



Process Innovation

There is a big difference between origination, creativity and innovation.

- Origination is the process of creating something new – something that didn't exist before.
- Creativity is the process of generating something new that has value. Creativity is idea generation.
- Innovation is the process of creating something new of value that has useful application and significant impact upon an individual, a group an organization, an industry, or a society. Innovation is how an organization or an individual makes money from creativity.

Four out of five patents aren't used. This statistics validates the belief that there is a long hard road from creating an idea or concept and reaping a reward from the idea. On an average it takes 3,000 – 5000 ideas to come up with one new product. In a study conducted by MIT Sloan School of Management they reported that things that drive customer to buy are:

- 1990- 1998 price
- 1998- 2000 quality
- 2000 ----innovative products and services

“Every organization – not just businesses – needs one core competency: **innovation**. And every organization needs a way to record and appraise its improvement performance.” – Peter Drucker.

Peter Drucker also stated that organizations have two options – innovate or evaporate.

Before we can be innovative, we must be creative. Creativity is a skill; it is not something magical, available to only a few. Everyone possesses an innate capability for creativity. Creativity requires that people challenge today's way of doing things, unleashing their untapped potential. Being creative is not enough to meet today's needs. Good ideas need to be transformed into products. Problems that used to take weeks to solve need to be solved in minutes. Everyone in the organization needs to be defining and implementing ways to improve his/her and the organization's performance. At Harrington Institute we believe that there are three types of innovation. They are:

- Incremental innovation – it is focused on making small, but significant improvements to existing products and services. Think detergent, detergent with bleach, detergent with pine scent –Incremental innovation is often called “continuous improvement.”
- Breakthrough innovation (Evolution) – this type of innovation introduces an existing technology into a new market, a new technology into an existing market, or changes the way the offering is delivered. A good example is adding air bladders to running shoes. Air bladders existed in other applications, but it was a new and interesting idea to add them to the soles of running shoes.

- Game changers – this type of innovation disrupts the existing market or creates a wholly new market. A good example is the switch from cloth diapers to disposal diapers purchased at a store which are used and once and then thrown away.

At Harrington Institute we believe that it is essential that the innovation process be managed in a very effective manner, understanding that it doesn't occur by chance, but by design. Basically there are four types of innovation. They are:

- Product innovation – enhancements to the product or service
- Process innovation – something that has improved the efficiency or effectiveness of the way the organization operates
- Marketing (sales) innovation – a new marketing concept
- Management innovation – a new way of managing the organization

Organizations are made up of more than its people; it also includes its purpose, structure, processes, systems, management styles, strategy, employees, and culture. All of these impact the innovation process.

We use a set of tools that are designed to measure an organization's maturity level in these four areas. It also determines the strengths and weaknesses within each of the 7S framework (see the following) that drives each of these four areas.

- Structure
- Systems
- Style
- Staff
- Skill
- Strategy
- Shared values

Our methodology also uses training and consulting approaches that will improve the maturity level of your innovative processes and the way they are managed.

Because our experience has proven that most of today's innovative concepts are the result of an evolutionary, rather than a revolutionary, process, we also focus our consulting services on what we call "directed evolution." This methodology builds on the methodologies defined in the following four concepts:

- Osborne's direction – decreasing of psychological inertia, activation of human motivation, organization of effective teamwork.
- 40 Triz Principles – these are 40 one or two word statements that describe approaches used to resolve technical conflicts (problems and/or contradictions) that were defined by Genrich Altshuller based upon his study of over 200,000 patents.
- Thomas Edison direction – designed practical solutions and restructure of new and existing knowledge for effective application of the creative processes and products.
- 39 characteristics of a technical system – these are the 39 engineering parameters for expressing technical contradictions defined in the late 1960s.

