

Yes, pan-European co-operative procurement works

How to best make use of a promising market transformation tool

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1. SYNOPSIS

Reviewing the global Energy+ process, from conception to achievements, this document highlights the key success factors to serve future development of effective European co-operative procurement actions.

2. ABSTRACT

Following several successful national experiences, co-operative procurement for increased energy efficiency has for the first time been tested at pan-European level by the Energy+ project targeting refrigerator/freezers. The result is encouraging. A buyer group consisting of about 100 supporting organisations from all over Europe, comprising retailers with over 15 000 retail outlets and institutional buyers with over 1 million dwellings, has succeeded in inciting manufacturers to put Europe's today most energy efficient refrigerator/freezer on the market.

A total of 16 super efficient models using three-quarters and even less of the energy of equivalent appliances meeting the minimum class A requirement on the European energy label have resulted from the project which formally ended in March 2001. Its market transformation effect though, will be seen in the long-term. Besides energy efficiency, manufacturers were also inspired to pursue developments towards lower environmental impact and rise user utility of cold appliances.

As a market transformation instrument, procurement at European scale is believed to constitute a good means for the European Union countries to work together to fulfil their Kyoto commitments. This paper discusses, based upon the outcome and the lessons learned from the Energy+ project, how this tool could be further developed and used in a common European Union energy efficiency strategy. Factors to carefully consider when implementing pan-European procurement activities, like how to make sure (1) that the force of being pan-European is not hampered by lack of flexibility, (2) that the targeted product is correctly chosen, (3) that the specific aims of the different market actors are met, and (4) that the role played by brands and marketing issues is fully understood, is commented upon and solutions suggested.

3. ENERGY+ : THE VISIBLE PART OF THE ICEBERG

The very first procurement programme carried out on pan-European level, Energy+, has just finalised the second out of two rounds. 10 European countries have participated in this SAVE pilot project targeting the domestic cold appliances. The aim was to create significant markets for existing products with good qualities and at the same time speed up the introduction of new technologies. The project design was simple.

Simple specifications

To be an Energy+ appliance the unit had to be a 4-star refrigerator-freezer with a total net volume of between 200 and 300 litres and an energy efficiency index equal to or below 42%¹, and be available on the European market (EU and Norway). This ambitious energy efficiency index of 42% means that the appliances could not use more than _ of the energy used by A labelled units.

Simple organisation

The project was organised in two rounds in order to give a strong, continuous signal to the market actors and at the same time to allow manufacturers developing new products. Both rounds used the same mandatory specifications. For the first round, a list of refrigerator-freezers meeting the Energy+ specifications and being available on the market as of February 2000 was compiled and published. This list was updated in September the same year to include new entrants.

The second round was dedicated to appliances available in 2001 and completed in March this year. In addition to enlarging the market availability of existing, good products, the second round also had the explicit aim of promoting technological development with an Award competition launched in February 2000. Optional criteria of importance to the buyers were added to the mandatory specifications to guide the manufacturers in the development of products meeting buyers needs. These criteria included higher energy efficiency, refrigerants and foaming agents with low environmental impact, low noise, clear temperature displays, reasonable price, and user friendliness. The competition was open to units in three separate categories: one-door models, two-door models and prototypes.

Simple tools to facilitate marketing

A procurement project is much about marketing and positive goodwill for the participants; the Energy+ logo was created in order to reinforce the project identity and help manufacturers and buyers self-advertise their participation.

Figure 1: The Energy+ logo (in black and green)



The Energy+ communication tool kit CD-ROM was produced to help retailers, manufacturers, energy agencies, housing companies and other project participants to market the Energy+ products. It contains a design manual – for graphic designers and marketing people, and a selection of Energy+ logotypes in various formats and sizes. It also includes "Energy+ Promotion Tips" – a simple guide about cold appliances, energy issues and environmental facts, providing promotion arguments for Energy+ products and energy efficient appliances in general.

