

GreenSoul project: Questionnaire for data collection on users' behaviour DRAFT

GreenSoul partners will prioritise the questions included in this version of the questionnaire based on their importance & value to the GreenSoul Project which is funded by the European Union through the framework programme Horizon 2020. The most valuable questions will be included in the final version of the questionnaire, which will be based on existing validated questionnaires.

Scope:

- (i) Analyse clusters/ classifications of end-user profiles;
- (ii) Assess socio-economic factors affecting end-user behaviour on energy use and consumption;
- (iii) Assess the potential effect of behaviour change techniques on end-users.

Structure:

- a) **Part 1:** User profile
 - a. Socio-demographics
 - b. Employment profile and building use
 - c. Self-perception on decision making about energy
 - d. Energy-related knowledge and perception of energy management in your company
 - e. Self-assessment of energy related attitudes and intentions
- b) **Part 2:** User daily energy-related routine at workplace
 - a. Energy specific behaviour at workplace
 - b. Dilemmas related to energy efficiency
- c) **Part 3:** Disposal to influence peers or be influenced by them

Target groups:

End-users	Energy managers
Full time employee	Building/ facility manager
Part time employee	Energy experts on public buildings
Tenant/ self-employed (a space within the building is rented by you for self-working)	Other(?)
Principal researcher/head of unit/boss	
Administrative staff (including Secretaries or receptionists)	
Cleaning staff	
Caretaker/ concierge	
Visitor	
Student	

Desired time to fill in: 15-20'

Completion: Anonymous

Indicative implementation timetable:

- 12/04/17: Questionnaire finalisation (doc version)
- 18/04/17: Deliver the questionnaire to project partners for their review and completion.
- 21/04/17: Questionnaire revision to release final version.
- 26/04/17: Questionnaire translations, and start circulation (after Easter Holidays)
- 04/05/17: Feedback collection (from Spanish & Greek pilots)
- 20/05/17: Analysis of results

Introductory message for the questionnaires - interviews

By participating in our survey you will help us better understand how human behaviour in public buildings can affect energy consumption. If you are a user of a public building (visitor or employee) please fill in the present questionnaire.

This study will focus on energy-behaviour of public building users (employees & visitors). It is known that individual energy-consumption behaviour patterns in public buildings are different from individual behaviour patterns in residential buildings.)

All questionnaires are anonymised and will be used for the sole purpose of research within the GreenSoul project. If there are any questions that you do not feel comfortable answering or you do not find an appropriate option for your answers, please leave it blank.

Part 1.a: Profile: General information - socio-demographics

- **1.a.1 Age group:**
 - <21
 - 22-40
 - 41-52
 - 53-71
 - 72+

- **1.a.2 Gender:**
 - Female
 - Male

- **1.a.3 Children:**
 - Yes
 - No

- **1.a.4 Education:**
 - None
 - High-school /secondary
 - Post-secondary (non-university)
 - University degree (bachelor or equivalent)
 - Post-graduate (master or equivalent)
 - Doctoral degree (PhD or equivalent)

- **1.a.5 Country:**
 - Spain
 - Greece
 - Austria
 - UK
 - Other, please specify

- **1.a.6 City:**
 - Seville
 - Bilbao
 - Weiz
 - Graz
 - Pilea-Hortiatis
 - Thesaloniki

- Cambridge
- Sussex
- Other, please specify.

