ATENEO VERDE
Unicusano University goes green

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A BLUEPRINT FOR SUTSAINABLE ENVIRONMENT

OUR CONTRIBUTION

For several years now there have been doubts whether we can unconditionally pursue our technological development and set no limits to our economic growth, and today more than ever, these doubts have become certainties. The world's natural resources are not inexhaustible and they cannot continue to be misused.
The effects of their unlimited use are extremely negative to the point where the future of human life is endangered.

The reduction in the ozone layer, acid rain, the overheating of the planet are emergecies on a global scale that go beyond the concern of any individual country and which are threatening everyone in the world. Faced with this scenario, industries, companies and governments all over the world, without neglecting their economic purposes and the creation of welfare, are progressively becoming aware of the dangerous impact of their activities on the environment, and are taking steps towards the safeguarding of the ecosystem.

Universities, which are the training ground for the future professionals and managers of tomorrow, play an important role in educating people to respect the environment and in encouraging good practices and projects aimed at eco-sustainability.
Universities must become "laboratories" , where the need to protect the environment leads to opportunities for developing new products, new services and new businesses aimed at genuine sustainability in all its aspects.

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A GREEN UNIVERSITY

ENVIRONMENTAL FRIENDLY

OUR COMMITMENT - The University has always been swift to encourage environment-friendly attitudes, by making its students and staff aware of the issue by the use of "good practice": projects and study assignments that aim to reduce our environmental footprint – the impact that our human activities have on the balance of the earth's ecosystem.

OUR MISSION - The University's objectives are to educate "tomorrow's professionals" into becoming citizens who are fully aware of, and respectful of, the world around them and its limited resources. We aim to teach not only abstract notions but to educate our students into environment-friendly behaviour by focussing on our impact on the ecosystem and how to protect it.

OUR INNOVATIONS - Niccolò Cusano University is a kind of laboratory where practical measures are taken on a daily basis towards the sustainability of our planet's environment. In conjunction with our Department of Engineering, we have reserved part of the funds destined for research to create environment-friendly schemes in the field of transport and the measurement of CO2 emissions.

OUR GREEN PHILOSOPHY

The very fact that Unicusano University is an on-line institution means that it was "born green" by nature; all the lessons take place on line in digital form, and the provision of interactive video lessons, slides, tests and e-books mean that students can study without the need for materials printed on paper. This eco-frendly set-up means a significant daily reduction in the use of paper, which leads to fewer trees being cut down, less waste of water needed to produce paper, less fuel used in its transportation, and thus a reduced impact of CO2 emissions on the environment.

Furthermore, the fact that our students can follow lessons using portable devices such as tablets and smartphones also means that they have very little need to travel to and from campus, and this in turn helps reduce the overall level of CO2 emissions.

We have gradually added further new tools and initiatives designed to limit any negative effects on the environment by the university – an "ecosystem-oriented" focus aimed at making the university population aware of the need to respect the world we live in.

GREEN ACTIVITIES AT UNICUSANO

THE ATENEOVERDE.IT PORTAL

Niccolò Cusano University has set up the portal Ateneoverde.it which contains our sustainability programme. Its aim is to encourage environment-friendly behaviour by creating projects and activities designed to make sustainability a form of lifestyle.

Ateneoverde.it is a site which offers you the opportunity to lead a 'green lifestyle.'
It contains practical advice and useful ideas to enable you to become an environment-friendly consumer, and includes information on green events, activities and workshops taking place throughout the country. Its aim is to give anyone, who is interested in gaining more information on protecting the environment, the chance to get in touch, face to face, with the experts in the subject.

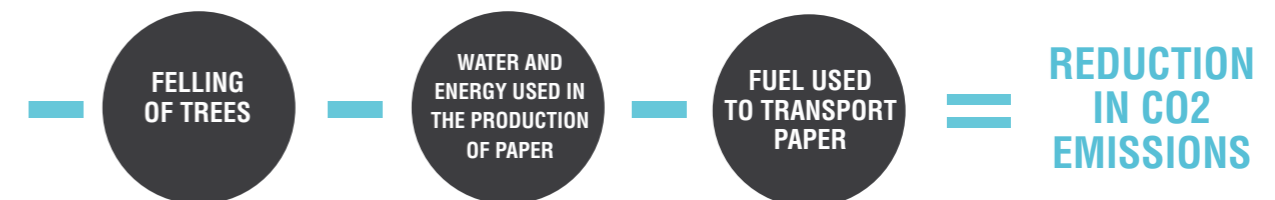For more information, visit the site:

www.ateneoverde.it

SAVING PAPER

Since Unicusano University is an on-line institution, this means that all the lessons and study materials are on line in digital form, thus removing the need for materials printed on paper. We apply this policy of reduction in the consumption of paper on Campus by using only the latest models of photocopiers with built-in scanners, so that documents can be sent directly to the pc's concerned without the need for paper copies. This equipment is also environment-friendly in that it does not produce particulate matter, and is simple to use, thus encouraging the use of email and other digital support systems.

We are also constantly improving our "green communications": one example is evaluation form that a student fills in at the end of this course, which takes the form of an online questionnaire, answered on the university platform rather than on the usual paper document; this leads to greater efficiency in the transmission of data.

The approach to digital technology can be expressed as:

— FELLING OF TREES — WATER AND ENERGY USED IN THE PRODUCTION OF PAPER — FUEL USED TO TRANSPORT PAPER = **REDUCTION IN CO2 EMISSIONS**
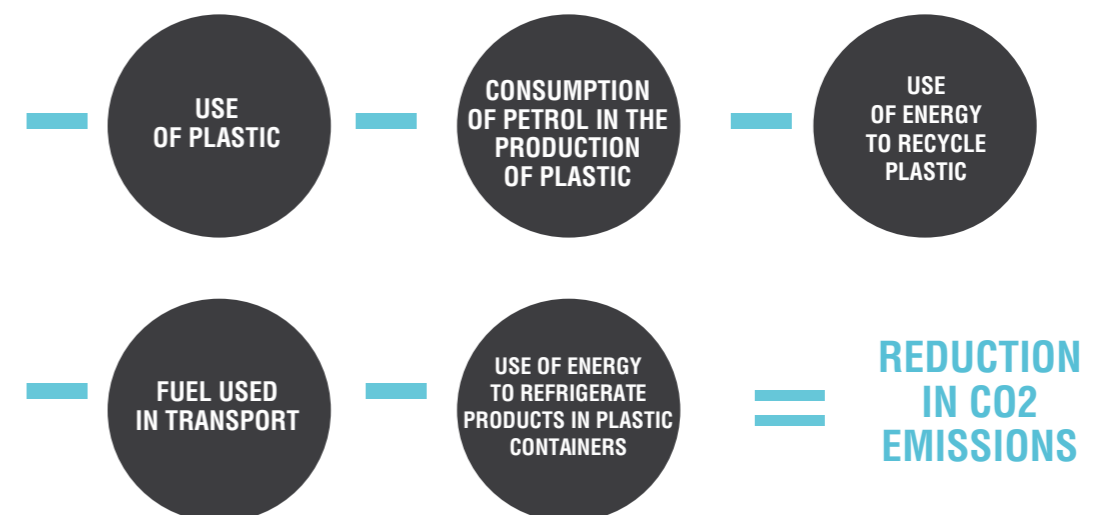
AN EDUCATION IN SUSTAINABILITY

In order to encourage studies in the field of ecology and sistainability, Unicusano is offering a course in Environmental Law within the degree courses in Law and in Economics. The topic of environmental sustainability is supplemented by a series of national and international study projects carried out by our researchers. This work is of a standard worthy of being published in major international journals such as the Fordham Urban Law Journal and legal research databases like HeinOnline, in collaboration with New York University.

Another research project involving know-how in the field of sustanability is one dealing with "the future economic value of alternative sources of energy" , within the Degree Course in Economics. The project meets the needs of professional know-how required by the job market and opens up oppurtunities in the environment-energy field, especially in Italy, where the demand is rapidly increasing in contrast with the offers provided by the job market, especially as concerns professionals with high-level skills in the field.

WATER DISPENSERS

We at Unicusano are also interested in the environment-friendly provision of drinking water; we often overlook how many tons of plastic are produced and then disposed of every year merely in bottling water. These plastic water bottles are a pollutant and costly to produce, and endanger the environment through CO_2 emissions caused by their transport and refrigeration. At Unicusano we provide hygienic dispensers of mineral water which not only make no alterations to the natural properties of the water, but also reduce the impact on the environment produced by the use of plastic bottles; the marked reduction in the use of plastic bottles by using manually-operated water dispensers avoids wastage due to production, transport and disposal, and contributes to a greener and more environmentally-aware lifestyle on the part of students and staff, who can use the water dispensers free of charge.

To use water dispensers means:

USE OF PLASTIC — CONSUMPTION OF PETROL IN THE PRODUCTION OF PLASTIC — USE OF ENERGY TO RECYCLE PLASTIC

FUEL USED IN TRANSPORT — USE OF ENERGY TO REFRIGERATE PRODUCTS IN PLASTIC CONTAINERS = REDUCTION IN CO2 EMISSIONS

OUR ORGANIC CANTEEN

Even our canteen on campus makes its contribution to our commitment to sustainability. As far as the food itself is concerned, the university applies its "green philosophy" by providing its "green canteen" with many 100% organic products "at zero kilometres"; in fact, at a short distance from the campus is our university vegetable garden, where we grow our own vegetables organically; these are served in the canteen to students and staff. By supplying our own fresh, seasonal products direct from the vegetable garden to the table, we cut down on the pollution involved in transporting and packaging.

These organically-grown products from our garden, apart from being of a high quality and economical, can be regarded as having the following environmental advantages:

FUEL USED FOR TRANSPORT OF PRODUCTS — USE OF PACKAGING HARMFUL TO THE ENVIRONMENT — WATER AND ENERGY USED FOR WASHING AND PRESENTATION = **REDUCTION IN CO2 EMISSIONS**

TRANSPORTATION

Unicusano has also made great strides in the field of environment-friendly trasportation which go far beyond the already widespread use of ideas such as car-pooling.
The university provides its students with a free shuttle-bus service between the campus and the nearest bus and underground stations, which reduces the need to use their own cars or motorcycles; this in turn saves money on transport and cuts down on car exhaust pollution.

FUEL EMMISSIONS = **REDUCTION IN CO2 EMISSIONS**

EDICUSANO

Our university publishing house *Edicusano*, publishes various scientific works in several categories in the form of e-books. In this way, we can publish a wide variety of our teaching staff's work digitally, which ensures a larger readership and at the same time respects the environment.

GREEN SURVEYS

Unicusano is preparing surveys addressed to our students and staff to check if their daily habits pay sufficient attention to the environment. Topics include the environment-friendly use of water and energy resources, eating habits, and proper waste management and recycling.

OUR CAMPUS IN ITS NATURAL SURROUNDINGS

Our commitment to the environment is also due to the fact that the main Campus of Unicusano is not only next door to the Monte Mario Nature Reserve, but also surrounded by a large swathe of parkland which is used by our students as a green space in which to relax, filled with pine and fir trees, as well as the olive grove and organic vegetable garden that supply our 'green campus canteen'.

ENVIRONMENTAL SUSTAINABILITY

OUR GREEN PROJECTS

Niccolò Cusano University, in partnership with our Department of Engineering, has allocated a part of the funds provided for research to the development of environment-friendly projects as regards transportation and the measurement of CO2 emissions.

• The Hi-Quad Project   • The Carbon Footprint Calculator Project

THE HI-QUAD PROJECT

The university has developed a project of electric power-trains, in partnership with other investors in the research and development of new sustainable technologies. This is a new high-tech environment-friendly road vehicle that can cover short distances at minimum expense and minimum environmental impact: the Hi-Quad. It is designed to be a roadworthy four-wheel drive vehicle with a low-consumption low-emission hybrid engine, built with new materials, comfortable and in compliance with all road safety standards, and which does not pollute the ecosystem. The Hi-Quad project is designed to encourage the public to use environment-friendly transport, and the researchers involved are developing improvements in its design and function in order to reduce the costs of production.

For more information, visit the site **www.hiquad.it**

THE CARBON FOOTPRINT CALCULATOR

"You can't improve it if you can't measure it" . We at Unicusano are conscious of the climate changes that have been taking place in recent years all over the world, and we have decided to do something to help reduce the emission of carbon dioxide. The University is planning on making measurements with a carbon dioxide calculator, the carbon footprint calculator, which enables as to measure the levels of CO2 produced during a normal working day on campus, such as the use of electricity, transportation, meals provision and the purchasing of goods and services that produce carbon dioxide emissions.

The development of the carbon footprint calculator follows the new European regulation iso/ts 1467 and is carried out by Accredia (www.accredia.it), which has exclusive rights to the project at a national level. In tandem with the development of a carbon footprint calculator on the part of our Department of Engineering, Unicusano is setting up study groups to research ecological solutions for reducing the impact on the environment of all the factors so far identifield, and to make a datailed analysis on energy saving and efficiency.

RESULTS
REDUCTION IN CO2 EMISSIONS

The University has recently made its carbon footprint calculator available on the ateneoverde.it portal, so that anyone who is interested may measure their own CO2 impact on the environment

ENERGY

Unicusano intends in future to focus on investment in sources of alternative energy based on natural resources, thus reducing recourse to the use of fossil fuels which cause CO2 emissions dangerous to both people and to the ecosystem. One of the principal projects under study is that of solar power; this is an energy source that can be efficiently transformed into thermal energy.

Also with the aim of reducing Energy consumption, the University is gradually replacing the existing lighting system in the corridors and classrooms Campus with cutting-edge Led lighting, which will involve less consumption of electricity and thus a reduction in its environmental impact.
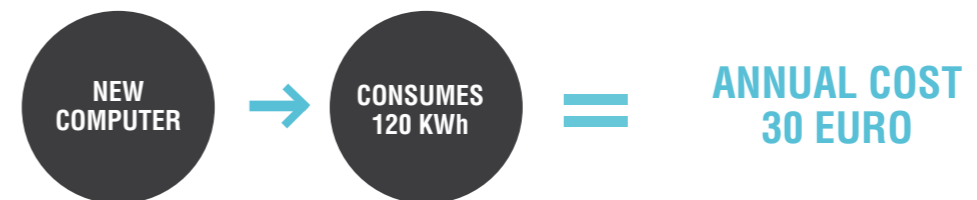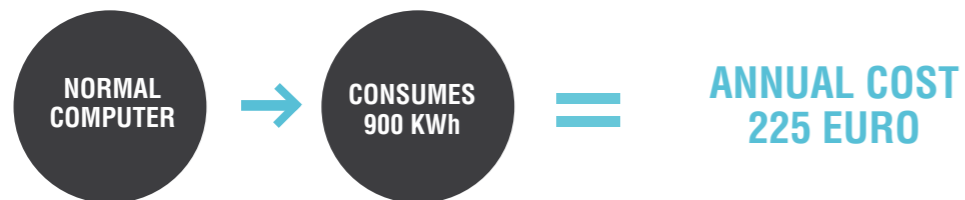
NEW COMPUTERS

According to the report "An Inefficient Truth" issued by the "Global Action Plan" on the first day of the climate conference in Bali, "Our daily use of computers seriously threatens the climate: a server pollutes as much as SUV's, or even as much as the entire global aircraft industry". Computers in fact are responsible for around 2% of all the world's carbon dioxide emissions. Today the vast majority of office workers use computers; even if they say that they are aware of the pollution they are generating, they are nonetheless unaware of the effective energy cost involved in computer use and the impact it has on the environment.

(source: http://www.techworld.com/cmsdata/whitepapers/5695/exec_summary.pdf).

The personal computers we use daily consume an enormous amount of electricity, polluting the planet when they are fully in use and even when they are switched off. A normal computer on average uses about 300 Watts, or 0.3 KW, which, multiplied by the hours in one day, the days in a year and the average cost of 0.25 euro per KWh, means that it consumes on average 900 KWh a year, for an annual cost of around 225 euro.

Here at Unicusano we are well aware of the problem, and we have taken the decision to replace our personal computers with others that have a low energy consumption. These new computers have operating systems that are easily updated, thus avoiding their replacement after only a few years in use. The MSI micro PC's have a wattage of only 40W and consume only 120 KWh a year, with an annual cost of 30 euro. In this way, the university can cut down on its energy consumption and thus not only gain a substantial saving in economic terms, but also avoid damaging the environment.

NORMAL COMPUTER → **CONSUMES 900 KWh** = **ANNUAL COST 225 EURO**

NEW COMPUTER → **CONSUMES 120 KWh** = **ANNUAL COST 30 EURO**

THE UNICUSANO GREEN CODE

THE UNICUSANO GREEN CODE

As befits a university campus dedicated to environment-friendly policies, Unicusano has adopted a code of ethical conduct aimed at the protection of the environment. This code is designed for students and staff of the university, and we consider it to be an essential component in our goal of heightening awareness and fostering behaviour that respects the environment.

The aim of the green code is to improve the quality of life, and for this reason the participation and cooperation of all concerned is of prime importance. Our overall objective is to propagate a new cultural outlook towards environment-friendly behaviour.

1. Transportation

1.1 Use public transport along with the shuttle-bus service provided by Unicusano.

1.2 Park your cars in the parking areas provided by the university rather than invading the green space intended for the welfare of students and staff.

2. Energy saving

2.1 In your office or study, favour natural lighting; apart from its beneficial effects health-wise, it also involves a reduction in the use of electricity.

2.2 Always check that lights are switched off before leaving the work place, both at home and in the office.

2.3 When possible, keep photocopiers on standby when not in use.

2.4 Always switch off your computer before leaving the work place.

2.5 Don't leave cell-phones or adaptors on charge for longer than is necessary.

2.6 Use air-conditioning equipment only when absolutely necessary and make sure it is correctly regulated, switching it off before leaving a room.

2.7 Use search engines that are more ecologically sustainable such as, for example, Google Dark Side.

3. Saving paper

3.1 Use both sides of the sheet in printing and photocopying, and avoid the use of colour printing unless necessary.

3.2 Always use the 'print preview' option to check before printing.

3.3 Use the several paper bins provided on Campus, first making sure to remove metal clips and adhesive tape.

3.4 Use e-mail and other digital back-up systems to send and read documents, thus avoiding the need to print unnecessarily.

3.5 Make sure your printer is positioned correctly so that its ventilation is not blowing air in a person's direction.

4. Saving our most precious resource: water

4.1 Don't let water run longer than is necessary.

4.2 Make sure taps are securely turned off after use.

4.3 Report immediately any defects in water taps, pipes, drainage, etc.

4.4 Make use of the mineral water dispensers in the canteen rather than plastic bottles; in this way you reduce plastic waste.

5. Healthy eating

5.1 Choose to eat the biological products grown in our ecological vegetable garden at zero kilometres from Niccolò Cusano Campus.

6. Separate waste collection

6.1 Make use of the separate rubbish collection provided in the university canteen.