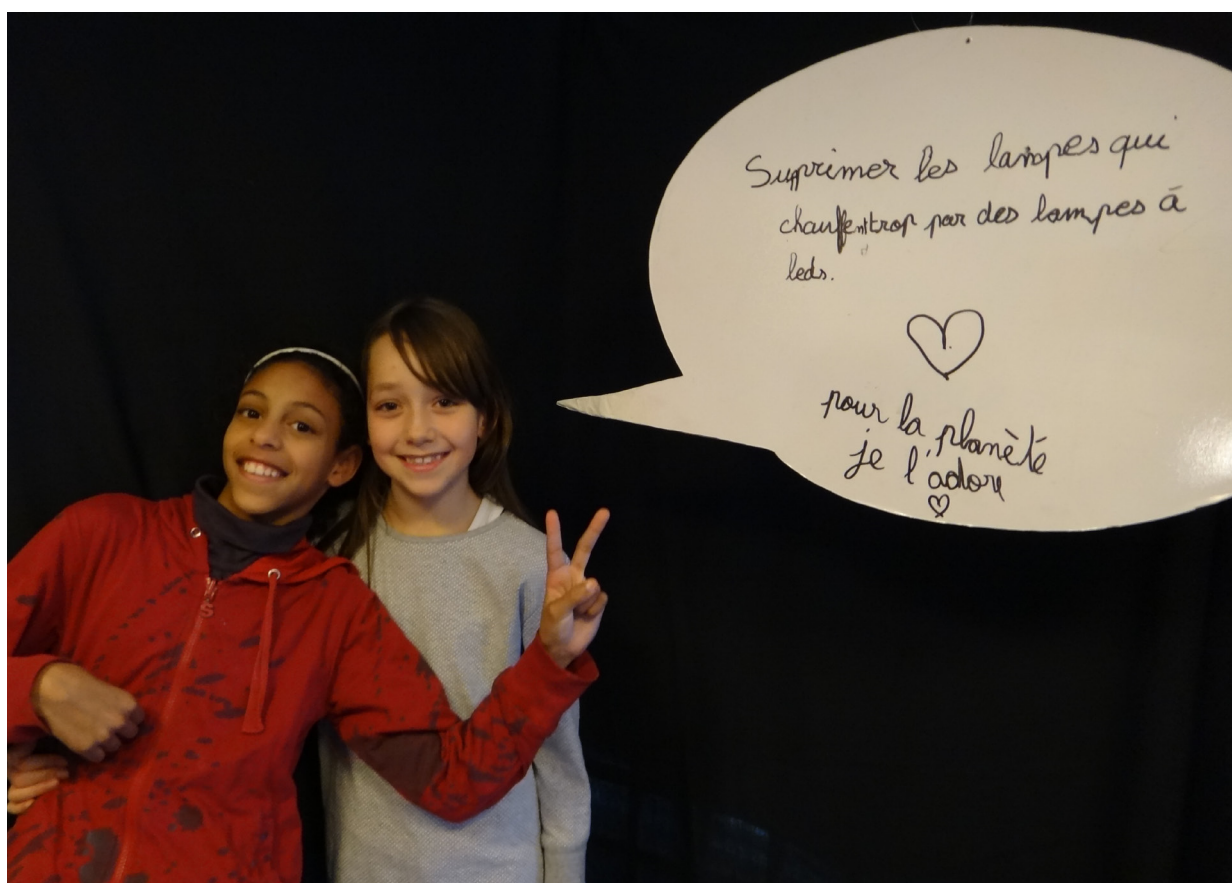




The Sustainable Climate Challenge: Project conclusions

A guideline of the project on behavioral change – how and what to do



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Summary

The Sustainable Climate Challenge (SCC) was a project within the Interreg IVC funded EnercitEE program. Four different partners took part in the project: Energy and Sustainable Development Agency of Modena, AESS, (Modena, Italy), City of Meerane (Germany), Prioriterre (Haute-Savoie, France) and City of Växjö (Sweden). The SCC project has offered the citizen's concrete activity to cut the energy use and climate emission and renewable energy. The target group of citizens that have been challenged was in Växjö, employees, Meerane, school children and their families, AESS private house owners and Prioriterre eco consumers groups.

The SCC project has developed different tools to support the participating citizens to change behaviors and to show the result of saved kWh, CO₂ and saved money in two different web tools, a "yellow book" with info on climate smart products and services and has also produced material for the school children on saved kWh and an energy calculation in correlation to the investment for the private house owner. The project has used "climate idols" (local known people with interest in "climate" issue) to challenge the target group employees in Växjö and other "important persons" in the other regions in SCC project. AESS in Emilia-Romagna has developed a process to help private house owner to invest in energy efficient of the building and photovoltaic through energy check, procurement of installers and products.

In total the project reached 2000 people from 60 workshops and meetings. These people made different measures and saved more than 500 000 kWh/year if they continue on the way as they did during the challenges period and more than 150 000 kg CO₂/year at the same way of calculation as for energy efficient.

Most of the challenges are transferable to other regions with smaller adjustments. However, varying national legislation may be something that may not make the projects less transferable. That is also one of the factors that stress the need of a backup plan. AESS had to change their project due to changes in the legislation regarding tax credit for PV-plants. Except from the one mentioned above three other subjects are highlighted as crucial for realising a successful project. Factor number two is privacy. People are not always keen on sharing their energy use with the public so having a solution that provides data but grants privacy is important. Factor number three is to have proper tools, for example websites, that are adjusted to the goals of the project. The more people you want to reach the less complex the tools need to be and vice versa. The fourth and last factor is the target group. It is very important to analyse the target group in advance and compare it with the desired outcome. Sometimes the target group need to be smaller than you first thought. Maybe not all companies are in your target group but rather the ones that have taken small, but not too large, steps towards sustainability.

The following questions should be answered by this guide:

- Why did they do it?
- What did they do?
- How did they do it?
- How did it go?
- Why did it go that way?
- What did they learn?

Part 1 – common part

The Sustainable Climate Challenge (SCC) is one that challenges unsustainability and encourages sustainable ways of everyday living. As citizens we have different roles, such as consumers, pupils, employees and house owners. The roles may change during a day or during a lifetime but they are all included in the SCC. That is because each partner had different ways to engage their respectively target group. Although we had different challenges we were driven together by a common wish to involve citizens and give them an opportunity to change behaviour into a more sustainable way of life. The EnercitEE program with its focus on citizens, knowledge spreading and the EU 2020 targets therefore seemed like a perfect platform for the SCC.

Since each partner tried different ways to challenge their target group and we gained a lot of experience. This paper is a way to pass our experiences on so you could do a better challenge in your region!

| Partner | Primary target group | Sec. target group |
|-------------|----------------------|-------------------|
| AESS | Single house owners | |
| Meerane | School classes | Households |
| Prioriterre | Consumers | |
| Växjö | Workplaces | Households |

The following part highlights and discusses four key factors that we think is crucial for a good project outcome. *More factors are collected in Appendix 1 – More key factors.*

Tools

Functioning websites and other tools are essential for project success. Instead of creating a new tool it might be easier to use an already existing one. The existing tools are already tested and ready to use and therefore it might be easier to use them even if they aren't exactly what you are looking for. It might also be possible to modify an already existing tool to fit your needs.

If you decide to create your own tool, which is reasonable for a long project, make sure to have time and resources for testing it properly. And make sure however it has experience in the field. Apps for smartphones are a way to make access easier but they don't come for free. In 2012 an app produced in Sweden cost about 5 500 euro.

Large amount of participants probably call for simpler solutions and vice versa while more complex tools could be used if you focus on a smaller group.

Remember to provide manuals for using the tool. These could be written but if you complement the written instructions with a "how to do it"-movie, you might save some time answering questions from participants.

Target groups

Do you want to reach households? Is that specific enough or are there sub groups within that group that you want to focus on? Flat owners, villa owners, car owners, car owner sin areas with good public transport, Single households, families, young, old etc.? Each comes with their own preferences and may demand different approaches if they are to take part of your project.

A good target group analysis in advance may save you a lot of work.

Privacy

People may not want to share their energy use with the rest of the world. Think about ways to make people feel less anxious about monitoring energy use. Some people may be happy to act as figureheads but most people probably want to work with energy saving without being a public figure.

Anonymous data is probably the way to go if you want to reach large numbers of people.

Plan B – External factors

What happens with your mobility project if the government decides to cancel all public transportation? External factors like, tax changes and economic forecasts may change the arena totally. Put some time into analysing the surrounding world and try to anticipate several scenarios that might arise. Have a plan B ready if all the worst scenarios become true. You may not reach to the stars but according to the circumstances it is better to hit the treetops than staying on the ground.

Results

During the different challenges 500 000 kWh were saved this is equivalent with 150 000 tonnes of CO₂. Through 60 workshops and meetings we reached 2000 people through the challenges. In our project we had more than 1300 participants. Since some activities also included the whole household the number of people directly and indirectly reached grows to 1700.

During the challenges the different partners in SCC have worked in diverse ways, both in terms of time periods and activities. The result in terms of kilowatt hours is therefore a common denominator for very diverse activities such as installing a photovoltaic plant or turning of standby on the TV. The result of this project is not the kWh saved during the challenges but the changes in behaviour afterwards.

A survey from Växjö's participants 6–18 months later shows that 40% continue to act energy efficient after the project. The school campaign in Meerane will continue since it is a measure in the climate protection plan. In Haute-Savoie, Prioriterre work with the eco-consumer group has influence the Agenda 21 of the municipality of Annecy as an eco friendly action consumptions actions.

