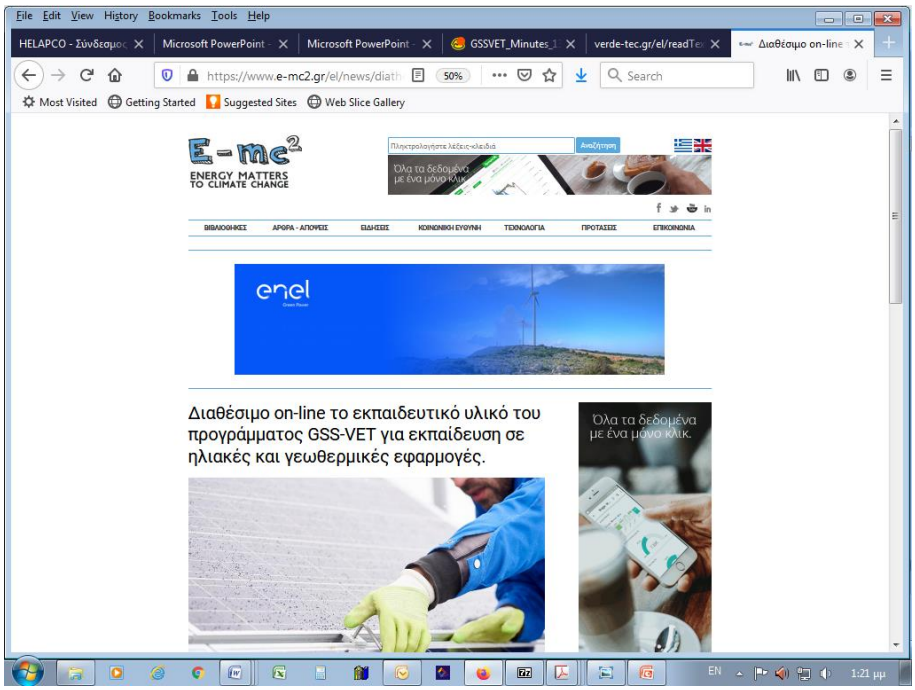
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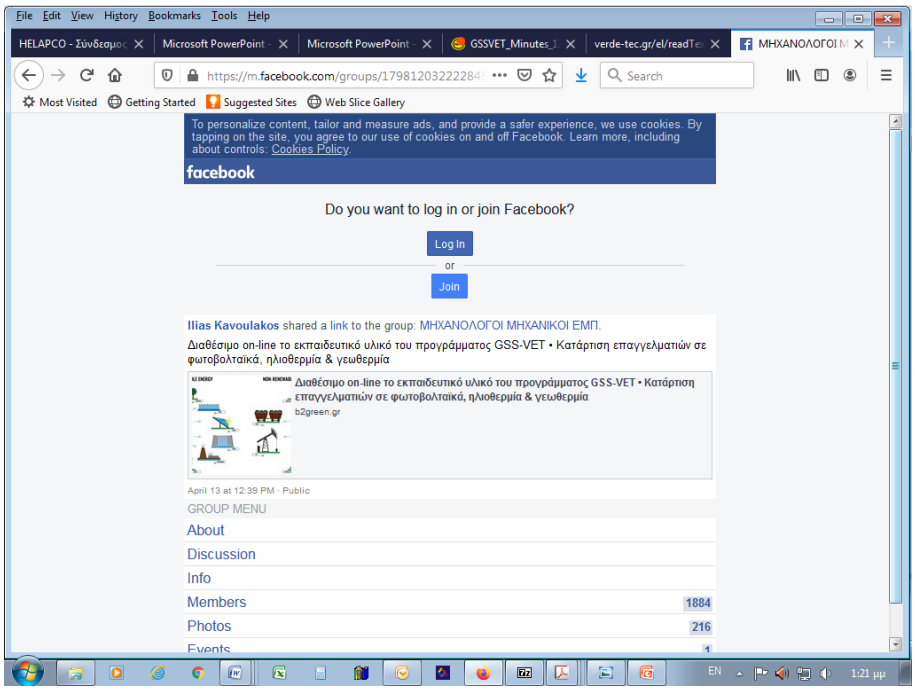

Indicative list of references to the project

https://energypress.gr/news/ekpaideyontas-toys-epaggelmaties-tis-prasinis-energeias

http://www.palo.gr/energeia/ekpaideyontas-toys-epaggelmaties-tis-prasinis-energeias/23609556/

https://helapco.gr/greece-energy-news/ekpaideyontas-toys-epaggelmaties-tis-prasinis-energeias/

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https://www.michanikos-online.gr/%CE%B5%CE%BA%CF%80%CE%B1%CE%B9%CE%B4%CE%B5%CF%8D%CE%BF%CE%BD%CF%84%CE%B1%CF%82-%CF%84%CE%BF%CF%85%CF%82-%CE%B5%CF%80%CE%B1%CE%B3%CE%B3%CE%B5%CE%BB%CE%BC%CE%B1%CF%84%CE%AF%CE%B5%CF%82-%CF%84%CE%B7/

https://energypress.gr/news/epaggelmatiki-ekpaideysi-se-efarmoges-iliakis-kai-geothermikis-energeias-workshop-stis-132

https://helapco.gr/greek-energy-news/

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PARTNER	EVENTS and WORKSHOPS	LOCAL AND INTERNATIONAL CONFERENCES	ACADEMIC PUBLICATIONS	BROCHURES	MEDIA
GREECE [all partners]	4	3	3	5**	131
IMPACT	**544**		**N/A**	**~1500*** **	**10263***
TOTAL IMPACT	**10.807 people reached**				
* see 7.2. – Dissemination Report – Greece for an extended overview of the numbers					
** brochures for tasks: 5.1, 6.2 (2 brochures), 6.3 (2 brochures)					
*** brochures were disseminated through email campaigns to more than 1000 VET providers and stakeholders					

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GSS-VET

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www.gss-vet.eu

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The project is realized by a Consortium of 15 partners from: Bulgaria, Germany, Greece and Spain

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