

# Greener Industries at Kurttepe



**Adana Provincial Directorate of National Education**

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# FROM THE EDITOR

We are proud to present our magazine, "Greener Technologies at Kurttepe", which was published in English for the first time in our school, and which includes the international projects, works and achievements of our school in line with the "Green Deal Action Plan", to our esteemed readers.

As a school, our goal is to raise the success achieved so far to higher levels and to raise young people who are questioning, open to technological developments and carrying forward, renewing, loyal to national and spiritual values, developed problem-solving skills, prone to teamwork, and self-renewing.

What is in the content of our magazine?

- ⇒ 18-20 May Green Transformation Event in Vocational Education,
- ⇒ PV Charging Station trainings for Electric Vehicles related to PVT panels within the scope of the ongoing project named "Development of innovative learning and practice modules to increase the usage of renewable energies for sustainable buildings", numbered 2020-1-TR01-KA202-093467, in Sweden
- ⇒ Seminars and workshops on panels used in PVT and Concentrated Thermal Solar Energy (CSP) power plants within the scope of the project named "Development of innovative learning and application modules to increase the use of renewable energies for sustainable buildings" at the Technical University of Denmark, numbered 2020-1-TR01-KA202-093467
- ⇒ 2nd Transnational Project meeting on 20 June and 21 June 2022 at MG Sustainable Engineering AB, Stationsgatan 23, BASE10 in Uppsala, Sweden
- ⇒ As part of Teknofest 2021, Turkey's 4th Place in the "Efficiency Challenge Electric Vehicle Races" organized by the Scientific and Technological Research Council of Turkey (TÜBİTAK) among high schools for the first time this year, and the Special Jury Award

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# 18-20 May Green Transformation Events in Vocational Education

## Greener professional Skills, Greener Industries Event Content

### Opening

A moment of silence and the National Anthem

### Keynote Speeches

#### 1st Seminar Session

Assoc. Dr. Hasan YILDIZHAN

Adana Alparslan Turkes Science and Technology University

"Renewable Energy Technologies, Energy Efficiency and Green Energy"

#### 2nd Seminar Session

Assoc. Dr. Bilge Aksay

Adana Alparslan Turkes Science and Technology University

"Future Orientation, Career Planning and Entrepreneurship for

Vocational Education Students and Graduates"

#### 3rd Seminar Session

Specialist Teacher Mehmet Emin DİNÇKURT

Kurttepe Martyr Ali Öztaş Msleki and Technical Anatolian High School

"Examples of Good Practice in Vocational Education Consistent with the Green Deal"

Workshop and Event Visits

# 18-20 May Green Transformation Events in Vocational Education

As part of the 16-20 May "European Vocational Skills Week", "Greener Vocational Skills, Greener Industries" event was held on May 18, 2022, at Kurttepe Şehit Ali Öztaş Vocational and Technical Anatolian High School conference hall and exhibition area, one of the well-established vocational high schools of our city.

Adana Provincial Director of National Education Mr. Yaşar KOÇAK, Adana Metropolitan Municipality Mayor Mr. Zeydan KARALAR, Sarıçam Deputy Mayor Mr. Şükrü GEDİK, Çukurova District National Education Director Mr. Ayhan DAĞLI, Provincial National Education Branch Managers Mr. Murat YÜKSEL and Ahmet IŞIKLI, Adana Alparslan Türkeş Science and Technology University Faculty Member Assoc. Dr. Hasan YILDIZHAN, Adana Alparslan Türkeş Science and Technology University Faculty Member Assoc. Dr. Bilge AKSAY, School Principals, NGOs attended the event.



The event was held with the participation of the host institution, other vocational institutions in the region, and the students, teachers and administrators of our secondary schools with high vocational education potential, provincial and district administrators, and representatives of our region's chambers of industry and commerce.

