

BUILD UPON²

A Tool to Deliver the Renovation Wave

June 2021



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The BUILD UPON² Project

We are in a state of climate emergency. We must act now to reach net zero carbon by 2050 - and cities can lead the way. To get there, cities must unlock the huge potential of their buildings - and building renovation in particular.

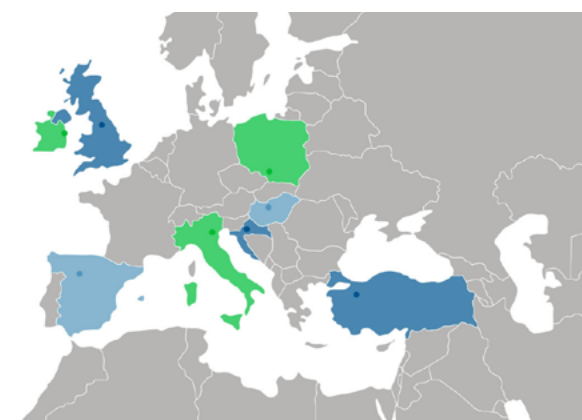
Deep building renovation has far-reaching benefits for society such as increasing indoor comfort and air quality, which avoids illnesses and premature deaths associated with living in cold and damp homes. This in turn reduces pressure on healthcare and social services.

The EU Horizon 2020 funded BUILD UPON² project will empower cities across Europe to join forces with national governments and industry to decarbonise their existing building stock by 2050. BUILD UPON² will strengthen the local effectiveness and implementation of the national building renovation strategies required by the EU Energy Performance of Buildings Directive (EPBD).

www.worldgbc.org/build-upon ➔

BUILD UPON²'s Pilot Cities

- Velika Gorica, Croatia
- Budaörs, Hungary
- Dublin, Ireland
- Padova, Italy
- Rybnik, Poland
- Valladolid, Spain
- Eskişehir, Turkey
- Leeds, UK



Contents

A Tool to Deliver the Renovation Wave 5

BUILD UPON² and the Multi-Level Renovation Impact Framework 6

The Renovation Wave: How BUILD UPON² fits into the wider national and European policy context 8

Implementing the Framework..... 10

Benefits and Challenges..... 12

Workshops and stakeholder collaboration 16

Background 16

The BUILD UPON² Pilot Workshops 18

First workshops by country 20

Considerations and recommendations from the first Workshops 22

Next steps 24

Integrating the Framework with SECAPs 27

How BUILD UPON² can support SECAPs 28

Going digital 29

Work with us!..... 30

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A Tool to Deliver the Renovation Wave

The built environment has a crucial role to play in the journey towards Europe's ambitious 2050 goal of climate neutrality under the EU Green Deal. Buildings are responsible for 40% of energy consumption in the European Union. As 90% of the buildings that exist today will still stand in 30 years' time, renovation of the existing building stock is key to achieving the decarbonisation goals.

And yet Europe's buildings are not being renovated at the necessary rate and depth to realise these goals. With 75% of Europeans now living in cities, it is even more crucial for cities to fulfil their role in taking on Europe's building renovation challenge.

That is why the European Commission has prioritised the 'Renovation Wave' as one of the central pillars of the EU Green Deal. Under this 'wave', the European Commission has committed to at least double renovation rates and ensure that 35 million buildings across Europe are renovated by 2030.

It has become clear that for the high-level policy ambitions of the Renovation Wave to succeed, we must work from the local level upwards as well as vice versa. The BUILD UPON² Multi-Level Renovation Impact Framework (the Framework) is a tool that gives cities and local governments a strategy to monitor the impact of their renovation initiatives and the diverse benefits that they can bring. In doing so it is creating a more convincing business case for local renovation policy.

Through the project workshops with stakeholders, it is also addressing the issue of a siloed value chain by bringing representatives together from national and subnational government stakeholders and the private sector. The project is assembling a community of cities who can all benefit from each other's work on the Framework, while simultaneously drawing attention to renovation best-practice and helping cities establish where they have room for improvement in areas such as data management and staff capacity.

Ahead of the release of the final BUILD UPON² Framework in 2021, this report aims to give a flavour of what the Framework is, how it is being used and developed by cities involved in the project, and its potential going forward as we move beyond the scope of this initiative.



