Actions for Enterprise Collaboration

by Bruce Lewin and Allan Engelhardt

Companies need to innovate relentlessly to even stand still in an increasingly global and competitive economy. No longer is it sufficient to deliver incremental improvements at a leisurely pace. Instead disruptive innovations of the type that fundamentally alters markets and business processes must be sought out and delivered regularly and predictably.

Disruptive innovation must become a core business process. This article shows how to achieve this.

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Web: www.cybaea.net   E-mail: info@cybaea.net

CYBAEA Limited, 65 Manor Road, Caddington, LUTON, Bedfordshire, LU1 4EE, United Kingdom

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We support organizations in defining, communicating, and delivering their strategy for the use of technology. Additionally, we provide independent research that identifies and analyzes major trends in technology and their impact on business.

Why did Barnes & Noble lose out to upstart Amazon.com in the battle for our online book purchases? Simply put, the new company out-innovated the established bookseller. By innovating and bringing innovations to market consistently faster than their competitor, Amazon was able to dominate the market.

Companies need to innovate relentlessly to even stand still in an increasingly global and competitive economy. Disruptive new business ideas are no longer confined to the dot-com sectors but are demanded in all industries. No longer is it sufficient to deliver incremental improvements at a leisurely pace. Instead disruptive innovations of the type that fundamentally alters markets and business processes must be found and realized regularly and predictably. Survival of the most innovative is the new corporate Darwinism.

If innovation is a car, then Clayton Christensen's systematic innovation approach provides the satellite navigation system, but this article is about starting and tuning the engine.

The business literature has recently been focusing on managing the direction of innovation, especially through the works of Clayton Christensen[1]. However, if innovation is a car, then Mr. Christensen provides the GPS satellite navigation system to tell you how to steer to where you want to go, but gives little insight into how to start the engine.

This article provides an approach and a framework to practicing business managers for managing the engine for disruptive innovation within their organization.

More generally, we look at the collaboration in the white space between departments and functional units that is the source of these innovations. These activities have traditionally been ad-hoc and unmanaged but we show how they can be objectively measured and subject to management influence.

By manging the hitherto unmanageable innovation activities, organizations can unleash their creative energies and deliver disruptive innovations to the market in a repeatable and predicable manner. We look briefly at some examples.

Innovation in online book sales

Barnes & Noble launched their own-branded online store in May 1997, less than two years after Amazon went live.

There is nothing difficult about selling books. They are completely standard products that even have a universal identifier, the ISBN. Barnes & Noble understood the market well, and while they were not the first online, as what Markides calls a fast second[2], they had every chance of dethroning Amazon from the number one slot.

At the time of writing, the Barnes & Noble web site barely makes it into the global Top-500, while Amazon.com is number thirteen on the list and receives twenty times more visitors per day who stay 30% longer[3]. Amazon has won.

Over the last ten years Amazon has introduced innovation after innovation at a pace that has left the competition unable to compete. These innovations include process improvements like the store design we now take for granted because everybody has copied it, the simplification of the check-out process down to the famous one-click purchase for which they received a controversial patent; product information enhancements such as more and better product information and lately the Look Inside feature that allows you to see scanned pages of the book; customer usability features like wish lists and wedding lists; and most famously the recommendations and community features with reviews and recommendations.

Innovations leading to
- **Process improvements.**
- **Better product presentation**
- **Increased customer usability**
- **Recommendations and community**

1. The key works for Clayton Christensen's innovation models are:
C.M. Christensen: *The Innovator's Dilemma*. 2nd ed. Harvard Business School Press, 1997. ISBN 0-87584-585-1.
C.M. Christensen and M.E. Raynor: *The Innovator's Solution*. Harvard Business School Press, 2003. ISBN 1-57851-852-0.
C.M. Christensen et al.: *Seeing What's Next*. Harvard Business School Press, 2004. ISBN 1-59139-185-7.

2. C.C. Markides and P.A. Geroski: *Fast Second – How smart companies bypass radical innovation to enter and dominate new markets*. John Wiley & Sons, 2005. ISBN 0-7879-7154-5.
3. These numbers were taken 3 April 2005 from Alexa, a traffic ranking site that is an Amazon company, and may therefore slightly overstate the number of Amazon users (simply because more Amazon customers will download the toolbar that Alexa uses for tracking). But the general picture is accurate.

