

Dr. Vered Holzmann

The "Innovation Club" Implementing a culture of innovation in an operation & production environment

"The entrepreneurial requires different management from the existing. But like the existing it requires systematic, organized, purposeful management"

Peter F. Drucker, *Innovation and Entrepreneurship* (p.141)

Introduction

Elop is a leading company in the field of electro-optical products and systems, conducting research, development, production, and sales as well as offering support. Based in Israel, the company is a major supplier of high quality, high technology defense, scientific, and commercial electro-optical products and systems both locally and globally. Elop was founded in 1937 and merged in 2000 into Elbit Systems Ltd., an Israeli-based international defense electronics company. The Operations, Production & Purchasing Division is responsible for Elop's overall operations managing the logistics chain of the company, from the acquisition of material and components through production and system assembling. The manufacturing plants under the responsibility of the division include mechanical production, an optical plant, an electronic assembly plant, and administration of system assembly lines.

As such, the working environment in the Operations, Production & Purchasing Division is characterized by a solid hierarchical structure in which systemic procedures are strictly followed in order to ensure the precise production of the specified product, adhering to quality, functionality, schedule, and cost.

In 2008, seven years ago, a new VP, Mr. Joseph Golan, was appointed to manage the Operation, Production & Purchasing Division. This division is the home of a few hundreds of senior employees of Elop's workforce and additional few dozens of young employees. Within a few months, the new VP announced the "Innovation Club Award" for creativity, quality, and excellence. At first, only a few engineers and technicians in the division took an active part in this new initiative, which encouraged them to submit suggestions and recommendations for better processes. At this stage, the initiative was very limited, but nonetheless highly successful, leading to the implementation of several changes in the workplace that increased comfort, efficiency, safety, and productivity. The participating engineers and technicians were recognized and awarded for their contribution to the organization. However, a few weeks later, an employee of the production line raised the question how she might participate in this entrepreneurial venture albeit her limited understanding of overall company operations and lack of opportunity to enhance or innovate her own working environment, as opposed to employees whose work involves technology or design. Her willingness to participate in the innovation process instigated the need in developing innovation and entrepreneurial activity on the organization level.

Vered Holzmann from the Coller School of Management, The Eli Hurvitz Institute for Strategic Management prepared this case with the assistance of Mr. Joseph Golan VP Operation, Production & Purchasing from Elop, and founder of the "Innovation Club". The case does not intend to illustrate effective or ineffective handling or business processes or decisions.

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The management decided that innovation, entrepreneurship, quality, and excellence will be the fundamental values to form the organizational culture. These will be the guiding principles for all employees, whether they are experts in production technologies, working on manufacturing lines, or working as integrators on the assembly lines. Supported with theoretical background and daily working activities side by side with advanced R&D divisions, the management successfully developed and maintained a culture of innovation that is implemented in an operation and production environment, which would typically conform to standards, rules and regulations.

The major challenge was to align innovative activities with institutionalized working environment and to embrace entrepreneurial thinking habits among senior and experienced workers. The strategic management dilemma is to determine the role of innovation in the organization and to decide how to initiate, create and institutionalize a culture of innovation that will sustain in the long run and become part of the organizational DNA.

Elop, intelligence and electro-optics

As part of Elbit systems Ltd., Elop is the largest manufacture of electro-optics outside the U.S. It is recognized worldwide as a global leader in the research, development, manufacture, sales and support of electro-optics products and systems. With its ability to predict the growing needs in the field of electro-optics, and the insight to turn such challenges into leading solutions in technology, Elop sets the standards for excellence in its field.

Since its inception in 1937, Elop has gained experience and special competencies, incomparable to those of any of its competitors. Cooperation with the company's customers, including the IDF (Israeli Defense Forces) and many other armies in the world, ensures that the electro-optics solutions Elop produces meet the needs of real operating scenarios. The company abilities run from research, development and production of subassemblies and sensors while integration of multidisciplinary products to full customer support and after sales service. All research activities, development and manufacture of the electro-optic systems including: laser systems, thermal imaging systems, head up displays, observation systems, and optoelectronics warfare, are manufactured within the organization, thus promising a fast and reliable solution that is within the specified budget.

