TOWARDS ENERGY AWARE BEHAVIOURS:

HOW STUDIES ON YOUNG GENERATIONS CAN INFORM BETTER POLICY DESIGN

BRIEFING

- What is the potential of youth in leading the change in habits needed to deliver on the energy transition?
- How can the existing knowledge on energy behaviours support better policymaking at various levels, with engaging measures?

This briefing gathers highlights from an event organised during the EU Sustainable Energy Week 2022, by four EU-funded projects. The full event recording is available by scanning the QR code.

NUDGE
Nudging consumers towards energy efficiency through behavioural science

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.
www.nudgeproject.eu

DECIDE

For a better understanding of how energy communities and collective actions are established, managed, grow and replicated.
Developed a toolbox to organize a community energy initiative and a board-game specifically for young people.

www.decide4energy.eu

ENCHANT
Energy Efficiency through behaviour Change Transition Strategies

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

www.enchant-project.eu

WHY

WHY is the next step in improving energy demand modelling to forecast the domestic sector's energy consumption.
WHY tries to understand how households invest resources (in the wide sense) towards the energy transition.

www.why-h2020.eu

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SETTING THE STAGE

The shift toward new patterns of energy production and consumption is one of the key tools to lead the energy transition, and especially in the difficult situation caused by the Ukrainian war and the need to reduce our energy dependence.

While the European Commission highlighted energy consumption reduction as a pillar of its REPowerEU strategy, the IEA reminds that energy efficiency is a key element to solve the energy dependence of Europe, yet its potential remains untapped.

The residential and industrial sectors, representing a high share of the consumption, lag behind. The main reason is that interventions to decrease energy use haven't been successful: our 4 projects provide evidence-based feedback on activities that have proven to foster energy-aware behaviours, particularly for younger generations, including the extent of their impact and policy recommendations.

2022 was the European Year of Youth - younger generations show their elders that they want things to change and are ready to do their share: this briefing aims at empowering policymakers to engage communities and in particular youth. It builds on the research on energy-related behaviour produced in several EU funded projects, providing evidence from surveys and onsite demonstration activities as well as findings on behaviour aspects related to energy consumption and production and what they tell us to refine top-notch policy measures, targeting specifically younger generations.

What do we mean by youth?

NUDGE	DECIDE	ENCHANT	WHY
Nudging consumers towards energy efficiency through behavioural science		Energy Efficiency through behaviour Change Transition Strategies	
10-12 + 18-30 years old	6-12 years old	18-30 years old	Highschool students as control group

WHAT HAVE WE LEARNED?

Highly-gifted students as enablers to reduced consumption

Educating pupils on energy consumption and saving creates a network effect where parents, siblings and grandparents are also impacted. NUDGE first evaluated the families' knowledge about their energy consumption, as it is a predicator to reduce energy use.

Zeger Van Pottelbergh, student from the Spring-Stof school (Flanders, Belgium) participated to NUDGE from February to May 2022, with 12 other students around 10 years old. The group was encouraged to brainstorm ideas for a self-sustaining home. Zeger came up with the idea to use the energy of rainwater flowing down from the house to generate electricity. To save energy with his family, they turned the heating down by 2°C, took shorter and colder showers, closed the doors to keep the heat inside and dried the laundry outside instead of in the dryer. They calculated and followed the results of their actions with graphs on the EnergyID platform. His family saved 40% of gas in 2022!

The board game '**Power of community**' simulates a local energy community and shows how renewables work and their impact on energy consumption, as well as how different factors can influence the overall production of energy. Although partners tested it with children, this versatile game can be adjusted to different audiences, thus being ideal for informal educational activities within schools or family settings.

A Greek public-school teacher showed a video to her class, introducing the work of the energy company HERON before playing the game. More than introducing the game, the video led children to connect their daily routine with the urgency of having more renewables. It came natural for students to be conscious about the importance of their behaviour and team work. The 12 years old then created their own LEGO energy community.

Tip: maintain interest by creating imperative missions. Impact on relatives was noticed.

Badenova partners (an energy company) testified their motivation to engage in the ENCHANT project: the project gave them the opportunity to have a conversation with their customers, to understand what they are concerned about and how they can be supported energy-wise, as well as insights of what customers expect from their energy suppliers.

FOCUS ON...

Zeger's policy recommendations to save energy

The **heating in public buildings should be turned down with 2°Celsius**.

Taxes for highly polluting transports should be raised and that money used to give **grants for sustainable energy sources**.

All children should be given a **course on energy consumption**.

A lot of **groundwater is lost in construction**, while this water could still be used to water fields.

> “Nudging people is important: people’s behaviour about energy consumption needs to be changed. It is also key teaching the youth about energy consumption and make them think!”

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

dr. Peter Conradie, imec-mict-ugent presented survey results from the projects, some with striking results, some with more nuanced differences.

Higher ambition to renovate
Younger participants state they have higher ambitions for renovation, renovations that are more substantial with more ambitious upgrades. (ENCHANT, youth vs. others)

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)

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 even if they spent less time on the planet. (NUDGE, young vs rest)

Youngsters and adults agree that society will not do too much to fight against the actual climate crisis. 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)

More intent to reduce heating-related energy consumption
Youths state having a higher intent to reduce heating-related consumption in 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)

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)

No statistical difference: 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 play. (WHY, youth vs. others)

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)

Receive their information about sustainability to a much larger degree from friends and less from TV or reading sources. If they have tried to inform themselves about energy measures, they have done so to a lesser extent with professional energy counsellors. (ENCHANT, young vs rest)

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

Social norms appear to be an important motivator
Having positive role models in this domain impacts the motivation - 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)

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 with children vs. others)

Less inclined to give up unnecessary appliances if that gives comfort or free time (e.g., tumble-drier, gaming console) (ENCHANT, families w/ children vs. others)

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)

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

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

RESEARCH CONCLUSIONS

- Surveys emphasise that age often only explains a very small percentage of intent or behaviour (1-2%) and is therefore not a good predictor.
- Attitudinal or contextual factors appear to have more explanatory power, i.e.: the impact of home ownership on ability to renovate rather than age.

Intergenerational learning can benefit from a butterfly effect (kids confronting their families and peers):

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

How can we feed these learnings into better policy measures targeting younger generations?

dr. Leen Peeters, Th!nkE, presented policy recommendations based on the four project findings.

Meaningful involvement

ENCHANT and WHY research shows that **young people fall into energy poverty more easily and are more likely to be precariously employed** (part time jobs, fixed-term contracts).

These difficulties in the labour market translate to **problems in accessing suitable/better housing with higher energy bills**. It is therefore crucial to **involve them early in the policymaking process of housing and employment**, integrating the multidisciplinary aspect (employment, access to financing, etc) and being more participative: information-sharing and consultation, collaboration, joint decision-making.

Young homeowners

ENCHANT has shown that young people (>45 in this particular case) are particularly ambitious in the energy standards of their house renovations - it is both relevant and promising for targeted policymaking, in which it is possible to set high energy saving standards (Energy Performance of Buildings Directive, etc.).

EU legislation should pick this up and be more focused on the younger generation while designing their energy efficiency/ renovation strategies. This could be organizing **specific campaigns targeted to young homeowners** (where they recognise themselves), but also with **improved access to loans for younger people**.

Tailored plans - diversity of channels and ways of communicating

At the same time, ENCHANT has shown that they have **substantially lower knowledge about energy efficiency**. On top of that, they receive their information about sustainability to a much larger degree from friends and less from TV or reading sources. Their **information sources vary**.
DECIDE shows they use search engines, friends and family as sources. Often, they will challenge the info, look for different sources.
The upcoming compulsory one-stop shops as part of the EPBD recast should come with special attention to this younger group, their habits, and their priorities, making sure they find their ways to the OSS, that they are promoted in various ways, through the channels they use.
Using the **right communication channels in a style that is attractive to them, and with examples of similar people**, is crucial as well.

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Built-on-facts campaigns

Young people do not always understand the link between a specific behaviour and its linked energy consumption, as well as the societal and environmental impacts. It is **challenging to understand the various ratios** (turning off LEDs vs using once the microwave): **use those in campaigns**!

Campaigns, built on facts, should give them insight in the impact of their choices both in behaviour as well as in design of their renovation or new building.

This should not only encompass their building energy use, but also their choices with regards to mobility and fashion. Life Cycle Analysis information is useful to help make choices. It is not only what you consume at home that matters, show the bigger picture.

Creative education

Age is not the decisive thing, it's the attitude. We can change this by increasing knowledge, and **the earlier you give knowledge, the easier it is to incorporate it to norms and social values**.

All teaching and entertainment material provided to children should incorporate energy-savvy behaviour so that it becomes natural in their ecosystem.
DECIDE showed that we need to use the youth's creativity, their potential and capacity to make change happen – as **engaging with the young will undeniably have an impact on other generations** as well.

Understand that not all people are the same and use appropriate channels for each archetype. For housing and the built environment, **target a household rather than individuals**!

Panel discussion and Q&A - Focus on including youth in energy policymaking at various levels

Moderation: dr. Heike Brugger, Fraunhofer ISI

SOFIA MAGOPOULOU, EUROPEAN YOUTH PARLIAMENT

It is key to **reach out to young people and show them the impact of their involvement**. The EYP digital energy forum got a bigger engagement when they **reformatted the content to fit young people's "tools"**, using digital versus print, etc.

Translating the institutions to young people – this is absent from school programmes: what is the context of Europe, how does it work and how does it interact with local states?

Peer to peer education, online and offline, young people learn better when they're taught from peers.

Access to EU institutions is hindered to young people: invite them, give them a voice!

It's not us teaching the youth, it is the youth teaching us!

GURI BUGGE, VIKEN COUNTY CLIMATE COORDINATOR, NORWAY

99% of what is in policy documents is impossible to understand for the average citizen. Young people are more honest about what they know or not, it's not that they know less! **By addressing the youth, you can make policy more inclusive, that can reach everybody**. Policy is about redistributing power, about how to ensure all citizens are empowered, not the loud or rich only. Implement youth councils, with democratic processes and dedicated budget. Ensure people help develop AND implement the plans.

New approach in the Viken County - Close cooperation with many municipalities and different stakeholders, will to climb the ladder of participation, to really involve everybody and listen/talk to them. Not everybody can vote: how can everybody have a say? Children put on maps where they play, walk, feel secure or not. Their input is linked to a tool that planners use and understand - **it is much easier to teach children to give input in a way that adults can understand than the other way around**.

JACOPO SALA, CLIMATEPACT AMBASSADOR IN ITALY AND EUROPEAN YOUTH ENERGY NETWORK

Youth do things because they were told to their whole life, like turning off the light, when it is actually few watts versus taking a long hot shower which consumes much more: **no knowledge of the magnitude orders**.

Update the understanding of youth for inclusive communication mechanisms

Difficult to accept that we do small actions that save little when we could do more like renovate but are impeded by the fact we don't own the place and stay short periods. Finding ways for co-participative renovations /actions could be helpful. Not trusting Google to look for professionals: need trustable platforms for energy efficiency, renewables, trusted professionals / contractors. One-stop-shop centralising the information + information accessibility + elevating trust.

Engaging young people up to 35, to include young professionals and build on the theoretical knowledge with practical one.

CONCLUSIONS

HOW STUDIES ON YOUNG GENERATIONS CAN INFORM BETTER POLICY DESIGN

- Important for projects to be engaged in sharing findings in various occasions and to **translate research into policies**, ensuring an impact on the daily life of people.
- Policymakers are not reading research papers: **make clearly understandable documents**, and try to make **material flexible and transferrable** (not only the content but how you use it). Open to universities platform, for free.
- In many contracts with the EU institutions, such as the Smart cities marketplace, the Clean energy for EU islands, you do not see youth present. **The institutions should put as an action point to engage more youth**. The first step was to go local, speak local: now more diversification can be done.
- On the existence of organisms building trust and providing energy-related information, there are solutions, they are just not communicated adequately. These one-stop-shops should be accessible to everyone.
- It is time to come up with **new business models**, new technical solutions, such as "batteries on the go", not limiting ownership of renewables to people who own places. Businesses can create new models for renters.
- What is a city for youth? Show policymakers! Bring people together.

Re-watch the event

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