

Dr. Arthur B. Pyster is the Chief Scientist for Software Engineering for the Federal Aviation Administration (FAA), where he is responsible for strategic direction on software engineering for the National Airspace System and administrative computing and for continuous improvement of FAA's software life-cycle management practices and processes. He is also responsible for assessing agency efforts to implement such improvements, including the agency's commitment to widely adopted open systems standards.

Dr. Pyster has over 20 years experience creating, marketing, and delivering advanced software and systems products and technology solutions to customers in the telecommunications, government, defense, and academic sectors. For ten years prior to joining the FAA, Dr. Pyster worked at the Software Productivity Consortium (SPC) as Vice President, Chief Technical Officer, and Chief Technologist. There he led the development and deployment of technologies to rapidly develop distributed information systems, to develop product-lines, to manage systems development, to specify and design real-time systems for implementation in C++ and Ada, and to improve software development using the Software Engineering Institute's Capability Maturity Model. As Program Manager for five years, Dr. Pyster managed more than \$25M from SPC's member companies. As Chief Technical Officer, Dr. Pyster provided technical leadership on over \$20,000,000 of successful DARPA-funded research on processes for software-intensive systems.

As Chairman of the Steering Group that manages the Enterprise Process Improvement Collaboration from 1994 through early 1997, Dr. Pyster directed the creation of the Systems Engineering Capability Maturity Model.

Before joining SPC in 1987, Dr. Pyster was an Engineering Director for Digital Sound Corporation, a pioneering provider of commercial voice processing computers and systems for the telecommunications industry. For three years, he helped develop Digital Sound's early products, including their earliest voice mail systems.

Dr. Pyster was Chief Architect and Manager of System Engineering for the Software Productivity Project at TRW, implementing an advanced UNIX office automation and software engineering environment. His project introduced much of TRW to office automation and software productivity enhancements, building some of the earliest requirements management tools and WYSIWYG editors. Boehm's spiral process is partially based on this project.

Before joining TRW in 1981, Dr. Pyster was an Assistant Professor of Computer Science and Electrical and Computer Engineering at the University of California at Santa Barbara, responsible for well-published research in software engineering and languages, and for designing much of the initial computer science.

As a consultant for General Research Corporation from 1979-81, Dr. Pyster was the technical lead on a contract for the Electric Power Research Institute to analyze the use of software to control nuclear reactors. He also developed a new release of GRC's commercial structured FORTRAN preprocessor.

Dr. Pyster was keynote speaker at the 1996 IEEE ECBS Workshop, plenary speaker at the 1996 Software Technology Conference, General Chairman of the National BPR Conference '94 and the 1995 National Software Summit, and 1996 President of the Washington Metropolitan Chapter of INCOSE. Dr. Pyster is a Senior Member of the IEEE and a Distinguished Alumnus of the Engineering College of Ohio State University. He wrote two editions of Compiler Design and Construction. He received his Ph.D. in Computer and Information Sciences from Ohio State University.