Elop operates manufacturing facilities in all technological areas required for the production of its sophisticated electro-optic equipment. Elop operates mainly in the fields of thermal imaging systems, land and airborne electro-optics and laser systems, and is doing so with its Business Division, Engineering & Development Division, Operations, Production & Purchasing Division, and the corporate managerial staff. The high level of integration between these different aspects of operation ensures thorough control over the overall production process, reliable products, and schedule compliance. Elop's activities are rooted in a solid foundation of highly experienced and trained professional personnel, including, among others, physicists, engineers, technicians, and assembly personnel. The company emphasizes quality and is certified to ISO-14001 (environmental management), ISO-9001-2000 (quality management), AS9100 (aerospace quality management), and OHSAS-18001 (occupational health and safety). In addition, Elop is approved and supervised by the CAAI (Civil Aviation Authority of Israel).

Elop's operations, production & purchasing division

The Operations, Production & Purchasing Division is responsible for Elop's overall operations, managing the logistics chain of the company, from the acquisition of material and components through production of components and system assembling. The manufacturing plants (Exhibit 1) under the responsibility of the division include mechanical production plant, an optical plant, an electronic assembly plant, and administration of system assembly lines. The division's accomplishments are

achieved through the efforts of its diverse workforce, including line managers, quality engineers, technicians, inspectors, line workers, and integrators, to name but a few.

Through its production plants, procurement, and administration of assembly lines, the division is the provider of all products developed by Elop. It is also responsible to supply them to customers at the cost, quality, and schedule agreed upon. Systems produced and provided by the division are characterized by a combination of modern technologies that are at the forefront of science and rudimentary production means that are in compliance with very high performance and quality standards.

Products developed and produced by Elop

Elop's power of vision has generated a portfolio of products and systems that includes some of the most advanced solutions in the market today, based on valuable knowledge accumulated in the company during the years. Elop produces an array of sophisticated applications for land warriors as well as airborne, maritime, space, and tactical solutions, which are successfully deployed on thousands of platforms around the world. The 'SkyShield' (*Magen-Rakia'a* in Hebrew) system, which is only one of Elop's products, is presented here to illustrate the complexity of the products and systems.

The system is designed to protect commercial aircrafts carrying civilian passengers from MANPADS (Man Portable Air-Defense Systems) attacks, and its development process spanned over more than a decade. In 2009, the system was selected by the Israeli Ministries of Defense and of Transportation to defend commercial aircrafts operated by Israel's three commercial airlines. The systems will be provided to these companies as part of the government-sponsored security envelope they already receive for international operations.

Protecting the airlines in this manner was deemed a necessity in light of the proliferation in recent years of MANPADS missiles by terrorist organizations and narcotic cartels that have gained direct access to such weapons worldwide. MANPADS missiles have grown more accessible and sophisticated since the collapse of the Libyan army in 2011 and the availability of such weapons from alternative sources, including China and Iran.

The 'SkyShield' system (Exhibit 2) is employing a fiber-laser that defeats heat-seeking anti-aircraft MANPADS. This component is known as the Israeli C-MUSIC laser-based Directional Infrared Counter Measure (DIRCM). It consists of a compact fiber-laser that can effectively engage incoming infrared-homing missiles, thereby deflecting such missiles from their course. Once installed on the aircraft and switched on, 'SkyShield' is programmed to protect aircrafts automatically, without posing any environmental or safety hazards. The 'SkyShield' test series was one of the most complex tests ever conducted in Israel. The tests included a wide variety of threats. Passing several major milestones, the system was recently fully approved by the Israeli Civil Aviation Authority (CAA) at the Ministry of Transportation, the authority responsible for the civilian certification of the system.

Systems such as 'SkyShield', which integrate mechanics, electronics and optics, are developed and manufactured in Elop's production lines and compose the products portfolio that the company offers to its customers. This type of products requires meeting high quality standards, which in turn require strict procedures and meticulous working methods that are regularly implemented in the organization.

The establishment of the Innovation Club

When the new VP arrived to the Operations, Production & Purchasing Division, he was determined to enhance business results by implementing cross-organizational innovation processes based on practices of quality, efficiency and excellence. The goal was to encourage and motivate employees to actively participate in creating products of higher quality by improving, optimizing, and innovating

operational and managerial processes, which would also lead to a better working environment. The approach promoted innovation in each and every stage of the processes of management, supply, production, purchasing, and assembly.

