





SUSTAINABLE DEVELOPMENT PLAN

Progress

OUR GOAL

"Action for peace and progress" (USC Strategic Plan)

OUR UNDERTAKING

To teach people and produce science and technology based on sustainable criteria, promoting a sense of responsibility for being familiar with, preservation and enhancement of the environment in all the members of the University Community.

OUR CONTRIBUTION

A model, which can be exported to the rest of society, integrating the environment in the University.

Our science and our resources at the service of society, to help to create a sustainable development model.

INTRODUCTION

Universities are the natural setting for knowledge, research and teaching. They therefore act as instruments which transform society and intellectual development and promote freedom of thought. This role implies a social responsibility which cannot be ignored and which includes responsibility for sustainable development and, in this context, the environment.

The key role of the educational system, and therefore of universities, in environmental awareness, means that we are witnessing the growing integration of environmental aspects in all our disciplines, even in our management systems. But it is not only a question of defining syllabi, but affects university life in its entirety, in the certainty that living in an environment concerned with the environment creates attitudes, skills and rules of conduct which can be exported to the rest of society, especially when they are reinforced by awareness and information campaigns.

Universities thus appear to have their own responsibility related to spreading environmental awareness and providing solutions to conflicts in the field. They must improve human activity in relation with nature and ensure better management of natural resources. This has given rise to different international, national and even Galician initiatives which are being carried out in the long term. They significantly involve the United Nations, and more specifically UNESCO: MAB programme, intergovernmental the conferences on environmental education (with special emphasis on those held in Tbilisi in 1977 and Moscow in 1987, since they referred particularly to the role of universities and higher education); the meetings held in Paris, Toronto and even Santiago de Compostela; the Stockholm, Rio and Johannesburg conferences; the Tesalonika conference. More recently, we have witnessed the Talloires Declaration of 1991, which gave rise to the Association of University Leaders for a Sustainable Future, and the University Charter for Sustainable Development of 1992 published by the Conference of European Rectors; similar importance is given to the issue in the Plan of the International Organisation of Universities for Sustainable Development and the Environment (OIUDSMA) created in 1996 by Latin American universities; the Environmental Management for Sustainable Universities Conference held in 1999 in Sweden, and the UNESCO Network for Reorienting Teacher Education towards Sustainability, created in October, 2000 in Toronto. Periodical publications include the *International Journal of Sustainability in Higher Education*.

Strategic initiatives arise in Spain and are included in the White Paper on Environmental Education edited by the Ministry of the Environment. They include the Galician initiative on Environmental Education, with specific sections addressing higher education and universities; the ACES network of Curricular Guidance for Higher Education, established in 2000 in order to present a project to the European Union's Alpha programme, for which the contract was signed in December 2001, involving 5 European and & Latin American universities; and finally the creation, in September 2002, of a CRUE (Spanish University Rectors Conference) task force on environmental quality and sustainable development, chaired by the Universidad Autónoma de Madrid and including environmental initiatives developed in universities like Alicante, Autónoma de Barcelona, Autónoma de Madrid, Girona, etc.

All these initiatives are established in the context of what is established by the European Union Constitution Treaty, resolutions and programmes with regards to the need for sustainable development. Specifically, the *Towards sustainable development* programme approved by a Resolution of February 1, 1993, emphasises the role and responsibility of organisations regarding environmental protection, demanding a wider range of protective instruments and a proactive approach going further than mere compliance with legislation.

In line with the above, the USC is aware of the need to include sustainability and environmental ethics in all its activities, and it has decided to accept the responsibility of producing education, science and technology based on sustainability criteria, promoting a sense of responsibility for preserving and enhancing the environment throughout the university community. In order to prevent these proposals from being mere general and theoretical principles, the USC has edited a SUSTAINABLE DEVELOPMENT PLAN as a management tool which, in addition to representing the USC's commitment with this type of development, will make optimal use of the resources available and reach other institutions and society in general.

