


Asia Pacific International College (APIC)

“Introduction to Project and Program Health Check”



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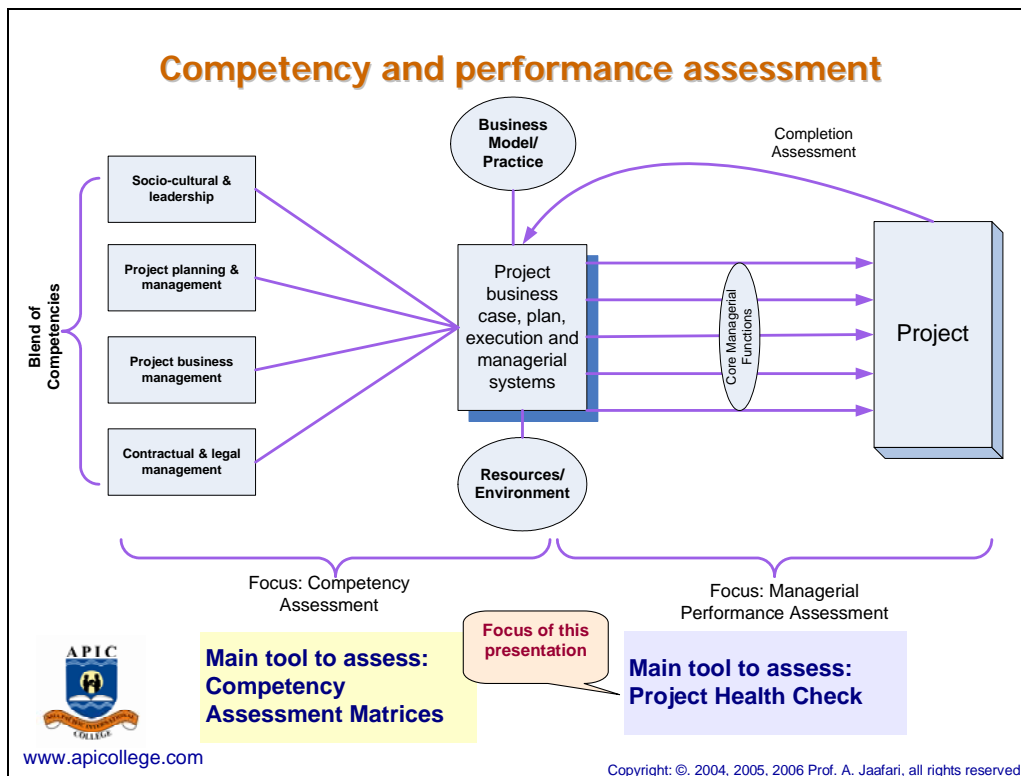
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The following slides provide a brief introduction to project health assessment methodology developed by Professor Jaafari. It applies to both projects and programs. Projects and programs are considered as emergent systems. In the development of project health assessment concept and tool, i.e. considerable dynamic interactions exist between the factors that influence the project definition, design and delivery. No one individual controls the interactions but all play their roles within their zones of influence. As such, a project and or program is subject to continuous change and evolution. The challenge of the management team is to make timely interventions based on the true state of the project or program to steer the project to its successful conclusion. It is similar to sculpting a statute out of stone, one needs to chisel bit by bit until it assumes the intended shape. Every so often the sculptor needs to stand back and figure out where he has, what shape the statute has etc. The difference to projects and programs is that the actual “statute” (project/program) changes also with time. So there is a need for constant realignment or it may be necessary to change the goals if the original goals are no longer reachable or if new enhanced goals can be achieved and so on. Thus, in such a state of flux, managers need to receive timely feedback on the status of the project/program (emergent system) and to learn how to influence the system positively to expedite the achievement of project goals. This is more like nurturing the project. Because of constant change the life of any plan is short. The only way the system can succeed is to get feedback, learn and realign and redirect to steer towards desired outcomes. Rigid linear planning and control will not be effective in such conditions.

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In order to succeed in such a dynamic setting the respective members of the project team must possess high level cognitive abilities and transformative competencies not normally learnt through normative training and education programs or normative practice. The competency assessment tool (CAT) is designed to assist professionals assess and improve their competencies.

