# **DESIGN DRIVEN** TOOLBOX **A HANDBOOK TO SUPPORT COMPANIES IN RADICAL PRODUCT** INNOVATION

Edited by FRANCOIS JEGOU, ROBERTO VERGANTI, ALESSIO MARCHESI, GIULIANO SIMONELLI, CLAUDIO DELL'ERA

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The European VAlue Network (EVaN) project is a European Community funded research headed by MIP, the Politecnico di Milano's School of Management, and in collaboration with 9 other European partners. Its main objective? To support European small and medium enterprises (SMEs) compete globally through the development of value intensive products: products designed to satisfy the growing intrinsic and intangible needs that dominate the consumer landscape. How do we expect to achieve this? By teaching European SMEs to better develop their abilities to understand, anticipate and influence the emergence of new product meanings, and share this knowledge throughout their new product develop ment (NPD) processes and value chains so as to develop value intensive products

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# WHAT'S IN HERE?

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# HOW TO USE THIS MANUAL?

«I am just curious...»; «I just want to have an idea...» zap to page 14

«do I need this?» read pages... 10 to 13 carefully

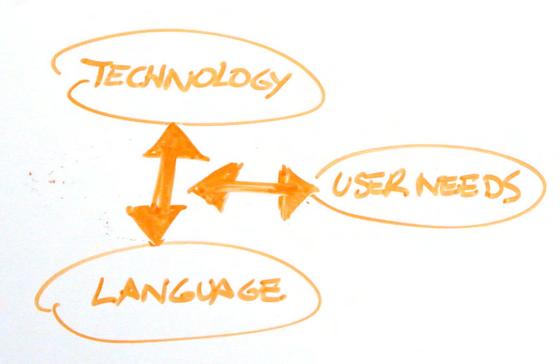
«what tools are available?» go to pages...18, 30, 42 and 54

«how can I implement it right now?» jump to pages... 14 and 70

### INTRODUCTION COMPETING THROUGH RADICAL INNOVATION DRIVEN BY DESIGN

... THIS MANUAL PROVIDES DIRECTION AND SUPPORT TO THOSE COMPANIES THAT WANT TO COMPETE ON INNOVATION. IN PARTICULAR, IT IS GEARED TO THOSE COMPANIES THAT WANT TO MAKE RADICAL INNOVATIONS THAT CAN ALLOW THEM TO STAY AHEAD OF THEIR COMPETITION ...

... RADICAL INNOVATION IN PRODUCT SEMANTICS AS A CHANCE TO COMPETE AGAINST TECHNO-LOGICAL AND MARKET INNOVATIONS ...



The market-pulled strategy is characterized by the critical role of the consumer: the company reacts to an explicit set of consumer demands.

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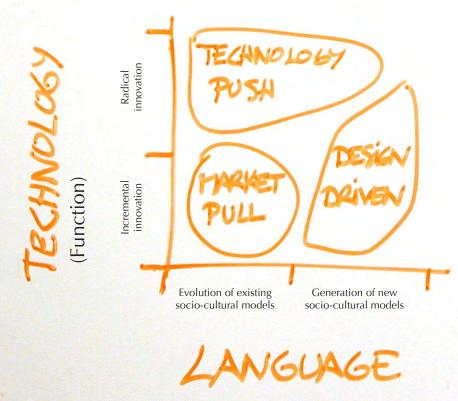
VEEDS

The technology-pushed strategy instead originates differently: the firm notices the availability of a new technology and recognizes the possibility to exploit it.

In the case of a **design-pushed** strategy, the driver of innovation is the capability to understand, anticipate and influence the emergence of new product meanings. In a design driven innovation, the novelty of the message and the design language is more significant and prevalent when compared to the novelty of functionality and technology.

### "EVERY MARKET-ORIENTED COMPANY UNDERSTANDS THE STRATEGIC NATURE OF DESIGN. AS A RESULT, EACH COMPANY CAN POTENTIALLY USE IT. DESIGN, HOWEVER, MUST NOT ONLY BE SEEN AS THE TOOL THAT GENERATES A PLEASING FORM. RATHER, IT MUST ANTICIPATE A CONSUMER NEED. IT MUST PROPOSE A VISION"

Carlotta De Bevilacqua, Artemide



(Message)



### DIAGNOSIS WHAT KIND OF COMPANY ARE YOU?

Questionnaire:

#### Question 1:

Design driven companies base their success on very popular and recognized products

. Do you often recognize imitations of your products in competitor offerings?

. Have you ever won design awards for your products?

. During your holidays, have you ever seen one or more of your products showcased museums or exhibitions?

#### Question 2:

In design driven companies, brand value is a critical issue: in fact, they give much importance to communication, spending a great deal of resources in order to strengthen their image.

. If you were to ask the first person you meet on the street to qualify your company's products, would you be able to guess what he/she would say?

- . Would he/she use less than 10 words to answer your question?
- . Would the second person you meet say exactly the same thing?

#### Question 3:

In design driven companies, radical product innovation is primarily based on the re-definition of current products, and on the introduction of new meanings on the market: a business journalist has written an article on products that connote a breakthrough innovation in the market

. Would you see some of your products in this article?

. If this were the case, who would be the person within your company that would have most probably been contacted by the journal for an interview? What department does he/she work in?

#### Question 4:

Design driven companies tends not to buy trend analyses or market studies: they rely on their own information network to gather this type of information

. While working through the new product development process, does your company also conduct long term research projects geared to understand the future of the market?

. Can you describe the latest trend that is currently affecting your market?

. How old is this information?

#### Question 5:

In design driven companies, the strategic knowledge on sociocultural trends and market evolution is typically displayed to facilitate the sharing and diffusion even with close external collaborators

. When was the last time you received a good article from your colleague?

. How many people in the company actually read it?

#### Question 6:

Design driven companies attract designers and young talents allowing them to work on their ideas and ambitions. In fact, they tend to hide the technological constraints in order to guarantee maximum freedom for concept development.

. How many design students have you invited to your company in last six months?

. How many times have you been invited to Universities or Schools to participate in conferences, seminars, workshops etc.?

#### 2

#### **COMMENTS ON YOUR ANSWERS:**

If you answered easily to the above questions, your company is most probably close to the profile of the so-called design driven company; this manual can be used to better focus your strengths and to reinford your leadership in the market.

If you felt uncomfortable providing half of your answers, reading thi manual may raise some interesting key-questions for your company.

If you had trouble answering most of the above questions, you may have picked up a valuable booklet: read through it carefully to learn about a new approach to innovation that may allow you to take advantage of a new opportunity to compete through design-driven innovation.

### AIMS AND EFFECTS: RADICAL DESIGN DRIVEN INNOVATION

### ABOUT RADICAL INNOVATION ...

... firms believe they can survive forever through small incremental

innovations of their products and by imitating others!!!... **BUT** this strategy is not available anymore to firms in both EU and in other developed countries that face global competition. The only way for them to survive is to lead competition through radical innovation!!!

### ABOUT CREATIVITY ...

... people think that breakthrough ideas are the result of a sudden spark of genius!!! ... NO WAY! There is an enormous amount of research behind it; a real research process that integrates trends, needs and technologies...

### ABOUT RESEARCH ...

... people think that research means having big laboratories!!! ...

**NOT TRUE!** There is a huge laboratory out there! The smaller the firm, the larger the amount of useful resources outside the firm!!!

### ABOUT COSTS ...

### ... all this knowledge management is a big deal for a company, and

it also needs big money!!! ...BUT, some parts of this knowledge are easier to access and manage than other parts. A company is an organic body rooted in it's environment by a sophisticated network of suppliers, subcontractors, distributors...

All these connections represent potential inputs of strategic information on markets, users, emerging trends ... connections that more often than not are free of charge for those who know how to capture it!!!

### ABOUT INTERNAL NETWORKS ...

### ... following trends and users? It's not an internal tasks. That's what

**external consultancies are for**!!! **BUT**, consultancies sell the same content to all your competitors ... In fact, it's generally good background material to buy. It's also cheaper than to start from scratch and develop it internally. It isn't, however, company specific. Who could possibly better identify and filter the pertinent signals from all the background noise than the company itself?

