VI. Idea Evaluation and Selection

The Situation after Idea Generation

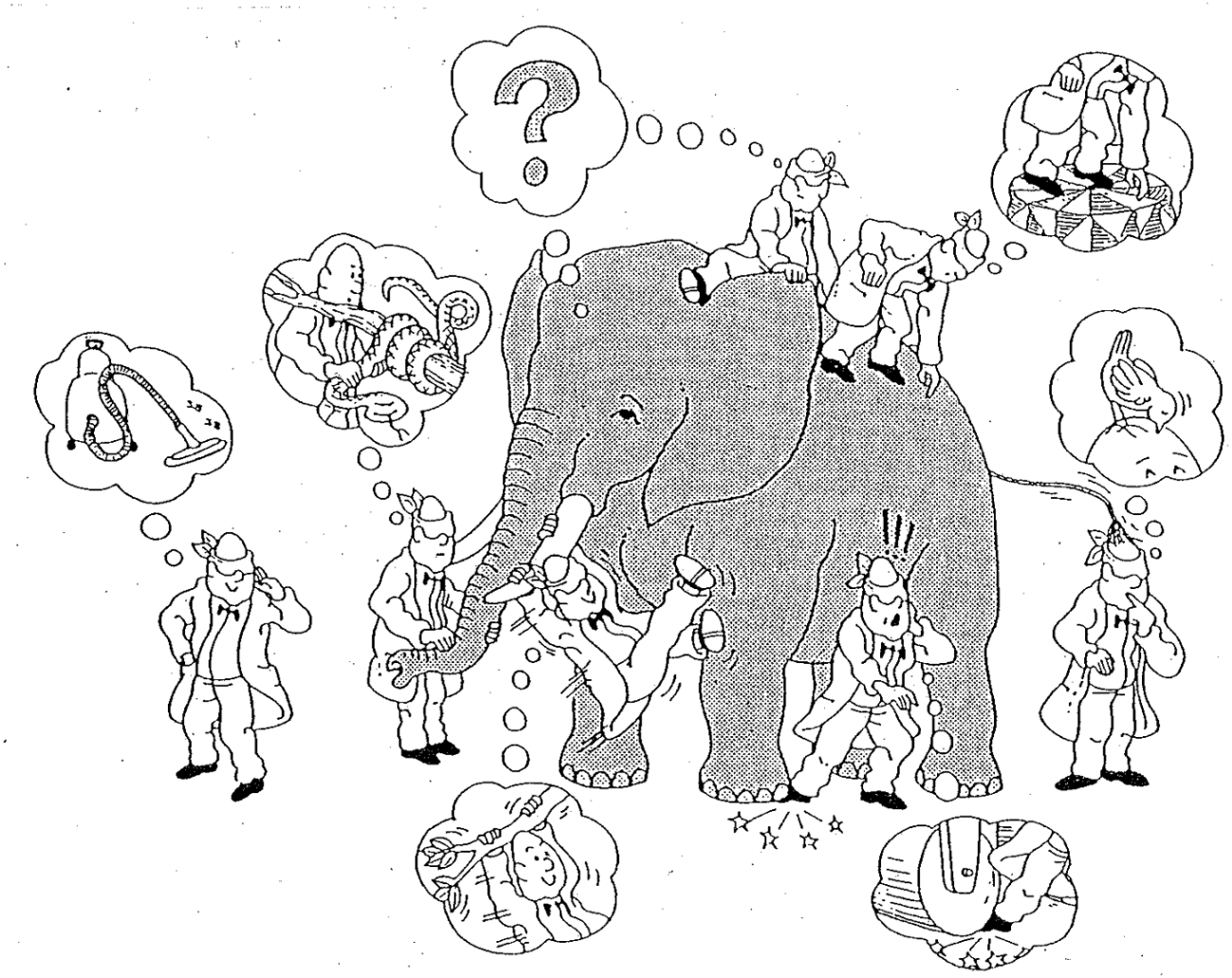
- A big number of ideas are listed, however only a few can be realized.
- Most ideas are only vaguely described.
- The information about the individual ideas is generally low.
- In a rather short period of time a few ideas have to be selected for further investigation and development.

Problems for the (Non-self) Evaluators

- A judgement has to be given on the basis of **incomplete information and insufficient knowledge of details.**

- Evaluation needs also fantasy and creative thinking on
  - the final product and
  - the social, economic and technical environment of usage of the product.

