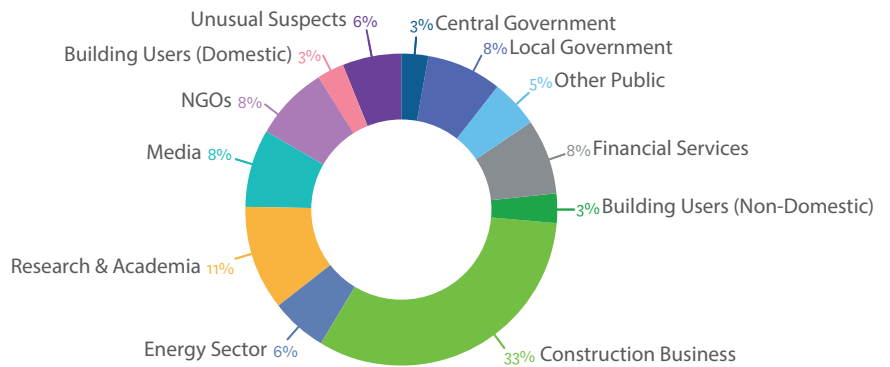


Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Bulgarian Green Building Council and its partners have brought together a community of 180 organisations at 7 events across Bulgaria and created cross-sector consensus over the following set of key recommendations for Bulgaria's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Bulgaria

RECOMMENDATIONS FOR BULGARIA'S NATIONAL RENOVATION STRATEGY

1. Better Policies and Strategies

Better dialogue between the institutions responsible for the strategy is crucial. Ambitious goals can be achieved by engaging stakeholders in the design and implementation of the strategy, and a stakeholder-led approach can help achieve a long-term continuity in strategy implementation. Bulgaria should look to successful strategies in other European countries, and develop a clear regulatory definition and standard for 'deep' renovation, with clear and precise rules on targeted levels of energy savings and how to achieve these.

2. Predictability and Confidence

Regulation is key — Bulgaria should introduce better energy efficiency regulations for renovation projects. There should be mandatory requirements for buildings owners to renovate their buildings and strict quality control for construction works. There should also be mandatory requirements for registering all building materials used as well as improving quality control of administrative processes on site.

3. High Quality Building Specialists

An educational programme for highly qualified construction professionals should be implemented, and strict requirements for quality control should be introduced on site. A credits system to register the up-to-date qualifications of all architects should be implemented.

4. Professional Education for Students and Building Workers

The development of a long-term national programme for upskilling vocational students, building workers and professional trainers is critical and will be key to successful implementation

of the renovation strategy. Special measures should be introduced to promote education and engage businesses in this process. Some of the proposed measures include: pre-qualification courses for teachers and lecturers, as well as high-level managers to support the implementation of energy efficiency measures.

5. Engaging Public Sector Employees

Public sector building owners/managers should be involved in dialogue regarding renovation activities and measures. They must also be provided with training on topics relating to deep renovation. A focus on improving the relationships between the public sector, private sector and NGOs is also required.

6. Awareness Raising

Promoting the multiple benefits of building renovation is key to attracting the public's support – the focus should not just be on potential financial savings

but also the benefits to health, comfort, wellbeing and organisational productivity of better performing buildings. The development of online platforms could provide an opportunity for building users and developers to share their opinions and concerns about the renovation processes.

7. Engaging Current and Future Building Users

A long-term national information campaign that targets all societal groups is necessary to promote the multiple benefits of deep renovation. This can be achieved by engaging and educating the media whilst stimulating the demand side through presentation of good practices and the quality-of-life benefits that deep renovation can create. Awareness raising with young people as future building owners should be targeted via training courses in all schools and universities.

8. Collaboration and Engagement

Better engagement with financial institutions is key and these institutions should be educated on the financial benefits of energy efficiency. Potential funding models that should be explored include a joint fund by the National Condominium Managers Association of Bulgaria for renovation projects and engaging large companies to participate in sustainable building projects through their Corporate Social Responsibility programmes.

9. Green Public Procurement

Public procurement is central to overcoming the renovation challenge. The creation of a centre for skills and capacity building could help educate public procurement experts across government. Life Cycle Cost (LCC) analysis requirements for public procurement should be introduced, standardising the methodology and rules for LCC.

Thanks to all the Bulgarian organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



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Antoaneta Popvska,
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Nora Yovcheva,
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Tsvetomira Kulevska, Sustainable
Energy Development Agency



Valeri Levlev, Bulgarian Facility
Management Association



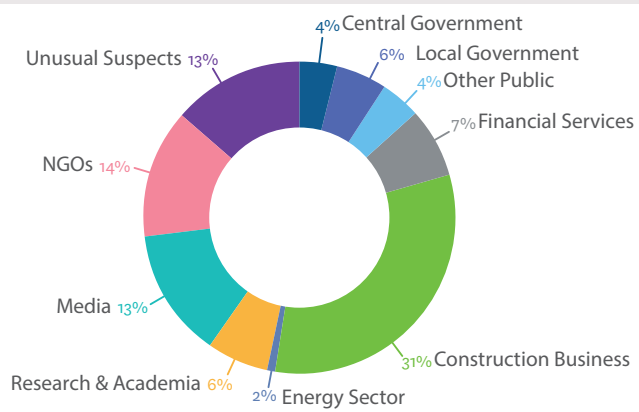
Veneta Nokakova, ETE-Bulgarian
association doors, windows and
facades



Vessela Valtcheva McGee,
Bulgarian GBC

Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Croatia Green Building Council and its partners have brought together a community of over 170 organisations at 6 events across Croatia, and created cross-sector consensus over the following set of key recommendations for Croatia's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Croatia

RECOMMENDATIONS FOR CROATIA'S NATIONAL RENOVATION STRATEGY

1. Active Political Support

In order to be successful, active political support for the renovation strategies is crucial. This can be achieved by creating better dialogue with governments and ensuring that those in central government are aware of the importance of the renovation strategies in addressing not just energy efficiency, but other societal issues such as fuel poverty, improved health and well-being and increased productivity.

2. Efficiency in Legislation and Public procurement

Legislation and policies focused on green public procurement should form a central part of Croatia's renovation strategy. In order to support this, criteria should be defined for choosing green materials and services for renovation projects. A special funding program for renovating buildings

of significant cultural heritage should be developed to encourage deep renovation of historic buildings.

3. A Deep Renovation Approach

There needs to be a focus on the 'deep renovation' approach. This can be achieved by providing a detailed definition of the level of energy savings in buildings that have undergone deep renovation. In addition, better regulation of energy performance certificates in the public registry is also recommended. Together, these elements will contribute to a deep renovation approach.

4. Continuity of Subsidies

A successful renovation strategy in Croatia requires that subsidies are continuous rather than start-stop, and this can be achieved by securing continuous inflow

of EU funds. This should involve grant continuity becoming obligatory and dedicated funds for energy efficiency projects being set up. In addition, financial instruments other than grants need to be prepared and developed.

5. Flexible Financing Mechanisms

In addition to subsidies, flexible financing mechanisms are required. Banks should provide state guarantees for energy efficient projects in low-income areas or the National Bank for Restructuring and Development should incentivise renovation activities. Other potential ways to strengthen renovation finance include the standardization of ESCo contracts, setting up of a guarantee fund for ESCo projects and tax relief for energy efficiency projects.

6. Stronger Cooperation Between Different Stakeholders in the Buildings Sector

Overcoming the renovation challenge requires stronger co-operation between different stakeholders in the construction industry – in particular architects, civil, mechanical and electronic engineers. This can be achieved by facilitating better co-operation and dialogue via joint events, ensuring a high-quality platform for two-way communication between institutions and building users, and via simplifying and adapting information content to varying target groups.

7. Accepting Expert Counselling

In order to overcome some of the barriers to large-scale renovation in Croatia, stakeholders need to be open to receiving advice from experts via skills and capacity

building events where new ideas and the latest technologies in construction and building performance can be shared amongst stakeholders within the renovation community.

8. Databases

Databases covering all aspects of renovation need to be developed and continuously updated. The databases should include information about materials used in deep renovation, lists of certified auditors, land and ownership registry and various other data that can be helpful in simplifying the renovation process. It is critical that all stakeholders are able to access these databases.

9. Simple Public Information

The public must be informed about the latest regulations and opportunities for

renovation of their homes and offices in the most transparent and easy-to-understand language. There should be no misinterpretation of results or potential savings achieved and help must be provided to all those ready to be involved in the renovation process.

