

green
power
electronics



innovation via new materials



Green PE

WP4: OUTCOME OF THE MATCHMAKING EVENTS ORGANISED DURING THE INTERNATIONAL PE WORKSHOPS



EUROPEAN UNION

EUROPEAN
REGIONAL
DEVELOPMENT
FUND

Authors:

*Teresita Qvarnström, RISE Research
Institutes of Sweden AB*

Lead Partner:

University of Southern Denmark
Alsion 2
6400 Sønderborg
Denmark

Contact: Horst-Günter Rubahn
rubahn@mci.sdu.dk
Phone: +45 6011 3517

[www.sdu.dk/en/om_sdu/institutter_
centre/mci_mads_clausen](http://www.sdu.dk/en/om_sdu/institutter_centre/mci_mads_clausen)

Published in February 2019

www.balticgreenpower.eu

TABLE OF CONTENT

- 1. **Management summary** 4
- 2. **Matchmaking events in Stockholm** 5
 - 2.1. Outcome of the workshops and matchmaking events in Stockholm..... 6
- 3. **Additional matchmaking event in Warsaw** 6
- 4. **Analysis of the matchmaking events outcomes** 7
- 5. **Conclusions** 7



1. Management summary

This output summarizes the outcome of the matchmaking events that were organised in Stockholm in connection with international events in the area of applied power electronics.

The assumption is that potential users of power electronic solutions benefit from establishing contact with strong international experts. The output analyses the possibilities and barriers identified for BSR companies willing to participate in the matchmaking events.

Originally (during the project application phase), it was seen that the matchmaking offered very good possibilities for SMEs in the BSR to find partners and expertise for their evaluations of the integration of new technologies in their portfolio. However, it also became obvious that companies had often no possibility to participate in the events. Travelling to other countries was difficult for small companies and this resulted in a very low participation of SMEs in the matchmaking events.

2. Matchmaking events in Stockholm

In the beginning of the Green PE project, the first conference selected for the organisation of the matchmaking events was the International Silicon Carbide (SiC) Power Electronic Application Workshop (ISiCPEAW). This is an established international event organized annually in Stockholm by RISE, KTH and the Swedish SiC Power Center. The event covers the latest results and innovations in power electronics applications of silicon carbide technology and other wide-bandgap materials (WBG) of relevance for power electronics. The workshop traditionally is a three-day event, consisting of two workshop days and one tutorial day offering deeper insight on specific technological issues.

The overall aim of the workshop is to promote the use of the latest SiC and WBG research and development results, by bringing together the foremost experts from both academia and industry. The focus lies on the use of SiC and WBG technology in power electronics applications, components, modules, packaging, reliability and benchmarking versus silicon power electronics. The program is defined by SiC and WBG experts and reflects the state of the art of the technologies from an industrial point of view. Specialists from all over the world present their views on the status, ongoing development and the opportunities of applications in the power electronic area. They also present the latest products and solutions.

The workshop is traditionally organized in Stockholm by the Swedish SiC Power Center (<https://www.acreo.se/projects/sic-power-center>) in collaboration with the Enterprise Europe Network and Yole Development.

Such an event gathering worldwide expertise in advanced power electronics was assumed to be of high interest for SMEs in the BSR willing to establish collaborations to develop their WBG capabilities. Therefore, the decision of organising the Green PE matchmaking events in connection to these annual events was assumed optimal.

Due to the broadening of the technical solutions being discussed during these annual events, the participants wished to change the name of the following annual workshops. During the Green PE project, the workshops were thus:

- ISiCPEAW 2016. International Silicon Carbide (SiC) Power Electronic Application Workshop.
- IWBGPEAW 2017. International Wide Bandgap (WBG) Power Electronic Application Workshop and, after a contest to find a new name easier to pronounce
- SCAPE 2018. Stockholm Conference for Applied Power Electronics.

The scope and form of the events were similar during the three years, just the name changed.

The Green PE project consortium decided to start at an earlier stage than initially planned and to be already active in the matchmaking event in May 2016 (ISiCPEAW), one year earlier than planned. The results and experiences made of this first activity were to be taken as a starting point for the matchmaking events in 2017 (IWBGPEAW) and 2018 (SCAPE).

The Green PE project was presented at the workshop in 2016 by Teresita Qvarnström (RISE) and attracted interest from participating companies and press. In the following years, it was expected that the number of SMEs participating in the brokerage event would

Matchmaking Events

increase and that they would start the process of integrating the new technologies in their product portfolios.

