

Integrating the life cycle concept in the product development of SMEs:

2 tools that support this integration

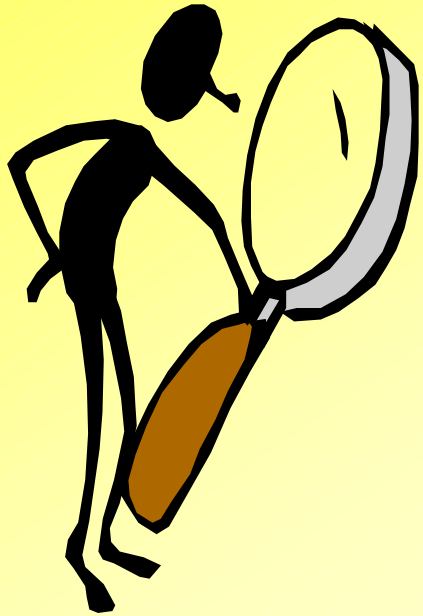


An Vercalsteren

VITO - BELGIUM

InLCA - conference

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- ➔ Introduction
- ➔ Demonstration project -
results and conclusions
- ➔ Development of “Quick scan”
and selection scheme
- ➔ Application in recently started
demonstration project
- ➔ Conclusions

Situation in Belgium, Flanders

< 1997: Large industrial companies are acquainted with ecodesign & LCA

SME's are not aware of the opportunities of ecodesign

1997: Ecodesign demonstration project → first introduction of life cycle concept (ecodesign) in SMEs

1998-1999: Development of "Quick scan" and selection scheme

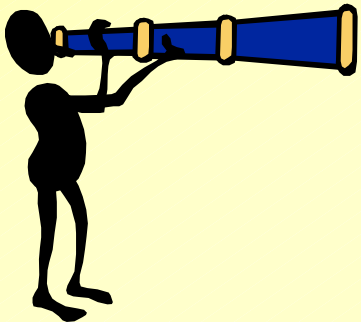
1999-2000: Large-scale "demonstration" project

Demonstration project

- ▶ Launched by the Flemish Government (OVAM)
- ▶ Demonstration project with 6 SMEs - different industrial sectors

- ▶ **OBJECTIVE:**

1. Support SMEs with the implementation of ecodesign
2. Check whether SMEs are capable of achieving a significant improvement of the environmental performance of their product(s)



Project description

➤ 6 companies participated

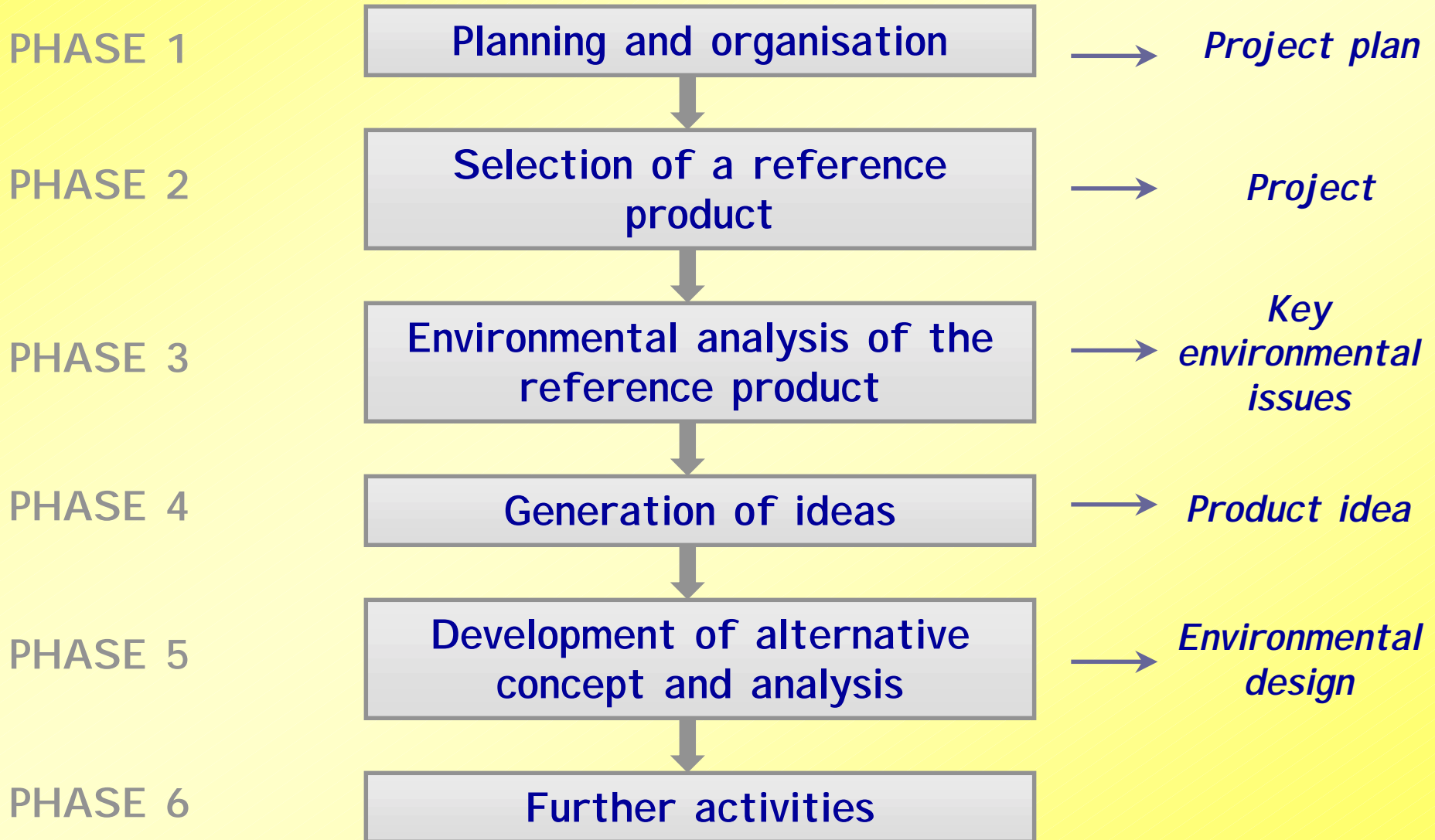
➔ Different products: sunbed, pedal bin, office furniture, leather seat, batteries, packaging