Part 2 – the projects

AESS MODENA

Description of the local projects

Background

In the Emilia-Romagna region (where the City of Modena is located) the residential and tertiary sectors are responsible for about 35% of the total energy consumption.

The building stock of Emilia-Romagna is composed of approximately 870,000 buildings with a total area of over 200 million m², 48% of the buildings were built between 1962 and 1982. These buildings are highly energy intensive and their average consumption is around 180 kWh/ m²/year. The Emilia-Romagna Regional Government expects to reduce by 36% the primary energy consumption of the residential and tertiary sector by 2020.

In March 2008, the Emilia-Romagna Regional Government implemented the EPBD and defined standards and other measures aimed at improving the energy performance of new and existing buildings. These resulted in the development of a standard on the energy performance of buildings, including a calculation methodology, determination of energy classes and limit values, as well as

minimum requirements for energy performance.

The National Budget laws have introduced from 2007 to 2011 a set of tax credits equal to 55% of the costs for actions in energy savings in buildings (high efficiency boilers, high efficiency glasses, installation of solar panels, insulation). In 2009 in Emilia-Romagna (2009 ENEA report) 168.6 GWh were saved through energy efficiency interventions in buildings, but the report of the Emilia-Romagna Regional Government on existing buildings energy certifications demonstrates that high building energy performances through retrofitting were not achieved.

Local project objectives

AESS Modena, within the SCC project, wanted to increase buildings energy performance in the community. Raise awareness by providing a proper information and communication campaign on the benefits of energy efficiency and the selection of designers and installers at local level should encourage citizen in energy efficiency buildings retrofitting.

The challenge is to achieve buildings energy improvements setting up collective purchasing groups and providing energy audits for retrofits.

Energy education for a more informed community on the benefits of building energy improvements should increase investments and the market of energy efficiency products.

The project objectives goals are to increase the demand for building energy efficiency retrofits.

The beneficiaries of the initiative were principally:

- Local authorities, which support the initiative and promote sustainable energy efficiency policies at local level;
- Companies and enterprises operating in the building energy efficiency sector which promote their products and services;
- Citizen organised in purchasing groups which achieve best rate EE and RES products and services for the building retrofitting and are advised about the opportunity to improve their building energy efficiency.



From the brochure of the campaign

Description of the chosen method and challenge

AESS wanted to support owners to improve their building EE through the creation of collective purchasing groups for buildings energy retrofitting in order to reduce the buildings energy consumption and energy costs.

The first step is to inform citizen on the opportunities to reduce their energy bill through the building energy retrofit and in particularly through the application of an external thermal insulation system. The information and communication campaign was conducted through the:

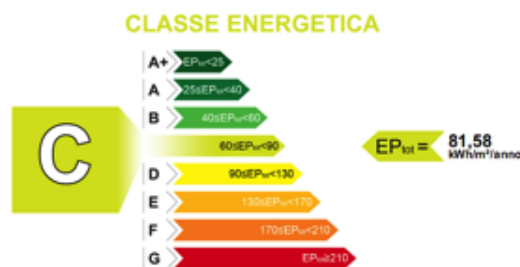
1. Organisation of local events in collaboration with the Municipalities to present the initiative to the citizens and to inform them about building energy efficiency opportunities
2. Local web site development
3. Press on newspapers
4. Presentation during local events
5. Flyers dissemination



Local web for campaign.

In order to ensure the comfort of owners in building retrofit AESS also selected:

- Designers responsible for the building energy check, the feasibility study report and for the assistance in the construction site, in order to support the citizen in all the retrofitting phases
- Companies which attended a call for tender and presented best products at more affordable costs
- Banks to support citizens in the investments



kWh/mq*y before the intervention: 151,22 (Energy classif. E)

kWh/mq*y before the intervention: 81,58 (Energy classif. C)

kWh/ mq *y saved: 69,64

CO2 saved kg/y: 4.308,68

The measures suggested during the project were external thermal insulation and PV plants installation.

The interest of the building owners in the project was ensured activating a challenge between citizen, which joined the building energy retrofitting purchasing group to reward those who, through the interventions, achieved a major saving in terms of energy and CO₂ emissions.

A regional event has been organised in order to present the project results and award the winners.

Although the information campaign has been appreciated by the high number of citizens which attended the meetings in the municipalities and required inspections for buildings energy audits, despite being given all the necessary support to achieve energy efficiency retrofit in buildings, the project results in terms of interventions are scarce. The economic crisis that has been profiled in the last year has forced many owners to give up the investment.

The economic crisis that was profiled since last year and the insecurity on the maintenance of fiscal instruments and economic incentives available at national level affected the project and forced many owners to give up the investment.

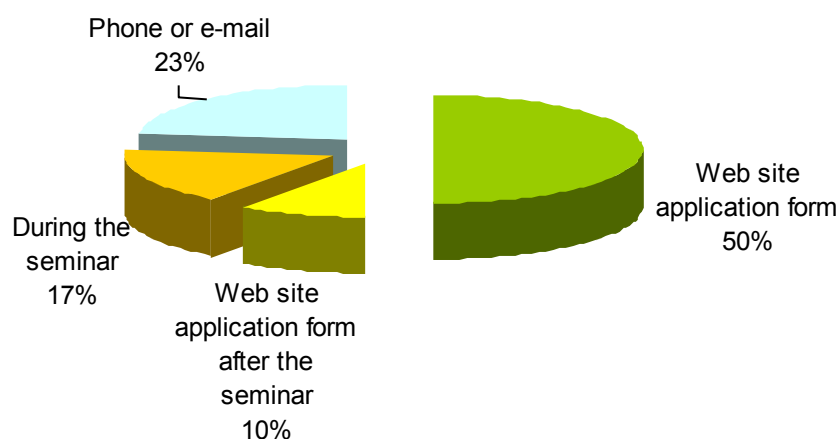
Results

During the project have been achieved the following results:

- 13 local conferences/events on building energy retrofit, envelop optimisation, PV installation with in total 163 participants;
- 36 building energy audit for thermal insulation system and 3 owners that installed thermal insulation system;
- 14 building energy audit for a PV installation and 2 PV plant installed;
- Local web site, flyers, newsletters, press on newspapers and articles produced.

In the graphic below is shown how citizens joined the initiative.

How citizens joined the purchasing group



kWh saved from buildings envelop optimisation: 88.259 kWh/y

CO₂ reduced from buildings envelop optimisation: 17,8 t CO₂/y

kWh saved from photovoltaic plants installation: 6.608 kWh/y

CO₂ reduced from photovoltaic plants installation: 3,2 t CO₂/y

Total kWh saved: 94.867 kWh/y

Total CO₂ reduced: 21 t CO₂/y

How is the challenge transferable to other regions (or groups of citizens)

Challenges carried by the other SCC partners are very interesting and present innovative aspects for the involvement of citizens in energy saving and CO₂ emissions reduction projects.

The transferability and replication of the other sub projects in Emilia-Romagna could be possible, even if some change will occur:

- Challenge for private organizations and employees: the city of Växjö developed a challenge involving different organizations and their employees with both EE and cutting CO₂ emission. The involvement of private companies would be very challenging since in Italy large private companies in many cases are reluctant to be involved in sustainable behaviors projects. SMEs could be interested in the project even if the role of the local authorities would be crucial for the project success.
- The eco consumption "yellow book" developed by Prioriterre for the Rhone Alpes region in order to find sustainable products or services and see if it is available in a local retail shop or offices it's very interested and can be adapted to the Province of Modena;
- The challenge and the educational activities on energy efficiency and renewable energy source carried on by the German partners are similar to other project already available at local level, but the communication material and the project approach of Meerane can be useful and replicated in Emilia-Romagna region.

Some ideas around affordability and possible improvements

The most important aspect of the project is increase the awareness of citizen on energy saving, costs and CO2 reduced and financing opportunities available in order to energy retrofit their buildings. Nevertheless informational activities had a great success and people demonstrated their interest requesting an energy audit, the high cost of buildings refurbishment in order to improve the energy performance has led to poor results in terms of interventions realized.

The economical crisis and the uncertainty on financing available from the government didn't allowed the citizens to feel confident in energy efficiency and renewables investments. Only early adopters, which already install energy efficiency measures on their houses, decided to realise the interventions. Support citizens in small investment could bring more results, but the scope of the project was to support private citizens in large investments.

Another tactic can be support only blocks of flats and multifamily buildings, in this case the costs for energy retrofit would be lower, but this approach needs a lot of resources in terms of time to put together the various owners of the building.

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PRIORITERRE – HAUTE-SAVOIE / FRANCE

Description of the local projects

Background

Prioriterre joined the SCC partnership because the thematic was in line with some of our project and objectives to rise awareness on eco consumption and energy efficient behavior. We really thought that challenging people through a game is a funnier way to raise awareness than just having conferences. We wanted people to be actor of their changes.

Prioriterre is also an energy advice center in Haute-Savoie, which aim is to give people concrete solutions to reduce their carbon footprint.

Local project objectives

Haute-Savoie objectives for the project is to work closely with local authorities to reach the citizens by creating groups of eco consumer.

Prioriterre fosters EE criteria (green purchase, EE production criteria) in consumer groups, and brings information on the EE actors within the local market. The aim is to get people to reduce the greenhouse gases emissions in their daily life.

More than 300 people share strategies and methods via information, brochures and workshops and will reach, if not done already, a more sustainable behavior and improve their quality of life!

