

## Management and Different Stages of Technology Life Cycle

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### DESCRIPTION

The commercial gain of a product during the cost of the research and development period, and the financial return during its "vital life" are both described by the Technological Life-Cycle (TLC). Having a strategy for dealing with all facets of your technology during its useful life, such as deployment, operation, maintenance, and expiration, constitutes a technology lifecycle management strategy. It includes all stages of technological development, from initial planning and research stages through to decline and retirement. Making the best purchases and managing long-term technology investments are made easier for leaders when TLM is used. Agencies are now able to proactively address systematic budgeting and long-term management of their IT infrastructures thanks to the confluence of in-depth technical knowledge, intelligent business processes, and skilled engineering and finance services into a strong business model. Organizations can align their technology purchase strategy with a financial model that will enable them to achieve the full value of their technological assets if they have an accurate image of how the IT infrastructure may change over the next one, three, or five years. Because of this, it's crucial for businesses to comprehend the procedures involved in each of the TLM phases listed below: assessment, determination of business objectives, and suitable use of technology. Acquisition of technology tailored to the needs of the IT infrastructure, Integration and implementation by certified engineers, Support services like personalized warranty and maintenance plans help desk support, and system monitoring, Technology refresh to ensure timely and relevant upgrades, and Asset disposition under pre-negotiated terms. The four stages of the technology and product life cycles awareness of the technology, technical growth, technological maturity, and a fall in interest in the technology.

### Stages of technology life cycle

The Technology Life Cycle has four stages,

**Innovation stage:** As the sources of advantage for incumbents destroy technological innovations offers possibilities for entrepreneurs to established new businesses and build competitive positions. Because it is impossible to predict the exact results of technological innovation, it also exposes incumbents to uncertainty and risk. The goal of innovation is to produce commercial value. Value can be defined in a variety of ways, such as cost reduction, the creation of whole new products and services, or minor alterations to ones that already exist.

**Syndication stage:** This stage is the commercialization and demonstration of a new technology, such as a good, material, or method that has the potential to be used right away. In R&D labs, numerous ideas are postponed. Only a very limited portion of these are made available for sale.

**Diffusion stage:** This reflects a new technology's entry into the market through potential users' acceptance of the innovation. However, both demand and supply side variables work together to affect the pace of diffusion. The fact that new technologies are prevalent across a wide range of consumers, applications, and geographical regions explains their significance. Long-term growth depends on the spread of technological innovations among manufacturers both domestically and internationally.

**Substitution stage:** This final stage shows whether a technology's use eventually declines and is eventually superseded by another technology. The rate of substitution is influenced by a variety of technical and non-technical factors. The market dynamics determine how long the substitution stage takes.

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