

ENERGISE

EUROPEAN NETWORK FOR RESEARCH, GOOD PRACTICE
AND INNOVATION FOR SUSTAINABLE ENERGY

LIMITING ENERGY CONSUMPTION USING DIFFERENT METHODOLOGIES: Carbon clubs, EnergyNeighbourhoods, Living Labs

Kristóf Vadovics and Edina Vadovics
GreenDependent Institute, Hungary

ECEEE 2019 SUMMER STUDY



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grⁱⁿdependent
Institute

THE 3 INITIATIVES: INTRODUCTION

#2



- Local carbon club established to help people understand the connection between climate change and own life
- Inspire action at individual and community level



- Small groups based energy saving competition
- Groups of 5-7 households lead by volunteer coordinator (Energy Master)



- Living labs established to study and inspire change in energy use practices
- Study the role of routines, skills and infrastructures



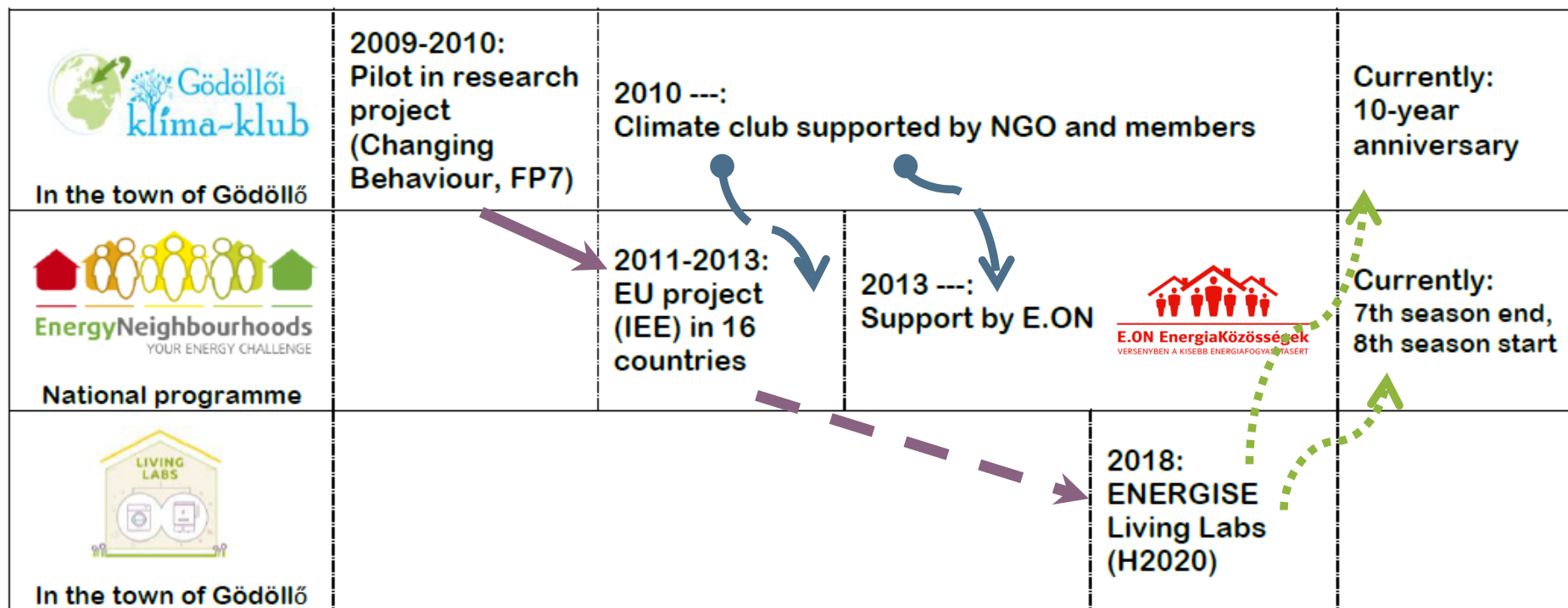
This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grIndependent
Institute

THE 3 INITIATIVES: PROJECTS, TIMING, CONNECTIONS

#3



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grⁱⁿdependent
Institute

THEORIES OF CHANGE AND METHODOLOGIES

#4



- Socio-technical approach
- Importance of small groups in creating and facilitating capacity for change