Quite a few innovations fell by the way side – remember the idea that different users would see different prices? – but overall the picture is one of relentless successful innovation. Anybody visiting the Barnes & Noble site after seeing Amazon will not only notice that most of these features are missing, but will actually miss them.

How does Amazon do it? Not by ignoring the traditional management objectives. Amazon has one of the most efficient fulfillment processes and a returns and complaint handling process that is incredible smooth. This doesn't happen by accident, but by constant management focus on core business processes and incremental improvements, just like in any other company.

Managing innovation is in addition to the management tasks that you are already performing, not instead of them.

What we propose here is a systematic approach to turning disruptive innovation into a core business process with all the usual management tools and techniques.

What Amazon seems to have been able to do is to turn innovation into a core business process at the same level as order taking, debt collection, or returns management. What we propose in this article is a systematic approach to turning disruptive innovation into a core business process with all the usual management tools and techniques, and we show you how to start on this change.

This is important because innovation is not simply for Internet companies, but for everybody. Amazon is not special.

Managing innovation in the new economy

The pace of innovation in today's economy is truly relentless. To even stand still in the marketplace, organizations must introduce new innovations at an increasing pace. For most enterprises, this means that the process of innovation and the activities that surround it must become core to the organization at the same level as production or sales.

Making innovation a core business process presents a challenge because the activities that create innovation, such as cross-functional collaboration and knowledge sharing, have hitherto been ad-hoc, unmeasured, and unmanaged.

It is important to note that the traditional management skills have not suddenly become obsolete. You still need to improve your processes and squeeze out costs before your competitors do. The pressure to innovate is on top of your existing efforts.

The new challenge is to manage the unmanageable. The activities that generate the truly disruptive innovations have lacked objective measures and have failed the test of repeatability, making them impossible to manage using traditional management techniques. True disruption, in products or in internal business processes, usually come from cross-functional insights, as Frans Johansson points out in his recent book *The Medici Effect*[4]. Innovation across internal organizational boundaries has traditionally been seen as being very difficult and is often left to ad-hoc activities, including

- Collaboration
- Knowledge sharing
- Business process efficiency
- Business innovation

Outside specialist and narrowly-defined areas such as product innovation ("sustaining innovation", to use Clayton Christensen's terms) these are typically activities that are ad-hoc, unmeasured, and unmanaged.

The realities of the new economy means that these ad-hoc activities must now become core processes to the enterprise. To achieve that, we need to develop a new management framework. Academic work, especially by Clayton Christensen (*The Innovator's Dilemma*, *The Innovator's Solution*, *Seeing What's Next*), means that we now have a framework for determining if our innovation processes are on the right track.

However, what has been lacking has been the internal framework for managing these innovation processes; a framework that provides metrics that are objective and predictive.

4. Frans Johansson: *The Medici Effect*. Harvard Business School Press, 2004. ISBN 1-59139-186-5.

However, what has been lacking has been the internal framework for managing these processes; a framework that provides metrics that are objective and predictive. If the work of Christensen et al. shows you whether your innovation is driving in the right direction, then it is of little help in getting the process started and building momentum.

The approach described in this document provides objective data about collaboration and how it is aligned to the business objectives, and delivers actions with measurable benefits that are practical and allow for phased implementation.

What are people's roles in my environment and how can I measure and encourage collaboration, taking into account the individual's approach to relationships? Who are the people that will facilitate knowledge sharing in an appropriate role, and how can I support them take on that role? I know that my processes are not as efficient as they could be and that hand-over between departments is not seamless. I also know that there are people out there on the front line who know: what do I need to do in order to have their insights lead to process change? I need to innovate: how can I predictably create a team that will deliver that innovation? These are the types of questions that we want to be able to answer.

We develop here the initial part of such an internal innovation framework for the organization. Existing efforts at encouraging and supporting these ad-hoc processes suffer from a number of problems.

Few formal measures. In most cases, the enterprise has not tackled the problem of formally measuring and rewarding the people who contribute. The formal measures for payrises and bonus allocations, and the informal measures for career advancements are typically based on sales, cost of production, and other standard, repeatable processes.