Implementing innovation was achieved by applying the following components: (a) generation of ideas; (b) selection of ideas to be implemented; (c) execution of the selected ideas; and (d) continuous implementation, monitoring, and improvement. Each component in this chain is linked to the others and the output of one component serves as the input of the next one, making each link crucial for the creation of a successfully innovative environment.

The first task in the organizational culture change was to encourage employees to generate innovative ideas. Since existing organizational values were based on efficiency and accuracy, this change required a transformation in employees' perception of their workplace and expected behavior. At this point, the "Innovation Club" (originally named AGIR, the Hebrew acronym for the Production & Purchasing Division - "אגף ייצור ורכש") was established. Employees wishing to join the club were required to submit a proposal that presented a new perspective on how things may be better executed in the organization. Submitted proposals awarded their originators with "credit points", which were part of the reward system. The Innovation Club was open to all employees, but only those who took an active role in improving the workplace, processes, services or products, were admitted as members.

The new reward system established in the division was based on credit points that could be accumulated. Points were earned on a scale of one to ten for any new idea, while the main criteria was based on originality and not on the derived value that the organization may profit if and when the proposal will be implemented. The goal was "to encourage entrepreneurship and develop an entrepreneurial working environment" (quotation from a conversation with the VP). Credit points were given for making an effort and daring rather than evaluating the expected result of the suggested innovation. Proposals thus credited reward although they were not always, or not immediately, implemented. Nevertheless, it is hardly expected that rewarding with "credit points", which have no financial or any other tangible implication, would motivate employees to partake in the process and initiate actions that are beyond the defined responsibilities. Thus, at the preliminary stages, many employees were skeptical about the possibility to make a change, to the extent of showing disrespect. Attempting to overcome the objections and willing to achieve full cooperation in the process of conceptual change aimed at developing innovative thinking, led to rewarding approach based on periodical, transparent and fair assessment in which defined set of parameters are used. Proposals were evaluated for their level of creativity, entrepreneurship, and out-of-the-box thinking. The rewarding method enabled each and every one of the employees to be a member in the Innovation Club.

To move from the first stage of idea generation to the next stage of selection of those ideas that would be implemented, the Innovation Club Forum was established. The forum, comprising representatives from all the organizational units in the Operations, Production & Purchasing Division, manages the Innovation Club. It brings together different professional backgrounds as well as various hierarchical levels in the organization. The forum meets every few weeks to discuss and evaluate proposals and to decide how many credit points each proposal should earn. The decisions of the Forum are published in the organization and are open to all employees.

The following stages of executing chosen ideas and implementing a continuous process of improvement are manifested by the work of the multi-disciplinary Forum that also explores ways by which suggestions pertaining to a single, specific unit may be adapted cross-organizationally. Due to the multi-disciplinary characteristic of the Forum, decisions are executed immediately and whenever applicable, a proposal is expanded to be implemented in additional organizational units. The innovation cycle continues with a periodical monitoring process. The implementation control involves tracking of execution by representatives of the innovation Forum and professional assessment by subject matter experts. Post-implementation efficacy is evaluated by the quality team quarterly for lessons learned and continuous improvement process.

Barriers on the way to success

The Innovation Club was not enthusiastically accepted by all employees in the Operations, Production & Purchasing Division. Many were skeptical as to its success, to the extent of convincing their colleagues not to participate in this activity. The main obstacles and challenges can be summed up to the following four barriers to the Innovation Club's success:

- *Middle management opposition.* Middle managers in the organization are the direct managers of professional teams in a variety of fields. Almost all middle managers challenged the Innovation Club because it was new for them to experience a situation where junior workers can directly contact top managers by presenting proposals for new initiatives. The middle managers were afraid that the direct relationship between junior workers and top management would weaken their authority. In addition, the unsupportive behavior of the middle managers was, at least in part, a reaction to the employees' initiatives, since these implied that employees were not only aware of the difficulties and challenges, but had found a solution where the manager failed to do so. The entrepreneurial behavior of employees undermined the solid organizational order and gave them power that only strong leadership can handle with and empower for better results.
- *Insufficient organizational resources assigned to support initiatives.* Great efforts were invested in the professional assessment of each proposal, and additionally, some proposals required a significant investment of resources that would yield beneficial results only in the long run. At the time, organizational priorities aimed to increase short term ROI (return on investment), so employees and middle managers had little confidence that top management would be willing to take long term proposals to the phase of implementation.
- *Junior employees' concern to offer new ideas.* Many employees, particularly those who were inexperienced and positioned in the lower hierarchical level, lacked the confidence to propose something new to their managers without prior confirmation. Young, immature, and non-professional employees are especially afraid to fail, and their fear grows worse if they already tried once and failed.
- *Employees distrust in rewarding.* Many employees had participated in the past in different organizational initiatives aimed to improve quality, yet frequently they felt that their efforts were not adequately appreciated, especially by their managers. Rewards were often too little and came too late. Employees were frustrated that their past contribution to the organization was not fairly rewarded, either by financial compensation or otherwise.

These managerial, organizational, and personal barriers set a high bar for leaders at Elop who wished to transform their traditional, production-oriented workplace into an innovative environment. The organization faced challenges that require a different organizational behavior of workers, middle managers and top managers, and a new organizational culture that employs creative and innovative thinking along with defined evaluation procedures.

Institutionalizing a culture of innovation

The challenge was to overcome these barriers, constraints, and limitations and to foster employee motivation for innovation while facilitating a sustainable change from the organizational perspective as a whole. The management formed several organizational tools to execute the change processes. The leader of those changes was the new VP, who arrived at Elop with an exceptionally appreciated professional background in the defense industry, mainly in special R&D projects and programs. He was perceived as an experienced manager with outstanding qualities and capable of making the right decisions, thus inspiring employees to initiate actions that would help achieve desired goals, especially in a traditional-productive environment. He encouraged employees to think of creative suggestions and innovative solutions, to question assumptions and to seek innovative approaches in their work. One

example for this type of initiatives is a proposal offered by a worker in the manufacturing department who used to work for many years near an oil based polishing machine. The work with oil resulted in dangerous toxic waste that had to be removed from the site on a regular basis. The worker identified a similar activity, performed in another plant in the division, based on water with additional unique substance. Even though the activity in the other plant was performed to produce another type of material, the worker was inspired to propose a new method of working. He was encouraged to test the feasibility of using this substance in the current environment and due to the positive outcomes the working method was changed. This initiative resulted in better quality of the environment and in decreased logistic costs.

The explicit expectation that all employees be creative combined with the positive and supportive reaction to their ideas helped alleviate employees' fears of failing while increasing their self-confidence and passion to partake in the change process.

During the organizational change in the Operations, Production & Purchasing Division, the employees went through an additional change, which caused them to feel they are part of a leading defense company, and not only belonging to the manufacturing industry. This change can be represented by a case in which a worker in the mechanical plant proposed a solution to shorten the required time for transmitting a file from the technologist to the CNC (computer numerical control) machine. In the past, the file transmission took about 45-60 minutes and during this time the CNC machine, its operators, and the technologist could not work. The implemented proposal led to latency timing of about 2 minutes, which obviously increased resources efficiency. Moreover, the new structure of the file enabled the engineers to design more complex and accurate parts. This proposal shows that the worker can identify a problem and present a computerized solution that goes beyond his "regular" professional responsibility. The proposal that was first developed in Elop was later adopted by the software producer for the benefit of all its customers.

This individualized consideration was highly appreciated by the employees and used to leverage their perceived social-organizational position. The Innovation Club offered every employee the opportunity to present their competencies and capabilities to managers of different levels in the organization, from direct supervisors to top management. Through a combination of formal and informal approaches to the encouragement and management of the innovation process, both employees and managers in the Operations, Production & Purchasing Division embraced proactive behavior and became engaged in the long-term ongoing process of cultural change in the organization. Managerial strategies used to produce these results included personal and professional competitiveness, inter-organizational ceremonies, and the encouragement of organizational champions to become change agents.