### ABOUT PARTICIPATIVE INNOVATION...

... true innovation is the work of a few skilled people in the company!!! ...

**BUT,** even the most skilled innovator can't generate and analyze a detailed understanding of the context unless he/she is fed by people who are at the «right place at the right time», where future trends emerge and wild cards appear. Moreover, for the people who are properly «exposed» to pertinent phenomena, capturing and collecting them is more often than not a 'mind set' that drives their daily activities: they do not see these tasks as additional work, but rather they are enthusiastically involved in what is called participative innovation!!!

### ABOUT STRATEGIC META-PROJECTS ...

# ... the bread and butter of a company is to develop projects that sell: strategic thinking typically turns out to be a waste of time in a fast moving

world!!! ...BUT in a storm 'there is no good wind for those who have no idea where to go...' Chance favors the prepared mind. Leadership is not a matter of reactivity, but market anticipation. If no strategic reflection is made by the company in the form of a 'meta-project', when it comes time to develop a new product, it will find it diffiuclt to find new ideas, and will therefore be forced to reinvent what is already on the market... with the resulting product selling less than expected...

### ABOUT COMMUNICATION AND ADVERTISEMENT ...

... firms think that, since they do not have large advertisement budgets, they do not have the means to make the innovation that can make the difference in

today's markets ... **NOT TRUE!** Successful ompanies leverage on their networks of interpreters to spread breakthrough messages to society!!!

### TOOLBOX CONCEPT HOW TO USE THE DIFFERENT TOOLS?

### **4 DIFFERENT TOOLS:**

### What? Tool 1. The Interpreters Configuration Check-up

What kind of tool is it? It's a self-reflection tool. It proposes a series of short exercises that tease strategic conversation on product innovation and the development of a network of interpreters.

What's it for? In half-day workshop to be carried out at an upper management level, it creates a clear picture of the current information flows on socio-cultural trends and users needs that occur within the company, and evaluates the potentialities within the structure of the company to activate a network of interpreters within the company that can focus on these topics.

### What? Tool2. The Knowledge Repository Process

What kind of tool is it? It's an organizational tool. It supports the involvement of company teams and their close networks of interpreters in capturing and interpretating future social-cultural drivers and trends in the design environment of the company.

What's it for? In a series of short, regular, bimonthly meetings over a period of a few months, the intent is to accumulate company-specific input to base and orient radical innovation in design.

### What? Tool3. The Design Direction Workshop

What kind of tool is it? It's an action tool. It allows a company to analyze accumulated knowledge and ideas in order to combine and prepare alternatives solutions that can support future decision making.

What's it for? In a one-day workshop involving a project team, the objective is to generate a series of alternative directions that can orient the design of a company's range of products/services towards breakthrough innovations.

### What? Tool4. The Eval\_Net

What kind of tool is it? It's a self-assessment tool aimed to evaluate the effectiveness of a company's network. By "network" it is intended to mean the set of resources, actors, and activities oriented towards the development of radically innovative products.

The tool allows a company to compare itself with other similar companies, and has the objective to highlight the critical differences between a company's network and a selected ideal network. For each highlighted gap, the tool shows an informative report card consisting in a synthetic definition of the dimension taken into consideration, and a more in-depth explanation as to why the gap may exist, in order to help the company improve the overall quality of NPD processes towards the development of value intensive products.

What's it for? Eval\_Net, through a straightforward online survey, allows a company to identify and understand the gap between their network, and a suitable ideal network referring to some variables like location (country), industry sector, number of employees, turnover, product price etc.

### A MODULAR STRUCTURE ...

The Interpreters Configuration Check-up is the starting point of the design driven approach

to innovation...

These 4 tools tend to be used in a specific order starting with **Tool1**. to check the potentialities needed to activate a specific network of interpreters in the company. This is then followed by **Tool2**. to implement the regular process that can accumulate knowledge on trends and the evolution of user needs. After some months, the company adopts **Tool3**. to organise the knowledge that has been accumulated and which can be used as useful input for product innovation. Finally, the company can use **Tool4** to check the resources involved in a new product development process and find useful information to improve efficiency of its network.

Having said this, this baseline may be adapted to better suit a company's context and requirements, or by simply using the tools independently from one another.

The Knowledge Repository Process is an on-going activity to capture trends and latent user needs.

The Design Direction Workshop is an action tool to support the generation of meta-projects.

Eval\_Net is a tool to support the new product development process by improving the company's network.

### **RESOURCES & TIME** HOW MUCH AND FOR HOW LONG?

The application and the development of these tools can be personalized according to different needs and objectives of the single company. As such, it is also possible to identify a set of probable ranges of resources needed for the correct application and development of each tool.

### Tool. The Interpreters Configuration Check-up: Main objectives:

To explore and define company innovation profiles in terms of their local and global design networks and innovation strategy(s);

To map the current knowledge flows related to socio-cultural trends and market evolutions in order to identify potential interpreters able to provide interesting inputs to the development of value intensive products.

### Tool2. The Knowledge Repository Process: Main objectives:

To involve interpreters previously selected in the identification of sociocultural trends and markets evolutions in the creation and development of value intensive knowledge that can foster the creation of value intensive products;

To collect and share knowledge about future scenarios that can suggest future projects or meta-projects.

### Tool3. The Design Direction Workshop: Main objectives:

To explore possible new directions in the development of future scenarios;

To define visions and concepts to feed product development and support product launch.

### Tool4. The Eval\_Net: Main objectives:

To identify a company's network, activities and resources undertaken during the new product development process;

To compare a company's network with a selected number of ideal networks;

To explore new possible ways to improve a company's network for the development of value-intensive products.

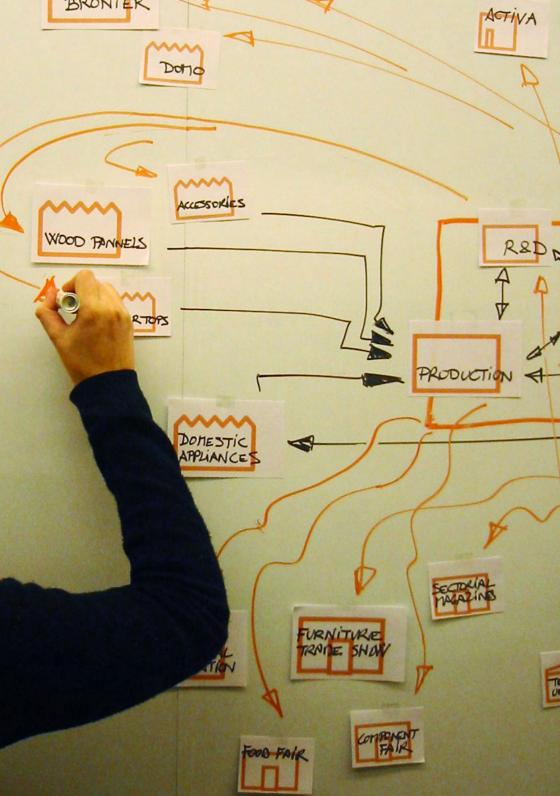
The knowledge accumulated during the application of the Knowledge Repository Process can be exploited with several intentions. For this reason, it is possible to organize different Design Direction Workshops starting from the same knowledge base; some intentions may require the organization of a series of Design Direction Workshops in order to obtain clear and defined briefs (each application of a Design Direction Workshop takes a full-day workshop). Moreover, it is possible to foresee two macro-typologies of Knowledge Repository Process and Design Direction Workshop:

In the case of a "company driven" application, the consultants' role is supportive, and the implementation process is managed directly by resources set by the company.

Contrarily, in the case of an "EVaN Centre driven" application, the consultants' involvement is direct and more intense.