The actual performance of the team on a given project can be assessed through the project health check (PH-Check). This complements the usual project progress monitoring and reporting. The information obtained from the PH-Check and progress reports should be combined and used to judge which of the enabling factors need to be attended and in what way to address any performance shortcomings and in turn address any production shortcomings.

So, we need different tools for different purposes to get our hands around a project/program and to steer it to a successful outcome.

Project Success

- Chief success factor is management team's capability to understand & intervene in project in order to manage:
 - Complexity
 - Uncertainty
 - Risks
- Success depends on:
 - Creative-reflective skills
 - Smart tools
 - Tailored practices



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One of the main project success factor is smart management of complexity, uncertainty and risks experienced on projects and programs. To achieve this goal, one needs creative-reflective (transformative) managers who are aided by smart tools and practices that are tailored to suit the project under consideration.

Thus, PH-Check recognises that the actual managerial practice in each project varies. So it attempts to question how well the management team performs in relative terms and compared to a set of metrics that embody a system's approach and in line with the known managerial principles.

Capabilities and tools

- **Managers must have:**
 - transformative competencies to steer the project in real time
 - need tools for immediate feedback
- **Questions to ask:**
 - Do we know which state the project is in?
 - Do we have the right capability in place?
 - Are we managing the project variables correctly?
 - Are any areas lagging behind?



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As stated, today's projects and programs typically exhibit the properties of emergent systems. Risks, uncertainties and complexities are pervasive. To successfully manage such projects, managers must have transformative competencies and appropriate tools to obtain timely feedback on the status of the project and their managerial effectiveness. On small projects it is possible to get one's mind around all complexities intuitively and resolve these progressively. On large complex projects it is rather difficult and one needs tools that can answer questions such as:

1. What is the state of the project in terms of management?
2. Are there sufficient managerial capabilities and systems in place to respond to the challenges of the project?
3. Do we know the managerial priorities and are we approaching all aspects of project/program optimally?


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Project Health Check (PH-Check)

- Applies tools to answer the above questions, using a set of indicators
- Generates reports on actual capability, approach & distance to desired state



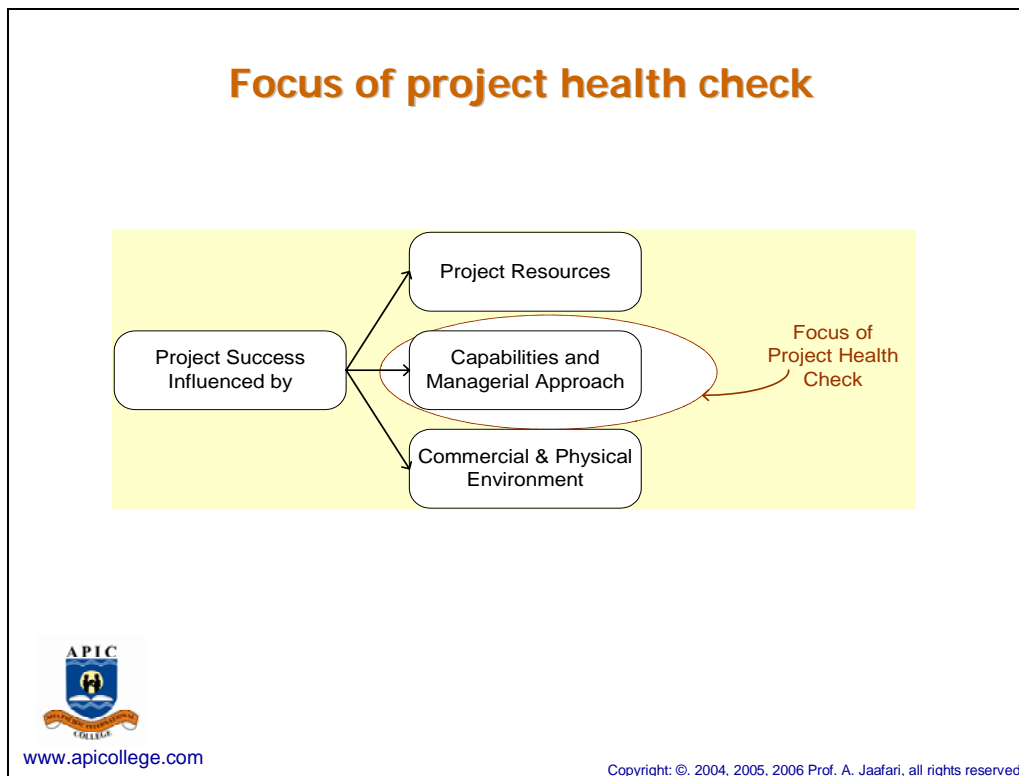
The illustration shows a female doctor with dark skin and curly hair, wearing a white lab coat and a stethoscope, examining a male patient with light skin and curly hair. The patient is sitting on a white examination table. The background is a light purple wash.


