

From Problems to Ideas through to Innovation

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Capturing ideas and creating the right culture to maximise the value of intellectual property

Unsurprisingly, research shows that the majority of organisations see their future predicated on how well they can innovate. However, just throwing IT technology at issues in the hope that innovation will happen is not viable. Ideas are ephemeral and are easily crushed within the wrong environment. Creating a suitable culture, allied with a well implemented ideas management approach combined with strong leadership, is required.

- **Innovation does not come from more effective management of existing data and electronic information assets**
Organisations have problems – people have ideas. Bringing problems and ideas together in an effective manner is key to how effectively innovative a company will be – not how good their search engines and business intelligence tools are.
- **Business processes are dependent on individual tasks – and here is where innovation can really matter**
Users understand the tasks that they work on, not the end-to-end process that the task is part of. The majority of individual ideas will be task-focused and capturing and managing these will provide a platform for innovation re-use across the organisation's value chains.
- **While technology can be an enabler, it is getting people to participate through the provision of suitable ideas that is the real challenge: the human aspect really is the key**
Technology cannot create innovative ideas – this is where humans come in. Any innovation management system has to be able to integrate with the human aspects, such as participants' personal motivations, the underlying ethos and corporate approach, to engage with people and encourage interaction.
- **Initial ideas are often lost due to the lack of appropriate approaches – it is vital to be clear what the problem you are trying to solve REALLY is**
Using problem definitions that are either too direct or too woolly will not encourage participation from others. The key is to frame the problem correctly, and to iterate if necessary.
- **Many ideas that are unsuitable for a problem at the time become useful later – and yet few organisations have libraries of ideas**
Ideas should not be regarded as throw-away commodities. An idea that is unsuitable for one problem may well suit a different problem at a later date. Unless the idea has been suitably captured and managed, this opportunity will be lost.
- **Innovation is a journey, not something that happens in a single meeting; can you create an environment/culture that has innovation in its DNA?**
Attempts to drive innovative thinking through high-pressure lock-down meetings will not provide continuous innovation. An organisation has to encourage its constituents to capture their own ideas as they happen and to place these within an open environment for further discussion and usage.
- **Innovation is not the be all and end all – renovation and optimisation can be just as important**
Big "I" innovation is a rare thing – the little "i"s of optimisation and renovation can provide massive efficiency gains and better effectiveness for organisations. Big "I" and little "i" approaches both need ideas; the initial approach is still the same.

REPORT NOTE:

This document has been written independently by Quocirca Ltd to provide an overview of the issues facing organisations in creating an open and flexible environment for the addressing of process issues within today's markets. The report draws on Quocirca's extensive knowledge of the technology and business arenas, and provides advice on the approach that organisations should take to create a more effective and efficient environment for future growth.

Quocirca would like to thank Imaginatik for its sponsorship of the report.

Conclusions

Innovation in itself is of little practical value to an organisation. Existing approaches tend only to scratch the surface of the possible ways of optimising an organisation's approach to its issues. Through the use of dynamic team events and "crowd surfing", backed up with the capability for individuals and groups to continue working on how business process issues can be effectively addressed, a balanced approach combining process renovation, optimisation and innovation can be created.

An independent report by Quocirca Ltd.

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1. Introduction

“A committee is a cul-de-sac down which ideas are lured and then quietly strangled” Sir Barnett Cocks (Clerk to the House of Commons)

“The vitality of thought is in adventure. Ideas won’t keep. Something must be done about them.” Alfred North Whitehead (Philosopher and Mathematician)

“Innovation distinguishes between a leader and a follower” Steve Jobs (founder and CEO of Apple, Inc)

In research carried out by IBM during 2006 (The IBM 2006 Global CEO Survey), CEOs or other business leaders state that “innovation” is a major focus for them going forward. However, the majority of discussions around innovation do not provide any definition of what is meant by the term, and asking a group of people for their definitions will show a marked difference in what is understood by innovation. That innovation is predicated on a continuous source of ideas seems to pass most by – there is the fundamental misconception that by throwing enough money and technology at the problem, “innovation” will just happen.

At the most basic level, organisations are faced far more with “problems” than they are with the need to continuously innovate. While innovation may solve the problems, a clear understanding of what the problem is that the person is trying to solve is required – not just a blind desire to be seen to be innovative for the sake of innovation.

Even for those who understand the relationship between ideas, problems and innovation, few seem to know how they will manage the stages involved in ensuring that the path from problem definition, through ideas generation to innovative processes, can be managed within their organisations – and fewer still truly understand what innovation means to them, and what the differences between process optimisation, renovation and innovation are, and how this changes the approach to the types of idea that are required.

The main problem here is that the very nature of ideas are ephemeral, being born from an individual within an organisation, whereas the business runs on more formalised processes that codify the way that the individuals will work. Capturing early stage ideas that can then be fully utilised and further manipulated to create true business value requires a less rigid approach than many organisations are used to – and the existing procedures that many have tried have tended to peter out and die as these become perceived as being stale, or only a few individuals are seen to be actively doing well through the approach.

Again, the collection of ideas as a means of seeding innovation can also be counterproductive. For example, just asking an organisation’s employee base for “ideas” can generate a flood of input – but then someone will have to sort through all these ideas to see which ones may have some worth. Without the full knowledge of the problems that are the biggest issues to the business, it will be difficult for any person to do this matching. It is far better to start with the problem, ensure that this is communicated in a clear way, and ask for ideas as to how to solve the specific problem itself.

On the business process side, business process reengineering (BPR) was all the rage in the 1990s, and organisations were

encouraged to try out new ideas for processes on the understanding that many of them would fail, but that the financial benefits from the one in ten or so that worked would outweigh the costs of those that failed. However, the disruption to working practices and the resources being allocated to failing processes, along with the impact on employees who found themselves aligned with multiple failing process ideas, soon showed that BPR had its fatal faults.

Other approaches, such as Six Sigma, have been brought to the fore to try and ensure that companies can gain process efficiencies. Again, many companies tend to see the terms “efficiency” and “effectiveness” as being interchangeable, and many such approaches fail as bad processes are made more efficient, ensuring that the organisation goes out of business faster than it was doing previously. This lack of applying suitable ideas to ensure that the existing process is firstly made effective is all too common in both private and public sector organisations.

The use of formalised brainstorming techniques, through the use of enclosed groups, off-site sessions and so on, has tended to lead to a degree of ridicule and the initial provision of good ideas rapidly tailing off to less useful and distinctly useless ideas that, due to the basic rules around brainstorming, often still have to be considered as possibly useful. However, technology can provide the means to capture the “long tail” of ideas and ensure that the more esoteric or off-piste ideas that can still be viable as a solution to a problem are captured and managed. The order of scale that technology can enable means that the reach can be extended: this will mean that more ideas are generated, including ones that are of dubious value, and this means that a solid basis for managing and collating the ideas can be put in place. Manual systems just do not have the scale for this and, as such, the use of many historical systems has resulted in lost opportunities due to good ideas being lost.

Innovation has to be seen as not just the tinkering around at the edges of existing processes – this is where optimisation and renovation play, often seen as the Big “I” and the little “i” of innovation. True innovation (the Big “I”) must be viewed as a completely different approach to new or existing problems – the “thinking out of the box” that will create a step change in an organisation’s fortunes. Alongside this must be placed the Big “I” and little “i” of the idea side of the equation – the difference between the idea that changes the direction of a company and the idea that creates small but significant savings against an ongoing process.

The biggest problem here is that the aim is to produce a new process or set of tasks that will facilitate the innovation required, yet the ideas that will create this new process are difficult to capture through any standard process means.

In itself, innovation will fail in the same way that BPR did unless it is approached and managed effectively with a view to generating, capturing and managing the ideas that are needed to drive the innovation.

