

FRAMEWORK OF ACTUALITY

*Written in 1962
I've forgotten who asked for it.*

To provide a sound framework of actuality into which interesting materials may be woven, this outline is provided.

1. Harry Erlicher and Bill Sredenschek provided to me an opportunity to research into means for sooner and more efficiently identifying unnecessary cost. They ~~provided~~ progressively provided secretarial assistance and additions to our group building up to about 15 people as the work progressed.
2. A new system of function based technique called the Value Analysis Technique was put together. This accomplishes many objectives in the product with startling efficiency. The system, although a basic problem-solving system, was essentially developed for the purpose of our charter, namely, the identification of unnecessary cost.
3. Outstanding results were always secured. Some people at all levels were delighted, ~~and~~ accepted and supported the use of the techniques. Some were very negative and opposed. Usually any man who had enough contact with the philosophy and techniques to learn them--approximately 50 hours--accepted them and would use them efficiently if provided an appropriate environment to do so.
4. The results were of a higher order of magnitude than anyone had a right to expect. Right from the start and continuing until the present, it has been found practical to identify approximately 35% of the cost from even the most thoroughly worked competitive products, approximately 50% of the cost from the normal industrial products, and in the neighborhood of 75% from the military type. This is because of the efficiency of the problem-solving techniques of the manner in which it strips the problem to its core, brings new information to shed light on this core problem, and brings intense creativity into these core areas.
5. While the company recognized this as proprietary technique, it was recognized that large benefits would be brought to the government of U. S. if the techniques were used especially in the military areas. For this reason, the techniques were taken to members of the armed services in Washington. At the same time, it was recognized that General Electric sells as it buys on the basis of the best combination of price, quality, and service and that this constituted an important service to our customer. Therefore, beginning in 1949 as soon as the significance of the results of this research were appreciated, articles and presentations have been made to the industrial public.
6. Although the original technique brought forth in about 1949 and 1950 were exceedingly good, they have been improved and reinforced by better understanding throughout the succeeding years.

7. There has been a steady gain in stature of the Value Analysis and Value Engineering techniques both inside General Electric and in outside industry and government. Others are learning the effective^{ness} of the techniques, are meeting the same types of personal and integrational problems and are gradually overcoming them in a similar manner.
8. This now consists of an important and ever-growing technology which is providing and will provide the user more for his dollars. It is a mechanism through which the resources inside a company, a country, and elsewhere are brought clearly into contact with the problems of providing the functions and appearance which the customer wants reliably for the most economical costs.
9. As this technology is now developing and becoming more and more used, it is providing a more sound economic structure. It is resulting in and will increasingly result more in increased standard of living, more stable economic competition, and the other factors which make up a sound healthy economy.
10. The result of this is that a new profession has been created. Originally the problem was to learn human needs and to use the capabilities of science to fill that need. This we might call "performance oriented engineering" which has been a mainstay in the development of the United States for the last 50 to 75 years. We are now in the period when many, other than in certain military and very new areas such as computers, atomic power, and the like, products have matured. Large increases in performance are rare. Rather, the opportunity is to provide a performance which is already acceptable; such as, for example, the refrigerator, the electric iron, the electric motor, the disposal, etc.; but at lower and lower costs so that the benefit of these conveniences can be utilized by more people. The entire group of techniques of Value Analysis and Engineering are directly specific to this part of the job. It might well be summarized that a product must now have suitable performance and it must have suitable costs. The traditional profession of engineering has well established methods for extending, providing, and securing suitable performance. The new technology of Value Engineering consists of techniques and ~~of~~ increasingly *of* measurements for securing and assuring suitable costs.