Isolated processes and systems. Where an organization has implemented for example knowledge management, it is typically a separate system with separate interfaces and separate management processes. Our experience says that unless work is integrated into your "day job" and standard systems it will not get done. You may achieve initial success but will not be able to sustain it.[5]

Isolated organizational elements. Where organizations have achieved some success in managing these new core processes, it has typically been in isolated departments or functional areas. Examples include knowledge sharing in a technical help desk department or innovation is a dedicated product development group. However, as we have argued, true disruption usually comes from cross-functional insights and collaboration. Limiting yourself to functional silos will help you deliver sustaining improvements. However, it offers no help in delivering deep change and insight, and may actually hinder because sustaining improvements benefit from a structured approach (for example formal knowledge management systems) while disruptive innovation typically thrives in a less structured environment. The challenge is to integrate these different use cases and it is here that a social software approach has been shown to be helpful, as discussed on the CYBAEA web site (http://www.cybaea.net/)[6].

Fundamentally, you know if you are managing something when you are measuring it.

The acid test determining if you are managing these innovation activities has to be: do you know what your metrics are for all these processes and how you compare to your industry? If not, then you are not managing it. You would not accept any less for your existing core processes.

The acid test determining if you are managing these innovation activities has to be: do you know what your metrics are for all these processes and how you compare to your industry? If not, then you are not managing it. You would not accept any less for your existing core processes. It is unthinkable that you do not

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5. For a view of the disintegrated systems space, see also the *Increasing Innovation Velocity through Collabora-* *tion and Knowledge Management* presentation available from http://www.cybaea.net/Journal/IDC_Presentation.html.

6. An introduction to the typical business value drivers for seeking better collaboration and what that implies for culture and tools can be found in the entry "*Approaches to enterprise social software*" at http://www.cybaea.net/Journal/Approaches%20to% 20enterprise%20social%20software.html.
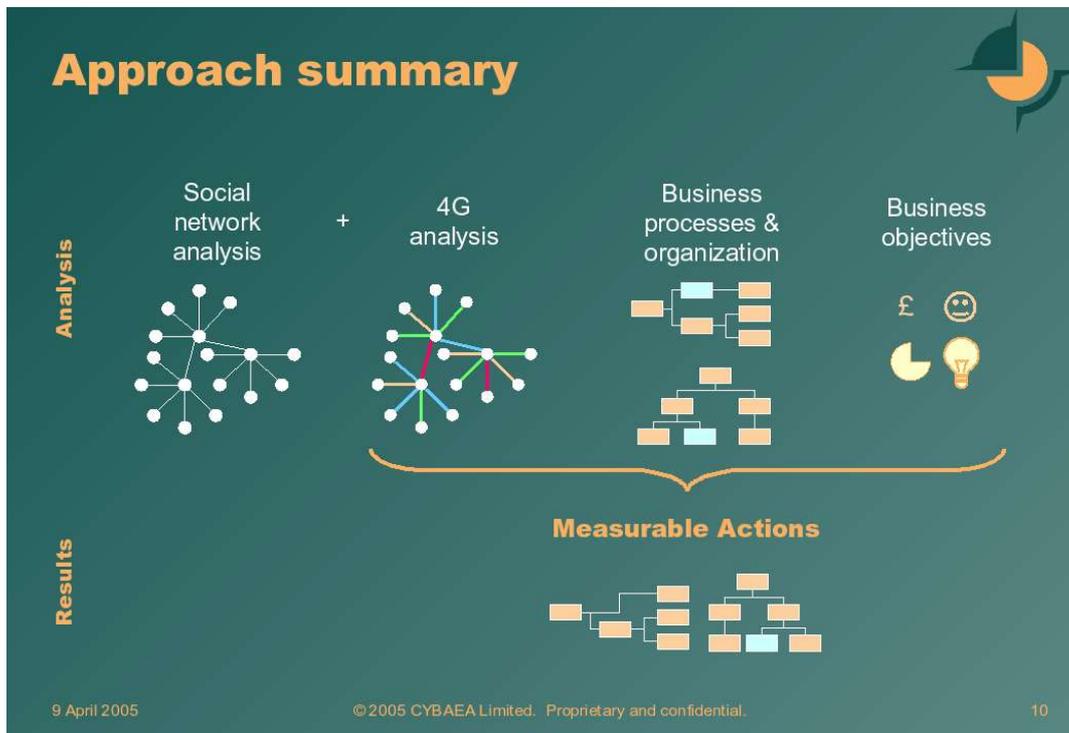
Figure 1 Approach Summary

know your sales volumes and how they compare with your competitors. It is difficult to imagine that you do not understand your production cost base and how it compares with the market. You get what you measure.

The approach described here provides metrics that are both objective and predictive. Both are required to allow deliberate management of these new core activities.

