



Market Intelligence for Innovation and Product Life Cycle Management

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Organizations need systematic management of information in order to provide meaningful Market Intelligence input to the innovation and product life cycle management process.

EXECUTIVE SUMMARY

In this paper, the product life cycle process has been used as the core framework within which the utilization of Market Intelligence for innovation and product development has been explored. There are several phases and decision points in the process, and various types of MI output will therefore have to be available to serve the specific decision support needs.

To explore Market Intelligence needs in innovation and product life cycle management, a structured five-phase approach has been proposed in the form of a stop/go decision model in which a number of decision points are defined as tollgates.

Having described what kinds of Market Intelligence requirements innovation and product management processes typically have, the paper finally presents a comprehensive intelligence system for the entire innovation and product life-cycle process, i.e. different types of Market Intelligence products that cater to the defined information needs over the course of the process.

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The term “Market Intelligence” which is used in this paper refers to understanding the present and future business environment by using the intelligence process to provide decision-making support. Terms such as competitor analysis, technology analysis or customer insight will be used under the overarching term “Market Intelligence”. “Market Intelligence” should be seen as synonymous with concepts such as Competitive Intelligence and Business Intelligence.

1. INTRODUCTION

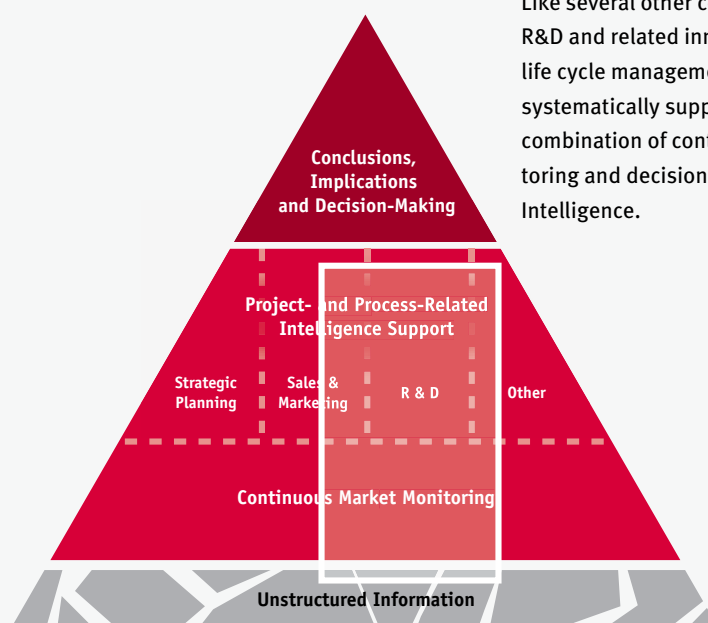
This GIA White Paper will continue discussing topics around the same overarching theme as the previously published White Papers in 2007: Linking Market Intelligence with some of the core corporate processes. The key findings in the GIA Global Market Intelligence Study 2007 which focused on Market Intelligence in international companies, indicated that product development, R&D and technology ranks in the top 3 application areas for Market Intelligence together with intelligence for strategic planning and sales & marketing. Two earlier GIA White Papers this year have accordingly looked into supporting strategic planning and customer processes with targeted Market Intelligence. This paper in turn will discuss MI needs and solutions that relate specifically to innovation and product life cycle management.

Similarly to several other corporate processes, R&D and the related innovation and product life cycle management need solid support from timely and relevant Market Intelligence. Turning ideas into marketable products involves multiple decision points, and fact-based decision-making will need to be backed up by both internal data and external Market Intelligence. The potential benefits and costs related to making right vs. wrong decisions in innovation and product management are so substantial that investing in accurate information during the process is highly justified.

Unstructured flows of information typically provoke more frustration than creativity. Rather than trying to manage chaotic information flows in a reactive manner, organizations need to have structured and proactive systems in place for synchronizing Market Intelligence output with innovation and product life cycle management. Systematic Market Intelligence should, however not limit the flow of information to the current market developments only, so as not to miss radically new opportunities that may arise in the organization's operating environment.

A number of Market Intelligence products will be introduced in this paper that will help support and further improve corporate innovation processes by means of Market Intelligence output.

Figure 1
Innovation and Product Life Cycle Management as a User Segment to Market Intelligence



Like several other corporate functions, R&D and related innovation and product life cycle management processes are systematically supported through a combination of continuous market monitoring and decision-supporting Market Intelligence.

There are numerous benefits of using MI to support innovation and the product life cycle process. However, the benefits differ depending on the person or group which requires MI. The following two groups can be identified:

- **Innovation Management Team** including innovation directors, R&D directors and technology directors
- **Product Management Team** including product directors, product portfolio directors, product managers, marketing managers and project managers

Below is an overview of the various benefits for these groups.

Figure 2
Benefits of Using MI for
Innovation and Product Life
Cycle Management

Innovation Management - Technology and R&D Directors	Product Management - Offering & Product Directors and Product Managers
<ul style="list-style-type: none"> • Improved understanding about the existing and future trends in the market • Early warnings of disruptive technologies/ innovations within or outside own industry • Identification of alliances and networks within the ecosystem • Unbiased information about the market attractiveness of short-listed innovations and existing technologies and products 	<ul style="list-style-type: none"> • Improved understanding of customer needs and their likely development in the future • Improved understanding of competitive offerings and related future developments • Higher quality product portfolio planning and strategy development • Improved positioning, specifications and pricing of the products at the time of product launch and afterwards
<p>Summary: More efficient consumption of R&D and innovation management resources and improved marketability of the company's innovations</p>	<p>Summary: More efficient consumption of product management resources and improved marketability of the company's products</p>

In Chapter 3, the basics of innovation and product life cycle management will be introduced, along with the framework used in this paper to approach the linkage between Market Intelligence and the mentioned processes. Chapter 4 will discuss the specific needs for Market Intelligence support in innovation and product life cycle management, whereas Chapters 5 and 6 will present a variety of MI output both for continuous market monitoring needs and to support specific decision-making situations.

