

## The role of storytelling in innovation management

Abstract, authors, etc.

### 1.0: Introduction

Take any group of people and their response to phrases like ‘*Once upon a time...*’, ‘*I want to tell you a story...*’ or even just ‘*Listen...*’ is the same. We are programmed to respond to storytelling, an expectation of entertainment, information and shared experience linked to these cues. Psychologists recognize the key role which storytelling plays as a powerful and particular form of communication, linked to our emergence and survival as social animals REF. The image of the bard as a mixture of entertainer and informer, carrying important messages and broadcasting them across a population is well-established in history and although the media may have changed the underlying power of stories remains.

In the context of organizational life stories play a key role. They act as carriers of key messages, reinforcing cultural values and transmitting information in powerful and persuasive form (REF). Organizations increasingly use stories in an active way – for example, by commissioning versions of their own history to act as reminders of their past and to carry key messages to both internal and external audiences (Ref Graham, others). Organizational ‘biography’ is an important genre in both the popular and academic press, focusing on key individuals (Steve Jobs, xyz), institutions (Google, Amazon, Toyota) or activities (refs). Case studies represent a rich seam of ‘short stories’ about organizations, often presenting them in the form of ‘cliff-hangers’ where the reader/student is invited to imagine themselves in the situation and think through their ‘ending’ before the real one is revealed. Ref to case method. There are also some stories written in fictional form but designed to convey important messages about organizational life – for example *The Goal* (list others)

Stories are important artefacts in the work of many organizations, helping represent the ‘product’ which the organization offers. Advertising relies on underlying storylines through which products are presented and framed whilst service design places strong emphasis on understanding the customer journey as a story (REFs). Developing new products often involves imagining specific ‘use cases’ and the elaborating these visions of the future into stories within which the new offering sits (REFs)

There is an extensive literature on storytelling; as Gabriel (2000) points out

*“Organization and management studies, no less than consumer studies, cultural studies, media and communication studies, oral history, as well as substantial segments of legal studies, accounting, and studies of the professions and science, have enthusiastically adopted the idea that, in creating a meaningful universe, people*

*resort to stories....stories make experience meaningful, stories connect us with one another; stories make the characters come alive, stories provide an opportunity for a renewed sense of organisational community”.*

Several writers have noted the persistence of core themes in organizational life, rather as playwrights draw on and elaborate around a small set of universal scripts. (Morgan, Mangham refs). Importantly in contrast to the telling of fairy tales or folk tales, the telling of organizational stories frequently moves beyond entertainment, seeking to educate, persuade, warn, reassure, justify, explain, and console.

Stories are a key element in organizational sense-making (Boyce, Weick, refs); it provides a means of ascribing meanings to individual and shared experiences, life events and situations (Boje, 1991; 2008). They involve an element of what Hargadon et al call '[situated cognition](#)' where shared views of the world create templates for organizational action. Storytelling involves a process of constructing meanings and common understandings, requiring the coordinated efforts of many organizational members to solve everyday problems and to translate novel ideas into reality (Van de Ven et al., 2008; Oyelaran-Oyeyinka & Lal, 2006). (Refs Tsoukas and Hatch, Human relations piece using sense making lens in stories about sports team).

Storytelling helps to transfer information between individuals and to gain legitimacy for key actions or support for particular projects. Stories also provide an organizational memory enabling and facilitating learning from the past to inform and shape the future (Garud, 2013; Strambach and Klement, 2012).

It also plays a key role in knowledge transfer and sharing across organizations, linked to key cognitive issues of organizational cognition and memory. Bruner (1990) considers the narrative form as a non-neutral rhetorical account that aims at “illocutionary intentions,” or the desire to communicate meaning. Importantly he brings in a sense of time in this process; storytelling captures the emotion of the moment described, rendering the event active rather than passive, infused with the latent meaning being communicated by the teller. Knowledge can be held in stories which can be stored and retrieved, replayed later to bring back key meaning.

Another use of storytelling is as a research tool, seeking to detect patterns and meaning in complex situations by means of 'narrative enquiry'. Snowden and others explore the ways in which collective and emergent 'storylines can act as 'touchstones' which reveal underlying patterns in complex data REFs.

There is now a growing literature and the emergence of a training industry around *mobilising* storytelling skills in organizational life (refs, include Denning). It focuses on both the content (what makes a good story?) and the craft of presentation (what makes for effective storytelling?), drawing on experiences in other fields like scriptwriting, screenplay editing and creative writing REFs.

## **2.0: Storytelling in innovation management**

In the context of innovation storytelling plays a key role, both in terms of developing shared understanding and experience and also as a valuable tool to enable the process of introducing change. For example, stories can act:

- **as a carrier of messages** – stories reinforce our models and understanding of how innovation works in a vivid way. Not for nothing do they form the staple diet of most conference presentations, and in a more restrained fashion form the core of our teaching. And it can be argued that the case method is built around storytelling - reading, interpreting and retelling REF.
- **as educational aid** – there is a long tradition of using stories to carry important messages about directions and desirability for change. The world's oldest soap opera is the UK radio series, 'The Archers' which is broadcast daily and draws over 5 million listeners. It originated in 1951 as a way of communicating important information about farming innovations with the other storylines wrapped around the core message. (The programme still has an 'Agricultural story editor'). Or consider 'The Goal' – Elihu Goldratt's story about a struggling factory owner and his gradual adoption of radical process innovations. Published in 1984 it became the top-selling business book and still has wide readership, now available in many different formats including a movie!
- **as diffusion aid** – in viral fashion ideas spread out from their source via the stories around them. Everett Rogers highlighted the key role which perceptions play in the adoption of innovation – and stories offer powerful ways of shaping those perceptions (REF). Stories can help overcome anxieties and concerns about various attributes of innovations, and in doing so accelerate the take up of new ideas. Or they spread like wildfire, becoming amplified as they get retold and acting as a strong brake on diffusion. They can affect our perceptions of the person trying to persuade us to adopt something new - if they are good storytellers then we are more likely to believe in them and accept the new idea which they are promoting.
- **as knowledge management tool** Organizations need some kind of memory, some way of remembering what they did and how they dealt with past problems. Being able to retrieve these memories can be a powerful resource for dealing with today's innovation challenges. Stories act as powerful repositories of this learning – they are accessible and remind us of core lessons. Every large company today must have been a start-up once upon a time – and sometimes reflecting on the stories of how the organization handled the crises from that time helps. A growing number of organizations - Corning, 3M, Philips - are trying to capture

their organizational history not as a vanity project but as a way of codifying key lessons from the past to make them available for the future. Stories from the past provide both a roadmap for what to do and the courage to know it can be done (*Easterby-Smith et al., 2000; Garud, 2013; Strambach and Klement, 2012*).