10. Promotion of Best Practice

Media coverage should aim to be in a more positive tone, with the most successful projects advertised as best practice. Investors who are satisfied with the financial or savings aspects need to be interviewed and should spread the word to others in order to create a positive image of the renovation process and the positive influence it can have on society.

Thanks to all the Croatian organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



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Mirjana Matešić
HRPSOR



Mirna Sabljak
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Renata Travljanin
Inoutic



Željka Hrs Borković
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Vlasta Zanki
HEP Esco



Vesna Bukarica
EIHP



Vanja Hartman
HEP Esco



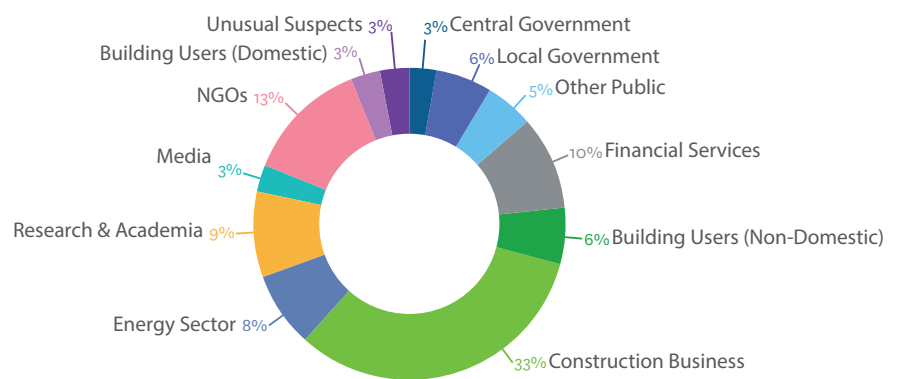
Suzana Purišić
HRZ



Snježana Turalija
Croatia GBC

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As part of this, the Finland Green Building Council and its partners have brought together a community of 119 organisations at 6 events across Finland, and created cross-sector consensus over the following set of key recommendations for Finland's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Finland

RECOMMENDATIONS FOR FINLAND'S NATIONAL RENOVATION STRATEGY

1. The Importance of Collaboration

There's a strong need for deeper collaboration between actors involved in renovation and we need to find ways to support this - this can be achieved by open data, provision of common platforms, active exchange of knowledge and by identifying project opportunities by looking at renovation needs in certain areas.

2. Developing Renovation Financing Instruments

There needs to be more support for developing financial instruments that assist renovation - the building and construction sector and the government should support the research and development work of the financial sector to enable market driven development

of financial instruments such as green mortgages, green loans and green bonds that push energy efficient renovation.

3. Engaging Building-Users

Dwellers and tenants need to realise their role in enabling deep renovation. This means stronger and more active involvement of dwellers and tenants in planning and carrying out renovation efforts that will increase energy efficiency, and to make sure that they use the buildings in the most energy efficient manner. Easy tools such as energy efficiency checklists and templates for including energy efficiency aspects in calls for tenders in renovation could help this market transformation.

4. Change the Market

The market needs to change - the price of a building needs to reflect its true condition and therefore renovation efforts and energy efficiency enhancements should result in an increase in the value of the buildings. The valuations done by banks and lenders, but also homeowners and organisational tenants need to reflect this principle.

5. Access to Data

There needs to be a 'revolution of renovation data'. This means we need more data on renovation and open access to outcomes and best practices that support energy efficient renovations. Renovation activities also must take advantage of the opportunities

of digitalisation, which offers ways to produce more cost-efficient and higher performing renovation services.

6. Deeper Collaboration Between Property Owners

There needs to be a focus on uniting housing co-operatives - deeper collaboration between homeowners, housing co-operatives and real estate managers to enable active conversation with energy efficiency experts is needed to kick-start the renovation market. This work could help us to look into new ways of renovating our buildings, by helping us look beyond the borders of our own yard and asking our neighbours to explain why their grass is greener. It could also help to scale-up renovation activities with bigger projects renovating a group of housing co-operatives or even whole areas.

7. Guidance for Planning Renovation

There needs to be better guidance for planning renovation activities. Housing co-operatives need support and tools

for the planning of their operations in the long-term. It is important to account for the whole lifecycle of the building when making decisions in planning and carrying out energy efficient renovation activities.

8. There Need to be More Carrots

There need to be more carrots to incentivise renovation. The provision of renovation incentives such as property tax reductions for energy efficient buildings, lower interest rates for mortgages when purchasing high performance homes, monetary support for planning ambitious energy renovations or household addressing renovation efforts will help accelerate this process.

9. Skills and Educational Initiatives

Finland needs to find ways to support cross-sector collaboration between the renovation industry and the education sector to make the best use of available knowledge and exchange of best

practices. Energy efficiency specific qualifications (for consultants, real estate managers, real estate facilities management, planners and designers etc.) could also be a way to move forward in integrating energy efficiency more deeply into normal building renovation activities.

10. Importance of Scaling-Up Renovation Activities

From pilots to every day best practice, the buildings sector and renovation processes has been under scrutiny in Finland. In order to move to the next phase, where renovation is the norm, one-off pilot projects need to become mainstream and integrated into everyday practice. This would link the consumer's needs to the value created by the renovation activity, satisfying all stakeholders by ensuring that meaningful, tangible solutions are delivered in a short timeframe.

Thanks to all the Finnish organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



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Timo Salonen, Nokia Networks



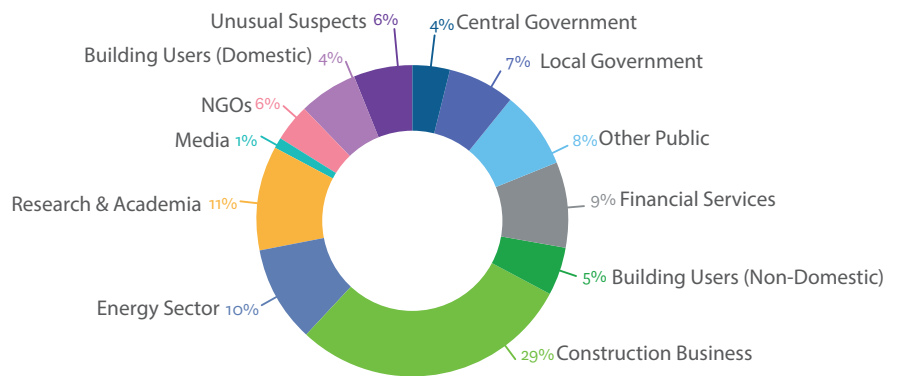
Ulla Suomi, Motiva



Ville Reinikainen, Granlunc Consulting Oy

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As part of this, the Irish Green Building Council and its partners have brought together a community of close to 200 organisations at 14 events across Ireland, and created cross-sector consensus over the following set of key recommendations for Ireland's energy renovation strategy.



Breakdown of organisations participating in BUILD UPON in Ireland

TOWARDS LARGE SCALE DEEP ENERGY RENOVATION - UNLOCKING IRELAND'S POTENTIAL

1. Develop a Comprehensive National Framework

Beyond climate targets, large-scale deep renovation can have a positive impact on job creation and a myriad of social benefits. An integrated cross-departmental approach is thus needed to develop and implement an ambitious national renovation strategy. Furthermore, retrofitting Ireland's building stock requires a comprehensive national framework that connects national and local initiatives and better support for cross-sector engagement.

2. Provide Long-term Certainty

A stable and long-term framework is required to provide all players with

certainty and generate confidence. International targets provide some predictability. Yet, the role of national targets should not be underestimated. The introduction of targets and interim performance targets for each building type is recommended. These should be complemented by localised targets. Targets would also allow for transparent and regular tracking of progress.

3. Invest in Deep Energy Renovation Now

Instead of paying substantial fines in 2021 for not reaching energy targets, it is advised to invest money in deep renovation now. While there is a strong business case for the private sector

to pursue deep energy renovation, legislative changes and financial incentives such as grants, tax incentives, but also green mortgages and leases could accelerate market transformations.

4. Make Deep Energy Renovation Desirable

A comprehensive communication plan that leverages every channel to make more energy efficient buildings an assumed and aspired standard is required. Coordinated awareness raising campaigns are needed. Multiple messages, strategies and routes to engagement should be used to better target various segments of society. To achieve the highest impact, a combined



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649727

top-down (Government leadership) and bottom-up (community-based) approach is suggested.

