



Adopting breakthrough technologies

Research and Technology institutions face the challenge of continuously transferring industrial knowledge that has been generated in the successive phases of scientific creation and innovation. Being actors of knowledge transfer close to the industry, CETEMMSA has been one of those pushing new products, processes and new ways to increase business productivity the advancement of society as a whole. In many cases, the difficulty lies in aligning companies with potential business prospects of the potential demand for these new products and innovations, which becomes blocked when the technologies are groundbreaking in themselves and not fit models already established by markets. Moreover, the uncertainty and variability in business cost / benefit structures, where the volumetric factors can accelerate or stop definitely an expectation of certain business benefit, finally becomes as the blocking factor.

Obviously that approach of risk and uncertainty, representing innovation models that are intended to be present and future trend direction, necessary postulate that companies should innovate, accepting risks and mistakes, but doing so in a faster and cheaper manner. But in any case, it seems commonly accepted that some social trends, as such as those that capture the collective behavior, are called to be generators of new demands and consumer needs.

From this challenge in the fall of 2012 the professionals of CETEMMSA imagined a world where the path is marked by these societal trends, that constantly generates change and where in a permanent rises new requirements and demands, but above all, adopting of those breakthrough technologies. That is why we consider a scenario where our skills, knowledge and competencies were aligned with so called social macro trends that had become the compass of our actions, as best answer in the fulfillment of our mission, which is simply transferring new knowledge to maximize performance for companies through innovation, but ultimately impacting on the benefit to society as a whole.

This report targets this aim to build bridges among society, technology and trends.



Josep Lluís Checa

Deputy Director of the Presidency



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“make the familiar strange”



transparent iPhone (mock up)
from iphone-news.org

“Combining technology, fashion, art and urban habits gives rise to products that are radically provocative, that do not fall into any intermediate or mass consumer goods categories. These are minority products ready to conquer benchmark niche markets. Belonging to such minority groups is an option reserved for the most innovative companies; Firms seeking a special distinction. “

Dr. Paul Lacharaise
Project Manager
CETEMMSA Technological Centre



● CONTEXT AND MACROTREND TIMELINE

“Awakening” means a new beginning, a will to embrace new technologies and adopt them in a new unexpected way. It is the most innovative trend, and its applications depend on the advancement of existing technologies: larger scale (architectural lighting and heating), wireless connected and interactive interiors & objects (domotics), better health preventive measures (remote health & biomechanics monitoring), latest automotive and mobility concepts, and new customer-product interaction.

year
2020

2030



INSPIRATION



1/ Inflatable teahouse by Kengo Kuma. 2/ The ghost of a chair by Valentina Gonzalez Wohlers .
3/ Installation at Heimtextil 2010 trendsforum. 4/ Quilt armchair by Bouroullec brothers design.

INSIGHTS

- a desire to humanise and integrate technology into everyday life
- away from mass manufactured products
- supracomfort
- health awareness
- beyond spa
- health+comfort+spa=wellthy
- biosensors
- smart skin
- wellness
- self check-up
- lounge
- technogym
- hospitals
- pollution sensitive
- digital bodies
- e-skin
- i-thing
- food design: superfoods
- youth liberator
- between nature & artificial
- new notions of beauty
- modern alchemists
- blend real & unreal
- laboratory
- magical experiments
- holistic health
- technovictims

● ADVERTISING / PROMOTION / PACKAGING / DISPLAYS

OPPORTUNITIES BY SECTOR

Blinking displays, lighted paper and cardboard, moving displays, flat voice recorders and speakers, paper radios....All these printed electronics applications have found widespread adoptance in the retail packaging industry as a way of grabbing attention from consumers. Promotional merchandising products are also a market where EL technologies can be applied.



