## PowerPoint slides presented (6-18)

Participating 30 Life+ climate change projects

**BOSCOS** (Consell Insular de Menorca): The project aims to contribute to the adaptation of the Mediterranean forest ecosystems of Menorca to climate change through sustainable forest management at estate level. This will include the development of a forest inventory and of a set of planning and management guidelines, both feeding into a management plan. Forest management actions aimed to decrease forest vulnerability will be demonstrated in a pilot area of about 200 ha. Capacity building among forest owners, forest managers and other stakeholders related to forests, as well as public awareness raising are also foreseen.

**CARBOMARK** (Veneto Region Department for Forests and Mountain Economy): This project aims to promote voluntary local carbon markets as an instrument for strengthening EU climate policies and reducing greenhouse gas emissions. Measures include consolidating the knowledge base; the definition of a local market model and implementation on a pilot scale; awareness-raising and dissemination, particularly to integrate forest owners and SMEs as well as sectors not already covered by the European Emission Trading Scheme.

#### **CATERMASS** (Finnish Environment Institute)

This project aims to develop climate change adaptation tools for the Finnish river basin districts to mitigate the impacts of increased leaching of acidity and metals from acid sulphate soils drained for agriculture and forestry.

**<u>CCCRP</u>** (Finnish Meteorological Institute): The project aims to raise the awareness of global climate change and its implications for Finland. Key objectives include the development of a web portal to guide users of climate change will also be explained using e-learning methods.

**<u>CHAMP</u>** (Union of the Baltic Cities): This project seeks to contribute to fulfilling EU environmental and climate change commitments, legislation and targets in a cost-effective way by supporting local and sub-regional authorities through a competence development package on Integrated Management Systems.











#### **CLEANTRUCK** (City of Stockholm - Environment and Health Administration)

The objective of the project is to demonstrate the commercial and technical viability of alternative fuels and new technologies for goods distribution vehicles. It will construct filling pumps for the alternative fuels ethanol ED95 and biomethane, filling stations for CO2 for use as a refrigerant and mobile stations for N2 to inflate tyres.

#### **ClimaBiz** (Piraeus Bank SA)

The project's main goal is to make businesses aware of the risks and financial impacts of climate change. It will identify and quantify the physical, regulatory and reputational risks in south-eastern Europe arising from climate change, and develop climate risk and climate-adaptation management mechanisms and integrate them into banks' Credit Risk and Business Planning systems.

**ECO-ANIMATION** (Business Solutions Europa Limited): This is a transnational project (involving the UK, Belgium and Italy) to produce and promote animated cartoons to help European children learn more about the environment, sustainability and climate change. The cartoons, aimed at five to eight year olds, will show that small actions (using less water, asking where your food comes from, recycling and reusing, turning off switches, etc...) can improve our quality of life and our future (e.g. less carbon, reduced pollution and waste, a better and more secure supply of water, a better environment to live in, etc...).

**FACTOR 20** (Regione Lombardia - Direzione Generale Reti, Servizi di Pubblica Utilità e Sviluppo Sostenibile) This project aims to promote an integrated management approach that builds on and improves existing GHG-reduction strategies for local sectors not bound by the Emission Trading Scheme (ETS). The project will define a technically-sound tool for promoting local actions towards the contribution of the non-ETS sector to climate change objectives.









**<u>GREENbanking4Life</u>** (Piraeus Bank SA) examines the environmental impact of products and services in the financial sector. The project focuses on the development of green products by the beneficiary, a Greek bank, and its associates. As well as producing a guide for the better management of resource consumption, the project reduces their CO2 emissions, increases their recycling of products, reduces their water consumption and encourages the use of green products in its branches.

**ISIM-TCC** (Iparfejlesztési Kőzalapitvány) The primary purpose of this project is to assist the EU in reaching targets – set out in the Kyoto Protocol and the Bali climate change meetings - through the application of industrial symbiosis (IS) as an innovative tool for tackling climate change. Other goals are to foster prudent management of natural resources, and to identify the potential for sustainable development of the Hungarian economy.

**ITEST** (Municipality of Oskarshamn) aims to demonstrate an innovative technical solution to sewage treatment, based on heat exchange. It is hoped this will solve treatment problems incurred by regions with a cold winter climate: cold weather impedes the effective biological conversion of different nitrogen species to elemental nitrogen, thus contributing to nitrogen-based pollution of lakes and seas.

JEREZ + natural (Jerez de la Frontera) will produce a new management model for urban green areas and integrate their management into urban planning processes - this model will include planning, maintenance, monitoring and follow-up assessment procedures. Moreover, they will develop an IT tool to simplify the task of carrying out inventories of urban tree species and specimens; apply innovative pest control methods; demonstrate urban green area management activities and raise awareness of green heritage.



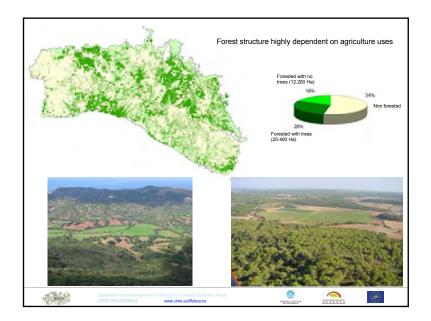


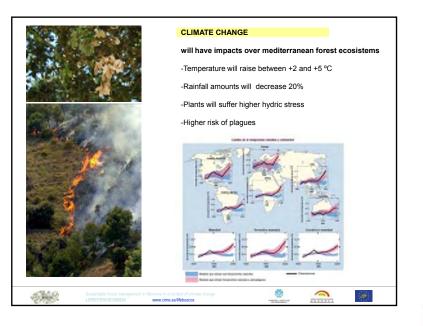




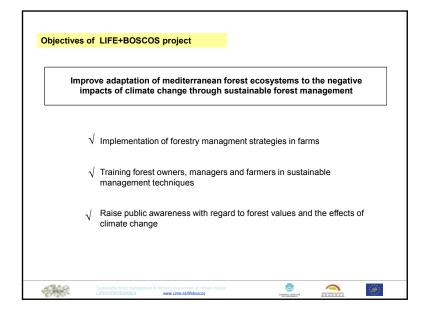










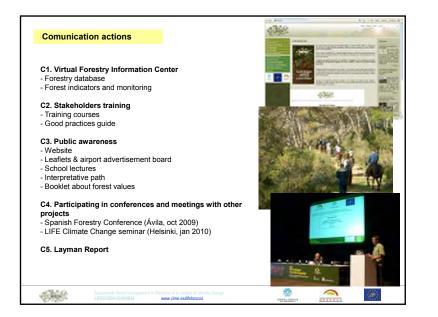


Preparation	P1. Information gathering and seminar organization P2. Draft planning guidelines for forest management on the entire island P3. Environmental evaluation of the guidelines
Implementation	I1 Forest management plans on pilot farms 12 Implementing the activities planned on 11 13 Cost-efficency evaluation of 11 actions
Comunication	C1. Virtual information center about forestry in Menorca (database and monitoring) C2. Train forest owners, managers and farmers in sustainable management techniques C3. Raise public awareness with regard to forest values and climate change C4. Attending conferences and meetings with other projects
Management	M1. Scientific committee M2. Monitoring committee M3. Project management M4. Knowledge disemination M5. Project documents database M6. Finantial Audit M7. Monitoring indicators