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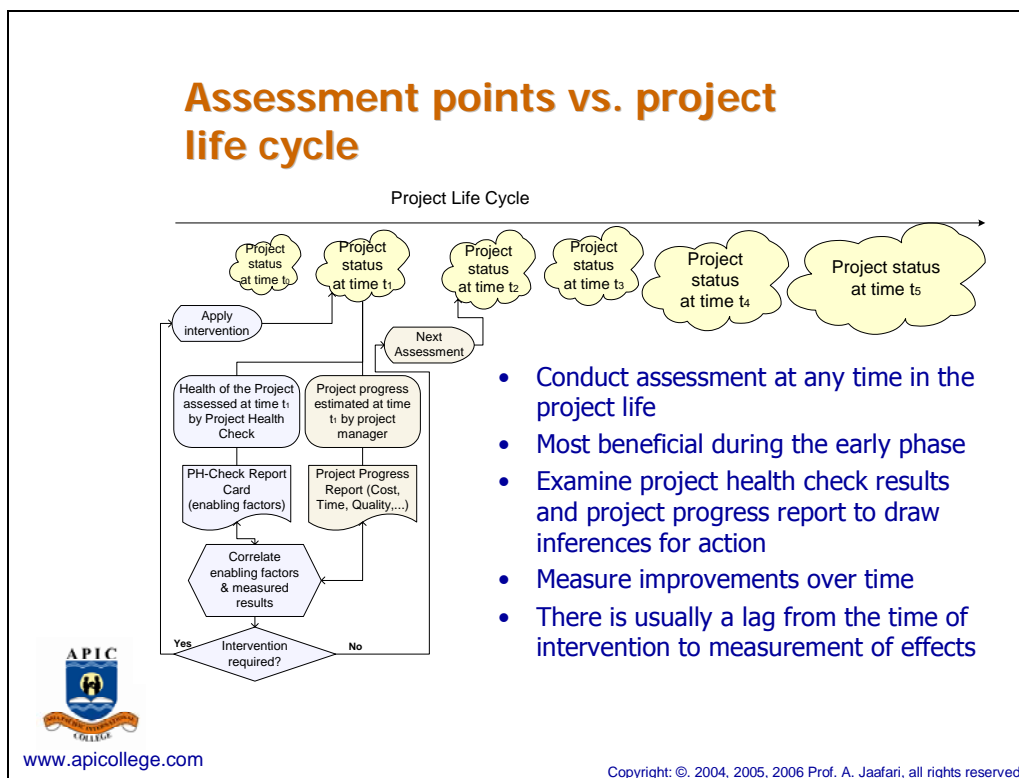
PH-Check seeks to provide answers to these questions and aid the managers in their quest for orderly management of the project.

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Actual project success in real life depends on factors other than the performance of managers, e.g. the availability of resources as well as influences of commercial and physical environment. However, these are normally beyond the management's reach. All one can expect the managers to achieve is to use their expertise to tailor practices that can respond to such challenges in a judicious manner. The focus of PH-Check is on managerial capabilities and actual state of practice on a given project at the given time.

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PH-Check is different to (and complements) the regular project progress monitoring and control reports; and PH-Check provides a snapshot of the state of project management on a given project at the time it is conducted. Some time later it may show different results. As the subject project progresses from definition through to design, documentation and implementation, its status changes. So, over the project life, one can apply the project health check, ascertain the status of management performance and plot it to detect the trends and apply appropriate intervention measures. In addition, applying PH-Check during the early phase of the project will highlight the areas that should be focused on from a managerial and capability perspective.