The event consisted of two parts and started with information sessions by academicians and experts. Adana Alparslan Türkeş Science and Technology University Faculty Member Assoc. Dr. Hasan YILDIZHAN focused on the main topics of Renewable Energy Technologies, PVT Panels, Energy Efficiency and Green Energy, the importance of updating vocational and technical education in line with the needs of the age and the future within the framework of the Green Agreement, and national and international strategies on green skills in vocational education.



# 18-20 May Green Transformation Events in Vocational Education

Adana Alparslan Türkeş Science and Technology University Lect. Member **Assoc. Dr. Bilge AKSAY**, on the other hand, made a presentation for vocational education students, graduates and educators on Future Orientation, Entrepreneurship, Access to National / Transnational Funds and Resources within the Framework of the Green Agreement.



Host School Principal Exp. Teacher **Mr. M. Emin DİNÇKURT** presented examples of good practices in vocational education that are compatible with the basic principles of the Green Deal and contribute to the sustainable environment, and also made a presentation on the development of innovative educational strategies in line with the Green Deal in every field of vocational education, as well as on inter-sectoral skill transfer.



In the second part of the event, the innovative designs and useful models of the school students which are compatible with the Green Agenda and innovative methods were exhibited in the open-air exhibition area, and the practical examples were presented to the guests and audience.



# 18-20 May Green Transformation Events in Vocational Education



# 18-20 May Green Transformation Events in Vocational Education



With the event, in the short term, it is expected that all parties involved will develop and change the perspectives of vocational and technical education that are important for a sustainable future; In the long term, it is expected that new dynamics will emerge in line with the EU standards and the Green Deal.

# PV Charging Station trainings for Electric Vehicles

Within the scope of the project named "Development of innovative learning and practice modules to increase the usage of renewable energies for sustainable buildings" numbered 2020-1-TR01-KA202-093467, trainings on PVT panels continue in University of Gavle - Sweden .



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# PV Charging Station trainings for Electric Vehicles



## PowerUp MyHouse meeting at Technical University of Denmark Monday May 30 - Friday June 3, 2022

Within the scope of the project named "Developing innovative learning and application modules to increase the use of renewable energies for sustainable buildings" numbered 2020-1-TR01-KA202-093467, the seminars and workshops on the panels used in PVT and Concentrated Thermal Solar Energy (CSP) power plants were carried out at the campus of the Technical University of Denmark (DTU) in Kgs. Lyngby during Monday, Tuesday and Thursday. Moreover, the program included important and relevant visits to the hot water tank and heat pump manufacturer METRO THERM in Helsingør, the PVT manufacturer RACELL in Albertslund, a PVT demo site in Virum and the solar energy research facilities at DTU. Sight seeings in Copenhagen were also planned during the visit to make the trip even more joyful and interesting for the incoming guests.

CSP is used as a renewable heat energy or electrical energy source. CSP systems focus the sun rays falling on a large area into a single small area by means of mirrors and sun tracking systems connected to these mirrors. The concentrated sunlight is then used to generate the heat required for conventional power plants. In addition, the heat energy produced can also be used for other purposes.

The panels and tracking system of Heliac company, which manufactures in Denmark, were examined. Heliac's panels generate heat using lenses that focus sunlight like a magnifying glass. Focused sunlight heats a liquid as it passes through a series of absorbers. Controlling the flow rate of the liquid allows the temperature level to be controlled. The generated heat is then transferred to the final use by passing the liquid through a standard heat exchanger.



