

EUROPEAN UNION-BRAZIL SECTOR DIALOGUES SUPPORT FACILITY

# PRODUCT 2 PRELIMINARY VERSION FOREIGN SENIOR EXPERT

EU-BRAZIL EXCHANGE ON TOOLS TO PROMOTE INTERACTION AND DISSEMINATION OF SOLID WASTE MANAGEMENT SOLUTIONS

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Ministry of **Planning** 



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# 1. INTRODUCTION

This document contents the second report of the Foreign Senior Expert in order to develop the project: "EU-Brazil exchange on tools to promote interaction and dissemination of solid waste management solutions"

Action Code: MMAA0017

Call for participation: Extra Call – 8th Call

Dialogue: Environmental Dimension of Sustainable Development

# WHAT IS THIS DOCUMENT ABOUT?

It is focused on the description of five European initiatives which objectives are, among others, to disseminate good practices on solid waste management, or other environmental areas.

These experiences have been selected by the Brazilian Ministry of Environment of a pool of 20, included in the Product 1.

#### STRUCTURE

It has been organized in two parts so as to facilitate the understanding: The first part is a general analysis of the five initiatives and their highlighted aspects, while the second includes a detailed report of each one.

# WHY DOES THIS DOCUMENT CONTRIBUTE TO THE PROJECT AND THE MINISTRY?

This document provides:

- Internal procedures
- International and national overview about waste management and communication tools
- Analysis criteria used
- Successful experiences and collaboration on communication projects

# PROCEDURE: HOW HAS BEEN MADE THIS DOCUMENT?

With a multi-information research system:

- Surfing on webs.
- Technical documents.
- My expert knowledge of the European world of Waste.
- Specific contacts with the initiatives, in order to deepen in the internal procedures. Not only information available on web but also direct contacts with promoters, coordinators and partners have been made.

This document is the first step to enable a better understanding of the European reality, which would be boosted with a visit.

# 2. WHERE EUROPEAN UNION IS GOING TO?

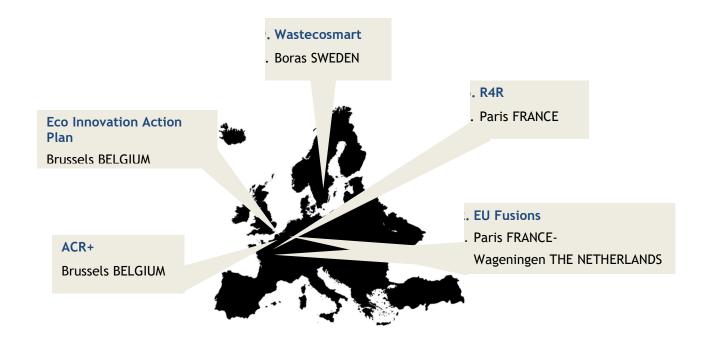
WHAT? New tendencies in the waste management

HOW? Cooperation and projects of common interest



# 3. HIGHLIGHTS OF THE SELECTED INITIATIVES

# **EXPERIENCES ALL OVER EUROPE**



# WITH DIFFERENT KINDS OF COORDINATORS AND STAKEHOLDERS



# FOCUSED ON DIFFERENT ASPECTS ON WASTE MANAGEMENT



# WHITH IT TOOLS AS A BASE OF THEIR COMMUNICATION FRAMEWORK

IT as a common tool but with specific and innovative application.

Innovation
 Assessment
 Stimulating social innovation projects
 2 levels of stakeholeders: partners and members
 Creating a network of public authorities
 Facilitating the organization of projects of common interest
 Web: attractive and easy to use
 Communication and exchange
 Organization
 Cooperation between partners with different levels of development

# 4. ANALYSIS CRITERIA

All experiences detailed in the next section are described and analysed according to the attached group of aspects and criteria:

Initiative			NAME
1.Objectives			
	It includes the iniciative	main goals.	
2. Contact details			
	In orther to facilitate the	contact.	
3. Summary			
	A sort and synthetic ove	rview of the experience.	
4. Indicators			
	•	sed so as to facilitate a queson between each other.	•
	Each criterion has 3 deg	rees:	
	Low	Medium	High
	Public and private entities	s participation in collabora	tive arrangements
	Only public or private entities	Mainly public entities	Both public and private entities in equal measure
	On-line platform		
	No		Yes
	Goal: Waste recovery and	l management costs reduc	etion
	No		Yes
	Innovative approach to wa	aste management or other	environmental topics
	No		Yes
	All the selected initiative	s of this document have	innovative approach,

according to expert's opinion.

# Use of social technologies

No complementary	Low level of	It has been
instruments	complementary	developed
	instruments	complementary
		technological
		instruments to
		facilitate spreading
		and interchange:
		blog, twitter,
		linkedin,

# **Replication capacity**

Existence of instruments to facilitate replication:

- Good practices
- Accesibility to reports
- Results availability
- Seminars and conferences

1 instrument	2 instruments	> 2 instruments

# Simplicity of use

- Organization and structure
- Design
- Clarity

Low	Medium	High
-----	--------	------

# Range

Only partners <10	Only partners >10	Partners and
		Members or open

# Involvement of different stakeholders

Different kind of stakeholders:

- Waste management agencies
- Cities
- Universities

- Networks
- Companies
- Consultancies
- Research institutions
- National authorities
- NGOs

1-2	3-4	>4

#### Interaction



Interaction between partners and/or members: member's platforms... or similar

# **Mobilization capacity**

Number of entities involved.

<10	10-50	>50

#### **Dynamism**

Referred to the web possibility of refreshing: including news, information, adaptability...

Low	Medium	High
-----	--------	------

# 5. Main factors for the implementation: historical and social context

This section describes the main reasons to develope the initiative.

#### 6. Institutional arrangements and organizational and economic structures

Internal procedures related to institutional arrangements and economic structures

# 7. Description of the stakeholders

Description and organization of public involved.

8. Main ways of participation. How the experience and best practices are shared?

Instrument selected for communication and participation

# 9. Instruments for communication and its analysis

Main communication tools of the project and its organization.

10. Good practices: criteria applied for selection, development, replication and spreading

Different aspects included in the selection, development and spreading of good practices

# 11. Main results of the Action

General results of the inititative.

# 12. Procedures for the results measurement

Assessment system

# 13. Critical analysis and lessons learned referred to the Initiative

The main conclusions of the project offered by the promotor's initiative

14. Critical analysis and lessons learned referred to the communication tools

The most important conclusions about communication tools

# **5. THE SELECTED INITIATIVES**

#### 5.1. ACR+

# ACR+ (ASSOCIATION OF CITIES AND REGIONS FOR RECYCLING AND SUSTAINABLE RESOURCES MANAGEMENT) Initiative 1.Objectives The main objetives are: 1. To contribute on a European and international level to waste prevention and to the ecologically and economically rational waste management and thus to enhance sustainable development. 2. To contribute to close the cycle of primary and secondary raw materials (resources, products, waste) notably through the at source, reuse and recycling. Join ACR+ promotion of resource savings and a more equitable distribution. PPI4Waste: Meet-the-Market 3. To advocate for the transition from a chain economy to a circular economy as the way towards resource efficiency. ISWA ISWA 4. To create and maintain a network for exchanging information on prevention, selective collection and recycling of waste in urban environments 5. To encourage the harmonization of concepts, definitions and WIGP standards in the domain of waste, products and resources. 6. To promote the creation of multi-stakeholder partnerships. 7. To develop the expertise and skills of public authorities in effective waste-product-resource policies. 8. To encourage practical action in waste management and sustainable consumption.

# 2. Contact details

http://www.acrplus.org/index.php/en

Françoise Bonnet, Secretary General

fb@acrplus.org

phone +32 (0)2 234 65 02

# 3. Summary

ACR+ is an international network of cities and regions who share the aim of promoting smart resource consumption and sustainable management of municipal waste through prevention at source, reuse and recycling.

Through its activities, ACR+ strives to develop the expertise and skills of public authorities in effective waste-product-resource policies, as well as encourage practical action. The association provides support to regional and local authorities in their new challenges and promotes cooperation and partnership o develop eco-efficient solutions.

Cooperation and capacity building

Services to Local and Regional Authorities

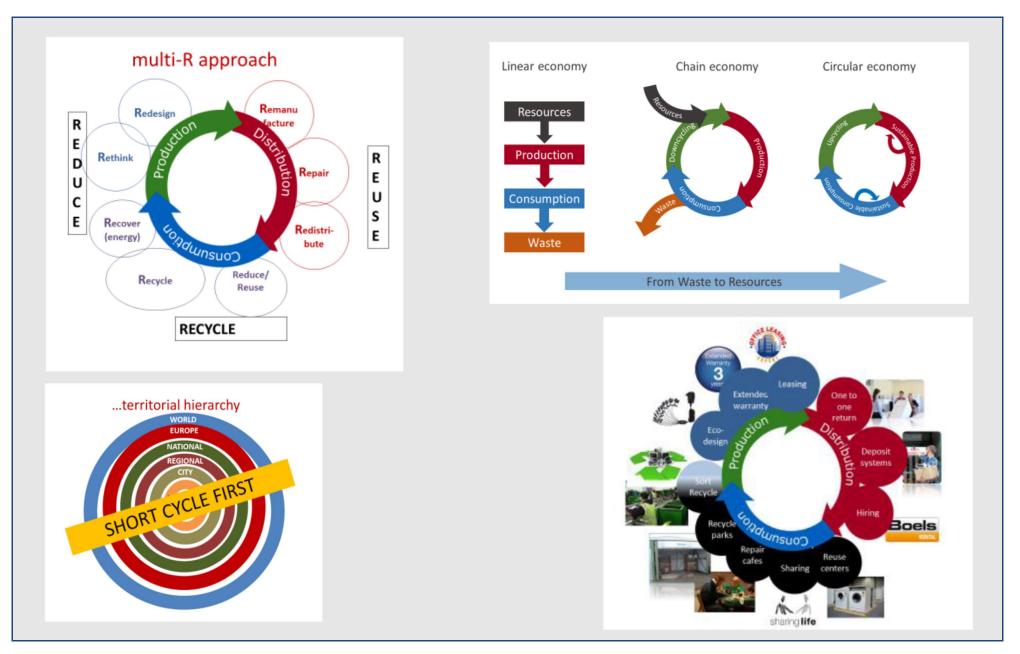
Strategy and planning

Legal and economic instruments

It is a project of projects with a **new vision** about the waste and its management, based on:

- The multi-R approach and the circular economy concept.
- The circular economy should integrate a territorial hierarchy.
- Consumption has to influence production
- New business model has to be created.
- Public authorities have a key role to play.
- Circular economy implies shared governance.
- All policy instruments should be developed in favour of circular

economy.



4. Indicators
Public and private entities participation in collaborative arrangements
On-line platform
Goal: Waste recovery and management costs reduction
Innovative approach to waste management or other environmental topics
Use of social technologies
Replication capacity
Simplicity of use
Range
Involvement of different stakeholders
Interaction
Mobilization capacity
Dynamism

## 5. Main factors for the implementation: historical and social context

ACR+ was created in Pamplona in May 1994 by a group of cities and regions led by the Brussels-Capital Region. First created as Association of Cities for Recycling (ACR-AVR), it became the Association of Cities and Regions for Recycling and for sustainable Resource management. The change from ACR-AVR to ACR+ reflects its evolution:

- From waste to products and resources, by encouraging prevention, reuse and recycling.
- From EU-15 to new EU Member States and South-Mediterranean countries
- From public partnerships to multi-stakeholders partnerships

Since its creation, ACR+ has given a voice to local and regional authorities, highlighting not only their strategic role but also the growing importance of material resources in terms of resource efficiency and circular economy. For more than 20 years, the promotion of the multi-R approach (through prevention at source, reuse and recycling) has and continues to be central to the activities of ACR+. This promotion is at work both outside and within the network, through a continuous exchange of experiences between members who can rely on an extensive pool of best practices and on the knowledge acquired by front runners in the field of circular economy public strategies.