- ***as a 'change lubricant'*** – studies of change management suggest that simply imposing decisions is not an effective strategy REFs. Instead use of various levels of engagement and participation can help reduce anxieties and generate commitment REFs. Storytelling can help by creating a picture, a vision of how things are going to be but it can also be used to give an element of 'vice' to participants likely to be affected by the change. Using storytelling devices it becomes possible to explore and modify the planned change and to engage in a degree of co-creation with users in which they write themselves into the emerging script REFs.
- ***as a framework for 'pitching' ideas*** – a significant element of the innovation process involves situations in which one group make proposals for change (new product, service, process) to resource owners and decision makers. Whether the situation involves pitching to venture capitalists or trying to put a new project into the development portfolio of an established organization there is an element of information transfer and discussion. Storytelling can play a key role here, offering not only a framework within which the information can be carried but also an emotional 'charge' to help energise discussion around it. The story can also be elaborated as the decision makers explore and 're-tell' it in their own terms REFs. An example of this approach is Amazon's use of stories rather than Powerpoint presentations...
- ***as a road map for entrepreneurs*** – one way of looking at entrepreneurship is to focus on the 'hero' embarking on a journey to a far-off land, encountering strange people, slaying dragons, getting into tight situations and picking up surprising friends and resources which help him or her along the way. And much of the new thinking about how to manage this journey describes the importance of effectuation and bricolage, making the best use of whatever is to hand and muddling through towards a goal rather than planning each step in careful fashion. Stories capture this kind of approach and give others a 'hitch-hiker's guide' to help them in their own journeys....
- ***as co-ordinating mechanism*** - innovation requires the coordinated efforts of many organizational members to facilitate innovative ideas to generate novelty, real-time problems solving and linkages between present activities with past experiences and future expectations (Bartel and Garud, 2009; Van de Ven et al., 2008) Lawrence and Lorsch 1967). Storytelling can engage these different perspectives, offering a boundary object around which co-creation can take place. Ref to Procter and Gamble storytelling efforts and others

- ***as a way of exploring the future*** – science fiction is a branch of storytelling which creates pictures of the future which we can climb inside and explore safely and early. Its value in thinking about innovation comes particularly because unlike trend extrapolation or forecasting it presents a rich connected picture of possible futures. The narrative carries not just the core storyline but also a wealth of information about context.

Organizations can use such stories to create new future worlds which they can then crawl inside and explore – where are the threats, how could we move to take these opportunities, etc.? And they can use this exploration to identify what they need to start doing now in order to build the capabilities for working effectively in these futures. At the heart of powerful futures methodologies like Shell’s ‘Game changer’ approach is the ability to construct and share compelling stories....

- ***as vision statement*** – creating and sharing a compelling a vision is a key element in radical innovation, whether in the form of a startup idea or a major shift in direction for an established business. Experience suggests, however, that many vision statements fail to energise or compel; what separates out the effective vision is the ability to embed it in a story, to allow people to identify the core elements, and then bring their own storytelling capabilities to it. *Stories of innovation can generate common understanding and shared vision about innovation strategies and processes (Sarpong and Maclean, 2012).*

We can see many of these themes played out in the reported experience and practice of innovation in organizations. As we have already noted, stories as artefacts play an important role in innovation development in many sectors where storyboards, customer journey maps and other tools are part of the core ‘technology’. Maybe put the Amazon, P&G and other examples here?

And the use of stories as a device for helping understand and improve innovation management is also widespread. 3M’s Carlton (Society? – essentially a Hall of Fame) is essentially a library of stories about heroes and mavericks who not only introduced key innovations but also created a way of doing so which has become distilled into the company culture for innovation. Importantly its role is to encourage and enable retelling of these stories as a way of reinforcing the cultural norms and values around innovation. Similar examples exist in many large organizations – REFs.

Researchers also make use of storytelling to uncover aspects of innovation management – for example, Dorothy Leonard’s gives an example of a risk-averse climate which is brought sharply into focus through a story told by an interviewee about x who tried something new, failed and was now consigned to sending her days exiled in corporate Siberia! Another example reported on

innovation within Best Buy in which the participant used the metaphor of a roller-coaster journey to describe the experience. Leonard suggests that this is a kind of 'Pilgrim's Progress' account with which many readers would quickly identify. REF

In the field of entrepreneurship a similar lens has been used – for example Martyn Pitt (Ref) reconstructs the experience of two entrepreneurial 'gladiators', drawing on their stories to help make sense of their actions and underlying theories of action (Ref Argyris and Schon).

Researchers at the Ecole des Mines studied the role played by business models as 'intelligent collective devices in a context of uncertainty'. They provided a framework (storyboard) for the unfolding development of entrepreneurial ventures:

*Our main argument is that the business model works as both a calculative and a narrative device. Its function cannot be summed up to a reflexive exercise enhancing the rationality of the entrepreneur who is writing a PowerPoint presentation of the business model of the new venture or a business plan for it. The narrative and the calculation that it performs are addressed to a third party – a customer, an investor – and they are also partly designed by a third party – the investors themselves, but also consultancy companies and training institutions that tend to unify the notion of a business model and to standardize its content.*

Shaw describes 3M's experience of revitalising strategic innovation planning through the use of stories:

*After critiquing hundreds of plans, he started to look for a more coherent, compelling way to present them. With strategic narratives, he found that form.....Individuals in parts of 3M now use strategic narratives in their planning processes, not only to clarify the thinking behind their plans but also to capture the imagination and the excitement of the people in their organizations.*

*3m currently have someone with job title of Storyteller*

Paul Smith (Lead with a story book) cites other examples:

*Some of the most successful companies in the world use storytelling very intentionally as a leadership tool. Organizations like [Microsoft](#), [Motorola](#), [Berkshire Hathaway](#), [Saatchi & Saatchi](#), [Procter & Gamble](#), [NASA](#), and the World Bank are among them. They do this in several ways.*

*Some have a high level corporate storyteller who's job it is to capture and share their most important stories. At Nike, in fact, all the senior executives are designated corporate storytellers.*

*Other companies teach storytelling skills to their executives (because they certainly aren't learning it in business school). [Kimberly-Clark](#), for example, provides two-day seminars to teach its 13-step program for crafting stories and giving presentations*

with them. [3M](#) banned bullet points and replaced them with a process of writing “strategic narratives.” P&G has hired Hollywood movie directors to teach its senior executives how to lead better with storytelling. And some of the storytellers at Motorola belong to outside improvisational or theater groups to hone their story skills.

