

CEE in Companies Evaluated by Engineering Organizations: EDP Distribuição Practices

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ABSTRACT

Several professional engineering organizations have joined efforts to promote CPD in engineering companies following the example of the Institution of Engineers Ireland. The project was approved for funding by the European Commission under the program Leonardo da Vinci, Transfer of Innovation. The project started in October 2010 and will end in September 2012. The site is http://www.cpdeurope.eu/. The model was tested with companies of each of the other countries in the project to evaluate the possibilities of transferring that innovation to the other engineering organizations. The first audit by the project partnership happened at the end of May in Lisboa, Portugal, In Ireland, Engineers Ireland (the professional body for engineers in Ireland) and the Irish Government (through the Dept. of Education & Skills are our funding stream now though) have co-financed and developed over the past decade an excellent framework model which employers of engineering professionals can use to connect disparate training, learning & development initiatives under a best-practice umbrella. The recommended processes in the standard serve to improve performance, develop engineering and technical professionals and bring about measurable business benefits. In essence, the standard provides a framework for employers to support good practices in the area of lifelong learning for engineers and technicians. It is designed to reflect the ever-changing environments in which engineering and technical professionals work and learn. The scheme is an independent acknowledgment of the ongoing mastering of new competences for professional engineers and technicians. The guidelines incorporate current and emerging best practice and distil the good CPD systems and practices that have helped the leading employers of engineering professionals to harness talented minds in creating a strategy for business success. The case study in EDP Distribuição is presented and results are analyzed. The case study is described in detail to have an overview of the aspects that were considered during the pilot auditing of the European project.

Keywords

CEE, CPD, accreditation, professional practice, award, European, project

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INTRODUCTION

Over the past 10 years, Engineers Ireland and the Irish Government have co-financed and developed an excellent framework model which employers of engineering professionals can use to connect training, learning & development initiatives under a best-practice umbrella: Engineers Ireland Continuing Professional Development (CPD) Accredited Employer Standard.

Founded in 1835, Engineers Ireland is the trading name of the legal entity The Institution of Engineers of Ireland. With over 24,000 members, Engineers Ireland is one of the country's oldest and largest professional bodies. The primary role is to be the representative voice of the engineering profession in Ireland. Engineers Ireland is different from other engineering bodies in Ireland in that we represent all disciplines of engineering at all levels, from technician to PhD. Engineers Ireland organises a comprehensive national and regional lifelong learning programme of papers, CPD lectures, debates, discussions, CPD seminars, CPD conferences, training courses and site visits.

In Ireland, Engineers Ireland is the leading body with regard to lifelong learning for engineering professionals. The CPD framework, running since 1999, is Government funded and has already been presented as a best-practice case study to the European Committee of the Regions where it was strongly endorsed as an EU model. Engineers Ireland are currently taking part in a Leonardo da Vinci Transfer of Innovation project with the objective to share the expertise of the Engineers Ireland Continuing Professional Development (CPD) Accredited Employer standard with four other European partners from Portugal, Romania, Slovakia and Slovenia. The successful completion of the project will be a proposed European CPD Accreditation framework for employers of engineers, technicians and technologists.

This project, that is presented, is funded 75% by the EU Commission's Leonardo da Vinci Lifelong Learning Programme and 25% by the participating partners in the project. Several professional engineering organizations have joined efforts to promote CPD in engineering companies following the example of the Institution of Engineers Ireland. The project was approved for funding by the European Commission under the program Leonardo da Vinci, Transfer of Innovation.

PROJECT METHODS

Since the launch of Engineers Ireland CPD Accredited Employer Standard in 1999, over 130 organisations in Ireland have been accredited with many more engineering employers working towards seeking accreditation. A full listing of accredited organisations, spanning all sectors of engineering, is contained on the CPD Section of the Engineers Ireland website. (http://www.engineersireland.ie/cpd/cpd-employer/participating-organisations/).

The recommended processes in the standard serve to improve performance, develop engineering and technical professionals and bring about measurable business benefits. In essence, the standard provides a framework for employers to support good practices in the area of lifelong learning for engineers and technicians. It is designed to reflect the everchanging environments in which engineering and technical professionals work and learn. The scheme is an independent acknowledgment of the ongoing mastering of new competences for professional engineers and technicians. The guidelines incorporate current



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and emerging best practice and distil the good CPD systems and practices that have helped the leading employers of engineering professionals to harness talented minds in creating a strategy for business success.