Thanks to exchange of expert knowledge from energy agency to citizens and to local authorities, the project will improve and change citizen's consumption behavior, improve energy and money savings and allow a measurement of implemented actions

The online tool « le climat entre nos mains » was presented as a tool to go further after the workshops. It is a more complete questionnaire that led the citizen to get involve into new behavior change, little by little. It is also a helping tool to help people following their effort.



From one of the workshops. Photo: Prioriterre

Description of the chosen method and challenge

At the beginning we first gather people around the online tool « le climat entre vos mains » that helps in

- calculating the emissions of greenhouse gases for them to relate to the national average
- committing oneself to effective action to reduce them, categorized by difficulty level and in four areas: housing, mobility, and power consumption
- enjoying a real guide to get to the objectives: practical advice and useful addresses

The project want to help in sharing with others who are committed in changing behavior.

The climate in our hands online tool is designed to assist people with enthusiasm and good humor. The site is built as a guide and allow people to make a do it yourself audit of their current behavior.

This initiative is also aimed at local authorities, for they encourage their residents to engage and support them in this process. So we have to be in contact with them and collaborate.

Then, to reach the participating people and make them involved in the workshops we have to communicate on the topics and find fun and original way of presenting them. To communicate to people the notion of "everyday heroes" was taken.

These everyday heroes commit themselves in acting to preserve energy and planet resources, but at their level, and step by step.

The project also aims to create a place of exchange. The objective is to bring excitement, enthusiasm, and even an emulation can give wings to the political, so they feel worn, encouraged, legitimized to make decisions that will make energy savior behavior easier to adopt and therefore accessible to the greatest number.

We collaborate with some city to propose some different topics : mobility, local food, energy saving, eco design and eco consumption etc... we challenged people in cooking the more local diner, to create some decoration for Christmas only with reused material etc.



*From two of the workshop
Eco consumption and
waste photo: Prioriterre*

For each workshops we try to work with expert in these topics to have different point of view and experiences. A wide communication was made to our contact lists.

Not every people were coming to the 8 workshops we had.

We also organize some "happening" workshops, in the city where lot of people could pass by and get information.

The hardest part was to actually made people go online and fill the form to have the follow up of

their behavior change.

This is why we created a « passport » : people would note down the behavior change they will apply and will follow their consumption at the same time. To encourage people to participate, we offered incentive so that they would send us their passport once filled.

Besides, we also created an online « yellow book » - contact list- of local supplier and retailer in eco consumption field.

En consultant notre annuaire

Grâce à l'annuaire Rhône-Alpes de l'éco-consommation, trouvez les acteurs proches de chez vous. Alimentation, loisirs, transports... Plus de 1400 bonnes adresses en ligne, sur la région Rhône-Alpes pour une consommation durable au quotidien. Vous connaissez une structure qui n'apparaît pas ?... aidez-nous en enrichir cet annuaire en complétant le formulaire . Pour connaître le mode de sélection des organismes et la répartition par catégories, vous pouvez consulter la charte d'utilisation. Cet annuaire est mis à disposition à titre indicatif et n'est pas exhaustif. Basés sur les déclarations de la structure ou d'un tiers, les Espaces Info-Energie ne peuvent garantir la vérification des informations fournies.

Utilisez les champs de recherche ci-dessus pour effectuer votre recherche dans l'annuaire Eco-Conso

From the online "yellow book" <http://www.prioriterre.org/ong/particuliers/a2378/c-est-quoi.html>

Results

The campaign aimed at households and public audience in general.

The workshops were organized in Prioriterre offices or in the frame of bigger umbrella event such as heritage days or mobility week. One event took place in a big public place where many people got the opportunity to pass by and get information. It was more difficult to ask them to get involved, but they get a first level information.

In total, more than 540 people were reached through 10 workshops.

Based on different online tool created by another project, we tried to follow the estimated energy savings and CO2 emission avoided.

People didn't really follow the « le climat entre nos mains » website, as the involvement asked was too demanding. We proposed a passport of behavior, where people noted which behavior change they wanted to apply on a 6 month basis.

We finally used the Energy Ambassadors online tools to calculate an estimation of energy saving and CO2 emission reduction.

People were asked basic information on their apartment, size and energy used as well as level of insulation (3 levels: before 1975, after 1976 and between 1960 and 1990).

The calculation tool, when entering the behavior change chosen, calculated the estimated saving it represent according to the house and the energy mix.

We had a feedback for a sample of 112 households.

The estimation of the energy saved in these household is: 108 346,5 kwh saved with simple gesture such as reducing time under the shower, changing bulb, switch off standby!

This represent around 976kwh saved per household in a bit more than 6 months.

The total CO2 savings estimation realized by the 112 households via simple gestures is 14 955 kg CO2. 9646 kg CO2 have been saved through the reduction of heating fuel consumption.

How is the challenge transferable to other regions (or groups of citizens)

Meerane project could be developed in French regions too, as we are actually already working with schools and teachers on energy efficient topic. Guides and online tool are being developed in another European project. The most difficult would be maybe to integrate companies as supporting the activities and to promote sustainable products at the schools. The tools could be adapted into French but no with too much of work as we have similar ones.

The competition could also be done. We are also developing since 5 years a energy saving competition all over France among households. It is also part of a European project. The supporting activities to the participants are very important.

City of Växjö project could also be developed in France. The challenge would be to reach the administrative board so that they encourage (or officially ask) to participate to the effort. With Climate Plan or Agenda 21, city and local council are looking for activities for the citizens. It is similar to energy saving competition. The Swedish project is very similar to the French one. SCC is actually a good complement for energy saving competition.

The Italian project could also be implemented in France as the energy agencies are here to advice local authorities and citizens on energy efficient building and renovation. Nevertheless, Energy agencies are to be neutral as far as companies and enterprises, so they could not be integrated the same way they are in the Italian project.

Some ideas around affordability and possible improvements

It is a demanding work to raise awareness and convince people to change behaviour.

Many hours have been spent developing supportive and adapted tools to different target. And it proved to be effective.

Key factors of success in this project are multiple: active support from the organizer is needed, which mean time budgeted for that.

Another key success factor is to have an interactive website where data can be entered easily and followed.

The most difficult thing was to get data from people. It is private data and it is sometimes hard to make them understand the numbers will be only used as a demonstration of global energy saving.

That is what was missing in our project. We had to go through many different solutions to keep an eye on the results and we had to chase a lot people to give us some personal data.

We actually changed tactic to get some data on CO2 emission and kWh. We used another tools to be able to at least estimate some saving due to change of behaviour.

The basis of the project didn't change: raising awareness, behavioral change, tools of awareness raising were developed and shared with people.

To improve the project we need to build an interactive website/page that could ease the tasks of participant to share their behaviour change and their energy saving but on a far more simple way than « le climat entre nos mains » website.

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The city of Meerane

Background

Given the distribution of energy consumption between industrial, commercial, transport and private households, households are considered to be a large consumer group. About 30 - 40% of total energy consumption caused by private households. (Germany)

We searched for a way to influence citizens in the private sector in reference to their power

consumption positively or clarify.

When we read about the EnercitEE – project, we decided to take part in it.

The SCC project – as subproject, with competitions as educational opportunity in terms of climate-friendly behavior, energy saving and use of renewable energy to content fit very well to our project of direct influence and information

The objective of our project part is to show how direct information and work with citizens (in our case with students and their families) the understanding of the individual about energy / energy efficiency and energy saving deepens and the willingness to behave energy efficient can be increased. Our project is to demonstrate that it is possible to influence consumer – regional with relatively simple funds. In our case, the result will be tiling in the package of measures for the climate protection concept of the city of Meerane which is currently developed.

Local objectives:

The targeted savings each participating group is 10% household electricity.

With this mainly behavioral changes and low investment measures should lead to success.

Our project is to show that an influence on domestic consumers is possible – regionally, with relatively simple means.

The aim of the project is to show how direct information and working with people (in our case with students and their families) can deepen the understanding of individuals on Energy in general, Energy efficiency and saving Energy and how the willingness to behave in an energy-efficient way can be increased.

Theme of our big project is "the sustainable climate challenge" – the contribution of Meerane covers a competition between classes.

Objective in the competition is to show the students, with which simple, non – or low investive means each can save electricity at home.

We have set the following objectives:

3 Competitions with Meeraner schools (grade 7)

- Information meetings with school management, teachers / and parents
- Workshops with the participating students integrated into the teaching process
- Earnings discussions with the participating students
- Competitive evaluation and award

Our project activities in Saxony is to show to what extent it is to influence the private sector energy consumption by addressing them directly (workshops).

Action Days – closer to Deal with the issue of renewable energies and experimental introduction to complex issues surrounding this topic

Day of Action: "Walking in the City" – – to raise awareness of CO2 emissions and the minimization of it by students

Day of Action: "Renewable Energy" – Information Day with experiments around renewable Energy

In addition, we have the opportunity – anonymously – to obtain reliable data in reference to energy consumption and savings in private households. Especially in terms of CO2 – saving goals is that an important tool. In our case, the result will be tiling in the package of measures for the climate protection concept of the city of Meerane which is currently developed.



Loggo for the energy competition



Brochure of the action day

Specifically, the project will assist all citizens in their behavior modification by workshops, seminars, meetings, days of action and information via e-mail, the Internet and flyers to give help to them to reduce their CO₂ emissions and energy consumption by about 10%.

Description of the chosen method and challenge

By a competition of groups of people – in our case, school classes – households are encouraged to try to save electricity. The individual results are combined to group results and treated as a joint success. (Group dynamics)

The necessary information will be given to the families and students through workshops that are integrated into lessons at the beginning of the challenge. These workshops are given by an expert (energy adviser) not a teacher.

