

**TABLE 1.** Consortia with primary PCB/PCA focus.

<b>CONSORTIUM</b>	<b>FORMED</b>	<b>FOCUS</b>	<b>FACILITIES</b>	<b>MEMBERS</b>	<b>FUNDING</b>	<b>BACKGROUND/HISTORY</b>
The October Project	1992	Improve PCB manufacturing.	Used member facilities.	Motorola, Merix, McDermid, Morton and others.	Member dues.	Started by Gene Hendrickson, then CEO of Tektronix PCB plant in Forrest Grove, OR; later merged into ITRI (see below).
Universal Consortia (several)	1992	Applied R&D, equipment development	Most work done at and by Universal.	Universal customers, suppliers and partners; subsidiaries?	Member dues, state & government grants and contracts, project participation fees.	Ultra Fine Pitch Consortium (1992-1994), BGA/DCA (1994-1996), DCA/CSP (1996-1998), AART (1997-1998 and Area Array Consortium, 2005-2006>)
HDPU (High Density Packaging User Group)	1993	Applied R&D, supply line organization, implementation, environmental compliance.	“Virtual consortium” with a small staff, located in the U.S., Europe and Asia. Work is done by members in their own facilities.	OEMs, EMS providers and suppliers, predominantly from the telecom and computer industries.	Member dues.	Organized to reduce the costs and risks of utilizing electronic packaging for the telecommunications and computer industries. Efforts center around improving cooperation between system integrators, contract assembly manufacturers, and suppliers in the high-density packaging development and design process.
ITRI (Interconnect Technology Research Institute)	1994	Improve PCB manufacturing.	“Virtual consortium” with a small staff, located in the U.S., work was done by members in their own facilities.	U.S. PCB manufacturers and suppliers, some OEMs.	Member dues, some outside contracts from government and other consortia.	Organized as a result of IPC’s roadmapping activity. Created to improve N.A. PCB competitiveness. Ceased operation in 2001.
PMTEC (PWB Manufacturing Technology Center)	1998	Although not exclusive, PMTEC had a strong focus on PCBs for military technology needs.	Small staff, PMTEC had its own lab space and was located in a PCB shop in Huntsville, AL.	Mantech, U.S. PCB manufacturers and suppliers, and some OEMs.	Federal government grants and member dues.	Created and primarily funded by the U.S. Armed Forces Mantech Program. Ceased operation in 2000.