Approach

To understand where you are, where you want to go, the journey from one to the other, and to put in place the objective measures for all this, an analysis phases is appropriate. The analysis combines four elements of your business as outlined in Figure 1 and including:

1. A social network analysis that describes the reality of relationships within the organization: The quantity of the existing relationships

2. A 4G analysis of these relationships that describes their type and value: The quality of the existing relationships

3. Description of your business objectives: The desired outcome of relationships

4. Analysis and documentation of organization and processes: The context of the relationships

Social network analysis (SNA) is an established technique for understanding and analyzing the networks within an organization[7]. Increasingly seen as an important tool, it shows the lines of influence and the pathways for getting things done and is a key input into improving organizational performance.

4G is a tool for describing the type and the dynamics of relationships. It provides a classification of relationships with predictive power. Where SNA tells you where the interactions are happening within a group, 4G classifies the relationships to explain their nature and predict how they will work within a given business context. In an analogy, if SNA tells you where the paths start and end, 4G lets you know how

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7. A useful case study focused introduction to social network analysis and and overview of current best practice is

R. Cross and A. Parker: *The Hidden Power of Social Networks – Understanding how work really gets done in organizations*. Harvard Business School Press, 2004. ISBN 1-59139-270-5.

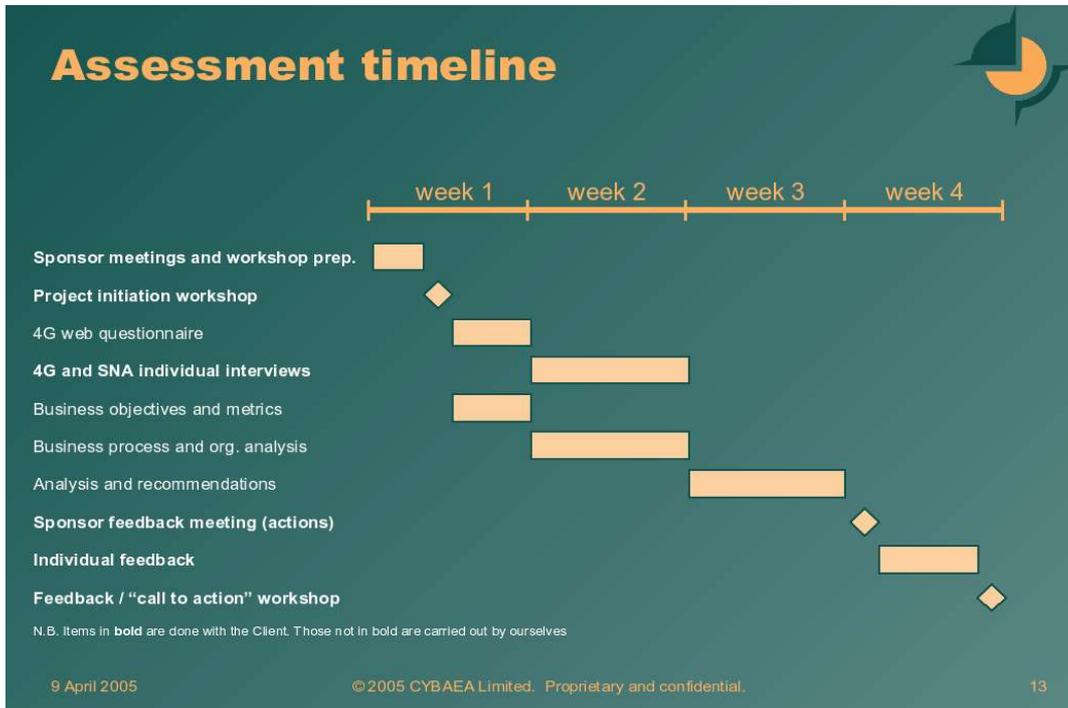It also contains a useful biography for further studies.

Figure 2 Team Assessment Timeline

they are paved, if there are steep slopes, and whether they are straight or windy with many turns.

The purpose of this combined approach is not to decide if the relationships are "good" or "bad" on some absolute moral scale, but to assess if they are productive or not within a specific business context and to predict the effect of changes. If the mix of relationship types between two groups is not right and if that is limiting some business objective from being realized, what are the changes that will deliver the objective? These are the sort of questions this approach answers.

In order to provide the context for the relationships and to root the recommendations in the actual business reality, a common understanding of the business objectives must be achieved, and the context of people's roles and skills, and of the organization's structure and processes, must be appreciated.

