

THE SUSTAINABLE MANAGEMENT, LOCATING AND SETTLING OF THE PRODUCTIVE AREAS

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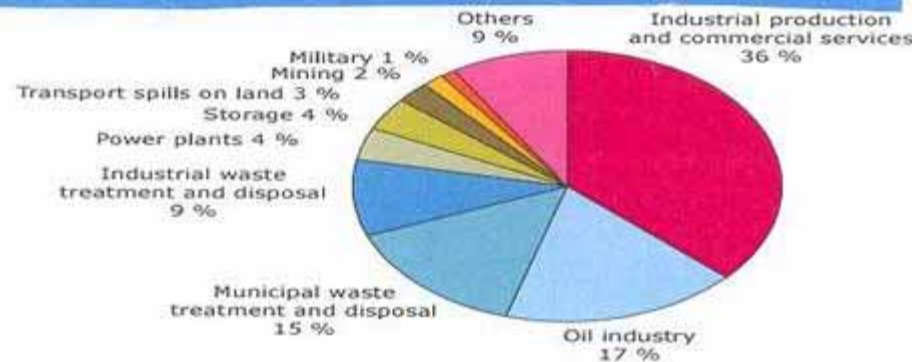
(ENEA - Italian national Agency for New technology, Energy
and the Environment)

Innovation for Sustainable Production - Bruges 22-25 April 2008



Europe's environment

The fourth assessment Executive summary

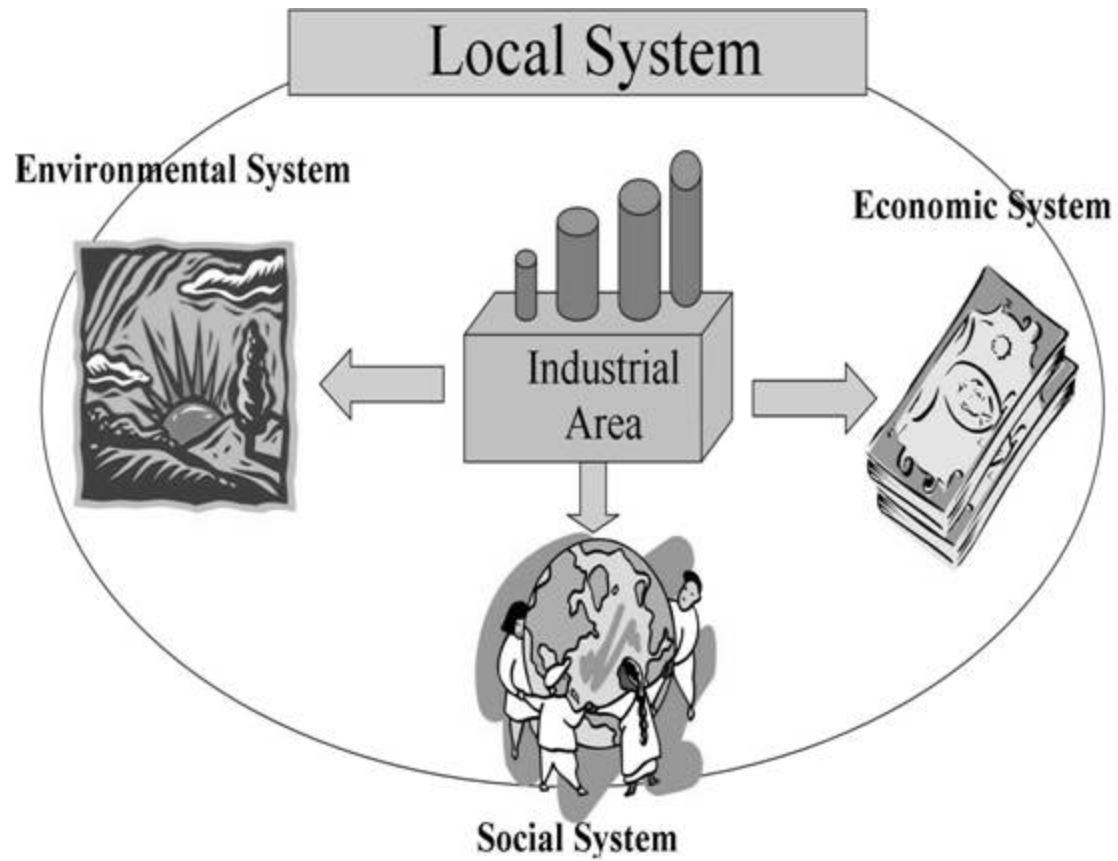


Source: Figure 2.4.2 of The fourth assessment.



