Global Optics and Photonics Employs 3.7 million People

OIDA's latest estimate of global optics and photonics employment stands at 3,700,000, based on estimates for each region. This workforce produced components and subsystems worth nearly US$ 430 billion last year, as we noted in the January issue of the OIDA newsletter.

OIDA's estimate includes the employment for manufacturing of both optical components and systems. For example, it includes both the image sensor and the digital camera, the solar cell and the solar module, the LED and the LED-based luminaire, the optical fiber and the optical networking equipment. It does not always include the entire downstream product, however. In a mobile phone handset, OIDA includes the display module, LED flash, and camera module, but not production of the entire handset. Likewise, OIDA considers the production of the optical subsystems in an automobile, but not the production of the entire vehicle.

Most of the employment is in East Asia, which has a concentration in manufacturing of displays, photovoltaics, LEDs, and the packaging of many other products for offshore customers. The U.S. and Europe have concentrations in manufacturing of precision optical products for industrial, health care, military, and scientific applications. Also notable are Canada, Israel, and several other countries around the world that are not grouped with the major economies shown in the figure. (Canada was featured in the May 2017 OIDA newsletter.)

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