

Open Innovation and Creativity

Malta Enterprise Workshop
Malta, 22nd November 2012
Aleardo Furlani



New thinking, new ideas, new results

How to solve a problem?

Problem: take out
the water without
touching the glass





Creativity as problem-solving technique

How to solve a problem?

Solution: 44 known processes of moving a liquid to be exploited. Is it a Solution?

Acoustic Cavitation, Acoustic Vibrations, Archimedes' Principle, Bernoulli's Theorem, Boiling, Brush Constructions, Capillary Condensation, Capillary Evaporation, Capillary Pressure, Coanda Effect, Condensation, Coulomb's Law, Deformation, Electro-capillary Effect, Electro-osmosis, Electrophoresis, Electrostatic Induction, Ellipse, Evaporation, Ferromagnetism, Forced Oscillations, Funnel Effect, Gravity, Inertia, Ionic Exchange, Jet Flow, Lorentz Force, Magnetostriction, Mecano-caloric Effect, Osmosis, Pascal Law, Resonance, Shock Wave, Spiral, Super Thermal Conductivity, Super-fluidity, Surface Tension, Thermal Expansion, Thermo-capillary Effect, Thermo-mechanical Effect, Ultrasonic Capillary Effect, Ultrasonic Vibrations, Use of foam, Wetting.

3



Open Innovation as problem-solving technique

How to move from information provision to problem solving ?

- Increasing Bottom –up participation and consensus
- Providing a framework to establish priorities,select,decide.
- Linking the decision to the Strategy
- Evaluating the risks

4



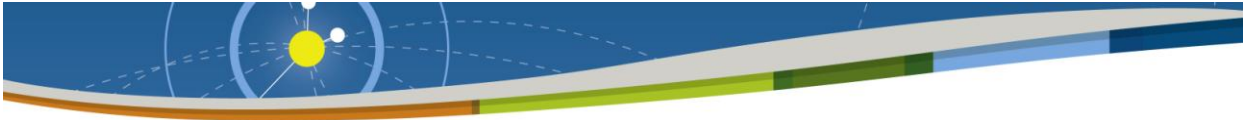
Open Innovation is a Process/1

- Foster Risk inclination
- Ensure Stubborn attention
- Diversity of ideas valorization
- Rewards to Knowledge sharing
- Confidence and freedom of action
- Support from the top



Open Innovation is a process/2

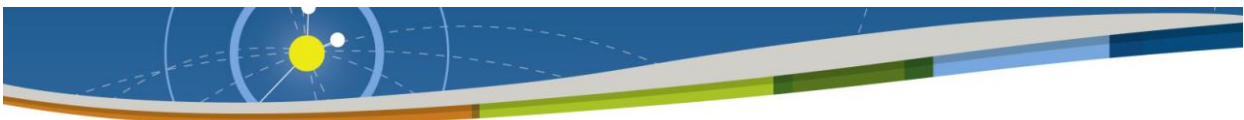
- **Predisposition:** Creating internal conditions enhancing organizational creativity, pointing out business objectives, resources allocation, creative training and team building.
- **External mapping:** Discovering new or unexpressed needs and desires, studying competitors' strategies.
- **Internal mapping:** Exploiting business resources to foster new emerging business concepts; internal inquiry.
- **Ideas generation:** the creative phase and production of new ideas
- **Evaluation:** assessment and selection of the best ideas
- **Reward** : it is not easy...



New thinking, new ideas, new results

The solution is not a list of possible solutions. The solution is a tailored process leading to a consensus.

7



What are the Customer's attributes & values?

- **ATTRIBUTES :**

- The technology providers are located within 100 km
- The technology is Patented in my targeted countries
- The technology has been tested and the test can be easily replicated
- The price..

