

New scip Community of Practice:

Competitive Technical Intelligence

By Brad Ashton, Concurrent Technologies Corporation

In the spirit of collaboration promoted by our SCIP President, Dr. Martha Matteo, several members with an interest in competitive technical intelligence (CTI) met informally as a CTI focus group during SCIP07. The attendees sought to determine if the SCIP membership contains a large enough CTI constituency to warrant a “seat” at the strategy table.

In addition to myself, the roundtable discussions were organized and chaired by the following individuals, all of whom made significant contributions to this article: Pat Bryant (University of Missouri-Kansas City), Manjula Nadarajah (Shell International Exploration and Production), Jay Paap (Paap Associates, Inc.), and Martha Matteo (formerly of Boehringer-Ingelheim).

Broadly speaking, competitive technical intelligence can be thought of as:

Analysis and understanding of the external environment, in the context of internal business issues, where science and technology are important factors.

Because competitive technical intelligence has some unique features compared to other forms of competitive intelligence, we proposed the formation of a SCIP CTI Community of Practice (COP). Our enthusiastic group produced the strong message that such a group of SCIP members is needed, and then reinforced it by prompting some volunteers to commit on the spot to help get it started.

This article presents a summary of the main points raised during the COP discussion and some plans for upcoming activities. Our experience in forming a COP may have some

lessons for others interested in creating other such SCIP groups. Two major topics and several specific suggestions arose during the discussion at the SCIP07 meeting.

WHY IS CTI DIFFERENT FROM OTHER TYPES OF COMPETITIVE INTELLIGENCE PRACTICE?

To start with, the group raised several differences between competitive technical intelligence and other forms of competitive intelligence.

Analysis techniques and tools

Competitive technical intelligence topics are primarily technical in nature; specialized and practical knowledge of scientific, technological, or engineering content is a key element. Examples of these topics include:

- knowing what a set of patent data can tell us.
- supporting licensing decisions.
- evaluating potential technology investments.

Likewise, our analyses are usually more technical in nature than general CI and often rely on tools and techniques in specialized software.

Data collection

Competitive technical intelligence data collection, such as gathering technology characteristics or research and development (R&D) funding for competitors' portfolios, focuses on different content than standard business intelligence collection. The sources and locations used by our CTI

collectors, such as patents and R&D project funding by competitors and government laboratories, are at times unique.

In addition, CTI often requires information details that other competitive intelligence groups may not find relevant or important. Examples are R&D expenditures by universities and government labs, manufacturing specifications, material or component costs, and access to enabling technologies and subject-matter experts.

Communications and organizational culture

Effective communication between business and technology-oriented staff is often difficult to maintain. Technical information content may need to be “translated” for non-technical analysts and management. Similarly, technical staff may not have an appropriate context for understanding important business issues.

Also, both groups sometimes exhibit the “not invented here” syndrome — an unwillingness to use or adapt an idea or product in one group because it originates from another organization or group. An effective CTI practitioner can overcome these barriers for the good of the business.

Customers

Typical competitive technical intelligence customers are based in R&D (scientists, engineers, and administrators) and in selected business groups (marketing, strategy development, licensing, and business development), and include analysts and upper management. Ideally, these customers are willing to share information and expertise with the CTI analyst, who may be a former peer with high technical credibility. Successful CTI practitioners network easily with their former peers.

Alternately, the customers of competitive “business” intelligence are primarily in business groups and upper management. They tend to draw upon different organization networks than CTI players.

Time horizon

Competitive technical intelligence time horizons are often longer than those of business competitive intelligence because of CTI’s focus on the full product development cycle. This can create a mismatch between the shorter time horizons typical of CI-supported business decisions and the longer-term technical investment decisions that require CTI. However, for longer-term marketing issues such as life-cycle management, the “future” orientation of the CTI analyst can be quite valuable to the business or marketing analyst and clients.

WHAT RESOURCES OR SCIP ACTIVITIES COULD HELP US DO OUR JOB BETTER?

The activities and resources suggested by the competitive technical intelligence focus groups divide into two categories: knowledge development and sharing and networking.