Champions, competition and ceremonies

A few champions, including social leaders and professional mentors, were the driving force to organizational change. Champions were defined as persons at any level of the organization who were leaders and who had a group of followers comprising employees, managers, or both. These champions were identified in different organizational contexts, such as subject matter experts, union leaders, or coordinators of social groups. The strategy was based on using the existing infrastructures for the benefit of change. Thus, the natural leaders, who were acting in various circles, were "recruited" to lead the process. The main goal was to understand their needs and priorities as well as to identify any gaps between existing circumstances and preferred ones. Expressing interest in the preferences of the champions was the first step in enlisting their cooperation and involvement. The champions were encouraged to initiate changes and offer new ideas related to their fields of interest. They were empowered as visionary leaders who can make things happen. Once this group of "local" leaders took action and submitted proposals to the Innovation Club, their followers pursued in their footsteps.

Furthermore, the champions facilitated the process by networking with their respective groups and helping other members by advising them in the proposal submission process.

With the initiation of the Innovation Club activity among champions, and later among group members, a spirit of vividness and refreshment spread in the organization. However, this intense energy could not last for long, and it was expected to decline as time passes. In order to maintain consistent innovation activities among employees and managers it was decided to move to the next stage, and the name of the game became competitiveness.

Building on the very intuitive and natural desire of people to win and to be recognized as winners, the Innovation Club announced two tracks of competition: individual and plant-based. Points (on a scale of 1 to 10) granted for originality, creativity and contribution to organizational processes as well as product quality would be accumulated throughout the year for both individuals and plants. Open to all and offering an equal opportunity to both managers and employees to win, the individual competition became a key motivating factor for innovation in the organization. It appeared that every manager and employee had the desire to be at the top of the list and be recognized as a leader. The plant competition aimed to stimulate middle managers to take responsibility for creating a creative and innovative working environment. The competition between the different plants of the Operations, Production & Purchasing Division demolished the prestigious differentiation that used to exist between them while allowing top management to compare the performance of each plant based on both efficiency and level of innovation. The competitive playground created was thus fair, open to all and equal to all, endorsing the approach "let the best entrepreneur win".

The competition takes place in a continuous and constant method to sustain a high level of enthusiasm and a keen interest amongst employees and managers. The winners in the competition do not receive any tangible or financial compensation but expect recognition and appreciation from colleagues and managers. As public recognition is valued by all employees, the best proposals were advertised on posters and brochures in different places in the organization. The formal recognition of employees' contribution motivated them to continue their involvement and made them proud of their achievements.

To this day, recognition is further manifested in celebrations at special events. Individual winners, representatives of the winning plant, and leading participants of the Innovation Club (as per their accumulated credit points) are invited as honorary guests to an event that is led by the organization's top management. These players are individually called upon during the event to accept a reward from the manager of the Operations, Production & Purchasing Division. The reward – which might be a book, a bottle of wine, a weekend retreat for two, or any other token of appreciation – is always stamped with the Innovation Club's logo (Exhibit 3). It is given to individuals personally in the presence of the organization's top management. Employees regard the opportunity to meet the top managers in person as an additional benefit to the reward. Other ceremonies are occasionally performed for exceptional proposals or in proximity to other events to cherish innovation. These unexpected rewarding ceremonies are most appreciated by the employees and motivate them to continue their contribution through the endorsement of the entrepreneurial spirit because they know they may be appreciated and recognized at any time. The unknown factor in this type of recognition, which is when and in what form they might be rewarded, produces an extra layer in employees' incentive to innovate.

To summarize, the social-cultural change in the organization was not easy to accomplish. It faced many obstacles. However, thanks to massive management support and the exercise of a variety of tools and techniques, this change was accepted by most of the employees and was utilized to leverage their intra-organizational status. In accordance with the vision and goals of the Innovation Club, the employees were evaluated based on creativity and entrepreneurship, in addition to the common criteria of efficiency and productiveness. It was further decided that in order to achieve systematic innovative activities, where new initiatives were examined by a well-defined mechanism, documented to become part of the organizational body of knowledge, a dedicated information system was thus established.

Organizational information system

To support the Innovation Club as a continuous and sustainable platform of improvement, management had decided to develop a special information system that would facilitate the proposal submission process and make it transparent to all members of the division. All employees have full access to the system, allowing them not only to submit proposals but also to review proposals submitted by others. In addition, the management team has access to summary reports related to submissions by individuals, plants, topics, and other categories of interest (Exhibit 4).