5. Facilitate Deep Energy Renovation

Quality energy upgrades must be made easier. This could be achieved through the publication of clear guidance; the introduction of building passports which would include a masterplan for retrofit; the development of a network of skilled, trusted local intermediaries to support end-users at all stages of the renovation process; and the introduction of skills cards for construction workers and construction professionals.

6. Make Sure We Have the Right Skills

Investing in skills is key: Depending on training and engagement, construction workers and construction professionals can act as advisor or as negative

influencers. Skills gap identified during the workshops must be addressed. Actions should be taken to better incentivise the construction industry to upskill in energy efficiency. A comprehensive section on upskilling must be included in the strategy.

7. Set the Right Standards

Poor quality retrofits can have a detrimental impact on a property and the health of its occupants, thus damaging the industry's reputation. High standards and robust quality assurance for projects from start to finish are key in building consumer confidence. Minimum statutory standards for construction workers and construction professionals' qualifications, as well as elementary and deep retrofit overall performance standards, are recommended.

8. Develop Quality Data

Long-term quality data analytics are vital in dynamically informing the strategy and making sure it adapts to change. Energy, education and health data, as well as national and local data, should be married and studied in a more comprehensive way. If properly captured and used, this data could provide useful information to end-users and policy decision-makers.

9. Collaborate & Engage

To reach its full potential, the strategy must be defined and implemented in a transparent, fair and inclusive way. The publication of the strategy should only be the beginning. An open and collaborative approach to its implementation is recommended to provide all key stakeholders with opportunities to engage. As continuous improvements will be needed, the ongoing strategy process must be smart and adaptive.

Thanks to all the Irish organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



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Irish Green Building Council



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Aidan Burke
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International Energy Research Centre



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Joseph Little
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David McAuley
Dandelion Innovation



John-Mark McCafferty
St Vincent de Paul (SVP)



Brian Montayne
ESB Innovation



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Marchena Management Services Ltd



Fiona Tutty
Zesco



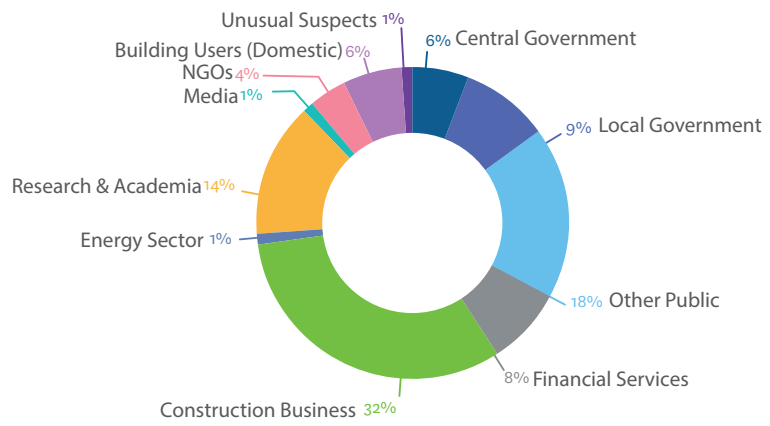
Fintan Smyth
Saint-Gobain



Bianca Wong

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As part of this, Green Building Council Italia and its partners have brought together a community of 85 organisations at 8 events across Italy, and created cross-sector consensus over the following set of key recommendations for Italy's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Italy

RECOMMENDATIONS FOR ITALY'S NATIONAL RENOVATION STRATEGY

1. Renovation Must Become a Strategic Priority for Italy

Renovating Italy's buildings presents an enormous challenge but also many opportunities for the country, when considering the multiple social and economic co-benefits that come alongside energy performance improvements. Therefore, the large-scale renovation of public and private building stocks should become a political and strategic priority. This will involve developing, co-ordinating and updating the various policies and implementation tools required to make this happen.

2. The Importance of the Multiple Benefits of Renovation

In addition to energy savings, it is crucial that multiple benefits of massive renovation are considered and communicated to all stakeholders, from government through to private citizens. Co-benefits such as health and wellbeing, jobs, growth, wider macro-economic externalities, through to alleviation of poverty and all medium to long-term effects on public expenditure should be taken into account when developing policies and instruments.

3. Government Departments Must Coordinate Renovation Policies

It is important that there is intra-governmental co-operation between different departments in national government. This intra-departmental exchange will facilitate learning on energy efficiency whilst ensuring coordination between different departments interested in upgrading energy efficiency or real estate assets in the short, medium and long-term.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649727

4. Awareness and Education in the Public Sector

Awareness raising and education programs amongst public sector workers are key to achieving a renovation revolution, and it will be necessary to implement a large-scale program of information and training on building renovation for public officers and decision-makers at all levels. This will ensure that these officers have the necessary technical, administrative and legal expertise on renovation and its co-benefits.

5. Using Objective Measures of Performance

The use of established, objective ways to measure performance is essential, not just in the context of measuring the benefits of energy efficiency but also to increase confidence and ensure that results delivered to beneficiaries, investors and financial stakeholders adequately consider the co-benefits of renovation. These performance measures should incentivise mechanisms that encourage best practices.

6. Upskilling for Renovation

The whole construction industry supply chain should be (re)qualified to meet the challenges and realise the opportunities of widespread renovation. Further, products and services with favourable energy efficiency and sustainability performance should be prioritised through both mandatory and voluntary means.

7. Cross-Sector Platforms to Support Strategy Implementation

Collaborative cross-sector platforms must be setup and enabled. These platforms should involve the public, private and third sector and support the development of policies and tools necessary to support implementation of the renovation strategy. This could involve activities relating to training and qualification of actors in the supply chain, dissemination of best practices and definition of metrics for measuring results and impact of policies and implementation initiatives.

8. Coordination of Economic and Financial Incentives

A coordinated set of economic and financial incentives, on multiple levels of government, must be developed,

with corresponding financial allocations in public administrations' budgets, to cover a wide range of diverse demand needs. Such incentives could include the provision of guarantee funds and updates to existing incentives for renovation, especially for multi-family buildings.

9. Deployment of National Communication Campaigns

It is necessary to launch intensive and extensive communication campaigns at national, regional and local levels. These campaigns must address all stakeholders in both the public and private sectors and must include both the direct and indirect benefits of renovation.

10. Public Authorities Must Take a Leading Role

Public authorities must take a leading role in ensuring that both public and private buildings are renovated. Authorities must support ambitious policies by ensuring their own assets are renovated and supporting renovation of other assets by favouring demand aggregation mechanisms, strengthening financial guarantee instruments and encouraging the construction industry by mechanisms rewarding best practices.

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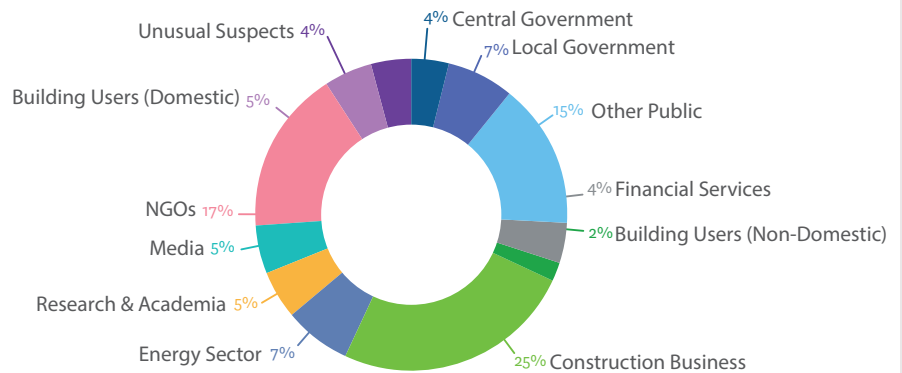


Lorenzo Savio, Politecnico di Torino, Department of Architecture and Design



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As part of this, the Latvian Sustainable Building Council and its partners have brought together a community of 224 organisations at 8 events across Latvia, and created cross-sector consensus over the following set of key recommendations for Latvia's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Latvia

RECOMMENDATIONS FOR LATVIA'S NATIONAL RENOVATION STRATEGY

1. Renovating for the Future

In renovating its buildings, Latvia must capitalise on the opportunity to safeguard their buildings for the future. Renovating buildings provides an opportunity to reduce the impact of toxic materials on health, improve air quality and increase structural strength. In order to ensure the quality of the renovated building, improving living conditions and to increase the value of the buildings, an integrated approach which addresses elements ranging from procurement and project development up to commissioning of the building is required.