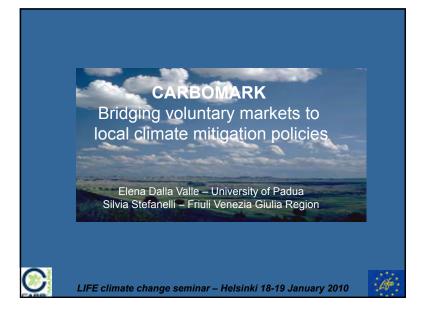












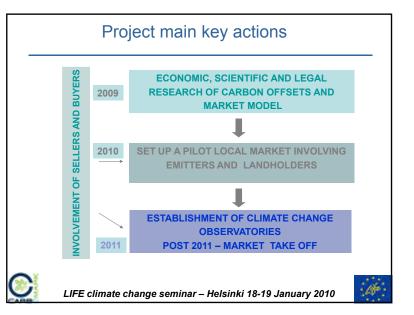
# Voluntary carbon markets overview Complementary to EU regulated carbon markets Source of innovative credits (REDDs) Involve a wide range of small to medium emitters CO<sub>2</sub> savings additional to compliance market. VCM traded CO<sub>2</sub> volumes 3% in 2008 but on the rise More flexibility than regulated markets Wider range of mitigation projects Raise awareness on CC among policy makers LIFE climate change seminar – Helsinki 18-19 January 2010

#### From global to local CARBO MARK OBJECTIVES

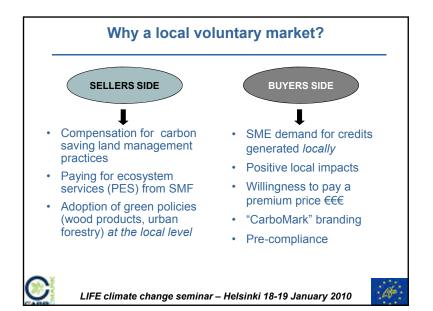
- Set up a local carbon market
- Compensate carbon saving forest
  management
- Develop robust methodology
- Test innovative agro-forestry offsets
- 4 partners involved 2 Regions 2 Universities. Budget € 1,088,028
- Pilot market (2009-2011) then take off

LIFE climate change seminar – Helsinki 18-19 January 2010







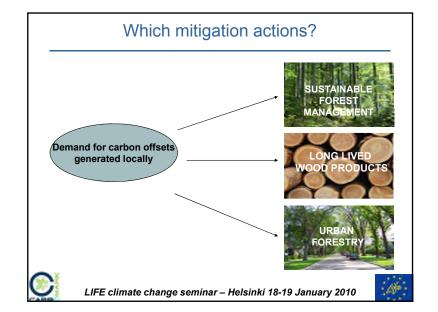


#### Integrating mitigation to local planning

- Set up and propose protocols for good practice carbon
   offsetting
- Supervise and monitor market mechanisms to abate GHG emissions
- Define and propose economic opportunities from mitigation to landholders
- Involve policy makers in climate change actions

LIFE climate change seminar – Helsinki 18-19 January 2010





#### Challenges & risks



- Level of interest among SME's
- Local political support
- Involvement of policy makers Post-Kyoto agreements in the forest sector
- Willingness to pay a high price for credits
- t/CO2 price in the global market
- Keep the market working at the end of the project
- Scale up the model to other regions/countries



LIFE climate change seminar – Helsinki 18-19 January 2010



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LIFE climate change seminar – Helsinki 18-19 January 2010







#### CATERMASS

Climate Change Adaptation Tools for Environmental Risk Mitigation of Acid Sulphate Soils

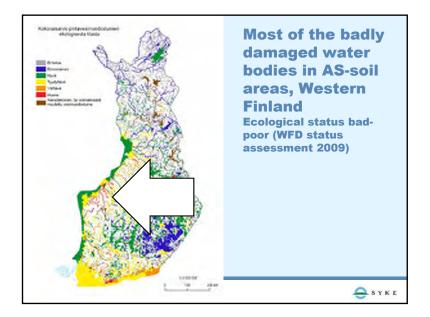
2010-2012

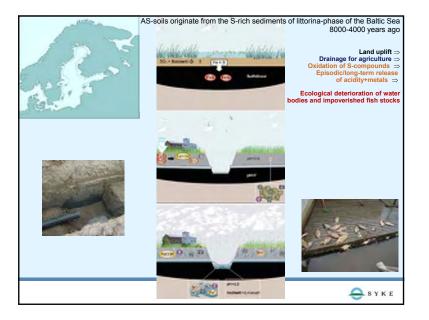
#### Kari-Matti Vuori

#### Partners

Finnish Environment Institute, Geological Survey of Finland, MTT Agrifood Research Finland, Åbo Akademi, University of Helsinki, Finnish Game and Fisheries Research Institute, South Ostrobothnia Centre for Economic Development, Transport and the Environment

LIFE+ Climate Change Seminar, Helsinki 18th-19th January 2010





#### **Climate change in AS-soils?**

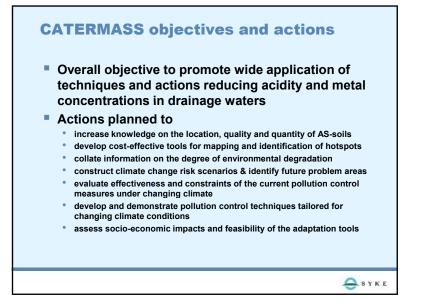
- Increased drought periods & temperature
- Increased precipitation & floods, especially autumn-winter

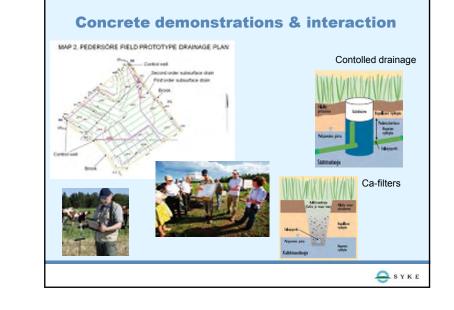
#### $\Rightarrow$

- Increased release of acidity and metals
- Increased exposure of ecosystems to lethal concentrations
- Increased deterioration of water bodies & fish stocks

