

(Technological) Forecasting in Perspective

The desire for understanding the present and divining the future has always been inherent in human nature to cope with the future and its risks. But we have to keep in mind that all forecasts (FC) are opinions on the future, more or less profound, responsible or futile. K. Popper argues that it is for strictly logic reasons impossible predict the future course of history and C. v. Clausewitz writes that the volume of relevant factors to be considered surpasses human capabilities. FCs is becoming even more complex taking change from static structural thinking models change to dynamic process thinking, self-organization, order through fluctuation and dissipative structures into consideration.

The increasing leverage of mankind on its future and the development of science have instigated the development to enrichment of non-scientific approaches by scientific methods. Technology FC as e.g. the Delphi method, brainstorming, regression analysis, scenario planning or technology road mapping can be defined as the methodology and practice of predicting the future state of technology.

We will examine examples from business and the factors impacting the implementation, since realizing a correct FC is not necessarily easy and successful. Psychological and sociological barriers as well as organization culture can be decisive for making a success or failure.

The high risk of FC based decisions in industries resulted in high quality technology FC. Reviewing some of it findings, technologies which may forge the future as Nanotechnology, Fabricators, Spintronics, Quantum computing, Medico-electronics or Photonics will complement our session.