- **VALUES :**

- The provider/seller is reliable ...German? :-)
- The seller is not an University ("I hate working with Universities..")
- The technology provider can be a source of business opportunities



The process Results/1

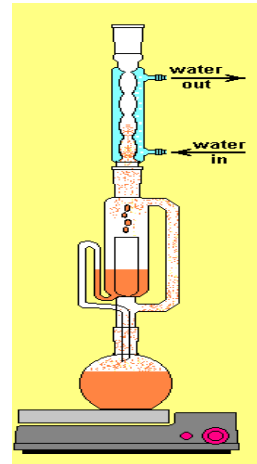
- **Technology transfer**
 - Selection of technologies matching the defined attributes and values
 - Target the appropriate technology solutions
 - The project financing
- **Internationalisation**
 - Evaluate non national/ regional provider/sellers
 - Open the range of possible providers
 - Link the transaction to international growth(new markets, new clients)



The Creativity Process Results/2

- The management of the Creativity process by the EEN can facilitate the identification of possible solutions to complex problems and generate a strong impact in:
 - **New ideas generation** for product development
 - Cooperation with **Research Institutes/ Universities**
 - **Targeted** Patents/ technology search
 - **International cooperation** strategy
 - **Financing** the expansion

The creativity Process Results



Mechanisms stimulating Open Innovation in practice

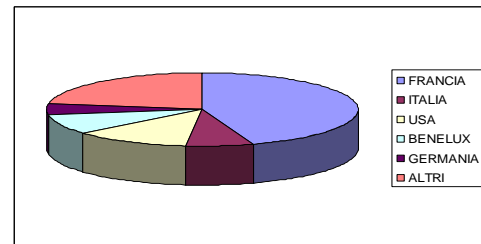
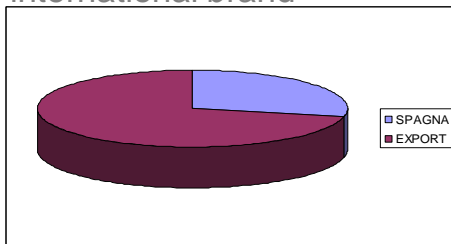
- Recognition of personal talent
- Prizes for ideas emerging from the bottom
- Valorization of personal and corporate intellectual property
- Mobility of labor

Draw-backs?

- Time required to carry out the exercise
- Education of the client
- Expertise is difficult to buy
- Quality instead of Quantity...

Derbi highlights

- Founded in 1922
- Becomes part of Piaggio group in 2001
- Won 8 world championships
- An international brand



Customer profile

- Radical
- Sportive

→ **Young & Fun** ←

- Fashion
- City



STREET / SPORT



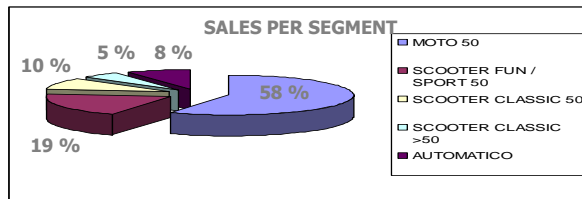
OFF ROAD / SM



SPORT SCOOTER



CITY SCOOTER



Attributes / Values



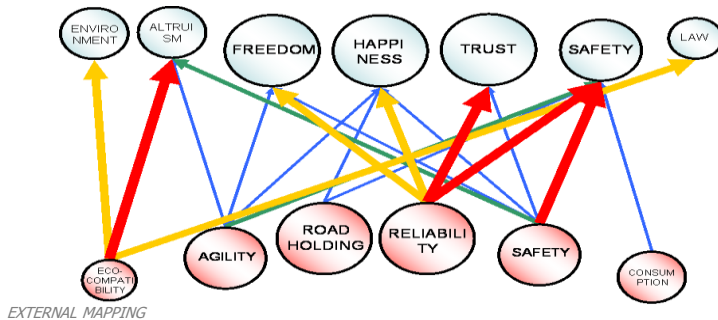
Examples of **Attributes**:

- Shape
- Color
- Price



Examples of **Values**:

- Freedom
- Imagination
- Having fun

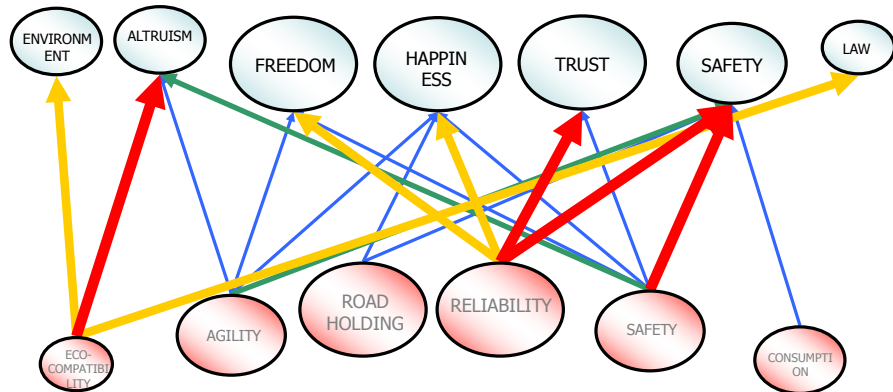


ATTRIBUTES/VALUES (A/V) MAP

Example of map

- Product: MOTORBIKE

■ Weak relationships ■ Average relationships ■ Strong relationships



EXTERNAL MAPPING

Cost reduction action

Aim:

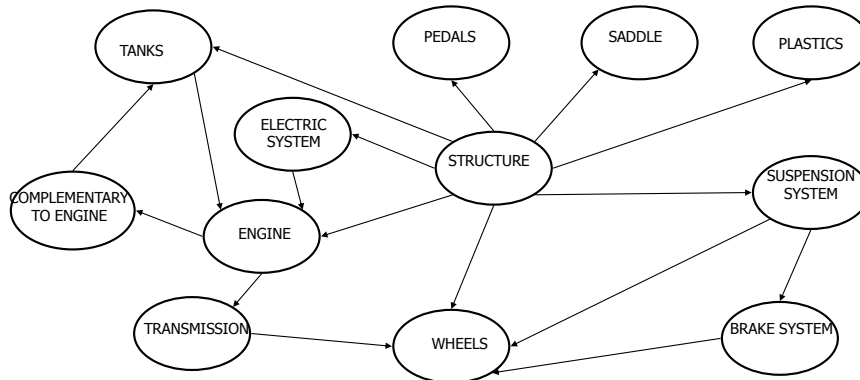
- New product or process features for a considerable cost saving
- Priority to modifications to already existing products

Proposals:

- ???
- Let's use the creativity template

Creativity template

Using the **CREATIVITY TEMPLATES** to build a product configuration



Creativity template

Using the **CREATIVITY TEMPLATES** to substitute a component in order to save money:

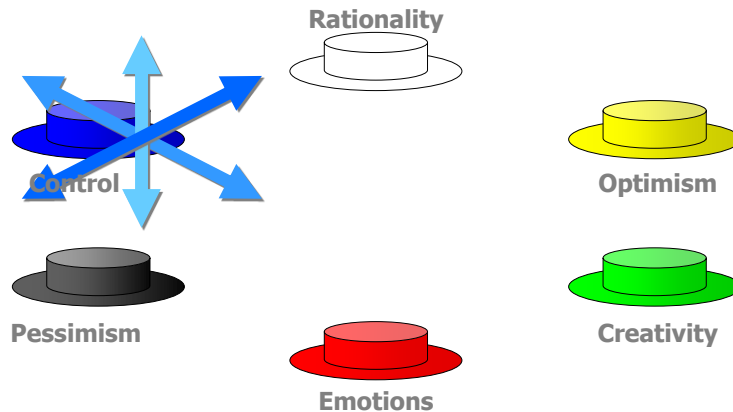


*Is it possible to replace the metal pedals with other ones made of plastic? (**Replacement Template**)*



Six thinking hats

Using this technique to develop and evaluate this idea:



Brake and gear pedals in plastic material



The WHITE HAT: all the analytical data

- After a few calculations, this replacement on the whole range of motorcycles would save more than 280.000 €/year



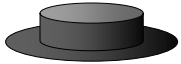
The RED HAT: emotions

- Afraid to break the brakes!
- Plastic is a 'poor' material





Brake and gear pedals in plastic material



- The brake is a safety element: it must never break
- No one has ever done this before: why?