The criteria are designed so that employers of every size, in every sector of engineering can ensure that CPD is used as a KEY organizational driver to address the demands of the coming years, and do so in an innovative and dynamic manner. Ultimately the scheme assists employers to move up the CPD and business value chain!

The benefits of gaining accreditation are demonstrable, including the ability to:

- a) Maximise the potential of employees
- b) Optimise investment in training and development
- c) Create and maintain an innovative and dynamic culture
- d) Motivate engineers and technicians
- e) Facilitate & support diversification and entry into new markets, services and processes
- f) Improve recruitment, retention and succession planning
- g) Confer competitive advantage
- h) Raise profile and increase networking opportunities
- i) Benchmark to key organisations in relevant sector

For and organisation to attain the Engineers Ireland CPD Accredited Employer Standard it has to follow established procedures and respond adequately to the requirements of the adopted criteria. These criteria were the result of a sequence of studies, of analysis, of reflections, of tests and of improvements.

The first steps towards gaining CPD accreditation involves Engineers Ireland conducting a Gap Analysis and review of CPD policies and practices currently used by an organisation. There are eight key criteria which are mandatory to receive accreditation. There are:

- 1. Internal CPD Committee
- 2. CPD Policy
- 3. Performance Management & Development system
- 4. Formal CPD (average of 5 CPD Days per annum including all CPD activities i.e. not just training)
- 5. Mentoring for professional development
- 6. Linkages with Professional Institutions/Learned Bodies
- 7. Knowledge Sharing Activities
- 8. Evaluation of Impact of CPD

Once an organisation is satisfied that the key criteria are addressed, the organisation prepares a written submission for submittal to Engineers Ireland. An Audit panel of three people including an external expert auditor will then conduct a half day audit against the eight criteria. Should the organisation successfully demonstrate that it meets the criteria, it will achieve Accredited Employer status, normally for a three year period after which a reaccreditation audit is conducted.

CASE STUDY - EDP DISTRIBUIÇÃO

EDP Distribuição was the Portuguese pilot company chosen by the Portuguese Institution of Engineers, in partnership with the Institution of Engineers Ireland, to participate in the



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Continuing Professional Development (CPD) Accreditation Best-practice Framework of Employers of Engineers and Technicians Project, funded by the European Commission under the Leonardo da Vinci Transfer of Innovation program.

During the visit, EDP Distribuição guided the project team (members of Institution of Engineers Ireland, General Association of Engineers Romania, Slovenia, Slovakia and of the portuguese Institution of Engineers) through the CPD Accreditation Scheme eight mandatory criteria, showcasing its Continuing Professional Development practices. Following this auditing period, the project team considered that EDP Distribuição presented enough evidence for all the analised criteria in a consistent manner, also identifiying several practices regarded as CPD Best Practices in the Accreditation scheme.

EDP Distribuição is part of EDP Group – Energias de Portugal, a company with a unique backround and a promissing future that believes people are its key source of energy and competitiveness.

EDP Group – Energias de Portugal, is one of the major European players in the energy sector and one of the largest energy operators in the Iberian Peninsula, the largest portuguese industrial group and the 3rd largest producer of wind energy, employing 12,000 people. Besides electricity, production, distribution and marketing sectors, EDP Group also has a significant presence in the Iberian Peninsula gas sector and it is the only Portuguese company which integrates the Dow Jones Sustainability Index (World and STOXX), one of the world's most demanding indexes, that distinguishes the best performing companies on issues related to transparency, sustainability and excellence in economic management and social environment.

EDP Distribuição, in alignment with the Group's vision, aims to be the leading operator of Iberia electricity distribution networks and a reference in Europe, noticed by its ability to generate risk controlled attractive investment, by the excellence of service quality and ability to relate with customers, its transparent sustainability and social responsibility policies, and by the high level of motivation and competence of its people.

EDP Distribuição operates in a regulated environment, where prices are set by the Regulatory Authority, and employs about 3600 people, 750 with professional qualifications, nearly 500 of whom are engineers in the areas of building, operating and maintaining the electricity network in Portugal.

Training and development policies

The training policy, common to EDP Group, reflects the aim of ensuring the development and updating of knowledge and skills of individual employees as an essential condition for their professional satisfaction and achievement.

Being aware that training requires commitment and dedicated joint efforts of all its various actors, the training policy is based on the following principles: Individual Development, Organization Responsibility, Business Alignment, Knowledge Management and Share with Society.

On the other hand, as a way of responding to all the employees professional development aspects, training in EDP Distribuição is based on the following aspects:

- Advanced training, which comprises MBA's and post-graduate programs for executives;
- Transversal training in the Group, developed by EDP University through EDP School and Managers Development School;



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- Specific business programs promoted by the Schools of EDP University and by enterprises;
- Technical training and individual development promoted by EDP Valor Training, Recruitment and Documentation Department.