The submission process takes place online and includes a detailed description of the proposal and attachment of related documents. Acknowledgement of submission is automatically sent to the submitter while the proposal is forwarded to the direct manager for his input and recommendations. Whether endorsed or rejected by the direct manager, the proposal and newly added assessment are forwarded to the plant manager who adds their own assessment and recommendation for implementation. Whenever necessary and at any stage, the proposal may be forwarded to a subject matter expert in the organization for input on feasibility and further recommendations.

With those assessments and recommendations, submitted proposals then reach the Innovation Club Forum, which meets every few weeks to discuss all proposals given their related recommendations and status of implementation. The Forum includes representatives from all the sub units in the Operations, Production & Purchasing division. The Forum assesses the operational and business value that can be derived from the proposal, and evaluates its originality and creativity. Beyond business value and creativity, the Forum also monitors the process of evaluation with respect to both a timely response and a professional attitude of the respondent. This part of the process offers top management additional data in their evaluation of middle managers and other stakeholders with regard to their commitment to the organization, their leadership skills, and their managerial capabilities. The decisions are documented in the information system and the submitter receives immediate feedback on the proposal and an update regarding the granted credit points.

Since these assessments are available to all employees in the division, including the originator of the proposal, transparency had become a key value in the organizational culture. As a result, employees are now more open than they used to be, and they are not afraid to present their perspectives, ideas, or opinions.

Results

In its first seven years, the Innovation Club has instigated the submission of 5,140 proposals by 348 employees and managers. On average, every quarter 183 new proposals were submitted from which 93% were approved for implementation and only 7% were rejected. Among the approved proposals, 74% were implemented immediately or within a very short period. The remaining 26% involve a longer process of implementation, mainly due to their long-term implications or misalignment with current organizational goals as actual implementation is based on priority. This group of proposals is nevertheless considered organizational assets that may be utilized at a later stage and is exploited according to the organization's annual work plan.

The overall improvement in quality and efficiency, which are the direct result of the Innovation Club's activities since its inception, is especially manifested in the division's profitability. While specific profitability data is confidential and cannot be presented here, the trend of growth is evident. The division has been showing consistent ongoing improvement in efficiency in nearly all aspects of production and supply chain, including: financial results, meeting and shortening schedules, flow of production material, utilization of production resources, and growing customer satisfaction due to improved products of higher quality delivered in shorter periods and at lower costs.

Strategy: "Managing innovation in a dynamic environment"

ADI DAR, GM, ELBIT SYSTEMS INTELLIGENCE AND ELECTRO-OPTICS – ELOP LTD.

Adi Dar was appointed to the position of General Manager three years after the inception of the Innovation Club. He had an impressive record of accomplishment as VP for marketing in Elop and successful experience in the High-Tech industry. Adi describes Elop's innovation strategy and the role of the Innovation Club within it:

Elop is a technological organization that was established as a leading organization aimed to develop groundbreaking products for the defense industry. The business environment is dynamic, forcing the organization to adjust itself to market changes. These are mainly expressed in the transition from large, expensive defense products to small, cheap commodity products, such as night vision devices or imaging sensors. Elop's strategy is based on its necessity to constantly be on the edge, to go beyond defense boundaries, and to reinvent itself in the market so that it may continue to be as relevant in the long run. Due to the frequent changes in customer needs and preferences on the one hand and rapid technological developments on the other hand, it is quite clear that the company's core strength lies in its human capital.

Elop leads innovation processes not only in technology but also, and mainly, in working processes. During the past few years, the company had undergone significant changes, and today the company's DNA is much more creative and assertive than it used to be. It would have been quite easy to apply these changes only in the company's research and development units, but in order to achieve overall organizational success it was necessary to successfully implement them in the Operations, Production & Purchasing Division. The VP of this division wisely succeed performing a transduction of this new DNA in a large organizational unit that comprises an experienced, veteran workforce that has grown accustomed to being part of a leading successful company for many years. Those workers were complacent and not interested in changing their ways. Naturally, the implementation of innovation, entrepreneurship, and creativity in all the organizational activities and throughout its units increases long-term organizational value.

The major challenge that the top management faces is to sustain this spirit of innovation while keeping the Innovation Club as dynamic as it had been so far. Top management should continuously examine meta-innovation in a way that will answer the following questions: which additional directions to innovation should the company develop? How to encourage creativity and create synergy to innovation between different organizational units? and also – how to innovate the Innovation Club?

