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Work Organisation and Innovation - Case Study: Elica, Italy

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Work Organisation and Innovation - Case Study: Elica, Italy

Abstract

[Excerpt] The case chosen is an example of an Italian manufacturing company which has adopted a strategy of innovation through employee participation. Interviews were conducted with a range of managers from production, HR and sales/marketing roles as well as line managers and front line workers in supervisory roles.

The Italian company Elica has manufactured cooker hoods since the 1970s. Elica use art, design and innovation to produce some of the most visually striking cooker hoods on the market. The company claims it is redefining the traditional kitchen appliance as a technologically sophisticated object with a unique design that improves quality of life.

Keywords

work organization, innovation, Elica

Comments

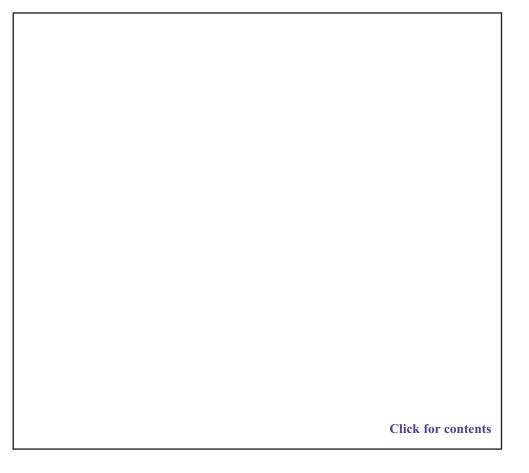
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Work organisation and innovation

Case study: Elica, Italy



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Background to the organisation

The case chosen is an example of an Italian manufacturing company which has adopted a strategy of innovation through employee participation. Interviews were conducted with a range of managers from production, HR and sales/marketing roles as well as line managers and front line workers in supervisory roles.

The Italian company Elica has manufactured cooker hoods since the 1970s. Elica use art, design and innovation to produce some of the most visually striking cooker hoods on the market. The company claims it is redefining the traditional kitchen appliance as a technologically sophisticated object with a unique design that improves quality of life.

Today Elica is a world leader, producing 17 million pieces annually with a market share of 17%. In the European market it leads in project planning, manufacturing and trading of electric motors for hoods and heaters. In 2010 the net revenue of Elica was \notin 368.3m, indicating a growth of 9.9% compared with the previous year, and 4% over the preceding two years.¹ Of the nine manufacturing plants, four are in Italy and the main factory and headquarters are located in the small town of Fabriano in an isolated rural location.

Elica manufactures two items, hoods and motors. The motors division of Elica is the leading producer within the European market. The company's achievements are attributed to quality materials, maximising efficiency in the final product, and the development of personalised products. Both divisions supply some of the largest manufacturers in the sector including General Electric, Bosch and Whirlpool.

Elica's primary objectives are innovation, design and investment in human capital. The company invests 3% of its revenues in innovation and technology and in 2011 replaced 30% of the items in its catalogue. Innovation at Elica is not limited to product innovation. As an integral part of the culture at the company, innovation covers product, process and organisation with a particular focus on the work environment as an innovation priority.

Design is also a core part of the whole business process at Elica. It is a company which produces premium products which in themselves are art forms. It has embedded the core values of design throughout management practices and in its relationships both internally with staff and externally with customers and the supply chain.

The company's central philosophy is investment in human capital. Investment in training combined with a series of work organisation innovations in the past five years have been central to creating a unified culture. Recognition of Elica's commitment to design, innovation and human capital is evident from its acquisition of numerous awards within each of these categories. These include one from the Great Places to Work Institute which recognised Elica as No. 1 in the category of large companies to work for in Europe. Elica was also included among the Top Employers Italy 2011, benchmarked alongside multinationals such as Microsoft and Luxottica.

In 2006, Elica was listed on the Italian Stock Market under the Star segment, a segment for companies which meet the highest levels of corporate governance and operational transparency. This marked the transition of Elica from a family-based company to a large organisation. In 2011 the company had 2,915 employees, roughly half of whom are employed outside Italy. The company has 1,481 employees in Italy, of whom approximately 1,000 are based at Fabriano and 48 of whom are part-time staff. The gender balance at Elica is 42.4% female and 57.6% male. The production line of the

Elica, Annual Report 2010.

Fabriano manufacturing site is entirely female. Efforts are being made to improve the balance. About 70% of employees are blue-collar, 22% are white-collar. Elica has a flat management structure to try to minimise bureaucracy and hierarchies which are common in Italian organisations. Recent economic conditions have presented challenges but the company has not reduced headcount at its headquarters or main Italian factory.