Stephen Richardson, Director,
WorldGBC Europe Regional Network

"Renovating Europe's existing buildings is key to building back better after the COVID-19 pandemic. As we approach COP26, BUILD UPON²'s Green Building Councils and partners are empowering cities to accelerate the Renovation Wave – decarbonising the built environment and tackling energy poverty."

Cristina Gamboa,
CEO, World Green Building Council



"Mobilising whole communities at district level to achieve a well-planned, integrated renovation of an entire area is powerful in achieving the objectives of the European Renovation Wave Strategy."

Adrian Joyce, Campaign Director, Renovate Europe -
BUILD UPON² Advisory Board Member



BUILD UPON² and the Multi-Level Renovation Impact Framework

BUILD UPON² is a project led by a group of eight Green Building Councils (GBCs) in WorldGBC's Europe network in partnership with Climate Alliance and Buildings Performance Institute Europe (BPIE). Via the project, cities across Europe are empowered to join forces with national governments and industry to develop strategies and solutions to decarbonise their existing building stock by 2050.

The main focus of the project is the development and piloting of a 'Multi-Level Renovation Impact Framework'. This Framework is being used to identify, track and report the diverse range of benefits of building renovation. It incorporates a cross-cutting list of milestones and progress indicators for city renovation strategies including: emissions reductions, increased employment, addressing energy poverty and improved health. It also defines a methodology for measuring these indicators so that data is collected in a standardised way.

By capturing data at a local level, the Framework helps increase awareness at local level about the wider benefits of building renovation, linking renovation to policy and decision-making processes at a national level, driving greater investment in city regeneration programmes, and allowing best-practice initiatives to be scaled up and used more widely. It aims to serve as a tool for cities in delivering the Energy Performance of Buildings Directive (EPBD) ensuring that local initiatives are aligned with national and European policies.

The Framework is being tested with eight Pilot Cities and discussed with 24 Follower Cities. The results of the testing phase will be used to update the Framework and create policy recommendations, ensuring that the Framework can be replicated across Europe and help local, regional and national authorities deliver on European energy efficiency goals.

The Renovation Wave: How BUILD UPON² fits into the wider national and European policy context

Under the 'Renovation Wave', the European Commission has committed to at least double renovation rates (to 2% annually) and ensure 35 million buildings across Europe are renovated by 2030. To deliver this, the European Commission is updating the Energy Performance of Buildings Directive (EPBD) and the Energy Efficiency Directive (EED) to ensure they are fit for purpose in delivering on the EU's climate goals.

The BUILD UPON² Framework can help deliver the Renovation Wave and the requirements of the EPBD by providing a tool to navigate the complex

landscape of programmes and projects. This tool will help policy makers at city, national and European level to identify renovation initiatives that have effectively demonstrated their impact, or that are starting to track impact in more sophisticated ways.

The Framework will also help policymakers with insight and data to support the introduction of many aspects of the renovation wave. In particular, the proposal for mandatory minimum energy performance standards will require data which the Framework provides.

The proposed 'neighbourhood-based approach' acknowledges the importance of establishing best-practice initiatives at the local level which can then be scaled up across the bloc.

Indeed, the lessons learned from this project are already helping inform WorldGBC's advocacy work on the Energy Efficiency Directive (EED) and the Energy Performance of Buildings Directive (EPBD). Based on findings and feedback from the various stages of the project, WorldGBC has expressed support for the introduction of minimum energy performance standards (MEPS) and for the deployment of Building Renovation Passports and Digital Building Logbooks, as well as access to private finance through the Renewed Sustainable Finance Strategy. The data and benchmarking provided by the Framework will be essential to making these policy goals a reality.

Via BUILD UPON², we are working with partners and regional Green Building Councils and governments at all levels to scale up local best-practice renovation initiatives, collecting essential impact data which will help inform future schemes across the continent.

Implementing the Framework

In this section we will look at some of the experiences of the eight Pilot Cities across Europe who have been trialling and developing the BUILD UPON² Framework. They are: Velika Gorica (Croatia), Budaörs (Hungary), Dublin (Ireland), Padova (Italy), Rybnik (Poland), Valladolid (Spain), Eskişehir (Turkey) and Leeds (UK).