Other marketing tools include the Energy+ bulletin, a newsletter regularly sent to all participating organisations, a website (www.energy-plus.org), events at important fairs like Confortec in February 2000, Domotechnica in March 2001 and presentations at conferences and workshops.

Simplicity, a winning recipe: strong demand side back up and a good answer from the manufacturers side

The evidently simple and transparent design of the process paid off well. After the two rounds completed nearly 100 European organisations are backing up the Energy+ initiative. On the demand side three groups can be distinguished:

- *Retailers*, (1/2 of the demand side participants), regrouping large international retail chains as well as individual retailers, mail order companies and electric utilities. Altogether this makes more than 15 000 retail outlets spread all over Europe.
- *Institutional buyers*, (about 1/5 of the demand side participants), comprising housing companies, national housing associations, and holiday parks. These buyers together possess more than one million dwellings and come mainly from Scandinavia and Finland.
- *Supporters*, (about 1/3 of the demand side participants) including environmental organisations, energy agencies and other organisations who in their daily work will push for and inform about the Energy+ appliances.

These demand side actors have been actively involved in the process by contributing with their experience and expressing their interest when developing the specifications for both rounds of the project and the award competition. They have further signed a document declaring their intention to promote and/or purchase appliances according to the Energy+ specifications. The names of all these participating retailers, institutional purchasers and supporters have also been published on separate lists, for each round.

In technical terms the first round's response from the supply side was very satisfactory, with the top of the list appliance, a two-door refrigerator/freezer, having an energy efficiency index of 36%, and the second best fridge/freezer, a one-door model reaching an index of 38%. These appliances both came from Electrolux who together with two more manufacturers was on board the updated first round list.

For the second round four of the most important white goods companies, Electrolux, Whirlpool, Bosch-Siemens and Vestfrost submitted a total of 16 qualifying appliances, many of them being far more efficient than the 42% asked for. (see the list of Energy+ models at www.energy-plus.org).

The Energy+ Award: an impressive technological progress

An independent jury composed of internationally recognised experts in the fields of energy efficiency, technological aspects and consumer issues evaluated and selected a unit from Electrolux as winner of the two-door category and a unit from Whirlpool as winner of the one-door category of the award competition (there was no submission in the prototype category). With energy efficiency indexes of 33% and 35% respectively these appliances largely surpass the minimum requirements of the project and show proof of an impressive technological progress.

Activities to reinforce and secure demand

In order to bring more actors on board the project and reach a large market diffusion resulting from larger volumes purchased and offered, activities to reinforce demand are now ongoing all over Europe. For example press releases have been massively sent out to specialised press as well as to daily papers which has resulted in a large number of articles and radio and TV attention in Sweden, the home country of the manufacturer of the first Energy+ appliances. A newsletter called the Energy+ Bulletin is regularly sent out to actors on the cold appliances market all across Europe and information on Energy+ appliances are disseminated at different trade fairs and exhibitions by the organisations, often energy agencies, behind the project. Buyers and wholesalers meetings have been organised in some countries, while buyers in other countries are kept informed by close phone contacts with their national Energy+ representative. In France, a mail order company has devoted the "white goods newest trends page" of its catalogue to an Energy+ model. Rebate schemes are planned and training courses for salesman are underway.

We can not stop now!

Given the high interest shown from the market actors, the Energy+ project group has decided to keep on supporting the refrigerator/freezer initiative for still some time after the second and final round. This continuation will consist in maintaining and updating the website roughly every three months and continue to issue the project newsletter, the Energy+ Bulletin, to the participants. New actors and new appliances are still welcome on board.

This seemingly simple process, that proved to be a winning recipe, is however only the visible top of an iceberg. Under the glassy surface, quite some hard work is submerged.

