



# E-LEARNING

Level 5



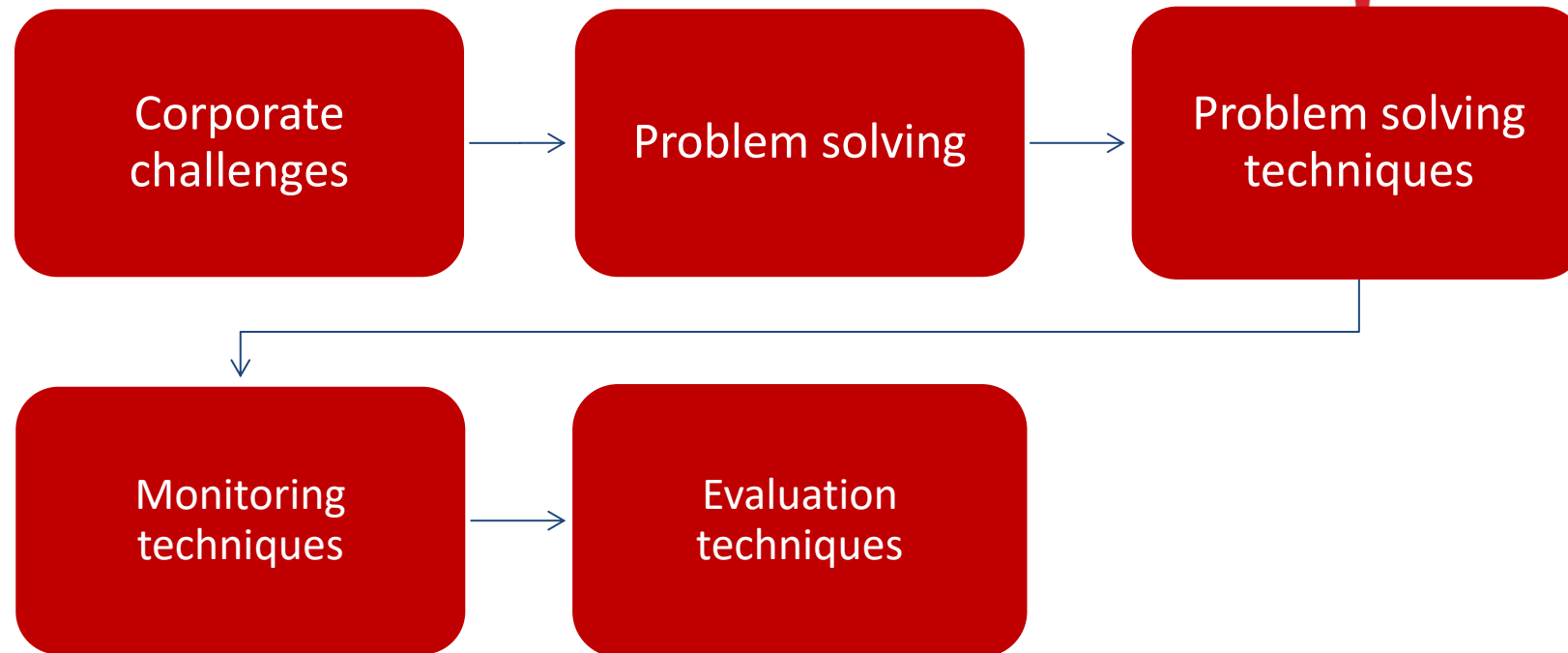
## WA12: Open mindedness and willingness to change

### 5.2 Demonstrate assistance at a corporate level

**LO5.21: Demonstrate ability to provide assistance at a corporate level through the generation of solutions to abstract problems that may be related to the strategy of the organization (such as expansion to new locations, new products, business reorganization, business disposal etc) or to the day to day running of the organization (eg developing and implementing new administrative systems, such as record management; suggesting new solutions such as CRM systems; ensuring adequate staff levels to cover for absences and peaks in workload, etc)**