Part 1.b: Profile: Employment profile and building use

- **1.b.1 Current employment status**

- Full time employee
- Part time employee

- **1.b.2 Position**

- Employee
- Tenant/ self-employed (*a space within the building is rented by you for self-working*)
- Principal researcher/head of unit/boss
- Administrative staff (*including Secretaries or receptionists*)
- Cleaning staff
- Caretaker/ concierge
- Visitor
- Student
- Other

- **1.b.3 Which of the following best describes your office/ team/ department culture:** (you can check only one option)

- Teamwork, participation, sharing
- Get the job done and goal-oriented
- Encourage creativity, experimentation and risk taking
- Formal and hierarchical (I work on my own)
- None of them

- **1.b.4 In what floor do you work?**

- Ground floor
- 1st floor
- 2nd floor
- 3rd floor
- 4th floor+

- **1.b.5 Number of colleagues with whom you share your office, work-desk area, or co-working space** (*your near colleagues & neighbours not the whole office building*)

- 0 (Alone)
- 1-2
- 3-5
- 6-10
- 11-15
- 16+
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- **1.b.6 In a typical day, what percentage of your working time do you spend in your office/ work-desk space?**

- 0-20%
- 21-40%
- 41-50%
- 51-70%
- 71%+

- **1.b.7 Are you satisfied with your thermal comfort at workplace?**

Very	Dissatisfied	Neutral	Satisfied	Very satisfied
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	dissatisfied				
Winter season	☀	☀	☀	☀	☀
Summer season	☀	☀	☀	☀	☀

Part 1.c: Self-perception on decision making about energy

- **1.c.1 Please, read the following statements regarding decision making on energy-related issues in your work space and choose how often you think you apply each of them at workplace**

	Never	Very rarely	Rarely	Often	Very often
I make 'good enough' choices rather than expending effort in trying to 'optimise' my energy-related choices.	<input type="checkbox"/>				
I do the same thing each time and the same stimulus is applied to me in relation to energy consumption. I do not think too much about any decisions related to energy. I focus on doing my work and no more.	<input type="checkbox"/>				
In relation to energy consumption I think about what I do and I try to provide the 'why' analytically. I set and modify my own goals. I learn from mistakes (mine and those of others) and I change my behaviour accordingly.	<input type="checkbox"/>				

- **1.c.2 Please, evaluate the next statements related to energy management at work**

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
I hardly pay attention to physical changes or notifications at workplace that are not directly related to my work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer following my peers to take decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I look for data to take my everyday decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I prefer full system automation than taking decisions	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Prompts is what work for me to take action	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I don't see myself following an advice from others without self-reflecting in advance	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Part 1.d: Energy-related knowledge and perception of energy management in your organisation

- **1.d.1 Based on your knowledge, please mark from the list below the top 3 systems that use the most energy in the building where you work:**

- Lights
- Heating, ventilation and air conditioning systems (HVAC)
- Elevators
- Personal devices (Laptops, PCs and monitors)
- Shared devices (e.g. printers, copiers, projectors, etc.)
- Small appliances (e.g. coffee makers, kettles, etc.)
- Data servers

- **1.d.2 Please evaluate the following statements in relation to your organisation:**

	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree
Every individual and organisation must do their share in improving energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Our organisation cannot do much for better energy efficiency	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Energy efficiency has several advantages for our organisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
It is important to approach energy efficiency systematically in the workplace	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

- **1.d.3 I wish to further contribute to energy efficiency in the building; However, in practice (Please, select the statement which is most applicable to you):**

- I often neglect or do not remember it, as I am preoccupied with other work activities.
- I am not sure about what is a good energy practice so I do little or nothing.
- I am discouraged by the attitude of my colleagues and/or of the management, so I do little or nothing.
- None of the answers above apply to me.

Part 1.e: Self-assessment of energy related intentions

- 1.e.1 Please, evaluate these statements:

- I am actually changing my energy intensive habits and saving energy right now.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- My behavioural choices sometimes have a negative impact on energy efficiency.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Modern science will solve our energy-related problems.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- It is a waste of time thinking about energy savings.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I enjoy living as I please, but sometimes my behaviours are harmful to the energy efficiency.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Sometimes I think I should cut down on my wasteful behaviour.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I am at the stage where I should think about being more active in reducing energy consumption.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I have just recently changed my environmentally energy related harmful habits.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I don't think I behave in ways that cause too much harm to the energy efficiency.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Trying to live in a more energy sustainable manner would be pointless for me.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I am trying to engage in less environmentally energy-related harmful behaviours than I used to.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Modern science will NOT be able to solve our energy-related problems.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- With respect to the energy efficiency, there is no need for me to think about changing my daily behaviours.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Anyone can talk about wanting to do something about the energy efficiency, but I am actually doing something about it.
 Strongly disagree Disagree Neutral Agree Strongly Agree

