DOMINO
PLAY THE ENERGY SAVING GAME

D 2.5 Methodology for determining the winners of the DOMINO challenge

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Abstract	

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1   Introduction

Rewards or prizes are motivational incentives that stimulate behaviour change, as is recognition by peers (or by participants themselves) for achievements during the DOMINO challenge. While some recognition of achievements during the challenge is given on a regular basis through Facebook-likes of participants' posts or through visual awards on the app, the best performing teams will also be rewarded with actual physical prizes. Potential participants will know from the beginning that prizes can be won and will thus have a stronger motivation to participate in the challenge and to save energy. Communication about prizes and criteria for winning will be done via the website and partly through Facebook.

This document describes the way in which the winners of the DOMINO challenge will be determined. The methodology for selecting the winners and the criteria should be fair, transparent and easy to understand so that people can quickly grasp the connection between their efforts and rewards.

2   Procedure to determine the winners

The winners will be selected when the challenge, i.e. all cycles, are over and when the collected data has been evaluated in an in-depth way. The project team assumes that this will be the case in the summer of 2018. At that point, data of each region will be analysed separately since the **three *best* teams from each region will be awarded with prizes** even if teams from one region perform slightly better than teams from another region. This "equal number of prizes per region" - principle acknowledges the fact that regional circumstances (weather conditions, household equipment etc.) will vary and would possibly disfavour a specific region.

The DOMINO challenge's main purpose is to trigger electricity savings in households, but the project also aims at evaluating how people react to recommendations and seeks to analyse which ones make sense and lead to behaviour change and which ones do not. Therefore variables on energy savings *and* feedback on recommendations from participants will be taken into account for determining the winners.

3   Criteria for selection of winning teams

A team can only qualify for winning the challenge if the smart plugs have been plugged in and passed on properly by each team member and if all of the 5 players have undergone their cycle. If this condition is fulfilled, three criteria are decisive for choosing the winning teams from each region. A team needs to be the best in one of the categories to win in one of the three regions and a team can only win in one (and not several) categories.

3.1 Category 1

1. **Highest total amount of kWh saved** per team on the five appliances[1] at the end of the challenge.

➔ The organisers of the challenge will look at the average consumption of a team (5 households) after month one (baseline; M_1) and compare that to the average consumption of the 5 households after month two (M_2) and three (M_3).

Formulas:

Total savings of team A = Savings of household A_1 + Savings of household A_2 + Savings of household A_3 + Savings of household A_4 + Savings of household A_5

Savings of household A_i= Consumption of five appliances in month one (M_1) – ((Consumption of five appliances in M_2 + Consumption of five appliances in M_3)/2)

➔ We will reward the team with the highest total energy savings (in kWh) from each region.
➔ If several teams have the same or almost same savings of kWh (i.e. not more than 10 kWh difference from the best performing team), the winner will be drawn by lot among these teams.

3.2 Category 2

2. **Highest relative amount of kWh saved** per team on the five appliances at the end of the challenge.

➔ The project team will look at the average consumption of the team members at the end of month one (baseline, M_1) and calculate the relative improvement (saving of the team) at the end of month two (M_2) and three (M_3).

Formulas:

Relative saving of team A = (relative savings of household A_1 + relative savings of household A_2 + relative savings of household A_3 + relative savings of household A_4 + relative savings of household A_5)/5

Relative savings of household A_i = (Consumption of five appliances in M_1 – ((Consumption of five appliances in M_2 + Consumption of five appliances in M_3)/2) / Consumption of five appliances in M_1

➔ We will award the team with the highest relative energy saving (measured up to two decimal place) from each region.
➔ In case several teams have the same percentage of relative savings (up to one decimal place), the winner will be drawn by lot from among these teams.

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[1] Excluding the joker plug that can be switched between different appliances.

3.3 Category 3

3. Highest number of clicks on feedback buttons[2] per team during the months in which recommendations are received.

➔ The project team will count the number of clicks on the feedback buttons and will reward the teams with most clicks.
➔ While the challenge is based on the truthfulness of information provided by participants, the project team will do a reality and coherency check for clicks to prevent cheating
➔ Note: By clicking excessively on "will not do it" without any further comments teams cannot win the challenge.
➔ If several teams have the same number of clicks, the winner will be drawn by lot among these teams.

4 Consistency check

Data from potential winners will undergo a consistency and reality check. For example: Savings of 90 % compared to the baseline are not realistic. It would also not be consistent to maintain the highest click score on the "will do it now" button without any savings on any appliance at all. Teams that cheat can be excluded from the challenge and from the pool of winners. Longer periods of absence from home will be taken into consideration as a factor when looking at savings.

5 Prizes

45 households (9 teams à 5 players) will receive a gift certificate worth EUR 100 for shops offering equipment that can help save energy and/or energy efficient appliances. The idea is that people can use the money to invest in energy efficiency at home.

6 Informing the winners

Winners will be informed by email and receive the prizes by mail or email.

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[2] The three buttons which are available read: 1) Will do it now, 2) Already do it, 3) Will not do it, because…