➤ Information session: ecodesign concept, principles and methodology (Promise-project)

➤ Learning-by-doing approach



Demonstration project



Environmental analysis of the products

- ▶ SMEs can't and will not spend much time and effort in analysing the products life cycle
- ▶ Use of software tool: EcoScan



Based on Dutch Eco-indicator 95 method

- ▶ **Advantage:** quick, developed for people without considerable environmental knowledge
- ▶ **Disadvantage:** limited database

Results

- 3 companies created a more environment-friendly concept
- 2 of those companies are developing the ideas in new products
- other companies see the opportunities of ecodesign and will consider the environmental aspects in future product developments

Demonstration project

Final conclusions

- Not every SME has potential to integrate the life cycle thinking in the product development
 - ↪ *success and failure factors*
- EcoScan is not most suitable instrument for ALL companies - tool for analysing environmental impact of products is very important success factor

Development of Quick Scan

"Quick Scan"

Following factors influence success/failure of ecodesign:

COMPANY INTERNAL FACTORS

- motivation
- innovation potential
- sector
- competitiveness

COMPANY EXTERNAL FACTORS

- regulation
- market/customers
- suppliers

PRODUCT

- market share
- materials/energy/emissions

Development of Quick Scan

MOTIVATION: Motivation of management essential
Involvement of different departments
Motivations: cost savings, competitive advantage, image etc.

INNOVATION: Open mind for innovation
Influence on product specifications

SECTOR/COMPETITIVENESS

COMPANY
INTERNAL
FACTORS

Development of Quick Scan

REGULATION: Possible stimulus (e.g. take-back regulation concerning packaging)

CUSTOMERS AND MARKET:

Pressure from market (e.g. PVC)

Questions of customers regarding environmental aspects

SUPPLIERS: Need for co-operation regarding accurate information and change in components

COMPANY
EXTERNAL
FACTORS

ECODESIGN POTENTIAL:

Necessary for successful implementation

Based on criteria like materials, energy and emissions

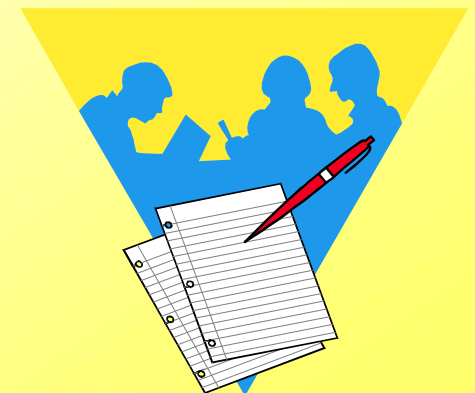
MARKET SHARE

PRODUCT

Development of Quick Scan

= tool to screen a company's **ecodesign potential**

- ➔ based on earlier mentioned factors
- ➔ prevent a company from investing much time and means in a project with no satisfactory results
- ➔ tool used to sensitise SMEs for ecodesign - first introduction with life cycle thinking



Procedure

PREPARATION PHASE

First introduction company - consultant

Collection of information on company and products (pre-screening questionnaire)

Pre-screening of entire gamut of products (product data sheet)

Selection of product with largest ecodesign potential (estimated)

