TABLE 2. Consortia with some PCB/PCA activities.

CONSORTIUM	FORMED	FOCUS	FACILITIES	MEMBERS	FUNDING	BACKGROUND/HISTORY
MCC (Microelectronics & Computer Technology Corp.)	1982	R&D in the areas of advanced computer technology, packaging & interconnect, software technology, CAD.	Central research facility in Austin, TX.	Major computer and semiconductor manufacturers, IT companies.	Primarily member-funded (dues plus project participation fees); received limited government funding on a contract basis.	The first high-tech R&D consortium formed in the US. Organized in response to Japan's Fifth Generation project, which was aimed at producing "a new kind of computer." Ceased operation in 2001.
NCMS (National Center for Manufacturing Sciences)	1987	R&D to advance manufacturing technologies, processes and practices across multiple industries.	Headquarters in Ann Arbor, MI. All work is distributed among project participants. Satellite offices in Washington, D.C. and Bremerton, WA.	Companies from diverse industries (automotive, aerospace, electronics). They also partner with government agencies and universities.	Membership dues plus project in-kind participation; numerous government-funded projects (state and federal).	Opened its doors in 1987 with a focus to rebuild the N.A. machine tool industry. Since its start, NCMS has been a leader in establishing collaborative partnerships to promote N.A. manufacturing. Since 1991 NCMS has managed three PCB-specialized projects: PWB Plating, Test and Materials Research; and Lead-Free Solders.
SEMATECH (SEmiconductor MAnufacturing TECHnology)	1987 (began operation in 1988)	Develop advanced semiconductor manufacturing technology (lithography, front end processes, interconnect) and strengthen supply base (equipment suppliers, etc.)	Central facility (class 1 cleanroom plus administrative offices) in Austin, TX.	Charter members included 14 U.S.-based semiconductor manufacturers and the U.S. government. Today, International SEMATECH's members make up 50% of the worldwide chip market.	For the first five years, 50/50 (government/ industry); since 1997, funded solely by industry.	Formed to strengthen the U.S. semiconductor industry by advancing technology and building infrastructure. In particular, there were concerns about the availability – and capabilities – of U.S.-based equipment suppliers. In 1993, charter broadened to include packaging, test, design and materials technologies. In 1998 launched a subsidiary – International SEMATECH. Consortium name changed to International SEMATECH in 2000.
iNEMI (International Electronics Manufacturing Initiative; formerly National Electronics Manufacturing Initiative, NEMI)	1994; incorporated in 1995	Electronics manufacturing. Greater focus on technology deployment than development. Recent focus is shifting to more advanced technology topics.	"Virtual consortium" with small administrative staff; work is done by members at member sites. iNEMI has an office in Herndon, VA.	Electronics industry supply infrastructure – OEMs, EMS providers, suppliers, related organizations, universities and government agencies.	Member dues.	The National Electronics Manufacturing Framework Committee was formed in 1994 as a joint effort between AeA and the National Science and Technology Council's Electronics Subcommittee. The group studied challenges in electronics manufacturing and developed technology roadmaps to address these challenges. NEMI organized in 1995 to manage ongoing activities. Initial focus was U.S., then North America, then global, becoming iNEMI in 2004. Continues to roadmap industry needs, identify gaps and organize deployment activities to address gaps.