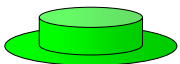


The **YELLOW HAT**: positive aspects

- Heavy cost reduction
- The pedal should break less frequently in case of falling
- Wide range of suppliers once plastic material has been identified

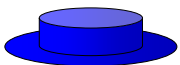


Brake and gear pedals in plastic material



The **GREEN HAT**: new further ideas

- Paint the pedal (**PROVOCATION**)
- Extend this technology to other similar metal parts (like footboard, stands, etc.)



The **BLUE HAT**: final overview

- This is a very promising idea
- The material replacement depends on the innovation and research capability of their technological partners





Indesit case study

"Smile, you have a failure!"

**From ignored customers
to 'cuddled' customers**

Indesit Company



Indesit highlights

Commercial presence:	Subsidiaries in 21 countries
Annual sales:	12 million appliances
Turnover:	3 Bl €
Major Brands:	2 global: Ariston, Indesit; 3 regional: Scholtès, Stinol, Hotpoint
Product lines:	Cookers, refrigerators, washing machines, dishwashers
Production:	17 plants
Sales by area:	Western Europe: 64%
Employees:	20,000

Indesit Company



Business unit consumer care

- Mission: *Managing and developing services to create value for Indesit company, consumers and partners, providing the best technical assistance at sustainable cost*
- The European service network
 - *8 mln telephone calls per year*
 - *4 mln home visits*
 - *1.500 Indesit consumer service centres*
 - *5.000 Engineers*
 - *120.000 Spare parts codes*

Indesit Company



Business unit consumer care

Aim:

- New customer assistance service or service features

Proposals:

- ???
- Let's use Provocation & Movement

Indesit Company

Provocation & movement

Using the technique, the group threw a few provocations, which have been voted and selected afterwards

PROVOCATIONS	Votes
The product has no warranty	2
The technician assembles the product	3
The customer is our technician	1
The product is customized	1
Technical assistance is free forever	1
The customer is happy when he phones the call center for a failure	3
There is an automatic shipment of spares	
The customers carries the product by himself	

Indesit Company

"Smile, you have a failure!"

PROVOCATION

The customer is happy when he phones the call center for a failure

MOVEMENT (*extracting a principle*)

The customer should gain a certain benefit phoning to the call center

IDEA

- The customer when he calls for a failure earn points on a **fidelity card** to buy new household appliance or to win other prizes
- The points can be accumulated even with purchases of other Indesit products and/or services

Indesit Company

MERCEDES. example (III)

4. Research **all the possible solutions** to the problem:

IMPROVE EXISTING MODELS OF CARS				
	IMPROVABLE ELEMENTS	OPTIONAL EQUIPMENT	INTERNAL PROCESSES	TEMPORARY PROPERTIES
1	fuel consumption	ABS	automatic	powerful engine
2	breakdowns	air-conditioning	operator-controlled	perfect tyre
3	vibrations	heated seats	random	absence of dust
4	noise	CD player	continuous	cleanness
5	odor	Bluetooth technology	intermittent	"new car" smell

IDEA GENERATION

MA: example (III)

5. Try **different combinations (randomly)**:

IMPROVE EXISTING MODELS OF CARS				
	IMPROVABLE ELEMENTS	OPTIONAL EQUIPMENT	INTERNAL PROCESSES	TEMPORARY PROPERTIES
1	fuel consumption	ABS	automatic	powerful engine
2	breakdowns	air-conditioning	operator-controlled	perfect tire
3	vibrations	heated seats	random	absence of dust
4	noise	CD player	continuous	cleanness
5	odor	Bluetooth technology	intermittent	"new car" smell

IDEA GENERATION

MERCEDES: example (III)

- Random combination:
 - odor
 - air-conditioning
 - operator-controlled
 - new car smell
- Result: Fragrance-control system for cars
- Advantages: **With a touch of button**, drivers can choose from jasmine, mint, a fresh leather smell, or perfume scents, all blowing through the air-conditioning system



IDEA GENERATION

Open innovation & Creativity.

- New ideational schemes for a structured approach to innovation processes
- Products and services incorporate the evolution of consumers' desires and needs
- 70% of successful ideas can be taken back to one of the templates
- A lot of small and medium enterprises adopt this approach .

IDEA GENERATION