Wrong Interpretation Because of Limited Insight

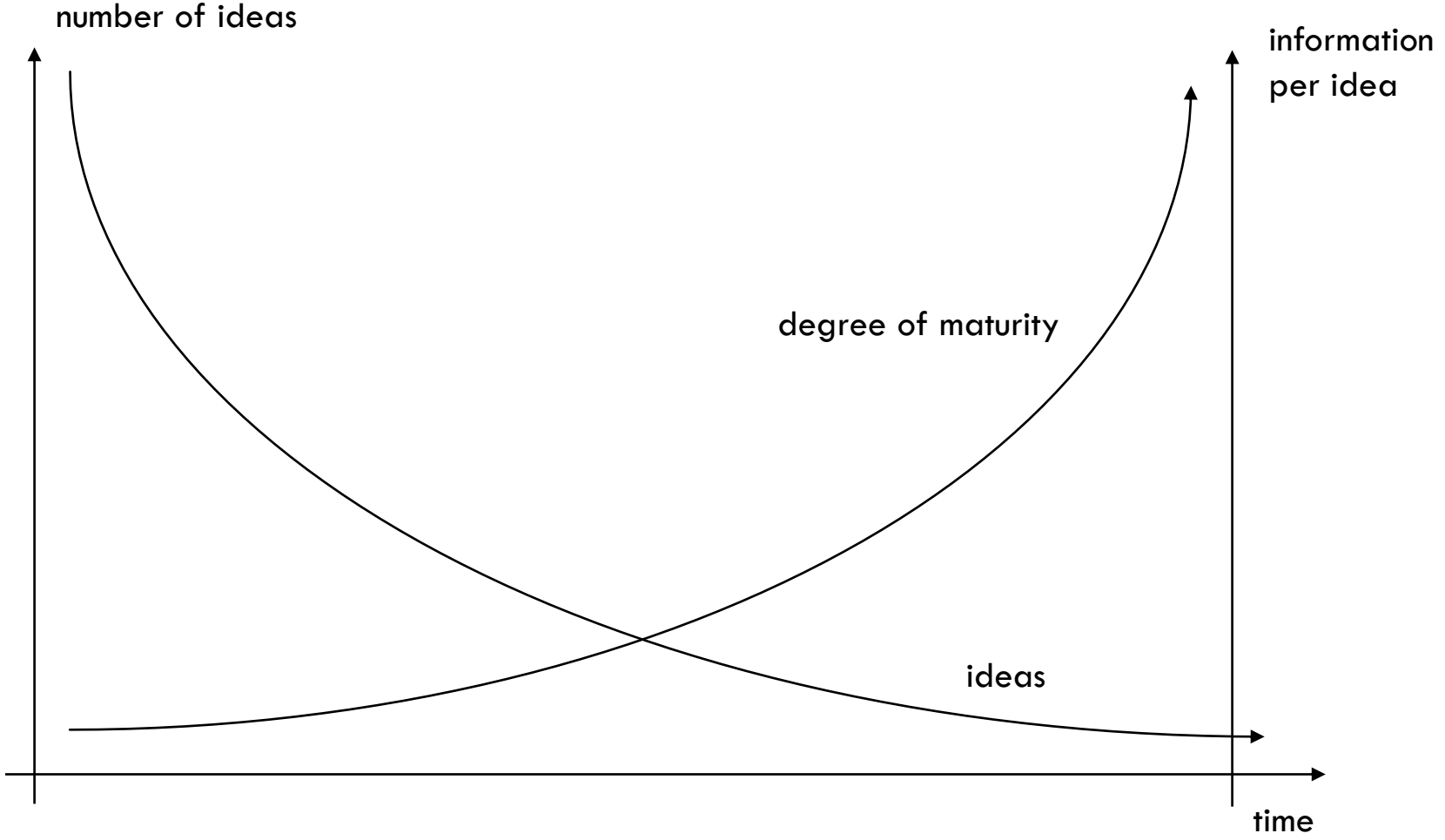


http://en.wikipedia.org/wiki/Blind_men_and_an_elephant

Widespread Failures in Screening

- Screening: the investigation of a great number of something (for instance, people) looking for those with a particular problem or feature.
- Strategic aspects are forgotten (e.g. areas excluded by company policy); management brings in these aspects late in the process killing many ideas.
- Criteria are distributed to knowledgable persons; all work parallel.
- Screening is done by committees; from session to session ideas are rejected without additional information collection in the meantime.
- The most important criteria are applied first (market data; Return On Investment); they require high effort and can nevertheless not be applied satisfactorily.
- No decision rules are laid down beforehand.
- One is anxious to reject ideas that in fact might be valuable. (The aim of the screening process is to select a short list of ideas that have a potential; the objective is not to verify that all rejected ideas are bad.)

Information Status during the Screening Process



Idea Selection in Steps

Example: From 100 ideas 1 has to be identified as the best. Budget: $100 000

A: Selection in one step

For each idea $1 000 are spent to collect information. On the basis of this information, the selection is made.

B: Selection in several steps

Step	reduction of ideas		costs/idea	costs/step	accumulated costs
1	100	30	100 -	10 000 -	10 000 -
2	30	10	500 -	15 000 -	25 000 -
3	10	5	2 000 -	20 000 -	45 000 -
4	5	3	5 000 -	25 000 -	70 000 -
5	3	1	10 000 -	30 000 -	100 000 -
			17 600 -		

For the final 3 ideas $17 600 were spent for information collection.

- How about the cost of time?