Project health assessment framework

- Two sets of **interrelated** criteria:
 - For assessing the project's performance on business & strategic front
 - For assessing the project implementation efficiency and effectiveness during delivery phase
- **Measure how well project performs relative to its class**



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One of the major points in the design of PH-Check is its focus not only on project implementation but also on management of project itself and its fitness for purpose during the definition to implementation phase. Once the project is conceived in principle, it enters the definition and implementation phase, during which the main conversion processes and technology are defined and contracts signed. Typically, the project is entrusted to a board and an appointed executive. Once the project enters the definition and implementation phase, the project team (particularly the client/MC team) needs to manage both project implementation and project alignment with the sponsor organisation's strategic and business objectives to ensure its fitness for purpose.

As well as the commercial imperatives, the team has to manage the statutory and regulatory aspects (Safety, Health & Environment and legal aspects) in an optimum manner, generally applying the doctrine of due diligence. Under this doctrine, a prudent manager needs to demonstrate a proactive or anticipative approach, embodying a purpose-designed system for management of the factor under consideration that is applied rigorously, including provision of records or evidence to demonstrate reasonable care and acceptable performance.

PH-Check focuses on the management of all factors during project definition and implementation phase.

Business and strategic assessment criteria

- Customers and markets
- Stakeholders
- Technology
- Facility design and operational requirements
- Supply chain system
- Learning and innovation
- Finance
- Project delivery
- Risks and due diligence



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PH-Check conducts assessment in 2 divisions: “business and strategic assessment” and “project implementation assessment”. The user may select to conduct the health check under both divisions or under any one of these. The actual criteria used for business and strategic assessment are shown above.

Project implementation assessment criteria

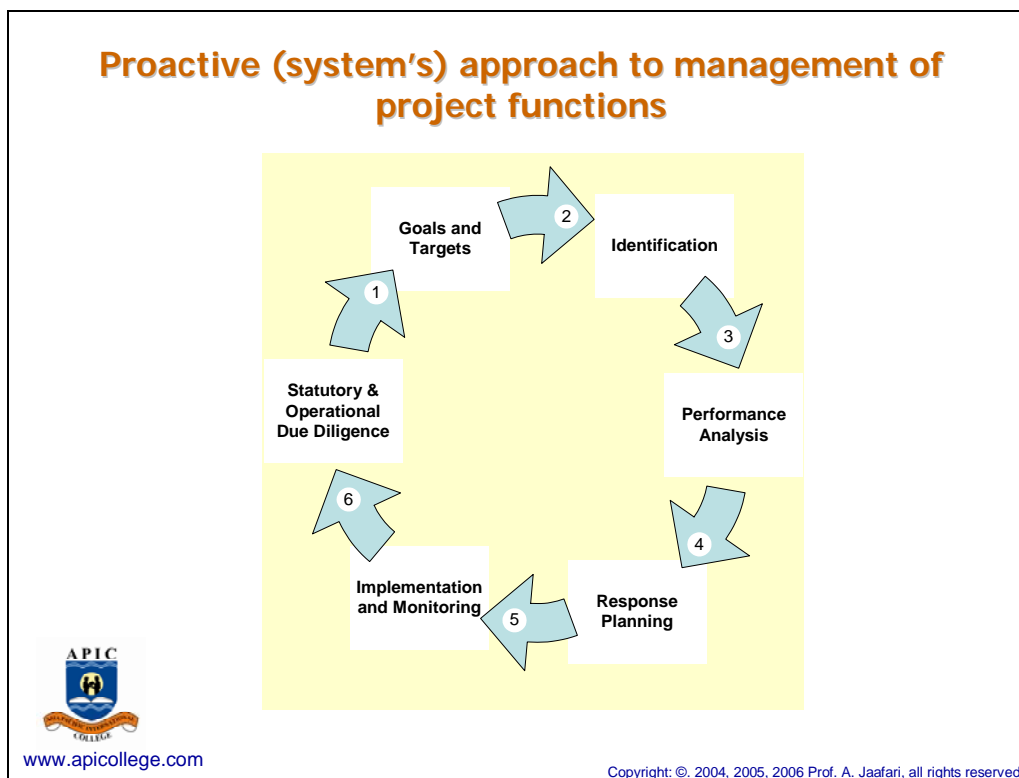
- Governance and leadership
- Engineering, detailed design and specifications
- Procurement, transportation and warehousing
- Planning and control
- Team performance
- Information and communications management
- Quality management
- Offsite management
- Risk management



