



## How green the games?

### A Greenpeace assessment of the environmental performance of the Athens 2004 Olympics

July 2004

#### The Sydney legacy and the lessons not learnt

The Sydney 2000 Olympics produced a mix of wins and losses on the environmental front. While the wins were impressive, the losses show that Sydney could have done more to give the planet a sporting chance.









There have been many lessons learnt by Sydney's 'Green Games' effort that should not be lost. These lessons are not only an important part of the on-going process of moving toward sustainable development, but should be used by future Olympic cities to avoid the pitfalls experienced by Sydney for a better overall environmental performance.

In that sense, Athens, the host city of the Olympic Games in 2004, is far from learning the lessons from Sydney. The following table summarizes some basic lessons learnt<sup>1</sup> and gives a first marking of the situation in Greece.

No smiles at all. Greece has acted as if there was no past from which to learn, despite the good intentions expressed good by ATHOC, the Athens 2004 Organizing Committee. ATHOC seem to have taken the experience of Sydney seriously, however they didn't have any real authority on decisions taken for most of the related projects. This was the responsibility of the government and/or other authorities. ATHOC had a rather clear environmental policy, but they could only force certain environmental standards in the few projects and tenders they controlled themselves. However, they could certainly do more in pressing the government and public authorities to respect their environmental promises. Unfortunately, in most cases, they preferred not to do so.

<sup>1</sup> As quoted in Greenpeace's "How Green the Games?" report, September 2000, <http://www.greenpeace.org.au/archives/olympics>

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LESSONS LEARNT IN SYDNEY	REALITY CHECK FOR ATHENS
<p><b>LESSON 1</b> Make specific environmental commitments as part of your development plans well before design plans are finalized and construction begins. Make these commitments public.</p>	
<p><b>LESSON 2</b> Environmental Guidelines must be clear and specific benchmarks that are non-negotiable, measurable and backed up by law. These benchmarks must be included in all of the tenders offered for Olympic development and made public.</p>	
<p><b>LESSON 3</b> Olympic organizers and developers must be required to collect and report information on all environmental aspects of their project and make this information publicly available.</p>	
<p><b>LESSON 4</b> Independent auditing of all environmental information is essential to ensure credibility.</p>	
<p><b>LESSON 5</b> No matter how Olympic construction is managed –with one project manager or as independent projects and contracts- Olympic organizers must ensure that the best and most cost-effective environmental systems and materials are used project-wide.</p>	
<p><b>LESSON 6</b> Great enthusiasm for and expertise in environmental building and event management exists at all levels internationally. Seek out and engage those innovative and creative experts and companies interested in the environmental success of your event.</p>	
<p><b>LESSON 7</b> High-level and consistent consultation with the community, environmental and social groups is essential and must be part of the project from the beginning. A clear process for conflict resolution should be established as part of the city's Environmental Guidelines.</p>	
<p><b>LESSON 8</b> Education about environmental initiatives undertaken and the benefits gained is essential at all levels, from the public to athletes, sponsors, the media and the commercial sector.</p>	

## **Green Olympics: From enthusiasm to failure?**

When Athens was still a candidate city, the official position of the Greek authorities was clear and straightforward:

*“The Olympic Games are a challenge as well as an opportunity for the broad implementation of programs and actions which are environmentally friendly and in accordance to the principles of sustainable development”.*

*“Projects will be realized with the use of environmentally friendly technologies and materials, and this will be a prerequisite in all relevant tenders”.*

A few years ago, there was a promise for a cleaner city with less cars and better public transport, for Olympic premises making use of bioclimatic architecture and renewable energy, for better and greener Olympics than those of Sydney 2000.

Just before the official opening of the Athens 2004 Olympics, the situation seems quite different and certainly not as bright and green as described a few years ago. We will try to summarize some of the failures and wins.

### **1. TRANSPORT AND AIR POLLUTION**

Athens has a reputation for being polluted and often jammed by traffic during rush hours. The promise of the Greek government when they bid for the Games was that, by 2004, air pollution in Athens would be reduced by an average 35%. This would be achieved by a series of measures including more and better public transport, new means of transport (such as metro, tram and suburban rail), better fuel quality, and more efficient vehicles.