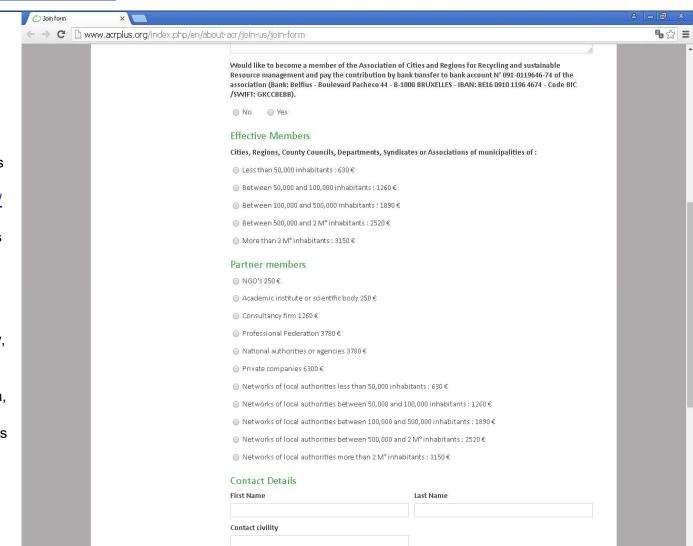
# 6. Institutional arrangements and organizational and economic structures

It is necessary to become a member so as to use the majority of services provided.

To apply for an ACR+ membership, potential members have to fill in an online form (available at this address:

www.acrplus.org/index.php/ en/about-acr/join-us/joinform) and pay the members fees.

The amount of the fees depends on the category of the organisation applying (local and regional authority, NGO, academic institute or scientific body, consultancy firm, professional federation, national authorities or agencies, private companies or network of local authorities)



# 7. Description of the stakeholders

An ever-growing membership of nearly 100 entities, mainly local and regional authorities, as well as national networks of local authorities representing around 1400 municipalities around Europe (EU-27candidate countries) and neighbourhood policy countries.

A network opens to other key players in the sustainable resource-product-waste management field, such as NGOs, academic institutions or private organisations, as partner members.

- Local Authorities (53). Eg: Aalborg (DK), Barcelona (ES), Brussels (BE), Cataluña (ES region), lle de France (FR), Lisbon (PT)
- City networks (6). Eg: Bulgarian Association of Municipal Environmental Experts (BAMEE), Cercle National du Recyclage (FR), COPIDEC (BE), Empresa Geral do Fomento (PT), Dutch Solid Waste Association (NVRD) (NL)
- National agencies or authorities (2). Eg: WRAP (UK)
- NGOs (21). Eg: Economia e sostenibilità (IT), Retorna (ES).
- Academic institutions (3). Eg: Swansea Institute (UK)
- Private partners (3): Suez Environnement (FR)
- Consultancies (5). Eg: Ambiente Italia (IT), SuperDrecksKëscht® (LU)

With partners from 30 countries, the majority of them in Europe.

In accordance with the main functions of each group, it is important to say that all of them play the same role: the structure of ACR+ is organize in two levels

- Level 1: The coordinator group which provides information, contacts, communication and cooperation between members.
- Level 2: Entities explained above.



## 8. Main ways of participation. How the experience and best practices are shared?

By joining ACR+, members are entering a strong community of local and regional authorities. This is why ACR+ works at enabling smooth communication, assuming the role of a bridge between members.

- Webinars are organised on a regular basis so members can participate in interesting debates on resource efficiency from the comfort of their offices.
- ACR+ always looks amongst its members when asked to find partners for projects. More and more, ACR+ is involved in projects only if they are of particular interest to its members and if one of its members is also a partner.

## 9. Instruments for communication and its analysis

One of the important outputs of ACR+ membership is to be updated regularly with the latest developments in the world of material resource management but also to benefit from in-depth reports and studies on topical issues with updated data. To provide relevant information, ACR+ has developed and will work on the following:

**Campaigns and projects**. Together with its members, ACR+ initiates and participates in European projects. Besides, the association runs thematic awareness-raising campaigns, such as the European Week for Waste Reduction

**Conferences and workshops**. ACR+ organises international conferences where delegates can debate and collect information on topical issues related to waste management. Thematic workshops and site visits are also often arranged.

**Technical reports**. ACR+ publishes technical reports providing detailed analysis of specific topics related to municipal waste management. These publications are key tools for decision-makers and technical experts, and are free of charge for ACR+ members

Reports and benchmarking studies: each year several reports are published building on the Secretariat and members'
expertise and linked with the projects carried out by ACR+. The themes cover a wide range of topics. In 2016 ACR+ will
publish a report on biowaste collection.

**News and information services**. ACR+ keeps the members informed about developments in the waste management world through its weekly newsletter (ACR+ Newsline), the quarterly ACR+Update, as well as the website, webinars and other regular communications.

• **The Newsline**: published every week it provides regular up-to-date information about different domains and countries. The Newsline also offers a special section for news from members and from ACR+.

- **Update:** ACR+ will continue publishing the ACR+ Update, a quarterly newsletter sent free of charge to all of our subscribers which gives them a thorough overview of our activities.
- The EU Digest: published every two months it offers a thorough overview of the news from the European institutions.
- ACR+ website: constantly updated, it will undergo a major change in 2016 to specifically include and highlight the new ACR+ vision (adopted during the General Assembly 2014) as well as the new projects. The content will be reorganised and the clarity of information improved to make the website more user-friendly. In addition, more visibility will be given to members by displaying their news on the homepage. Constant updates of the website, providing members with information on different events, calls for proposals, stakeholders' meetings, etc.
- ACR+ Twitter: the account was launched in 2013 and since then is continuously attracting more and more followers. It will continue to be fed by news on ACR+ activities but also by re-sharing information posted by members with Twitter accounts. In addition, ACR+ uses this channel to share interesting news with its followers on various topics linked with its activities. ACR+ will also consider using other social media, such as LinkedIn.

**EPR Club**. The Extended Producer Responsibility Club is a new exchange platform on Extended Producer Responsibility schemes in Europe, aiming at benchmarking on recycling performances, European harmonisation, fair competition, public control and best practices. It gathers different stakeholders and allows a dialogue on the EU policy developments and technical implementation of EPR schemes throughout Europe.

# 10. Good practices: criteria applied for selection, development, replication and spreading

ACR+ is an organization that facilitates the coordination and the interchange between actors and supports the shared development of good practices.

There are no specific criteria to join ACR+ projects and participe in its activities. It is organised on a voluntary basis and willingness to share information and data with other partners.

According to the spreading of good practices, being part of this net facilitates:

- Direct access to a network of experts involved in municipal waste management.
- Exchange of information and experience with nearly 100 cities and regions.
- Pay reduced fees to attend ACR+ conferences, workshops and webinars on topical issues.
- Receive free copies of all technical reports produced by ACR+.

- Receive up-to-date information on the latest developments through:
  - Accessing the members-only are of the ACR+ website (www.acrplus.org).
  - Weekly electronic newsletter (ACR+ Newsline).
  - Quarterly ACR+ Update.
- Be involved in studies and international projects on waste management.
- Follow the European policy developments and get the opportunity to express the views of local and regional authorities at European level.
- Increase the visibility through the ACR+ website, newsletters and communications.

The collaborative and cooperation projects between the partners are organized in 6 working themes:

- Prevention
- Recycling
- North-south cooperation
- Economic instruments
- Legal instruments
- European policy.

Currently 17 projects and other 25 finished or in an advanced development (for further information see next section)

Questions to go more deeply into this initiative during the mission: How it is supported the exchange of information and experiences between members?

## 11. Main results of the Action

# Improvement of the resource efficiency

On the long term, the main result is for ACR+ members to improve the resource efficiency and performance on their territories. To help them in achieving these results, ACR+ also has short terms outcomes: publication of reports, participation in European projects, number of territories engaged in reducing their waste and improving their waste management.

#### A network of local and regional authorities

# 33 publications (technical reports)

- 2016 Cross-analysis of "Pay-As-You-Throw" schemes in selected EU municipalities (MEMBERS ONLY)
- 2015 Circular Europe Network General Guidelines on Circular Economy Strategies by Local and Regional Authorities (MEMBERS ONLY)
- 2014 The EU Capital Cities waste management benchmark (MEMBERS ONLY)
- 2014 Municipal Waste Performance Contracts (MEMBERS ONLY)
- 2014 Management options for 6 composting strategies Report (MEMBERS ONLY)
- 2013 The review of the European Union's key waste targets: ACR+ Position (FREE)
- 2013 Green Paper on a European Strategy on Plastic Waste in the Environment: ACR+ Position (FREE)
- 2013 Plastic Bags: Inventory of Political Instruments, ACR+ & ACR+MED Report (MEMBERS ONLY)
- 2013 Municipal waste data comparison ACR+ Observatory of Municipal Recycling Performances Report (MEMBERS ONLY)
- 2012 European Week for Waste Reduction Layman's Report (FREE)
- 2012 European Week for Waste Reduction Guide of Good Practices (FREE)
- 2012 Good practices in collection and closed-loop glass recycling in Europe (FREE)
- 2011 Plastic Bags: National Policies and Practices (MEMBERS ONLY)

- 2011 Report on the Interpretation of Life Cycle Thinking in the Waste Management Hierarchy (MEMBERS ONLY)
- 2010 Stratégie de partenariat en vue d'améliorer la distribution de produits durables (MEMBERS ONLY)
- 2010 Quantitative Benchmarks for Waste Prevention. A guide for local & regional authorities in support of the new Waste Framework Directive
- 2010 Optimal Recovery of material and energy resources: the cases of the rest fraction of municipal waste and sewage sludge (MEMBERS ONLY)
- 2010 Miniwaste Inventory of good practices regarding (bio-)waste minimization in Europe (FREE)
- 2009 Optimal recovery of material and energy resources in the context of waste management (MEMBERS ONLY)
- 2008 Campaign Handbook for the Reduction of Municipal Waste
- 2008 Analysis of Municipal Waste Management Practices in Europe
- 2008 Plastic bags Policies and Practices to reduce consumption Update
- 2007 Questions-réponses sur la biométhanisation de la fraction fermentescible des déchets ménagers municipaux
- 2006 Waste prevention in regional waste management plans
- 2006 APPRICOD guide: Towards Sustainable Plastic Construction and Demolition Waste Management in Europe (FREE)
- 2006 ACR+ Compendium 2006 (FREE)
- 2006 ACR+ Memorandum about the Thematic Strategy on Waste Prevention and Recycling (FREE)
- 2005 Municipal waste management: an image from local and regional authorities in Europe
- 2005 Managing Biodegradable Household Waste: What prospects for European Local Authorities?
- 2005 Diagnostic de la gestion «déchets-produits-ressources: le cas de Mahdia (MEMBERS ONLY)
- 2004 Voluntary actions supported by local authorities to encourage waste prevention in Europe
- 2004 Manual de buenas prácticas sobre prevención y valorisación de los residuos municipales (MEMBERS ONLY)
- 2004 Good practices guide on waste plastics recycling A guide by and for local and regional authorities (FREE)

#### Conferences

110 events have been organized by ACR+ and its members during the last 12 years. The next list shows the conferences held in 2016:

- EPR Club. Reloop Lunch Debate.
- ACR+.Sustainable Food & Bio Waste Management.
- W4ste.Meet the Market: Plastics in Belgium.
- 2015 EWWR Awards Ceremony.
- Circular Economy in practice: Rethinking our production and comsuption models.
- 8th European Conference on Sustainable Cities & Towns
- EPR Club. Suez Lunch Debate.
- NEWAPP. German Final Conference.
- NEWAPP Final Conference.
- International Conference: Save the Planet.
- EPR Club. DSD Lunch Debate.
- International Conference. Now, the Circular Economy.
- Sustainable food for thought. CEN meeting.
- ORDIF: Conference-Separate collection of biowaste.
- URBAN FUTURE global conference.
- North London Waste Authority. Waste Prevention Exchange.
- 3<sup>rd</sup> meeting on EPR in Ille-de-France.
- EPR Club lunch debate.
- Green Plante. 25 years og environment in Romania.
- ACR+. The Potencial of the Waste Sector to a Low Carbon Economy

#### **Current projects**

#### http://www.acrplus.org/index.php/en/project-themes/acr-projects

The projects are organized in 5 areas:

# Awareness raising and communication

- 1. **Don't waste our future**. This project aims at building a European alliance of youngsters against food waste and for new models of sustainable development and consumption in the framework of the European Year for Development 2015.
- 2. **European week for waste reduction** (EWWR). Every year, the European Week for Waste Reduction brings Europe together in the effort to promote sustainable waste management, product reuse and material recycling. The event takes place during one week in autumn and aims to coordinate awareness-raising actions on waste reduction throughout Europe

#### **Operational instruments**

- 3. **Decisive**. A DECentralized management Scheme for Innovative Valorisation of urban biowastE. Aims to help with the reform of urban waste amanagement systems for our ever-growing cities and populations.
- 4. **FISSAC** Project. Fostering Industrial Symbiosis for a Sustainable Resource Intensive Industry across the extended Construction Value Chain aims to develop and demonstrate a new paradigm built on an innovative industrial symbiosis model towards a zero waste approach in the resource intensive industries of the construction value chain, tackling harmonized technological and non-technological requirements, leading to material closed-loop processes and moving to a circular economy.
- 5. **NEWAPP**, New Technological Applications for Wet Biomass Waste Stream Products. It aims at developing an alternative resource-and cost-efficient and environmentally sound way of dealing with wet biomass waste through HTC technology.
- 6. **THE EUROPEAN OBSERVATORY FOR MUNICIPAL WASTE RECYCLING PERFORMANCES.** The Observatory focuses on the analysis of recycling performances across Europe and achieving higher recycling rates, improving communication with citizens and reducing the negative environmental and financial impacts. It also acts as a platform for sharing experiences and demonstrating best practices amongst different cities.
- 7. **URBANREC**, New approaches for the valorisation of URBAN bulky waste into high added value RECycled products aims to develop and implement eco-innovative and integral bulky waste management systems. The project offers to improve the separation and disassembling of bulky waste through the implementation of advanced fragmentation techniques to obtain high quality raw materials, promoting innovative valorisation routes for those considered more problematic, not recycled due to lack of eco-innovative cost effective solutions.