<del>\_</del> S Y K E

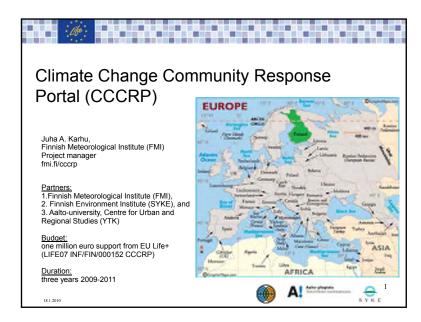


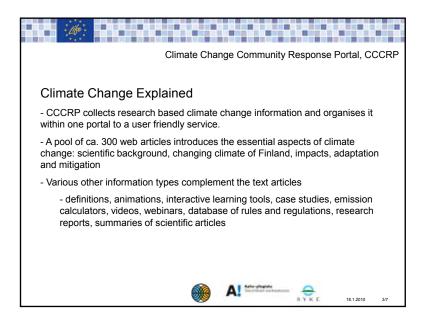


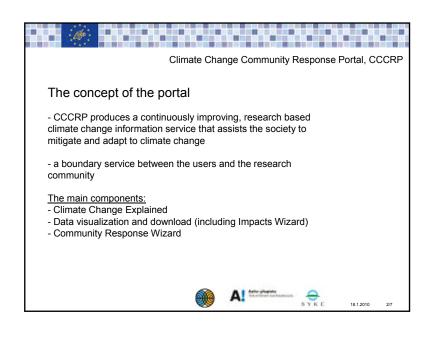


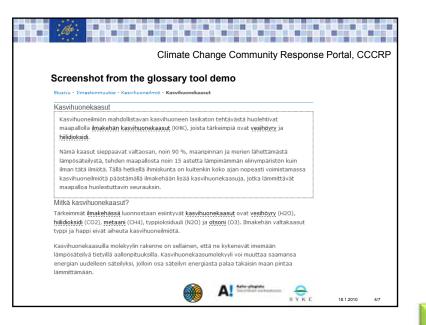




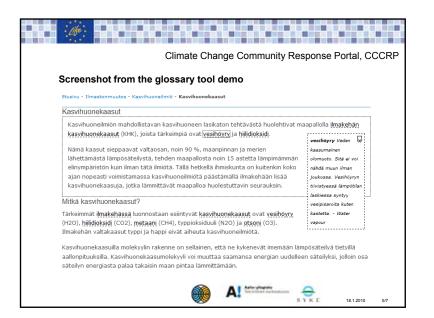


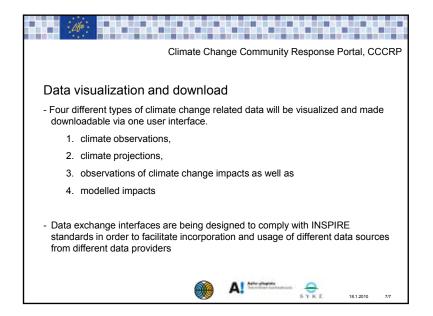


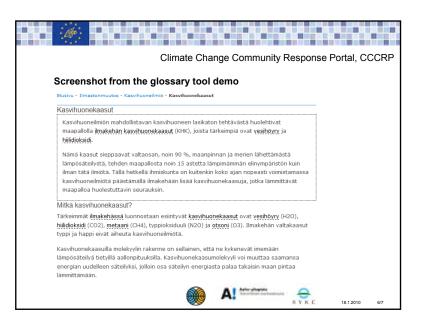


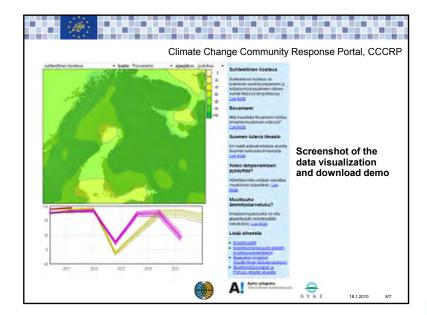




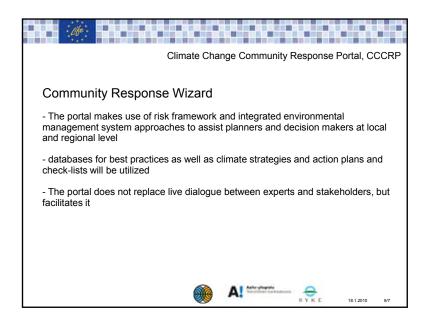


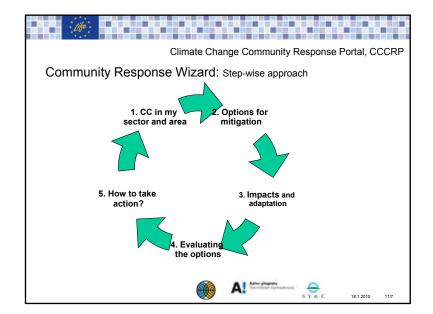


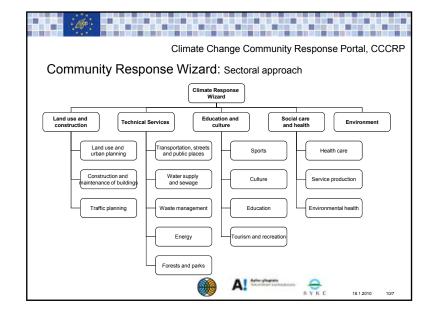














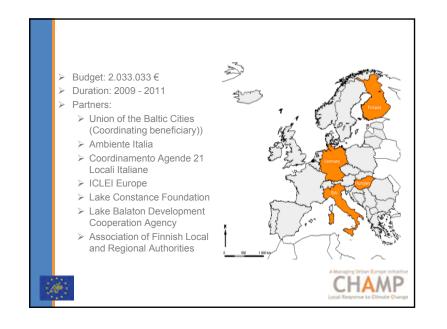


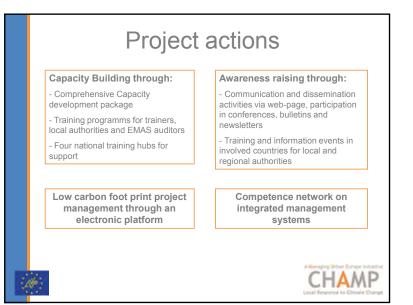


### CHAMP aims at...

- Contributing to the implementation of existing EU climate change policies
- Developing a Capacity Development Package for integrated urban management reducing EU greenhouse gases up to 2020
- Increasing the number of local authorities using integrated management systems
- > making EMAS competent bodies aware of the importance of integration of all strategic aspects of local and regional authorities
- Increasing awareness of climate change and integrated strategies
- Demonstrate a low-carbon footprint project management











