

ENERGISE

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

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LATVIA

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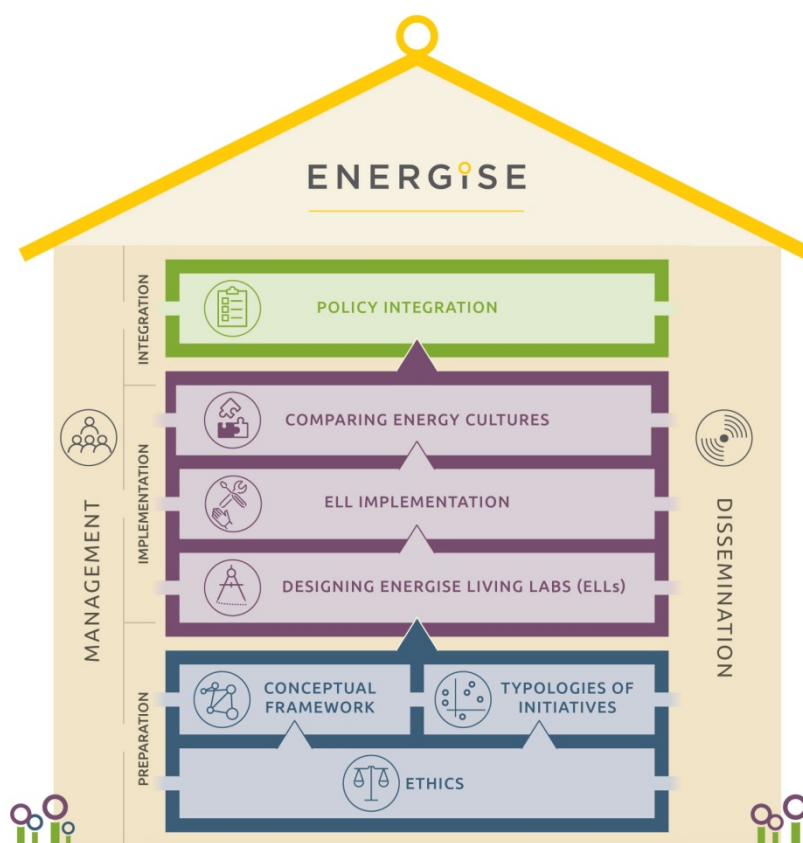
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ENERGISE PROJECT

ENERGISE is an innovative pan-European research initiative to achieve a greater scientific understanding of the social and cultural influences on energy consumption. Funded under the EU Horizon 2020 programme for three years (2016-2019), ENERGISE develops, tests and assesses options for a bottom-up transformation of energy use in households and communities across Europe. ENERGISE's primary objectives are to:

- **Develop an innovative framework** to evaluate energy initiatives, taking into account existing social practices and cultures that affect energy consumption.
- **Assess and compare the impact** of European energy consumption reduction initiatives.
- **Advance the use of Living Lab approaches** for researching and transforming energy-related practice cultures.
- **Produce new research-led insights** into the role of household routines and changes to those routines towards more sustainable energy.
- **Encourage positive interaction** between actors from society, the policy arena and industry.
- **Effectively transfer** project outputs towards the implementation of the European Energy Union.



INTRODUCTION

This document is one of 30 national briefs, demonstrating key aspects of national energy supply and demand dynamics. Each brief is comprised of five sections:

Section 1 summarises the energy profile of the country. The section provides basic quantitative information of demand demographics and usage profiles, market trends and energy supply profiles, as well as qualitative reflections on current national energy policy. ***For all the briefs, the quantitative information is derived from ec.europa.eu/eurostat (2015 data), eea.europa.eu (2015 data), and climate-zone.com, unless otherwise stated.***¹ The qualitative reflections are based on a literature reviews and desk-research. References for the literature review and the desk-research are provided in footnotes or in section five.

Section 2 summarises the nationally based sustainable energy consumption initiatives (SECI) that have been identified as part of ENERGISE WP2 framework (Jensen, 2017). Each SECI has been coded according to the Problem Framing Typology developed in ENERGISE WP2 (Jensen et al, 2017b).

Section 3 provides a *good practice* example of a national SECI that corresponds to category 3: “Changes in Everyday Life” or 4: “Changes in Complex Interactions” in the Problem Framing Typology. Please refer to Jensen (2017) and Jensen et al (2017b) for more information on the way the data for the good practice SECIs has been researched and documented.

Section 4 provides a brief summary of major nationally specific trends and their implication for energy consumption policies.

Section 5 provides an overview of sources used for qualitative assessments, and can be used as inspiration for further reading.

