



ConXEPT

THE CONSUMER GOODS
CROSS-ETP

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The Cross-ETP addresses the needs and desires of consumers by fostering the development of innovative products and services stemming from new materials and technologies, production systems and value chains, business models and creativity.

ADDRESSING SOCIETAL CHALLENGES



ROLES AND OBJECTIVES

ConXEPT, the Consumer Goods Cross-ETP, focuses on Research & Innovation in the Consumer Goods area, by



Creating a European Network and a critical mass of stakeholders from all involved sectors and scientific domains;



Identifying key trends and challenges in research, technology and innovation;



Setting up an expert community able to support roadmap implementation through collaborative projects;



Act as a major reference for Research and Innovation-related matters for the Consumer Goods industry at European & international levels.

The Cross-ETP fosters multi-level action: from international, through EU, national, regional and local levels, leveraging available instruments, clusters and networks to deliver concrete results and new products, processes and services.

The Consumer Goods Cross-ETP is recognised by the European Commission: http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=etp

ACTIVITIES

The Cross-ETP aims at maintaining and expanding the existing European-wide network:

- Creating and maintaining mutual awareness and facilitating contacts, building trust;
- Collecting and generating data and knowledge valuable for the entire community at EU level;
- Encouraging and organising knowledge exchange and other forms of community interaction;
- Extension of the community to other Consumer Goods sectors;
- Joint priority-setting and research and innovation roadmap continuous monitoring and reviewing.

ConXEPT also targets implementation of joint actions:

- Clustering projects according to common applications to facilitate exploitation of results;
- Building roadmaps for large demonstrators where more than one project result can find applicability for exploiting jointly technologies and services;
- Developing content, procedures and channels for joint communication/interaction with external stakeholders.

The Cross-ETP equally fosters the creation of meaningful links to EU instruments (e.g. H2020 NMPB, FoF, COSME) and non-EU initiatives, such as EUREKA! or IMS.

BREAKTHROUGHS SHAPING THE CONSUMER GOODS INDUSTRY LANDSCAPE

BREAKTHROUGH 1 THE INTERNET OF WEARABLE THINGS - SEAMLESS INTERACTION WITH THE SURROUNDINGS

Never before has computing been small enough to be worn on the body, leading to the creation of unprecedented unobtrusive technologies that are shaping the way people live, work, play, connect and socialise.

Wearable technologies are boosting the convergence between the physical and digital world, bringing people to the Internet of Wearable Things.

This new paradigm is continuously being enabled by advancements in micro-electronics, telecommunication, big data and cloud computing.

Smart wearables will converge in the next years with connected homes, cars, groceries, etc. allowing people to seamlessly interact among each other and with their surroundings.

BREAKTHROUGH 2 AUGMENTED HUMANS - UNOBTUSIVE ASSISTING TECHNOLOGIES FOR WORKPLACE SUPPORT

Even though today's smart assistive technology devices are still clumsy and heavy, in the next years development in soft advanced materials, artificial intelligence, and mechatronics will lead to the creation of natural-to-use and smart skin-tight suits.

Such lightweight and flexible devices will enable people with specific impairments to perform tasks they could not accomplish by providing outrageous feats of strength (heavy lifting, mobility support) and capabilities to physically interact with the manufacturing surroundings in a shared workspace.

These new technologies, when combined with augmented and virtual reality, are also expected to give people unlimited access with the virtual world by physically feeling and interacting with it.

Several companies have already produced soft and lightweight exoskeletons, thus promising a widespread usage of these systems in less than five years for industrial applications.

BREAKTHROUGH 3 HUMAN-CENTRED DESIGN, MANUFACTURING, AND OMNICHANNEL CUSTOMER RELATIONS

As technology will become ever more tailored for people, it will be necessary to develop efficient human-centred design methods to drive consumer rapid behaviour change.

This will impact all the companies' value chain both in terms of horizontal integration, for retrieving consumer feedback to the first stages of production across the various IT systems; and vertical integration, to autonomously control the IT systems at different hierarchical levels.

As hardware products are expected to be always more volatile in the future, companies will focus on new service-oriented business models. Novel rapid prototyping technologies will give the chance to run small batch production and deliver personalised products with shorter time-to-market.

As online presence of consumers will grow, companies will have to optimise their omnichannel strategies and supply chain infrastructures to provide a seamless consumer experience through different distribution channels while optimising stocks, logistics costs and delivery times.

BREAKTHROUGH 4 INTEGRATING NEUROCOGNITIVE PROCESSES WITH ADVANCED ICT & AI

Innovative companies are witnessing the beginning of a massive shift towards neurocognitive technologies, which studies and combines humans' neurological patterns (e.g. behaviour, emotion, attention, etc.) with machines, computers, computational models and artificial intelligence (AI).

These systems will be able to largely collect and analyse various forms of information from interdisciplinary backgrounds (e.g. philosophy, neurobiology, bioengineering, etc.) to make real time smart decisions.

Those knowledge-intensive business processes (e.g. the assessment of customers or suppliers) - where too much knowledge has to be ingested from workers or where the existing information is hard to be used - will be strongly impacted by neurocognitive technologies in the near future.

Some of these technologies are already applied in product and service industries as machine learning and natural language processing towards robotic process automation.

CONXEPT COOPERATIONS



Be part of the first EU-wide research community on Consumer Goods. Be informed of European events, initiatives and funding opportunities. Get involved in Innovation Actions focusing on Consumer Goods.