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	ompany driven	A MARCH AND A STATE OF A	3 - 4 person-months
	VaN Centre driven	Contraction of the second	0,5 - 1 person-months
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	esign Direction Workshop	0,5 - 4 months	the second state of the se
	ompany driven	a sector state and the sector	2 - 4 person-months
	VaN Centre driven		1 - 2 person-months
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# **TOOL 1 INTERPRETERS CONFIGURATION CHECK-UP**

### WHAT IS IT ABOUT?

The **Interpreters Configuration Check-up** is a set of activities designed to stimulate self-reflection on product innovation and company knowledge management. It proposes a series of short activities developed to tease strategic conversation. Its main objective is to create a clear picture of the current information flows on socio-cultural trends and users needs, and diagnose a company's potentialities to activate a network of interpreters within the company that can focus on these themes.

### WHAT IS IT FOR AND WHY IS IT USEFUL?

To define and activate a network of interpreters;

To challenge and discuss issues of **design management** within the company; To explore and define a company's **innovation profile** with respect to **design**; To define strategic questions/themes where company **knowledge is missing**; To map the current knowledge flows on **socio-cultural trends** and market evolutions that exist within the company;

To detect current and **potential interpreters** that can be activated by the company and within the company network.

### HOW DOES ONE CARRY OUT AN INTERPRETERS CONFIGURATION CHECK-UP?

Have you already audited your knowledge management and innovation processes? Good!!! ... If not, it doesn't matter: the purpose here is to perform a **«quick-and-not-too-dirty» check-up.** Start from what information is available to the company. Then discuss it and reach conclusion for action related to design management issues that are pertinent to the company.

A half-day workshop with 3 to 5 members of the company's top management: It should include a top manager and representatives from each function (marketing, R&D, sales, production, etc.).

The workshop is based on teasing material (guidelines, business cases, etc.) and activities (mapping, assessment, etc.) to trigger **strategic conversation**. A facilitator, fluent with the material and activities, however, is needed. He/she, who may be internal of external to the company, has the role and responsibility to challenge the workshop's participants on their current perception of best practices in the company.

# TOOL 1.1 EVAL\_NET

Eval\_Net is an **online self-assessment tool** created to assess the strength of a company's networks in the furniture industry. It allows companies to quickly and painlessly **evaluate their network elements**, (actors, research activities, tools and project activities) related to the geographical and the industry sector within which the company operates.

Eval\_Net is based on the objective to **optimize a company's network of scope** (intended as the set of actors which take part, directly or indirectly, in the NPD process) who have different competencies, roles and tools. In particular, it wishes to map and illustrate the company's ability to create:

- \_ radical design-driven innovations;
- \_ innovative value-intensive products;
- \_ the difference that will make users perceive the level of product innovation;
- \_ international competitive advantages;
- \_ economically rewarding value.

Therefore this tool allows companies, through a straightforward online survey, to evaluate their network with regard to six basic variables:

\_ Actors, who are the professionals involved in the NPD process;

\_ Trigger actor, meaning the actor that typically activates the NPD process;

\_ Research activities, which are the analysis and researches usually carried out during the NPD process;

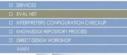
\_Tools, meaning the instruments used in order to support the process;

\_ Activities, the activities undertaken in order to constantly keep the company up-to-date in its industry sector;

\_ Duration, meaning the time elapsed between the positive evaluation of the idea and its launch on the market.

One of the main objectives of this tool is to give the company a means to evaluate its network. In fact, Eval\_Net, by highlighting the differences between the firm's network and an ideal network, offers multiple levels of feedback to the company. Some examples of feedback are: a report that pinpoints the network weaknesses and/or a set of tasks that the company can tackle to eliminate them. It also offers some anecdotes taken from EVaN case histories related to the critical issues identified: the objective is therefore to make a direct comparison to similar companies. At the end, the tool points the user to a EVaN service centre in order to obtain more accurate and detailed information and support regarding the creation of value intensive products. If you want to assess your network, visit www.evanonline.com and access the "EVaN services" area...







#### EVal\_Net

Eval\_net is a comparative self-assessment tool which helps the entrepreneur to identify weaknesses and opportunities of the network of scope within a NPD process through the comparison with other networks of scope activated by successful companies having the same characteristics. The object investigated by Eval\_net is the network of scope which the company activates for a specific project. The Network of scope is to be intended as the set of actors which take part, directly or indirectly, to the NPD process with different competences, roles and tools. Eval\_net is a positional analysis tool because aims at registering the "positional gaps" compared to some parameters characterizing the network of scope within the NPD process

Run EVal\_Net Tool



### **TOOL 1.2 DESIGN MANAGEMENT ANTI-MANUAL**

Guides and manuals have often been edited in order to streamline relationships between designers and companies. Typical issues are:

How to collaborate with a designer? What is the price of design? What is the return on design? How can a company elaborate a design brief? tc.

Investigations among so called design driven companies were conducted in the EVaN research project. While these investigations first focused on the furniture industry, they have been progressively updated by the EVaN Centres' consulting activities, which have brought us to observe the existence of successful relationship patterns between companies and designers that often contradict what is typically found in the above mentioned guides and manuals ...

These observations and findings on design management of design-driven companies have been reported in a somewhat provocative Anti-Manual in order to trigger discussion and debate ... They are made of:

Characterizations of the current or most common «a priori» beliefs related to design management and the relationship between designers and companies;
Key statements from managers and interpreters of design-driven companies;
Guidelines, evidence, and tips related to the design-driven best practices;

The Design Management Anti-Manual is used to trigger a focus-group-like workshop activity for 45 to 60 minutes. Each key-point is reviewed individually and then collectively. The results are then compared to the current practices in the company. As such, questions raised on design driven innovation and design management are then discussed. A first «hot synthesis» is then prepared immediately where the material gathered on paper enters in an ex-post analysis performed by the facilitator of the workshop.

### **TOOL 1.3 INNOVATION PORTRAIT**

### WHAT KIND OF INNOVATION STRATEGY DOES YOUR COMPANY PERSUE?

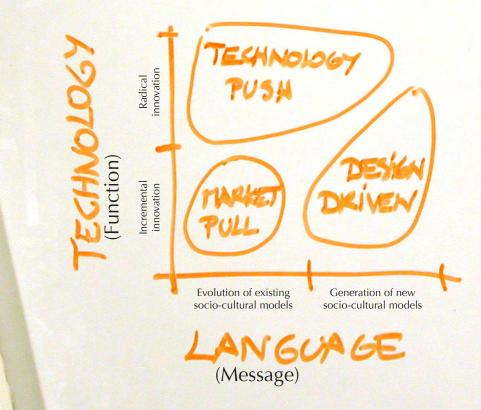
By interpreting innovation as a process of the generation and integration of knowledge, we can identify at least three different kinds of strategies:

- Market-pulled strategies, where the company reacts to an explicit demand of the consumers;

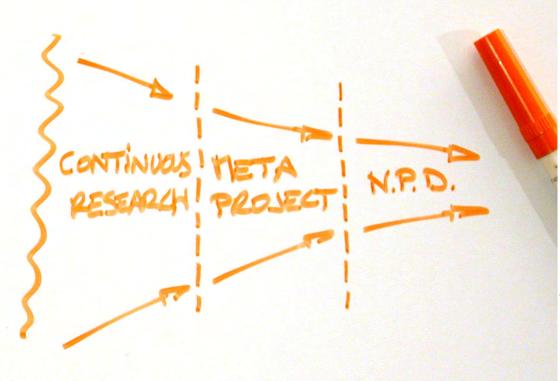
- Technology-pushed strategies, where the firm notices a new technology that it tries to exploit;

- Design-driven strategies where the driver of innovation is the capability to understand, anticipate and influence the emergence of new product meanings.

Try to position the innovation strategy adopted by your company in the matrix below assessing the radicalness of innovation from a technology and product language perspective...



Reflect on the innovation process adopted by your company, and try to understand if you already are, or could be adopting a meta-project approach...



### DO YOU DEVELOP AND CONDUCT RESEARCHES WITH LONG-TERM HORIZONS BEFORE STARTING A NEW PRODUCT DEVELOPMENT PROCESS?

Many design-oriented companies show an innovation process articulated in three macro-phases:

A first phase of continuous research, which is based on off-line relationships; they are typically developed outside or disconnected from a specific new product development project;

A second phase, defined as the meta-project, which foresees the synthesis of knowledge accumulated during the first phase in order to generate meta-concepts;

A third phase, which is the new product development process that concludes with the realization of a product/service.