Needs identification methodology

The training needs diagnosis process is based on the active participation of hierarchies and their employees. Each hierarchy should be able to identify the training needs of its employees – according to business and workplace requirements – and to support the identification of adjusted training solutions, giving the employee information about the available offers and the adequate internal procedures.

Following the annual feedback meeting held during the assessment process, the hierarchy and each employee discuss the areas of improvement and on priority actions to take in order to strengthen the technical, strategic and behavioral aspects. The Individual Development Plan (IDP) is defined and should include, in addition to other development initiatives defined within the function, the training actions of the training plan for the following year.

The training needs included in each of the employees IDP, as well as the ones that result from the needs associated to specific projects, fall in to two levels:

- **Strategic Level/Macro**: needs identified by EDP University; Advanced Training needs and Transversal Training needs identified by the Corporate Center or by relevant transversal projects;
- **Micro Level**: employees put on line in EDPessoa (system used to manage and control training) their needs wich are validated by the respective hierarchies, by the Human Resources Directorate and by the Board of Directors.

In 2011, the conducted training activities resulted in an average of 54 hours per top level employee, exceeding the minimum legally required value of five days (35 hours) of training.

Development Programs

EDP Distribuição seeks to value its employees through the development of their competencies, aligned with the company's strategic goals, aiming at greater profitability and service quality provided. It also pursues high levels of motivation and satisfaction. To fulfill this purpose, the HR Directorate implements development programs for its employees, in close connection with the HR Directorate of the Corporate Center.

EDP University

The initiatives developed by **EDP University** aim developing the knowledge and the talent of its employees in order to reinforce the corporate culture as a competitive advantage of the Group. This is done aiming an excellent customer service, as well as boosting innovation and sustainability.

EDP University started its activity in 2009 and it is divided in to Transversal Schools (Managers Development School and EDP School), and in Functional Schools (EDP "Produção" School, EDP "Distribuição" School, EDP "Gás School" and EDP "Comercial" School).

Managers Development School whose purpose is creating a style of management and leadership that promotes competitiveness in the Group's management project. This is made according the values and commitments expected from an EDP manager, meeting individual and organizational needs of professional development. Within this School, two programs



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were launched: the **Energizing Development Program**, that fosters the development of behavior and soft skills of top level employees under the age of 35, with potential for progression within the company, and the **Executive Development Program**, directed to managers and senior top level employees, seeking the development of leadership and management skills.

EDP School has an important role in transmitting transversal knowledge (technical and cultural) to the entire Group. This school has four large groups of audience: newcomers (seniority of less than 2 years), junior top level employees (up to 35 years old), senior top level employees (aged over 35 years) and EDP population (to participate in transversal programmes like culture or innovation). Currently EDP School holds its training offers structured in four distinct areas: business, business finance, dissemination of EDP culture and innovation.

"Distribuição" School has the goal of preserving, developing and effectively disseminating the key knowledge of EDP Distribuição business, in all locations, therefore representing a crucial CPD investment to tackle the future challenges for EDP Distribuição, and contributing to making the company a reference in the electricity sector. Its purpose is to manage and foster the professional development of employees working in distribution. It involves the board in creating a culture of learning, in sharing knowledge and boosting employees performance, actively managing the mutual commitment of the company and its employees. Training facilitates the acquisition of key knowledge and of the necessary skills to improve performance and supporting the integration of new professionals in both values and principles of EDP's Group, and in EDP Distribuição structures, methodologies and specific business processes. EDP "Distribuição" School has courses suited for Junior and Senior top level employees and for Managers.

Corporate Development Programs

At the Corporate level, we have, among others, EDP University initiatives and the Valuing Experience Program.

The **Valuing Experience** program seeks to enhance and to leverage the experience and know-how accumulated by the Group's employees. This program is directed to employees with more than thirty years of seniority, from all functions and from all locations. The program deserves being highlighted due to the chance and added value given to the senior employees so they may share and place their knowledge at the service of the company.

EDP Distribuição Development Programs

The "**Arquimedes**" is a Coaching Program which aims promoting behavioral changes, developing leadership and management skills of recent managers and of managers with new job challenges. The goal is to empower them in order to achive a performance of excellence aligned with the organizational values and the culture of the company. Top managers of EDP Distribuição play the role of Coaches.

