



# newTRENDS

D8.6 – Report on the  
1<sup>st</sup> Stakeholder  
Meeting





Deliverable 8.6  
Report on the 1<sup>st</sup> Stakeholder Meeting



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## Executive Summary

The 2015 Paris Agreement has as the central aim to strengthen the global response to the threat of climate change by keeping global temperature rise in this century well below 2 degrees Celsius above pre-industrial levels and to pursue efforts to limit the temperature increase even further to 1.5 degrees Celsius. To reach this ambitious goal, two central strategies have to be implemented in all countries: (i) enhancing energy efficiency (EE) and (ii) decarbonizing remaining energy supply and demand, in particular through extensive penetration of renewable energy sources (RES). Scenarios with different focuses and assumptions have been developed to map this process until 2050. While these scenarios present a major step forward beyond previous modelling approaches, much more progress is necessary. The newTRENDS project aims to contribute to this progress by identifying relevant trends and improving their modelling based on recent empirical findings. In this context, it is developing the analytical basis for a "2050 Energy Efficiency Vision" taking into account New Societal Trends in energy demand modelling.

The following report describes the results of the 1st stakeholder meeting conducted on 22nd October 2021. The engagement of different groups of stakeholders within the project is as important as the modeling aspect. Stakeholder dialogue within the newTRENDS project is planned to be maintained mainly through workshops and webinars and the first of the series was organized on the new societal trends, which shape future energy demand.

The report presents a summary of the discussions during the workshop. The main theme was how policies and other framework conditions can and should ensure that these trends can unfold their full potential towards reaching the climate goals. This was discussed for the four trends prosumaging, circular economy, digitalization and sharing economy. Each of these discussions was held in a separate breakout room and led by sectoral modelling experts. The stakeholders participating in the meeting were decision-makers and policy designers on local, regional and international levels, business representatives as well as scientific community representatives. We take this opportunity to thank our stakeholders participating in our first workshop for their time and involvement.



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# 1. Introduction to the Stakeholder Workshop

The aim of the newTRENDS project is not only to model energy demand but also to reach decision-makers with the modelling findings. Therewith, the project results can guide policy-makers in their future decision-making and thereby create a real impact for the future.

The newTRENDS project intends, through effective stakeholder consultation, communication and dissemination to improve assessment of possible future trends that might have a potential impact on future energy demand and energy efficiency in the EU (European Union), to benefit research and innovation efficiency, as well as cooperation on the international ground for the benefits of the project. Additionally, it aims to assess policy and governance questions that shape the prospects of EU energy efficiency options in the future and discuss the results with representatives from target audiences to incorporate what can be learned thanks to the project and in relation to it.

newTRENDS is also enhancing interactions with various stakeholders, energy sector professionals in particular, to:

- access the best possible independent expertise in energy practice;
- contribute to a more efficient and targeted communication with energy sector professionals;
- explore opportunities for engaging with energy professionals in research and practice areas;
- enhance energy professionals' organizations' understanding of the role and activities run within the newTRENDS project;
- newTRENDS will continue to collaborate with and provide support to several EU-wide research and development platforms and consortia to explore synergies and foster project development.

During the 1<sup>st</sup> stakeholder workshop within the newTRENDS project, stakeholder engagement was planned:

- to outline the project's purpose, goals, and scope;
- to present the project team and explain what to expect over the project course;
- to present the current state of the project and research/modelling advancement of work within the project after 12 months;
- to verify modelling assumptions and early results of the new modelling approaches within the newTRENDS project;
- to gather insights about the project's up to date achievements and define the missing points;
- to consult various stakeholder groups on the project and policies that are needed in Europe to support new energy demand models, and secure their involvement;
- to increase collaboration with various decision-makers on various levels (including various GDs of the EU).



This will also enable newTRENDS to gain a better understanding of the impact of specific regulatory actions on Energy efficiency ground and to gather perspectives directly from decisions makers on how they are used.

Due to the pandemic of SARS-CoV-2 the 1<sup>st</sup> newTRENDS the Stakeholder Workshop was organized as a virtual meeting, instead of a planned earlier stationary meeting. The workshop should focus on discussing the findings of WP2 and WP3 regarding the selection of New Societal Trends and the identification of transition pathways. Within the consortium we decided that we would also present the preliminary results of the WP4, which focuses on policy that would allow to gain feedback from stakeholders and get input to further work in other WPs.

The stakeholder invitation was prepared by Wise and sent to the project partners to share with their stakeholders' networks.

The invitation was sent out to stakeholders mapped beforehand as stated in deliverable Stakeholder database (Deliverable 8.2) among them to the EU based institutions/actors; representatives of public administration as well as economic development and environment departments; universities engaged in the projects related to the energy sector; civil society actors and NGOs: research organizations, think-tanks, and expert community focused on the climate, environment and energy policy. The invitation was also sent to stakeholders with whom the partners have direct contacts, other than those mapped.



## 2. 1<sup>st</sup> Stakeholder Workshop

This chapter describes the key issues raised during the plenary session and the individual breakout rooms, along with the conclusions drawn from the stakeholder discussions.

The agenda of the workshop can be found in the Appendix A.2 and the official invitation in the Appendix A.1. Links to all presentations can be found in the Appendix A.3.

### 2.1 newTRENDS – Opening Session

The Plenary Opening Session was organized to introduce the project to the stakeholders and present its current status. Moreover, there was a short discussion about existing and missing European policies regarding the energy demand modelling and energy efficiency obtaining options in the future.

The meeting opened with a project overview presentation from Heike Brugger (Fraunhofer), the leader of the project, who highlighted the overall aim of the project: developing the analytical basis for 2050 Energy Vision, taking into account new societal trends. Heike Brugger paid special notice to the fact that the researchers are not only looking at the linear or positive effects of the trends that could potentially have them. In addition, she drew attention to those that presumably could have a negative impact on energy demand. She stressed that the newTRENDS project team wants to increase the understanding of new societal trends, improve the energy demand models to account for these trends, and explore what future impact the trends might potentially have. She presented shortly the projects' new methodology approach combining quantitative modelling with a foresight methodology, underlying the significant changes that were implemented in the project methodology in comparison to currently existing EU modelling methodologies.