The information and workshop materials are also available on our website. (for background reading) www.meerane.de

The competition consists of 2 steps:

- 1st step = First Week: measure the current consumption without taking energy-saving measures in order to obtain an output value.
- 2nd step = 2nd-8th Week: Conversion of energy saving measures and measuring the current consumption.


During the competition period the students read the electricity meter every week and the results (consumption) are reported on the energy-saving team. The weekly results of the classes are published anonymously on our website.

At the end of the competition, there is an evaluation of the results. The winning class will receive an acknowledgment, and all classes that participated in the contest, will receive an energy-saving master deed.

A real problem that occurred during the first period was the data security: Power consumption data are very sensitive data that no one is happy to price. The parents were afraid, that their energy use will somehow get public or somebody will get to know their private energy use. So some parents wouldn't let their children take place in the challenge and in one case also not in the workshops.

We solved this problem for the 2nd challenge by developing a system to make the data anonymous: the students get codes that are secret to everybody also in the class it works like the codes for cell phones ;-). One student collects the paper sheets with the weekly consumption of energy consumption in an envelope and gives the closed envelope to the "energy saving team". So the consumption of the class is completely anonymous but we can work with the data.

Unfortunately not all classes took place in the workshops or competition.


Arbeitsblatt 10 CO₂ – Verkehr + Verhalten

CO₂ – Verkehr / Transport

| Auto | Km pro Jahr [km/J] | Verbrauch in Liter / 100 km [BV] | Benziner oder Diesel? | CO ₂ – Ausstoß pro Liter [kg] | CO ₂ – Ausstoß pro Jahr in kg |
|-------------------------|--------------------|----------------------------------|-----------------------|--|--|
| VW Lupo | 12.500 | 3,0 | Benziner | 2,32 kg/l | 870,0 |
| Opel Astra 1,4i, 80 PS | 12.500 | 6,3 | Benziner | | |
| Ford Fiesta 1,4i, 68 PS | 12.500 | 4,4 | Diesel | | |
| Opel Zafira 1,6, 97 PS | 12.500 | 4,98 kg/100km | Erdgas | 2,23 kg/kg | |



Dieselmotor: $\text{kg}_{\text{CO}_2/\text{l}}$ = 2,63 kg CO₂/l
 Ottomotor: $\text{kg}_{\text{CO}_2/\text{l}}$ = 2,32 kg CO₂/l
 Erdgasmotor: $\text{kg}_{\text{CO}_2/\text{kg}}$ = 2,23 kg CO₂/kg Erdgas



Den CO₂ – Ausstoß pro Jahr berechnet ihr mit der Formel:

$S_{\text{Motor}} = [\text{km/J}] \times [\text{BV}] \times [\text{kg}]_{\text{Motortyp}} / 100$

Wie können wir selbst nachhaltig handeln, worauf können wir achten?
Welche Vorteile ergeben sich dabei für uns?

CO₂-Ausstoß (g/km) Erdgas: 60 – 65 – 68 – 70 – 75 – 80 – 85 – 90 – 95 – 100 – 105 – 110 – 115 – 120 – 125 – 130 – 135 – 140 – 145 – 150 – 155 – 160 – 165 – 170 – 175 – 180 – 185 – 190 – 195 – 200

Information on CO₂ emission to the students



Information to the parent's in one class in one of the participation of the energy competition. City of Meerane

Results:

3 Competitions held with 3-6 classes as participants

The students who participated, saved:

1. Competition period 10,4% Energy saving
classes in the workshops: 3
classes in the challenge: 2
2. Competition period 5,1% Energy saving*
classes in the workshops: 6
classes in the challenge: 4
3. Competition period 3,4% Energy saving*
classes in the workshops: 4
classes in the challenge: 4

** Lower result because of the time (September – November)*

It was saved in the competition phases together 3150 kWh. This corresponds to a CO2 saving amount of: 1820 kg / t. ("Covenant of Mayors – factor")

Workshops conducted by the direct information could be provided to the families (students).

By feedback from some parents, we know that a more conscious use of energy – has been achieved at least in some families. This success, however, is unfortunately not quantifiable.

Facts:

In the workshops, a total of 370 students were present. This corresponds to about 1110 (Schüler x 3) persons who were reached directly through the competition.

By the action day – (information booth at the market), we also recorded many passersby. There were about 1000 flyers distributed by the students.



Zwei Klassen der Tännichtschule haben erfolgreich am ersten Wettbewerb Energiesparmeister teilgenommen. Am 23. November 2011 überreichte Sylvia Salzbrenner die Preise an die Schüler. Fotos: Lohr

From prize ceremony; the Meerane Zeitung

How is the challenge transferable to other regions (or groups of citizens)?

Project of Vaxjö: A prominent person from sports / music / politics calls groups out to save energy – posting on website

- There belong a commercial and industrial area with many different companies to our city.
- It seems to be very well possible to find through direct approach partners from the commercial sector or the public sector also, that would participate voluntarily in the project.
- There can be an image enhancement / Advertising for each participating company.
- The proposal for our region: the county / Economic Development department should be the presenter of the competition here.
- Project of AESS: information sessions – and the resulting installations of photovoltaic systems / renovation of buildings – mentoring activities, publications
- The transfer of this project should be in a campaign with planners, manufacturers and house owners which will support by specialist advice and good examples of implementation the public.
- The events should remain locally held because great distances discourage people from participating.
- The examples are to be sought in the local area in order to make direct references to.
- Co ordination of planned events
- Project of France – “yellow – page” – book in commercial energy efficient renovation / build and renewable energy sector (producers / artisans, etc.)
- Regional expansion necessary – (Saxony)
- Requirements for craftsman / designer / producer / agent: demonstrable qualifications / certification in the field of energy-efficient construction and renovation
- Establish and maintain / update should be the industry leader independent hands
- Promotional Release – focus on independent creators of the trade directory and qualification requirements,
- Guide: – Saving Energy / Energy Efficiency Tags

Some ideas around affordability and possible improvements

Competitive cost:

the competition required:

- | | |
|-----------------|----------------------|
| • Premium costs | 100 (or sponsorship) |
| • Visuals | 100 € |

Each class:

- | | |
|---|------------|
| • Hour 20 h à 50 € (int. / ext. expert) | 1000 € net |
| • Printing costs | 75 € net |

Key factors:

- Work material
- The fact that schools and teachers are 100% behind the project
- anonymous
- Integration of the parents, because students are minors
- Direct approach, working directly with students

Possible developments:

- Collection of data via website
- Spread to different groups of people such as Clubs
- Direct integration into the classroom / curriculum – eg Physics / social studies, etc. (Interdisciplinary)
- Acquisition as content for project days

Action Days / project days need a budget, around € 500 per class for care, experiments / material and public relations.

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VÄXJÖ

Description of the local projects

Background

The city of Växjö has worked a lot with cutting carbon dioxide emissions during the years. As we dealt with much of the emissions related to heating and electricity making we see that more and more of our emissions are related to transportation of people and goods. Today as much as 80 % of the carbon dioxide emissions derive from transports. Since Växjö has the ambition to be Fossil Free in 2030 transport emissions is a serious subject to be dealt with. We decided to also include electricity use in our challenge since it is something that is easily measurable and gives a direct reward in terms of lower electricity bills.

Växjö had great success in a project called The Climate idols which featured local celebrities being coached to live a low carbon life. We decided to build upon that project and use two of the climate idols as figureheads in this new project, "The Sustainable Climate challenge" (SCC).

The SCC in Växjö focused on workplaces and tried to lessen environmental impact from work related travelling and electricity use, at the same time enhancing physical status of employees and cutting electricity bills. One of the aims in the project was to include business by creating demand for environmentally efficient products and services. The municipality also wanted to include business more in the environmental work so we decided to focus on bringing companies into the challenge. If that were not possible we focused on other kind of workplaces.

Local project objectives

Växjö did not meet the target for number of people reached. We reached slightly 600 people through their workplaces. If one also includes other members of their household, which may be reasonable since they are also affected by activities concerning the household's electricity use, we reached roughly 1200 people.

Description of the chosen method and challenge

The SCC in Växjö included three different activities

- Employees travels to, from and during work
- Employees electricity use at home
- Workplace's electricity use



Climate Idols: Peter Hogla and Kristina Alser

Every participating workplace was given a start-up event/introduction where we tried to reach as many people as possible at the workplace. For some workplaces where work took place in different shifts more than one event were needed. Depending on the intentions of the workplace we would emphasise different things e.g. energy efficiency, local environmental agenda and global warming. The workplaces reason to join the SCC could varied a lot from very specific, as boosting their own on-going electricity saving program, to more vague, as generating goodwill for working with environmental issues. We made a "we have joined the SCC" poster that the workplaces could use for advertising.

When presenting challenges like this it's important to include all good external benefits associated with the activities. For example, one person may not care much about the environment but more of

Climate idols testing electric bike flanked by low energy lamp and switchable socket



health. So by biking to work they gain better health and at the same time they lessen impact on the environment. We tried to emphasise that by going to work by bike and cutting electricity you get more money, better health AND saves the environment!

Each workplace had a contact person and the contact with the workplaces went through that person. The contact person was a crucial factor for a good result. The contact person must have time, enthusiasm and support from the organisation. Then results were good. A contact person too far up e.g. CEO may have the support of the organisation but often not very much time. And a person working "on the floor" may have more time but not the necessary influence to reach the whole organization. For us a good contact person seemed to be a lower level executive, for example the head of environment, the head of HR or the head of the employees' social organization if such exist.

The SCC was supposed to include three different rounds. One in spring 2011, one in autumn 2011 and one in spring 2012. The one in autumn 2011 was, due to low number of participants, changed to a competition between two local politicians to make advertising for the challenge and perhaps include other municipalities in the future.