Le piccole e medie imprese in Europa

	<i>Quota % delle pmi sul totale dell'economia</i>					
	<i>Numero di Imprese (in migliaia)</i>	<i>Numero di occupati (in migliaia)</i>	<i>Valore aggiunto (in mld di €)</i>	<i>Numero di Imprese (in migliaia)</i>	<i>Numero di occupati (in migliaia)</i>	<i>Valore aggiunto (in mld di €)</i>
EU-27	19.602	85.000	3.090	99,8	67,1	57,6
BE	395	1.602	83	99,8	66,6	57,8
BG	240	1.318	5	99,7	72,6	53,2
CZ	878	2.461	30	99,8	68,9	56,7
DK	202	1.129	67	99,7	66,0	64,8
DE	1.654	12.357	553	99,5	60,6	53,2
EE	38	305	4	99,6	78,1	75,1
IE	85	654	53	99,5	67,5	58,2
EL	820	2.031	44	99,9	81,9	69,6
ES	2.542	10.538	339	99,9	78,7	68,5
FR	2.274	8.834	412	99,8	61,4	54,2
IT	3.819	12.182	420	99,9	81,3	70,9
CY	43	174	5	99,9	84,3	80,0
LV	62	469	5	99,7	75,6	71,1
LT	93	619	5	99,7	72,9	58,5
LU	21	120	7	99,6	70,8	58,5
HU	556	1.783	20	99,8	70,9	50,2
MT	:	:	:	:	:	:
NL	492	3.146	146	99,7	67,6	61,5
AT	272	1.589	76	99,7	67,4	60,0
PL	1.405	5.289	59	99,8	69,8	48,4
PT	848	2.676	47	99,9	82,0	67,8
RO	410	2.463	13	99,5	60,8	48,4
SI	88	371	8	99,7	66,4	60,6
SK	42	501	7	98,8	54,0	44,5
FI	187	717	40	99,7	58,5	53,9
SE	523	1.667	83	99,8	63,2	55,6
UK	1.535	9.636	501	99,6	54,0	51,0





LIFE SIAM PROJECT

Life 04 ENV/IT/000524

SUSTAINABLE INDUSTRIAL AREA MODEL



Innovation for Sustainable Production - Bruges 22-25 April 2008



Life 04 ENV/IT/000524

The Life project "SIAM" (Sustainable Industrial Area Model) is an Italian project partially sponsored by the European Commission in the framework of the LIFE III - Environment European Programme.

The project began on October 2004 and it expired on December 2007; its cost is about 2.500.000 €, financially supported at about 50% by the European Commission.

The beneficiary is **ENEA** (National Agency for New Technologies, Energy and the Environment) with the cooperation of 17 Italian public and private partners (Universities, Local public Authorities, Private Enterprises), located in 8 industrial areas in every part of the Country.





Partners of the SIAM project



Italian National Agency for
New Technologies, Energy
and the Environment



ECO-logica srl



Municipality of Molfetta



Igeam srl



Municipality of Mongrando



Iniziative
Immobiliari



Municipality of Padova



Science and
Technology Park of
Southern Lazio srl



Consortium for Innovation
and Development Maiella
scarl



Province di Frosinone



Consortium for the
industrialisation nucleus of
Rieti-Cittaducale (ASI Rieti)



Province di Rovigo



Services Consortium 1st
Industrial Macrolotto of
Prato scarl



Servizi alle Imprese srl



Consortium Industrial Zone
and River Port of Padua



University of Cassino



CRF - Cooperativa Ricerca



University of Padua





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Fundamentals

The SIAM project *IDEA* was TO GO BEYOND THE EEA or EIP CONCEPTS to extend the “dimensional factors” characterizing the EEA not only to the ecological factors (but also economic, social and other), considering that a well ecologically equipped industrial area could not be in itself an attractive area (for the people living conditions and for the enterprises cost-benefits) and then it was necessary:

- to study the “ecological” situation of the industrial areas;
- to define a new model (set of parameters) for a better (EU fundamental directives accordance) and more complete (not only ecologically) design (or transformation) of a “sustainable” industrial area (especially SME’s area);
- to test and to demonstrate the “parameters application” in 8 industrial areas (project partners) with the utilization of shared methods and results;
- to set out the “guidelines” for a methodical future utilization of the model to design or to transform the IA or EA in SA;
- other needs (formation of new SA experts, dissemination)



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Project Tasks

- X Study on Ecologically Equipped Areas in Italy and Eco Industrial Parks experiences in Europe;**
- X Investigation on the European Environmental Policy Instruments applicable to Ecologically Equipped Industrial Area (EMAS, SEA, Environmental accounting) in the Definition of a Sustainable Industrial Area Model;**
- X Experimentation with the Model in eight project industrial areas: Integration of different Environmental Policy Instruments, Involvement of Interested Parties and EMAS registrations of three Organizations;**
- X Guidelines for applying the Sustainable Industrial Area Model;**
- X Training of new professional expert;**
- X Dissemination.**



Objectives and strategies for sustainability

Environmental Themes	
Sustainable use of the natural resources (energy, water, materials)	<ul style="list-style-type: none"> . Water and energy efficiency . Adoption of the Best Available Techniques, Clean Technologies . Maximisation of the use of renewable resources . Preference for the use of renewable local resources . Sustainable building . Green purchases . 'cascading' use of the resources (energy, water, materials) . ECODESIGN of products and services . Dematerialisation
Reduction of emissions (air, water, ground, underground, electromagnetism, noise)	<ul style="list-style-type: none"> . Adoption of the Best Available Techniques, Clean Technologies . Green purchases . ECODESIGN of products and services . Measures for the mitigation of acoustic and luminous pollution
Reduction in waste production	<ul style="list-style-type: none"> . Prevention of waste production . Closure of the materials cycles (recovery, re-use, recycling) . Green purchases . ECODESIGN of products and services
Sustainability for people and goods	<ul style="list-style-type: none"> . Fostering the use of efficient means of transport (collective local transport, car-sharing, car-pooling, ...) and having a reduced environmental impact (electric vehicles, methane-fuelled, bicycle mobility, ...) . Optimisation of the circulation internal to the area and the configuration of the parking areas (mobility management) . Taking care of the area's connections for the external transport networks (roads, railways, ...) fostering the intermodality of the transfers
Quality and diversity of habitat and landscape	<ul style="list-style-type: none"> . Sustainable building . Optimal management of the ecosystem and the area's biodiversity . Guaranteeing the quality of the open spaces



Objectives and strategies for sustainability

Economic Themes	
Growth in the value and the profitability of the companies settled there	<ul style="list-style-type: none">. Area Marketing. Organisation of the area's events. Abatement of costs by means of the creation of efficient shared area services (surveillance, logistics, waste and effluent management, ...). Technological innovation
Attracting economic resources	<ul style="list-style-type: none">. Improvement of the infrastructures. Computerisation of the area. Creating the conditions conducive to the investments. Area Marketing. Participation in congresses, events, in a combined manner
Economic progress of the local community	<ul style="list-style-type: none">. Purchasing of local goods and services. Fostering the creation of local service companies



Objectives and strategies for sustainability

Social Themes	
Improvement in the working conditions	<ul style="list-style-type: none"> • Prevention of job accidents • Improvements of the healthiness of the working environments • Predisposing of suitable area services (canteen, nurseries, bank, sports facilities)
Education and training	<ul style="list-style-type: none"> • Development of educational programmes addressed to the Local Communities • Professional training • Information and cultural activities
Reinforcing cultural identity and the area's vocation	<ul style="list-style-type: none"> • Organization of the area's events • Participation in congresses, events, in a combined manner
Equity, solidarity and social cohesion	<ul style="list-style-type: none"> • Promotion of the principles of corporate social responsibility • Easing the setting up of business incubators • Collaboration of the Area with the Local Bodies to: <ul style="list-style-type: none"> - fostering full employment; - improving the community's security; - ensuring that the accommodation and the living conditions are of good quality and guarantee social integration.

