BRIGHT SPARK

Are quality and creativity enemies or allies? **Paul Sloane**, founder of Destination-Innovation, suggests you can't have one without the other

Quality involves the removal of unwanted variations, the enforcement of strict standards and controls, the application of best practice and the elimination of waste and errors. Creativity and innovation involve exploring many radical and unorthodox ideas, deliberately deviating from existing standards and controls, experimenting with prototypes and devoting resources to projects which are likely to fail.

So at first glance quality and creativity look to be at odds. One is striving for the elimination of variation and error while the other is crying out for both. They are surely two opposing philosophies requiring very different mindsets and attitudes. Can they coexist? The answer is that they can and they must. Every successful organisation has to solve the paradox of how to achieve - at the same time - great quality and great creativity leading to successful innovations.

The natural tendency for business managers is to focus on improving efficiency and refining the current processes because it is clear that 'things can be done better.' Improving quality and efficiency is important but it is not enough. If you made horse drawn carriages then it did not matter how much you improved quality because automobiles were eventually going to put you out of business. The message is, that the right innovation can always beat efficiency. You have to improve what you are doing but you also have to find entirely new and better ways to do it. Doing what we do now, only better, is not enough. If you do what you always did then you will get what you always got. You have to do something different to get different results. And you have to do something significantly smarter to get significantly better results.

Successful businesses combine brilliant innovation with constant improvement and a focus on quality. Think of a rock group where one member composes a great new song. They then need perfect coordination, timing, rhythm and production to turn the creative idea into a hit. It is no good innovating if you cannot deliver a quality product or service to your client.

ORGANISING FOR INNOVATION

Successful organisations plan for innovation and allocate resources to it. They have innovation panels that hold reviews of all their products, services, processes, methods and routes to the market. These reviews fulfil the following purposes:

- they identify outmoded and aging products and processes and schedule them for replacement. These organisations recognise that everything in business has a lifecycle and the end of a lifecycle has to be anticipated so that replacements can be planned. Even systems that are running successfully and profitably today must be examined to see if it is time to supersede them with something better. It is much better to obsolete your own products with superior versions than to find that the competition has beaten you to it
- they set targets and deadlines in each area and department for the generation of new initiatives in order to replace the items selected as outworn. The general rule is that three new initiatives should be started for each new process needed. A one in three success rate for trials of new products is a good average so it is best to generate a long list of ideas and then whittle down to at least three to be prototyped. Each innovation project should have a project plan with a deadline for customer feedback and a planned date for a go/no go decision
- they measure progress against targets for individual projects and for the organisation as a whole. They monitor key metrics including how many new products or processes have been implemented in the last year, what proportion of revenues is coming from new products or services, how many new launches are scheduled for the coming period and so on. They also try to assess more subjective parameters such as who is seen as the innovative leader in the industry and how an organisation compares to competitors in innovation in the marketplace

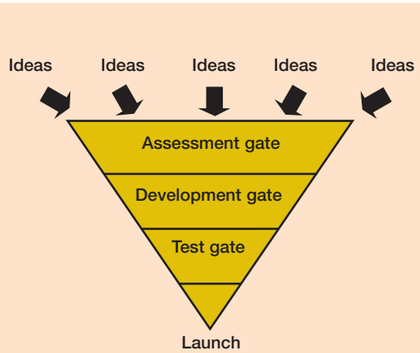

Figure 1. The innovation funnel

INTEGRATION OR SEPARATION?

It is more effective if innovative prototypes for new businesses, products or services are put into special incubator units which are focused on innovation rather than given to existing departments to manage and develop. In his book *Innovation and Entrepreneurship*, writer Peter Drucker explains why: 'Innovative efforts should never report to line managers charged with responsibility for ongoing operations. The new project is an infant and will remain one for the foreseeable future, and infants belong in the nursery. Executives in charge of existing businesses or products will have neither the time nor understanding for the infant project.'