The national briefs provide contextual socio-material information for the further work to be carried out in Work Package 4, Work Package 5 and Work Package 6 in ENERGISE.

1.1 WP2: TYPOLOGIES OF ENERGY INITIATIVES

ENERGISE WP2 is a systematic criteria-guided review and classification of existing sustainable energy consumption initiatives from 30 European countries (EU-28, Switzerland, and Norway), which provides a comprehensive European database of energy initiatives involving households, and related typologies of sustainable energy consumption initiatives. This extensive synthesizing work guides the selection of Living Lab design elements for ENERGISE and future energy consumption research, policy and practice.

¹ Some piecharts will be empty, as no information is available.

This is done in order to

- Construct innovative typologies of sustainable energy consumption initiatives that can inform further research and action.
- Identify key success factors and related indicators, focusing on individual-level, collective, organizational, institutional and societal aspects of energy consumption, which will inform subsequent WP 3 (Designing Living Labs), WP 4 (ENERGISE Living Labs) and WP 5 (Capturing Energy Cultures).
- Progress the goals of the European Energy Union by creating a publicly archived open access dataset of sustainable energy initiatives across 30 countries in Europe.

Suggested further reading:

Jensen (2017) *Identification of key success factors and related indicators*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.2.

Jensen et al. (2017a) *Establishment of a comprehensive open access dataset of sustainable energy consumption programmes and Interventions*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.3.

Jensen et al. (2017b) *Constructions of typologies of sustainable energy consumption initiatives (SECIs)*. ENERGISE – European Network for Research, Good Practice and Innovation for Sustainable Energy, Grant Agreement No. 727642, Deliverable 2.4.

Sources of quantitative statistics (unless otherwise stated):

Climate data:

<http://www.climate-zone.com/continent/europe/>

Demography data:

http://ec.europa.eu/eurostat/statistics-explained/index.php/Population_structure_and_ageing

http://ec.europa.eu/eurostat/statistics-explained/index.php/Educational_attainment_statistics

Dwelling type data:

[http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_dwelling_type_2015_\(%25_of_population\)_YB_17.png](http://ec.europa.eu/eurostat/statistics-explained/index.php?title=File:Distribution_of_population_by_dwelling_type_2015_(%25_of_population)_YB_17.png)

Energy demand and supply quantitative data:

http://ec.europa.eu/eurostat/statistics-explained/index.php/Energy_consumption_in_households

Final energy consumption of households per capita data: <https://www.eea.europa.eu/airs/2017/resource-efficiency-and-low-carbon-economy/household-energy-consumption>