Ideas tend not to happen within a highly procedural environment, which can make the gathering of the seeds of innovation difficult. The “eureka” moments that everyone has from time to time need to have a suitable environment in place to surface these. If ideas can be easily placed into a

more formalised environment, they can then feed through to innovation of new processes, while also enabling renovation and optimisation of existing processes.

This paper looks at the issues involved in creating an open approach to managing innovation within an organisation, showing how a top down approach is required to engage and encourage participation, and how technology can be utilised to capture and manage the lifecycle of ideas across an organisation's value chains.

2. Use case scenarios

Main Findings:

- **Focusing ideas management on the “big” idea will not drive continuous change and improvement**
- **“Big” ideas may give spikes in an organisation’s financial performance; “little” ideas drive continuous improvement**
- **Continuous improvement needs continuous ideas management**

Ideas are required in a multitude of different places, solving multiple types of business problems, many of which would not be immediately apparent to the observer.

Often, the main requirement for ideas is in addressing the most pressing issues for an organisation. In these cases, the problem may be something to do with problems in the manufacturing process, the high cost of current supplies, what a new product should be and so on. These “big” issues are seen as being the ones which will have the main impact on the organisation's bottom line, and drive and constrain the organisation's approach to how ideas should be created and captured.

For many, these issues are project related, and so an initial session will be held in order to uncover as many ideas as possible. Once the ideas stage has been carried out, then the project moves on to the more formal design, development and implementation stages – and ideas tend to be discouraged as being disruptive to these stages.

However, the need for ideas is more often seen outside of discrete projects, in areas where an individual may have an ongoing problem, or where a different individual has a “Eureka” moment.

Here, we could be looking at someone working with HR who has to repeatedly go through the same steps to add a new employee to the company system. They may have a feeling that the way this is happening is not the most effective way of things being done, but do not have the full knowledge of the process required to make any optimisations themselves. By opening up their problem to outside ideas, the process may be rapidly optimised.

It may be that an organisation is struggling to attract new employees, and new ideas from outside of the group responsible for the existing recruitment process may help to change this. For example, is there a target profile in place and, if so, is this group being offered incentives to join the company?

Again, it may well be that something as practical as the wrong sort of paper in the toilet is leading to people using too much of it, or that the current menus in the staff canteen lead to wastage of too much food. Such “little” problems would normally be overlooked (or relegated to the “Ideas” box on the wall), but a change in the approach to usage of small items used in large numbers may well result in massive savings to a large organisation. Even with smaller organisations, bringing together many small savings can free up money for investment to investigate issues around larger problems.

There may be problems with protecting intellectual property while making it available to enough people to ensure that maximum value is gained from it. It may be helping people to define their own employment goals and finding the best ways to reach these to the benefit of themselves and the organisation. Or it may be where the organisation needs to implement some core change (for example with work practices, or relocating employees) and, by opening up the issue to all employees, ideas can be provided on how the change can be best dealt with by individuals and groups.

Such different needs for ideas also lead to issues with timeliness; the “big” problems, couched as part of a project, require a dedicated event to be held to maximise the generation of ideas at the outset, whereas many of the “little” problems need to be open to ideas being put forward at any time. Even “big” problems may need continuous idea input. Provided that the process is managed correctly, the input of ongoing ideas to a project does not have to be a negative impact. Indeed, many projects that have been highlighted in the press recently over how they have failed to meet requirements, have overspent or have hit significant delays, could well have benefited from a controlled continuous injection of new ideas throughout the project lifetime.

Ideas events may be of different forms: for example, quick sessions (as used by Imaginatik in its Flash events) may only be open for input for a short period of time, aimed at moving through stages of idea generation, build/extend and validation at the fastest possible rate. Other events may be open for extended periods of time to allow ideas to be built on together, gaining more input from interested parties and those with specific domain expertise (“gurus” or “magicians”) as the ideas become more rounded and complete.

3. The organisational problem: bringing ideas and problems together

Main Findings:

- The majority of organisations have little knowledge of the wealth of ideas that occur naturally within the organisation and across its value chains
- Problem owners have no means of identifying idea generators – and ideas just wither on the vine
- The use of ideas tends to be based on serendipity, rather than any planned capability

Ask yourself – just how does your organisation deal with its business problems? Do you really know, or is it just the visceral feeling that things bumble along, with problems not being dealt with by those who have responsibility for them? Or do you have the feeling that things are out of control, and that there is little capability for problems to be solved due to the speed at which things are changing in your market?

The nirvana for an organisation is shown in Figure 1; a person with a problem is matched with a person with an idea and a solution is gained.



Figure 1: Problem plus Idea: Perfect!

For many organisations, the chances of a problem owner and the correct ideas “guru” running in to each other at the right time are pretty minimal, and so problems remain unsolved, and ideas go unutilised. Problem owners do not know how best to articulate the problem or who to go to for ideas: those with ideas do not know how best to communicate the idea or even that there is a problem that the idea could solve.

The real picture is far more likely to be as in Figure 2 – a highly disparate collection of problems spread around an organisation with little capability of capturing and matching the many ideas that abound in the organisation and so being able to solve the problems. That many problems require many ideas to get to the optimum solution also mitigates against serendipity playing any meaningful part in the process. Therefore, a means of bringing ideas together so that they can be applied to any clearly articulated problem and of publishing problems so that a large body of skills and idea generators can apply themselves to them is required.

Many organisations, once they have put in place a method for capturing and managing the ideas within the organisation, are surprised at the wealth of intellectual property that they uncover. Indeed, the majority of organisations are unaware of how many ideas there are across the whole range of their employees. Having fallen into the trap of believing that innovation can only come from recognised “ideas people”

within departments, finding that an average worker can be effective in solving day-to-day and more complex problems can be a very welcome surprise.

Much of the use of ideas within an organisation seems to depend on serendipity – a problem owner being in close proximity to the right ideas generator at the right time and the “Eureka” moment happening.

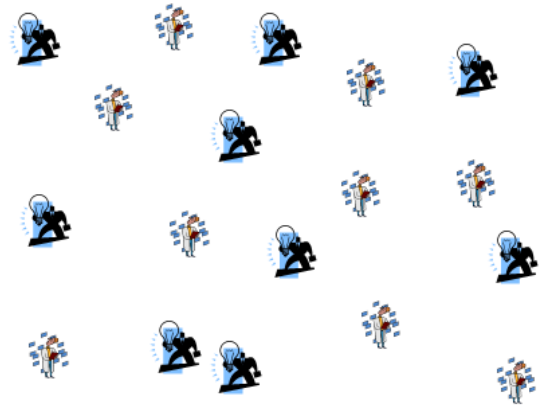


Figure 2: Problems, Ideas: Chaos

One example of shop floor innovation is the story of the match company, Bryant and May, which was looking to make savings on each box of Swan Vestas matches in a cut-throat market. Different ways of making the box were looked at, such as thinner cardboard, less glue and non-rigid boxes (none would make the required savings), thinner matches (they broke) and different recipes for the match head (they didn’t light consistently). One employee then came up with the bright idea of putting the sandpaper used for striking the match on one side of the box only – saving more than Bryant and May were originally looking for.

In this case, it was not just pure serendipity at work. The employee knew that management were looking for savings, and applied himself to the problem. Once he came up with the idea, he also understood the value in his idea, and took it to management – also expecting some reward for his idea. Many employees do not see the bigger picture, due to not understanding the overall process and, as such, can undervalue their idea and so keep it to themselves, or just mention it to one or two other employees. If these others do not react positively, the originator will then shelve the idea and not take it any further.