Part 2.a: Energy-specific behaviour at workplace

- **2.a.1 How often do you set the heating/cooling system at your workplace?** (Please choose the answer that is most applicable to you)
 - Every time I need it
 - Once a week
 - Once a month
 - Once a year
 - Never

- **2.a.2 For you, what would be the ideal temperature?**
 - Heating (winter time)... °C Automation should care about that I don't know
 - Air conditioning (summer time): ... °C Automation should care about that I don't know

- **2.a.3 Lighting habits at workplace:** (Please choose the answer that is most applicable to you)
 - I switch off or dim lights when appropriate
 - I ensure that daylight helps keep adequate indoor illuminance by adjusting the blinds, curtains, etc.
 - I am too busy/ preoccupied with other things to be concerned with adjusting lights, blinds, etc.
 - I do not adjust the lights: automation technology can be used for this purpose

- **2.a.4 When you share a space with other people in the workplace, how easy is to find consensus for the following:** (If one does not apply for you, please leave it blank):

	Very difficult	Difficult	Neutral	Easy	Very easy
Heating temperature (winter)					
Cooling temperature (summer)					
Illuminance					

- **2.a.6 When do you use the stairs instead of the elevator?**
 - Only to go downstairs
 - To climb one floor
 - To climb 2 floors or more
 - I always use the stairs
 - I always use the elevator

- **2.a.7 Printing habits:**
 - I avoid printing when not necessary
 - Never Rarely Sometimes Often Always
 - I would accept a delay in the printing time for non-urgent documents if that enhances energy-efficiency
 - Strongly disagree Disagree Neutral Agree Strongly Agree

- **2.a. 8 Habits in your own desk space with monitors, laptop or PC. Do you....?**

	Never	Rarely	Sometimes	Often	Always
Turn-on energy-efficient mode					
Switch-off the device when stop working					

Switch-off the device during (lunch) breaks					
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Part 2.b: Dilemmas related to energy efficiency

- **2.b.1 In the workplace: To what extent would you sacrifice your personal convenience and/or comfort to enhance energy efficiency in order to lower your environmental impact?**
 - o **Winter time:** Would you accept a decrease in internal temperature setting?
 - No, I would not compromise my comfort
 - Yes, a slight decrease
 - Yes, a moderate decrease
 - Yes, a significant decrease
 - o **Summer time:** Would you accept an increase in internal temperature setting?
 - No, I would not compromise my comfort
 - Yes, a slight increase
 - Yes, a moderate increase
 - Yes, a significant increase

- **2.b.2 Would you change your ‘dress code’/ clothing instead to use the HVAC to adapt your body to the indoor temperature and hence lowering environmental impact? :** (If one does not apply for you, please leave it blank)

	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Wear lighter/ warmer clothes indoors					
Wear more casual clothing					

- **2.b.3 It is warm inside the office: Would you agree on opening windows instead of using the air conditioning when possible?**
 - Strongly disagree Disagree Neutral Agree Strongly Agree

Part 3: Self-evaluation about our disposal to influence peers or be influenced by them

- **3.1 Please evaluate these statements**

- Suggest ways to my colleagues & co-workers to act in a more energy efficient manner.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Discussing energy-related topics with my colleagues.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Provide energy-related information (e.g. grey literature, scientific papers, web pages, etc.) to my colleagues.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Give praise to my colleagues for their energy efficient behaviour.
 Strongly disagree Disagree Neutral Agree Strongly Agree
- What others say makes me to rethink my attitude towards it
 Strongly disagree Disagree Neutral Agree Strongly Agree
- I do not want to be influenced by others
 Strongly disagree Disagree Neutral Agree Strongly Agree
- Even my friends have difficulties trying to influence me
 Strongly disagree Disagree Neutral Agree Strongly Agree
- No one can tell me what to do
 Strongly disagree Disagree Neutral Agree Strongly Agree