2. Quality Assurance Through Renovation

In order to ensure the quality of construction and renovation process, construction workers skills must be up to date. Therefore, educational programmes for construction workers must be updated in accordance with modern, energy efficient and sustainable construction regulations. Further, regulations governing structural safety, sustainability, environmental accessibility, acoustics and energy efficiency must take into account the public interest, environmental protection and scientific developments.

3. Use of High Quality Building Materials for Renovation

High quality construction products should be used throughout the renovation process, and construction workers will play an important role in ensuring that quality products are used during renovation. Legislation on construction projects should be reviewed so that it is aligned with EU legislation. Platforms should be established to ensure better awareness of the requirements of construction products.



4. Realising the Co-Benefits of Renovation

Renovation and other energy efficiency measures in many households can mitigate against socio-economic problems, have a positive impact on health and wellbeing and reduce dependence on fossil fuels. In order to achieve an increase in the energy efficiency of buildings, it is necessary to raise both construction workers and the general public's awareness of the co-benefits of energy efficiency and environmental requirements for buildings.

5. Engaging State and Regional Governments in the Renovation Process

The active participation of government stakeholders in the process will help accelerate market transformation. Government should embark on a strategy focused on the multiple benefits of renovation and pursue policies to support this agenda. Such policies could include national initiatives aimed at improving energy efficiency alongside specific government initiatives for the private sector - in particular multifamily and industrial renovation.

6. Innovation in Finance

Stakeholders must be able to access attractive new financial instruments for renovation on the market, such as ESCO models, green loans and mortgages, and rotating funds. State and local governments should promote private investment by supporting innovative renovation of best-projects whilst state and municipal energy suppliers should offer energy efficiency tools in buildings.

7. Ensuring Resource Efficiency

Resource efficiency in renovation activities must be considered in the context of the circular economy. Therefore, the construction sector must be encouraged via public procurement rules to ensure that construction waste is disposed of responsibly and reuse of construction waste is encouraged. Lifecycle analysis should be carried out for at least the most important structural elements and engineering systems of a building.

8. Celebrating Success

It is important to celebrate renovation projects so as to promote best practice that can be replicated elsewhere. This requires innovative new solutions in both the public and private sector that

promote renovation activity and energy efficiency whilst increasing confidence in the construction sector. A common database of buildings should be introduced to showcase best practice.

9. Awareness Raising

It is important to support public awareness campaigns in the media. This will educate all stakeholders, particularly building-users, about the benefits of energy efficient renovation in an easily understandable manner. In addition, all Latvian regions should introduce a one-stop shop model, to provide full information on the construction process, from decision-making through to commissioning of the building.

10. Collaboration and Involvement

The process of preparing and implementing the Latvian Long-term Strategy for Building Renovation should be transparent, understandable and comprehensive. Interdisciplinary cooperation including between ministries and state institutions is a must and it is crucial to establish national, regional and even EU-wide partnerships. The initiatives put forward should not only reflect the State's participation but also foster active engagement

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Dzintars Jaunzems, RenEsco Ltd



Gints Mikelsons, Latvian Sustainable Building Council



Inese Berzina, Ministry of Economics



Janis Dripe, Ministry of Culture



Juris Golunovs, Riga Energy Agency



Juris Grinvads, Sakret Ltd



Kristaps Zvalgzitis, Building and Energy Conservation Bureau



Maija Krizmane, Latvia Sustainable Building Council



Martins Auders, Ministry of Economics



Peteris Drukis, State Construction Control Office



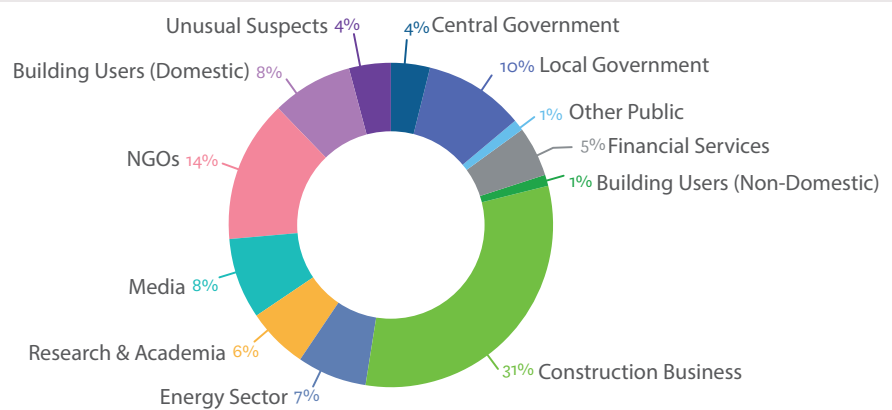
Ralmonds Kass, Ministry of Environment Protection and Regional Development



Zana Zeibote, Latvian Sustainable Building Council

Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Romania Green Building Council and its partners have brought together a community of 267 organisations at 10 events across Romania, and created cross-sector consensus over the following set of key recommendations for Romania's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Romania

RECOMMENDATIONS FOR ROMANIA'S NATIONAL RENOVATION STRATEGY

1. Safe and Healthy Buildings With a Long Life

The strategy should address aspects such as health and safety in buildings with a focus on measuring quality of life improvements. Deep green renovations of buildings will eliminate people's exposure to toxic materials, improve fire and seismic safety and air quality. This requires paying attention to systems and materials issues that affect temperature, humidity, oxygen, CO₂ quantities and the amount of volatile organic compounds (VOCs).

2. Quality Buildings

The strategy should provide actionable information from expert government agencies and organisations to explain the benefits of proper renovations and the "how to" of project execution. Defined legislation, stronger building codes and clear rules and precise

criteria for energy efficient / green renovations is essential. It should also address training on energy efficiency, accreditation of firms, and green renovation concepts for public administration at the national and local level.

3. Compliant Building Materials

Compliant materials are one of the main challenges of the renovation process. The issue of non-compliance with the technical specification sheets of the products is one of the main issues that influence the safety, quality, longevity, and energy efficiency of a building. Therefore, it is necessary to test the efficacy and quality of materials via procurement measures and the establishment of an independent body to test product compliance.

4. Costs Reductions Through Energy, Repair and Health Savings - Especially for Vulnerable Citizens

The strategy must address the issue of fuel poverty and emphasise the importance of supporting energy efficiency and quality in social housing. An exemplary renovation strategy can address various societal issues by alleviating fuel poverty, stimulating the economy, increasing Romania's energy security and protecting citizens from rising energy costs.

5. Incentives from the Government

There is a strong business case for the private sector to pursue deep green renovations. However, government must also take effective actions to accelerate market transformation. The strategy should name forthcoming Government incentives that are tailored to reflect the energy efficiency credentials of



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649727

the buildings – and therefore their ability to contribute to a better quality of life. Modifying taxation levels to reward buildings that have a positive impact on communities is an effective use of funds.

6. Innovative Financial Tools and Mobilizing Private Funds

To address the massive scale of the challenge of our existing buildings, mobilizing private investment while providing targeted and effective government incentives is both necessary and a useful mechanism to stimulate economic growth in the country. This should be in the form of green loans and mortgages for building projects. Government can also mobilise finance by offering free energy audits and support for exemplary projects. Also the development of the legislative framework for energy performance contracts should be a priority.

7. Circular Economy Approach

The strategy must protect natural resources through sustainable construction practices and the adoption of “circular economy” approaches. Therefore, the strategy should analyse the entire building’s lifecycle with the building being designed, built and renovated in a sustainable manner that will facilitate the building’s reuse or deconstruction and effective reuse of materials. As construction activity is one of the largest contributors of

waste going to landfill and illegal dumping, consideration must be given to maximising the economic value of waste.

8. The Power of Example

The strategy should provide support for inspirational demonstration projects. Government should guarantee an efficient use of national and European money for creating examples of best practices that can be replicated. Public money should be available only for excellence in buildings renovation efforts, not mediocrity. Focusing on renovating “green schools” and “green hospitals” can unlock proven co-benefits including greater education performance and health outcomes while helping to retain our most valuable teaching and healthcare professionals.

9. National and Local Campaigns of Awareness

The strategy must support awareness campaigns in the media to both raise the profile and communicate the benefits of deep green renovation to all stakeholders, in particular building-users. This should include offering guides to renovate buildings properly for each building typology and creating a “one stop shop” in each city. Improving awareness of the benefits of Energy Performance Certificates (EPCs) and building permit procedures and improving quality

control of those procedures will improve confidence in these mechanisms as useful tools to benefit owners’ understanding of the expected performance of their homes and other buildings. A transparent, online database of EPCs which everyone interested in a real estate transaction can access to find information about the energy performance of a building will be a useful tool for improving building quality and energy efficiency.