In 1995, when General Motors (GM) wanted to create a new business based on in-car voice activated communication called 'OnStar', they appointed Chet Huber, a maverick within GM. He put together his own multi-disciplinary team with over half his staff coming from outside the company. By 2002 OnStar had over two million subscribers and was standard inside Acura, Audi, Lexus and Subaru as well as GM cars. Huber believes that radical innovation can happen inside big companies if you build a team that respects insiders and listens to outsiders.

EVALUATING IDEAS - THE GATING PROCESS

Most organisations find that generating ideas is easier than evaluating or implementing them. Once you have a lot of promising ideas you need to evaluate them. In larger organisations with a rich flow of promising ideas, a formalised and disciplined approach is called for. According to the product development and management association's best-practices study, 68 per cent of leading US product developers now use some type of gating process to progress and evaluate innovations from conception of the idea through to full launch of a new product. The general principle is shown in figure 1.

Ideas from all sources flow in at the top of the funnel. They then go through a series of gates. The gating process determines which ideas carry on to the next round and which do not. Typically around two thirds of the projects fail at each gate. It is sometimes described as a 'kill or go' decision, but the ideas which do not proceed are not killed. They return to the database together with the reasons for the suspension of the idea in case they can be resurrected or recombined with another idea later.

The number of gates will be determined by the complexity of the product and the cost of its development. For a small company there may be one or two go/no go decisions. A pharmaceutical company like Glaxo Smith Kline in pharmaceuticals has around 35 gates in its new product development process. New drugs can take seven years to bring to market - the costs, risks and paybacks are enormous. Sony, on the other hand, launches over 1000 new products a year. The number of ideas entering the funnel must be truly enormous if over 1000 make it all the way to launch. The leading process is called 'stage-gate', which is a trademark of the new product development gurus Bob Cooper and Scott Edgett. Their methodology is well developed and deployed. They describe the five stages of the process following the discovery or 'idea generation' phase in figure 2.

Stage 1	Scoping: a quick and inexpensive assessment of the technical merits of the project and its market prospects.
Stage 2	Building the business case: this is the critical homework stage - the one that makes or breaks the project. The business case has three main components: product and project definition; project justification; and project plan.
Stage 3	Development: business case plans are translated into concrete deliverables. The manufacturing or operations plan is mapped out, the marketing launch and operating plans are developed, and the test plans for the next stage are defined.
Stage 4	Testing and validation: provides final validation of the entire project, the product itself, the production process, customer acceptance, and the economics of the project.
Stage 5	Launch: full commercialisation of the product - the beginning of full production and commercial launch.

Figure 2. The five stages of the process following the idea generation phase

Each stage involves team activities. A cross-functional team examines the project using key parameters and gathers information in order to make the decision as to whether the project advances to the next stage or not. The team looks at operational, technical, marketing and financial aspects of the proposal to assess potential risk and reward. The proposal has to clear the hurdles in the gate before proceeding to the next stage. Each stage involves more financial commitment and development than the previous stage so at each gate the hurdles are raised. The idea is to kill off those projects that do not meet the gating criteria. As projects pass through the gates they are better understood, there is consequently less risk and more financial and marketing resources can be devoted to them. The successful organisation will focus on quality and innovation; it will juggle efficiency and creativity. Creativity does not

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Solutions on page 32

1. A man lives on the tenth floor of a building. Every day he takes the lift to go down to the ground floor to go out. When he returns he takes the lift to the seventh floor and walks up the stairs to reach his apartment on the tenth floor. He hates walking so why does he do it?

2. A man rode into town on Friday, stayed three nights and left on Friday. How come?

3. A woman had two sons who were born on the same hour of the same day of the same year. But they were not twins, and they were not adopted. How could this be so?

4. A man went to a party and drank some of the punch. He then left early. Everyone else at the party who drank the punch subsequently died of poisoning. Why did the man not die?

5. A man pushed his car. He stopped when he reached a hotel at which point he knew he was bankrupt. Why?

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