NUDGE
Nudging consumers towards energy efficiency through behavioural science

DECIDE

European Commission

ENCHANT
Energy Efficiency through behaviour Change Transition Strategies

WHY

Towards energy aware behaviours:
how studies on young generations can inform better policy design

26-30 SEPTEMBER 2022

EUROPEAN SUSTAINABLE ENERGY WEEK

Going green and digital for Europe's energy transition

POLICY CONFERENCE

EUSEW.EU
EUENERGYWEEK
@EUENERGYWEEK
#EUSEW2022

AGENDA

Welcome – dr. Leen Peeters, Th!nkE

Youth and energy consumption behaviours - what have we learned?
dr. Peter Conradie, imec-mict-ugent

How can we feed these learnings into better policy measures targeting younger generations?
dr. Leen Peeters, Th!nk E

Panel discussion and Q&A - Focus on including youth in energy policymaking at various levels
Moderation: dr. Heike Brugger, Fraunhofer ISI

- Guri Bugge, Viken County Climate Coordinator, Norway
- Sofia Magopoulou, European Youth Parliament
- Jacopo Sala, ClimatePact Ambassador in Italy and European Youth Energy Network

Conclusions- dr. Leen Peeters, Th!nkE and dr. Peter Conradie, imec-mict-ugent

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SESSION 1

YOUTH AND ENERGY CONSUMPTION BEHAVIOURS - WHAT HAVE WE LEARNED?

Dr Peter Conradie, imec-mict-ugent

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WHAT DO MEAN BY YOUNG?

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6 to 12 years

NUDGE
11-12 y/o (pilot) + 18 to 30 y/o (survey)

WHY
High-school students (control group also includes middle age and retired)

ENCHANT
18 to 30 y/o

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THE PROJECTS

ENCHANT uses intervention techniques such as giving information and tips, giving feedback, communicating social norms, giving a commitment, giving incentives, collective vs. individual framing, or creating competitions to increase energy efficiency in European households.

NUDGE aims to systematically assess and unleash the potential of behavioral interventions towards achieving higher energy efficiency; and to pave the way to the generalized use of behavioural interventions as a worthy addition to the policy-making toolbox

WHY tries to understand how households invest resources (in the wide sense) towards the energy transition.

DECIDE aims to gain a better understanding of how energy communities and collective actions are established, managed, grow and replicated.

DECIDE

POWER OF COMMUNITY
BOARD-GAME

As part of **DECIDE**, the goal is to develop a toolbox that can be used to organize a community energy initiative. A particularly important stakeholder is young people. Specifically for them, DECIDE a board-game was developed.

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POWER OF COMMUNITY BOARD-GAME

The game encourages children to use their imagination and creativity to learn how the energy system and renewable energy works