# **TOOL 1.4 INTERPRETERS CONFIGURATION MAPPING**

Design driven companies base their orientation on socio-cultural trends and markets changes through a network of **Interpreters**.

Interpreters can come from within the company (internal staff of various departments) or from the network of close external collaborators that the company uses to generate an understanding from many different perspectives. In principle, everybody from sales agents to technicians, from suppliers to distributors, from permanent staff to close consultants, etc. may provide pertinent information, and may constitute a useful interpreter ... But on top of being «exposed» to different cultural environments, or in contact with user behavior, interpreters must have two supplementary qualities:

"Alerted» on the topic: while a company can be exposed to rich information flows, but not in the mood, or able to catch it, interpreters must show an intense level of alert, hunting all possible signs, noticing emerging phenomena, collecting it and reporting it back to the company in all its integrity;

"Aligned» with the editorial line of the company: While a company can be able to catch interesting signs and manifestations on a topic, it may be unable to select the right one! The final aim of the interpreter is therefore to orient the innovation process of the company: an extremely intricate and challenging task!

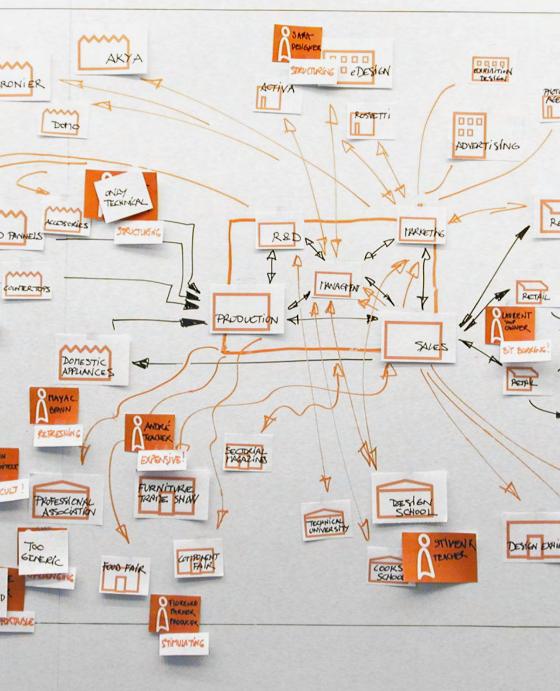
### PLAYING ON THE METAPHOR WITH RADIOS, INTERPRETERS WORK LIKE ANTENNAS: THEY MUST ALWAYS BE UP AND TUNED!!!

In any company, be it design driven or not, the knowledge that flows within the environment is partially informal, and, at times, totally at a subconscious level. Consequently, the collective construction of a knowlege map among the participants is an efficient way to explain the current flows in order to reveal informal processes, and subsequently candidate potential interpreters. A library of icons and semantic rules is proposed at the beginning of the workshop allowing everybody to share the same graphic language. A first map is built in a 30m timeframe. It remains displayed throughout the workshop, and is open to corrections and up-grading. At the end of the workshop, enough information should be provided on the map to:

Draw the current information process (formal and informal) in order to focus on its possible weak points;

Detect potential interpreters with a good level of «alert» and appropriate «alignment» with the company's editorial line in order to construct the right type of relationship and information profile.





# **TOOL 1.5 DESIGN DRIVEN TOOLBOX SIMULATION**

Case observation of design driven companies and their processes to capture socio-cultural trends and market changes can bring about a general understanding of the isolated recurring patterns that occur within these design driven companies. These are the basic building blocks of the methodology presented in this handbook.

Having said this, cases are specific to each company. As such, a simulation is need to show the processes these companies tend to follow in order to clearly illustrate what can be gained from the design driven methodology.

In a 30mn session, the simulation is presented to the participants showing:

What a meta-project is, and how one can define one; What kind of information interpreters may provide; What kind of interpretation should be done regularly; How new interpreters are acquired and activated; What type of design directions for innovation can be achieved through the use of this process; What benefits can be had by adopting such a methodology in terms of new product developments.

From the reactions triggered by the case history and simulation, a similar exercise is attempted among the participants focusing on their ability to generate **design inputs**:

What types of strategic topics could generate a meta-project for your company?

and,

### expected outputs:

What can participants to the workshop expect from such an exercise?

### **OUTPUT**

### WHAT DO YOU GET OUT OF IT?

The different set of activities described have to be understood as loose supports for the workshop. They may be performed 100% or not: the length, order and modulation of the activities is left to the facilitator's discression, who evaluates the evolution of the conversation between the participants.

At the end of the process some concrete clues should have emerged:

Eval\_Net should be used to assess the strength of the companies networks of small and medium European furniture enterprises.

The Design Management Anti-Manual should prompt questions on design driven innovation processes, and help create a picture of the overall design management panorama of the company.

An Innovation Portrait should instead set a clear picture of the innovation profile of the company, and allow to dig deeper into innovation topics/concerns.

An Interpreters Configuration Mapping should trace the current information flow the company adopts to identify and capture trends and user needs as well as the ability of the company to candidate potential interpreters.

The Design Driven Toolbox Simulation should define a panorama of potential strategic topics for a meta-project, and clearly define the expected results from such a meta-project.

At the end of the workshop, a first debriefing should be proposed by the facilitator in order to collect more reactions. Having this, a more careful analysis of the material collected could provide more precise conclusions and recommendations for follow-up developments.

In case of incomplete material, further investigation may be carried out by the facilitator to fine tune his/her report.



# **TOOL 2 KNOWLEDGE REPOSITORY PROCESS**

### WHAT IS IT ABOUT?

All innovations start from knowledge; radical innovation based on design requires the gathering and development of knowledge on future socio-cultural trends. The **Knowledge Repository Process** is a medium-long term activity involving a selection of people within the company and close network, which has the objective to regularly capture and interpret key drivers and trends that can feed the product design environment. It's a simple and light procedure to accumulate individual views and findings about company-specific strategic topics, and to share and confront it in short regular meetings to orient radical product innovation.

### WHAT IS IT FOR AND WHY SHOULD I USE IT?

To gather input on socio-cultural trends and market evolution;

To incentivate collaborators to share views about strategic issues and topics;

To exchange knowledge on emerging trends with close collaborators;

To raise awareness and open questions related to market signals;

To involve the work team in preparing future projects;

To diffuse strategic thinking among employees and close company collaborators; To sensitize personnel about company/product identity and image.

### HOW SHOULD A COMPANY CARRY OUT A KNOWLEDGE REPOSITORY PROCESS?

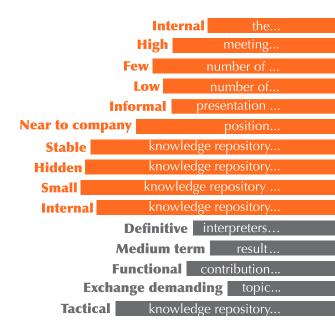
The **Knowledge Repository Process** is a strategic project, which, as any project, requires the allocation of time and commitment on behalf of people to reach specific goals. Therefore, to be successful, it must begin with a **management decision** in order for the process to have the necessary commitment from both upper management and, subsequently, the Knowledge Repossitory Process team.

You need a **strategic project:** a problem-setting activity to orient future projects in an appropriate direction (i.e. *a burning topic such as «what's up in this market?»; «emerging clients behaviours?»; «shifts in corporate projects?»; «the future of the company's core market share?"; etc.).* 

A long term strategic project is not a project without an end, or one that leads to zero results! Clear milestones and objectives should be defined: why should the company start such a meta-project? When should the process begin? When should it become operational? What kind of improvements in terms of projects should be expected? Etc.

Do you already have a team in your firm specialized in trends and market analysis? Good: they should probably be involved in the Knowledge Repository Process. But, not only them!!! This tool aims to gather **unusual information from a mixed selection of interpreters.** You need to invite an exotic bunch of people «exposed», «alerted» and "tuned» in order to develop innovation!

# **TOOL 2 CONFIGURATION DECISION TREE**



How many interpreters should be involved? How often should they meet? Who should facilitate the process?