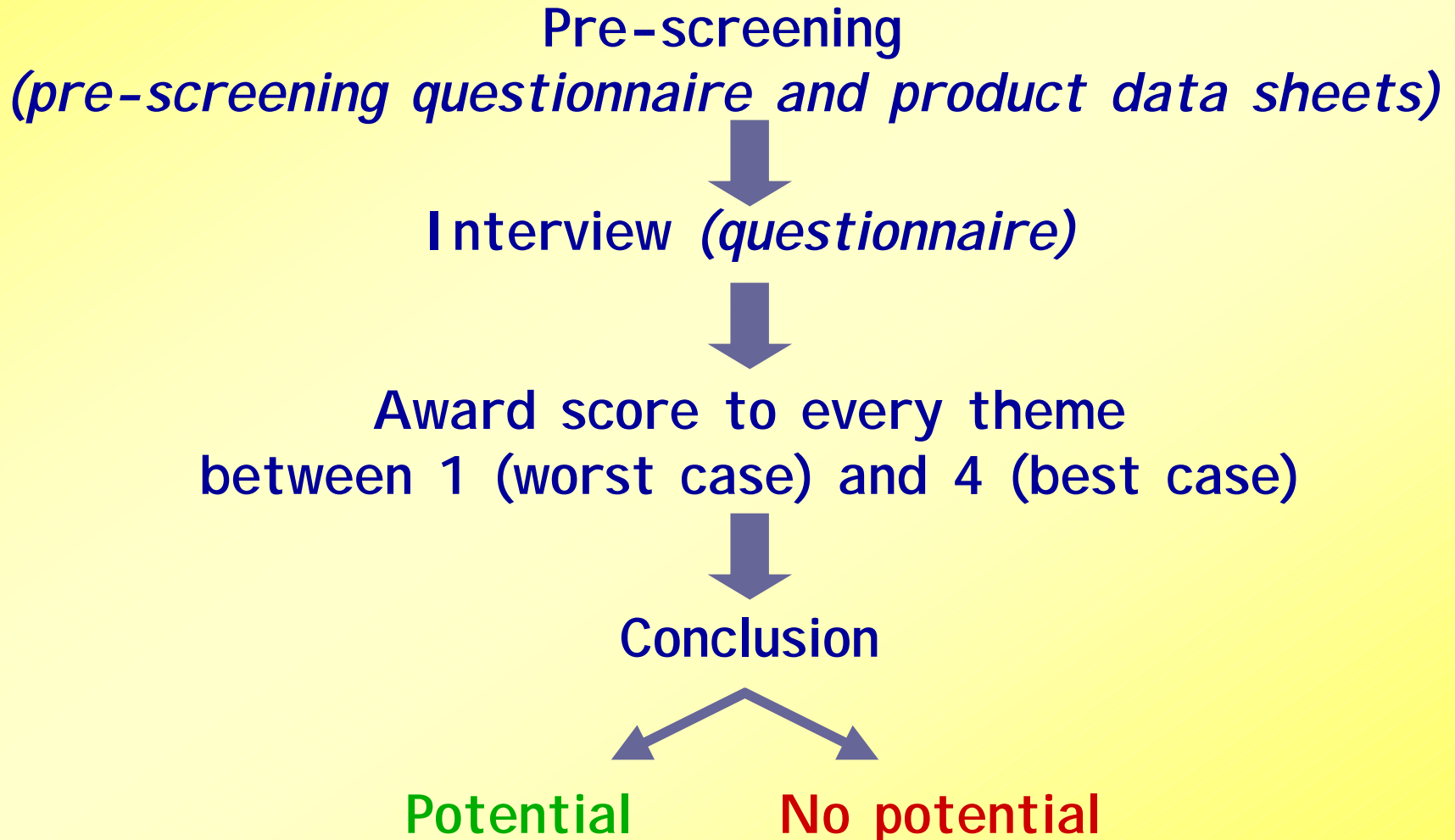
REAL SCREENING

Interview between consultant and representatives of company

Based on questionnaire, divided in 3 parts (company internal, external and product)

→ each part is divided in themes(per theme different questions)

Procedure

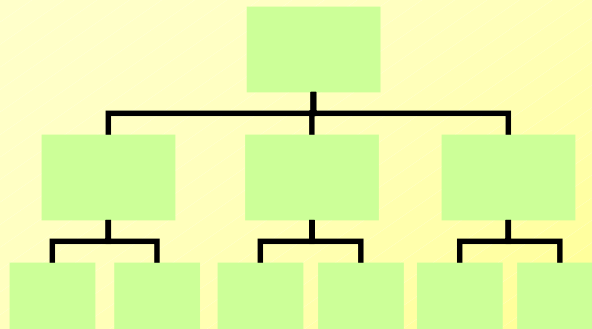


Development of Selection Scheme

= tool to select most appropriate instrument to analyse product or to improve product