The company has three human resource strategies: internationalisation, innovation and brand development. The underpinning principle and primary mechanism to advance these HR strategies is employee participation. Elica believes that all employees have the potential to contribute if they are given the opportunity. The structure of HR, with three divisions, exerts additional influence upon the company. There is an HR team responsible for operations, a team responsible for sales and marketing, and a team responsible for staff and general services. Elica has developed processes to support continuous improvement as part of its people management strategy. A very high level of resources is devoted to HR.

Nature of the innovation

Elica has instigated many work organisation innovations over the past five years. The *Harvard Business Review* collectively labels Elica's developments as 'proposition innovation'.² The innovation is a series of processes which generate suggestions for innovations from employees. Management develops a process for bottom-up 'propositions' which form the basis of change at the organisation. This case study presents four company-wide innovations. These are:

- Elica Life A programme which implements employee-driven initiatives to address work–life balance.
- World Class Manufacturing A production process that implements employee suggestions and employee-driven projects to reduce waste, increase safety, and create value.
- Supplementary Agreement An agreement developed in conjunction with the Italian unions and employees that addresses well-being and personnel relations.
- Matrix Structure- restructuring of departments to allow greater use of autonomous, flexible teams.

These innovations demonstrate the organisational processes that have been developed to incorporate participation.

Elica Life

Elica Life is a programme of projects suggested by employees. The aim of the programme is to create, through a series of initiatives, regular direct contact between the company and the employees which goes beyond the traditional relationship, in order to develop employee engagement. The projects develop tools and actions for the achievement of well-being both at work and home. There are approximately 5–12 projects a year, all of which are developed from proposals by employees. A wide range of projects have been supported; for example, a comprehensive access to fitness resources including a gym, study abroad options for family members of the employees, and a member card which provides access to reduced price goods and services. The Elica Life programme was initially developed by the Human Resources Director but has always employed a process of bottom-up initiative rather than top-down governance.

There are a range of mechanisms for collecting employee propositions. The main mechanism is through yearly 'call for ideas' surveys. The ideas put forward are then selected by the human resources team, and depending on the project, are developed with engagement with employees.

Human Resources also have a system of annual review of Elica Life projects to ensure their continued relevance and to allow adjustments for improvement. This is done in collaboration with the employees. The programme mechanism is best illustrated through an example project.

'E-Extraordinary' was developed after a number of conversations and suggestions around the company about the need to understand art. The HR Director took the issue forward by designing a programme with the objective to promote innovative and lateral thinking, risk-taking, and the incorporation of artistic ideas into everyday work. This was then implemented through a series of meetings and workshops with famous international artists who train employees from different departments to inform industrial production. The course is not just a training exercise but develops cross-

² Alessandro Di Fiore (2011), The Power of proposition innovation, Harvard Business Review. 2011.

functional interaction and group identity based on the sharing of experiences and social and cultural values. The process of training aims to eradicate cultures of hierarchy or isolated departments within the organisation. The nature of the activity limits the number of participants to 40 employees (both blue-collar and white-collar) that take part in E-Extraordinary every year. One year, when the art was music, every employee in the company was involved. The course structure is as follows. Employees take classes with an artist on company time. They then apply the lessons within their own workstations to contribute to a collectively developed art project, such as a Christmas tree. A month after the completion of the art project, there is a review process to feed back on the course and its impact. An important part of the process is using the results of this feedback to redevelop the course for the following year.

World class manufacturing

As of February 2010 Elica adopted the World Class Manufacturing (WCM) programme developed by the Fiat Group. Many companies have implemented WCM, but Elica has placed employee participation at the core of its WCM system. The main purpose of the programme is to accomplish high standards in production processes through increasing efficiency, improving quality, reducing waste, and continually improving the production process. The company has introduced intuitive computer and people processes that adapt to the needs of the users, the employees in the production line.

In the new system all factory employees are encouraged to give suggestions or suggest projects to improve production. These propositions may be suggested directly to a manager via forms provided by Elica or in person. These suggestions are then implemented through autonomous flexible teams, where the individual making the suggestion may convene a group of people to help them put the idea into practice, supported by assistance from managers where needed. The team members could be from any relevant role and the team meets as required to implement the changes. To help employees to make suggestions, job rotation, decided on a case-by-case basis, has been introduced to give staff a broader understanding of the production line and the work that other staff do. All factory staff at Elica are part of the World Class Manufacturing production process.

