

**In a study, submitted to the Minister of Industry:
The Establishment of a Center for Reverse Engineering**

Dr. Nader Riad, Counselor of the Committee for Industry and Energy, at the People's Assembly, and Chairman of the filiation of Pressure Vessels Manufacturing at the Federation of Industries, has stressed the necessity of establishing a specialized Center, subordinate to the Ministry of Industry; to work in the field of evaluation of commodities and products, and to render services in that of Reverse Engineering.

In a study submitted to the Minister of Industry and Technological Development, Dr. Mustafa El-Refa'i, Dr. Riad has alluded to the fact that evaluating products and commodities, as an activity, is a primordial one; necessary for any industrial activity.

This is due to its importance for evaluating such commodities, whether those which are in the market, or others that are still in the phase of research and development, and as such; serves directly the activities of consumer's protection; especially in the sphere of commodities related to public health, and to the consumer's safety and security.

Dr. Riad added that when is taken into consideration the fact that Faculties of Engineering in Egypt have not yet started introducing disciplines of products' evaluation in their curricula, although such is the standard practice in analogous curricula of Engineering in universities abroad, the importance of establishing such a Center proves itself, as a correctional procedure, imposed by such a shameful lack in responding to the needs of industry, as well as those of the consumer, for this vital activity. Meanwhile, commodities and products should

be evaluated by means of another activity, not less important, namely that of Reverse Engineering.

The study has affirmed that Reverse Engineering is one of the essential resources for industrial development and low cost technological modernization, in application of the well known saying: "We do not need to reinvent the wheel; since it is enough to apply it for whatever use!"

The study has taken for example Japan, that depended on the principle of Reverse Engineering, at the outset of its industrial renaissance, satisfied with nothing more than copying high tech products; as a low cost solution of the transfer of technology, or even devising it, followed, on the same way, by Korea.

If such countries have attained, along the last thirty years, that phase of capability of self-development, technologically, realizing their advancement in the sphere of technological innovations in all fields; still China has not stopped depending on Reverse Engineering, for the transfer of technology, though its own technological capacities have reached an advanced level.

The opinion supported by the study, focuses on the need of Egyptian industry, in its current phase, to apply developed technical solutions, introduced in engineered commodities and products, at the same pace as that of the development itself; especially since this would immensely make up for the time already lost, and on the other hand allow for enough time to introduce such solutions, or transfer the technology pertaining to them.

In view of the study, the processes of scientific survey, and the technical studies related to the components of more advanced commodities, the resort to the principle of Reverse Engineering would enable to attain those technical (and technological) solutions, that are immediately applicable, for a low cost. This is

because the processes of evaluation of products, and work in the sphere of Reverse Engineering, depend on specialized expertise, belonging to experts in such specializations, and this is related to industrial secrets that should be kept under the control and supervision of the State, entrusted, as it is, with public benefit.

It is necessary that the Center be established of under the umbrella of the Ministry of Industry, as the governmental body responsible for the realization of national development, and guardian of the data, statistics and figures of all the industrial activity.