

LEAN ASSESSMENT, LEAN AUDIT, BENCHMARKING



How to understand current situation?

How to check progress?

How to set and get the milestones?

LEAN ASSESSMENT, LEAN AUDIT, BENCHMARKING

Project Title: Lean Learning Academies (LLA)

Project Number: 503663-LLP-1-2009-1-BE-ERASMUS-ECUE

Grant Agreement: 2009 – 3308 / 001 - 001

Sub-programme or KA: ERASMUS



Education and Culture DG

Lifelong Learning Programme

Disclaimer:

This project has been funded with support from the European Commission. This publication [communication] reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein.



Learning Objectives

- The purpose of the this module is to:
 - Present an overview of the several ways to understand the current situation of lean implementation
 - Provide preliminary information for building a self-assessment grid


Group Activity

- Let's consider the following situation:
 - A Romanian company founded in 1990, producing communication equipment, exporting 70% of products to EU
 - Using Lean Manufacturing, the company managed to produce 400 products weekly, with less time and in perfect order, while using the “traditional” production method they used to obtain hardly 150 products per week, and not without pain.
- Do you consider that this is a good situation?
 - Why?

How to Identify the degree of Leanness?



Introduction

- 
- When deciding to implement Lean or already embarked on a Lean journey, it is important to have answers to the following questions:
 - Which is the current situation? Where are you now? How lean are you?
 - Where do you want to be in the future?
 - How will you know you get there? Is it the best choice?
 - Where should we focus next?

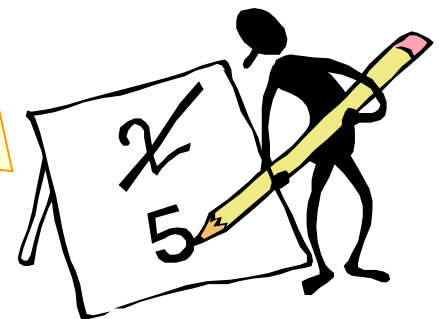
You've got to be very careful if you don't know where you are going, because you might not get there. (Yogi Berra)

Is our Organisation Lean?

- To understand the current situation and progress from old situation or towards future ones, it is important
 - To have:
 - ✦ A checklist
 - ✦ Metrics
 - ✦ An assessment method
 - To know
 - ✦ The gap between the current situation and the planned one
 - ✦ The issues requiring further improvement, as to
 - Set priorities for improvement
 - Plan for improvement



*What gets measured
gets rewarded and
what gets rewarded
gets done.*
(Mentzer, Industry Week 2007)

