European
Municipal Buildings
Climate Campaign

February 2008

Five 'display'ful years
A Campaign Review

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Project Data -**Towards Class A** Municipal Buildings as Shining Examples

Project:	Towards Class A
Title:	*Towards Class A Municipal Buildings as Shining Examples*
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Partners:	EnEffect - Centre for Energy Efficiency, Bulgaria EuroACE - The European Alliance of Companies for Energy Efficiency in Buildings, UK CEMR - Council of European Municipalities and Regions, Europe Architects' Council of Europe, ACE/CAE, Europe
Website:	www.display-campaign.org
Objective:	To facilitate the implementation of the European Buildings Directive in public buildings.
Benefits:	Municipalities shall improve the energy performance of their buildings through labelling and local communication campaigns
Keywords:	Communication, public buildings, Energy Performance of Buildings Directive
Duration:	*01/2005 – 12/2007*
Stakeholders:	- **Municipalities and local authorities** throughout Europe (current EU, New Member States, Candidate Countries, Switzerland, Norway and the Ukraine), and within the municipalities, both elected members and officers, responsible for energy, buildings and communication - **Local energy agencies** as advisors of local authorities - **Associations of municipalities and local authorities**, essentially generalist, in order to make them more aware of sustainable energy issues and more involved in activities related to this domain, acting as a relay vis-à-vis local authorities - **Commercial sector and trade associations** throughout Europe, particularly those whose business sector is central to the development of the internal market for energy efficiency goods and services - **National administrations** in charge of the transposition of the Buildings Directive into national legislations mainly via the Concerted Action project and the EPBD Building Platform, who can become key players in promoting communication (i.e. the French Government)
Budget	€ 1 110 000 (EU contribution: 50%)

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Executive summary

In municipal buildings all over Europe, vast quantities of energy and water are being needlessly wasted - and at significant cost to both the taxpayer and the environment. Two key and related points often lie at the heart of this problem: inadequate energy management by municipalities, and/or careless energy consumption habits by building users oblivious to their impacts. From January 2006, the European Energy Performance of Buildings Directive (EPBD) placed a legal obligation on municipalities to measure and publicly "display" the energy performance of their buildings. Display® - aims to address both the above issues - with the EPBD as its underlying driver.

The objective of the European Campaign Display® is to accelerate the Directive's implementation and provide European municipalities with an opportunity to take a strategic approach - and be one step ahead. Display® is a voluntary scheme designed via a networking process involving municipal energy experts from towns and cities across Europe. It has provided local authorities with a rare opportunity to contribute to the development of an EU-wide toolkit used at the local level, to implement a European Directive. As a result, something pragmatic and appropriate for municipal managers has been created: this being the **Display® poster**, the **calculation tool** and the unique extra – local **communication campaigns** to encourage behaviour change.

The **Display® poster** was developed via a creative and participative process involving communication experts and local energy managers. It is a simple and colourful poster and has the 'Towards a Class A buildings' section that encourages action from building users, managers and the public. The most impressive part of the poster is that each member can produce it online in high quality PDF files, with a choice of 23 European languages, and the poster can be printed in whatever size they wish!

The online **calculation tool** is available in the participants section of the Display® website. It is currently available in nine European languages and can be adapted to complement any national implementation scheme (if it uses operational rating). It is easy to use and can be used for all buildings sizes and 11 building types. The tool also calculates the building's water performance and allows users to simulate potential improvements thus enabling people to visualise real savings that can be made via refurbishments.

The success of the Display® Campaign has resulted from its focus on local **communication campaigns**. From the beginning of the Campaign the pilot cities decided that energy certificates need to be used not only as a legal requirement but also as a means of communicating with the public and politicians i.e. the certificate needs be eye-catching and visible. Thus a special communication handbook was produced to help energy managers with their local campaign preparation and an annual 'Towards Class A' award was organised to offer an incentive for municipalities to improve their communication strategies, ultimately leading to the improvement of their buildings' performances towards Class A or to become 'Shining Examples'.

'Shining Examples' are case studies that aim to promote good practice and learning amongst municipalities and to provide evidence that good examples of buildings and schemes are everywhere. Most of the Shining Examples contain information on the 'lessons learned' while undertaking the project described. These lessons provide a valuable source of information and advice for those wishing to replicate the projects. These learning points relate to planning a project, cost and financing of projects, maximising the benefits of projects, ensuring their ongoing success and factors to consider for communication campaigns and awareness-raising activities.

During the Towards Class A project, local energy managers identified several reasons why attempts at improving energy efficiency in buildings have failed so far:

> Unwillingness and budget constraints preventing local authorities from spending money on building certification

- > Political uneasiness – "My buildings are poorly classed – the public will not vote for me if I show them these poor results"
- > Confusion regarding Display®/Member State legislation implementation
- > Unwillingness or inability of energy specialists to communicate with the rest of the community
- > Inability to convince politicians to invest sufficient funds to focus on communication

In order to counter these problems they developed the following ideas, which should be useful for key decision makers:

- > Start the process of certification/labelling as a voluntary process with the most active or willing municipalities (this applies to the implementation of directives in general)
  - o Use this time to collect data and share experiences so that when a more rigid or legal-based system is implemented there will already be ground support
  - o Use this time to adjust your labelling tool and benchmarks
  - o Use this time to improve energy performance compared to previous years
- > The use of operational data appears particularly appropriate for public buildings as there are less market influences and more management-related consequences that will improve building performances
- > The cost and time to certify a building must be reduced or limited as many municipalities lack staff and sufficient financial support for detailed building audits (another reason to opt for operational data)
- > Include water in the certificate as it is an important aspect of building management
- > Do not include thermal comfort as it is impossible or very expensive to attain accurate data for municipal buildings. Reference temperature should be indicated in a building management guideline
- > Use primary energy as this represents real consumption and can influence building managers to choose cleaner, decentralised and more efficient energy sources to improve their overall building performance

Display® enables local authorities to:

- > **Communicate** with citizens and promote local initiatives to the public
- > Display an **eye-catching** poster which is easily understandable by the public
- > Obtain instant access to an **efficient, user-friendly and pragmatic** web-based **tool**
- > Calculate the performance of **buildings of all sizes** (including those <1000 m^2)
- > **Monitor and evaluate** the progress of the public building stock by **updating the posters every year**
- > Display buildings' **water consumption** in addition to energy and CO_2
- > Become a member of an innovative **European Campaign** to combat climate change
- > Highlight their commitment to invest in technical solutions to improve their buildings' performances

Until today the Display® Campaign has only targeted local authorities and the Display® tools have been developed for labelling public buildings only. Our next step will be to extend the Campaign to companies that are players in the internal market for sustainable energy goods and services. In many Member States, implementation of the EPBD's requirements has been slowest in the commercial sector compared to the residential and public sectors. A major benefit of Display®'s communication tools is that they can be used in administrative buildings in the commercial sector without any adjustment, presenting an opportunity for synergy and added-value in furthering the implementation of the EPBD through IEE actions.

Chapter 1: Introduction

Background on EPBD and Display® Campaign

The legal framework

From January 2006, the European Energy Performance of Buildings Directive (EPBD) placed a legal obligation on municipalities to measure and publicly "display" the energy performance of their buildings. In response, the Display® Campaign, supported via the"Towards Class A" project from 2005-07, was set up to help municipalities benefit from these requirements by developing strategies to engage with the public and maximise the rewards of better environmental management of public buildings.

Display® - the European Municipal Building Climate Campaign, deals directly with key elements of the EPBD. Formally adopted in December 2002, the Directive was to be transposed into the national legislation of all Member States by January 2006, and implemented between 2006 and 2009. This Directive requires all Member States to take the following steps (among others):

- Develop a common methodology for calculating and certifying the energy performance of buildings, taking into account climatic conditions
- Determine and apply minimum standards of energy performance both to new buildings and to the major refurbishment of large existing buildings
- Implement, through a consistent system of certification, the public display of information on the energy performance of buildings occupied by public authorities

The Display® Campaign

Display® is a voluntary scheme designed via a networking process involving municipal energy experts from towns and cities across Europe. It has provided local authorities with a rare opportunity to contribute to the development of an EU-wide toolkit used at the local level, to implement a European Directive. As a result, something pragmatic and appropriate for municipal managers has been created: the new poster and labelling system designed are readily accessible and can be adapted to complement any national implementation scheme.

Using Display® local authorities can:

- **Communicate** with citizens and promote local initiatives to the public
- Display an **eye-catching** poster which is easily understandable by the public
- Obtain instant access to an **efficient, user-friendly and pragmatic** internet-based **tool**
- Calculate the performance of **buildings of all sizes** (including those <1000 m^2)
- **Monitor and evaluate** the progress of the public building stock by **updating the poster every year**
- Display the buildings' **water consumption** in addition to energy and CO_2
- Become a member of an innovative **European Campaign** to combat climate change

Objectives of the Towards Class A project

The purpose of **Towards Class A - Municipal Buildings as Shining Examples** was to accelerate the implementation of the **Building Directive** in municipal buildings through the continuation of the Display® Campaign. This was to be achieved through the following specific outcomes:

1. Large extension of **the display of the performance** of municipal buildings - in terms of energy consumption and CO_2 emissions in more than 500 municipalities all over Europe (up to 5 000 municipal buildings)
2. Set-up the **Towards Class A Help Centre** to help the poorly classified municipalities to jump rapidly from Classes E-G to Classes B-C
3. Describe 100 **Shining Examples** from across Europe and make them accessible to all European municipalities via the **Display® Database**

4. Implement a comprehensive **analysis of the Shining Examples** to enable the drafting of recommendations
5. Organise the **Towards Class A Award**, which would be focused on the communication and awareness-raising campaigns launched by municipalities aimed at the general public.

Chapter 2: A European Municipal Buildings Climate Campaign

By municipalities for municipalities – a creative and participative process

One of the main reasons why attempts at improving energy efficiency have failed so far lies in the inability of energy specialists to communicate with the rest of the community.
Energy and climate jargon is often considered to be incomprehensible by non-specialists: MWh, Gigajoules, tonne-CO_2 equivalent and other units mean nothing to most people. However, improving energy efficiency involves taking decisions that must be understandable to people who are not energy specialists and this accounts for 99% of the population – the general public, elected representatives, building companies, SME managers, housing estate managers, etc.

Thus when the 20 pilot cities met to discuss their options to anticipate the afore-mentioned EPBD, they were all adamant that the energy certificates needed to be used not only as a legal requirement but also as a means of communicating with the public and politicians i.e. the poster needed to be eye-catching, easily understood and visible to the public. The poster also needed to include a section where the municipality could communicate the ways they aim to improve the classification of the building. Over the period of a year through a participative and creative process, the first (and still the only) certificate with a European identity was created (see Figure 3).

This poster was then tried and tested (see Figure 2). In Leicester, as part of a twin city exchange programme, students from Strasbourg consulted citizens on what they thought of the poster and their views were incorporated into the final design process.

The first poster was used for a year and then fine-tuned to increase the importance of the 'towards a class A building', increasing the text size and space to communicate with building users (see Figure 3).

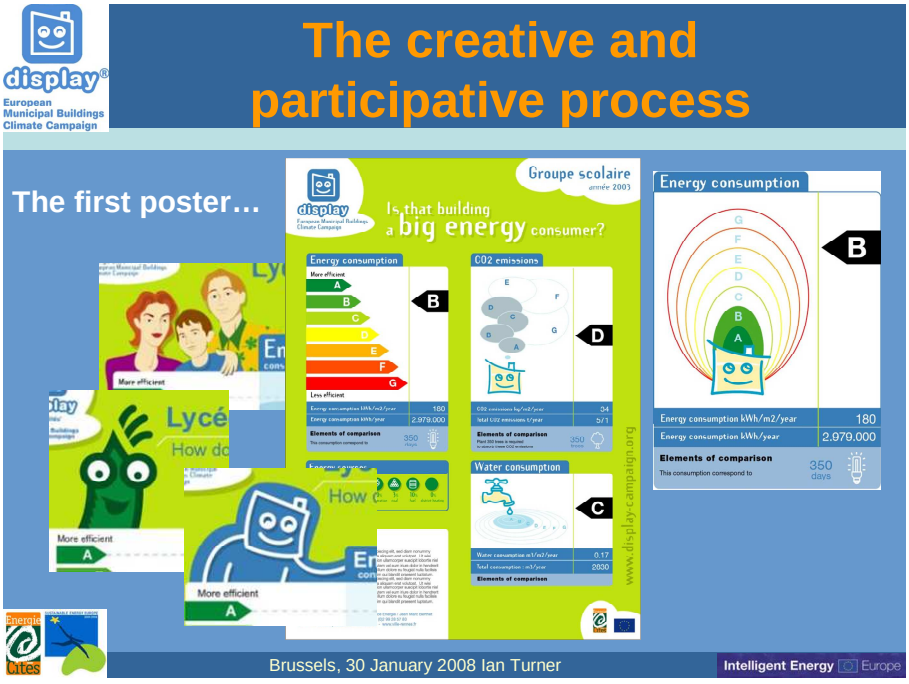


Figure 1 - The display poster in its development phase

Figure 2 – The poster tried and tested in Leicester

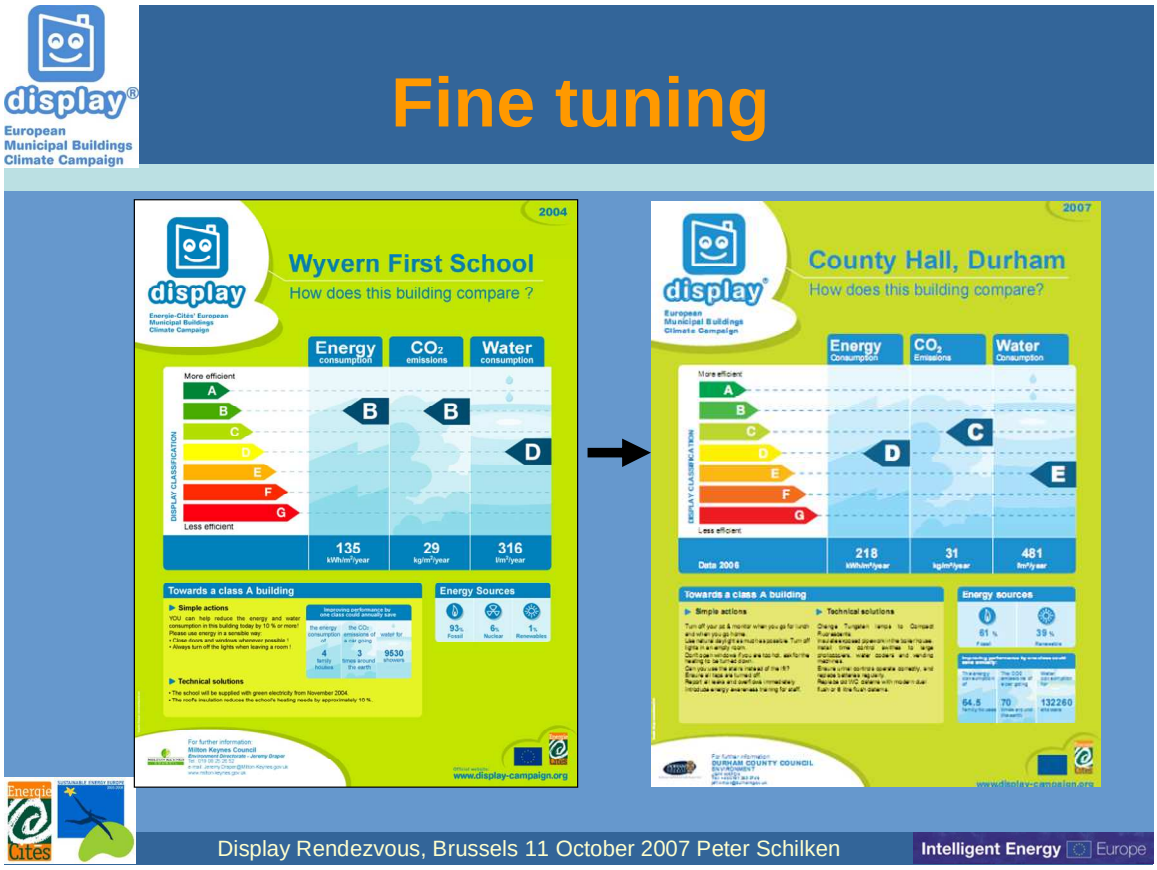


Figure 3 - The display poster fine tuned

A strong partnership (project partners & stakeholders)