A similar lens is used by van Wulfen who uses the metaphor of a journey to engage participants in planning and carrying through an ‘innovation expedition’ as a way of enabling entrepreneurial ventures both as start-ups and as corporate venturing activities REF.

### ***3.0: Mobilising storytelling as an innovation management tool***

The potential of storytelling as a tool to help support innovation management begs the question of how it might be sharpened and deployed effectively. Our paper looks at this issue, drawing on various sources of primary and secondary data and first we look at the ways in which innovation managers are beginning to engage with the concept.

Recent years have seen considerable expansion in roles within organizations explicitly designed to support innovation (Cottam et al., 2001). Various titles ‘Innovation manager’, ‘Head of innovation’ even ‘Chief Innovation Officer’ (CIO) their role involves developing and overseeing innovation strategies and creating/maintaining a culture of innovation within the organization. A series of in-depth interviews were carried out with innovation managers of this kind exploring the role which storytelling played in their work.

Twenty five semi-structured interviews have been conducted with practitioners from large UK infrastructure, engineering and construction enterprises between the period of February 2015 and May 2015. Fifteen participants were chief executives responsible for driving innovation in products/services offered and in internal processes; ten participants held the formal role of “innovation” in the job title (innovation managers, innovation knowledge managers, innovation coordinators). The interviewees all had in excess of ten years’ professional experience. [\(Add reference to Natalia’s research\)](#) Table 1 highlights the core themes explored in the research.

***Table 1 Identified themes in the interview data***

<b>Themes</b>	<b>Content issues</b>
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<i>Self-awareness about storytelling</i>	Understanding of the concept and active deployment of it within their role
<i>Importance of storytelling</i>	Knowledge transformation, organizational memory, organizational learning and innovation, culture and leadership
<i>Nature of storytelling</i>	Content of stories, the audience, the speaker and listener, time, on-going storytelling
<i>Storytelling and innovation</i>	Telling the same stories to persuade others, and re-constructing stories to make them relevant or new

For some interviewees using storytelling was a relatively new concept. They were trying to define and make sense of storytelling via a process of experimentation, trying out new forms of delivering their message:

*"I only came across this concept of storytelling recently. You have to make it relevant.....It is explaining what matters and what I want to achieve. I work very heavily explaining why I want something. I will build a logic for a course of action. I have a lot of manual staff."* (CEO, Public infrastructure enterprise)

Storytelling was recognized by most interviewees as an important means of knowledge transfer across individuals, projects and organizations. Effective storytelling helped record and transfer information and generated learning; however several interviewees commented on the importance of consistency in stories being told:

*"I think storytelling is really important. But storytelling is more important today because we do not have data and systems. So the only way of passing experience and knowledge is through storytelling. And only some people are good at storytelling, not everyone is. If you are good at recording the information in a consistent way everyone gets access to it because you came across a good storyteller and they helped you learn. So, I think storytelling is one of the things that have helped because the other system has not been there to allow information-in-use to be transferred between people."*

(CEO, International construction engineering enterprise)

Consistency was seen as very important for leadership in sustaining a vision over time. Common labels embedded in stories help organizational members to have a



shared understanding and to achieve consistency. An example was provided by one of the interviewees talking about a situation in which five business units were all working on one project.

*'If one looks at the management codes, sometimes they call projects by street names, sometimes they call them by the client, sometimes by the type of the asset. Retrieving the whole data is very difficult if people call things differently'.*

Telling stories was often seen as an important means of contextualising the mission; their value is that they are essentially personalized in that they can be about personal experience, life situations, work and other people.:

*"Part of my monthly diaries is to go and visit people, visit sites. One had to be able to tell stories. Sometimes, there are stories that lead to success, demonstrable recognition. Sometimes, there are stories that do not go so well. I think it is important to balance the stories because that really makes you a person, a personality. The stories are not always about work. But they provide a context. I think if you can bring the vision and mission to life with context that is important."*(CEO, Public infrastructure corporation)

Storytelling is seen to provide the organizational memory which enables people to translate emergent ambiguous situations into the meaningful present and future. Telling stories by practitioners can be seen as an on-going sense-making process of constructing meaning. Stories are seen as reflections on remembered past, present situations and imagined future. They help to capture lessons learnt from previous failures and successes and transfer knowledge. Senior managers use stories repetitive to make employees follow common vision. The nature and the content of stories that are used to make people remember them are also seen critical in the process of storytelling. When stories are interesting and engaging, people will remember them:

*"Storytelling should be interesting to make people to remember. If it is really interesting and dramatic people will remember. If not they will remember because they heard it 10 times. So, something that is quite mundane you have got to repeat. But something that is exciting you know people will remember because it was interesting story to listen to. "* (CEO, Global engineering, construction, and operations organisation)

Many interviewees argued that organizational activities become recognized as innovations retrospectively, even though the content of those activities was carried via stories. Attention was directed backward to make sense of innovation:

*"I think innovation was not the word which was in a vocabulary of the organisation. So, it was not something that was used in that quite explicit sense. I think we would retrospectively look at the origins of that (project) .... it was seen as quite innovative and an*

*opportunity to do something quite clever.”* (Innovation program manager, Infrastructure organisation)

The innovation managers interviewed were trying to put in place explicit strategies for innovation and vocabulary and language were seen as important elements in this:

*“What I would like to do is to engage the client with what is the problem they have got. Let’s tell that client a few stories about some things we have done that are similar to his situation in a quite creative, innovative way. I encourage people to listen what the client is telling in terms of the problem and then try and tell some stories. They facilitate innovation. Storytelling is really important for us. It is also really important around the culture of a company.”* (Regional managing director, Global engineering, construction, and operations organisation)

#### **4.0: Storytelling in innovation practice**

So how are – or could – innovation managers operationalize storytelling as a tool? In the following sections we explore its use in three application areas:

- Use of storytelling by organizations to mobilise past memory in the service of current innovation strategy and deployment
- Use of storytelling as a boundary object/process to enable co-creation around shared prototypes
- Use of storytelling as a tool to support inexperienced entrepreneurs in developing and pitching new ventures

#### **4.1: Mobilising memory**

Storytelling, as we have seen, provides a powerful tool for mobilising organizational memories, making them available and restoring not only the factual content but also an element of affective charge, bringing the past experience to life REF.