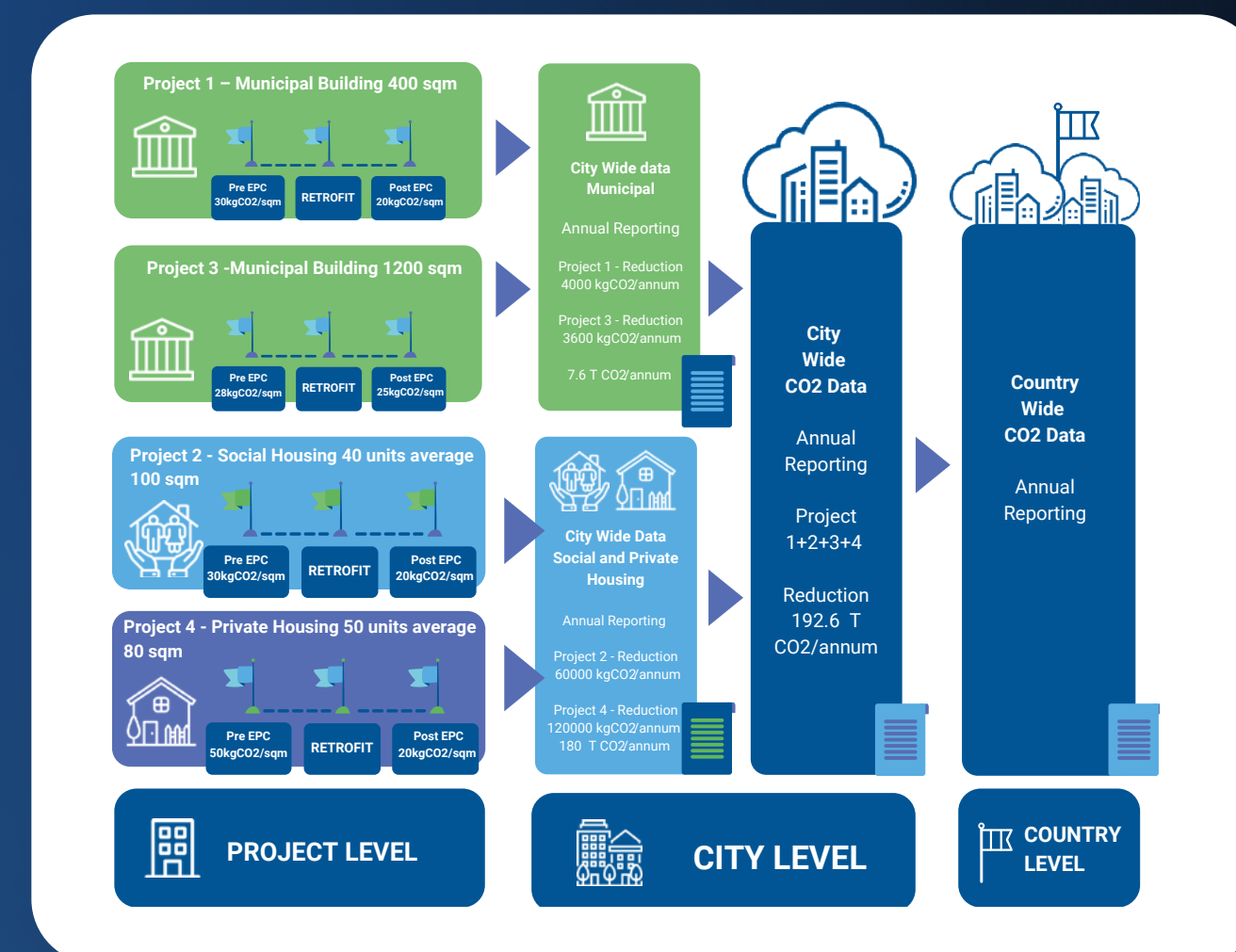
The BUILD UPON² Framework breaks down the holistic impacts of renovation initiatives into three key areas (environmental, social and economic). These are in turn broken down further into more specific

indicators, led by metrics which cities can use to guide renovation data collection. The Framework can be used by cities to input and track their data collection according to these indicators at the project and/or at the city level, with a standardised methodology for doing so. With building data collected in this more organised way, it is much easier for local authorities to establish the level of success of their renovation initiatives against established milestones.

