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The 'Green Crew' logo features a stylized globe with a recycling symbol (three chasing arrows) and the words 'Green Crew' in a bold, green, sans-serif font. The 'Green' is on the top line and 'Crew' is on the bottom line, both in a slightly smaller font size than the main title.

# GREEN CREW

## **Green - Employment in the Management of Bio-Wastes WASTE MANAGEMENT IN GREECE**

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## INTERBALKAN ENVIRONMENT CENTER

- ▶ i-BEC is a flexible coupling organization of the public sector with research communities nationally and internationally



- ▶ i-BEC's role as an international CLUSTER of new technologies and innovation is to link together the public and private sectors for sustainable management of natural resources and protection of the environment



## The present innovative project ...

- ▶ reveals the opportunity to improve a social corporate image and gives maximum flexibility for the design of standard composting of “green” litter and therefore operation of a new facility
- ▶ will promote alternative management of litter as a basic priority of the European community’s environmental policy
- ▶ will include actions and infrastructures for collecting, separating and composting of “green” litter (eg. loppings, harvesting by products etc). This method offers appreciable employment and is particularly suitable for social cooperative enterprises



## The objectives of present project are ...

- ▶ Creation of new employment positions by means of integrated of “green” **bio-waste management**
- ▶ Creation of new employment positions through social cooperative enterprising, a new institution seeking collective profit and serving general social interests
- ▶ Development of concrete management practice, including harvest practices and investigation of collected biomass use. These management practices will initially be developed at the Municipality level, but can subsequently extended at the Regional level
- ▶ Awareness of the participating institutions and individuals (farmers, private citizens) of the Region about the potential novel economic activities offering multiple profits: financial and environmental



## The main outputs of the project are ...

- ▶ Social enterprising **Business Incubator Center (BIC)** creation
- ▶ Strategic guidelines for future creation of a successful BIC with social and "green" components
- ▶ Techno-economic model development for optimum installation and operational performance of BIC
- ▶ Training skills to beneficiaries through smart education practices and smart education equipment employment
- ▶ Mass media actions for publicity and promotion
- ▶ Training seminars
- ▶ Interactive e-platform creation with e-learning material and supporting media (presentations, video etc.)
- ▶ Compost units and relevant infrastructure installation
- ▶ Compost certification



## GREEN CREW

# Exploring the social contribution of bio-waste utilization

This action investigates ways of stimulating and securing the on-going sustainability of a social cooperative enterprise in managing “green” litters

### Objectives

1. promote the development employment positions via the involvement of cooperative in relation to green bio-waste management. This will include consideration of the role of the public sector in promoting opportunities
2. bring together stakeholders (green infrastructure management organisations, community & special interest groups, social actors, beneficiary organisations etc.) to generate new ideas for public service delivery, efficiency improvements and new business concepts
3. develop entrepreneurship & business models arising from this engagement
4. investigate potential barriers to enterprise development, including finance, procurement and legal structures / contracts
5. investigate innovative approaches to secure the long-term financial viability of the structures created, possibly through involvement of the private sector or by the use of volunteers



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## Exploring the social contribution of bio-waste utilization

- ➔ Through this action the concept of the Social Cooperative Enterprise will be taken forward and piloted in the region of interest and rolled out to other partners on a virtual basis as the WP is taken forward. All actions will contribute in some way to this action

## SOCIAL ECONOMY NETWORKING

In the context of this project networking social groups & organizations and business opportunities that arise from this, will be developed around the green infrastructure, a business incubator center will be therefore be developed (BIC). This approach is based on existing networks with already identified sectors of opportunity. In the content of this action innovative approaches will be tested to the formation of social cooperative enterprises, including how to involve stakeholders with an interest in the green infrastructure.



## COMPOST CERTIFICATION

- ▶ Concepts of compost quality or compost test standardization will be established and the quality of the compost produced will be constantly checked
- ▶ During composting, abiotic and biotic parameters will be checked and monitored so that the final product (compost) meets the quality criteria according to the EU ECOLABEL voluntary system or equivalent
- ▶ Parameters checked will include  
pH, soluble salts, organic matter content, percent solids (or conversely percent moisture), total nitrogen, water holding capacity, phosphorus, C:N ratio, maturity and density.  
Others will include carbonates, ammonia, heavy metals, pesticides, herbicides, and bacteria (generally fecal coliform and Salmonella)

## SMART EDUCATION IN BIO-WASTE UTILIZATION

Smart training includes technology in the process of learning (interactive media, diagnostic toolbox), in combination with the targeted learning of several topics. A group of trained scientists will be available for either local politicians that are interested in this idea, or even potential investors.



## SAFE WASTECYCLE

- ▶ Development and Installation of smart pre-compost bins in different urban food halls
- ▶ Development of innovative and smart specialization tools for the production and application of municipal compost
- ▶ Optimization of compost systems using smart specialization tools that concern municipal use and application.
- ▶ Development of new compost products according the EU ECOLABEL voluntary system
- ▶ Evaluation of different compost products to improve soil properties and to contribute the sustainability of soil health
- ▶ Development of Best management practices for **organic waste recycling** and **public health protection** in urban areas

## FUTURE PROSPECTS

- ▶ Boosting **eco-innovative** solutions to prevent waste generation and promote the use of waste as a resource, in line with the objectives of the EU Resource Efficiency Roadmap and the Waste Framework Directive (Directive 2008/98/EC)
- ▶ Development of **innovative and sustainable strategies** for waste prevention and management in urban, peri-urban and rural areas
- ▶ Develop and Promote Innovative Composting Alternatives of Agricultural and Municipal Waste with the involvement and activation of social cooperative entrepreneurship with the aim of collective profit and service of social and environmental interests

## FUTURE PROSPECTS

- ▶ Promote inclusive growth through social economy : job creation for unemployed young professionals, in the field of recycling agricultural economy in reusing bio-wastes, strengthening skills and employability, building diversified local economies and contributing to wider economic and institutional transformation
- ▶ Training and certified skills through smart education practices and smart education equipment by certified with ISO 17024 organizations
- ▶ Sustainable Tourism Development (Eco-Destinations): to be implemented eco-efficient strategies (waste management in order to reduce substantial quantities of energy, water, and non-durable products)
- ▶ Certification of compost products
- ▶ Creation of social economy ‘ecosystem’ of various elements of support provision and a high level of collaboration between actors, both within the social economy and the public and private sectors



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