By definition innovation lies at the heart of organizational experience. From initial entrepreneurial experiment through to resolving different growth challenges the underlying narrative is one of change management. Developing new offerings (products and services), creating and adapting internal processes to deliver those offerings, reviewing, extending the range of activities available to the organization by managing its knowledge base, moving into new market segments or geographies – all of these involve risk and their successful completion implies a capacity for managing the innovation process. The journey may have been completed more by luck than judgment but the experience of any

surviving organization is one of having lived through various innovation episodes.

Retelling the stories of Bill and Dave in their garage workshop in the early days of Hewlett-Packard helps rekindle a sense of pioneering entrepreneurship REF. Revisiting the adventures of Art Fry and Spence Silver in developing Post Its helps 3M remember the importance of allowing time and space (but not too much) to foster internal entrepreneurial ideas REF. Andy Grove's memoir about stormy afternoon discussions in the early days of Intel and the decision to move from the safe but crowded waters of memory chip manufacture out to the uncertain technological seas around novel processor architectures helps remind today's staff of the need for focused strategic ventures REF.

The problem is that the experience (and the valuable knowledge associated with it) is often lost, driven out by the day-to-day pressures of competing in turbulent environments. Such organizational forgetting carries with it the risk, as Churchill put it, of condemning the organization to repeat its history rather than learn from it REF. Although the apparent challenges of today's innovation environment may appear radically different in terms of new technologies, different social and market context, unpredictable competitive sources, etc., the reality is that the core innovation problem remains the same. How to create value from ideas? In this sense innovation is like drama – there are a small number of archetypal 'plots' or scripts around which different versions can be played out. Scenery, actors and audience may differ but the core remains the same.

It follows from this that accessing organizational memory about prior experience in dealing with these typical challenges could be an important resource. We suggest that to be effective as a way of mobilising organizational memory there is a need for story researching and writing as well as telling.

Case Engco is a large organisation active in the field of electronic controls supplying to a variety of markets; over one hundred years old it now employs more than 30,000 people and has a significant global presence. The Board has been looking to embed an innovation narrative but also to connect with history and mobilise that in the service of gaining support for new initiatives, learning about what worked and didn't. The process has involved researching its innovation history, not only via secondary sources and internal documents but also through interviews with past actors who played significant roles in earlier innovative activity. Recapturing both the content (what happened?) but also the process (how did it happen?) has been important; within the latter category the role of stories has helped to bring to life the underlying dynamics and the emotional and political challenges involved. Using these stories and then using as reference points – 'touchstones' – for exploring current innovation strategy is an important element in discussing and legitimating that strategy. For example, they provide an input to a bimonthly innovation forum at which around 30 senior managers explore aspects of innovation strategy and through which support for key decisions can be mobilised.

Three brief examples help illustrate this:

- As a mature organization (which recently celebrated 100<sup>th</sup> anniversary) XYZ faced a typical challenge around 'getting out of the box' REF. Its recent history of successful innovation relied heavily on product improvement and bounded exploration. Although there was a strong R&D commitment in terms of turnover reinvested the bulk of this resource went on incremental product support with client – very effective but limited in aspiration. There was a growing sense of the need to explore more widely and this was given added impetus by several destabilising trends in one of its core markets – automotive components. Shifts in technology towards driverless cars, changing social expectations around the nature of mobility and new models of ownership/rental, increasing concerns around reducing environmental impact and the entry of new players from outside the sector converged to pose significant challenges to 'innovation business as usual'.

Recognition of the need to build a 'do different' capacity was balanced by concerns about the risks involved and the 'right' strategy to move such capability-building forward. The process of developing what was effectively a corporate venturing strategy involved exploring (with external consultants) a number of options and building legitimacy for a chosen pathway involving setting up two small groups in Europe and the USA designed to operate as relatively free entrepreneurial agents.

An important element of this organizational conversation involved using the company's history as a source of both reassurance (*'we have been here before'*) and inspiration (*'how did we operate at that time and could we use these approaches again?'*). Retelling the organization's story provided a touchstone to support difficult conversations and reduce the perception of risk associated with moving into uncharted waters. In particular two themes were important – stories around the original start-up of the business (which took place in a similarly fluid state in terms of technologies, shifting market boundaries, entry of new competitors, etc.) and stories around key internal entrepreneurial 'heroes'.<sup>1</sup>

- At the other end of the spectrum the organization had begun revisiting the challenge of continuous improvement (CI), recognising that sustained incremental innovation could help reduce costs, improve quality and shorten development and delivery times. Building such capability would require engaging the workforce across the company in CI activities; whilst a number of operational excellence programmes were in place in different

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<sup>1</sup> For example one story related to two engineers working on the concept of climate control for cars long before this was a standard feature. They developed a prototype and, although it was held together 'with string and sealing wax', drove it all the way in mid-winter to the home of the CEO of a major car company. He was so impressed with the demonstration and the underlying entrepreneurial 'can do' energy of the pair that he committed his company to be an early adopter and championed their cause across the wider industry.

areas of the business there was a concern that the focus had become too narrow and the results disappointing. The strategic challenge was one of relaunching and re-energising CI.

As part of the strategy conversation around this theme use was made of relevant 'tales' from the organization's history, drawing out both the continuing importance of the theme and how the organization had managed to mobilise its workforce to meet productivity challenges through CI. In particular a powerful narrative was built around earlier experience in the automotive components sector during the 1990s when pressure was put on suppliers to cut costs and improve speed and quality performance. The 'villain' in this piece was XXX Lopez, then head of purchasing at General Motors who threw down a challenge to the supplier industry – shape up or get off the stage. EngCo's response to this crisis was to implement a major redeployment around 'lean' principles and place employee involvement in CI at its heart REF. The result not only brought the company back to a short-term position of competitiveness but also laid the foundations for sustained improvement on which it was able to grow very successfully in the decade which followed. Once again storytelling provided a reference point for strategic conversation, moving the debate from whether or not CI was a relevant or viable approach to one in which the delivery mechanisms and supporting actions were the focus.