The initial partnership

1. Local Authorities at the heart of the Campaign

Display® is the result of networking activities between twenty municipalities from eighteen countries as represented by their energy managers. Collectively, they have created the product and all its various components, under the co-ordination of Energie-Cités: Display® poster, calculation parameters, tests, promotion, etc. Of the municipalities involved, some were more experienced than others; some were from the north, whereas others were from the South, the East and the West of Europe.

Figure 4 - The 20 Display pilot cities

2. Experts

Five experts from five countries contributed their skills and experience to the network of municipal specialists.

3. European network

Energie-Cités - The association of European local authorities promoting a local sustainable energy policy. This network of municipalities covers the whole of Europe. This includes member municipalities from 24 European countries. In total Energie-Cités has 162 members through which more than 500 municipalities are involved.

4. The European Commission

The European Commission's Environment and Energy & Transport Directorates funded the initial project which has started in January 2003.

Today's partnerships

1. Local Authorities still at the heart of the Campaign

In January 2008 there were 305 local authorities who have either signed the Display® Charter or who were members of the initial pilot group. They cover 26 European countries with four very active countries (with more than 15 authorities participating in the Campaign), namely: France, the United Kingdom, Bulgaria and Switzerland. There are also four further countries that are also very active, namely: Portugal, Italy, Ireland and Germany (See Figure 5).

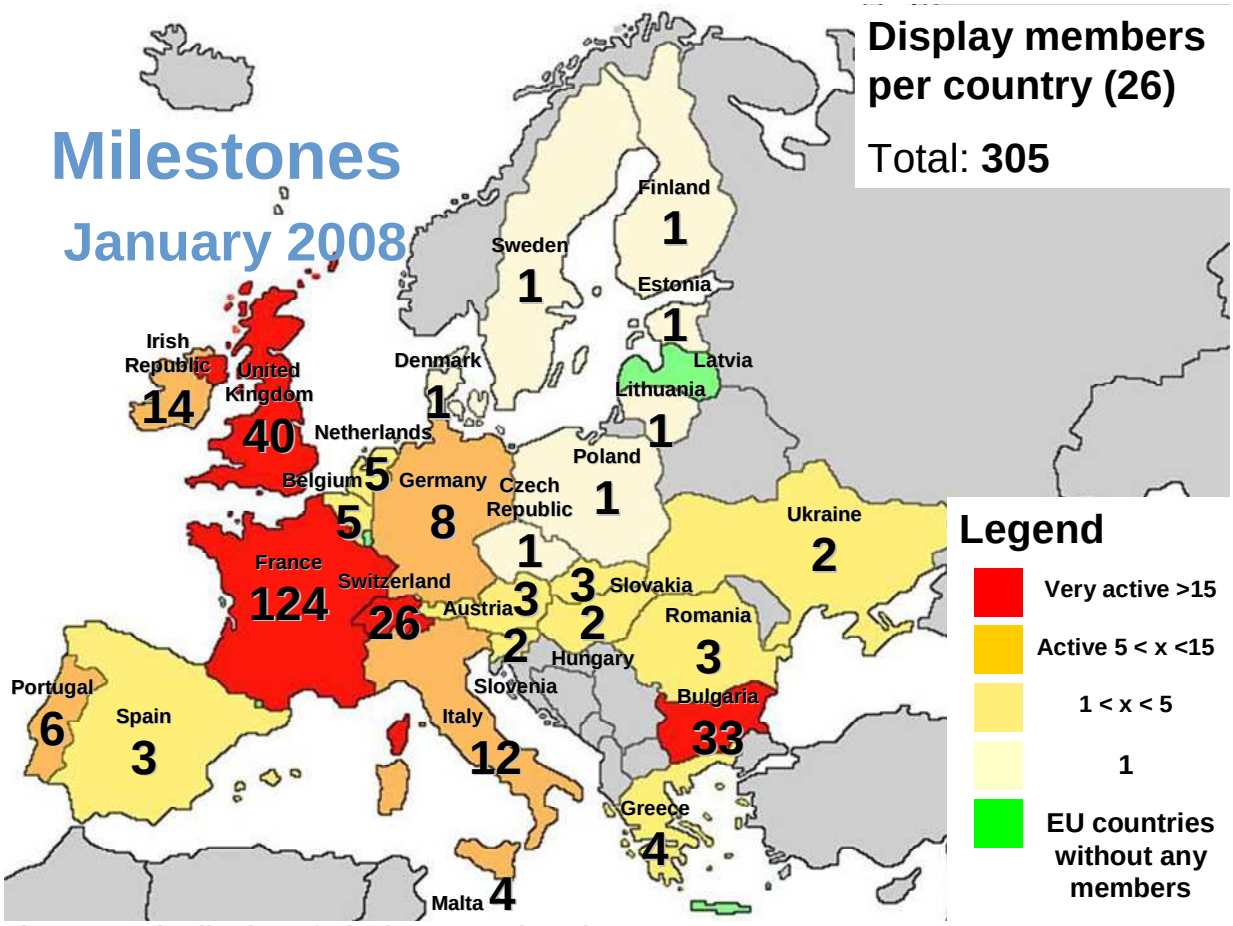


Figure 5 – Distribution of Display ® members in Europe

2. Core consortium partners

For the Towards Class A project Energie-Cités was joined by four new partners:

- **CEMR,** the Council of European Municipalities and Regions - 44 national associations of municipalities which in turn bring together 100,000 local authorities.
- **ACE,** Architects' Council of Europe - bringing together 40 professional associations of architects from across the whole of Europe, with 450,000 member architects.
- **EuroACE,** the European Alliance of Companies for Energy Efficiency in Buildings - alliance of companies involved with the manufacture, distribution and installation of energy saving goods and services. Member companies together employ 438,000 people and have a turnover of 70 billion euros.
- **EnEffect**, the Centre for Energy Efficiency- Bulgaria **-** an experienced Bulgarian partner, leader of the EcoEnergy network group including 40 towns

3. Associated Partners

Our associated partners cover a wide range of private companies, public associations and NGOs. Under the umbrella of a partnership agreement they engage themselves in the successful implementation of the Display® Campaign. On the one hand, the associations and organisations are partners that work at national level to promote the Campaign to their members and to assist them in its implementation. On the other hand, the private partners offer financial support and know-how and thus facilitate the practical implementation of the Display® Campaign and the improvement of energy and water performance of public buildings.
All in all ten partnership agreements have been signed; five companies have been secured as sponsors of the Display® Campaign, namely AquaClic, Dexia, E-Cube, Isover – Saint Gobain and Philips. From the public and non-governmental sector the following five partners have signed an agreement, The Association of Irish Energy Agencies, EcoEnergy (Bulgaria), SuisseEnergie, Vereniging Klimaatverbond Nederland and Yorkshire and Humbly Assembly.

The Towards Class A project was one of the first projects to become a partner of the Sustainable Energy Europe Campaign and their logo is now on the website and has been added to all the new communication materials. Energie-Cités is also a member of the Buildings Platform and contributes up-to-date information concerning the Display Campaign to the Building Platform newsletters.

4. The European Commission

The main co-financing is currently carried out by the European Commission's Transport and Energy Directorate within the Intelligent Energy Europe funding programme.

Chapter 3: On-line help – The Towards Class A Help Centre

The **Help Centre** is an important tool developed in the framework of the TCA project to support the efforts of municipalities to improve the performance of their buildings (see Figure 6). The following services are available on-line in the Help Centre:

> Energy Watchers Recommendations and Resources
> Special Building Performance Check

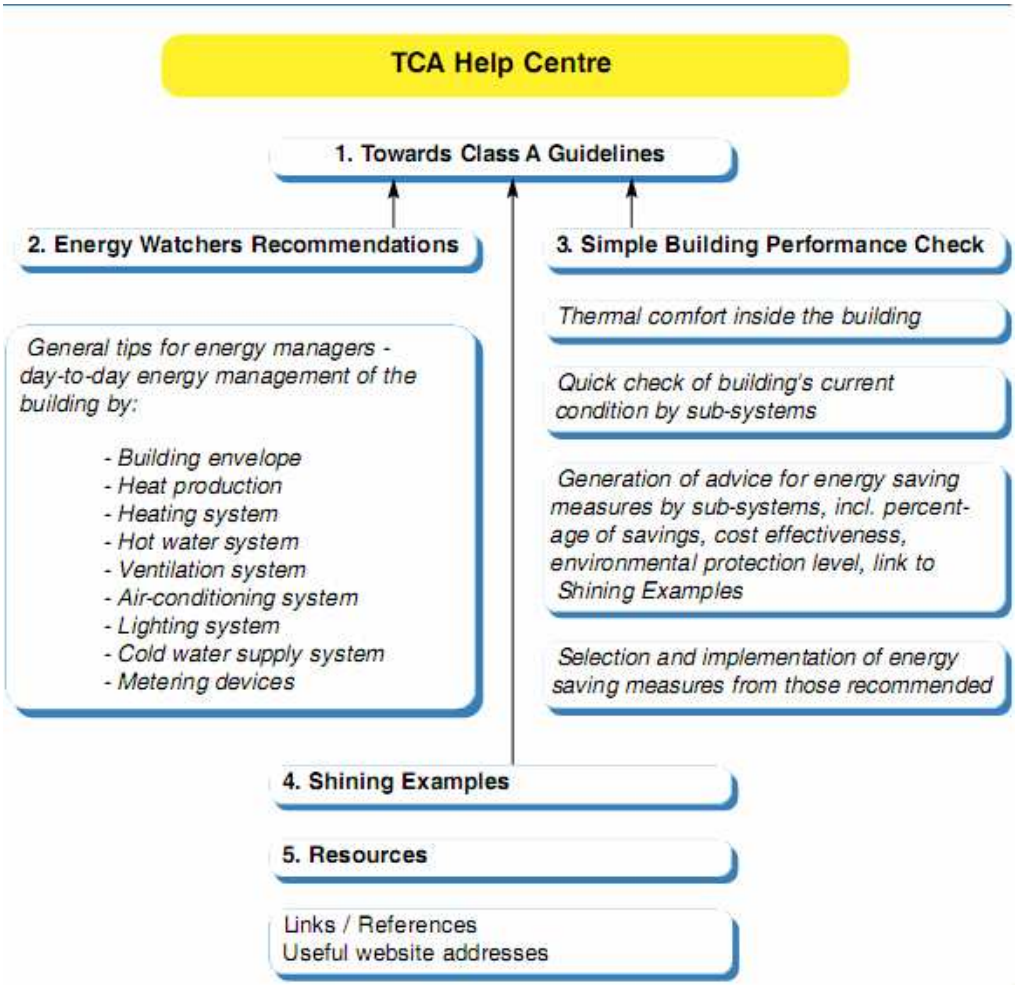


Figure 6 - Structure of the Help Centre

Energy watchers recommendations and resources

The first elements of the Help Centre, the Energy Watchers Recommendations and Resources (a list of relevant contacts in the energy field at the European and national level), were published in 2006. The objective of the **Energy Watchers Recommendations** (EWR) is to help building owners and energy managers evaluate the importance of saving energy in their buildings. Most of the tips and advice in the recommendations aim to provide professionals with practical guidance that can be implemented on a day-to-day basis. The idea is that a building that performs well will use less energy and achieve a better Display® or national energy label/certificate rating. Building energy labelling/certification is an important way to stimulate energy savings in both existing and new buildings. The potential for energy saving in buildings is considerable and by saving energy, money and time are saved at the same time.

The EWR consists of two sections: general tips for building owners and general tips for energy managers. The tips include advice on day-to-day energy management of buildings and general advice concerning: the building envelope, heat production, heating systems, domestic hot water systems, ventilation systems, air conditioning systems, lighting systems, cold water supply systems and metering devices.
The **Resources** document is another essential element of the Help Centre. It includes web-addresses and short resumes for: European Directives concerning building performance, the EU 27 national energy-related organisations – governmental, public and NGOs, and European networks. Taking into consideration the wide variety of information currently available on the internet, the information this document provides is valuable because it is an attempt to select and provide municipalities with the most interesting and useful sites dealing with energy efficiency issues.

Simple Building Performance Check

The demonstration version of the **Simple Building Performance Check (SBPC)** was initially prepared using Microsoft ACCESS. Thanks to an intensive participative process using the recommendations of the project partners and the Display® Users' Club members, the SBPC was converted into an online version by March 2007. This version was initially only available in the participants section of the website but was later transferred to the public section when Display® 2.0 was developed.