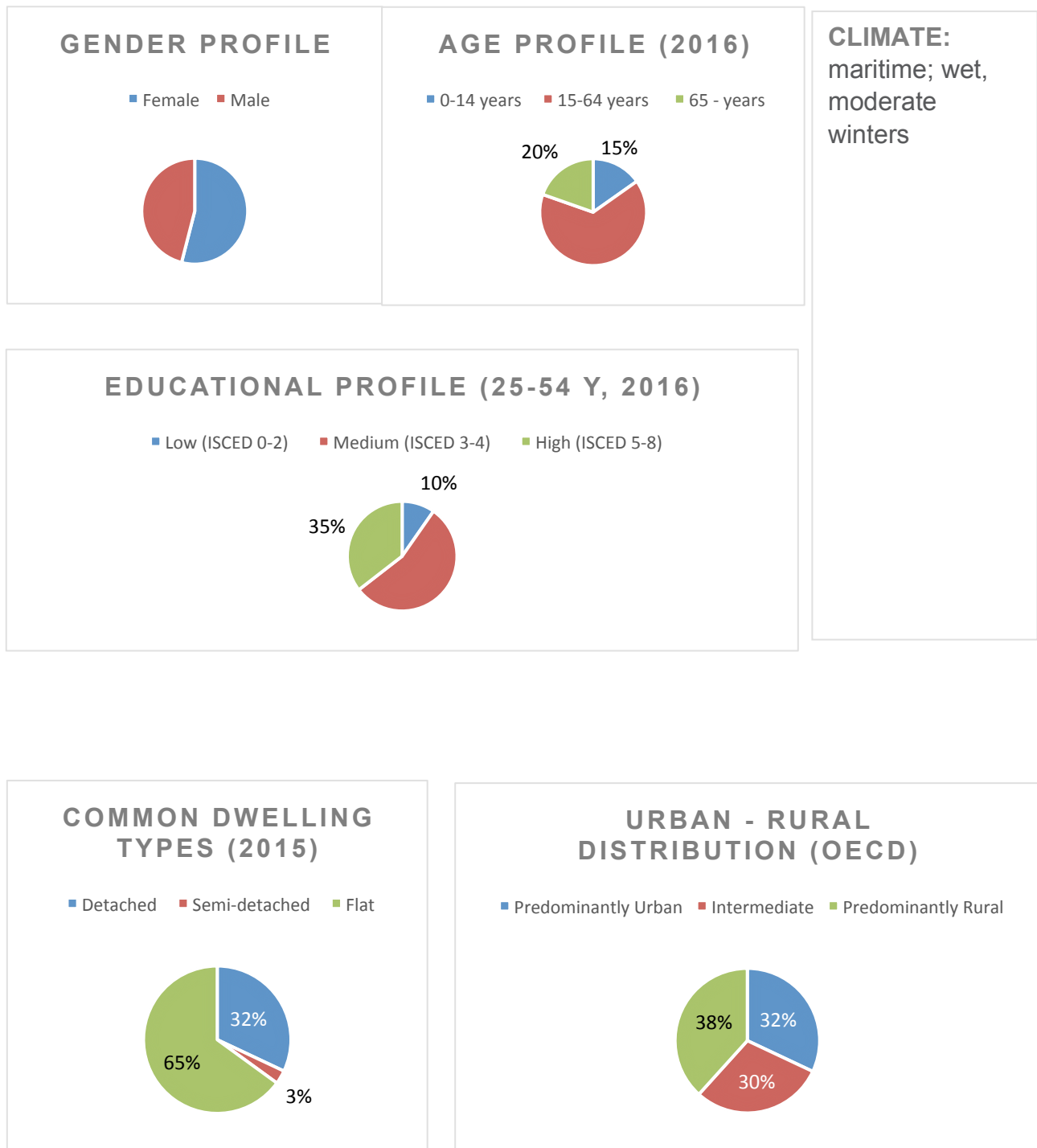
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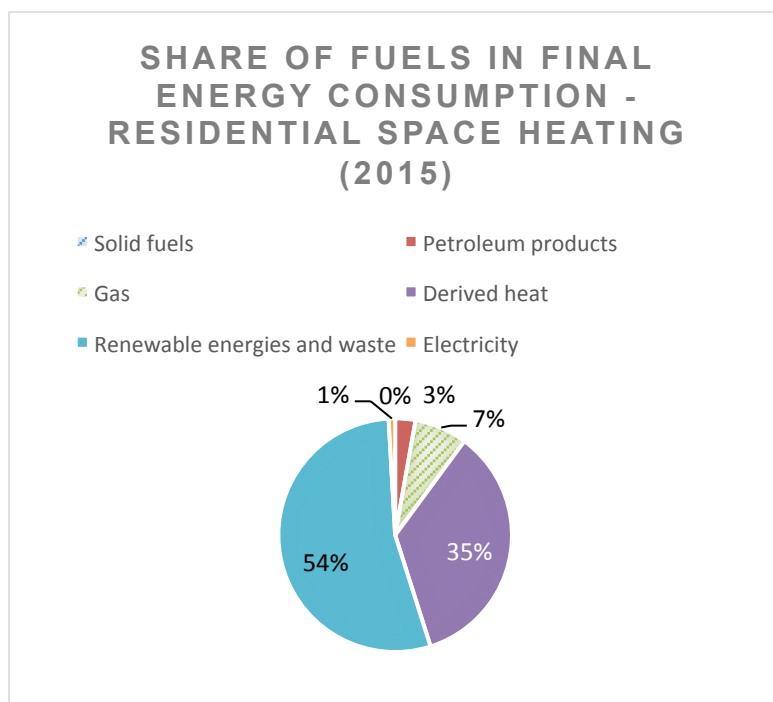
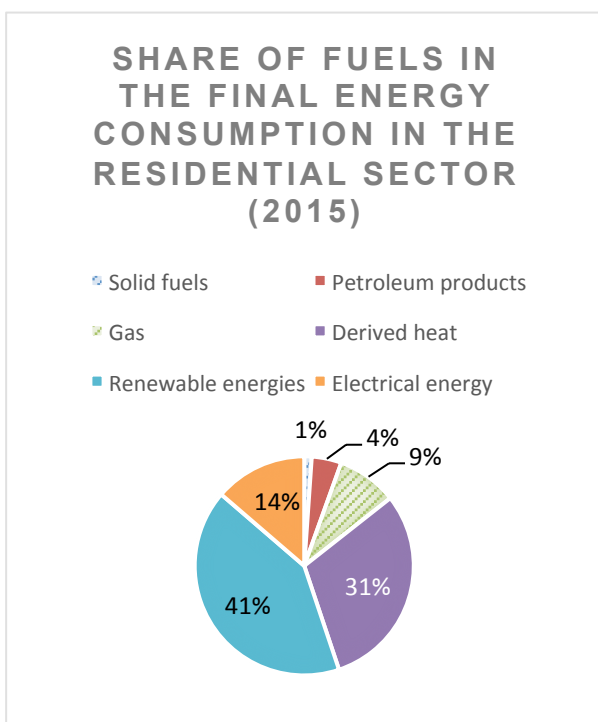
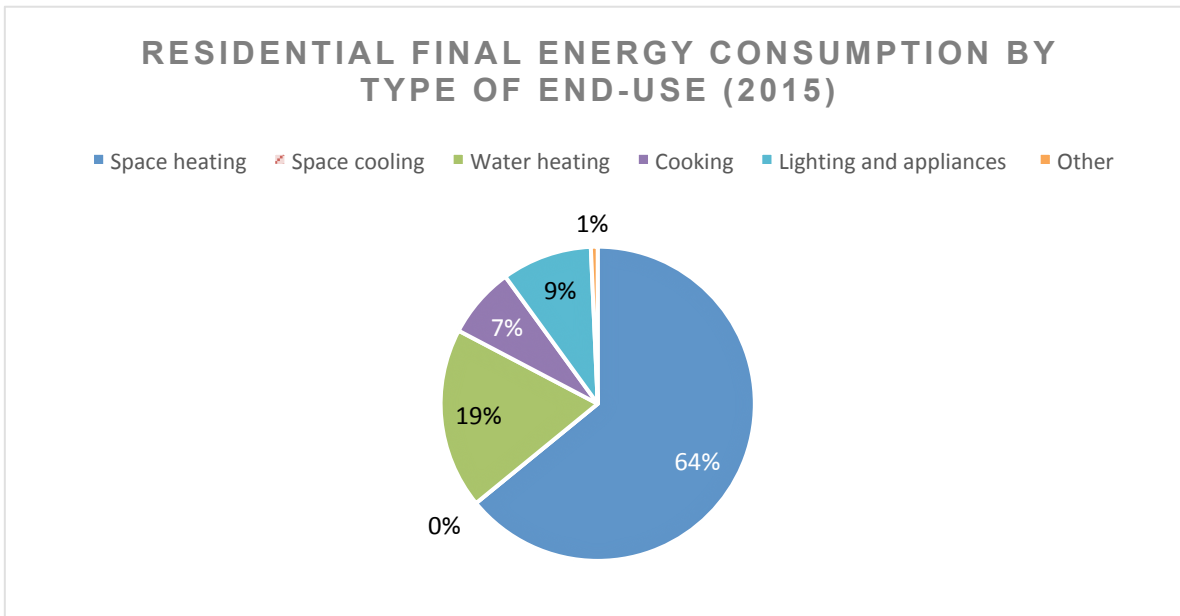
<https://www.unitjuggler.com/convert-energy-from-toe-to-MWh.html?val=893.9>