Further complexity is introduced due to the manner in which the majority of today’s organisations work. The historical “walls” have been broken down and extended groups of people now work together, including the main value chain of suppliers, company and customers (see Figure 3), and also contractors, consultants and outsourcers within the organisational structure itself. These value chains, in themselves, provide opportunities to drive further ideas: it will often be in the external party’s best interests to collaborate in solving a specific issue, as it could streamline their business, leading to greater effectiveness and higher efficiencies.

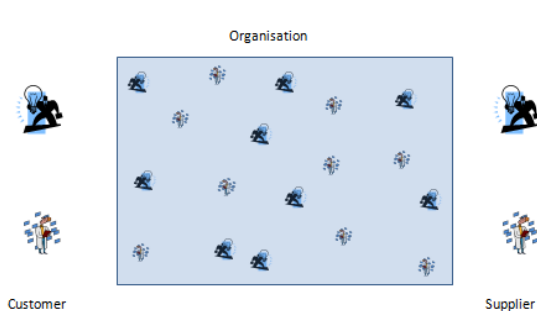


Figure 3: Value Chains

Therefore, an environment has to be created that encourages ideas to be brought to the fore – even if the originator is unsure as to the real value of the idea. The system has to encourage external ideas to be captured as well. Those with specific domain expertise – the “gurus” or “magicians” – need to be easily identified, and the means created to invite them in to existing ideas discussions and events to ensure that their capabilities can provide the Occam’s razor approach as a filter to more rapidly approach the desired outcome. By providing a suitable system for managing these ideas and then enabling new problems to be matched with existing ideas and to drive new ideas, true innovation can be driven throughout an organisation and its value chains.

4. Processes and Tasks

Main Findings:

- **An organisation’s effectiveness is based on how well its processes are carried out**
- **An individual’s efficiency is based on how well they fulfil tasks**
- **Applying new ideas at the task level can provide a granular approach to process innovation**
- **Ideas tend to be “of the moment”, and are not generated during standard processes**

An organisation exists based upon its processes, and survives and thrives depending on how well it executes existing processes and how effectively it can introduce new ones.

In Figure 4, we see how a business will have a set of standard processes which are shared across the majority of other organisations – processes such as payroll, vacation booking and so on. Above this will be a set of differentiated processes. These processes will be far more focused on the organisation’s vertical market, size of business or geographic position. The capability of the organisation to carry out these processes to a more effective level than the competition will have a beneficial impact on the bottom line.

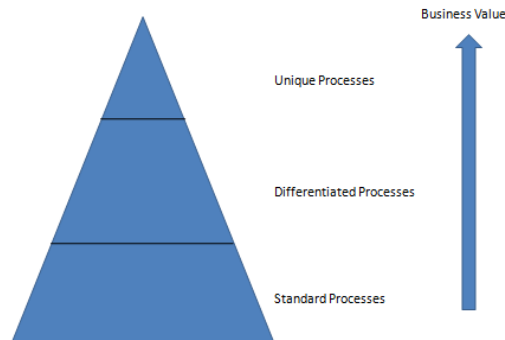


Figure 4: Processes and business value

At the top are the unique processes – the processes that make the organisation what it is, and also define how successful the organisation is. This tends to be where true innovation can provide the biggest payback.

However, the main focus within an organisation tends to be around improving monolithic processes, such as prospect to order, order to cash and so on. Unfortunately, few individuals within an organisation will have sufficient knowledge of such processes to describe in detail how these processes work.

Individuals are not process-based – they are task oriented. The actions that they take impact the over-arching process, but that impact may not be visible to the individual directly. These small impacts can, however, lead to a domino effect, meaning that although each individual is fulfilling the task assigned to them to the best of their capability, the over-arching process is failing in supporting the business effectively.

Further, the generation of ideas tends not to be procedural – ideas just “happen” in the majority of cases. Matching such a non-process ideas environment to the more procedural needs of an organisation just adds to the overall complexity of the issue.

Therefore, a key aspect in managing an organisation, where the capacity to change processes to reflect new concepts and react to market forces is paramount, will reflect around how an individual can more effectively carry out their tasks, and how these tasks can aggregate to create innovative and effective processes.

By taking a task-oriented view of innovation, a reuse model can be constructed.

The majority of employees understand what the inputs into their tasks are – what information they need from other people or from other sources. They also know what the outputs from their tasks are – maybe a form, some data or a “yes/no” decision. The inputs and outputs further up and downstream from this one task will likely be hidden from them - but are no less important.

Each individual will have ideas as to how their own job could be made easier, or how they can do their own tasks more effectively. These ideas, however, could impact upstream and downstream tasks, making the overall process less effective. Therefore, the basic idea of the “ideas box” on

the wall tends not to provide the quantum improvements in effectiveness that an organisation should be looking for.

What is needed is to bring together individuals in a manner where discrete expertise and needs can be combined to optimise at the granular task level as well as at the more macro process level.

By creating a library of such tasks, new processes can be constructed to deal with the innovation needs of the organisation, with the gaps in the capabilities more rapidly identified, so enabling these gaps to be more effectively bridged through the design and implementation of new tasks.

5. Innovation: what, why and how?

Main Findings:

- **Innovation is a much abused term**
- **Optimisation and Renovation can be just as important to organisations – and need the same rigour as innovation**
- **All approaches need new ideas – and the correct environment is required to seed, capture and manage such ideas**

According to the Oxford English Dictionary, a definition of innovation is as follows: “The alteration of what is established by the introduction of new elements or forms”. For many organisations, such as those in the pharmaceutical, oil and gas industries and other areas of high intellectual property, the need to continually find new ways of doing things is all that keeps them viable as an organisation. For example, within the pharmaceutical industry, the search for new chemical or molecular entities (NCEs/NMEs) is their lifeblood. However, the costs of R&D through to a typical drug being approved by the Food and Drug Administration (FDA) are around \$1.5b. The revenue possibilities are on average around \$3b, so such high R&D costs are covered – provided that you are the pharmaceutical company that gains the drug patent.

Therefore, incremental optimisation of existing processes is not enough for these high-value verticals – innovation is the only way to try to be the one who gains that all-important patent.

For many others, however, continuous innovation is not only difficult, it may well be counterproductive and too costly to effect across their organisation.

This does not mean that these organisations should not strive for improvement, but that their approaches must recognise that their risk profile points towards a different approach.

Quocirca looks at balancing a process improvement portfolio approach across three different approaches:

- **Optimisation**
Many existing processes are doing what they should do, but can be made more efficient. For example, if, within a contact centre, an agent has to repeatedly go through 4 mouse clicks to get to the same screen for each incoming caller, then that task can be easily improved to remove the

redundant steps without changing the overall process, yet saving the organisation an appreciable amount of money over time.

- **Renovation**

Some processes are barely adequate within the context of the business. Whereas they may have been perfectly adequate when put in place, changes in market forces and in corporate approach may now mean that exceptions to the process are more numerous than the base process itself, or that manual interventions are required to gain the desired end result. Here, there is a strong requirement to look at the tasks that make up the process in more depth, and to make root and branch improvements to these tasks to create a process that does support the business in the manner required.

- **Innovation**

Innovation is mainly needed where a new process is required, or where the existing process is patently broken. The organisation may be looking at entering a new market, either via a new product or by moving into a new geography and, as such, there is no existing process in place. Or, it could well be that existing processes mean that it has become obvious that you are no longer competitive in the market, and that any optimisation or renovation of the process will not solve the problem. In this case, a brand new approach will be required – and this is innovation.

Through dividing process improvements down to this level of granularity, an organisation can then take a more informed approach to how it will look at its improvement investments. Innovation doesn't always work; there will be failures, as you are often trying to do new things in new ways. Renovation can bring large improvements in the way processes are carried out, but may require a large input of resources in money and in human capital. Optimisation has low impact on existing processes and can be low cost, but the benefits may also be marginal.