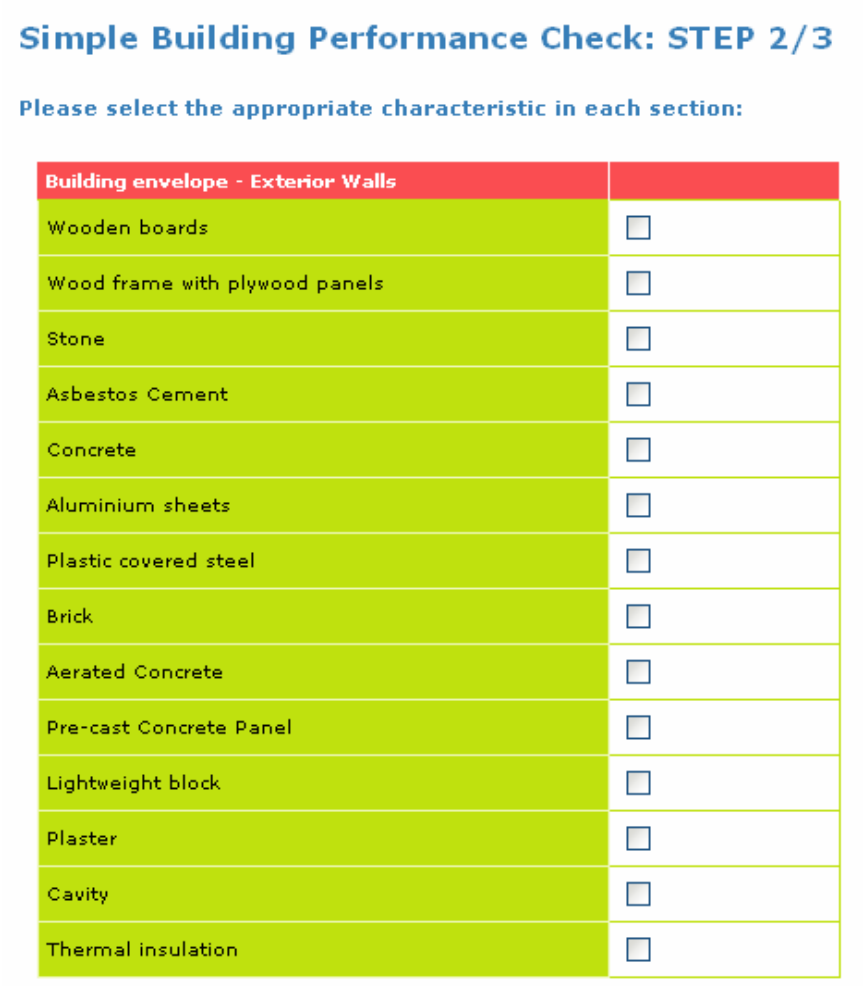


Figure 7 - the Simple Building Performance Check (SBPC)

The SBPC has been designed as a simple online software tool for quick evaluation of the current condition of a building's sub-systems. Depending on the actual condition of the building, the tool offers advice on achieving energy savings by installing energy efficiency measures as well as commenting on the cost-effectiveness and environmental benefits of the measures.

Chapter 4: Display is communication

The success of the Display® Campaign has resulted from its focus on communication. As previously described, the Display® poster was designed with communication in mind. Another important communication tool that is part of the Display® Campaign is 'Shining Examples', which are explained in detail below.

Shining Examples in a town near you

'Shining Examples' are case studies that aim to promote good practice and learning amongst municipalities and to provide evidence that good examples of buildings and schemes are everywhere.
The following is a table of both essential and desirable elements for a Shining Example (see Table 1 below).

Table 1: Criteria for a Shining Example
Essential elements- Shining Examples should include all of these points: ➢ Be based on certified buildings, preferably demonstrating high energy performance standards ➢ Provide evidence that good examples of buildings and schemes are everywhere and 'near you' ➢ Provide evidence that can be easily replicated
Desirable elements- Shining Examples should include at least one of these points: ➢ Show percentage change: for example rapid upgrade of the energy efficiency for one building or municipality ➢ Recognise and reward effort: for example having a large number of buildings in the same municipality involved in the Display® Campaign ➢ Recognise best practice in specific types of buildings ➢ Show progress towards implementation of the Energy Performance of Buildings Directive ➢ Show how to make progress in energy performance in very difficult situations

As well as meeting the criteria above, it was also considered important to attain diversity of Shining Examples, in terms of the following factors:

- Country and municipality
- Building type
- Measures installed
  - Energy saving measures
  - Water saving measures
  - Renewable energy technologies
- Communication campaigns
- Awareness-raising activities
- Strategies and financing

Shining Examples are one to two pages long, based on a common format and content, and include photographs where possible.
They are published on the Display® website, and are searchable by country and building type, and by keywords relating to technical measures (e.g. building envelope, financing, renewables, water saving etc.) and communication campaigns (e.g. awareness-raising, behavioural change, media, political support etc; see Figure 8). By publishing a diverse range of Shining Examples in terms of the factors listed above, it was hoped that every Display® member and people searching the Examples would be able to find an Example applicable to their situation.

Figure 8 - Keyword options for searching the Shining Examples database on the Display® website

A special poster was created for some of the first Shining Examples allowing the cities to use this support material to promote their best practice actions (see Figure 9).

Figure 9 - Shining Example poster

The key focus was for Shining Examples to be replicable in other European municipalities. It was also the intention that municipalities who provided Shining Examples would benefit through the promotion of their work on the website and via presentations by the project partners at various events. Municipalities were also encouraged to share their successes by promoting their Shining Examples on their website and in their publications as well as in the local media, with the help of a press release template produced by the project partners.

Annex 1 of the **'Towards Class A Guidelines'** presents a summary of several Shining Examples from different countries and involving different building types, where technical measures were used to improve the energy and/or water performance of buildings. The summary provides information on the changes made, the investment cost and the results in terms of energy and/or water savings, CO_2 emissions avoided and financial savings. Where possible, 'before' and 'after' Display® posters are shown. Annex 2 of the Guidelines provides a summary of Shining Examples on successful communication campaigns. For further information on the Towards Class A Guidelines, see below.

With 104 Shining Examples now available on the Display® website, covering a wide range of countries, building types and energy and water saving projects, this is an excellent resource for municipalities (and others) to find ideas for their own building stock. Consequently the project partners recommend that municipalities make the most of this resource by getting in touch with other municipalities to delve further into particularly relevant information- contact details are given at the end of every Shining Example.

We also recommend that municipalities take every opportunity to promote their successful projects and share learning points from projects that were not so successful. Documenting projects is the first step in being able to share results widely. Building relationships and sharing experiences amongst municipalities will enable successful projects to be replicated and pitfalls to be avoided. Documenting projects also ensures that knowledge is retained within an organisation over time and is not lost when a member of staff leaves.

"Towards Class A" Awards

The Display®/Towards Class A annual Award recognises best municipal communication activities and aims to raise the awareness of building users about energy and water consumption, as well as the CO_2 emissions of public buildings. The Award offers an incentive for municipalities to improve or compare their communication strategies, ultimately leading to the improvement of their buildings' performances towards Class A or to become "Shining Examples".

Figure 10 - The first TCA award postcard

First TCA award

The first TCA Award competition was launched during the First Annual Sustainable Energy Communities Conference in Brussels in November '05 with the deadline for submissions being the 2nd of June 06. A specially designed postcard was widely disseminated at this event (see Figure 10)

For the 2006 TCA award six entries of high quality were received from: Lille and Colomiers (FR), Lausanne (CH), Verona (IT), Bristol (UK) and Brasov (RO). The jury met on the 26th of September in Brussels to select the winners:

- > The third prize, a roll-up standing poster, went to the French city of Lille, which submitted a progressive strategy paper. Their communication is centred around the financial benefits of environmentally-friendly behaviour.
- > The second prize, 200 Aquaclic water-saving devices went to Brasov. The Romanian municipality Brasov demonstrated great creativity by introducing its own ideas and approaches in the promotion of the efficient use of energy. Their numerous awareness-raising activities involved sports and arts events in local schools.
- > The first prize, a huge electronic board displaying in real-time the energy and water consumption of a building, went to the city of Bristol. They won the votes of the jury through their creative concept, good targeting, innovative use of materials and efficient follow-up work in their cultural CREATE centre.
- > Finally, the special jury prize was presented to the city of Lausanne in Switzerland. According to the international jury, Lausanne provides an example of a city which had the political courage to be very active in the field of energy efficiency and who applies its philosophy day by day.

The first "TCA" Awards were presented at a special ceremony during the 3rd annual BISE Forum in Riga, which attracted participants from New Member States, Candidate Countries, Western Balkan Countries and Ukraine. Patrick Lambert, Director of the Intelligent Energy Executive Agency (IEEA), together with the jury president Cllr Alison Hay handed over the prizes to the winning cities.

Second TCA award

The second TCA Award competition was officially launched during the first European Sustainable Energy Week (late January 2007 in Brussels). A promotional postcard was distributed at the event (see Figure 11). Further promotion was undertaken using the TCA Newsletter, at events and via direct personal contact with the most active cities. Of course, all information on the 2007 Award was available on the Display® website. The deadline for the submission of the applications was the 22nd of June 07.

Figure 11 - TCA award 2007 postcard

For the second TCA Award 15 entries were received:

- > Bulgaria: Gabrovo, Lom, Sofia,
- > France: Echirolles and Colomiers (candidate in 2006 as well)
- > Finland: Helsinki
- > Italy: Salerno
- > Lithuania: Kaunas
- > Poland: Bielsko-Biala
- > Slovakia: Bratislava-Vrakuna
- > Switzerland: Lausanne (winner of the special TCA jury prize of the 2006 competition), Montreux and Genève
- > Ukraine: Ivano Frankivsk
- > United Kingdom: Durham

The jury met on the 17 September to decide on the winners.
The third prize was a tie between three authorities: Cities of Echirolles (FR), Colomiers (FR) and Durham County Council (UK):

- > Echirolles for its energy awareness and education campaign, focused on school children and gymnasium users.
- > Colomiers for its willingness to give citizens a central position in energy performance management and its action using all actors in a logical and coordinated way, using diverse media.
- > Durham County Council for its valuable political support for the Display® Campaign and for the promotion of the Campaign at the European level.

The second prize went to the City of Montreux (CH) for its excellent start and the results obtained during its first year as a participant in the Display® Campaign.

The first prize went to the City of Lausanne (CH) for its intensive communication campaign within its administration, strong external promotion activities and for its efficient marketing strategy.

All three prizes for the Awards were secured from three associated private sector partners, namely:

- > First prize - energy efficient lighting panels (Philips)
- > Second prize - 50 energy-saving fridge devices (eCube)
- > Third prize – each received 200 water savers in Display® design (Aquaclic)

The prizes were handed out at an award ceremony on the 11th October 2007 during the "Display® Rendezvous" held in the prestigious city hall of Brussels. The winners and runners-up were announced and presented their prizes by Vincent Berrutto, Head of Unit at the EACI (see figure 12).

Figure 12 – Towards Class A Award 2007 winners

Display Publications

Towards Class A was able to build on the substantial communication work achieved during the first phase of Display funded by DG ENV. During the project the following new or 're-launch' communication materials were produced.

During the course of the Display® Campaign three leaflets have been edited in 2004, 2005 and 2007. They are published in several languages on the website in pdf version for city members to print copies when necessary.

Figure 13 - New display leaflet (edited december 2007)

The 2007 leaflet was produced with greater emphasis on the results and the importance of communication and national integration options (see Figure 12). This leaflet is currently available in French and English. An important addition is a special marker produced to be added to the French version of the leaflet that indicates the important 'marriage' between the National certification system and Display.

Due to the success of the **Energie-Cités INFO Display supplement** initially produced in 2005, a new edition was printed in early 2006 and widely disseminated during promotion events. The main elements of this bilingual dossier are:

- > General presentation of the Campaign and its tools
- > First results and outlook (at that time)
- > Display in action (good practices)
- > Testimonies of key-players

The Display® website

The Display® website continues to be the main dissemination channel for the Towards Class A project (between 3000 and 5000 visits per month). We are continuously improving, adapting and updating the website following recommendations from the relay cities and core consortium partners. The main menu has been completely reorganised. Major extensions during the project period have been the creation of four new sections, namely:

> Shining Examples
> TCA Award
> Help Centre
> Media Centre

Figure 14 - The Display website www.display-campaign.org

E-Newsletters

The Towards Class A newsletter was produced every four months, and in 2007, a little more frequently in order to:

> Inform even better all participants about the campaign's progress,
> Keep the newsletter short but without cutting the input from the partners and relay cities and
> Encourage the participating cities to be more active

There are currently 11 newsletter available in the media centre section of the website. From newsletter six the design was tweaked a bit with the addition of the DISPLAY-O-METER, which shows the number of local authorities that have signed up for the Campaign (see Figure 14). Further regular sections of the newsletter are:

> Shining Examples
> Data evaluation
> Information from participating cities
> Congratulations to…:

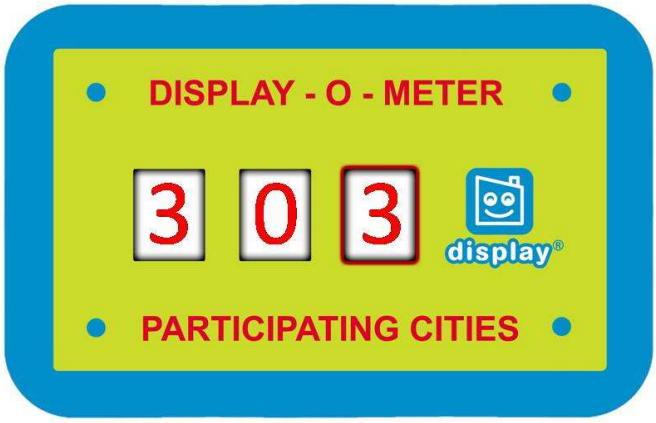


Figure 15 - Display-O-Meter

Display® in the media

One of the great successes of Display® has been the diversity of media coverage that the Campaign has and continues to get at the local, national and European levels through a variety of media.

One of the first and most significant media sources was the video that the European Commission produced on the Buildings Directive in 2005. About 10 minutes into this video there is a report about the experience of Almada with Display® in Portugal. In the beginning of 2007 the French news channel (France 2) filmed the Display® activities in schools in Lausanne and since 2005 there have also been smaller snippets of news on other national television channels such as in Finland, Slovakia and Latvia. The most visible of the media coverage to-date is a report (almost 3 minutes long) on the Display® activities in three local authorities of Neuchâtel, Chaux de Fonds and Le Locle by the Swiss news channel TSR. This report is available on the Display® website (www.display-campaign.org/rubrique517.html) and on Youtube along with the promotional Display® video produced at the end of 2005.

Figure 16 - The diversity of local media coverage

There have been a large number of articles about Display® in the local press and mostly on the activities of a particular local authority. In Switzerland, Lausanne has appeared in a number of local articles as has Neuchatel. In France a three page article appeared in the La Gazette an important magazine highlighting local authority activities. In this article the activities of Rennes and Rochefort were highlighted. Various other articles have appeared in national press in Italy, Slovakia, Ireland, Finland, the United Kingdom, Germany, Bulgaria and Romania (see Figure 15).