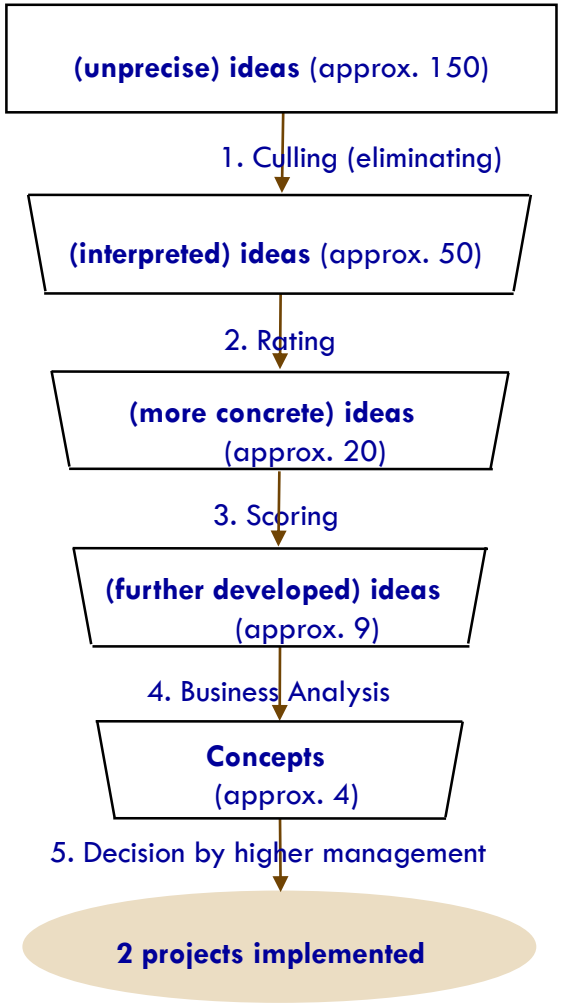
Principles of Cost Efficient Idea Screening

- The selection should be made in steps; 3 - 4 steps have proved to be practical.
- On the basis of an evaluation, ideas are eliminated in each step, allowing to concentrate on the remaining ideas in the following steps.
- The evaluation is made on the basis of certain criteria.
- The criteria can be applied one after the other.
- Criteria requiring lowest effort on information should be applied first; then one should go on with criteria requiring higher efforts.
- From step to step additional and more profound information for evaluating the criteria are needed.
- Rules for decisions must be established prior to idea elimination.

Principles for Screening

- Criteria can be applied sequentially (one after the other).
- The sequence of the criteria is determining costs.
- Best cost effectiveness is achieved when the criteria are applied in the order of cost per idea.
- It is sufficient to rank the criteria according to a relative judgement.
- For practical purposes a screening procedure in four steps has proved effective:
  - Culling
  - Rating
  - Scoring
  - Business analysis
- The percentage of rejected ideas should be high in the first steps (>60%) and then be reduced (<50%).

Why Idea Selection in Steps?



Types of Criteria

- There exist criteria with different characters. This has to be considered when applying them.

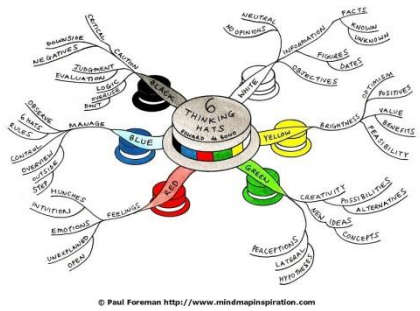
- **Categorical criteria:** Sorting into different categories, i.e.: Yes, no, incomplete, more information needed, don't know
- **Gradual criteria:** Judgements about fulfilment on a score scale
- **Integral criteria:** Calculation of economic metrics on the common basis of money (i.e.: Return On Investment, Return on Attention, Net Present Value, break even)

Idea Evaluation and Selection in four Steps

- **Step 1: Sorting and Screening (Culling, Rating)**
  - Structuring, summarizing, references
  - Elimination based on “must” and “should” criteria (negative elimination)
- **Step 2: Pre-selection (Scoring)**
  - Scoring models
  - Ranking according to overall scores
  - Best ideas are followed on (positive selection)
- **Step 3: Analyses**
  - Risk analysis
  - Success factor analysis
  - Analysis of costs
  - Concept and detail improvements
- **Step 4: Business Analysis and Presentation for Decision**
  - Rentability calculations
  - Portfolio analysis
  - Business Plan

Classification of Evaluation Techniques

Rentability calculations	Rough estimates	return on attention, return on investment, return on skills	Pay-back period Internal interest rate Net Present Value
Analytical evaluation	Yes/No-Check	Checklists Profiles	Scoring models Success factor analysis Portfolio analysis
Dialectical evaluation	Pro/contra-catalogue	Advocate procedure	
Holistic evaluation	Sticking dots	Pairwise comparison Six-Hats-method	