#### Legal and economic instruments

- 8. **EXTENDED PRODUCER RESPONSIBILITY (EPR) CLUB**. Inspired by the increasing need to create a platform for exchange and dissemination of good EPR practices amongst key stakeholders and experts, this project works towards proposing "Common principles for EPR in Europe" and increasing the knowledge about EPR practices.
- 9. **The LIFE FUTURE project** Sustainable Urban FUrniTURE: Tool design to perform environmental assessments in the green procurement aims to promote green public procurement, focusing on the urban furniture sector. The objective is to overcome the difficulties encountered by persons in charge of public procurement procedures when they have to include environmental clauses in call for tenders and assess the offers received, due to their limited knowledge on environmental matters. For this, an online tool will be developed and validated, the Green Urban Furniture Tool (GUF Tool), to support public bodies on the decision making related to the purchase of more environmentally friendly urban furniture.
- 10. **LIFE SMART WASTE PROJECT.** The goal of the LIFE SMART Waste project goal is to demonstrate innovative ways of understanding, tackling and reducing waste-related crime. The project will develop, test and apply new and modern ways of working, and demonstrate direct interventions to assess and target illegality in waste streams. The innovative aspect lies in the "collaborative approach", where environmental bodies set intelligence and investigatory objectives using common tools around shared areas of concern, then together identify and tackle illegality.
- 11. **PPI4Waste**. The project Promotion of Public Procurement of Innovation for Resource Efficiency Waste Treatment (PPI-4Waste) aims at promoting innovation in resource efficiency, waste prevention, reuse and recycling through innovative procurement strategies and support contracting authorities in undertaking procurement actions in waste new approaches and solutions, making more rapid the goal to integrate waste prevention in public procurement of innovation.

# Strategy and planning

- 12. **Circular Europe Network**. Building on 20 years of experience in sustainable resource management, ACR+ wanted to reinforce the aid already being given to local and regional authorities to support the development of inspiring strategies with regards to the circular economy. This ACR+ commitment has taken the form of the Circular Europe Network (CEN), a working group for the circular economy made up of ACR+ members.
- 13. **UrBAN-WASTE**. Urban strategies for Waste Management in Tourist Cities will endeavour to support policy makers in answering to the challenges of booming tourism in European cities, including high levels of unsustainable resource consumption and waste production. This project aims to help develop strategies aimed at reducing the amount of municipal waste production as well as strategies to further develop re-use, recycling, collection and disposal of waste. In doing so UrBAN-WASTE will adopt and apply the urban metabolism approach to support the switch to a circular model where waste is considered as resource and reintegrated in the urban flow.

#### Cooperation and capacity building

- 14. **IMPACTPapeREC** Boosting the implementation of participatory strategies on separate paper collection for efficient recycling aims to provide an innovative and common knowledge platform which will enable cooperation between the key stakeholders involved in the paper value chain. This will also include an analysis of how best practices in Paper for Recycling (PfR) collection and assessment procedures can be delivered, considering specific local conditions. In addition, it will encourage reliable decisions and make solutions available to decision-makers in municipalities ensuring the procurement and supply of PfR in Europe through the improvement of current municipal paper collection.
- 15. **INTHERWASTE** Interregional Environmental Integration of Waste Management in European Heritage Cities aims for European Heritage Cities to exchange experiences and policies for efficient and sustainable waste management in urban contexts in order to contribute, through mutual capacity building, policy learning and drafting of action plans to the environmental performance management of waste in EU cities. It is expected that solutions and policies proved feasible in INTHERWASTE will be transferable to most heritage but also non-heritage cities in EU and that solutions and policies proved feasible in Heritage Cities will probably be feasible in less demanding urban environments.
- 16. **SWIM-H2020 SM** regional project Depollution of the Mediterranean is based upon a complex combination of awareness raising, policy advice, technical advice and capacity building measures leading to the achievement of the results and activities. The key objective of the project is to contribute to reduced marine pollution and a more sustainable use of scarce water resources by providing tailored and targeted support to stakeholders of the Beneficiary Countries (BCs) within six results areas.
- 17. **Turkey compost**. The main objectives of the project are to contribute to establishing links and cooperation between civil society in Turkey and the EU Member States in the area of environment, climate change and waste and to contribute to environment protection and climate change mitigation in Turkey. Very concretely the project aims at increasing composting practices in the municipalities of Turkey, supporting local governments in Turkey to implement the Regulation on Waste Management and in biowaste management, increasing awareness of compost in the general public in Turkey and finally increasing cooperation between the local governments and CSOs working on waste and composting in Turkey and EU.

#### **Previous projects**

- 1. **SCOW** this European project ran from 2013-2015 and was funded under the ENPI CBCMED Programme. The objective was to develop low cost, technically simply and high quality biowaste collection and recycling models in territories with touristic areas and agricultural activity.
- 2. **Horizon2020 Capacity Building** this project aimed to build capacity for the implementation of Horizon2020 programmes in Mediterranean countries via series of training sessions and workshops.

- 3. **R4R** this European project ran from 2012-2014 and aimed at sharing good practices to improve selective collection and recycling schemes at regional and local level. Each partner introduced one new good practice in their territory and all contributed to the collection of waste management data. The project allowed for the comparison of recycling performances, the identification and transfer of good recycling practices and the wide spread dissemination of the project results beyond the project partners.
- 4. **MED3R** this project was a strategic euro-Mediterranean platform for integrated waste management within the ENPI Cross Border Cooperation MED Programme within the framework "Treatment and recycling of waste". The project aimed to contribute to the establishment of an environmentally sound waste management system and develop appropriate strategies of collection and prevention.
- 5. **Pre-waste** this European project (Interreg IVC) ran between 2010 and 2013 and its aim was to help cities and regions to improve their waste prevention policies. The project developed a consistent and comprehensive approach to help local and regional authorities to prevent waste generation.
- 6. **Miniwaste** This LIFE+ project (2010 2012) aimed at demonstrating that it is possible to significantly reduce the amount of biowaste at local level. The project focused the gathering and sharing of good practices and case studies implemented by European local and regional authorities.
- 7. **Godem** This project aims at creating a permanent knowledge base and network for exchanging experiences regarding sustainable and optimized waste management between local and regional authorities in the Mediterranean basin.
- 8. Life + Green Commerce Project This project aims at promoting environmental responsibility in the retail sector.
- 9. **European Campaign for Waste Reduction** European prevention campaign aiming to bring about commitments in favour of waste prevention both at local and the European scale.
- 10. **European Sustainable Cities and Towns** Campaign Information on local sustainable development and the implementation of the Aalborg Commitments.
- 11. **LG Action** Networking action to involve Local Governments in the EU and international energy and climate debate.
- 12. **MUE25** Managing Urban Europe 25 (2005-2008).
- 13. **MED'ACT** North/South partnerships to develop new activities networking on practical/technical issues with cities from the Southern fringes of Europe.
- 14. APPRICOD Assessing the Potential of Plastics Recycling in the Construction and Demolition Activities (2003-2006).
- 15. **ELISEE** Encouraging Local Initiatives for Sustainable Lifestyles in Enlarged Europe (2004-2005).

- 16. R que R Recurso-Residuo-Recurso: Entre todos es posible un Ciclo sostenible (2003-2004).
- 17. **VERC** Virtual European Recycling Center (2002-2005).
- 18. Sustainable Consumption in Cities: European Campaign on Products without Waste and Recycled Products (2002-2003).
- 19. European Sustainable Cities and Towns Campaign (2001-2003).
- 20. Promoting selective collection of plastics waste (2002-2003).
- 21. For a better plastic recycling: a partnership with plastics industry sector (2001-2003).
- 22. **ERNET** European Recycling Network (2000-2002).
- 23. MEDIA-COM -"Prevention and Recycling of Urban Waste: An Inventory of Approaches in 18 European Cities" (1999-2000).
- 24. European Packaging Waste Management Systems EPWMS (1999-2000).
- 25. **URBAL** consisting in exchanging of good practices between cities from Europe and from Latin America with the view to promote sustainable waste management.

Information exchange between members and public

# 12. Procedures for the results measurement

In order to measure the results of its activities, ACR+ uses several indicators:

- Feedback from its members and performance indicators on their territories (level of separate collection, recycling, etc).
- Number of members in the network.
- Quantity of information shared within the network.
- Ratio request/answers (% of replies).
- Attendance to meeting and conferences.
- Download rate of reports.
- Number of followers on twitter (to inform its members and raise awareness to the general public)

# 13. Critical analysis and lessons learned referred to the Initiative

The main results of ACR+ activities are the increase of its number of members and an increased cooperation between members (within projects, study visits ...)

Questions to go more deeply into this initiative during the mission: Lessons learned.

# 14. Critical analysis and lessons learned referred to the communication tools

- The majority of information it is only for members of ACR+.
- Web clear and organized.
- Importance of always stimulating the network and its members in sharing information between them and with ACR+.
- Not especially innovative in general, but with a specific members' space.

Questions to go more deeply into this initiative during the mission: Main conclusions and success tools in the communication area.

#### **5.2. ECOAP**

# Initiative EcoAP (THE ECOINNOVATION ACTION PLAN

#### 1.Objectives

The EcoAP is an important element of the European policy framework for sustainable consumption and production. It reinforces initiatives such as, the Eco-Management and Audit Scheme (EMAS), the EU Ecolabel, the Environmental Technology Verification (ETV) scheme as well as the Product Environmental Footprint pilot. Since its adoption, the EcoAP has been targeting innovative SMEs. In fact, it recognises innovative front-runner businesses with the European Business Awards for the Environment (EBAE), it opens up funding opportunities under COSME, Horizon 2020, and the LIFE programme and builds on the Enterprise Europe Network (EEN) for business matchmaking. Recently, EcoAP efforts have been strengthened by the Green Action Plan for SMEs.

In recent years, many of the EcoAP goals have come together in the concept of the circular economy — an economy that learns from nature in that it wastes nothing. Eco-innovation is key to delivering many aspects of the circular economy: industrial symbiosis or ecologies, cradle-to-cradle design and new, innovative business models.

ECO-INNOVATION IN THE SPOTLIGHT

Investors to assess climate risk in France

Large comparies are increasingly required to report on their greenhouse gas emissions and other environment impacts. But an amendment to France Steep's franction Law - makes France the first country to introduce mandagory climate reporting for investors, though similar ideas have..

In 2015, the European Commission conducted public consultations on the circular economy, received inputs from the European Council and Parliament, and held a major conference, with a view to publishing a circular economy strategy. The strategy aims to transform Europe into a more competitive resource-efficient economy and acknowledges the key role of eco-innovation in the context of job creation, growth and competitiveness, as well as environmental protection.