The most recent press release for the Towards Class A Awards was widely disseminated by Energie-Cités and their partners. Today 65 articles in 10 languages can be downloaded from the media coverage section of the Display website.

Presentation tools

Six large roll-up standing posters focussing on the Display® communication aspects have been produced and these have been used at various conferences and events to promote Display. Below is one of the standing posters used during the Display Rendezvous event in Brussels. These posters have also been made available to certain member cities for use during specific events.

Figure 17 – Large roll-up standing Display® poster

The Display Rendezvous

The Display Rendezvous took place on the afternoon of the 11th of October 2007 in the impressive city hall of Brussels, Belgium. Display® members together with other municipalities were invited to celebrate the third anniversary of the European Display® Campaign with a mixture of talks, round table discussions, meetings and the official ceremony for the Display® Awards 2007.

This event took place during the 'Open Days' event in Brussels with around about 50 municipal representatives and a dozen private company representatives from different European countries gathering in Brussels city hall.

In their speeches, Gordon Sutherland and Vincent Berrutto, both from the Executive Agency for Competitiveness and Innovation (EACI), highlighted the importance of this Campaign in facilitating certification markets. They particularly approved of the strong involvement of local authorities in the initial development and the current realisation of the Campaign. Six presentations by diverse European municipalities such as Salerno in Italy and Kaunas in Lithuania showed a panorama of innovative and committed local actions.

A stimulating panel discussion involving representatives from the European, national and local level revealed that Display® can be perfectly combined with official national certification schemes. The panellists agreed that Display® has facilitated rather than inhibited the implementation of the EU Directive in European Member States and in parts of Switzerland.

"Towards Class A" Guidelines

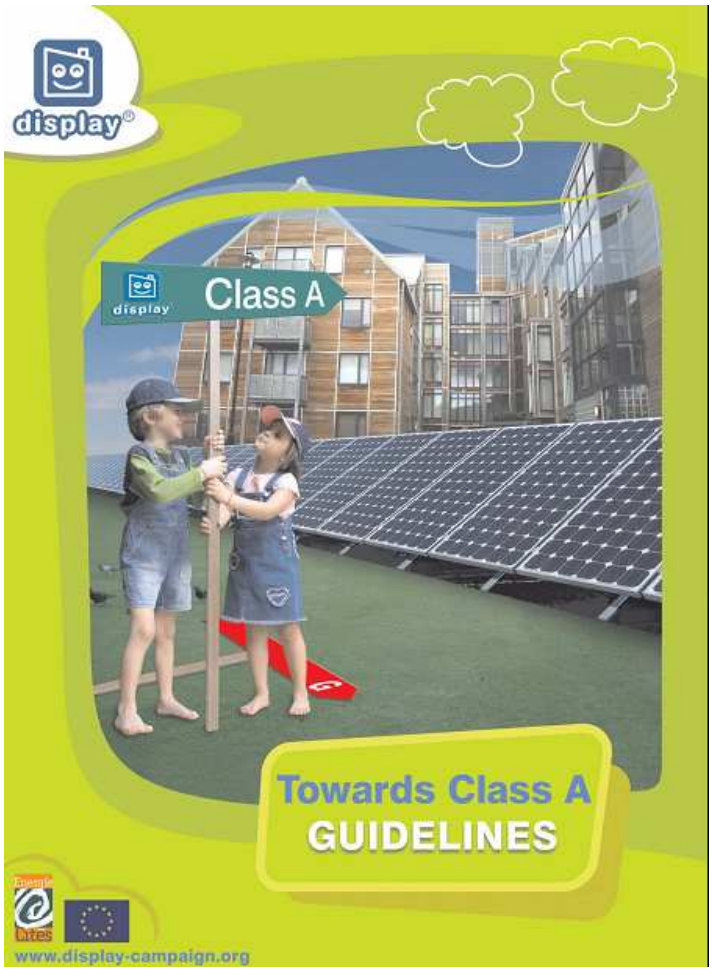


Figure 18 - The Towards Class A Guidelines

The **Towards Class A Guidelines** were finalised in April 2007. The production of the Guidelines was a true expression of extensive team work among the project partners with the main players being EnEffect, Energie-Cites and EuroACE. On the initiative of Energie-Cités and EnEffect, the Guidelines were translated and published in French and Bulgarian to help the municipalities in French speaking countries and in Bulgaria to make the most of this material. The great interest that the Guidelines provoked among Bulgarian municipalities shows the need and importance of such practical guides for improving building performance. The Bulgarian version of the Guidelines has already been disseminated to not just the municipal administrations but also to many Bulgarian schools, kindergartens, different municipal sites and even households. The Guidelines are available for download from the Display® website http://www.display-campaign.org/rubrique720.html.

Chapter 5: The Display® Campaign as a complementary action for the implementation of the EPBD in the EU Member States

Overall impact of the Display® Campaign at European and national levels

Towards Class A has already had a significant impact on the **French** Government's approach to the implementation of the EPBD for existing public buildings. More than 120 French authorities have already chosen to join Display® as a voluntary approach to prepare for the official method (known as the *Diagnostique Performance Energetique* - DPE). As a result, the French Government and ADEME (national agency responsible for energy and the environment) were prepared to work together with a group of experienced Display® users in France. This meant that via several users clubs, French local authorities were able to have a direct input in the development of the DPE. In January 2008 the first official energy certificates will have to be produced for buildings in France and thanks to an adaptation of the Display® calculation tool, French local authorities will be able to produce Display® – DPE adapted certificates to communicate with the public (the official DPE consists of four pages).

The **Swiss** "Etiquette énergie", which will implement the EPBD certification methodology in Switzerland, is being prepared by the SIA. Currently the 14th draft is open for public consultation. The main elements of the Swiss scheme and Display® are the same, but of course the conversion factors are different and the classification scheme has not yet been finalised. During a test phase in 2008/09 the Swiss Government will test different certificates before publishing the final legislation. At the start of 2008, Swiss local authorities, SwissEnergie and Energie-Cités submitted a joint proposal for Display® (adapted to the SIA regulation) to become one of the officially recognised test tools and get co-funding for continuing communication activities.

In November 2007 **UK** display users were able to meet in Derby to discuss the UKs approach to the transposition of the EPBD for public buildings. The person responsible for the technical aspects of the Display Energy Certificate (DEC) was present at this meeting and for many of the participants it was the first time they had received information about the proposed system to be implemented. At this meeting the DCLG representative stressed that Display® would not be able to be used as an officially accredited system but could be used as a communication support to the DEC. This is particularly relevant in the UK as the DEC only concerns carbon while Display® also shows energy and water consumption.

The results from the participation of **Bulgarian** municipalities are encouraging so far. Being a Secretariat of the Bulgarian Energy Efficiency Network EcoEnergy, EnEffect succeeded to convince the management of the network and its members to collectively join the Campaign. The information-consultancy bureaus on energy issues, that will soon be opened in several Bulgarian municipalities and whose experts will be trained by EnEffect, will support the organisation of awareness-raising campaigns and will widely promote the Display® poster and its importance to help change the behaviour of local communities. EnEffect will continue to supply input for the Display® Campaign website with examples from Bulgaria and translations of tools and materials that may be of interest to Bulgarian municipalities.

Recommendations for key policy decision makers

During the Towards Class A project, local energy managers identified several reasons why attempts at improving energy efficiency in buildings have failed so far:

- Unwillingness and budget constraints preventing local authorities from spending money on building certification
- Political uneasiness – "My buildings are poorly classed – the public will not vote for me if I show them these poor results"
- Confusion regarding Display®/Member State legislation implementation
- Unwillingness or inability of energy specialists to communicate with the rest of the community
- Inability to convince politicians to invest sufficient funds to focus on communication

In order to counter these problems they developed the following ideas, which should be useful for key decision makers:

- Start the process of certification/labelling as a **voluntary process** with the **most active or willing municipalities** (this applies for the implementation of directives in general)
  - Use this time to collect data and share experiences so that when a more rigid or legal-based system is implemented there will already be greater ground support
  - Use this time to adjust your labelling tool and benchmarks
  - Use this time to improve energy performance compared to previous years
- The use of **operational data** appears particularly appropriate for public buildings as there are less market influences and more management-related consequences that will improve building performances
- The **extra cost** and time **to certify a buildings must be reduced** or limited as many municipalities lack staff and sufficient financial support for detailed building audits (another reason to opt for operational data)
- Municipalities are more willing to **spend the money on measures** than on audits, many buildings can be improved by standardised measures where no audit is needed
- **Operational labelling can be done quickly** and is very helpful in setting up energy reports and priorities/hierarchies for refurbishments
- **Include water** in the certificate as it is an important aspect of building management
- Do not include thermal comfort as it is impossible or very expensive to attain accurate data for municipal buildings. Reference temperature should be indicated in a building management guideline
- **Use primary energy** as this represents real consumption and can influence building managers to choose cleaner, decentralised and more efficient energy sources to improve their overall building performance
- The **certificates** need to be used not only as a legal requirement but also as a **means of communicating** with the public and politicians i.e. the certificate needs be eye-catching and visible
- If certificates are designed to be **eye-catching**, engaging and easy to understand, they can be used as a communication tool for a wide variety of audiences, from school children to politicians. If certificates are too technical, their usefulness as a communication tool for the general public will be limited
- **Involve local authorities during the development** of the national certification process – local energy managers have a wealth of knowledge and they are ultimately the people that have to implement national laws on the ground
- Certificates should include **recommendations** on how to improve the energy and water performance of the building. These recommendations should include simple actions that building users can take to save energy and water as well as technical solutions highlighting where money needs to be spent to improve the performance of the building

Once national legislation has been adopted and entered into force there are several ways in which key decision makers can provide support and encourage municipalities to move ‘Towards Class A. Below are several recommendations for how decision makers can encourage municipalities to improve the energy and water performance of their building stock and raise awareness of energy and water conservation issues:

> Provide a framework for financial incentives or third party-financing
> Facilitate forums for sharing of ideas, experiences and learning among municipalities
> Aid the promotion of best practice case studies such as Shining Examples
> Get involved and provide support for good projects- high level political support can help to promote successful projects by attracting the attention of the media and the public
> Replicate successful financing/support schemes used in other countries
> Recognise and reward good practice e.g. organise an annual award
> Link financial incentives and grants to improvements in energy and water performance ratings and the implementation of the certificate's recommendations for improving the building's performance.
> Ensure that money saved by a municipality through improving the energy and/or water performance of their building stock is fed-back to the municipality to be used for further projects to improve the energy and water performance of their stock.
> Ensure that municipalities are provided with funding that is specifically for improving the energy and water performance of their building stock.
> Encourage municipalities to put in place a strategy for improving the energy and water performance of their building stock, which includes specific targets to be met.

Chapter 6: Summary of key achievements & results

An online calculation tool

One of the core elements of the Display® Campaign is the online calculation tool available in the participants section of the Display® website. The calculation tool is currently available in nine European languages (English, French, German, Bulgarian, Spanish, Dutch, Italian, Estonian and Hungarian). An online translation tool is available allowing for each local authority to translate the calculation tool so we expect it to be available in other European languages soon. The calculation tool has a number of advantages:

Easy to use

The Display® calculation tool has undergone a number of transitions since the beginning of the project. With the increasing number of users and the resultant multiplicity of mistakes being made a system of controls was developed to aid users in entering data in the correct data entry points. Consequently, any mistake results in a red alert box appearing where the mistake is made (see Figure 19).

Figure 19 - Alert procedure for the calculation tool

In addition an online users guide that opens in a separate window is available in English, French and German and for the calculation tool special pop-ups are available in French and English when clicking on the relevant numbers (see Figure 19 below).

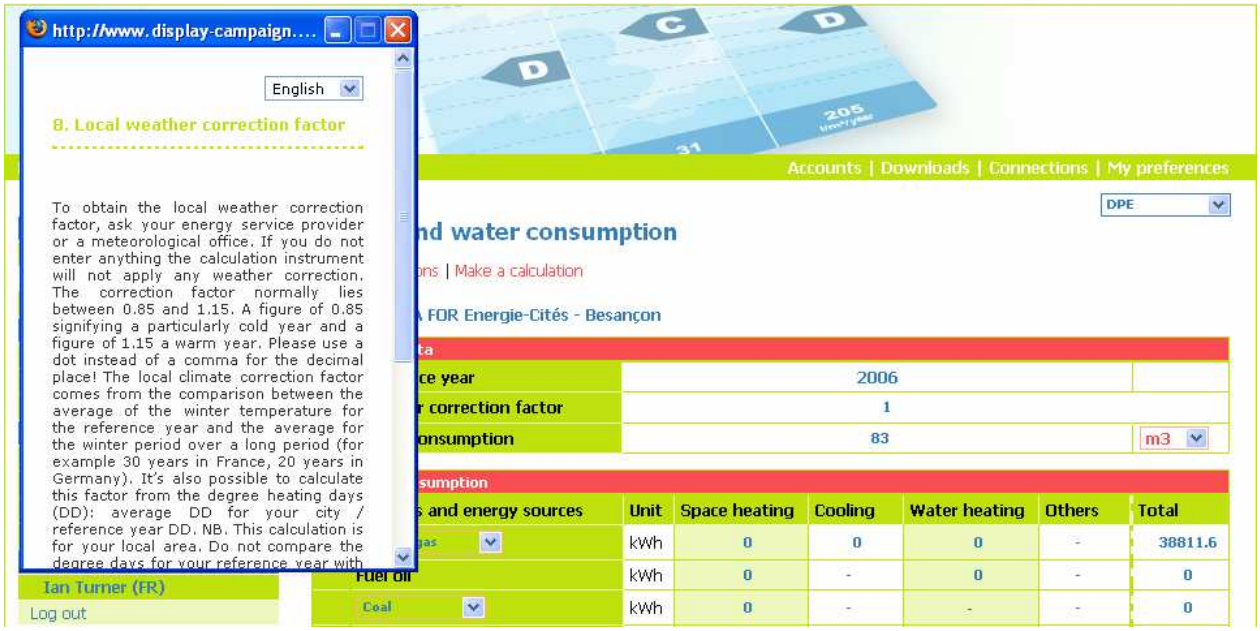


Figure 20 - Pop-up help available in French and English

For those who are interested in joining the Campaign a test version of the calculation tool is available. Initially a powerpoint presentation was developed to assist new users which has now been replaced with a video in French, German and English (see Figure 21 below).