Looking back to Figure 4 again, the key is to make all standard procedures as effective and efficient as possible, making sure that you do not lose money through doing such simple things wrongly or too slowly. Alongside this, driving as many as possible of the differentiated processes down to being standardised through optimisation and renovation will free up money and other resources, so that innovation investment can be focused on the unique processes. Note, though, that this does not preclude the use of innovation at the lower levels – it just points towards how an organisation's investment should be focused.

For an organisation running at low profit margins, placing the survival of the organisation on the success of a few innovative projects may well cause the business to fail, whereas concentrating on optimisation and renovation can improve margins to a position where innovation becomes less of a risk. For a company that is in a high-value, highly competitive environment, such as oil and gas exploration, the effective use of a highly innovation-skewed approach could mean that the company involved is the one that identifies the new oil field or the new means of extracting more oil from depleted fields – and so gains a few \$b extra in revenues.

Therefore, one company may find that it skews its approach 80/10/10 on the optimisation/renovation/innovation scale, another may look at 20/30/50. Only through being able to fully identify the challenges an organisation is facing, by being able to frame these challenges in terms that the various individuals within an organisation can understand and by being able to prioritise the ideas put forward to address these challenges as optimisation, renovation or innovation, can an organisation hope to work effectively within its process risk profile (see Figure 5.)

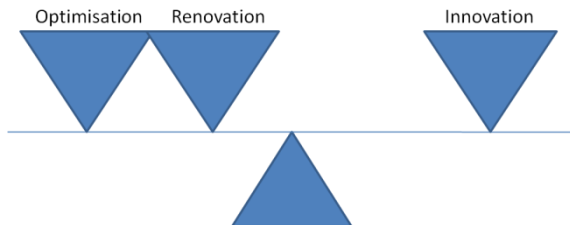


Figure 5: Balancing the Risk

Without a means of framing these challenges and applying as many of the intellectual resources available across an organisation to address the challenges, opportunities will be missed, and the organisation will not be able to progress and compete as effectively as it should in the market.

The application of ideas to different problems within optimisation, renovation and innovation processes will require different approaches. Any idea management solution must therefore be able to allow for different approaches to be offered depending on the problem itself, and what the problem owner is looking for. It also has to allow for problems to be moved from one category to another; for example, a problem owner may just be looking for process optimisation, whereas an ideas generator may proffer an idea that would result in a completely new, highly efficient and effective process – i.e. innovation.

Many technical approaches have been tried in the past, and few are still with us. Even in the case of those that are still used within organisations, underlying issues tend to prevent them from providing the overall value expected. From the concept that everything could be found in the data held within an organisation, through executive dashboards and document management systems as well as knowledge management and social networking, little has stuck around for long, as organisations find that a purely technical approach has fatal flaws that just cannot be ignored.

6. Alternative approaches

Main Findings:

- Existing approaches to information management tend to exclude much of the necessary information
- Highly formal, procedural approaches will not collect ideas effectively
- Many approaches either lead to over filtering or towards chaos, depending on the starting point
- No single approach will create a well-rounded solution

From the ideas box nailed to the staff canteen wall through to advanced knowledge management systems purporting to offer the ultimate in ensuring that the right information gets to the right people at the right time, there are many ways that organisations have tried to deal with solving the problems associated with their business. However, although the majority have elements of a good approach within them, the majority fail to provide key functionality that would make them fully suitable for the task.

Many existing approaches to innovation management are based around how an individual within an organisation can best interrogate and visualise existing electronic assets. Social networking has been presented as the new solution, in that it provides a platform for the unfettered collaboration between similar and dissimilar groups. Other approaches are drawn up around creating or optimising existing processes, while others aim at creating environments for the creation of ideas – but not always the ongoing management of them, or the use of group engagement and collaboration techniques to maximise the value of ideas generated.

1. Databases and document management

A large market has grown up around the provision of databases, document management software, search tools and business intelligence tools that look to make sense of what we have collected within our data centres.

The main problem with this is that true knowledge is not held within the data centre – nor anywhere electronically within an organisation. “Knowledge”, as required by a business, is an ethereal concept, based on the human brain’s capability to deal with information in a manner that computers cannot, as yet, match. The data and information held within an organisation’s computer systems can provide the basic ingredients for a human to distil into knowledge, but the data and information has to be presented to them in a manner that makes this possible. The problem for the vast majority of organisations is that this data and information is held in a distributed manner across the organisation, and that knowledge gained from dealing with the information is further diluted by being distributed across the employees of the organisation. It is also increasingly becoming more dispersed as the value chains that an organisation works within become diffused across contractors, outsourced resources, suppliers and customers.

Furthermore, even today, less than 20% of an organisation’s total information and data is held electronically, when we

look at the wealth of ideas that never get codified and placed into an electronic format. Any decision made based on only being able to search across 20% of the truly available information will be suspect by its very nature.

Document management tends to deal with information close to its final form within an organisation. Few document management systems are architected to deal with information from its point of creation, or even during its peer review stages. It is only when a document reaches a formal workflow level for authorisation and publication that it tends to find its way into a document management system.

The problem here is that ideas do not occur this far in to a document creation process. The main ideas happen before anything is put to paper (whether real or electronic), and only a small proportion of these will be put down in any form. If an individual opens up a blank document and starts to put down their initial thoughts and bullet points, they may well get weeded out and deleted as the document progresses in its lifecycle.

Through an organisational approach of using solid, constraining processes across the board, we end up applying the wrong filters to the ideas (see Figure 6). Ideas may not even get into the filter at all, and those that do may get weeded out before any real evaluation as to their worth has been carried out.

For a large organisation, how much information is used to make the decisions that could be defining the future success or failure of the organisation? Let's start with this figure of around 20% of an organisation's total information being held electronically. It is safe to say that the vast majority of its formal (i.e. numerical database and highly codified field-based content such as customer records) information will be held in electronic format. However, less than 10% of its total ad-hoc information may be held electronically. This non-electronic information may include customer and supplier paperwork, sales force field notes, meeting notes taken by attendees, telephone discussions, fax messages and so on. As well as this, electronic information that is about the organisation, but is held on employees' personal equipment, may also not be included within the available information, as these personal devices will generally be outside the scope of an organisation's reach. Crucially, the ideas that are buzzing around in employees' and partners' heads aren't held in any format that makes sense to an average organisation.

Let's assume that around 5% of an organisation's electronic documents are held within a document management system. This means that 19 out of 20 documents are not easily identified or searchable by any individual in that organisation – and that these original 20 documents are only based on 10% of the total document load anyway. Let's say that the 5% held contain 1% of the initial ideas that were first typed in to all the documents created.

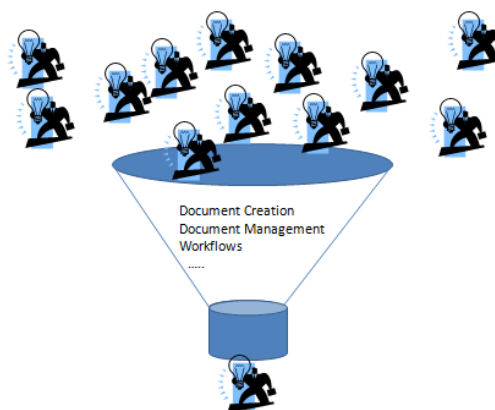


Figure 6: The Wrong Filter

So, 99% of ideas put down electronically are not available to an individual in an organisation – but this is only 99% of the 5% of the total probable ideas capability within the organisation. It is highly probable that 95% of ideas never get beyond an individual's thought, or, at best, a “water cooler” moment of mentioning it in passing to someone else.