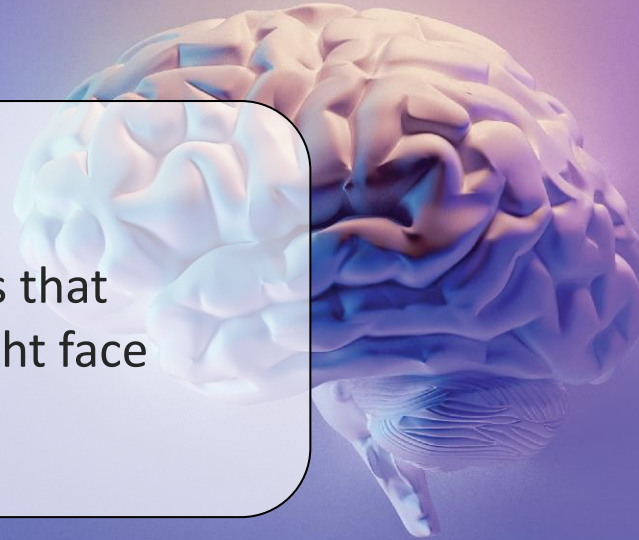
# Route Map



# Corporate challenges

## Reflection exercise

Consider any potential challenges that companies and organizations might face during their lifecycle.



# Corporate challenges

## Strategy related

- Expansions to new locations (local or international)
- Introducing new products or services
- Business reorganization (downsizing, business disposal, restructuring, etc.)
- Cross-border operation
- Hard competition

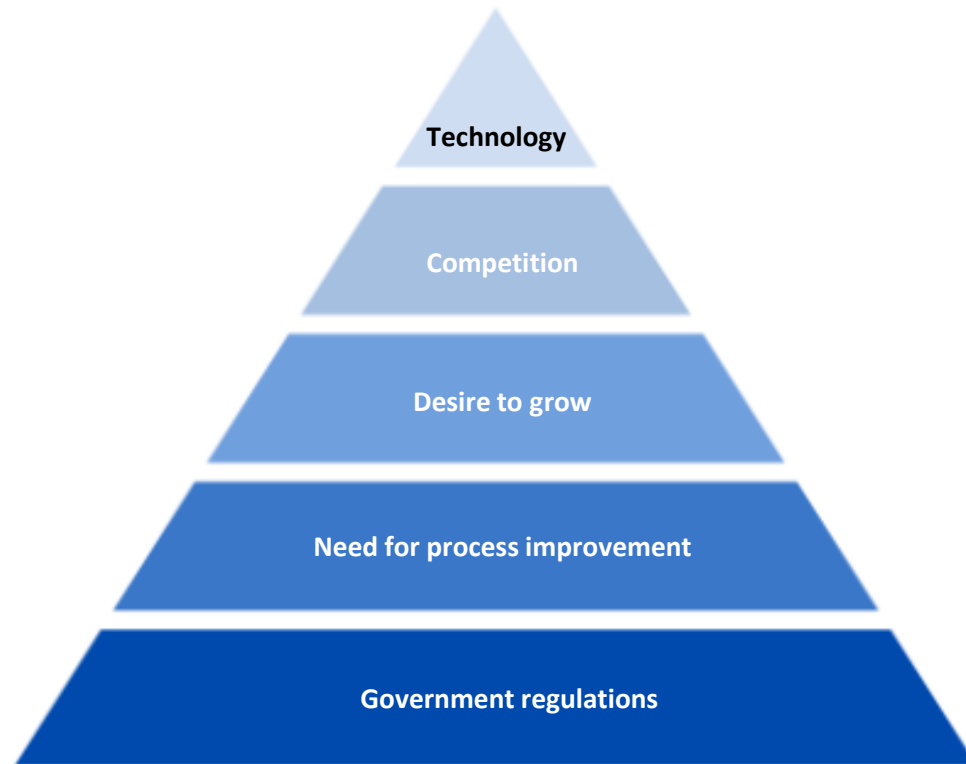
# Corporate challenges

## Daily operations related

- New administrative systems (development, adoption) such as record management, CRM systems
- Ensuring adequate staff levels at all times
- Office relocation
- State regulations
- Risk management
- Maintaining cash flow