2. INNOVATION AND PRODUCT LIFE CYCLE MANAGEMENT

“Innovation is real work, and it can and should be managed like any other corporate function. But that does not mean it is the same as other business activities. Indeed, innovation is the work of knowing rather than doing.”

Peter Drucker

The concepts that are used in this paper have been introduced below.

Figure 3
Definitions

Concept	Description
Invention	An invention is an object, process, or technique that displays an element of novelty.
Innovation	Commercialization of a new object, product or process or technique, e.g. an invention Types of innovation: Product, business, process, service, marketing, supply chain or financial
Innovation Management	Management of the innovation process in order to ensure that a strategy, plan and business culture exist which promote innovation
Product Life Cycle	Product life cycle is the course of a product’s development, sales and profits over time. In general, the different stages of each product life cycle are conception, product development, introduction, growth, maturity and decline.
Product Management	Product management is dealing with the product strategy and planning and/or marketing a product(s) at all stages of the product lifecycle.

Inventions, the output of inventive activity, are relatively hard to define and measure.

The output of innovative work might be an invention - an addition to the set of blueprints - or more generally and less concretely it may be an advance in knowledge or the acquisition of further information. It is therefore clear that the output from inventive activity or research is not easily defined, let alone measured. The concept of novelty is essential; an invention must include something new which adds to the knowledge which is currently held.

To become an innovation, an invention or idea must be commercialized. The innovation can therefore be defined as a successfully commercialized invention. As such, an innovation is a commercially successful, essentially new or an essential improvement to a system, process, method, product or service, which has been widely accepted.

Innovations can be either incremental or radical. Incremental innovations involve the adaptation, refinement or enhancement of existing systems, processes and methods. Radical innovations concern the development of new knowledge which is not related to existing solutions. In this White Paper, the product life cycle process will be used as the core framework within which the utilization of Market Intelligence for innovation and product development will be explored. There are several phases and decision points in the process, and various types of MI output will therefore have to be available to serve the specific decision support needs. In the framework illustrated in Figure 4 that will be used throughout this paper, innovation management is seen as the strategic “umbrella view”, whereas product management will focus on more tactical and operative issues related to the existing and future product portfolios.

Figure 4

Concept Overview: Innovation and Product Life Cycle Management

Innovation Management: Strategy & Planning

Innovation Management is about developing and launching new products, services, technologies, concepts or processes to the market in a way that maximizes the company's idea generation and innovation potential.



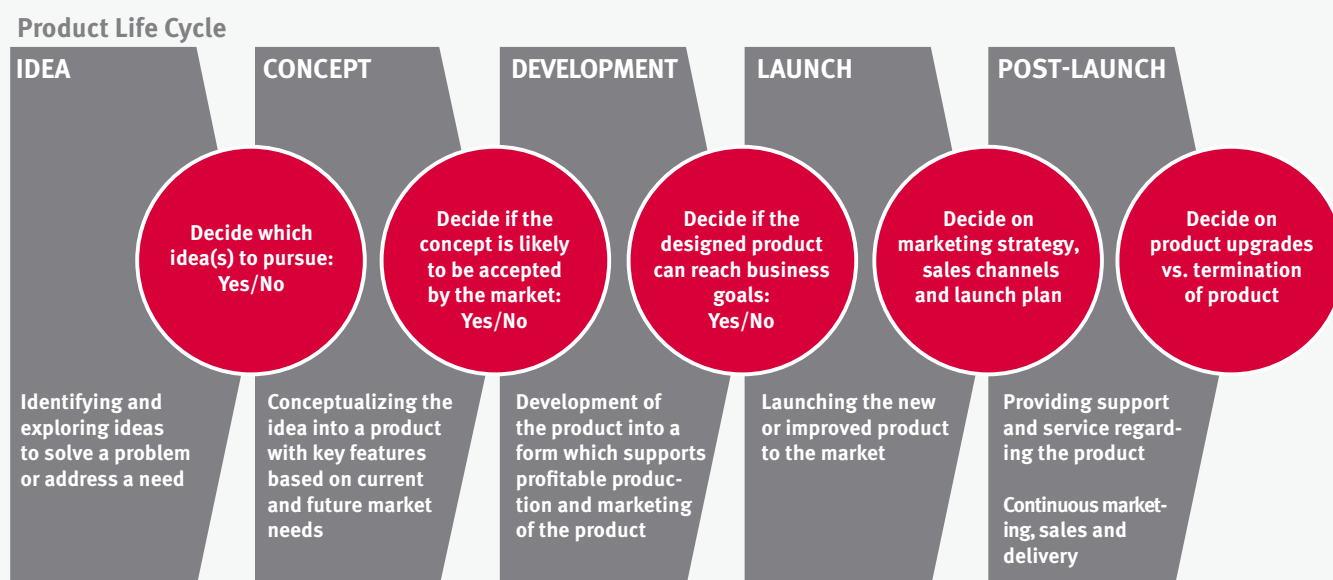
Product Management: Strategy & Planning

Product Management is about establishing and further developing a successful product portfolio, and managing individual products within that portfolio throughout the product's lifecycle.