- The third example involves another key discussion within the company's innovation strategy, around recognising need to move into new skill areas and invest. With the shifts in technological and market context mentioned above has come a perception that many established mechanical and analogue control technologies will become increasingly irrelevant and be substituted by new capabilities, including those in artificial intelligence. But this represents a radical departure for the company in terms of its current skills base and an expensive risky step into a field in which there is limited availability of qualified people and extensive competition for those resources. Investing early in this capability rather than waiting for the market (on both product demand and labour supply side) to mature forms the focus of another strategic conversation.

Once again a valuable input to this discussion came through storytelling around an earlier time in which the company had faced a similar challenge. In the early 1980s it was becoming clear that development in electronics could open up applications within the automotive sector. But the size and growth rate of this market was unpredictable and the nature of the skills mix unclear. The problem was exacerbated by the limited supply of suitably skilled people and the presence of major companies specializing in electronics who absorbed the majority of these people. Consequently the decision to commit to investing in this space and the flexibility needed in the way human resources were acquired and deployed were key issues of strategic debate.

Reconstructing the story and retelling it in strategic forums helped provide reassurance – the initial investment, although costly, had more than paid off with the bulk of the organizations growth coming from this enhanced capability. Further the reminder of the flexible ways in which resource constraints were turned to advantage were helpful in crystallising a decision around early entry. (In the electronics shift a problem had been the limited availability of hardware and software engineers and so EngCo had to develop hybrid skills within the same group of people. In the event those integrating skills played a key role...

#### ***4.2: Stories as prototyping aids***

The role of prototyping as a stepping-stone to both improved innovation content and also to smoothing the path of downstream acceptance has been the focus of increasing interest (Schrage, 2000; Thomke, 2002). It links with the wider discussion of the changing entrepreneurial approach towards more agile models based on cycles of prototyping and learning (Schrage, 2014; Blank, 2013). Linked to this is the idea of user-led innovation; engaging users early in the process and building their ideas into the developing innovation model strengthens its compatibility with their world and accelerates adoption (von Hippel, 2005).

Rogers' seminal work still provides the backbone for this, using the lens of a communication process (Rogers, 2003). The perceived characteristics of the innovation message itself and the interaction between innovator and receiver are key influences on this predominantly social process. How well the story is told, the content of the story itself and shaping it to resonate with the target audience are all central to the process of building momentum. In the context of 'pitching' a new idea these factors provide a powerful framework for thinking about effective engagement of resource providers and supporters. This perspective argues for tools which emphasize early learning with users, prototyping and other mechanisms for working alongside users to capture their insights and concerns. Dealing with the 'compatibility' factor early can smooth the downstream pathway to widespread adoption because the issues have been explored. It places emphasis on 'boundary objects' – ways of enabling co-creating and shared exploration. In effect prototyping around a boundary object invites the potential user to contribute to the development of the 'story', adding and elaborating and in the process taking ownership of the emerging narrative.

This moves the focus towards the use of prototypes as boundary objects around which this process of user engagement can take place. Von Hippel's pioneering work has led to extensive elaboration in recent years around how users can be brought in earlier and more effectively to the innovation process (von Hippel, 2005). Models of 'co-creation' emphasize working with boundary objects and prototypes in the evolutionary fashion described above; a central feature of this is having some core 'story' on which to focus their suggestions. Crowdsourcing and crowd funding platforms essentially rely on the co-creation and elaboration of

stories across a heterogeneous population who are drawn into the narrative whilst simultaneously co-creating it.

One field in which this approach is being deployed is in service design within healthcare and particularly work with patients as users. There is extensive work on healthcare innovation, [23] but such approaches often treat patients as largely passive players. Whilst they try to collect and integrate user's views into the redesign of services, there are fewer examples where patients and staff are jointly - and equally - involved in a *co-design* process.

Work at Luton and Dunstable hospital involves using design methods to create a user-led solution to the challenge of improving patient care amongst neck and head cancer sufferers. The approach involves patients and carers telling stories about their experience of the service; these stories provide insights which enable the team of co-designers to think about designing *experiences* rather than designing services [24, 25]. Importantly the role of 'designer' includes all of those involved in the collaborative process: patients, staff, researchers, improvement leaders as well as design professionals [26].

Experience-based design (EBD) involves identifying the main areas or 'touch points' where people come into contact with the service, and tries to identify areas of exceptional practice, and areas where systems and processes need to be redesigned to create a better patient experience of health services. These touch points effectively help to prioritise actions. Then, by working together patients, carers and staff in the front line – doctors, nurses, and hospital administrative staff – the team can begin to design experiences rather than just systems or processes [27]. The range of people involved as co-designers makes for an unusual mix of expertise in the context of traditional health care improvement efforts. However, the process was enriched by taking into consideration the different skills, views and life experiences of the patients, carers and others involved [28].

In the L&D such co-design has led to changes – for example patients and carers have changed project documentation so that it better reflects their needs, and clinic staff and patients have worked together to redesign the flow of outpatients in the consulting room. Various methodologies were used to encourage patient involvement in the process, including patient interviews, log books and film-making. This enabled patients to show their experience of the service through their own lens, and bring their story to life for others.

Another example of applying storytelling is in the field of diabetes care which, in the UK costs the NHS over £10 million/ day. It represents a complex problem in which a user-led approach might offer significant new opportunities. For example, the average person with diabetes spends about three hours a year with doctors, checking prescriptions and general health – but they spend thousands of hours a year self-managing their condition. Traditional approaches to public service reform target innovations which give a diabetic more choice over their GP, a booked appointment or a patient's charter. But there is clearly

considerable scope in focusing on the thousands of hours the diabetic self-manages, through offering peer-to-peer support, better training and tools to cope with diabetes.

One experiment in this direction has been work towards co-creation/co-evolution of new diabetes services within the Bolton area of north-west England. At present an estimated 10,000 residents suffer from diabetes (almost one individual in every ten households) in the area. This absorbs 5% of NHS resources locally, and 10 % of hospital patient resources. The area already has an impressive track record of 'traditional' innovation solutions to the problem but progress has been largely inspired by the professional managers and clinicians rather than diabetics themselves. This 'medical' model has some limitations and the interface between patients, professionals and workers in the diabetic centre has proven to be a particularly intractable problem. In the words of one clinician, improving this interface *'would make a good service fabulous'*, but professionals from various institutions involved in the system recognised that this would require radical re-organisation of a service around the patient.