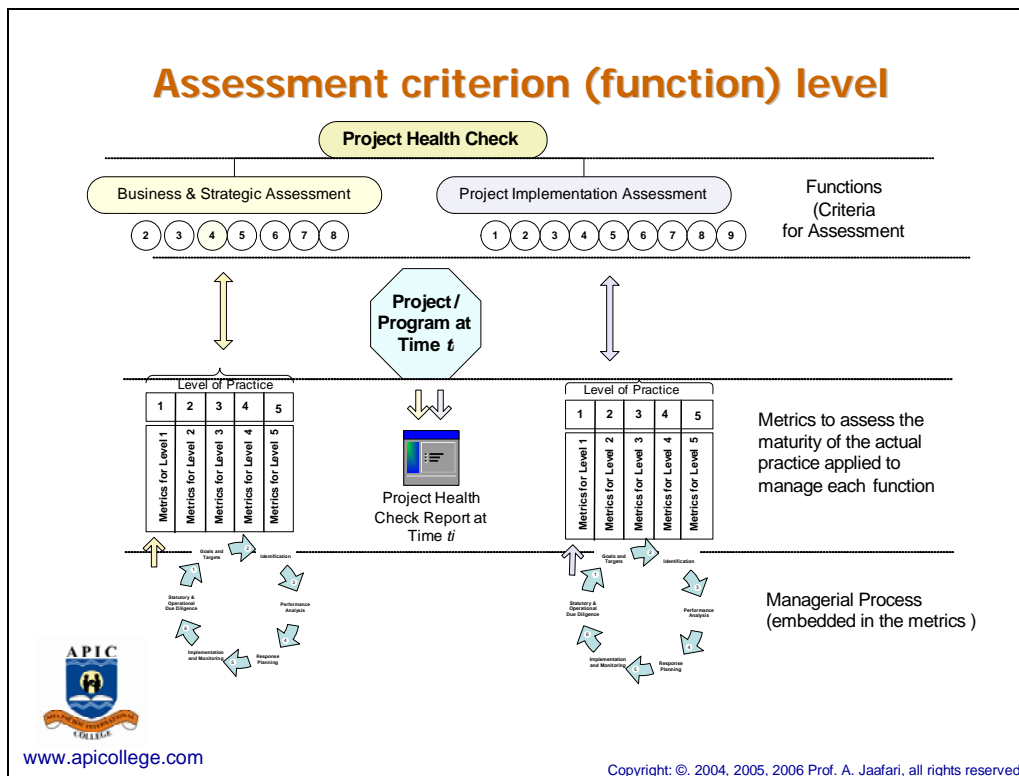
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This slide shows the actual criteria used for project implementation assessment. Note that project health assessment may be conducted at a level lower than criteria. Each criterion is characterised by a number of indicators and the assessment is conducted in terms of these indicators. There are 9 business and strategic assessment criteria and 9 project implementation assessment criteria. Together these criteria breaks down into 67 indicators.



This slide shows the generic managerial approach embodied in the PH-Check. Essentially it represents the best practice approach to management of the area or sub-area (enabling factor) represented by any criterion. It assumes that the project management team has set itself some goals to achieve (the quality of goal setting is also included in this assessment process). The team periodically identifies the areas under consideration on the project (i.e. issues relating to the same), sets up processes and systems to manage it then measures the performance to highlight shortcomings, comes up with a response plan, implements and monitors that response and checks to see that statutory and operational constraints can be met.



This slide shows the structure of assessment at criterion level.

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Business and strategic management functions			
<u>Core Function</u>	<u>Indicators</u>	<u>Core Function</u>	<u>Indicators</u>
Customers & Markets	business priorities, innovation and branding	Supply Chain System	project supplies
	alignment with sponsor organisation's strategy		warehousing & inventory management
	building of distinctive capabilities	Learning & Innovation	competency acquisition
	customers vision, values & culture		new work methods
	existing operational support		knowledge support for project teams
Stakeholders	operators support	Finance	distributed teamwork
	customers experience		project finance including currency hedging
	suppliers and partners experience	cost estimation, budgeting & cash flow forecasting (contingencies)	
Technology	external stakeholders	Project Delivery	business case & portfolio management
	process or conversion technologies		accounting and financial administration
	schematic or concept design		project delivery strategy & policies
	operability and functionality requirements	contractor pre-qualification rules and selection process	
Facility Design and Operational Requirements	product or users specification	Risks and Due Diligence	contracts administration model (conflict resolution)
	process alignment & integration		HSE & statutory risks
	cycle time reduction		management competence
	waste minimisation		process and operational risks
	internal efficiencies & benefits		procurement and transportation risks
			manufacturing and construction risks
			natural disasters & force majeure risks (insurance)

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This slide shows the indicators that pertain to each of the criteria used to assess the performance of the management team with respect to business and strategic functions.