Figure 21 - Display calculation tool video presentation

Possible to produce posters for all buildings sizes

With the Display® calculation tool there is no limit to the size of building that can be entered, meaning that all of your public buildings can have attractive Display® posters at their entrances!

Allows you to include water!

Most national energy certificates will produce results for energy and carbon. However, Display® goes one step further. During the pilot phase of Display®, the energy managers all agreed that water performance needed to be included in the voluntary label and thus water benchmarks were calculated for all of the building types included in Display®. Many energy managers continue to thanks us for this inclusion as water was often seen as a 'side' responsibility and now with Display® they feel they are starting to manage this precious resource. One of our leading Display® members, Durham County, were shortlisted for the Environment Agency Water Efficiency Awards 2007, which recognise organisations that cut down on the water they use, helping to conserve the UK's precious water resources. Leading by example, these organisations show what water efficiency means in practice, and how water-saving schemes make good financial sense.

Allows you to simulate potential improvements - in a manner that is visually understandable

The calculation tool allows you to visualise what savings could do to improve the performance of your buildings compared to their current performance. This is particularly useful for assessing the impact of potential future investments in improving a building's performance. Below is a copy of a user's account which shows different potential scenarios for specific buildings (Figure 22).

Search... OK | 20 results per page | Page no. 1

Name of the building	Year	Energy	CO_2	Water	Action
30 The Causeway 2005	2005	E	E	D	
30 The Causeway 2007 + 10% Savings	2006	C	A	A	
Aylesstone Road Leicester	2005	G	G	G	
Aylestone Road Leicester 2007 Improved	2006	F	D	G	
Aylestone Road Leicester 2008+ 20% Improved	2006	E	C	E	
Birmingham Office type	2004	G	G	G	
Blythe Valley Solihull 2005	2005	F	F	C	
Blythe Valley Solihull 2007 + 10% Savings	2006	C	B	B	
Blythe Valley Solihull 2008 + 20% Savings	2006	C	B	B	
Brackendale Junior School	2005	G	G	G	
Canel Street Leeds 2005	2005	D	D	D	
Canel Street Leeds 2006 10% No Cost Savings	2006	B	A	C	
Canel Street Leeds 2008 +20% Low Cost Savings	2006	B	A	A	

Figure 22- Building simulations with the calculation tool

Compare and display annual consumption and carbon data

The statistics section of the calculation tool allows each Display® user to compare the energy, CO_2 and water use for their building stock by year and compare the total carbon use of their buildings (added due to a request from Switzerland and the UK) (see image below).

CO2 EMISSIONS IN 2005

Classes	Results	Distribution
A	1	0.33%
B	8	2.64%
C	42	13.86%
D	94	31.02%
E	87	28.71%
F	40	13.2%
G	31	10.23%
Total	303	100%

Average ratio for CO2 in 2005 **58.71**
CO2 Emissions **36503.836 tons**

CO2 EMISSIONS IN 2006

Classes	Results	Distribution
A	4	1.32%
B	11	3.63%
C	53	17.49%
D	101	33.33%
E	78	25.74%
F	34	11.22%
G	22	7.26%
Total	303	100%

Average ratio for CO2 in 2006 **53.73**
CO2 Emissions **32734.357 tons**

Difference between **2006 & 2005**: **-9.28%**
See the details for each building

Figure 23 - Comparisons for carbon emissions

It is also possible to see the details for each of the buildings so that you can identify which buildings produce the most carbon and which ones have improved.

Building name	Classes	Ratio	CO2	Classes	Ratio	CO2	Difference
Aclet Close Nursery School, Bishop Auckland	F	80 kg/m²/year	16.88 tons	F	80 kg/m²/year	16.88 tons	0%
Acre Rigg Infant School, Peterlee	E	58 kg/m²/year	208.22 tons	B	26 kg/m²/year	93.34 tons	-123.08%
Acre Rigg Junior School, Peterlee	D	49 kg/m²/year	175.91 tons	B	26 kg/m²/year	93.34 tons	-88.46%
All Saints RCVA Primary School, Lanchester	E	67 kg/m²/year	45.43 tons	E	63 kg/m²/year	42.71 tons	-6.35%
Annfield Plain Infant School	D	52 kg/m²/year	37.23 tons	E	56 kg/m²/year	40.1 tons	+7.14%
Annfield Plain Junior School	D	52 kg/m²/year	50.02 tons	D	51 kg/m²/year	49.06 tons	-1.96%
Aycliffe Centre for Children	G	108 kg/m²/year	1159.81 tons	G	94 kg/m²/year	1009.47 tons	-14.89%
Aycliffe Village Primary School	D	50 kg/m²/year	43.1 tons	D	50 kg/m²/year	43.1 tons	0%

Figure 24 - Statistical analysis of your municipal buildings

Each city also has access to national figures by building type and year and are able to download an excel version of all their local building data.

Downloads

You can export the data under .csv format. This format makes spreadsheets readable in any spreadsheets softwares like MS Excel, Gnumeric or OpenOffice. We recommand OpenOffice to use them.

File	File name
	Spreadsheet for buildings data
	Spreadsheet for calculations
	Spreadsheet for results summary

Figure 25 - A specific option to download your data

As mentioned above the Display® poster was developed via a creative and participative process involving communication experts and local energy managers. It is a simple and colourful poster and has the 'Towards a Class A buildings' section that encourages action from building users, managers and the public. The most impressive part of the poster is that each member can produce the poster online in high quality PDF files in 24 European languages and the poster can be printed in whatever size they wish (see Figure 26).

Figure 26 - The Display® Poster

Figure 27 - The Display poster available in 24 European languages

Experience and Best Practice! – 104 Shining Examples to help

Anyone who joins the Campaign is aware that they are not alone and can use the experience gained by other local authorities which is available in the form of case studies on the website. For more details see the information on Shining Examples within Chapter 4 – communication, above. In some Member States there is also the opportunity to get together to discuss and compare approaches via national user club meetings (In France, Bulgaria, Switzerland and the UK). We hope that in the future this opportunity will become available for more Member States.

An online help centre

As mentioned in Chapter 3, an online help centre is available to help any local authority with any important questions about basic energy management of public buildings. A list of contacts is available for further advice, including a network of 300 cities with experience in managing buildings.

Wealth of communication materials

Online videos, newsletters, leaflets, press releases and local articles are all available on the modern Display® website www.display-campaign.org (for more details see chapter 4 above). In addition, each full member of the Campaign receives the communication handbook which provides local authorities with the basics to start a communication campaign.

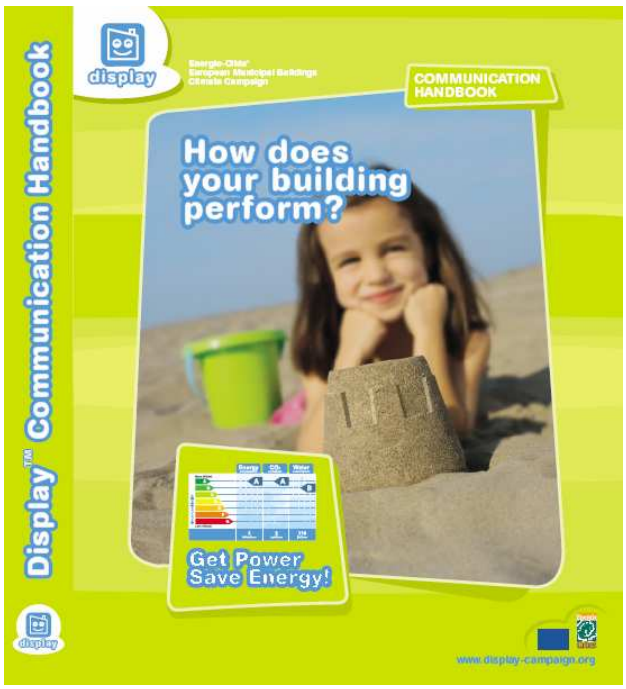


Figure 28 - The Communication Handbook

Within the communication handbook there is advice on how to write a press release and loads of ideas for communication materials that can be produced to get you started (see figures below). There are also a number of Display® stickers in the handbook that you can use for local public awareness campaigns.

Figure 29 - Ideas for Display items

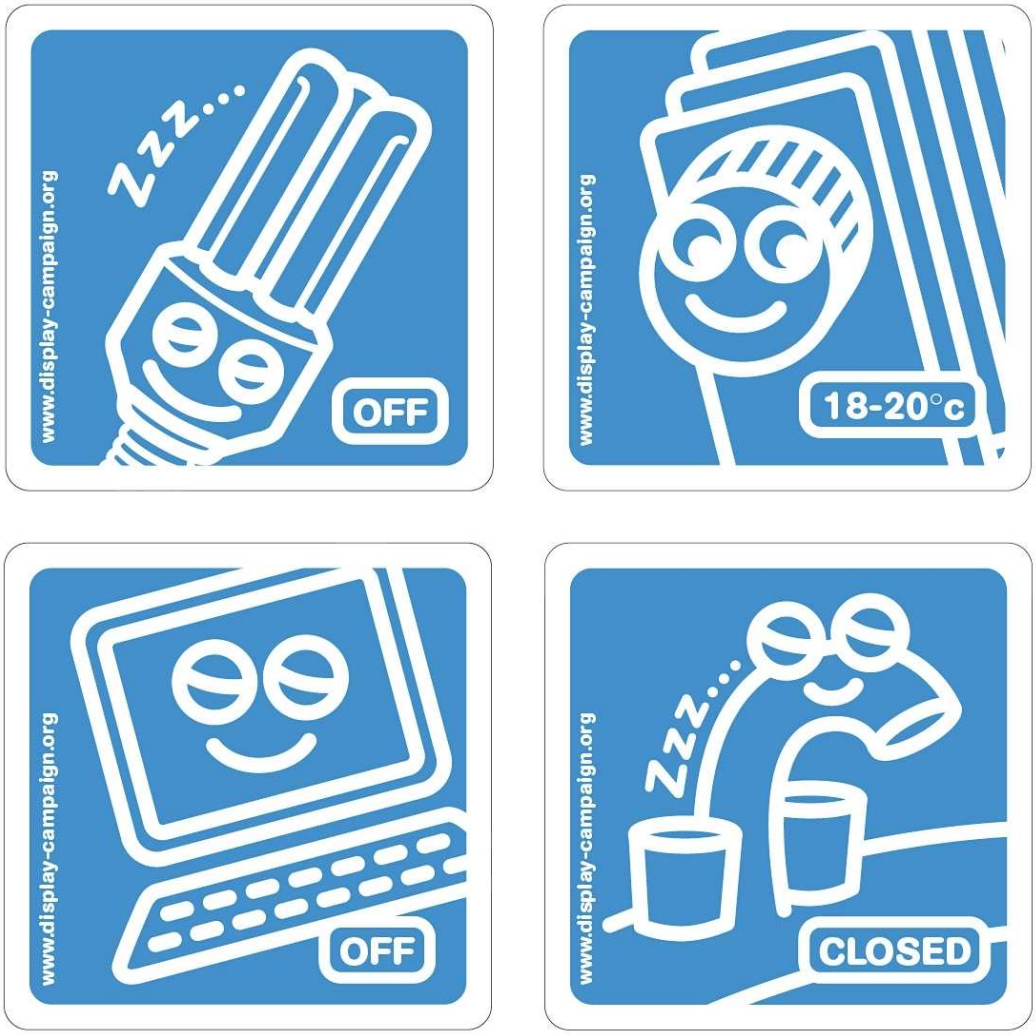


Figure 30 - The Display® stickers

The Towards Class A Award

The Display®/Towards Class A annual award recognises best municipal communication activities and aims to raise the awareness of building users about energy and water consumption, as well as the CO_2 emissions of public buildings. The Award offers an incentive for municipalities to improve or compare their communication strategies, ultimately leading to the improvement of their buildings' performances towards Class A or to become "Shining Examples". For more details see Chapter 4 above.

Posters that are really 'display'ed

The most important achievement of the Display® Campaign is the fact that posters were really displayed to the public. In Durham County they have produced posters for all their public buildings for three consecutive years, allowing them to identify the poorer performing buildings and to work on their 'away from class G' approach (see pg. 17 of the Towards Class A Guidelines). Many local authorities have not been scared to produce very large posters for their public buildings and to make the results of their buildings available on their websites (see images below). Citizens within these local authorities are thus in a privileged position to have already seen an energy certificate on many of their public buildings and are thus ready for the national certification process.

Figure 31 - Really displayed in Pamplona (ES)

Figure 32 - Really displayed in Ljubljana (SI)

Figure 33 - Really displayed in Brasov (RO)

Figure 34 - Really displayed in Neuchâtel (Switzerland)

Display Database

By initiating a voluntary Campaign a significant amount of data has been gathered on public buildings in Europe. There are already 7500 buildings entered in the Display database and 50% of these buildings are general schools see figure 35 below.