LATVIA

Authors: Marko Hajdinjak, Desislava Asenova

DEMOGRAPHY, ENERGY CONSUMPTION AND ENERGY SUPPLY





FINAL ENERGY CONSUMPTION FOR HOUSEHOLDS, PR CAPITA (2015)

6.505 MWh

ENERGY SYSTEM AND ENERGY POLICY TRENDS

Energy system

Liberalisation of the Latvian electricity market began on 1 July 2007, when new legal provisions gave all electricity final consumers (that are connected to the power grid) the right to change their electricity supplier without any restrictions. In the period 2010-2012, six traders operated on the electricity market in Latvia: the JSC Latvenergo, Enefit Ltd, "Enerģijas avots" Ltd, BCG Riga Ltd, Inter RAO Latvia Ltd and Baltic Energy Pool Ltd. By far the biggest market share was held by JSC Latvenergo (around 80%). The second largest trader is Enefit Ltd which managed to attract 15% of legal entities as clients (data from the end of 2015). By 2015 new players emerged on the market – four traders that supply electricity to household clients and 11 traders that serve legal entities. In 2016 there were already 36 registered traders – six of them supplying electricity to household clients. The growing competition in the electricity market in Latvia makes it more difficult for the traditionally dominant players to retain their market share.²

The majority of energy demands in Latvia are met by domestic generation (80.3%), while the other 19.7% are imported (data for 2013).³

There are approximately 850,000 household consumers in the country. They account for about 25% of the total electricity consumption.⁴

Due to lack of own natural gas resources, all gas consumed in Latvia is imported from Russia. The country's gas market is isolated from the rest of the EU and is only connected to the Lithuanian and Estonian markets. Latvijas Gāze JSC holds 100% of the market share on the wholesale gas market. The same company is also the sole player in the gas retail market, which makes switching suppliers impossible.