THE SUSTAINABLE DEVELOPMENT PLAN

The USC is involved in the culture of environmental sustainability arising in the Strategic Plan by means of <u>ACTION FOR</u> <u>PEACE AND PROGRESS</u>, since progress and sustainability must go hand in hand.

The USC was one of the first European universities to introduce environmental subjects when, in 1982, they became part of the Pedagogy course syllabus, and were later included in Educational Science. The subject is no longer only included in first and second cycle degrees (Agricultural Engineering, Forest Engineering, Chemical Engineering, Biology, Pharmacy, Chemistry) but also in a postgraduate course on Environmental Engineering. There are also a broad range of doctorate programmes from everything from technical and experimental fields to legal-social areas, and participation in the Inter-university Programme on Environmental Education.

With regards to environmental management, the USC pioneered the implantation of an efficient energy management system based on the development and use of the Energy Optimisation Plan (POE), an initiative that placed the University in a leading position in the field. Concern for waste prevention and processing led the USC to create the HAZARDOUS WASTE MANAGEMENT UNIT, and agreements with companies engaged in waste paper and cardboard collection. Promoting quality of life on the campus, with respect for its ecological heritage being compatible with university use, required a *Mobility Study* to identify the solutions required to recover natural areas. This included promoting public transport, reorganising parking facilities, enhancing pedestrian thoroughfares, recovering areas populated with trees and bushes, and creating appropriate habitats for the development of urban and peri-urban fauna.

Quality of life is closely linked to appropriate working conditions, guaranteeing the safety and health of all of us who work in the University. The USC pioneered the undertaking to apply risk prevention for its employees, which has been in force since before the appearance of Law 31/1995 and includes Medical Services, X-Ray Safety and Protection Services. This was reinforced by the establishment of the Safety and Health Committee and the Risk Prevention Department (SPR), created by the Board of Governors on December 22, 1998.

The SPR is divided into the following divisions: Health Monitoring, X-Ray protection, Safety, Waste Management, Industrial Hygiene, Ergonomics and Psycho-sociology. Its main goal is the conditions, ongoing improvement of staff working including prevention in all teaching and research departments on all levels. This goal becomes even more important if we consider the University's social function, providing the conditions for the USC to become a model of how to promote better working conditions, and to make the most of its status to spread a preventive culture among students.

The SPR is in charge of planning prevention activities. It has made an initial assessment of the risks involved in our work, establishing the steps to be taken to remove avoidable risks, quantify inevitable risks and establish procedures for when such risks arise. In this context, it performs specific studies on environmental conditions such as noise levels, emissions, etc., and trains employees to be better aware of the scope of risks and how they can be prevented and avoided.

In the awareness field, the University made a considerable contribution to the *Galician Environmental Education Strategy* document, developed by the Department of the Environment. It has also created GREEN GRANTS aimed at promoting environmental enhancement activities within the University community.

All these initiatives, which are indeed valuable, require coordination to reinforce them and set them in line with the strategic objectives of the USC, so that they are no longer the result of activities by certain individuals and groups, but will involve us all, according to corporate goals and priorities. This leads to the need to edit a Plan.

The Sustainable Development Plan is intended to be the USC's response to social demands for specific institutional action to improve the environment, in the certainty that the University's environmental management model is of value because it acts as an example for other institutions and for the role it plays in the education of future professionals, providing and transmitting new, environmental-friendly, models of conduct. With this Plan, the USC places its science, technology, teaching and research resources at society's disposal, to help to create a sustainable development model

FROM THE GENERATION OF KNOWLEDGE:

- Reinforcing the environmental approach in its syllabi and promoting environmental awareness throughout society.
- Engaging in more intensive environmental research aimed at the development of science and technology which can be transferred to society to improve the environment and sustainability.
- Training environmental management experts by introducing specific programmes in our master degree courses and postgraduate studies.

FROM MANAGEMENT:

- Reducing the environmental impact of our activities, by means of resource preservation policies, pollution prevention, optimisation of energy, recycling and correct waste treatment processes.
- Using our ecological heritage as an economic and social asset which, as such, must be preserved and reinforced.