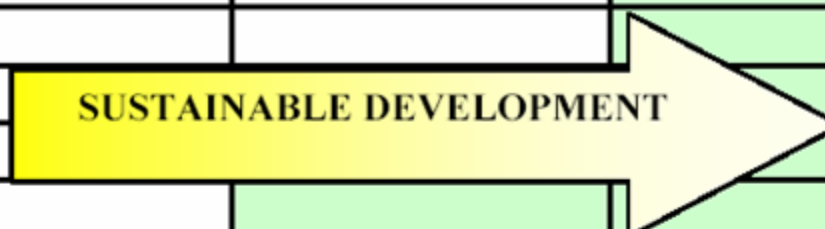


Objectives and strategies for sustainability

FUNDAMENTAL OBJECTIVE	KEY STRATEGIES
Transversal Themes	
Normative Compliance	<ul style="list-style-type: none"> • Promotion of the Environmental Systems • Compliance training and audits
Optimisation of the use of the territory	<ul style="list-style-type: none"> • Evaluation of the alternative uses as compared with the industrial destination of the area (only for the new settlements) • Optimisation of the area project • Sustainable building • Optimisation of the interactions with the outlying areas (residential areas, coastal areas, archaeological sites, protected areas, ...)
Integration, acceptability and sharing of the area's objectives with the local community	<ul style="list-style-type: none"> • Participation in environmental, economic, social, training projects for the community of membership • Correct and transparent communication to the population • Participation of the local community in the decision-making processes • Integration of the social, economic and environmental issues at the area level
Technological Innovation	<ul style="list-style-type: none"> • Computerisation of the area • Fostering the access of the companies to qualified consultancies • Incentives for the settlement of high-tech companies and R&D centres • Internal training
Management of the safety and the emergencies	<ul style="list-style-type: none"> • Analysis and management of the risk at the area level • Area safety plan (fire, etc.)