# PowerUp MyHouse meeting at Technical University of Denmark Monday May 30 - Friday June 3, 2022



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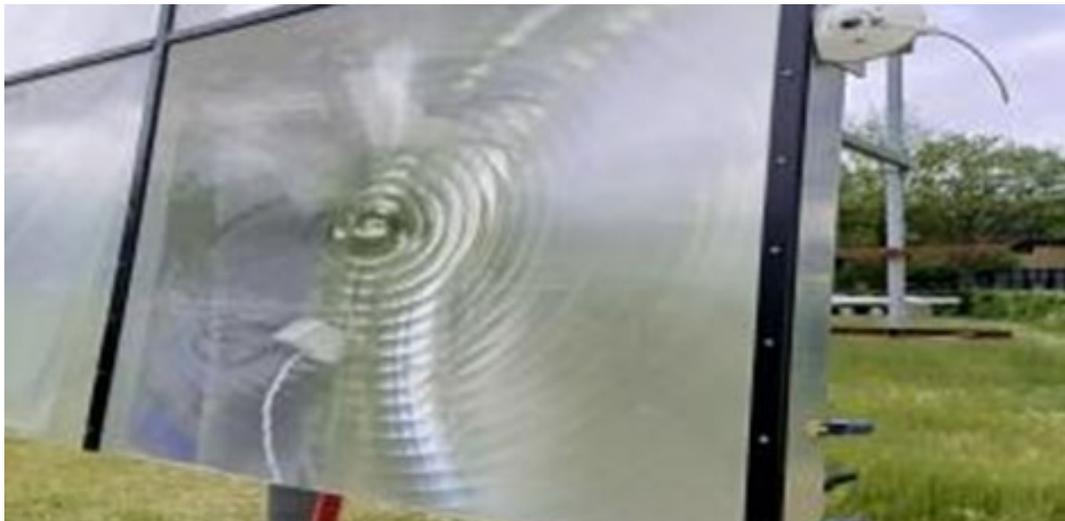
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## PowerUp MyHouse 2nd Transnational Project Meeting Report - Uppsala (Sweden) Monday June 20 & Tuesday June 21, 2022

On June 20th and June 21st, 2022, MG Sustainable Engineering AB hosted the 2nd Transnational Project meeting at BASE10, Stationsgatan 23 in Uppsala, Sweden. The meeting was conducted in hybrid format (in person and online), including series of presentations about the progress of project and intellectual outputs. The meeting proceeded as set forth on the agenda published in advance of the meeting, and in accordance with the project proposal and comments from project leader (ATU). The agenda is attached in the appendix, in addition to photos of partners participation in meeting.

Dr. Sahand Hosouli started the meeting by presenting the objectives of the 2nd Transnational Project Meeting and providing information about activities of MG Sustainable Engineering AB. The meeting continued according to the agenda after a brief greeting from the co-founder and director of the company, Dr. Joao Gomes.

The meeting was attended by 16 people (in person) and 4 people (online), comprising representatives from ATU, KASSKED, Kurttepe, PANKO, IPT, DTU, HiG and MG. The participants by type of participation and the relevant institution are listed below.

On the first day, DTU made an online presentation about the progress of project on O1 and C2. IPT, PANKO, ATU and Kurttepe presented about O2, O5, O3 and O4, respectively in person. The second day began with a presentation by Kassked on quality management of the project and an update on O4 and O5. This was followed by a presentation on up-to-date information regarding to website, publications and social media activity by ATU.

The board approved and set the dates for its next meetings in Lithuania, Portugal and Turkey. Project leader (ATU) requested the following actions from relevant partners of the project:

- A. Document/Information on solar power hazards and safety regulations
- B. Establish a consulting group (comprising at least 5 members) by relevant partners and report the members of the group at the next meeting in Lithuania
- C. Conference paper on O5 by PANKO
- D. Communication and Dissemination actions by partners (posts on social media, website, etc.). They are going to be reviewed at the next meeting in Lithuania