### More information ....

#### www.localmanagement.eu

Union of the Baltic Cities, Commission on Environment Pekka Salminen, Project Manager Pekka.salminen@ubc.net

Esther Kreutz, Project Coordinator esther.kreutz@ubc.net



## CHAMP - Trainings on IMS

- 4 national training hubs support centres in FIN, D, IT, HU
- Support for local authorities in starting to work with IMS in there response to climate change – both adaptation and mitigation measures
- Capacity development package
- Peer reviews
- Continuous support for the cities and municipalities in implementation





#### **Clean vehicles in Stockholm**

### CLEANTRUCK

CLEAN and energy efficient TRUCKs for urban goods distribution

Björn Hugosson, City of Stockholm



• Duration 2010-2013

- City of Stockholm is co-ordinating
- beneficiary
- Fuel companies OKQ8 and AGA Gas are associated beneficiaries



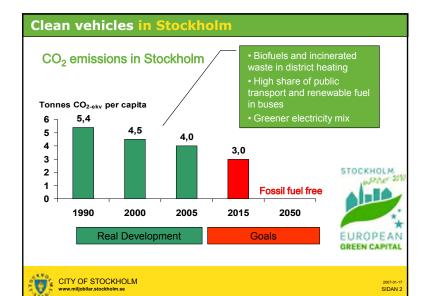
CITY OF STOCKHOLM www.miljobilar.stockholm.se

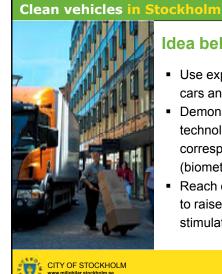


	Minn co2	1200 1000 800 400 200 0 0 x 8 ° ° ° ° °	sport sector emissions	Trucks & vans Public transport Cars	tive impact of	
1	1		OF STOCKHOLM			2007-01-17 SIDAN 3



2007-01-17 SIDAN 1





www.miljobilar.stockholm.se

#### Idea behind CLEANTRUCK:

- Use experiences from clean cars and buses
- Demonstrate new truck technologies (80 trucks) and corresponding infrastructure (biomethane and bioethanol)
- Reach out to drivers and fleets to raise awareness and stimulate the market





#### **Clean vehicles in Stockholm**

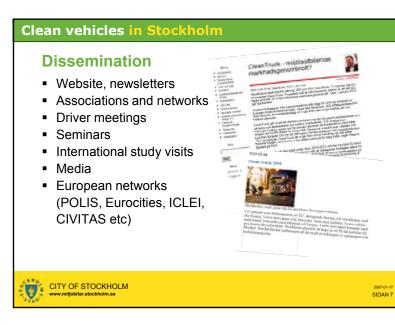
#### **Co-operation**

- Fuel companies OKQ8 and AGA Gas are associate beneficiaries
- Volvo, Scania and Mercedes supply clean trucks
- Funding provided to hauliers that use and evaluate the trucks
- Co-financing from Swedish Agency for Innovation Systems
- Networks and NGOs



SIDAN 5

CITY OF STOCKHOLM www.miljobilar.stockholm.se



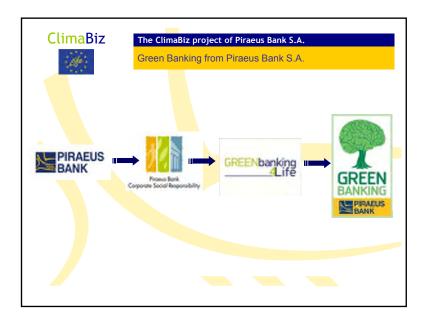


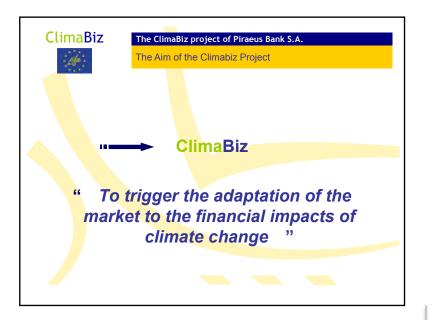


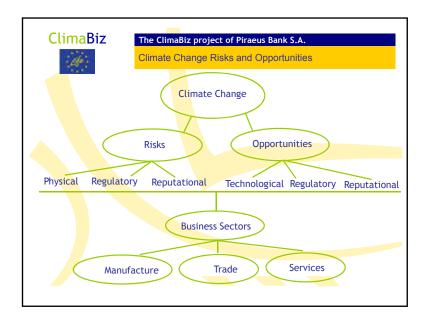




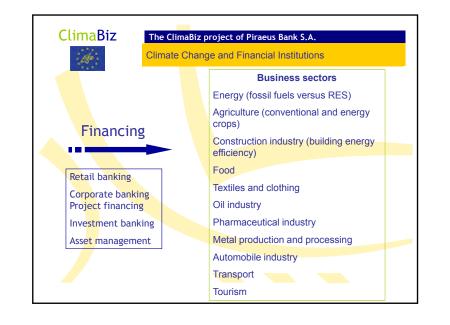


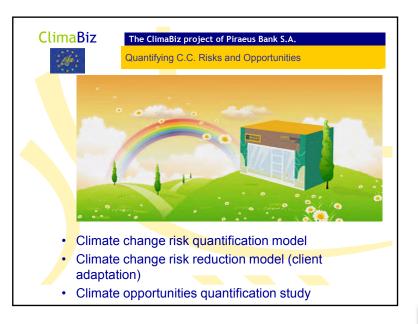




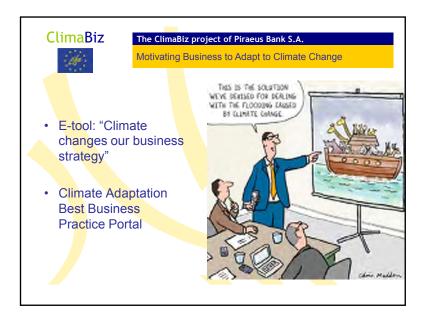


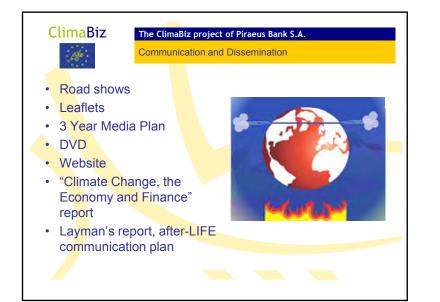


















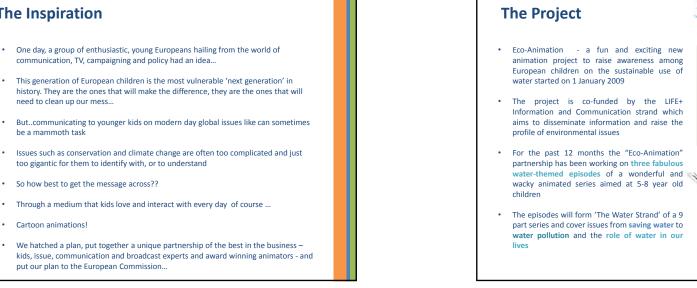
The Inspiration

need to clean up our mess...

be a mammoth task

Cartoon animations!