Supplementary agreement

In 2008 Elica management and the four trade unions (of which 25% of the workforce are members) signed a 'supplementary agreement' which is used as a code of practice to supplement employment contracts. The purpose of the agreement is to build reciprocal trust and respect between managers and staff through offering material benefits for employees. The agreement includes the criteria for rewards related to performance and enhanced benefits to standard terms and conditions of employment. The additional rewards available are based on making links between each employee's results and the results achieved by the company. The agreement also establishes innovative elements, not common to Italy, into the working conditions of Elica including: additional time off for fathers with young babies, economic assistance for newly married couples, extra-contractual support for young mothers, long periods of leave for non-European colleagues who live far from their families, and leave of absence for employees who suffer from drug addiction or alcoholism. The agreement includes provision of part-time work and flexible hours. The components of the agreement were proposed by employees to their union representative through daily and weekly meetings. The supplementary agreement has also developed a policy on redundancy which states that there will be no redundancy without negotiated agreement with staff.

For Elica, the unions are a primary point of contact to develop a dialogue with the employees and to advance their wellbeing. Elica Group has annual meetings with the company trade union representatives and with external trade union representatives to report on the work carried out during the current year and future plans. The representatives are also involved in external training on a yearly basis. The meetings, held in Tuscany and Umbria, are purposefully informal so that company/trade union dynamics are not in full force.

Matrix structure

The matrix structure was developed as a reaction to the hierarchical structures that existed previously in Elica to increase knowledge, reduce argument, and better respond to clients. Since most projects are developed through teams it is essential that the teams work in an efficient manner. The matrix structure has reorganised departments so there is increased cross-functionality and therefore increased participation, cooperation and knowledge sharing. The *business to business* function of the company illustrates the implementation of the matrix structure in the company. Specifically, in the Marketing, Sales, and R&D departments, the response time to clients about product innovation and improvements was very long.

These departments at Elica sell products to major international kitchen appliance brands. Prior to 2006, product managers in the marketing department were responsible for a particular client. A key account manager in the sales department who is responsible for customer contact approved all adjustments, improvements and changes to a product. The product manager would then allocate a price after discussion with the R&D department. The sales department would liaise with the marketing department which then liaised with the R&D department. This caused friction between staff in different departments and was recognised as an inefficient way of customising products.

In the new system, the key account manager has greater autonomy and may directly approve a small modification to a product if the modification is not completely new. If the modification is completely new, the key account manager informs the product manager responsible for all the ranges (previously there were product managers for every range). This means that for minor adjustments the key account manager has greater autonomy to make the adjustments directly with the sales department and the Global Range manager is aware of all possible modifications in every range as well as any new innovations. All products can be changed in the company, whereas before only products for a particular client would be changed.

Mechanisms of participation

The four innovations were originally suggested by executive managers. However, the innovations are not static. They are continually evolving and the specific implementation of innovations within each overall programme involves a process of employee participation through various methods. Employees are involved through the following mechanisms.

Table 1: Mechanisms of participation

Type of Mechanism	Name	Description
Meetings	Team working	Elica conducts analysis and problem solving through the use of flexible, autonomous, and spontaneous teams. These teams do not have a structure and are developed by employees when necessary. The teams tend to have between 4 and 15 people, but may be larger. Team membership is flexible. The teams may be blue-collar workers in cells on the shop floor or teams within or between departments. Elica encourages inter-departmental teams where possible. Teams at Elica have continually changing structures.
	Periodic scheduled meetings	These are held at the Department level to monitor trends and discuss key performance indicators and targets with specific opportunities for propositions. Everyone may attend these meetings regardless of position. The CEO may attend these meetings and give suggestions. They may be regularly scheduled or spontaneous, depending on the branch of the company.
	One-on-one	This is the primary mechanism for employee participation. Employees are encouraged to have one-on-one conversations with their managers and with fellow colleagues. All managers adhere to an open-door policy.
	Information cascades	Top management meetings are subsequently discussed within every department with all employees.
	Meetings with CEO (Face to Face)	<i>Face to Face</i> is an Elica instrument in which every two months, the Chairman and CEO set aside time for meetings with any employee who requests one. The meetings allow each employee to express their opinion directly to company senior management.
	Cross-functional evaluation committees	Employees form cross-functional committees in order to evaluate projects. This helps to break down departmental barriers and facilitate communication across the company.
	Annual meeting with trade unions	These are informal meetings that are held regularly for input from union representatives.
Structural	Human resources structure	The HR department has three branches and line managers who fully manage specific areas within the company. This allows human resources to be involved within different branches and facilitates open access for the employees.
	Intranet	Databases where employees may electronically submit suggestions and communicate.
	Supplementary company bodies	Specific commissions were set up in 2009 whose sole responsibility is to gather feedback from employees. An example of such a body is the safety steering committee.
Formal	Surveys	Periodic surveys monitor company atmosphere and request suggestions. As a minimum, company- wide, there are two surveys a year. These surveys have an 85–95% response rate according to human resource officials. These surveys include the opportunity for qualitative responses.
	Feedback	Most projects end with an opportunity for feedback so employees may change the future development of a project. Gifts may even be given out to obtain feedback. In addition, all managers are encouraged to give feedback when a proposition is made by an employee. If a suggestion is rejected an explanation is given as to why that is the case.
	Assessments	Elica conducts in-person assessments with detailed feedback from the employee three times a year. This is another opportunity for the employee to give suggestions or propositions directly to his or her line manager. These assessments are particularly focused on managerial skills such as communication and team-working, in addition to quantitative objectives. Employees may request further training during these assessments. Employees also fill out a form at every assessment which includes a space for observations.
	Training	All training programmes are interactive and develop an employee's ability to work in a team and participate. On average, an employee at Elica receives 18 hours of training per year. All employees are able to request training.
	Rewards	Elica may give rewards to the best suggestions. Specifically, awards are given for suggestions on work–life balance and working conditions on the production line. The awards vary and may be monetary or in kind.
	Focus groups	Occasionally Elica develops focus groups to assess employee opinion on a given topic.
	Employee newsletter	This newsletter is posted to every employee in Elica every two months. Each plant has a team of journalists who put forward suggestions and describe situations in the Elica newsletter. All employees have an opportunity to contribute to the house organ. The primary purpose of the newsletter is not just to inform, but to communicate the model of the company and its philosophy, creating a company atmosphere that is a distinctive feature of Elica.
	Job rotation	Allows employees an opportunity to interface with different departments and develop new propositions based on exposure to other departments.
	Suggestion boards	Open boards for anonymous suggestions. These facilitate discussion of possible propositions. The boards may display analyses for further communication.

