

CENTROCOT
Innovation experience

ECOSIGN

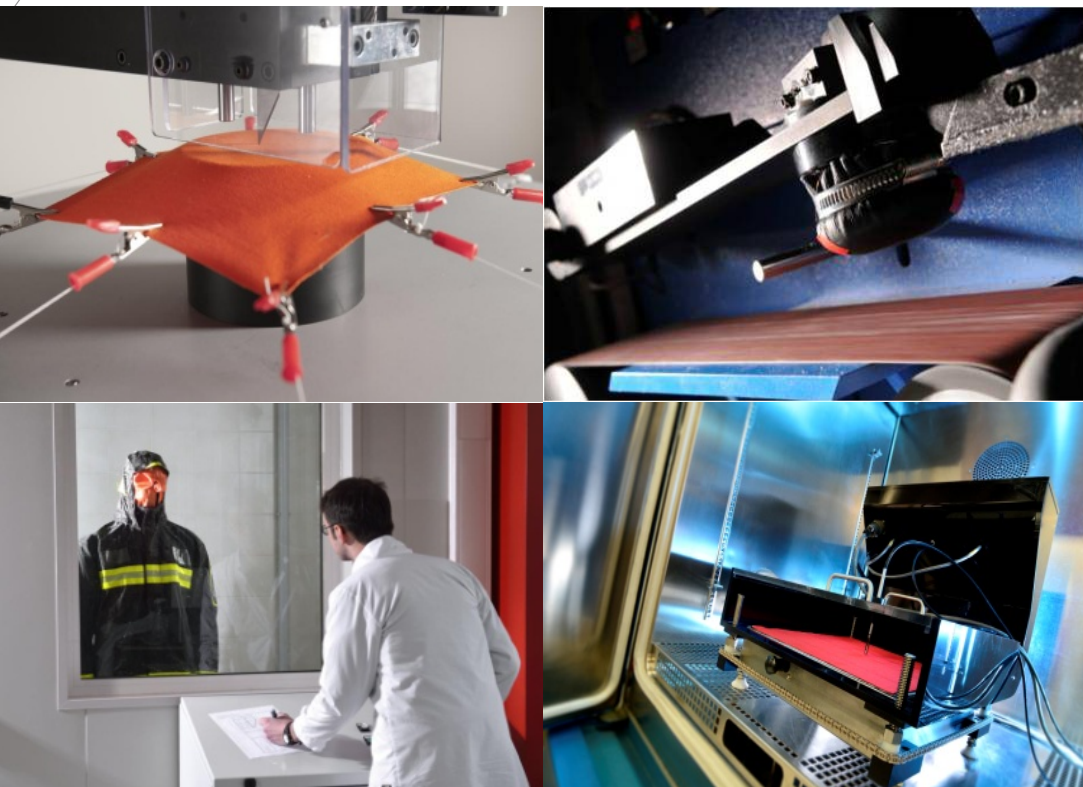
Eco-innovation Skills for European Designers

Principles of circular economy and ecodesign
(Eng. Roberto Vannucci – Centrocot)

VIII International Symposium on Food Technologies - Murcia, 9 May 2017

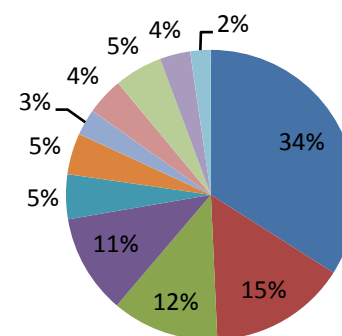
ECOSIGN is a project co-funded by
the Erasmus+ Programme of the European Union



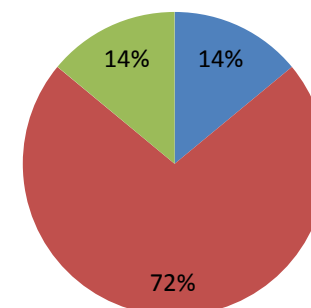


Turnover 2016: **6,5 M€**
Employees 2016: **80**

Kinds of services



Customers



Motivation for Ecodesign



CENTROCOT
Innovation experience

- Increasing attention to environment by entrepreneurs and managers :
 - **Costs** (energy and water) to be reduced thanks to new technologies
 - **Environmental impact** (CO₂, resources depletion) by production/products
 - **Green claims** towards customers