#### Contents Background The Inspiration The Project Objectives . EcoAnimation Partners The Methdology • Our wonderfully cool and fantastic series My Friend Boo . Concept Episodes . • Reaching Millions of European Children Boo takes on Europe! Contacts Sneaky Preview....



## COAnimation with the aspect of Budget: • 541.092 euros • 258.371 euros (EC contribution) Cost effectiveness • At current levels... (10 million households) - 2 euro cent per child



#### **Objectives**

#### Specific

- · Find out what message works best with European children on the sustainable use of natural resources, in particular water
- Directly reach the children through a creative form of communication which they enjoy watching and are captivated by
- · Indirectly reach their educators and families and raise awareness on the sustainable use of freshwater

#### Strategic

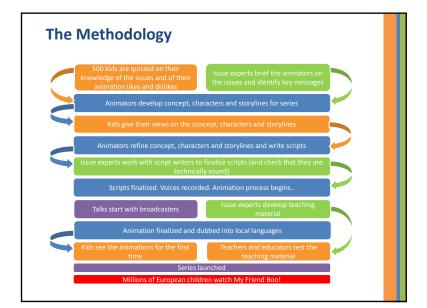
- Overcome the common communication barriers to children on nature conservation and water issues
- Help change their long term behavioral patterns towards the use of water

#### **EcoAnimation Partners**

- The co-production model behind the series is the first of its kind in Europe • The episodes are based upon the research and support of independent international
- experts and feedback from focus groups of children in 5 European countries • We have gauged their knowledge and tapped into their imaginations to ensure that the
  - series hits the right note:
  - Business Solutions Europa (Project Management and Communication) Griffilms (Animation)

  - WWF World Wide Fund for Nature, European Policy Office (Content) Explora – The children's museum of Rome (Pedagogic Evaluation)
  - Children's museums and schools from Belgium, Bulgaria, Ireland, Italy, and Poland

Country	School	Museum	
Belgium	Vrije Basisschool Ursulinen, Mechelen	Technopolis	www.technopolis.be
Bulgaria	54 Sredno osnovno uchiliste "Sveti Ivan Rilski" - Sofia	Artland	www.artland-bg.com
Ireland	Willow Park Schools ( ) -	Imaginosity	www.imaginosity.ie
Italy	Istituto Comprensivo Karol Woytjla - Rome	Explora – il museo dei bambini di Roma (partner)	www.mdbr.it
Poland	- Primary School number 111 - Łódź - Primary School im. Kościuszko's Infantry Division ul - Łódź	ParkMiniatur	www.parkminiatur.pl





The Energy strand – has been produced by the

The Healthy Living strand – was devised by the

ACTIVE project with the support of the HEALTH

For more information : www.animate-eu.com

the Intelligent Energy Europe programme

Young Energy Savers project with the support of

\* Joined-up thinking....

programme

#### My Friend Boo!!

My Friend Boo is a fun-filled animated series created by EcoAnimation and 2 other Europeanfunded Commission Projects\*

The series uses imagination, comedy, adventure and magic to help younger viewers understand some of today's most important world issues:

- Water and conservation (The Water Strand)
- Energy and climate change\* (The Energy Strand)
- Health \* (The Healthy Living Strand)

In our episodes children can see that even with everyday gestures they can also help make a difference to their worlds and the wider world around them - and their families & friends can too



#### Concept

Whilst playing in their junk filled attic one day, BEN, JAQ and LUCY stumble across a very scruffy looking toy dog and a broken children's carrousel. They also discover an old toy chest, which is home to a mysterious glowing golden 'wind up' key that fits into the back of the scruffy little toy.

Lucy winds up the key and suddenly the tatty little toy dog magically comes to life. The toy quickly introduces himself as Boo.

Boo is a fast-talking adventurer with incredible magical powers. He's kind, funny, smart, a little bit mysterious.

He becomes the children's friend and their guide as they travel in his magical carrousel embarking on extraordinary journeys and totally amazing adventures to all types of different worlds that help the three young explorers to learn lessons about some important issues whilst of course having lots of fun!



#### **Reaching Millions of European Children...**

- We hope Boo and his inspirational stories reach and motivate millions of European children.
- To make this happen we are making the series available free to European
  broadcasters
  - Participating broadcasters will get the series for free in EN, BG, IT, NL & PL
  - They will have exclusive rights for broadcast for 2 years
  - All they have to do is translate the scripts, teaching material and dub in to local languages
  - The series will be available for broadcast from June 2010 (once all the strands have been viewed by our focus groups)

#### NEWSFLASH!

We have already closed a deal with Central-European cartoon channel Minimax for the exclusive rights in 10 European territories. These are:

- Czech Republic, Hungary, Romania, Slovakia
- Bosnia-Herzegovina, Croatia, Kosovo, Moldova, Montenegro, Serbia
- 10 million households will be reached!

#### Water Strand Episodes

'Victoria's Wetlands' (Theme: Water Pollution) The kids meet a rather talkative vole called Victoria whose riverbank home has been abandoned by animals and humans because a local factory isn't taking care of its waste



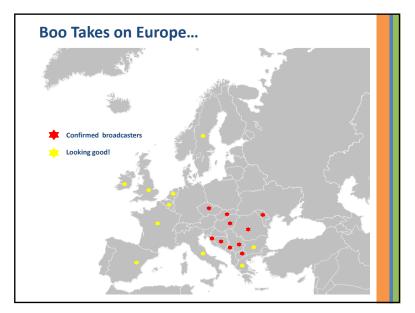
Victoria the Vole

'It's Only Water!' (Theme: Water Conservation) They visit Planet Klexus where inhabitants learn a lesson or two from Boo and the kids about conservation

'The Big Picture' (Theme: Water and the World) The kids take a ride down a river bank to look at the "bigger picture" where they see the damage that chemicals and dam-building can have on local wildlife but also what we can do to make the world a better place



