

# Educational initiatives

# Helsingin (Finland)

## GENERAL REMARKS

Helsingin, the capital of Finland, is situated on a latitude of 60°N. The warm currents of the Gulf Stream and the Baltic Sea influence the climate, which is often moderate but can also exhibit wide variations in temperature, ranging from +30.8°C in July to -34.3°C in January. The city has 515,000 residents and is part of a metropolitan region which has 1.2 million residents. The city centre is densely populated, which contrasts with the suburbs which are divided up by the major road routes radiating out from the city centre. The area is typified by the sea and its coastal countryside.



## CONTEXT

At the national level, an energy conservation programme extending over several years in the interests of sustainable development, "The Council of State Programme on Energy Conservation", was approved in September 1992. Its objective is to reduce the specific consumption of energy, by between 10 to 15% until 2005, and to reduce polluting emissions by promoting production of electricity through cogeneration and the use of renewable energies.

In 1990, Helsingin was awarded the United Nations' Environment Prize for its natural gas heating network which operates through cogeneration and feeds 91% of the buildings in the urban area.

An undertaking with the Ministry of Commerce and Industry to reduce heating consumption in municipally-owned buildings by 11% until 2010 was signed in 1993 and renewed in 1997. In fact, with its 29 million cubic metres of buildings, the Municipality of Helsingin is the largest property-owner in the country. To give practical expression to this undertaking with the Ministry of Commerce and Industry, a Committee for Energy Saving was created in 1993, with representatives from various municipal services: buildings, urban planning, public transport, education, social services, health services, energy production, etc.

1996 saw the creation of the Energy Agency within the Municipal administration, with a board of directors comprised in particular of representatives from the Municipal administration, the Information Centre for Energy Management, MOTIVA, the Chamber of Commerce, the Municipal Centre for the Environment, the municipal energy company, and from the Office of the Agency Director.

From 1992 on, Helsingin has been committed to the Agenda 21 process, with definition of a strategy for sustainable development:

- February 1995 - signing of the Aalborg Charter;
- March 1997 - definition of the objectives to be achieved in the areas of reduction in greenhouse gases, protection of biodiversity, and ecological urban development;
- April 1998 - considerations are opened up to the wider public, and to various representatives of the socio-economic life of the capital. Working groups are organised on 17 thematic areas;
- September 1998 - results from the working groups are officially integrated into procedures;
- 2000 - publication of the Action Plan for Sustainable Development of Helsingin.

# THE HELSINGIN EXPERIENCE

In Finland, the principal actor in educating children with regard to energy efficiency is MOTIVA, the National Information Centre on Energy Efficiency and Renewable Energy Sources. MOTIVA has developed a methodology based on the sensitivity of nature, on the joy of sharing positive experiences, and on the emotional dimension. One of the keys to its success is its painstaking work of observation and definition for its target group, children of different ages, and of their needs and their preoccupations. MOTIVA has put in place a whole range of initiatives and tools which are used in schools, kindergartens and crèches.

## "Auntie Green"

"Auntie Green" is an environmental teacher for pre-school children. She is a kind of story-teller who wears a tree costume. She works for the Helsingin City administration, in the Public Works Department, in the same place as the local agency for energy management. She visits playgrounds and kindergartens at different times of the year, and teaches the younger children about the importance of the part which trees play in the urban environment. The children really love Auntie Green and are keen to help her to plant trees, flowers and bulbs in parks, yards and playgrounds. They sing songs which make them more aware of nature on different occasions.



Auntie Green was the brainchild of a Helsingin landscape painter, Elina Nummi, who was concerned about the increasing vandalism and neglect noticeable in the city's parks. Elina Nummi therefore proposed to the Public Works Department in 1994 to create a character who would be concerned with environmental education and would appeal to children of pre-school age. As a result, since 1995 she has personally been the embodiment of Auntie Green. She received the National Prize for Public Information Work in 1998 for her efforts. She has released an environmental fairy-tale on video, and published a book of fairy-tales and an environmental education guide for people running kindergartens.