# 2. Contact details

#### https://ec.europa.eu/environment/ecoap/ en

# 3. Summary

Eco-innovation and green technologies are key to Europe's future and at the heart of the European Union's policies. The EU's economic prosperity and well being is intrinsically linked to its natural environment, and the global demand for renewable energy and resource-efficient solutions will be a source of jobs and economic growth in the years to come. Eco-innovation is therefore a powerful instrument that combines reduced negative impact on the environment with a positive impact on the economy and society.

#### **Action 1. Policy and regulation**

European environmental policy has moved European industries towards greater sustainability. The goal now is to integrate ecoinnovation in environmental and industrial policies by focussing on its contribution to economic growth, job creation and EU industry competitiveness.

# Action 2. Demonstration projects and partnerships

However, promising they may look on paper, many eco-innovation technologies still fail to make the leap from lab to market. Through programmes such as Horizon 2020, the Commission works to ensure appropriate funding for market replication and demonstration projects, clusters and public-private partnerships, and networks implementing innovative public procurement.

# Action 3. Standards and performance targets

Eco-innovation benefits from ambitious standards and performance targets. Working with Member States and international standardisation bodies, the Commission works to identify areas where standards and performance targets could have the biggest impact and to propose their development.

# **Action 4. Funding and SME support**

Public sector finance is crucial to accelerate eco-innovation in the private sector, especially in SMEs (small and medium-sized enterprises). To bring new investors onboard, the Commission aims to trigger support to SMEs from the public sector and financial intermediaries and accelerate the take-up of eco-innovation in the private sector. Measures include an European network of eco-innovation financiers, new funding instruments that offer targeted debt and equity facilities, and expansion of other services to SMEs, to help find and exploit eco-innovation opportunities.

#### **Action 5. International cooperation**

Emerging economies such as China, India and Brazil offer new market and partnership opportunities for European eco-investors. To capitalize on these opportunities, the Commission works to promote global sustainable consumption and production patterns, technology transfer and exchange of best practices with developing and emerging economies to help European eco-innovators access international markets.

#### Action 6. New skills and jobs

The EU Skills Panorama is a Commission initiative mapping out current and future skills needs in Europe, with a focus on green jobs. The aim is to ensure that the labour force is equipped with the appropriate skills and knowledge to drive forward the green economy transition.

## **Action 7. European Innovation Partnerships**

European Innovation Partnerships are initiatives that aim to bring together public and private actors to promote breakthrough innovations with big market potential in key sectors that could contribute to greater resource efficiency. Under the Innovation Union, such Partnerships are being set up for raw materials, sustainable agriculture, water and smart cities.

#### 5. Main factors for the implementation: historical and social context

Smart, sustainable and inclusive growth is the focus of the Europe 2020 Strategy. As recalled by the Flagship Initiatives for a Resource Efficient Europe and Innovation Union, eco-innovation is vital for delivering the Strategy's objectives. In December 2011, therefore, The European Commission adopted the Eco-Innovation Action Plan (EcoAP) with the aim of accelerating market uptake of eco-innovation by addressing its barriers and drivers.

The EU's 7th Environment Action Programme (7EAP) set out a vision of "living well within the limits of the planet", including the need to "turn the Union into a resource-efficient, green, and competitive low-carbon economy", by 2050. Meeting these objectives will require new technologies and approaches to business, while these innovative ideas will in turn make European companies more competitive and help drive their growth.

#### 6. Institutional arrangements and organizational and economic structures

The Juncker Commission's\* top priority is to get Europe growing again and create new jobs. Within one year from taking office, an Investment Plan has been launched with the aim of removing obstacles to investment, and making smarter use of new and existing financial resources.

\*The Juncker Commission is the European Commission in office since 1 November 2014 and is due to serve until 2019. Its president is Jean-Claude Juncker, who presides over 27 other commissioners (one from each of the states composing the European Union, except Luxembourg, which is Juncker's state). In July 2014, Juncker was officially elected to succeed José Manuel Barroso, who had been reelected by the European Parliament for a second five-year term in 2009.

# **INVESTMENT PLAN (2015-2017)**

Under the Investment Plan, the European Fund for Strategic Investments (EFSI) supports strategic investments in infrastructure, education, research and innovation, as well as risk finance for small businesses.

- Areas: pipeline of EU projects with a focus on large infrastructure, research & innovation, employment and environmental sustainability.
- Projects: new financial tool: EFSI (European Fund for Strategic Investments), in partnership with the European Investment Bank.

Besides, there are other EU funding programmes for Eco –innovation. These programmes are not specifically for innovation, but introduce this aspect on the eligibility criteria:

## Horizon 2020: EU Framework Programme for Research and Innovation (2014-2020)

- Resources: nearly €80 billion.
- Areas: resource efficiency, wáter, waste, key enabling technologies, SMEs.
- Projects: innovation action, SME instrument, public procurement of innovation, pre-commercial procurement.

#### Life: EU Funding Instrument for the Environment and Climate Action (2014-2020)

- Resources: €3.4 billion.
- Areas: environmental technologies, resource efficiency, industry & production, waste, water.
- Projects: demonstration & pilot, capacity building, best practice, information, awareness & dissemination.

# COSME: Programme for the Competitiveness of Enterprises and Small and Medium-sized Enterprises (2014-2020)

- Resources: €2.3 billion.
- Areas: improving access to finance and markets, improving conditions for competitiveness & sustainability, promoting entrepreneurship.
- Projects: Loan Guarantee Facility (LGF), Equity Facility for Growth (EFG), access to finance for SMEs.

#### ESIF: European Structural and Investment Funds (2014-2020).

- Resources €351 billion
- Areas: regional development, research & innovation, SME competitiveness, low carbon economy, environment & resource efficiency.
- Projects: EU Regional Development Fund, EU Social Fund, Cohesion Fund, EU Agricultural Fund for Rural Development, EU Maritime and Fisheries Fund.

Questions to go more deeply into this initiative during the mission: Specific EcoAp institutional arrangements and economic structures.

# 7. Description of the stakeholders

The Ecoinnovation Action Plan includes a Gobernance and Awareness chapter where a gobernance struture and the cooperation between the Comission and State Members are organized:

http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52011DC0899&from=EN

#### **Governance structure**

Governance-specific networking activities and schemes to improve the knowledge base and awareness for eco-innovation will be established under the Innovation Union as well as under Horizon 2020. Simple and flexible systems in which the participation of key stakeholders is broad and balanced are foreseen.

In this context, and building on the positive experience of the ETAP (Environmental Technologies Action Plan) High Level Working Group, an Eco-innovation High Level Multi-stakeholder Steering Group will be set-up for mainstreaming eco-innovation, facilitating policy learning, peer reviewing the measures undertaken, as well as to monitor implementation of this Action Plan.

In addition, a dedicated High-Level Working Group will continue bringing together Member States to facilitate exchanges of information, provide stronger policy guidance, at both EU and national levels.

The ETAP Stakeholder Forum which mobilizes and facilitates networking between sectoral stakeholders will have a more focussed orientation on business and will develop targeted and reachable recommendations that can be integrated into EU and national policies.

#### Milestones

As from 2012, this High-Level Multi-stakeholder Steering Group, composed of representatives of Member States, business, industry, particularly SMEs, research and other key stakeholders, will support measures for eco-innovation uptake, if necessary with the support of specific thematic Multi-stakeholder expert working groups.

#### **Cooperation between the Commission and the Member States**

Regular exchanges of information and good practice between Member States as well as the regions on eco-innovation policies are essential. A better knowledge base on environmental pressure points, policies, markets and the environmental goods and services industry will also be needed to promote eco-innovation in Europe and lead to appropriate policies.

#### Milestones

- Based on the lessons learned with ETAP roadmaps, voluntary Eco-innovation national roadmaps will be agreed with Member States with the aim to identify most efficient policies, facilitate policy learning between the Member States as well as set the appropriate level of implementation required to create the conditions for eco-innovation. These Roadmaps will build on existing initiatives for promoting environmental technology but with a sharper focus on eco-innovation in both the private and public sectors and will take into account global sustainability goals to contribute to their attainment.
- The Commission will cooperate with the relevant national and regional authorities to integrate eco-innovation in the initiatives of the Cohesion Policy and the Rural Development Policy in the area of innovation. In this respect the on-going development of the "Smart Specialisation Platform" represents a key instrument in building the adequate governance capacity.
- The Commission will build on the experiences of the "Eco-innovation Scoreboard" and other relevant indicators for eco-innovation to monitor and review measures and action taken by Member States and the EU.
- The initiative on "Accelerating eco-innovation policies" for identifying best practice in eco-innovation policy-making will be reenforced in order to scale up good practice in Member States.

#### The EcoAp Web

Due to The EcoAP is not a project with deliverables but a strategy policy paper, the web has an open concept with no specific area for the stakeholders' description. The European Commission adopted this communication, which provides a policy framework to Eco-innovation.

Is is assumed that the web is designed to facilitate information and communication between a wide spectrum of participants:

- Policy-makers
- Member State representatives
- The business sector
- Researchers
- Civil society

#### 8. Main ways of participation. How the experience and best practices are shared?

Uncertainty about demand from the market is one of the main barriers to a fast up-take of eco-innovation. Greater social acceptance of eco-innovative technologies, processes, services and products needs to be achieved. This social acceptance can be achieved if all interested parties make efforts to raise awareness of eco-innovation, including Member States, local and regional authorities, industry and civil society. The Commission will also take actions to explain the importance of eco-innovation as a key driver towards a greener and more sustainable economy, with a particular focus on its potential to generate growth and create new jobs. These efforts will build on existing communication activities undertaken as part of the corporate communication of the European Commission, such as on Resource Efficiency.

#### The High Level Working Group (HLWG)

The European Commission and Member States provide for European governance of eco-innovation policies with a dedicated High-Level Working Group comprised of representatives from national environment, research and industry ministries.

This Working Group – established in 2004 – facilitates implementation of ETAP (Environmental Technologies Action Plan) all over Europe and steers co-operation between all participants. The HLWG consists of representatives from EU Member States and European Commission services. Open coordination with the Member States helps advance ETAP by exchanging ideas on best practices, developing indicators and setting guidelines and timetables.

Complete success depends on the participation of all stakeholders, requiring mobilisation of relevant business and finance players and technology developers working in the field. For this reason, the European Forum on Eco-Innovation organises regular meetings on specific topics.

Relevant players from business, finance, and technology development, as well as non-governmental organisations (NGOs), actively involved in eco-innovation and environmental technologies are invited to participate in the Forum. The Forum provides a platform for discussion, debate, and interaction. It fosters the mobilisation towards common objectives and concrete strategies for future action.

#### The website and meetings

A range of useful tools has been developed to raise awareness of eco-innovation, specially focused on the website and annual exchange meetings (More information available in section 9).

#### Cooperation with the United Nations Environment Programme (UNEP) and the United Nations Industrial Development Organisation (UNIDO)

Cooperation in reinforcing the network of national cleaner production centres. These centres will facilitate the dissemination of eco-innovation best practices and facilitate networking between eco-innovators in developed and emerging economies.

The EcoAp chapter 5 details how cooperation has to be done:

The communication "A strategic European framework for international science and technology cooperation", the Commission proposes actions to deepen the European Research Area (ERA) through greater integration and cross-border coordination of research investments and activities. It aims inter alia to increase Europe's attractiveness as a place to invest in research and innovation.

In this context a **Strategic Forum for International Science and Technology Cooperation (SFIC)** has been established to drive forward the European Partnership for Science & Technology cooperation. This Forum will aim at identifying and coordinating joint initiatives between Member States and the Commission vis-à-vis third countries. Initiatives could include eco-innovation and eco-innovation capacity building and adaptation according to the needs of recipient countries.

To support market access and partnerships, the Commission will take appropriate initiatives to:

- Promote benchmarking and harmonisation of standards and requirements for environmental goods and services and for the environmental performance of products. This is to be encouraged within bilateral and regional dialogues with emerging economies. Relevant programmes and projects will be supported under cooperation programmes such as the SWITCH Asia Programme to promote sustainable consumption and production. Expansion of such programmes to other regions, particularly in Africa and Latin America will be explored.
- Promote, in bilateral and multilateral policy dialogues as well as in trade negotiations and agreements, exchanges on policies for eco-innovation including measures for the liberalisation of trade in environmental goods and services, elimination of cost

barriers to SMEs involvement in global value chains, investment protection and IPR protection. Networking between investors, financiers and enterprises will also be promoted.