The Latvian energy consumption mix has the highest renewables share among all three Baltic States – 35.8%, with hydropower and biomass being the main renewable sources. The country has set a renewables target of 40% to be achieved by 2020 and so far it is on the right track to achieve it.⁵

Particular socio-material aspects that influence energy consumption

Energy consumption in Latvian households varies widely and mainly depends on the income and on the age and type of dwelling. The average household energy consumption is 220-250 kWh/m²/year. The National Energy Guidelines claim that this figure should decrease to 150 kWh/m²/year by 2020.

According to data from 2015, the distribution of energy use in the residential sector was as follows: 67% of energy was used for space heating, 18% for water heating, about 7% for both cooking, domestic appliances and lightning, and 1% for air cooling.

Most of the multi-apartment buildings in Latvia were constructed during the Soviet times. The condition of these buildings continues to deteriorate because of the harsh weather conditions and

² Bride, D. and Zvaigzne, A. (2016). 'Electricity market development in Latvia'. *Journal of Social Sciences*, No 1(8).

³ European Commission (2014) *Latvia Country Report*. Available at: https://ec.europa.eu/energy/sites/ener/files/documents/2014_countryreports_latvia.pdf

⁴ Bride, D. and Zvaigzne, A. (2016). 'Electricity market development in Latvia.'

⁵ European Commission (2014) *Latvia Country Report*.

lack of proper maintenance. Renovation and insulation of the buildings could significantly improve the situation. However, various barriers exist in this regard such as: i) difficulties of residents to take a collective decision for renovation; ii) lack of awareness and technical knowledge; iii) limited availability of funding.⁶

After a sharp price increase from 13.01 euro cents per kWh in 2014 to 16.35 euro cents per kWh in 2015, the electricity prices for households stayed relatively stable in the period 2015-2017. The price in 2017 was 15.86 euro cents for kWh – almost 22% lower than the average in the EU.⁷

In the period 2002–2012 Latvia had one of the fastest growing rates in household energy consumption. The main reason for the increased consumption is assumed to be the growing number of appliances owned by households (TVs, computers, mobile phones and kitchen appliances). The rapid technological progress and the desire to live better also contribute to replacing appliances more frequently, which in turn boosts electric energy consumption of households.⁸

Current Trends in Energy Policy

Energy efficiency is prioritised in the Latvian Energy Policy. The Energy Development Guidelines for 2007-2016 promoted energy efficiency as one of the key priorities for the energy sector development in Latvia and intended to support energy efficiency measures in energy end-use sectors. Energy Development Guidelines for 2014-2020 have also been developed by the Ministry of Economics, linking Latvia's energy policy to the EU 2030 energy package, providing overview of the current state in the energy sector in the country and proposing future steps, including energy efficiency measures.⁹

Since 2016, smart grid elements started to be gradually introduced into the existing grid. These elements include damage location indicators, remote-controlled circuit breakers and smart electricity metering. The Sadales tīkls AS, which is the maintainer and developer of the electricity network in Latvia, plans to complete the introduction of smart electricity meters by 2023 by installing more than 100,000 smart electricity meters every year.

It can be said that most new measures related to energy efficiency in Latvia are focused on the building sector. They include: i) renovation of residential, central government and municipal buildings, and also of buildings of small and medium enterprises; ii) upgrades in heat insulation of multi-apartment residential buildings; iii) improvement of energy and electricity installation, modernisation of the lighting infrastructure, and reduction of greenhouse gas emissions in municipal buildings.

Complying with the EU legislation in the field of energy, some of the key energy efficiency targets that Latvia has set out and that must be achieved by 2020 include: i) primary energy savings should

⁶ Brizga, J., Trotta, G. and Lorek, S. (2015). *Consumers and Energy Efficiency – Country Report Latvia. An inventory of policies, business and civil society initiatives, focusing on heating, hot water and the use of electricity.* EUFORIE – European Futures for Energy Efficiency. Available at: <http://www.utu.fi/en/units/euforie/Research/deliverables/country-reports/PublishingImages/Pages/home/EUFORIE%20D%205%201%20%20Country%20Report%20Latvia.pdf>

⁷ Bride, D. and Zvaigzne, A. (2016). 'Electricity market development in Latvia.'