## **List of Participants:**

### **In Person:**

Hasan Yildizhan, ATU, Turkey

Ece Yilmaz, ATU, Turkey

Ercan Zengin, Kurttepe, Turkey

Mehmet Emin Dinçkurt, Kurttepe, Turkey

Teoman Dinçkurt, Kurttepe, Turkey

Emine Gozen, Kassked, Turkey

Murat Isildak, Kassked, Turkey

Remigijus Kaliasas, PANKO, Lithuania

Jovita Kaziukonytė, PANKO, Lithuania

Jorge Mascarenhas, IPT, Portugal

João Gomes, MG Sustainable Engineering AB, Sweden

Khalid BM, MG Sustainable Engineering AB, Sweden

Alex Loris, MG Sustainable Engineering AB, Sweden

Chooi Woon, MG Sustainable Engineering AB, Sweden

Magor Demeter, MG Sustainable Engineering AB, Sweden

Gintare Vilke, MG Sustainable Engineering AB, Sweden

### **Online:**

Simon Furbo, DTU, Denmark

Sahand Hosouli, MG Sustainable Engineering AB, Sweden

Abolfazl Hayati, University of Gävle, Sweden

**PowerUp MyHouse**  
**2nd Transnational Project Meeting Report - Uppsala (Sweden)**  
**Monday June 20 & Tuesday June 21, 2022**

**Agenda for the 2nd Transnational Project Meeting “PVT Technology Research”**  
**Monday June 20 - Tuesday June 21, 2022 - 9:00 – 15:45**

**Monday June 20, 2022 - 9:00 – 15:45**

| <b>Time</b>   | <b>Item   Speaker</b>  | <b>Location</b> |
|---------------|--|-----------------|
| 9:00 – 9:30   | Opening of Meeting<br>Introduction from Chair   Joao Gomes<br>Review of objectives for the Day 1   Sahand Hosouli<br>Introduction from project manager   ATU | Base 10         |
| 9:30 – 10:00  | Project Update – O1 & C2<br>Presentation on the progress of project (O1 & C2)  | Base 10<br>DTU  |
| 10:00 – 10:30 | Coffee Break   | Base 10         |
| 10:30 – 11:00 | Project Update – O2<br>Presentation on the progress of project (O2)   IPT  | Base 10         |
| 11:30 – 12:00 | Project Update – O5<br>Presentation on the progress of project (O5)   PANKO  | Base 10         |
| 12:00 – 13:30 | Lunch Break  |                 |
| 13:30 – 14:00 | Project Update – O3<br>Presentation on the progress of project (O3)   ATU  | Base 10         |
| 14:00 – 14:30 | Project Update – O4<br>Presentation on the progress of project (O4)   Kurttepe   | Base 10         |
| 14:30 – 15:00 | Coffee Break   | Base 10         |
| 15:00 – 15:45 | Wrap-up, review of decisions of Day 1<br>Open Discussion   | Base 10         |

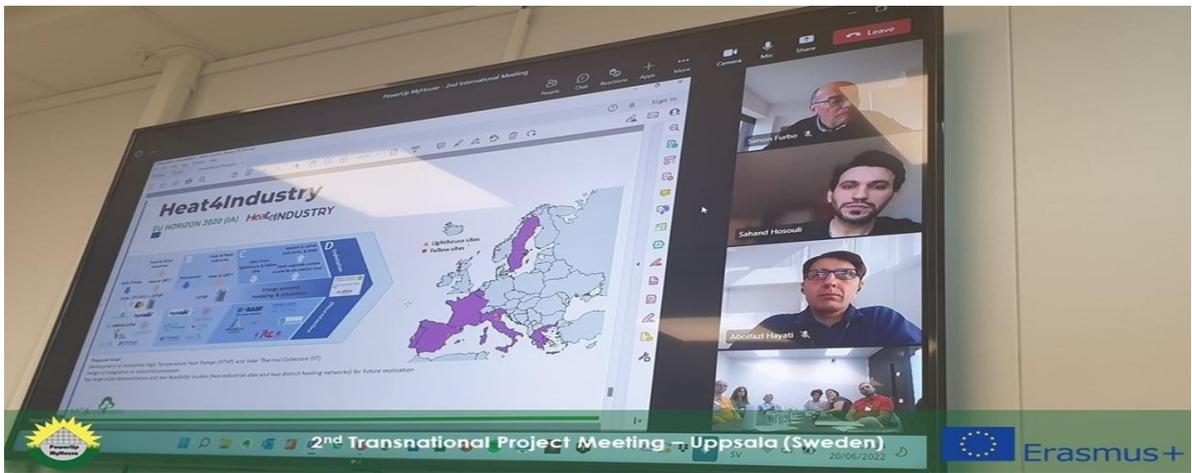
**PowerUp MyHouse**  
**2nd Transnational Project Meeting Report - Uppsala (Sweden)**  
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**Agenda for the 2nd Transnational Project Meeting “PVT Technology Research”**  
**Monday June 20 - Tuesday June 21, 2022 - 9:00 – 15:45**

