

IDENTIFYING TOOLS and COMPETENCES FOR CPD MANAGERS. A MODEL PROPOSAL BASED ON THE BUSINESS EXCELLENCE MANAGEMENT MODELS.

 <p>UNIVERSIDAD POLITECNICA DE VALENCIA</p>	<p>Patricio MONTESINOS pmontesi@cfp.upv.es Universitat Politècnica de VALENCIA, SPAIN Centro de Formación Permanente</p>
 <p>SUNY The State University of New York</p>	<p>Kim SCALZO Kim.Scalzo@suny.edu (e-mail) State University of New York, USA Open SUNY</p>
 <p>UNIVERSIDAD POLITECNICA DE VALENCIA</p>	<p>Natalia HINAREJOS @cfp.upv.es Universitat Politècnica de VALENCIA, SPAIN Centro de Formación Permanente</p>

ABSTRACT

Business Excellence Models (BEMs) came to remain. All those who plan, execute, measure or revise continuing professional activities for companies or for individuals must know, understand, apply and integrate the tools used by companies to improve, progress and achieve the excellence. Continuing Professional Development (CPD) Managers must integrate in their relational DNA innovative tools to re-think and understand how companies are using the BEMs. Our alumni are facing the challenge to understand and integrate the BEM tools into their day to day work and use them as key success factor to improve and grow.

And CPD professionals are facing same pressure. BEMs came to remain also in the CPD management arena. So is needed to define a logical framework where appears all the available tools for systematizing the orientation towards excellence in order to meet (or exceed if possible) the CPD stakeholders expectations. Universities in general and CPD suppliers strive to be successful. Some achieve periods of success, some fail but ultimately fade from view, and a few achieve sustainable success, gaining deserved respect and admiration from colleagues and their stakeholders. Our experience is the more robust is the BEM experience the less effort is needed to recover from structural fails. And again our experience is based on

the BEM called the European Excellence Model, more commonly known by the acronym EFQM (European Foundation for Quality Management). EFQM is a practical set of tools to help organizations achieve quality by measuring where they are on the path to Excellence. The EFQM Excellence Model is a non-prescriptive framework based on 9 criteria. Five of these are 'Enablers' and four are 'Results'. The 'Enabler' criteria cover what an organization does. The 'Results' criteria cover what an organization achieves. 'Results' are caused by 'Enablers' and 'Enablers' are improved using feedback from 'Results'. The model illustrates that Leadership drives Policy and Strategy delivered through People Partnerships and Resources. The criteria determine the level of Customer satisfaction, People satisfaction and the impact on Society as a whole. EFQM proposes self-assessment tools as a comprehensive, systematic and regular review of an organization's activities and further proposes these results referenced against the EFQM Excellence Model.

So, which are the tools that conform a BEM framework? And how the existing tools can be integrated to develop a customized framework for CPD managers? Which are the competences needed to use the identified tools? And how this competences and tools fits with the CPD managers lifelong learning needs? Is possible to define a CEE manager training program using these tools and identified competences? After 26 years working in the CFP arena, the authors share their experiences, developed tools and organizational conclusions after success and fails periods where the key was to define how to identify, develop and maintain CPD competences for CEE managers. These and other questions are part of the reflection to be held in this paper.

Keywords

University Management, Lifelong Learning management, Continuing Engineering Education Excellence models, IACEE Quality Management framework, Tools and competences for LLL managers.

INTRODUCTION

"If difficult is to arrive; harder is to maintain" (Musset, 1850). This showbiz statement is fully applicable to the world of university management and specifically to Continuing Professional Development (CPD) managers. Is in University nature to practice the "hara-kiri" now an on. Regression is in University DNA. One of the possible ways to minimize organizational regressions is to develop the Business Excellence Models (BEMs) muscle. And all the models are based on common principles that fundament which are the best strategies to systematize improvements and achievements. On of this principles is to follow the PDCA discipline. PDCA is the acronym for the well know (but bad understood) PLAN-DO-CHECK-ACT philosophy. Deming, based on previous concepts developed by Walter Shewhart, define PDCA cycle as a strategy for quality continuous improvement in four steps. The PDCA, as a philosophy or as a strategical conceptual model, its widely used in quality management systems (QMS) and information security management systems (ISMS). The results of the implementation of this cycle allow organizations to comprehensively improve competitiveness, products and

services, improving quality systematically, reducing costs, and optimizing productivity, reducing prices, increasing market share and profitability.

As mentioned, PDCA stands for Plan, Do, Check, Act, where the cycle starts with planning improvements or innovations. On this phase objectives need to be fixed and deployment plans need to be developed. The activities of the process are established, necessary to obtain the expected result. By basing the actions on the expected result, the accuracy and compliance of the specifications to be achieved also become an element to be improved. When possible, it is convenient to carry out preproduction tests or tests to prove the possible effects. Collect data to deepen knowledge of the process is fundamental, detailing the specifications of the expected results. In this phase is need to define the needed activities to achieve the product or service, verifying the specified requirements. Finally is needed to establish the objectives and processes necessary to achieve defined results according to the client's requirements and organizational policies. The “plan must be planned” but also the “plan deployment” thought specific actions or if the dimension grows, specific projects.

Once everything has been planned, DO phase (actions) must start to deploy processes that will produce specific results. Changes are made to implement the proposed improvement or innovation. It is convenient to do pilot tests to check operations before introducing changes on big scale. In order to complete the cycle, the next step is to take the specific results obtained and to CHECK in order to discover if they are coherent with what we previously planned thought indicators and objectives. Last phase (Act) corresponds suppose revise data, benchmarks and specific results in order to learn for the next PLAN step. Some authors prefer use ADJUST instead. If the achieved results are not coherent or they are not what were expected some corrective action should to be planned in order to guarantee that next time objectives are achieved. And again the cycle begins with the new planned actions. Is the indicators are correct and needs no improvement, the P phase is substituted by the STANDARDIZE (S) one. The process and defined procedures are correct and stabilization measures are deploy to standardize the correct actions.

How all these ideas fits with CPD management? In this model proposal some standard and some customized tools are assigned to each PDCA phase. The model identify long cycle tools and short cycle ones, considering cycle the amount of time devote to use the tool and how long will elapse till next time the tool will be used again for same purpose. Suggested long term tools for planning are the traditional VISION/MISSION definition, the SWOT analysis using value chains and external forces from Michael Porter. Short term tools suggested are the business model architecture from Alexander Osterwalder. The set of tools Osterwalder proposed allows not only design a proposed value (Business model Canvas) but also analyze the external forces and define in detail the value proposal. After that, the deployment must be also planned. In this case, most common and usual tools help us. Project management or process definition are the two basic tools that allows “plan the deployment” in the easiest way.