10. Collaboration and Engagement

The process to define and implement Romania’s national renovation strategy must be transparent, ethical and inclusive to improve the lives of all citizens. It should approach the process from an inter-Ministerial, interdisciplinary and holistic perspective to ensure maximum efficiency and effective outcomes. Other government strategies, such as ones for Sustainable Development, Climate Change, and the National Energy Strategy of Romania must be aligned as an ambitious and well-implemented National Renovation Strategy will contribute significantly to solving many of the challenges and create opportunities identified in these other strategies. Partnerships are essential at a national level, but also on regional scale and inside the European Union.

Thanks to all the Romanian organisations that have been involved in the BUILD UPON project, and in particular our ‘Change Leaders’ who have helped steer the project:



Alexandru David, ARENA
Construcțiilor Magazine



Alina Baclea, Saint-Gobain
Construction Products Romania



Andrei Botis, NAI Romania,
Romania GBC



Andrej-Stelian Bejan, ROMSTAL
IMEX SRI



Bogdana Diaconu, Raiffeisen
Bank



Cristiana Croitoru, Technical
University of Civil Engineering
Bucharest



Dana Ionescu, European
Bank for Reconstruction and
Development



Emilian Grigore, Rockwool
Romania



Forian Ionita, Thermaflex
Romania



Horia Petran, URBAN-INCERC



Ion Dogeanu, Romanian
Municipalities Association



Ionut Trinca, Ministry of Regional
Development and Public
Administration



Iuliana Lazar, Romanian Energy
Regulatory Authority ANRE,
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Laura Amaiei, Romania GBC



Lucian Mihai, Sika Romania



Marcel Ionescu-Heroiu, World
Bank Group



Mihaela Odangiu, Holcim
Romania



Mihai Merueta, Casa Plus, Liga
Habitat



Mihai Toader, EFdeN 4C



Mircea Sibana, Xella Romania



Monica Ardeleanu, Romania GBC



Narcis Jeler, Ministry of
Environment



Prof Dorin Beu, Technical
University of Cluj-Napoca,
Romanian GBC



Radu Mosteanu, Knauf Insulation
Romania



Razvan Chirita, ISOVER Saint-
Gobain



Serban Danciu, Buildings
Performance Institute Europe
(BPIE)



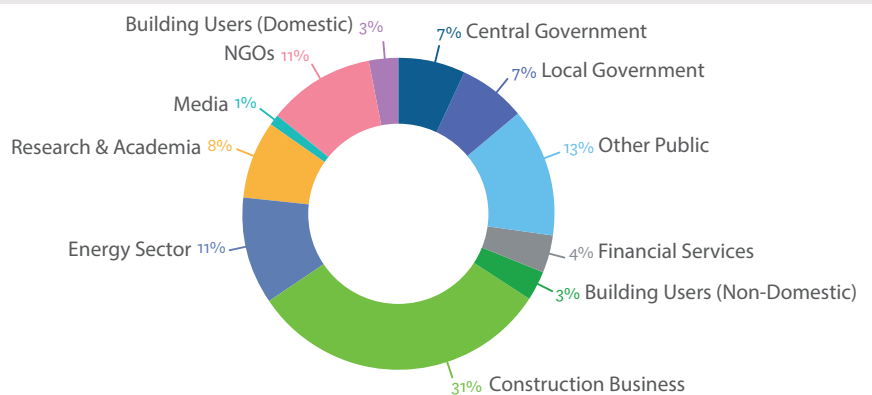
Serban Tiganas, Romanian Order
of Architects



Steve Borncamp, Romania GBC

Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Slovak Green Building Council and its partners have brought together a community of 137 organisations at 6 events across Slovakia, and created cross-sector consensus over the following set of key recommendations for Slovakia's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Slovakia

RECOMMENDATIONS FOR SLOVAKIA'S NATIONAL RENOVATION STRATEGY

1. Increasing Awareness of Deep Renovation Benefits

There needs to be increased awareness of the benefits of deep renovation, which will in turn increase the motivation of building owners to renovate their buildings. Building users and owners of all building typologies should be supported in renovating their buildings and there needs to be provision of information on the positive results of renovations.

2. Removing Demotivating Factors that Hinder Renovation

There are number of factors that can discourage the willingness of building owners to renovate their buildings and common myths surrounding the costs

and benefits of renovation must be dispelled. In particular, false information on the impact of renovation activities on residential buildings must be corrected. Further, many people believe that the ability to reduce the cost of heating is limited because of the method for setting the price of heat from district heating - this myth must also be dispelled.

3. Securing Quality Project Energy Assessment (PEA) and Energy Certificates (EPCs)

Project energy assessments should be used as a decision-making tool for the investor regarding the target level of the energy performance of buildings. In order to increase the quality of processing the PEA and EPCs,

a regulation defining how to set input values in a precise manner should be developed, enabling the regulation to serve as a quality standard in processing of PEA and EPCs. At the same time, it could unify and simplify methods (and structures) of PEA and EPCs.

4. Communicating the Benefits of Renovation

The benefits of renovation and reduced energy intensity should be communicated using all available communication channels. This communication activity should be supported by a central national website that would centralize all kind of supports and funding schemes.



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5. Suitable Regulation

There needs to be suitable legislation and regulation of the budgetary and public accounting rules governing renovation. Such provisions, and the establishment of a guarantee system could facilitate the entry of private capital and finance into the public sector which could help accelerate renovation.

6. Adjusting Building Renovation Support Programs to Combat Climate Change

Building renovation support programmes must focus on all the elements of a building that can mitigate against climate change. Support programs for building renovation programs should therefore focus on measures within the building envelope that can help mitigate against climate change such as: quality installation of forced ventilation with heat recovery; suitable colour scheme of facades and roofs, parallel water pipes installation and reservoirs of rainwater/grey water with the necessary infrastructure.

7. Public Procurement of Renovation of Public Buildings

Public procurement criteria must be designed to support renovation of public buildings. This criteria should facilitate clearly defined minimum requirements for public procurement of buildings, e.g. quality technical specification with the option of the use of environmental specification. This criteria should also consider the “lifecycle of a structure, building, good and service” in public procurement.

8. Innovative Financing

Renovating buildings requires large amounts of money. Therefore, developing the appropriate financing solutions must become a strategic priority and there must be support for developing financial instruments for financing of deep renovation such as green mortgages, green bonds and loans.

9. Increasing the Efficiency of Heat Supply

The decrease in energy consumption for heating reduces the efficiency of heat supply of district heating systems. Under the current method of calculating the regulated price of heat, this means the share of fixed costs of district heating will increase the cost on end-users. This will mean an even smaller drop in heating costs after the building renovation, thus decreasing the motivation to renovate. It is therefore necessary to consider the possibility of increasing the efficiency of heat supply and changing the approach of controllers towards the price calculation.

10. Creating Platform for Collection of Renovation Data

A dedicated platform with open access to best renovation practices and outcomes should be developed to encourage renovation activities amongst stakeholders.

Thanks to all the Slovak organisations that have been involved in the BUILD UPON project, and in particular our ‘Change Leaders’ who have helped steer the project:



Alena Ohradzanská, Ministry of Transport and Construction



Dušan Petráš, Slovak University of Technology in Bratislava



Elena Szolgayova, Ministry of Transport and Construction



Henrich Pifko, IEPD



Ingrid Konrad, Chief Architect of Bratislava



Jaroslav Chocholáček, Slovak Innovation and Energy Agency



Katarina Korytarova, Ministry of Economy of the Slovak Republic



Ladislav Piršel, Slovak GBC



Marta Kabinova, Greenpeace Slovakia



Matej Kerestur, Slovak Innovation and Energy Agency



Miloš Blanárik, Prvá stavebná sporiteľňa (PSS)



Pavol Kukura, TAW



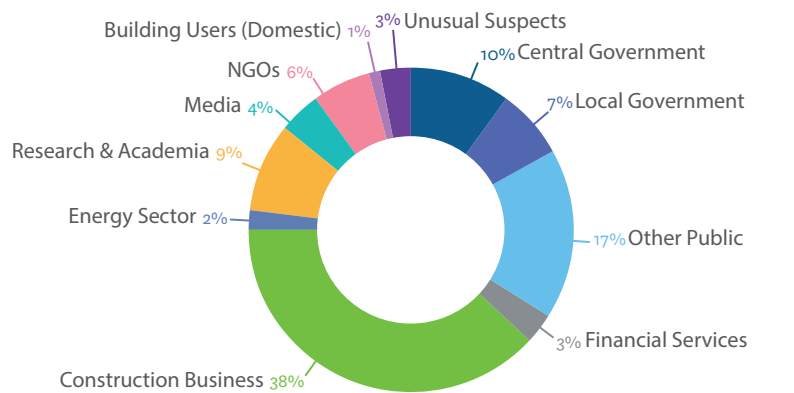
Peter Robl, Knauf Insulation



Zdenko Letenay, Ministry of Transport and Construction

Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Slovenia Green Building Council and its partners have brought together a community of 169 organisations at 6 events across Slovenia, and created cross-sector consensus over the following set of key recommendations for Slovenia's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Slovenia

RECOMMENDATIONS FOR SLOVENIA'S NATIONAL RENOVATION STRATEGY

1. The Power of Example

Lack of good practice examples is seen as one of the biggest barriers to sustainable construction. The problem is twofold: on the one hand, there is a lack of good practice examples and on the other hand, there are too many examples of poor or energy inefficient practices, especially in the field of energy renovation of buildings. At least 5 to 10 illustrative examples of good practices should be created urgently and disseminated as widely as possible to showcase the potential of good renovation projects.