Then Maksymilian Kochanski (RIC), run the presentation on the EU policies influencing energy demand arising from new societal trends. He stated that the policies the project team members are trying to support with energy demand models within the newTRENDS project are looking at the intersection between social and environmental concerns, and avoiding compromising both. He said the project would contribute to improving EU policies and try to look more deeply into regulations having in mind the Green Deal ambition: to make Europe the first climate-neutral continent by 2050. Then he went briefly through EU policies on energy demand implemented over the last few years as well as the recently announced European Green Deal that is shaping the trends analyzed within newTRENDS. He added that a lot of strategies and proposals for new EU regulations and directives implementing the details of the European Green Deal have been introduced, and some of them have already been enacted.



Heike Brugger finished the plenary session by inviting participants to join the breakout rooms for further discussion.

## 2.2 Discussion in breakout sessions

The breakout sessions aimed at presenting the acquired knowledge, policy implications, and recommendations from the newTRENDS project, accompanied by discussions of leaders/project team and stakeholders. Through four parallel sessions, covering the wide range of project results, it served as a key dissemination platform. Each session contained presentations from the consortium, followed by a discussion with identified discussants that was summed up on Miro boards.

### 2.2.1 Prosumagers and big data related to the built environment

The session in the breakout room was led by two project partners: Lukas Kranzl from TUW and Max Kochanski from RIC.

Lukas Kranzl started his presentation from a short overview of new societal trends that were distilled through newTRENDS project work so far such as digitalization, sustainable cities, green transition, decentralized work (among others), and stating that the discussion would focus on digitalization. He focused on the improvements in the modelling of prosumaging in the built environment, starting from models without prosumaging aspects, and then introducing the prosumager model and showing preliminary results for scenario comparison for selected buildings. Then, he shortly presented further steps within the project work, saying the team is working on operational optimization, investment simulation, and aggregation to building stock, based on existing stock data and stock modelling.

Then Max Kochanski took over. He focused on policy instruments in the EU that support the transition to prosumaging. Max Kochanski started by saying that the project contributors have already identified relevant policy instruments through desk research, linked already existing policies with policies makers that have been in shaping those – and finally the team is now completing the final core phase which is an investigation of needs of policymakers and possible changes in policies. He then said the team has been working first with the existing policy instruments like regulations, economic/financial, and soft instruments. Then he moved on to the results of interviews with the EU policymakers, at the EU Commission mainly, that provided very interesting suggestions on what prosumaging parameters desired to be modelled.

Following the presentations participants were invited to the open discussion, the most important observations of which are presented below.

- There is a higher risk of power outages in the rural areas –it makes sense to produce energy on your own / at a house that could also power a car if transport is decarbonized.





- The next phase of the prosumaging will be focused on storage, so the demand for batteries will be a disruptive trend.
- The amount of electrification of heat and transport and industry will have an impact on the electrification of the system.
- No current policy framework is extensive enough to stimulate the prosumaging, new policies could contribute to increase self-consumption rates.
- Regulatory instruments and obligations will be needed e. g. in building codes.
- It's a crucial point for prosumaging – for prosumagers to move from prosumer to also managing their own energy – to get rid of the pick notes through dynamic pricing.

When discussing the issue of prosumaging impact on the energy system was raised. The argument that prosumaging development has more potential and opportunities in the rural areas has been raised repeatedly, e.g. due to more space for PV, the installation is easier than in urban areas that are driven by district development plans. It was underlined that prosumaging may raise the awareness about energy consumption and as a result have an impact on conscious energy costs reduction and the development of smart solutions.

An important issue raised during the discussion was the question of which aspects can or should influence the modelling. First, the concepts of prosumer and prosumager must be differentiated and these differences should be considered when modeling. It was underlined that different structures of housing provision should be reflected and how to deliver impacts on grid infrastructure for a broad range of different input assumptions. Other questions raised during the discussion was about policy instruments that could accelerate the transformation towards prosumaging. Among which it can be included dynamic electricity pricing, charges for self-generated electricity remaining within prosumer's premises, and regulatory schemes. To sum up the discussion, the issues of currently most pressing policy gap in the field of prosumaging and the impact of emerging policy instruments were discussed. What is necessary and needed are new regulations that respond to new challenges (e. g. dynamic electricity pricing, mandatory implementation of smart features for appliances, subsidies linked with EE performance standards of buildings) and as it comes to impact on emerging policy instruments Eco-design, Energy labels & Green Public Procurement for PV systems were mentioned.

The stakeholders' comments and reflections were also gathered on a MIRO Board (see Figure 1 and 2).



Figure 1 Screen from MIRO discussion on modelling (Prosumagers and big data)