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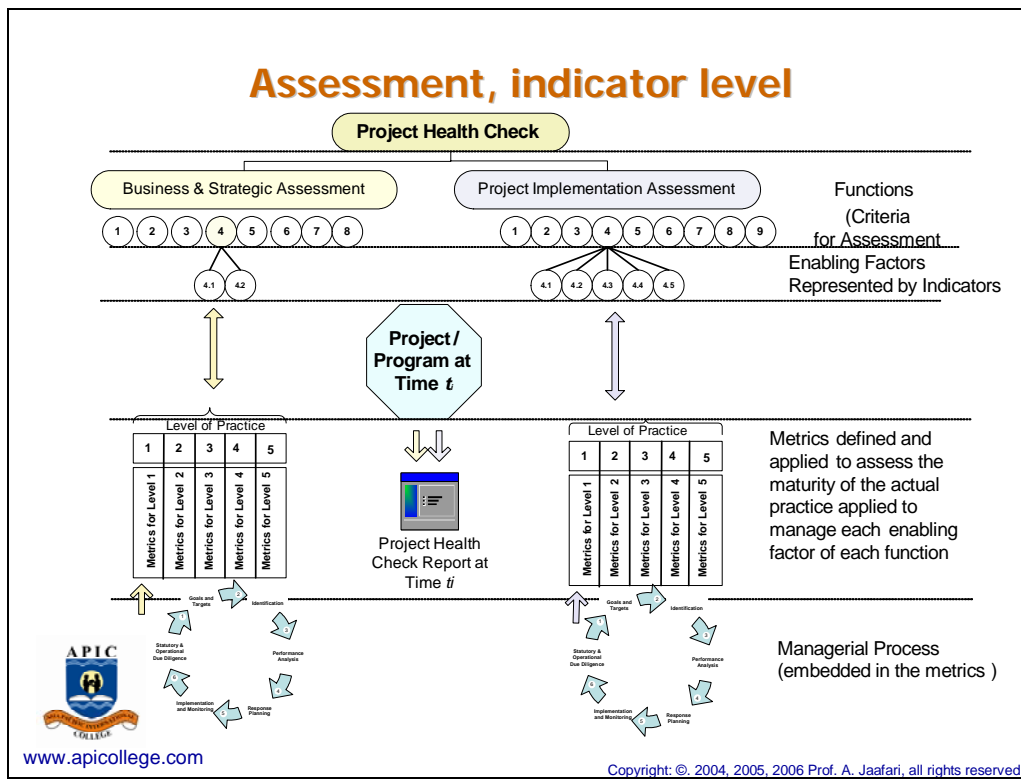
Project implementation functions

<u>Core Function</u>	<u>Indicators</u>	<u>Core Function</u>	<u>Indicators</u>
Governance & Leadership	leadership & top management support	Planning and Control	HSE and statutory requirements
	governance structure		performance assessment, forecasting & reporting
	timely actions or decisions	Team Performance	project human resources
	team culture & commitment to project goals		skills assessment and training
	maintenance of high morale		teamwork performance
Engineering, Detailed Design & Specifications	basic design (including part/product breakdown structure & configuration management)	Information & Communications Management	project and internal communications
	detailed design & integration		public relations and external communications
	parts specifications and documentation		information and documentation management
Procurement, Transportation & Warehousing	procurement policies, strategy & plan	Quality Management	quality management master plan
	execution and control of procurement		construction and manufacturing quality assurance
	handling, shipping & local transportation		administration and conflict resolution
Planning and Control	implementation master plan (scope, WBS integration)	Offsite Management	knowledge management
	scope and change management		utilities and support projects
	scheduling and time management	Risk Management	training and induction of users/operators
	cost and financial management		risk management master plan
			ongoing risk management and closure

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This slide shows the indicators that pertain to each of the criteria used to assess the performance of the management team with respect to project implementation functions.