2. Let's Use the Power of the Media

The public need to be educated on the importance of buildings that are efficient as well as healthy, safe and comfortable for their users. In order to achieve the widest possible audience, we must leverage the power of the mainstream media - especially television and the internet. In the first instance, this can be broadcasting awareness-raising initiatives and other high-profile broadcasts. Secondly, the establishment of databases of best practices, designers etc. will provide the media with a useful resource to draw from.

3. The Power of Knowledge

From ministries, municipalities, private investors, designers, construction companies, utility managers, financing and insurance companies - all the way to the building user - there is lack of knowledge on sustainable construction in Slovenia. It is essential that all the relevant stakeholders have access to knowledge relating to sustainable construction. One way this can be achieved is by developing databases of professionally trained designers and contractors, databases of providers of local and natural building materials and providers of traditional construction methods.



4. The Power of Money

Renovating buildings requires significant financial resources - particularly if renovating to the levels required by EU regulations. Therefore, developing financial solutions needs to become a priority and there needs to be a focus on innovative sources of finances such as green mortgages, green bonds and patronage/sponsorship for buildings of cultural heritage value.

5. The Need for Long-Term Stability and Planning

The public and private investors and the economy at large need long-term stability and planning. The lack of long-term planning - both regulatory and financial - means that stakeholders cannot make long-term decisions and investments necessary to make large-scale renovation happen. Therefore, current short-term thinking must be replaced by regulation, subsidies and other funding sources that provides long-term certainty.

6. Less is More: End Bureaucracy

Currently there are numerous laws, regulations and complicated

bureaucratic procedures hindering innovation in building renovation. The focus must be on innovate and simple measures which promote the most effective stimulus measures. There should however be analysis of the success of these initiatives and whether they are having an impact on the market.

7. Guidance in Legislative and Governmental Levels

Government need to provide guidance on solving sustainability and energy efficiency issues relating to buildings. This guidance should harmonise inconsistencies and specify minimum and mandatory criteria for sustainable construction. Policies on green public procurement (GPP) and the Public Procurement Act must promote, rather than hinder, sustainable construction. Lastly, the criteria to award the lowest price in public procurement must be abolished.

8. Healthy, Safe and Comfortable Buildings for All

It needs to be recognised that the conversation goes beyond energy efficiency - requirements to provide

customers with healthy living conditions, safety and living comfort must also be considered. These requirements must also be considered by financial and legislative tools for both new construction and when renovating existing buildings.

9. Encourage Local, Resource-Efficient and Durable

The renovation process must promote the use of local and traditional building materials. Therefore, there should be incentives for the use of local materials and products in the renovation process. In addition, tools for Life Cycle Assessment (LCA) and Life Cycle Costing (LCC) must be developed and used to assess the whole building along its lifecycle.

10. The Power of the Mind and Reason

The use of modern and innovative technology and advanced construction procedures such as Building Information Modelling (BIM) will help lead to the most efficient use of financial resources and lead to healthy, safe and comfortable buildings for end-users.

Thanks to all the Slovenian organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



Alenka Burja, Environmental Consulting



Irena Hlede, GBC Slovenia



Jure Vetršek, Institute for Innovation and Development of University of Ljubljana



Mag. Hinko Sollinc, Slovenian Environmental Public Fund



Marjana Sijanec Završ, Building and Civil Engineering Institute ZRMK



Metka Pretnar, GBC Slovenia



Robert Smodis, Kema



Stojan Habjanic, GBC Slovenia



Vida Orgorelec, The Slovenian Foundation for Sustainable Development



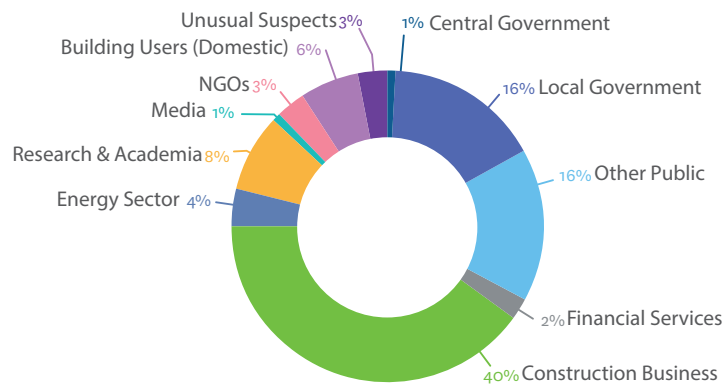
Vlado Krajcar, Chamber of Architecture and Spatial Planning of Slovenia



mag. Crtomir Remec, Housing Fund of the Republic of Slovenia

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As part of this, the Green Building Council España and its partners have brought together a community of 177 organisations at 6 events across Spain, and created cross-sector consensus over the following set of key recommendations for Green Building Council España's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Spain

RECOMMENDATIONS FOR SPAIN'S NATIONAL RENOVATION STRATEGY

1. Environmental political ambition at a global level

It is important to align environmental, energy and carbon policy in Spain with global ambitions. National legislation should be enacted to facilitate the energy transition required to meet European and Global ambition levels. The central role of buildings in mitigating against climate change and addressing socio-economic issues must be recognised in this legislation.

2. General framework of trust, reliability and security

Successful renovation strategies requires a general framework of trust, reliability, security and assurance

between all stakeholders involved in the renovation process and indeed the wider construction industry. These stakeholders must work together to ensure that problems and issues are tackled in a collaborative manner and that the solutions reached are acceptable to all stakeholders and beneficial to the wider public.

3. User-based approach

It is important to ensure that the end-user is at the heart of all renovation strategies. This should be achieved by facilitating an integrated framework that enables all actors in the process to collaborate and ensure that their voices are heard. This will enable solutions that are based on the real needs of the consumer.

4. Develop a culture of quality of life of the habitation about the energy and the environment

Develop a culture of quality of life of the habitation about the energy and the environment by means of a clear definition of the product, communicated with a more attractive and understandable message

5. Energy poverty as the heart of the renovation community

The prevalence of substandard housing has led to many socio-economic problems, including energy and fuel poverty. Renovation of buildings has many benefits beyond energy efficiency such as mitigating against energy poverty



and addressing the health and well-being of end-users. The renovation strategy should be used as a tool to establish financial and administrative pathways to address all these issues together.

6. Integration and clarification of the institutional framework

There needs to be better understanding of the political framework in Spain and how the different governmental departments work together. In particular, there needs to be better interdepartmental dialogue between departments of energy, building and environment finance, health and labour. Increased interdepartmental dialogue and collaboration must take place at both a ministerial and administrative level.

7. New accounting

There must be a new approach to how public money is used to renovate buildings. The possibility of establishing new dynamic accounting rules should be explored so as to increase viability and guarantee immediate coverage so that there is “virtually indefinite money”.

8. Agile legal and administrative processes designed by and for the citizen

Successfully renovating Spain’s buildings requires the establishment of agile legal and administrative processes designed by and for the citizen. This will require citizens having a deep understanding of the decision making process and the guaranteed access to support when the conditions are right.

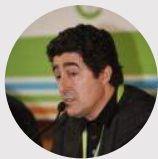
9. Effective facilitation and professional accompaniment

Effective facilitating and professional accompaniment, with effective management models and figures, and integrating and coordinating existing capacity through tiered knowledge structures.