Type of Mechanism	Name	Description
Cultural	Individual management style	Elica supports a culture which eradicates hierarchy and formality. These concepts are actively presented in internal communications and internal advertising. Further, recruitment seeks people that do not support hierarchies or formality. Workers at any level may present solutions to top management without hesitation. Furthermore, Elica hires many younger managers to showcase its open-mindedness towards new ideas.
Spatial	Meetings held in different locations	These are held at the Department level to monitor trends and discuss key performance indicators and targets with specific opportunities for propositions. Everyone may attend these meetings regardless of position. The CEO may attend these meetings and give suggestions. They may be regularly scheduled or spontaneous, depending on the branch of the company.
	Auditorium	This is the primary mechanism for employee participation. Employees are encouraged to have one-on-one conversations with their managers and with fellow colleagues. All managers adhere to an open-door policy.
	The Square	Top management meetings are subsequently discussed within every department with all employees.
	Meeting rooms	instrument in which every two months, the Chairman and CEO set aside time for meetings with any employee who requests one. The meetings allow each employee to express their opinion directly to company senior management.

Process of implementing the innovation

Each innovation was originally implemented by a Chief Executive, Lead or Senior Manager. However, these innovations are not single projects, but processes which depend upon employee input, often encompassing multiple projects suggested by the employees. The original programmes were proposed by senior management but the specifications and projects have high degrees of employee input through propositions.

Elica Life is a conglomeration of projects rather than a single project, so the methods of implementation vary from project to project. The scale of the project may impact everyone in the company, only those that choose to participate, or a few specific people. The timescale to implement each project varies from a few weeks to a few months. The process of implementing a project involves teams in the HR department which develop the project with the person(s) making the suggestion. The team implementing the project varies in size from 4–15 people and include staff from all over the organisation: blue-collar, white-collar, managers and executives. Suggestions are made through any of the facilitating mechanisms listed earlier; however, surveys are the most regular mechanism.

The costs of each project depend on the scope and scale of the project. The primary funder is Elica itself although there may be external public and private funds acquired from other organisations and sponsors. Employees may also contribute funds to the projects. Some of the projects require short-term commitments from the employees, but none are long-term.

For E-Extraordinary, there were no costs to the company due to support from sponsors and a national funding initiative.

The roles and responsibilities of different people involved in the projects are not structured in a formal way and may fluctuate. Generally, senior managers are responsible for marketing the project as well as obtaining employee involvement, HR starts the project, and employees take an independent role and are part of the development process.

In the case of E-Extraordinary, the innovation includes one person from every department. The most innovative employees are selected by human resources to participate. However, if an employee specifically asks to take part, they will also be considered. Of the roughly 40 people who participate every year, half are blue-collar employees as they are proportionally the largest group within the company.

The innovation is led by a different manager every year in conjunction with an external trainer; and in 2011 the project manager was a blue-collar employee, selected because of his extensive contribution to the feedback portion of the course.