This slide shows assessment by PH-Check at indicator level.

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Sample assessment matrix (indicator)

Step3: Check matrix items				
Matrix 1/8		Criterion: Customers & Markets		Indicator : business priorities, innovation and branding
Level 1	Level 2	Level 3	Level 4	Level 5
<input checked="" type="checkbox"/> Has the project team identified business priorities, innovation and branding?	<input checked="" type="checkbox"/> Has the project team set goals related to business priorities, innovation and branding?	<input checked="" type="checkbox"/> Has the project team consulted the stakeholders and set goals wrt business priorities, innovation and branding?	<input type="checkbox"/> Is the project team tracking changes to business priorities, innovation and branding continually and revising or realigning the goals accordingly?	<input type="checkbox"/> Has the project team assembled the necessary information, modelled business needs and requirements and set or confirmed business priorities, innovation and branding needs?
<input checked="" type="checkbox"/> Does the project team apply a basic process for managing business priorities, innovation and branding?	<input checked="" type="checkbox"/> Does the project team apply a streamlined process and tools for managing business priorities, innovation and branding?	<input checked="" type="checkbox"/> Does the project team apply a refined process to manage business priorities, innovation and branding?	<input type="checkbox"/> Does the project team apply an optimum process and related tools for management of business priorities, innovation and branding?	<input type="checkbox"/> Does the project team apply the model throughout project life to determine changing business priorities, innovation and branding?
<input checked="" type="checkbox"/> Has the project team included all activities related to business priorities, innovation and branding in the project plan and implemented the same?	<input checked="" type="checkbox"/> Did the project team identify the scope related to business priorities, innovation and branding in the early phase?	<input type="checkbox"/> Did the project team identify business priorities, innovation and branding in the early phase considering the goals?	<input type="checkbox"/> Has the project team quantified or has otherwise measured and optimised the project scope wrt business priorities, innovation and branding?	<input type="checkbox"/> Does the project team apply tools to systematically track the challenges of business priorities, innovation and branding over project life and revise the respective goals?
	<input checked="" type="checkbox"/> Has the project team included activities related to business priorities, innovation and branding in the plan and implemented relevant activities?	<input type="checkbox"/> Has the project team included activities related to business priorities, innovation and branding in the project plan and implementing the same as per the process?	<input type="checkbox"/> Has the project team allocated responsibility for business priorities, innovation and branding to a manager who ensures that all activities are identified and included in the project plan in a timely manner?	<input type="checkbox"/> Has the project team applied advanced tools, such as simulation, to investigate the project's capacity to meet business priorities, innovation and branding?
	<input checked="" type="checkbox"/> Has the project team assessed its performance on management of business priorities, innovation and branding considering the goals?	<input type="checkbox"/> Has the project team assessed its performance and improved the plan wrt business priorities, innovation and branding considering the goals?	<input type="checkbox"/> Does the project team apply the process to systematically implement & manage business priorities, innovation and branding considering the goals?	<input type="checkbox"/> Has the project allocated responsibility for business priorities, innovation and branding to a manager and monitors the project capacity to meet business priorities, innovation and branding?
			<input type="checkbox"/> Does the project team measure and assess its performance on business priorities, innovation and branding goals and take corrective action?	<input type="checkbox"/> Does the project team assess project status frequently wrt business priorities, innovation and branding, and has it obtained and compared the results with feedback received from stakeholders and taken corrective action?
			<input type="checkbox"/> Has the project team demonstrated that it meets or exceeds goals set for management of business priorities, innovation and branding?	<input type="checkbox"/> Can the project team demonstrate optimal and dynamic management of the project wrt business priorities, innovation and branding considering the respective