simple methods → sophisticated methods

Scoring Model

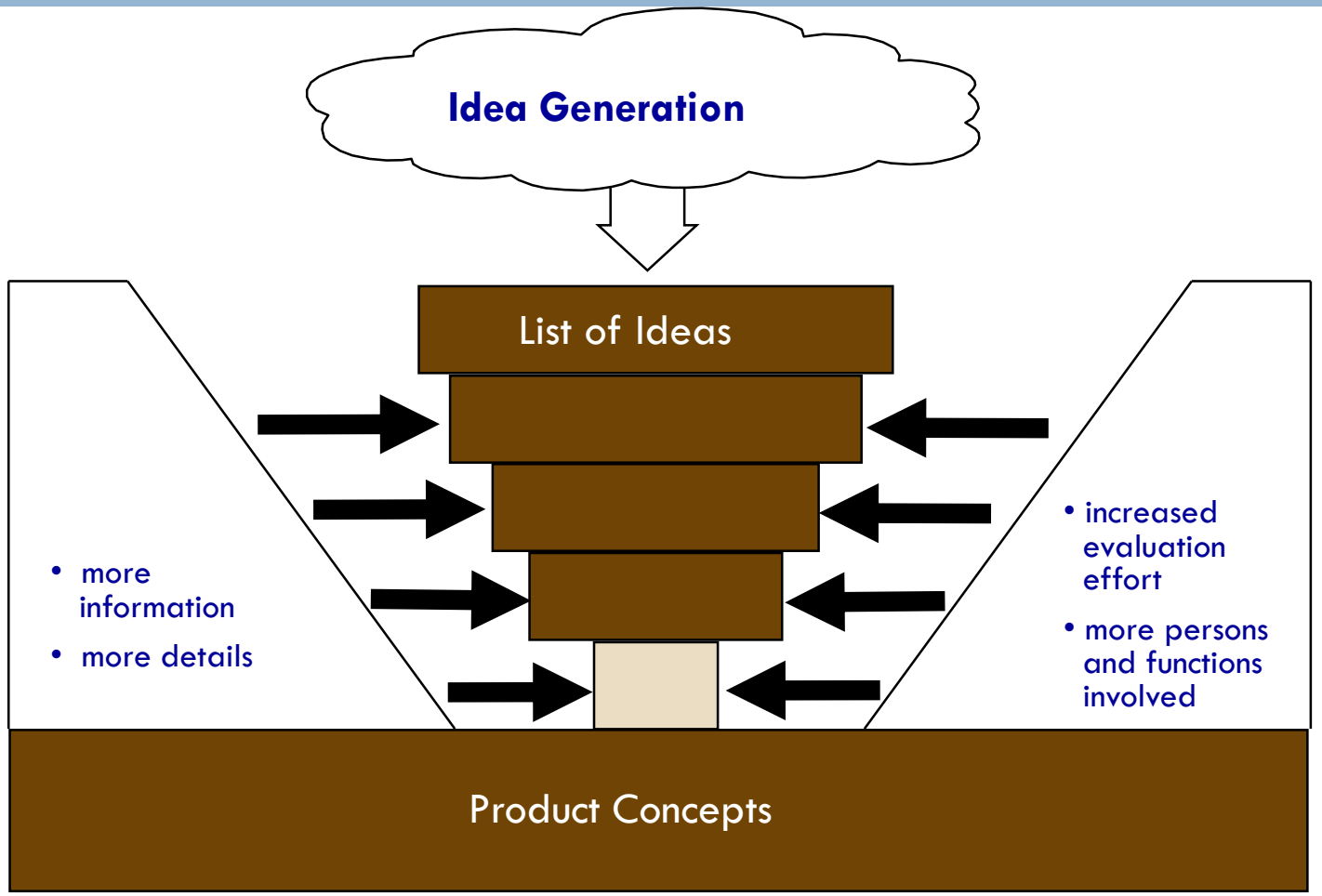
Criteria	Weight factors	Suggestion A		Suggestion B		Suggestion C	
		Score	Value	Score	Value	Score	Value
Market volume	1,0	3	3,0	5	5,0	2	2,0
Intensity of competition	0,85	4	3,4	1	0,85	4	3,4
Market growth	0,7	2	1,4	2	1,4	3	2,1
Investment volume	0,65	1	0,65	3	1,95	4	2,6
Synergetic use of existing know-how	0,5	3	1,5	4	2,0	2	1,0
Time for development and setup	0,4	3	1,2	1	0,4	5	2,0
Recognition on the part of the consumer	0,3	3	0,9	3	0,9	3	0,9
Scale of scores: 1,2,3,4,5	Overall value	$\Sigma =$	12,05	$\Sigma =$	12,5	$\Sigma =$	14,0

C provides the relative best suggestion. If the bound is set at 13 only suggestion C is followed up.

Ranking by Pairwise Comparison

↓ Ideas →		1	2	3	4	5	6	Number of pre-ferences	Rank
1			1	1	0	1	1	4	II
2		0		1	0	0	1	2	IV
3		0	0		0	0	1	1	V
4		1	1	1		1	1	5	I
5		0	1	1	0		1	3	III
6		0	0	0	0	0		0	VI

From Ideas to Product Concepts



Evaluation of Ideas

- The **in-depth evaluation** of ideas is to be based on criteria.
- A great variety of methods is available for evaluation: profiling technique, distribution of points, catalogue of pros and cons, advocating technique, cost benefit analysis, economic assessment
- From stage to stage
  - the number of ideas to be further processed is reduced,
  - the information about the more promising ideas increases,
  - more sophisticated evaluation methods are used,
  - the number of involved people increases,
  - the ideas are gradually concretized and elaborated (development of ideas into concepts).

VII. Creativity / Innovation Workshops

The Phases of a Workshop

Prephase

- Planning
- Preparation

Execution

- Warming-up
- Introduction (background, objectives)
- Overview, agenda
- Working on main task (e.g. idea generation)
- Planning the next steps
- Closing (summary, feedback, outlook)

Follow-up

- Minutes
- Implementation of planned tasks

Roles within the Workshop Group

- moderator(s)
- assistant and writer
- problem owner(s)
- expert(s)

The Ideal Moderator

- **Preparation:**
  - Selection of participants (as agreed with the problem owner)
  - Invitation
  - Organisation (rooms, equipment)
  - Designing the agenda
- **Moderation of session:**
  - Ice-breaking (short exercise or game)
  - Introduction of participants
  - Presentation of the problem by the problem owner
  - Explaining the rules
  - Keeping records on a flipchart (shortening the statements without loosing the specifics)

The Ideal Moderator

- Observe the group (tensions, conflicts, desires, frustration, etc.)
- Stop lengthy discussions and lead back to the main path
- Re-stimulate idea flow when slowing down
- Finish a single step and introduce to the next step
- Stay within the planned time schedule
- Ensure breaks
- Handle conflicts