10. Business creativity to provide solutions

Overcoming the renovation challenge requires the application of business creativity to provide solutions, both in processes and through the development of innovative products that allow higher quality and better prices.

Thanks to all the Spanish organisations that have been involved in the BUILD UPON project, and in particular our ‘Change Leaders’ who have helped steer the project:



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CECU



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Begoña Serrano
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Betriz Garcia
Triodos Bank



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EMVS



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GBC Espana



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AEICE



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Felipe Pich Aguilera
GBCe



Francisco Azorin
FENT Estudi



Francisco Javier Gonzalez
GTR and ASA



Gloria Gómez
cc6o Architects



Ignacio de la puerta
GTR



Ines Leal
Tecmared Group



Jordia Amela
Barcelona City Council



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La Casa que Ahorra
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Luis Vara
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Juan Rubio del Val
Sociedad Municipal Zaragoza Vivienda



Javier García Breva,
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Raquel Díez Abarca
GBC Espana



Raquel del Río
Madrid City Council



Santos de Paz
Cluster Mefores Edificios



Sebastián Molinero
ANDIMAC



Xavier Martí
Catalunya Regional Government



Ángel M Marinero
Regional Ministry of Public Works of Castilla y Leon

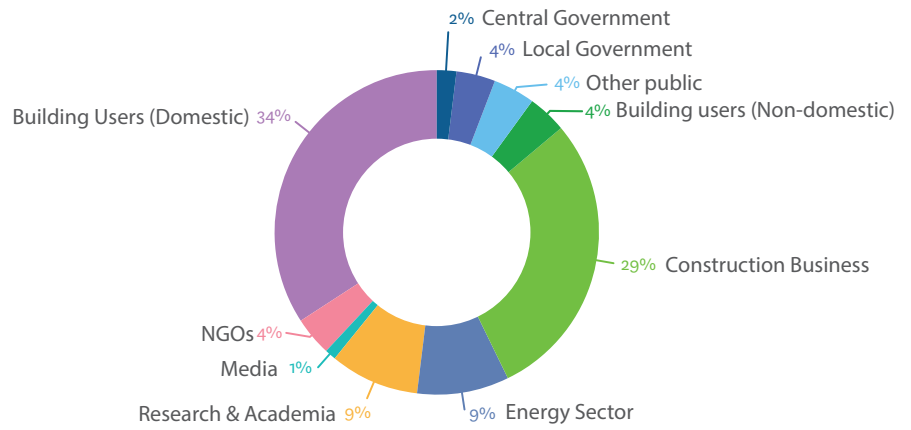


José Luis López, ACA



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As part of this, the Sweden Green Building Council and its partners have brought together a community of 141 organisations at 6 events across Sweden, and created cross-sector dialogue over the following set of key recommendations for Sweden's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Sweden

RECOMMENDATIONS FOR SWEDEN'S NATIONAL RENOVATION STRATEGY

1. Involving the Residents

To increase the acceptance for deep renovation we need to involve the residents in the renovation process. Residents need to be involved and informed at an early stage and throughout the renovation process so that changes are well anchored and understood. The involvement can create a win-win situation since the residents also have valuable insights and ideas that should be taken into account.

2. Communicating the Multiple Benefits of Renovation

To increase the demand for deep renovation from residents we need

to make it more attractive. We have to "sell the sizzle" and stop talking in terms of kilowatt hours to make it more understandable. We should communicate benefits other than energy savings, for example, lower costs, better standards, health and comfort.

3. Quantifying the Benefits of Renovation

To show that deep renovation can in fact be profitable, there needs to be a common and widespread method for calculating profitability with a long-term and holistic perspective. It would be particularly useful to measure not just the energy savings, but also the multiple benefits of energy savings including

the impact of renovation on property value. Renovation into more modern and comfortable buildings can increase the popularity, reduce the incidence of residents relocating whilst raising prices. The costs of not doing anything should also be taken into account.

4. Certifying Deep Renovation of Multi-Family Buildings

To decrease uncertainty and insecurities among property owners, developers and others, a certification scheme for deep renovation of multi-family buildings should be developed. A certification scheme by an independent and impartial organisation could work as a guarantee and quality assurance for the building



and increase the property owners' reputation. The certification scheme could also include social and ecological benefits, for example a reduction of unemployment or mitigation of climate change. Such a certification scheme can make deep renovation (and some energy efficiency measures that might not be economically profitable) more attractive for property owners and residents.

5. Education and Training to Increase Confidence and Competence

To increase the competence and thereby confidence among tenant-owned housing associations and their board members, there needs to be education, training and support in the decision-making process regarding agreements with contractors, suppliers and other stakeholders. An increase in the rate of deep renovation requires competent and confident

tenant-owned housing associations who dare to make brave, well-founded and long-term decisions regarding energy renovation.

6. Sharing of Best Practice

To reduce the fears and uncertainties concerning deep renovation, there needs to be more effort to ensure that best practices and good examples are shared. This will be particularly beneficial for small property owners and tenant-owned housing associations that wish to meet people in the same situation and hear about, see and experience how others' renovation processes has been carried out. Talking to people in a similar situation and having a chance to ask questions, can increase the understanding and knowledge while decreasing the risks and uncertainties. To see that other projects have been successful makes it more convincing and

achievable.

7. Combining Maintenance and Renovation

Finally – it's important to take the opportunity to combine renovation for maintenance with making energy efficiency measures. A large portion of Sweden's existing building stock, especially "the million program" (houses built in 1965-1975), desperately need to be renovated. However, short-term repair projects are not enough - there needs to be a dramatic reduction in energy consumption to reach national and global goals. Caution must also be applied to avoid lock-in effects and therefore, the aims should be high and focused on deep renovation from the beginning.

Thanks to all the Swedish organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped guide the project.



Andres Muld.
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Beng Wanggren.
Sweden GBC



Birgitta Govén
Energi Radgivarna



Emma Thornberg.
Swedish Energy Agency



Gabriella Castegren.
SABO



Jennie Wiederholm
Hyresgästföreningen



Linnea Olsson.
Sweden GBC



Lotta Bångens.
EnergiEffektiviseringsFöretagen (EEF)



Madeleine Nobs.
NCC



Per Andersson.
Passive House Center of Sweden



Per Forsling.
Stockholmshem



Roland Jonsson.
HSB



Sofia Wellander
The Swedish National Board of
Housing, Building and Planning



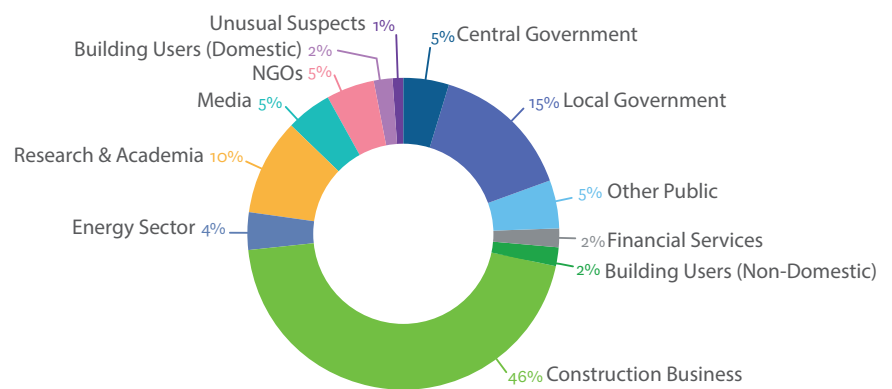
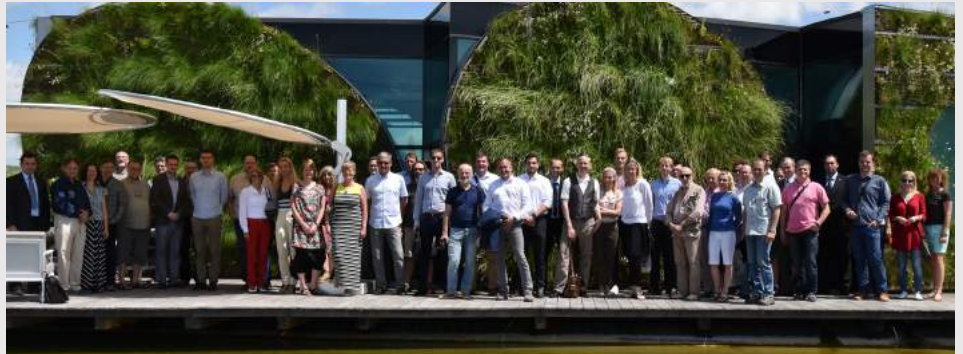
Stefan Lindsköld.
Aktea Energy



Ulrika Jardfelt
E.on

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As part of this, the Czech Green Building Council and its partners have brought together a community of 143 organisations at 6 events across Czech Republic, and created cross-sector consensus over the following set of key recommendations for the Czech Republic's renovation strategy.



