PM@SIEMENS: THE PROGRAM, THE METHODOLOGY AND CULTURE EXPANSION OF PROJECT MANAGEMENT

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ABSTRACT
This article presents the PM@Siemens, a worldwide SIEMENS project management program started in Germany in 2001, with the purpose of disseminate and standardize in all company the project management methodology. The program is being implemented in SIEMENS Mercosur (Brazil, Argentina and Chile). It is also presented the PMP® (Project Management Professional) from PMI® (Project Management Institute) certification courses and training that are being conducted. The idea of the paper is to show how the program, these courses and certifications are changing the project management culture inside the company.

Key words: Project Management, Methodology, Culture, Training.

INTRODUCTION
A project is a temporary endeavor undertaken to create a unique product or service. Project Management is the application of knowledge, skills, tools and techniques to meet the project requirements [1]. The world today works with projects. This could be demonstrated by the number of companies adopting the project management methodology [2]. The utilization of this methodology is bringing direct results on the projects objectives, resulting that the projects are being completed with the time and cost determined and concluding all the desired scope.

SIEMENS is a Germany based company, with more than 150 years old (more than 100 years in Brazil), with more than 400,000 employees, placed in almost 200 countries. The company produces and installs a great variety of electrical, electronic and telecommunication equipments, applied in several different areas: Telecommunications (Mobile and Fixed), Industry, Medical, Energy Generation, Transmission and Distribution, Transport Systems, etc. In the most cases, the company provides not only equipments, but complete solutions trough specific projects adapted to attend the necessities of each costumer. Observing that the great involvements of the Business units are related to projects, in 2001 SIEMENS starts in the headquarters the project management initiative called PM@Siemens. In parallel with this initiative, courses and training were generated to provide the qualification and certification of the project managers. The PM@Siemens program, the training and courses destined to the PMP® certification provided a culture change in the way projects are managed at SIEMENS Mercosur (Brazil, Argentina and Chile).

THE PM@SIEMENS PROGRAM
The PM@Siemens is a worldwide program for implementation of a project management methodology that covers from the sales phase to the final acceptance by the customer. It seeks to improve the financial and technical results of the projects, through the change of existent best practices inside the company and in the market.

The program started in SIEMENS Germany in 2001 and in SIEMENS Mercosur (Brazil, Argentina and Chile, presented in Figure 1) in 2003, currently in final implementation process. The company made an analysis with eight groups and verified that more than 50% of the gross value of its sales is managed as projects. In the fiscal year of 2004/2005 this represented €42 billion in the whole world and demonstrates the importance for the company of a good administration of the projects.

The main objectives of the PM@Siemens program are [3]:
- Creation of standards in project management;
- Systematic best practice sharing;
- Implementation of the best practices in the operations;
- Qualification of the Project Managers;
- Expansion of a consistent project management culture;
- Guarantee a sustained profitability through the project management.

The key success factors of project management considered by the company are [4]:
- Offer high quality in the projects;
- Contract management of the projects;
- Qualification of the project managers;
- Claim management in the projects.

The initial step of the program was to define the main topics where the company would maintain the focus and
dissiminate to all the participants how to develop and implement the program in all SIEMENS units. Through an initial analysis, it were identified the best practices in each unit, that had success in different topics. This analysis generated the implementation guide (presented in Figure 2).

The identified topics, called modules establish 60 recommendations to apply, divided in 12 modules:

- **Process and Roles**: the business area process definition, including milestones and roles;
- **Contract Management**: management of the contract from the sales phase to the finalization;
- **Project Controlling**: physical and financial controls;
- **Operative Quality Management**: management of the quality in the projects development;
- **Knowledge Management**: management of the project management knowledge at SIEMENS;
- **Transfer and Implementation**: management of the implementation processes of the PM@Siemens program;
- **Personal Management**: management of the project team, from the career definition, team stimulation, incentive and results system to reach results in the project;
- **Qualification**: creation of specific trainings for project management, including all the relevant aspects to the project team best qualification;
- **PM Portal**: creation of a portal (easy access area to get information) to best practices and information exchange;
- **PM Assessment**: a self evaluation of the project management maturity using a standard tool for all areas;
- **Project Procurement**: management of the acquisitions;
- **Small Projects**: analysis of the main topics and recommendations used to manage the small projects.

The PM@Siemens program is being implemented through workshops involving coordinators assigned by each business area that works with projects. The coordinators are responsible for the communication and recommendations implementation inside the business areas of the company.

**THE SIEMENS PROJECT MANAGEMENT CAREER AND THE PMP® CERTIFICATION COURSE IN SIEMENS BRAZIL**

The PMP® (Project Management Professional) is the most acknowledge certification in project management. The PMI® (Project Management Institute) with this certification aims to achieve the growth and valorization of the project managers.

**Project Manager Carrier Model**

The SIEMENS Project Management Career Model [5] is showed below in Figure 3:

**SIEMENS PMP® Certification Course**

The beginning of the certification course was in 2001, with one group at SIEMENS Mercosur. The objects of the PMP® certification course in SIEMENS Mercosur are:

- Expand the project management culture;
- Expand the theoretical project management knowledge;
- Get more PMP®s in SIEMENS Mercosur.

The course duration is 280 hs, consisting in 140 hs of in-class activities (presentations, studies, simulations and experience exchange), and 140 hs of self-study activities (lectures, studies and simulations).