Innovation: "Creativity that creates value"

HAIM RUSSO, VP FOR ENGINEERING AND TECHNOLOGICAL EXCELLENCE, ELBIT SYSTEMS

Haim Russo was the direct manager of the new VP when he first arrived to the Operations, Production & Purchasing Division. Today, as the VP for engineering and technological excellence in Elbit Systems, Haim Russo explains how the initiatives taken by the new VP in Elop are aligned with the corporate strategy:

The strategy embraced by Elbit systems is to continuously develop and grow in the market. However, due to its maturity, the security and defense market is not expected to significantly grow in the coming years. It is also considered to be in equilibrium regarding supply and demand as well as pricing. As an Israeli company operating in the global market, Elbit's competitive advantage cannot be achieved in through pricing or marketing. Israeli labor, compared to other countries, is expensive, especially in an industry that maintains very high technological and engineering professional requirements. Marketing is not among the company's strengths either because the company contends in foreign markets – America, Europe, and Asia – with which local competitors are better acquainted. Given a stable market

size and these limitations, Elbit's strategy to increase its market share within the existing market involves the development of competitive advantages.

Elbit strategy is to increase its market share by “actively taking the initiative in identifying individual defense needs of our customers throughout the world” (www.elbitsystems.com). The company focuses on research and development activities designed to provide tailored solutions to these needs. The company thus invests its efforts in technological innovation that would create the competitive advantage necessary to effectively compete in the security and defense market. Technological innovation is obviously supported and promoted in the R&D division of the company, but it is also encouraged in Elop's Operations, Production & Purchasing Division. In other similar organizations, this division would typically be encouraged to foster discipline and comply with regulation. The policy in such organizations is to follow procedures, standards, rules, and reporting systems to ensure the correct production of the specified product. There is usually no room for employees to think out of the box, to explore new opportunities, or to try new processes in this type of organized operation. Elop's Operations, Production & Purchasing Division proves that no conflict exists between order and discipline in execution and open-mindedness for innovation and entrepreneurship in the workplace. The new VP took steps to foster trust among middle managers and employees and to gain their understanding that he is committed to the cultivation of innovation, entrepreneurship, quality, and excellence as the organization's core values.

The next step

At this point, Elop's Operation, Production & Purchasing Division is implementing cross-organizational processes of innovation. Nearly all employees are involved in the activities of the Innovation Club, starting with top and middle management, through team leaders, and down to production line employees. Yet, the ongoing personal influence of the VP is a significant factor in the successful implementation of the process. At some point in the near future he is expected to leave the company. He would be replaced by a new manager, who will bring in her or his new agenda, priorities, and personality that will govern the process. So much has been created in the past few years, and so much can still be achieved as long as the culture of innovation and entrepreneurship is sustained. The main question to be answered is: **What actions can the organization take in order to institutionalize its culture of innovation and excellence for years to come, despite the change in leaders?** More specifically, the company wishes to know: Which additional directions to innovation should it develop? How a sustainable innovative activity, which is required in the dynamic business world, can be achieved? How might the company encourage creativity and create synergy to innovation between different organizational units? What is the best way to promote entrepreneurship? and finally, how to innovate the Innovation Club?

Appendices

Exhibit 1: Organizational structure of the Operations, Production & Purchasing Division