4. THE IMMERSSED PART OF THE ICEBERG - A SOLID BASE UNDERNEATH

Procurement: a recognised tool to work on the demand-side of energy efficiency

The idea of procurement is to create a bridge between demand and supply of high quality goods and show manufacturers that there is a demand for such products. This is done by bringing a group of purchasers together to identify potential improvements of a product, or stating their interest in existing but poorly available products and then issue a specification. These demand side actors are actively involved in the process by contributing with their experience and expressing their interest when developing the specifications. Numerous discussions, interviews and meetings with buyers must be held. It is of utmost importance to have a strong demand side support based upon buyers true interests and needs as it can not be left to wishes and guesses from the project organiser or other initiative

takers. Manufacturers are free to choose technical solutions to meet the demanded improvements and send in tenders; the tenders are compared and evaluated, and a winner is selected. The winner is offered certain benefits: in any case publicity and support by powerful and credible institutions, but in some cases also a large initial order, or rebate schemes for its products.

Procurement programmes of different kinds have been recognised as useful tools to work on the demand side of energy efficiency and have since long been successfully used at national level in a number of European countries as the Netherlands, Finland and Sweden. However, following the internationalisation of goods production and the emerging internal European market, it is hardly possible for a buyer group from only one country to convince manufacturers to take part in these processes and change their production. This is true for all fairly standardised products sold by large companies on international markets as a one-country buyer group will constitute only a small fraction of the total demand. A sufficient demand-pull to influence such markets could be created by gathering purchasers from the whole European Union. Combined forces would further lead to a more significant transformation of the European market in its totality. The current prevailing differences between national markets would be softened contributing to the completion of a single European market for energy efficient products thus providing a basis for a more integrated market transformation approach i.e. easier introduction of stringent standards and labelling schemes. Enabling the introduction or strengthening of such measures would in their turn further contribute to raise the energy efficiency in the European Union.

Going pan-European: a thorough preparation

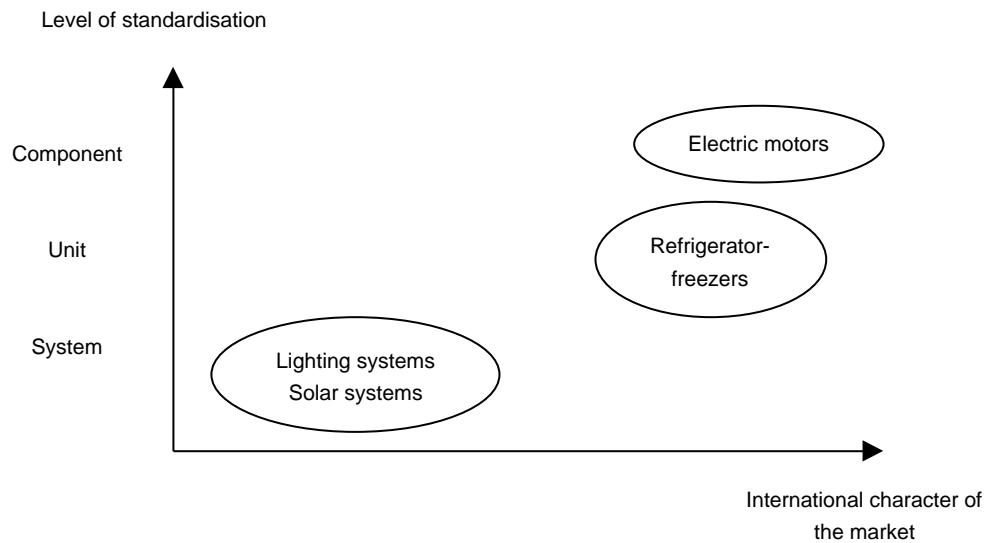
The aim of Energy+ was therefore also to give procurement projects a trial run at pan-European level. It was preceded by a thorough one-year study in 1997-1998, investigating the possibilities and the potential for such actions on European level. Nine countries[#] participated in the study and carried together out 36 market studies regarding four different products: electric motors, solar-energy systems for water heating, office lighting systems, and refrigerator-freezers.

The study focused on the process of procurement and identified two main variables which greatly determine the best way to ensure a successful process at international level 1) the similarities in product usage and the level of standardisation of the product; and 2) the international character of the market i.e. presence of international actors.

