TECHNOLOGY WATCH: HOW TO OPTIMISE TIME

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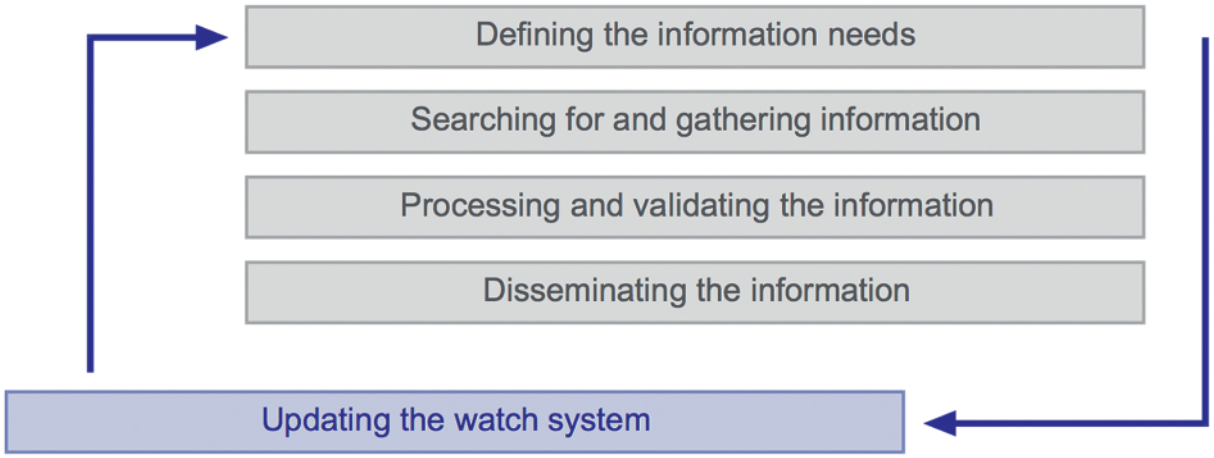
At present, the modern company that wishes to maintain its competitiveness is obliged to keep continuously abreast of the most recent technological innovations, latest market movements, positioning of its competitors, evolution of the political and social framework of its environment, etc. However, in a globalised world where threats and opportunities can reach us from any corner of the planet, just being informed of the current environment no longer suffices since, in innovation issues, 'today' already belongs to the past.

Owing to the impact of globalisation, to the increasingly rapid evolution of the industrial environment, and to the great existing competition, companies need to filter a great quantity of information and to translate this into an understanding that will guide their strategic decision-taking in regard to products and technology.

In order to keep ahead of competitors and to adapt to a changing environment, it is considered fundamental to establish systematic information warning measures for decision-taking. These systems, known as Technology Watch (TW) Systems, allow us to detect signals of change, among other things: thus, they warn of possible threats/opportunities, enable solutions to be sought for technological problems, avoid squandering resources, reduce risks, identify substitute products, detect technological advances, monitor the evolution of emerging technologies, identify who is generating technology, etc. in an optimised way, so that we can save time and resources in our endeavour to ascertain what is happening around us.

The implementation of a Technology Watch system in a company or organisation entails putting in place a series of clearly defined phases, which were already set out in 1998 in the French standard XP X50-053: *Prestations de veille et prestations de mise en place d'un système de veille*, and more recently in 2006 by the Spanish experimental standard UNE 166006 EX: *Gestión de la I+D+i: Sistema de Vigilancia Tecnológica* (R&D&I management: Technology Watch Systems).

In order minimally to define a Technology Watch System, four basic steps need to be followed, each of which consists of a series of activities.



Defining the information needs

- It is necessary to identify what is really important and high-priority for the company, and what information is indispensable for decision-taking. These subjects of strategic interest are known as Critical Watch Factors (CWF).
- We also need to identify the means and resources that the company has, both internal and external, in order to access the information that is really of interest to us. These means and resources include: documentation, human capital, outside contacts, organisations, technology centres, primary information sources (journals, books…), secondary information sources (catalogues, databases…), technical documentation (patents, standards…).

Searching for and gathering information. It is necessary to define an organised system of localising the information that is of interest to us, this being the core TW process. This involves:

- Determining what the information sources and keywords are that will provide the initial information need, establishing search strategies in the information sources that are most propitious.
- Collecting information in the most automated possible way by means of systems that help filter and categorise the information gathered. Note that using a very sophisticated information system will not necessarily ensure a successful TW system. Low cost software programs are available that can be very effective for certain needs.

Processing and validating the information. The human capital that is to validate the quality, pertinence, and reliability of the information is critical in this phase.

Disseminating the information. It is necessary to disseminate the appropriate information, appropriately, to the appropriate person in order to facilitate decision-taking.

Updating the TW system. TW is a continuous process that requires constant revision based on the changes that occur in the company and in its environment, making the system dynamic.

Establishing a Technology Watch system is no trivial matter, and needs human, technical, and economic resources in order to work. It is an interactive process that requires total commitment by management and most of the company workers. It is also necessary to bear in mind that access to quality information (databases, subscriptions, standards, articles…) comes at a cost, as do the tools for storing, analysing, and disseminating the different types of information, thus inevitably demanding economic resources.

For companies that do not have the means to establish these information systems within their own businesses, specialised Technology Institutes present themselves as good allies for obtaining the information they need. Since the publication of standard UNE 166006 EX, in which this technology watch process is defined, and the standards for subcontracting this, it is becoming increasingly common for such Technology Centres to act as support for business innovation systems.

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