# Corporate challenges

## Nature of the challenge



## **Scope of the challenge**

- Affects the whole organization
- Affects only a part or a department

## **Impact of the challenge**

- New opportunities
- Increased efficiency
- Encourages innovation
- Negative influence on some employees: loss of morale, increased stress



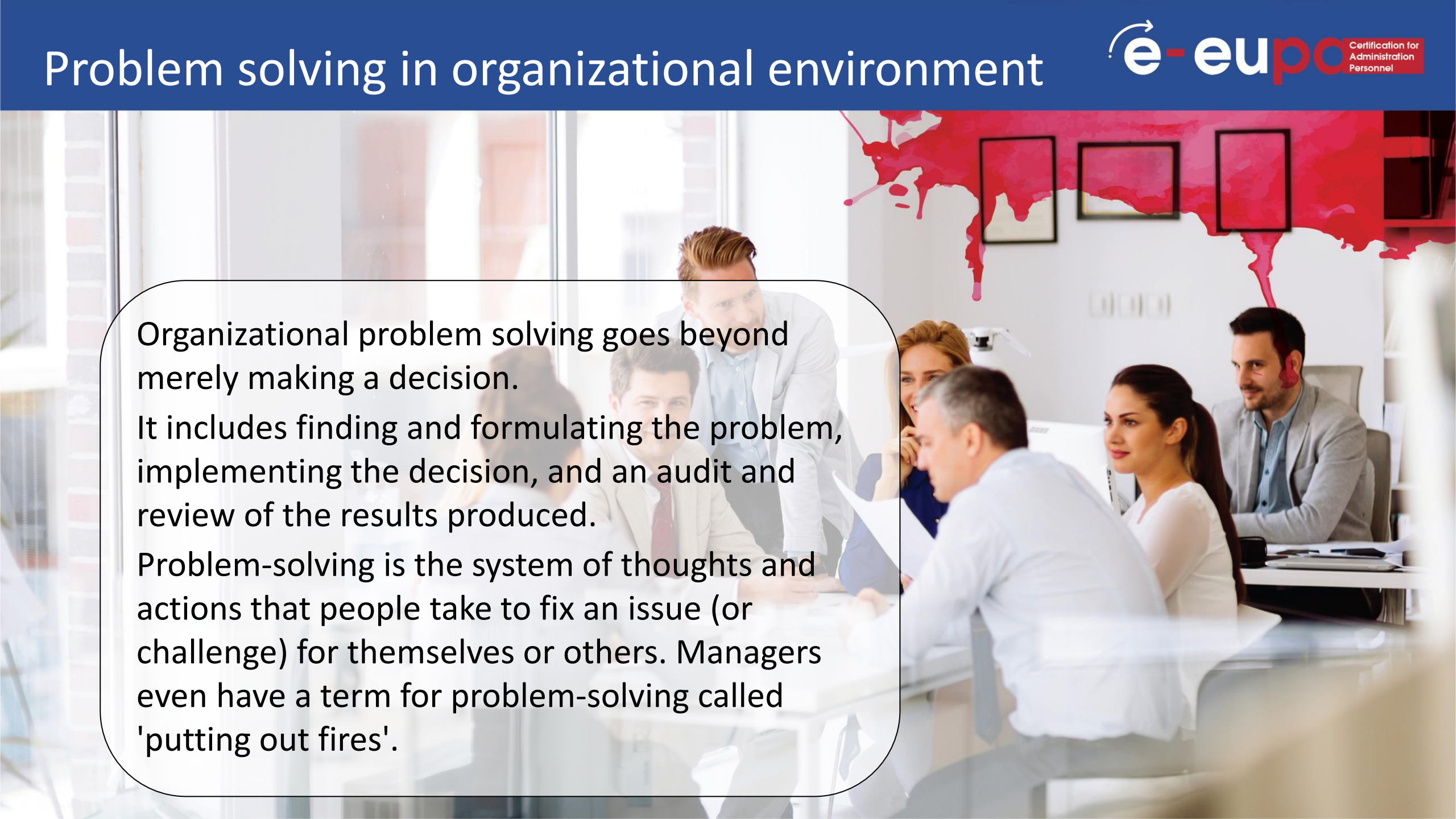


## **How can PA contribute to decision making when solving company problems and challenges?**

- Research information to add value to DM process
- Use accurate and current information to develop ideas to present to others
- Make constructive, relevant and timely contributions to meetings and discussions
- Structure ideas, information and recommendations in a way that helps people understand
- Contribute to identifying DM criteria
- Influence DM by using evidence, argument, questioning and assertiveness
- Show support for decision even if not in agreement

# Problem solving defined

The term problem solving is used in many disciplines, sometimes with different perspectives, and often with different terminologies. For instance, it is a mental process in psychology and a computerized process in computer science. Problems can also be classified into two different types (ill-defined and well-defined) from which appropriate solutions are to be made. Ill-defined problems are those that do not have clear goals, solution paths, or expected solution. Well-defined problems have specific goals, clearly defined solution paths, and clear expected solutions.



Organizational problem solving goes beyond merely making a decision. It includes finding and formulating the problem, implementing the decision, and an audit and review of the results produced. Problem-solving is the system of thoughts and actions that people take to fix an issue (or challenge) for themselves or others. Managers even have a term for problem-solving called 'putting out fires'.

# Problem solving skills

There are three main skills that good problem solvers have:

- Listening
- Evaluating
- Communicating



# Problem solving skills

- Listening is more than just sound waves hitting your eardrum; it is more about gaining a better understanding of a situation by discovering what the core of the problem is and how it is affecting others.
- You may have to listen to someone coming to you and telling you about a problem that needs to be solved or you may be listening to a supervisor to get advice on how to solve it.