3. MARKET INTELLIGENCE NEEDS IN INNOVATION AND PRODUCT LIFE CYCLE MANAGEMENT

Intelligence managers or analysts need to understand the innovation and product life cycle process in order to be able to provide the right intelligence. Innovation and product directors in turn need to understand how intelligence can help improve this process and make the organization more innovative. To explore Market Intelligence needs in innovation and product life cycle management, we propose a structured approach in the form of a stop/go decision model in which a number of decision points are defined as tollgates. Namely in the end of each phase, a decision must be taken as to whether to move on to the next phase. Figure 5. presents some rather generic views on typical decision points within the product life cycle management process.

Figure 5
Decision Points in Product
Life Cycle Management



The decision points and the nature of the work involved in each of the five phases require Market Intelligence. By looking at the decision points and related decision support requirements, we can understand and further outline the intelligence needs in these phases.

Next, we will further examine the product life cycle process throughout the phases, the decision points and the subsequent intelligence needs.

1. Idea Phase – Description, Decision Points and Intelligence Needs

Idea generation and idea screening is a vital first step in the innovation and product life cycle process. Ideas can come from customers (user innovations), focus groups, employees, salespeople, trade shows or through innovation discovery methods and tools such as research for user habits and patterns, patent databases and trend research, etc. Formal idea generation methods can be used such as brainstorming, problem-based analysis, and scenario analysis in order to generate and conceptualize ideas.

The development of ideas is a creative process in which the individual should be exposed to a variety of different kinds of information from different sources. Information must flow freely so that the exchange of ideas and experiences is efficient. Thus, the organization can promote internal innovation by enhancing the transfer of ideas, knowledge and thoughts both within and outside the organization.

The inventions must be carefully selected for commercialization given that there are usually limited resources and that not all the inventions can be commercialized. Selection must be carried out across the various phases of the innovation management process: not all ideas are turned into inventions, and only the inventions selected are commercialized. It is important to reflect the company's strategy and goals in the selection phases. However, consideration must be given as to how rigorous the selection process for ideas should be in the early stages. Naturally, the issue of resources comes into question here, however, it should be noted that the full potential of the ideas can often only be assessed after they have been further developed. Nonetheless, some decision criteria need to exist given the limited resources and the fact that only some of the ideas can be commercialized. At any given decision point, the question is which ideas should be given additional resources and enter the concept phase.

The following intelligence needs may exist in the idea phase:

- Understanding trends within the industry
 - competitor activities with regard to present and future products
 - technology development
- Understanding trends outside the industry
 - emerging technologies that might affect the industry in the future
 - macro issues such as political, environmental and legal issues that might affect the industry
- Understanding the customer situation regarding:
 - usage of existing products
 - unmet market needs

Decision Point: Should idea "A", "B" or "C" be pursued or not?

The ideas that merit further investigation are allowed to enter the concept phase.

Case Study

The Gecko Lizard Provides Ideas to Interface's Innovation Process

Sector & Company	Manufacturing/carpet industry – Interface Inc.
Background	Interface is the world leader in the design, production and sales of modular carpets and is a leading producer of broadloom carpet and commercial fabrics.
Objective	General: Focusing its innovation program on becoming environmentally sustainable. Case objective: Interface's innovation team was trying to come up with ideas on how to invent new ways of replacing the environmentally hazardous carpet glue.
Approach	One of the R&D people asked the team the question "How does a gecko cling upside down to the roof?" The R&D team then conducted a "benchmarking" process in which they compared the adhesive solution of the gecko with a normal carpet glue.
Result	After having analyzed and acquired an understanding of this phenomenon, they developed "Tactiles", which is a piece of releasable tape that is easy to release but impossible to pull apart when the carpet is on the floor. The solution is based on the idea they got from looking at the gecko's solution to hanging onto the ceiling. Interface is using the innovation in order to solve a problem and reach its goal of becoming the most environmentally friendly company in the industry.
Source	Ray Anderson, Interface Founder

2. Concept Phase - Description, Decision Points and Intelligence Needs

The objective of this phase is to develop the idea into a product, service or solution which has key features which will meet an estimated present or future market need.

The idea needs to be conceptualized further and a more detailed definition of the solution must be given which illustrates the solution's features and shows how said solution will successfully meet the needs of present or new customers. The solution should also secure a competitive advantage through outperforming competitor alternatives. An initial understanding of the whole competitive environment should therefore be acquired at this stage

A potential aggregated market must also exist for the solution. Is this market large enough to carry the investment costs for the development and marketing of the innovation?

Patents and other intellectual property rights need to be analyzed to ensure that no rights are infringed.

Potential partners for developing and/or distributing the solution also need to be identified during this phase since the involvement of said partners will have a significant bearing on the development and sales costs.

The following intelligence needs may exist in the concept phase:

- understanding customer needs
- awareness of current competitor products
- understanding intellectual property rights with regard to the innovation
- understanding who the experts are within this specific area

Decision Point: Decide if the concept is likely to be accepted on the market or not?

The concepts that meet this requirement are allowed to enter the development phase.

