

What is Software Engineering? The economies of all developed nations are heavily reliant on software. The driving force behind economic growth is innovation in ideas and technology, and software plays a crucial role in this process. More and more systems are becoming software-controlled, further highlighting the importance of software engineering. ## Why we need Software Engineering? Software costs often dominate system costs. For instance, the cost of software on a personal computer frequently surpasses the cost of the hardware itself. Furthermore, maintaining software is often more expensive than developing it. In systems with a long lifespan, maintenance costs can even exceed development costs by several times.