The RED project was a prototype which looked at the ways in which the interface between people with diabetes and a range of required services could be improved and at how diabetics might support each other. Arguably such a co-created service would entail both participation and change on the part of the diabetics themselves and the professionals currently engaged in delivering services. There was also a focus on prevention since avoiding secondary complications depends critically on the person with diabetes, their lifestyle and their monitoring and self medication. Dealing with this issue highlights problems with the organisation of the diabetes care service itself and for bottlenecks within it. In Bolton for example there is a two year waiting list for orthopaedic shoe fittings (cost £100) which can save the need for amputations (cost between £30,000 and £40,000).

Having advertised the project in GP surgeries in the area, the team found a group of 20 willing participants, all diabetes sufferers ready to share their experiences of living with the condition. The first stage of the project involved focusing on the group's individual lives, not just their disease, and building up an in-depth understanding of the real issues that affect sufferers' ability (or inability) to manage their diabetes effectively day to day. (Once again the design methods deployed here are essentially ethnographic in nature, using storytelling and related approaches).

Over time, common patterns began to emerge within the group, and it became possible to identify three profile categories based on how individuals approach and manage their condition; *'knowing struggler'*, *'determinedly naïve'* and *'able knower'*. Further work with these different groups and their carers involved extensive prototyping and experimentation.

Other evidence suggests that the approach has considerable potential. For example Bate and Robert report on work by the Institute for Family-Centred Care, showing that the active participation of patients and carers in clinical care



and quality improvement enhances outcomes [26]. Similarly, at the Cincinnati Children's Hospital, parents of children with cystic fibrosis are teaching hospital staff how to improve care and services on the basis of their own experiences in the hospital. The health literacy programme at the Iowa Health System includes patients "teaching back" to clinicians what they understand from the consent discussion and documents. The Evelina Children's Hospital in London has been experimenting with new ways of working with patients and their families in a project called "Improving the Patient Experience". Staff training uses scenes from children's real life experiences played by actors and enables staff to reflect on what makes a better experience [26]. Experience based design is starting to be used across a range of health services including renal dialysis, stroke and orthopaedic services and for those who live with multiple sclerosis. The insights and resulting actions are not what would have been seen or anticipated through the use of more traditional improvement processes [27].

Importantly the process requires extensive use of scenarios and storytelling/narrative enquiry which are better geared to capturing and exploring the 'system' level perspective where users and providers interact in complex fashion.

*Add paragraphs on serious play and other shared prototyping methodologies  
Potential of boundary spaces like Josephs as well as boundary object processes –  
like to Doll's typology of prototypes.  
Example of Poltimore House as a case study, shared writing the story of the future  
and then shared back casting*

### **4.3: Working with inexperienced entrepreneurs**

A core problem in innovation is related to the early stage of exploration and elaboration of innovative ideas. Articulating initial ideas, refining them, drawing others into the vision and gaining their support in the form of resources and commitment is a key part of this process (Bessant and Tidd, 2015). Whether pitching to venture capitalists or making the internal case for a new project, the process involves gaining the support and interest of others. It is essentially a process of 'storytelling' – constructing and sharing stories of the past, present or future innovative products, services or projects between different stakeholders. A number of writers draw attention to this aspect, making reference to entrepreneurship as a process of unfolding storylines (Barron and Hannan, 1999; Boje, 1991, 2008; Downing, 2005).

Much of the entrepreneurship literature focuses on thinking through these questions in the form of a business case. (Baron, 2014)(Paradkar et al., 2015). Typically this will contain information about the idea, underlying technology/knowledge being utilized, estimates of the market in terms of target segment, size, growth, etc., some indication of cash flow over the life cycle of the project, some consideration of the likely challenges which might emerge and some description of how value will be created, captured and sustained over time.

Not surprisingly much of the focus in supporting entrepreneurs has been concentrated around this, providing structured guidance to help develop rich and well-informed business cases, rehearsing pitching and the skills associated with it and providing close mentoring and coaching of inexperienced players with good ideas (Oakey, 2003; Shane and Nicolaou, 2015). There are concerns about this approach however; for example

Karlsson and Honig (2004) investigate the institutional forces leading entrepreneurs to write a business plan and identify no positive correlation between this exercise and firm performance on a two-year period. Others see value in the process rather than the plan (Baker et al. (1993)); for example Delmar and Shane (2003) argue that “ by helping firm founders to make decisions, to balance resource supply and demand, and to turn abstract goals into concrete operational steps, business planning reduces the likelihood of venture disbanding and accelerates product development and venture organizing activity”. The question moves from whether a formalised plan is important to how it can be developed and written –especially by inexperienced players.

Developing and ‘pitching’ is a difficult process for the experienced innovator but for inexperienced entrepreneurs it can be a major block. First they lack the basic skill set – learning to organize relevant information and present it concisely and persuasively is not simply a matter of assembling some data (Ritala *et al.*, 2015). The process of presenting and convincing others is one full of drama, as the success of television series like ‘Dragon’s Den’ indicate. Trying to imagine the various challenging questions, developing rapport with different judges, finding a way of cutting through the noise and getting to the heart of the proposal and ensuring that all the relevant facts are available to deal with a wide range of technical, market and other questions involves a sophisticated skill set.

Whilst comprehensive this business case model has a number of limitations. In particular:

- It assumes knowledge is easy to acquire at the outset and the challenge is simply one of assembling relevant and available information;
- It assumes that project development can be planned in systematic fashion and resources allocated accordingly;
- It assumes a level of skill on the part of the presenter to articulate and broadcast the message clearly;
- It presumes a homogeneous audience who will assess the project in rational terms, evaluating against clear and commonly accepted criteria.

In reality these conditions rarely apply. Uncertainty and lack of knowledge at the outset mean that business cases are founded on guesses and estimates. Further surprises will emerge during the uncertain process of development and so

assumptions about project planning and resource allocation are likely to require modification.

Approaches like 'lean start-up' recognize that new ventures are highly uncertain and that the process of developing them provides opportunities for learning which need to be built into the plan. The process becomes much more dynamic and interactive; as new stakeholders come into the picture, as new information or challenges becomes available, so the business plan is continuously modified (Velu, 2015). The idea of 'discovery driven planning' and of agile experimentation, modification and testing lies at the heart of such approaches and they provide a more dynamic version of the BP. The nature of entrepreneurship in this model is one of gradual adaptive learning, responding to changes with changes in direction and even modifications to the core underlying vision. This concept of 'effectuation' is receiving considerable interest and support and it plays out in key observed phenomena like the 'pivot'. REFs (Morris et al., 2014).