The outcomes from the analysis are:

Objective measures of team performance in the areas related to collaboration. In itself, this is often a useful tool for conflict resolution.

Characterization of relationships into manageable and meaningful categories with a high **predictive** power. This takes the objective measures which are fundamentally a description of the current state and turns them into a predictive tool to allow management to influence their organization.

Actions to align business objectives and relationships. These actions are the first use of the management framework and are intended to provide quick, practical, and measurable results.

The recommended actions are about people, process, and organization: these are the things the business can control.

Team assessment approach

A typical initial implementation of the enterprise collaboration approach described here, focuses on a specific group of people, often 12–30 individuals, within a single business but usually spanning functional boundaries (e.g. marketing and sales).

The assessment begins with a workshop for the whole group to set the scene, explain the

The deliverables from the Team Assessment project include:
- Project initiation workshop presentation
- SNA network diagrams with high-level analysis
- 4G team report on relationship dynamics
- 4G Individual reports on personal relationships and group dynamics
- Business Analysis
- Business strategy summary presentation
- Roles and responsibilities summary
- Documentation of actions
- Workshop presentation "call to action"

objectives and approach, and bring everybody on board, and it ends with a group workshop to provide team feedback and call to action.

In between there are initially two independent streams. The 4G stream launches the questionnaire and interviews each individual to determine the actual relationships and their nature. In parallel, the business analysis stream gathers consensus on business objectives, and describe the organizational elements and their processes.

The data collection process is introduced in the Project Initiation Workshop where the participants are introduced to the objectives of the analysis and to the method and purpose of 4G and SNA. Initial questions can also be answered during this workshop session. At the end of the workshop, people are emailed login information for the website where the 4G questionnaire is completed in between 30 and 40 minutes on average.

Once the questionnaire is completed, the first feedback session begins. This is carried out individually and lasts for an hour. People receive feedback on 4G and this is also where the SNA data collection is carried out via a short questionnaire. There is also an opportunity to build a context for the individual within the business.

The second feedback session takes place in week four. Again this is performed individually, and it focuses on relationships. However, given that the analysis and sponsor feedback meeting has already taken place, information is far more targeted and tailored to achieving objectives.

The 4G and SNA deliverables provide a source of information describing relationships, group dynamics and different interactions. This is really the "hidden power" of your people and will go far beyond gut feeling or an organizational chart in providing a rich diagnosis.

4G first looks at the quality and specific dynamics of relationships and culture within the group. In particular, it is possible to not only see how existing relationships manifest themselves but also to predict the outcome of new relationships should roles and responsibilities change, or people's work bring them into contact with new people. 4G also offers insights into different cultures and again, these can be modeled, predicted, and referenced against optimal conditions.

The 4G & SNA deliverables provide a source of information describing relationships, group dynamics and different interactions. This is really the "hidden power" of your people and will go far beyond gut feeling or an organizational chart in providing a rich diagnosis.

Social network analysis (SNA) concerns itself with the quantity of relationships. In other words, who really works together and who communicates with who. The position of an individual within the network can have consequences for the group as a whole and have specific impacts on process, performance, or other objectives.

Combined, 4G and SNA offers a methodical snapshot of the people within the group and the quantity and quality of their interactions. This then reveals the genuine state of collaboration within an organization.

The purpose of the business analysis is to anchor the studies and recommendations in their proper business context.

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Business strategy: What are you trying to achieve?

Business processes: How do you go about achieving it?

Business organization: Who is responsible for achieving it?

Ultimately, the recommendations can only be about people, process, and organization since these are the things managers can control.

The point is not to execute a full business study, but to capture and share enough information that the recommendations are firmly rooted in the actual business and that everybody has a common understanding of the business objectives and strategy

The business analysis complements the picture provided by 4G and SNA. While the information from 4G & SNA is likely to be more tacit in nature, the business analysis is likely to be more explicit. Additionally, this information builds an appropriate context of the business and its objectives.

Understanding the strategy, processes, and organization ensures that recommendations are rooted both in a relevant context, but also that they are actively focused on people, process, and the organization. The combination of the business analysis, 4G, and SNA provides an appropriate backdrop for recommendations and interventions.

The deliverables from the Business Analysis represent the documented evidence for the operational and procedural aspects of the organization. While this is not exhaustive, it will ensure that sufficient information has been captured to understand the real issues and where changes and interventions will have the greatest impact.