➔ based on several criteria: product development phase
purpose of the instrument
available means and time
degree of difficulty

➔ Electronic version under development - paper version

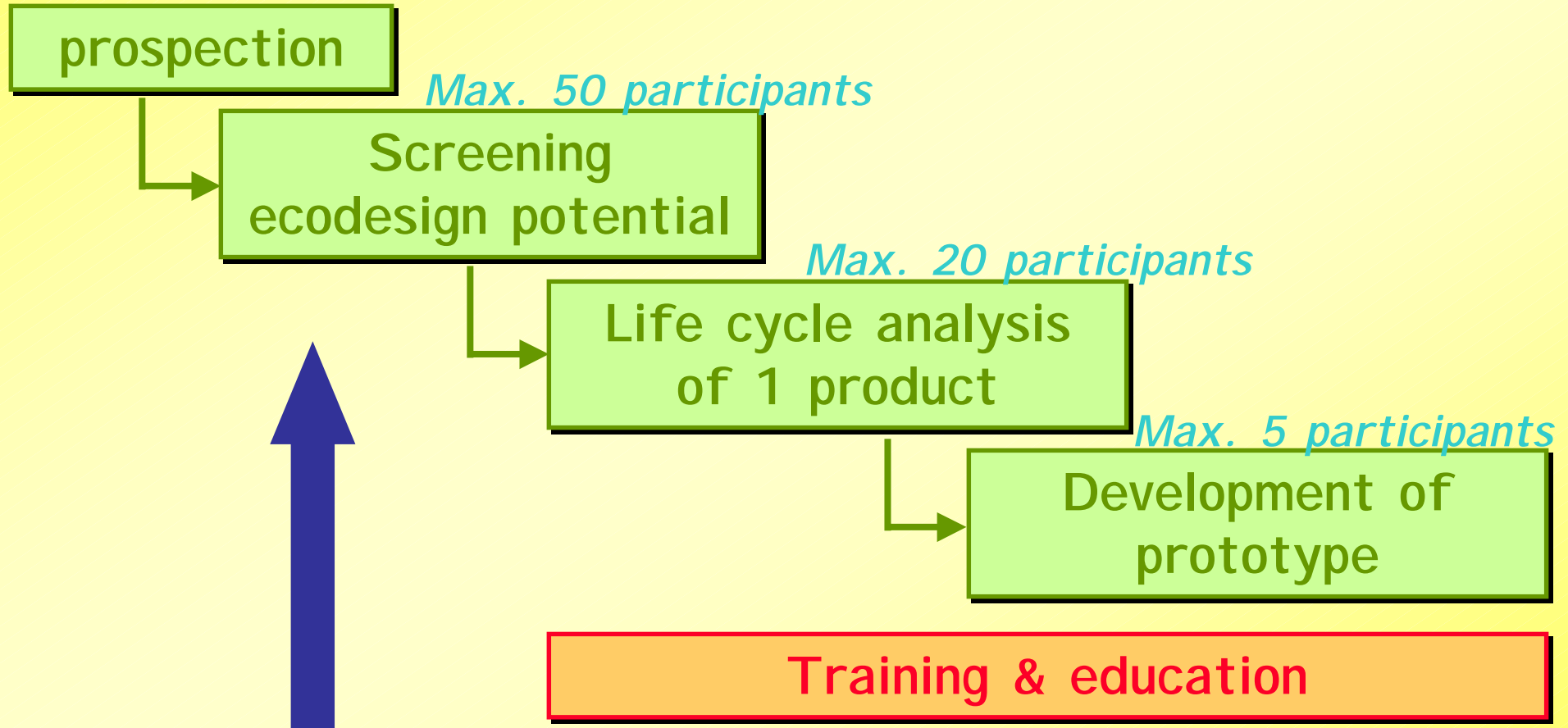


Large-scale demonstration project

- ➔ European LIFE-program (LIFE99 ENV/B/000639)
- ➔ september 1999 - mid 2002
- ➔ Regional Development Authority of West Flanders & VITO & VDAB Training and education
- ➔ OBJECTIVE: 1. give Flemish industry the opportunity to build up knowledge and experience in sustainable product design
2. stimulate companies to implement ecodesign



PROJECT DESCRIPTION:



CURRENT STATUS

Ecodesign is possible in Flemish SMEs



Conditions: Sensitisation for ecodesign

Opportunities to become acquainted with the life cycle thinking



Not all SME's can implement ecodesign successfully: **quick scan** to screen potential



Necessary to put **tools** at disposal of SMEs to simplify the implementation of ecodesign

Preparations to set up a “reference centre for ecodesign” in Flanders

Tasks: sensitise companies and customers
act as contact point