Knowledge development and sharing

Our group needs more workshops, seminars, and webinars on competitive technical intelligence topics both throughout the year and at the national conference. Specific examples of these activities include the following:

- A special CTI conference similar to those held in 1995, 1997, 1998, 2000, 2004, and 2006.
- A monthly or quarterly webinar or eCommunity dialogue on specific cases — either specific problems a firm is having or a virtual discussion topic around common problems, topics, or areas of interest.
- Specific workshops for “advanced topics” such as war games — using CTI for strategic decision making as opposed to just CTI tools and techniques.
- Educational programs for CTI practitioners on how to present technical data and concepts to non-technical people for greater impact.

Additional opportunities to share CTI knowledge can consist of organized, easily-searchable resources that include archives of SCIP-generated intellectual property, and opportunities or forums to share ideas, current and best practices, and benchmarking information. This would help practitioners by developing a toolkit of what has been tried before and worked, and equally important, what has been tried before and failed.

Competitive technical intelligence provides an excellent opportunity for developing metrics for intelligence performance and impact. Answers could be developed for questions such as the following:

- How does CTI perform in terms of return on investment (ROI) — for example, in product development efforts?
- How are other CTI organizations structuring their efforts, such as location in the organizations, number of staff, responsibilities, and so on?
- How do typical CTI groups carry out their charter — types of services, activities, relationships with customers, and the like?

In addition, SCIP support for chapter coordinators could expand to providing speaker lists and suggesting effective ways to present competitive technical intelligence programs to competitive intelligence practitioners. The local level often has an interest in CTI, but may have no local or easily accessible experience or expertise.

Networking

Networking enhancements include creating an eCommunity, a website, or e-mail listing that reinforces competitive technical intelligence as a community.

SIDEBAR: CTI ROUNDTABLE ORGANIZER CONTACT INFORMATION

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Conferences could contain planned CTI-focused networking opportunities such as receptions or group lunches.

HOW TO GET A CTI COMMUNITY OF PRACTICE STARTED

Two major initiatives emerged from the SCIP07 discussions to form a competitive technical intelligence COP. Both have already generated some near-term actions.

The website

First, enhanced web-based tools can help enable communication and sharing among a CTI community. Three ideas were raised for the website:

- Work with SCIP staff to create a web community networking site for CTI (expected to be ready by end of June 2007!)
- Build a “living” competitive technical intelligence contact list to be posted on the website (initial list from the August ‘06 CTI Best Practice Forum and the CTI Focus Group at SCIP07)
- Form an infrastructure of volunteers to manage the website and coordinate selection of goals and activities.

Recognition of unique needs

Second, COP members should collaborate with SCIP staff to develop recognition that competitive technical

intelligence has some unique needs that should be considered when planning local and international conferences. Some of the actions taken or being considered include the following:

- Schedule a discussion of CTI and its relation to other disciplines within the decision-support structure of a company — such as a panel discussion featuring a CTI practitioner and representatives from licensing, marketing, and other functions. The date and location for the first such event is already set for June 11 at the New York City SCIP Chapter.
- Plan other chapter events geared toward increased visibility of CTI in the business context.
- Plan for a possible CTI focus group at SCIP Europe, in Bad Nauheim, Germany, in October 2007.
- Schedule a CTI conference for 2008. The theme should reflect member needs identified through a dialogue with the CTI community of practice. One possible theme is “Analytical and information tools targeted on CTI.”
- Offer COP participation in a CTI focus group, as part of the SCIP Board of Directors’ Strategy Initiative, 2H07.

OUR FINAL MESSAGE

For other groups considering forming a SCIP Community of Practice, our message is: It’s not difficult. A small core of dedicated individuals has to commit to the effort of starting such a group. Their grassroots organization is a way to identify the level of interest in SCIP, and solicit ideas and individuals to start the group and keep it moving forward. And the SCIP staff is very supportive and ready to help!

Finally, we would like to thank everyone who volunteered to participate in the competitive technical intelligence focus group at SCIP07. Your energy and enthusiasm were wonderful, and your ideas and comments provided an excellent basis for a way forward. Given the motivation and interest demonstrated by the individuals involved, this CTI Community of Practice is bound to be successful.

Brad Ashton serves as a principal consultant in technology management at Concurrent Technologies Corporation (CTC). He is an internationally recognized expert in technology intelligence, transfer, and commercialization with experience serving private, government, and international organizations. Brad is a SCIP Fellow and recipient of the Faye Brill Service Award. He holds M.S. and Ph.D. degrees in industrial and systems engineering from Ohio State University and a B.S. from the U.S. Air Force Academy.