Business analysis deliverables
Strategy presentation
- Ensures that everybody is "on the same page" with regards to the business vision, objectives, and strategy
- For the benefit of project team and business unit
- Driven by the project sponsor

Roles and responsibilities summary
- Working document for the project team
- Basis for recommendations and their presentation

Both the Strategy Presentation and the Roles and Responsibilities documents ensure that a common understanding is gained quickly and efficiently.

Actions

Recommended actions are split into two sections based on informal and formal conditions. This is not to say that informal actions are less effective or less significant, but that small changes can often have disproportionate impacts on business performance. One might think of key-hole surgery or chemical catalysts as having similar, positive outcomes on the basis of small and subtle changes. Informal actions are often the best source for quick wins.

Formal actions concern aspects of measurement, reporting structures, roles and responsi-bilities, and processes. Ultimately, these carry a far more enduring nature and are likely to result in larger changes. Such measures can also be thought of in terms of having greater objectivity and the ability to benchmark, leading to the implementation and design of agile processes that are objectively measured and therefore subject to normal management techniques.

Example results

The approach described in this document has wide applicability across industries and across departments and functional units within an enterprise.

In this section we show three examples of typical issues and how the organizations involved have been able to use the objective insights gained from the analysis to implement solutions to the situations.

The examples are extracted from several projects in order to show the important features and ignore company-specific issues.

### Example 1: Collaboration between departments
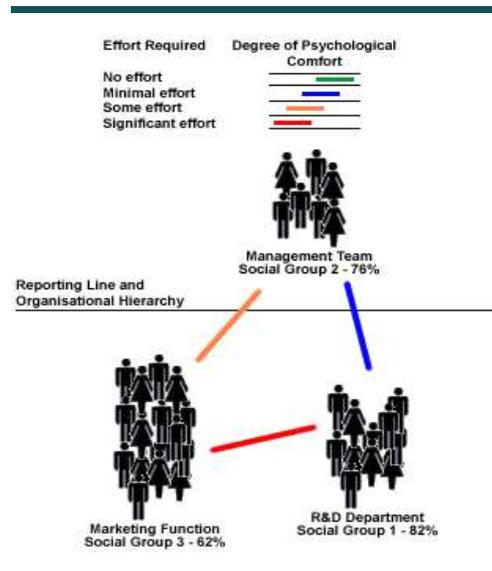
This first example shows how problems can occur between different departments. By looking at the makeup of individuals via their 4G Social Profiles, a cultural breakdown, along with a diagnosis of relationships is possible. This diagnosis takes a bird's eye view of the situation and captures all available information. This is a far richer process than relying on in-

complete and anecdotal information obtained on an ad-hoc basis. It also forms the basis for a pragmatic solution.

In this instance, the Management Team works well with the R&D Department, but finds that Marketing is dragging its heels. Equally frustrating to all parties is the fact that R&D works well with the Management Team but not the Marketing function. Driving innovation and collaboration to grow the business is proving to be a tough challenge.

While the situation at large is reasonably well know to everyone, the solution is far from clear. Additionally, the Management Team can't understand why they work well with R&D but not with Marketing.
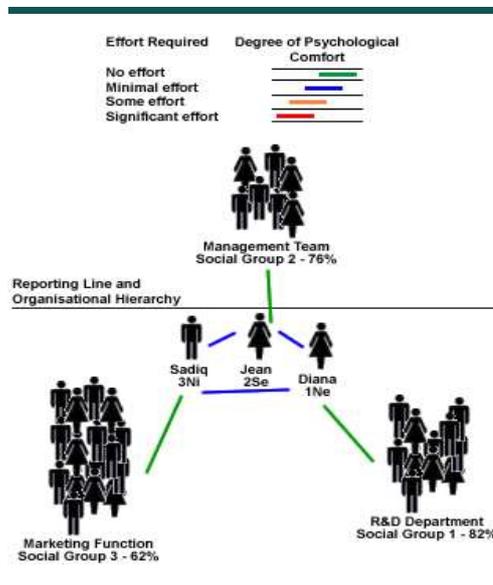

From the combined analysis of 4G, SNA, and business analysis a solution is possible. By understanding these inputs, the creation of a three-person team to relay information from and between each of the departments represents the optimum solution in this instance.

Jean, Diana and Sadiq are members of the Management Team, R&D Department and Marketing Department respectively. Given that as a group of three communication is very good between them and they are able to communicate excellently with their own departments, the establishment of this team is the ideal solution for all concerned.

