



Electroco

Background

This is a large, multinational organization, originally founded around electric motors and transformers but which has diversified extensively into information and communications technologies, medical instruments and software.

Innovation 'Claim to Fame'

This firm is yet another of the '100 club', having been founded in the late-nineteenth century. Its early years were characterized by many major product breakthroughs and they established a strong brand name around the world with a reputation for quality and innovation. Increasing pressure on their traditional markets and high competition in the new technology fields which it entered (such as telecommunications) forced a realization that the old and somewhat bureaucratic structures and procedures needed to be revamped around a capability for 'reinvention'. They appear to have been successful in doing so, maintaining their core businesses but growing strongly in new fields like computers and medical instruments through opening up to multiple sources of new, 'do different' innovations.

How Do They Manage Innovation?

They already had a strong foundation in product development based on deep technological roots and a high R&D spend. Recent years have seen a shift towards leveraging the wide knowledge base which the company has built up – as one interviewee put it, *'If only Electroco knew what Electroco knows ...!*

There has also been a recognition that growth through innovation will depend on carrying out a deliberate search for non-current products and enabling technologies (looking in unexpected places) and in keeping the units which take those ideas forward as small and focused as possible rather than trying to run them through the large and somewhat staid organization of the present. (An example of the success of their approach to increasing the volume of ideas is in their Medical Division where, in the first year of the innovation programme, 450 project ideas emerged, 70% of which came from outside the division. These led to 11 business plans for new ventures and 3 major product fields resulted. By the late 1990s, after this process had been running for five years, the company had around 1 invention per day and two thirds of their \$5bn sales were being generated by products that had been introduced during the previous two years, 50% of the ideas for which came from outside).

Innovation Strategy and Leadership

A number of key strategic enablers are worth flagging:

- Strong cultural value around innovation, grounded in the company's long history, now being matched by a new, complementary value around entrepreneurship.



- Willingness to reinvent and to let go – a strong feature of recent history – changing the vision.
- Specific change initiatives to increase the volume of ideas feeding into innovation process.
- Management ‘coaches’ as expression of commitment to see the process through (counters the ‘flavour of the month’ problem).
- Resource allocation to allow for ‘slack’ and curiosity-driven working – effectively gives ‘permission’ to try new things out.
- Internal venture funds to allow progression of new ideas along parallel fast tracks to mainstream innovations.

Enabling the Process

The company has an effective and well-established process for ‘do better’ innovations but it is interesting to explore the systems which they are putting into place alongside these to enable them to find and exploit radical, ‘do different’ innovations. Mechanisms here include:

- Active search for new and different knowledge to complement the in-house base, deliberately looking for those which do not fit the current product/technology portfolio (a kind of parallel search approach).
- Training and use of ‘change agents’ with the task of turning new knowledge garnered through these networks into live projects (a kind of innovation product manager role).
- Use of ‘technology accelerator’ and ‘technology to business centres’ as a way of structuring a fast track for such ideas into action.
- ‘Spin-in’ and ‘spin-out’ system for converting innovative ideas into development projects via non-traditional routes, more closely modelled on individual entrepreneurship.
- Emphasis on a ‘maverick’/ rapid execution process to move things through quickly and enable fast failure and rapid learning.
- Use of alternative channels and networks for market research, running in parallel with ‘do better’ mainstream structure.
- Use of new innovation tools like ‘innovation fields’ to explore future scenarios, road mapping to define technology pathways, etc.
- Use of external ‘hot making’ process to increase the volume of externally-triggered innovation ideas (see below).
- Use of idea push approaches, such as ‘Impulse’, to increase the volume of internally-driven ideas into the system – a regular process which attracts ideas and funnels them via a selection board made up of cross-division representation. Around 25% of ideas are taken forward so there is a continuing flow. Both ‘Impulse’-type and CC approaches generate large volumes of ideas but the problem is incubation and development. Electroco has a complementary venture arm and incubator units – an in-house start-up system for new business where seed capital, personal skills development, etc. can be moved along. In turn these are passed to ‘Innovation Task Forces’, dedicated groups recruited from across divisions (around five people usually) and given a venture capital budget to work up a business plan for a new product field. At the ‘go’/‘no go’ decision point, the project is launched or transferred to another division to launch or spun out to the outside (but here an equity stake is retained to



ensure a return of funds for the venture capital pot). There is also concern about knowledge management – ‘We are careful what we let out of the door!’.

- An alternative to spin-out is linkage to satellite firms, local hi-tech SMEs which can act as innovation incubators. These have the advantage of retaining an entrepreneurial SME culture but with access to the resources and knowledge base of a giant organization like Electroco.
- A dedicated team of ‘scanners’ whose role is to search and transfer knowledge across Electroco and from universities, research institutes, other firms, etc.

Building an Innovative Organization

- ‘Hierarchies kill innovation’: a deliberate attempt to get away from vertical structures which typified the past and towards flat/knowledge-mixing structures.
- Knowledge culture as the new organizing model rather than efficient use of resources as the key structuring principle.
- Structure shifted from region focus to one which has a strong customer sector focus.
- Empowerment and autonomy through giving people ‘slack’ time to explore new ideas.
- Idea generation/suggestion processes like ‘Impulse’: incentives for innovation that are based on participating not on the value of final ideas. However, for those ideas that are taken forward, there is the incentive of playing a major role in the subsequent development, which engages commitment and ‘championship’ of ideas.
- ‘Encourage the natural entrepreneur’.

Linkages and Networking

- Creation of internal (cross-division/functional/discipline) networks which bring different knowledge sets together.
- Parallel setting up of new external networks. Staff (not marketing) are empowered to initiate a process of intense customer contact – ‘hot making’ – to identify/generate new possibilities.
- Sales are also heavily involved in tracking lead users but also in actively searching out new customers in this ‘hot making’ process. The idea is to generate leads for R&D via a process of learning from and with customers. Sales teams are also rotated to bring different perspectives to bear.
- Staff work as ‘hit teams’ to target conferences, scan academic and other journals, look at competitor firms, etc. – essentially active scanning and then coming back to report in a formal way, building a stronger technological intelligence system.
- Targeted search for new and complementary knowledge sources via alliances, joint ventures, etc.
- Particular emphasis within these JVs on working with hi-tech SMEs who are then allowed to retain their identity and character – i.e. not instantly absorbed into the mainstream culture and procedures but ‘incubated’ and allowed to continue to grow along their own entrepreneurial trajectories.



Learning and Capability Development

The company recognized that it needed to change a large firm culture but decided not to do so in one hit. Instead they have made extensive use of a 'learning laboratory' approach where good practices evolved in one division are then transferred out into others so that the new approach spreads organically. An early success was in the computer division where margins had been 30% below the industry average but where they are now very competitive and innovative. There is now extensive and deliberate cross-divisional learning about innovation management.