The challenges were composed of one electricity saving part (at home, at work) and one "travel to, from and during work-part". We made some experimenting with the length from four to six weeks per part. And also made some adjustments regarding when electricity part started and the travel part ended. In the end we choose a straightforward solution where each challenge lasted one month (e.g. march) and the other part started the month after.

Each challenge ended with some form of prize venue, either with every workplace in that challenge in the same and time, or at each the workplace. To gather every participating workplace to a common prize venue is a good way to attract media attention. The prizes were connected to the category. E.g. a workplace that won a travel challenge won an electric bike and the winner in the electricity challenge won a number of hours energy consultant. All prizes was given to the workplace, no prizes were given to individuals. It might be a good idea though that the workplace itself has an internal challenge with prizes to individuals or groups. A way to create an extra challenge is to have two parts of one workplace competing against each other, or to have similar companies or workplaces in the same branch that compete against each other.

It's hard to keep the balance and reward good behaviour, without having too many categories that confuses the participants. Who is the winner if you compare an already low user that managed to cut 5 % more electricity use, and a large user that managed to cut 50 % but still end up on a higher level

than the "low user"? In the beginning we had a lot of categories: largest decrease in electricity use, lowest electricity use and so on. Later on we scaled it down, and took away lowest use, to make it more clear and straightforward.

After each challenge we tried to reach out to participants and get feedback from the regarding both technical issues and the challenge as a whole. This was done by phone and we interviewed 2 people from each workplace plus the contact person. The info was then used to make next challenge better.

Getting companies to join the SCC proved to be somewhat of a lottery. Some joined without hardly any persuasion while others said long in advance "sure we join the autumn challenge" and then dropped out just before it started. So a good advice will be to have some kind of back-up plan if not everything is going according to plan (it won't). One way to make sure that every workplace that said they will participate really does it is to make it public and advertise about it a long time in advance.

Results

Electricity saving

During the project 19 000 kWh (19 MWh) were saved. With the Swedish emission factors from Covenant of Mayors document (0,023 ton/MWh non LCA) they amount of CO₂ saved from electricity use is 0,44 tonnes (19*0.023) or 440 kg. The low amount is explained by Sweden's relatively low carbon intensive electricity production, 0.023 compared to EU-27 average 0,460.

Travelling

During the project 8,0 tonnes (8100 kg) CO₂ were saved by bike, foot, bus or train travelling. The saving is derived by comparing with the amount of CO₂ an average car would emit if traveling the same distance.

In total around 8,0 tonnes (8 000 kg) CO₂ was saved during the challenges. However, the effect of the project is not the amount of CO₂ saved during the relatively short, at longest 6 weeks, challenges but rather the change of behaviour that origin from the challenges.

For example if the savings that took place during the challenges took place the whole year around 220 000 kWh or about 5 tonnes annually. Doing the same way for travels the amount of saved CO₂ could be 96 tonnes (96 000 kg). Altogether that would be 5+96 = 101 tonnes/year.

600 people were challenged during the project. About 1/6 (92) also actively took part of the challenge by registering on the website and therefore also conducting measures in terms of electricity saving or green travelling. If we also include all the members of the households it makes another 92 and 184 in total. In the same way the 600 people that took part of the info could affect another 600 if we include the other members of the household which then add up to 1200.

A survey from Växjö's participants 6-18 months later shows that 40% continue to act energy efficient after the project.

How is the challenge transferable to other regions (or groups of citizens)

This type of challenge is probably easy to copy and do in another country or region. The important thing is to have a lot of contacts in the groups you would like to bring into the challenge. And to have a good contact person within that group who passes information to and from the organization.

The concepts tried by other project partners are applicable in the region around Växjö. The Italian concept where citizens are offered packages of insulation and PV-plants requires more work than the others. That is because of laws regarding procurement demand that every company that would like must take part of the offer and so on. But with planning that concept could also be applied. The school-project from Meerane is quite similar to projects already done in Växjö within other EU-programmes so the Meerane approach should be possible to replicate in the Växjö area. The project that Prioriterre have made is also transferable with co-operation with different organisations on different issues on sustainable development like bicycles, food energy efficient etc. To produce a yellow book/site with sustainable products and services is also possible. The city has a small brochure on fair trade and sustainable products.

This challenge is easy to do with other groups than workplaces. A good idea is to challenge similar type of groups against each other. To further enhance the competition aspect

Some ideas around affordability and possible improvements

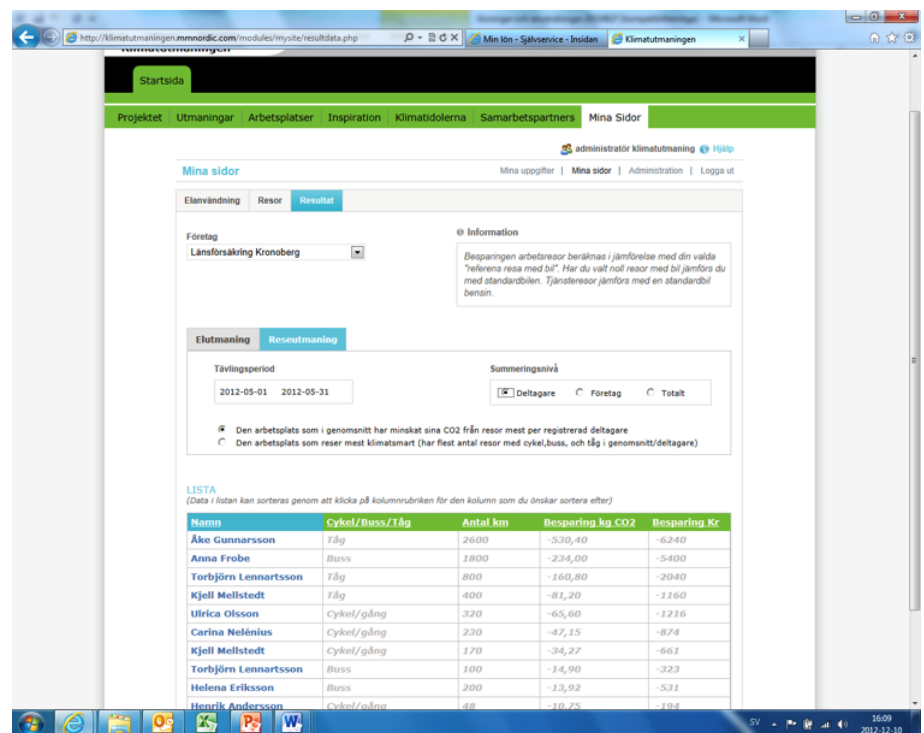
Enthusiastic contact persons at each workplace with support from their organization and time to do a good job.

A good website to record travels and electricity. Understandable and easy to use and at the same time a portal for those who want to learn more.

Established contacts that are able to get their respective workplace to join the SCC. Could be the same person as later become contact person.

Media interest/political priority for climate change issues.

In Växjö we made a test challenge with funds from outside the SCC-budget before the "real" ones started. To do that we had to create a website where the employees could register as participant and later on record their travelling. The web solution we got first proved to be non-user friendly and had a lot of technical flaws. So before the first challenge we had to create a new website. This time the site worked better but it was not finished until very short before the first real challenge took place. So our advice would be to use/modify an already existing website/tool for recording travels and electricity use. Or make sure to have a lot of time and budget for testing the tool.



In Växjö we had too large organizations in the test round which afterwards, to some extent because of the technical problems with the website, was not interested of joining in the forthcoming rounds of SCC. We also had to scale down the first challenge because we was not sure if the website was ready for use. It proved that it was but we did not want to take the risk of having a bad functioning website and a large number of unhappy participants. Our advice would therefore be to start very small within our own organization or with a few test people with simulated challenges before working with external workplaces.

Make sure you think about the weather, at least in Sweden it might be hard to encourage people to start biking in rainy autumn or snowy winter. At our test round we started too late and the travel part of the challenge came too late into the autumn.

Make sure to have a plan B if you don't get the amount or specific type of workplaces you aimed for at the start. In Växjö our plan B was to have two politicians challenging each other which we used when we did not get a sufficient number of workplaces for one of the challenges.



Two leading politicians Anna Tenje and Åsa Björkmarker Karlsson in the plan B. Photo Mats Samuelsson

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Appendix 1 – More key factors

Quality vs. Quantity

Do you want to focus on a few people/activities or do you want to go big? With limited time and resources it's hard to do both.

If you want to reach a large number of people, a crowded shopping mall might be the place. But it's got to be easy and fast. You may have to cope with a simple question "Do you switch off your TV when you don't use it?". And then hand out some info about how much electricity that could be saved by eliminating stand-by.

However, if you want to do an in-depth analysis on a few people's environmental impact a different approach is recommended. Then you might want to focus on recruiting on a venue with people that already showed interest by attending an event that has a connection to your subject.

Communication

When communicating environmental issues people tend to shut their ears if you tell them that "the planet will die if you don't...". It is much easier to get people's attention if you address the problem in a positive way. Especially if you want to reach large numbers of people the need to tell a story and the solution in a positive and probably simplified way is great. If you focus on smaller groups you might be able to tell a more complex story regarding environmental problems. But again, it is important that people leave encouraged with an urge that it is possible for them to act.

Results

Are you comparing apples and pears and finally presenting them in terms of oranges? When dealing with environmental issues complex situation may arise. Buying locally conventionally produced food or buying an organically produced alternative from far away? Then you have to compare the environmental impact from poison spreading with the one from transports. One way to do that is to try to estimate a cost for each environmental impact. Valuing environmental impacts in terms of money has its drawbacks and limitation and often includes elements of uncertainty. A way to include the uncertainty is to present an interval instead of an average.