- Theory of interpersonal behaviour
- Importance of social factors, past behaviour
- Small groups as facilitators and enablers of change
- Supporting individuals and groups to become change agents



- Social practice theory
 - Routines
 - Skills, Knowledge
 - Material infrastructures
- Real-world laboratories



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grIndependent
Institute

DATA SOURCES: QUALITATIVE AND QUANTITATIVE

#5



- Reports
- Participant observation
- Participant survey
- Calculation of energy saved (limited)



- Participant surveys
- Evaluation of materials prepared by participants (e.g. DIY energy audit)
- Energy Master survey
- Online energy saving calculation tool



- Before, after and monitoring surveys
- Before and after interviews // focus group
- Heating and laundry diaries
- Online energy saving calculation tool
- Meter data



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grⁱⁿdependent
Institute

RESULTS AND OUTCOMES: ENERGY SAVING AND CLIMATE IMPACT

#6



- Limited calculation of saving (voluntary), some still reported
- Belonging to a group and being proud of it reported as important: *„Since I have become a climate club member I have...”*
- Learning from each other



- On average: 8-10% as compared to ref year
- **Best groups: as much as 25-30%**
- Even relatively energy poor households can save



- Reduced number of laundry cycles (by 21%) and related energy consumption (by 22%)
- **Acceptance of lower indoor temperature: 1°C in all of the households**
- Overall energy consumption reduction by 10,6% (*highest savings by 20%*)



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

grⁱⁿdependent
Institute

RESULTS AND OUTCOMES: PARTICIPANTS AND CHANGED PRACTICES #7



- 15-20 core participants
- 300 on mailing list
- Change not only in energy use practices, but also in other areas
- Forum for 'green' living, and events (seed swap)



- 7 seasons so far
- **Participating households: cc. 140/season**
- Trained energy masters: cc.200
- **70-80% of challenges set met**
- *„I thought I was already quite 'green'...”*
- **Returning participants**



- 41 households
- **Change in laundry and heating practices: new routines and skills**
- Experience with sufficiency
- **Some continue in Climate club and/or EnergyNeighbourhoods**

ENERGISE

grEen independent
Institute

REFLECTIONS ON OUTCOMES

- Becoming energy masters (=local change agents):
meaningful voluntary carrier for people?
- Providing confirmation for sustainable practice is as important as trying to make practice change
- Importance of belonging to a group of like-minded ‘sustainability practitioners’:
 - Confirmation
 - Motivation and inspiration
 - Source of learning and information
- Experimenting with sufficiency
- ‘Learning’ is an important source of motivation for joining sustainable energy initiatives



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grⁱⁿdependent
Institute

LESSONS LEARNT FOR POLICY, PRACTICE AND RESEARCH

#9

- Active involvement of participants
- **Complex methodology, varied tools needed**
 - Role of metering and measurement
- **Local embedding of initiatives to ensure:**
 - Continuation / Opportunity to stay involved,
 - Longer-term change,
 - Creation of local sustainable practices community,
 - Spreading of ideas and practices (upscaling? trend-setting?)
- Research to become more embedded and policies to ensure this happens



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

grⁱⁿdependent
Institute

ALL 3 INITIATIVES: PLANTING NATIVE TREES WITH PARTICIPANTS TO OFFSET EVENT CARBON FOOTPRINTS

#10

- ‘Walking the talk’ approach + taking responsibility for footprint



This project has received funding from the European Union's Horizon 2020 Research and Innovation programme under Grant Agreement No 727642.

ENERGISE

ENERGISE

EUROPEAN NETWORK FOR RESEARCH, GOOD PRACTICE
AND INNOVATION FOR SUSTAINABLE ENERGY ■■■■■■



OÉ Gaillimh
NUI Galway



AALBORG UNIVERSITY
DENMARK



Maastricht University



UNIVERSITÉ
DE GENÈVE

grEIndependent
Institute



LUDWIG-
MAXIMILIANS-
UNIVERSITÄT
MÜNCHEN



HELSINGIN YLIOPISTO
HELSINGFORS UNIVERSITET
UNIVERSITY OF HELSINKI



THANK YOU FOR YOUR ATTENTION

GREENDEPENDENT INSTITUTE

Email: kristof@greendependent.org // edina@greendependent.org



This project has received funding from the European
Union's Horizon 2020 Research and Innovation
programme under Grant Agreement No 727642.