3. Development Phase - Description, Decision Points and Intelligence Needs

In this phase, a more concrete appearance for the product is developed which is concurrent with the profitable production and marketing of said product. Key issues here are:

- production costs
- features the product must incorporate
- developing and testing the product beta version
- understand how the customers will react to the product
- securing partnerships with the product suppliers, producers and distributors

The following intelligence needs may exist in the development phase:

- thorough understanding of the market potential
- thorough awareness of the competitor product pipeline
- understanding competitor responses to the innovation
- identification and assessment of sales channels
- detailed knowledge regarding all IPR-related issues

Decision Point: Decide whether or not the concept developed can attain the business goals.

The products that meet this requirement are allowed to enter the launch phase.

4. Launch Phase - Description, Decision Points and Intelligence Needs

During this phase, preparations are made for the launch and subsequently the innovation is launched onto the market. Prior to the actual launch, marketing activities relating to the marketing mix (pricing, promotion, product, and place) are to be carried out.

The following intelligence needs may exist in the development phase:

- understanding the impact of different pricing alternatives
- understanding competitor response to the final launch plan
- understanding market behavior based on the final launch plan

Decision Point: Decide on sales and marketing strategy.

After the product or service has been launched, the post-launch phase begins.

5. Post-Launch Phase - Description, Decision Points and Intelligence Needs

The post-launch phase covers all the other phases in the product life cycle; the growth phase, the maturity phase and the decline phase. For each of these phases, product managers need to decide on changes in the marketing and sales strategy. Market size and market share analysis needs to be conducted on a continuous basis so that knowledge is ascertained as to when and how these changes should be made.

Incremental product innovation also needs to be considered so that improvements can be made to the product's features in order to make the product more attractive to the customers.

The following intelligence needs may exist in the post-launch phase:

- understanding market size and market share developments
- understanding why the company is winning/losing sales bids
- understanding and anticipating competitor moves through a thorough understanding of the competitors' product portfolios
- IPR analysis in order to protect the organization's own products

Decision Point: Decide on product upgrades and changes in product strategy.

If the opinion is that the product being launched will not last long on the market, new ideas concerning product development or ideas regarding new products need to be developed.

This overview has provided us with a more comprehensive understanding of the intelligence needs and decision points during the aforementioned phases. It is important to understand that not all ideas, concepts or developed products will be launched or let alone meet with market success. However, by using the decision point methodology, the execution of the development process should be safer. The following case gives further credence to this point of view.

Case Study

Intelligence for Innovation Management Saves Millions at Roche

Sector & Company	Pharmaceutical, Roche (Hoffman La Roche)
Background	Product development in the pharmaceutical industry is a process that can take between 8-15 years and demand vast resources in the form of time and money. Often, only the first three products/drugs for each category/disease will have the best chance of making a profit.
Objective	More successful innovations by focusing funding on products that will achieve market success.
Approach	The intelligence team was made responsible for providing the information for the stop/go decisions regarding product development. By taking this responsibility away from the project leader or the project team, the company was able to stop costly research projects earlier than previously. The intelligence team had a more neutral perspective and had reliable benchmarking information on which it based its decisions.
Result	Cost savings of 33 million USD/year by changing from the previous way of working. Intelligence for innovation and the product development process thus provided a good result.
Source	Dr Martha Eger, SCIP Presentation

Figure 6. presents an overview of the Market Intelligence needs in the innovation and product life cycle processes that have been described above.

Figure 6

*Market Intelligence Needs
in Innovation and Product
Life Cycle Management*

Innovation Management: Strategy & Planning

- Identifying and understanding emerging disruptive and sustaining technologies
- Understanding the impact of prevailing and emerging trends
- Identifying unmet and unexpressed customer needs in present and new customer segments
- Understanding future developments and shifts in demand
- Identifying the focus of competitors' innovation management activities
- Understanding the position and intention of regulatory bodies and technology stakeholders (co-operation, standards, etc)



Product Management: Strategy & Planning

- Understanding current and future market potential and market profitability
- Understanding customer needs, wishes and expectations for new products
- Understanding competitors' product features, pricing, argumentation as well as product development pipeline
- Understanding the productivity of marketing activities

4. MARKET INTELLIGENCE PRODUCTS SUPPORTING THE INNOVATION AND PRODUCT LIFE CYCLE DECISIONS

Having described it in the previous chapters what kinds of Market Intelligence requirements innovation and product management processes typically set, we are now better equipped to design a comprehensive intelligence system for the entire innovation and product life-cycle process. Figure 7 describes how organizations can make use of concrete, standardized Market Intelligence products that cater to the information needs defined over the course of the product life cycle management process.

Figure 7

Market Intelligence Products for Decision Support in Innovation and Product Life Cycle Management



This White Paper will not go into in-depth descriptions of these outputs at this stage. The reader is instead referred to other GIA White Papers and to the companies that belong to the GIA network for more information on different intelligence products. In the fact boxes below, a basic summary of each intelligence product and the related methods will be provided. Each organization however needs to customize this approach based on its own needs. This could mean that solutions might be moved to other phases in the process or removed completely. New solutions might also be added to the process.

Market Intelligence Support for the Idea Phase

The following outputs are suggested for this phase:

- End User Analysis
- Trend Analysis
- Scenario Analysis

FactBox**End User Analysis**

Purpose	The end user analysis aims to identify, analyze and extrapolate trends, demand drivers and behavioral patterns of customers and end users. The analysis produces knowledge about said customer preferences, trends and demand drivers.
Scope	Customer focus. Both macro level analysis regarding trends and micro level analysis regarding a specific user(s) and how they utilize the product.
Work process	Macro analysis based on a combination of trend analysis and market analysis. Micro analysis based on understanding how an individual user(s) uses the product or service. Interviews and focus groups may also be relevant activities here.