The ultimate goal is to define an integrating environmental model in the University which can be exported to the rest of society. The Plan therefore not only arranges its activities according to management training criteria, but it also introduces the participation and involvement of the university community in such management. Good environmental education is not possible at University if it is not reinforced by correct management of environmental aspects, and sustainable environmental management at university will not work if it does not involve the active involvement of the entire university community.

DESCRIPTION OF THE PLAN

To obtain the involvement of the entire university community, the Plan was divided into three major blocks based on its long-term goals, with projects for action to be taken, including existing USC initiatives which are acknowledged and strengthened.

Block 1:GENERATION OF ENVIRONMENTAL KNOWLEDGE AND EDUCATION

With this block, the USC will attempt to integrate respect for the environment and its sustainability in education, significantly increasing the options for studying environmental issues. Opportunities for the growth and expansion of new subjects (Environmental Science, Environmental Engineering) has to be identified, together with environmental education in 1^{st} and 2^{nd} cycle programmes, and training aimed at practising professionals: we will promote the study and knowledge of environmental systems, especially inorganic systems, water, air, soil and biota, playing an active role in the characterisation of their status, distribution, sensitivity, evolutionary trends, risk of degradation and the possibility of their recovery and sustainable use. These activities are carried out on a universal scale, but with particular reference to the USC's closest environment (Galicia, Spain and European Union).

In the research field, the USA will promote the search for scientific and technological alternatives aimed at solving the problems derived from human activity in the environment, encouraging multidisciplinary activities and strengthening the University's presence in bodies and institutions with environmental responsibilities.

Block 2:ENVIRONMENTAL PLANNING, MANAGEMENT AND ASSESSMENT

The projects included under this heading are involved in promoting and developing practices aimed at maximising the environmental benefits and minimising the environmental risks associated to university activities. Environmental management involves an education aspect for all the members of the community, which has been taken into account when planning activities on this level; therefore, results are not only assessed from an economic or environmental perspective, but also in relation to educational efficacy, not restricted to the university community. Results must be seen by those with whom the University is related, to facilitate transfer of the model to other public or private institutions.

Block 3:ENVIRONMENTAL AWARENESS AND INVOLVEMENT

Environmental awareness in the university community is fundamental to obtain a true improvement. Therefore, one priority is the creation of ecological awareness encouraging the university community to take part in activities aimed at environmental enhancement of the University in particular, and society in general.

Consequently, the Plan's beneficiaries will not only be the university community, but at least all those who are directly related to this community:_ local and regional institutions, businesses, other universities... who must benefit from the activities performed by the USC, perceiving them as improvements for themselves. It is therefore essential to publish spread news about these activities, not only by publication but by working together with people and public and private organisations, helping them to relationship with the environment improve their own and sustainability. In this respect, it is fundamental to establish information and collaboration networks aimed at sharing experiences related to the key aspects of the Plan.

COORDINATION OF THE PLAN

The Plan's management will be shared among the different field without the need to create new structures. Overall coordination will be the responsibility of the Vicerreitorado de Calidade e Planificación Estratéxica, and management will be the responsibility of the different units or departments affected by the proposed activities.

The Plan is a living document which will evolve over time, as projects are completed and new projects are created to respond to new demands from the USC. It therefore has to be assessed and monitored, and this will be the responsibility of the QUALITY AND STRATEGIC PLANNING COMMISSION OF THE CONSELLO DE GOBERNO, which may also propose new projects and consider sponsorship and funding alternatives.

To measure the efficacy of the proposed activities and success in attaining our goals, the Plan establishes a series of indicators to assess and, according to the results, establish new activities or alter existing activities. This is of the essence if we are to guarantee the validity of the identified goals.

Half the Plan will be funded by the USC and the other half by external contributions, both from other public authorities and private sponsors.

SUSTAINABLE DEVELOPMENT PLAN								
INDICATORS	RESPONSI- BILITY	FUNDING						
INDICATORS purses designed purses available, if applicable syllabi including environ- education as a subject grees including introduction wironment as a subject udents registered academically directed final bjects with an environmental h greements signed students obtaining practical ace	VR Academic and Staff Structure. VR Lugo Campus Coordination. Social Council.	Department of the Environment. USC. External.						
eac		ching staff training activi-						

	SUSTAINABLE DEVELOPMENT PLAN									
BLOCK	PRO- JECT	GOAL	ACTIVITY		INDICATORS	RESPONSI- BILITY	FUNDING			
	at provid- echnicians	d at provid- technicians	 Third cycle: 1. Design and internal and external map of the environ mental training available. 2. Improve and coordinate the doctorate courses available. 		Nº of studies conducted					
education		d courses available with initiatives aimed at provid- professional recycling of environmental technicians id managers	in relation to the environment and sustainability, tend ing towards a single programme with a global proposa considering interdisciplinary aspects and encouraging cooperation between those responsible for existing pro	l (Nº of courses created					
	training	e with init ling of en	grammes. 3. Design new inter-centre, inter-area and inter disciplinary initiatives.	-	Nº of students registered	iructure. on.	ent.			
l environmental	and ongoing training	ses available sional recyc agers		•	N° of professionals registered	graduate St Cycle. Coordinati	Environmo			
wledge and	postgrad aı	es and courses av and professional and managers	 Postgraduate courses: 4. Improve and complete the courses and master degree available in relation to training environmental expert and memoagers 		$N^{\rm o}$ of collaborating companies and institutions	cademic and Postgraduate Struc VR Third Cycle. VR Lugo Campus Coordination.	Department of the Environment. USC. External.			
Generation of knowledge and	Third cycle, postgrad	Improve the variety of maseter negrees and courses available with initiatives aimed ing permanent training and scientific and professional recycling of environmental te and managers	and managers. 5. Analyse the viability of providing "in Company courses aimed at training company environmenta managers.		$N^{\rm o}$ of initiatives undertaken, if applicable	VR Academic and Postgraduate Structure. VR Third Cycle. VR Lugo Campus Coordination.	Depart			
G		Improve the variety of mase ing permanent training and	 4th cycle: 6. Introduce environmental subjects in the fourth cycle 	•	The inter-disciplinary nature of the initiatives undertaken (%)					
		Impro ing pe	courses available.							

BLOCK	PRO- JECT	GOAL	ΑCΤΙVΙΤΥ	INDICATORS	RESPONSI- BILITY	FUNDING
education		rch in environmental	 Promotion of research: Facilitate environmental research. Establish multi-disciplinary research projects related to the environment and sustainability. Establish agreements with the public authorities to maintain stable lines of research on issues of considerable environmental interest. Reinforce publications related to environmental issues (magazines, monographs, books) edited by the USC. 	 N° of participating research groups N° of projects funded by environmental lines/total projects funded How inter-disciplinary the projects are (%) N° of publications on environmental issues 		evelopment. External.
knowledge and environmental	Research	t of lines of basic and applied research in environmental sustainability	 Infrastructures: Create university institutes specialising in environmental science, technology and management. Reinforce and create new laboratories capable of environmental monitoring in collaboration with the public authorities. Edit the laboratory credential plan (ENAC) 	 N° of institutes created N° of laboratories created N° of laboratories accredited 	VR Academic and Staff Structure. VR Research and Innovation. VR Lugo Campus Coordination. VR Technologies and Infrastructure.	USC. Department of the Environment. Department of Food Policy, Farming and Rural Development. Denartment of Innovation Industry and Trade External
Generation of		Promote the development of lines	 Institutional presence: 8. Increase the institutional presence of the USC in bodies with environmental responsibilities as a way of ensuring our place in this field. 9. Ensure the institutional stability of the advisory services provided to companies and/or authorities by means of figures representing the USC. 10. Increase the presence of the USC in the discussion and definition of the environmental aspects of framework research programmes. 	 N° of bodies with institutional presence of the USC % agreements signed with the authorities and businesses/total project funded % participation of USC staff in environmental management bodies 	VF VR	D Department of F Department of

SUSTAINABLE DEVELOPMENT PLAN								
BLOCK PRO- JECT	GOAL	ACTIVITY	INDICATORS	RESPONSI- BILITY	FUNDING			
Environmental planning, management and assessment Design and town planning	Improve infrastructures and services by introducing environmental criteria in campus plan- ning and development	 Design and town planning: Introduce environmental and bioclimatic criteria in building design. Plan urban growth areas. Edit space optimisation/recycling programmes. Selection of the most appropriate vegetable species, design of new areas and promotion of biodiversity on campuses. Improved access: Study mobility on campuses; monitoring and analysis of transport on campuses. Build roads and reurbanise. Increase pedestrian areas and condition existing ones, planning and restructuring parking facilities. Promote public transport and ecological means of transport. Remove architectural barriers from buildings and streets. 	 specifications for contracts N° of planning agreements % of campus planning projects based on environmental criteria % of optimised facilities N° of programmes to recycle areas N° of species inventoried N° of diversity preservation programmes In N° of parking spaces and mean occupancy rate % of parking facility projects based on environmental criteria N° of agreements with public 	VR Technologies and Infrastructures. VR Lugo Campus Coordination. Management.	USC. Department of the Environment. Department of Food, Farming and Rural develop- ment. Department of Territorial Policy, Publis Works and Housing. Santiago Council. Lugo Council. Deputación da Coruña. Deputación de Lugo.			

BLOCK	PRO- JECT	GOAL	ΑCΤΙVΙΤΥ	INDICATORS	RESPONSI- BILITY	FUNDING
Environmental planning, management and assessment	Energy management	Optimise management of available energy resources,	 Energy efficiency: Reduce water consumption and/or control waste water (more effective irrigation mechanisms, tap timers, closed cooling systems) Assess the energy situation and study the complete im- plantation of the EOP on the campuses of Santiago and Lugo. Define and implant an EOP management system. Redefine the USC maintenance model by editing a com- prehensive maintenance plan for all buildings and facilities which, besides performing repair work, also includes preventive maintenance and the optimal use of energy. Establish new categories to be designed to cover the needs derived from the system's implantation. Assess the viability of using renewable sources of en- ergy. Install a system to measure emission levels. Assess and control environmental indicators relating to air quality.	 % reduced water consumption; water for irrigation % of recycled water used for irrigation N° of waste water control systems implanted OEP management system defined N° of employees involved in OEP management % restructuring of the maintenance area % reduction in incidents due to breakdowns % reduction in medium and high risks derived from maintenance shortcomings N° of viability studies commissioned N° of studies conducted for the implantation of renewable sources of energy Emission level metering system Environmental indicator control panel 	VR Technologies and Infrastructure. VR Students. VR Lugo Campus Coordination. Management	USC. Department of the Environment. Department of Food, farming and Rural Development. Department of Territorial Policy, Public Works and Housing. Galician Energy Institute. Santiago Council. Lugo Council. Deputación da Coruña. Deputación de Lugo.

