



“Competing With Intelligence: Organizational Issues”

Jay E. Paap, Ph.D.

**Paap Associates
351 Waban Avenue
Waban, MA 02468-1349
(617) 332-4721**

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Competitive Technical Intelligence



- Organized approach to:
 - Anticipate competitor’s intentions.
 - Anticipate competitive technological progress.
- Provides actionable information to support:
 - Technology sourcing: what and where.
 - Diversification opportunities: products, businesses, services.
 - Project specification: features, capabilities, timing, costs, etc.
 - Technology strategy: technical position, maturity, etc.
 - Technical innovation.
- Ensures that technical technical decisions are based on best available information - consistent with ethical and resource constraints.



Considering a Formal Program?

- Competitive Technical Intelligence (CTI) is analyzed information that is used to support decisions affecting the investment in and/or leverage of technical resources.
- To be effective it requires attention to each step of the CI process:
 - **Focus** on the highest impact intelligence needs.
 - **Collect** information from multiple internal and external sources.
 - **Analyze** the information to put into actionable form.
 - **Use** the intelligence generated to make better decisions.
- Often it is desirable to set up a formal CTI program to:
 - Educate and train users about the benefits and tools available.
 - Ensure that CTI is adequately considered when making decisions.
 - Provide a central point in firm for talent and expertise.
 - Coordinate intelligence effort to minimize duplication.
 - Ensure compliance with the firm's Code of Ethics.



Ethics of Intelligence Collection

- The first step is to develop a Code of Ethics with guidance regarding legal and ethical guidelines for the CI effort.
- Competitive intelligence involves the careful collection and assessment of available public information – not industrial espionage.
- Unethical and/or illegal activities cannot be condoned:
 - It is wrong.
 - It can get you in trouble.
 - It is unnecessary - you can find out almost anything you need through legitimate channels.
 - It is no fun.
- Be aware of legal rules as interpreted by “your” counsel:
 - In the US, the Economic Espionage Act of 1996
 - Note: each country has its own legal guidelines!



Comments on Program Design

- Process of program design should ensure:
 - Early involvement of users
 - Building commitment among key constituencies
 - Emphasis on complementing not competing
 - Focus on basic principals adapted to your needs and constraints

- Design should take into account 10 areas:
 - Mission
 - Structure
 - Legitimacy
 - Relationships with others
 - Process
 - Funding
 - Staffing
 - Metrics
 - Information sources
 - Implementation



Mission

- The typical charter of formal groups falls between two extremes:
 - Enhanced library
 - Develop repositories of information
 - Collect and analyze intelligence when requested
 - Publish white papers and newsletters on areas believed important
 - Active participant in decision making process
 - Source of expertise on collection and analysis of intelligence
 - Partner in decision making
 - Provide focused input to those who need and appreciate the intelligence
- CTI programs that evolve out of library functions have little impact due to image, low contact with decision makers, and lack of focus.
- The second approach requires significant cultural change and has been uncommon in industry until recently.



Sample CI Mission Statement

<u>Mission</u>	<u>Central CI Group</u>	<u>Unit Analysts</u>
Awareness	<ul style="list-style-type: none">• Instill mindset through participation and education• Identify CI opportunities based on corporate goals and objectives.	<ul style="list-style-type: none">• Instill mindset through participation and education• Identify opportunities based on unit goals and objectives
Enhance decisions	<ul style="list-style-type: none">• Develop the company wide process• Manage and coordinate the overall program• Support senior level and cross unit decision making	<ul style="list-style-type: none">• Adapt the company process to meet unit needs• Support unit decisions with analyses and recommendations
Provide skills	<ul style="list-style-type: none">• Establish networks• Provide training/education• Develop expertise on new analytical approaches• Identify outside sources	<ul style="list-style-type: none">• Input into networks• Train non-CI unit staff• Develop proficiency on tools needed at the unit level• Refer to central group as needed to augment skills



Structure

- There are three basic choices.
- Ad hoc: Oldest and most common, leaves a lot to chance.
- Assigned specialist: First step toward recognition of special skills and attention required. Sufficient in relatively stable situations.
- Formal: Still relatively uncommon, but increasingly being set up due to recognition of importance and need to develop specialized skills. Four options:
 - Centralized - Gets support, but can be irrelevant and unfocused.
 - Decentralized - Provides focus, but can evolve in multiple directions.
 - Mixed - Potential of balancing the best of both, if the role of central group is management and coordination - not control.
 - Virtual - a small core of full time coordinators supplemented by 'part time' CI staff and external consultants.