- Include environmental technologies and eco-innovation in co-operation with neighbouring countries, such as the Eastern Partnership, the Partnership for Democracy and shared Prosperity with the Southern Mediterranean and the Black Sea Synergy.
- Cooperate with the United Nations Environment Programme (UNEP) and the United Nations Industrial Development
  Organisation (UNIDO) in reinforcing the network of national cleaner production centres. These centres will facilitate the
  dissemination of eco-innovation best practice and facilitate networking between eco-innovators in developed and emerging
  economies.

#### 9. Instruments for communication and its analysis

#### The Eco-innovation Fora

http://ec.europa.eu/environment/ecoap/news-events/european-fora-eco-innovation/

Held since 2006, the European fora on eco-innovation bring together specialists from the science and engineering, policy, finance, NGO, academic and business communities. Over the course of two days, they present the latest developments in their fields and discuss a theme proposed by the EcoAP High Level Working Group, European Commission or host country. These Fora are intended to be pivotal events of lasting significance; a chance for leading and emerging eco-innovators to examine current and future issues surrounding novel, dynamic, innovative and exciting areas of policy, finance and technology related to eco-innovation.

The fora's goals include:

- Disseminating innovative eco-friendly ideas across disciplines.
- Providing an efficient interdisciplinary collaboration framework for developing innovative and comprehensive solutions to the world's critical problems.
- Giving leading and emerging eco-innovators the opportunity to examine novel, promising areas of policy, finance and technology related to eco-innovation.
- Raising awareness of recent research and policies.
- Encouraging innovation through cross-fertilisation between disciplines and sectors.

- Identifying key issues that need action by national governments and the EU.
- Helping mobilise relevant actors around common objectives.
- Developing concrete strategies for future action.

#### Web site

Exchange of experience and technologies is supported by the website – which includes news, reports on policy and a showcase of best practice at national level and over the whole gamut of technologies. It is supported by a regular newsletter and specific reports

The web site is organized in four areas:

- Eco-innovation in practice
- Eco-innovation indicators
- News and events
- Community platform

The **COMMUNITY PLATFORM** is an interesting tool in the framework of the Eco Innovation Action Plan.

This one-stop-shop platform for the EcoAP Community is the place for policy-makers, Member State representatives, the business sector, researchers and civil society to share ideas for improved implementation of the Action Plan.

They invite all Community members to share information about new developments and state-of-the-art eco-innovation practices at all levels.

#### The Eco-Innovation Observatory

Gathers data on eco-innovation performance across the EU and beyond, thus helping to monitor and evaluate progress made since 2010. Country profiles complement the analysis by providing contextual information, regulatory developments and best practices on eco-innovation at national level.

#### http://www.eco-innovation.eu/

The Eco-Innovation Observatory is delivered by a core consortium of five organisations, supported by an Expert Group and a stakeholder Steering Group.

- Technopolis Group (Belgium) leader. Technopolis Group is a research and consulting company. It is a leading international evaluation practitioner, with especially strong skills in research, development and innovation.
- C-Tech Innovation. It is an independent UK-based innovation management and technology development company. The
  company is a major participant in European and national collaborative research and has particular strengths in project
  management, research and development, technical due diligence, market and technical awareness,
- Finland Future Research Centre FFRC (Finland). Since 1stJanuary 2010 FFRC became a special unit of the University of Turku, Finland. FFRC has expertise in academic futures research, education and foresight activities in different fields of society such as environmental issues, energy and climate policies, innovations, and culture
- Sustainable Europe Research Institute SERI (Austria). It is one of the leading European research institutions in the field of
  environmental accounting and material flow analysis, integrated economic-environmental modeling, policies for a sustainable
  natural resources use, and indicators for sustainable development.
- Wuppertal Institute (Germany. It explores and develops models, strategies and instruments to support sustainable
  development at local, national and international levels. Applied sustainability research is the Institute's prime objective, which
  it approaches with an interdisciplinary perspective and systems understanding.

#### 10. Good practices: criteria applied for selection, development, replication and spreading

When it comes to the selection of best practices, The EcoAp team assessed them and selected them while not having a formal template of evaluation.

Good practices are organized by topics. Waste/Recycling is one of this, with 13 initiatives selected based on the scoreboard criteria (see above):

- EU:Packaging waste
- EU:Biodegradable waste
- EU:EU policy in the batteries waste
- EU- EEA:European Topic Centre on Resource and Waste Management
- Assurre Association for the sustainable use and recovery of resources in Europe
- Packaging Recovery Organisation Europe

- Chartered Institution of Wastes Management (CIWM)
- EUROMETREC (European Metal Trade and Recycling Federation)
- European Organization for Packaging and the Environment
- European Tyre Recycling Association (ETRA)
- Environmental Services Association
- Eurowaste Waste Management Policies in Central and Eastern European Countries
- International Solid Waste Association

Questions to go more deeply into this initiative during the mission: Replication and spreading methods used in the Eco AP website.

#### 11. Main results of the Action

- The creation of a IT tool to facilitate the communication and exchange of best practices in the Ecoinnovation field.
- A group of innovative good practices organized by themes and countries
- An active discussion Forum

#### 12. Procedures for the results measurement

#### The Eco-Innovation Scoreboard

http://www.eco-innovation.eu/index.php?option=com content&view=article&id=2&Itemid=34

The Eco-Innovation Scoreboard (Eco-IS) is the first tool to assess and illustrate eco-innovation performance across the EU Member States. The scoreboard aims at capturing the different aspects of eco-innovation by applying 16 indicators grouped into five thematic areas: eco-innovation inputs, eco-innovation activities, eco-innovation outputs, resource efficiency and socio-economic outcomes. It thereby shows how well individual Member States perform in different dimensions of eco-innovation compared to the EU average and presents their strengths and weaknesses. The Eco-IS complements other measurement approaches of innovativeness of EU countries and aims to promote a holistic view on economic, environmental and social performance.

The following table provides an overview over the indicator used in the 2013 version of the Eco-Innovation Scoreboard.

Name of indicator	Source	Year
1. Eco-innovation inputs		
1.1. Governments environmental and energy R&D appropriations and outlays (% of GDP)	EUROSTAT	2012
1.2. Total R&D personnel and researchers (% of total employment)	EUROSTAT	2012
1.3. Total value of green early stage investments (USD/capita)	Cleantech	2010-201
2. Eco-innovation activities		
2.1. Firms having implemented innovation activities aiming at a reduction of material input per unit output (% of total firms)	EUROSTAT	2008
2.2. Firms having implemented innovation activities aiming at a reduction of energy input per unit output (% of total firms)	EUROSTAT	2008
2.3. ISO 14001 registered organisations (per mln population)	ISO Survey of Certifications	2012
3. Eco-innovation outputs		
3.1. Eco-innovation related patents (per mln population)	Patstat	2010
3.2. Eco-innovation related academic publications (per mln population)	Scopus	2012
3.3. Eco-innovation related media coverage (per numbers of electronic media)	Meltwater	2013
4. Resource efficiency outcomes		
4.1. Material productivity (GDP/Domestic Material Consumption)	EUROSTAT	2011
4.2. Water productivity (GDP/Water Footprint)	Water Footprint Network	1996-200
4.3. Energy productivity (GDP/gross inland energy consumption)	EUROSTAT	2011
4.4. GHG emissions intensity (CO2e/GDP)	EEA	2011
5. Socio-economic outcomes		
5.1. Exports of products from eco-industries (% of total exports)	EUROSTAT	2012
5.2. Employment in eco-industries and circular economy (% of total employment across all companies)	Thomson One	2012
5.3. Revenue in eco-industries and circular economy (% of total revenue across all companies)	Thomson One	2012

How is the Eco-Innovation Scoreboard calculated?

Country specific figures of the single indicators are weighted with the share of population in order to calculate an EU average which corrects for the bias of smaller Member States. Thus the EU average of a sub-indicator displays the weighted mean of all country specific data of the EU Member States. The EU average of indicators that display absolute numbers (e.g. Domestic Material Consumption [DMC] and GDP to calculate the material productivity indicator) is built directly by summing up the underlying data.

In order to exclude statistical outliers, the 5 % and the 95 % Quantile are introduced as thresholds. Values above/below the thresholds are replaced by the corresponding threshold value. The EU average is calculated with the data corrected by the thresholds. To normalize the various indicators, we use a "Distance-to-reference" method, with the EU average being defined as the reference and set as a value of 100. Countries with higher figures than the EU average obtain a higher score than 100 and countries with lower figures achieve less, depending on the deviation from the EU average. Missing data are not replaced by estimations; countries for which data is not available do not get a result for the respective indicator.

The score of the index in each of the five areas is calculated by the unweighted mean of the underlying indicators. Consequently, each indicator has the same weighting in the five areas. The overall scoreboard of an EU Member State is calculated by the unweighted mean of the 16 sub-indicators in order to avoid bias by areas of the scoreboard which consist only of a few indicators.

Technical implementation of the Eco-Innovation Scoreboard 2013, Technical note

#### 13. Critical analysis and lessons learned referred to the Initiative

Questions to go more deeply into this initiative during the mission: the main conclusions about the initiative. The point of view of the EcoAp Team.

# 14. Critical analysis and lessons learned referred to the communication tools

- Innovative project based on easy-to-use on line tools.
- Attractive.
- With collaborative platform.
- With permanent updating

Questions to go more deeply into this initiative during the mission: Main conclusions and success tools in the communication area.

#### 5.3. EU FUSIONS

# Initiative

### **EU FUSIONS** (Food Use for Social Innovation by Optimising Waste Prevention Strategies

#### 1.Objectives

The project will contribute towards:

- The harmonisation of food waste monitoring;
- Improved understanding of the extent to which social innovation can reduce food waste;
- And the development of guidelines for a common Food Waste policy for EU-27.

Through delivery of the key objectives, FUSIONS will support:

- The delivery of the Roadmap towards a Resource Efficient Europe;
- The European Commission's target of a 50% reduction of food waste;

And a 20% reduction in the food chain's resource inputs by 2020.



### 2. Contact details

http://www.eu-fusions.org/index.php

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#### 3. Summary

FUSIONS (Food Use for Social Innovation by Optimising Waste Prevention Strategies), is a project about working towards a more resource efficient Europe by significantly reducing food waste. The project runs for 4 years, from August 2012 to July 2016. It is funded by the European Commission Framework Programme 7.

The project will establish a European Multi-Stakeholder Platform to generate a shared vision and strategy to prevent food loss and waste across the whole supply chain through social innovation. Already more than 200 leading European organisations have pledged their support.

The project also contributed towards:

#### Harmonising the current definition of food waste within the EU-28

Available scientific publications on the topic demonstrate a tendency from researchers and policy-makers to use and define food waste differently having thus an impact on the way policies are shaped and on the way food waste is quantified across the different sectors of the food supply chain. FUSIONS partners harmonised all the existing food waste definitions within EU-28 and proposed one **Definitional Framework**. According to FUSIONS, "Food waste is any food, and inedible parts of food, removed from the food supply chain to be recovered or disposed".

#### Developing tools to harmonize food waste quantification

Measuring food waste accurately would help reducing food waste by raising enabling companies to increase their accountability on this topic and policy makers to shape well-tailored public policies to tackle the issue. FUSIONS aims to provide companies and policy makers with a **Food Waste Quantification Manual**, in order to guide them with the quantification of food waste at different steps of the supply chain. The Manual can also be used as a reference by researchers collecting data on behalf of national authorities as well as national statistical offices.

#### Estimating data on food waste in EU-28

There is an urgent need for more consistent and comparable data in order to decrease the uncertainties and making it possible to better understand the magnitude of the problem, and the scale of the potential opportunities. FUSIONS has calculated an EU-28 estimate for food waste and announced that 100 Mtonnes of food waste are produced every year at the EU level, and that about 45% of this is generated from households. This estimate is for 2012 and includes food waste according to FUSIONS Definitional Framework.

# 4. Indicators

Public and private entities participation in collaborative arrangements  On-line platform  Goal: Waste recovery and management costs reduction  Innovative approach to waste management or other environmental topics  Use of social technologies  Replication capacity  Simplicity of use  Range  Involvement of different stakeholders  Inderaction  Mobilization capacity
--

## 5. Main factors for the implementation: historical and social context

Questions to go more deeply into this initiative during the mission: historical and social context.