Over 15% of the workforce is involved in the **World Class Manufacturing** (WCM) programme. It includes everyone on the shop floor and an increasing number of employees at headquarters. The original implementation of WCM was led by the CEO and by managers trained in WCM by Fiat. Implementing WCM is ongoing as it stimulates continuous improvement - but original implementation of the scheme took under a year. Employee suggestions for continual improvements to the production process are central to WCM. Each initial idea is usually forwarded directly to the appropriate manager. However, more and more employees are developing their own initiatives and delegating changes in order to test them prior to suggestion. The major ongoing changes resulting from the suggestions are then implemented by employees working in groups without a single leader. The teams involved in developing suggestions vary in size depending on the complexity of the project but typically include 10–15 employees. In subsequent implementation, varying numbers of people are involved ranging from two or three to the entire production line, depending on the scale of the innovation. The intranet and mapping initiatives via software play an important role in establishing dialogue. They provide opportunities to give suggestions, self-evaluate and provide feedback.

Elica did not disclose investment levels in the WCM but did say that the costs of implementing WCM were recovered within a year. The only external support has been training by Fiat, the company that originally developed the innovation.

The WCM programme is led by senior managers. The Human Resource department is responsible for people development and training and offers training courses in WCM for interested employees. Training in management, technical skills and participation techniques is made available to every employee and employees may also take part in project evaluation. Line managers are responsible for the success of each project in the implementation phase.

The **supplementary agreement** was developed in full cooperation with union representatives and employees. The employees' suggestions for the agreement were made via the managers and union representatives. One senior manager also met employees individually, conducted focus groups, and held daily and weekly meetings with employees in order to obtain their suggestions. The contents of the agreements were then put together and implemented by the HR department.

The changeover to the **matrix structure** was explained to all employees affected in group meetings. At that point employee suggestions were taken into account. There was a trial period in which employees were able to make further suggestions for changes to organisational structure. Presentations were given in the auditorium about the changes, giving employees an opportunity to respond and participate in the changes.

Reactions and challenges

Employees were often astonished and somewhat doubtful when managers began seeking employee suggestions through the various projects. Developing a culture of high levels of trust and involvement was initially a challenge because it was a departure from the company's previous culture, which some managers interviewed described as bureaucratic and disorganised. Employee doubt did not disappear overnight but has been overcome gradually by demonstrating the results of employee suggestions. The feedback to employees has been a critical success factor. Employees are no longer suspicious of being asked for suggestions and welcome the opportunity to make them, because they can see many examples of how the suggestions have been turned into concrete benefits.

Elica Life projects are generally well received as they all address well-being. Of course some projects are better received than others. Managers review projects annually so that they do not become 'boring' for employees and this can involve redesigning the content, e.g. the art training. The HR department manages the redevelopment of the projects through employee surveys and questionnaires that request feedback. According to interviewees, objections to the projects do not arise until after the projects have been implemented. As the number of projects has increased and Elica Life has become better established over the years, employees have taken a greater interest in the projects and the volume of positive feedback received by the HR department has increased. Employees have also taken the initiative to publish reports about Elica Life in the local press.

Initially, employee reactions to the **World Class Manufacturing** initiative were neutral and staff did not particularly support or reject the innovation. The culture in the company at the time of implementation (limited employee engagement) was the main challenge, as the innovation is dependent on employee suggestions. A participatory culture therefore had to be developed from first principles and this involved feedback mechanisms, training and guidance which contributed to a culture of ongoing dialogue. Enthusiasm for WCM was further enhanced through showcasing the results of the projects.

The first phase of developing the organisational culture to support implementation consisted of managers specifically requesting suggestions. Once this was underway, in the second phase, managers sought to increase the quality of suggestions. One way in which this was achieved was by handing out guidance forms to ensure employees provided all the information required to assess a suggestion. This resulted in a decrease in the quantity of suggestions but an increase in quality. Managers have also increased face-to-face communication on the WCM principles, for example by explaining targets in meetings instead of issuing written information to staff.

Employees are informed from the very first instance of any change that is to be implemented. That way they are a part of the change process and expect to see outcomes. Managers also give feedback about every suggestion, whether or not it is implemented, so that employees are able to improve suggestions in the next project in which they participate. This prevents a culture of mistrust and resignation. Training options also allow the employees the opportunity to grow, developing their confidence so that they offer further suggestions in the future.

In 2008, Elica signed the first **supplementary agreement** which was subsequently recognised through an Ethics and Business Award in the 'Social Responsibility' category. The award stated that the Agreement has 'managed to make the fundamental principles of the Corporate Social Responsibility effective in an innovative and tangible manner, effectively combining participation method and award system'.