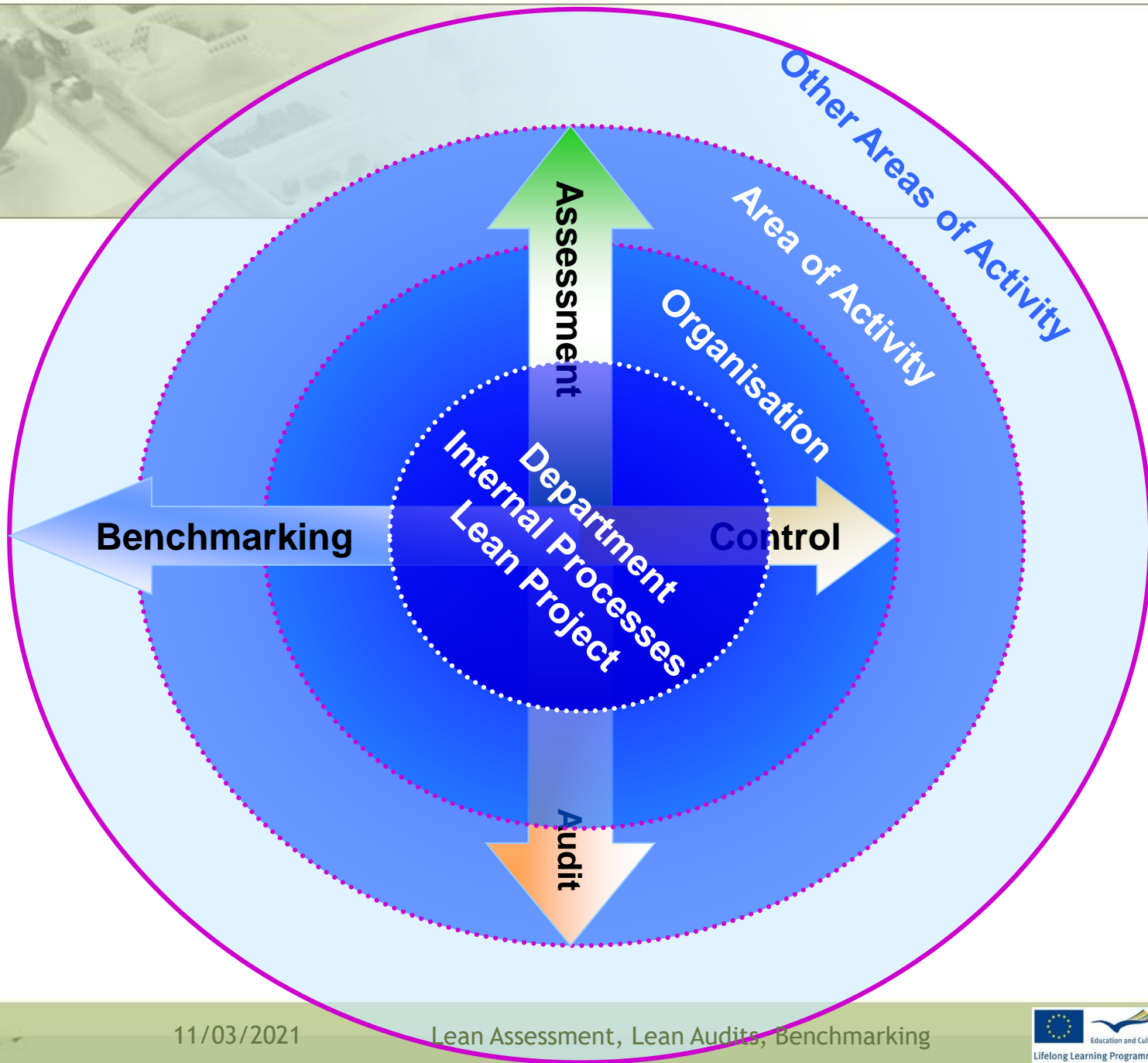


Different Levels of Lean Evaluation

- For acknowledging progress in using lean, lean evaluation methods may range from a very simple method to more complex ones, as follows:
 - A superficial and subjective appreciation of lean progress
 - ✦ Based on perceptions of the main stakeholders
 - ✦ It does not require special indicators or forms, but a **checklist** with some questions to be answered by managers and other people involved, aiming more at drawing attention on sensible topics than to actually identify the degree of leanness
 - A more objective assessment (**Lean Assessment**)
 - ✦ Pre-developed questionnaires are used to gather participants' opinions based on a series of indicators of quite general use.

Different Levels of Lean Evaluation (2)

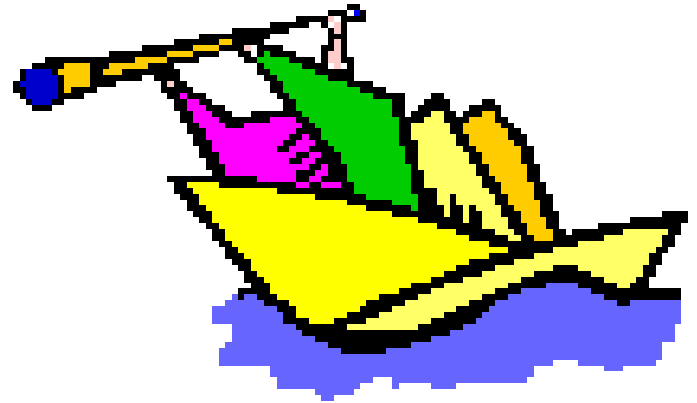
- Even more challenging assessment (**Lean Self-assessment**)
 - ✦ The most common method is to use periodically a self-assessment form – a self-designed tool for self-assessing the present state of “leanness” of an enterprise and its readiness to change
- A complex assessment (**Lean Audit**)
 - ✦ Based on a clear methodology, using a detailed assessment form, observations and indicators calculated over certain periods, regular analysis, involving clients and suppliers, aiming at indication of the effectiveness of lean principles
- **Benchmarking**
 - ✦ Comparing against “best in class” companies, as to identify the relative level of leanness , but mostly to identify best practices to be used for improvement of own activities



Lean Evaluation

- Regardless the name and level of the evaluation method, it should be:
 - Simple, short and easy to understand and use the evaluation results
 - ✦ Focus on lean principles and on the assessment goals — don't ask questions about unrelated things or collect information that won't be used afterwards
 - ✦ Alignment with business performance planning (goals and results)
 - ✦ Provides guidance for “next improvement steps”
 - Clear
 - ✦ Don't ask several questions about the same thing in different parts
 - Accurate and stable (comparable results in time)
 - ✦ Gap analysis capability
 - Flexible
 - ✦ Use an impact factor to highlight priorities

Lean System



Doing it right when no one is looking. (Henry Ford)

- Lean Evaluation Objectives

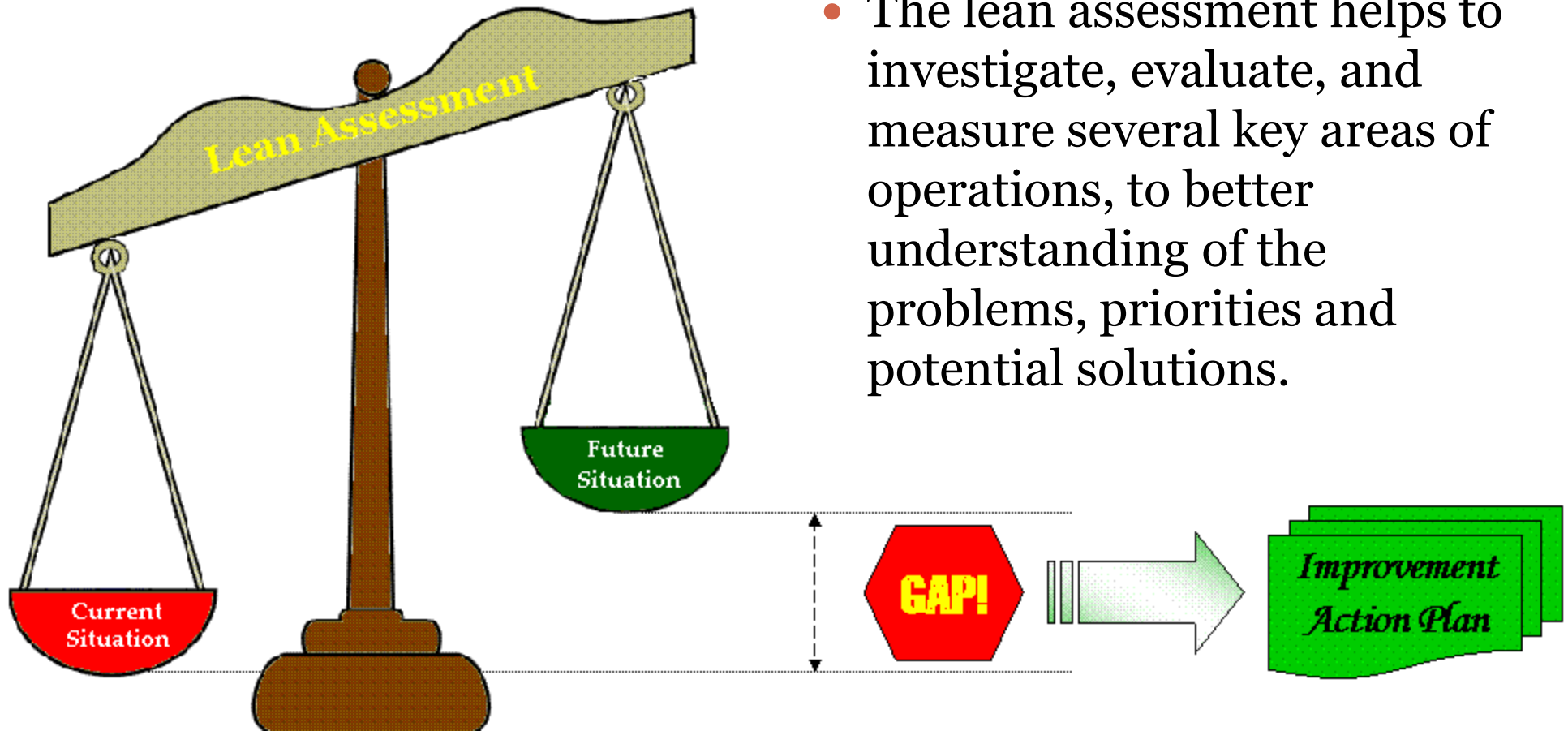
- Examples:

- ✦ Degree of leanness
- ✦ Degree of reaching the improvement goals
- ✦ Objective identification of Gaps
 - What is causing the gaps?
- ✦ Highlighting the improvement priorities to increase value added
- ✦ Knowledge and understanding of what it takes to improve business performance
- ✦ Determines how well management of the program is working

Lean Assessment



Lean Assessment



- The lean assessment helps to investigate, evaluate, and measure several key areas of operations, to better understanding of the problems, priorities and potential solutions.

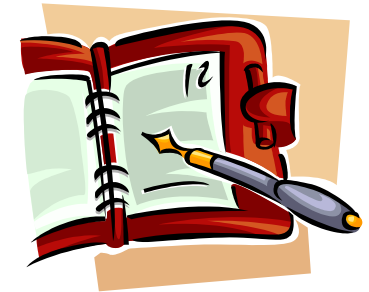
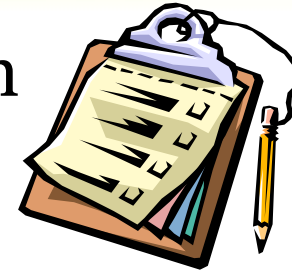
Christopher Columbus (1451-1506)



- “When he left his port, he did not know where he was going to. When he arrived, he did not know where he was. When he returned, he did not know where he had come from.”
(Management Today, 1998)

Steps of the Lean Assessment Process

- 1. Know the current situation
 - Selecting the area of interest
 - Using SMART metrics
- 2. Set the lean objectives
 - Future situation
- 3. Create the lean assessment method and plan lean assessment process
- 4. Perform the lean assessment
- 5. Gap analysis and act upon findings to make improvements



First Two Steps of the Lean Assessment Process

- 1. Know the current situation
 - Selecting the area of interest
 - Using SMART metrics
- 2. Set the lean objectives
 - Future situation

These 2 steps are discussed in detail in other modules.

3. Create the Lean Assessment Method and Plan Lean Assessment Process

- Design
 - Setting the evaluation goal
 - ✦ Why evaluation is being undertaken
 - ✦ Develop and agree on clear goals for your lean journey
 - Selection of key areas to be evaluated
 - Selection of the measures (KPIs) that will be used for evaluation
 - ✦ Only information relevant for the lean assessment goals
 - Questionnaire preparation
- Planning
 - Frequency of use of the evaluation tools
 - People involved and specific tasks for
 - ✦ Collecting the right information
 - ✦ Analyzing and reporting the evaluation results