Although the levels of some pollutants (such as sulphur dioxide, lead, and carbon monoxide) have shown a decreasing trend in the '90s, Athens still has serious problems with regard to the levels of ozone, VOCs (such as the carcinogenic benzene), and particulates (which are generated mainly by diesel vehicles). Ozone, benzene and particulate (PM<sub>10</sub>) levels are still very high, despite the improvement of public transport infrastructure, mainly due to the high rate of increase of cars in Athens, the lack of adequate emissions controls, and the delays in introducing alternative non-fossil fuels (such as biofuels for example).

There is some good news regarding public transport. A new metro line has been built, gas-fuelled buses have been introduced (Athens has now the largest gas-fuelled bus fleet in Europe), and some 3 billion € have been spent in public transport (extension of metro, introduction of tramway and suburban rail, modernisation of bus and trolley fleets, tripling of bus-only lanes). It is estimated that 50% of people will be using the public

transportation system by the end of 2004. This is probably the most impressive achievement related to the 2004 milestone.

On the negative side are the delays in the construction of adequate parking lots (particularly near the metro stations to facilitate park-and-ride) and the overwhelming increase in the number of cars which presently dominate the city. A particular problem is the high number of diesel-fuelled taxis (14,000) which account for some 20% of all traffic and contribute a remarkable share to the emissions of particulates to the atmosphere. Although the government has recently announced some incentives for the renovation of the taxi fleet, no radical measures have been proposed, and there is no availability of biofuels in the country as yet. Biodiesel could have served the taxi and bus fleets, contributing to a cleaner atmosphere during the Olympics. The irony is that in just a few months (as of 2005), the EU requires that biofuels consist 2% of all transport fuels.

## **2. CITY PLANNING AND SITTING OF THE OLYMPIC PREMISES**

This has certainly been the most controversial issue of all. In almost all projects related to the Olympics there has been strong opposition by locals and/or environmental NGOs regarding their siting. In many cases, disputes have gone to the courts and this has led to considerable delays. In most cases, the Supreme Court gave the green light to the Olympic-related works.

The most controversial case of all has been the one at Schinias. This is an area next to the historic site of Marathon, a few kilometers outside Athens, which will now host the canoe competition. For years, the choice of this specific area has been questioned by environmental NGOs, who proposed alternative areas in other parts of the country. The key argument was that the Schinias wetland is the most important and one of the few left in the Attica region, and thus should be protected. The Supreme Court has once again given the green light for this project to go on, although with lots of restrictions and environmental prerequisites. Although the NGOs involved feel defeated in this particular case, their campaign has helped to change the original plans considerably and make the project less harmful for the environment.

## **3. THE CASE OF THE OLYMPIC VILLAGE**

This is the biggest ever and most important of all new real-estate projects in Greece and a showcase for the Olympics. One might expect, therefore, that the Olympic Village would be a model of sustainable building in line with the official promises given a few years ago.

Well before any decision was taken, ATHOC has asked for the opinion of many interested bodies on how to make the Olympic Village a green one. The overall direction of the

feedback was that the village should make extensive use of energy efficient technologies, renewable energy, toxic-free materials, and the best waste management techniques. However, these recommendations, which reflected the guidelines used for Sydney 2000, were not taken up by the contactors ('Olympic Village S.A.', a subsidiary of the Workers' Housing Organization (OEK), i.e. a public body).

In February 2001, 'Olympic Village S.A.' called for a tender based on the most conventional and often environmentally hostile technologies and materials. There were no particular energy efficiency measures, and no renewables at all (even solar water heating was excluded, in a country with one of the most advanced solar manufacturing industries worldwide!). There were no specific standards for avoiding toxic substances, and there was a call for extensive use of PVC plastics, and other technologies and materials that harm the environment (including the use of potent greenhouse gases such as hydrofluorocarbons [HFCs] in air-conditioning systems). The cooling demand for the conventionally designed buildings was up to 2.7 times more than the values suggested by the relevant Greek legislation. This has led to the installation of oversized air-conditioning systems, thus increasing the cost while at the same time harming the environment.

Following the pressure from certain interested people within the government, in mid 2001, OEK ordered new alternative studies in order to make some late changes in the original plans and incorporate clean technologies and materials. These studies were delivered in December 2001, and indeed proposed many changes which would make the whole project more environmentally friendly.

Among others, these studies suggested incorporation of bioclimatic techniques, use of solar power, district heating and cooling, toxic-free and PVC-free materials, extensive recycling of wastes and water, no use of HFCs for air-conditioning, use of natural refrigerants, etc. Overall, this alternative plan would have saved some 10 million kilowatt-hours a year, while it would have cost less and without delaying the delivery of the village.