User studies are required in order to understand how customers use or will use the product or service. The knowledge acquired from this analysis is then used for idea generation and for validation in the concept phase.

FactBox**Trend Analysis**

Purpose	Identify present and future trends and key success factors in order to get ideas or to understand which trends support or do not support a specific innovative idea.
Scope	All levels. Macro trends might be as important as micro trends. Trend analysis can be unfocused as well as focused. Focused trend analysis concerns a specific issue whereas unfocused trend analysis is general and investigates trends that may have a general impact on society.
Work process	Unfocused trend analysis: Look at different trends in order to acquire knowledge of the idea generation process. Focused trend analysis: Identify trends that will affect the subject of the idea in a positive way and trends that will affect the subject in a negative way. Determine the strengths and the likelihood of these trends. The innovation idea supported by the most/strongest trends will be the one that may have the greatest success.

Trend analysis provides a good overview of present and future trends inside and outside a company's industry. This is often a good remedy for business blind spots that may have developed within your own organization.

FactBox**Scenario Analysis**

Purpose	Identify possible future outcomes for the product area in general or with regard to a specific innovation.
Scope	Scenario analysis can be used both on macro and micro level.
Work process	Scenarios are based on present and future uncertainties in the business environment. Uncertainties that are considered to be of particular interest are selected for the creation of future business scenarios. 3-5 scenarios should be created that are radically different from each other. The idea is then to analyze how successful the innovation idea would be in the different scenarios. The innovation idea that is successful in most scenarios will be the most favorable one.

Scenario analysis often provides a broad framework of the future business environment. An excellent way of following up on scenario analysis is to identify key indicators for each scenario and then to track these with an early warning system.

Market Intelligence Support for the Concept Phase

The following outputs are typically applicable in this phase:

- Market Attractiveness Analysis
- Business Landscape Analysis
- Partner Screening & Analysis
- IPR Analysis

FactBox

Market Attractiveness Analysis (basic)

Purpose	Define attractive market segments in old as well as new markets.
Scope	Macro and micro level. Focus is on one or several geographical markets or market segments. Macro issues such as GDP development, etc. are often also taken into consideration.
Work process	Prioritize markets/segments to be included in the analysis and carry out region-, country- or segment-focused research to support the evaluation of opportunities in the selected market areas. Contents of the analysis may include e.g. macro environmental facts (PESTEL), industry structure, market size, distribution channels, presence of competitors, local production & trade, pricing strategies, historical development, etc.

Market attractiveness analysis is required in order to decide in which markets the organization will compete in the future. The idea is to obtain a favorable position in an interesting market or market niche. The traditional Porter toolbox (i.e. industry analysis) that suggests strategic group analysis may be utilized here as well as the new “Blue Ocean” strategy thinking in which finding or developing positions where there is no competition is the primary strategic objective.

FactBox

Competitive Landscape Analysis

Purpose	Provide a high-level overview of the competitive landscape.
Scope	Micro analysis focusing on the competitors and the business area. Normally includes industry analysis, value chain analysis, competitor analysis, technology roadmap analysis, etc.
Work process	General process would be to review competitors’ market presence by customer segment, along the value chain and/or by geographical market. Analysis of competitors’ strategies may be conducted in terms of products and services, strengths and weaknesses and growth models.

This is normally a comprehensive fact pack that should be used during the concept process. It will enable an understanding of how difficult it will be to launch the innovation from a competitor standpoint.

FactBox**Partner Screening & Analysis**

Purpose	Partner analysis aims at identifying potential business partners with specific technologies, resources, skills or capabilities that would enable the successful development and launch of the innovation.
Scope	Focus on companies or other entities that might be beneficial to have as a partner.
Work process	Information is collected from databases, industry associations, newspapers, etc. The analysis utilizes screening based on aspects such as technology, resources, methodologies and finances. The analysis produces a short list of companies or profiles of companies that would be suitable partners.

It is essential to find partners that can support your organization during all stages of the innovation process in order to speed up the time-to-market phase. Companies like Procter & Gamble have developed a “Connect & Develop” innovation strategy in order to significantly increase the number of ideas and potential development partners (Huston & Sakkab, 2006). The reason for this is that they have discovered that they innovate faster and more effectively when working with partners as opposed to working alone.

FactBox**IPR Analysis (basic)**

Purpose	The analysis aims at identifying and analyzing the Intellectual Property Rights related activities and strategies of competitors or other companies of interest.
Scope	Focus on a specific technology, product or company depending on the purpose of the analysis.
Work process	Information sources like patent databases and industry reports are utilized to provide input to the analysis. The analysis uses quantitative methods to study levels and focus areas regarding the innovation area in question. Patent analysis and patent citation analysis are examples of methods used.

Market Intelligence Support for the Development Phase

The following outputs are typically applicable for this phase:

- Market Attractiveness Analysis
- Company Profiles
- Competitor & Deep Dives
- IPR Analysis
- War Gaming

FactBox**Market Attractiveness Analysis (detailed)**

Purpose	Provide a detailed overview of the market on which the product is to be launched.
Scope	Micro analysis focusing on the business area. Normally includes industry analysis, value chain analysis, competitor analysis, customer analysis, technology roadmap analysis, market size and market share analysis.
Work process	Defining the appropriate scope of analysis (e.g. to focus primarily on the competitor landscape, or have a broader focus on the whole value chain or value net) and select applicable models. Information collection and analysis required by the selected models.