- **Follow-up:**
  - Make sure that minutes are made and are distributed
  - Observe follow-on activities

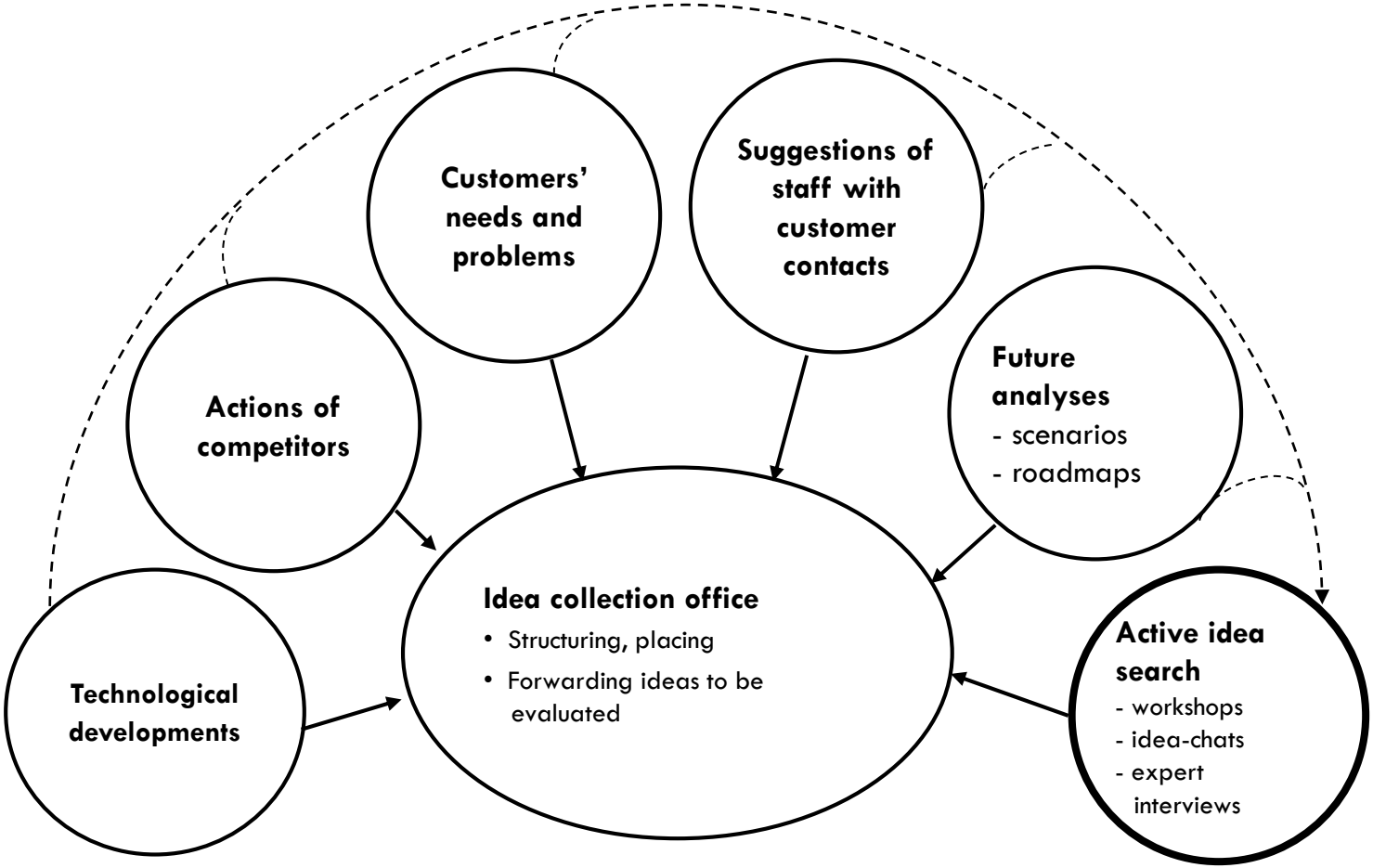
Workshop Rules

- Do not block! Listen to others, relate to others.
- Concentrate work, no side-talks!
- Humour is welcomed; share jokes with all.
- Short and precise statements.
- Stay with the agenda points; don´t jump!
- Be open; unusual, brave ideas are welcome.
- Be tolerant, nobody is perfect.
- If you don´t feel well or have any wishes please pronounce it.
- The moderator´s role is to lead through the process, to achieve the aims of the session. Therefore he may shorten discussions, change procedure or take other actions.