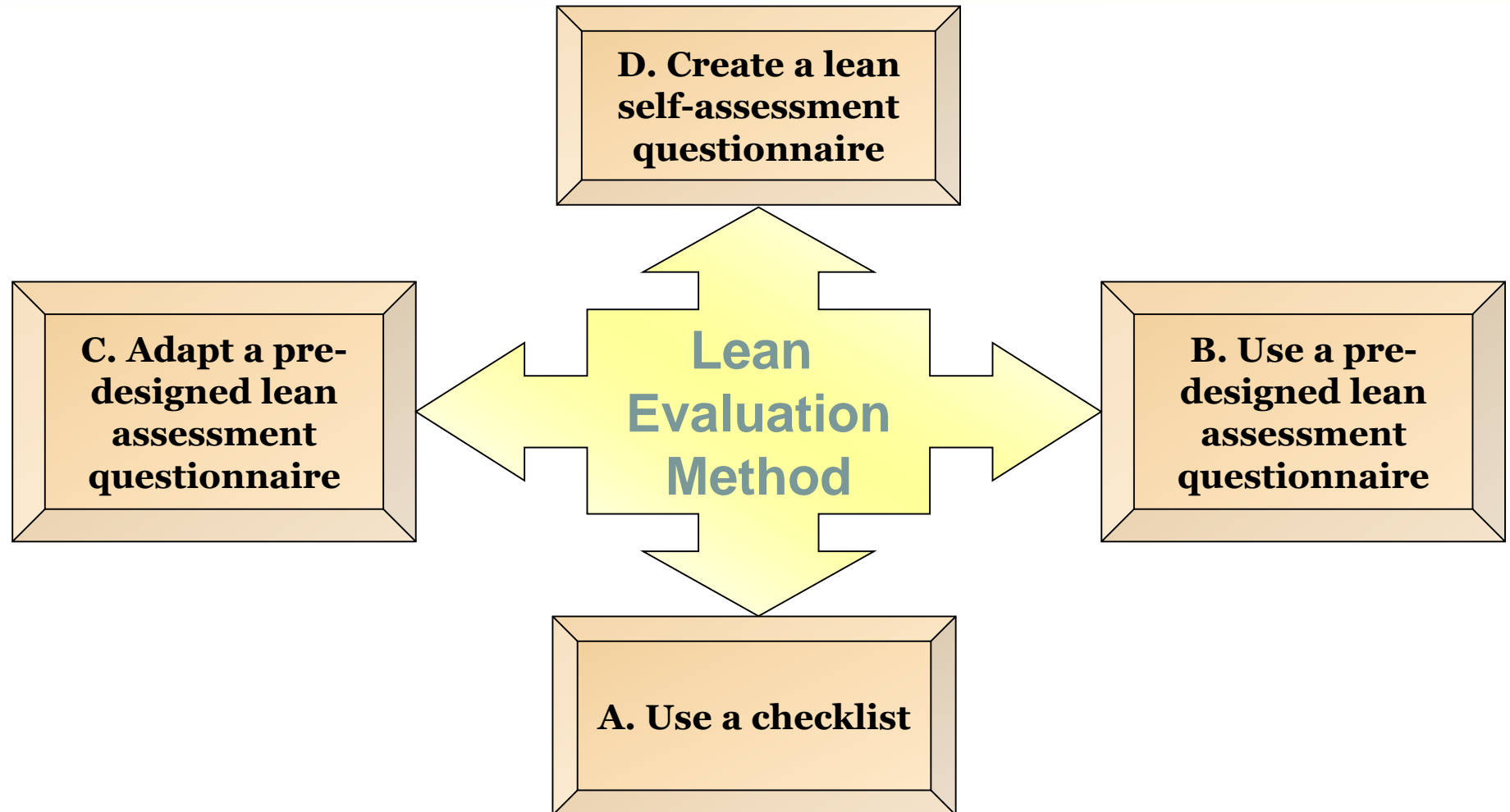
3.a. Designing an Evaluation

- Designing a lean evaluation method means having answer to most of the following questions regarding:
 - a) People
 - Who should conduct the evaluation process?
 - ✦ Internal? - Weigh the advantages and disadvantages of using internal people as evaluators, in terms of time required, availability, expertise, and objectivity; a way to avoid biased data interpretation is to use people from other departments. Either way, internal evaluators need training for doing the job.
 - ✦ External? - Outside evaluators may offer expertise and objectivity, but this may involve added expenses for the organisation.
 - Who will benefit by having the evaluation results?
 - Who and how should take actions based on the evaluation results?
 - B) Information
 - C) Follow-up

3.a. Designing an Evaluation (2)

- Designing a lean evaluation method means having answer to most of the following questions regarding:
 - a) People
 - B) Information
 - Is it clear the scope of the evaluation? Are the areas to be evaluated set and clear?
 - Are the goals and objectives of the evaluation clear and measurable?
 - How will evaluation data be collected and analyzed?
 - ✦ Counting of results, incidents, other events
 - ✦ Review of records and previous data
 - ✦ Observation
 - ✦ Video or photographic documentation
 - ✦ Interviews
 - ✦ Surveys
 - How will evaluative information be reported or presented? How often?
 - C) Follow-up

Lean Assessment Questionnaire





A. Use a Checklist

- Advantages

- Simple
- No need for special training
- One-time action

- Disadvantages

- Subjective
- General
- No follow-up opportunities

Example of Lean Checklist

- For each of the following area, give your opinion:

	non-satisfactory	satisfactory	good	very good
Inventory	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Processes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Team	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Planning and production scheduling	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Maintenance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Suppliers	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Work Standards, internal discipline	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Quality	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Visual management	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

b. Use a Pre-designed Lean Assessment Questionnaire

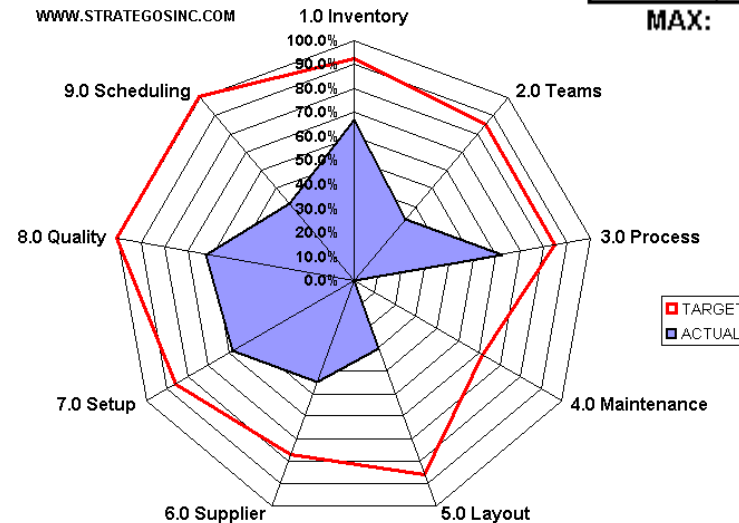
- **Advantages**
 - Simple
 - No need for special training
 - It may be used repeatedly, to show progress in time
 - It saves time - it is not needed to "recreate the wheel" ever and ever again
 - One may find out how well it worked for others and learn from their success and mistakes
- **Disadvantages**
 - Rather subjective, because not all of indicators are specific for the actual activities
 - Too general
 - Not-fitted for every specific situation

Example: Strategos Lean Assessment Tool

<http://www.strategosinc.com/assessment.htm>

Section	Question	Response	Score
1.0 Inventory	For the subgroups of Finished Goods, Work-In-Process (WIP) and Purchased/Raw Materials, what portion of middle and upper management can state from memory the overall inventory and the purpose of each type?	8X-6X	0
		7X-55X	0
		5X-38X	0
		3X-18X	0
1.2	What is the overall inventory turnover, including Finished Goods, WIP and Purchased/Raw materials?	8-3	0
		4-5	0
		7-62	0
		19-24	0
1.3	What is the ratio of inventory turnover to the industry average?	4-3	0
		4-3-8	0
		2-4-8	0
		4-1-8-8	0
2.0 The Team Approach	2.1 What is the organization type?	Empirical	0
		Non-empirical	0
		Consulting	0
		Participative	0
2.2	How are workers on the factory floor compensated?	Highly Participative	0
		Individual Incentive	0
		Hourly Wage	0
		Group Incentive	0
2.3	To what extent do people have job security?	Salary	0
		Salary/Group Bonus	0
		Empirical Group Wage	0
		Transparency	0
2.4	What is the annual personnel turnover	Empirical Group Wage	0
		Transparency	0
		Empirical Group Wage	0
		8X	0
2.5	What percentage of personnel (ALL Personnel) have received at least eight hours of teambuilding training?	14X-18X	0
		2X-14X	0
		3X-6X	0
		8X-2X	0
2.6	What percentage of personnel are active members of formal work teams, quality teams, or problem-solving teams?	45X	0
		6X-18X	0
		14X-18X	0
		34X-18X	0
3.0 Processes	3.1 How many large-scale machines or single-process areas are in the plant through which 50% or more of different products must pass?	4-	0
		3	0
		2	0
		1	0
3.2	How would you rate the overall bias of the plant's process selection with respect to scale?	Large Scale	0
		Medium/Small	0
		Small Scale	0
		Very Difficult	0
3.3	How easy is it to shift output when the product mix changes?	Medium/Very Difficult	0
		Easy	0
		Very Difficult	0
		Medium/Very Difficult	0
3.4	How easy is it to alter the total production rate by +/-15%?	Easy	0
		3X-18X	0
		44X-44X	0
		44X-44X	0