In general, components and units are highly standardised and sold on more or less international markets, while systems are difficult to standardise. Related to the low level of standardisation is the need to have the system made to fit the individual end user and his/her specific environment. This means that the geographical distance between supplier and end-user is important and correspondingly, markets are national, regional or even local. The systems can however be divided into components and whole systems showing different degrees of standardisation and international character of the markets (see figure 2).

The study recommended three organisational forms:

- *Full EU wide procurement*, where a common procedure is developed and implemented at the EU level by a European process co-ordinator in co-operation with national co-ordinators; this scenario is suitable for international markets with more or less standardised products;
- *EU co-ordinated procurement*, where a common procedure is used concurrently on the individual national markets, is judged suitable for products with a low level of standardisation or large differences in usage, or on markets where the countries are very different in terms of policy and regulations;
- *Two-step procurement*, suitable for complex systems that can be broken into more or less standardised units. This scenario is a combination of the two above: a full EU wide procurement is carried out for the units or components, combined with EU co-ordinated national procedures for the entire systems.

Figure 2: Product type related to international character of the market and level of standardisation. (STEM, 1998)

The study concluded that procurement is a both feasible and promising instrument for common European actions. Given the fact that the European countries differ in terms of climate, culture (and therefore product usage), market structures and policy aspects present challenges. One of the main barriers to co-operative procurement being implemented at European level was identified as the lack of experience and consequent lack of trust in the process as such. To gain such experience the Energy+ pilot project was started up using the first one of the organisational forms mentioned, full EU wide procurement, on a highly international market with fairly standardised products, the refrigerator-freezer market. Energy+ was essentially built as a *co-operative procurement*, to create significant markets for already existing technologies with good qualities and a *technology procurement* component with the explicit aim of promoting technological development.

In order to adapt the project design and the product to the prevailing circumstances, the first step of the Energy+ project was to thoroughly investigate the domestic cold appliances markets in the participating countries. National market characteristics were mapped-out and the actors, their interests and working routines identified.

This investigation gave at hand that the average model that could be sold in most countries (although some differences in national preferences exist) would be a free standing two door fridge/freezer with a total net volume between 250 and 300 litres. Production of highly efficient such units was not considered to imply any technological problem for manufacturers. The main obstacle to the large diffusion of already existing efficient units was the high sales price, which was essentially due to branding and marketing policies rather than to expensive technical components.

Adapting to a multi-national, multi-actor context

It may seem obvious that having ten countries working together implies a lot of discussions and co-ordination work. Besides the fact that the Energy+ Steering Group fortunately functioned well as a group we below expose some of the factors that helped the work go even smoother.

Ten countries, nine languages

Although European manufacturers commonly use English as working language, buyers and retailers need information documents in their national language. We rapidly found out that, in order to be a truly European project, we would have to be a multi-language project. We therefore had to be able to procure, in the countries where necessary, information in the national language so that operators would really feel concerned. This implied a lot more work than initially planned to achieve translation (sometimes in as much as 6 languages). But it proved to be

worth the effort: there is no way to involve a French or Portuguese refrigerator salesman in a project with English-based documents, and even in Germany and in the Netherlands, translated communication tools were highly appreciated. This also shows the importance of having a national representation in all countries targeted.

Actions consistency and simultaneity

We tried to work as much as possible in parallel, i.e. each national team should implement the same tasks at the same time, so that we could centralise comparable information on which to base the project's fundamental orientations that would concern us all. It is very valuable to be able to tell potential participants that the work is undertaken at the same time in nine other European countries. This also has high importance for the transparency of the process.

A constant capacity to adapt to events

Since the project was collectively being built at the same time as it was implemented, we had no choice but to be open minded. Of course we had a first study backing our work which served as a strong common basis from the start (the feasibility study which consisted in several precise questions that each team in the 10 participating countries had understood and discussed). Nevertheless it was not always easy to satisfy all "national needs" when it came to common decisions. For example, it is due to UK's and Sweden's differing views about the outcome of the pilot project (to push the best appliances on the market versus encouraging new technology developments) that we linked the two positions by including two different procurement components, co-operative and technology procurement, and that we carried out the project in two rounds.