When presenting results it could sometimes be hard to know how to count. Are we comparing our results with the average citizen of the country, the EU or the world? Do we use average emission factors for electricity or do we use marginal factors? There are no clear answers to this. If you have the space why not do both? If not, then use one and explain how and why you did it that way. As long as you are transparent and clear it should be ok.

What's important for you?

It may not be the same for everyone. When working with different kinds of people bear in mind that people value different things.

Biking to work might be an environmental effort for one person and a way to be fit for beach 2013 for another. When an activity is good in several aspects remember to emphasise them all. E.g. biking to work may be good for the environment, the wallet AND your body. Saving energy is good for the environment, the electricity bill and since you don't pay as much for electricity you could choose to have more time for leisure.

Pledges/Contracts

A signed contract may be a good way to make sure people actually do what they promised. It's easy to forget something you said in a hurry but if you have a written testimony you will be reminded of it. It is also easier to keep records of achievements within projects if you have documented them. Just bear in mind that they contracts should encourage people's good behaviour and be formulated in a positive way.

Rewards

Small gifts may bring in big rewards in terms of commitment. Use small incentives to encourage good behaviour. For example people got take part of a lottery if they register their energy use or make a small pledge. Sometimes it might work with just goodwill by highlighting a person's good behaviour, a portrait

of "energy saver of the month" on a workplace may encourage other employees as well as "the saver of the month".

Rewarding a group that performed well is also a way to enhance the group dynamics.

Challenges

Could a challenge be enhanced by creating a challenge within the challenge? Targeting groups within groups may be a way to further increase the competition. E.g. a school trying to reduce their electricity use may be further triggered if (the) other school(s) in town also participates. Or within a workplace an additional competition could be set up between staff and management.

When working with young people such as lower grade schools it might be wise to also include elements of collaborating and emphasizing that everybody is a winner when it comes to "saving" the environment.

Time period

Is it reasonable to convince someone to suddenly start biking to work in the middle of a cold and/or rainy winter? The changes of seasons may be something to have in mind. It is probably easier to start biking to work if the sun is shining and the weather is sweet. But once a good habit is established it's easier to stick to it when conditions gets worse. Changing behaviour is hard enough without also fighting against the weather.

To be clear and choose easy understandable challenge periods is also important and may save a lot of time spent on answering questions. For example a challenge to reduce electricity could include the entire month of March 2013 and the results could be compared with the electricity use for March in 2012. That is much more easy to grasp than the 11 of March to the 14 of April which could be the case if you want to have a full five weeks.

Lower average or lower floor?

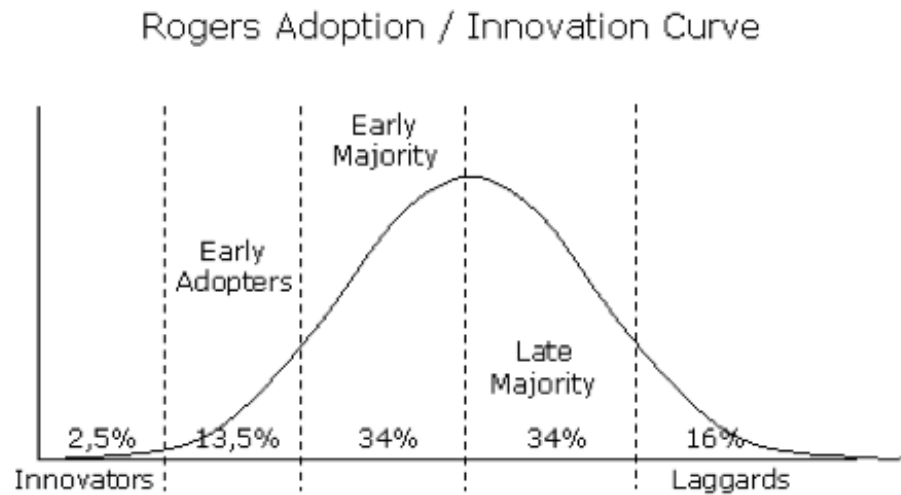
Do you want to reward large changes or (already) low numbers? Or maybe both?! Think about which actions you want to promote. The target group may vary. If you want large changes in % and a lower average use of energy it's the high energy user you should aim for. If you on the other hand want to show that it's possible to live a decent life with low energy use then your goal might be to even further bring down the low energy users average. But of course this means that one cannot expect the same results in % as above.

All inclusive

Time is money! When comparing different ways of for example saving energy it is easy to forget some parts. For example hours of leisure time spent on doing energy saving activities, switching lightbulbs, defrosting fridge, cleaning fridge backside, is a cost. If you compare the (economic) efficiency of installing a solar panel or buying new light bulbs with a measure that only includes work and no money transactions you might end up with a huge cost in one case and none in the other. Which of course could be very misleading.

Early adopters

The early adopters change the masses! According to Rogers adaptation curve (http://www.valuebasedmanagement.net/methods_rogers_innovation_adoption_curve.html) the early adopters are the one you should target if you want a group of people to change. The early adopters are enough respected, not extremist but in the forefront, to bring the early majority with them, and then the rest will follow. If we once again take biking to work as an example the early adopter would not go by bike if lightning strikes and trees fall over the road. However, if provided with decent rain clothing and the ability to take a shower at work, then the early adopter could bike in heavy rain



Rogers adaptation curve says that the early adopters are the key for changing behaviour. The innovators are always keen on change but are seen as too extreme by the rest of the population. The Early adopters however are more connected to the early majority and late majority. They are seen as models for good behaviour rather than extremist. When they change they take the early majority with them and the late majority will follow. The laggards will hardly ever change and are therefore a group that one does not want to put in a lot of effort into when it comes to changing behaviour. They could change, but it might take a very long time and if not forced to they might not change at all.

ENERGY IN MOVEMENT

CONTEXT AND OBJECTIVES

Raise awareness on energy savings involving the local communities.

PARTNERS

Province of Modena, Environmental Educational Centers (CEA) of the Province of Modena, Modena Energy Agency, Local Administrations.

DESCRIPTION OF THE GOOD PRACTICE

The project "ENERGY IN MOVEMENT" is promoted by the Environmental Educational Centers (CEA) of the Province of Modena and wants to give a contribution to raise awareness on the issue of energy conservation. For that reason, it involves many people: the citizens, schools, families, local-government, local agencies to support the LA and local associations.

Description of different lines of action:

- 1) ACTIONS FOR CITIZENS: three 'Energy Days' at the provincial level, with events and expositions.
- 2) ACTIONS FOR CEAs AND LOCAL ADMINISTRATIONS INVOLVED: energy check in the buildings of the CEAs and training for operators of the CEAs, for employees of the Municipalities and Infopoint.
- 3) ACTIONS FOR SCHOOLS: recognition of all renewable energy plants at the provincial level that can be visited by schools and citizens. Participation and involvement of schools in Energy Days. Educational support for sustainable energy education activities of the CEAs.



RESULTS

The project is still running.

HOW TO REPLICATE IT?

Involve all the territorial actors involved in energy savings and renewable energy sources exploitation and organise events and activities in order to involve all the local stakeholders (citizens, schools, families, local-government, local agencies to support the LA and local associations) and raise awareness on energy savings.

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VOLUNTARY AGREEMENTS TO PROMOTE SUSTAINABLE MOBILITY

CONTEXT AND OBJECTIVES

The Municipality of Maranello signed a voluntary agreement with AMo (Provincial Mobility Agency) and the Ferrari company to promote sustainable mobility actions.

PARTNERS

Municipality of Maranello, the Provincial Mobility Agency and the Ferrari company.

DESCRIPTION OF THE GOOD PRACTICE

The project has seen for two weeks the establishment in the company of a public transport information point for the employees. Hundreds of workers have asked information on travel opportunities offered by public transport. The agreement foreseen incentive to use public transport, through:

1. Reduced pricing (30%) to all employees requesting the service;
2. The establishment of a dedicated shuttle buses covering the places with the highest population density of the employees during the hours in which the service line is not active (e.g. early morning and at the end of the evening);
3. Measures to encourage the practice of car-pooling;
4. Cycling promotion through information and installation bike racks at strategic points.



RESULTS

The project is still running.

HOW TO REPLICATE IT?

In order to replicate the project, it is important to involve private companies, local administrations and local transport companies and define an agreement. The project should start investigating on the employees "home-work-home" daily travels and then should evaluate sustainable mobility alternatives for the employees.

Employees should be encouraged to change travel behaviours through:

- Public transport price discounts;
- Public transport organised on the employees demand;
- Information on bicycle ways connections;
- Carpooling initiatives;
- General information on the project through communication material.

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PURCHASING GROUPS FOR PV PLANTS INSTALLATIONS CREATION

CONTEXT AND OBJECTIVES

Facilitate the citizens of the area who wish to install photovoltaic systems on private buildings, according to the philosophy of purchasing groups. AESS offers products and quality services for the installation of photovoltaic plants "on favourable economic conditions due to the economy of scale created".