SECTION	SECTION POINTS	# OF QUEST	SECTION AVG	SECTION %	STRATEGIC IMPACT FACTOR	SECTION TARGET
1.0 Inventory	0	3	0.00	0%	12.0%	92.3%
2.0 Teams	0	6	0.00	0%	11.0%	84.6%
3.0 Process	0	6	0.00	0%	11.0%	84.6%
4.0 Maintenance	0	5	0.00	0%	8.0%	61.5%
5.0 Layout	0	5	0.00	0%	11.1%	85.5%
6.0 Supplier	0	5	0.00	0%	10.0%	76.9%
7.0 Setup	0	3	0.00	0%	11.1%	85.5%
8.0 Quality	0	4	0.00	0%	13.0%	100.0%
9.0 Scheduling	0	3	0.00	0%	13.0%	100.0%
SUM:					100%	
					MAX:	13.0%



C. Adapt a Pre-designed Lean Assessment Questionnaire

- **Advantages**
 - Rather simple
 - It may be used repeatedly, to show progress in time
 - More reliable results
- **Disadvantages**
 - It implies some time to study and adapt the questionnaire
 - New indicators to be monitored
 - Need for some internal training

Before Adapting a Pre-designed Lean Assessment Questionnaire

- To be able to adapt a a pre-designed lean assessment questionnaire, it is better to:
 - Get information about the organisation
 - ✦ Overall and specific results, responsibilities and hierarchy, structure, culture, existing indicators used for control
 - Talk with relevant people
 - ✦ About best practices, specific procedures and work standards, process control and improvement
 - List the needed data to be provided by the different internal departments, regarding:
 - ✦ Inventory, quality, production, processe, HR, etc.
 - Correlate internal available data with information relevant for the client, in order to split VA from NVA
 - Set the level and details needed for lean evaluation
 - ✦ Level of employees, team leaders or other managers, according to different departments
 - Do they know the lean goals? Do they take part to process about facts, not excuses or opinions? etc.

D. Create a Lean Self-assessment Questionnaire

- **Advantages**
 - Fitted for specific purposes
 - Focus on the overall enterprise level
 - Reliable and specific results
 - It may be used repeatedly, to show progress in time
- **Disadvantages**
 - It implies time and effort to design a questionnaire integrated into a specific lean evaluation method
 - New indicators to be monitored
 - Need for specific internal training

Areas for Lean Evaluation

- Lean evaluation should be made from several perspectives

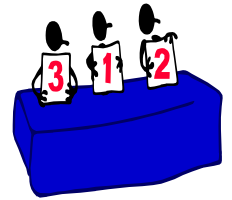
- Examples:

- ✦ Lean Transformation / Leadership / Vision / Communication
- ✦ Product/Process Development
- ✦ Supply Chain Management
- ✦ Processes
- ✦ Acquisition
- ✦ Environmental Health & Safety, cleanliness, order
- ✦ Standardized processes
- ✦ Common tools and systems
- ✦ Management of complexity and variability, variation reduction

- Examples (cont.):

- ✦ Human involvement/commitment, teamwork and motivation
- ✦ Customer satisfaction
- ✦ Visual management system
- ✦ Planning and production scheduling system
- ✦ Use of space, layout, movement of materials and product line flows
- ✦ Levels of inventory and WIP
- ✦ Condition and maintenance of equipment and tools
- ✦ Quality
- ✦ Setup
- ✦ Problem solving

- For each area relevant for the existing/desired situation of the specific organisation, the lean assessment questionnaire uses 3-6 questions for each area, with multiple-choice answers.
- For scoring, a specific scale should be prepared.
 - Scoring can be done individually and reviewed by teams
 - Perform the assessment from a general perspective, NOT focusing only on best known area
 - Attempt to assess every element, but if impossible to give an objective answer or N/A , better leave it blank

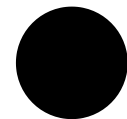
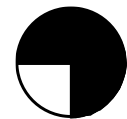
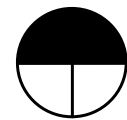
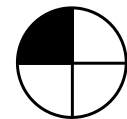
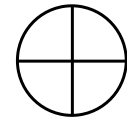


The Scoring Scale for Lean Evaluation

- **Typical evaluation scale:**
 - Level 1 – Some awareness of the practice; sporadic improvement activities in a few areas
 - Level 2 – General awareness of the practice; informal approach deployed in a few areas with varying degrees of effectiveness and sustainment
 - Level 3 – A systematic approach/methodology deployed in varying stages across most areas; facilitated with metrics and process control
 - Level 4 – On-going continuous improvement across the enterprise; improvement gains are sustained
 - Level 5 – Exceptional, well-defined, innovative approach is fully deployed across the extended enterprise (across internal and external value streams); recognized as best practice
- For each area of evaluation, detailed personalisation of the above scale should be prepared and communicated to selected evaluators; whenever needed, a table for translating measures into marks from 1 to 5 is provided