2.1. Outcome of the workshops and matchmaking events in Stockholm

The following table shows statistical numbers related to the mentioned events in Stockholm.

| | SCAPE 2018 | IWBGPEAW 2017 | ISICPEAW 2016 |
|---|---------------|------------------|------------------|
| Workshop participants | 111 | 116 | 126 |
| Cooperation profiles | 7 | 50 | 29 |
| Number of meetings | 5 | 33 | 20 |
| Transnational meetings | 4 | 29 | 15 |
| Matchmaking participants | 6 | 33 | 27 |
| Number of SMEs participating in the brokerage | 3 | 6 | Not registered |

Table 1: Statistics of the participation in the matchmaking events at the WBG workshops in Stockholm

The WBG workshops are a quite established annual event attracting strong actors in the WBG technology development and applications worldwide. The workshops usually have about 100 participants. Despite of that, the possibility of meeting experts was not equally attractive for companies in the process of integrating WBG technologies. The participation in the matchmaking events was much lower than expected. A possible explanation is that SMEs see the WBG workshops as covering a rather broad variety of subjects. It would have been easier to attract the interest of SMEs to more focused events about specific applications.

3. Additional matchmaking event in Warsaw

To complement the effort done in the organisation of matchmaking events in Stockholm, the Green PE partners decided to organise an international workshop in Warsaw at the time that KIGEiT (PP16) organised a dissemination workshop for the pilot demonstrators. Research partners involved in the pilots attended the workshop in Warsaw on February 11, 2019 and had discussions with the participating stakeholders. The workshop and the matchmaking event were attended by 26 participants, among them eight companies (five of them SMEs) and four non-industrial stakeholders. There was an opportunity to discuss in depth issues about the pilot demonstrators, interest and relevance for participating stakeholders but also ideas for future collaborations.

4. Analysis of the matchmaking events outcomes

The questions to be answered with this activity have been defined to be the following:

- Is power electronics a good option for the product portfolio of participating companies?
- Have the meetings resulted in new competences to make better decisions about the integration of the new technology?
- Have the events made it easier for the participating companies to find the right development partners?

Moreover, the participating companies were asked to answer questions about their future needs and interest, which was a relevant input to the update of the roadmap.

The companies participating in the matchmaking meetings during the WBG workshops in Stockholm have clearly expressed that the discussions were relevant for them. The main subjects discussed were about the integration of WBG materials and components in their products. In most cases, the B2Bs led to follow-up meetings, participation in other workshops organised by the Green PE project or collaboration projects.

The participating companies were interviewed to give their feedback which in most cases was very positive. There were 1-2 cases that did not find what they were looking for, simply because they expected matchmaking meetings that will allow them to find new customers for their products and the meetings were focused on the support to new integrators of the new technologies.

5. Conclusions

The chosen method to organise matchmaking events in connection with big conferences did not result in the expected outcome. Companies had higher interest in engaging in collaborations or discussions about the potential of advance power electronics with partners directly which was achieved by various project activities (dissemination workshops, company visits, consulting projects). They did not use the possibility to meet the international participants in the course of a main PE conference.

It is noted that it was therefore a problem to reach the proposed large number of meetings during the matchmaking events. However, for those companies that chose to participate, the matchmaking meetings resulted in very positive outcomes.

Project Facts

- 17 project partners: research institutions, companies and technology transfer organisations
- Duration from 2016 to 2019
- Budget: EUR 3.1 million
- European Regional Development Fund
- Interreg Baltic Sea Region Programme
- Led by University of Southern Denmark

Project Partners

- University of Southern Denmark (Denmark)
- Applied Research Institute for Prospective Technologies (Lithuania)
- Christian Albrechts Universität Kiel (Germany)
- CLEAN (Denmark)
- Converdán A/S (Denmark)
- Kaunas Science and Technology Park (Lithuania)
- Kaunas University of Technology (Lithuania)
- Latvian Technological Center (Latvia)
- NATEK Power Systems AB (Sweden)
- Polish Chamber of Commerce for Electronics and Telecommunications (Poland)
- Renewable Energy Hamburg (Germany)
- RISE Research Institutes of Sweden AB (Sweden)
- Sustainable Smart Houses in Småland (Sweden)
- Ubik Solutions OÜ (Estonia)
- University of Latvia (Latvia)
- University of Tartu (Estonia)
- Warsaw University of Technology (Poland)