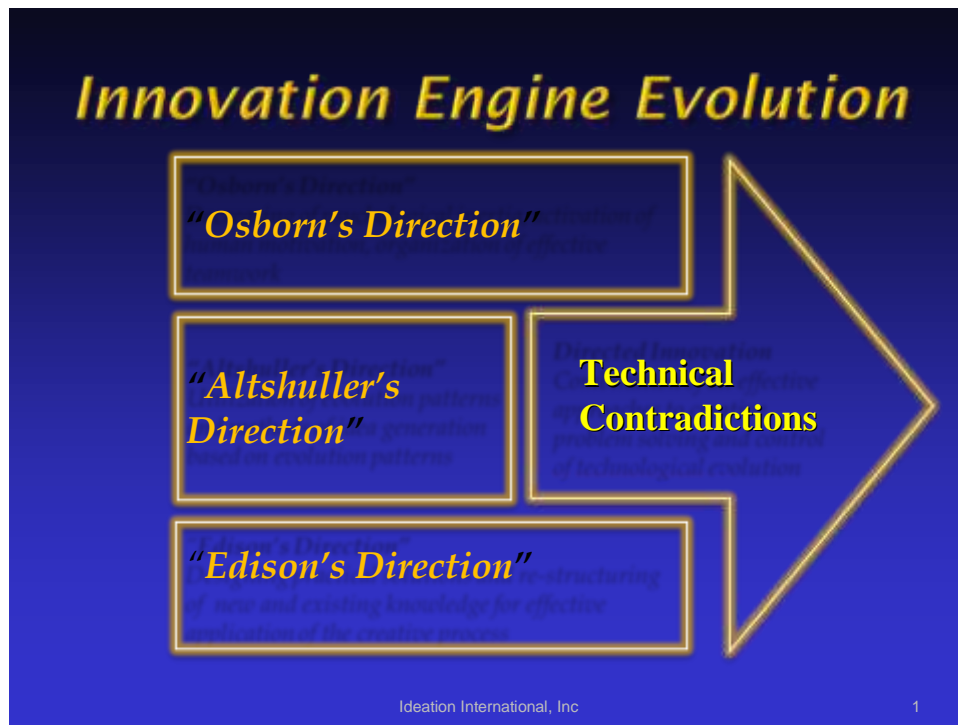


Figure 1. Innovation engine direction

By combining all of these approaches, we create a problem solving and control of technology evolutionary approach that is unique and that is based upon proven, effective approaches to innovation. This approach has resulted in the creation of hundreds of nuggets of wisdom that can be used to help your employees tear down the walls that have limited their thinking and creativity. It allows them to quickly focus the worldwide experience of the past on the problem they are experiencing today. This allows them to quickly gain knowledge that otherwise would not be available to them. With this additional knowledge they can make much better decisions related to corrective action and future direction. See Figure 2.

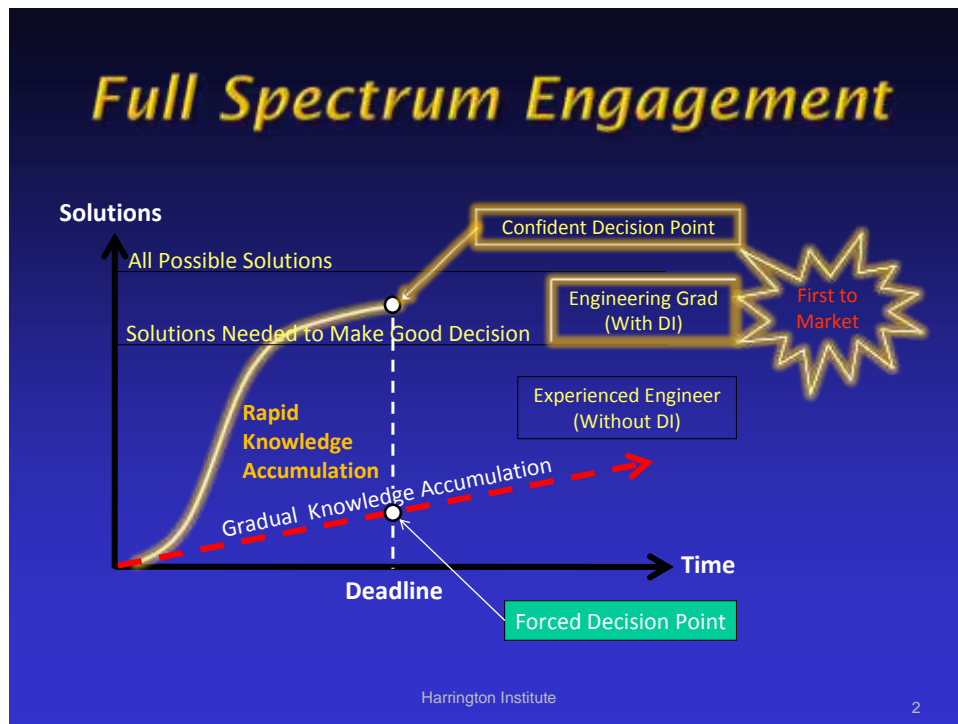


Figure 2. Full spectrum engagement

Since it may be hard to master the hundreds of nuggets of wisdom, there are useful software programs available to help select the applicable nugget. These software programs also provide examples of how these nuggets have been used in the past. We provide 4 of these software packages:

- ▣ ***Inventive Problem Solving (IPS)***
 - *Generate multiple innovative solutions to meet consumer's spoken expectations*
- ▣ ***Root Cause Anticipatory Failure Determination (AFD)***
 - *Reduce failure risk for consumer's spoken & unspoken expectations*
- ▣ ***Directed Evolution (DE)***
 - *Strategically evolve future generations of technological systems & products to drive consumer excitement!*
- ▣ ***Control of Intellectual Property (CIP)***
 - *Maximize IP value and create patent fences around the directed evolution of technology & products*

Because the risk of using any new concept is high, we also use a technique called "HU Diagrams" (Harmful/Useful Diagrams). These diagrams are based upon Newton's Third Law that states "For every action there is always an equal and opposite reaction. Or the forces of two bodies on each other are always equal and they are directed in opposite directions". The object of these diagrams is to maximize the ratio of useful to harmful factors, thereby minimizing risk and proving you with better solutions. See Figure 3.

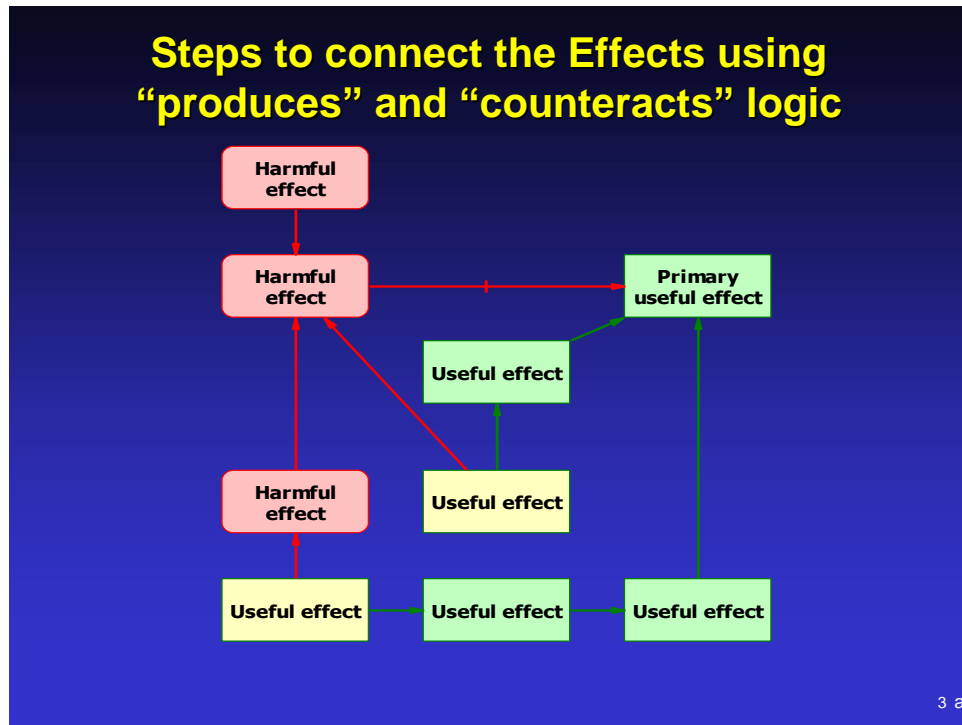


Figure 3.

Our approaches to innovation attack the ten challenges management is facing today.

They are:

1. Accelerating change – new approaches to managing change, new ways of managing stress, improved information systems.
2. Increased competition – improvement in competitor intelligence systems, global systems, global culture, creative management style.
3. Globalization of business – global strategy, global threats, global systems, global culture, new requirements for creative management style.
4. Challenging technology – a new way of accelerating product life cycle, new competitive advantage, new product concepts.
5. Diverse workforce – new leadership and management styles, new management processes, new benefits, new motivational systems.
6. Resource shortages – security management strategies, more effective processes.
7. Transition to knowledge-based society – new management paradigms, knowledge management techniques.
8. Unstable economic and marketing conditions – adaptive management, scenario management, stable enhancers.
9. Constituent demands – new relationship with constituents, new processes for transforming input into output.
10. Increased complexity – more expert systems, more computer simulations, new ways of managing