This 'lean start-up' model is based on a probe-and-learn approach rather than a static project planning model and renewed attention is being paid to the role of experimentation and prototyping as enabling devices for this (Schrage, 2000). Seeing the process as 'storytelling' – the continuous unfolding and refining of a story – fits well with this 'probe and learn' model. The process of using new technologies is carried out 'conversationally, through storytelling and discussions between participants (Standing and Kiniti, 2011). The processes of project planning, execution and communication evolve into innovative business practices that transform the project environment and culture. In these processes, storytelling is increasingly recognised as a required skill of project managers (Anbari et al., 2008). French EdM study argues that stories can play an important role as intermediating devices REF.

In this approach innovation begins with a simple idea which is then elaborated in the telling, taking into account responses and inputs from listeners and becoming modified by retelling by multiple agents. There are two fundamental differences between this and the business case approach:

- the process moves from a static *ex ante* framing to a dynamic and continuously evolving picture,
- it is built up collaboratively around a boundary object, drawing potential adopters and resource providers into the process.

This resonates with the effectuation model of entrepreneurship in which the entrepreneurial process is one of improvisation and elaboration in goal-directed fashion rather than the systematic working out of a master plan (Sarasvathy, 2008). It places emphasis on the skills of the entrepreneur in developing a coherent vision and then sharing it with others, engaging their interest and support in the process (Garud and Karnøe, 2003; Garud et al., 2014; Sarpong and Maclean, 2012).

Taking a storytelling approach with inexperienced entrepreneurs requires two complementary inputs:

- A framework structure which provides the 'scaffolding' on which the initial drafts of the story can be developed
- Acquisition of skills in storytelling, using this framework model to draw others into telling and retelling the story, elaborating the underlying business model in the process

Approaches like the Business Model Canvas (BMC) can help with the scaffolding role, offering a boundary object around which an increasing number of stakeholders can interact and explore how the idea can create value. It functions as an evolving prototype, lending itself to the dynamic learning process outlined above and gradually making the initial vision one which is shared and supported by an increasing network of players, eventually including end users. Developing a story using BMC or other approaches is thus a valuable extension of the business plan concept, particularly in the direction of making it more dynamic and facilitating continuing learning.

This creates a way for inexperienced entrepreneurs to engage in the process and interact with others across the platform. For example, asking a potential entrepreneur with no formal business training to develop a cash flow forecast or analyse their cost structure in ways which a potential VC might find difficult, but if they engage in telling their story – who are the actors, how is the business funded, who pays for what, why they lie asleep at night worrying about money – the idea comes alive and can be explored from both sides.

*Perhaps include this:*

*Appendix 1 gives an example of a 'scaffolding' framework – the Entrepreneur's storyboard. REF*

*Anna – need some input here*

An application of this approach involved the challenge confronting many women entrepreneurs in emerging economies. Despite the well-documented potential contribution which female entrepreneurs can make (REFS), work in Russia, Kazakhstan and Turkey highlighted key problem issues facing this group. (Anna can you supply more – other countries, number of participants, description of programme, etc.). In particular lack of prior business experience, lack of XXXXX

Following diagnostic research amongst this group an action learning programme was developed using the Entrepreneur's Storyboard approach as a device to help articulate key business model concepts such as value proposition, target market segments, cost structure and revenue streams.

## Final section discussion and implications

Have argued that ST has significant potential role in innovation as part of wider organizational application.

Number of specific situations/locations where it can help and we have looked at three:

- In mobilising memory....
- In engaging stakeholders and shared prototyping ....
- In entrepreneurship....

Question raised as to *how?* Have indicated the importance of frameworks – scaffolding – and skills in storytelling. Remind readers of the key points in our ‘cases’:

- In the mobilising memory emphasis is on story research, structuring and retelling. This requires development of a capacity – the storyteller role – and skills in writing and telling which communicate in ways relevant to the context. Imagine the ‘organizational bard’ as a future role...?
- In EBD key role of boundary object and skills in using ways to create and work with this. Design methods hold promise here and widely used in services. NB Josephs and maker spaces as story forums...NB
- In naïve entrepreneurs case the role of storyboard and coaching, writers group analogy and power of template as scaffolding

ST not a substitute for a good idea but it can give it legs, help it develop

ST brings in end users and other stakeholders early and actively

What next? We have only discussed three applications in illustrative form – need to extend both sample size and database here but also to extend to other applications – e.g. in change management.

In each case need for skills and training in researching/writing/ assembling stories and in telling them via boundary objects to maximise their role as places

where stakeholder elaboration can take place. Developing tools and techniques for this forms part of a major EU initiative TACIT XXXXX

Further research may involve testing out the use of storytelling approaches amongst a sample of inexperienced entrepreneurs in several different contexts – in emerging economies, amongst social entrepreneurs and with students. It may evaluate different storytelling tools and supporting frameworks (including innovation theatre, scenarios and simulation, design thinking laboratories and variants on BMC approaches) and developing a methodology through which the issue of such techniques can be embedded as part of entrepreneur training and support. There is a need for further research in this space in terms of articulating more clearly the specific challenges faced by different groups of inexperienced entrepreneurs – where do they find difficulty in telling their stories and how might these challenges be dealt with through both training and the availability of suitable tools? And there is a need to extend the available toolkit, looking at different modes of storytelling and the contingencies under which these work.

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Appendix: The start-up storyboard tool

### **The start-up storyboard**

Any new venture is a story. It starts with an idea – something which will be valued by somebody. Maybe it's a new thing, maybe a new service but it has to mean something to somebody otherwise it's just a lonely idea.

*Graphic of light bulb*

As soon as you start thinking about who is it for you have your first characters in the story. Think about them, who they are, what they do, why they will value your new thing. Paint the picture, make the sketch, bring them to life.

*Graphic of person next to light bulb and then sequential graphics of that person becoming ore detailed, coloured, coming to life...*

And as you think about them go back to your idea and make that a little more detailed – how can it be made attractive to your new characters? Bring it to life not just as your dream but as something which they might find valuable.

*Graphic - Develop the light bulb into something with tangible form of value to the user – turns into a coffee cup, a chair, .....*



And, unless your idea is for something the world has never seen before, why is your idea better than someone else's? Why will your characters choose it rather than something else? Think about them and how it fits with their lifestyle, why it would matter to them. Most important, why would they pay for it and how much? Answering that question means you need to think about the value they would place on it once again. If it is a well-made, nicely served cup of coffee, why would they pay you more than the coffee they can get next door? If it is a hand-made chair, beautifully crafted out of old polished wood, why would they pay twice the price of a simple chair they can buy from IKEA?