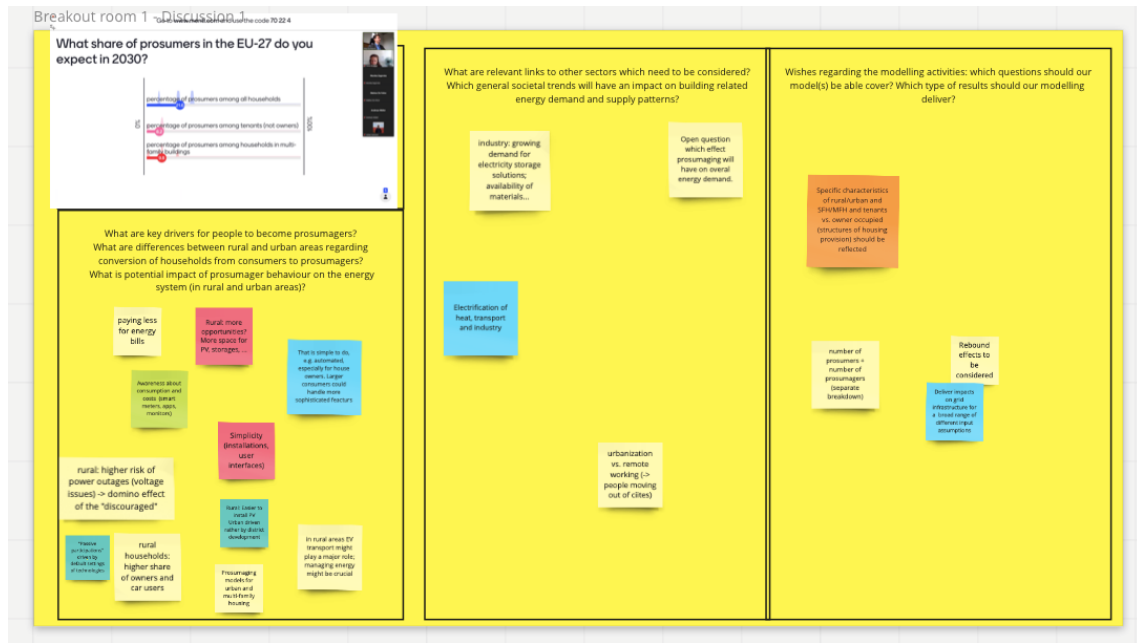


Figure 2 Screen from MIRO discussion on policy (Prosumagers and big data)





## 2.2.2 Circular Economy for the deep decarbonization of industry

The session began with the keynote presentation by Andrea Herbst from Fraunhofer. She stated that circular economy concept should measure along the whole value chain and the product life cycle and this is the scope for the newTRENDS project. Then, it was highlighted that the circular economy was a very relevant measure for industry decarbonization which is strongly needed in this sector. Andrea Herbst stated that the industry sector still needs to tackle a variety of different challenges because a quarter of greenhouse gas emissions stems from this sector and it is mainly from energy-intensive products like cement, lime, steel, and basic chemicals. It is obvious that industry transformation needs high quantities of carbon neutral energy sources, like hydrogen or electricity, due to the restrictions in the sector. It leads to a very high demand for renewable energy sources, and circular economy and energy efficiency could really be a backbone of the carbon-neutral industrial production. In terms of the newTRENDS project, the expert team wants to improve the existing bottom-up simulation model modelling techniques for industrial energy demand and CO<sub>2</sub> emissions to support the impact analysis of circular economy on ambitious GHG reduction.

Katarzyna Korczak from RIC then followed with her presentation on policy instruments for circular economy and low-carbon industry in the EU. She started by saying that in her research she focused on what policies are already actively used in the EU, what policies are missing, and how they interact with the newTRENDS modelling. Then, she presented the methods that were used in her research as well as the policy instruments framework. Then, Ms. Korczak covered the second part of her research presenting the main results of the interviews performed with various representatives of different relevant EU DGs. The results of these interviews show that energy demand models are a useful tool to support designing new policy instruments: analysis of cross-sectoral measures and instruments, new energy sources (e.g. hydrogen), interlinkages between sectors and players. Detailed results for modelling policies dedicated to specific industry sectors are needed.

During the discussion some general comments were raised:

- It is very important to analyze what kind of policy drivers can lead towards circular economy and low carbon industry.
- It is also important to analyze how different policies can really drive changes. It was agreed that these energy transition policies should be strongly linked with circularity-related policies being developed at the moment.

The participants also raised specific issues related to particular policies:

- High taxes on fossil fuels are a strong incentive to go into renewable energy, which of course also has benefits, but it is not a benefit which is



driving circularity. It is important to analyze very carefully how strongly the proposed policies can really drive circularity.

- The carbon border adjustment is a pricing mechanism for CO<sub>2</sub> emissions. It is a useful instrument and, in the end, decreases emissions, but it is not necessarily the instrument that drives the closing of production circles or avoiding waste.
- The Ecodesign directive is directly targeting products, but a very specific category of products, and in most of these products the intensity of materials which have a very high carbon footprint like steel, cement or glass is not very high.
- It was raised that EPBD and CPR should be included in the proposed policies. It is very important to notice the interlinkages between different directives covering various parts of the product's life. It is very important to integrate thinking about potentially changing the usage patterns in the future from the very beginning while designing new buildings or renovating old ones so that the building can have another or various purposes.

Then Meta Thurid Lotz from Fraunhofer followed with her presentation on Modelling circular economy for the deep decarbonization of industry. She started by talking about the construction hand in hand with the newTRENDS project focus study. On the one hand, the team needs this end-use perspective on construction and buildings because this is needed to have the necessary details for modelling circular economy from the methodological perspective. On the other hand, the team wants to include the industry modelling perspective and high impact materials for industry decarbonization. Then, Ms. Lotz stressed that both approaches led to building a value chain and had two materials in focus: steel and cement. Then she presented shortly the objectives of her research, stressing that it is to identify and to assess the impact of promising circular economy measures and supporting policy instruments.

During the discussion on modelling some general comments were raised:

- The only way we can discuss rebound effects on circular economy is that we have the whole life cycle assessment of materials. To reduce the impact of transport, we can also consider the strategies that include the storage on the local level.
- Prefabrication of building components allows us to be much more in control of the materials offside / in the factory and to limit the input of raw materials much better that you could do it on the construction side.

The stakeholders' comments and reflections were also gathered on a MIRO Board (see Figure 3 and 4).



Figure 3 Screen from MIRO discussion on policy (Circular economy)

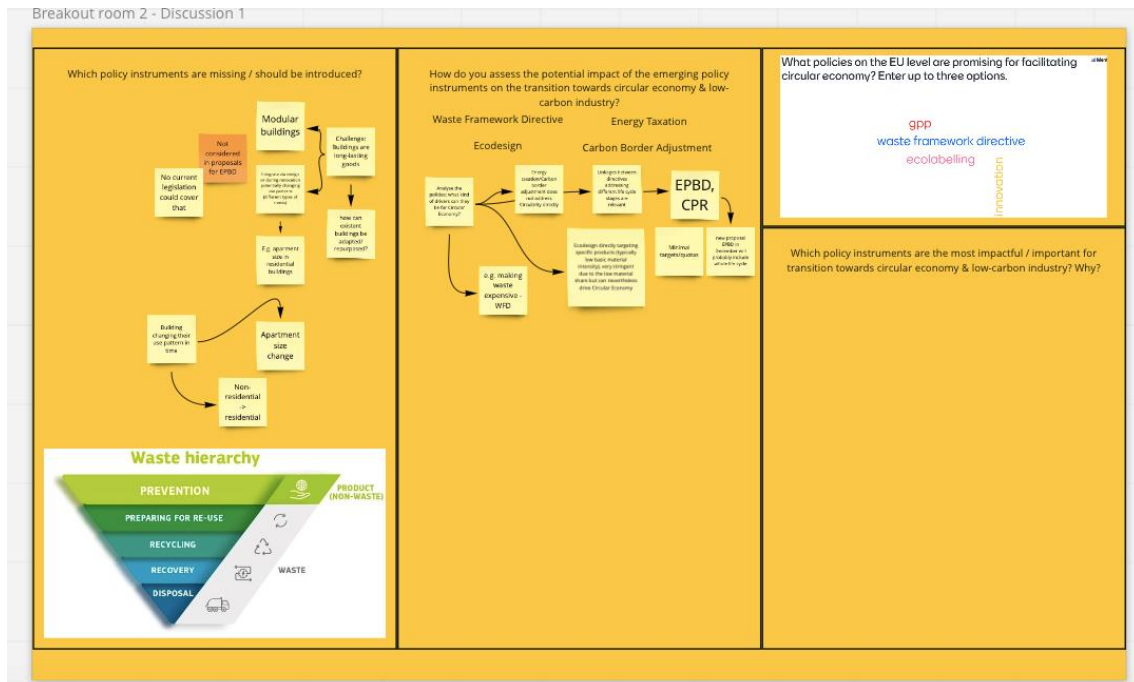
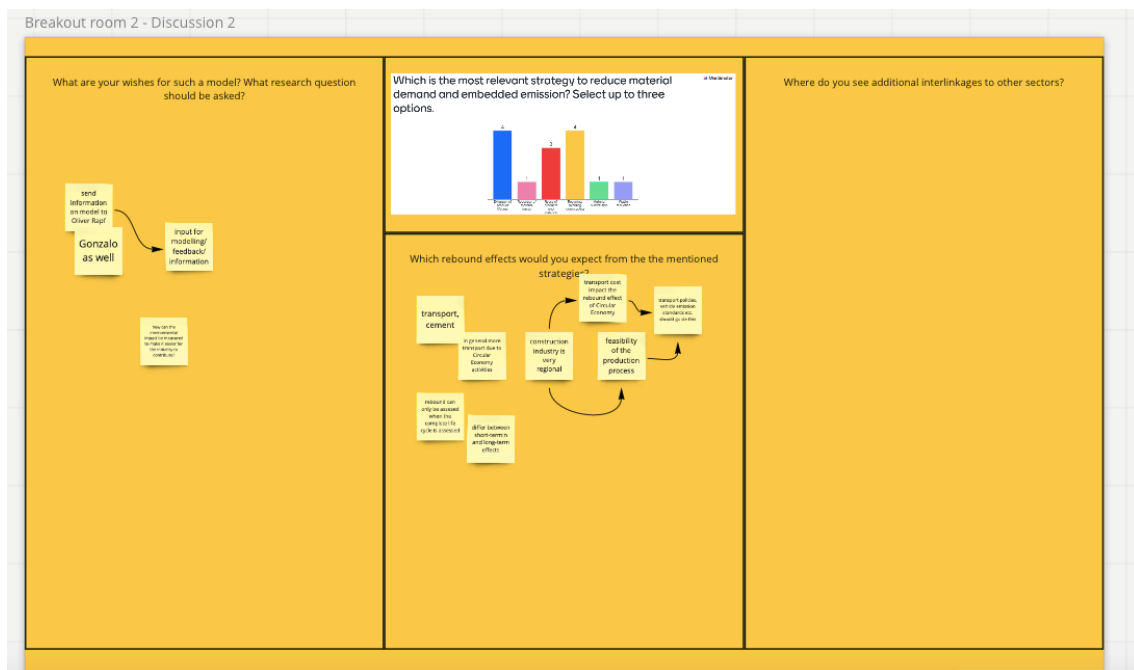


Figure 4 Screen from MIRO discussion on modelling (Circular economy)





### 2.2.3 Digitalization and new market trends in the tertiary sector

The focus group meeting started from the presentation of Ulrich Reiter (TEP) on digitalization in the services sector. He started with framing digitalization in relation to the newTRENDS project, as it is a broad term it could be grouped into four main groups: energy consumption of the ICT (Information and Communication Technology) sector, energy efficiency and rebound effects (reducing energy demand in different sectors), digital growth cycle or stagnation (economic effects), cross-sectoral and inter-sectoral change (shift in-demand between sectors and sub-sectors). Then he went through the EU policies on digitalization starting from 2015. Then Mr. Reiter named the main research objective: improvement of existing modelling techniques for industrial energy demand and CO<sub>2</sub> emissions to support the impact analysis of circular economy on ambitious GHG reduction as well as research questions regarding the policies.

Then Mr. Reiter handed over to Aleksander Śniegocki from Wise who continued with his presentation on the review of the EU regulations regarding digitalization that can affect the energy demand, starting from Ecodesign requirements which directly affect the energy efficiency of ICT equipment. Then he moved on to the economic and financial instruments such as Green Procurement which tries to stimulate a greener approach brought by the public sector. Mr. Śniegocki additionally talked about ETS Directive and finally named soft instruments such as Big Data Value Public-Private Partnership, European Innovation Partnership of Smart Cities and Communities, Code of Conduct for ICT, European Block chain Partnership, Code of Conduct for Energy Efficiency in Data Centers and Green and Digital Coalition.

A participant raised an idea to report the amount of energy used for a ton of products, or buildings owners to report on what is the energy intensity of their building per meter square. Such data is currently available for electrical appliances, but the idea was to scale them up.

- ICT enabled people to track the energy intensity, and maybe policies should enable it a little more, and influence this more and thus create safe harbor/independence from the US companies.
- A demand to store the data in Europe was raised.
- As regards emissions related to ICT equipment production: as minimum production takes place outside of the EU, it is something that can be overlooked, so it needs to be taken into account as well along with a possibility of recycling these emissions. More data on it are needed to have deeper analysis.
- ICT aggregate will be useful for assessment of net impact of digitalization (may be a separate indicator, not a subsector).

It was discussed in which sectors and applications the digitalization would lead to reduce energy demand and where it would lead to higher demand. Higher demand can affect banking/finance; education; household for teleworking, me-

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dia and public administration, whereas lower demand could be in industry production, buildings, retail, and healthcare. Then the question was which digital policies would affect energy demand the most and the participants agreed that it would be Ecodesign, digital target 2030, safe harbor/independence from US companies and policies on reporting (tracing energy intensity enabled by ICT). Then the discussion focused on parameters/variables resulting from energy demand models that would be the most useful for the policymaking process and the answers were: emissions related to ICT equipment production, the number of servers and PUE (Power Usage Effectiveness), PUE of data centers. Finally, the participants discussed about dominant new trends in digitalization and how they could be incorporated into existing bottom-up models, how these new trends affect the demand pattern or other demand indicators in the future, and which (new) demand drivers are needed.

The stakeholders' comments and reflections were also gathered on a MIRO Board (see Figure 5 and 6).

Figure 5 Screen from MIRO discussion on policy (Digitalization)

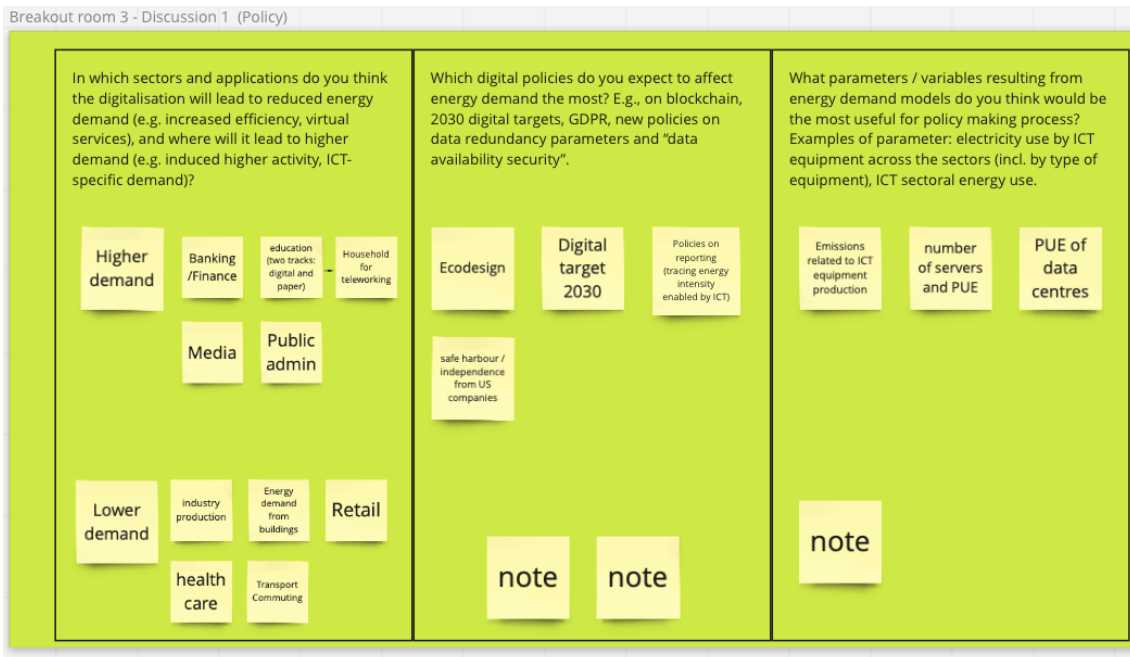
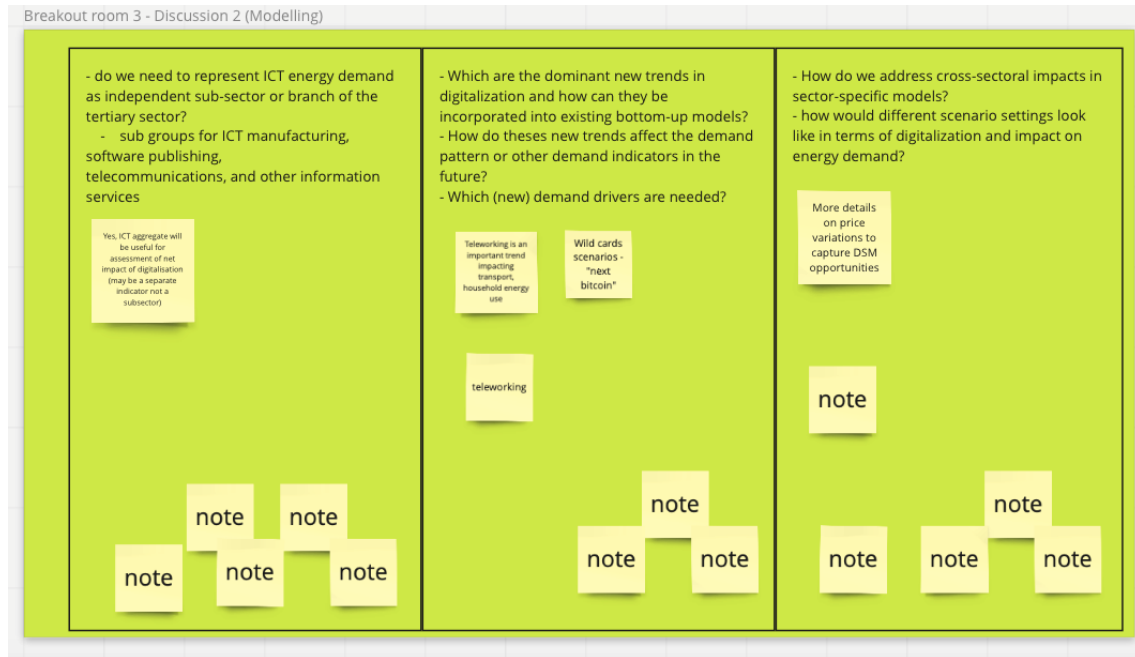


Figure 6 Screen from MIRO discussion on modelling (Digitalization)



## 2.2.4 Shared economy in transport sector

The session began with a welcome from Pelopidas Siskos (E3M) who presented himself and another discussion leader in the session - Piotr Chrzanowski from Wise, as well as the topic and the agenda of the breakout room session.

Piotr Chrzanowski presented main insights from current state on policies for sharing economy in the transport sector. He highlighted the three main pillars of the policy analysis: (a) normative instruments, (b) economic and financial instrument and (c) soft instruments. He highlighted that normative instruments are divided into directives and regulations for alternative fuels infrastructure, fuel economy and CO<sub>2</sub> emissions of new passenger cars and Ecodesign. Various directives promoting the energy efficient road transport vehicles that would redefine the clean vehicle definition were presented. With respect to financial instruments the structural and regional funds, European Investment Bank, bank funding, programs like Horizon Europe and Digital Europe were discussed. Piotr Chrzanowski stressed that Digital Europe is the main financial scheme that would develop the sharing economy services in the future. According to the project analysis, financial incentives could have a significant impact on the sharing economy in transport because carbon pricing covering the transport would trigger faster changes in the electric task transports as fuel prices would increase significantly. Finally, soft instruments like Green Public Procurement guidelines on the development of cycling infrastructure were presented. Piotr Chrzanowski stressed that those instruments could be essential for the development of transport sharing services and creating the platforms for exchanging the best practices by municipal authorities.





In the second part, Pelopidas Siskos presented concepts for improvements in the modelling of sharing economy in transport. Within the newTRENDS project, the project team will use the transport module of the PRIMES energy systems model, which is an economic engineering model for projecting the transport sector into the future (until 2070) and which can help assess policies in the transport sector. Then Pelopidas Siskos presented factors and barriers that can influence the decision to use sharing transport.

Following the presentations participants were invited to the open discussion, the most important observations of which are presented below.

- Regarding the policies, it was noticed that many actions could be undertaken at the European level, but firstly the concept of mobility as a service should be defined as it may include both: the innovative services but also more traditional type of services like public transport.
- Subsidies or other types of policy measures to create a certain offer should also be included in the modelling.
- There are currently various barriers that will need to be overcome, like for instance reluctance of the stakeholders to share the information in order to create a real integrated service on demand but also issues related to data.
- It is extremely important that the shared mobility does not replace public transport and that public transportation and car sharing should be strongly interlinked.
- Many industries and services may be affected by successful car sharing schemes.

Throughout the discussion, the promotion of car sharing as a service was highly emphasized, a service that combines innovation with a traditional approach. What has been highlighted is that car-sharing must not replace public transport, and that those options should be developed in parallel with carpooling and other solutions that support shared trips instead of shared vehicles. Solutions that increase average passengers per vehicle should be supported as a possible chance to really cut emissions and energy consumption.

It is important to provide an adequate infrastructure for car sharing to eliminate barriers related to the accessibility of the service. An important barrier could be the density of availability. If cars are not available in the neighborhood, then people keep their own cars. What can influence the development of car-sharing are urbanization and more flexible working hours and places. Proper pricing of energy and/or emissions may also push towards the most efficient solutions.

Another aspect that was discussed was the issue of different types of scenarios that are interesting from a policymaking point of view, e.g., the impact of availability or density on the decision to purchase a car or not; multi-modal transport or zero-emission shared vehicles.

The last aspect of the discussion was to show interlinkages with other sectors of the economy like car manufacturing. A huge decrease in car sales would also lead to a huge decrease in the manufacturing industry. Car manufacturers may be the most affected by successful car-sharing schemes. On the other end, it



was also noticed that some cars manufacturer already tried engaging in some car-sharing schemes and that a real game-changer could be autonomous vehicles. They may change a lot, not only when it comes to linkages, but also the possible impact on additional and induced demand. For instance, people may want to sleep in cars instead of staying in hotels, just because they will have the possibility to reach some distant destination faster. Successful car sharing may have an impact on city design as less parking and garages may be needed. It would also lead to the development of the electro mobility and power sector through V2G (vehicle to grid).

The stakeholders' comments and reflections were also gathered on a MIRO Board (see Figure 7 and 8).

Figure 7 Screen from MIRO discussion on policy (Shared economy)

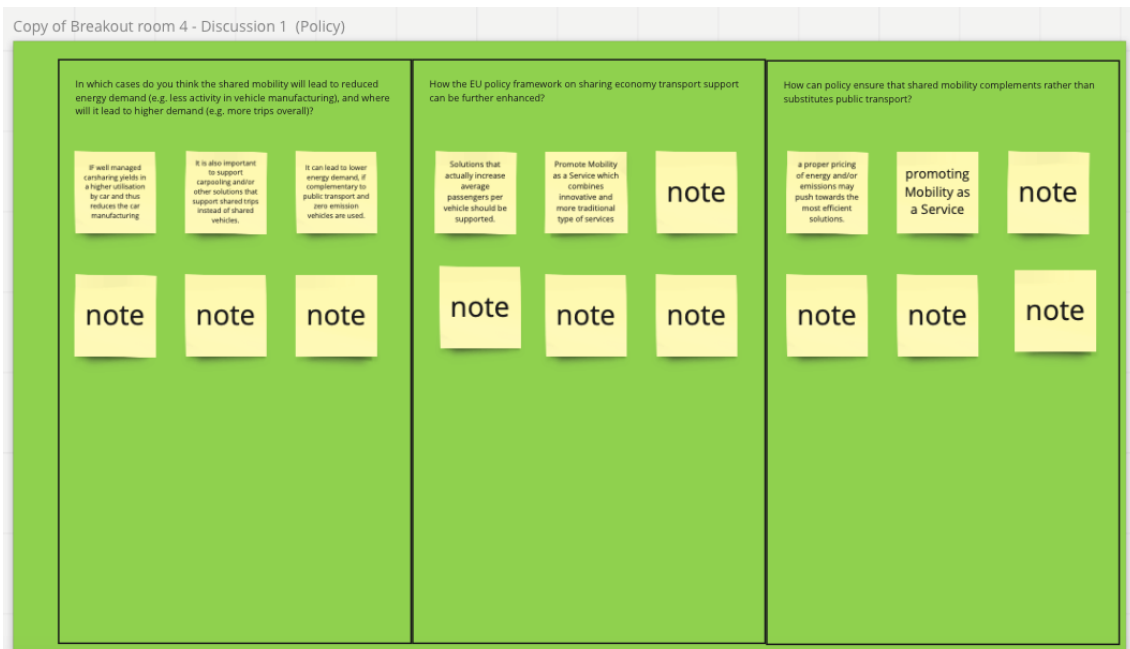
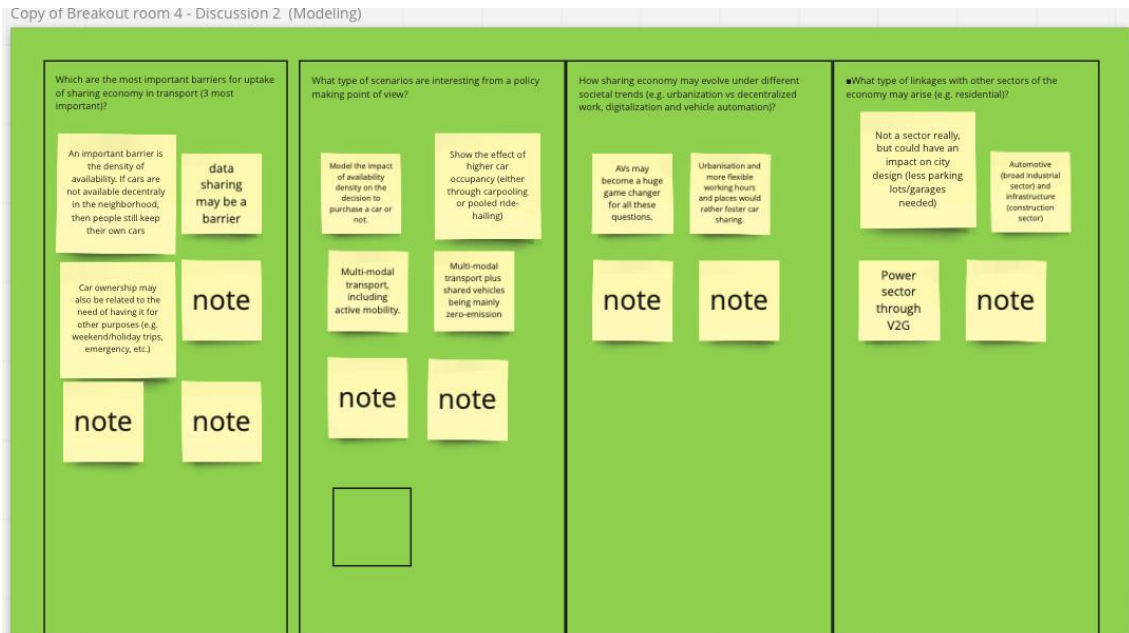


Figure 8 Screen from MIRO discussion on modelling (Shared economy)



## 2.3 Interlinkages between trends – closing remarks

The final plenary summary session's scope was to presents findings from each breakout room and to find interlinkages between them.

Each of the leaders summed up shortly their sessions, starting from Lukas Kranzl. He said that regarding the modelling perspective the group's findings can be summed up in four main points. Firstly, the modelling of prosuming should reflect the specific characteristics of urban and rural areas, single-family housing vs multi-family housing, and different structure of housing provisions, etc. Secondly, it should distinguish all different levels of prosuming and prosuming. Thirdly, the rebound effects should be considered. Finally, the modelling should also deliver impacts on the grid infrastructure. Then Max Kochanski said the EU policies on prosuming and regulations will need to be extended as the current policy framework is not sufficient. He also pointed out that dynamic electricity pricing was considered as the factor that would stimulate prosuming.

Andrea Herbst first explained that the discussion was centered on buildings, as buildings were chosen as a use case of Circular Economy in the value chain of energy-intensive industries (e.g. cement and steel). Then she said that one of the most important insights from the discussion is that the buildings may be used in many new ways in the future. Thus it would be important to integrate that in the building designing processes from the very beginning. She stressed that it would be very important to address it also on the policy's ground that the buildings should be easily adapted to the changing needs over time. Concerning the policy design, she stressed that the policies supporting circularity and en-



ergy transition are currently rather disconnected and they should be more inter-linked. She noted also in relation to rebound effects that they need to be discussed in reference to a whole product life cycle.

Ulrich Reiter underlined that the rebound effect is also high relevant for the ICT in digitalization. However, here is no clear indication if we should expect to have increased or decreased energy demand due to the digitalization. The point is to look more carefully into the different aspects and impacts on the whole process chain. It is necessary to see if the fit would have positive or negative impacts on the energy demand. The other aspect discussed was the overall UE strategy on Virtual Intelligence, on digital decade that would have a strong impact on the dataset demand. It was also raised if we need to build in the modeling a subgroup for ICT sector.

Pelopidas Siskos said that together with the participants they identified some additional barriers regarding geographical aspects, which may mean that sharing economy in smaller urban areas is more challenging. Other barrier is the reluctance of actors to share data. It was also discussed that car-sharing should be combined with low emission or automated vehicles, it would drive further changes and accelerate the transition. Car sharing may have an impact on charging patterns and car manufacturing reduction.

Then interlinkages between different trends were presented by all discussion leaders.

Lukas Kranzl noted that prosumaging may lead to an increased demand of products and materials, that prosumaging, which is linked to electrification of the building sector, has an impact on energy and supply-demand. He also marked that the latest changes in the field of remote working may lead to an increase in prosumaging.

Andrea Herbst underlined the link between circular economy and a whole value chain of products. She noticed that the linkage with the transport sector is not as relevant as some may believe. She added that digitalization may have an impact on circular economy.

Ulrich Reiter said that digitalization may have an impact on industrial production, it may lead to a decrease in industry demand and production due to better planning, better implementation. It is linked with the transportation and building sector as it can be better planned and optimized.

Pelopidas Siskos noticed that the shared economy has an impact on the power sector and prosumaging as it might influence the charging patterns. It may also lead to reduce the manufacture of cars.

Closing the meeting Heike Brugger thanked stakeholders for their involvement in the project and for sharing their perspectives. She reminded participants that a lot needed to be done to secure energy efficiency on national and European ground and strengthen the accountability of the project at the national and EU level, stating the importance of monitoring progress to better understand where and how resources should be allocated.



## A.1 Workshop invitation



### newTRENDS First stakeholder workshop

We cordially invite you to participate in the first stakeholder workshop of the newTRENDS project. In this interactive workshop you will learn more about the new societal trends, which shape future energy demand and be able to provide your own thoughts about pressing policy questions for future energy demand.

The workshop will be held online on October 22<sup>nd</sup> 2021, from 2 to 4 pm CET.

Please register for the event [here](#).

#### About the project

The goal of newTRENDS is to analyse and model the influence of new social trends on energy demand, and hence to develop scenarios of their future development. The digitization of the economy and private life (including new and smarter ways for private households to consume, produce and manage their own energy), investments in autonomous electric cars and other transport reforms, the circular economy, creation of a low-carbon industry, and the sharing economy – these trends are expected to have a significant impact on increasing or reducing energy demand in the European Union in the coming years.

#### About the workshop

New Societal Trends will have a crucial impact on future energy demand. In this workshop we present first project findings about trends and trend clusters that are expected to have crucial impacts. Furthermore, we give an overview of existing and future policies which can shape these trends.

We would then like to invite you to an in-depth discussion on how policies and other framework conditions can and should ensure that these trends can unfold their full potential towards reaching the climate goals. It is very important to us to include your (policy) questions and your perspective on the new societal trends in our research. Our energy demand models are frequently applied for major national and EU scenario work and enhancing them to meet the needs of experts like you is therefore crucial.

In the workshop we will in particular concentrate on the four trends of prosumaging (renewables self-consumption and storage), circular economy, digitalization and the sharing economy. Each of these discussions will be held with sectoral modelling experts.

#### Below we present the draft agenda of the event:

- ⇒ Overview of the newTRENDS project
- ⇒ Presentation of findings
  - Which new societal trends will have a substantial impact on future energy demand?
  - Which existing or planned policies can shape the outcome of these trends?
- ⇒ Discussion in breakout rooms:
  - Which are the relevant policy questions that energy demand models should be tackling in the future?
  - Prosumagers and big data related to the built environment.
  - Circular economy for the deep decarbonisation of industry.
  - Digitalization and new market trends in the tertiary sector.
  - Shared economy in transport.
- ⇒ Summary and outlook

Please register for the event [here](#).

We would love to see you there!



## A.2 Workshop agenda



### First stakeholder workshop October 22<sup>nd</sup> 2021, from 2 to 4 pm CET

Please click this [link](#) to join.  
Meeting ID: 814 8201 6313  
Password: 269139

1.45 - 2.00	Dial-in
2.00 - 2.10	Welcome and overview of the newTRENDS project <i>Dr. Heike Brugger, Fraunhofer Institute for Systems and Innovation Research ISI</i>
2.10 - 2.20	Policies influencing energy demand arising from new societal trends <i>Maksymilian Kochanski, Research and Innovation Centre Pro-Akademia</i>
2.20 - 3.30	Focus group discussion (parallel sessions):  Prosumagers and big data related to the built environment <i>Dr. Lukas Kranzl, Vienna University of Technology</i> <i>Maksymilian Kochanski, Research and Innovation Centre Pro-Akademia</i>  Circular economy for the deep decarbonisation of industry <i>Dr. Andrea Herbst, Fraunhofer Institute for Systems and Innovation Research ISI</i> <i>Katarzyna Korczak, Research and Innovation Centre Pro-Akademia</i>  Digitalization and new market trends in the tertiary sector <i>Dr. Ulrich Reiter, TEP Energy GmbH</i> <i>Aleksander Sniegocki, WiseEuropa</i>  Shared economy in transport <i>Dr. Pelopidas Siskos, E3-Modelling IKE</i> <i>Piotr Chrzanowski, WiseEuropa</i>
3.30 - 4.00	Plenary discussion on focus group results and interlinkages <i>Dr. Heike Brugger</i> <i>Fraunhofer Institute for Systems and Innovation Research ISI</i>  Closing remarks

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no. 889311.





## A.3 Presentations from the workshop – links

### **Opening session**

[First stakeholder workshop newTRENDS and policies \(Heike Brugger\)](#)

[Policies influencing energy demand arising from new societal trends \(Maksymilian Kochanski\)](#)

### **Breakout sessions**

#### **Prosumagers and big data related to the built environment**

[Prosumagers and big data related to the built environment \(Lukas Kranzl\)](#)

[Policy instruments for prosumaging in the EU \(Maksymilian Kochanski\)](#)

#### **Circular economy for the deep decarbonisation of industry**

[Circular economy for the deep decarbonisation of the industry \(Andrea Herbst\)](#)

[Policy instruments for circular economy and low-carbon industry in the EU \(Katarzyna Korczak\)](#)

[Modelling circular economy for the deep decarbonisation of industry \(Meta Thuriid Lotz\)](#)

#### **Digitalization and new market trends in the tertiary sector**

[Digitalization in the service sector \(Ulrich Reiter\)](#)

[Policy instruments for digitalisation \(Aleksander Sniegocki\)](#)

#### **Shared economy in transport**

[Sharing Economy in transport - Modelling and Policies \(Pelopidas Siskos, Piotr Chrzanowski\)](#)



## Imprint

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### Institutes:

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WiseEuropa – Fundacja Warszawski Instytut Studiów Ekonomicznych i Europejskich (Wise)

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