Tools for DO are based on the “vale chain” concept. Every CPD product (tailor made or open offered, F2F or blended) has its own inherent value chain. Each value chain can be used

during the internal analysis of the plan phase but also for the doing phase. Specific tools and methodologies can be used to understand the engineers CPD needs, to design learning experiences, to market them, to deploy logistics, to produce blended material thought instructional design, to impart using synchronous or asynchronous materials and to control the quality and impact of the learning experiences developed. In each of the mentioned phases appears specific conceptual and/or SW tools that allows CEE managers not to discover the wheel again and again.

Tools for CHECK corresponds to those that helps organizations to face a mirror over the sector standard benchmarks and/or over their own indicators and objectives. One option is just to measure defined indicator behavior. This is the most common and operative way. Most sophisticated options for CE managers and centers come from 3 different projects developed during first decade of XXI century. All them based on the EFQM conceptual umbrella generate different outcomes (checklist and matrix for self-assessment). The external certification is other fabulous tool that helps organizations to measure and define evidences on what and how the processes are operate. Finally the F2F tutorials with experienced managers helps also to achieve checking targets.

Finally he models includes tools for ACT (Learn for most part of the actual authors). Good practices inventories and case studies (in text or in recorded videos) and F2F consulting sessions are the most usual material and activities to develop the learning task over others experience. Again and European project (in this case the UNIQM) generate outputs of this kind of material that will be describe in the paper. After all this tools, is important to identify which are the competences that allows to have excellent results thought its use. In this case other EU project help to identify a set of competences (individual, group and relational) focused on how to produce innovation. The paper will end with the inventory of the identified competences.

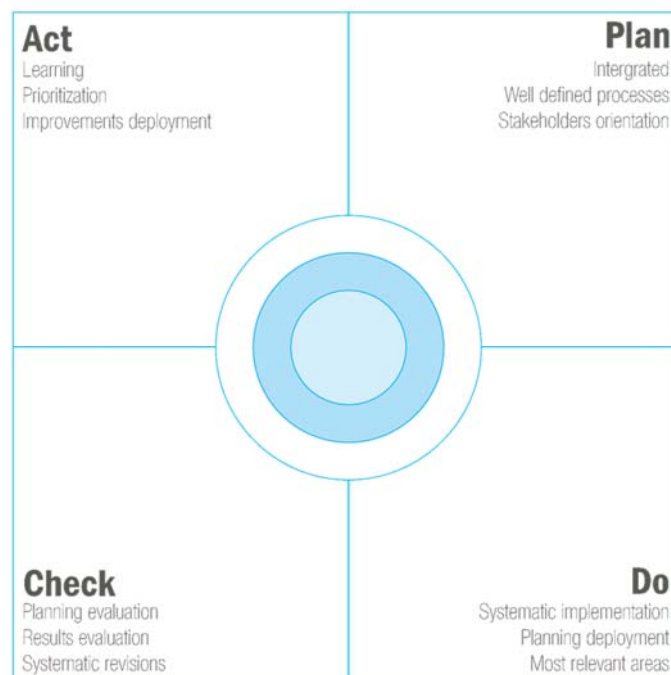
Train managers is not an easy task but train manager that manage others training has a recurrent approach that is able to generate some organizational schizophrenia. In order to save the mental health of the CPD managers, different tools an approaches has been developed during the first decade of this century. Tools to help CPD managers, tools for survivors.

This paper will cover five specific objectives:

- Describe how to adapt PDCA philosophy to CPD management
- Identify tools for CPD management under PDCA logical framework
- Share how to use some of them during the PDCA deployment
- Identify needed competences (sectorial and general) to manage CPD organizations using the EFQM approach
- Describe the IACEE Quality Management framework

1. PDCA logical framework for CPD management

PDCA is an acronym (Plan, Do, Check and Act) that represents not only a behavior way but also a philosophy linked with the organizational management. Also known as the Deming cycle (by Edward Deming) or the continuous improvement cycle, is a strategy for quality continuous improvement divided in four steps. This model is also based on a concept devised by Walter A. Shewhart [9] during the 40th last century. The model is widely used by quality management systems and information security. Deming formalized the concept of the PDCA applied to the daily work and in the improvement project development [1] as an inherent philosophy that allows to PLAN the activities, execute what must be done (DO), measure what has been achieved (CHECK) and learn over the results (ACT). The ACT phase always is confused with “action”. Nothing further from the original idea. ACT means “revise and learn” to Deming. Gregorio Bouer, one of his Brazilian granters from 50th indicates that ACT means revise and learn just to re-plan if needed or, in case, standardize [2].

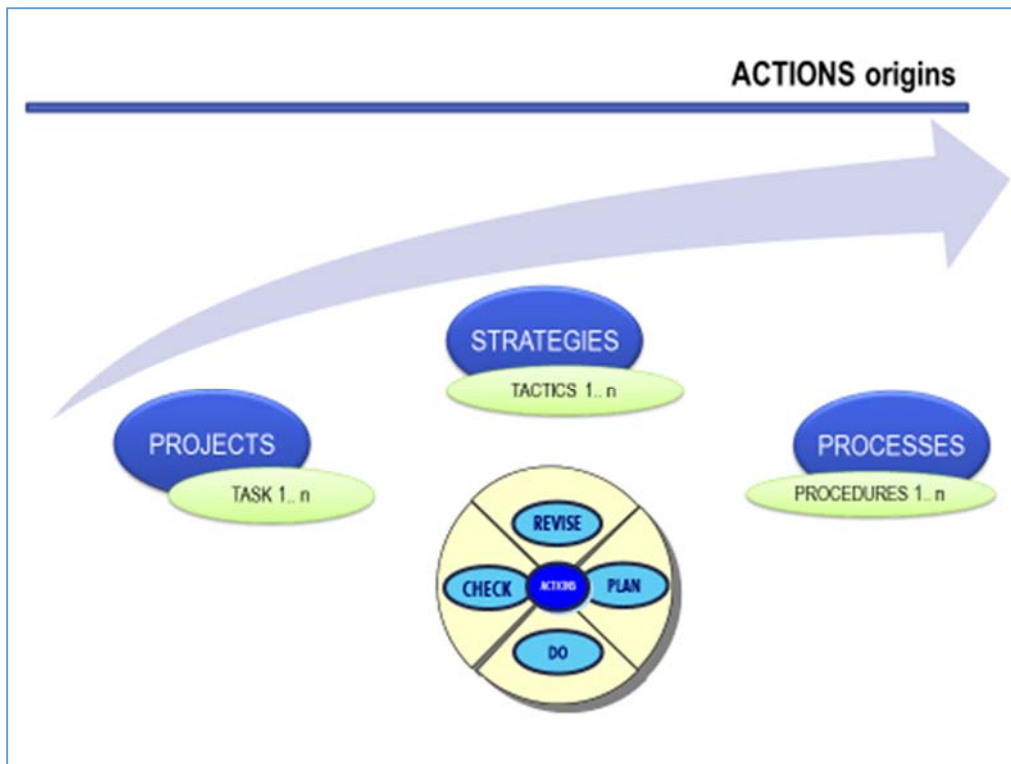


The results of the implementation of this cycle allow organizations to comprehensively improve competitiveness, products and services, continuously improving quality, reducing costs, optimizing productivity, reducing prices, increasing market share and increasing market share and the profitability of the company or organization.