While this example is very concise, it should be taken in the context of the business analysis and SNA data.

Example 2: Teamwork
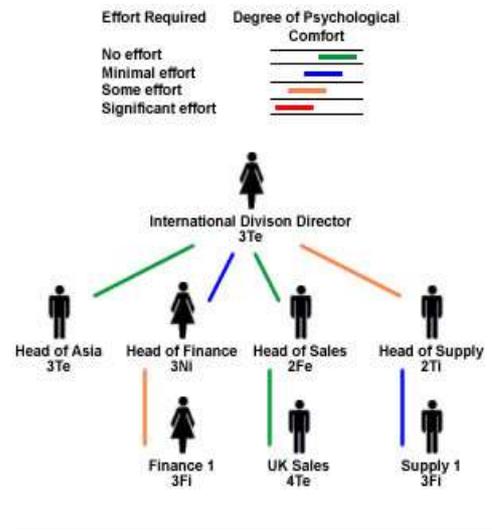
This second example concerns implementing new processes and the problems that can emerge from exclusively "top-down" approaches. In this instance, a new International Director wanted to improve process and performance. While there were no problems with the objectives per se, and while the quality of the relationships within the group were high, the head of Supply questioned the route chosen to achieve the objectives.

This situation had reached something of an impasse and the continuing "top-down" efforts of the director were proving to be fruitless. This was equally frustrating to the director given that three other direct reports were 'on-message' and Supply was beginning to frustrate.

In terms of a solution however, once the 4G analysis was made, a solution was clear. The most prudent means of resolving this scenario was to encourage the Head of Sales to work together with the Head of Supply. Not only were both people able to understand one another's brief, but because their relationship was of high quality, they were able to work together in a far more collaborative and constructive fashion without the direct input from the Director.
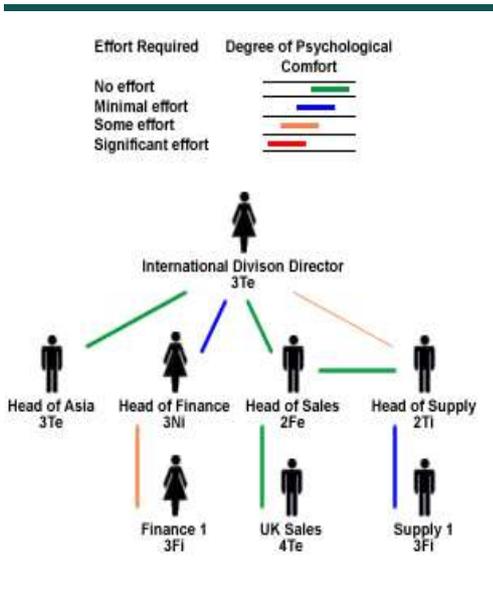
While this intervention took place on an informal basis, it is as a result of the systematic nature of 4G that such a change was so easily predicted. This single example serves as a basis for using a combined approach of 4G, SNA, and business analysis as a means of achieving permanent and measurable processes whose nature is to define and implement collaboration on an ongoing basis.

Example 3: Organizational Design
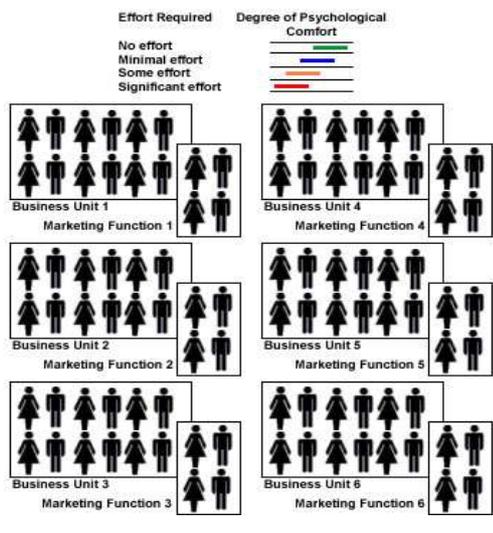
In this example, a number of different business units were supported by independent marketing functions. While each marketing unit worked very closely with its respective business unit, problems were emerging with regards to variable performance across all units and different processes, or lack of processes that were also common.