There are indications that the service agreement has improved the quality of life for employees. The reactions have been positive as the agreement is regarded as proof of management concern for staff well-being and recognition of their value.

At first, the change to the **matrix structure** created some disorder in the organisation. Employees found it hard to grasp the concept of a flexible organisation and some time was needed for learning and adaptation. It was clear that there would be changes to job content and responsibility would increase but not exactly how each individual employee would be affected. Some staff left the organisation because they did not like the cultural change in the company. Managers state this wasn't necessarily negative – the people who left did not fit in well with the changing philosophy of the company.

The various autonomous teams have developed their own working practices and processes. The number of meetings overall has increased and this method of working has required further adaptation. The quality of meetings has improved as employees have gained experience in the new way of working. One of the ways to overcome the challenge of a multitude of meetings was to develop information support software to codify knowledge of product features. This software can be customised to the needs of the customer, which has increased efficiency.

Impact on employees

The main impact of these innovations is the development of a culture of communication and participation at Elica. The impact on employees of these innovations is greater productivity, interest and creativity. According to the Great Places to Work Foundation,³ which assesses employee reactions to their company, 98% of employees agree with the statement 'My work has a special meaning: this is not "just a job",' and 99% of employees agree with the statements 'Management has a clear view of where the organisation is going and how to get there,' 'I feel I make a difference here,' and 'I'm proud to tell others I work here'. Elica primarily uses this survey to gauge employee well-being but is currently in the process of developing in-house indicators of the impact of the various projects. According to the managers the more engaged atmosphere is noticeable throughout the company and efficiency has increased because employees see themselves as part of the mission of the company. The employees take greater responsibility because they can lead their own projects and drive mutually beneficial change within the organisation. Some outcomes are difficult to ascribe to any single innovation but are likely to result from cumulative impact of multiple changes. For example, sickness absence was approximately 5-6% (days lost per employee divided by the total number of working days) prior to 2006, whereas now it is closer to 3%. Similarly, turnover has decreased from an unspecified level described as 'high' by managers to approximately five employees in 2011.

The Elica Life projects have specific impacts depending on the objectives of each project, though the overall impact has not been measured. Among projects, Aero, the comprehensive fitness programme, improves health and nutrition, E-extraordinary promotes risk taking and lateral thinking, and IAm sends employees' children abroad to develop international awareness. The main impact of all the projects has been the development of a feeling of community at Elica. Employees have become less passive, take a greater interest in the company and seek further responsibilities by suggesting innovations. According to managers, employees are more interested in their jobs because they know that the company is interested in them. Relationships between employees have improved as well. Projects like E-Extraordinary have helped employees to develop relationships between departments. When employees have worked with staff from different departments on the art project, they can understand one another's objectives, goals and resources.

The process of Elica Life has had an impact on the culture of participation at Elica. The willingness of employees to participate generally in the organisation has increased and employees contact the HR department with further suggestions to develop projects. The managers of Elica Life stated that they would not be able to develop the projects without this spontaneous participation.

World Class Manufacturing has helped to change the organisational culture from one of hierarchical structures and decision-making to one of more decentralised team working. Employees have become more willing to delegate responsibilities in the new structure and are far more willing to make suggestions without being asked. The teams have helped generate a culture which interviewees describe as one of participation and open-mindedness. This has also had an impact on the demand for skills. Prior to WCM the skills demanded were primarily technical, but now there are more requests for managerial skills such as communication.

Staff are more motivated because every stage of the production process can be challenged. If an employee is dissatisfied with working conditions there is a procedure to make suggestions for change. Employees are also more receptive to the suggestions of colleagues because they can sympathise with their needs, partly as a result of the job rotation scheme.

³ Great places to work, *Work style: A worldwide observatory of work style changes*, Special Edition, Europe. 2011

Employee suggestions have also helped to improve employee health, safety, and efficiency. Proposals have been made to try to avoid unnecessary movement or physical exertion in the production process which could cause accident or injury. Workplace accidents and injuries over the past five years have decreased from affecting roughly 2% of the workforce each year to affecting roughly 0%, and managers attribute this to the WCM programme. Levels of employee comfort while doing work have improved and many employees sit down instead of standing in awkward positions. The factory recently celebrated 30 days injury-free by holding a party with the CEO and Chairman in attendance.

The **supplementary agreement** has improved relations between the employees and the organisation. Employees are appreciative of improvements in working conditions and work–life balance. The supplementary agreement has undertaken alternative instruments to avoid redundancies. One of these instruments prevents redundancy without a negotiated contract with the employee. As a result of the contract, in the past five years not a single employee has been terminated without a negotiated contract.