European Framework



CENTROCOT
Innovation experience

2014

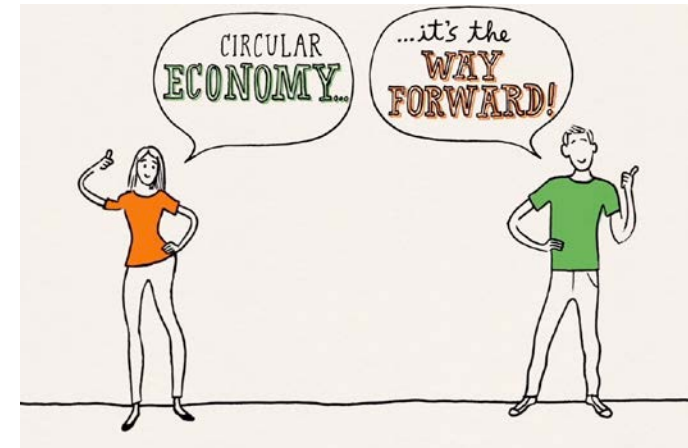
- “Environmental Indicator Report ” (European Environment Agency)

2015

- Circular Economy Strategy “Closing the loop - - An EU action plan for the Circular Economy” (European Commission)

2017

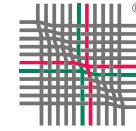
- CEAP – Implementation Report
- Launch of the European Circular Economy Stakeholder Platform



For further details: http://ec.europa.eu/environment/circular-economy/index_en.htm

Assumptions

Environmental Indicator Report 2014



CENTROCOT
Innovation experience

Environmental impacts of production-consumption systems in Europe














- European production and consumption systems rely heavily on imported resources and goods. Notably:
 - food,
 - electrical and electronic goods,
 - clothing,are production-consumption systems:
 - with large shares of imports to the European economy,
 - especially characterised by the globalisation of their supply chains,
 - together account for a considerable share of the pressures and impacts on the environment.
- Production-consumption systems can be adjusted to augment societal benefits and minimise societal costs





CENTROCOT
Innovation experience

Eco-innovation Skills for European Designers

Sectors addressed & Partners	Sector Experts	Educational Providers	Educational Authorities
Italy Textile & Clothing	TEXCLUBTEC 	CENTROCOT 	AICQ SICEV 
Romania Food Packaging	IBA 	CFPMS 	ECOVALIND 
Slovenia Electronic Goods	TECOS 	FERI 	CPI 
Spain Food Packaging	CTC 	CETEM 	SEF  



info@ecosign-project.eu



www.ecosign-project.eu



Aims

- Allow industrial designers to reduce environmental impact during the products life-cycle, including the use of raw materials and natural resources, manufacturing, packaging, transport, disposal and recycling.