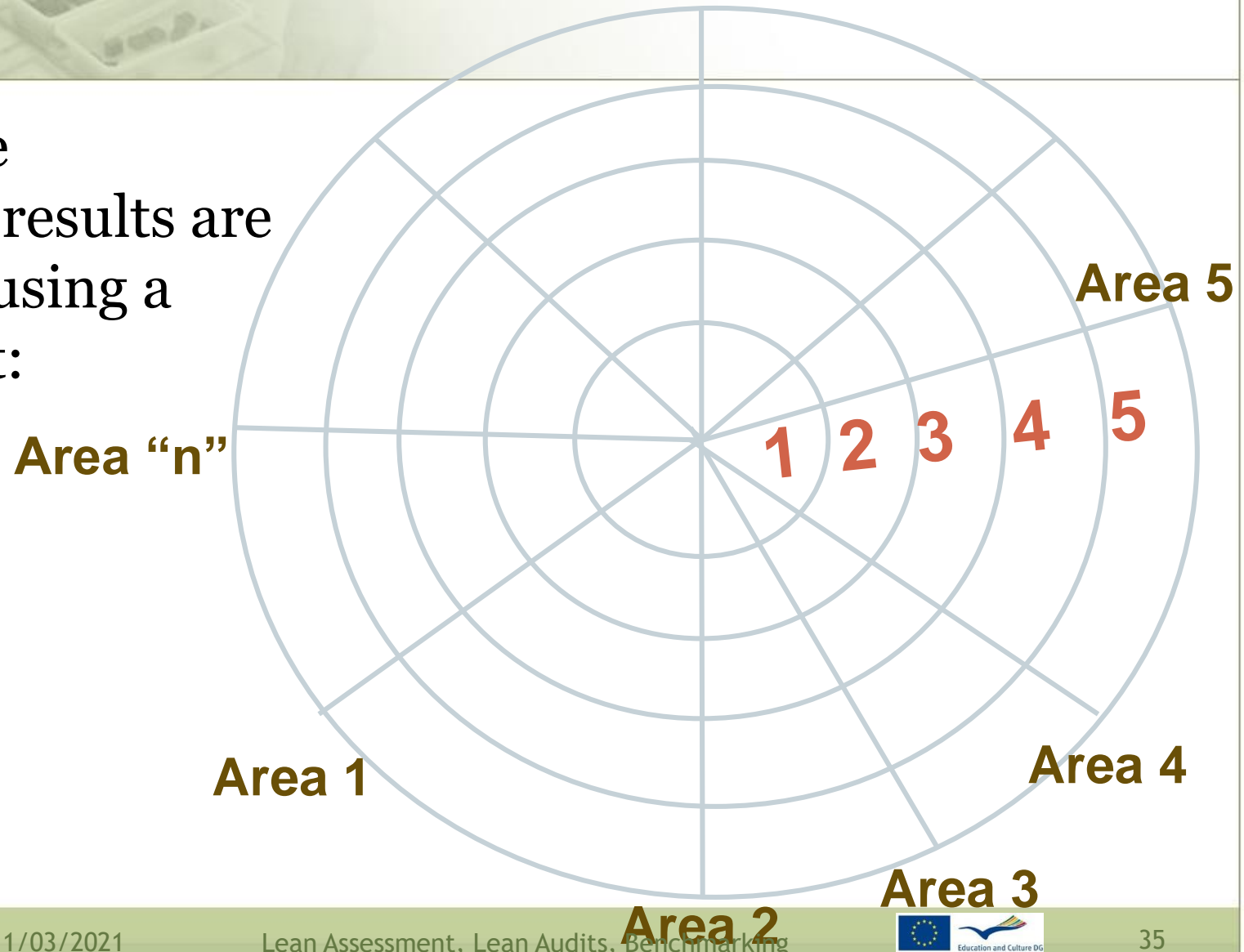
• Other example:

- 1: 0% - Not existing
- 2: 25% - Only available in some areas
- 3: 50% - Commonly existing but not in the majority of cases
- 4: 75% - Very typical, some exceptions
- 5: 100% - Everywhere in plant, no exceptions



Lean Evaluation Radar Chart

- Usually the evaluation results are presented using a radar chart:



Criteria for Assessment Team Selection

- Cross functional team of evaluators, from all shifts, for example:
 - Accounting
 - Customer Service
 - Engineering / Human Resources
 - Materials / Purchasing
 - Manufacturing
 - Quality
 - Sales / Marketing
- Minimum 10 participants / maximum 30

3.a. Designing an Evaluation (2)

- Designing a lean evaluation method means having answer to most of the following questions regarding:
 - a) People
 - B) Information
 - C) Follow-up
 - Use the results of the assessment to identify improvement opportunities and set improvement actions

3.b. Planning

- **Planning implies providing answer to several questions:**
 - How often to perform the lean assessments?
 - Who will carry out the lean assessment?
 - How much time do they need to obtain data and report the assessment results?
 - What methods will be used for obtaining, analysing and reporting the relevant data?
 - How will be monitored the assessment follow-up activities, when and by whom?

4. Perform the Lean Assessment

- **Performance**
 - Periodical questionnaire administration
 - Collaborate with relevant department to obtain needed data
 - Collect data
 - Make an executive report of the assessment results
 - Identify improvement opportunities

5. Gap Analysis and Act upon Findings to Make Improvements

- Improvement actions
 - Data analysis
 - ✦ Gap analysis
 - ✦ Set improvement priorities
 - Plan improvement actions
 - Diffusion of results and get commitment for improvement.

- Examples of how assessment results should be used:

Area	Assessment Result	Cause	Action/deadline/responsible
1.			
2.			
n.			

REMEMBER!

- Lean evaluation is an essential part of successfully lean implementation; it must be planned for from the very beginning!
- The purpose is to discover greatest needs for improvements, not how high the score is at a certain moment.

Success is possible only if protection mechanisms against failure have been included in the improvement plan.