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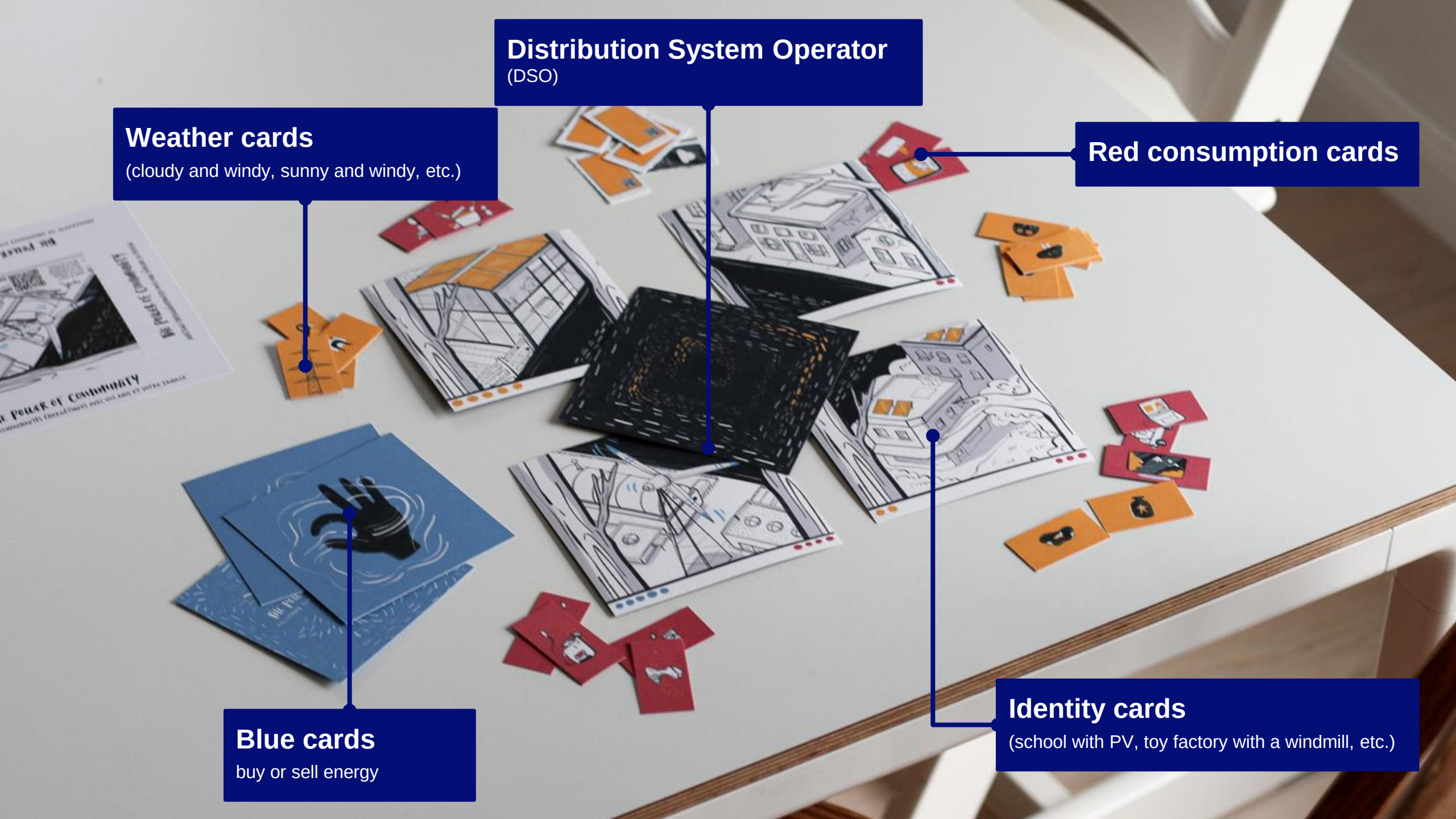
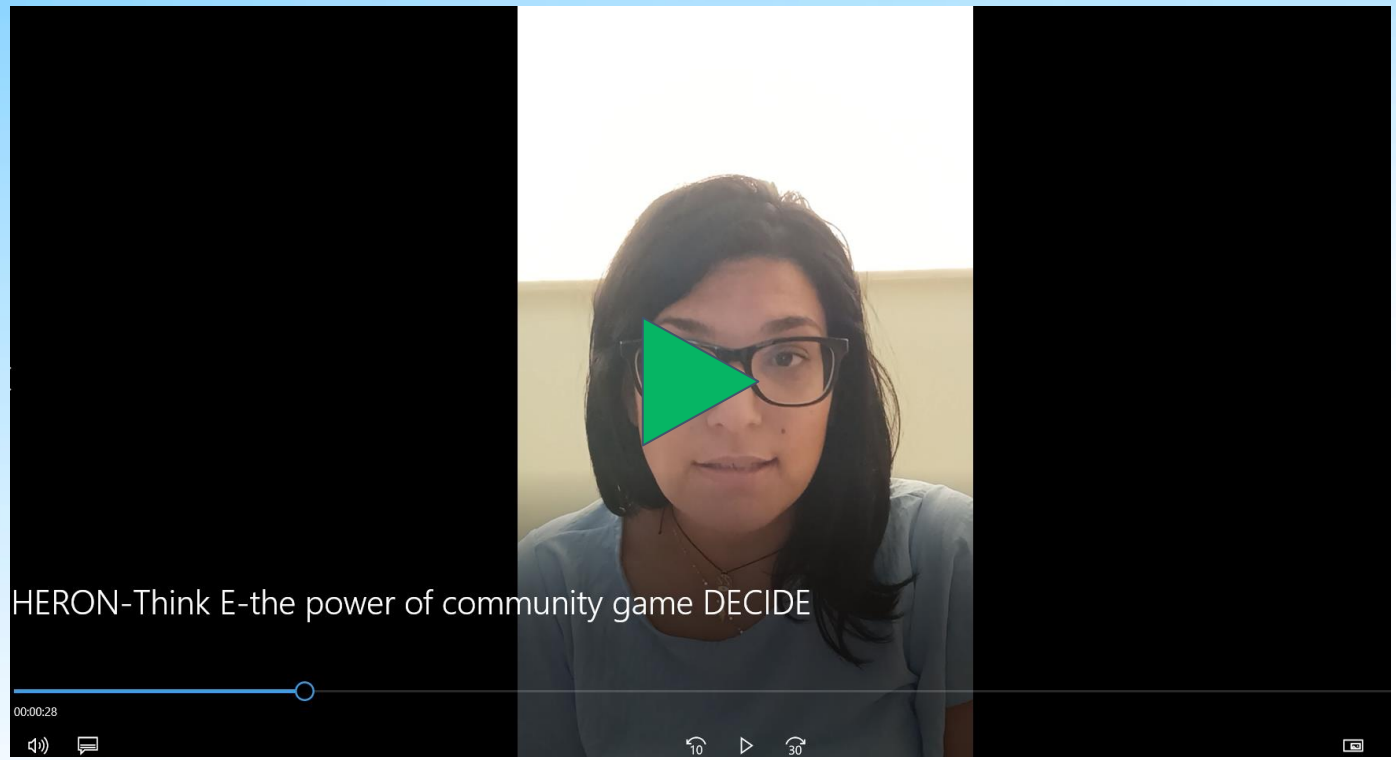