Dealing with different operators

We also knew we were going to work at the border line of different worlds and that there would be differences in perception (and even time perception differences) for the administrations and the private operators involved in the project (manufacturers and retailers). For example, the interest in energy efficiency differ significantly between an Energy Agency working towards societal goals, a manufacturer being interested for marketing reasons, and a retailer being interested in a high range product giving him the possibility to mark-up the price.

Considering the production line duration

The relatively low manufacturer participation in the first round (only two manufacturers) can in part be explained by the very short notice given, which meant that only products already in the development line could be submitted. This is so far the major default of the project expressed by the market actors, and an important lesson for future projects. Another reason for the low number of participating manufacturers was probably a lack of confidence and experience concerning the process itself and precautionary measures before the outcome and impact of the first round was known.

Reconcile authority and co-operation

Another example concerns the attitude to adopt when dealing with operators who are not always happy to see you intend to intervene in their field of expertise. It is therefore important to give a clear idea of your project and your legitimacy, but also: 1) to remain open to proposals by opening a dialogue and listen to valuable experience from professionals (public agenda of the project, meeting with manufacturers, inviting comments, provide transparent answers to questions asked), 2) to consider even what may seem a bad proposal. The decision to open the project also to one-door appliances was taken based upon a dialogue with manufacturers arguing that it would be in line with energy savings to also offer an efficient smaller appliance to not encourage households to buy bigger units than they need. In the beginning part of the working group was against this idea since it meant a significant change of the initial specifications (from 250/300 litres appliances to 200/300 litres appliances) and the inclusion of a "niche" model with a lower energy saving potential. However, after thorough discussions the advantages proved more important than the concession to be made: we had established an open dialogue with the supply side and proved that we sought co-operation, we got an important manufacturer on board that in the end also submitted a two-door appliance.

Considering the retailers' specifics

Compared to earlier national procurement experiences, Energy+ was innovative as it targeted a consumer good while involving retailers – i.e. operators whose job is to sell the procured product. This choice was challenging but also resulted in several difficulties and limitations that we had not foreseen:

- The European market is dominated by a few large manufacturing companies that are present, in one way or the other, on most national markets. Well over **100 different brands** were found in the ten countries studied: appliances from the very same manufacturer are sold under different brands in different countries. This shows that, although cold appliances are fairly standardised units, strong national preferences prevail in terms of total volume, position (top or bottom) and volume of the freezer compartment, and above all brand and marketing arguments. The brand and marketing strategy on different markets is consequently of high importance to the manufacturers, i.e. not every brand can be sold in every country under a unique marketing argument and in a unique price category. This context had two major consequences on the project : 1) even if most manufacturers would be able to participate in an international scale procurement from a production point of view, only the most influential ones have the commercial resources and the distribution network needed to widely deliver the product throughout the Union. 2) the project would be limited by the fact that some retailers, no matter how much interested in the project, would be unable to sell an Energy+ model that would not be of well-known brand on the national market.
- One of the distinctive features of this procurement programme is that the most important actor on the buyer-side was identified as being **retailers** that would not buy the product for their own use, as was the case with the so called institutional buyers^m in earlier national experiences. This implied certain issues to be tackled. Retailers tend to prefer a product that attracts consumers through for example design or brand recognition, features that may be expensive and of less importance to other types of buyers i.e. institutional ones. The retailers favour top range products with a high mark up on the price, something that could counteract the aim of the project. They further showed unwilling to co-operate in a buyers group with their direct competitors. Retailers generally have yearly agreements with specific manufacturers. The price they pay their supplier is often not set until the number of appliances sold (of all kinds, not only refrigerators-freezers) is known. Bargaining practices between supplier and retailer imply that the price for a cold appliance can depend on the sales number of washing machines of the same brand. The relations between retailers and suppliers are often of long-term character and new brands will only be included in the range if they are expected to be fairly easy to sell. Retailers would not include the products conforming to the Energy+ specifications in their range if the brand in question is not in line with their business strategy and/or does not fit the national context. Retailers are for these reasons not able to place any firm orders and can not commit themselves to buy a product, no matter how energy efficient and of good quality the unit would be.