	Indicator	Metric	Level	
			Project	City
Environmental	Env. 1 Energy Renovation Rate	%	✓	✓
	Env. 2 CO ₂ Emissions	tonne CO ₂ /year	✓	✓
	Env. 3 Energy Consumption	kWh/m ² /year	✓	✓
	Env. 4 Energy Consumption	kWh/year	✓	✓
Social & Wellbeing	Soc. 1 Energy Poverty	% households	✓	✓
	Soc. 2 Indoor Air Quality	#of residential units or non-residential floor area	✓	✓
	Soc. 3 Winter Thermal Comfort		✓	✓
	Soc. 4 Summer Thermal Comfort		✓	✓
Economic	Eco. 1 Investment in energy renovation	0	✓	✓
	Eco. 2 Energy Efficiency of Investment	€/kWh/m ²	✓	✓
	Eco. 3 Jobs in Energy Renovation	#FTE*	✓	✓
	Eco. 4 Upskilling in Energy Renovation	#Building professionals/construction workers	✓	✓
	Eco. 5 Financial Savings from Energy Renovation	€	✓	✓

*Full time equivalent

To find the data to satisfy the indicators, the Pilot Cities consulted a range of sources, including energy performance certificates, council records and anecdotal accounts from residents of the renovated buildings. See below for an example of how cities might source data to inform the environmental indicators on CO₂ emissions:



The cities are at varying stages of advancement with trialling the Framework – some such as Padova have been monitoring renovation progress for a number of months, while others, such as Leeds, are now gearing up to start implementing the Framework on active projects. Budaörs is evaluating the use of the framework on its own projects and intends to include mandatory data collection in its funding schemes to build up a city-wide database.

Initially, cities identify the indicators from the Framework that they are able to work with, before extending their usage to other indicators where data availability and resources will allow. Most cities have used, or are planning to use, the Framework first to track the renovation of public buildings, such as social housing, leisure centres, schools and municipal buildings for example.

Benefits and Challenges

Local governments in the Pilot Cities who have implemented the Framework so far, attested to its usefulness in the Framework in helping guide their teams to track and measure the diverse and less obvious impacts of renovation, and its potential in informing their environmental and social policies. In several cases, cities felt that the Framework incentivised local governments to increase the scope of their buildings data monitoring and create partnerships with different parts of the value chain to help them obtain this data.

Most of the cities plan to roll out the Framework on more renovation projects, particularly for those that involve publicly owned buildings, and at least one (Padova) is actively looking to integrate it into its Sustainable Energy and Climate Action Plan (SECAP - see p. 27-28). Guidance will be published later in 2021 on SECAP integration of the Framework for cities.

All the Pilot Cities, to different extents, have reported issues over the availability of the data for some indicators, as this data is not always collected in a systematic manner. It has become clear that to implement the Framework in the long-term, cities need to develop a data collection mechanism. This is particularly important considering that data is often scattered across different sources, such as local and national government levels, censuses and financial institutions, and yet often not integrated into a single data platform or with data collected from other sectors such as health and transport.

This data shortcoming was particularly considered to be an issue for private buildings that do not fall under the jurisdiction of local governments, who

therefore have no mandate to collect data. There were also cases where General Data Protection Regulation (GDPR) laws prevented access to data. Social indicators such as energy poverty (see p.15) were considered important overall, but several cities do not collect or hold data on energy poverty, sometimes due to a lack of a clear definition for the issue or because data is held at the national level.

Another problem that recurred in multiple cities was a lack of staff capacity to undertake the work required to obtain all the data to inform the Framework, particularly that which required qualitative assessment of factors such as 'thermal comfort'. This also extended to a shortage of dedicated staff who could facilitate centralising the data collection process.

Capturing this feedback is an ongoing process that will continue during 2021. This is particularly the case in the Pilot Cities who are just gearing up to use the Framework on renovation projects, such as Rybnik and Leeds. The addition of 24 Follower Cities who will shortly begin trialling the Framework (to be explored further in section 4) will give the BUILD UPON² consortium an even firmer concept of what is required for municipal governments to comprehensively track the impact of renovation on the local level.

The BUILD UPON² team spoke to Pilot City local governments to get a clearer understanding of the realities of implementing the Framework on the ground, both where it is proving useful and where challenges have arisen:



Velika Gorica: Gordana Mikulčić Krnjaja, Head of Urbanization and Environmental Protection Sector: "The ambitious and comprehensive energy renovation framework developed by the BUILD UPON² project, is a great incentive for local government units to increase the scope of monitoring the quality of renovation projects and create useful networks with key actors in attaining quality data."