*Graphic showing multiple versions of the idea and the user considering each and rejecting them in favour of yours...*

As your story develops you can think about how can you reach them – where do they meet you and your idea? Do they come to the market square and find you and your idea at a stall? Do they go online and find it via the internet? Do they learn about it from friends and come knocking at your door? Do you have a shop? What does it look like? Bring the different ways to life, develop the sketches of how they encounter you and your idea?

*Graphic showing this – begin with a market stall in a market square, and then visualize the other routes alongside that. In each case it is where and how the user encounters the idea so bring them together in the picture.*

Of course you are interested in more than one person taking up your idea, so repeat the above adding more characters to your story. Maybe they are all versions of the same person, maybe there are different characters who find you through different channels.

*Graphic illustrating different types of user, coming to the idea in different ways*

Now step back for a moment and look at what you've been doing. You've begun to tell a story – it looks like an early sketch or draft of a film script or a piece of theatre, maybe the outline of a novel. Try telling it as a story out loud, or even better, to someone else. And as you tell it go back and fill in more detail.

We need to add some more to this simple tale. The idea doesn't just happen – it is created by someone (maybe you, maybe you and others).

*Graphic showing the idea – light bulb – with some people next to it creating it....*

What's involved in making your idea real so that your user can value it and buy it? What things have to happen to bring it to life? Think of this as a sub-plot in your story – maybe it is about buying the wood, cutting the pieces, assembling them into a beautiful chair, polishing and finishing it with care and pride. Where is the workshop, what does it look like? What tools are you using and where did they come from? Where do you get your wood and how do you choose it, where

do you store it? Flesh out the story about how your chair comes into being – and who's involved in that process. Add more characters into the story.

*Graphic showing different activities which the above people are doing to create the idea*

Or maybe it is about buying the ingredients and then making the perfect cup of fresh steaming coffee. What does the china look like? Where did you buy it? What about the coffee machinery – a simple kettle and cafetiere or a complex silver Italian super machine? Once again, bring the story to life – the coffee doesn't just appear, it comes about as a result of different activities.

*Similar graphic but showing the different people and activities around the cup of coffee....*

And think about the 'who' in all of this. You have some new characters to add to your story, some of them walk on parts, people who come and go but don't play much of a role. But there may be others who feature regularly and are a key part of what you do. Maybe your wood supplier is important because he delivers great quality and on time so you are never waiting for what you need opt make great chairs. Maybe you have a friend who helps you in the café dealing with the early morning rush of people wanting their fresh coffee on the way to work.

*Graphic bringing the people in the previous scenario to life, colouring and detailing some of them as key players helping you bring your idea to life...*

The story is beginning to take shape – you now have a cast of characters and a core story about creating and delivering value through your idea. Try telling it again as a chronological sequence – what has to happen in order for the next thing to happen, and the next? How does the story develop? Maybe it's a li near process form developing the idea and then trying it out on your market? Or maybe it's two parallel streams, one about creating the idea whilst the other is simultaneously exploring the market side?

*Graphic showing a series of events, like a comic strip, illustrating the above. For example the left hand side as a series of panes and then the caption 'meanwhile...' and then another series of panes for the right hand side....*

Now lets add some more detail. If this thing is going to work it needs resources – time, energy, money. Think of them as characters of a different sort – and position them first of all on the left hand side, waiting in the wings to come on stage. Try and develop the detail again – how much time, what kinds of materials, how much money?

Think about when you would need them, what ahs to be there form the start, what comes into play as you start to develop the idea? How do the resources flow to support the creation and delivery of the idea?

Unless you have a wealthy benefactor or an indulgent parent you are going to need to get those resources from somewhere. Where do the revenues (the resources flowing in) come from? If you have read them right then your market will pay for your idea and you'll have their money flowing back in. Where else might revenues come from – maybe loans, maybe you can sell the idea to someone else as a license or franchise? Create a castoff characters on this side of the story.

And, just as before, try and work out the timing of the revenue flows.

Tell the story again, this time focusing on trying to keep the balance between the income and the outflow of resources. If this flow doesn't at least balance, you're in trouble – your idea is going to cost more than it brings in and pretty soon you'll run out of resources. How can you increase the number of characters or their timing to keep this balance? Could you reduce some of the costs?

You've now got the very basic outline of a story – a storyboard, a picture of how the themes will develop and the movement of different characters and scenery. Now start to run the story as if it were a movie, looking for the flow and watching what happens over time as it develops. Imagine – on your own and then try telling it to and with others – how it plays out. What happens?

A key part of this imagining is to think about what happens when external things come into the picture, things you hadn't originally thought about. What if there is a new competitor who comes along and copies your idea? How could you tell the story to make sure that doesn't spoil your happy ending? Can you protect your idea in some way? Or can you make your relationships with your customers so personal that someone else trying to muscle in isn't trusted?

Or what if the costs of some of your materials go up suddenly? Or a key resource or person disappears from the story? Try and imagine a whole set of 'what if's?.....' and think about how you would change the story to make sure they didn't spoil the happy ending. Of course it's not just bad things that can happen 'out there' – there are also positive things. What if a large company comes along and likes your product so much they ask to buy it from you, or to licence it from you? What if

Like any story it can develop in many ways. It makes sense early on to sketch it out as a draft and run it a few times, finding out where it needs strengthening, where it isn't clear. The happy ending is when you are able to use your idea to create value and enough revenues flow to help you maintain and develop – maybe building on the idea, maybe launching a new one.

The whole idea of the storyboard is to make explicit and visual your thoughts about how your idea could create value. The more detailed the imagined picture, the less you will be surprised and the more prepared you will be. And in creating it in this visual, storytelling form you make it possible for other people to share your vision. Sure they may challenge and question it but that could be very useful – they may see something which you don't. At some stage you may well need to 'pitch' your story to someone else to get their support – maybe an investor, maybe a key partner. By telling them a well-developed story and inviting them to add to it, tell it in their way, you are bringing them on board or at least around the table, perhaps giving you some sharp advice, perhaps asking you a key question which you have missed.

Throughout the book we'll be exploring different aspects of being an entrepreneur and developing an innovative venture. We'll use the storyboard as a framework to hang these ideas on, giving you more questions to ask and themes to look at as you build your own venture. And we'll provide with you a wide variety of tools to help you explore and answer those questions.....