# Problem solving skills

- Evaluating is a process where you take the information gathered from listening and make a determination about the source of the problem.
- At that point, you would evaluate your available options. Your options may be to take action, consult with others, pay someone to fix the problem, or do nothing.



# Problem solving skills

- Communicating is the skill needed to let others know about the decision that has been made. It does not do anyone else any good if you know the answer but keep it to yourself.
- Select the most appropriate form of communication that fits your message. For example, if your decision as a manager is to fire someone, then it would not be fitting to communicate this through a text message.

# Problem solving principles



Evaluate the problem

Gather information

Break problem into parts

Identify solutions

Select best solution

Take action

Examine results

Test and review



# Systematic problem solving

## 1. Is there a solution?

- There is always a solution.
- The first step is to believe this before trying to identify it!

## 2. Write it down

- Gather and interpret information to identify causes and possible solutions.
- Write everything down (all aspects of the situation).

# Systematic problem solving

## 3. Find the cause

- What caused this to happen?
- Only if you successfully identify the root cause, you will be able to find the right remedy.

# Systematic problem solving

## 4. Identify possible solutions

- Prepare a summary of the options providing facts and evidence.
- There is usually more than one solution.
- Apply simple decision making techniques to evaluate options to arrive at the best solution.

# Systematic problem solving

## 5. Finalize

- Plan the implementation and communication of the decision.
- Set a deadline to solve the problem!

# Systematic problem solving

## 6. Evaluate the solution

- Was it effective?
- Learn from successes and failures!



- **Abstraction:** solving the problem in a model of the system before applying it to the real system
- **Analogy:** using a solution that solves an analogous problem
- **Divide and conquer:** breaking down a large, complex problem into smaller, solvable problems
- **Hypothesis testing:** assuming a possible explanation to the problem and trying to prove (or, in some contexts, disprove) the assumption
- **Lateral thinking:** approaching solutions indirectly and creatively
- **Means-ends analysis:** choosing an action at each step to move closer to the goal