As mentioned, this cycle is always present in the quality models and the excellence approaches. And again, as mentioned, PDCA stands for Plan, Do, Check, Act:

- **Plan:** The cycle starts with planning activities. On this phase, objectives need to be fixed and deployment plans need to be developed. Plan supposes to define a desired global objective and the actions needed to achieve that point. But also plan supposes to define alternatives for the objectives or the indicators related to the objectives and also consider alternative activities. It's well know the Mariscal Von Moltke principle related to war: no plan resist first contact with enemy and this idea has a direct application in management [3]. No plan elaborated with no much reflection resists first contact with reality. Alternatives must be present always and quick reaction is also needed to have adaptive plans. Scenarios techniques' are always welcomed to be proactive (and no reactive) to reality changes. And once the PLAN is planned, to PLAN the DEPLOYMENT is also needed. Actions must have, at least, responsible, agenda, desired results and/or indicators, which resources are implicated and, most important questions, deadline to be execute.
- **DO:** Once everything has been planned, you start to do things that will produce specific results. This phase require to have a conceptual models that helps to understand not only for what is needed the planned actions but also to frame the global activities. Later in this paper the EFQM model will be detailed but at least the planned actions must be applicable on the strategical plan, in the way leadership is deployed, on how the organisational talent is cared, on the organisational process, on the way the alliances and resources are managed or in the way the organisation define indicators to measure satisfaction and results.
- **CHECK:** "If something is not measure, is difficult to be improved". In order to follow the cycle, next step is to take the specific results obtained and to be check in order to see if they are coherent with what we previously planned. Manager tasks begin in the planning phase and are linked directly to control what is going on. The previous phase (DO) is something to be delegated and assigned to the available organizational talent. Check must be done using the planned indicators or desired results. This phase is the most complicated to formalise creating confidence. Check mustn't be converted in an agonic task for the collaborators but neither must not be ignored. The check culture must be conducted by the managers as a tool to improve and not as a tool to torture.
- **ACT:** (revise and learn) There several ways to learn from data and revise is one of them. But revise without method, without tools, can conduct to confusion and acrary. If the achieved indicators values are not coherent or results are not what were expected some corrective action needs to be taken. This corrective actions should be planned again in order to guarantee that next time objectives are achieved. Learn from what was achieved allows to re formulate plans or standardise the actions under a process model.

PDCA can be consider above any organisational dimension. To apply PDCA cycles in a specific organizational activity requires to understand that any cycle can be applied in project development, in strategy deployment or in processes execution. And the 3 possible actions origins supports the PDCA discipline.

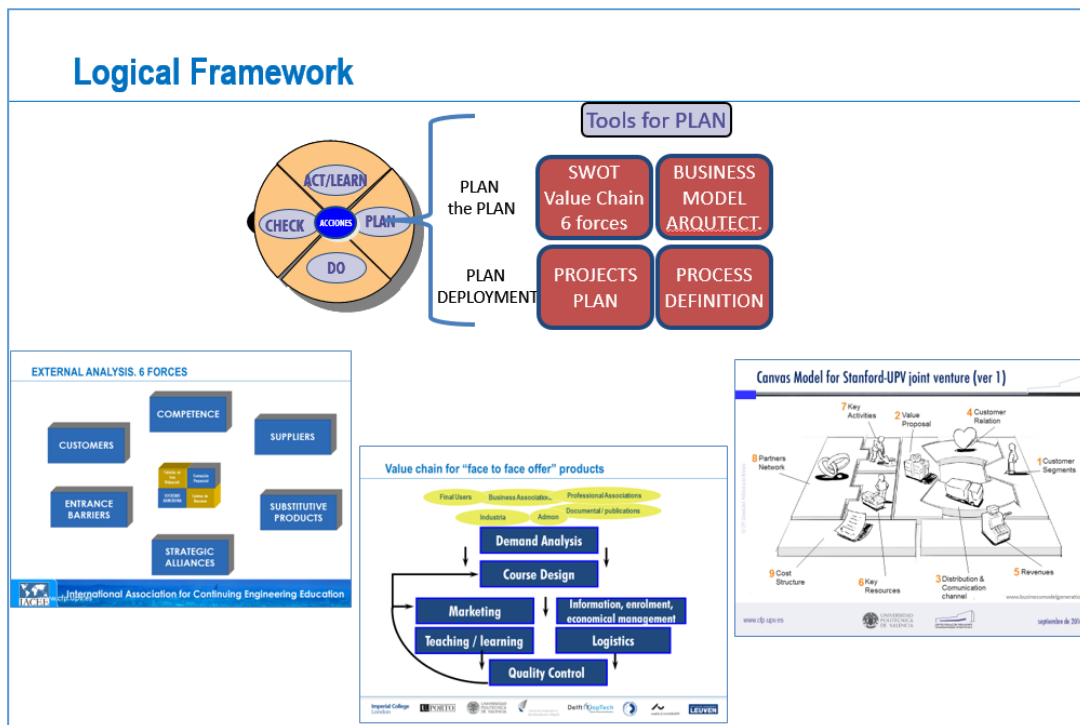


Relations among the 3 of them are not only possible but also frequent. Deploy institutional strategies implies several times define strategical projects that are related to a specific tactic. Some projects land under manager's responsibility with no previous plan defined. We like to describe this kind of projects (coming from the bosses, the owners or destine) as the "adaptive projects". You don't have alternative, you must adapt your team to execute it. Once a project is repeated or generates special customer satisfaction, it can be assumed as a future standardise set of activities, that is, a new organisational process.

New products or new services should be reflected on new process or in the indispensable actualisations in the already existing ones. And tasks (from projects), tactics (from strategies) or procedures (from processes) consist in a range of ACTIONS that can be in any case, organised under the PDCA discipline: planned, executed, measured and revise to learn and don't plan again the same errors. What is common among the 3 action sources is the action, the operating physical or logical mechanism that modified an input to a desired output.