Ballantine's blinking packaging



EL Packaging by Karl Knauer KG



EL DVD folder



Pepsi EL moving panel (from Printed electronics fair)



Packaging with moving display by MWV



Esquire 75th anniversary e-paper display cover by Americhip



Equalizer T-shirt by Nitelife designs



Audiopaper by Toppan forms



Electronic cards by Touchcode

HEALTH & FITNESS

OPPORTUNITIES BY SECTOR

Personal performance monitors have experienced a rise in popularity thanks to the launching into market of the second generation of devices, which act more like a coach, a companion that challenges and rewards, in order to turn training into a play game or a competition. Smartphone apps and wireless data transmission makes possible monitoring and data analysis possible. Leader products such as miCoach fitness activity tracking system, and Nike+ or Nike fuel record movements or vital signs. Some new developments are: waterproof GPS (Finis Hydro), 3-axis movement recording (FitBit), accessories or apps for reward programs (Movband) or gender-specific developments (Numetrex woman).



Adidas Micoach Fitness Tracking



Numetrex sports bra-heartbeat sensor



Motoactiv



Nike+ digital sneakers



Nike+ basketball



Nike Fuel Band



Movband for active children reward program



GPS tracker by Finis Hydro



Fitbit 3-way axis tracker

● REFERENCES

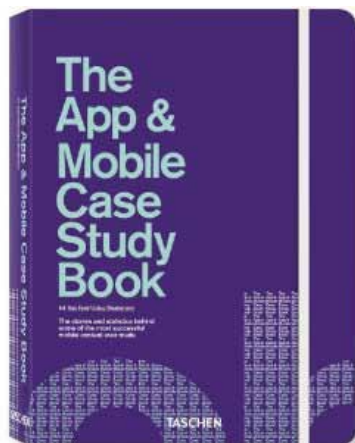
This trend is much about communicating objects, connected cities, social interaction and, admit the current crisis, making life more fun. Fitness and casual fashion, friendly gadgets and entertainment industries also fall into this trend.



"Talk to me" exhibition at MoMA New York

Exhibition: Talk to me. **Design & communication between people and objects.**

This successful exhibition focused on objects that involve a direct interaction, such as interfaces, information systems, visualization design, and communication devices. Also on projects that establish an emotional, sensual, or intellectual connection with their users.



The App & Mobile Case Study Book by Taschen

The boom of Apps / geolocalization

Apps are a way of improving human interfaces and are bound to replace websites as we know them. Some apps need only a smartphone, others are dependent on a physical accessory. Designing services that are accompanied by an accessory is a path for development of technological products.



Smart Cities Barcelona promotional image

Smart Cities Barcelona / Urbìotica

Recently Barcelona's mayor announced a strategy for city planning based on the idea of Smart Cities, those that can offer up-to-date information on traffic or that can offer wifi connection. Urbìotica has already put in use some urban elements based on sensors and data recording instruments.