Now, let's look at the value chain: the organisation no longer has constraining walls within which its employees create all the intellectual property and ideas. External organisations are taken on to help with specific domain expertise, contractors and consultants work with us, suppliers and customers also have ideas.

This means that many organisations who believe that they have a solid knowledge solution in place built on a document management and enterprise search approach based on interrogating the electronic data available to them are acting on less than 0.1% of the intellectual capability and ideas available to them.

Is this any way to be truly innovative? We obviously need to be filtering ideas in – not filtering them out.

2. Web 2.0 to the rescue?

The advent of “Web 2.0” technologies has been seen as providing the solution to the problems of a bottom up approach to managing ideas within an organisation. The use of social networking techniques, such as blogging, wikis, instant messaging and so on, has led to the assumption that the “wisdom of the crowd” or the capability to communicate directly with a closed circle of assumed gurus will lead to the solving of any issue.

The wisdom of the crowd is like the assumption that an infinite number of monkeys with typewriters will inevitably create the works of Shakespeare. Through the laws of probability, this cannot be argued against, but the amount of non-Shakespearean output means that other resources will have to be present to weed out the gold dust from the rubbish.

Counting on known contacts to have the real guru skills is also misleading. Even those working within a highly specialised environment may not know all the people with skills in that area – and often, an outside view will provide ideas that the essentially blinkered gurus would never have thought about.

Social networking can help, but needs to be controlled. Unless a subject matter expert is present within a wiki environment, suspect material input by an individual will not get suitably questioned or changed, and readers then fall in to the perception of reality – if it's in the wiki, it must be right.

Likewise, blogs tend to be un-reviewed. The content is the thoughts of a single individual who may well not have discussed the content with anyone else before it has been published. If it is an active blog, there will be a degree of feedback from other people around it, but even many active blogs have a relatively small stable reader group, and true value-based review can be rare. Some content will be excellent, but much will be wrong or poorly thought through.

Even the opening up of the internet through the web to make information more widely available becomes a two edged sword. Information found through the large search engines tends now to be contradictory, and so much time can be spent in filtering out non-useful and wrong information that little time is left to ensure that possibly right information is completely right.

Trying to pick up real best practices and the seeds of new ideas through searching the internet or the uncontrolled usage of social networking will only make the final results questionable and will necessitate additional resources to manage the possible changes needed as the flaws in external and unchecked sources become apparent.

Although controlled use of the internet and social networking can get around the problems of an overtly bottom up approach, it still leaves too much to chance for an organisation to bet its future on it.

3. Other approaches

In the search for the best approach to knowledge management, a host of different ideas have been tried to address the issues found in taking approaches that are, essentially, technically led. Some of these ideas include:

- **Mind mapping**

Mind mapping provides an easy means of linking ideas together through the use of a highly graphical approach. The use of mind maps goes back to Porphyry of Tyros in the 3 century AD. The main idea, problem or subject is placed at the centre of a sheet of paper and other thoughts are then connected to it through the use of branches. The approach then uses cross links and “bread crumb” capabilities (maintaining a track of how a person got to any one place) of tracing back to provide contextual information on how different ideas are linked.

The approach is ideally used by individuals and can be highly effective when applied in learning environments. However, as a team tool and as a means of managing intellectual property and innovation, mind mapping can only be seen as a part of the solution, not the solution itself.

- **Business Intelligence (BI)**

In the old days, tools used against databases to uncover knowledge were essentially business reporting tools, taking formal data and presenting it to the viewer as a defined report. Nowadays, these

tools have progressed to provide far greater capabilities in being responsive to the user's needs.

As each person has their own preferences in how information should be presented to them, many tools now allow users to switch between bar charts, scatter charts, pie diagrams, heat maps, radar maps and so on. Also, the need to understand the likes of pivot tables and the various statistical modes of data analysis has also been effectively removed from the business user. These capabilities have made business intelligence a very powerful tool within the business – but only when it comes to formal data. Also, it still does not move towards driving innovation, just providing the capabilities to better understand what is happening, not being able to change it directly. Seeing data in different ways can act as a driver to new ideas, but a means of capturing these ideas will be required.

Finally, BI is still, essentially, a means of looking at what has happened, rather than what is going to happen, and without accurate trending of the information presented by BI tools, BI has to be best seen as a basic feed into how an organisation deals with its problems and knowledge management needs.

Again, BI can only be seen as part of a possible solution.

- **Corporate and global search engines**

Many people see the likes of Google, Yahoo! or Microsoft search as solutions to many of their ideas and innovation issues. After all, surely the web holds everything that could ever be needed in the way of tools and content, so therefore the large search engines must provide access to it?

The problem here is again that the veracity of information on the web can be extremely suspect, and without the right means to evaluate the information, any decision or change to an organisation's business approach based on such information will, in itself, be suspect.

Also, the search tends to be one-way and, as such, the context of the problem cannot be provided, and without this any ideas as to how to innovate a solution will be generic, rather than specific.

The use of the web as an ideas tool is also highly suspect, as what a user tends to be searching for is a possible answer – not an idea. This leads to an abrogation of responsibility – and to the use of common or best practice, rather than differentiated or unique processes that can drive an organisation past its competitors.

- **Discrete “Knowledge Management” solutions**

There are technology vendors in the market selling knowledge management solutions. These can help in providing a means of capturing more information than existing document management and database systems, but tend not to provide any real means of seeding ideas through the propagation of problems through to others, nor of

providing the context of the problem through the correct framing of the problem itself.

These systems also tend to be aimed at individual use, even though they act against as much information as they can gain access to within an organisation. Without a means of propagating ideas for comment and further work by colleagues and other resources, such knowledge management tools are just a window on what's happening – not a tool to impact what will happen.

- **Six Sigma**

Motorola developed its Six Sigma approach in 1986. Originally aimed at manufacturing processes, the approach has evolved to be able to be used against many different types of business problem. The aim here is to continually improve existing processes to remove defects. Six Sigma draws heavily on other preceding approaches such as Total Quality Management (TQM) and Zero Defects (ZD) and, although it has been used as a means of driving innovation, its very basis is drawn from looking more from an optimisation and renovation point of view, and Six Sigma does not help to encourage a fully innovative, ideas-based culture.

- **TRIZ**

TRIZ has been around since 1946, when a Russian by the name of Genrich Altshuller came up with a methodology to look at how to solve generic problems. TRIZ, in Russian, are the first letters for “the theory of solving inventors’ problems”. With a team of others, Altshuller developed the approach, and in the intervening 60 years the methodology has evolved to a position where a mix of technical and human tools brings together an environment where problems and ideas can be effectively brought together to produce a suitable solution. However, enterprise TRIZ tools are few and far between, and its usage remains niche.

- **Brainstorming**

Popularised in the 1930s by Alex Osborn, the idea behind brainstorming is to hold a discrete session with four basic rules as to how ideas should be offered and received. The rules are, essentially, a) a focus on quantity – the more ideas, the better; b) no criticism – the fear of criticism stops the sharing of ideas; c) unusual ideas are welcome – there are no silly ideas; and d) ideas should be combined for improvement – association of ideas can rapidly build to a solid new idea.

The basics behind brainstorming are solid and still provide the base platform for many other approaches. However, what has held brainstorming back has been the lack of reach; a brainstorming session has required all people to be in the same place at the same time, and the organiser of a brainstorming session has had to rely on their own knowledge as to who should be invited. If the real subject guru is unknown to the organiser, then the session is hamstrung from the start. Further, the poor use of brainstorming, for example with groups of people being locked into low-light, sound proofed rooms with instructions not to come out until a “solution” has been found to a specific problem, has led to many perceiving brainstorming as a caricature of itself, as often shown during television and film comedies.