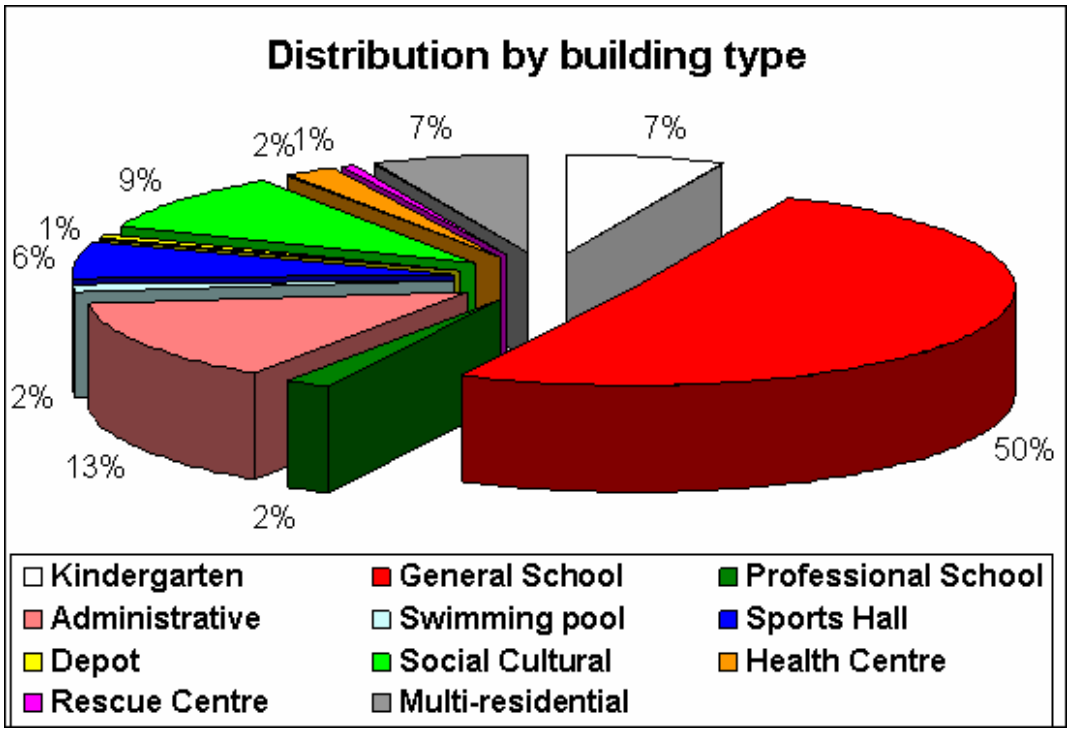
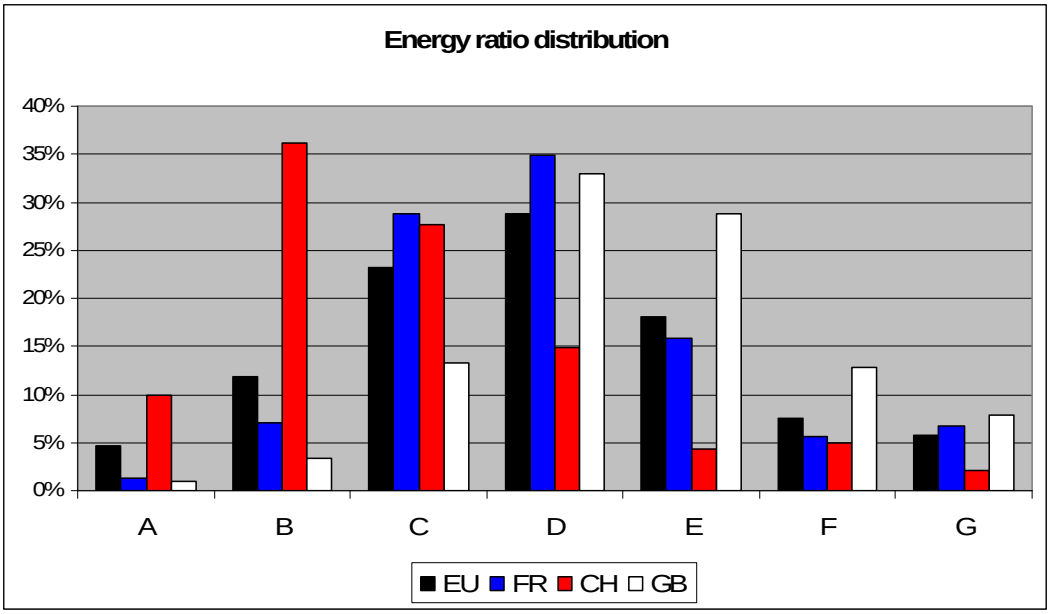
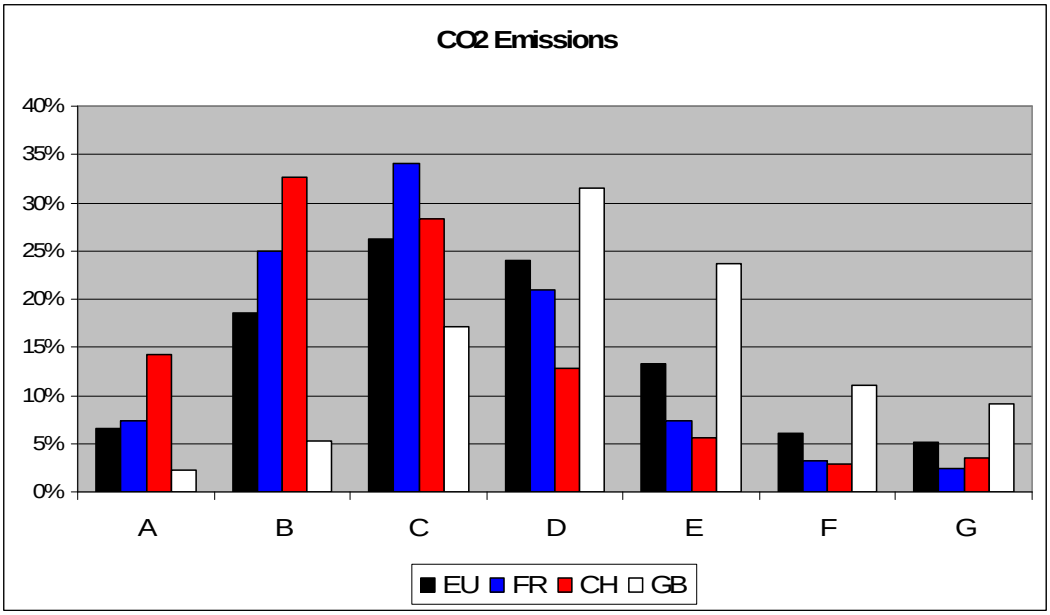


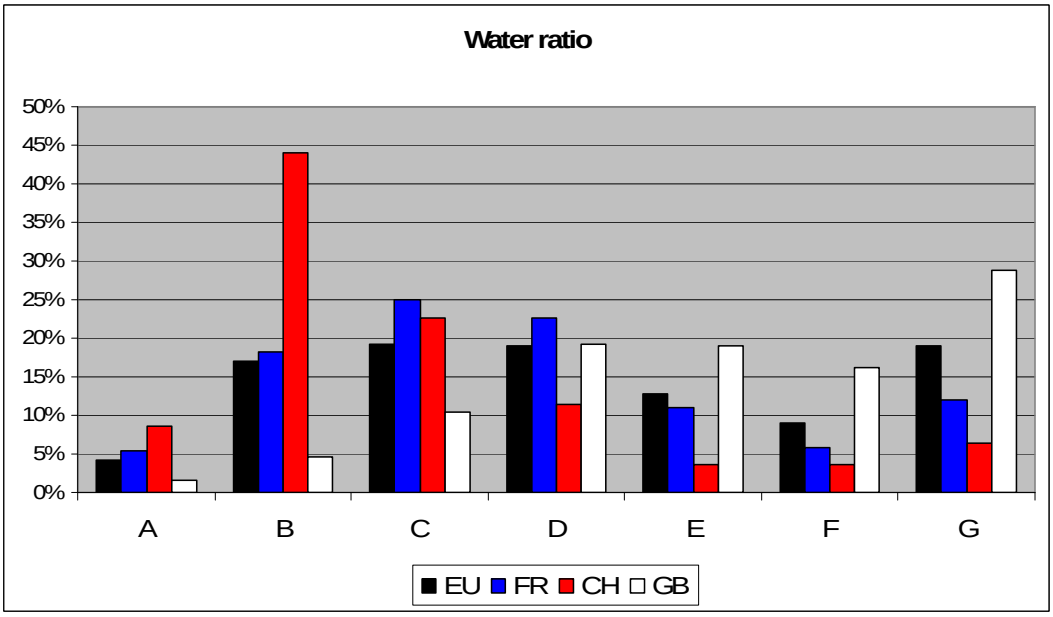
Figure 35 - Distribution by building type (2007)

Thus with about 3500 general schools in Europe it was possible to compare performance data for different European regions. As Display® does not have a European or national climate correction factor this makes some of the following figures very interesting indeed.

The first comparison was made for general schools using 2006 data for three Western European countries, Switzerland (141), France (602) and UK (669) and comparing them with the European (1738) average. Of interest is that each of the countries has a bell curve for the distribution of their schools and that the only difference is that in Switzerland the schools peak in B, In France and England they both peak in D but with a greater tendency towards E in England and towards C in France.

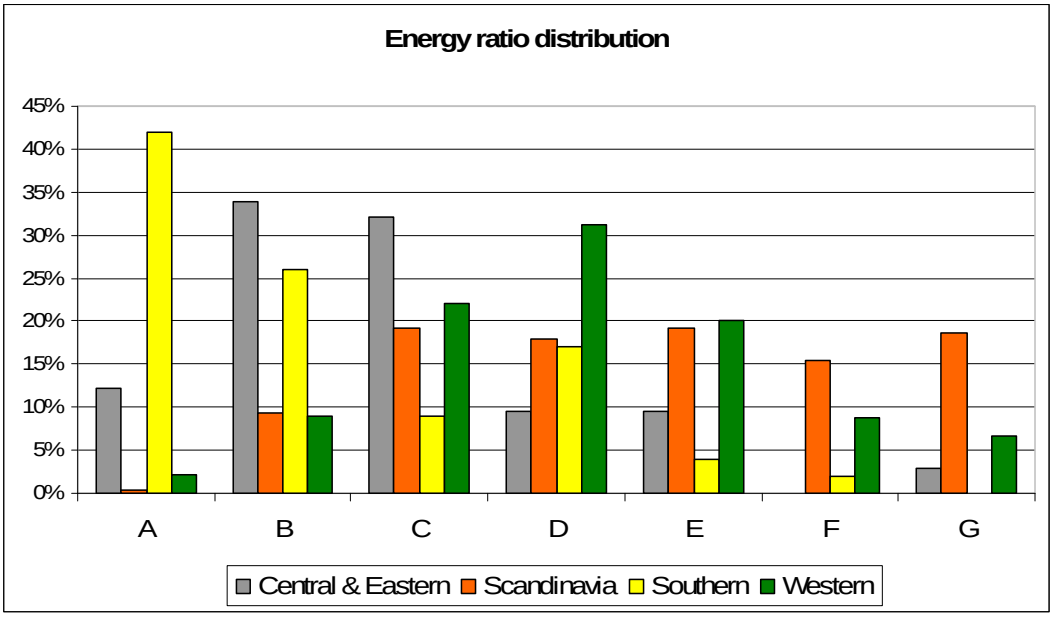

Energy ratio distribution
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
E
F
G
EU FR CH GB


CO2 Emissions
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
E
F
G
EU FR CH GB

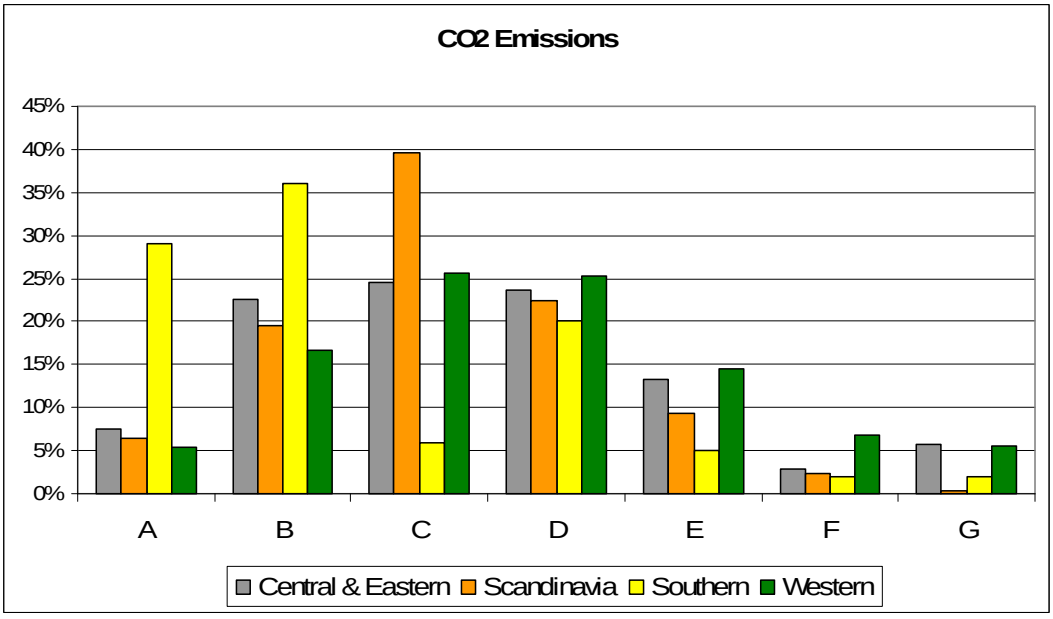

Water ratio
50%
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
E
F
G
EU FR CH GB

A second comparison was undertaken grouping the results for schools by geographical regions: Western (FR, UK, IE, DE, CH, NL, BE), Central and Eastern (PL, CZ, SK, AU, HU, LI, EE, BG, RO, UA), southern (GR, IT, ES, PT) and Scandinavia (DK, SE, FI). For each of these regions, it was possible to have 100 or more school buildings for 2006[1].

From these graphs it can be seen that for energy performance, the buildings from sunny Southern Europe have the best performance, followed by Central and Eastern Europe, Western Europe and then Scandinavia.

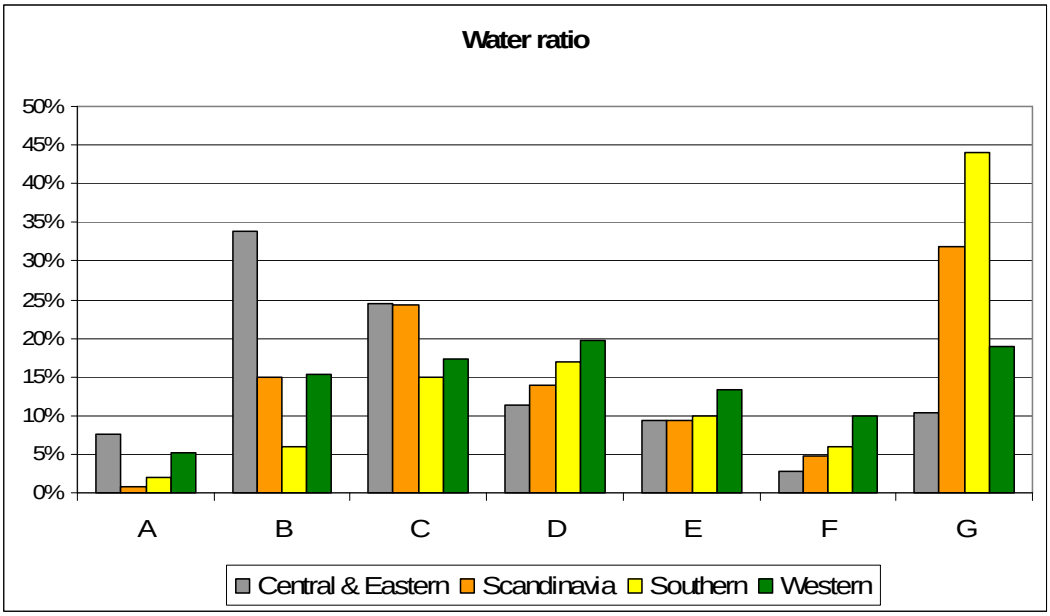


However, CO_2 emissions show a slightly different trend. Southern Europe still has the greatest number of high performing buildings, but this time it is followed by Central and Eastern Europe and Scandinavia with similar performances, with Western Europe being the worst performer. The dramatic improvement in CO_2 compared to energy consumption for Scandinavia can be explained by the high percentage of use of district heating systems and very good national electricity systems that allow for low carbon energy production.