- **Method of focal objects:** synthesizing seemingly non-matching characteristics of different objects into something new
- **Proof:** try to prove that the problem cannot be solved. The point where the proof fails will be the starting point for solving it
- **Reduction:** transforming the problem into another problem for which solutions exist
- **Research:** employing existing ideas or adapting existing solutions to similar problems
- **Root cause analysis:** identifying the cause of a problem
- **Trial-and-error:** testing possible solutions until the right one is found



## Methods for generating ideas and solutions

- Brainstorming
- Brainwriting
- Morfologic Analysis
- Step ladder

## Methods for Decision Making

- Delphi method
- Paired Comparison Analysis (Pairwise Comparison)

# Brainstorming

- **Classic group creativity technique to find a conclusion for a specific problem by gathering a list of ideas spontaneously contributed by its members**
- **3-10 participants from different professional backgrounds**
- **Duration: 30 min. to several hours**



# Brainstorming rules



**BUILD ON THE IDEAS OF OTHERS**



**DEFER JUDGEMENT**



**STAY FOCUSED ON TOPIC**



**FAIL EARLY AND OFTEN**



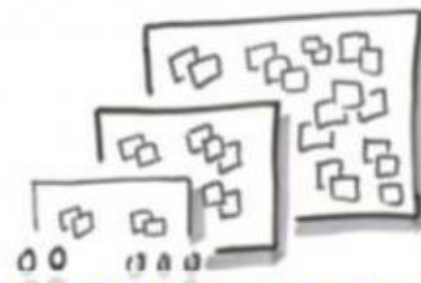
**BE VISUAL**



**ONE CONVERSATION AT A TIME**



**THINK USER-CENTRIC**



**GO FOR QUANTITY**



**GO FOR WILD IDEAS**

# Brainstorming step by step

1. Name the problem or state the question.
2. Let everyone think for a while.
3. Let them express their ideas.
4. Write all the ideas down.
5. Discuss the ideas, generate new ones.
6. Rate the ideas.
7. Discuss and brainstorm further on the selected ones.



# Brainwriting

- Participants use small paper cards to write their ideas, and hand them to the next participant, who can use it for his own inspiration, this way new ideas are being generated or ideas further developed
- **6-3-5 method** (brain writing variation) – 6 participants write **3** ideas in **5** minutes

# Morphological analysis

“... within the final and true world image everything is related to everything, and nothing can be discarded a priori as being unimportant.” (F. Zwicky)





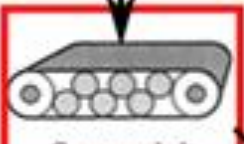









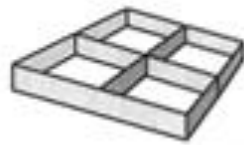

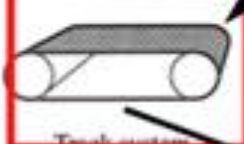

- Morphological analysis works through very simple processes, using two common principles of creativity: **decomposition** and **forced association**
- The problem is broken down into component variables and possible values identified for each.
- The association principle is then brought into play by ‘banging together’ multiple combinations of these values.

# Morphological analysis

## How to use it

- **Define the problem** in a short and clear statement.
- **Identify attributes and values** - list the things about the situation that can be varied or changed in some way. Select 2-6 variables to investigate further. For each of the variables, list possible values they may have, including those away from the conventional values (you can be creative at this step too).
- **Combing items** - from the lists you have created. If there are only two lists, then a matrix may be used as in the example below. Repeatedly combine selections of ideas generated, forcing all items together to build a creative solution.
- **Select ideas** to use or develop into practical solutions to your problem.

# Morphological analysis

	Option 1	Option 2	Option 3	Option 4
Vegetable picking device		 Triangular plow	 Tubular grabber	 Mechanical picker
Vegetable placing device	 Conveyor belt	 Rake	 Rotating mover	 Force from vegetable accumulation
Dirt sifting device	 Square mesh	 Water from well	 Slits in plow or carrier	
Packaging device			 Bowl	
Method of transportation		 Truck system	 Sled	
Power source	Hand pushed	Horse drawn	Wind blown	Pedal driven

Concept 1



## When to use it

- Use it when exploring new and different ideas.
- Use it to help unblock you when you are stuck.
- Use it to force a different way of thinking.

