

Meeting information needs throughout the drug development process

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In looking to develop an integrated solution that fulfills the critical information needs of the pharmaceutical market, Thomson Scientific surveyed customers to determine what they look for in an information solution. The results of this survey were used to help create Thomson PharmaSM.

Facing the information challenge

Making informed decisions at every step of the research process, from the initial stages of R&D through to the marketing of a finished product, is a major challenge facing the scientific community. A multinational pharmaceutical R&D team can typically consist of thousands of end users working together, from more than one hundred different disciplines.

Under these circumstances, it is critical that organizations know how and where to find focused, valuable information, so they can enhance their productivity and determine where best to focus their projects. However, the information needs of the pharmaceutical market have traditionally been served by a large number of disparate vendors and delivered through a myriad of different interfaces. This has led to complexity and variation in data formats and functionality, as well as a lack of intuitive and consistent retrieval and analysis tools.

In September 2003, Thomson Scientific took on the challenge of resolving this problem by creating an integrated pharmaceutical solution, built around comprehensive data from Thomson businesses and presented through a single, consistent, and highly-configurable interface.

Addressing customer needs

To ensure the solution fully addressed customer needs, Thomson Scientific first conducted a survey of pharmaceutical customers. Respondents were asked which types of information databases they considered to be most critical to their work.

Unsurprisingly, 75% of those surveyed viewed investigational drug databases as critical, while 68% also described scientific literature as important. 56% of those surveyed viewed patents as critical, while marketed drugs were seen as important by 53%.

Thomson additionally asked customers which types of content they considered the most valuable. In order of importance, the respondents said they were most looking for:

- Drug target information, with the ability to search for and link to drugs with the same target, plus information on how the target fits in the disease pathway
- Pharmacokinetic information, including citation links to references that describe the ADME properties, plus structured ADME information
- Toxicology information on marketed drugs plus drug interaction information
- Disease pathway information, especially the ability to visualize the disease pathway and see drug activity on the pathway
- The ability to search original patent abstracts and claims, plus the ability to search the whole patent
- Labelling information, with descriptions of approved drug uses, plus off-label drug uses
- Synthesis information, large and small scale

Respondents were also asked to comment on the functionality they would like to see in an information database. They said they would most like to have:

- The ability to personalize the way content is displayed by job function, therapeutic area, and chosen drug target
- The ability to cross-search third-party databases
- The ability to annotate documents and share them with colleagues in a project folder

Determining the critical factors

Thomson Scientific used the results of this survey to determine which elements would be needed in an information solution that meets the critical needs of the pharmaceutical market. It was determined that a prospective new solution would need to offer:

- The ability to search multiple global information sources, including third party sources, and the ability to search sources individually
- The ability to conduct basic and advanced searches, including field searching, free-text, Boolean searching and proximity searching

- The ability to create personalized alerting strategies
- Standard results, navigation, and manipulation features, such as the ability to select multiple documents for printing, saving, and exporting
- Open architecture that makes use of standard IT tools and platforms supported by IM/R&D IT
- User management capabilities and detailed usage metrics
- Appropriate content re-use rights, such as the ability to use host content internally for text-mining and re-distribution
- The flexibility to add other content
- The ability to easily share work
- Integrated analysis tools
- High performance, ensuring stability and data availability in a secure environment

Thomson Pharma: more than the sum of its parts

The result is *Thomson Pharma*; a powerful, dynamic, and wide-ranging solution that is being iteratively built to address these needs. . It contains unique, integrated content in seven core areas:

- Drugs
- Intellectual property
- Literature and news
- Companies
- Chemistry
- Targets
- Sequences

This premium content is combined with powerful search and navigation tools to help customers make more informed decisions at every stage of the drug development process.

Thomson Pharma will be demonstrated at a series of worldwide seminars throughout April and May. You can find out more at: www.thomsonpharma.com