(Boyle's Law)



Benefits of Lean Evaluation

- **Benefits**
 - Increased communication of goals and expectations
 - Permanent identification of current overall and specific problems
 - Support for lean behaviours development and recognition
 - Identify and support those persons who lack adequate education in lean
 - The assessment process is as valuable as results
 - ✦ Accent on processes, problem solving and continuous improvement

Lean Assessment Recommendations

- Do not to criticize the lean methods or outcomes at a certain moment

- It is like in sports:



*"The important thing in life is not to triumph but to compete."
(Pierre de Coubertin)*

- All effective methods or practices should be used at potential best practice for other areas, as applicable.
- Always check if the metrics being used really makes possible to see the progress toward the goal
- Do not focus only on cost savings exclusively - the key goal is **PRODUCTIVITY** and **IMPROVEMENT** (*Doing More with Less*)

Lean Audit



Scope of Lean Audit

- Effectiveness of lean principles
- Lean, fit-for-purpose quality processes that add value
- Evidence of a lean culture and lean behaviours
- Evidence of awareness of external standards of excellence
- Evidence of evaluation against performance indicators – do we have enhancement indicators/targets?

- It looks for answers to questions similar to these:
 - What are we trying to do?
 - Why are we doing it?
 - How are we doing it?
 - What is the best way to do it?
 - How do we know it works?
 - How can we improve it?
- Evidence sources (not exhaustive)
 - Management Information
 - External Audit Reports
 - Personnel Feedback
 - Strategic Plan

- It has two phases:
 - 1. Audit performance
 - ✦ Select lean tools to be audited
 - ✦ Measure how "lean" the organisation is by how well the lean tools are employed.
 - Collect information on the use of lean tools
 - Evaluate the company's level of success at using each lean tool on a scale from 1 to 5, for example
 - If requested, provide suggestions for improvement of use of the respective tool
 - 2. Audit results presentation
 - ✦ Prepare a written lean audit report and a 5-10 minute executive summary of the report.



- **Examples of Lean Tools to be Audited**

- 1. One-piece flow
- 2. Takt time and OEE
- 3. 5S
- 4. Kanban
- 5. Kaizen
- 6. Visual control
- 7. Poka Yoke
- 8. Autonomation (Jidoka)
- 9. Production levelling
- 10. Total productive maintenance (TPM)
- 11. Single minute exchange of die (SMED)
- 12. Standard work

Benchmarking



Definitions

- **Benchmark**
 - Benchmark = point of reference, standard
 - A “best-in-class” performance level recognized as the standard of excellence or as the reference for a certain process
- **Benchmarking**
 - The process of finding and adapting best practices to improve organizational performance
 - ✦ It involves a systematic and continuous measuring and comparing process against business leaders anywhere in the world to gain information which will help the organization take action to improve its performance.
- **Benchmarking gap**
 - The difference in performance between the benchmark for a particular activity and the performance of the organisation initiating the benchmarking process

Definitions (2)

- **Best in Class (synonym with “best practice”)**
 - The best performance that can be identified for a specific process without regard to the industry or type of organization; outstanding process performance within an industry
- **Best Practices**
 - Those superior or innovative practices that have been proven to produce superior results, selected by a systematic process.
- **Networking**
 - The development and management of a contact base for reasons such as knowledge sharing and peer support.

What is Benchmarking?

- Benchmarking is the practice of learning through comparing
 - It involves a process for identifying and importing best practices of the best performing organisations within the industry, or within any other industry to improve own performance
- Benchmarking is characterised by two essential issues:
 1. Systematic comparisons based on measurements (**focus on facts**)
 2. Use of best practices identified during benchmarking with the best organisations, in order to improve own performance

Group Activity

- Look at the picture.
- Give 10 short sentences about the facts seen in the pictures.
- Group discussions



See the difference between
FACTS and **OPINIONS**?

Why Benchmarking?

- First of all because it is better to learn from others' mistakes, than to repeat the same mistakes on your own.
- Benchmarking means learning from practice, not from theory.
- It involves meeting people motivated for continuous improvement and usually enthusiasm is highly contagious.
- It makes everyone to start from analysing own activities, based on facts, not on opinions.
- It is a simple method, once that one has found the adequate benchmarking partner.
- The level of ambition increases: *“If they can do it, why don't we?”*.

Types of Benchmarking

- Regarding the targeted benchmarks:
 - Internal benchmarking
 - ✦ Benchmarking between different entities or parts of the same company
 - It is applicable mainly to large organisations where processes in one part are more efficient than processes in other parts; it is possible to be used not only for same type of activities.
 - External benchmarking
 - ✦ In the same area of activity, with:
 - Direct competitors - Competitive Benchmarking
 - Companies in the same industrial sector, but not direct competitors
 - Latent competitors
 - ✦ With companies outside the industry

Types of Benchmarking (2)

- Regarding the benchmarking objective:
 - Product Benchmarking
 - Process Benchmarking
 - ✦ It is the most common type of benchmarking - it concentrates on discovering best practices of a process regardless of industry.
 - Benchmarking of sites
 - Strategic Benchmarking
 - ✦ Analysis and comparing of world-class organizations or companies to identify opportunities for strategic change in core business processes.

Types of Benchmarking (3)

- Regarding the number of targeted benchmarks
 - One-to-one benchmarking
 - ✦ Comparing an entity with another one, which is considered to be a best practice
 - One-to-many benchmarking
 - ✦ Comparing an entity with the statistics of many other entities, better or worse, thus positioning the entity in focus into the range between the best and the worst performance.

Types of Benchmarking (4)

- Regarding the scope and complexity of the benchmarking process
 - Diagnosis Benchmarking (initial contact)
 - ✦ It is the first contact with the benchmarking partner; it may be based only on a questionnaire or also on an exploratory in-site visit, aiming mainly at confirming the match of the benchmarks with the desired outcomes
 - Holistic Benchmarking (general approach)
 - ✦ It involves a general screening of the benchmarking partner organisation, in order to identify best practices and to set priorities.
 - Process Benchmarking (detailed approach)
 - ✦ It concerns the detailed approach of the process selected for benchmarking.