Budaörs: Sándor Szabó, Project Coordinator, Mayor's Office, Municipality of Budaörs: "By using the framework, in addition to monitoring the technical, social and economic data of municipal building renovations, the local government will get a better picture of the achievements and progress of renovation in the private residential and commercial real estate portfolio. With the information thus available, city management can make better and more informed decisions in the field of sustainability and climate protection. In addition, it serves to strengthen relevant knowledge and expertise of the employees dealing with building renovation and energy efficiency. Also, it can lead to significant change in attitudes at the local level through appropriate communication and feedback from the residents."



Manuel Saravia Madrigal, Town Planning and Housing Councillor, Valladolid: "The main barriers are the lack of data and the scarcity of resources for this purpose. The most direct instruments for coping with these barriers and being able to adopt the Framework would be a municipal regulation requiring key data to be collected during the renovation permit from the council and, additionally, an annual technical assistance to compute all the data. Anticipated challenges are how to track minor renovation works not requiring a construction license and how to compare data collected using different methodologies."

Eskişehir: Hale Kargin Kaynak, Head of Social Services Department, Eskişehir Metropolitan Municipality: "Although the issue of deep energy renovation has not been brought to the agenda sufficiently in our country yet, Eskişehir is determined to be one of the leading cities in this regard. The biggest problems that may arise in implementing the Framework include the fact that the cities do not have a comprehensive authority to renew private building stocks and the lack of national definitions on some issues such as energy poverty."



Dublin: Ali Grehan, Dublin City Architect, Dublin City Council: "To date, the Framework has allowed us to raise awareness about the need for retrofit. Measuring and recording the impact of retrofit projects in a holistic manner will help us in better considering the multiple benefits of renovation and increase the rate of retrofit."

Adapting the Framework for local needs

The Framework is a flexible resource for cities. A municipality can, for example, begin by monitoring a limited number of core indicators before gradually expanding this over time. This phased expansion in the use of the Framework also applies to the categories of buildings in which a city is measuring renovation work, such as public, residential, private tertiary and social housing.

In addition to the core indicators used by all Pilot Cities, the project team also developed around 60 secondary 'non-core indicators' which were optional for the cities to include in their own Frameworks to track renovation. They fall under the same environmental, social and economic categories as the core indicators, but expand further the potential benefits of building renovation that can be measured by the Framework. This shows how

the Framework can be adapted and made highly flexible for local needs and future policy developments.

For example, Padova is in Italy where earthquakes regularly displace tens of thousands of people due to the destruction of homes, and 44% of the country lies in a 'high risk area'. As a result, the city has been trialling an indicator related to the earthquake resistance of renovated buildings. Eskişehir is also in a zone of high seismic activity and has expressed interest in using this indicator going forward.

Padova and Dublin are using non-core indicators related to climate resilience – where renovated buildings must be resistant to flooding and overheating. Dublin is also trialling an indicator related to how renovation can impact on levels of radon – a harmful gas which can cause cancer.

Energy Poverty

One indicator which has been repeatedly cited as an important topic for the Pilot Cities involved was energy poverty, and the extent to which renovation projects can help to address this social issue by making homes more energy efficient, healthier, and reduce fuel bills.

This is perhaps unsurprising given the scale of the problem – according to [figures cited by the European Commission](#) when it released the Renovation Wave action plan, nearly 34 million Europeans are unable to keep their homes heated.

The inclusion of the energy poverty indicator was repeatedly cited by cities as a useful element of the Framework, though there were issues around its definition on a national level and obtaining certain data sets to inform it.

For BUILD UPON², the broad definition of energy poverty used by the project and the Covenant of Mayors, derived from the Commission's Citizens' Energy Forum 2016 is: "a situation where a household or an individual is unable to afford basic energy services (heating, cooling, lighting, mobility and power) to guarantee a decent standard of living due to a combination of low income, high energy expenditure and low energy efficiency of their homes".

Padova is planning to incorporate the indicator on energy poverty into its revised Sustainable Energy and Climate Action Plan (SECAP), which will aim to establish policies to reduce this issue. Leeds considers energy poverty 'critical', though admits it is very difficult for the council to assess on a project level. Instead, the city will use city-wide modelling to understand how energy poverty is changing across the city on an annual basis.

In the case of Dublin, the Framework's indicator on measuring energy poverty led to methodological questions of how to define what energy poverty is in the first place, since there was no consensus on this. In Valladolid, the issue was considered important but the municipality felt that the multifaceted nature of energy poverty meant it is hard to address solely through the parameters of renovation.

In Eskişehir it was also concluded that there was no definition of energy poverty either, in this case on a national level, which caused a fundamental difficulty in measuring it. In Rybník, the indicator was considered to be 'extremely important', but the city determined it will require further work to determine for future projects.