The analysis in this phase needs to be more detailed than the market attractiveness analysis in the concept phase. The decision whether to launch the product or not is normally very much dependent on this analysis.

FactBox Company Profiles

Purpose	Provide a summary of a company or business unit in an accessible, easy-to-compare format.
Scope	Company or business unit focus.
Work process	Information is collected from databases, company websites, news monitoring, company reports, filings, etc. The profile may include a description of: General information, key figures, products & technology, operations, strategic objective, etc.

The use of profiles (on competitors, customers, countries, markets, etc.) has been somewhat debated over time. Some say that they are of little value whereas many others assert that it is important to develop a unified view on a subject and that profiles are effective mechanisms for achieving such a unified view. One effect of not working with harmonized profiles is that the organization will most likely end up with many different profiles created by different people about the same topic. Hence, it might be more efficient to have a centralized profile repository that is structured and regularly updated in order to save time and costs. The profiles often work as fact-packs supporting more sophisticated analysis such as benchmarking, positioning analysis, SWOT-analysis and value chain analysis, etc.

FactBox Competitor Deep Dives

Purpose	Deep Dives produce in-depth knowledge about the specific aspects of a competitor strategy, operations, products or any other area of importance.
Scope	Focused on one or a few specific issues.
Work process	The general intelligence cycle is normally used as a work process model. Information is normally collected both from secondary information sources as well as primary sources through interviews, observations and reverse engineering, etc. The focus normally covers historical, present and potential future moves.

Deep Dives are used in combination with profiles and the industry landscape analysis in order to acquire a more comprehensive understanding with regard to a specific issue of importance. Understanding a specific competing technology or market strategy, etc., would be examples of topics for Deep Dives.

FactBox IPR Analysis (detailed)

Purpose	A more thorough understanding of the IPR situation compared to the IPR analysis conducted during the idea phase.
Scope	Focused on one or several specific IPR issue(s).
Work process	See IPR analysis (basic)

This analysis should make clear whether there are any intellectual property rights which might block or hinder the innovation when it is launched. Said analysis may also establish whether the proper IPR protection can be obtained for the innovation in the form of patents and trademarks, etc.

FactBox

War Game/Future Game

Purpose	Acquire an appreciation of the potential and probable actions competitors and other important stakeholders in the business environment will take when the innovation is launched.
Scope	Micro level. Focus on customers, competitors and other industry players.
Work process	The idea is to “become” the competitors and customers and acquire their mindset and think from their perspective, etc. when carrying out the analysis. Teams are created which act as the competitor in the framework of various situations and scenarios. The result is then used as an input to the innovation process concerning the possible actions and counteractions the competitors will take based on your organization’s activities.

A War Game is an interactive event which is ideal for acquiring an understanding about the competition with regard to short- to medium-range future activities. Competitor profiles, trends and scenarios serve as an excellent input into the war game process. War games/future games which focus on competition normally work best on the basis of a 1-5 year future timescale. War games are an extremely effective way of involving people in and creating insight and a high level of morale within the organization’s intelligence work.

Case Study

Nycomed’s War Game Secured Successful Product Launch

Sector & Company	Pharmaceutical, Nycomed
Background	It is always difficult to anticipate every possible way in which competitors will react to a product launch.
Objective	To decide on a successful product launch and sales strategy, Nycomed needed to understand how the market and competitors would react to a Nycomed product launch.
Approach	They decided that an “Imaging Battle” in the form of a War Game would be the ideal solution for this. During the battle, five competing teams played the roles of existing major competitors, a minor competitor and competitor X, a fictive competitor. They also had a team representing the Food and Drug Administration.
Result	The War Game showed that the competitors would most likely react quite differently to the imminent product launch. This finding gave them vital input to their marketing and sales strategy. The product launch was then conducted with a high degree of confidence.
Source	Jan Fikkan, SVP Strategy & Business Development, Nycomed

Market Intelligence Support for the Launch Phase

The following outputs are typically applicable for this phase:

- Country Analysis
- Competitor Media Strategy Analysis
- Strategic Themes analysis

FactBox**Country Analysis**

Purpose	Provide an overview of the situation in the countries where the innovation is being launched.
Scope	Broad macro focus.
Work process	It is valuable to have a broad analysis of the countries where you are doing business. The PESTEL framework which looks at different perspectives is one such model that provides a broad analysis. PESTEL is an abbreviation for the following: Political, Economic, Society, Technical, Environmental and Legal issues. Facts, trends and uncertainties regarding these issues are analyzed and as a result, the impact on the proposed innovation is then better understood.

There is an abundance of sources for country analysis. It is however important to analyze the impact of the various issues on the launch of the new innovation. This is something which most likely needs to be done in-house.

FactBox**Competitor Media Strategy Analysis**

Purpose	Describe the competitors' media strategy by understanding the competitor's marketing channels, allocated resources, media recognition and geographical reach.
Scope	Narrow focus on competitors' media strategy.
Work process	Use of a combination of primary and secondary source analysis to ensure comprehensive data coverage. A media analysis is carried out to acquire an understanding of advertising campaigns and product/company brand recognition.

Media analysis is important to carry out since it will enable you to differentiate your own product vis-à-vis the competitors. It will help you decide whether to go into a head-to-head battle with the competition or try to pursue other channels or other marketing messages that the competitors do not use.