In addition to this, the firm was unable to leverage its respective advantages to the full. Mixed messages were being heard by various markets and customers were frustrated as a result of this. This was of particular note when individual client companies had to maintain two or more conversations with multiple business units from the same supplier company.
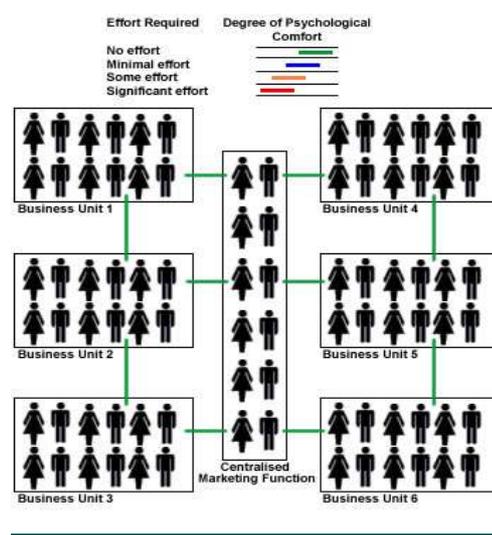
As a result of this analysis, it was clear that a combined 4G, SNA and business process solution was possible. From an internal perspective, it was possible to centralize the marketing function and increase collaboration and delivery accordingly. From the point of each business unit, they now had access to best practice across all the units and accordingly, results and performance were far more consistent and were equally far higher than before. Additionally, by using 4G, it is possible to know which members of the marketing team should work with each respective business unit such that these relationships are able to perform at their optimum. This principle is also applied with the introduction of people from each unit into a specific group who can then update one another directly.

The external benefits are equally significant. Not only is performance far higher but cus-

By using 4G it is possible to know which members of the marketing team should work with each respective business unit such that these relationships are able to perform at their optimum.

tomer satisfaction is increased and there is now no need to maintain an ongoing dialog with multiple parties from the same supplier organization. Account sizes and repeat business increase accordingly.

Summary

Companies need to innovate relentlessly to even stand still in an increasingly global and competitive economy. No longer is it sufficient to deliver incremental improvements at a leisurely pace. Instead disruptive innovations of the type that fundamentally alters markets and business processes must be sought out and delivered regularly and predictably.

Disruptive innovation must become a core business process.

However, substantial innovation happens in the organizational white space between departments and functional units. The activities in these spaces are almost per definition unmeasured and unmanaged, and therefore not repeatable.

The approach described in this article is a first step in making disruptive innovation a core business process. By providing objective measures and predictive categorizations of relationships, it allows organizations and their managers to actively stimulate and direct collaboration and innovation efforts.

The Team Assessment that we have specifically discussed is a very powerful tool in itself, but it can only be the beginning. Any process that is core to the business must be managed actively and continuously improved. Important challenges include:

Directing collaboration. The collaboration has a purpose, e.g. innovation. Eventually that purpose will become part of the group culture, but for some time direction will be needed.

This presents its own set of problems: telling people what to do and developing a spirit of community mixes like oil and water. It requires specific management skills like facilitation and a deliberate attention to the issue.

Integrating with business strategy. It is not unusual for the business to get more innovation than it can really handle. Is the rest of the organization geared up to a new speed of working?

Managing core process. You are building a new set of processes and capabilities. In scope, this is similar to M&A activity and should be planned accordingly. Especially ex-

tending the innovation across geographies and functional areas may require new tools and sometimes radically different working practices.

None of these issues are insurmountable, but they do require a coordinated and directed effort within a framework for disruptive enterprise innovation.

About the authors

Allan Engelhardt

Allan has over 12 years experience in making disruptive technology innovations relevant for business. With a deep technical understanding and a thorough appreciation of the challenges of business change, Allan forms the bridge between technology and business to deliver truly profitable market or process innovation.

Allan is a founding partner of CYBAEA, a management consulting organization focusing on the two areas of technology strategy for large enterprises and the growth of start-up companies with disruptive technologies for these enterprises.

Allan has a M.Sc. (cand. scient.) in experimental particle physics and mathematics from the Niels Bohr Institute, University of Copenhagen, Denmark, and he did his post-graduate work at CERN.

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Bruce Lewin

Bruce is a founding director of Four Groups, a firm that has developed a proprietary psychological tool called 4G.

4G offers a view of people and organizations in a social context, allows relationships to be understood and predicted, cultures to be analyzed and provides interventions that take place on an individual, team and cultural basis. By looking at people as part of a larger, interlinked perspective, the catalysts and impacts of change are better understood and easily implemented.

Bruce has an M.A. (Hons) in Management from the University of St. Andrews and previously founded a software startup delivering online collaboration.

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