VIII. Idea Management

Central Idea Collection and Structuring

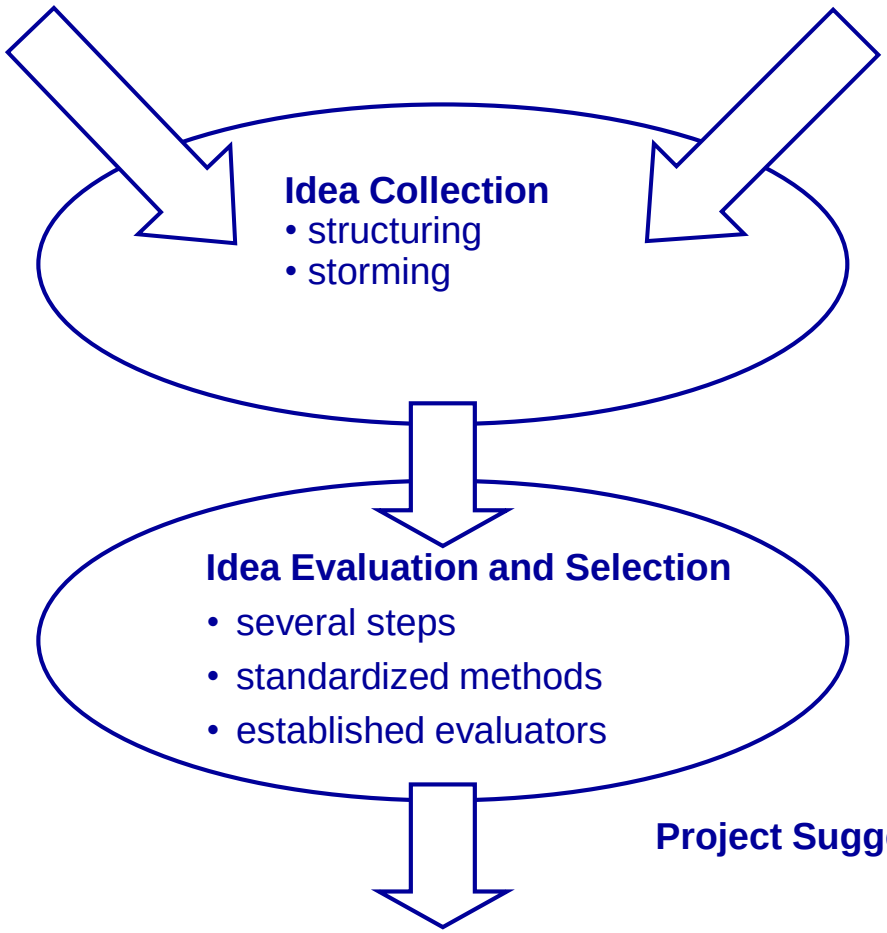
All idea sources should be used!