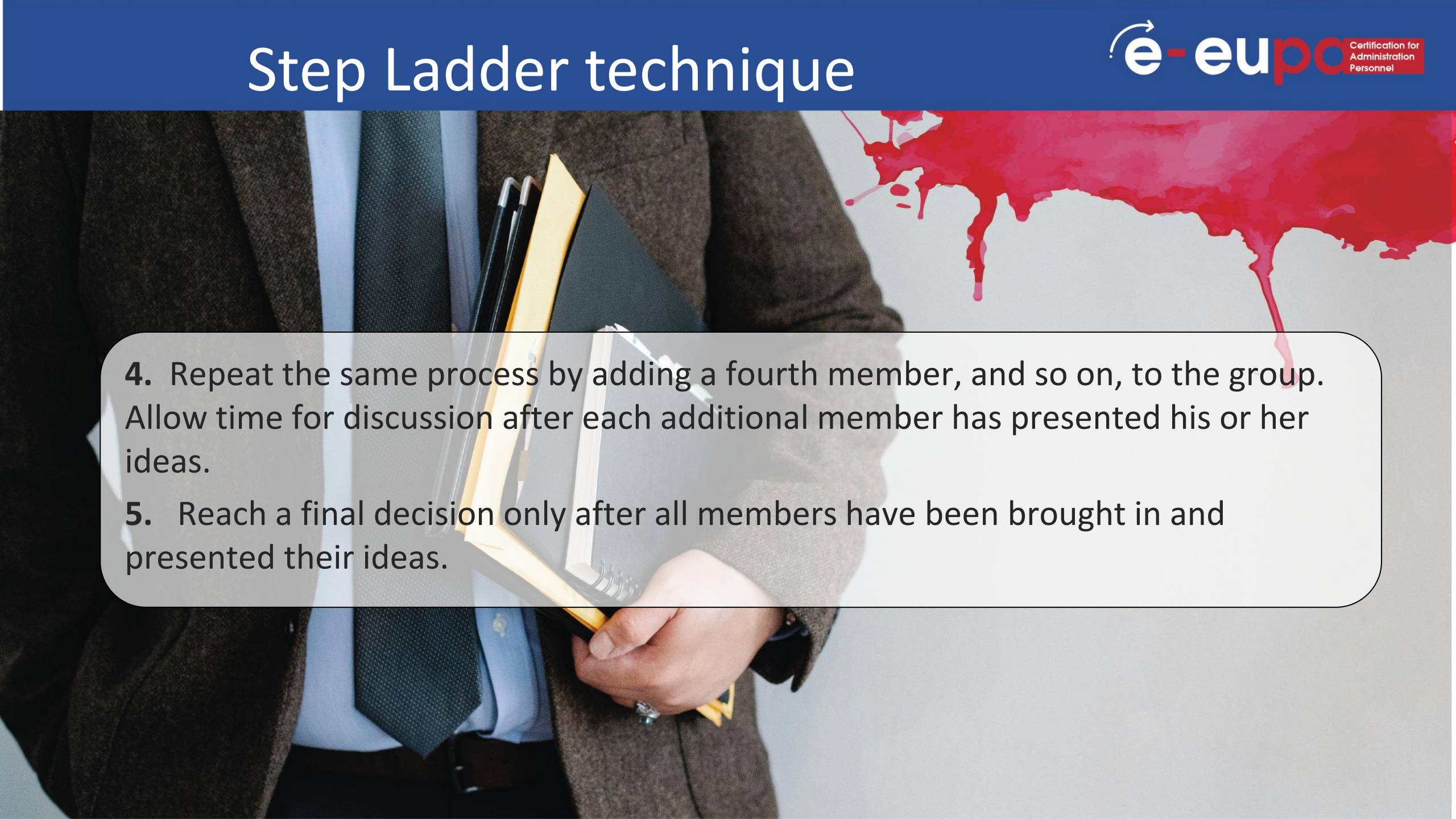


# Step Ladder technique

This technique, it encourages all members to contribute on an individual level BEFORE being influenced by anyone else, it helps people avoid being "stepped on" or overpowered by stronger, louder group members.