Aliens from the planet Klexus







#### Next Steps... 2010

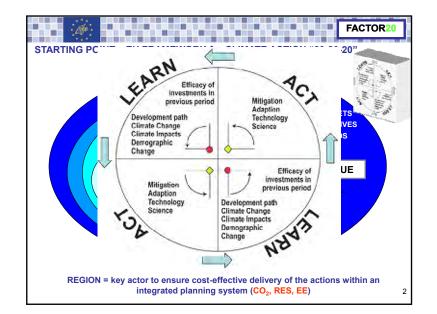
	Jan	Feb	March
Ī	Animators do their stuff		Public launch !!
	Project partners contact spo	nsors	22 <sup>nd</sup> March 2010 – World Water Day
	Broadcasters agree and sign broadcast (from June 2010)		
	WWF and pedagogic partner material	rs prepare teaching	3 <sup>rd</sup> Focus group for children to view the strand of the first time and for teachers to test the
	Series translated and dubbe	d into local languages	teaching material
	WWF and pedagogic partner	rs finalise teaching material	Events planned in London, Rome, Dublin, Lodz, Sofia, Mechlen and perhaps more

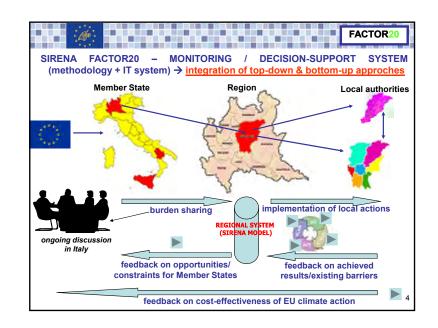




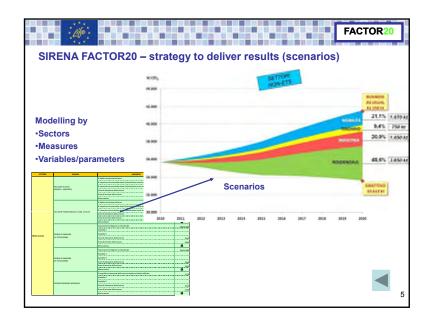
FACTOR20	<u>Forwarding ACT</u> ions <u>On</u> a <u>Regional and local</u> scale to reach EU targets of the European Climate Action Plan "20 – 20 by 20 <u>20</u> "
-	ect budget: € 2.512.600 ect duration: 1/1/2010 - 31/12/2012 The Partnership
-	rdia (Coordinating Beneficiary) management + technical assistance)
Regione Basilic	ata
Sviluppo Italia	Basilicata (Technical assistance)
Regione Sicilia	
	te Change Seminar Valentina Sachero (Regione Lombardia) 18-19 January 2010 Mauro Alberti (CESTEC)

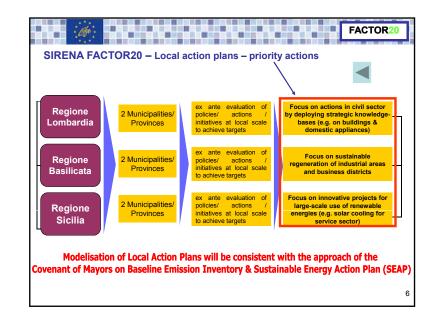
FACTOR20
MAIN OBJECTIVES of the Project
• Integrate policies/plans on GHG emissions with energy (RES + energy efficiency) planning, promoting action at local level (the challenge begins locally)
• Integrate energy and GHG emissions data into a monitoring/decision- support system → SIRENA* FACTOR 20 (If you cannot measure it you cannot improve it)
Monitor and evaluate effectiveness of Local Action Plans to provide feedback for Regional/National policies/plans (think globally, act locally)
<ul> <li>Raise stakeholders' awareness at local and regional level on the opportunities in the field of climate/energy action</li> </ul>
* SIRENA = Energy and Environmental Information System in Regione Lombardia