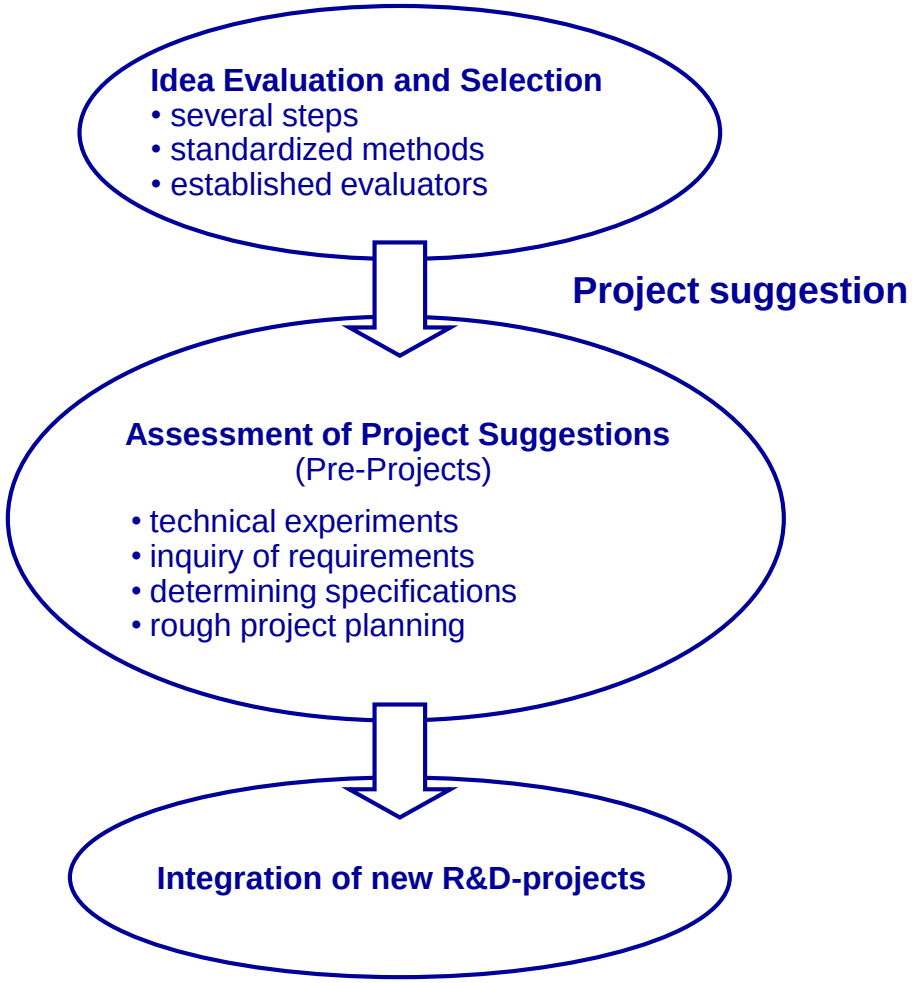
Management of Idea Flow

Diverse Sources
- customers
- competition
- staff
- analyses

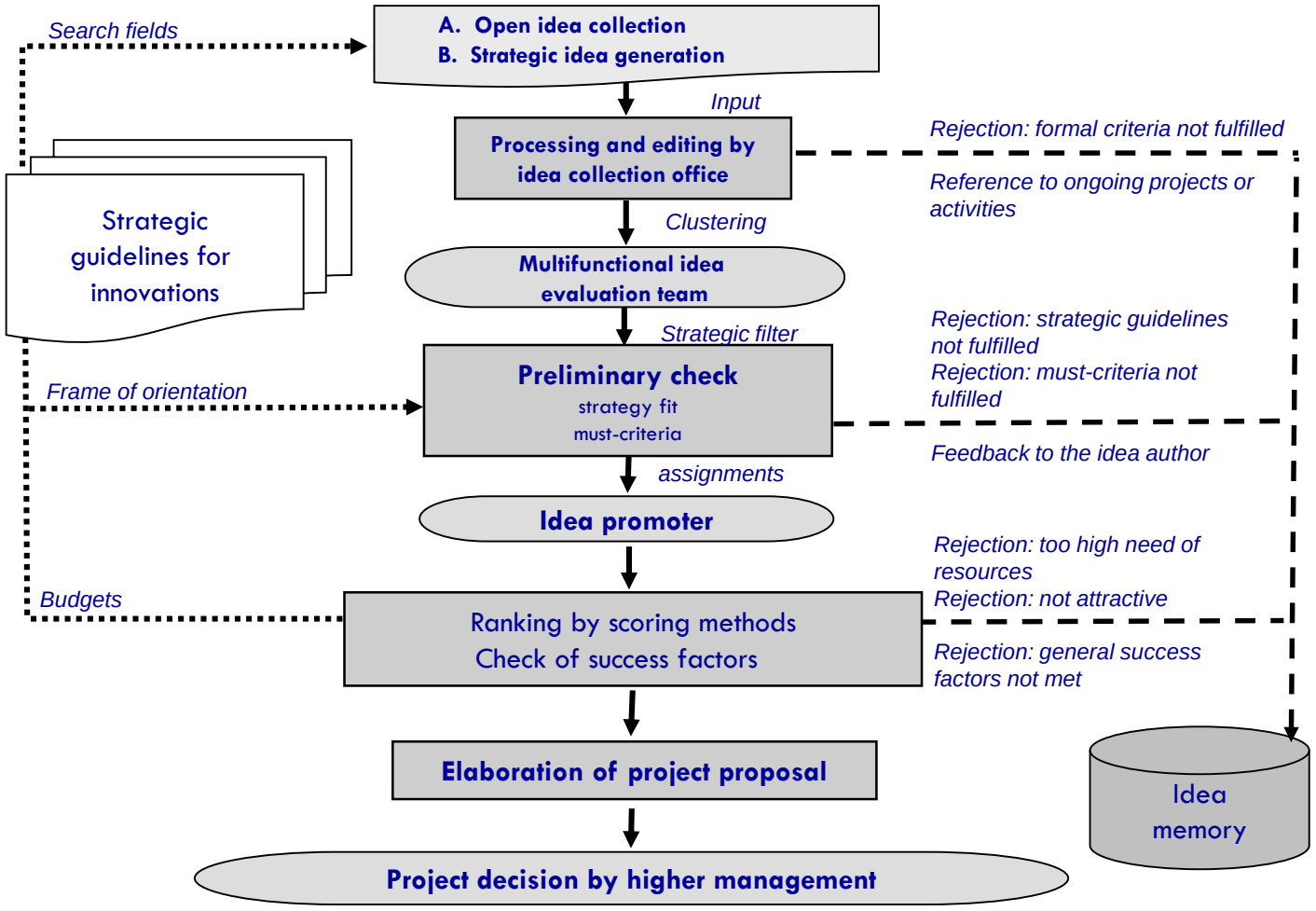
Systematic Idea Generation
- Idea generation sessions
- Creativity workshops