PARTNERS

AESS Modena, Local Administrations

DESCRIPTION OF THE GOOD PRACTICE

The project is divided in 6 main steps:

1. The local administration promotes the organisation of the event for the project presentation;
2. After the event, citizens interested in PV purchasing group ask to be contacted by AESS for a building inspection;
3. Following the inspection, the following are delivered to the citizens:
 - Preliminary assessment of plant;
 - At least three offers from local installers, previously selected through a tender published by AESS
4. The citizen chooses the type of system, the installer and the budget and contracts with the installer selected.
5. The installer that has been chosen by the citizen is committed to:
 - Follow all of the techno-economic characteristics fixed in the contract drawn up by AESS for the selection of installers;
 - Providing a complete package "ready" (materials and transport for the PV realization, in accordance with good implementation of the intervention, testing, qualifying title preparation, where required, drawing up, transmission and delivery of documents for obtaining the national incentives (Conto energia).
6. AESS make inspections on each site to verify the correct PV plants installation, according to criteria and characteristics defined



in the contract.

AESS manages the entire project, produces the graphics for the postcard invitations of each municipality events and write press release to promote the event.

The Municipalities interested in the initiative:

- Give the patronage to the initiative;
- Make available a location to present the initiative and attend the event;
- Print and distribute invitation cards produced by AESS.

RESULTS

- Municipalities involved in the initiative
- 184 inspections
- 183kWp installed
- 145 Ton CO2 reduced.

HOW TO REPLICATE IT?

Involve Local Municipalities in the promotion of the initiative, select PV installers through a call for tender with technical specifications in order to guarantee a workmanlike installation and discounts, provide citizens with building inspection and preliminary assessment plants.

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„WEDDING FOREST“

CONTEXT AND OBJECTIVES

The project aims to develop the green belt all around the city of Meerane further, to get a better / greener environment for the city and to reach a better ecological balance.

PARTNERS

The project is run by the city of Meerane, environmental office.

DESCRIPTION OF THE GOOD PRACTICE

Involve citizens in the development of our City, especially in the development on the ecological side.

Citizens of Meerane can buy and plant trees for a special event in their families, e.g. weddings, school starts, birthdays, births of children or every other jubilee.

They can choose from a list of regional typical plants / trees – so we get a good mixture in the areas.

The Project started in 1994 – it has been running for 17 years now.

The 1st area – “wedding forest 1” and also the 2nd area “wedding forest at Westweg” are completed.

We already started the third area “Meerchenwald”

Citizens like the idea to have a tree that reminds them of special events and to do something for the future in an ecological way.



RESULTS

- Our citizens have planted trees on altogether 48.000m² Area
- Get a better ecological balance between sealed area and green area.
- Get a better CO² balance
- Lower the development costs of new green areas for the city

HOW TO REPLICATE IT?

Each city or local authority can develop green areas on spaces that they own.

Basis for it should be a Master Development and Town Planning Scheme.

The marketing should show the possibility to create a wonderful remembering for the people taking part.

There should be special times (2/3 per year), when people can buy and plant their own trees.

CONTACT

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„CLEANING DAY“

CONTEXT AND OBJECTIVES

Cleaning our city and make citizens aware of the unthoughtful waste thrown away...

PARTNERS

The project is run by the city of Meerane, environmental office.

DESCRIPTION OF THE GOOD PRACTICE

Every year in spring we have a cleaning day: many citizens from the youngest up to the seniors help to clean our city. Since the beginning of this project, more and more persons have helped to clean the streets in the city and the ways in the parks all around our city. This year (the 10th) more than 250 people helped and collected 1,5t of garbage.

There are always different groups of citizens – local authority members, schoolclasses, non-profit associations, sports clubs, music groups and “normal citizens” that take place in this :



- local authority members: Mayor Professor Dr. Lothar Ungerer, Sigrid Latzke (Mayor's office), and Erdmute Stäuber, environmental office
- fire brigade, junior fire brigade
- non-profit associations like a local dancing club
- the classes me and mv of the european grammar school, the international secondary school
- the carnevals club, a music group or the sports club



RESULTS

- get collected all the waste that stayed under the snow during the winter
- citizens pay more attention to their environment
- people do not throw away as much waste as at the beginning of the project
- lower costs for cleaning the city and the parks

HOW TO REPLICATE IT?

Each city or local authority can start this cleaning day easily.

The marketing should show a famous person who will or is also taking part in this action.

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„INSEK AND KSK“

CONTEXT AND OBJECTIVES

The city of Meerane has an integrated city - development concept (INSEK) that has been developed further since 2001 and develops an integrated climate protection concept (KSK) that comprises the climate relevant development and aims of the city until 2020 concerning CO²-emissions in all sections of the city: communal section, private section, commercial and industrial section and traffic.

PARTNERS

The project is run by the city of Meerane, environmental office

DESCRIPTION OF THE GOOD PRACTICE

The concepts both have an integrated part of involving citizens in the planning period by workshops and meetings to discuss, develop and integrate topics that concern citizens.

The KSK also has an advisory board with members from the local authority, housing societies, members of the city council, public services, interested citizens and external experts, who meet 4 – 6 times a year, discuss results of the KSK and give advices to the city council.



Klimaschutzkonzept
Meerane



RESULTS

- working plan for the local authority in fields that concern our citizens
- Analysis of the state of the art: concerning usage and structure data, energy usage, energy costs, CO²-balance, housing stock, level of reconstruction, economical structure, traffic, ...
- Identified variants of energy saving / energy efficiency, usage of sustainable energy
- Catalogue of measures to reach aims in cutting CO²-emission

HOW TO REPLICATE IT?

- Get a decision of the city council to develop a integrated city - development concept or a climate protection concept and for these you need to involve citizens directly within workshops. Interested citizens will take part in these workshops and you can get really good points of view from citizens that might be integrated in your work.
- Also, to create a climate advisory board should be a decision of the city council.

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“HEALTH PEDDLERS” IN KRONOBERG

CONTEXT AND OBJECTIVES

Health peddlers: Offer employees that commute regularly by car to change to bike for a half year.

PARTNERS

The city of Växjö, Landstinget Kronoberg (the hospital organization), the Swedish Transport Administration.

DESCRIPTION OF THE GOOD PRACTICE

Two large organizations offer employees who commute regularly by car to change to bike for a six months period. They will get some safety bike equipment and two health tests to see the result of their regular biking. The two organizations Co-operate by providing all the employees with information, by offering a health test before the employees start and a health test after in order to see what the progress is and by measuring the sum of sickness days for the group and comparing it to ordinary employees to see the benefits of a more active journey to and back from work.

The participants need to cycle the whole distance or at least 2 km in the beginning of the journey or in the end of the journey to work three days each week. During two six week periods, all participants in the project note every cycled distance on a web portal “www.sydostrampar.se” where they can get the sum of distances cycled; they also get to see the CO₂ emissions avoided, the amount of money saved and the calories burnt. In this competition, there is also the opportunity to win prizes and to be a part of the change that a large group of people could do. The employees selected could be ambassadors for the following years to find new volunteers for the “health peddlers”. A sum up will be done at the end of the project on the amounts of CO₂ and money saved, on the amount of calories burnt, on the lower need for parking spots, on the improvement of health and, hopefully, on less sick days noticed.

Hälsotrampare



RESULTS

The Health peddlers started in April 2011 and will end in October 2011. The result for the first period (6 weeks) of biking for all 140 employees is: 29 000 km (almost $\frac{3}{4}$ of the distance around the globe) and 6000 kg CO₂ saved. More results will be done by the end of 2011

HOW TO REPLICATE IT?

If your organization has a potential to get more bikers (there are bike lanes, parking facilities, etc.), try to get a project group with skills on testing persons' health, marketing/information and a way to measure the result. If you can get the top position of the organization to participate, It can help a lot.

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THE CLIMATE IDOLS

CONTEXT AND OBJECTIVES:

The idea is to coach “local well known persons” to change their lifestyle to a more climate smart way in different challenges such as cutting their electrical bill by 30%, cutting petrol use per 100 km of their car, by eating more climate smart food, using the bike or public transport instead of the car etc. The idea is also to involve local businesses to offer climate smart products in the different challenges. By using well known persons, media get interested and one can reach a broader public; it also makes it possible to do more campaigns to reach citizens together with local business in order to start a market for climate smart services and products, to reach environmental targets and to get more sustainable business.

PARTNERS

Several local businesses with climate smart products and services like the companies for Public Transportation, local electricity and power. The EU Interreg IVB North Sea Region launched a programme called Answer, which financed the project together with the city of Växjö.

DESCRIPTION OF THE GOOD PRACTICE

The Climate Idol project is a way to inspire inhabitants in Växjö by creating good examples of reducing carbon emissions. The Idols are a group of local celebrities that are interested in changing for a more sustainable living. They will get five challenges covering transport, energy, food and consumption and will be coached by experts and provided with climate smart products and services by local businesses. With this project, Växjö municipality wants to show the green habits of the future through the Climate Idols’ challenges. If they succeed in reaching the goal of each challenge, they will receive a “Green Card” from the mayor. The project starts with measuring each idol’s CO₂ emission by collecting data from bills, receipts and other sources and put in a database of LCA (Life Cycle Assessment) to calculate the emissions to get the starting point. After that, they all get a



challenge to cut their use of CO₂ every month in a certain area: food, transportation etc. And then a new calculation of the CO₂ emission is made as well as a new result. If all Climate Idols could cut there use of CO₂ then everybody could do it. The Idols could then challenge other target groups in the city/region to do the same. Businesses interested in climate smart products and services offer the target groups good offers to help them to cut their CO₂ emissions too and to start developing a “new climate smart market” where more energy efficient products will are sold.



RESULTS

The average cut of CO₂ emissions from the Climate Idols was 29 %. From 4.2 to 2.6 tons per capita and year. Together with the seven idols' families, they cut the use of CO₂ with 30 ton per year. If all citizens would do the same, it will be a large cut of the CO₂ emission.

