Objectives and Marginal Conditions

In the year 1986 a research and technology project called "Software Development Environment for Information Systems of the German Federal Armed Forces" (SDE-IS\(^1\)) was started. The objective of the project is defining general standards for software development in the field of database-oriented DP systems in the German Federal Armed Forces. These systems are characterized by a commercial environment, i.e. standard hardware and software.

The technological developments, the change from data processing to information processing and the often quoted development backlog required elaborating and defining a uniform software development environment. The global objectives regarding the use of an SDE are increasing quality and productivity, improving the transparency of development processes and updating/maintenance as well as dominating the new technologies.

The levels of standardization within the scope of the SDE-IS are illustrated in fig. 1. The

\(^{1}\) SDE-IS stands for "Software Development Environment for Information Systems". The German term is "Software-Entwicklungs-Umgebung für Informations-Systeme" (SEU-IS)
top level represents the life cycle methodology (LCM), the next level holds the definition of methods, and the third level deals with functional requirements on the tools. These levels equally apply to the actual software development (SWE) as to all other project phases: project management (PM), quality assurance (QA) and configuration management (CM) incl. data administration.

Levels of Standardization

![Levels of Standardization Diagram](image)

Fig. 1

In the view of the research project members, the realization of the actual SDE, including the choice of the corresponding tools is reserved for the individual project teams and is currently depending on the corresponding hardware and software environment.