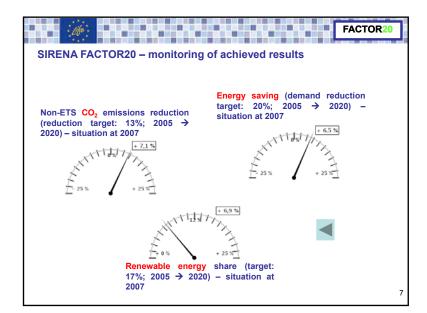


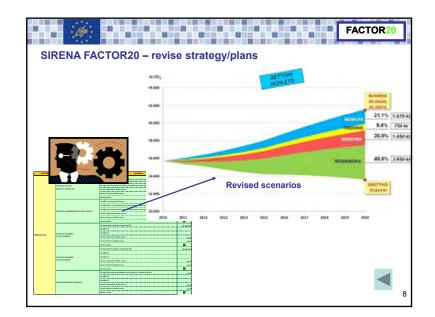








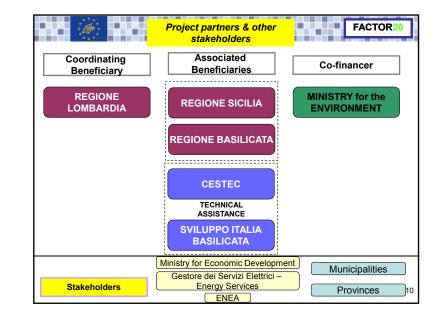






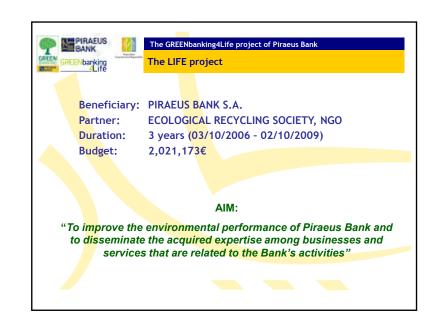
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0 -			Misura Mobilià Sistema edilità	51 Sottomisura Bontifacione alimentacione	Codice	Costo (curo/tCO2) 1.7	3 52 53 35 Riduzione totale della CO <sub>2</sub> (t) R7 44.148
-1000 -			Misura Mobilià	4) Sottomisura Boolitacione alimentacione fluro 1 e 2	Codice	Costo (curo/tCOg) 1.7	3 52 53 35 Riduziona totale della CO <sub>2</sub> (t) 10 44.140 64 91 097
-1000 -2000			Misura Motellià Sistema editoio englenio Teketemotemore	51 Sottomisura Ovolitacione alimentacione funo 1 e 2 Gostituzione impianti tomici biogan Suruks publicat	Codice 1.1 5.4 7.1 9.3	Costo (curv/tCO2) 3.7 3.0 1.9	3         32         51         35           Riduzione totale della CO <sub>2</sub> (t)         36         36           10         44.140         45           64         91.099         40.361           61         109.992         36
-1000 -			Misura Mobilià Estena ellibio espiento Hisgas Talariseniblemario Pompe di calore	53 Sottomisura Doublacione alimentacione Ilaro 1 e 2 Sosttuzione implanti tomici Wegas Sarkot paktilet Tionka geotomica vanicale	Codice 1.1 5.4 7.1 9.3 2.1	Costo (curo/tCO2) 3.7 3.0 1.0	3         32         53         35           Riduzione totale della CO, (t)         44.140           64         91.092           64         40.301           6         100.901           6         100.901           6         100.901           6         100.901
-1000 -2000			Misura Moldillà Solitena elificito enpiento ticoges Tadoris noltarenato Pompe di calora Tadoris noltarenato	51 Sottomisura Bostitacione alimentacione Itaro 1 e 2 Sosttacione implanti tomici Impan Barcol palatitati Romde potocomice austicato Resoluto auto	Codice 1.1 5.4 7.1 9.3	Costo (curo/tCO2) 3.7 3.0 1.0	3         32         51         35           Riduzione totale della CO <sub>2</sub> (t)         36         36           10         44.140         45           64         91.099         40.361           61         109.992         36
-1000 -2000			Misura Mobilià Estena ellibio espiento lisgas Talariseniblemario Pompe di calore	53 Sottomisura Doublacione alimentacione Ilaro 1 e 2 Sosttuzione implanti tomici Wegas Sarkot paktilet Tionka geotomica vanicale	Codice 1.1 5.4 7.1 9.3 2.1	Costo (curo/CO2) 3.7 3.0 1.9	3         32         53         35           Riduzione totale della CO, (t)         44.140           64         91.092           64         40.301           6         100.901           6         100.901           6         100.901           6         100.901
-1000 -2000			Misura Molallà Sistema editala ingiento Reges Takoris adlamanto Pompe di Salori Takoris adlamanto Saltema editolo ingianto Gistema editolo	51 Sottomisura Bostitacione alimentacione Itaro 1 e 2 Gostitacione implandi tomici Ilangan Rankol pakilikei Roshitaciane Residunciane Residunciane Residunciane Residunciane	Codice	Costo (curo/tCO2) 3.7 1.0 1.0	3         52         53         35           Riduziona totale della CO <sub>5</sub> (t)         44.140           64         91         94.140           64         94.301         40.301           6         90.902         90.402           90         40.301         6           90         90.402         90.402           90         90.402         90.402
-1000 -2000 3000			Misura Motallià Sistema editoio engianto tisogas Takateadamento Sastema editeio engianto Gistema editeio engianto	51 Sottomisura Bostitacione alimentacione Itaro 1 e 2 Sosttacione implanti tomici Impan Barcol palatitati Romde potocomice austicato Resoluto auto	Codice 1.1 9.4 7.1 9.3 2.1 9.1	Costo (curo/tCO2) 3.7 1.0 1.0	3         52         53         35           Riduziona totale della CO <sub>5</sub> (t)         44.140           64         91         94.140           64         94.301         40.301           6         90.902         90.402           90         40.301         6           90         90.402         90.402           90         90.402         90.402
-1000 -2000 3000			Misura Molallà Sistema editala ingiento Reges Takoris adlamanto Pompe di Salori Takoris adlamanto Saltema editolo ingianto Gistema editolo	51 Sottomisura Bostitacione alimentacione Itaro 1 e 2 Gostitacione implandi tomici Ilangan Rankol pakilikei Roshitaciane Residunciane Residunciane Residunciane Residunciane	Codice	Costo (curottCog) 3.7 3.0 1.8 1.9 1.9 1.9 1.9	3         32         53         35           Ridarcione locale della cola;         44         140           64         91         92           107         44         140           64         91         92           80         48,311         6           61         90         96           90         92,882         93

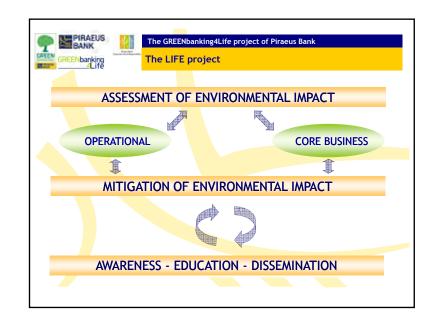
010	201	1	2012
Preparatory Actions (PA)			
A1: harmonisation of re			
		ig approaches/targets evaluation tools, with local level	
FAS. developme			monstrative Actions (IDA)
		IDA1: shared methodology fo energy & environmental plan	r integrated
		IDA2: implementation of mod	
		IDA3: imp	evaluation of local action plans and evaluation of achieved results