"Sextante" is a Mentoring Program that consists of having each young top level employee associated with a senior one of recognized merit. The latter assumes the role of Mentor, advising and guiding the mentee professionally to overcome technical, managerial and relational difficulties.

"Navegar" is a Mobility Program. Its main purpose is to promote the mobility and versatility of top level employees and to foster openness to change. It is expected to increase levels of



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satisfaction and motivation, accelerating knowledge sharing.

Partnerships with professional institutions and universities

EDP Group, looking to provide the development of technical, management and leadership competencies of its employees, has established various agreements and protocols with portuguese academic institutions and Universities.

Knowledge Sharing Activities

EDP Distribuição has given special attention to the strategic importance of sharing the collective wisdom and experience of senior engineers with younger professionals. The initiative "Internal Knowledge Retention and Development" was implemented within the framework of knowledge management, to strengthen this involvement and generating and sharing knowledge.

In this iniciative together with the systematization work and identifying the activities where knowledge must be retained, actions and strategies were identified in order to promote critical knowledge transfer (e.g.: storyboards, seminars, conferences, internal training, good practices and networking Workshops, mentoring, coaching and shadowing programs). A "Knowledge Repository", is also created which intends to be a database of knowledge and of experience containing the support material of internal actions and workshops that have been conducted, and its contents are available on the Group's Virtual Library.

Mentoring also plays an important part in this knowledge sharing exercise alongside SMS (Saiba Mais Sobre/Learn More About), the "Who's Who" staff database and the apprenticeships that new employees develop on secondary areas during the integration period.

Personal Development Plan impact assessment

Annually, employees participate in a competencies evaluation system that allows them to identify strengths and areas of improvement for the Individual Development Plan.

Currently, a 360° evaluation system (self-assessment, leadership assessment, peer and employees) is implemented for management and for the remaining top level employees a 180° system (leadership and self-evaluation).

EDP Distribuição also assesses the impact of its Development Programs through a survey sent to the participants at the end of each program.

In addition, regarding technical training and individual development promoted by EDP Valor Training, Recruitment and Documentation Department, in order to improve the methods used to evaluate the training courses effectiveness and better assess the success factors, the application of Kirkpatrick's Learning Evaluation Model is being developed.

Kirkpatrick's four-level model (student's reaction - what they thought and felt about the training; learning - the resulting increase in knowledge or capability; behavior - extent of behavior and capability improvement and implementation/application; results - the effects on the business or environment resulting from the trainee's performance) is considered an industry standard across the HR and training communities.

This model implementation will allow a full and meaningful evaluation of learning.

CONCLUSIONS AND NEXT STEPS



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Conclusions

EDP Distribuição Human Resources policies and strategy are aligned with the Business needs in terms of efficiency, human capital, culture and challenge. In the human capital dimension, the priority is set on identifying and implementing development programs that value employees by boosting their competencies. This mission is carried out in close connection with the Corporate HR and with EDP University, included all of EDP Distribuição top level employees between 2008 and 2011.

Regarding its employees development practices, EDP Distribuição received a "Special Appreciation Certificate", for its cooperation and performance regarding engineers Continuing Professional Development (CPD), given by the project coordinator, developed under the Leonardo da Vinci European program, that promotes long life learning and aims at creating an European accreditation model of the companies that foster the continuing professional development of their top level employees.

The model proposed by Engineers Ireland has been tested in all countries. The preliminary results present positive conclusions that are the result of the four pilot audits made with different engineering companies. The four types of companies were a company of energy distribution, a company involved in the construction and management of transport infrastructures, an engineering training center and an automotive components producer. The diversity of companies in different cultural and working cultures has been an excellent testing that proved the reliability and usefulness of the method. These tests also originated suggestions for improvement of the method and of the procedures.

Next Steps

In its pursuit of innovation and continuous improvement, EDP Distribuição plans to develop actions that provide answers to the suggestions pointed out by the project team. Namely: benchmarking with other international companies in the energy sector in order to enhance the knowledge management process at the innovation, efficiency and sustainability levels; invest in e-learning and blended-learning training, register CPD internal and informal training initiatives and training acquired through external institutions. In July 2012, a formal visit audit to EDP Distribuição will be conducted, similar to the pilot visit that took place under the CDP Accreditation Scheme.

Concerning the project the next steps consist in the proposal of a model to be used in an European context that can be adopted by engineering professional associations willing to proceed with the awarding of companies. In fact it seems, from these tests, that CPD in engineering is global and just needs adaptation to cultural and working conditions in each country or region. It is also expected that the project will be followed by another proposal to continue the improvement of the procedures for wider scenarios.