2. Tools for CPD management with PDCA logical framework. Tool for PLANNING.

Once the PDCA logic has been described, next step is to define which tools can be used per phase in the CPD business. Considering tool as anything used as a means of performing an operation or achieving an end, two tools categories can be establish just to model the PDCA use. Short terms tools (tools that can be used in a small period of time) and long term ones (these that requires weeks or even months to be implemented) [4]. Both categories offers an application range to organise activities in each phase.



And again, two categories appears for the planning phase. Plan the PLAN can be developed using the classical SWOT analysis complemented with the formulation of objectives, strategies and tactics formulation (**long term tool**). In the CPD business, first internal analysis can be developed using the "value chain" concept [5]. Value chain, as defined by Michael Porter [12], is a set of actives organised to generate a product or a service. These activities can be direct (introduce value to the final product or service) or secondary (gives support to generate the final output). Continuing professional development has different value chains related to learning experiences. What institution offers to market can be labelled as "offered" and what companies, industry organisations or institutions ask to be organised could be described as "tailor made" service or product. Both cases has an inherent value chain that allows to systematize the SWOT internal analysis [6].

CPD offered needs to respond a demand analysis previous work that derivate in a learning experience design. Once the activity is designed, it must be marketed and the registration

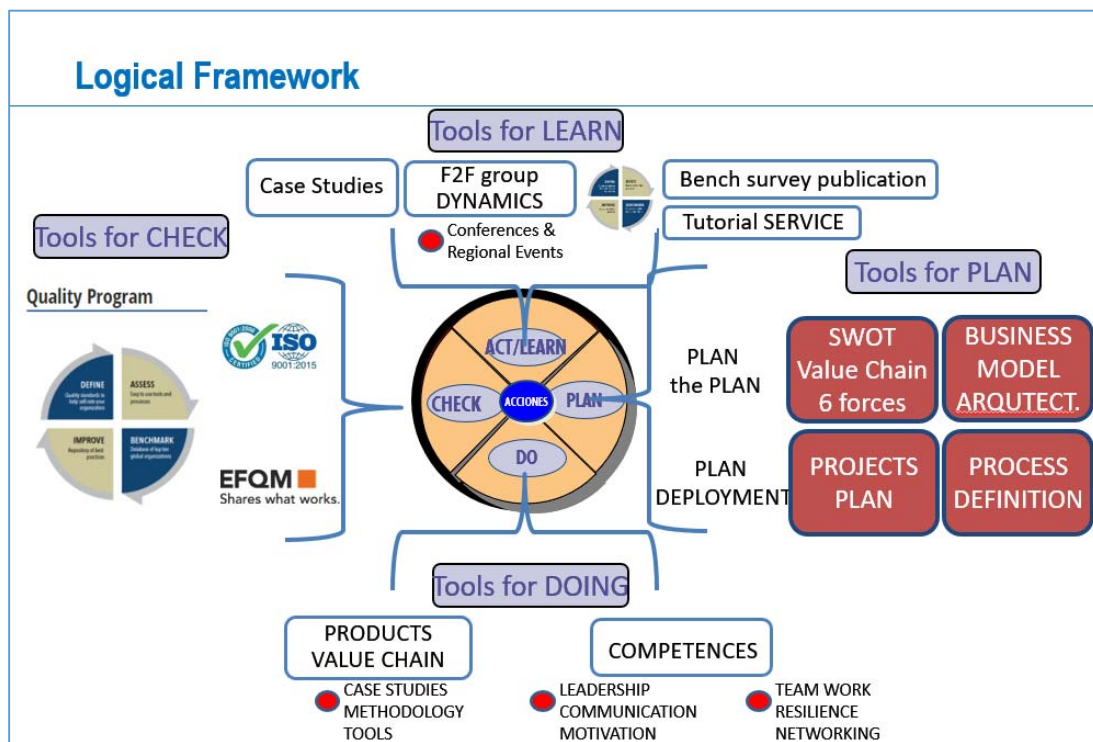
must be organised also to charge the participants. Logistics must be also organise to support the activity in the classroom. The learning experience must happen in time and forms and finally, facilitator's quality and participants learning outcomes must be evaluated [7]. What is tailor made has similar phases but in this case, instead of marketing, customer negotiation appears as one of the most singular items to be execute in the most flexible way. Online learning introduce also differences in the value chain. Production (develop support materials –texts, videos or simulators-) must be considered as a singular value chain, differentiated from what is online delivery. Identify weaknesses and strengths over any of the phases of the different value chains allows to think and elaborate strategies, tactics and projects to modify or improve organizational behaviours and processes.

The suggested tool to identify organisational opportunities and threats also comes from the strategical management field. Six identified forces (5 from Porter + 1 from Montesinos) [5] allows any organization to diagnose what must be reinforce and what must be considered as a potential risk. Customers, providers, competitors, entry barriers, substitute products and allies offer six different perspectives to, again, identify potential problems and also spaces where to grow an invest. Doing that, strategies, tactics and projects elaboration can be systematically approached to act over organizational behaviours and processes

For **short term planning**, suggested tool is the Osterwalder Canvas business model [8]. Created by Alexander Osterwalder describes in a logical manner the way in which organizations create, deliver, and capture value. The process of designing the business model is part of the institutional' s business strategy, therefore it is of vital importance structure this type of resources to know how a LLL Centre operates and know the strengths and weaknesses of the same. The tool offers a diagram called "canvas", made up of 9 building blocks to get to know the intention that the organization. Formal descriptions of the business become the building blocks for its activities. Osterwalder proposes a single reference model based on the similarities of a wide range of business model conceptualizations. With his business model design template, an enterprise can easily describe their business model. Categories used are *Value Proposal* (the collection of products and services a business offers to meet the needs of its customers), *Key Activities* (most important activities in executing a company's value proposition), *Key Resources* (resources that are necessary to create value for the customers), *Partner Network* (joint ventures or strategic alliances between competitors or non-competitors), *Customers Segments*, *Distribution Channels*, *Customer Relationship* (type of relationship to be created with customer segments), *Cost Structure* and *Revenues* (way a company makes income from each customer segment). Applied to CPD is really simple to discover again what must be done to develop a new service or product considering the nine blocks.

Project plans and Process definition are the natural consequences that emerge from Strategical analysis and from the Canvas for Business Model generation. Any PMI, AGILE or PRINCE2 tool for project planning or ISO 9000 for process development are recommended jut to enable managers to focus on content issues and avoid reinventing the wheel.