[1] Please note that for Sweden and Denmark data for 2005 and 2004 was used to obtain the required 100 buildings

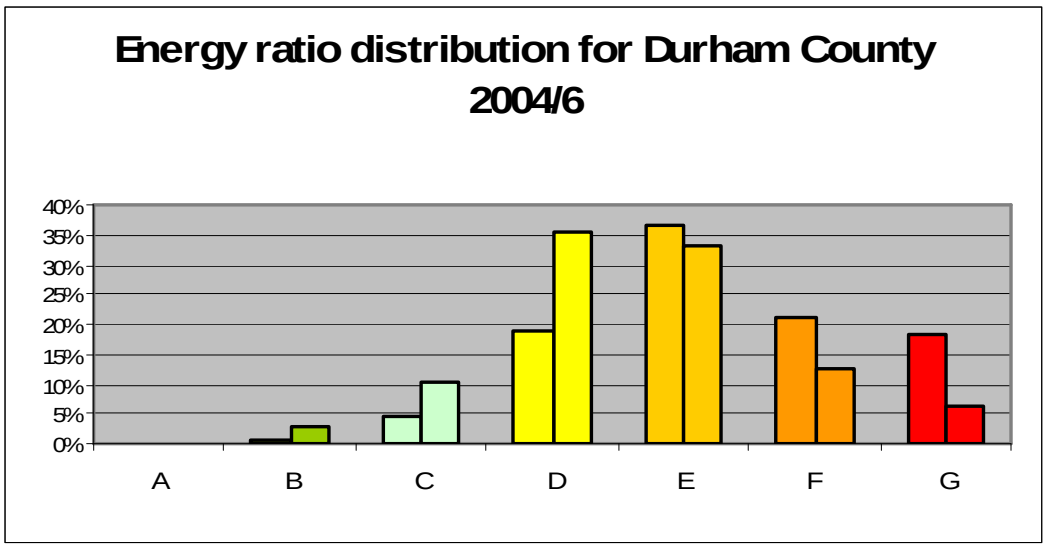
Water performance is particularly interesting as the benchmarks are the same for all of the countries. Here we can see that Central and Eastern Europe have the best performing school buildings followed by Western Europe and then Scandinavia. The biggest surprise is that Southern European schools have the highest number of 'G' rated buildings, which is a great concern for these countries, particularly as many cannot afford to waste water in their harsher and dryer climate.

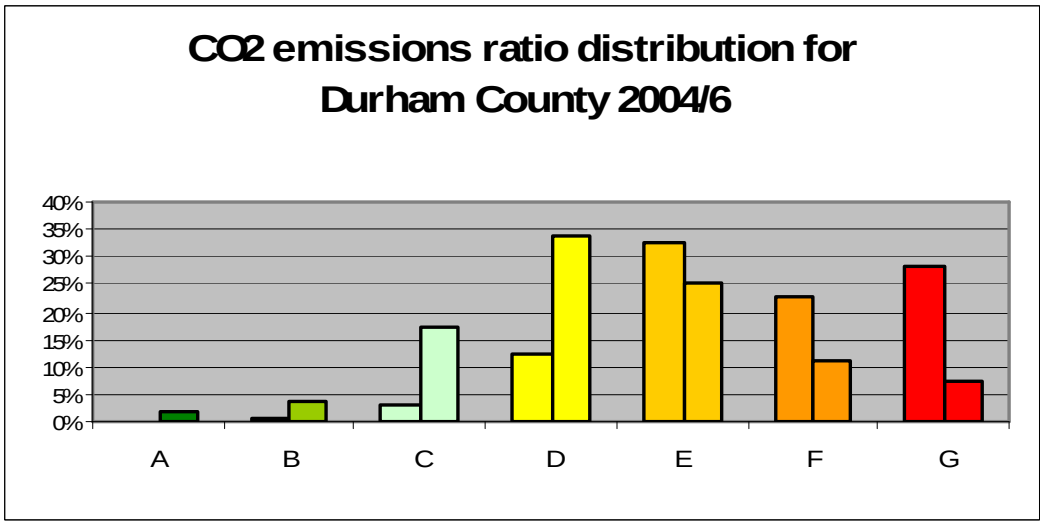


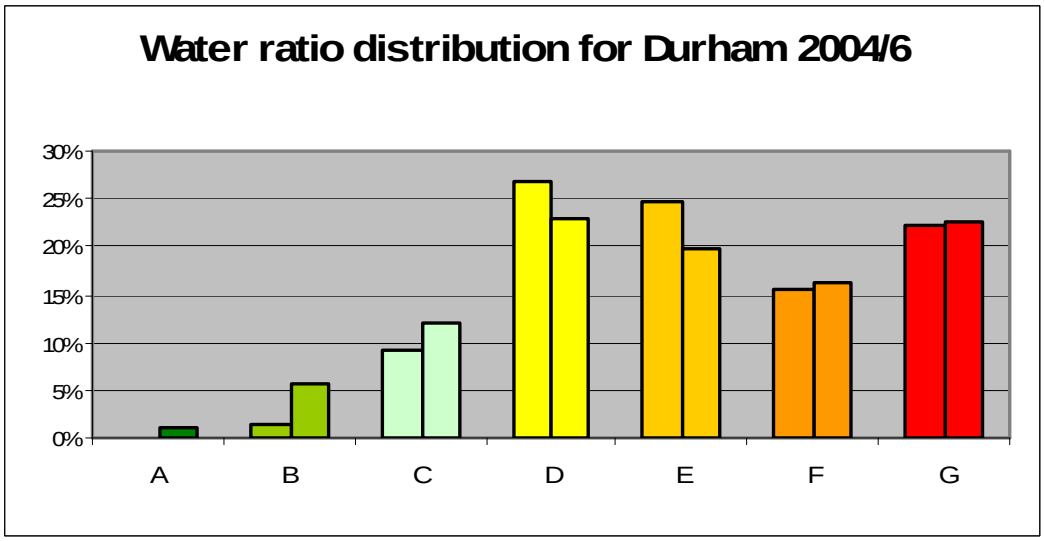
Towards Class A – (away from Class G)!

It is often said the more you put in – the more you get out. This is certainly true for our two leading Display® members who have produced the most number of posters. These local authorities have produced posters for three successive years and have carried out a variety of communication interventions ranging focussed presentations in primary schools (Lausanne) and a corporate Council priority to have no buildings in class G by 2008 (Durham).

Below are the results of their investment where one can clearly see that their municipal building stock or in the case of Lausanne their primary schools where they carried out communication interventions are moving towards class A – or away from class G!


Energy ratio distribution for Durham County 2004/6
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
E
F
G


CO2 emissions ratio distribution for Durham County 2004/6
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
E
F
G


Water ratio distribution for Durham 2004/6
30%
25%
20%
15%
10%
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A
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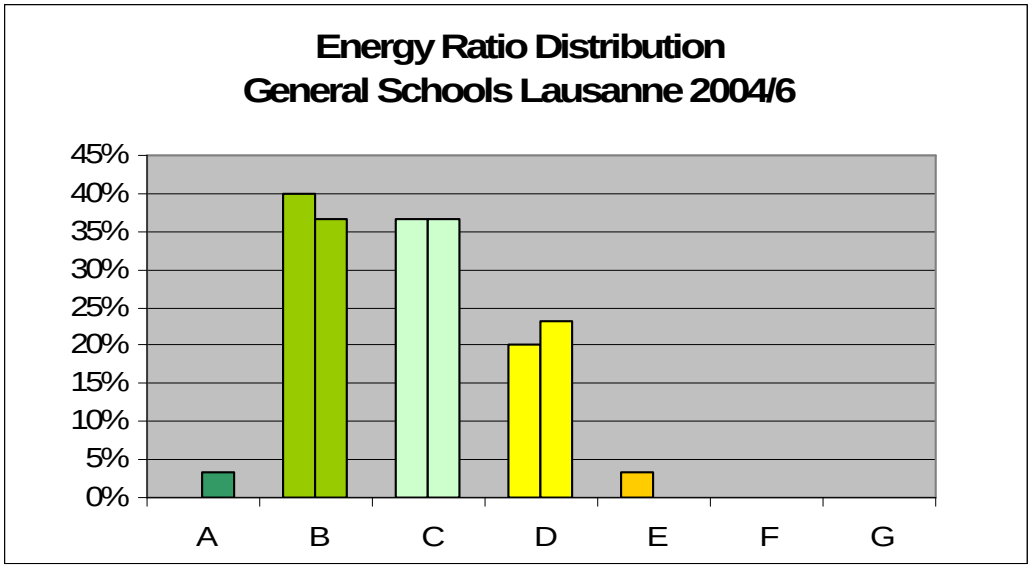
Energy Ratio Distribution
General Schools Lausanne 2004/6
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
B
C
D
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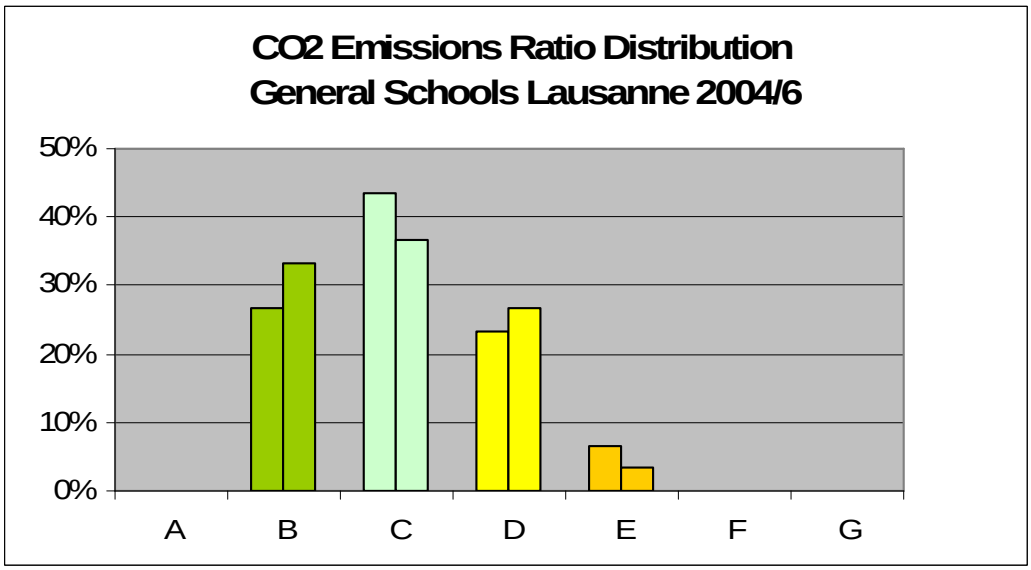
CO2 Emissions Ratio Distribution
General Schools Lausanne 2004/6
50%
40%
30%
20%
10%
0%
A
B
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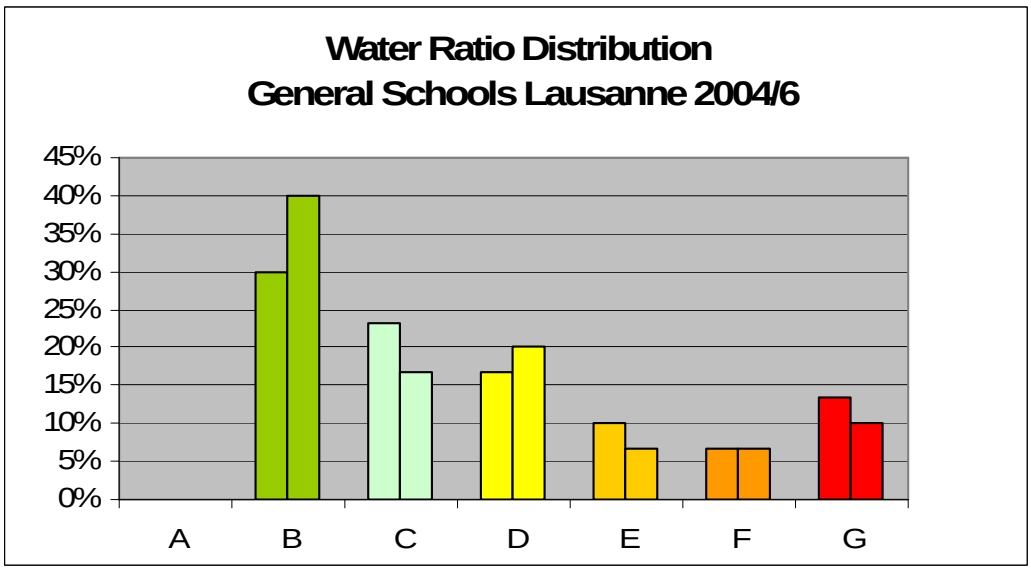
Water Ratio Distribution
General Schools Lausanne 2004/6
45%
40%
35%
30%
25%
20%
15%
10%
5%
0%
A
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Chapter 7: Lessons learned

Most of the Shining Examples on the website contain information on the 'lessons learned' while undertaking the project described. These lessons provide a valuable source of information and advice for those wishing to replicate the projects. Some of the key learning points that were highlighted in the Shining Examples are given below. These learning points relate to planning a project, cost and financing of projects, maximising the benefits of projects, ensuring their ongoing success and factors to consider for communication campaigns and awareness-raising activities.

Planning a project

> **The early involvement, support, understanding and commitment of stakeholders** is essential for the success of projects to improve energy and/or water efficiency of buildings, whether this involves using technical measures to improve the efficiency of the building or communication campaigns aimed at raising awareness and changing behaviour. Relevant stakeholders can include building users, building managers, caretakers and maintenance staff, workers involved in the project and the general public.

> Energy efficiency measures and renewable energy technologies to be installed need to be considered and decided on during the project development stage. **Meticulous planning** can also minimise the amount of disruption to building users during the renovation.

> **An energy/water audit should be the starting point** for undertaking refurbishments to improve the energy/water efficiency of a building. This will ensure that energy/water savings are achieved and that the results are long lasting. A walk-around survey of a building after-hours is useful to identify where energy is being wasted through equipment etc. being left on (See Chapter 6 online help centre).

> **Sustainable building principles** can be applied to the entire life cycle of a renovation/new-build project. For example, this can influence where building materials and labour are sourced from, the type of technologies installed and how waste is disposed of.

> **Case studies of projects** involving the installation of energy efficiency measures and renewable energy technologies provide an excellent source of information and advice, which can help to overcome concerns of stakeholders regarding the performance of these technologies.