To answer these questions and facilitate the configuration of the Knowledge Repository Process, you can use the **Configuration Decision Tree**. It starts with a set of simple questions on the objectives of your meta-project, the nature of the topic you want to focus on, the horizon for which you require the first results, etc. From your answers, the decision tree helps to calibrate the different dimensions of the **Knowledge Repository Process**.

For example: Imagine you are a company selling domestic kitchens that recently noticed social trends that challenge your core product: from "eating out habits" to "home food take-away services ", from "ready to eat food preparation" to monoportions, etc... and you would like to investigate "the future of the domestic kitchen":

- what is the nature of this topic demanding? ...in depth research and the ability to detect emerging socio-cultural phenomena ...

- what are your objectives? ...mainly strategic... to build contrasting scenarios



that can orient/reorient your business...

- when do you expect results? ...it's a long term investigation, a survey on what may slowly affect your products...

By answering these types of questions, the **Configuration Decision Tree** helps you to infer that:

you need a large number of interpreters / mostly external to your company / posted primarily in fields outside your business / that meet on a quarterly basis / that bring few relevant contributions that may influence your products / etc...

And from the configuration of your **Knowledge Repository Process**, the **Configuration Decision Tree** also gives you a rough evaluation of the investment critera in terms of time and resources required:

An expectation of rapid results / a need for frequent meetings / of a large number of interpreters / sorting many contributions / on a large repository / in a short amount of time / etc... stressing therefore the process and asking for more man-hours and more coordination than a normal Knowledge Repository Process would require.

# TOOL 2 KICK-OFF MEETING

#### **TOP MANAGER SPEAKING:**

«... We are here to start a new project ... But not a normal project of a new kitchen model we are accustomed to deal with... We need to start a strategic project. The objective is to orient our bread & butter core business. Let me give some examples: John, during our last meeting, when you sumup customer orders on a European basis, you expressed a need for more microwaves, more surface area for snacking ... Marco, when do people tend to discover something wrong with their kitchen? When do they call our customer service department?

After the week-end is over right?; when they really need to cook... Nathalie, which innovation struck you at the last domestic appliances fair? A fridge with internet to facilitate on-line shopping? [...] All this key information, which is typically expressed while walking in the corridor or around a coffee, more often than not, tends to get lost ... All I am asking of you is to pin them on the wall ... on this wall! This wall will be our strategic

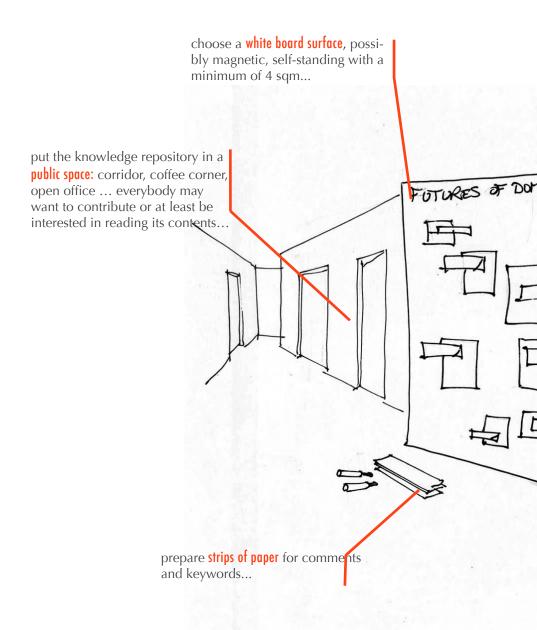
Knowledge Repository: we should collect, share, display, and, after regular analysis, the inputs you can retain from this knowledge transfer will become pertinent for our day to day operations.

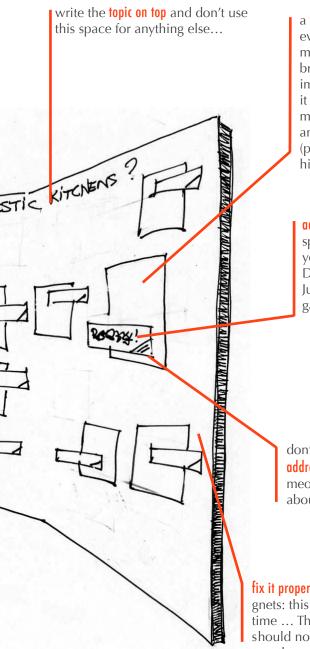
I said it's not a typical project: first of all, I asked each of you personally because all of you like to pick-up this kind of strategic information. You've got a «good eye» for it, and the ability to behave like interpreters or tentacles that can catch the right signals from the outside world. Second, it's not a traditional project because it's not urgent [laughs ...]. It's a long term activity where we don't expect results before one year. Third, it should not disrupt you from your day-to-day work: on the contrary, it's because you are deep in your current tasks that you are exposed to pertinent information that may allow you to collect it. Fourth, we do not expect a new kitchen model at the end, but a set of different design directions we may decide to pursue if we deem it appropriate. And fifth, last but not least, I never have time to concentrate on a project except from a decision making perspective [laughs again...]. I will take part at each meeting and actively contribute to the knowledge repository.

But I said it's also a project: There is a project manager. Eric will facilitate the entire process, and will be the candidate for a training session on the methodology that will be adopted. You are the project team: time will be allocated to your job assignments to take part in the KRP at quarterly meetings. We are not expecting results before one year, but after...yes!!! After one year, we should be able to present and justify at least 5 different scenarios to orient our line of contemporary products. Each quarterly meeting will be a milestone of the process to start analyzing the material collected and, eventually, a moment to discuss possible topic reorientation etc. Finally, this is a project because there is a clear brief, which is to collect and report any event, information, innovation, competitor shifts, emerging user demands, trend shifts, etc... whatever you think may be pertinent to imagine the future of the domestic kitchen.

For a more practical disposition, Eric will say a word just after me, but, before he does, I have 3 elements to pin on the wall: last week in London I say

# **TOOL 2 REQUIREMENTS AND RULES**





a **typical contribution** is an evidence/fact: a page from a magazine, a photo, a sample, brochure ... Make it visible (big image, text blown-up), Make it attractive (select what really matters and color copy it), and make it easy to remember (please ... no articles without highlights or images)...

add your comments: no contribution speaks for itself! It's the reasons why you pick it up that really matters ... Don't write extensive explanations. Just a few words will do: use slogans! ... advertise your ideas!

don't forget to **write your email** address, and a reference in case someone would like to find out more about it!

**fix it properly** with pins, tape or magnets: this may be there for a long time ... The knowledge repository should not look like a mess after a month.

# **TOOL 2 INTEGRATION SESSION STORY-BOARD**



**1.** Eric mails participants to remind them of the meeting's date and prompts them to prepare the contributions collected during the last 3 months ...



**2.** Before the session starts, Eric sets up the meeting room, checks the material and prints contributions sent by possible distant/excused participants ...



**3.** Eric welcomes the KRP participants, and starts off by reminding them of the last session's points of discussion such as open questions, obsolete elements and contributions, cluster progresses etc...



**4.** A round table discussion begins with Nathalie showing the second award of a domestic appliance trade show competition: a fridge with a specific design introducing a breakthrough in the classical white-box design...



**5.** Nathalie wonders about compatibility with kitchen furnitures... She adds a strip of paper on her image and writes: «integration?» on it ...



**6**. Participants acknowledge that competition between domestic appliances and kitchen furniture to set the style as being a key-issue for future business ...



**7.** John, Marco and the boss post their contributions. For each contribution, the group briefly discuss their implications and decide where to stick them on the repository ...



8. After each contribution has been discussed, Eric adjusts the contributions on the knowledge repository and proposes clusters before wrapping-up the session in a tentative summary statement ...