Management of Idea Flow



General Idea Flow Model



Case Study: Wella
Situation at Wella in the early 90s

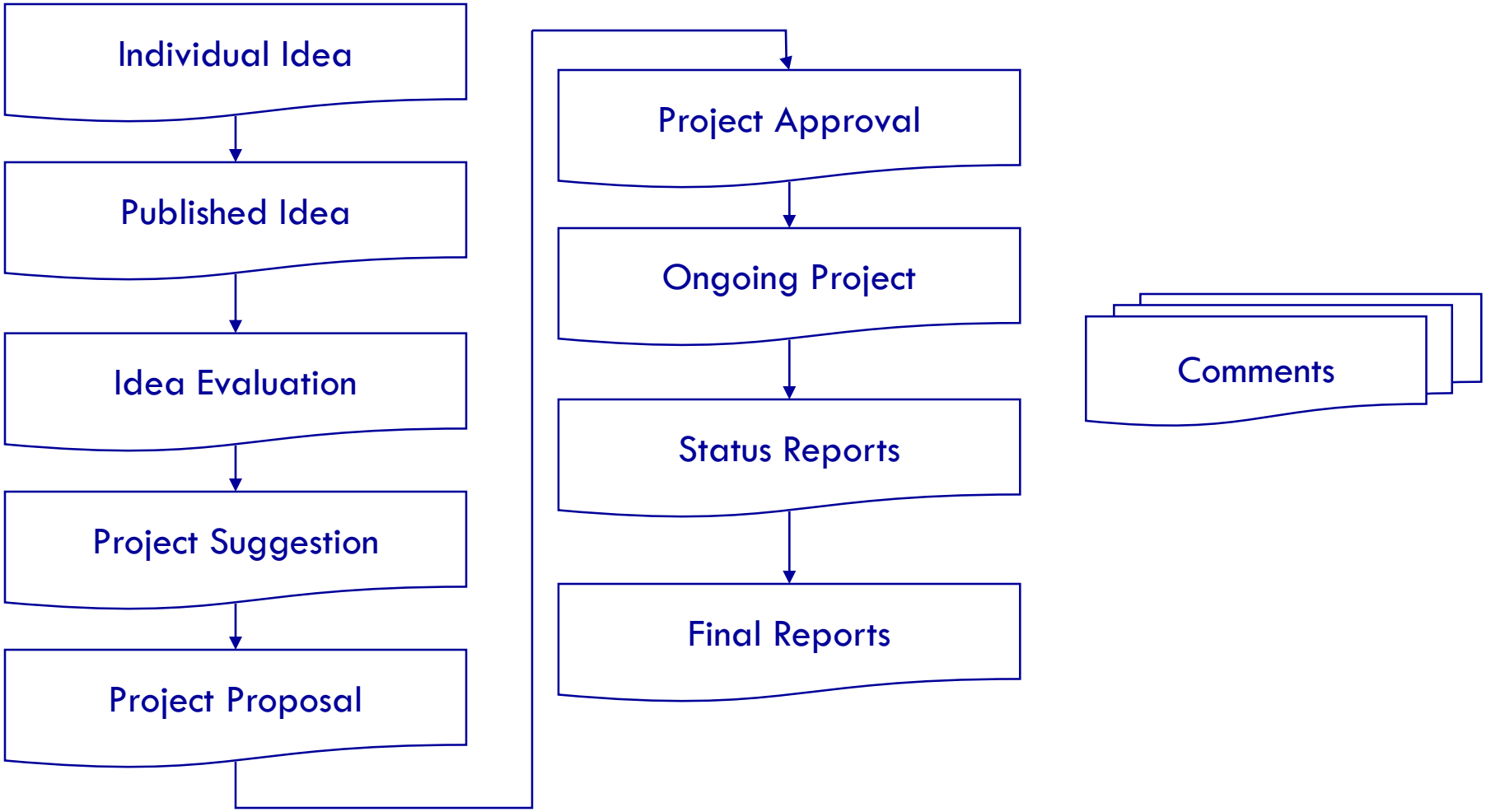
- High innovation challenge
- Project management in R&D implemented, low Electronic Data Processing support
- Requirements: Installation of a permanent and obligatory workflow from idea generation to new product/brand market launch
- Checking and evaluation of existing elements suitable for an ongoing innovation process
- Organization design of an innovation process
- Implementation of the developed idea pipeline on Lotus-Notes

Wella Idea/Project Data Base

Some background information:

• Start with redesign of innovation process:	1994
• Development of the data base:	1995/1996
• Application of data base:	1997
• Ideas treated:	approx. 3500
• Projects started:	approx. 700
• Staff with access to the data base:	approx. 550
• Basic software system:	Lotus notes
• Administrative effort:	50% of a junior professional

Work-flow within the Wella Idea/Project Data Base



Positive Effects of the Idea Data/Projects-Base of Wella

- The staff has fully accepted the Wella Idea Processing-system.
- Motivation of staff raised.
- Number and quality of ideas increased.
- Selection of ideas and projects is done systematically and is therefore transparent to all staff.
- Actual status of projects and other data can be searched.
- Know-how is documented in the system.
- Time saving through automatic workflow.
- Improved communication across functions and departments on ideas and project proposals.
- Central controlling is possible.

Prerequisites for a Successful Idea Management System

- The procedure of the system is obligatory
- Wide tunnel opening
- Different treatment of different types of ideas
- Methods and decision rules are laid down
- Narrow tunnel neck
- All steps are transparent and understandable
- Strategy fit is most important criterium
- Competent evaluators
- Promoters introduce and stabilize the system

Source: 12 cases in North America and Germany

IX. Pre-Project Stage

Pre-Projects

- Objectives:
  - Reducing information deficits and uncertainties
  - improved basis for decision
  - Getting ready for project work
- Projects on proof
- Gathering detailed information on technologies, markets, customers, sales channel, etc.
- Technical pre-tests
- Marketing strategy
- Determining the specifications
- Feasibility study
- Risk analyses

Pre-Projects

- Business plan (rough time schedule)
- Suggestion for project team
- Decision by top management after presentation
- Setting-up innovation project (project management)
- Organizational forms:
  - none (often)
  - part of standardized process with a preliminary project leader
  - length: 2 - 6 months

Summing-up: The Stages of the Concept Finding Phase

1. Strategic Orientation

- Guidelines, focus areas
- Innovation fields
- Communicated to marketing and R&D staff involved in innovation search.

2. Idea Generation

- Central office collecting ideas
- Passive idea collection: any source
- Active idea generation:
  - workshops
  - consumer groups
  - expert interviews
  - future studies
- Classification and distribution of ideas

Summing-up: The Stages of the Concept Finding Phase

3. Idea Selection and Further-Development

- Evaluation and selection process in several steps (4)
- Different methods and evaluators per step
- Prescribed criteria, weights and priorities derived from strategies, goals and restrictions
- Stepwise deepening and further-development

4. Pre-projects

- One „investigator“ for each proposal under consideration
- Reducing uncertainty by information collection; clarifying specific questions
- Project design and rough planning
- Presentation of project proposal to higher management
- Project decision