Unfortunately, all these proposals were rejected without a second thought. The building of the Olympic Village proceeded as initially planned, and there was a clear unwillingness by the management of OEK and the developers to make any changes. A truly green Olympic Village would have acted as a model for the developing real-estate market in Greece. New markets for green materials could have been developed if only the relevant authorities had decided to proceed with the proposed changes.



## OLYMPIC VILLAGE

Green proposals that have never been realized

1. Solar water heaters
2. Photovoltaics for solar electricity
3. Ecolabeled paints and varnishes
4. Low emissivity (low-e) windows for energy conservation
5. Ceiling fans and natural cooling
6. Certified sustainable wood and wood products
7. Conservation-recycling of water
8. Air-conditioning using natural refrigerants instead of HFCs (potent greenhouse gases)
9. District heating and cooling
10. PVC-free synthetic materials and products
11. Right orientation of buildings for bioclimatic design (50 buildings of the Olympic Village are not properly oriented)
12. Biofuels supply station for cleaner transportation
13. Supply of green electricity by nearby wind parks

#### 4. ENERGY AND THE OLYMPICS

It was the intention of ATHOC that all electricity used by related premises and users during the Olympics in 2004 should be generated by renewables. It is estimated that some 60-80 GWh will be needed to cover the needs of the Games. This translates to some 250-300 MW of wind power capacity which could provide green electricity for one month. The present installed wind capacity in Greece is 410 MW (as of June 2004), some  $\frac{3}{4}$  of which is connected to the mainland grid. Up to now it is not possible to develop wind parks in the Attica area (the broader Athens District) due to the disagreement of some public authorities. Private investors have suggested some 400 MW in the area of which 250 MW is considered to be a realistic option considering the potential restraints. However, bureaucracy has set all these plans down the drain, and the dream of green energy supplying the Games has faded. **The need for clean distributed generation became more than evident during a major black-out affecting half the country (including Athens) on July 12<sup>th</sup> 2004, just a month before the opening of the Games.**

With regard to solar energy, photovoltaics (PV) have been excluded from the Olympic Village and other Olympic venues. The same is true for solar thermal systems, both for hot water supply as well as for solar cooling.

#### **The role of IOC**

This list of failures in the environmental performance of the Athens 2004 Olympic Games is by no means exhaustive. It shows that when there is no strong political will, failures will override wins. Athens is well behind Sydney regarding the environmental performance of the Games.

The Greek government was anxious about delivering projects on time and did not pay much attention to the environmental quality of these projects. Pressure from Greek citizens and NGOs has not proven strong enough to change this situation. As a supervising body, the International Olympics Committee (IOC) had also a responsibility to make sure that their own environmental principles would be applied in Athens.

The IOC has the responsibility to ensure the Olympic Games have a minimum impact on the environment and leave a positive legacy for those hosting the Games. It has an opportunity to do this in a way that fulfils the ideals of the environment as the third pillar of Olympism by making the Games a showcase for environmental solutions. There is a fundamental question the IOC needs to address - are the Olympics, which move from country to country every four years, environmentally sustainable? Having a limited number of venues with fixed facilities and infrastructure might be a better option to reduce environmental impact in the future. Raising and addressing this question will, Greenpeace believes, be a crucial part of the IOC's future environmental commitment.

Greenpeace's analysis of the Sydney as well as the Athens Games highlighted the absence of involvement at a detailed level by the IOC and its failure to intervene to ensure that the Games' Environmental Guidelines were not breached. The IOC must increase its capacity to advise, direct and pressure bidding and host cities to ensure that their environmental commitments are met.

The Greenpeace Guidelines set a minimum requirement for future Olympic Games. Host cities should be required to enter into community consultation to develop detailed guidelines for each Olympics based on the important environmental issues specific to each. These guidelines must also apply to corporate sponsors, partners, suppliers and other supporting agencies and partners to ensure consistency throughout the event.

## **Broken promises and the rise of the 'Pinocchio Index'**

The road to the 2004 Olympics was full of good will and green promises. Many of these promises have never been fulfilled. Here are some of them.