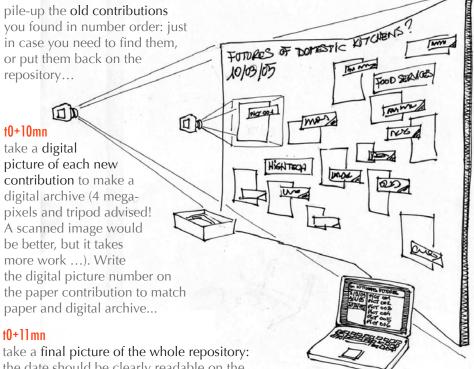
# TOOL 2 PROCESS AND TIPS AFTER...

add the **current date** on the whiteboard. Put it big and always in the same place: this will enable you to organize the results more efficiently...

### t0+2mn

You may add **big keywords** to point out emerging topics or interesting clusters...

### t0+3mn



the date should be clearly readable on the picture...

## t0+14mn

download the pictures of all the contributions and mark the file with the date session: you will be able to retrieve a contribution...

## 15mn finished!

just add the picture of the current state of the entire repository in a master file: browsing back and forth in the pictures, you should be able to easily retrieve a session and its contributions.

# OUTPUT

### WHAT DO YOU GET OUT OF IT?

The Knowledge Repository Process is an on-going process with process benefits and output exploitation. Throughout the process, you will obtain:

- Internal trends tracking and useful market surveys;
- Stimuli to fuel innovation;
- The identification of topics for new meta-projects;
- Regular strategic thinking sessions stimulating the involved team;
- Regularly updated internal exhibitions of key-issue for the company.

Exploiting the material gathered, you will get:

Company-specific views on what matters most; Stimulating visual material to orient project teams.



# **TOOL 3 DESIGN DIRECTION WORKSHOP**

## WHAT IS IT ABOUT?

The **Design Direction Workshop** allow to analyze accumulated knowledge and/or ideas to combine and build a series of alternative directions to orient the design of new products/services. The intention is to push the boundary towards breakthrough innovations. The result is a series of possible project briefs, co-elaborated with the project team and the designers, that can be readily used for decision making by upper management.

# WHAT FOR?

To explore possible directions to orient the design of your projects; To define breakthrough product strategies;

To structure project ideas within a macro-context of socio-cultural trends;

To make use of material accumulated in a Knowledge Repository;

To officially launch a project and align goals among project teams;

To define radically innovative project briefs and finally;

To gather material to inspire innovation throughout the company.

# HOW SHOULD ONE CARRY OUT A DESIGN DIRECTION WORKSHOP?

A **Design Direction Workshop** (DDW) is primarily a workshop, or an intense session involving a group of people in a collaborative work environment. Typically, they cannot be completed in just a couple a hours ... The fundamental principle to a DDW is that people acitively participate, they are undisturbed throughout the meeting, and they finish up only when they reach a desire solution!!! While traditional approaches see the design brief creation as only a top-down activity, one of the main ideas behind the **Design Direction Workshop** is the **em**powerment and development of the design brief by the entire project team. You need input material: a workshop is an «action-oriented» activity. Preparatory research must be carried out before the Design Direction Workshop. In fact, the DDW is designed to review research findings, cluster the material gathered, select the priorities, and set a clear picture of possible alternatives in terms of project briefs. You need output work: a workshop is a rushed process that delivers a concept or essence in a draft form. Afterwards, a work of recollection of the notes and the organization of the material elaborated in a reader-friendly mode is necessary Is the **Design Direction Workshop** connected with the **Knowledge Repository Process**? Yes... but it's not obligatory! The team involved may be the same, but the project team could be partly or completely different: good interpreters are not necessarily suitable project developers!

The **Design Direction Workshop** could help to sort the material accumulated in the Knowledge Repository, but this material is generally not enough: it reflects precious but incomplete company-specific point of views. Defining projects briefs requires generally a more exhaustive overview of trends, markets context etc...

# TOOL 3 STEP 1: INTENTIONS

#### March, 23

President's introductory speech: «... Our contemporary kitchen line models are not doing well on the market. In fact, we are continuously running behind market leaders! We tend to get inspired by our competitors' product models and, as a consequence, we introduce our products much later on in the market. Moreover, due to the fact that the entire industry uses the same innovative suppliers, our core competence is not technology based. Neither are we hard sellers: our models are not particularly cheap, and we do the minimum in advertising and merchandising to back up our products. On top of that, this long strategy of «me-too-and-a-bit-better» products erodes our brand perception on the market and our contemporary products have no clear identity among customers ...

If you recall, last year, round about the same time, we started a Knowledge Repository on 'futures of domestic kitchen'. We held "teasing meetings" throughout the year, and now the repository is mature to exploit what has been gathered.

Today we are here in a one-day workshop to start the renovation of our contemporary product line-up. The scope of the day is not to define a clear-cut project, but to set a direction for future contemporary product lines. actually, I should say directions because we would like to end up with { or 5 possible design directions to assess within consumer groups before taking a decision.

In one sentence, we want to investigate: which are the most appropriate design directions for our company in the future of domestic kitchen?.

Of course, I don't expect to find everything in the Knowledge Repository. If fact, to get the ball rolling and start the oneday workshop, John, who will lead the renovation project, has prepared a state-of-the-art picture of the market, the benchmark products, socio-cultural and technological trends, user behaviours..., which he will present right away ...»

#### **IS IT CLEAR?**

#### Yes ....

If it happens to be unclear in your company what should be done, what the goals should be, and how one must formulate clear objectives, you may need to pass through a progressive synthesis from "general intentions" to "specific intentions" to finally reach "fundamental objectives". If this is the case, then propose to follow the processes below at the beginning of the workshop:

"general intentions" —> collect reactions related to the chosen subject /topic from the various elements of the team

"specific intentions" —> prompt the team to reduce the previous list, and then select the mains goals of the project

"fundamental objectives" —> ask the team to summarize the intentions in a single sentence that can be agreed upon by all

NB: The process could also be used in an inverted manner. Starting from a very precise objective, the team can explore implications and sub-goals for each function in the company. Whatever the starting point, spending 15mn on discussing the intentions is a good warming-up exercise to make sure that everybody shares the same understanding of the workshop. Print the resulting intention(s) on a large piece of paper, pin it on a wall in the room, and refer to it at each workshop step to make sure the team is on the right track!!!



# RULES OF THE GAME:

On the right side, a wall covered with material: basic synthesis (what a competitor knows about the chosen subject) + company specific material (ideally from a

### Knowledge Repository Process)

On the left side, a project team warmed-up by a freshly agreed intention to investigate (i.e. identifying the design directions for the future of the domestic kitchen?)

The aim of the game: to confront basic and specific material in the light of the chosen topic

Duration: Three 30-minute games

First game: the team looks at the material and tracks similarities/oppositions, patterns, and clusters that may emerge on their own (i.e. high-tech applications in the field; slow food trends back to quality; home services; service food; etc.) Second game: the team takes a second look at the material in light of the agreed intentions (i.e. what's relevant considering the evolution of domestic kitchens? which external factors? what time horizons? Etc.)

Third game: the team chooses untouched questions among a check-list to take a third look at the material: they relate to sub-dimensions of the agreed intention (i.e. user points of views? economical concerns? technical feasibility? competitors strategy? Etc.)

Games end: When 10-20 clusters of clearly marked keywords have been identified and organized in a logical way on the wall

### Tips:

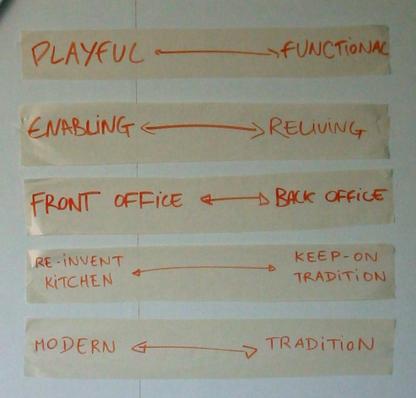
Make sure all the material has been reviewed

If some material enters in 2 different clusters, copy it

Don't hesitate to often move the clusters to get a clearer picture at the end of the game

If too much material is in one group, try to split it up. If no sub-clusters can be made, choose the most representative elements, and hide what is redundant

# TOOL 3 STEP 3: POLARITIES



Steps **3** to **5** aim to create a structure of the chosen topic/subject from the clusters that emerged from the previous steps. In particular, they focus on defining keypolarities of the topic, deciding which orientation to take, and combining the most promising directions in order to reach the project's main goals.