Managers believe the agreement has led to increased engagement from employees in work activities. For example, flexible time allowances have resulted in greater awareness of targets and greater engagement with work because the employees choose to be there at a time that also fits family commitments.

Further, the employees have had the opportunity to improve their production environment and working conditions. As a result safety, security, and health have improved. Staff grievances and disciplinary cases have fallen dramatically and are now rare, whereas at one time 15% of employees were involved in such a case each year.

The **matrix structure** has developed many autonomous informal teams. Employees have greater flexibility but at the same time must be willing to take on multiple and changing responsibilities. Employees also have greater access to their director and to various other directors within Elica. Many different managers work in the same space due to the adoption of an open central work space and all members of teams responsible for developing a particular product are physically co-located.

The matrix structure has also led to greater cross-functionality between departments which has developed a sense of community and reduced friction between colleagues from different teams through improving understanding of each team's area of work. Within self-organising cross-functional teams, members from different departments not only have access to similar knowledge, such as client needs, but are also able to develop a common language and improve communication. Knowledge sharing, specifically about customer needs, has increased in particular and the departments are organised around customers. For example, prior to the matrix structure, the R&D department may have been quick to reject requests for product customisation from sales staff but because they now have direct access to and understanding of the sales department, they are better able to communicate.

Success is noted by the lack of management necessary. Employees are willing to take on large projects without being requested, communication with management is informal, and meetings often lead to a solution.

Impact on the organisation

According to interviewees, employee satisfaction has led to greater engagement, productivity and efficiency, and it is easier to achieve targets set. Product and process innovation are also more likely, as are creative outputs such as patents and trademarks which increase the likelihood of developing bestsellers that adapt to changing market needs while retaining Elica's distinctive reputation. However, the impact of each individual innovation on key organisational outcomes is very difficult to trace and Elica is still in the process of developing methods of assessing impact. Overall, revenues have been increasing year after year. In 2012 30% of Elica's revenues came from products introduced in the last three years following the introduction of these innovations; this figure was just 10% in 2005.

Interviewees reported that because of the Elica Life initiative the atmosphere in the organisation has changed from that of a typical Italian organisation with hierarchies and bureaucracies to one with an informal approach which values employees much more highly. Despite growing rapidly, the firm has also been able to maintain the atmosphere of a small company and employees know one another even if they work in different buildings. Employees are appreciative of the resources that they are allotted and the managers are convinced that improved productivity, efficiency and creativity have increased specifically as a result of the projects. The specific impact on each of these items would depend on the Elica Life Project. For example, E-Extraordinary has led to an increase in artistic awareness. As a result of this and other similar training schemes, the product design function has been brought in-house; 95% of design is now conducted by Elica's own employees so the company has been able to engage in higher value added economic activity. The company has won numerous design awards including the Good Design award, the oldest and most prestigious international prize for design. This year Elica has obtained the Red Dot Award for aesthetics and quality for the products Sombra and Skin.

The change in organisational culture to a more participatory one has also improved the organisation's adaptability and ability to cope with changing economic conditions. The E-Extraordinary project has been such a success that the idea has been turned into a spinoff at a university and is being sold to other companies. Recently, a pharmaceutical manufacturer has bought the scheme.

Managers commented that turnover is now very low at Elica and attribute this partly to Elica Life. It has also generated a higher level of interest in the company and created a wider pool of potential recruits because employees have talked about Elica Life projects to acquaintances. In 2010, Elica received 3,000 job applications. The company is also more selective in its recruitment and likely to hire people who are receptive to the goals and values of Elica Life and fit the company culture. Characteristics that Elica values in applicants have developed to include: multiculturalism, international experience, curiosity, creativity, innovation, problem solving, enthusiasm and willingness to participate in a team. As a result, recruitment assessment methods have expanded and include role-playing and selecting people with an 'international' mindset.

World class manufacturing and the adoption of autonomous teams has increased efficiency. According to one manager, the key performance indicator is the capacity to reduce the cost of producing goods – which increased by 300% in one year.

The benefit of WCM is a new managerial approach, of total involvement and constant career growth for the personnel. According to interviewees, problem solving has improved due to processes for analysis. Furthermore, employee involvement increases because in teams they want to do their best and to showcase their work. The option to develop one's own project results in responsibility for the project's success.

According to interviewees, efficiency and productivity improvements can be attributed to the supplementary agreement, but this cannot be directly measured and traced. General indicators of employee performance have improved. For example, the percentage of high performers (percentage of employees who scored Excellent in their reviews) has increased by over 10 points in the past 3 years.