#### 6. Institutional arrangements and organizational and economic structures

There is a double participation system: partners and members.

#### Partners:

Partners has been organized in five work packages between the project team as follows:

WP 1 Reliable data and information sources trends and assessment criteria

**ESTABLISH** 

- WP 2 FUSIONS Multi-stakeholder Platform
- WP 3 Recommendations for a Common EU Policy
- WP 4 Feasibility Studies
- WP 5 Dissemination

# Reliable data & information sources Establish, develop test & describe standardised quantification & reporting methodologies for food waste monitoring

- . Comprehensive mapping of existing trends
- Criteria for environmental and socio-economic impact
- Quantification manual and assess EU-28

# ENABLE WP3

#### Policy recommendations

- Map legislation & policies
- Identity measures & policy evaluation framework
- Design guidelines & recommendations

# EXCHANGE WP2

#### Multi-stakeholder Platform

- Establish the European Multi-stakeholder Platform
- Organisation of European and regional conferences and interactive meetings
- Organise feedback & consensus building process

#### EXEMPLIFY

#### WP4

#### Feasibility studies

- . Identify initiatives and best practices
- Invite, co-design initiatives & evaluate
- Execute, monitor and evaluate feasibility studies
- Encourage additional activities

ENGAGE

WP5

WP1

#### Sharing of knowledge

- Share key deliverables through a range of channels
- Organise events, campaigns and cooperate with external parties to create maximum impact
- Raise awareness, extend the ambassador network and provide tools & guides to support action

#### **Members**

There were no institutional arrangements between the members. The requirement for the participation is to assume the objectives of the project and the compromise to carry out some initiatives to decrease the food waste.

The project gathers stakeholders around the objective of pledging their commitment to reduce food waste. Each member filled in and signed a membership form in **exchange** of their logo being present on the project's website.

They did not draft any deliverables, but had a consultative role.

#### 7. Description of the stakeholders

Within FUSIONS it is involved different types of stakeholders:

#### Partners:

We were 21 Partners from 12 European Countries and we were led by Wageningen, the Project Coordinator. The group is a mix of Research institutes, universities, ONGs, consultancies and organizations. We all had different tasks in the project and we exchanged mainly through: A list of partners is available here: <a href="http://eu-fusions.org/index.php/about-fusions#project-partners">http://eu-fusions.org/index.php/about-fusions#project-partners</a>

#### **Members**

Around 200 FUSIONS Members pledged to reduce food waste.

#### 8. Main ways of participation. How the experience and best practices are shared?

There are different levels and ways of participation for partners and members.

One of the main task of the project is to mobilize members and contribute to the development of new projects in the waste reduction area, using several mechanisms:

- Become a FUSIONS Member: by doing so, the company will be able to use the forum and contribute more actively to the FUSIONS community.
- Contribute to the FUSIONS forum: adding information about a socially innovative project, debate about policy drivers and barriers to reducing food waste, learn more about food waste quantification... this contribution may be published in the

newsletter.

- Submit a socially innovative projects to the FUSIONS team: helping them to promote best practices and share good ideas all
  across the EU!
- Submit events to FUSIONS Events page: giving more visibility to them.

Questions to go more deeply into this initiative during the mission: ways to share experiencies and best practices

#### 9. Instruments for communication and its analysis

#### Partners:

- E-emails, phone calls and Sharepoint.
- The Project Coordinator was in charge of the internal coordination.
- Regional platform meetings.
- European Platform Meeting, once a year.

#### Members

The visibility on the website associated them with the common objective of reducing food waste. Members also received our 4 quarterly newsletters and invitations to all our events.

- Website.
- Blog.
- Social media tools: Facebook, Twitter and Linkedin.
- Newsletters.

#### 10. Good practices: criteria applied for selection, development, replication and spreading

A stakeholder forum and blog can work with the support of active animation. Otherwise stakeholders would be more interested to exchange on Twitter, Facebook and Linkedin.

A pool of good practices is shared in the website. The Social innovation inventory has been organized properly and with and easy access: by country or by sector, as it is shown in the image.



A Study about feasibility selection criteria is done by the WP4. The main aspects are:

### Degree of social innovation (20%)

- Newness / novelty
- Partners involved
- Creation of networks
- Could change depending on country of implementation
- Need clear definition

#### Partners (20%)

- External
- Entrepreneurship
- In-kind commitment from partners (should this be essential criteria rather than evaluation criteria?)
- Stakeholders with a good reputation, no green-washing
- Diffusion of potential partners
- Civil society
- No consultants
- Link with practical delivery

# Impact (tonnes) (20%)

Overall / over time?

Evaluation criteria	Weighting
Degree of social innovation (see D4.1 report for description)	10%
Partners	
-Match funding commitment from partners	10%
-Number / suitability of partners proposed	10%
Impact (tonnes avoidable food losses and food waste prevented, within FUSIONS timeframe) Impact (other)	20%
-Environmental impact e.g. carbon reduction	10%
-Social impact e.g. relationships, behaviour change, awareness, healthy diet	10%
Potential for scale up / transfer - replicable by others	15%
Value for money, impact feasible, exhibits added value	15%
Total	100%

#### Impact (other) (15%)

- Value for money, realistic budget, available resources
- Impact (money, cost savings)
- No negative influence
- Awareness raising
- Behaviour change
- Carbon footprint
- Calorific value
- Re-valuation of food
- Reputation
- Contribution to sustainable food chain
- Environmental sustainability
- Positive impact (no negative impact)

#### Potential for scale up / transfer (10%)

Whether it can be replicated

# Degree of reporting / quantification potential (10%)

Quality of dissemination

## Number of countries involved (5%)

- Local solutions,
- Proximity principle would be better

#### 11. Main results of the Action

With regards to the stakeholder platform, FUSIONS managed to connect 200 members via to a Membership strategy.

It has been managed to gather hundreds of people thanks to more than **20 awareness raising events** organised at the European or Regional level: http://eu-fusions.org/index.php/events/platform-meetings.

#### **20 publications** organized in 4 areas:

- 1. Establishing a common framework for food waste definition and identifying its drivers.
  - Drivers of current food waste generation, threats of future increase and opportunities for reduction (August 2014)
  - FUSIONS Definitional Framework for Food Waste (July 2014)
- 2. Establishing reliable data on food waste and harmonising quantification methods.
  - Policy evaluation Framework (April 206)
  - Market-based instruments and other socio-economic incentives enhancing food waste prevention and reduction (January 2016).
  - Review of current EU Member States legislation and policies addressing food waste.
  - Policy options to stimulate social innovation initiatives addressing food waste prevention and reduction (January 2016)
  - Stimulating social innovation through policy measures (July 2014)
- 3. Analying food waste policies across the EU-28.
  - Food waste quantification. Manual to monitor food waste amounts and progression (March 2016)
  - Standar approach on quantitative techniques (July 2014).
  - Report on review of (food) waste reporting methodology and practice (January 2014).
  - Review of EUROSTAT's reporting method and statistics (July 2013).
  - Estimates for European food waste levels (March 2016).
  - Press release

- Food waste data set for EU-28. New estimates and environmental impact (October 2015).
- Criteria for a baseline assessment of environmentañ and socio-economic impacts of food wastw (November 2015)

#### 4. Stimulating social innovation projects.

- Fusions feasibility studies Evalution report (May 2016).
- Policy brief: key recommendations for policy makers (May 2016).
- Policy brief: key reccomendations for the private setor (May 2016).
- Fusions feasibility studies. Evaluation apenndices (May 2016).
- Feasibility study selection criteria (Janury 2014)
- How can social innovation help reduce food waste? (June 2013)

#### 12. Procedures for the results measurement

The membership is followed via the applications received by email. It has been also kept all the participant lists at the different events attended.

The Social Media impact is followed via statistics.

Indicators: the number of applications for the membership and for Social media is used the analytics proposed.

#### 13. Critical analysis and lessons learned referred to the Initiative

Questions to go more deeply into this initiative during the mission: the main conclusions about the initiative. The point of view of the EU Fusions Team.

#### 14. Critical analysis and lessons learned referred to the communication tools

Online platforms are definitely very helpful, but they need constant animation.

Social Media, especially Twitter allows for quicker reactions and exchanges

The Membership strategy can work if stakeholders have a common objective and are incentivised to be online.

An online Blog is an easy solution of sharing best practices but it also needs animation. The communication team tried to create a unique access to the Website's forum so they can receive exclusive information from the project as well as consult them on the deliverables, but this forum did not work because of the lack of animation and a not very user-friendly tool. After that an open-access Blog was organized for them to share their best practices with all FUSIONS http://eu-fusions.org/index.php/fusions-blog.

Best practices were also shared via a form the member has to fill in http://eu-fusions.org/index.php/social-innovations/submit-details-of-your-project and during all our FUSIONS events.

# 5.4. R4R

Initiative	R4R (REGIONS FOR RECYCLING)
1.Objectives	
	Identification of good practices and effective local instruments for optimising recycling performances of municipal waste through the elaboration of a common method to present and compare waste recycling statistics, and the development of a common language to describe the local instruments used in local/regional waste strategies
2. Contact details	
	http://www.regions4recycling.eu/home
	Jean-Benoit BEL, Project Manager at ORDIF (Paris Region Waste Observatory).
	Jb.bel@ordif.com
	Telephone: +33 1 83 65 40 64
3. Summary	
	R4R is an INTERREG IVC project brought together 13 European territories (either local and regional authorities, public waste management companies and local agencies) wishing to compare their recycling performances to identify relevant and effective instruments leading to high recycling performances.
	Despite being subjet the same European legislation that sets common definition, terminologies and targets, the current monitoring systems produce statistics that cannot be compared due to different scopes, calculation methods and interpretation of targets and indicators.

- Therefore, the partners have at first compared their waste systems and monitoring systems.
- Then they came up with a common method that precises the scope of "municipal waste" and defines a new indicator: the "DREC" (Destination Recycling). The method was used to establish consistent comparisons allowing to identify effective policies leading to high recycling performances.
- A collection of good practices allowed to details about 40 local instruments and each partner established an implementation stating how the lessons learnt will be used to improve their local situation.

Public and private entities participation in

collaborative arrangements

On-line platform

Innovative approach to waste management

or other environmental topics

Use of social technologies

Goal: Waste recovery and management

costs reduction



4. Indicators

#### 5. Main factors for the implementation: historical and social context

The project comes from the wish of European territories to share and compare their practices and difficulties with municipal waste management. Until R4R, interregional comparisons of recycling performances were limited due to important uncertainties regarding the consistency of the different local data. Even national data reported by the various Member States to Eurostat on waste management are generally considered as including a share of uncertainties due to different methods and scopes.

About 20 European Local and regional authorities decided to work on a common framework to compare their waste statistics within a working group called the Waste Observatory and launched by ACR+. After a first meeting, a proposition to launch an Interreg Project in parallel in order to orient it toward the identification of good practices through data comparison.

The project was submitted in April 2011 and went through the selection process. It was approved at the beginning of 2012 with an official start in February 2012. It ended in December 2014, though the website and Twitter account are maintained active and the results are still occasionally presented. A follow up project to expand the R4R approach to prevention and re-use has been submitted in April 2016 within INTERREG EUROPE 2nd call.

#### 6. Institutional arrangements and organizational and economic structures

The project's budget was 2,166,664 € for 3 years, about 75% of it is funded by ERDF funds (Europe Regional Development Funds). Depending on the Member State, partners received a re-imbursement of their elligible costs of 75% or 85%. The rest is funded by the partner or by other subsidies.

The project followed the rules set by the INTERREG IVC programme (4th version of the INTERREG programme). A subsidy contract was signed between ORDIF and the INTERREG programme and partners signed a partnership agreement stating their rights and duties as well as the general organisational rules for the project.

#### 7. Description of the stakeholders

The project was coordinated by ORDIF.

The communication was organised by ACR+ (Association of Regions and Cities for Recycling and Sustainable Resource Management), a network bringing togehter European local and regional authorities.

The technical work was coordinated by OVAM, the Flemish Waste Agency (Flanders region- Belgium).