Elsewhere, energy poverty measures have not been systematically monitored in Budaörs. The BUILD UPON² project connected the city's social departments with renovation tasks, however, and made sure that they will be involved in the future. The EU Energy Poverty Observatory's methodology will be implemented on the local level, monitoring the households with utility bill arrears and conducting bi-yearly qualitative surveys.

These unique insights from the BUILD UPON² Pilot Cities show how national policy issues - eg the definition of energy poverty - can impact and create barriers at the local level. Such feedback will be valuable for framing final policy recommendations from the project, which will be published in a separate public report following the completion of the BUILD UPON² project. The experiences of Pilot Cities here reinforces the [EU's previous guidance](#), which has highlighted the need for Member States to develop national definitions of energy poverty.

Workshops and stakeholder collaboration

Background

A key objective of the BUILD UPON² project is to break down the organisational barriers that can hinder smooth progress with renovation programmes. The project has identified that to optimise the implementation of the Framework, it is essential to achieve diverse stakeholder involvement from all parts of the value chain, as well as departmentally within local governments.

To facilitate this collaboration, the project has taken several steps to establish the capacity of the Pilot Cities to use the project Framework to track renovation and bring relevant stakeholders to the table.

Firstly, a year prior to the Pilot City workshops, BUILD UPON² organised a high impact conference in Brussels on the 3rd and 4th December 2019. The event gathered around 170 high-level stakeholders, including all the consortium members of the BUILD UPON² Project, most pilot and numerous Follower Cities, the Advisory Board members and National Steering Group members.

During both days of the conference there were multiple break out sessions, where the participants were organised into smaller groups allowing interactions and creating practical discussions. These sessions allowed for valuable feedback to be collected from the participants about the complexity of the Framework, the visuals, the core indicators and on the proposed milestones.

Concurrent to this, the project convened National Steering Groups, which brought together private and public sector stakeholders who assisted with the development of the Framework. In total, the project has gathered feedback on the Framework from more than 250 individuals across all GBCs involved in the project. This has included local and national governments, energy companies, financial institutions, NGOs, academia and more, and has provided crucial interdisciplinary viewpoints as well as between different levels of governance and policymakers.



The BUILD UPON² Pilot Workshops

The first Pilot City workshops formed the “entry into practice” of the BUILD UPON² project. Building on the theoretical work done in the first year of the project by the Consortium members and National Steering Groups, the Pilot City workshops tested this work in practice using the latest version of the Framework.

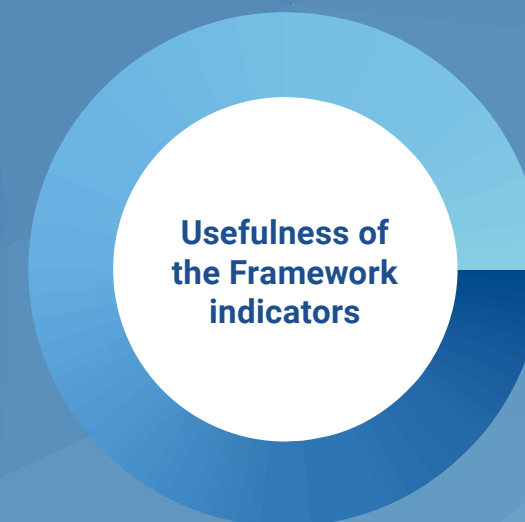
The first round of BUILD UPON² workshops took place between September and December 2020 in all eight Pilot Cities and were held in national languages with translation as necessary. Arranged either in person or as an online conference due to COVID-19, they brought together a wide range of stakeholders. This included representatives from national GBCs, cross-departmental municipal government workers, private consultants and university researchers.

The resulting discussions have helped to identify how the Framework will enable cities to build an evidence-based case for energy renovation, and from there, obtain the necessary personnel and financial resources to pursue the data collection. They also served as a forum to bring together different stakeholders involved in municipal renovation programmes to facilitate radical collaboration.

One of the findings from the workshops was that local, regional and national funding programmes for building renovation are increasing. So, when designing these programmes, there are opportunities to introduce mandatory data collection which could be a valuable data source.

