Preface

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In the late 1980’s Professor Yoshikawa of Tokyo University recognised that no single organisation, or even a country, could learn enough to form the basis for future advances in the increasingly complex Global Village in which we now live. He proposed a scheme for sharing experiences in intelligent engineering. That scheme has now been adopted internationally and is known as the Intelligent Manufacturing Systems (IMS) program.

Following a series of meetings, Australia, Canada, the European Free Trade Association (EFTA) countries, the European Union (EU) and the USA conducted a feasibility study from 1992 until 1994. A full-scale IMS initiative commenced in 1995. The program now involves Australia, Canada, EU and Norway, Japan, Switzerland, USA and South Korea. Other regions have expressed interest and discussions have commenced to consider a revised program following the current term – 2004.

The IMS initiative provides a support structure for conducting R&D projects within specific arrangements for the protection of intellectual property rights. Results of collaborative IMS projects are shared through a process of controlled information diffusion that protects and equitably allocates any intellectual property.

The program is led by industry and addresses business practices and technologies of direct relevance to all phases of innovation and manufacturing life-cycle: from conception, design, production development, manufacture, distribution and recycling. The technical themes embrace total product life cycle, strategic planning and design, manufacturing processes, global enterprise integration, human organisation and social issues.

It has been found that consortium members joining an IMS project are initially wary of the agreement requirements, but once a consortium is operating and achieving useful results, an environment of trust and mutual respect develops. That trust and collaborative spirit, crossing cultural barriers, is a significant feature of the IMS program.

Several of the organisations participating in the GLOBEMEN project recognised the benefits of collaborating under the IMS program and they formed a project “Globeman21” in 1992, at the feasibility stage of IMS. This was reformulated and operated in 1995 and achieved some important findings till its planned conclusion in 1999. In January 2000 GLOBEMEN commenced as a new project with less partners than Globeman21 and a sharper focus on inter-enterprise information exchange and control.