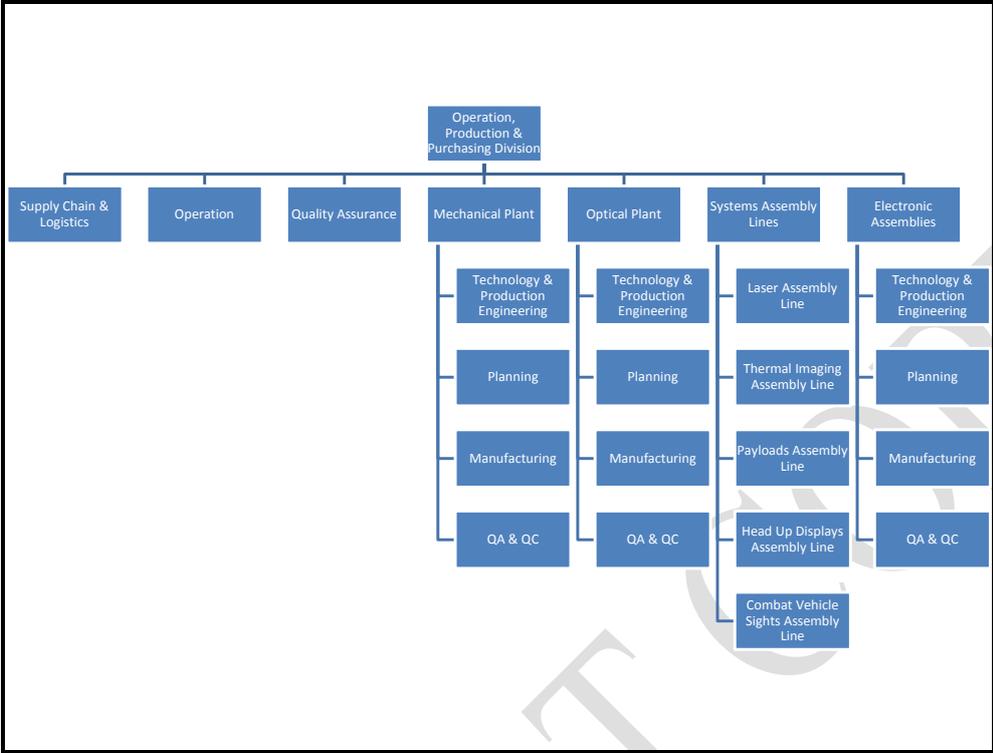


Exhibit 2: Skyshield and C-Music projects



A C-MUSIC system has been installed on one of El-Al Boeing 800-737 aircrafts.
Photo: Elbit Systems



A C-MUSIC system has been tested on one of the Israeli Air Force Boeing 707 flying tanker.
Photo: IMOD

Exhibit 3: Innovation Club logo & reward ceremony

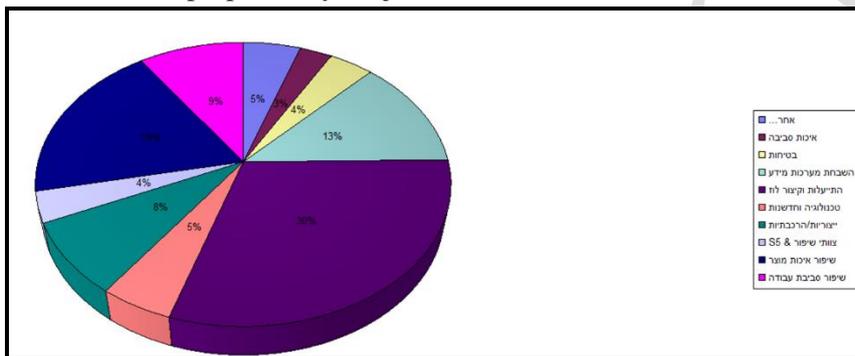


Exhibit 4: Innovation Club information system reports

Proposal query screen

מספר הצעה	סטטוס	מספר עובדי	שם עובדי	מספלי	סיווג התחביר	התבנית הישומ	התבנית לתבנית	תאריך פתיחה	שעת פתיחה
1	מזוי	3243		מספלי ייחודי מבו	פיקול הרכבת הרכבות הימני מספלי מבו מבו 4993- מספלי מבו מבו 3010-00, 1000	False	False	7/31/2007 12:00:00 AM	
2	מזוי	3294		מספלי ייחודי מבו	מספלי ייחודי מבו מספלי מבו מבו 4993- מספלי מבו מבו 3010-00, 1000	True	False	7/31/2007 12:00:00 AM	
3	מזוי	2590		מספלי ייחודי מבו	מספלי ייחודי מבו מספלי מבו מבו 4993- מספלי מבו מבו 3010-00, 1000	True	False	7/31/2007 12:00:00 AM	
4	מזוי	1885		מספלי ייחודי מבו	מספלי ייחודי מבו מספלי מבו מבו 4993- מספלי מבו מבו 3010-00, 1000	True	False	7/31/2007 12:00:00 AM	
5	מזוי	491		מספלי ייחודי מבו	מספלי ייחודי מבו מספלי מבו מבו 4993- מספלי מבו מבו 3010-00, 1000	True	False	8/6/2007 12:00:00 AM	

Distribution of proposals by subject



Distribution of proposals by organizational units