Many of these approaches have some strong areas within them but, ultimately, each tends to try to solve a specific type of problem. Therefore, many organisations end up with multiple approaches working independently of each other, and ideas brought forth in one area may never be seen in another. Such an approach can mean that an organisation does have the very solution to a serious problem uncovered within a specific tool, but also that the problem and solution will never come together. What is required is a solution that enables any of the above solutions to act as a feed into a centralised ideas management system.

7. A push/pull approach

Main Findings:

- **Problems need ideas, and ideas need problems – this needs a push/pull approach**
- **Framing problems and ideas to provide a rounded context is important**
- **Problems and ideas need to be seen as platforms and building blocks**
- **Collaboration and communication tools are critical**
- **The use of other tools as feeds can help – but should not be the main focus**

With so much intellectual capital and capability being kept outside of a codified environment, it becomes necessary to take a different approach to how ideas can be captured and managed. When this is combined with the way that ideas tend to be created by individuals, we see the need for a combined push/pull approach. Here, idea creators can push their ideas into the business, and those with problems can pull appropriate ideas out from this resource pool.

This becomes a multi-stage approach with the following steps:

- **Prioritising the challenges**

An organisation will have plenty of problems, some of which will be of critical importance, some of which may well have a significant impact on business, but many of which will be just niggles. Trying to solve all problems will tend to focus much of the effort on the smaller issues, so diluting the effectiveness of dealing with the more important challenges.

Some problems will be time dependent, and the criticality of time may vary depending on the problem being addressed. Other problems will not have any real time constraints. A means of supporting the creation and use of ideas across the whole of this spectrum will enable priorities to be set for both known, existing problems, and for ideas set against latent problems.

However, as will be seen within the case study presented later in the document, formal prioritisation of problems may actually lead to a sub-optimal solution. Through providing an open and easy to use environment for the publishing of problems and the offering of ideas, many low-priority issues can be easily solved, enabling more time and resource to be focused on the “bigger” issues.

- **Framing the context of the challenge**

As a problem owner, it is important to ensure that the issue is framed in the most appropriate way. For example, a problem framed as “I don’t have enough resource to complete this work” is unlikely to bring out many strong ideas as to how to solve the problem. If the same problem is framed as

“Within the constraints of having no more available money, does anyone know where I can gain access to a person with a full understanding of protein folding?” gives more information for an ideas person to build upon.

The best way to do this is to provide a template for the problem to be framed within. Here, by providing different areas for an individual to provide more information, a well rounded problem can be presented to an audience, so that ideas can be more focused.

- **Engaging with the correct resources**

As previously discussed, the problem then becomes that the ideas resources are diffused and distributed across the organisation, and also should include domain expertise from outside of the organisation as necessary. For this, a technical platform that enables highly distributed groups to participate in the submission, discussion and collaborative building on ideas is required.

Such inclusivity does mean that highly granular security is required, so that individuals can be brought in to see only parts of the overall information, and also that full audit trails can be monitored.

Engagement with the audience may be through a specific “event”, which may be a face-to-face meeting, an online collaborative event or an asynchronous online area where people can work at their own rate and in their own time zone to provide information on the subject.

For problems that are ongoing, or for the submission of ideas against latent or possible problems, the use of open areas with less formal timescales will be of use.

In each case, moderation of the event or area will be required. It is easy for an event to become defocused and descend into anarchy if there is not a moderator in place. The moderator needs to maintain focus, ensure that the rules of idea generation are adhered to, and that off-topic, but valid, issues and problems are moved into other events or areas as necessary.

Also, inclusivity of technology is a major advantage. Today’s new entrants into the workplace will be far more used to collaborating through the success of social networking sites such as Facebook, MySpace and so on. Enabling interactions through these tools can lead to greater involvement – and the generation of more ideas that could solve the problem in the optimum manner.

Also, inclusivity of individuals must be considered. A purely technology-focused approach will miss out those who do not have easy access to corporate systems. The use of kiosks and of specific email boxes allowing individuals to send in ideas from outside PCs may well improve the involvement of the total organisation – and will enable externals to participate as well.

- **Capturing ideas**

Ideas can come in different types. For example, a simple idea may just be a single line of text submitted. These “raw” ideas can act as seeds for further discussion and as building blocks for more complete ideas.

A more rounded idea could be described as a basic idea, where more information on the idea is provided, enabling a reader to gain more insight into the idea generator’s overall view of how the idea could be used.

A fully rounded idea may include further information such as the rationale behind the idea, the expected benefits, what value (financial or otherwise) the idea may generate, how much of a strategic fit the idea has with the organisation’s existing strategy, some of the issues the idea generator envisages as likely problems, along with possible alternative approaches.

None of these forms of idea are better or worse than the others. There will always be a need for ideas that are essentially “open”, without any constraints to them, enabling others to build on them. A fully rounded idea may have more information associated with it that may help the reader understand what the idea generator is thinking – but this could also constrain how the reader sees the idea being used.

The key is to turn as many raw ideas into basic or rounded ideas as possible, and this can be done through ensuring that the problem framing is done correctly. By utilising suitable idea templates, the idea generator can be encouraged to add more information, and these templates can also help in taking raw ideas and getting others to flesh them out to become basic or rounded ideas.

Ideas can also be created through the use of “flash events”; 2–3 hour sessions bringing together groups of 25–100 dispersed people through the use of social collaboration technologies concentrating on one or more specific well-rounded problems.

By combining rounded problems with rounded ideas, an ideas management approach can provide several orders of magnitude more valid solutions than any less elaborate approach, such as standard brainstorming sessions.

- **Filtering ideas**

One of the biggest issues with creating an environment conducive to ideas generation is the volume versus quality argument. Here, it has to be accepted that many ideas are of low or no value, but to be judgmental in filtering out ideas at an early stage soon stifles an open culture. Also, if it is a person that is acting as the filter, individual prejudices come into play and good ideas may get filtered out due to that individual’s own attitude.

It is important to capture all ideas, whether they are raw, basic or rounded, and provide a means for

different individuals to filter through these according to their own needs. This is where a suitable ideas repository is required, with sufficient capabilities to search through direct information held within the ideas database and across associated metadata to identify which ideas are best suited to solve the problem.

- **Building on ideas**

Ideas in themselves are not solutions. A full solution will take ideas and use them as building blocks to solve a problem, and a full solution may need to use multiple ideas to create an optimal approach.

A key need in this area is the provision of an open collaborative environment, enabling individuals and groups to add their own thoughts and domain expertise to round out ideas. The sort of information provided here may include more details on opportunities and possible issues to do with the idea; may be around existing alternative approaches that may be more easily available; may be modifications to the basic idea and so on. All this information needs to be captured and made available as searchable items for filtering, as above.

- **Evaluation**

A means of evaluating the validity of ideas needs to be part of the system, so that those ideas can be identified that provide the most promising solutions to the problems at hand. The evaluation tools should make it easy to deal with a large volume of submissions. They should also support structured as well as unstructured review processes, since different approaches will need to be used for different types of problems.

Again, this requires a collaborative means of enabling others to comment on how they see these ideas working in reality. Some of this will need to be carried out in a less public environment than the previous steps, as this is where criticism and judgemental comments will be made. However, the information added is again all useful information and needs to be captured as searchable metadata against the ideas.

- **Managing the lifecycle of ideas**

Even ideas that are rejected may be useful at another time to solve a different problem. Therefore, a means of managing the lifecycle of the original idea, the additional information added during the various stages of idea management and the previous usage of the idea needs to be in place.

However, there may also be cases where an idea no longer has any validity within the needs of the organisation, and these ideas should be capable of being archived away from the main system so as not to distract from the valid ideas.

Archival is far better than deletion – an ideas-focused person may well find a trawl through such “out-of-date” ideas could trigger many new ideas.