⁸ Jakušenoks, A., Laizāns, A. (2015). 'Impact of household electric energy usage trends on electrical power supply net power factor.' *Research for Rural Development*, Vol. 1. Available at: http://lufb.ltu.lv/conference/Research-for-Rural-Development/2015/LatviaResearchRuralDevel21st_volume1-253-257.pdf

⁹ Brizga, J., Trotta, G. and Lorek, S. (2015). *Consumers and Energy Efficiency – Country Report Latvia.*

reach 7.8 TWh, including 6.2 TWh in end-use sectors; ii) 40% share of renewables in final energy consumption; iii) reducing GHG emissions by 25-30% compared to 1990 level.¹⁰




Trends in national campaigns

Various types of activities targeting households' behaviour have been organised in Latvia. Most of them are NGO campaigns or research projects with household/consumer participation. The activities aim to attract public attention, promoting and introducing new environmentally friendly technologies as well as behavioural change. Examples of NGO energy campaigns in Latvia are: i) Several projects and campaigns organised within the scope of the Dutch-Latvian co-operation programme SCORE – Supporting the Cooperative Organisation of Rational Energy Use that aimed at creating interest in people about rational use of energy, providing information about energy saving possibilities, and motivating and involving residents in energy conservation activities; ii) The Efficient Lighting Initiative that focused on the promotion of compact fluorescent bulbs aiming to reduce the amount of GHG emissions and the impact on global climate; iii) “Active to Passive!” that promotes the use of sustainable and low energy buildings and constructions in Latvia and Estonia and is meant to help reducing the use of energy.

An example of a research project with household/consumer participation is the SUNSHINE project, which was co-funded under the European Union programme “Horizon 2020”. The project's objective was to improve the renovation of buildings in Latvia.¹¹















OVERVIEW OF NATIONAL SECIS





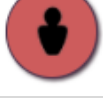
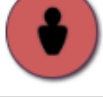



Below please find a list of Latvian SECIs that have been researched and documented through WP2 of ENERGISE. The SECIs are researched, selected and documented based on a set of requirements and research interests (please see Jensen 2017 for details). The list should not be regarded as exhaustive or representative of all kinds of energy initiatives carried out in the country.

ECCC: European Citizens Climate Cup		Changes in Individuals' Behaviour
PRO.MOTION: Creating liveable neighbourhoods while lowering transport energy consumption		Changes in Individuals' Behaviour
ESMA: European Smart Metering Alliance		Changes in Technology

¹⁰ Bogdanova, O. (2016). *Smart Grid Related Specialization Areas in Latvia, Investment Programs and Instruments*. Available at: http://s3platform.irc.ec.europa.eu/documents/20182/195230/4.+SMART+GRIDS_Bogdanova_14112016_in_Latv_Regio.pdf/fe6108a6-0837-442e-a207-2419ebb7047c

¹¹ Brizga, J., Trotta, G. and Lorek, S. (2015). *Consumers and Energy Efficiency – Country Report Latvia*.

COMEON LABELS: Common appliance policy – All for one, One for all – Energy Labels		Changes in Individuals' Behaviour
MOBILE2020: More biking in small and medium sized towns of Central and Eastern Europe by 2020		Changes in everyday Life Situations
EnergyNeighbourhoods 2		Changes in everyday Life Situations
ALTUM		Changes in Technology
Using Ecological Construction Materials in New, Energy Efficient Buildings in the Baltic States		Changes in Technology
ECOLISH: Energy Exploitation and Performance Contracting for Low Income and Social Housing		Changes in Technology
IDEAL EPBD: Improving Dwellings by Enhancing Actions on Labelling of the EPBD		Changes in Individuals' Behaviour
Increasing Energy Efficiency in Multi-Apartment Buildings: EU programming period of 2014-2020		Changes in Technology
Latvian Energy Efficiency Strategy for the years 2008 - 2010		Changes in Technology
ENERLIN: European Efficient Residential Lighting Initiative		Changes in Technology
CARMA: Cycling Awareness Raising and Marketing		Changes in Individuals' Behaviour
PTP-CYCLE: Personalised Travel Planning for Cycling		Changes in Individuals' Behaviour
BIG>EAST: Promoting Biogas in Eastern Europe - Mobilization of decision makers and training for farmers		Changes in Technology
Renovation Impact on Climate Change and Energy Efficiency Habits of Residents		Changes in Individuals' Behaviour
The SUNSHINE: Save your bUildINg by SavINg Energy		Changes in Technology