Recently, Auntie Green has also extended her work to include the area of energy conservation. In future, she will also teach about the impact of energy consumption on the environment. She is also working on a song and a CD about energy conservation.

## National energy awareness week

National energy awareness week in schools is an annual themed week which is held in October right across the country. It involves primary school classes of 7 to 8 year-olds. Businesses and other organisations participate by organising events on the theme of energy saving. During this week, the children learn the fundamentals of rational energy use (see "Hey, everything's working!") and everybody - children, parents and teachers - join in enthusiastically. This awareness-raising week culminates in a competition, the



Domestic Energy Saving Plan. In 1999, the task was to invent a game about energy saving, which also gave rise to the creation of an Internet site. All 7 to 8 year-olds in the 150 schools in the city of Helsingin participate in this national event by developing energy-related projects: video films, exhibitions, role-play games, campaigns of measures, etc. In 2000, the energy awareness week was held from 9 to 15 October.

## "Hey, everything's working!"

The national energy awareness week in schools, being targeted on primary school pupils aged between 7 and 8, features questions linked to energy efficiency and protection of the environment which are studied in two lessons each day, making use of the teaching aid "Hey, everything's working!". This pedagogic module has been developed by MOTIVA, which brought together a team of partners to realise the project. It is based on the Children's Book of Energy, created and illustrated by Tarmo Koivisto, one of the greatest Finnish cartoon artists. Koivisto worked with a group of teachers who developed the Teacher's Guide and the exercises for the children in collaboration with a publishing house which sells and distributes the materials to schools. The Children's Book of Energy is also available in Swedish, English and Estonian. It is used as well by other classes in the primary school throughout the whole school year.

### "Paul and Peggy at home and away"

"Paul and Peggy at home and away" is an educational package designed for children from 3 to 7, devised with the support of MOTIVA. The package is based on the booklet "Paul and Peggy at home and away" which tells the story of an ordinary family of four and describes what they do over the course of a week. Paul and Peggy try to find out how to protect nature by acting in an ecologically aware manner in everyday life both at home and in their immediate environment. The package comprises a book, an activity and colouring booklet, a puzzle and a game of Fish. The package is also available in Swedish and English.

### Guide for Energy End-Users in Schools

MOTIVA is co-ordinating a project supported by the SAVE programme to develop a Guide for Energy End-Users in Schools (administrative and technical staff, teachers and pupils). Based around the keywords "Learn-Manage-Act", it seeks to develop an energy management plan in schools which should serve as the basis for discussions about energy consumption, potential energy savings, the cost of energy, etc. An essential aspect of the project consists in identifying, in each school, one person to be responsible for making the link between the school curriculum and the Energy Management Plan for School Buildings. The Guide will serve as a methodological support for implementation of such a Plan, and equally as a pedagogic support in various courses. For example, it could help in the study of internal environmental conditions at the school; whether the school is too hot, too cold, or stifling. Helsingin is participating in this project together with eight other Finnish schools at various levels (from primary schools to vocational secondary schools). Further pilot schools in Austria, Norway and Estonia are also partners in the project.



## EVALUATION

The energy education project for the city of Helsingin is a beacon element within municipal Agenda 21 work. Its success, and the richness of the project, are due in part to the convergent motivation of the city and of MOTIVA, whose commitment in the area of education for energy management should be emphasised. Over several years, MOTIVA has developed expertise in this subject (through realising publications, designing pedagogic tools, etc.). Emphasis should similarly be given to the part played by the local Energy Agency in the coherence of the energy education project, in recognition of the fact that it:

- serves as a logistical support, for example by finding funding sources for the acquisition of pedagogic materials;
- is involved in instigating initiatives, thereby making use of the methodological frameworks and tools developed by MOTIVA;
- has been a partner to MOTIVA in devising a guide for energy users in schools (administrative and technical staff, teachers and pupils).

## TO FIND OUT MORE

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