Distribution System Operator
(DSO)
Weather cards
(cloudy and windy, sunny and windy, etc.)
Red consumption cards
Blue cards
buy or sell energy
Identity cards
(school with PV, toy factory with a windmill, etc.)

WHAT DID WE LEARN?

- Engaging for various generations of players, not only for children.
- Versatile for workshop organisers/educators/game instructors to adjust the level and detail of explanation of sustainable energy and energy communities to different types of players.
- Ideal for informal educational activities within schools or family settings.

VIDEO TESTIMONIAL

GREEK SCHOOL - HERON



NUDGE

Belgian pilot study

HIGHLY-GIFTED STUDENTS AS ENABLERS TO REDUCED CONSUMPTION

Through educating pupils on energy consumption, ways to reduce energy and tracking energy consumption, a network effect can be realised, where parents, siblings and grandparents can also be reached, and their behaviour impacted.

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Highly-gifted students as enablers of reduced consumption

Nudging consumers towards energy efficiency through behavioural science

Which percentage of the total electricity use in Belgium is generated through renewable energy sources in 2020?

This is measured in part by tracking energy consumption, but also by assessing people's knowledge of energy production, consumption or strategies to reduce consumption.

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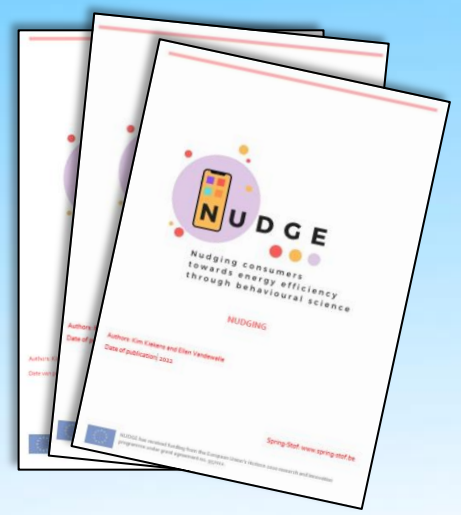
NUDGE

Belgian pilot study

Spring-Stof



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Series of 5 lessons:

- gas consumption at home
- electricity at home
- electricity outside the house
- water
- nudging

Examples

- What is ‘Power’ + how to calculate it?
- What is 1 kWh + what can you do with 1 kWh?
- How much energy do devices consume?
- How to save energy at home and by policy makers

Testimonial by Zeger Van Pottelbergh

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Belgian pilot study

Spring-Stof

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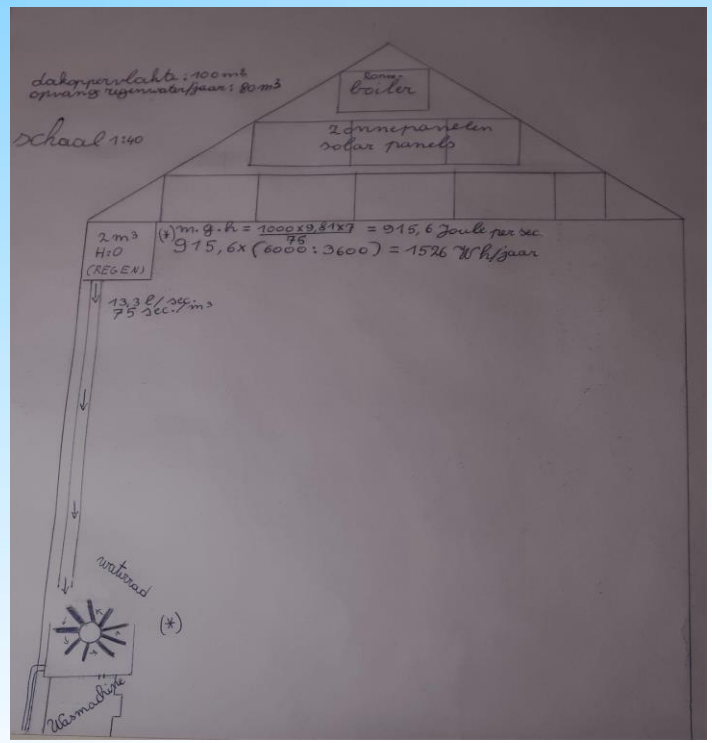

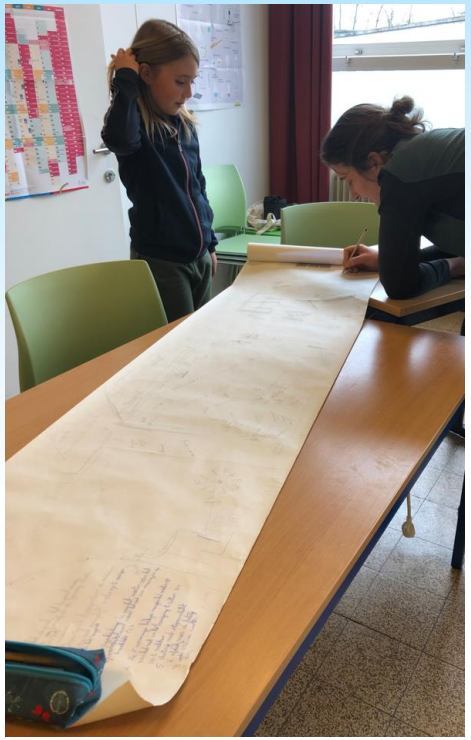

EXAMPLE OF SELF-SUSTAINING SYSTEM AT HOME

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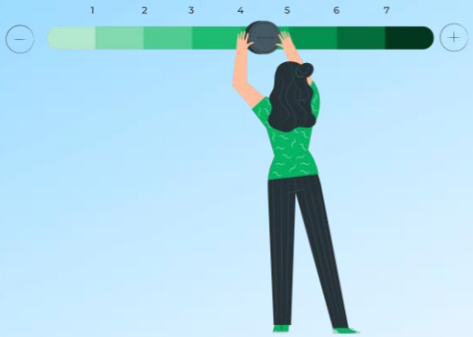
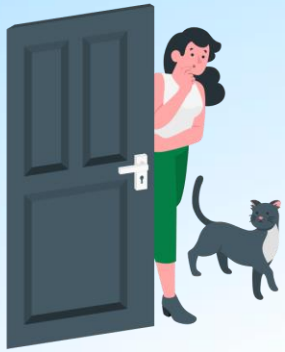
Challenges to save energy

Spring-Stof

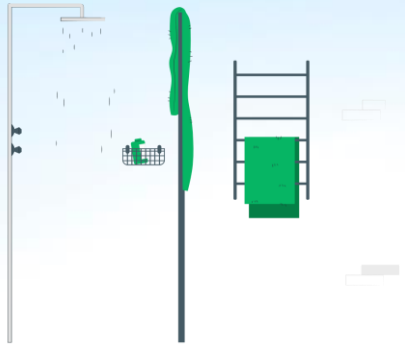
Personal + classical challenges:



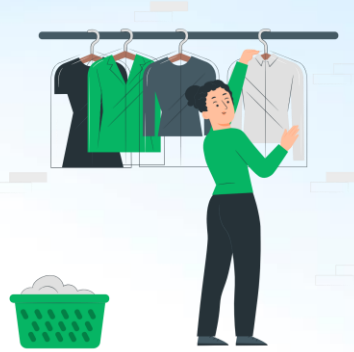
Lower the heating by 2°C



Close the doors



Take shorter and colder showers



Hang laundry out to dry instead of drying in the dryer

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Results of energy saving measures

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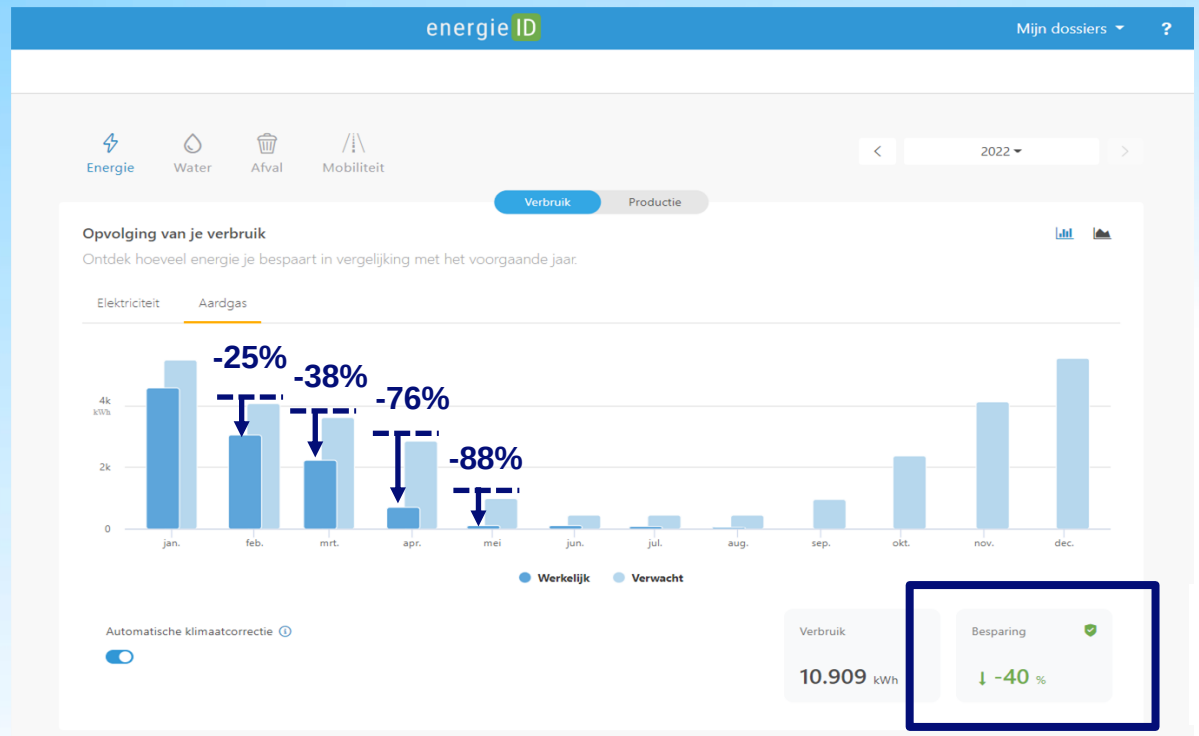

GENERAL SAVING

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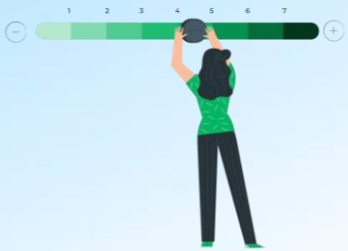
Challenges to save energy

Spring-Stof

NUDGING to REDUCE energy consumption

Grants for sustainable energy



Lower the heating of public buildings by 2°C

More taxes for highly polluting transport

Collect pumped groundwater during construction

Energy courses for all children

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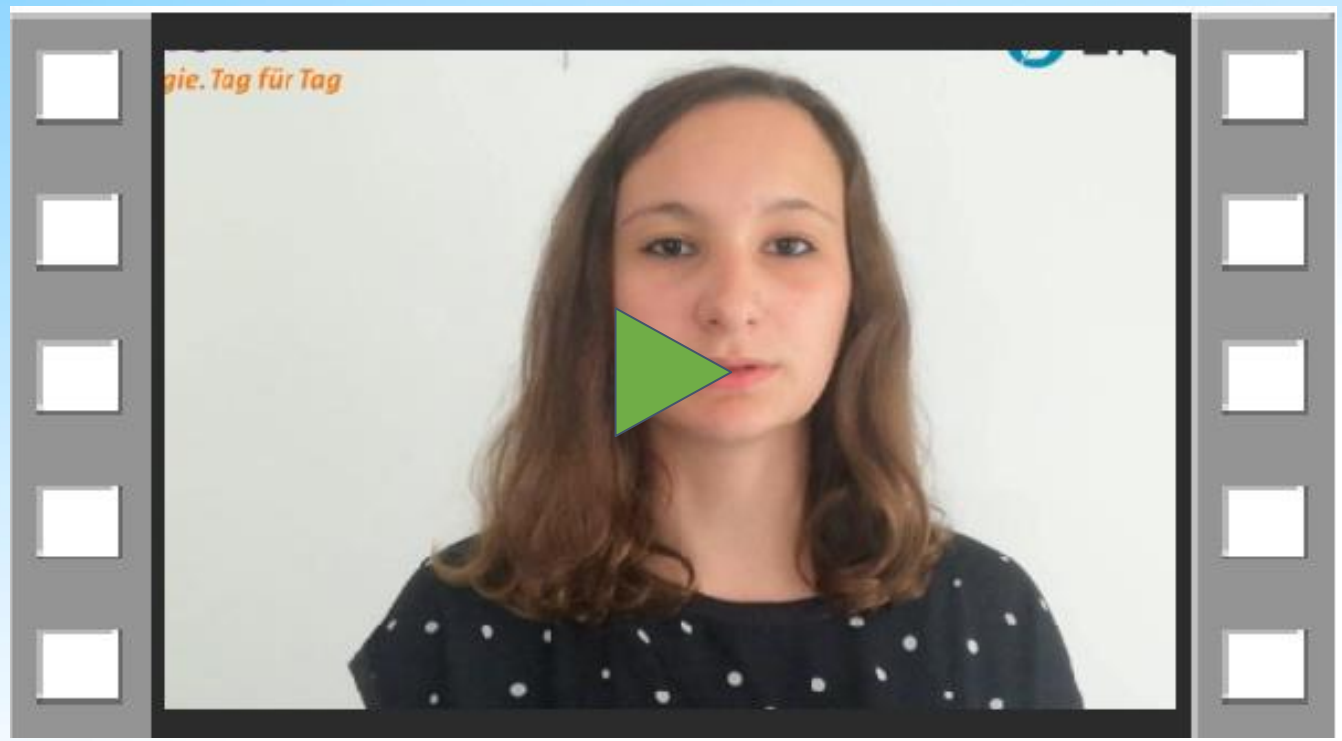
Badenova partners and their movation to engage in ENCHANT



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Are there (generational) differences in attitudes, behaviour and behavioural intention in relation to sustainability and sustainable behaviour?

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WHAT DO WE MEAN WITH YOUNG?

We used a flexible definition ranging between 18 and 25 and 18 and 30, depending on the available samples within each sub-study across NUDGE, WHY and ENCHANT (surveys).

HIGHER AMBITION TO RENOVATE

Younger participants state that they have higher ambitions for renovation, including renovations that are more substantial. Also includes more ambitious upgrades. (ENCHANT, youth vs. others)

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MORE INTENT TO REDUCE HEATING-RELATED ENERGY CONSUMPTION

States having a higher intent to reduce heating-related consumption in the winter (NUDGE, youth vs. others)

While youngsters seem to be more prone towards energy **sufficiency** actions, adults are more favourable to energy **efficiency** actions (WHY, youth vs. others)

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YOUTH AND POLICYMAKING

Youngsters ask for more action from policymakers than adults. In fact, they see regulations as a barrier more often than adults. (WHY, youth vs. others)

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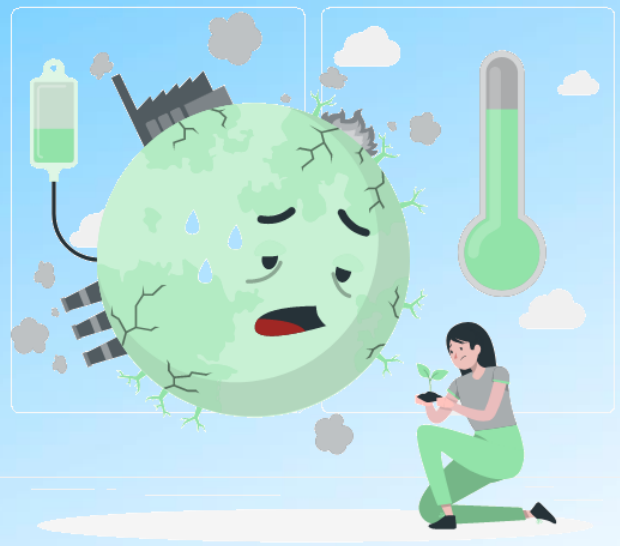
HOW DO THEY THINK ABOUT SUSTAINABILITY AND THE ENVIRONMENT?

Younger people (18-30) feel more hopeful but also more anxious when thinking about sustainability. (ENCHANT, young vs rest)

Similar levels of environmental concern (18-30) (NUDGE, young vs rest)

Behaving pro-environmentally is natural to younger people, while for older adults, it is still a role to that they play (WHY, youth vs. others)

BELIEF IN GLOBAL WARMING AND THE AWARENESS OF CONSEQUENCES



Same belief in global warming (ENCHANT, young vs rest)

Same awareness of the consequences (NUDGE, young vs rest)

More ascription of responsibility (NUDGE, young vs rest)

Youngsters and adults agree that society will not do too much to fight against the actual climate crisis (WHY, youth vs. rest)

Nevertheless, youngsters envision that society as a whole will participate in solving the climate crisis but adults think that social protest are unavoidable (WHY, youth vs. rest)

FAMILIES?

By contrast, families with children feel more hopeful and more motivated to perform renovation.

(ENCHANT, families vs rest)

LOWER KNOWLEDGE ABOUT ENERGY AWARENESS AND CONSUMPTION

Young cohort has lower knowledge about their consumption, while young families have higher knowledge (ENCHANT, young vs rest)

Young cohort stating less awareness of energy saving knowledge (NUDGE, young vs rest)

The biggest barrier for youngster is their lack of knowledge to perform pro-environmental actions while for adults it the fear of losing comfort (WHY, youth vs. rest)

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LOWER KNOWLEDGE ABOUT ENERGY AWARENESS AND CONSUMPTION

Receive their information about sustainability to a much larger degree from friends and less from TV or reading sources (ENCHANT, young vs rest)

If they have tried to inform themselves about energy measures, they have done so less with professional energy counsellors (ENCHANT, young vs rest)

SOCIAL NORMS APPEAR TO BE AN IMPORTANT MOTIVATOR

Both for the intention to reduce heating-related consumption and the intention to perform a renovation, the impact of social norms are higher
(NUDGE, ENCHANT, young vs rest)

HOME OWNERSHIP AFFECTS THEIR ABILITY TO IMPLEMENT ENERGY SAVING MEASURES

If they have not implemented renovation measures, it is mostly because they are not owning the place they live in (ENCHANT, young vs rest)

ESPECIALLY AMONG YOUTH, COMFORT SEEMS TO BE A DEALBREAKER

Less willing to try keeping indoor temperature at 19/20°C during winter (ENCHANT, young vs old)

Energy saving actions impeded by comfort and renting property (ENCHANT, young vs old)

Loss of comfort negatively impacts attitudes towards reducing energy consumption (NUDGE, youth vs. old)

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ESPECIALLY AMONG YOUTH, COMFORT SEEMS TO BE A DEALBREAKER

Peak-load shifting almost non-existent among youth (ENCHANT, young vs others)

Less attentive to their water consumption
(ENCHANT, young vs others)

FAMILIES BEHAVE A LITTLE DIFFERENTLY

Families are quite motivated, have higher knowledge about their energy consumption and are already engaged in energy efficiency measures (ENCHANT, families w/ children vs. others)

Less inclined to give up unnecessary appliances (e.g., tumble-drier, gaming console) (ENCHANT, families w/ children vs. others)

CONCLUSIONS

While we can measure some these differences in the attitudes, behaviour and intents across the performed surveys emphasise that age often only explains a very small percentage of intent or behaviour (1-2%).




CONCLUSIONS

Attitudinal or contextual factors appear to have more explanatory power, i.e.: the impact of home ownership on ability to renovate.

CONCLUSIONS

Intergenerational learning as butterfly effect:

- By means of a board game (DECIDE, board game, 9-12y)
- By means of energy conservation courses, which are eventually practiced at home (NUDGE, BE pilot)

SESSION 2

HOW CAN WE FEED THESE LEARNINGS INTO BETTER POLICY MEASURES TARGETING YOUNGER GENERATIONS?

Dr Leen Peeters, Th!nk E

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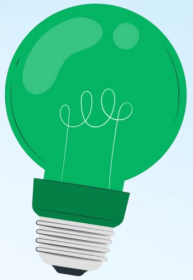
MEANINFUL INVOLVEMENT

YOUNG HOMEOWNERS

TAILORED PLANS

BUILT ON FACTS CAMPAIGNS



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MEANINFUL INVOLVEMENT

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YOUNG HOMEOWNERS

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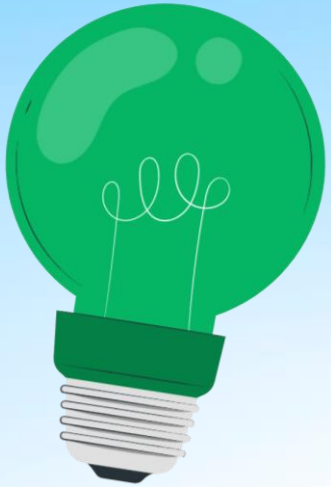

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PANEL AND Q&A

FOCUS ON INCLUDING YOUTH IN ENERGY POLICYMAKING AT VARIOUS LEVELS

MODERATION
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GURI BUGGE
Viken County Climate Coordinator, Norway

SOFIA MAGOPOULOU
European Youth Parliament

JACOPO SALA
ClimatePact Ambassador in Italy and European Youth Energy Network

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A CLIMATE MATTER CLOSE TO MY HEART

(YOUTUBE)

Hear from Viken County children and teenagers what they want to change!

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Conclusions

dr. Leen Peeters, Th!nkE and dr. Peter Conradie, imec-mict-ugent

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