Accelerate SUNShINE: Save your bUildiNg by SavINg Energy. Begin to move more quickly		Changes in Technology
The campaign "Let's live warmer!" ("Dzīvo siltāk!")		Changes in Technology
E-mobility in Latvia for Climate Change Mitigation		Changes in Individuals' Behaviour
CADDIES: Creating Attractive, Developed and Dynamic Societies together with Inhabitants		Changes in Complex Interactions
Building Energy Audits		Changes in Individuals' Behaviour
Energy management in residential buildings in Madona city		Changes in Individuals' Behaviour
Latvian Volunteers for Energy Efficiency		Changes in Technology
PREMIUMLIGHT: Top quality energy efficient lighting for the domestic sector		Changes in Individuals' Behaviour
EPORE: Energy Poverty Reduction in Eastern Europe		Changes in Individuals' Behaviour

‘GOOD PRACTICE’ EXAMPLE OF LATVIAN SECI



CADDIES: Creating Attractive, Developed and Dynamic Societies together with Inhabitants

Brief Description

The project CADDIES addressed the following challenge: how to motivate city residents to take a more active role in developing their neighbourhoods and empower them to take ownership of the process? Some of the main barriers include inadequately defined roles for voluntary work in local development and weak connections between residents and municipal authorities. The project deployed tools to motivate residents to volunteer and collaborate in improving their own houses, blocks or neighbourhoods in sustainable ways and piloted them in six neighbourhoods across cities in Finland, Sweden and Latvia. The overall aim of the project was to improve the quality of life, develop more inclusive communities, test new and innovative models for neighbourhood development processes, and motivate local residents to participate and take responsibility for sustainable development of their neighbourhood.

Brief Contextualization

Energy efficiency itself is not the central objective of the project. Rather, a responsible use of energy and resources is seen as inevitable and natural element in the complex process of sustainable development of a given neighbourhood, or even entire city. The project was implemented by Housing and Environment Department at the Riga City Council. The selected pilot neighbourhood was Latgale Suburb (Latvian: Latgales priekšpilsēta), one of six administrative districts of Riga, the capital of Latvia.

Latgale suburb is one of the shabbiest and poorest sections of town, but it also has plenty of character. Architecturally, the area represents a mixture of neglected early 20th century art nouveau mansions and traditional 19th century working-class wooden homes, some of which appear to be on the verge of collapse. Meandering cobblestone streets often flank large empty parks. The area also features the trendy warehouse district just behind the Central Market, which is home to cafés, shops and galleries as well as a recently completed promenade along the bank of the Daugava River. The area is considered unsafe in the dark hours of the day.

Aims and objectives

The central aim of the project was to revitalise the community spirit in a deprived city neighbourhood, providing the residents with tools and venues for engaging in discussions and development processes related to gentrification of the area. As a result of the project, living conditions in the neighbourhood have improved, and many people actively participated in transformation of their own house, block or neighbourhood in a sustainable way.

Methods for intervention

The first major challenge was to select the appropriate and effective way to motivate different residential groups to participate in community development processes in a

sustainable way. The project found inspiration in the ‘profession’ of caddies. A caddie is a person who carries golf player’s bag and clubs, and gives the player insightful advice and moral support, because he/she is well acquainted with the challenges and obstacles of the golf course. Knowledgeable caddies were at the heart of this project as well – of course, not to provide tips to golf players, but to motivate neighbourhood residents to participate in different events and activities for improving the quality of life in the area.

The project developed and tested methods for empowerment of local communities, created models for local vision and strategy building, and strengthened local resources in the neighbourhood development processes. The main activities of the project were:

- to collect, develop and test various methods and tools in the project’s target area;
- to identify best practices via benchmarking;
- to support the sense of community in the target areas;
- to report the outcomes and produce three manuals based on the results.

Steps of implementation

During the course of the project, a wealth of information was acquired about the pilot areas and studies were conducted concerning various involvement methods. Local networks were mobilised to take part in the strategy building and visioning. By developing a model for a local communication platform, the project ensured access to important local information for all inhabitant groups and local actors.

Results/outcomes

Outcomes of the project are:

- Improved quality of life in the target area;
- Identification and testing of new and innovative models for sustainable neighbourhood development;
- Developed communication structures and increased co-operation and participation among residents.
- Mobilization of local networks to take part in the strategy building and visioning.

The role of the households

Local households actively participated in different activities. The most important role was played by so-called caddies, or community builders, who worked dedicatedly to put the local residents in the driving seat of social change, following three basic principles: Empowerment, Passion and Cooperation.

Location

Latgale Suburb (Latvian: Latgales priekšpilsēta), one of six administrative districts of Riga, the capital of Latvia.

Was/is the initiative successful?

The CADDIES project successfully piloted a collection of methods to empower citizens to develop their neighbourhoods in a sustainable and eco-friendly way. The examples are interesting for other municipalities working on community-based development. The experiences and good practices were compiled into a manual and a toolbox.