Other results of the project are several articles in media local and a lot of visits (7000) on the webpage during the challenge ; our co-operation with 20 local businesses during the challenge. Växjö's Sister city in the US, Duluth, and in Canada, Thunder Bay, have have replicated it with a coaching from Växjö. Here is the home page: <http://www.vaxjo.se/default.aspx?id=46128>.

HOW TO REPLICATE IT?

Get an organization with skills to run the project (emissions calculation, media know how, connections to business) and get “climate idols” who are interested to decrease there own CO₂ emissions and would like to inspire citizens to cut there use of CO₂. Find local business that would like be a part of a project to develop the local climate smart market. Use the Climate Idole project as a starting point for raising the interest to change and then go to the next step and challenge a larger group of citizens to also cut their own emission. Save money, be climate smart and be part of the new sustainable future are the main advantages for each citizen to be part of.

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THE CLIMATE PLEDGE IN KALMAR COUNTY

CONTEXT AND OBJECTIVES

Many people worry about climate change. The Climate Pledge in Kalmar county helps people to actively work with climate issues and give hands-on advices. Everyone can work towards the regions goal – Fossil fuel free 2030 (i.e. no CO₂ emission for our region by 2030). The pledge promotes with local celebrities and discount on some climate smart products.

PARTNERS

The city of Kalmar and all other municipalities in the county (Kalmar län) are involved together with several regional organizations as Energy Agency for Southeast Sweden and national organizations as Swedish Energy Agency, WWF...

DESCRIPTION OF THE GOOD PRACTICE

The Climate Pledge: the idea is to help and encourage citizens who are interested in changing their lifestyle to a more climate smart way, in doing it together with other interested people and also in reaching environmental targets for the region. No oil 2030 (No CO₂ emission for our region by 2030). By giving a Climate pledge on a webpage you see the effort all pledge will get and you get encouraged to continuing. Interested citizens can get an ambassador educate and try to inform others and get more citizens to give a pledge. To promote the Climate Pledge they use radio adds, using local celebrities, inform in schools, use other events such as: Earth Hour and the WWF which is running a national campaign about the Climate Pledge. Co-operation with energy adviser and other official services to help citizens to change to a more climate friendly lifestyle. They have Co-operation with businesses like discounts for Climate Pledge givers, motivation for change, inspiring businesses to do changes of their own. See more on: <http://www.klimatloftetkalmarlan.se/>



RESULTS

- 56% of all Climate Pledges in Sweden
- About 1700 pledges in the region and a promised reduction of 2500 tons of CO₂
- The Kalmar webpage of WWF's page got 1000 visitors/month
- Increased knowledge of climate change and the personal responsibility
- Good co-operation between municipalities
- Co-operation with the business sector



HOW TO REPLICATE IT?

Try to get co-operation with organizations that have the same target. Try to work with national organizations like WWF with a know-how on marketing and good reputation on environmental issues. Work with those that are willing to go for a sustainable future.

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INTER-SCHOOL CHALLENGE

CONTEXT AND OBJECTIVES

More and more parents bring their children to school with their personal car. It makes road safety lower, worsens air and noise pollution and favours traffic around schools. It also raises the number of parents who finally choose to bring their children by car; therefore we are in a vicious circle, which is hard to break. The objective of the challenge is to let the children, parents and the school staff trying other modes of transportation to go to school, in a fun context, in order to break psychological barriers

PARTNERS

We work with public or private schools in the whole region (Haute-Savoie) willing to participate to the challenge. The European Union, through the IEE project Active Access as well as a local partner, the Fondation Norauto, finance this operation.

DESCRIPTION OF THE GOOD PRACTICE

The principle is simple: children and their parents, as well as primary and nursery schools' staff in Haute-Savoie are asked not to use their personal car to go to school on the challenge day(s).

In every school registered, a referring person is in charge of counting the children and giving the results to prioriterre. The school with the most important proportion of people that came without the car normalized to the number of people present that day is the winner of the challenge.

Prioriterre gives counting sheets, posters and flyers as well as some rules for the challenge to the schools that are interested.

They also encourage the participating schools to approach soft mobility in class before the challenge in order to make the children think about mobility more deeply than for the challenge itself.

On the day of the challenge, we suggest the schools to organize something special to welcome the participants: breakfast, welcoming clown, a donkey to carry schoolbags, organization of a walking bus...



3^e édition du challenge inter-écoles de Haute-Savoie :
« A l'école sans voiture ! »

LES MODALITÉS
La participation est gratuite.

Il vous suffit de renvoyer le bulletin d'inscriptions téléchargeable sur notre site internet : www.prioriterre.org

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LE CHALLENGE
Que vous soyez écoliers ou personnel scolaire des écoles primaires et maternelles de Haute-Savoie, nous vous invitons à **vous rendre à l'école à pied, à vélo ou en bus** les **jeudi 9 et vendredi 10 juin 2011**.

L'établissement scolaire qui aura la plus forte proportion de personnes n'ayant pas utilisé la voiture pour se rendre à l'école ce jour-là remporte le challenge.

RESULTS

The 2011 edition took place in June for 2 days. 12 schools of different sizes participated (from 10 to 367 pupils), from small villages as well as medium sized towns. In total, 1725 pupils and school employees played the game with a participation rates from 24% to 76%, the average participation rate being 57%.

HOW TO REPLICATE IT?

This project is quite easy to replicate: you need to create a poster, a flyer, choose a date and suggest schools to participate by sending the information.

The means to communicate might depend on the context but as for us, we have sent postal mails to every school of Haute-Savoie as well as every City Hall and we also used local media.

It is also important to choose the right moment: we have made a try with two different periods of time in the year and it turns out that, in France, the end of the school year is better than its beginning (context more open to relaxation and to non-formal educational activities, better probabilities for a milder weather as well...)

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PLATFORM GAME ON ENERGY SAVINGS

CONTEXT AND OBJECTIVES

Energy bills are higher and higher and the vulnerable households are the first to be affected. It can lead to unpaid electricity bills but also to difficult restrictions: on energy (heating), on food or on other items of expenditure. It can also lead to inappropriate choices such as the installation of oil boilers.

Henceforth, social workers also have to take into account, on top of usual problems (budget, help to staying in the dwelling, work with the family...), the energetic aspect in many situations. Sometimes, they feel helpless when they are asked about these questions and are very fond of practical tools to use with families.

PARTNERS

Prioriterre implements this action in Haute-Savoie as part of their mission of information, advice and raising awareness. It is funded by the IEE project “Energy Ambassadors “ and co funded by Ademe, Conseil Général Haute-Savoie and Conseil Regional Rhône Alpes.

DESCRIPTION OF THE GOOD PRACTICE

The objective was to approach our public in a more practical way than holding a conference on energy savings, for example. Thus the participants, brought together in teams, go through the board thanks to a die. They will answer questions, do small experiments or get some bonus or malus according to the spaces they move to.

It will allow them to approach different questions regarding heating, water, electricity and invoices during the whole game.

This is a pretext to discuss on energy savings in a fun and practical way.



RESULTS

About 15 social workers have been trained on the use of this game, which can get around the different structures now. The participants often get very involved and ask many questions; some of them even take advantage of these moments to talk about their everyday difficulties at the hands of energy. About 75% of participants commit themselves on breaking some habits at the end of such activities.



HOW TO REPLICATE IT?

This game is quite easy to replicate since it is based on the rules of a very simple game that any child would know (the game of the goose in France). Then, you need some imagination and a little material to create some cards and the experiments.

The designer has an important role to play since he has to work on some symbols (experiments, bonus/malus and questions) and make the game attractive.

Finally, it is essential to train the future facilitators of the game so that they feel comfortable with the questions on energy savings insomuch that they can concentrate more on the questions and the exchange than on the board itself. One shall not forget that the game is an excuse and that the final objective is to exchange on the energy savings.

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THE CLIMATE IN OUR HANDS

CONTEXT AND OBJECTIVES

Many citizens want to commit themselves to protect our planet and its climate but they often feel like « a small drop in the sea », which means they feel isolated with the impression that their individual actions don't have much impact. Therefore, in order to put in relation these « small ants » working on the same objective and for visualising their progress day by day, a tool is very useful.

PARTNERS

Our technical partner is the magazine '*Durable*' (creation and facilitation of the tool) and Prioriterre (use of the tool for accompanying the general public)

DESCRIPTION OF THE GOOD PRACTICE

'Le Climat entre nos mains' (climate in our hands) is a website on which it is possible to calculate one's personal carbon balance and to visualize, thanks to a curve, one's progress after the application of some news personal commitments.

It is also useful to target some gestures on which to commit oneself and to exchange with other participants some tricks or good addresses.

Finally, the website proposes some mails to customize. For example one can suggest to their favourite shop or to their employer to put an installation to park bicycles...

We have used this website as a support for accompanying groups of volunteers on our territory: we have suggested them to calculate their personal carbon balance; then, once a week, we have offered them an advice per week by email as well as sheets on the thematic developed and some directories.



RESULTS

3762 “ordinary heroes” from all horizons have committed themselves on the website. 11 people were further accompanied by prioriterre. It is difficult to evaluate the real commitments in comparison with of the declaration of commitments but this tool is a very good material for discussions.

HOW TO REPLICATE IT?

We think that the main restriction for the creation of such a website stands in its price and in its technical maintenance.

It is also important to introduce the website to make it alive. It is a very good tool, which can be the support to numerous actions.

If you do not have the opportunity to use or create a website like this one, you might be able to use some tools more simple such as spread sheets: the most important is that the participants can visualize their progress and feel connected among them (community, possibility to exchange...).

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