FactBox**Strategic Themes Analysis**

Purpose	Strategic Themes Analysis studies the impact of particular events or issues and the affect that they might have on the industry, the company and the proposed innovation.
Scope	Broad scope that could cover issues both in the organizations' macro environment as well as in the micro environment.
Work process	The basic intelligence cycle is used to collect and analyze information regarding the issue at hand. The effect might be further highlighted by showing the industry change using industry structure analysis or value chain analysis models.

The strategic themes analysis can be an ad-hoc solution or a more recurring analysis showing the development of an issue over time.

Market Intelligence Support for the Post-Launch Phase

The following outputs are typically applicable for this phase:

- Market Size & Share Analysis
- Product Profiles

FactBox

Market Size and Market Share Analysis

Purpose	Assess market size and market share for various market segments. This normally also includes historical and future growth opportunities.
Scope	Micro-focus relating to analysis of different market segments.
Work process	Start with analysis of historical market size figures and historical market share figures. Estimate future market size growth based on demand- and supply-related scenarios, trends and forecasts. Estimate future market share based on competitors' objectives, strategies and strengths. Secondary sources as well as expert insights gathered through interviews are key sources of information for conducting market size and share analysis.

Market size and market share analysis are issues that most companies focus rather heavily on. They are of paramount importance in organizations' strategic communication to investors and other stakeholders.

FactBox

Product Profiles

Purpose	Understanding other products on the market that compete within the market segment.
Scope	Narrow focus on product features, price, product life cycle position and other items of interest.
Work process	Define which characteristics should be profiled, and first conduct secondary research on the selected subject areas. Typically, many specifically product-related issues are not public information or are hard to uncover, and especially pricing information probably requires primary research.

Product profiles are used as a foundation for benchmarking, positioning analysis with regards to product development, and sales and marketing strategies.

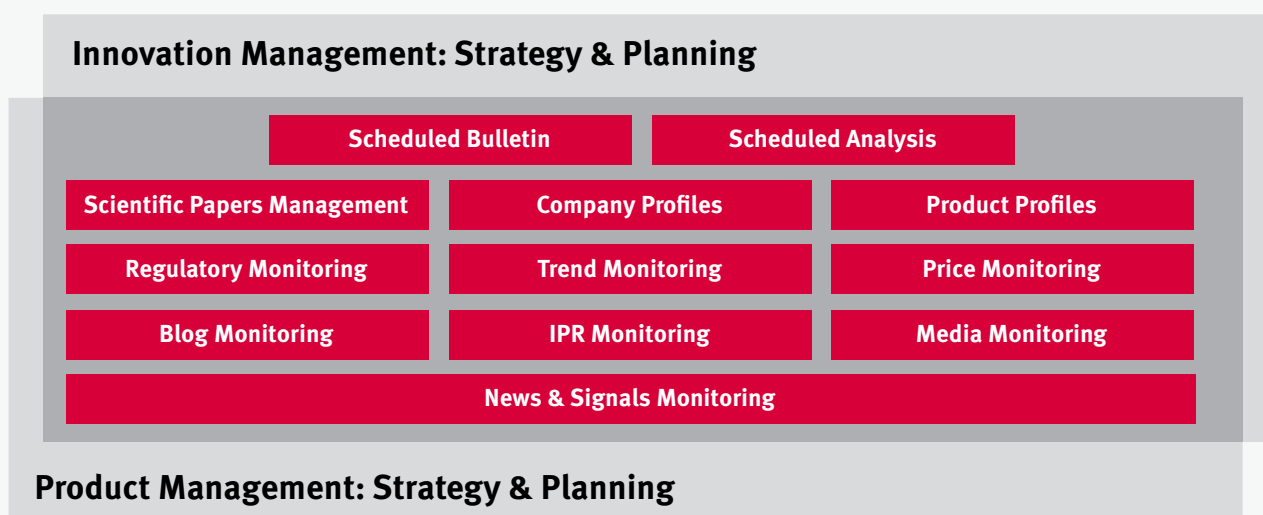
The MI support described above ensures that an organization will be able to conduct fact-based decision-making during each step of the product life cycle process.

5. MARKET INTELLIGENCE PRODUCTS FOR MARKET MONITORING

Market Intelligence input to the innovation and product life cycle management process cannot be generated based on pre-determined decision points and the related MI products only. To properly facilitate innovation management, a process needs to exist for continuously identifying signals from the external business environment. Individual signals may trigger new ideas as such, but when incorporated into detailed analysis they may provide valuable insights outside of the scope of pre-determined decision points. In Figure 8., we have identified some continuously updated Market Intelligence products that support innovation and product life cycle management processes.

Figure 8

Market Intelligence Products for Market Monitoring in Innovation and Product life Cycle Management



Below are some examples of Market Intelligence product categories that may be used in order to ensure that continuous monitoring is carried out to constantly support innovation.

FactBox

Market Monitoring Solutions

Monitor Type	Description
Regulatory	Monitoring the legal and regulatory environment. This can be conducted on a local, national or international level depending on the scope of the innovation. Industry associations and standardization authorities are also important players to monitor here.
Price	Monitor the prices of competitors' products, raw materials or other suppliers' prices.
IPR	Keep track of R&D efforts and innovation players for the sectors of interest to your company.
Media	Monitoring of a company's or product's visibility in the international media. Number of articles identified which are positive, negative or neutral to the product or company.
Blog	On-going monitoring of relevant blogs and discussion forums on the Internet.
News & Signals	Monitoring news from journals, industry magazines, newsletters, press releases, etc. in order to track information from the public domain.

All market monitoring solutions are continuous processes which take information mainly from secondary sources. Occasionally primary information sources may also be used in order to provide a more comprehensive picture.