Breakdown of organisations participating in BUILD UPON in the Czech Republic

RECOMMENDATIONS FOR THE CZECH REPUBLIC'S NATIONAL RENOVATION STRATEGY

1 Continue Open Discussion with Stakeholders and Government

It is important that open discussions continue between key stakeholders. This requires participation from representatives of various segments of government, professional associations, representatives of construction businesses and other interested parties. It is also important to ensure that views of those 'unusual' suspects in the market are also heard - these are the organisations who have the potential to positively influence outcomes but who aren't yet part of the renovation conversation - this could be dwellers associations, small craftsmen unions and small guilds.

2. Educating the Public

Educating the wider public on available solutions for different types of buildings is critical in creating demand for good quality solutions. In the Czech Republic, this is especially missing in the residential sector (in comparison with the commercial sector where it works relatively well). It is also important that the multiple benefits of renovated buildings are communicated to the public, such as health, wellbeing and productivity.

3. Skilled Building Experts

It is important to ensure that there is sufficient capacity of experts in the building sector who can help assist in renovating buildings. These are the

planners, architects, builders, energy specialists, consultants, subsidy specialists who can help private individuals, business, and public authorities in their decision-making process.

4. Engaging the Media

In order to ensure that the message of sustainable building is disseminated to the general public, the media must be engaged and educated on the topics of energy efficiency and renovation. The media should be provided with interesting information on sustainability, energy efficiency and renovation solutions that can then be used across various platforms to highlight the multiple benefits of renovation.



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 649727

5. Innovation in Finance

Innovative financing solutions will play a key role in tackling some of the administrative and financial barriers that need to be overcome when tackling the renovation challenge in the Czech Republic. The primary focus should be on the use of private finance and other alternative methods of financing outside of subsidy programs. Options for scaling viable financial instruments should be explored.

6. Public Procurement

Good quality, well prepared public procurement is essential for achieving high-quality, durable and long-term economically optimal solutions. Therefore, public bodies and authorities should be motivated to prepare contracts that reflect these important principles. Additionally, well renovated public buildings can also demonstrate the multiple benefits of renovated buildings to the wider public and therefore accelerate the market for green and energy efficient buildings.

7. Mid-Term Plan

It will also be important to ensure that a mid-term plan evaluating the progress of the renovation strategy is introduced. This will allow policy-makers and other decision-makers to evaluate what is working and identify areas of concern.

Thanks to all the Czech organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



Antonin Lupisek, UCEEB



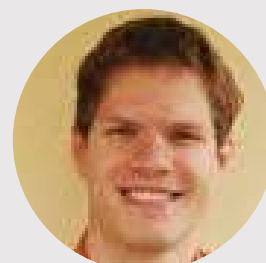
Daniel Stys, CBRE



Ing. Alexander Šafařík-Pštroz



Jan Antonin, EnergySim



Jan Barta, Passive House Center



Jan Kriz, Ministry of Environment



Karel Fronk



Katerina Bartosova- Saint Gobain Construction Products



Leoš Vrzalík, Skanska



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Robert Leníček, Len+K architekti



Tomas Andrejsek, BENE



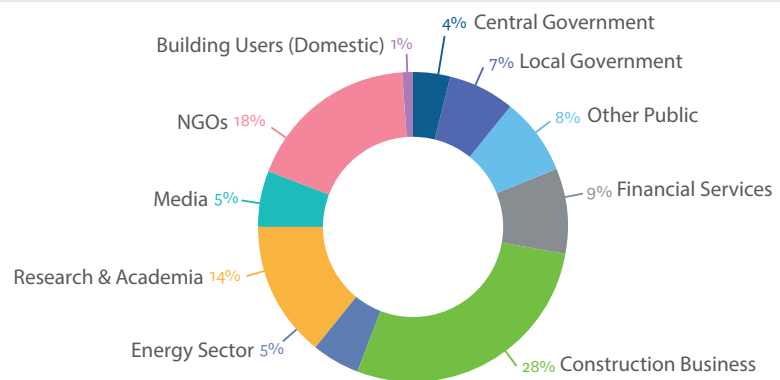
Vladimír Sochor, Ministry of Industry and Trade



Vladimír Studnicka

Over the past year, the BUILD UPON project has brought together a uniquely diverse community of nearly 2,000 organisations at over 100 events across Europe, to co-create the national building renovation strategies that are due by the 30 April 2017 EU deadline. These strategies are critical to reducing the impacts of climate change from energy use in buildings, and creating buildings that deliver a high quality of life for everyone.

As part of this, the Turkish Green Building Council and its partners have brought together a community of 116 organisations at 6 events across Turkey, and created cross-sector consensus over the following set of key recommendations for Turkey's renovation strategy.



Breakdown of organisations participating in BUILD UPON in Turkey

RECOMMENDATIONS FOR TURKEY'S NATIONAL RENOVATION STRATEGY

1. Establishing a Long-Term Vision for Buildings

There needs to be a long-term vision for the building sector that is embraced by all stakeholders in the building and construction industry, as well as the public sector and politicians. This vision must identify specific problems and barriers which need to be overcome, and articulate a long term, comprehensive strategy that can assist in overcoming these issues.

2. A Holistic Approach to the Economy

Renovation and other energy efficiency measures in buildings can mitigate against socio-economic problems, positively impact on health and wellbeing and reduce dependence on fossil fuels. These wider benefits must be included in a renovation strategy that encompasses a holistic approach to the economy and considers the national benefits of renovating buildings.

3. Increased Dialogue between Stakeholders and Sectors

Renovating Turkey's building stock requires many stakeholders from different sectors working together to achieve a common goal. These must be an open and collaborative approach to implementation of the renovation strategy so that stakeholders can engage with the strategy in a meaningful way.

4. Investing in Skills

In order for a renovation strategy to be successful, those professionals and experts who work in the building sector must be equipped with the right skills to ensure the quality of construction and renovation process. Therefore, it is critical that any skills gaps identified through the workshop process are addressed and that the skills of construction workers are up to date.

5. A Central Energy Organisation

The establishment of an energy organisation can assist in creating the necessary policies, conducting the relevant research and development (R&D) and assisting in monitoring energy efficiency applications. The centralisation of these activities can help to reduce the administrative burden whilst helping to localise the decision making process.

6. Financial Incentives for Renovation

Successful renovation of Turkey's buildings requires a supportive financial environment. End-users must be able to access attractive financial incentives for renovation that reduces their liability and risk of default. This can be achieved

by mobilising private investment via mechanisms such as green loans and mortgages or the provision of government incentives to stimulate the renovation market.

7. Collection of Building Inventory Data

To transform the buildings market, it is necessary to know what needs to be transformed. Therefore, it is important that all data relating to building is collected and analysed in a systematic way. This data should be available in a central platform and categorised according to building typology and climatic zones. This will enable the creation of reference buildings and 'upgrade' levels.

8. Regulations Based on "Carrot & Stick"

Policies and regulations governing renovation should adopt a 'carrot and stick' approach in a balanced way. Current regulations on building energy efficiency include standards on what should be done to renovate buildings, however they do not include clear sanctions and incentives to prompt people to renovate their building.

The integration of 'carrot and stick' mechanisms into regulations will motivate people to renovate their buildings.

9. Awareness Raising Platforms

Awareness raising activities must be launched to increase the knowledge of the general public, institutions and consortiums about the multiple benefits of renovation. Online platforms should be developed to disseminate this information - these should be activated at national, regional and local levels. These platforms must be used to address all stakeholders in the public and private sectors on both the direct and indirect benefits of renovation.

10. Capitalising on Urban Transformation Activities

Opportunities for energy efficiency must be capitalised on an ongoing basis and urban transformations/developments should be seen as key 'trigger' points where renovation opportunities can be undertaken.

Thanks to all the Turkish organisations that have been involved in the BUILD UPON project, and in particular our 'Change Leaders' who have helped steer the project:



A. Zerrin Yilmaz
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CEDBIK



Sinan Smert Sener
Istanbul Technical University