1. Before getting together as a group, present the task or problem to all members. Give everyone sufficient time to think about what needs to be done and to form their own opinions on how to best accomplish the task or solve the problem.
2. Form a core group of two members. Have them discuss the problem.
3. Add a third group member to the core group. The third member presents ideas to the first two members BEFORE hearing the ideas that have already been discussed. After all three members have laid out their solutions and ideas, they discuss their options together.

# Step Ladder technique

- 
4. Repeat the same process by adding a fourth member, and so on, to the group. Allow time for discussion after each additional member has presented his or her ideas.
  5. Reach a final decision only after all members have been brought in and presented their ideas.



**Solve company problem**

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# Paired comparison analysis

## **Helps to work out the importance of a number of options relative to one another.**

The tool is particularly useful when you don't have objective data to use to make your decision. It's also an ideal tool to use to compare different, subjective options, for example, where you need to decide the relative importance of qualifications, skills, experience, and team-working ability when hiring people for a new role.


- 1. Make a list of all of the options that you want to compare. Assign each option a letter (A, B, C, D, and so on) and note this down.*
- 2. Mark your options as both the row and column headings on the worksheet. This is so that you can compare options with one-another.*
- 3. Within each of the blank cells, compare the option in the row with the option in the column. Decide which of the two options is most important, and write down the letter of the most important option in the cell.*

# Paired comparison analysis

4. *Score the difference in importance between the options, running from zero (no difference/same importance) to, say, three (major difference/one much more important than the other.)*
5. *Finally, consolidate the results by adding up the values for each of the options. You may want to convert these values into a percentage of the total score.*
6. *Use your common sense, and manually adjust the results if necessary.*

	A: Overseas Development	B: Local Educational	C: University	D: Disaster Relief
A: Overseas Development		A, 2	C, 1	A, 1
B: Local Educational			C, 1	B, 1
C: University				C, 2
D: Disaster Relief				

# Monitoring techniques



**Monitoring:** This type of evaluation is performed while a project is being implemented, with the aim of improving the project design and functioning while in action.

*“an internal project activity designed to provide constant feedback on the progress of a project, the problems it is facing, and the efficiency with which it is being implemented”*