FactBox

Company and Product Profiles

Purpose	Have up-to-date profiles on competitors and products.
Scope	Focus on companies and products.
Work process	Information from sources like company databases, industry journals, websites, blogs, trade shows etc. are monitored and the profiles are updated on a regular basis. See profiles in the previous section for more information.

Having these profiles in place on the corporate intranet or in a MI software solution is a good way of ensuring that your organization's knowledge management process is up-to-date.

FactBox

Scientific Papers Management

Purpose	To keep the organization up-to-date on the latest scientific publications of relevance to the industry
Scope	Focus on scientific publications.
Work process	Firstly, information sources in the form of various publications need to be identified. These publications then need to be constantly monitored and documents (reports, news articles, conferences, etc.) corresponding to areas of interest should be made available for a broader audience.

FactBox**Scheduled Bulletin**

Purpose	Providing a short executive summary of key points from the MI process in hardcopy or e-mail format.
Scope	Broad, covering all topics of interest or specific to one pre-defined topic of strategic importance.
Work process	News from the monitoring solutions (media, IPR, price, etc) are evaluated and the most interesting items are selected for the bulletin.

The scheduled bulletin provides a very basic overview of what is happening in the industry or within a specified topic. The purpose is to alert management to issues that might require further analysis or to give a regular update about a pre-defined topic.

FactBox**Scheduled Analysis**

Purpose	Providing regular analysis to summarize developments and identify changes in the business environment.
Scope	Broad – covering the whole business environment or specific to one pre-defined topic of strategic importance
Work process	The first step is to decide on the content of the analysis. Examples might be a broad Industry Landscape Report or a more focused Strategic Themes' report. Input to the report is then taken from the continuous monitoring activities or the more ad-hoc oriented methods described for the product life cycle process.

The scheduled analysis is more in-depth than the bulletin. It contains more analysis, conclusions and implications for the company carrying out the analysis.

It is essential to capture scientific papers if you are an innovative organization. By sharing this knowledge, the company will save money and will be able to identify and act upon important issues much more quickly.

6. CONCLUSIONS AND KEY SUCCESS FACTORS

“By describing the landscape of unmet customer needs and analyzing where new offerings have worked before, you can chart a path that will produce successful innovations time after time”

Scott, Euring & Gibson, 2006

This GIA White Paper argues that organizations need a comprehensive set of Market Intelligence products as well as systematic management of information in order to provide meaningful input to the innovation and the product life cycle process.

This White Paper has provided a practical framework that will apply to industries with varying levels of uncertainty and changes of pace. Summarized below are some of the main points proposed in this White Paper.

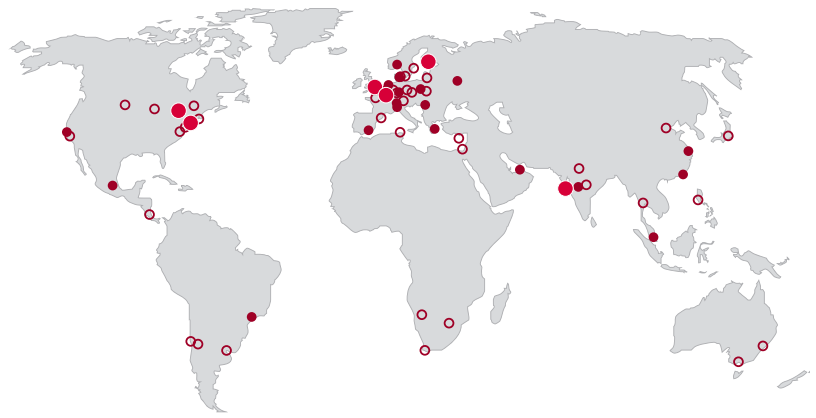
- **Process Integration** - Ensure that MI is integrated into the innovation and product life cycle process. This paper has provided you with input on how to facilitate this.
- **Involve People** - Use the brain of the organization – involve people internally through the use of war games and scenario and trend workshops. Also, regularly utilize the analysis of objective, unbiased third parties, such as customers, suppliers and consultants, in the innovation process in order to avoid corporate blind spots. Invite the customers to participate. They will have a clearer idea of their future sooner than you. GIA recommends that the MI manager should be an experienced workshop facilitator in addition to or even rather than being an isolated information generator.
- **Focus and Outsource** - Focus on the essential MI issues that are core activities in the process and outsource the rest. Consider outsourcing parts of the information collection/analysis process and focus instead on high-level analysis and on drawing conclusions. Focused continuous monitoring activities are outsourced more and more frequently by companies.
- **Ensure a Global Focus** - International companies need to ensure that they have a global business research and information collection capability which also has a local focus, given that cultural differences make it difficult to understand foreign markets.
- **Be creative** – Practice creative thinking skills and analysis so that focus can shift beyond existing paradigms and historical knowledge. This is a critical capability during the idea phase of the innovation process and is also crucial for the opportunity analysis in all phases.
- **Continuous monitoring** - Organize a current awareness process in the organization to serve as a basis for all Market Intelligence activities. A centralized intelligence software tool for the entire organization with resourced content input will serve this purpose. The centralized tool should also be used to capture and share tacit market knowledge possessed by the organization’s members.

We hope that this GIA White Paper has helped you understand the innovation and product life cycle process and how Market Intelligence plays a vital role in this process.

For comments, questions and more information regarding this GIA White Paper, please send email to info@globalintelligence.com.

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