The other partners were involved in the various activities by providing their data, analysing and validating the technical choices and discussing the various issues faced by the project. The other partners were cities (Tallinn, Lisbon, Odense, Zagreb and Sofia) and Regions (Catalonia, Limerick County, County of Ilfov and the Province of Styria) as well as Efxini Poli, a federation of Greek local authorities.

#### 8. Main ways of participation. How the experience and best practices are shared?

The project was regarded as a collective work where all partners' inputs were required to advance. The coordinators of the project provided a general framework and elaborated the various reports, methods and guidelines based on partners' contributions and feedbacks. All outputs and deliverables were validated by the different partners' project managers and waste experts. A strong focus was put on the necessity to link the project's activities with each partner's local context, waste strategies and current needs.

The sharing of experience was achieved with several activities:

- Bi annual meetings where all project partners met and discussed their situations during waste expert groups. These groups were set to discuss the general outputs of the project, and gave the opportunity to every partner to discuss more in depth within smaller working groups bringing together 3-4 project partners. These working groups were very effective to go into details on the similarities and differences in waste management organisation and waste statistics;
- During each meeting, a dissemination event was organised, mainly targetting local/regional/national stakeholders. During these meetings, round tables bringing together local stakeholders and project partners and addressing common issues (Pay As You Throw, communication...) were organised so that project partners could provide some potential solutions to local challenges. Partners' participation was really put forward during these meetings.
- Study visits were also organised, during which the partnership could discover waste recycling units and discuss with local waste technicians. These study visits proved very effective to go into more technical details and were quoted as a source of inspiration for several partners.
- Between meetings, working groups were kept active to ensure a continuity of the sharing of experience. An extranet was set with a **discussion forum** and a file sharing system to ease the exchange of information.

Best practices were identified and shared by each partner through the drafting of factsheets, using a common framework. An important focus was put on the resources required to set the GP and the results to be expected. Factsheets were peer reviewed by other partners to ensure their clarity.

#### 9. Instruments for communication and its analysis

An **extranet** was set up for internal communication, to ensure a good exchange of information between project partners. A call for tender was organised to set it up. The extranet allowed the Lead Partner and task leaders to create tasks and set deadlines, with reminders. Documents could be uploaded and sorted into various files, with tag words to help partners search for them. A messaging system on the extranet enabled partners to send messages to other users, individually or in a group, and a chat window enables live exchange of messages.

An external communication plan was elaborated by ACR+, the communications manager. The project's visual identity was developed with an external contractor, with a unique and easily recognisable logo. A website was created, on which waste and resource-related news was published regularly. All events, conference proceedings, and project reports were available on the website. This website is still active, though news items have been less frequently added since the end of the project. A Twitter account was also created, and it is still maintained active today. This is a quick and easy way to gain visibility at external events. A LinkedIn group was also created, in which news items and events were publicised.

A newsletter including articles from the project partners was sent by e-mail to ACR+'s contact list of over a thousand subscribers. A brochure using the project's visual identity was developed, and printed in English and local languages for distribution at events. Press releases were issued for each event and report published.

European conferences were organised each semester, each time in a different partner territory, to coincide with the project meetings. Additionally, local conferences were organised in order to ensure that each partner had organised at least one dissemination event. These events were particularly useful to present the main outputs of the project but also to obtain feedback from local stakeholders. Several partners organised group discussions and workshops during their local events to identify possibilities of improvement, targeting either local stakeholders, other staff members or local decision makers. All local dissemination events also gave the opportunity to invite other project partners to come and present their own experience and possible innovative solutions that were useful to feed group discussions.

A 4-minute video was also produced in order to introduce the project in a concise and appealing way and was then used as an introduction during conferences. It proved very effective to present the project in a clear and short way, allowing the project coordinator to focus on more detailed aspects of the project during public presentations.

Finally, webinars and workshops on the use of the online tool were organised during and after the project's lifetime.

#### 10. Good practices: criteria applied for selection, development, replication and spreading

The selection of good practices was done by each partner who had to identify and present 5 local experiences to be shared.

Several criteria were used for the first selection. The good practice had to present at least one of the following criteria in order to be selected during the first selection process:

- Effectiveness of the good practice: partners had to be able to present actual, quantitative evidence that the good practice led to an increase of recycled quantities, preferably by using the DREC method.
- Innovative character: the good practice must present an innovative character, at least at national level. The innovative part could be about the technical aspects, the approach, the communication method...
- The fact the good practice addresses a specific local challenge (very high density...): if the GP has been set to address a specific local challenge, it could be presented to the other partners.

A first selection was presented to the partnership and feedback was provided. Partners were dispatched in working groups where they presented a summary of their GP that was then discussed. Other partners reacted to the presentation on several criteria: innovative character, potential interest for transfer, general interest as a waste expert. Based on this feedback, 3 good practices per partner were selected and detailed in factsheets. Even though the project was a bit too short to lead to the implementation of GP, every partner drafted an implementation plan explaining how the various lessons from the project were to be used in the following years.

Direct contacts among partners were organised to gather more information on specific GP.

Two partners started with the implementation of good practices: the municipality of Sofia started to introduce selective collection of biowaste and the county of Limerick introduced the selective collection of paper in their offices as a prefiguration of source separation for households.

It proves very difficult to define a general method in order to assess the replicability of a given GP to another context, since the conditions for such a transfer is very dependent on the nature of the considered GP. To make this assessment as easy as possible, factsheets were made so that it clearly indicated the resources needed to do it, any pre requisite, any favourable or challenging element of context (specific legal framework...) and the main keys to success to achieve proper results.

More general lessons could be identified through the comparison of data and of local strategies, especially by analysing the reason behind the performances of the most advanced partners. To make comparisons more convenient, an online tool allowing any territory to register, input its data and then compare its performances with other territories, allowing to collect and analyse data from outside of the partnership.

#### 11. Main results of the Action

The project produced these elements:

- A common method for the presentation and comparison of municipal waste data and recycling performances;
   <a href="http://www.regions4recycling.eu/R4R">http://www.regions4recycling.eu/R4R</a> toolkit/R4R methodology
- An online tool to allow any territory to input and compare its data; <a href="https://services.ovam.be/r4r/pages/login.xhtml">https://services.ovam.be/r4r/pages/login.xhtml</a>
- A set of 39 good practices detailing interesting cases on how to improve recycling; http://www.regions4recycling.eu/R4R toolkit/R4R good practices
- Several reports, including an analysis of the first comparisons of data and an identification of several keys of success for local and regional waste strategies. <a href="http://www.regions4recycling.eu/Media-library">http://www.regions4recycling.eu/Media-library</a>

The R4R method was presented during various events and to various stakeholders after the end of the project and received positive feedback, as no common method is available yet. It was presented to the European Commission during its work on the new Circular Economy package, and some elements identified by the project were used as inspiration for the definition of the scope and the calculation of recycling rates.

Several partners are using the DREC approach for their monitoring system (e.g. the Irish Southern Waste Region used it as an indicator for their regional waste plan).

#### 12. Procedures for the results measurement

During the project, results are measured through the use of indicators set and define by the programme:

- number of GP identified
- number of staff members with increased knowledge
- number of dissemination and technical events and attendees
- number of GP implemented
- number of policies improved...

To go beyond these pre-defined indicators, the Lead Partner conducted bi-annual internal monitoring survey allowing to monitor more precisely local and regional dissemination and how the project was used to improve the local situation.

Output indicators	Updated cumulative total	
N° of press releases disseminated	23	
N° of brochures created	1	
N° of copies of brochures disseminated	4983	
N° of newsletters created	6	
N° of copies of newsletters disseminated	17536	
N° of dissemination events organised	17	
N° of other events participated in	18	
R4R communication plan	1	
Guidelines for LRAs about R4R outcomes	1	
Result indicators	Updated cumulative total	
N° of articles/appearances in press and media	117	
N° of participants in events	1052	
Average n° of visits per month on operation's website	N/A	

#### 13. Critical analysis and lessons learned referred to the Initiative

The R4R project was considered as successful by the various partners and seemed to have contributed to improve local situation by highlighting room for improvement, making waste monitoring more consistent and identify possibilities of transfer of good practices or modifications that can be brought of their current practices.

The project also highlighted the effectiveness of several local instruments that were successfully implemented in high performing territories with quantitative evidence of success:

Landfill and incineration taxes are effective to improve recycling rates, even more so if the incomes are used to help local

authorities invest and implement recycling schemes and facilities;

- Clear and consistent communication: regions with homogeneous sorting guidelines tended to reach higher performances, making sorting clearer to inhabitants;
- Separation at the source (mainly for bio-waste and paper/cardboard) tends to be used in the more advanced territories.
   These streams represent the most important arisings in terms of tonnes.
- A dense network of civic amenity sites that are convenient to use and allow sufficient separation at the source seems to be
  an effective way to collect and send important quantities of waste to recycling, as well as to develop possible new local
  recycling solutions and promote re-use.

A follow up project wishing to extend the R4R approach to prevention and re-use has been submitted in 2016 (it will start in 2017).

#### 14. Critical analysis and lessons learned referred to the communication tools

As presented in the indicators above, the partnership was quite active regarding communication. Different target groups were defined:

- Staff of the different partners: partners were invited to present and disseminate their results in their own organisation through the organisation of local training and meetings. When a dissemination event was organised by a partner, the involvement of the internal staff was promoted.
- Local stakeholders: each partner was invited to make the results available to their local stakeholders through working groups and local dissemination events. It could have been interesting to foresee one local meeting per semester for each partner in the application form of the project to make local dissemination more effective. Each conference and local dissemination event were set so the involvement of local stakeholder (through their participation or by inviting them as speakers) was put forward.
- External communication: other EU local and regional authorities were targeted through the general communication activities, namely the website (about 800 visitors per month), a bi-annual newsletter, conferences, training session for the online tool. ACR+' network of European local and regional authority was very valuable to do so. By the end of the project, a dissemination event targeted at EU institutions and European federations was organised, in order to put in parallel, the European strategy and the project's outputs.

# Several elements proved effective for the dissemination

- A strong visual identity, regular update through various media (social media, update on the website, newsletter) ...
- Direct communication and the organisation of concrete workshops during conferences where several territories address the same issue in a round table format proved to allow more detailed and technical presentations than general conferences.
- The use of a short video to present the project over a short period of time is also valuable to get people's interest.

#### 5.5. WASTECOSMART

<u>Initiative</u> WASTECOSMART

#### 1.Objectives

WASTECOSMART's overall objective is to strengthen and increase the innovation capacity of regional research-driven clusters in resource efficiency through cooperation, research and technological development within the waste sector.

The overall objective of WASTECOSMART translates into the following specific objectives:

- 1. To foster transnational cooperation of research-driven waste management clusters.
- 2. To improve the links between regional authorities, research entities and the local business community through the production of a waste management Decision-Support Framework (DSF) and the joint formulation of resource efficiency plans
- 3. To develop a Joint Action Plan (JAP) and regional research agendas directly relevant to the needs of the cluster end users at regional level enabling the project partners to increase the regional competitiveness in innovative waste management



- 4. To design, promote and coordinate future research and technology transfer activities of the consortium clusters.
- 5. To unlock novel business opportunities on global markets beyond Europe through dedicated internationalization measures
- 6. To find and identify niche markets for specific recycling/reuse products which add value to society both environmentally as economically.
- 7. To support regions with a less developed research profile in waste management in their capacity to develop and grow regional

#### research-driven clusters

- 8. To promote the visibility of regional research-driven clusters and the use of the waste management DSF towards regional stakeholders and other relevant actors around the world.
- 9. To develop financing mechanisms and business models

#### 2. Contact details

http://www.wastecosmart.eu/en/project/

**Project Coordinator** 

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SP Technical Research Institute of Sweden

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#### 3. Summary

**WASTECOSMART -** Optimisation of Integrated Solid Waste Management Strategies for the Maximisation of Resource Efficiency addresses the priority areas of a "Resource Efficient Europe" and relates to the EcoAP, by boosting innovation based on research and technology development within the field of integrated waste management. Through cross border and international cooperation as well as collaborative research activities between six regional research driven clusters and three international partners, the project will strengthen regional capacities for investment, research and technological development. The core goal is to help introduce innovation to the market in this sector and as a consequence support economic growth and regional development.