## **3. DEFINE POLARITIES**

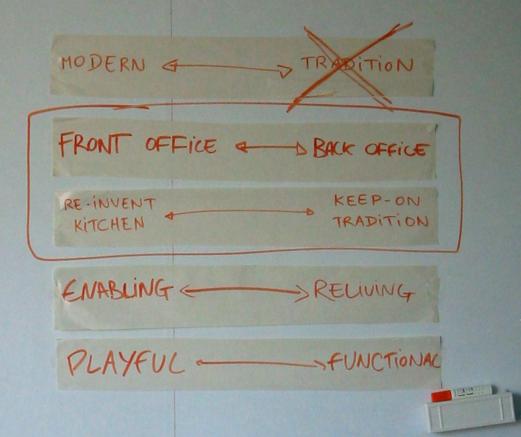
Starting from the clusters you just built, the intention is to infer promising variations of the current design strategy of the company by describing them through polarities. Three typical situations may arise:

two identified clusters show opposing company design strategies, which implies that the team must decide upon which polarities to focus;

an identified cluster may suggest one end of a polarity, and the team has to imagine its opposing part;

within an identified cluster, 2 alternative design strategies could be sufficient to define the necessary polarities around which the team will work.

# **TOOL 3 STEP 4: ORIENTATION**



### **4. DECIDE ORIENTATIONS**

Ask the team the following questions to decide the best orientation: Are both terms of the polarity equally promising regarding the initial intention of the project AND the firm's overall strategic direction (i.e. brand)??

if the answer is no, then the dead-end polarity must be removed and replaced. The other polarity, on the other had, constitutes a compulsory orientation for the project;

if the answer is yes, then the polarities are preserved and unchanged, and the team works around the chosen polarities.

Once the team is happy with the chosen polarities, they must decide which is the most promising in the light of the initial intention? At that point, the two polarities are then sorted according to the answer.

# **TOOL 3 STEP 5: SCENARIOS**

# KITCHEN AS A SERVICE DESK

The Kitchen is organised as a service place with a "Back office" Histoen Front Family/ Social Lipe, Functional, oriented to Heavy Cooking activities and A "Front office", OPDN AND DISPLATED, with SPECIFIC FURNITIVE TOSPLAYING THE INGREDIENTS, A AICH LIDKART FOR COCK books...

FRANK I SOMES ARE NOT ACCESSARILY SOMARATED BUT ONE EVENING ROOM OR ONE FURNITURE THAT COSE/OND

### OFFUSED WITCHEN

THERE IS NO KITCHEN MANAGAE AS A DECLATED ROOM. FOOD STORAGE MUD REPARATION HAMPENT IN DIFFERENT LOUATIONS IN THE HOUSE (LE A FRIDGE IN THE LOUND ROOM, DERALFRIT FRUITIET NEAR THE GALLONY, A MURDURANE NEAR THE TU. A LOFFEE MADRINE-MARK LLOCK ON THE MIGHT TABLE.,

#### **5. COMBINING SCENARIOS**

TCA

The two primary steps are to choose the most promising polarities obtained, and combine them by describing the 4 resulting design directions it terms of why each is promising for the project AND the company.

#### **NOTES AND TIPS**

When in difficulty, try any combination of polarities amoung the most promising. The main purpose is to, at most, identify 4-6 design directions: be creative rather than systematic. Trash dead-ends and keep the best! Stop after 40 minutes.

BACKOFFICE

REAR KITCHEN & FOOD STORAGE

The Kitchen is seen as a back-office as it was in traditional Kitchens : it's a rear Kitchen, a technical space for storage, weparation ... will no particular social function

### OPEN KITCHEN

More than the "american kitchen" In the living room, the kitchen is the living room, a large place to live in , the core of the howshuld, the main room where family life takes place...

FRONT OFFICE

# **TOOL 3 STEP 6: DESIGN DIRECTIONS**

The final step is to present each selected design direction as a composition of the most suggestive visual references and briefing comments:

Start from the description of each Design Direction, and pick-up 3-5 significant images from the clusters identified in previous steps: the aim is to stimulate and support the design work ahead. Find out some examples of films, songs or other products that can enable the team to describe each scenario in a tangible and clear manner.

You don't need a visualizer: like a publisher choosing on a contact sheet, write on the images what is important, what is not, where the focus should be. The intent is to write some explicit key comments...

The idea is to connote the design: «it should look like that»; «close to this»... but it's not the project yet: «similar but different»; «between this and that»...show tensions, point to questions, don't suggest answers...

Do as much as you can in the workshop and obtain agreement on it. Proper scanning and graphic cleaning can be done off-line...



# TOOL 3 OUTPUT

### WHAT DO YOU GET OUT OF THIS?

A Design Direction Workshop ends with 3-5 alternative briefings in a visual form: use it to support strategic conversation!

Show it around, and get comments from inside the company

Ask for interpreters' feedback: they should recognize their inputs

Test the alternatives: prompt reaction from user focus groups, and support the decision process

Tease designers, and guess what are for them the most stimulating direc tions

Upgrade the formats: switch some images and integrate pertinent comments Etc.

Then stop the collaborative process and make a decision: choose one Design Direction and give feed-back to the project team while starting the development of the projects ...



# TOOL 4 EVAL\_NET

# WHAT IS IT ABOUT?

**EVAL\_NET** is an online self-assessment tool made to support the analysis of the company network of small and medium European enterprises working in the furniture sector .It allows to quickly and painlessly evaluate the network elements related to the geographical area and the industry sector within which the company operates with both quantitative and qualitative approaches. **EVAL\_NET** is based on the idea that the optimization of the network of scope can enhance the future new product development process and allow the company to develop better value intensive products.

Therefore, this tool allows companies to evaluate their network in relation to Actors, the Trigger Actor, Research Activities, Tools, Activities and Duration. The objective of this tool is to give the company a means to evaluate their network. In fact, **EVAL\_NET** - short-form for "evaluate your network" - highlights the differences between the comapny's network, and a chosen ideal value intensive product network.

This tool offers multi-levels of feedback to the company. In particular:

\_ a report on the weaknesses found;

\_ opportunities to eliminate reported weaknesses;

\_ anecdotes taken from EVaN cases that allow for direct comparison with other similar companies.

## WHAT IS IT FOR AND WHY IS IT USEFUL?

To collect company specific information;

To diagnose the status of the company;

To identify gaps between the company network and a reference network;

To spread strategic thinking throughout the company;

To acquire knowledge about each element that makes up the network;

To make management more aware of the activities that a company should pursue in order to improve their competitiveness and performance in their market from a design perspective;

To focus the company's attention on standard market best-practices (regarding actors, research, activities, tools, keeping up-to-date-activities), that they currently don't make use of, or even do not know exist;

## HOW DOES ONE CARRY OUT AN EVAL\_NET CHECK-UP?

The output given by the online software consists in an "*understand-at-first-glance graphical user interface*" that guides the user through a series of focus sheets that have the objective to help understand the results of the EVAL\_NET. In fact, the software provides three levels of feedback, one for each network variable:

\_ Level 1 - **gap identification**: the company is warned of the weaknesses found in their network in comparison to an ideal value intensive company network;

\_ Level 2 - **gap analysis**: Informative report cards consisting in a synthetic definition of the dimension taken into consideration, and a more in-depth explanation as to why the gap may exist, in order to help the company improve the overall quality of NPD processes towards the development of value intensive products;

\_ Level 3 - **network histogram**: the company is provided with a summary report of their current status, with a focus on the differences with the comparison network.

# TOOL 4 EVAL\_NET ON-LINE TOOL

What kind of resources does your company undertake when a new product development process starts?

By describing your network, you can clearly identify the resources you put in action when you start a new product development process, and verify the lack or the surplus of resources activated in a specific area (actors involved, activities undertaken, sustained research, tools used etc...)

