

# The Next Big Thing?

Trends Shaping Nordic Innovation

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## **The Next Big Thing?**

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*Nordic cooperation* seeks to safeguard Nordic and regional interests and principles in the global community. Common Nordic values help the region solidify its position as one of the world's most innovative and competitive.

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# Encouraging Entrepreneurship



Innovation and entrepreneurship are two sides of the same coin. If innovation represents what needs to be done, then entrepreneurs are the people who make it happen. Joseph Schumpeter identified entrepreneurs, whether in large firms or small ones, old companies or start-ups, as the agents of innovation and creative destruction<sup>1</sup>. In a nutshell entrepreneurship represents the human dimension of innovation. The entrepreneur deals not only with the intellectual aspect of innovating – she or he also has to carry out the day-to-day organisation and management tasks. It is often hard to identify an entrepreneur because nobody is an entrepreneur all of the time, and nobody is ever “only” an entrepreneur.

Schumpeter drew an important distinction between invention and innovation, and thus between inventors and entrepreneurs. He writes; “The making of the invention and the carrying out of the corresponding innovation are economically and sociologically, two entirely different things [...] often the two interact, but they are never the same, and innovations are usually more important than inventions [...] only confusion can result from focusing on inventions instead of innovations”<sup>2</sup>. He pointed out that the task of innovation requires much more than technical invention. Innovation in the case of soap, for example, represented not simply the task of manufacturing soap but also that of inducing people to wash. This is a problem of an entirely different nature. It requires just as much creativity as the original formulation of soap and the invention of a process by which to make it. Ultimately, innovation succeeds not when it produces new things but when it changes the behaviour of users or consumers and the entire whole range of vested interests to which they are affiliated.

In view of the recent interest in “open innovation”, and in the light of efforts, described elsewhere in this paper, of major companies to harness the energy and talent of entrepreneurs outside and inside a given company, entrepreneurship should not be identified with intrapreneurship. To do so would be to ignore the newest and currently most relevant dimensions of the issue. The most innovative companies try to harness the energy and talent of entrepreneurs wherever they are found. Schumpeter recognised that much of the success enjoyed by individual entrepreneurs resulted from their talent for seizing the opportunities of the moment, and that the main challenge for the innovator was to overcome the extreme difficulty of changing traditional ways of doing things.<sup>3</sup> An important

factor in successful entrepreneurship is the ability to overcome these difficulties. In this sense entrepreneurship is a form of leadership.

George Buckley, the Chairman, President and CEO of 3M, recently summed-up the issue when he spoke to an advisory committee of the US Department of Commerce which was considering the measurement of innovation in the 21st Century<sup>4</sup>. As part of his discussion dealing with international competitors in emerging economies such as Brazil and China, he said; “We need access to talent [...] our competitors can just about invest as much as we can in manufacturing plant [...] as much in marketing as we do [...] even as much in technology as we do [...] in the end the only thing that separates the best from the rest are the people you hire”. Few would disagree, but the real issue is what kind of talent?

The ability to identify and evaluate useful knowledge and sources of knowledge, to evaluate these sources as partners, to integrate them into a disciplined innovation process, to design, manage and adapt this process, are all fundamental to innovation success. This is just as important, and maybe even more so, than the ability to perform research<sup>5</sup> or execute targeted development tasks. Peter F. Drucker formerly emphasised that innovation is a discipline that can be learned and practiced, and that there are basic principles that can be followed. He also maintained that this holds true for entrepreneurship – the work of those who make innovation happen<sup>6</sup>. This view was borne out by A. G. Lafely when he related how he transformed P&G into an innovation machine<sup>7</sup>. He described innovation as a social process that can be formalised, and for which employees can be prepared and developed. He says that;

“When you as a leader understand this, you can map, systematize, manage, measure and improve this social process to produce a steady stream of innovations [...] innovation is not a mystical act; it is a journey that can be plotted, and done over and over again. It takes time and steady leadership [...] but it can be done.”

Back in 1985, Drucker recognised that innovation needed to be organised as a systematic activity, and that business itself needs to be organised in order to evolve as a successful innovator. He realised that this requires the dual disciplines of innovation and entrepreneurship. He considered the latter mainly to represent the process of making innovation work in the market place<sup>8</sup>.

Ultimately, business models rely on both a technological and a social architecture. This social architecture is intimately linked to the human resource function of the firm, and corresponds to a form of knowledge that is deeply tacit and not easily reproducible by other companies. Entrepreneurs tend to be good at understanding and manipulating social architecture. Whereas inventors are good at solving technical problems, entrepreneurs have to be good at solving social ones. It is useful to examine a specific example to see exactly what is meant by this.

Innovation in medical devices is a highly collaborative process that takes place when engineers work together with those responsible for clinical care. This involves co-operation not so much in the design of the device but in terms of understanding how it needs to be applied. Nurses and those involved in after-care can play a key role in this process. The surgeon is only involved with a patient during an operation, whereas the nurses are involved both before and afterwards. They observe the longer-term effects and impacts on the patient during and after recovery. They often have a detailed understanding of the entire patient cycle from admission to diagnosis, treatment and recovery. However, working with nurses can be very difficult because surgeons represent the senior profession and may put their needs ahead of both patients and other staff at the hospital. Examples abound situations involving technical innovations in the remote monitoring of patients in intensive care, where physicians have obstructed progress.