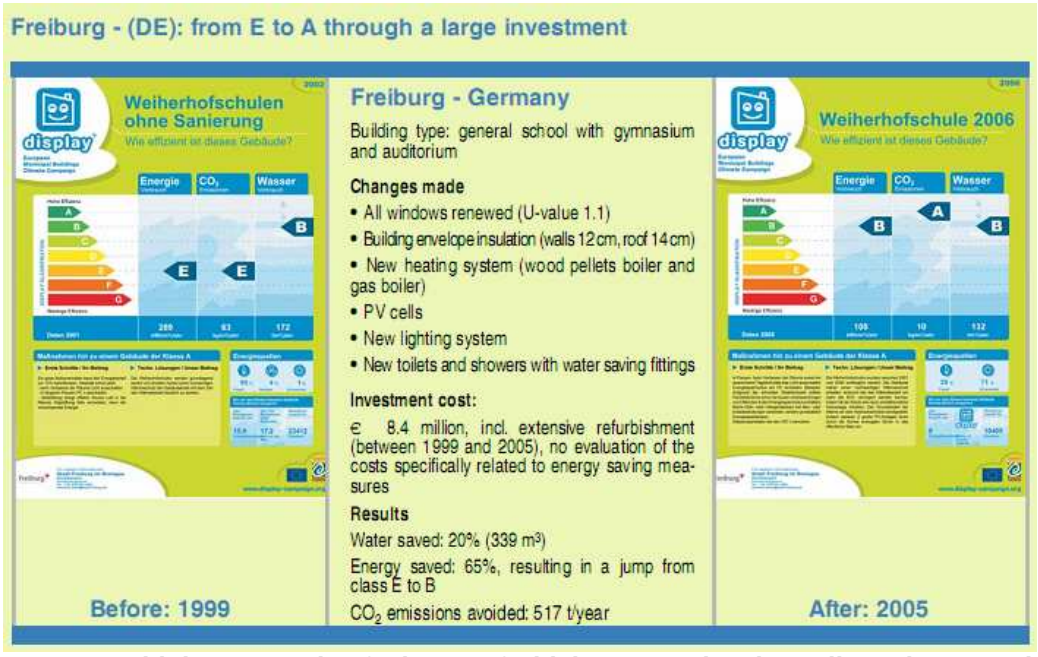

Figure 36 - A Shining Example of a large refurbishment project in Freiburg (Germany)

Cost and financing of projects

> Although projects to improve the energy/water efficiency of a building can result in high short-term costs, these might be outweighed by the long-term benefits.
> Having an energy strategy in place makes investment costs easier to justify.
> Innovative financing schemes, such as third-party financing through Energy Services Companies, can enable improvements to the energy/water efficiency of a building or the installation of renewable energy technologies to be made without a high set-up cost. This can also mean that building users do not have to worry about maintenance of the new technology.
> Financial incentives/subsidies can be used to encourage private home-owners to improve the energy/water performance of their home. Financial incentives can also encourage schools to reduce their energy and water consumption, for example, by allowing schools to use the cost savings for the benefit of the school itself.
> Innovative financing schemes need to be considered for multi-residential buildings where there are multiple building owners. For example, in Bulgaria in a multi-residential building the building owners formed a legal entity, which then secured a low-interest loan for refurbishment of the entire building. Part of the loan was repaid by reconstructing the attic into two flats and using the resulting rent to contribute to the cost of the renovation.

Maximising the benefits of projects

> Involving a wide range of local actors in projects, including creating partnerships between private companies and a municipality, provides a unique chance to implement energy efficiency projects and achieve long term benefits for the local community.
> Combining the implementation of different energy saving projects can increase the efficiency and impact of both projects- e.g. combining the implementation of the Display® Campaign with (say) a 'Green Schools' programme managed by Eco-Schools.

Figure 37 - Display® and Eco-Schools in Scoil Ruain (Ireland)

> It makes good economic and environmental sense to combine functional/maintenance changes with energy efficiency upgrades and to install packages of energy/water saving measures as part of the same project, rather than individually.
> Projects aimed at improving the energy/water efficiency of a building provide an excellent opportunity to raise awareness of the need for energy and water conservation. Technical projects can be combined with a communication campaign to inform stakeholders and the public of the project, raise awareness of energy and water conservation issues and encourage people to change their behaviour to save energy and water.

> Measures used to improve the energy/water performance of a building can also have additional positive benefits for building users, such as creating a healthy and pleasant working environment (e.g. improved lighting, temperature etc.).

Ensuring the ongoing success of a project

> Frequent project team meetings are important to ensure that a project progresses smoothly and according to plan.
> It is important to inform and train relevant building users and maintenance staff on how they should use, check and maintain new energy saving measures or renewable energy technologies, to ensure that the benefits of the technologies are maximised.
> Ongoing maintenance of buildings and equipment is essential, including adjusting the building energy management system when applicable and necessary. It is preferable if replacement parts and servicing are available locally.
> Monitoring and evaluation of projects highlights the results of projects, ensures that any technologies installed are meeting their performance standards and provides useful feedback that can be taken into account for future projects. When undertaking monitoring, it is important to take into account any changes in the use of the building or its rooms, which can have a major effect on energy and water consumption.
> Intelligent metering systems enable energy and water use to be monitored remotely. Such systems can be used to monitor the success of energy/water saving projects and can help to identify areas where energy/water is being wasted.

Communication campaigns and awareness-raising activities

> Schools are one of the most appropriate social environments for targeted activities in energy issues. Starting with pupils and teachers, considerable results can be achieved indirectly by involving their families, friends and neighbours. It is helpful to provide teachers with materials and ideas that they can use to teach their students about energy issues.

Figure 38 - Display® with school children in Almada (Portugal)

> There are several factors that are critical to the success of awareness-raising events. The following factors should be taken into account when planning an awareness-raising event:
    - Plan the event well in advance
    - Have a clear idea of what the benefits and aims of the event are from the outset
    - Set a realistic budget
    - Organise alternative speakers and venue
    - Make use of existing networks to attract the right people to the event, including the media
    - Create a sense of occasion and ceremony
> Appointing 'Energy Champions' in a workplace is an excellent way of promoting energy saving behaviour amongst employees. Even if the Energy Champions are volunteers, it must be made clear that this new role will not interfere significantly with their current workload. Therefore, high level support is essential as this will ensure that line managers agree with the need for a member of their team to take on this role. The key challenge once the scheme is established is to maintain momentum and enthusiasm for the scheme so that the Energy Champions do not become disheartened and de-motivated.

Figure 39 - Display® Campaign in Genève (Switzerland)

> It is important to continuously reinforce behavioural change to ensure that energy and water-saving behaviour is maintained.
> It is a good idea to use a variety of high quality communication materials.

Chapter 8: Recommendations for potential Display® users

The objective of the European Display® Campaign is to accelerate the Directive's implementation and provide European municipalities with an opportunity to take a strategic approach - and be one step ahead.

Using Display® local authorities can:

- **Communicate** with citizens and promote local initiatives to the public
- Display an **eye-catching** poster which is easily understandable by the public
- Obtain instant access to an **efficient, user-friendly and pragmatic** internet-based **tool**
- Calculate the performance of **buildings of all sizes** (including those <1000 m^2)
- **Monitor and evaluate** the progress of the public building stock by **updating the poster every year**

Figure 40 - The first large Display poster in Bristol (UK)

- Display the building's **water consumption** in addition to energy and CO_2
- Become a member of an innovative **European Campaign** to combat climate change
- Involve building users by including **recommendations** on how to improve the energy and water performance of the building. These recommendations are expressed in simple actions that building users can take to save energy and water
- Highlight their commitment to invest in **technical solutions** to improve their buildings' performances
- **Reduce** energy costs
- Be a **pioneer** in implementing the European Energy Performance in Buildings Directive (or your national application of the directive)

In addition to this, numerous examples of recommendations and advice on building management are listed in the Towards Class A Guidelines. The Display Communication Handbook (only available for members) provides a number of inspirational sources for communication actions that address the public. Below is a summary of key management and communication issues that local authorities should consider implementing:

Management activities

- If not already established, set up a facility management unit within the city administration and collect building data
- Make use of the Display® calculation tool or similar software to establish an electronic building data base which provides you with a rough overview of the status of your building stock thus identifying which buildings require major improvements
- Set up a specific fund for your buildings, develop and implement an action plan to improve your buildings' performances towards Class A, include specific targets to be met
- Ensure that money saved through improving the building's performance is fed-back to the fund to be used for further projects.

Communication activities

> Consider the obligation of displaying the energy certificate in public buildings as a means of communicating with the building users, the public and politicians and not only as a legal requirement
> Form an interdisciplinary and transversal working group to set up a local communication campaign.
> When you display your certificates for the first time use a special event involving local key-players and assure a large media coverage.
> If the national certificate is not sufficiently 'communicative' don't hesitate to place the adapted Display® Poster next to it.
> Monitor and evaluate your actions, communicate success and failures via an annual energy report (the Display® calculation tool can serve as a monitoring tool and allows comparisons with national statistics).

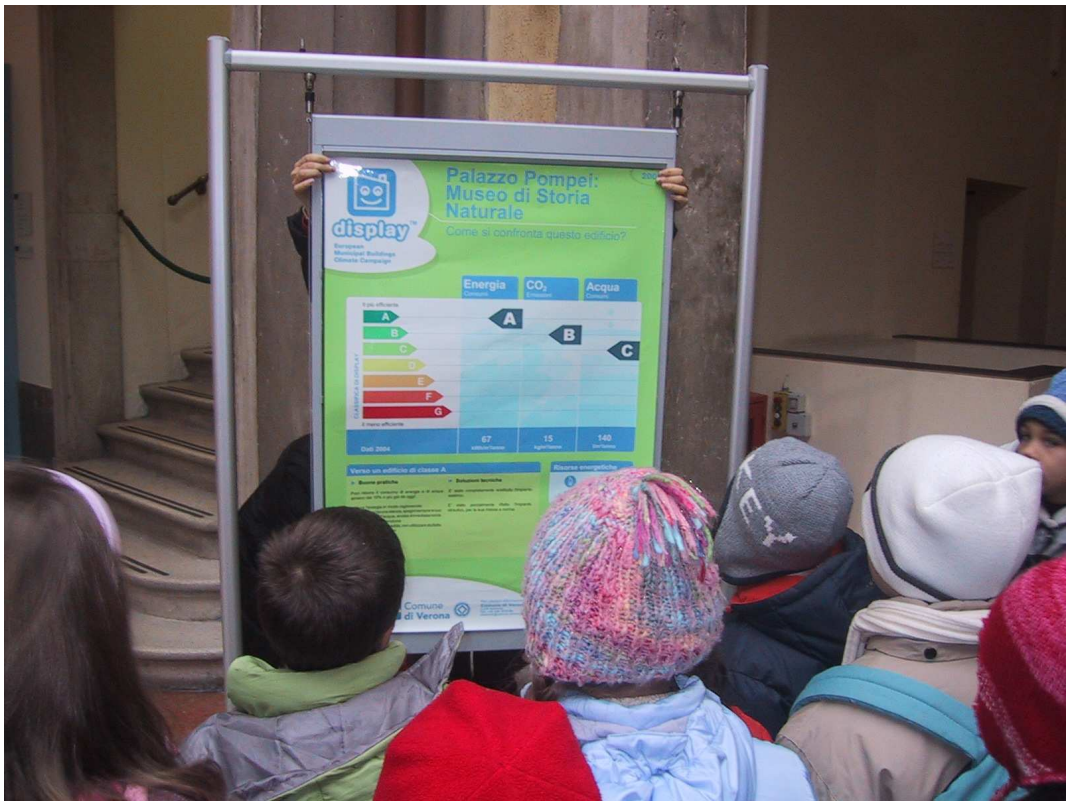

Figure 41 - Display® with school children in Verona (Italy)

Chapter 9: The way forward, the next stages of the Display Campaign

After having successfully run the Display® Campaign for the past four years we will continue for at least another four years, trying to:

> Further extend the Campaign to up to 500 municipalities throughout Europe
> Observe the implementation of the EPBD in those countries who are ready and check how Display® can be adapted as a complementary communication action
> Stimulate communication activities at local and regional levels through the Towards Class A Award and development/update of the Display® communication tools
> Continue networking at a European level through the Display® EU users club, mainly as a platform for the exchange of experiences and guaranteeing the EU-wide acceptance of the Display® tools

Within the next two years we expect to collect data for at least 10 000 buildings. The information relating to the energy performance of municipal buildings gathered in the Display® database will enable us to provide support to set-up an energy management system in the municipalities concerned. Display® will become a tool that evaluates long-term energy performance indicators and will enable the launch of a major action plan to upgrade buildings from the E-G range to classes C and B. Analysis of the data supplied by volunteer municipalities will also enable us to develop benchmarks for different categories of buildings and geographical locations.

Strengthening and extension of the partnership

The enlargement of the Display® partnership via associated partners will play an important role in the near future. We are quite optimistic that we will build partnerships with not only more associations and networks from the public sector but also more companies from the private sector (as associated partners). Beginning 2008 Dexia and Energie-Cités have established a global partnership (going much further than the usual sponsorship relationship) to promote energy posting on public buildings in Europe. Developed in France and in Belgium since the start of 2008, the partnership will also be extended to Italy, the Grand Duchy of Luxembourg and Slovakia later in the year. Negotiations regarding potential partners/sponsorships will be continuously considered, mainly through contacts established through our consortium partner EuroACE.

And finally we will not slow down our efforts and offers to national bodies to develop a long-term strategy of promoting the Display® Campaign as a complementary action that helps the implementation of the national transposition of the EPBD.

Extension beyond municipal managed buildings

Until today the Display® Campaign has only targeted local authorities and the Display® tools have been developed for labelling public buildings only. Our next step will be to extend the Display® Campaign to companies that are players in the internal market for sustainable energy goods and services. In many Member States, implementation of the EPBD's requirements has been slowest in the commercial sector compared to the residential and public sectors. Added to this is that Display®'s communication tools can be implemented without further adjustment in administrative buildings in the commercial sector, presenting an opportunity for synergy and added-value in furthering the implementation of the EPBD through IEE actions.

www.display-campaign.org

The Display® Campaign is driven by hundreds of committed participants. It is co-financed by the European Commission, DG TREN via the "Towards Class A" project.

The TCA Partners:

Project Leader
Energie-Cités, the Association of European local authorities promoting local sustainable energy policy

Council of European Municipalities and Regions (CEMR)

Architects' Council of Europe (ACE)

The European Alliance of Companies for Energy Efficiency in Buildings (EuroACE)

Center for Energy Efficiency (EnEffect)

Intelligent Energy Europe

This project is co-funded by the European Commission- DGTREN, within the IEE framework.