EVAL\_NET online tool, through its survey, provides the user with a glance of his company's status, and allows him/her to compare it to an ideal network. The tool is divided in five different sections:

- \_Section 1: introduction and company details
- \_Section 2: survey
- \_Section 3: comparison
- \_Section 4: content navigation
- \_Section 5: user reports

Through the first and second sections, the company collects all the information needed to divide companies into clusters in order to do the comparison to a suitable ideal network.

The third section allows the company to diagnose the status of the network, the fourth provides the user with a custom-built answer for each of the identified gaps; the fifth gives the user a unique user code, needed for subsequent access to the software, and also gives the chance to save a report of the data, useful when you address an EVaN service centre.

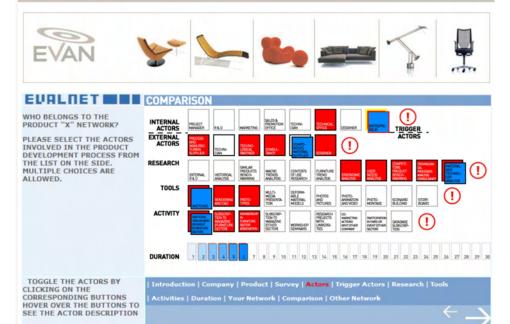
What is the ideal network in reference to some variables like location (country), industry sector, number of employees and the turnover, and the price of the product?

Many design-oriented companies develop similar networks during the value intensive products development process.

The online tool allows the user company to compare its network with a selected "ideal network", which will be used as a reference, as it is similar in terms of country, industry sector, price of the product and enterprise size.

EVAL\_NET also highlights and reports the gap found between users and ideal networks.

European Value Network



# TOOL 4 EVAL\_NET STORY-BOARD





**1.** Visit www.evanonline.com and access to the "EVaN service area".

**2.** Choose a user name and a pas-sword.



**3.** Fill in the company profile form to identify your cluster.



**4.** Answer the key "network" questions.



5. Compare your network with a selected ideal network.



**6.** Examine the highlighted gaps by clicking on them.



7. Obtain more information about each network ingredient to improve the company network.

**8.** Save the histogram report with network comparisons and login data.

**9**. When you make some changes in your network, visit the evanonline.com web site again, modify your profile and re-compare again the network to find new information pertaining to your value-intensive product development processes.

And then... What could you do to improve your network's effectiveness? Design-oriented companies achieve design-driven innovation through many 'ingredients' of their network of scope. The tool allows you to deepen any of the subjects involved in the network.

Using the online tools, companies can find the following contents:

\_ an in-depth explanation about each network ingredient that can be download in pdf format;

\_ a set of meaningful anecdotes related to each network ingredient, that originate from the EVaN research case studies and knowledge-base.



# TOOL 4 OUTPUT

### WHAT DO YOU GET OUT OF THIS?

Eval\_Net tool online sessions end with a histogram report: use it to constantly check your company's network.

Conserving the report and the login data, you could use it in the future to obtain more information about the network ingredients. The report also permits a rapid check up with a EVaN service center to receive more accurate and detailed information pertaining to the development of the most appropriate networks of scope in new value intensive products development process.

Upgrade your network description when you make a change in your network profile and find new information to improve your network's effectiveness.

# CASES USE OF THE TOOLS IN COMPANIES

The Design Driven Toolbox has been applied in various industrial contexts. The following part of the manual shows their application in different companies.

### Case 1 / TRE-P&TRE-PIÙ

**company:** TRE-P, since 1962 is one of Italy's leading door manufacturers that, in 1982 created TRE-Più to host the manufacturing of the highest quality doors and partitions in the sector / It led to the development of an extremely valuable door collection that expresses innovation from both an architectural and functional point of view.

motivation: Technological capabilities allow TRE-P&TRE-Più to introduce product radical innovations / the reinforcement of its "editorial" capabilities while collaborating with designers is needed to improve its competitive advantage. toolbox: A Knowledge Repository Process saw the successful development of value intensive knowledge related to the future functionalities of doors inside and outside the household.

### Case 2 / ARTHUR BONNET

**company:** A French kitchen furniture producer founded in the 1930's in the region of Nantes / Historically, Arthur Bonnet is a leader in the medium range traditional plain wood kitchen market/ In the 1990's, it joined the Italian kitchen manufacturing group Snaidero: the leader in medium range kitchens in Europe. **motivation:** Permanent changes in management in the late 1980's and early 1990's blurred the company's product identity / Under severe competition, sales dropped and a strong need to rethink the company's core business portfolio of French style traditional products emerged.

toolbox: A Design Direction Workshop was organized in order to revisit the company's historical heritage, identify persistent product value and set new foundations upon which to root the renewal of the company's traditional products.

### Case 3 / BTICINO

**company:** Italian specialist in products, services related to electrical installations and information networks for both the residential and commercial markets / Established after World War II, in 1989 it joined the multinational company Legrand to form the world's leader in key components for electrical systems, installations, and information networks.

**motivation:** Several changes in the sustainable regulations suggests the introduction of new radical innovations to their product portfolio in order to maintain their leadership and innovative edge in the market.

toolbox: A Design Direction Workshop was organized to identify future scenarios about products and services that can enable the final user to reduce their consumption through off-the-shelf power control products.



TRE-P & TRE-PIÙ / organization of the kick-off meeting to identify strategic topics and explain...



top management, functional managers, external engineers, communication experts, and...



discussion about the various contributions to share different visions and opinions / organization...



reclassification of collected materials and identification of first clusters: privacy,...



...the Knowledge Repository Process / identification of the knowledge repository team:



...other consultants / collection of first contributions related to "new door Functionalities"



... of several integration sessions to collect new material and reorganize collected materials



...transparency, container, Information and Communication Technology, etc.



ARTHUR BONNET / initial intention focused on the value of product identity / 2 half-day...



technical & administrative departments / «memory» brainstorming and analysis of archived...



dustering activity in order to identify historical values, tensions in the current company network,...



kitchens / decision making on orientations decided upon by top management / briefing of...



...design driven workshops organized with the «historical» employees from the



...material, past catalogues, product communications, company behavior and patterns etc.



...and potential themes for the renewal of the company's core business range of traditional



... external designers on the design directions to be followed in the new product development



BTICINO / initial intention to focus on products that enable final users to reduce electricity...



marketing, sales and technical departments / ideas generation session on the basis of off-the- ...



generation of promising polarities in 3 subgroups and their confrontation in plenary sessions to...



polarities, and the decision to focus on 2 so as to organize the initial ideas and formulate...



...consumption /one-day design direction workshop with 15 people form the company's



... -shelf power control technologies/ reorganization & clustering of potential product areas



...prioritize the most promising directions according to company assets / orientation of the



...4 contrasting scenarios for future development of switches and control equipment

# EVan Centres: How to find further help?

The **Design Driven Toolbox** contains explanations of all the tools. But, if you need further help, you can contact our **EVaN Centres** ...

... these are centers dedicated to supporting innovation processes in companies.

In particular, the **EVaN innovation service centers**, who designed the Design Driven Toolbox; can (1) help you personalize the tools to meet your specific needs; (2) help you during their implementation; (3) help you optimize your innovative capabilities.

You can also contact the EVaN Support service points nearest you, that will guide you to the EVaN innovation service center that can best support your needs and requirements.

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#### Quotation:

1 page 8 : F. Zurlo F., Simonelli G., «Metamorfosi di Artemide: la luce che cambia la luce», in Zurlo, R. Cagliano, G. Simonelli, R. Verganti, Innovare con il Design. Il caso del settore dell'illuminazione in Italia. Il Sole 24 Ore, Milano, 2002.

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YOUR PERSONAL NOTES :	






The European VAlue Network (EVaN) project is a European Community funded research headed by MIP, the Politecnico di Milano's business school, and in collaboration with 9 other European partners. Its main objective? To support European small and medium enterprises (SMEs) compete globally through the development of value intensive products: products designed to satisfy the growing intrinsic and intangible needs that dominate the consumer landscape. How do we expect to achieve this? By teaching European SMEs to better develop their abilities to understand, anticipate and influence the emergence of new product meanings, and share this knowledge throughout their new product development (NPD) processes and value chains so as to develop value intensive products

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