Given this situation the project would not be able to place any orders for highly efficient units from manufacturers that would in their turn not be willing, and in some cases not have the possibility, to deliver suitable brands in all of the participating countries. Moreover, organising a bulk purchase would risk being in conflict with European competition legislation. These market characteristics obstructed the setting up of a buyer group in the traditional sense. To meet these challenges and at the same time maintain the market transforming effect on a European scale, the project was instead designed to push for the best of products and the forefront demand side actors, but let the commercial interactions take place outside the scope of Energy+.

- At the moment Energy+ appliances are **high range products** that are quite expensive, not only because of the innovative technology used and the high energy efficiency, but because it was the marketing positioning chosen by manufacturers, something that to a certain extent hampers their large diffusion on the market and thus a thorough market transformation. For example, the recommended consumer price for the Award winning appliances are on some markets close to double the price for a C labelled unit of the same size and type. These pricing practices are to some extent conflicting with the general objectives of the project which were not to promote top range cold appliances. This limitation embarrassed a lot of retailers who stated that, even though they were participating in the Energy+ project, they could not select Energy+ products in their range since these were too high range and too expensive. The one argument against this position is that it is however often

observed that modified and technically advanced units are first introduced as “top of the range” products, and then innovations gradually penetrate the whole range making them standard features. Increased interest from the buyers side will, in combination with the perspective of more manufacturers offering Energy+ products, most likely drive down prices and bring up sales volumes. But this argument is a difficult one to use both with industrial and commercial operators and with the European Commission, which has strict time limitations to respect, since it implies considering an involvement in the long run.

- Even though Energy+ is not meant to be a label, it appeared quite rapidly that the project would need to have an **identifiable image** so that the project could be easily explained, manufacturers could communicate their participation, and retailers could identify the Energy+ products, but also in order to help retailers market these products. We had to substantially raise the communication budget, to produce a logo, a multilingual web site, a regular news letter (the cheapest way to inform participants and potential participants of what is going on), etc.
- We also found that there was, on the demand side, a need for **energy efficiency information in general**. A lot of support to Energy+ across Europe was gained by first tackling the issues of energy efficiency, and its links to money savings and the environment with interested retailers who felt they were not sufficiently informed. This is the main reason why the Energy+ communication tool kit CD-ROM goes beyond the strict presentation of the Energy+ project and can be useful to sell even A and B labelled appliances.

5. IS PROCUREMENT ON INTERNATIONAL SCALE A RECOMMENDABLE TOOL TO FIGHT AGAINST ICEBERGS' MELTING ? DEFINITELY YES !

Even though the realisation of the Energy+ project implied a lot of hard work, we can conclude that procurement at international scale does work (and even quite well!) provided that some issues are correctly dealt with from the beginning of the process. We strongly encourage more pan-European actions of this kind taking into consideration some important lessons learnt. The framework and the image created around the project could be used to transform other markets which would substantially ease future processes.

Project evaluation

Even if the market transformation effect of a procurement project can only be evaluated several years after the actual end of the process, some conclusions can already be drawn. Being 10 countries has without doubt helped motivate and insure retailers and manufacturers (it has in any case reinforced the dialogue with them). The Energy+ procurement is believed to have speeded up the market introduction of these highly efficient units significantly and has helped made the appliances available in a larger range of countries than what would otherwise have been the case.

Energy+ has even expanded its "natural borders" since demand side actors have joined from countries where we do not have any national representation (Greece, Switzerland, Denmark) and energy agencies and other similar organisations from non participating European countries are now working to make their country join and thus set up such a national Energy+ representation (Greece and Belgium).

Several of the participating energy agencies have decided to carry out a thorough evaluation of the project in two years time from now, when the products have had a chance to develop and spread and when market data is available.