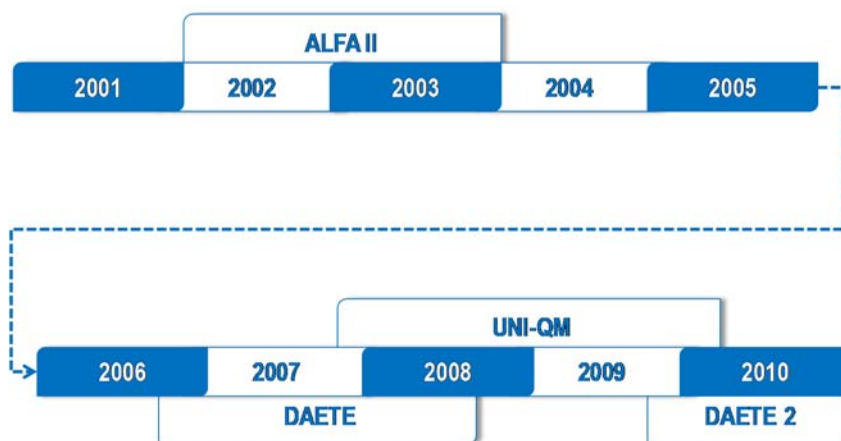
Value chain concept is not only useful to **PLAN** but also to identify the **DOING** aspects. **DOING** means specific actions under projects execution or processes deployments. Processes offers or product or services that can associated to any of the phases of the various steps in any of the previously described value chains. Specific methodologies (and tools) could also be used to develop Demand Analysis (focus groups, competence catalogues, inquiries, business intelligence), to develop effective marketing (traditional –seven P or 4C- or digital one -CRM, customer segmentation, AdWords, social media), to manage operations and logistics (any WEB service - <https://destinysolutions.com/> , <https://stream.net.nz/CPD/7165/> or ARLO <https://www.arlo.co/> -, third-party payment gateways or classrooms and material management tools) and finally, to manage participants and experts evaluation [9].



Online learning also opens several Pandora boxes [10]. The technological one, considering platforms to operate production and delivery (CANVAS, SAKAI, CAHOOT, TALENT or BLACKBOARD, among others), the organisational one (who coordinates production, who is the owner for exploitation, who market the products ...) and the andragogy dimension (who design the learning experiences, with which didactical models and at what costs).

Tools and decisions. Expensive ones ... in general. And to help in the confusion, competences are needed. Among others, competences to communicate (vertically and horizontally), to motivate and make the team work in one direction, to act as charismatic leader, to apply resilience when needed and generate relational capital thought effective networking ... doing is not an easy task at all in the CPD business at all. Either in other businesses but in Universities the complexity always is double due to space for academic egos must be booked.

Considering the DOING phase is fraught with difficulties, but at least “natural” for managers, CHECKING appears as something that produces cultural reluctances most part of the world. To measure is always considered as an exam and “time for exams was student time” ... with this attitude, generate “evaluation culture” becomes a tremendous challenge to managers. TO avoid organisational resistances, the “incremental approach” for evaluation has always excellent results. Everything begins with the self-evaluation under, at least, 2 levels of difficulty: using check-list and using firm matrix for self-assessment. The check list is a yes/no revision of different aspects or the organisation that allows to identify in which organisational dimensions is needed to develop initial actions. Those areas where the option “no” is more present, the team must organise quick actions in order to fill out (in the next self-evaluation) answers with the “yes” option. Next step in complexity is to use a signature matrix for self-evaluation. A signature (or a firm) is a multilevel description (normally five) of activities relate to a good practise or behaviour. This tools has been develop during first years of this century and has been adapted widely in Europe, USA, CHINA and Latin-American. IACEE has it own matrix adapted from different previous European funded projects (Alfa II, DAETE, DAETE 2 and UNIQM) that will be described also in this paper [7].



Both cases, check-list and matrix, in which organisational dimensions? Tool recommended to understand organisational dimensions is the EFQM Excellence Model (European Foundation for Quality Management). The European Foundation for Quality Management (EFQM) was created in 1988 by 14 leading European businesses. The EFQM Excellence Model was formally launched in 1991 with the aim to make ‘European Businesses more competitive through the application of TQM philosophy’ [11].

The Model was initially used as a way of recognizing achievement, with self-assessment being undertaken by organisations that needed to show continuous improvement over time in order to apply for the European Quality Award. After its introduction, however, it was discovered that the Model and self-assessment were proving to be valuable for driving continuous improvement activity within organisations that were not planning on applying for the award. It was also observed that the Model was being applied in a wider range of organisations than the private sector for which it had originally been written. As a result of this, additional revisions of the Model were made. This included the Public and Voluntary Sector Model in 1999, which

has since been refreshed and updated in 2003, 2009 and again in 2015. The EFQM foundation was created by big EU companies that would like to create common organisational culture among different European countries. Due to that reason, is a really adaptable conceptual framework ready to other cultures (USA, CHINA or Latinoamerica) and different sectors, as is the CPD one. The model has fundamental concepts of excellence concreted into 9 different criteria. Two big groups can be found to describe the criteria: enablers and results, those who participate and the way the organization measure achievements.

Enablers are *Leadership* (excellent organizations have leaders who shape the future and make it happen, acting as role models for its values and ethics and inspiring trust at all times. They are flexible, enabling the organization to anticipate and react in a timely manner to ensure the ongoing success of the organization). *Strategy* (excellent organizations implement their mission and vision by developing a stakeholder focused strategy. Policies, plans, objectives and processes are developed and deployed to deliver the strategy), *People* (excellent organizations value their people and create a culture that allows the mutually beneficial achievement of organizational and personal goals. They develop the capabilities of their people and promote fairness and equality. They care for, communicate, reward and recognize, in a way that motivates people, builds commitment and enables them to use their skills and knowledge for the benefit of the organization), *Partnerships and resources* (excellent organizations plan and manage external partnerships, suppliers and internal resources in order to support strategy and policies and the effective operation of processes) AND *Processes, products and services* (excellent organizations design, manage and improve processes to generate increasing value for customers and other stakeholders) [11].