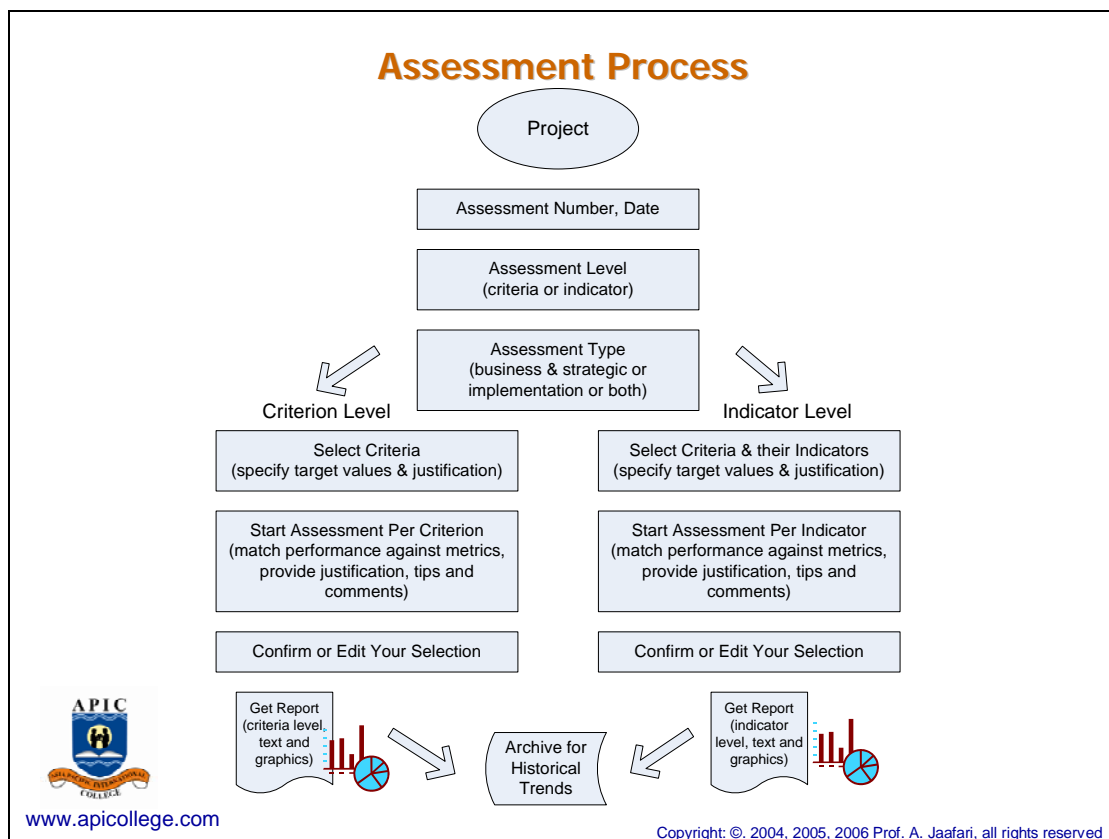


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This is a just sample of assessment matrix that is used to assess the performance of the management team. There are 67 assessment matrices corresponding to the indicators. If assessment is conducted at criterion level there will be 18 assessment matrices corresponding to 18 criteria (9 for business and strategic and 9 for project implementation).

The user may choose to conduct at criteria or indicator level but not both. Assessment at indicator level is naturally more accurate and detailed but will take more time. The score for a given criteria is that average of the scores against each indicator pertaining to that criteria.



This slide shows the assessment process. First, one decides which criteria are significant in a given assessment run or a given project. The system will only assess against the selected criteria. It is also possible to specify which indicators pertaining to a given criterion are significant in a given assessment run. For selected criteria or indicators the user need to enter a target value. That is the target that the management team expects to manage the criterion or the indicator under consideration. Also, the user needs to state his/her reasons or justifications for selecting the target values and or specify where he has obtained these values with reference to project key documents.

After that the user will be presented with the respective assessment matrices of the type shown in the previous slide. It starts with business and strategic assessment and then proceeds to project implementation assessment (one at a time if the assessment is to cover both divisions). The health of the project is checked by answering from the left to right the questions posed in the assessment matrices. If a question in the column under consideration is not true (cannot be ticked) then the user shall stop the assessment process against the given criterion or indicator at that point and submit the results. Note that the user should provide justification, comments and tips to support his/her assessment. There is a text box under each matrix for this purpose. The system will return an average score for each criterion or indicator following completion of the entire assessment process. If no selection is made from the assessment matrix for a given indicator or criterion, the its score is assumed to be zero. Once all results for a given division are reviewed and do not need any modification they may be submitted to the system. Submitted values cannot be edited and are stored in the database for future references and for report purposes.