Some issues to carefully consider

Check list	Illustration from Energy+
Targeting the right product and market	
Chose a product that has enough interest in many European countries	This size and kind of fridge/freezer was chosen since it was sold in all participating countries.
Be sure the market is international, at least on the production side	A few manufacturers dominate the European market and are present in more or less all countries. There are few strictly national manufacturers.
Prefer a unit type product that presents a sufficient energy saving potential.	Domestic refrigerators and freezers are the largest single source of electricity consumption in households without electric space and water heating.
Pre-check that procurement is a suitable "tool" for the product and the market in question.	The one-year study that preceded Energy+ produced a questionnaire for this purpose. It will be updated to include questions we had not thought of and lessons learnt (brands, retailers, kind of products proposed, etc.)
Insure consistency with the European policy framework, and national ones.	In the framework of the Kyoto protocol, actions at the EU level supported by the European Commission provide a clear political signal and constitute a good means to make sure that both the common European target and national targets are met. Energy+ also intended to reinforce the European labelling scheme, ease its revision and complement the EU Council Directive banning the sales of the most inefficient units effective as of September 1999 ^{iv} .
Project Implementation	
Good timing, pay attention to: the agendas of different actors from different countries, time given for manufacturers to participate, time to retailers to decide upon their yearly or biyearly product range, difference in time perception between public and private participants, suitable time and event to announce participating organisations and availability of Energy+ products on the market, etc.	A two-year project, planned in two rounds in order to have a "test" go. The final process definition was issued from thorough interviews and communication with all actors and adapted to their specific constraints. Flexibility: providing tools on demand for a specific country; letting national teams evaluate and adapt the available tools. A lot of communication: announcement of the Energy+ agenda, several reminders sent to manufacturers and participants, etc.
Budget and schedule flexibility, in order to adapt to market actor responses. This is true for procurement projects in general, but is even more important when it comes to international scale actions	Acute continuous vigilance, and constant schedule adaptation to balance real market deadlines and EU and national administrative and budget matters was needed.
Communication and marketing, regarding the project itself as well as the products, are central elements of co-operative procurement, especially when it involves retailers.	The Energy+ steering group has actively been working to develop several communication tools to be used by the participants across Europe: the logo, a web site, a newsletter called "the Energy+ Bulletin" and a CD Rom providing communication information for retailers and their sales staff.

If another pan-European project should be launched	
It might be easier to target a non-mass production good where the buyers are the final users. This would further allow to test the policy tool "international scale procurement" (the tool might prove more adapted when buyers are mainly institutional buyers).	The aim would be to avoid a number of difficulties linked with branding and retailer operators and push for products for which prices would not be driven by marketing issues (that have proven to be national even when the production is highly international).
If a mass production product is chosen, carefully study European marketing strategies of the various participants	Realistic objectives can easily be settled, framed by this "marketing situation".
Keep track of non official and "off the record" fundamentals on the manufacturers side: marketing announces sometimes conflict with real production issues, they happen to boycott international events and tend to privilege direct and often non-formal contacts with their partners.	Although we have maintained an official and transparent information flow, we quickly felt essential to reinforce it by direct contacts and meetings with each manufacturer, and each submitted model's features and market positioning needed to be thoroughly discussed and checked.
Focus the project on a common interest between the different market actors (everybody has to gain something from it), and respect all participants specific situations.	Retailers' job is not to convince consumers that an energy efficient appliance is good for his wallet and the community but to sell refrigerator-freezers. To involve a retailer implies showing him that by participating in this specific project, he will sell appliances, which are by the way very energy efficient, and that it has good marketing outcomes.

In the JI and CDM framework

A new interesting application for procurement projects would be to fit them into the frameworks of the Kyoto mechanisms Joint Implementation and the Clean Development Mechanism i.e. to help prevent the melting of icebergs.