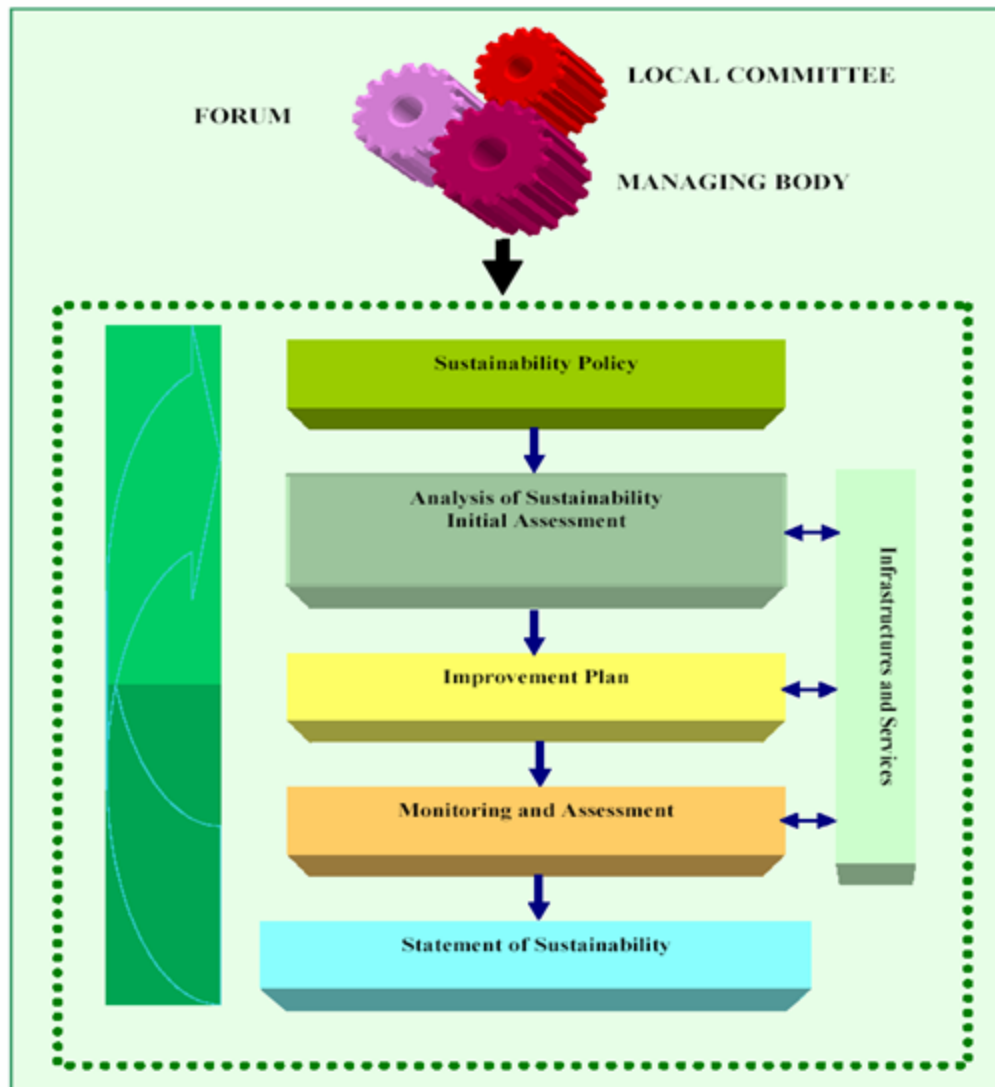


ELEMENTS OF SUSTAINABILITY OF AN INDUSTRIAL AREA				
PARTICIPATED AND SHARED PROCESSES	Sharing with the interested partners			
	Participation of the interested partners			
SYSTEMIC MANAGEMENT	Formalised System of Management			
ACCEPTANCE IN THE LOCAL SYSTEM	Environmental			
	Social			
	Economic			
INFRASTRUCTURES	Social Improvement			
	Environmental and protection and prevention			
	Economic Development			
MANAGEMENT	Management Elements			
TYPE OF PRODUCTIVE AGGREGATION		INDUSTRIAL AREA	ECOLOGICALLY EQUIPPED AREA (D. Lgs. 112/98)	SUSTAINABLE INDUSTRIAL AREA





Graphic representation of the organisational model of SIA





Points of contact between the SIAM requisites and the voluntary instruments

	Regulations CE 761/2001 (EMAS)	ISO 14001:2004	AGENDA 21L
Managing Actor	4.4.1 (organisational set-up) 4.4.2 - 4.4.3 (Training and Communications) 4.4.4 – 4.4.5 – 4.5.4 (Documentation and Registrations) 4.5.3–4.5.5 (Non-compliance and Internal Inspection Checks)		
SIA Policy	4.2 (Environmental Policy)		
Initial Assessment	-	-	
Sustainability analysis	Art. 3 comma 2 point a) (Initial Environmental Analysis) Enclosure VII	4.3.1 (Identification and assessment of the environmental aspects)	Report on the state of the environment
Improvement Plan	4.6 (Re-examination by the Management) 4.3.3 (Environmental Objectives and Plan)		Local Action Plan
Infrastructures and	4.4.6 – 4.4.7 (Operative Control and Emergencies) 4.3.3 (Environmental Objectives and Plans)		
Monitoring of the performances	4.5.1 (Surveillance and Measurements)		
Statement of Sustainability	Art. 3 comma 2 point c) (Environmental Statement) Enclosure III	4.4.3 (Communication)	
Participated and shared processes			Agenda 21 L



LINEE GUIDA PER L'INSEDIAMENTO E LA GESTIONE DI AREE PRODUTTIVE SOSTENIBILI

L'esperienza del Progetto Life - SIAM

Mario Tarantini, Alessio Di Paolo, Arianna Dominici,
Augusto Peruzzi, Marco Dell'Isola





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The conclusions of the SIAM project

The project results made it possible to solidify a Model of Sustainable Industrial Areas that can be replicated elsewhere in the EU and outside Community territory

The project's environmental benefits are the contribution in introducing sustainability criteria in setting and developing industrial areas.

This produces a reduction of impacts from organisations in the industrial area adopting the proposed model of sustainability. More particularly, these benefits will be secured through the very effective environmental management system adopted by the organizations managing the industrial areas and the commitment of local authorities in using a very thorough procedure for locating and planning industrial area.

Moreover, all the sustainability processes that include territorial analyses, review and programme, as well as the Forum activities, provide increasing knowledge of the state of the environment and introduce mechanisms that will make the model transparent, credible and shared.

“Practical” project’s results: 3 EMAS registrations, a qualified formation course for “Experts of sustainable industrial areas”, elaboration and validation of two management softwares for transport and energy aspects in the areas.



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