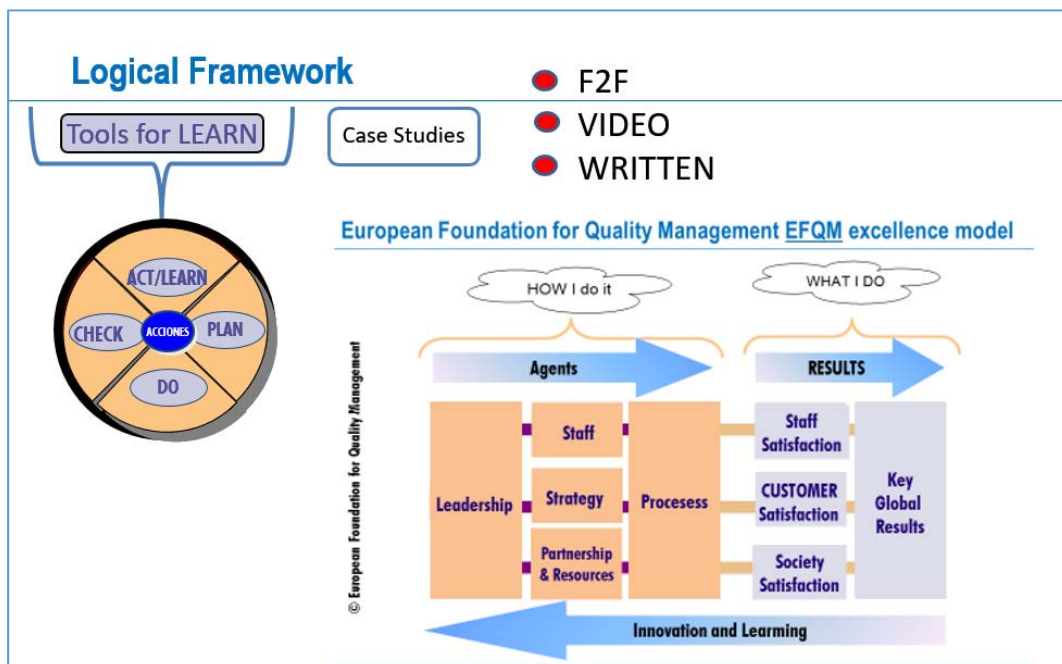
CRITERIA 1 LEADERSHIP																																				
 <p>EFQM Model</p> <p>1b 1c 1d</p> <p>DEVELOPMENT OF VISION AND MISSION</p> <p>How the Centre management develops the mission, vision and values which act as a reference point within the culture of excellence of the institution</p>	<table border="1"> <thead> <tr> <th>Level 1 Quality depends solely on the individual</th> <th>Level 2 Process awakening</th> <th>Level 3 Vision through processes, professionalisation and a guarantee of quality</th> <th>Level 4 Systematic assessment and improvement of processes</th> <th>Level 5 Aiming for external excellence</th> </tr> </thead> <tbody> <tr> <td>The activity of Continuing Education (CE) is not encompassed within a defined mission or vision. It depends on the will of the individuals which carry it out. There is no consensus on where to go or how to proceed. The activities are partial, disconnected and without relation to the policies defined by the governing board. There is no quality supervision in the activities carried out or control of the results achieved.</td> <td>The management defines the mission and vision of the Centre individually. It is explained partially and non-systematically. The values are those of the management and are not publicly expressed. The values are only shared by action or are defined in vague terms. There are no follow-up procedures in place.</td> <td>The vision and mission are agreed and coordinated with the Rector Team. This definition allows development strategies for the Centre to be formulated and to define the tactics and actions to be taken. The possibility of redefining strategies and goals is accepted with reflection. The values are public and followed by management explicitly.</td> <td>The vision and mission are communicated to the University Community systematically and are at their disposal. There is a wide consensus on definition of goals making it easier to carry out the associated tactics and actions. Processes are reviewed and re-adopted annually according to the environment. The participation of other players in the system is accepted in the reformulation of values and their adaptation.</td> <td>The formulation of vision and mission is performed by the whole governing board. Other external collectives support the definitions established. All Centre staff assumes the vision and mission as their own and transmits them from their position. The definition and establishment of the vision and mission serves as a reference point for other institutions involved in continuing education. The revision and adaptation of values is assumed to be essential and obligatory.</td> </tr> <tr> <td>Self-assessment date</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td colspan="5">Comments</td> </tr> </tbody> </table>	Level 1 Quality depends solely on the individual	Level 2 Process awakening	Level 3 Vision through processes, professionalisation and a guarantee of quality	Level 4 Systematic assessment and improvement of processes	Level 5 Aiming for external excellence	The activity of Continuing Education (CE) is not encompassed within a defined mission or vision. It depends on the will of the individuals which carry it out. There is no consensus on where to go or how to proceed. The activities are partial, disconnected and without relation to the policies defined by the governing board. There is no quality supervision in the activities carried out or control of the results achieved.	The management defines the mission and vision of the Centre individually. It is explained partially and non-systematically. The values are those of the management and are not publicly expressed. The values are only shared by action or are defined in vague terms. There are no follow-up procedures in place.	The vision and mission are agreed and coordinated with the Rector Team. This definition allows development strategies for the Centre to be formulated and to define the tactics and actions to be taken. The possibility of redefining strategies and goals is accepted with reflection. The values are public and followed by management explicitly.	The vision and mission are communicated to the University Community systematically and are at their disposal. There is a wide consensus on definition of goals making it easier to carry out the associated tactics and actions. Processes are reviewed and re-adopted annually according to the environment. The participation of other players in the system is accepted in the reformulation of values and their adaptation.	The formulation of vision and mission is performed by the whole governing board. Other external collectives support the definitions established. All Centre staff assumes the vision and mission as their own and transmits them from their position. The definition and establishment of the vision and mission serves as a reference point for other institutions involved in continuing education. The revision and adaptation of values is assumed to be essential and obligatory.	Self-assessment date					<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Comments				
Level 1 Quality depends solely on the individual	Level 2 Process awakening	Level 3 Vision through processes, professionalisation and a guarantee of quality	Level 4 Systematic assessment and improvement of processes	Level 5 Aiming for external excellence																																
The activity of Continuing Education (CE) is not encompassed within a defined mission or vision. It depends on the will of the individuals which carry it out. There is no consensus on where to go or how to proceed. The activities are partial, disconnected and without relation to the policies defined by the governing board. There is no quality supervision in the activities carried out or control of the results achieved.	The management defines the mission and vision of the Centre individually. It is explained partially and non-systematically. The values are those of the management and are not publicly expressed. The values are only shared by action or are defined in vague terms. There are no follow-up procedures in place.	The vision and mission are agreed and coordinated with the Rector Team. This definition allows development strategies for the Centre to be formulated and to define the tactics and actions to be taken. The possibility of redefining strategies and goals is accepted with reflection. The values are public and followed by management explicitly.	The vision and mission are communicated to the University Community systematically and are at their disposal. There is a wide consensus on definition of goals making it easier to carry out the associated tactics and actions. Processes are reviewed and re-adopted annually according to the environment. The participation of other players in the system is accepted in the reformulation of values and their adaptation.	The formulation of vision and mission is performed by the whole governing board. Other external collectives support the definitions established. All Centre staff assumes the vision and mission as their own and transmits them from their position. The definition and establishment of the vision and mission serves as a reference point for other institutions involved in continuing education. The revision and adaptation of values is assumed to be essential and obligatory.																																
Self-assessment date																																				
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																
Comments																																				

Figure 1. Matrix for self-assessment developed during ALFAII-0180-A Project

Finally, Results. Totally connected with how actions take place, organization must measure results. Results related with people, customers, society and key results are People results, Customer results, Society results and Key results.