The use of energy is highly inefficient in today's developing countries as in many economies in transition. Even though their per capita use of energy often is much lower than in industrialised countries, they can still benefit from considerable economic savings and environmental advantages by following a course of development that adopts efficient technology at the least expensive point (i.e. when new equipment and facilities are first put into service). By following such a path, the greater energy demand needed for economic development and rising living standards could to a high extent be satisfied by increased end-use efficiency. The negative externalities resulting from energy consumption, ranging from green house gas emissions to local pollution in the rapidly growing urban areas would thus also be reduced. Opportunities to increase end-use efficiency by technical improvements that are cost-effective compared to new energy supply are abundant in developing countries, but are not captured due to a number of barriers. These are specifically addressed by procurement type projects, for example imperfect information, split incentives between investor and user, institutional bias and high transaction costs for demand and supply to meet.

A CDM procurement project could be led by an Annex 1 country institution that would seek to form a buyer group of local actors, possibly reinforced by an annex 1 buyers, and make the appliances available on the local market, preferably from local manufacturers. Seeking to transform the cold appliance market in developing countries would first of all meet the interest of the International Community and the climate convention by resulting in a so called ecological additionally when the demand for polluting electricity production decreases, and the electricity usage becomes more efficient. Important co-benefits include that more people would be able to benefit from electricity services when every service consumes less energy. This goes well in line with the development needs of many potential host countries since electrification is a pressing issue. Since one important aim of market transformation projects is to introduce a trend of decreasing prices for good products more households would get access to high quality products which would further raise their living standard. Such a process could also have a positive effect on job formation and on international competitiveness of local industries.

In a Kyoto context, market transformation projects for increased energy efficiency compared to energy supply projects would offer more strategic long-term effects and lay the basis for a more structural sustainable development

of the host countries. An Energy+ type project carried out in a developing countries could mean substantial green house gas emission reduction given that the standard refrigerator/freezer of comparable type and size on developing countries markets consume on average about 850 kWh/year more than the most energy efficient Energy+ appliance. A significant number of certified emission reductions to help fulfil the European quota could thus be generated.

6. CONCLUSIONS

The Energy+ project has demonstrated the force of pan-European actions and shown that market transformation on a European scale does function. The appliances proposed by manufacturers, especially the award winning units, show that technological solutions are available to produce very efficient appliances and that the limits of technological progress are far from reached.

A true fact is, however, that innovation and new technology costs money which is why continued and reinforced demand side actions are now needed to bring volumes up and prices down so that the Energy+ appliances can become tomorrow's standard.

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Energy+ website : www.energy-plus.org

8. END NOTES

ⁱ In accordance with Directive 94/2/EC and the EN 153 test procedure.

ⁱⁱ Austria – EVA, the Austrian Energy Agency; Finland – Motiva, Energy Information Center for Energy Efficiency and Renewable Energy Sources; France – Ademe, French Agency for the Environment and Energy Management; Germany – Wuppertal Institut with support from UBA, the Federal Environment Agency; Italy – Ministry of the Environment and Politecnico di Milano; The Netherlands – Novem, the Netherlands Agency for Energy and the Environment; Portugal – CCE, Center for the Conservation of Energy; Sweden – STEM, the Swedish National Energy Administration; United Kingdom – BRE, Building Research Establishment Ltd. In the ongoing pilot project Norway has joined the initial group of nine countries and are represented by the Norwegian Water Resources and Energy Directorate and NEE, Norwegian Energy Efficiency and Energy Management Inc. BRE that represented the U.K has in the pilot project been replaced by the ECI, the Environmental Change Institute of Oxford University.

ⁱⁱⁱ Institutional buyers are buyers buying the product in question for their own use, for example large housing companies equipping their flats with white goods (Scandinavia and Finland), holiday homes, homes for elderly people etc. These buyers are in a position to place firm orders of products fulfilling their specified needs and requirements.

^{iv} When the labelling scheme on refrigerator-freezers was introduced, only a few appliances qualified for the most stringent level "A". A quick evolution of the market has however necessitated the ongoing revision of the scheme. Since it will take a few years for the new requirements to come into force, the Energy+ project has an important role to play in giving visibility to the most efficient products available and help the buyers distinguish them from the "normal" A-rated units. Energy + units have an energy efficiency index equal to or below 42% to compare with 55% for label level A.