The workshops also helped to identify barriers to implementing the Framework in some municipal administrative structures – a lack of data (also on private buildings), data scattered among different departments or held in other locations such as national authorities or bodies, lack of adequate communication, procedures and appropriate training, a shortage of staff and financial resources, as well as a lack of senior management awareness of and support for the Framework have all been examples of barriers cited.

During the workshops there were 4 main topics discussed and assessed:



First workshops by country



Considerations and recommendations from the 2020 Workshops

After analysing the Framework, a series of opportunities and challenges were discussed on the different workshops and a number of considerations were proposed as a basis for the revision of of the Framework in terms of data:

Aggregate indicators where possible or **reduce the number of core indicators** to 4 under each category – environmental, social and economic.

Consider alternative and/or equivalent methodologies and descriptions for several environmental, social and economic indicators, since in several cases they are hard to interpret and implement in some cities, such as that

of renovation depth, where distinction can be challenging.

Application of the Framework at city level versus initiative/project level. Participants proposed to start implementing the Framework on the city's own building stock and funding schemes initially, where data is easier to collect.

The Framework is considered useful to support policy making by all Pilot Cities, especially when it comes to focusing on data related to municipal buildings. This data is considered readily available and exemplary for the building community.

As the outcome of the discussions, the following four main recommendations were provided:

Provide flexibility for the cities in the adoption of the Framework. Rather than a strict set of indicators for cities, individual cities could, for example, focus on a subset of indicators to start with for which data is readily available. Local governments could alternatively decide whether the Framework was best implemented on the project or the city level.

1

Reassess requirements for data on private residential and tertiary buildings since all Pilot Cities are lacking the means to collect data on these building types. It is recommended to establish partnerships with regional or national administrative levels to provide cities with the necessary information for these building categories.

2

Reassess requirements for data on the city level. Leeds pointed out that collecting most of the data at city level would be cumbersome and of limited usefulness and be better carried out at the national level.

3

Utilise technical assistance to capture data in the long-term as well as **supporting legislation to make the collection of certain types of data mandatory.** These factors were considered useful support to facilitate the work of the municipalities. Sometimes there will also be a requirement for national governments to innovate to provide access to data.

4

There were also challenges raised by the majority of Pilot Cities in relation to a lack of staff resources to implement the Framework, as well a shortage of staff trained in data management at the city or project level. A lack of awareness from senior management for the Framework was cited as another recurring issue. To address some of these issues, it was suggested that local governments **designate a specific staff member or team** to take charge of implementing the Framework, as well as for city councils to **define their specific training needs** in data management.

While the meetings raised some key concerns about data availability,

access and staff requirements, the recommendations that have resulted from the workshops have proven invaluable to the BUILD UPON² team. They have provided bridge actions and a clearer steer on the form that a 'final', more refined version of the project Framework should take when it is published. These will be published in full in a separate project report led by Climate Alliance.

Bringing together actors across the public and private sectors and independent experts into these meetings demonstrated another co-benefit of the Framework - that it can convene different stakeholder groups to facilitate local renovation action.

Next steps

During the project, eight Pilot Cities have been involved in developing and refining the Multi-Level Renovation Impact Framework.

Cities across Europe can benefit from BUILD UPON² by gaining access to targeted capacity building and training material. The project has recruited 24 Follower Cities. Each Follower City will have the chance to learn in a tailored half day workshop and be provided with training materials, including worked examples from the 8 Pilot Cities, to enable them to introduce and roll out the Framework at local level. Access to all information and activities is free of charge to these cities.

The Follower Cities will benefit from the following opportunities:

- Be part of webinars to learn more about the concept of the project and their potential involvement in it as well as to provide information and updates on progress and experiences.
- Support the project by gathering information on barriers to renovation and capacity building needs that can inform implementation of the Framework.
- Receive tailored training material to be able to apply the Framework to their specific context.
- Closely collaborate and learn from the example of the Pilot Cities and Green Building Councils.

Further updates and information about the work with Follower Cities can be found on the project website.





Integrating the Framework with SECAPs

The BUILD UPON² consortium is exploring ways to integrate the Renovation Impact Framework with the Sustainable Energy and Climate Action Plans (SECAPs) that all Covenant of Mayors (CoM) - Europe signatories are required to produce. A SECAP sets out how a municipality will reach its commitments by 2030. So far, of the 10,500+ signatory cities, more than 5,600 SECAPS have been developed and the CoM estimates that these have already delivered an average CO₂-emission reduction of about 27%.