- **Reward for suitable engagement reflecting input and success**

Although, for some, just the knowledge of having produced a useful idea is enough, more solid recognition is required for many.

Any underpinning system for ideas management should provide the capability to identify where the most value has been added, so that recognition can be provided to individuals and teams when major steps forward have been attained.

- **Letting individuals work as they want**

Different people prefer different approaches to work with ideas; some people really adapt well to mind mapping, others like the yellow sticky note approach. Such approaches can still be used as feeds for a fully integrated idea management solution. For example, yellow sticky note ideas will tend to be raw ideas, but can provide the seeds for more complete basic or rounded ideas. Mind mapping can help a person take a raw idea and look at the various areas that could turn it into a rounded idea.

In addition to these needs, from an approach point of view, there are further points that arise from the context of the system. These include:

- **Integration into existing systems**

The majority of organisations will already have many tools that can help in ideas management. For example, existing email systems can be used to propagate event invitations, for notifying individuals and groups of when changes occur, and enterprise directory systems such as Microsoft Active Directory or IBM Domino Directory can provide contextual presence and search capabilities so that the right audiences and specific guru skills can be easily identified through a common engine. Therefore, any chosen idea management system must be able to integrate into such environments, and also interact with any existing idea generation and process management systems in use.

- **The capability for individuals to participate at an anonymous or named level**

Not all users are happy to proffer ideas into a public environment, fearing ridicule or humiliation. However, anonymous submissions can enable anyone to put forward their ideas without this being a major problem.

When an anonymous idea gets selected for implementation, it becomes difficult to identify the individual and provide recognition or ask the author for further insight. This can be countered by providing an idea “code” to the individual at the time of creation or by including a mechanism to ask the anonymous author to reveal their identity at a later date should further information be required or recognition be offered.

- **The capability to include external and semi-external resources**

The best ideas are not created just within the four walls of the organisation. By including external resources, not only will greater domain expertise be found, but external views may be completely different to the somewhat blinkered view of a group of insiders. Therefore, secure means of including externals – whether this is to complete events and idea lifecycles, or just to specific parts – must be catered for.

- **A continuous means of revisiting and fine tuning ideas**

Times change, and market conditions change with them. Any system used for ideas management will need to provide the capability for existing ideas to be revisited, adding more detail as required, changing the inputs and outputs and reflecting changes at a human and technical level. As above, this is all metadata that needs to be searchable within the system to ensure that new problems can see the changed ideas. Only through this approach can the whole idea management environment be kept dynamic and ultimately useful.

- **A search capability that is flexible enough to identify previously used or unused ideas**

Just because an idea has not been used does not mean that it has no use. It may just be that the right problem has not yet been identified that the idea best suits. Similarly, just because an idea has been used does not mean that the mode of usage is the only valid way for the idea to be used. The search engine provided within any solution must be able to return the most valid ideas against any well framed problem – and this means being able to look beyond the preconceptions and baggage that a human mind may bring to the fore.

8. Legal and other considerations

Main Findings:

- **Idea ownership is a grey area at the moment**
- **The trust relationship between the organisation and the various constituents of the value chain can be tested if the rules of engagement aren't made clear from the outset**
- **Mutual benefits are the best way to focus on ideas generation between organisations – individuals may need more personal recognition for their input**

When looking at dealing with intellectual property, there are several areas of law that will need to be considered to ensure that matters do not become a problem at a later date. These include:

- **Ownership of intellectual property**

An idea on its own has little value – yet an idea that solves a defined problem can be shown to have a hard financial value. The originator of an idea could argue that they deserve a proportion of the

financial gain based upon the use of their own intellectual property, unless the organisation has covered this question elsewhere.

This may be through a section within the contract of employment, similar to those found within many organisations that have a dependence on the development of new products, stating that all ideas from individuals become the property of the organisation. However, this may not be strictly enforceable within a court of law, and cannot be easily enforced for outside staff involved within an ideas management system.

Another approach would be to include a waiver of rights within each ideas event, or as part of the submission process for ideas into an idea management solution. Through this means, the individual is forced to transfer the rights to the ideas directly to the organisation.

However, such a hard ball approach is hardly conducive to individuals entering into sharing their best ideas. It is far better to look to ensuring that those with the best ideas gain a level of financial recognition, while those with decent ideas gain other forms of recognition through the provision of gifts in kind, getting mentioned in the company newsletter and the like.

With outside parties (see below), the legal and ethical issues must be detailed and agreed before entering into any collaboration. Ownership of the intellectual property needs to be agreed not only between the organisational entities, but also at the individual basis. Each party has to ensure that there is no comeback after the event by either organisation threatening legal action, nor of an individual doing so. Strong, legally binding documentation will be required to ensure that this is so – a “gentleman’s agreement” will only lead to problems down the line.

- **Consumers as ideas seeds**

Another problem occurs when organisations are consumer focussed. Using consumers as ideas seeds is often carried out through consumer forums, workshops and so on, but small groups of people tend to go with the strongest voice in the group, and the output from such groups tends to be suspect.

The use of a proper idea management solution should enable an organisation to open up to large groups of consumers – either named or anonymous – to gain direct ideas on new services, products or on continuous improvement to existing services and products.

Here, the advent and greater acceptance of hosted solutions (such as software as a service (SaaS), cloud computing or hosted web services) provide a rapid and easy to access means of bringing in disparate groups with the minimum of impact on an organisation’s existing technology base.

Again, suitable recognition may need to be offered, such as vouchers for goods, use of the person’s

details in marketing material, allowing them to name the new service/product, etc.

- **Building up trust**

A major part of opening up an organisation to new ideas, particularly when looking at bringing in outside resources, is in ensuring that trust is built up and maintained. For example, taking ideas from individuals and creating a new product or service without the individual gaining any recognition will break a trust bond with them, and they will be loathe to share any further ideas with you. If this happens with a supplier or major customer, the problem could be magnified to a point where they may choose to no longer transact business with you.

Therefore, it is important to maintain full trust with all parties by ensuring that the idea management process is transparent, that the points of value are identified and recognised as early as possible, and that credit and recognition is given as soon as can be done.

- **Need to avoid plagiarism**

There is little new under the sun, and many ideas will have been tried elsewhere before. In the majority of cases, any regurgitation of ideas will be an honest feeling of being the first one with the idea but, occasionally, it may be down to outright plagiarism of other peoples’ ideas.

Ideas from other people and environments still need to be encouraged, but if a person knows that the idea has been tried elsewhere, they should be encouraged to state this as part of the idea creation process.

Any idea that has high potential financial value should be checked for precedents, not only to avoid general plagiarism, but also to ensure that the idea can be legally used in the specific circumstances.

- **Look to mutual benefits**

When dealing with customers and suppliers, providing suitable recognition of idea input and value can prove difficult. However, by focusing on what benefits both parties, such matters may not become an issue.

If an idea can be shown to improve both parties’ bottom lines, or makes the whole process more effective in a competitive world, then the overall gain may well be sufficient to make it that both parties are happy with the end result.

9. Case Study

Pfizer Global Research and Development (PGRD) implemented an "Idea Farm" in 2006, utilising Imaginatik's Idea Central technology along with Imaginatik's skills, grown through its work with many large organisations in how best to create the right environment and culture for bringing problems and ideas together. PGRD had realised that focusing on big innovation projects led to these becoming bogged down in paralysis by analysis, and yet the very business that PGRD is in (chemical and pharmaceutical research and development) requires a constant stream of new ideas and innovations.

By opening up the ideas process to problems of all scales and type, PGRD wanted to engender an environment where people felt that their ideas could have a real impact on PGRD's future.

The first area for PGRD to focus on was on what sort of problems the Idea Farm should attempt to solve. By breaking down its problems into buckets of focus areas, PGRD came up with 8 different problem types.