The partners of WASTECOSMART will join forces to elaborate one Joint Action Plan (JAP) for the coordination and strengthening of their complementary RTD capacities. In close consultation with regional stakeholders from the scientific world, businesses and public authorities (triple helix), the regions will elaborate a coordinated set of Regional Research Agendas and a cross-regional Joint Action Plan, which sets a common roadmap for future collaborative RTD activities and develops synergetic follow-up projects in these key domains. The formation of regional waste management clusters is further strengthened through the mentoring of less developed regions, the dissemination of the outcomes on various platforms and internationalisation measures reaching out to other high potential regions in the world.

Public and private entities participation in collaborative arrangements  On-line platform  Goal: Waste recovery and management costs reduction  Innovative approach to waste management or other environmental topics  Use of social technologies	Replication capacity Simplicity of use	Range Involvement of different stakeholders Interaction Mobilization capacity	Dynamism
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#### 5. Main factors for the implementation: historical and social context

Questions to go more deeply into this initiative during the mission: historical and social context.

#### 6. Institutional arrangements and organizational and economic structures

Questions to go more deeply into this initiative during the mission: institutional arrangements and organizational and economic structures.

#### 7. Description of the stakeholders

WASTECOSMART is carryed out by 21 partmers. It has established an outstanding consortium of regional research-driven clusters from six European countries: Cyprus, Hungary, Italy, the Netherlands, Sweden and the UK.

Each participating region has carefully crafted a triple-helix cluster with a strong interest in boosting research and innovation in resource efficiency and particularly the waste management sector.

To ensure an optimal approach to unlocking business opportunities on global markets, relevant additional partners from Brazil, India and Mexico have been included in the project. They are specialized in the area of environment and waste technologies and services

combined with an indepth knowledge of their home market and their specific entry conditions. The international partners will organize and participate in site visits and are ready to test and provide feedback on the DSF to be developed by the consortium.

The consortium represents both regions with a longstanding track record in innovative waste management research and technologies and regions that are just starting to focus their efforts more specifically in this field. Nevertheless, all regions have strong ambitions in resource efficiency and see substantial added value in the enhanced cooperation of regional players and with their homologues at European level.

#### In each country:

The most important actors and networks in fulfilling a number of roles in driving innovation in resource efficient waste management in each region have been identified throughout the interviews. The actors have been categorized into five categories which are illustrated in the table. The table also presents the main actors who have been highlighted in most of the regions in each category.

Categories	Identified main actors	
Formulating future visions and initiating projects	<ul> <li>National, regional and local authorities (identified by all regions)</li> </ul>	
	Citizens     Press and media	
	• NGOs	
Attracting financial resources	Government	
First customers	<ul><li>Government</li><li>Municipality</li><li>Waste management companies</li></ul>	
Knowledge development	<ul> <li>Universities</li> <li>Research institutes</li> <li>NGOs</li> </ul>	
Entrepreneurial experimentation	Private companies     Municipality	

#### 8. Main ways of participation. How the experience and best practices are shared?

It has been written a communication and dissemination plan (http://www.wastecosmart.eu/en/library/) with:

#### 1. Identification and classification of main target audiences.

Identifying the correct target audiences and contacts for the project was a crucial first step in the communication process. Following discussion with project partners during the kick-of meeting, the consortium has identified stakeholders from across the public sector, academia and private sector to be targeted with key messages and dissemination materials.

The following stakeholders have been identified as target audiences. The list gives examples of the specific stakeholders that the project partners have in mind, but is not exhaustive.

#### Policy makers & Public bodies

- The European Commission, European Parliament and national Governments (Council of the European Union).
- National government authorities, especially those responsible for policy development and implementation related to waste management and resource efficiency agenda.
- Regional and local authorities (Environmental Protection Agencies).
- Environmental associations at the European and regional level.
- Municipalities (Municipal Waste Europe).
- Financing institutions, investment companies and public banks in the relevant countrie.;
- The general public.

#### Academia

- Research and development community (universities).
- Research and innovation centres.
- Standardisation bodies (CEN/CENELEC, national technical standardisation committees).
- Laboratories.
- Testing institutes.

#### **Economic operators**

- Waste collection/sorting/recycling companies
- National associations of recyclers
- Waste-to Energy producers (ESWET the European Suppliers of Waste to Energy Technology).
- European and national professional associations (FEAD European Federation of Waste Management and Environmental Services, the Association of Cities and Regions for Recycling and sustainable Resource management ACR+, Packaging Recovery Organisation Europe, Plastics Europe).

#### 2. Communication channels.

The main communication channels identified so far are:

- The dedicated website, presenting the objective, partners and activities of the project.
- Presentations and participation at congresses, policy workshops, conferences and exhibition fairs
- Visual dissemination materials, including the leaflet
- Stakeholder focused project meetings, workshops and networking events.
- Presentations and participation at regional networking workshops.
- Publications in scientific literature and dedicated journals.
- Newsletters and websites of stakeholders present at the stakeholder meeting.

#### 3. Key messages.

As part of its output, the WASTECOSMART project has developed key messages on the following themes:

- Innovation and optimisation i.e. principle of improving integrated solid waste management through innovation.
- Resource efficiency and environment- i.e. principle of using the Earth's limited resources in a sustainable manner while
  minimising impacts on the environment.
- Economic aspects i.e. principle of creating economic benefits through innovative solid waste management.

These messages should provide targeted information to different types of audience.

- 4. Roles and responsibilities of partners.
- 5. Implementation plan and timeline.

#### 9. Instruments for communication and its analysis

- 1. To foster transnational cooperation of research-driven waste management clusters. This objective will be achieved through the organisation of the General Assembly (6 meetings), Steering Committee meetings (33 virtual meetings, 3 annuals in person meetings), External Reference Group meetings (3 annuals in person meetings) and technical meetings under WP1. The workshops intended for dissemination activities as well as the mentoring and the staff exchanges will also contribute to the transnational cooperation (WP7). There are six workshops planned. The cooperation will be strengthened by the planned joint development of the Joint Action Plan (JAP) (WP6).
- 2. To improve the links between regional authorities, research entities and the local business community through the production of a waste management Decision-Support Framework (DSF) and the joint formulation of resource efficiency plans

This objective will be achieved through the **collaborative work** undertaken during the **regional cluster meetings** in WP3 and the planned knowledge exchange under WP7. There will also be 6 **e-learning exercises**, 7 **training workshops** and 2 **staff exchanges** per partner. These will greatly contribute to achieving this objective, as will the testing and implementation of the DSF through cooperation between the consortium partners.

3. To develop a Joint Action Plan (JAP) and regional research agendas directly relevant to the needs of the cluster end users at regional level enabling the project partners to increase the regional competitiveness in innovative waste management

This objective is to be worked on in WP6, where the common JAP (including a Common Research Agenda) will be developed as well as the 6 **Regional Research Agendas** for each of the clusters. WP6 will also put in place an exit strategy which will be applied by the project consortium. Associated partners will be involved and activities concerning markets will be initiated in WP5 and WP7, which will work towards this objective through a different approach.

4. To design, promote and coordinate future research and technology transfer activities of the consortium clusters.

This objective will be worked on through the development and implementation of the common JAP (WP6) as well as the mentoring and staff exchange activities (WP7). There are two staff exchanges planned per cluster. It is expected to have experienced staff from one project partner visiting another project partner with less experience in a certain project topic, and viceversa, to maximize the learning outcomes and ensure an effective transfer of knowledge.

#### 5. To unlock novel business opportunities on global markets beyond Europe through dedicated internationalization measures

This objective will be achieved through the work aiming to unlock business opportunities outside Europe under WP5 and WP7, though the involvement of associated partners and the testing in new markets that are particularly relevant for waste management technologies and services (Brazil, India, Mexico). These activities include the organisation of 3 **site visits**, and the testing in each associated partner country with feedback on the DSF to be developed by the consortium.

# 6. To find and identify niche markets for specific recycling/reuse products which add value to society both environmentally as economically.

This objective will be fulfilled through the activities undertaken under WP3 relating to the identification and mapping of gaps and needs. In addition, the testing and application of the DSF will also work towards this objective (WP5). Other activities working towards this objective are the development of the common JAP and the 6 research agendas (WP6) and the involvement of the international associated partners and the related activities as explained in objective 5 (WP5 and WP7).

# 7. To support regions with a less developed research profile in waste management in their capacity to develop and grow regional research-driven clusters

This objective will mainly be achieved through the staff exchanges and mentoring (WP7) as well as the **workshops** and **e-learning** (WP7). In addition, the 3-5 case studies and best practice examples in the DSF (WP4) and the testing and implementation of the DSF (WP5) will also contribute greatly.

# 8. To promote the visibility of regional research-driven clusters and the use of the waste management DSF towards regional stakeholders and other relevant actors around the world.

This objective will be achieved through the work under WP2 focusing on dissemination and exploitation activities as well as through the involvement of associated partners in WP5 and WP7.

#### 9. To develop financing mechanisms and business models

This objective will be achieved through the preparation of the case studies and best practices included in the DSF (WP4). There will be 3 to 5 case studies, which will give rise to an analytic report.

Questions to go more deeply into this initiative during the mission: Decision-Support Framework (DSF).

#### 10. Good practices: criteria applied for selection, development, replication and spreading

On the website there are a selection of 17 **good practices**, organized in three areas:

- Prevention. 5 experiences have been selected.
- Re-use. 5
- Recycling 7

All of them are part of the project's partners implementation on different European Regions.

Definition of criteria for best practices: Each country has to analyse if its example can be considered as best practice,

• The best practice should deal with municipal solid waste management and strive towards one of the following goals:

better use of natural resources

minimisation of the environmental impact

improved social aspects.

- The best practice can be technological solutions, but also policy instruments, social projects or other measures having an impact on municipal solid waste management.
- The practice should have been in place for long enough that it allows an evaluation of effects and potential rebound effects.
   Typically, it could have been in place for 1 year or more.

Preferably the best practice should be transferable and not an isolated onetime event. The practice should be well documented in its original language but also preferably have information available in English. It should be possible to gain additional knowledge by contacting people involved in the implementation of the best practice (which might pose a challenge for older examples)

#### 11. Main results of the Action

WASTECOSMART's approach to waste management will be based on a novel and innovative process applying a holistic set of practices. So far, there are very few studies that employ the methodological concept of innovation systems analysis, and only a few studies dealing with anything other than isolated technological issues and approaches have been carried out. Collaborative work through a systems approach is highly complementary and gives a great European added value to the outcomes of this project.

WASTECOSMART deals with the optimisation of integrated waste management to maximize resource efficiency and to boost regional development in the process. In line with the call's objectives, the general aim of the project is to maximise resource efficiency. In particular, the project aims to develop an optimisation Decision Support Framework (DSF) which will support the optimisation of the formulation of waste management strategies and establish a mechanis massessing research and innovation needs in the waste management sector.

The project is designed specifically for identifying the research needs of the participating clusters and regions to facilitate and promote the future implementation of such research. In addition, indirectly facilitates the further development of the clusters' and individual partners' know-how and capacities in resource efficiency.

Both the research institutions and SMEs will benefit from the transfer of know-how and the preparation of a resource-efficiency DSF. At the same time, pilot assessments of the tool can help municipalities and other end users identify appropriate resource efficiency strategies related to the waste management sector. The activities of these research driven clusters will contribute to regional economic growth and induce innovation by conducting:

- 1. Analysis and integration of actors' research agendas in regional research driven clusters
- 2. Establishing initiatives to improve integration: definition of a Joint Action Plan
- 3. Setting out measures towards the implementation of the Joint Action Plan for each of the regions

All the project objectives have been specifically designed following the SMART approach. They are specific and measurable during the project's lifetime. They have been designed to be attainable by the project participants taking into account their strength and weaknesses. They are highly relevant to the call objectives as well as the interests of the participants. They will be fully completed and implemented during the project lifetime in a timely manner.

Questions to go more deeply into this initiative during the mission: main results and assessment.

### 12. Procedures for the results measurement

Questions to go more deeply into this initiative during the mission: results measurement.

#### 13. Critical analysis and lessons learned referred to the Initiative

The success of the project is measured with help of key performance indicators and will be evaluated during autumn 2016.

# 14. Critical analysis and lessons learned referred to the communication tools

- Clear and easy to use web.
- With accesibility to he results and documents produced during the Project.
- Specially interesting the possibility of direct access for members: the members' platform.

Questions to go more deeply into this initiative during the mission: Main conclusions and success tools in the communication area.





Ministry of **Planning** 