The SECAP is based on an emissions inventory and assessment of relevant climate risks. As such, the SECAP sets out a plan, initiates actions and assigns responsibilities to address climate mitigation and adaptation, as well as to secure, sustainable and affordable energy (energy poverty).

SECAPs tackle four key sectors. These are considered the main sectors in which local authorities can influence energy consumption and consequently reduce related CO₂ emissions.

- Municipal buildings, equipment/facilities
- Tertiary (non-municipal) buildings, equipment/facilities
- Residential buildings
- Transport (municipal fleet, public transport, private and commercial transport)

As a minimum, data for three out of the four key sectors must be reported in the Emission inventory. Optionally, data for additional sectors can be reported. The SECAP has additional requirements to take key actions and must include climate mitigation actions for at least two out of the key sectors. Minimum requirements for key actions are:

- 3 mitigation actions taken within 2 years,
- 3 adaptation actions taken within 4 years,
- 1 action addressing energy poverty taken within 4 years,
- Key actions are published on the Covenant of Mayors website.

How BUILD UPON² can support SECAPs

Members of the Consortium with expertise in the SECAP process have evaluated the potential opportunities for the Framework to support cities to implement and monitor the actions within their SECAPs.

The SECAP reporting requires that the methodology and the data sources are consistent through the years to evaluate the impact of the measures and the progress towards the goals. Integration of the BUILD UPON² Framework indicators would help guarantee such consistency as it establishes a methodology, in both collection and reporting of data, that can be used by any consultant.

Another area where the consortium identified opportunities to support the completion of SECAP reports is related to renewable energy technologies, as well as energy poverty. The Framework could help fill information gaps since it collects actual data (produced and used by the buildings), which is not always available from other sources.

To support the integration of the Framework indicators in the SECAP reporting and monitoring, the project is developing a dedicated guidance report.

This provides guidelines on how the CoM signatories can integrate the indicators provided by the project in their SECAP.

Both the emissions inventory and the timely results of the proposed actions need a well-defined set of indicators. The CoM methodology does not have a predetermined set of indicators; all documents contain indicative recommendations, therefore the BUILD UPON² indicators are highly beneficial for future SECAPs.

The CoM methodology calls attention to the fact – especially in the adaptation framework – that local authorities and Climate Change practitioners indicate the lack of a common and transparent approach to assess climate-related impacts. Using different methodologies can lead to different results. To reduce the possibility of data misrepresentation and to foster comparability among European cities, we need to standardise indicators and methods to assess climate impacts, vulnerability and risk.

BUILD UPON² aims to deliver that “standardisation” for the building renovation sub-sector of the SECAP.

Going digital

Throughout the workshops and interactions with cities participating in the project, one point of feedback has emerged as a common thread: the need for a digital version of the Framework.

Such a tool would make the Framework much easier to use and could facilitate better aggregation and analysis of the data captured.

This raises several key questions, which the consortium will now seek to address:

- Should such a tool be developed and managed centrally, at European level? Or would a decentralised series of tools managed either at national or local level be more flexible?
- Who should develop and manage such a tool and who would hold responsibility for the data and data protection?
- How can development and ongoing management of such a tool or tools be financed?

These questions will be addressed in the coming months as the consortium continues to engage cities and begins work on the BUILD UPON² business and dissemination plan, which is expected to be completed by November 2021. As part of this process, plans will also be developed for the next phase of the BUILD UPON journey... BUILD UPON³!

Work with us!

We are inviting all cities, states, regions and companies to work with us on solutions in the building and construction sector.

The BUILD UPON² project is welcoming cities to join our work on renovation strategies, and would love to hear more about impactful renovation initiatives you are running in your city - which we can put on the European stage.

The Pilot Cities we are working with are: Velika Gorica, Croatia - Budaörs, Hungary - Dublin, Ireland - Padova, Italy - Rybnik, Poland - Valladolid, Spain - Eskişehir, Turkey - Leeds, UK. And the project is expanding - [a further 24 follower cities are now joining the project from across Europe](#) ➔.

We are calling on leaders across the public and private sector to join the [Net Zero Carbon Buildings Commitment](#) ➔ ahead of COP26 - to really make Europe's renovation wave a reality.

Read more about the project and get in touch with the team via the links and details below.



Email europe@worldgbc.org

Web www.worldgbc.org/build-upon

Twitter [@WorldGBC_Europe](https://twitter.com/WorldGBC_Europe) [#BUILDUPON](https://twitter.com/BUILDUPON)



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