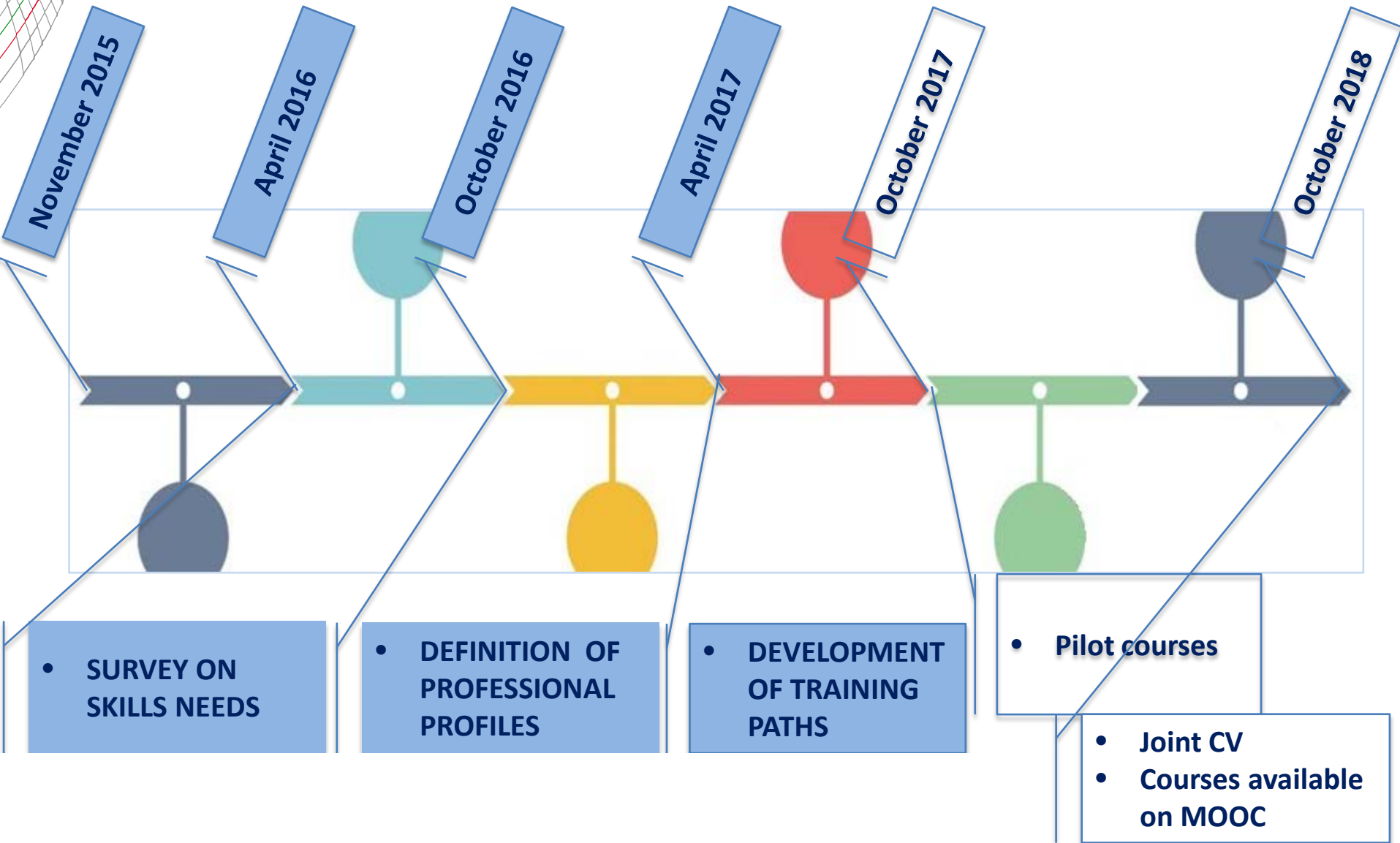


- Provide a new joint curriculum and training courses for European Eco-designers that will add skills and competences to the designers regarding environmental technologies.

Results expected



CENTROCOT
Innovation experience



Overview of Results:

Skills needs



CENTROCOT
Innovation experience

Common Knowledge

Environmental impact

Life Cycle Analysis (ISO 14040 and ISO 14044 series)

Environmental management (ISO 14000 series)

Food Packaging

Different packaging materials and environmental incidence

Legal framework, including recycling and reusing

Food technologies, including logistics and use

Environmental and sustainability aspects

Electronic Goods

Characteristics of electrical and electronic components and devices

Properties of materials, including recyclable materials

Evaluation of materials, components, devices from the point of view of sustainability

Technologies for manufacturing electrical and electronic devices

Re-using materials and recycling products or their parts

Textiles & Clothing

Research and product innovation

Eco-design practices both for the products and the processes

Critical chemical substances elimination

Less water consumption

Supply chain control

Recovery and recycling of production waste

Overview of Results: Professional Profiles_Food Pack



CENTROCOT
Innovation experience

The Eco-designer for Food Packaging is a technician who shall have to:

- know **EU regulations** and internal rules in designing processes
- calculate the **recycling and recovery** - ISO 22628
- use **materials** with low environmental impact
- minimize the use of materials that produce **hazardous waste**, and use closed loops when necessary to do so
- reduce the **weight and / or volume of materials** and use and **recyclable packaging**
- minimize **emissions of greenhouse gases**
- minimize **energy consumption**
- design products considering the use their **end of life** (reuse, refurbishment, modernization, recycling)

Overview of Results: Professional Profiles_Electronics

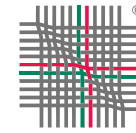


CENTROCOT
Innovation experience

The Eco-designer for Electronic and Electric Goods is a technician who shall have to:

- measure the **environmental impact of electronic devices** throughout the product life cycle
- analyse the **materials** and the **technological procedures** from the point of view of sustainability
- monitor and observe required **environmental standards and international, European and national legislation**
- take into account the **5R concept** in development (Re-think, Re-duce, Re-cycle, Re-use, Re-place)
- take into account and envisage **servicing** possibilities
- **in cooperation with other departments**, monitor and analyse the **costs** of the production process and evaluates its economic efficiency from the point of view of sustainability

Overview of Results: Professional Profiles_T&C



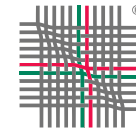
CENTROCOT
Innovation experience

The Eco-designer for Textiles and Clothing is a technician who shall have to:

- match his own creative skills and a good knowledge of **materials and processes**
- understand **certifications**
- consider the **legal and regulatory constraints**, with attention also to the **requirements for export**
- design in an **eco-design logic** without lose sight of the **industrialization of the product**

This figure, thanks to the ability to design taking into account constraints and opportunities, is a precious resource able to **interact both with the production as with the commercial & marketing area.**

Overview of Results: Training Paths



CENTROCOT
Innovation experience

➤ 4 modules

- [Basic Concepts of Ecodesign](#)
- [Food Packaging Ecodesign](#)
- [Electronic & Electrical Goods Ecodesign](#)
- [Textiles and Clothing Ecodesign](#)

➤ main target groups

- Vocational Students (industrial design and similar) and unemployed people
- Working designers (packaging for food industry, electronic/electrical goods, textile and clothing)

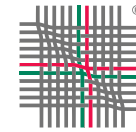
Some topics we are addressing



CENTROCOT
Innovation experience

- Materials
- Technologies & Processes
- 5R (Re-think, Re-duce, Re-cycle, Re-use, Re-place)
- EU policies
- Life Cycle Assessment
- Environmental indicators (greenhouse gases, energy consumption, materials depletion & efficiency, water depletion, etc.)
- Multi-functional teams

TIPS



CENTROCOT
Innovation experience

Ecodesign **from product to service**

- Dismantling (Recycle)
- Maintenance (Reuse)
- Supply chain / logistics (Recover)

CONCLUSIONS



CENTROCOT
Innovation experience

The **ECOSIGN** project has created an **Eco-Innovation Skills Alliance** in four European countries (**Slovenia, Spain, Romania and Italy**) with the goal of addressing the lack of knowledge of designers coming from three economic sectors - food packaging, electronic goods and textile & clothing - in **Eco-design**.



ECOSIGN aims and objectives will contribute to the **Agenda for New Skills and Jobs**, an EC initiative for reaching the **employment target for 2020** by equipping people with the **right skills** for the jobs of today and tomorrow and improving the **conditions for job creation**.



CENTROCOT
Innovation experience

Thank you for your attention

**Ing. Roberto Vannucci
(Projects Department Manager)**

**Centro Tessile Cotoniero e Abbigliamento Spa
Piazza Sant'Anna, 2 - 21052 Busto Arsizio (VA)**

**Tel. +39 0331 696711 - Fax +39 0331 680056
www.centrocot.it**

**Direct +39 0331 696778 – Mobile +39 348 3113842
roberto.vannucci@centrocot.it - skype: roberto.vannucci.ctc**