### **NEW ENERGY TECHNOLOGIES**

*"Athens 2004 would like to be the first ever Olympiad using 100% Green Energy from the grid, by means of wind power and photovoltaic systems".*

***Dimitris Beis, General Manager for Technology, ATHOC, October 2001***

*"Energy saving technologies should be widely adopted in the new buildings and generally in the new Olympic facilities. Passive solar architecture, adequate insulation, heat recovery, combined cycles (e.g. with natural gas), the use of renewable sources of energy and electronic devices for controlling operations in each building; these are only a few of the innovative applications among an extremely wide array of innovative technologies available in the new energy sector. The use of low consumption lighting systems and maximising the utilisation of natural light can bring about spectacular results. It is also possible to use "active" solar systems to heat the water of swimming pools; photovoltaic systems can generate supplementary electrical power to a certain number of projected facilities (by integrating them in the structure of the buildings' outer shell) to cover the need in electricity of roads, squares, and indoor common spaces. Beyond saving conventional combustible fuels, new energy technologies may also serve the purpose of increasing the autonomy of the installations, curbing pollution and reducing energy related operating costs".*

***Principles of environmental policy of the Organizing Committee of the Olympic Games  
Athens 2004 S.A., February 2000***

## **SELECTING CONSTRUCTION MATERIALS**

*“The change in standards for construction materials, as it is the case with all consumable products can indeed start a genuine revolution in the field of ‘clean production’. The principal criterion in the selection of environment friendly solutions and products in the building industry is the reduction of waste (and undesired environmental impact) during the production phase, their low energy content, reduced water consumption during treatment, good performance in microclimatic terms, and non-toxicity after their integration in the buildings’ shell. The guideline that should prevail in the latter case should be the prevention of potential damage instead coping with proven damage. Thus, we should avoid (to the extent that reliable replacements are available) compositions made of chlorinated products (PVC, PCB and certain solvents), chlorine whitened paper, as well as wood that is the product of non-sustainable forest exploitation. Other products such as asbestos-containing products or paints containing heavy metals should not be used. We should also try to encourage the use of recycled products and demolition debris. The Greek and the international market have made considerable progress in this respect and the businesses active in this segment of the market should be assisted by the competent Government agencies to find uses for their products”.*

***Principles of environmental policy of the Organizing Committee of the Olympic Games  
Athens 2004 S.A., February 2000***

## **PROTECTING BIODIVERSITY**

*“In most Greek cities and particularly in Athens the density of constructions, the deforestation of the suburban areas and the disappearance of streams have changed the microclimate and chased the local fauna and flora away from their natural habitat. This process has also resulted in the disappearance of many indigenous species. The re-engineering of interventions in space in order to assure the recovery or the protection of biodiversity could be one of the parallel objectives of Olympic works. You can find below a list of principles and priorities that have to be taken into consideration during the planning phase. For their implementation the Organising Committee of the Olympic Games shall co-operate with the respective agencies responsible for the implementation of each work:*

- *Creating shelters and dwelling for the species driven out by urban expansion.*
- *Rehabilitation of destroyed habitat in the vicinity of the works.*
- *Protection and expansion of native flora with the use of indigenous species of plants and trees. The reproduction and expansion thereof will also reduce the needs for watering.*
- *Avoiding cutting existing trees (or, in cases where this cannot be avoided, providing for their relocation to a different site).*
- *Creating corridors and pathways between urban and suburban planted areas and parks in order to encourage the nesting and movement of wild fauna.*

- *Design buildings and infrastructure in such a way as not to prevent the movement and nesting of wild fauna species.*
- *Creating corridors for the migration of microfauna species”.*

***Principles of environmental policy of the Organizing Committee of the Olympic Games  
Athens 2004 S.A., February 2000***

## **THE OLYMPIC VILLAGE**

*“Satisfying the environmental requirements in the Olympic Village is subject to meeting a critical requirement, namely to integrate all works in a plan of Sustainable Integrated Urban Development. This plan should take into consideration:*

- 1. Experience acquired in Greece and abroad for organised housing construction systems.*
- 2. The experience from the construction of Olympic Villages in other countries.*
- 3. Developments in science and technology in the construction of new housing complexes on the basis of the principles of: bioclimatic design, energy saving, reducing as much as possible the use of non-renewable resources, use of environment friendly building materials, effective sewage management (reduction or cancellation of impact of effluents, recycling), the protection of biodiversity, minimisation of atmospheric emissions and noise from traffic, landscaping compatible with the wider area, proper integration of the residential complex in the surrounding environment, assuring modern infrastructure, design of a sustainable traffic system (for pedestrians and vehicles).*

*The elements on which the success of this exercise largely depends are the following:*