Textual and communicative aspects of initiative

A caddie is someone who supports, gives advice and helps to choose the right tools, but does not take action himself/herself. The caddie leaves both responsibility and freedom to the key player – in this case, a resident of the neighbourhood. Important communication channels that were used included local events, information boards, newspapers, direct communication, mobile phones and online tools (local websites, social media, and emails). Communication targeted people active in the local community, families and young parents, immigrants, local officials, NGOs, young people, senior citizens, local businesses.

The physical/technological aspects of the initiative

Physical and technological aspects were not at the forefront of the initiative, although issues like traffic, condition of public areas and construction works received substantial attention.

Shared understandings related to initiative

CADDIES is an example of initiative where a shared understanding is the crucial 'make or break' factor. The sustainable development of the neighbourhood can be ensured only by connecting inhabitants and local actors into an active and dedicated local network. Members of the network need to be aware of each other's activities, exchange experiences and share and discuss joint local current issues. They need to contribute to the planning and take part in common activities, and trust and understand each other's motivations and goals.

CONCLUDING REMARKS AND POLICY IMPLICATIONS

Most residential neighbourhoods of Latvian cities were built in the Soviet period. Affected by harsh weather, insufficient maintenance and substandard construction quality, a majority of multi-apartment buildings in the country are highly wasteful energy consumers – especially when heating is concerned. The thermal insulation of buildings could reduce the high energy consumption, but a major obstacle is the absence of the community spirit. Latvian people usually prefer to seek individual solutions and rarely come together to contribute to shared endeavours for achieving common benefits.

National energy policies prioritise renovation of buildings and upgrading of their thermal insulation, but these efforts cannot overcome the major barrier mentioned above – individualisation and atomisation of the society. Yet, only a handful of SECIs in Latvia offer solutions for surmounting these obstacles and change the entrenched life situations or influence the complex social interactions. These few exceptions are 'More biking in small and medium sized towns of Central and Eastern Europe by 2020 (MOBILE2020),' 'Energy Neighbourhoods 2' and of course CADDIES.

MOBILE2020 introduced good practices for changing the mobility behaviour – a switch to biking as a mode of everyday transport. Energy Neighbourhoods 2 combined training, consumption monitoring and local information campaigns to engage households in energy saving competition.

Although improved energy efficiency is only a potential secondary goal of CADDIES initiative, its importance should not be underestimated. Out of 27 SEICs in Latvia, 12 facilitate different technological solutions and other 12 promote a range of changes in energy consumption behaviour of individuals. While all of these initiatives contribute their piece to the mosaic of energy efficiency, only CADDIES seems to be capturing the big picture: that connecting individual households into an active local network and an organic community is an essential precondition for a successful transition towards sustainable future.

REFERENCES

Bogdanova, O. (2016). *Smart Grid Related Specialization Areas in Latvia, Investment Programs and Instruments*. Available at: http://s3platform.jrc.ec.europa.eu/documents/20182/195230/4.+SMART+GRIDS_Bogdanova_14112016_in_Latv_Regio.pdf/fe6108a6-0837-442e-a207-2419ebb7047c

Bride, D. and Zvaigzne, A. (2016). 'Electricity market development in Latvia'. *Journal of Social Sciences*, No 1(8).

Brizga, J., Trotta, G. and Lorek, S. (2015). *Consumers and Energy Efficiency – Country Report Latvia. An inventory of policies, business and civil society initiatives, focusing on heating, hot water and the use of electricity*. EUFORIE – European Futures for Energy Efficiency. Available at: <http://www.utu.fi/en/units/euforie/Research/deliverables/country-reports/PublishingImages/Pages/home/EUFORIE%20D%205%201%20%20Country%20Report%20Latvia.pdf>

CADDIES (2011). *10 New Ways to Create Empowered Neighbourhoods*. Available at: http://projects.centralbaltic.eu/images/files/result_pdf/CADDIES_result1_manual_english.pdf

CADDIES (2011). *Caddies Toolbox*. Available at: http://projects.centralbaltic.eu/images/files/result_pdf/CADDIES_result1_toolbox_english.pdf

European Commission (2014) *Latvia Country Report*. Available at: https://ec.europa.eu/energy/sites/ener/files/documents/2014_countryreports_latvia.pdf

Jakušenoks, A., Laizāns, A. (2015). 'Impact of household electric energy usage trends on electrical power supply net power factor.' *Research for Rural Development*, Vol. 1. Available at: http://lufb.ltu.lv/conference/Research-for-Rural-Development/2015/LatviaResearchRuralDevel21st_volume1-253-257.pdf