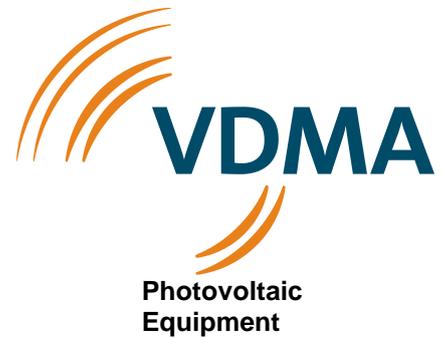


Press Release



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Contact Dr. Jutta Trube
Phone +49 69 66 03-18 79
Telefax +49 69 66 03-28 79
E-Mail jutta.trube@vdma.org

Market for solar equipment takes a breather

- **Investments in thin film technology contribute above average to success of the German equipment industry**
- **Record export rate of 93 percent, Asian business broader positioned**
- **Order intake drops in the first quarter**

Frankfurt, 19 June 2018 - The market for solar equipment has calmed down further at the beginning of 2018. Sales of solar equipment manufacturers fell by 48 percent in the first quarter compared to the previous quarter but increased by 31 percent compared to the same quarter last year. The order books of the solar equipment manufacturers are still filled, in the first quarter a ratio of orders to delivered systems ("book-to-bill") of 0,4 was reached.

"The so far high investment activity of the solar cell manufacturers in the expansion of existing and new production capacities is decreasing, the production is still busy. We also observe a reduction in equipment prices. New orders came increasingly from PERC and Black Silicon equipment of the crystalline Silicon as well as from the thin film technology sector. The trend towards implementing new production techniques in the form of upgrades of existing production lines is still unabated", Dr. Peter Fath, Managing Director of RCT Solutions GmbH and Chairman of VDMA Photovoltaic Equipment explained.

VDMA e.V.
Lyoner Str. 18
60528 Frankfurt am Main, Germany
Telefon +49 69 6603-1879
E-Mail jutta.trube@vdma.org
Internet www.vdma.org
Reg. of Assn. Local Court
Frankfurt/Main, No VR4278

Photovoltaic Equipment
Chairman:
Dr. Peter Fath
Division Manager:
Dr. Jutta Trube

President:
Carl Martin Welcker
Executive Director:
Thilo Brodtmann

Asian business broader positioned

The export ratio of German photovoltaic equipment suppliers reached the record level of 93 percent between January and March. The core business continued to be in East Asia, the share of total turnover originating from there amounted to 86 percent in the first quarter of 2018. Asia's sales were as follows: the largest share was made with China (40 percent), followed by Taiwan (7 percent). The rest of Asia which includes Malaysia and Vietnam recorded 39 percent. This shows that photovoltaic plant engineering is now much broader in Asia. Germany remained second behind Asia with a sales volume of 7 percent while Europe accounted 4 percent of sales. America achieved only 3 percent of sales. The strongest sales segment in the first quarter 2018 for German PV manufacturers was the production solutions for thin-film PV (61 percent), followed by production equipment for cells (32 percent). Although the production of modules on thin-film technology, including the CIGS (Copper-Indium-Gallium-Selenide) technology and CdTe technology (cadmium telluride), is less than 10 percent on the world market, the high share shows that especially in this segment many production solutions are purchased from Germany. Machinery for polysilicon, Ingot and wafer production accounted for 6 percent of sales as well as production equipment for production of modules with 1 percent.

Order intake decreased

Order intake declined strongly by 51 percent in the first quarter of 2018 compared to the fourth quarter 2017. The regional allocation again had an Asian focus with 75 percent of all orders, with only half of them coming from China. Germany received 16 percent of orders, followed by Europe with 5 percent and America with 4 percent. "The order books are still filled. The orders from Asia now show a wider distribution into various Asian countries. Especially the high proportion of equipment for production of thin-film modules shows that German production equipment is in demand", emphasized Dr. Jutta Trube, Division Manager of VDMA Photovoltaic Equipment.