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BLOCK	PRO- JECT	GOAL	ΑCΤΙVΙΤΥ	INDICATORS	RESPONSI- BILITY	FUNDING			
ental planning. Management and assessment	Environmental quality	Reduction of the environmental impact caused by USC activities	 Waste reduction: Increase waste reduction, recycling and re-utilisation processes Reutilisation and composting of vegetable waste generated at the USC (gardening activities, pruning) Edit value plans for the waste and by-products generated by the University for which disposal is difficult. Edit and implant a plan to reduce waste to a minimum and process hazardous waste. Waste management: Provide integral management of toxic, hazardous, biological and radioactive waste. Weste management: Provide integral management of waste management plan (paper, ink, batteries, non-polluted glass) Obtain the qualification of waste manager for the Waste Collection Department. In collaboration with the competent authorities, establish a programme for collecting waste from small producers not related to the USC. Create clean points to collect non-hazardous household waste. 	 planted N° of value plans edited N° of minimisation plans implanted % waste production by type N° of reduction programmes undertaken- N° of waste management systems implanted N° of selective collection systems implanted 	VR Technologies and Infrastructures. VR Students. VR Lugo Campus Coordination. Management. Department of Risk Prevention.	USC. Department of the Environment. Department of Innovation, Industry and Trade. Santiago Council. Lugo Council.			
Environu		Reduction of I	 Build a waste storage facility (Santiago and Lugo campus) Environmental management: Progress towards the implantation of the Community environmental management and audit system (EMAS) and obtain ISO 14001 Certification for the Waste Collection Department. Introduce environmental criteria in University contracts and material provisioning. Involve the USC in local Agenda 21. 		VRL VRL	Depa			

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BLOCK	PRO- JECT	GOAL	ACTIVITY	INDICATORS	RESPONSI- BILITY	FUNDING			
Publilcation, participation and awareness	Green classroom	Increase awareness of the university community, involvied in internal and external environmental projects	 Volunteer work: Create the "Green Classroom" to coordinate student activities related to environmental awareness and improve quality of life in general. Create the figure of "Environmental volunteer". Green grants for students. Train environmental volunteers and scholarship winners. Promote internal and external environmental volunteer projects. Responsible consumption: Promote energy saving campaigns aimed at responsible energy consumption. Promote the consumption of ecological <i>Fair Trade</i> products among the university community. Promote the use of ecological and <i>Fair Trade</i> products in the cafeterias. 	 N° of volunteers N° of grants N° of activities performed N° of participants in the activities N° of projects developed 	VR Technologies and Infrastructures. VR Students. Management. VR External Communication and Protection. VR Lugo Campus Coordination.	USC. Department of the Environment. Department of Family. Youth, Sport and Voluntary work, Women and Youth. External.			

BLOCK	PRO- JECT	GOAL	ΑСΤΙVΙΤΥ	INDICATORS	RESPONSI- BILITY	FUNDING
Publication, participation and awareness	Internal and extternal publicity of the activities	Spread the culture of environmental quality	 In the university community: Establish training programmes for research staff, encouraging the use of environmental criteria in research projects. Establish an environmental training line encouraging the use of environmental criteria in USC service provisioning. Promote comprehensive publicity activities Encourage inter-university publishing projects to publish educational and scientific materials to be used as educational aids for the initial and ongoing training of teachers. Promote the establishment of non-smoking areas. From the university community to society: Create a web page. Participate in environmental forums. Create an inter-university information network in relation to environmental issued, to make the most of the documentary and bibliographic resources available in Galician universities, and provide Galician society and other public and private institutions with the possibility of making use of such resources. Provide incentives for the Natural History Museum and its activities. Participate in the CRUE task force on environmental quality and sustainable development, and in other university networks that may be established for this purpose. 	 N° of courses available/total courses N° of attendants/total attendants at the training programme N° of activities N° of participants N° of publications % space set aside for non-smokers in university cafeterias, canteens and residences N° of visits to the web page N° of networks created % participation in environmental forums N° of activities in the museum % impact of the activities performed 	VR Students. VR Tecnologies and Infrastructures. VR External Communication and Protection. VR Research and Innovation. VR Lugo Campus Coordination. Management.	USC. Department of the Environment. Department of Family, Youth, Sport and Voluntary Work, Women and Youth. External.

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BLOCK	PRO- JECT	GOAL	ΑCΤΙVΙΤΥ	INDICATORS	RESPONSI- BILITY	FUNDING			
Publication, participation and awareness	Plan coordination and monitoring	Coordinate and develop the Plan	 The Plan will be coordinated by the Vicerreitorado de Calidade e Planificación Estratéxica. Assessment and monitoring will be conducted by the Qual- ity and Strategic Planning Commission of the Consello de Goberno. 		VR Quality and Strategic Planning.				