**Tuesday June 21, 2022 - 9:00 – 14:15**

| <b>Time</b>   | <b>Item   Speaker</b>   | <b>Location</b> |
|---------------|---|-----------------|
| 9:00 – 9:15   | Opening of Meeting (Day 2)<br>Review of objectives for the Day 2   Sahand Hosouli                               | Base 10         |
| 9:15 – 9:45   | Quality management of PowerUp MyHouse<br>Presentation on quality management   Kassked                           | Base 10         |
| 9:45 – 10:15  | Project Update – O4 and O5<br>Presentation on the progress of project (O4,O5)   Kassked                         | Base 10         |
| 10:15 – 10:45 | Coffee Break  | Base 10         |
| 10:45 – 11:15 | Project Update – Dissemination<br>Up-to-date information regarding to website, publications, actions, etc   ATU | Base 10         |
| 11:15 – 12:15 | Wrap-up, review of decisions of Day 2<br>Open Discussion  | Base 10         |
| 12:15 – 13:45 | Lunch Break   |                 |
| 13:45 – 14:15 | Visit MG facilities<br>End of 2nd Transnational Project Meeting (PVT Technology Research) at MG                 | Base 10         |

# PowerUp MyHouse 2nd Transnational Project Meeting Report - Uppsala (Sweden) Monday June 20 & Tuesday June 21, 2022



**PowerUp MyHouse**  
**2nd Transnational Project Meeting Report - Uppsala (Sweden)**  
**Monday June 20 & Tuesday June 21, 2022**



2nd Transnational Project Meeting – Uppsala (Sweden)



Erasmus+



2nd Transnational Project Meeting – Uppsala (Sweden)



Erasmus+

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2nd Transnational Project Meeting – Uppsala (Sweden)



2nd Transnational Project Meeting – Uppsala (Sweden)



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# Teknofest 2021

Within the scope of Teknofest 2021, in the "Efficiency Challenge Electric Vehicle Races" organized by the Scientific and Technological Research Council of Turkey (TÜBİTAK) among high schools for the first time this year, "WOLFMOBİL", designed and produced by Kurttepe Şehit Ali Öztaş MTAL RoboWolf Team, ranked 4th in Turkey and received the Special Jury Award. It proudly represented Adana.

The ranking was made according to the power consumption of the electric vehicles that made fifteen laps on the Kocaeli-Gulf track on September 5 and 6, 2021, and the lowest power consumption of the fifteen laps was obtained. Wolfmobil completed 15 laps in both days and completed the race without any malfunctions.

In the competition held for the first time this year, the design and production of WOLFMOBİL was carried out by the teachers and students of our school as a result of the joint work of our school's Informatics, Electric-Electronics, Machinery, Metal and Furniture fields.

The production of WOLFMOBİL started with 3D design in September 2020, and then workshops started in February 2021. Produced with the efforts of our teachers and students at every point from welding processes to cutting profiles, from the mold of the shell to sanding and painting, from the code writing of the vehicle control system to the electrical components, WOLFMOBİL is a prototype for domestically produced electric vehicles.

As a vocational high school, we are proud of the vehicle we produced with our own possibilities and knowledge, and our performance in the competition, and we say we are in # NationalTechnologyMovement.



# Teknofest 2021



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