Part 4: Persuasion

- **4.1 Assume that the organisation you work for has just launched an initiative to reduce energy consumption. You can join on a voluntary basis and save energy by changing your behaviour in line with the simple tips and instructions you receive. What would you do?**
 - ☛ Join immediately
 - ☛ Discuss first with colleagues and then decide
 - ☛ Join after a while
 - ☛ Do not participate

- **4.2 Would personally motivate you to improve your energy-related behaviour in the following cases?**

	Strongly motivated	Motivated	Neutral	Demotivated	Strongly demotivated	Not applicable
Public (social) recognition of your contribution to energy savings is provided						
Receive personal praise (privately) for your contribution to energy savings						
The support of the majority of your peers to improve energy efficient behaviour.						
Receive energy related information in a simple and aesthetically appealing way						
Receiving perks such as flexible working hours, skipping certain tasks, etc, as a reward for improving your energy performance.						
You and your team receive recognition for collectively achieving energy savings						
You receive information about the people behind energy-related data collection.						
You are assisted in setting, meeting and reviewing your own personal energy saving goals						
Your (top) managers are also committed to save energy.						
You can monitor & track your own energy performance in real-time.						
The overall energy saving goals are broken down into smaller easily achievable						
The feasibility of the proposed energy savings						

have been verified in other buildings similar to your workplace						
Energy related information is tailored to you and you are able to self-configure some parameters (e.g. data provided, frequency, etc.) according to your preferences.						

4.3 What type of information and/or support would you find useful to receive to improve your energy performance? (Please, rank each of the following statements)

- Information on the actual effect that your (potential) actions may have upon the energy consumption
 - Not at all useful Not useful Neutral Useful Extremely useful
- Comparative assessment of your actual energy performance compared to benchmarks/ good practices
 - Not at all useful Not useful Neutral Useful Extremely useful
- Comparative assessment of your energy saving performance with the respective performance of your peers (e.g. colleagues, other visitors, etc.)
 - Not at all useful Not useful Neutral Useful Extremely useful
- Historical comparison of your energy performance and/or consumption
 - Not at all useful Not useful Neutral Useful Extremely useful
- Tips or suggestions on the energy saving practice of the day/ week
 - Not at all useful Not useful Neutral Useful Extremely useful
- Progress, tips and lessons learned on specific energy saving actions performed by other users that are similar to me
 - Not at all useful Not useful Neutral Useful Extremely useful
- Advice and quotes from energy experts (including external energy consultants, energy researchers, energy agencies, etc.)
 - Not at all useful Not useful Neutral Useful Extremely useful
- Links to data about how energy consumption is monitored and (potential) energy savings assessed
 - Not at all useful Not useful Neutral Useful Extremely useful

4.4 In case you wanted to receive messages/cues to adopt energy saving behaviour: what would be the desired frequency of them?

	Strongly desirable	Desirable	Neutral	Undesirable	Strongly undesirable	Not applicable
2-3 daily						
daily						
2-3 weekly						
weekly						
monthly						

4.5 When is the right time for you to receive these messages/cues? In which order you would prioritize the following? (1 for first choice, 2 for second choice, etc.)

- When I enter the building
- When I switch on my computer

- When I return from the lunch break
- When I'm about to leave the office
- Every time an inefficient energy behaviour was detected
- Please, specify.

- 4.6 What would be your response to signs in your workplace / building regarding to energy saving best practices? (e.g. the sign presented below¹)



	Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
They will help me to change my energy-related behaviour					

¹ <http://www.recyclereminders.com/conserves-energy-signs>