

PRESS RELEASE

BE Semiconductor Industries Announces Transactions Under Share Repurchase Program

Duiven, the Netherlands, September 5, 2011 - BE Semiconductor Industries N.V. (the "Company" or "Besi") (NYSE Euronext: BESI; OTCQX: BESIY), a leading manufacturer of assembly equipment for the semiconductor industry, today announced that it repurchased 188,013 of its ordinary shares during the period from Friday August 26, 2011 up to and including Monday September 5, 2011 at a weighted average price of €4.46 for a total purchase amount of €838,198. Since June 6, 2011, Besi has purchased a total of 2,593,046 of its ordinary shares at a weighted average price of €4.80 for a total purchase amount of €12,441,772.

The share repurchases are part of a buy-back program announced on May 20, 2011 according to which the Company may repurchase up to a maximum of approximately 3.4 million ordinary shares from time to time until October 2012. The repurchase program will be implemented in accordance with industry best practices and in compliance with applicable buy-back rules and regulations and was initiated to help reduce share dilution resulting from the conversion of Besi's 5.5% Convertible Notes due 2012.

Besi is a leading supplier of semiconductor assembly equipment for the global semiconductor and electronics industries. The Company develops leading edge assembly processes and equipment for leadframe, array connect and wafer level packaging applications in a wide range of end-user markets including electronics, computer, automotive, industrial, RFID, LED and solar energy. Customers are primarily leading semiconductor manufacturers, assembly subcontractors and electronics and industrial companies. Besi's ordinary shares are listed on NYSE Euronext Amsterdam (symbol: BESI) and OTCQX International (symbol: BESIY) and its headquarters are located in Duiven, the Netherlands. For more information, please visit our website at www.besi.com.

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