## Examples of monitoring techniques include:

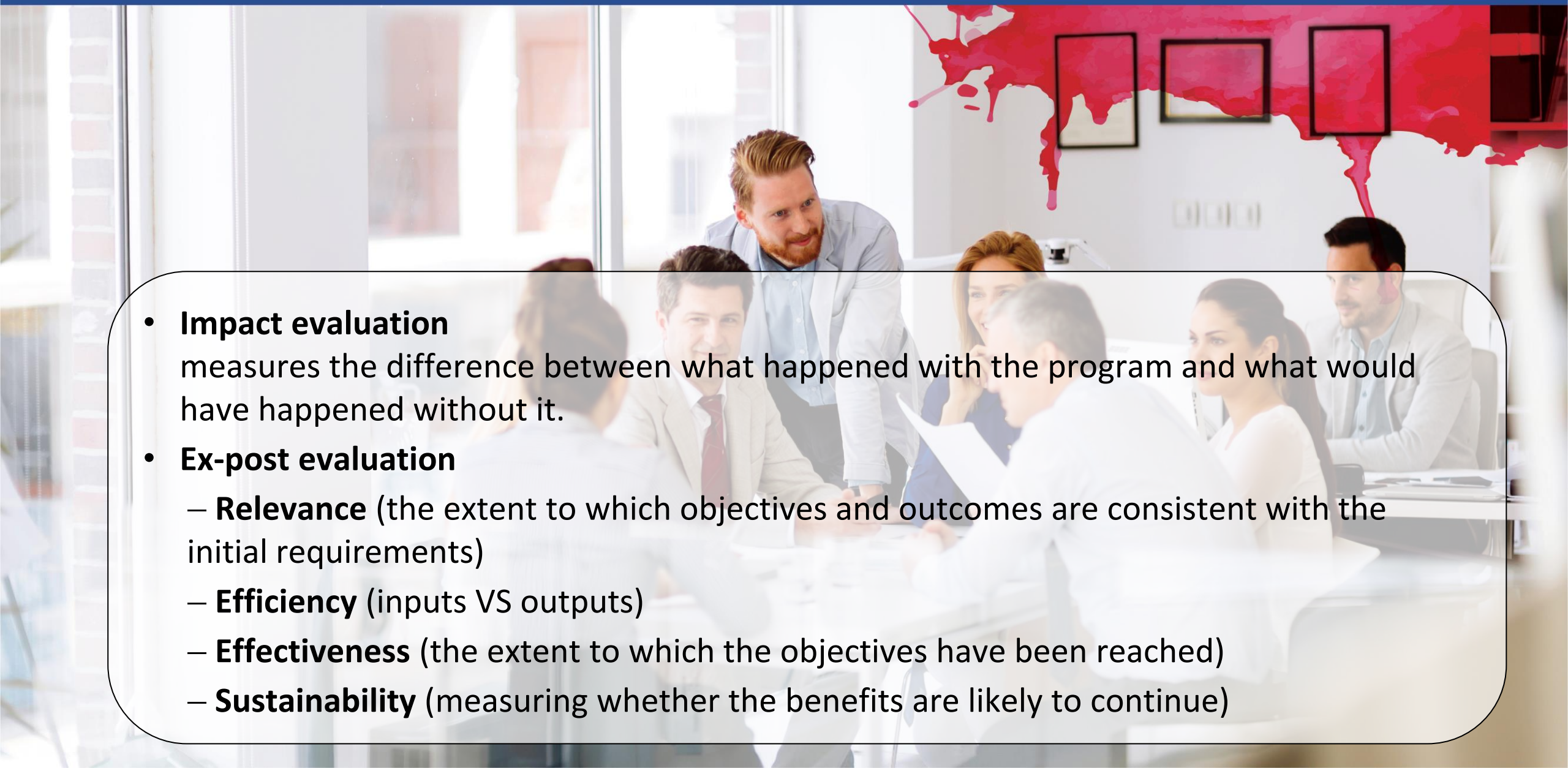
- Activity monitoring reports
  - Project status report
  - Project schedule chart
  - Financial status report
- Staff meetings
- Record reviews
- Qualitative techniques to measure attitudes, knowledge, skills, behavior and experiences
- Statistical reviews from administrative databases

# Evaluation techniques

An **evaluation** studies the outcome of an action with the aim of informing the design of future projects.

*“mainly used to help in the selection and design of future projects. Evaluation studies can assess the extent to which the project produced the intended impacts and the distribution of the benefits between different groups, and can evaluate the cost-effectiveness of the project as compared with other options”*



- 
- **Impact evaluation**  
measures the difference between what happened with the program and what would have happened without it.
  - **Ex-post evaluation**
    - **Relevance** (the extent to which objectives and outcomes are consistent with the initial requirements)
    - **Efficiency** (inputs VS outputs)
    - **Effectiveness** (the extent to which the objectives have been reached)
    - **Sustainability** (measuring whether the benefits are likely to continue)



**Shipwrecked**

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# Revision Questions

## Revision Question 1

List problems organizations can face during their lifecycle.

## Revision Question 2

List decision making and problem solving techniques.

## Revision Question 3

Recall the main principles of problem solving.

## Principles of problem solving:

- Problem definition and evaluation
- Gathering information
- Breaking problems into parts
- Identifying solutions
- Selecting the solution
- Taking action
- Examining the results
- Testing and review

## Brainstorming rules:

- Build on ideas of others
- Defer judgement
- Stay focused on topic
- Be visual
- One speaking at time
- Go for quantity
- Go for wild ideas

# WELL DONE



## You have completed Unit 5.2!



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