The EFQM model conduct the self and the external evaluation using tools with different complexity. Check list is the simplest (time and devoted energy). Matrix means to benchmark the recommended good practises in each step of the signature with your actual practise. This suppose not only more time but also an opportunity to link with the next phase, learning from others good practises. And as mentioned, before having a “traumatic” external evaluation, EFQM principles allows having previous self-assessment organisational exercises that permits identify not only the obvious gaps (check list) but also several improvement opportunities in other dimensions and areas. The matrix tools shows possible enhancement in any of the 45 aspects that regulate and conduct the organizational behaviour consuming a reasonable amount of time and effort. It includes practises develop for those who are considered as a reference and helps to focus CPD organisations thought best practises customization.



Last phase is “ACT” (REVISE and LEARN). Both activities must serve as input for the next planning round. Face to face activities (seminars or conferences), field visits, learning experiences, flipped materials (video or text) as case studies or good practises are practical inputs to benchmark and learn from others. Formal F2F benchmarking is an excellent tool for obtain several ideas from practitioners with experience in the field. Revise is the method, learn the desired consequence. Five levels at least are used to describe the competence acquisition level: know, understand, apply, analysis and synthesis and evaluation. Tools must be apply with enough knowledge and comprehension for transferring results to the organizational reality. Formal exercises using the tools in a “controlled atmosphere” allows manager to reduce learning curves and feel confident on the tool use impact [4].

3. Needed competences (sectorial and general) to manage CPD

After revising tools under the PDCA framework, the competence issue arise to managers. Which competences must be acquired to manage CPD centres? Again tools offers a conceptual framework to identify fields to improve our team talent, the things they are able to know, understand, and apply and perhaps in the future, analyse and synthetize and evaluate. EFQM shows us the dimensions where managers must be practising day to day work: processes –services and products-, leadership, talent management, strategy, alliances & resources and indicators to measure results. General competences common to all sectors are listed below:

ENABLER	Sector INDEPENDENT
Process	<ul style="list-style-type: none"> • Definition, improvement, maintenance and updating of processes.
Personal	<ul style="list-style-type: none"> • Communication. • Teamwork and coordination. • Motivation.
Leadership	<ul style="list-style-type: none"> • Planning, updating, transmission and internal and external projection of mission, vision and values. • Development, implementation and continuous improvement of the quality & excellence system.
Strategy	<ul style="list-style-type: none"> • Internal and external analysis. • Formulate and understand the organization's KEY Strategies. • Apply benchmarking and lifelong learning for updating. • Understand key processes, assign ownership and guide the deployment of strategies to processes.
Partnership & Resources	<ul style="list-style-type: none"> • Networking. • Management of financial, information resources and knowledge. • Management of physical resources (material and buildings).

At least 15 areas where competences are needed in any organisational manager with teams under their responsibility [12] .

Define and maintain processes is something common in any sector. Communicate, coordinate, motivate or stablish teams and team work is again common in any activity field, except perhaps in the sport industry. Also is same competence being able to define mission, vision, beliefs, and values and draft that in the organisation. Strategy thinking, networking, manage financial, logical or physical resources appears as generic competences to be share among any sector. Next list includes competences that must be linked with the specific sector the manager is developing activities.

ENABLER	Sector DEPENDENT
Process	Definition of operational and strategic processes
Personal	Recognition according the sector practices
Leadership	<ul style="list-style-type: none"> • Change management. • Identification of trends. • Planning, measurement and learning. • Contact with CLIENTS and other stakeholders.
Strategy	<ul style="list-style-type: none"> • Identification of CUSTOMERS. • Identification of Interest Groups • Identify NEEDS.
Partnership & Resources	<ul style="list-style-type: none"> • Creation of relational capital, definition, deployment and maintenance of alliances. • Technological resources and equipment.

Customers identification, trends, recognitions, talent development, needs identification, create and maintain allies and manage specific technology are more sector dependent. And process design, implementation and maintenance according customer satisfaction requires depth understanding of the market and the environment where the activity takes place.

Customer can be individuals (mostly university alumni) or organizations. Both cases motivations are not the same. Usual organizational contact takes place through HHRR managers, production or innovation managers or IT heads. The kind of institutional interest they have normally are focussed to profit and loss account more than workers satisfaction. The organization motivation are simply different from the individual's ones. The organization wants to improve results, be more productive, save time and resources and survive in the market without losing money. Individual motivations are focussed on problem solving, improve in the organization, be prepared to change from company or activity, develop social skills or simply enjoy with colleagues. Simple to realise that depends on the contractor (individuals or organizations) the learning experiences should be defined, market, develop and evaluate with a different approach.

CPD manager must be able to identify customer, their motivations and their needs and organise road maps to help organizations to improve, grow and be more efficient and profitable. To measure of the customer success (individual or organizational) will be a measure for CPD success. To help CPD manager to acquire competences for success is a global challenge for those societies that want to generate richness, equality and sustainable grow. This huge challenge is part of this association duty and our Quality Management framework (developed in the next point) is one humble contributions IACEE propose to help in the CPD excellence search road map.

4. How IACEE Quality Management framework gives some answers

IACEE's Quality Program for Continuing Education, earlier known as Continuing Professional Development Benchmarking and Quality Improvement Program (CPD-BQIP, originated as the Development of Accreditation in Engineering Education and Training (DAETE) project PARTICIPATED by IACEE. The tool is a combination of quality criteria, tools, and processes that help Continuing Education and Professional Development centers to assess their current operations and compare them to similar programs of other organizations. The methods and tools support strategic planning and ensure alignment with institutional goals by facilitating team-based organizational self-assessment and benchmarking for continuous process improvement.

The tools are located at http://www.iacee.org/quality_program.php. This URL has all the tools necessary to start the self-assessment process. For background on the development of this model and the institutions from around the globe that helped develop it,

Since 2003, continuing education center directors and practitioners from around the world have been working to develop a means for assessing and improving the quality of their programs. The current program (IACEE QUALITY PROGRAM) is a culmination of their efforts, and represents what we believe to be the first global quality standard for CE/CPD Organizations. The team that perfected this standard has come from institutions spanning the US, seven EU countries, and China, to ensure usefulness internationally.