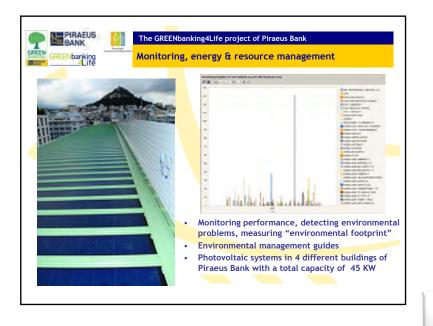




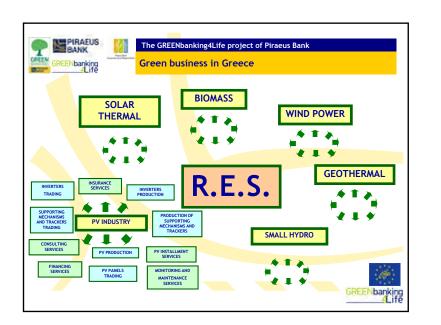


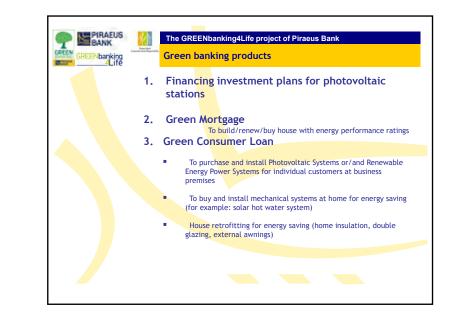






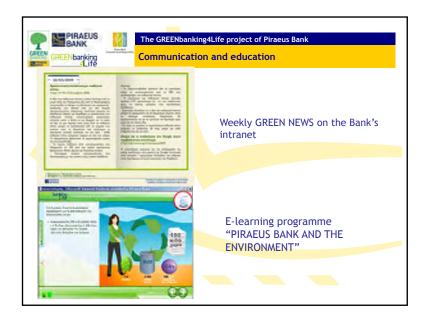




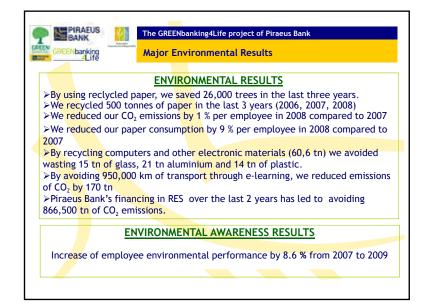




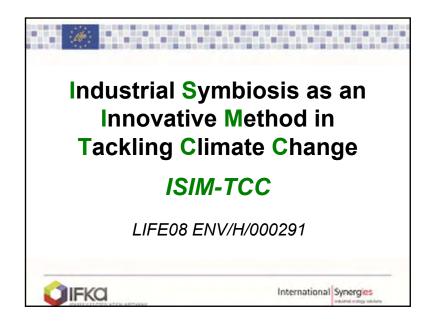




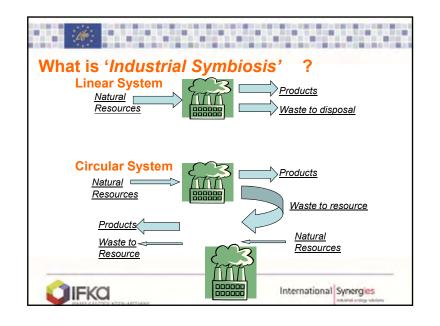


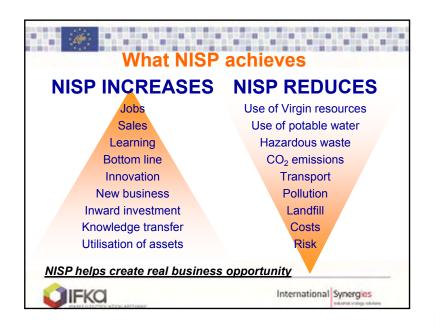














Externally Verified Outputs 2005 to 2010						
	Actual	Scenario 1	Scenario 2			
Economic						
Cost Savings to Business	£156,082,258	£458,246,774	£780,411,290			
Additional Sales for Business	£176,097,19	£528,293,757	£880,489,595			
Environmental						
Landfill Diversion (Tonnes)	7,022,384	21,067,152	35,111,920			
CO <sub>2</sub> reduction (tonnes)	6,038,059	18,114,177	30,190,295			
Virgin Material Savings (Tonnes)	9,704,711	29,114,133	48,523,555			
Hazardous Waste Eliminated (Tonnes)	363,626	1,090,878	1,818,130			
Water Savings (Tonnes)	9,569,738	28,709,214	47,848,690			
Social						
Jobs Created	3683	13,309	22,181			
Jobs Saved	5087	18,379	30,632			
<b>OIFKO</b>		Internation	al Synergies			

i a	
Europ	ie
China	The Energy Trophy - Coordination of a Pan – European energy reduction programme
China	
	Biggest industrial estate in the World €1.8m Switch Asia funding
Mexic	o January 2008 - September 2009 Establish Mexico Industrial Symbiosis Programme
Brazil	November 2008 - March 2010 Establish Brazilian Industrial Symbiosis Programme
Roma	nia February 2009 – October 2011 EU Life + Funding Application of Industrial Ecosystems principles to regional development
Hunga	
 USA	Chicago New Orleans Houston Alabama
FKC	International Synergies







This application is based on knowledge concerning, on one hand the temperature dependence of biological processes in treatment of sewage water and on the other hand new information on heat exchange between untreated and treated sewage water.

- Increased efficiency in sewage treatment (especially in the Baltic Region).
- Reduce Nitrogen emission in the Baltic sea
- Contributes to the saving of energy
- Increases production of electricity in CHP plants
- Reduced emissions of CO<sub>2</sub>.

The findings in the proposed project can be implemented both to existing and to new treatment plants and CHP plants within three to four years after its start.

ITEST

## ITEST

- \* Expected results (outputs and quantified achievements):
- Based on the pre-studies and calculations to this application it can be expected that;
- 1) The quality of the treated sewage water will be improved and the Nitrogen concentration will not exceed 10 mg/l during any season. This will reduce the outflow of N from sewage treatment plants by 35 %. Similar improvements are expected for other all areas with a similar cold winter climate.
- 2) Less power consumption in the sewage treatment plant. A reduction of about 30 % is expected for blowers and mixers while the electrical energy for pumping the sewage water through heat exchangers will consume about half of the mentioned saving in power.
- 3) Reduced costs for the treatment of sewage water in cold climate. Expected savings are 5-10 % compared to conventional sewage treatment.
- \* 4) Increased electricity output by 4-5% due to colder return water from district heating system.

#### ITEST

Develop and implement a system in which existing knowledge and technologies will be integrated to reduce the costs for sewage treatment and in parallel demonstrate that the Nitrogen objective in the Directive 98/15/EEC can be met during all seasons e.g. in the Baltic Region.

#### **ITEST - A WIN-WIN SOLUTION**

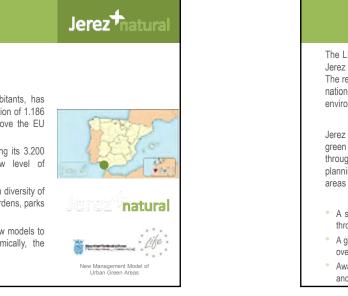
- **x** Environment-Energy-Climate
- × Make intelligent use of energy resources
- × Applicable to existing installations
- x Online results on virtual control panel
- Open for local virtual testdrive input your own variables.

















#### The present situation

The municipality of Jerez, with 205.364 inhabitants, has around 3 million m2 of green areas in an extension of 1.186 km<sup>2</sup> (15 m<sup>2</sup> of green areas per inhabitant) above the EU average (7m<sup>2</sup> per inhabitant)

This represents a fundamental value considering its 3.200 sun hours a year (295 days) and a low level of precipitations, decreasing each year.

This implies a high economic to maintain its rich diversity of ecosystems present in the big extensions of gardens, parks and green areas..

This makes necessary to design and adopt new models to make sustainable, environmental and economically, the management of the green areas.



#### Objectives

- Defining a new model of intervention in green areas management based on the innovation and improvement of the habitability of city public areas.
- Integrating green areas management policies within urban planning processes.
- Defining a procedure set that guarantees the effective management of green areas in each and every stage foreseen (planning, maintenance, monitoring assessment and follow-up).
- Developing a computer-based tool for urban trees management that simplifies the execution of the inventory of species and specimens, that also allows the follow-up of the interventions on every individual.







## Experimental Xeroscape Project aiming at the reduction of irrigation water consumption in green areas in more than 70%. Small-scale experimental biological treatment for urban trees. A larger and more complex application will be executed in the LIFE project.

Background



Jerez hatural

## Applying innovative methods for plague control of urban trees of Jerez the municipality.

- Carrying out a number of demonstration activities aimed at spreading the innovation capacity of the city council in terms of management processes, and of techniques used for the planning, follow-up of the situation and impact of the improvement of urban green areas, especially, urban trees.
- Standardizing, through the use of new technologies, urban green areas management processes and communication processes.
- Developing a model of environmental education adapted to each specific citizen communities organising different activities in order to raise public awareness of Jerez's green heritage.