Management is confident that the service agreement has led to improved organisational performance. For example, in the service contract bonuses are linked to levels of absence for many employees. Managers reported that Elica's rate of absenteeism was currently the lowest in their sector in Italy.

The service agreement has not affected customers but it has affected shareholders. According to interviewees shareholders in Elica appreciate the service agreement and are stakeholders who can see the investment Elica makes. They value the company in part because the company invests in its people.

The impacts of the matrix structure are twofold. First, the flexible structures within Elica allow for greater adaptability. Within business-to-business sales, the three departments responsible for the client are better able to respond to client needs. Second, as with world class manufacturing, there has been an increase in efficiency. A good example of this improvement is the reduction in product codes within the business-to-business sales department. In 2008, Elica had 9,000 product codes as a result of its structure. Many of the product codes were repeats; the same technical addition repeated between lines and between clients but with two or more different codes. This reflected a lack of knowledge-sharing and greatly increased the complexity of responding to a client request. In 2011, the number of codes reduced to 4,000 and, according to interviewees, the quality of the codes has increased because they are classified more logically and there are fewer duplications. In turn, this increases the success of the new products.

The number of staff required within business-to-business sales has decreased, which has led to savings for the company. Prior to the matrix structure, business-to-business sales employed eight product managers and six key account managers. Currently, the department employs three product managers and 4.5 (full-time equivalent) key account managers. The quality of customer service has improved because customers no longer have to speak to two different people in business-to-business sales, which previously led to them receiving conflicting information on occasion.

Finally, the organisational culture has changed. Prior to the matrix structure, the sales, marketing and R&D departments all had different cultures. Now they share one culture with a similar language for communication. Departments no longer work in isolation. This cross-functional communication pattern also means that there are greater opportunities for job rotation and growth.

More people participate in the development of a customisation and the company is better able to accommodate the client's needs. Sales can also go directly to R&D if they so choose, and knowledge sharing has increased between all departments. This has also resulted in more propositions from every department in the development of new products.

The main change brought by the matrix structure is the shift in working style. According to a manager, prior to the changes Elica staff were technical suppliers – now they are market consultants. Increased knowledge sharing has led to greater engagement and greater ability to respond to client needs.

Lessons learnt and future plans

The ability of managers to listen and consult employees is a critical factor in the success of all the suggestion mechanisms, and it has improved at Elica. When Elica Life started, managers only approached employees that they knew had suggestions. Managers are now trained to ask all staff for suggestions and to listen to employees. The company has extended its process of consulting staff for suggestions even further by rolling out staff surveys to ensure that all staff can give their opinions on new innovations.

Future plans include bigger projects and more international projects, in factories outside Italy. Experimental projects often run in a first phase in Italy and are then transferred to plants in other countries. Plans are also in place to create a measurement system to understand the impact of various projects. In response to the financial crisis more and more projects will be targeted to support the well-being of blue-collar employees who are hit hardest in times of economic distress.

The CEO has shown his dedication to the projects and announced that they will continue -a time of crisis is when they are most relevant.

One senior manager stated that 'involvement, involvement, involvement' was the critical success factors for WCM. With senior employees who have worked previously in four companies that implemented world class manufacturing, Elica has benefited from a focus primarily on people rather than on change, and making employees part of the change process. This has involved avoiding top-down implementation, which could have undermined employee engagement. Projects have been proposed and implemented bottom-up so that changes are developed by employees. This has required managers to be open-minded and all staff to respect each others' opinions.

The company has also developed written rules for team-working to help illustrate how to accommodate and resolve differing opinions. The other major learning point is to try to implement employee suggestions, as this is critical for employee engagement in the future. They are more likely to participate in the future if they see results. Future plans include the development of competences requested and further training. According to managers, the critical success factor at Elica is the development of a culture of open-mindedness.

Elica is planning to increase the number of staff who are directly involved with WCM.

The supplementary agreement contract has been successful due to multiple channels of communication with the employees and with the trade unions for suggestions to improve working conditions. However, a turbulent economic climate in Italy may mean that further changes may be necessary to preserve employment levels. The main goal is to maintain stability through difficult economic times. According to the union representative, a new work model will be needed for changing times and Elica hopes to be continually innovative in regard to working conditions.

The matrix structure has been fully implemented but there is room for adjustment and appraisal. Using a variety of channels of communication has been necessary to gain employee trust. In order to implement the matrix structure the company employed cross-functional committees, one to one meetings with managers and staff, and showcased the changes to be implemented in conferences for all affected staff. The company also instituted a probation period when the matrix structure was implemented to ask for feedback. Managers maintained open-door policies, involved employees in the change process, and workloads were continually redefined through dialogue with the employees. Employees were also provided with additional training where needed.

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