In addition to quality standards, the team has also developed a set of tools and processes to enable self-assessment and benchmarking for the purpose of promoting continuous quality improvement at the organizational level, and also to provide guidelines for the accreditation of programs. The combination of the quality criteria, the tools, and the processes comprise the IACEE QUALITY PROGRAM Model.

The following timeline summarizes the history of the development of the IACEE QUALITY PROGRAM and recognizes its many contributors. These set of tools represent a collective effort developed not only but a unique organization.

- **2003-** A team from four European and four South American universities develops a self-evaluation matrix based on the European Foundation for Quality Management (EFQM) Excellence Model. This project, called ALFA II-0180-A, is financed by the European Union.
- **2006-** A team from European and American Universities modifies the EFQM-based matrix to be applicable for continuing engineering education centers. This project is called "Development of Accreditation in Engineering Education and Training" (**DAETE**), and is financed by the Atlantis Program of the European Union and by the Fund for Improvement of Post Secondary Education (FIPSE) Program of the US Department of Education. A number of DAETE partners test this first version of the

self-assessment matrix for its applicability to all continuing professional development (CPD) or continuing engineering education (CE) centers and programs.

- **2008-** The University Quality Management project (UNI-QM), which aims to create tools for quality management in organizations concerned with lifelong learning and continuing education, also bases its model and tools on the EFQM Excellence Model. UNI-QM is financed by the European Union.
- **2009-** Project DAETE2, a natural continuation of DAETE and UNI-QM, continues refining the quality management processes and tools, to be appropriate and useful for CPD and CE programs in areas outside engineering. Research is done with benchmarking data from CE centers in several countries.
- **2011-** Version 2.0 of the DAETE self-assessment matrix is published and adopted as a tool of the CPD Benchmarking and Quality Improvement Program (IACEE QUALITY PROGRAM) of the IACEE.

To get started on doing your own organizational self-assessment, use the tools described in the “Getting Started” section. All current IACEE institutional members are encouraged to participate in the Quality Program. The more participants in the program, the more valuable it becomes for benchmarking. Current IACEE institutional members can access the web-based tools, self-evaluate, and receive all reports, both standard and customized, at no cost, as a benefit of IACEE membership. Other organizations concerned with continuing education or professional development are also encouraged to participate in the Quality Program. The more participants, the more extensive the database and the more valuable the tools become. Institutions that are not IACEE members can access the web-based tools and obtain a standard report for free.

Continuing Engineering Education (CEE) and Continuing Professional Development (CPD) units can benefit from using the model by:

- Implementing a systematic approach for determining and improving the quality of the programs and processes, through an annual process of self-assessment and benchmarking
- Using the quality model to document and demonstrate their quality as compared with an external international standard, which brings credibility to their program with university leadership and with peers
- Establishing a foundation for strategic planning by asking the questions given in the model for a SWOT analysis and thus setting the goals and strategic allocation of resources.
- Becoming better prepared for meeting the requirements of government educational organizations, professional accrediting bodies, and regional accrediting bodies.

5. CONCLUSIONS & RECOMMENDATIONS

The route to excellence is paved with continuous improvement, self-assessment, good management practices and the discipline of planning and control what has been planned. At the start, managers should ask about “does my organization already have a plan for improvement?” If not, it is important to consider the following basics [13]:

- Assess where the organization are now. One way to do this is to Self-Assess the organization. Self-Assessment can help your organization understand and agree upon the current state.
- Define your business priorities. In order to align your Center and your business strategy, you need to understand your present strengths and areas for improvement. The Fundamental Concepts of Excellence are the most tangible expression of Excellence. These concepts can be used to compare to your own organization's beliefs and strategies.
- Identify what needs improving. Your self-assessment can help provide a detailed map for the people in your organization. It helps to answer, “where do we need to improve?”
- Identify how to improve. Learn from others around you through benchmarking and research. Identify the good practices of others. You can benchmark processes, organizations and/or metrics... but first, develop a benchmarking strategy that will help to direct your efforts.

The route to Excellence is based on training the actors, train the managers of the process. And train managers is not an easy task but train manager that manage others training has a recurrent approach that is able to generate some organizational schizophrenia. In order to make life easy for CPD managers, different tools an approaches has been developed during the first decade of this century. Tools to help CPD managers, tools for survivors, tools for helping in the Excellence challenge. Excellence is a roadmap, not a unique and isolate action that could be taken once a year (or maybe two). Excellence supposed to throw up to 35 simultaneous balls ... impossible to be manage by one individual effort. Is absolutely a team work that requires competences (know, know, understand, apply and integrate) to manage tools that helps in the systematic improvement approach. So team work, communication, coordination, delegation, leadership are essential competences to play this game. Tools and competences, competences and tools. What is first? First is the wish and after ... enthusiasm and hard work.

6. REFERENCES

- [1] W. A. Shewhart and W. E. Deming, *Statistical method from the viewpoint of quality control*. Courier Corporation, 1939.
- [2] F. T. Berssaneti and G. Bouer, "Qualidade: conceitos e aplicações em produtos, projetos e processos." São Paulo, 2013.
- [3] H. G. von Moltke, "Moltke on the art of war," *Moltke art war Sel. writings*, 1993.
- [4] P. Montesinos, M. Lopez, and R. Romero, "Life Long Learning Management Models."
- [5] M. E. Porter, *Competitive Advantage: Creating and Sustaining Superior Performance*. 1998.
- [6] M. E. Porter, "What is Strategy?," *Harv. Bus. Rev.*, vol. 74, no. 6, pp. 61–78, 1996.
- [7] P. Montesinos, M. López, and C. Ripoll, *Guidelines for Processes and Indicators for LLL Management: Guidelines for Survivors*. Editorial Universitat Politècnica de València, 2010.
- [8] A. Osterwalder, "A better way to think about your business model," *Harv. Bus. Rev.*, vol. 6, 2013.
- [9] P. Montesinos, *Uni-Qm Framework And Case Studies For Quality Management*. Universidad Politècnica de Valencia, 2010.
- [10] P. Montesinos, *Uni-Qm Fullscan*. Universidad Politècnica de Valencia, 2010.
- [11] A. Soeiro, M. Markkula, P. Montesinos, M. Jones, J. Klus, K. Scalzo, E. Borbely, and N. Baker, "EFQM Self-Assessment Model for Continuing Engineering Education," 2008.
- [12] A. Andres, M. Angeles, and M. Fleta, "WPOM Proposal of a Framework for Innovation Competencies Development and Assessment (FINCODA)," *Work. Pap. Oper. Manag.*, vol. 7, no. 7, pp. 119–126, 2016.
- [13] IACEE Quality Program http://www.iacee.org/iacee_quality_program.php