- **Long shot technical challenges**

An example of a long shot technical project was in how Pharmaceutical Science and Discovery scientists provided significant advice and contact information for those with existing domain expertise. This helps to show how complex problems in the formulation of drugs for humans could be adapted for animal usage, so maximising the financial capabilities of a specific drug range.

- **Social problem solving**

PGRD wanted to move a group of employees from one office to another in the US. Through the use of the Idea Farm, existing PGRD employees in the target locations were able to offer contextual advice about schools, churches and local entertainment, which helped to ease the move for many.

- **Meeting and decision support**

For PGRD, organising an off-site meeting for a large number of high-level executives is a complex and expensive task. Therefore, these meetings have to be seen to be useful and to result in solid decisions. Through the use of the Idea Farm, ideas generated during such sessions were successfully captured for immediate and future use.

- **Outside suppliers and partners**

PGRD wanted to involve other members of the value chain in a consulting collaboration conference to be held in New York. Through opening up the Idea Farm in a secure manner, partner firms were empowered to provide anonymous feedback on how they felt PGRD could work more effectively with them. Through building on the ideas provided, PGRD then optimised many of the processes involved in the value chain.

- **Continuous improvement**

The Idea Farm provides PGRD with multiple different approaches to dealing with continuous improvement. In two specific areas - using brainstorming techniques and workshop approaches supported by the online system - bottlenecks in existing processes were eliminated, enabling PGRD to achieve remarkable time savings in critical areas.

- **Speed dates**

PGRD implemented a series of fast-moving "speed date" sessions, where individuals hold 5 minute quick sessions with other individuals exchanging ideas and problems that are captured and then filtered and compared, to see what problems and ideas can best be matched. One such session resulted in 73 previously undocumented ideas that were suitable for further investigation as possible new products.

- **Large challenges**

PGRD utilises outsourced offshore resources in Asia for some of its synthetic chemistry work. However, time differences and other delays often result in the offshore staff idling while waiting for information to come back from PGRD. Through the use of the Idea Farm, PGRD ensured that these resources would always have a full work schedule, being able to work on lower priority, yet high value, tasks while waiting for information on the high priority tasks.

- **Project management**

The Idea Farm has full tracking and email alerting in place, and this is being used by PGRD to provide enhanced capabilities in longer term project situations. As one example, PGRD uses these capabilities in dealing with over 100 standard operating procedure documents (SOPs), which require constant review and tracking.

For PGRD, the capability to run multiple idea campaigns, using different approaches as necessary to ensure maximum engagement of the different people across the organisation and within the value chains means that it is seeing a very high return on investment.

PGRD has recognised that by applying the basic concepts of brainstorming, engaging with as many people as possible without being too judgemental on initial ideas can lead to rapid solutions to all type of problems. Through underpinning all of this with a single "engine" provided by Imaginatik, upfront and ongoing costs were minimised, while a culture of asking the right questions and offering ideas into the organisation has been created.

10. Conclusions

The need for organisations to innovate in today's fast moving markets is a given, and yet innovation depends on a constant source of high quality ideas. Idea generation is unfortunately an area where dictating processes acts more as a gating factor, and capturing ideas in a suitable manner has proven difficult for many organisations.

Further, ideas cannot be regarded as coming in one type; different kinds of ideas are required to solve different types of issues. Providing the correct environment for different ideas to be encouraged requires multiple different approaches, but all of these need to be provided and managed by a single underlying engine.

Technology is not the ultimate answer to idea management. It can provide the tools to make managing the lifecycle and utilisation of ideas viable, can provide the reach and scale for capturing and managing problems and ideas, and can help in guiding people through how best to frame problems and ideas. However, the basic need for an idea-friendly culture depends on an organisation ensuring that its employees and external stake-holders trust how the organisation goes about working with ideas, utilising intellectual property and recognising the valuable input that individuals provide so that the organisation becomes more effective in its markets.

About Imaginatik

Imaginatik is the leading provider of innovation and collaborative problem-solving software and process to the world's top companies. More than 100 clients rely on Imaginatik's software, consulting and research to enable their best-of-breed innovation activities and tap into the Collective Genius of their employees, customers and partners.

Imaginatik has been named as a World Economic Forum Technology Pioneer for 2008 and a finalist for the IBM Lotus Awards 2008 in the Best Industry Solution category.

Imaginatik's software and consulting services have helped clients discover significant sources of additional revenue, as well as tangible cost savings, process improvements and increased product pipeline. Our goal is to deliver 10 x Return on Investment. We have a track record of delivering on our promise, applying our software and [research](#) insights to achieve success in some of the world's [best organisations](#). Our customers include Pfizer, Dow Chemical, Cargill, Hewlett Packard, Whirlpool, Xerox, Allianz, Nokia and others.

For over 10 years we have developed software and consulting services to deploy [enterprise-scale solutions](#) for large and mid-sized organisations.

Imaginatik is also committed to developing strategic solutions in the field of innovation, working with academic institutions such as the London Business School and the Cass School of Business, London, as well as leading practitioners of corporate innovation.

For more information on Imaginatik and our offerings, please visit www.imaginatik.com.

Imaginatik is listed on the London Stock Exchange Alternative Investment Market [[AIM: IMTK.L](#)] and is quoted in the US [[OTC: IMGKF](#)].

The logo for Imaginatik, featuring the word "imaginatik" in a bold, lowercase, sans-serif font. The letter "i" is stylized with a red dot above it.

About Quocirca

Quocirca is a primary research and analysis company specialising in the business impact of information technology and communications (ITC). With world-wide, native language reach, Quocirca provides in-depth insights into the views of buyers and influencers in large, mid-sized and small organisations. Its analyst team is made up of real-world practitioners with first hand experience of ITC delivery who continuously research and track the industry in the following key areas:

- Business process evolution and enablement
- Enterprise solutions and integration
- Business intelligence and reporting
- Communications, collaboration and mobility
- Infrastructure and IT systems management
- Systems security and end-point management
- Utility computing and delivery of IT as a service
- IT delivery channels and practices
- IT investment activity, behaviour and planning
- Public sector technology adoption and issues
- Integrated print management

Through researching perceptions, Quocirca uncovers the real hurdles to technology adoption – the personal and political aspects of an organisation’s environment and the pressures of the need for demonstrable business value in any implementation. This capability to uncover and report back on the end-user perceptions in the market enables Quocirca to advise on the realities of technology adoption, not the promises.

Quocirca research is always pragmatic, business orientated and conducted in the context of the bigger picture. ITC has the ability to transform businesses and the processes that drive them, but often fails to do so. Quocirca’s mission is to help organisations improve their success rate in process enablement through better levels of understanding and the adoption of the correct technologies at the correct time.

Quocirca has a pro-active primary research programme, regularly surveying users, purchasers and resellers of ITC products and services on emerging, evolving and maturing technologies. Over time, Quocirca has built a picture of long term investment trends, providing invaluable information for the whole of the ITC community.

Quocirca works with global and local providers of ITC products and services to help them deliver on the promise that ITC holds for business. Quocirca’s clients include Oracle, Microsoft, IBM, Dell, T-Mobile, Vodafone, EMC, Symantec and Cisco, along with other large and medium sized vendors, service providers and more specialist firms.

Sponsorship of specific studies by such organisations allows much of Quocirca’s research to be placed into the public domain at no cost. Quocirca’s reach is great – through a network of media partners, Quocirca publishes its research to a possible audience measured in the millions.

Quocirca’s independent culture and the real-world experience of Quocirca’s analysts ensure that our research and analysis is always objective, accurate, actionable and challenging.

Quocirca reports are freely available to everyone and may be requested via www.quocirca.com.

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