This underlines the challenges faced by entrepreneurs who need successfully to navigate a variety of social situations and overcome resistance to change. Innovation is a social process as much as a technical one. After first having gained access to technologies that work, there is a subsequent need to overcome the barriers thrown up by people who view innovations as threats to their activities and then react defensively. These people are often employees, customers and competitors. This kind of problem solving receives scant attention in research on innovation. Excessive focus on the technical development of a system distracts the researcher from the major component in the picture. The staff also represents a part of the system and until issues related to personnel and their relative abilities and willingness to go along with change are addressed, it will not be possible to understand the innovation process or succeed as an entrepreneur.

A. J. Lafley, the CEO of P&G, emphasises the ability to collaborate. He says that “Innovation leaders are comfortable with uncertainty and have an open mind; they are receptive to ideas from very different disciplines. They have organized innovation into a disciplined process that is replicable. And, they have the tools and skills to pin-point and manage the risks inherent in innovation. Not everyone has these attributes. But companies cannot build a culture of innovation without cultivating people who do”<sup>9</sup>.

He mentions “leadership”. This is significant because leadership and entrepreneurship are two important aspects of innovation. It used to be thought that leaders were born, but now we know better and actively strive to develop leaders and leadership skills. Alan Todd, Chairman of the Board of US-based CorpU claims that the overwhelming majority (about 90%) of large global enterprises do not have the leaders they need to remain competitive. Seventy per cent of these feel that current approaches to identifying and developing leaders are inadequate. This represents a clear call for further innovation in the development of human resources, especially for the public sector.

These issues are given very little attention in modern approaches to innovation. In many ways, such approaches align innovation with research or invention, and fail to understand it as the basic process driving change in business. A lot of effort goes into the development of engineers and research in innovation, but relatively little into the all of these other “hidden” issues that are essential to the innovation process.

A key issue for both society and industry today is how to identify, develop and facilitate an environment that will support entrepreneurs – that allows them to thrive and which enables them to “up their game”, improve, and achieving more than if they were simply left to their own devices. This issue was addressed in the NICe-funded “NordTrend” project as part of which a 4–stage stage classification of companies was made categorising them in terms of the environment they provide for entrepreneurship<sup>10</sup>. Under this classification, a company will belonging to one of four main types:

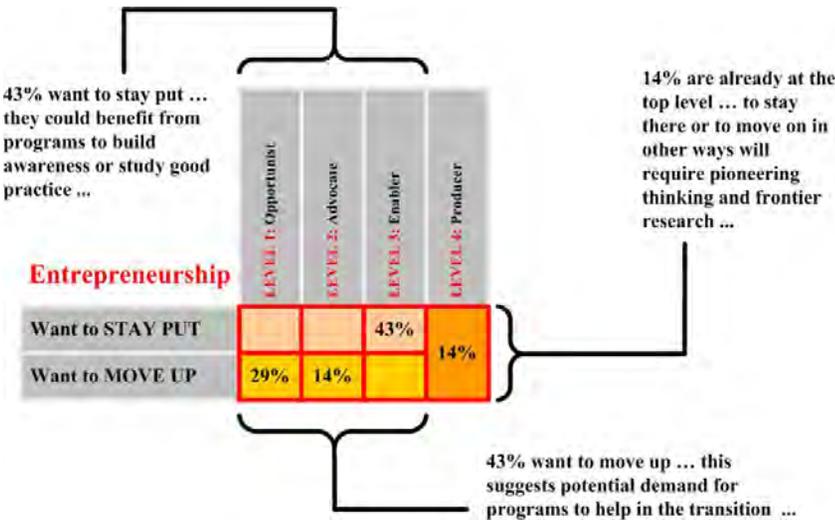
The *opportunist* is a company that adopts a diffuse and *ad hoc* approach to supporting entrepreneurship.

The *advocate* is a company where top management advocate innovation but where there is no enterprise system to support entrepreneurs. Responsibility and funding tends to reside at the level of the business unit.

The *enabler* is a company that invests substantial resources in entrepreneurship in terms of finance and senior executive support. This approach mode is based on the premise that employees throughout the organisation will be willing to develop new concepts if they are giving adequate support.

The *producer* is a company that establishes a full-service group with a mandate for corporate entrepreneurship<sup>48</sup>.

As our understanding of entrepreneurship improves, a need may develop to improve upon, extend or otherwise revise this classification. However, until then much can be gained by applying such schemes to populations of companies to assess their overall standing. The following diagram summarises the results of a pilot study using a sample of companies carried out earlier this year<sup>49</sup>.



<sup>48</sup> Robert C. Wolcott and Michael J. Lippitz: The Four Models of Corporate Entrepreneurship. MIT Sloan Management Review, Fall 2007, Vol. 49 No. 1

<sup>49</sup> Nordtrend – Patrick Crehan, A Nordic Innovation Center project: publication forthcoming 2009

Although it is qualitative and subjective, feedback of this sort provides those involved with innovation and entrepreneurship with a view of the overall ability of industry to organise and manage entrepreneurship on a sector-by-sector basis. Companies were asked where they stood today and where they wanted to be in 3 years time. The results pointed to a range of services that companies might require as well as the potential level of demand. This approach to measuring entrepreneurship provides feedback that is both meaningful and actionable for government and for individual companies. Future projects conducted by Nordic innovation could investigate this further and broaden the scope in order to provide a diagnostic of innovation-related company capabilities on the scale of the entire Nordic economy.