- 1. Drafting adequate realistic specifications that will meet the approval of the Workers Housing Organisation (OEK).*
- 2. Monitoring the enforcement of environment-and-energy-related specifications by the implementing agency.*
- 3. Assuring proper management (in particular during the post-Olympic period) of those functions of the housing complex that require human intervention (waste management, energy management, traffic management, etc) by the OEK, the Public Administration agencies involved and the Local Authorities.*

*The latter is of critical importance for the sustainability of the proposed measures and arrangements. Therefore the solutions concerning the management and the project managers have to be integrated in the proposals package from the early planning phase.*

*The ATHOC, in co-operation with its advisors on energy related issues (Centre for Renewable Energy Sources and the University of Athens), has already prepared a series of guidelines and specifications concerning energy planning, bioclimatic architecture, the*

use of environment friendly materials, indoor air quality and the creation of a favourable microclimate in the region of the Olympic Village”.

**Principles of environmental policy of the Organizing Committee of the Olympic Games  
Athens 2004 S.A., February 2000**

*“The bioclimatic urban planning that is applied in the Olympic Village emphasizes the principles of sustainable development, with respect to natural environment, energy conservation, the saving of conventional energy resources, the maximum use of renewables, and minimum adverse environmental impacts. It will thus be the starting point for a change in the philosophy of planning for the built environment in our country”.*


**George Kontoroupis, Energy Advisor to the Olympic Village S.A, July 25<sup>th</sup>2002**

## **Is there green in the black?**

Our assessment emphasizes mostly the failures in the preparation of the Games. However, this does not mean that the Athens Games will not leave a legacy behind. Transport will be much better in Athens after the Games, and many areas will be developed in a more sustainable manner. The air and the sea in the broader area will be definitely cleaner and this is indeed positive. However, the taste of the Games remains bitter. There are so many opportunities that were never given a chance. This is possibly the biggest failure of the Athens 2004 Olympics.

## **Athens 2004 – The Greenpeace Assessment**

**Based on the promises given by Greek authorities while Athens was still a candidate city**, Greenpeace has assessed the Athens 2004 environmental performance. Unfortunately the outcome is poor, as can be seen in the following tables.

 <b>Good performance</b>
'No new project, however small, will be undertaken without a full, detailed Environmental Impact Assessment'
'The Olympic installations will be served by public transport and all possible measures will be taken to discourage access by private car'
Extension of Metro network
Construction of Tramway
Construction of suburban rail
'Coastal areas are being unified into a single zone'
'Unification of the city's archaeological sites into a single archaeological park and walkers' trail'



### Moderate performance

'The environment will not only be protected: it will be improved'
'Uses will be planned for all the permanent installations after the Games and over'
Better fuel quality
Pedestrian zones
'Remodelling of residential districts in the city centre'
'Disused quarry areas rehabilitated and remodelled'
'250 Ha of old garbage tips rehabilitated'
'Army camps are being moved outside the urban fabric, and the free space thus released (totalling more than 600 Ha) is being remodelled'



### Poor performance

'As much use as possible will be made of the existing infrastructure to meet the needs of the Games, and there will be an attempt to avoid commitment of free space. Where this is not possible, the commitment of free space will be accompanied by corresponding action in the opposite direction, such as restrictions in the building use of land in other areas, especially in neglected areas, the remodelling of existing spaces, and increases in the land available for public use'
'Completion of the projects will be carried out with the use of environmental-friendly technologies and materials. Contractor companies will commit themselves to the use of such technologies and materials, for which they will have to submit detailed schedules and lists'
'Special care will be taken to ensure that noise pollution, visual nuisances and other sources of irritation in the urban and peri-urban fabric of the city are minimised'
'In the Olympic Village and at the competition sites, the most up-to-date know-how will be used to meet energy and water supply needs, to recycle materials, to protect natural resources and to conserve the natural and cultural environment'
'Special priority will be given, before the Games and during them, to informing the public about the implementation of these measures and encouraging public participation'
'Solar energy, wind energy and other alternative energy sources will be used on a large scale to heat water and provide electric lighting and air conditioning. Buildings will be designed with energy saving and bioclimatic considerations in mind'
'Environmentally friendly materials will take their place in everyday routines, and the use of products will be planned 'from cradle to grave'.'
'Attention will be devoted to the collection, storage and re-use of rain-water, to improving watering techniques and to water recycling with the simultaneous extraction of the nutritive substances in the form of fertilisers'
Integrated waste management - Recycling
Car free zones
Park-and-ride areas
'Ferryboat services along the SE coast of Attica'
Remodelling in the outskirts of the city. The Elaionas district, (where the project was initially supposed to be applied), accounts by itself for more than 900 Ha
Creation of metropolitan parks

## **Put the blame on me**

Who is responsible for this poor performance? Unfortunately, many key stakeholders have played a negative role. Let's give them the 'credits'.

### **GREEK GOVERNMENT**

They had all the power, the money and time to present a green vision, to schedule accordingly, and to set the rules, so that Green Olympics become a reality. However, they have proven themselves short-sighted, and have only tried for the absolute minimum, avoiding any innovation. During the last two years, they used the security issue (and the resulting increased expenses) as an excuse for not spending any money for improving the environmental performance of the Olympics.

### **PUBLIC AUTHORITIES**

Bureaucracy is the art of making the possible impossible. This could not be truer in the case of certain public authorities which were responsible for various Olympic projects. Some of them were characterized by inaction, indifference, incompetence, and lack of vision. No matter what the reason was, the result was equally disappointing. It was OEK's (Workers' Housing Organization) responsibility that the Olympic Village lost the opportunity to become a model of sustainable building. And it was the Ministry of Environment that cancelled the wind development in Attica (the same people though accepted the installation of diesel generators as back-up for the Olympic venues). It was the local authorities (the Attica Region) that cancelled the installation of photovoltaics on the roof of ATHOC headquarters (the only solar installation that was ever decided related to the Olympics).

### **ATHENS 2004 ORGANIZING COMMITTEE**

They had good intentions. But what have they done in practice? Not much really. They have avoided any dispute with the government and public authorities on environmental issues. They could certainly have done more. However, they preferred to pick their fights on other issues.

### **INTERNATIONAL OLYMPIC COMMITTEE (IOC)**

As a supervising body, the International Olympics Committee had a responsibility to make sure that their own environmental principles were applied in Athens. Instead, what was more than obvious was IOC's lack of interest on most environmental issues, and its failure to intervene to ensure that the Games' Environmental Guidelines were not breached.

### **SPONSORS**

Some of the sponsors have made a difference and gave Athens 2004 Olympics and the planet a sporting chance (see below). Others however, haven't done much to improve the environment while supporting the Games. Take Shell for example. They could have supplied biofuels for the Games. Although in a few months biofuels will be part of the

country's fuel mix, Shell failed to take the lead. They have even rejected a proposal to install photovoltaics (produced by Shell Solar) at various Olympic venues. Leaders should lead not follow, isn't that the case?

## **The bright side of sponsoring**

The Olympics ought to be a celebration. Unfortunately, there is not much to celebrate for in the case of Athens 2004. Greenpeace believes that the Olympics, as any other major sport event, can potentially bring positive changes if and when there is will for radical change. That's why we close this assessment report with a positive message. It is related to Athens 2004 Olympics, but has nothing to do with its organizers. It is a change triggered by Greenpeace back in 2000 during the Sydney Olympics, which was realized by some sponsors of the Olympic Games.

Back in 2000, Greenpeace criticized Sydney Olympics sponsors for using hydrofluorocarbons (HFCs) as refrigerants in their cooling equipment. HFCs are potent greenhouse gases harming the earth's climate. **Several key Sydney 2000 sponsors (Coca-Cola, Unilever, and McDonalds) then committed themselves to an HFC-free and more energy efficient future.** Four years later, these companies have presented innovative technologies that use natural refrigerants (such as CO<sub>2</sub> and hydrocarbons), as well as different cooling techniques (e.g. based on Stirling-cycle engines). Other companies (such as the Greek dairy companies DELTA and FAGE, who are national sponsors of the Athens 2004 Olympics) have also followed this positive initiative. **Some 1,500 units of cooling equipment using alternative refrigerants will be placed at various Olympic sites during the Athens Olympics, while in the near future, millions of these units will be used all over the world** (Coca-Cola, Unilever Ice Cream and McDonald's together operate 12 million coolers and freezers worldwide). The future of sustainable refrigeration lies in such forward-looking technological innovation (<http://www.refrigerantsnaturally.com>).

Greenpeace welcomes the commitments made by Unilever, Coca Cola and McDonald's. We call on other companies in their sector to follow suit. However, corporate action is only half of the picture. For a complete solution, governments must act. Politicians cannot sit back and just wait for the market to deliver.