

**Report on: The need to set up a specialist centre affiliated to the  
Ministry of Industry to work in the field of product evaluation and to  
offer services in the field of reversed engineering**

**Submitted to: His Excellency the minister of industry upon the request of  
his office**

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**Introduction**

It is known that the activity of product evaluation is considered to be one of the necessary activities for any industrial activity, given the importance of this in evaluating these commodities whether those put out in markets or those still in the stages of research and development.

This also serves directly the activities of protecting consumers particularly in the field of commodities which are related to public health and the safety and security of citizens.

If we take into account that the Egyptian engineering faculties have not yet started to introduce the product evaluation sciences as part of their educational programmes although this specialization is part of the engineering university programmes abroad, this matter shows the importance of setting up this centre as part of a corrective measure to deal with this shortcoming to meet the need of industry and consumer for this vital activity

We will not forget to shed light on the complementary side of this product evaluation activity by adding another activity that is no less important than this; it is the work in the field of reversed engineering.

This reversed engineering is considered to be one of the important factors of industrial development and low-cost technological modernization, acting upon the known saying “we do not need to invent the wheel since it is enough for us to apply its uses”

It is known that Japan had relied at the beginning of its industrial advancement on the principle of reversed engineering, finding it enough to imitate the product of technical advancement as a low-cost solution to transfer technology or even elicit it. It was followed in this by Korea afterwards.

If these countries had reached over the past thirty years the stage of being able to develop their own technology, achieving their development in the field of technological development in all fields, China has not stopped until today relying in the transfer of technology on reversed engineering although its auto-technological capabilities have reached an advanced level.

The opinion supported by this report says that the Egyptian industry in its current stage needs to take devised technical solutions in engineering products in a way that suits the speed of development itself, particularly as this makes

big saving of time difference we have lost on the one hand and the time difference needed to devise these solutions or transfer the relevant technology.

It is logical that in the light of the scientific questioning processes and the technical study related to the components of the most sophisticated products through the principle of reversed engineering, it would be possible to reach the technical and technological solutions, which can be immediately applied at a very cheap cost.

Since the product evaluation operations and working in the field of reversed engineering is a matter related on the one hand to the specialist expertise of experts in these areas, and the connection between this and industrial secrets that should be kept and remain under the control and supervision of the safe hand of the state on the public interest, it is necessary that this centre should be set up under the umbrella of the Ministry of Industry in its capacity as the government body entrusted with the task of achieving industrial development at the national level and also on the basis that it has the data, statistics and figures related to the industrial activity in full.

We can imagine that a big side of the field of working in the product evaluation activity and research related to the reversed engineering will be performed upon orders from the various industries as one of the stages of development needed for these industries on the basis that it is one of the activities related to research and development and transfer of low-cost technology.

This matter means that the process of requesting these services by the different industries and the providing of these services is a topic of discussion by the centre that will be done for a financial return which will result in covering the budgets of the centre and providing surplus with which the centre can develop its financial and human resources in a way that ensure it would continue to develop to cope with the future developments.

It is noteworthy to cite just a similar case of success in the field of industrial service activity, which is just an example; the metals research centre and the welding division affiliated to it, which is a bright example of the level of technical services as this centre provides the industrial sector as a whole with training, qualification, inspection and research in the field of metals and welding for a financial return, achieving a big financial surplus in return for these services.

It uses this surplus to keep the technical expertise represented in the experts affiliated to it or the specialist expertise which it uses in some cases, and to continue development in the labs and technical capabilities.

This matter led to technical success that earned this institute an international reputation that made it receive a significant financial and technical support represented in grants offered to it every year from scientific institutions in the east and west.

I hope with this report I have supplied a detailed explanation for the urgent need to set up a specialist centre affiliated to the Ministry of Industry to work in the production evaluation and to offer research services in the field of reversed engineering.

**Dr. Eng Nader Riad**