Benchmarking Policy

- Benchmarking is based on several written or implicit rules regarding:
 - Misrepresentation
 - ✦ It is not acceptable to misrepresent someone's identity in order to gather information
 - Information requests
 - ✦ A request should be made only for information your organization would also be willing to share with the other company
 - Sensitive information
 - ✦ Usually benchmarking should avoid requests for sensitive or IP protected information
 - Confidentiality
 - ✦ All people involved in the benchmarking process should treat all information as confidential

The Main Steps of a Benchmarking

- As seen below, the benchmarking process implies the steps of a classical PDCA cycle:
 1. Planning
 2. Benchmarking visits
 3. Analyze data and provide improvement suggestions
 4. Act upon benchmarking findings

1. Planning

- 1.1. Decide what to benchmark
 - Identify main stakeholders and key focus areas
 - ✦ Identify key processes needing improvement
 - Establish the scope of benchmarking study
 - Develop measures for the key processes and a data collection plan
 - Communication and focus on management involvement and backing
- 1.2. Identify benchmarking partners (world leaders in performing the process)
- 1.3. Collect the data internally
 - Assessment of results
 - Set priorities
- 1.4. Develop benchmarking project plan
 - Plan the visit
 - ✦ Areas of interest/processes, objectives
 - ✦ Data collection forms, checklists
 - Prepare the visit agenda

2. Benchmarking Visits

- **Perform the visit and collect data**
 - Talk to the practitioners doing the process to obtain explanation and provision of insight into the existing best practices
 - Observe the process/work flow
 - Be prepared to offer equivalent information in return for information requested
 - Take notes or fill-in the data collection forms prepared in the previous step, marking ideas and thoughts for later action
- **If a site visit is not possible due to various factors (data already available, travel considerations, timing, costs), alternate methods should be used for collecting data**

3. Analyze Data and Provide Improvement Suggestions

- Conduct a debriefing session and develop an action plan as soon as possible after the visit
- Analyse the documents and the collection of experiences from the process
- Compare current operations with findings
 - Identify gaps - opportunities for improvement
 - Develop recommendations and implications in an improvement action plan
 - Develop the plan
 - ✦ Integrate goals into organization strategy
 - ✦ Obtain support of key stakeholders
 - ✦ Anticipate possible barriers to implementation
 - ✦ Create implementation teams
 - ✦ Obtain authorization for funding implementation
 - Produce and present the benchmarking final report
 - ✦ Send a copy of the report to the benchmarking partner

4. Improve the Process

- Dialogue within the department/staff involvement/tasks, to implement the improvement action plan
- Implementation of the improvement actions
- Monitor implementation
 - New measurements in selected areas of improvement
- Strategic assessment and communication of results
- Evaluation and new benchmarking processes if relevant
 - At this point, the following questions should be raised:
 - ✦ Are we where we expected to be? Do we need to reset our goals and tactics? Are there other companies we should benchmark? How should the benchmarking process be updated for the next time?

One-to-Many Benchmarking

- It implies becoming part of a network enabling benchmarking services for its members
 - Networking means providing and gaining access to information
- Advantages
 - Continuous positioning against competitors gives a clear indication on the quality of own performances
 - ✦ Dynamic businesses need to anticipate and react early to change of needs
 - Networking is a quick and natural source of knowledge
 - ✦ Networkers understand they don't need to know everything, they just need to know who else has the information
 - ✦ Learning from experience is the easiest way to improve performance

What Benchmarking is NOT...

- **Benchmarking is NOT...**
 - About stealing information, undercover work or espionage
 - Tour visits and industrial tourism
 - Just “copying” or “catching up”
 - A process continuous improvement tool apart from the organization’s mission, goals, and strategies
 - Just a “study” finalised with a report to be showed to visitors and investors
 - A set of ready-made solutions
 - Quick, cheap and easy

Conclusions



Conclusions and Recommendations

- Lean assessment should address objectives at each level of the hierarchy
- Lean assessment effectiveness depends upon the metrics used
 - Don't select indicators not currently used, to be calculated just for assessment purposes
- Lean generally means more output with less input. But input and output meanings depend upon the strategic management decisions.



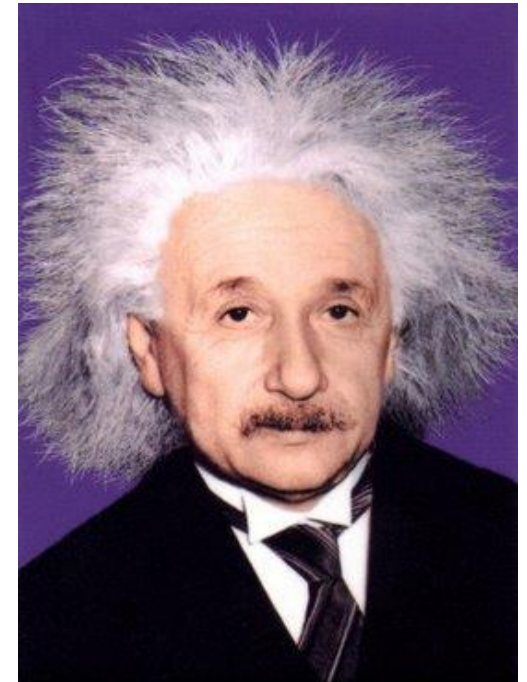
Conclusions

- Lean assessment aims at seizing the progress in becoming a leaner organisation, NOT an audit to identify nonconformities towards a standard.
 - It should not draw conclusions on the quality of the improvement solutions, but to highlight their effectiveness
 - It should enable spotting best practices

Concluding Thoughts

- **Albert Einstein:**

- *Not everything that counts can be measured. Not everything that can be measured counts.*



- If you do not plan to act upon lean assessment results, it is not worthwhile to do the assessment.

Bibliography and Useful Links

- Learning to See, Mike Rother, John Shook, The Lean Enterprise Institute, Inc., 1998
- Lean Thinking - Jim Womack, Daniel Jones, The Lean Enterprise Institute, Inc., 2003
- Learning to See, Mike Rother, John Shook, The Lean Enterprise Institute, Inc., 1998
- www.lean.org
- www.lean.ro

Cristina Musat - UTBv