Ivor Catt developed and patented some ideas on Wafer Scale Integration (WSI) in 1972, and published his work in Wireless World in 1981, after his articles on the topic were rejected by academic journals. The technique, christened Catt Spiral, was designed to enable the use of partially faulty integrated chips (called partials), which were otherwise discarded by manufacturers.

In 1980 a European Commission semiconductor technology committee has awarded $11.6m to UKbased Anamartic Ltd, Siemens AG and Bull SA, for the development of waferscale technology (CI No 1,488). The award will be spread over four years and is part of

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the Commission's efforts to support European companies in the development of leading edge technologies.

In mid-1980s, a British company Anamartic, funded by Tandem Computers and Sir Clive Sinclair among others, announced plans to manufacture microchips ("superchips") based on Catt's technology. The approach was reported to be revolutionary at the time, with predictions that it would enable construction of powerful super-computers from cheap, mass produced components, and cheaper and faster replacements for magnetic disk memories.

Anamartic introduced a

solid-state memory, called the Wafer Stack, based on the technology in 1989 and the device won Electronic Product's 'Product of the Year Award'. However the company could not ensure a large enough supply of silicon wafers, which were crucial for its chip manufacturing, and folded in 1992.

Waferscale technology refers to the use of an entire semiconductor wafer as the basic unit of the supercomponent, rather than chips cut from the wafer. The supercomponents will be used in a variety of intermediate storage devices and the three companies will concentrate on developing 4M-bit and 16M-bit dynamic hard

storage memory systems.

Storage Capacity 80,160 or 240 Mbytes (unformatted)
Standard Interface SCSi, single-ended
Access Time 1 millisecond average
Transfer rate
 Asynchronous 3.0 Mbytes/second maximum, 2.5 Mbytes/s sustained
 Synchronous 4.8 Mbytes/second maximum, 3.0 Mbytes/s sustained
Block size setectabte 128 to 16384 bytes in increments of 2
SCSI buffer size 32768 bytes (50x512 byte blocks)
Physical Size 8" disk drive form factor, 215.9 x 127 x 616 mm (8.5" x 5" x 24.3"
Weight 15.0kg
Cooling Fan cooled
Models
80 Mbytes
160 Mbytes
240 Mbytes
Date   : 1982

**Manufacture
r :** Anamartic

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