**Differentials of the SIEMENS Certification Course**

Distance activities includes: reading, studying and simulations; the instructors are experienced project managers from own Siemens and PMP® certificated; discussions and debates during workshops increasing methodology and common understanding of project environment in the company; review and learning over more than 1,000 exercises in class, further more 3,000 exercises for homework studies.

**The Future of the SIEMENS Certification Course**

New courses developed based on European Project Management Methodology of IPMA® (International Project Management Association) - IPMA® (International Project Management Association) - and on European Project Management methodology (IPMA) - IPMA - make the SIEMENS certification course more attractive for the career development, team stimulation and incentives.
Management Association), which involves technical and personal skills. There’s a great challenge for the unification of PMI® e IPMA® concept.

THE CULTURE EXPANSION OF PROJECT MANAGEMENT AT SIEMENS

After the beginning of the certification courses and PM@Siemens program implementation in 2001, a relevant improvement could be noticed in the latest years [6]. Nowadays, 15 different business areas participate in the implementation. There are monthly workshops with all areas coordinators, to the end of 2006, 30 workshops were addressed in Brazil, Argentina and Chile. Workshops consider activities as: assessments, processes roadmap, debates and discussions over the mandatory issues, best practices presentation, follow-up reports, auditing results and experiences exchanges. A common project management methodology was created for whole Siemens Mercosur, with all areas participation. The objective is to harmonize the knowledge, equalize the existent methodologies and create a clear definition over all process steps.

Project Portfolio Report

A Project Portfolio Report System (presented in Figure 4) was created to analyze, assure and support the business units. An information flow was established with standard tools and information of the main projects, showing the risks and opportunities.

![Figure 4 – Project Portfolio Report System](image)

The main target is to present to Business Directors a complementary perspective over the projects and results. Standardsheets: informed by all business area, contains main project list, results and period, shows an overview of all significant projects.

Cockpit: Consolidation report, that shows an overview of each business unit, based on the standardsheets report.

Top Projects: Identification of 10 main projects of each country (Brazil, Argentina and Chile), considering all business units. The report shows: 5 best project and 5 projects with major room of improvement.

Project Status Report: Project detailed report contains project scope, categorization, main figures, SWOT analysis, main risks and opportunities and best practices.

Communication Activities

A structured communication plan was developed to assure that information is distributed to all levels of the company:

- **Regional lectures**: presented by the coordinators.
- **Internal newsletter PM@Express**: monthly newsletter distributed to all employees (presented in Figure 5).

![Figure 5 – Internal Newsletter PM@Express](image)

**PM Experience**: an interactive simulation of a project environment, for information exchange and debates. Similar to a real project, it involves taking the best actions, with time and budget pressure. The participants can properly master the relevant processes and understand the interrelationships between the individual roles in the project (Figure 6).

![Figure 6 – PM Experience](image)

**Project of the year**: Program to incentive and motivate the projects teams (presented in Figure 7). It aim is to select the best project of the year for each country.

![Figure 7 – Project of the Year notice](image)

**Benefits**

The benefits for the company include:

- Uniform culture of Project Management;
- Better communication within company, through different business units integration, due a common objective;
- Better project controlling;
- Clear analysis of maturity level;
- Opportunities to obtain new projects, due to customer’s satisfaction increase, and project management methodology improvement;
- Consistent project planning.
**Results**

As a result of the program implementation it’s possible to highlight:
- Training of 600 people in Project Management;
- 168 Project Managers certified as PMP® in Mercosur region, 160 in Brazil;
- 80 Project coordinators certified according PM@Siemens Methodology (based on IPMA®).

**Lessons Learned**

Lessons Learned are an important component of program implementation. They provide a means of deriving findings explicitly from experiences and application, the consolidation of these findings forms a knowledge basis and create a common culture within the company.
- High level management commitment;
- Main roles definition for all involved in the implementation;
- Clear and open communication process;
- Measurement of program results through standard tools;
- Guidance and support to all levels;
- Alignment of the implementation activities, to improve project process and results.

**CONCLUSIONS**

A simple change in the way the work is done is not enough, it is necessary a mindset changing, a common culture, through the utilization of a consistent and known methodology, so the results can be improved in a stable way. The investment amount in PM training and certification courses during 2001 to 2006 is approximately US$ 1 million.

The implementation of the PM@Siemens program together with the increase in the project manager’s qualification and the creation of a consistent culture were indispensable for Siemens’s project management improvement. It has confirmed that all activities were essential to obtain the success in this practice, which has been widely diffused all over the world and implemented by all companies.

**REFERENCES**


**BIOGRAPHIES**

**André Luiz Pereira de Oliveira** received his BSEE degree in electrical engineering from the Itajubá Federal School of Engineering (EFEI), Brazil, in 2001. Obtained Specialist’s title in Power Systems Protection and MSc in electrical engineering, in 2004 and 2006 respectively, from Itajubá Federal University (UNIFEI), Brazil. Project Management Professional (PMP®) certified by the Project Management Institute® - PMI® (USA) since 2004. He works at SIEMENS Ltda. as a Project Manager (PM) since 2001 at PTD H (Power Transmission and Distribution - High Voltage Department). Responsible for the supplying of “turn-key” HV Substations and Power Compensation Systems, managing contracts with industrial sector and Brazilian Electrical Power System utilities.

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