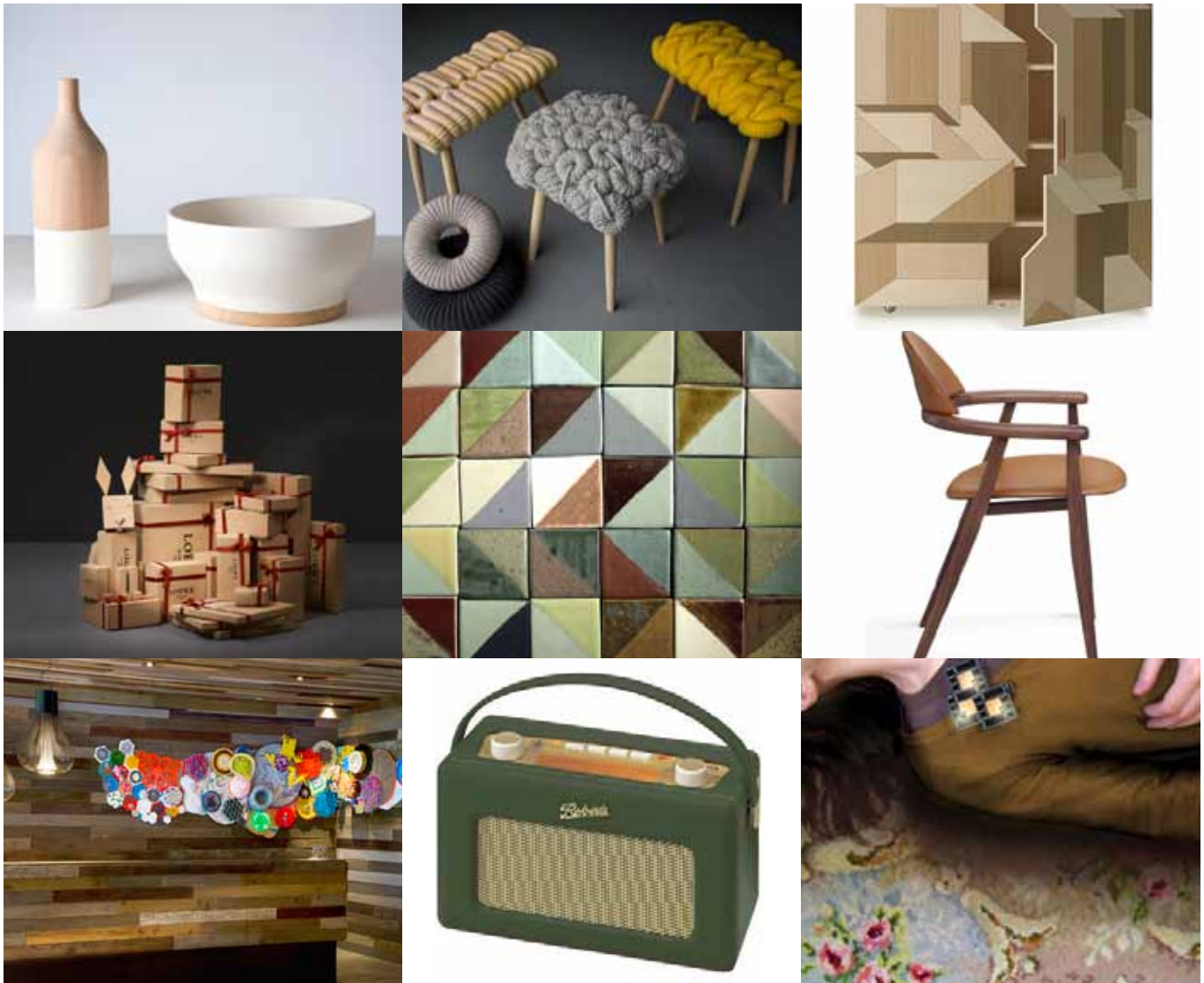


Berg little printer by Bergcloud

Friendly gadgets

Berg's little printer prints out on a receipt-size paper all the news or tweets you need to keep in a physical format. As mobile and cloud technologies advance, gadget products that are connected to the web have become smarter and friendlier and can be used by the whole family or office.

COLOURS & MATERIALS



From left to right, top to bottom: 1/ "Doubleface" by Florian Hauswirth. 2/ Knitted stools by Claire Anne OBrien. 3/ "Inlay" cabinet by DFront for Porro. 4/ Loewe promotional image. 5/ Ceramic tiles by Lubna Chowdhary. 6/ Hermès chair for their Home collection. 7/ Detail of W hotel at Vieques Island, by Patricia Urquiola. 8/ Roberts Radio reedition. 9/ Solar vintage brooch by Elena Corchero.

There are mainly two ways to work colour & pattern in this trend. On one hand, neutrals such as raw wood are combined with midtones in subtle and matt surfaces, with a colour-blocking effect; and multicoloured products such as crochet, patchworks and classic prints (gingham, toile de jouy, florals).

- raw wood
- colour-blocking of 2 colours
- soft, rounded outlines
- new marquetry
- 3D artistic & domestic knitting
- reworking existing products with new technologies
- pure lines
- leather in natural finish
- pleating
- mid tone colours as accent colours for interiors (home & car) & products
- matt surfaces
- new tapestries
- cross stitch, patchwork
- modern tapestry
- floral, gingham, tartan checks in midtones
- modern & hypertextured crochets

COLOUR PALETTE



COLOUR HARMONIES

HARMONY 1



HARMONY 2