Process

- The more effective programs adapt the ideal CI effort to the realities of the situation:
 - The goals and constraints of the CI program.
 - The CI-type activities that currently exist.
 - The personalities and culture of the organization.
 - The history of the firm with similar endeavors.
- Key factors to consider:
 - Is there a clear process and allocation of responsibilities and roles among key groups?
 - Does it involve the decision makers up front to provide focus and enhance the opportunity for buy-in?
 - Does it leverage internal and external resources as appropriate?
 - Does the effort take full advantage of emerging communications and analytical capabilities?



Funding

- Having an independent budget seems to be important
- Funding participation by units needs to be handled carefully to balance the potential for not being relevant (if not involved) or not being used (if it becomes a charge).
- Options include:
 - Bill by the cost of the project.
 - Levy a tax on all units.
 - Budget a CI account to groups based on their needs.
 - Corporate underwriting of unit efforts.
- Complaints of inadequate resources/commitment often mean that the CI activity has failed to set up clear prioritization and focusing guidelines - they need to say no.



Staffing

- The leader must be respected, personable, fluent in the technical and business concepts, networked, and have passion.
- The skills of the staff depend upon the program elements and the skill sets in other groups providing support.
- The unit CI individual(s) need similar traits as the leader. be careful of hoarders versus gatekeepers.
- Staff sizes can be kept small, and safe, by leveraging other groups.
- Career development issues should be addressed prior to program launch to ensure interest by right people.



Metrics

- The measures of success depend on the specific objectives of the program and its mission.
- Measures should be established up front and apply to the different phases of the program:
 - Input and process measures in short term (nodes established, request received, capabilities developed, etc.)
 - Output measures in longer term (decisions influenced, money saved, markets entered, etc)
- Metrics are required for both the program overall, the unit and central elements, and the individuals.



Selected Effectiveness Measures

- Effectiveness depends upon the objectives
- Effectiveness can be judged in terms of the impact on:
 - Specific decisions
 - Sequence of decisions
 - Strategy development
 - Strategy execution
 - Organizational equilibrium
 - Analysis processes
 - Organizational processes
 - Questions being asked
 - Decision maker's understanding of questions being asked
- Financial impact is difficult to assess, but is being attempted by some firms.

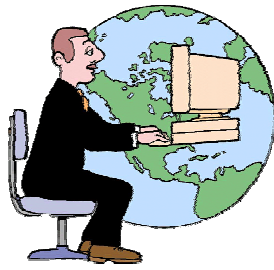
* Adapted from: Liam Fahey, "Doing and Using Competitive Analysis,"
10th Annual SCIP Conference, May, 1995.



Other Dimensions

- Effective groups leverage the experience of others:
 - Tap into their expertise
 - Minimize redundancy
 - Avoid conflicts over roles, turf, and budgets
 - Keep size of CI unit small and justifiable
- The program should tap into multiple information sources:
 - Internal networks (sales, marketing, discovery, development, etc.)
 - External networks (channels, conferences, universities, labs, etc.)
 - Consultants (market research, CI, technical experts, etc.)
 - Consider primary, secondary, personal, and impersonal
- The implementation plan needs to address:
 - The mechanics of how the process will work.
 - Potential resistance by users and or other groups.

Links Between Intelligence Groups



Technical Intelligence:

- Technical developments & trends
- Competitors' technical capabilities and intentions
- Customer and market research

Business Intelligence:

- Socio-Economic Trends
- Competitors' business capabilities and intentions
- Customer and market research



Conclusions

- As a minimum CI requires that an individual or group be assigned the responsibility of ensuring that the CI message is understood, and the tools are put in place to make it work.
- For those firms contemplating setting up a more formal activity recognize that there are multiple dimensions to be considered.
- Success starts with a commitment by the top that CI is important and will be enforced – however, how that resolve is executed can have a major impact on the long term viability of the program: