



S&D position on the Renovation Wave strategy: win win win for climate, jobs and better quality of living for all

Buildings play a key role in our societies and daily lives. Building stock has a big impact on the EU's climate goals as it is one of the largest consumers of energy. Buildings are responsible for 40% of energy consumption in the EU and contribute 36% of total emissions. The Renovation Wave strategy¹ must build on the European Green Deal and the European Pillar of Social Rights, contributing to ambitious climate and social goals, and building for a recovery that leaves no one behind.

COVID-19 has hit European economies hard. However as the climate crisis worsens, humans may become increasingly vulnerable to diseases and even to pandemics such as COVID-19. Therefore, it is important that we make the economy resilient to climate change and other crises, and ensure a future-proof, clean energy supply for all European citizens, particularly for the most vulnerable groups. The building renovation sector is one of the key areas in which we can boost climate ambitions and contribute to economic recovery, aiming for a highly energy-efficient and fully decarbonised building stock. Comprehensive renovations can help us improve energy efficiency, cut carbon emissions, reduce energy needs, increase resilience (including resilience to natural disasters²), improve quality of living and accessibility, and create local jobs. It is estimated that by increasing the renovation rate to 3% of the total building stock per year across the EU and renovating 210 million existing buildings, we could create up to 2 million jobs³.

The necessary environmental sustainability and liveability upgrades to housing stocks have to be made without increasing costs for low- and moderate-income households. Housing policy is part of the solution to addressing the affordability and climate crises, and should now be used as part of the pandemic recovery, because we need climate-neutral housing that is affordable and inclusive. No one should be left behind.

¹ [Renovation Wave COM\(2020\) 662](#) October 2020.

² Some parts of Europe are more exposed than others to climate change and natural disasters. This is not just in terms of seismic strengthening, but also floods, wildfires and storms, which can have severe repercussions on many of our regions and on people's lives.

³ Úrge-Vorsatz, D., Tirado-Herrero, S., Fegyverneky, S., Arena, D., Butcher, A. and Telegdy, A. (2010) [Employment Impacts of a Large-Scale Deep Building Energy Retrofit Programme in Hungary](#); Janssen, R. and Staniaszek, D. (2012) [How Many Jobs? A Survey of the Employment Effects of Investment in Energy Efficiency of Buildings](#) The Energy Efficiency Industrial Forum.

1. The Renovation Wave must support the objectives of the European Green Deal and Climate Law, and must contribute to the EU's ambitious climate targets by cutting buildings emissions. It must promote clean, smart and cost-efficient buildings to meet our 2050 climate target.

The EU is committed to developing a sustainable, competitive, secure and de-carbonised energy system by 2050. In order to meet these goals, Member States and investors need measures that aim to reach these long-term greenhouse-gas-emission goals and contribute to the de-carbonisation of the EU's building stock by 2050⁴.

Initially, the European Green Deal aimed to reduce emissions by 50-55% by 2030, but since then the S&D Group has achieved a great victory in the Climate Law, strengthening the 2030 climate target by increasing it to a 60% reduction of the GHG emissions by 2030 compared to 1990 levels.

In order to achieve carbon neutrality by 2050 and to strengthen these ambitious targets, it is necessary to revise some of the EU's energy-related legislation. For instance, the Energy Efficiency Directive⁵ is among those where the reassessment of the EU's energy-efficiency target for 2030 must be revised significantly upwards.

According to the latest estimations, the yearly renovation rates are very low, from 0.4% to 1.2% across the Member States. The Renovation Wave strategy recently launched by the European Commission currently recommends "at least doubling" the renovation rate, in spite of recommendations that it must be *tripled* if we are to meet the EU's climate targets. Clear measures and monitoring tools must be put in place to ensure that the yearly renovation rate hits 3%. This level of renovation would be mandatory for all non-residential buildings owned by public authorities.

At present, Member States are required to renovate 3% of the floor area of their central government buildings annually, although such buildings account for less than 5% of the public building stock. There is a much greater need to renovate government buildings at a regional and local level. Moreover, an extension of article 5 of the EED (2018/2002) to include all levels of public buildings would also bring about significant socio-economic returns in improving the indoor environment of schools, hospitals, nursing homes, social housing, sport and cultural facilities.

The Member States' long-term renovation strategies (LTRSs) are key to helping the EU achieve climate and energy-efficiency targets and to monitoring implementation progress at national levels. It is not acceptable that there are big delays from the Member States in submitting their LTRSs and in some cases a marked lack of ambition for bigger renovations. LTRSs should be recognised as a key tool for planning, measuring progress and achieving objectives on energy efficiency in buildings. The Commission needs to carefully assess the LTRSs and propose effective measures to ensure that all the Member States meet their targets. In order to meet different climate and geographical needs, it is important that these long-term renovation strategies are submitted on time and are ambitious enough to provide the right tools and information for their citizens.

As responsibility for renovation policy operates at different decision-making levels, regions and cities must be fully involved during all stages of programming, implementation and financing using

⁴ [Directive \(EU\) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency](#), recital 6.

⁵ [Energy Efficiency Directive \(EED 2018/2002\)](#) December 2018.

these resources. Local and regional authorities are often more ambitious than Member States in their climate-neutrality plans – the Covenant of Mayors is a case in point⁶.

2. The Renovation Wave must address the social dimensions of housing policy: tackling energy poverty and steep living costs, and bringing tangible benefits to European citizens such as improved living conditions and lower energy bills, and it must empower local communities to take an active role in renovations.

A home and good living conditions are essential for stability, health and quality of life. Today, over 50 million people are affected by energy poverty in the EU⁷, forced to choose between heating and eating. This has a serious effect on the health and wellbeing of people and we know that women and children are the most severely affected by it. While on the one hand energy-efficiency renovations have a positive impact on energy poverty, the costs of renovations are often too high for the most vulnerable households. Furthermore, the renovations may increase rent levels and force low- and middle-income families living in rented accommodation to move from their homes. Phenomena such as the gentrification of neighbourhoods and ‘renovictions’ driven by investment capital interests should be avoided, as it often results in less affordable housing for long-term residents. Member States should look at models that support cost neutrality so that rent increases are balanced by energy-savings.

To tackle unsustainable living costs and maintain the affordability of housing, we need to ensure adequate social policy measures and social housing in the Member States, as well as attractive renovation support schemes for building owners, so that they do not pass on the renovation costs in rent increases. Furthermore, it is necessary that electricity suppliers adopt protection schemes to guarantee the domestic energy supply of those most in need.

Thorough renovations usually come with high upfront costs for citizens and we call on the Commission to set up specific measures for Member States and local and regional authorities to ensure the right financing instruments and incentives are available for people to be able to carry out renovations. We need to ensure there is a broader set of fiscal and economic incentives that make renovations accessible and sustainable for all (for example through tax credit or loans at lowered interest rates) and that can be taken up at local level, in our cities and regions. Member States should improve the financing possibilities available, where applicable, using EU regional funds as guarantees and revolving funds, especially to help those most in need.

At the same time, building policies must be holistic, sustainable and inclusive. They should aim towards community planning, service planning in general, participatory planning and energy sector integration and should enable on-site and nearby renewables production and exchange, as well as demand-side flexibility. They must contribute to the continuous removal of national and European renovation barriers. In particular, we must address regulatory barriers, information and communication barriers and economic barriers.

Strengthening the Renovation Wave also means simplifying the administrative procedures for obtaining incentives and for certifying the energy efficiency of buildings before and after the renovation interventions.

⁶ The EU Covenant of Mayors for Climate and Energy brings together thousands of local governments voluntarily committed to implementing EU climate and energy objectives. More info: <https://www.covenantofmayors.eu/en/>.

⁷ Thomson, H. and Bouzarovski, S. - EU Energy Poverty Observatory (2018) [Addressing Energy Poverty in the European Union: State of Play and Action](#).

When considering large-scale renovations for certain local areas, the role of local communities is essential. In order to ensure the renovations are cost effective, we call for the development of practices that would encourage community-led renovations, grouped together as larger projects, covering whole neighbourhoods or blocks. Local ‘one-stop shop’ information points that can offer relevant information for new renovations (such as best practices, potential business models and access to financing) are therefore a crucial tool that can provide all the information and best practices available for citizens and local actors to learn and understand from a trusted source. A community approach in renovation processes will not only bring benefits in terms of the duration of renovations but also economically in boosting local jobs and services.

The renovation of whole districts, where public and residential buildings, street lighting, etc are all renovated simultaneously, should be made a priority, as it can offer additional synergies.

Furthermore, policy measures must prioritise the most energy-poor buildings in order to decrease energy poverty. Social housing should be at the front of the queue for energy-efficiency measures. Additionally, public buildings such as hospitals, schools and nurseries need to be prioritised in renovation policies.

Along with investment to decarbonise building stock, we also need to see investments to decarbonise the heating and cooling sector. Scrappage schemes, supported by energy labels, to accelerate the replacement of old heating and cooling devices can help people change to more efficient heating devices or to other more sustainable energy systems, while ensuring that no citizens or territories are left behind. In this regard, the Renovation Wave initiative will be closely linked to the Strategy for Energy Sector Integration⁸, helping to increase the penetration of renewables in heating and cooling systems in buildings and industrial plants, for example through solar panels, heat pumps and charging stations for electric vehicles.

The Renovation Wave communication announces an Affordable Housing Initiative, which will "pilot 100 lighthouse renovation districts in a smart neighbourhood approach and provide blueprints for replication, setting liveability and latest innovations at the forefront"⁹. This initiative is obviously very welcome but it needs to unfold quickly. While the implementation of the programme, its funding and accessibility for local project promoters remain to be fixed, the new Multi-annual Financial Framework, in particular the European Regional Development Fund (ERDF) and the European Social Fund + (ESF+), the Next Generation EU Recovery Plan, InvestEU and the Just Transition Fund provide the foundations to build a new phase of public investment to fix the housing crisis. The revision of the Stability and Growth Pact rules and a more sustainable European Semester process can also enhance the capacity of Member States and of local and regional governments to invest in affordable housing policies.

3. The Renovation Wave initiative needs to create effective financial instruments that rapidly attract investments to support the renovation sector and create new jobs. The employment opportunities are particularly important for the post-Covid economic recovery.

In order to remove economic barriers and incentivise investments to make buildings and local districts more energy efficient across the EU, the role of grants for research, innovation and

⁸ [Powering a climate-neutral economy: An EU Strategy for Energy System Integration COM\(2020\) 299 final](#). July 2020.

⁹ "It will mobilise cross-sectoral project partnerships linking them to local actors, including from the social economy, to promote efficient, circular and modular processes, social engagement models to empower residents, inclusive and accessible developments and cultural innovation." [Renovation Wave COM\(2020\) 662](#) October 2020.

demonstration programmes (eg for nearly-zero-energy buildings, smart homes and smart cities) are crucial.

Offering integrated renovation services carried out by entities such as energy agencies, local or regional authorities, energy service companies ('ESCO') and financial institutions to facilitate greater access to EU funding for building renovations can be encouraged through a single entry point such as a 'one-stop-shop'. This can be used to advocate for energy-focused refurbishments of buildings and to facilitate private investments in smart and sustainable financing.

The implementation of the future European Renovation Wave initiative must be supported by a technical assistance "facility" that is accessible to all regional and local authorities, for example by adopting a more robust, decentralised version of the ELENA (European Local Energy Assistance) initiative.

Furthermore, we call for increased use of financial practices and instruments such as green subsidies, tax and mortgages/loan incentives (eco loans) that take account of the positive impact of the energy-efficiency component of projects. Capacity building and projects pipeline preparation should be a priority to channel all types of funding. Available incentives should also consider the importance of avoiding retroactive policies, which can negatively affect issued incentives for energy-efficiency investments.

Linking property-transfer taxes as an 'on-tax financing' incentive¹⁰ to the energy performance of the buildings being sold could provide an important demand driver and financing mechanism for energy efficiency.

New buildings are already subject to minimum performance standards and, in some Member States, certain categories of existing buildings are also required to meet them. Such standards can ensure that the worst performing buildings are renovated prior to being sold or rented out to the new tenants. Some countries are already gradually phasing in energy requirements for certain kinds of buildings such as commercial properties, social housing and rental properties. This could be a way of ensuring fairer and healthier living conditions for the millions of European tenants that live in inadequate buildings.

Another similar incentive is 'on-bill financing', where the loan is repaid through the utility bill, with the energy savings covering the investment costs. The Energy Performance of Buildings Directive 2018/844 already provides a legal framework that could be reformed for these purposes.

Closing the gap between cost-optimal performance levels and minimum energy requirements can be achieved through various means, such as lower investment costs, higher energy prices, lower interest rates, higher shares of renewable energy, the inclusion of the increased value of property due to increased energy performance and the consideration of other co-benefits (energy security, employment creation, reduced air pollution, health, etc.)¹¹. Such models should be promoted by Member States and competent authorities.

In addition to gaining the necessary financial resources, relieving financial burdens and ensuring the stability of direct financial incentives dedicated to building renovations, it is necessary to dedicate funds exclusively for renovations. Ring-fencing parts of existing funds can contribute to

¹⁰ The money lent for investment in building improvements is repaid through property tax [Commission Recommendation \(EU\) 2019/786 of 8 May 2019 on building renovation \(notified under document C\(2019\) 3352\) \(Text with EEA relevance\)](#).

¹¹ Artola, I; Rademaekers, K., Williams, R., Yearwood, J. (2016) [Boosting Building Renovation: What potential and value for Europe?](#) Trinomics study for the ITRE committee.

policies dedicated to economic recovery and to climate targets as set out by the Climate Law and the European Green Deal. Moreover, the Renovation Wave initiative should create synergies between different pieces of climate and energy legislation. A striking example is the EU Emissions Trading System, the recent reforms of which increased the price for carbon allowances fourfold compared to 2017. As a result, the revenue received by EU Member States is also rising rapidly and is projected to total €165 billion over the next 10 years. Member States now have the opportunity to direct as much as €10 billion more to climate solutions per year.

According to the European Commission¹², renovating the EU's buildings to respect the EU's former climate objectives (a 40% reduction in greenhouse gases by 2030) will require investment of €185 billion per year. This amount is part "a total of at least €62 billion of investment needs per year" as assessed by the European Commission and reaffirmed by the European Parliament in its report of 13 November 2020 '*How to finance the Green Deal*'¹³. EU own resources should be increased so the EU has more money to fund key priorities like the Green Deal, including Renovation Wave. As underlined in this report, own resources like "a financial transaction tax (FTT), which, based on the original Commission proposal from 2012 and taking into account Brexit and economic growth, could raise up to €57 billion per year", could generate much-needed revenue for the EU budget.

The green transition has no chance of succeeding if the most vulnerable citizens are not on board. If people perceive this transition primarily as an extra cost for them, rather than an opportunity for a better life, they will oppose it and we will lose the climate battle. It is important that the financing of the Green Deal is equitable and socially just. If we want to triple the renovation rate, it will only work if made socially acceptable. Therefore, Member States and the EU should pay special attention to vulnerable groups, for example by providing low-interest loans and subsidies for vulnerable households.

Given the many benefits of building-renovation programmes and their need for funding, Member States have a rare opportunity to use these new carbon revenues to step up renovation rates, particularly for vulnerable households.

4. The Renovation Wave must guarantee equal opportunities for EU citizens and provide clear benefits for the workforce, including quality jobs, decent wages, safety standards and training opportunities.

The construction sector employs approximately 18 million workers, 95% of whom work in small and medium-sized enterprises (SMEs). Green and digital training opportunities for the workforce should be continuously strengthened to deliver the Renovation Wave initiative. Re-skilling and up-skilling are an aspect within employment and social objectives that can contribute to the economic recovery from the COVID-19 crisis, leading to a more sustainable, green, resilient and digital economy.

Targeted measures to support skills and employment strategies need to be incentivised, both for current students and the professional workforce with the right qualifications and recognised skills for the sector.

¹² [Identifying Europe's recovery needs](#), European Commission staff working document SWD(2020) 98 final, May 2020.

¹³ The Parliament "believes that the combination of the proposals in this report can raise the EUR 660 billion per year needed to win the battle for climate and jobs", [Sustainable Europe Investment Plan - How to finance the Green Deal](#) (2020), European Parliament report.

This is extremely important and has the potential to fill gaps in technological skills and digital skills that will be essential for future building innovations and to build on capacity and knowledge in Europe's cities. Besides policies on re-skilling and up-skilling of existing and new workers, we also need concrete policies to encourage people to enter this field of work, which will also demand new expertise and professional profiles in terms of skills in the workforce. Re-skilling and upskilling are also an important part of recovery plans under the Just Transition Fund (JTF).

It is advisable to promote the job opportunities the sector can offer for women more effectively - especially technical profiles. This action should go hand in hand with a broader strategy aiming at reducing the gender gap on STEM subjects.

It is essential to upgrade the skill base of construction workers and other workforces in building energetics (the way energy is used by buildings), energy-efficiency measures and working with renewable energy, through a sustainable training programme. However, in addition to such re-skilling programmes, the Commission should put forward suitable tools to train occupants and homeowners on energy-efficiency measures. We must emphasise the importance of proper examinations, assessment, installation, home maintenance and repeated evaluations in order to raise the demand for smart, efficient buildings and thus qualified and skilled workers. Therefore, the individuals, professional organisations, industries, training and educational institutions need to be empowered to build up the long-term sustainability and flexibility of developed training schemes.

Investing in buildings will inject a much-needed stimulus into the construction sector and will bring opportunities for companies in the sector. However, access to the economic benefits of these investments has to come with certain conditions for companies: the jobs created have to be quality jobs and, as far as possible, public investment should go to projects that can create stable, long-term jobs and decent wages, ensuring the quality of employment and securing the legal environment.

The EU Directive 2009/148/EC on Protecting Workers from Asbestos needs an urgent revision so that, among other things, it can lower the occupational exposure limit, strengthen training measures for workers, tighten the rules for companies and enhance medical monitoring.

5. The Renovation Wave must lead to significant improvements in maximising the energy efficiency of the buildings sector, in line with circular-economy principles and an optimised life-cycle approach.

The building sector has a significant impact on many segments of the economy, on local jobs and quality of life. Buildings consume nearly one third of energy demand and account for about one fourth of greenhouse-gas emissions globally. Today, only 11% of the EU existing building stock applies some circularity principles and contributes to the Sustainable Development Goals and the New Urban Agenda.

The construction sector is responsible for over 35% of the EU's total waste generation¹⁴. It is desirable to aim for an industrial redevelopment of the construction industry, which should be transformed into a renovation and maintenance industry to ensure that first we renovate, transform and maintain what already exists. However, this also entails the need for a different set of skills, as

¹⁴ Communication from the Commission to the European Parliament, the Council, the European Economic and Social committee and the Committee of the Regions on [A new Circular Economy Action Plan: For a cleaner and more competitive Europe](#), COM(2020) 98 final, March 2020.

well as different professional profiles, so it is another driver to further move towards the transformation of the construction sector. Furthermore, we expect that the Renovation Wave initiative will lead to a significant improvement in maximising the energy efficiency of building stock, to be implemented in line with circular-economy principles.

Thus, the Renovation Wave will also have an overall positive impact on SMEs, regardless of their sector, as maximising energy efficiency is one of the drivers helping them reduce their bills and, ultimately, their operational costs. This is why the opportunities of the Renovation Wave should be promoted among small and medium firms, bridging the “knowledge gap” many of them still suffer from. The Sustainability Advisors, as planned in the European SME Strategy, can play an important role.

When considering renovations, the energy and climate impact of the entire life-cycle of the building should be optimised. This should take into account the effects of manufacturing, use and designing for recyclability, as well as recycling of construction products and waste, and equipment needed for repairs. It should promote maintenance and construction products, both new and recycled, which do not contain hazardous substances. The possibilities for circularity in the future depend directly on how renovations are conducted, which materials are chosen and how they are assembled. The recycling of materials can have a positive impact on energy consumption, as manufacturing primary construction products normally requires more energy than using secondary ones. Member States must maximise the reuse, recycling, and recuperation of materials in their procurement strategies to greater facilitate reuse and recycling approaches in this area as well. Although something not explored in the EPBD, a whole-life carbon approach would help identify the overall best combined opportunities for reducing lifetime carbon emissions and would help avoid any unintended consequences. Ultimately, a low-carbon building is one that optimises the use of resources and thereby limits carbon emissions during construction and use, over its lifetime¹⁵.

The revision of the Construction Products Regulation (CPR) needs to ensure that data on the sustainability performance of construction products in CPR is aligned with the common European approach for life-cycle calculation and takes into account the requirements of the Ecodesign Directive and the Energy Labelling Regulation. These are effective tools for improving the energy efficiency of products, also covering the environmental performance of products such as household appliances. In this context the CPR needs to ensure that the design of all renovated buildings at all stages is in line with the circular economy and can greatly increase the digitalisation and climate-proofing of building stock, and increase the recyclability of construction waste.

In addition, public procurement criteria should be used to promote circularity and sustainability in renovations of public buildings. In this regard, local and regional authorities should be provided with capacity building and resources to ensure they can move swiftly towards circular procurements.

The potential of sustainable, renewable construction materials such as wood needs to be fully incorporated into renovation strategies without compromising buildings’ safety. Sustainable, bio-based materials can at their best transform the building sector into carbon sink/storage.

It should be highlighted that in terms of resource efficiency, renovations do not only affect energy efficiency itself but also potentially saving other resources such as water. Rationalising the use of water in buildings should be promoted and encouraged, minimising the unnecessary use of drinking water and recovering and recycling rainwater and waste water.

¹⁵ Text related to [Commission Recommendation \(EU\) 2019/786 on building renovation](#).

Special attention needs to be focused on hazardous waste, especially asbestos, that is removed from buildings during energy renovations. Asbestos is a highly dangerous and hazardous waste material that needs to be disposed of safely and transparently. Materials containing asbestos must be prevented in all circumstances from re-entering the economic cycle or being disposed of illegally.

Ultimately, the circular economy is about retaining resources and thus value, and should generate cost-efficiencies for long-term investments and citizens. With this in mind, it is important to create awareness among communities and work on a people-centred approach, especially where we need to generate tangible and direct benefits for residents¹⁶.

6. The Renovation Wave must facilitate smart digital solutions in the building environment that contribute to better-connected communities and enable new digital services for occupants.

The Digital Single Market and the Energy Union should be aligned and should serve common goals. The digitalisation of the energy system is quickly changing the energy landscape, from the integration of renewables to smart grids and smart-ready buildings. In the context of promoting and strengthening the use of digital tools, the durability and adaptability of buildings can be enhanced, while ensuring its optimal operation and the maintenance of building systems. Fostering renovation that favours the energy-system integration of renewables in buildings, such as installation of e-vehicle charging infrastructure, thermal storage and connection to smart grids, should also be considered. The EU data strategy can contribute to better collection and use of data on the energy performance of the EU building stock.

Along with investment in decarbonising building stock, investment in decarbonising the heating sector are required. It is essential to consider all available technologies to speed up the decarbonisation of the building stock. District heating and cooling with integrated storage plays an important role for more connected and integrated energy communities and the importance of decarbonised district heating and cooling should be highlighted in order to guarantee carbon-neutrality. Going further and including digitalisation to ensure demand response and a connection to energy grids permits buildings to play a fuller role in energy-system integration and the balancing of energy flows in our energy systems.

In order to digitalise the building sector, the EU's connectivity targets and ambitions for the deployment of high-capacity networks for communication infrastructure are also crucial to the readiness of smart buildings and smart cities, and for the application of smart technologies.

As an important part of buildings infrastructure, we welcome the requirements for the installation of a minimum number of recharging points for all non-residential buildings with more than twenty parking spaces by 1 January 2025 under EPBD Directive (2018/844). This is an effective way to promote the right infrastructure for e-mobility at EU level, which is crucial for the rapid deployment of e-mobility. Due to the upcoming revision of the EPBD Directive, we call for an ambitious framework to help to simplify and accelerate the deployment of recharging points in new and existing residential and non-residential buildings, and address possible regulatory barriers.

Additionally, smart digital solutions in the building environment contribute to better-connected communities and enable new digital services for occupants that provide more accurate information

¹⁶ The Drive 0 concept is based on developing circular deep renovation solutions and supporting consumer-centred business models. More information at: <https://www.drive0.eu/improving-circularity-in-the-construction-industry-together>.

about energy consumption patterns, as well as enabling the system operator to manage the grid more effectively. At the same time, it is crucial to take into account the need to evaluate the impact of advanced technological solutions, in particular IT, as social safeguards, data protection and consent are needed to guarantee the right to housing and consumer rights.

Taking into account the importance of smart grids as an enabler for the efficient integration of renewables into electricity grids, smart buildings connected to nano or micro grids can ensure improved stability of electrical supply and availability of heating/cooling systems. In this regard, renewable energy, distributed to the buildings using the gas infrastructure or the district heating systems, should be considered as a full alternative to on-site energy systems.

On the other hand, we welcome the aim of the Smart Readiness Indicator (SRI), which is already in the framework of the revised EPBD Directive 2018/844, to further promote smart buildings technologies. The SRI is a tool to rate the 'smart readiness' of buildings and raise awareness among building owners and occupants about the value of building automation controls (BACs) for the overall performance of buildings. It will therefore help to further encourage the design and construction of new buildings as nearly zero-energy buildings (NZEB) with an ambition to greatly boost the number of net-zero-energy districts by 2050.

Moreover, we would like to call for better collection and use of data on the energy performance of the building stock. There is a lack of data on energy-efficiency renovation projects in the EU – their cost-effectiveness, CO₂ savings and other benefits for the environment and life quality are still not provided – therefore we need to measure these aspects and establish a European database to exchange information and best practices. Digitalised data for both manufacturing and construction processes could considerably improve productivity during renovations at all stages. Furthermore, it is essential to digitalise national energy-performance-certificate databases, building data and other construction information to enrich the pool of accessible data available, for instance for the digital building passport and other smart-building applications. A process of harmonisation of energy-certification procedures should begin at EU level and introduce advanced and high-precision calculation tools. In addition, standardised guidelines should be provided to ensure correct installation, use and maintenance procedures.

7. The Renovation Wave must foster a healthy indoor environment, reducing damp and mould, removing asbestos-based materials and promoting decent living conditions.

According to the World Health Organisation (WHO), people spend approximately 90% of their time indoors in residential and non-residential buildings, and over half a million Europeans die prematurely every year because of poor indoor air quality and indoor climate¹⁷. Mould is dangerous, but many people live in damp and poorly ventilated apartments and houses. Thus, poor indoor air quality increases the burden for the healthcare systems of the member states.

Building renovation projects should always lead to healthy, mould-free buildings and should take into account indoor environmental quality. Therefore, the Commission needs to propose a set of guidelines for healthy indoor environment quality indicators. It is important to ensure that measures to improve the energy performance of buildings do not focus only on the building envelope, but include all relevant elements and technical systems in a building. These can include passive elements that participate in passive techniques aiming to reduce energy needs for heating or cooling, and energy use for lighting and ventilation, hence improving thermal and visual comfort.

¹⁷ The WHO has a website dedicated to information and data on [household air pollution](#).

At the same time, the Renovation Wave should also address the issue of building safety, in particular fire safety and the risks related to intense seismic activity. The materials chosen and how they are assembled is crucial for the success of these important goals.

The Energy Performance of Buildings Directive 2018/844 already mentions nature-based solutions, such as well-planned street vegetation, green roofs and walls providing buildings with insulation and shade to help reduce energy demands by limiting the need for heating and cooling, and improving a building's energy performance. In the EPBD revision this needs to be further strengthened.

The Renovation Wave must go hand in hand with a comprehensive European strategy for the removal of all asbestos from the built environment. Millions of tons of deadly asbestos fibres are still present in buildings constructed before national asbestos bans and the final EU ban in 2005. Concrete walls, floors, ceilings, roofs, pipes, insulation, paint and other materials may contain highly dangerous asbestos fibres. We must protect workers, inhabitants and users of buildings now and prevent a new wave of asbestos victims in the course of energy-efficiency renovations.

8. The Renovation Wave and the New European Bauhaus: a new opportunity.

The "New European Bauhaus" initiative was officially launched on 14 October 2020. In the words of Commission President Ursula Von der Leyen, "the New European Bauhaus movement is intended to be a bridge between the world of science and technology, and the world of art and culture".

The original Bauhaus was founded in 1919 by the architect Walter Gropius in Weimar and was a forerunner of the Modern Movement in architecture¹⁸. If we integrate innovation in quality design and urgent environmental reflection into the Renovation Wave, we can ensure that the reinterpreted Bauhaus of the 21st century can ideally complete this strategy. This reinterpreted Bauhaus will form a framework of analysis, experimentation, innovation and debate that is very necessary as a preliminary phase to this constructive renovation. The initiative can create opportunities for the exchange of best practices and scientific development between related sectors. The New European Bauhaus needs to be initiative for all and social aspects of housing must be part of the initiative. It is a timely opportunity to harness the quality, innovation and creativity of our architects, engineers and designers.

Moreover, this strategy will help the labour market to take on the valuable specialised human resources in this sector, made up of both experienced professionals and young designers, architects, engineers, urban planners and artists.

To achieve the goals of this initiative, the New European Bauhaus should be given dedicated financial incentives to support the development of such creative innovation in the Member States. Additional financing through the Horizon Europe programme should also be considered, given the R&D&I nature of the New European Bauhaus initiative.

¹⁸ Its appearance, in the heart of Europe, was a response to the desire for artistic and educational renewal in the progressive field. In short, a radical renewal of architecture and design that spread by improving objects, spaces, buildings and cities, representing a real change in the cultural paradigm.

9. The Renovation Wave needs to promote comfortable, healthy and sustainable living environments by integrating green spaces and ensuring sustainability criteria are integrated in urban planning and building architecture.

Green spaces, trees, plants and parks are an important part of a comfortable and healthy living environment. It has been demonstrated that besides cleaning the air, green spaces can improve mental health and even decrease depression and relieve stress. Green spaces also affect the comfort of the built environment by reducing the heat-island effect and enhancing the resilience of the urban environment. Green spaces, parks, plants and public art should not just be reserved for city centres but must be part of urban planning for suburbs and local neighbourhoods.

Cities are under pressure as the population is growing due to urbanisation, and resources such as building land are limited. There is also the growing impact of climate change. It is vital to emphasise the role that green spaces play in creating a healthy and comfortable living environment, especially for urban planning. Green public spaces, parks and playgrounds offer equal opportunities for citizens to enjoy nature, active lifestyles and a sustainable living environment. Cities must become greener and better connected with nature.

This renovation must go beyond the European building stock, public and private buildings, and must also make the leap into the renovation of public spaces, since it is also possible to apply sustainability criteria to designing outdoor space, making cities more respectful of the environment.

We should emphasise the need for greening infrastructure, applying nature-based solutions in urban areas and developing urban greening plans, which cities with more than 20,000 inhabitants now need to prepare in accordance with the EU Biodiversity Strategy for 2030.

Many of the buildings constructed last century are not completely up to date regarding the digital and ecological transition. On one hand, the Renovation Wave should support the renewal of common facilities in line with the ecological and digital transition, supporting sustainable and electric mobility, waste recycling, quality design and similar initiatives. On the other hand, domestic and living spaces must also be adapted to our new needs, an issue that the pandemic has highlighted starkly.

10. The Renovation Wave must take into account the EU's ageing population and the needs of persons with reduced mobility.

Across the EU millions of people with reduced mobility, such as the elderly or people with disabilities, face difficulties in terms of physical access to housing. A person with reduced mobility living in a multi-storey building without elevators or ramps is practically a prisoner in their own home.

The removal of barriers to accessibility is an obligation for the EU and all member states as parties to the UN Convention on the Rights of Persons with Disabilities¹⁹. However, there are currently no harmonised rules for the construction of new buildings or the reconstruction of existing buildings in the context of accessibility. It is essential that new renovations take a whole-building design approach that requires a balanced and integrated consideration of all the design objectives, including accessibility.

¹⁹ The EU and the member states are signatories to the [UN Convention on the Rights of Persons with Disabilities](#). Articles 9 and 28 of the Convention deal with accessibility and adequate standards of living.

In the run up to the Renovation Wave communication, the Commission opened a public consultation and 26% of all feedback called for improvements in the usability of buildings (including accessibility for persons with disabilities and elderly people)²⁰. The Communication itself emphasises the important role of renovation for accessibility²¹.

The Renovation Wave is a great opportunity to tackle accessibility as part of social and economic sustainability. Internal and external accessibility and mobility solutions, such as the installation of ramps and elevators, must be eligible for financing and support through the Renovation Wave.

Buildings that are currently being renovated should also take into account accessibility, to avoid having to retro-fit buildings again later, to ensure that all buildings are future-proof and inclusive and to avoid wasting resources in the future.

Summary of S&D demands

<p>Renovation policies must contribute to ambitious climate targets and Green Deal objectives.</p>	<p>The renovation rate must be <i>tripled</i> if we are to meet the EU’s climate targets. Clear measures and monitoring tools must be put in place to ensure that the yearly renovation rate hits 3%. The energy-efficiency target for 2030 needs to be revised significantly upwards.</p>
<p>Renovation policies must address the social dimension, paying special attention to employment quality and building for the recovery so that no one is left behind.</p>	<p>Jobs created have to be quality jobs and, as far as possible, public investment should go into projects that can create stable, long-term jobs and decent wages, ensuring good-quality employment and securing the legal environment.</p>
<p>Building policies must be holistic, sustainable and inclusive.</p>	<p>In particular, we must address regulatory barriers, information and communication barriers, and economic barriers, especially the issue of high up-front capital investment that can discourage citizens from deciding to undertake deep or multi-stage deep renovations.</p>
<p>Tackling energy poverty must be a cross-cutting aim in all renovation strategies</p>	<p>Energy-efficient and healthy housing cannot be the privilege of the few – policy measures at all levels need to address the issue of energy poverty.</p>

²⁰ https://ec.europa.eu/energy/sites/ener/files/stakeholder_consultation_on_the_renovation_wave_initiative.pdf

²¹ In the key principles for building renovation towards 2030 and 2050 (chapter 2.), the communication states that accessibility “*should be ensured to achieve equal access for Europe’s population, including persons with disabilities and senior citizens*”. Furthermore, in the chapter on the neighbourhood-based approach (chapter 3.6.), the communication says that “*a district-based approach can allow improving old dwellings with reduced accessibility and mobility services*”. [Renovation Wave COM\(2020\) 662](#) October 2020.

<p>Policy measures must prioritise the most energy-poor buildings in order to reduce energy poverty.</p>	<p>Social housing should be at the front of the queue for energy-efficiency measures. Additionally, public buildings such as hospitals, schools and nurseries need to be prioritised in renovation policies.</p>
<p>The affordability of housing needs to be supported through effective policy measures and cost-efficient renovations led by communities.</p>	<p>The renovations must not increase the cost of housing leading to tenants being obliged to leave their apartments. This must be reinforced with policy measures such as social housing and financial support schemes, which need to effectively ensure affordability for all.</p> <p>There is a need for community-led renovations that are implemented as bigger projects in order to promote cost-effectiveness.</p>
<p>Minimum requirements for energy use/labelling /performance of existing buildings</p>	<p>Such standards can ensure that the worst performing buildings are renovated prior to being sold or rented out to the new tenants.</p> <p>At the same time, this could be a way of ensuring fairer and healthier living conditions for the millions of European tenants who live in inadequate buildings.</p>
<p>Dedicated funding exclusively for renovations.</p>	<p>The overall creation of ring-fenced parts of existing funds can contribute to policies dedicated to economic and social recovery and to climate targets as set out by the Climate Law and European Green Deal.</p>
<p>Guaranteeing equal opportunities for EU citizens and providing clear benefits for the professional workforce with the right qualifications and recognised skills for the sector.</p>	<p>Green and digital skills for the workforce should be continuously strengthened. As well as policies on re-skilling and up-skilling existing and new workers, we also need concrete policies on incentivising people to enter this field of work.</p>
<p>The most vulnerable should benefit the most.</p>	<p>Public funds must be targeted at the most deprived, improving their accommodation and social neighbourhoods, and building new and green social housing.</p>
<p>Low-carbon building in line with circular-economy principles.</p>	<p>We call for a greater focus on low-carbon building (in line with circular-economy principles), which has not yet been explored in the Energy Performance of Buildings Directive and would optimise the use of resources and thereby limit carbon emissions during construction and use, over its whole lifetime.</p>

<p>The Renovation Wave should recognise the potential of the existing European housing stock and wider built environment to become a ‘new’ carbon sink.</p>	<p>Wherever possible and appropriate, sustainable, renewable construction materials such as wood should be used in renovations, with the specific intention of increasing Europe’s carbon sink. The Commission should instigate independent academic research into the potential size of this sink, the appropriate renewable products to use and their overall sustainability.</p>
<p>The Renovation Wave must facilitate smart digital solutions in the building environment that contribute to better-connected communities and enable new digital services for occupants.</p>	<p>District heating and cooling with integrated storage plays an important role for more connected and integrated energy communities.</p> <p>Including digitalisation to ensure demand response and a connection to energy grids permits buildings to play a fuller role in energy-system integration and the balancing of energy flows in our energy systems.</p>
<p>High-capacity networks for communication infrastructure.</p>	<p>High-capacity networks are crucial for smart buildings and smart cities, and for the application of smart technologies such as building-renovation passports, smart-readiness indicators (SRI) and others.</p>
<p>A European database to exchange information and best practices.</p>	<p>As digitalised data for both manufacturing and construction processes should considerably improve productivity during renovations at all stages, it is essential to digitalise national energy-performance-certificate databases, building data and other construction information.</p> <p>To facilitate this, common guidelines on how to generate and format the data should be adopted, for example through the establishment of data set comparability norms, based on the accepted European indicators of energy poverty, to enable monitoring.</p>
<p>Towards healthy, mould-free buildings that ensure high indoor environmental quality.</p>	<p>The S&Ds call for healthy indoor environment indicator guidelines, taking into account passive elements that participate in passive techniques aiming to reduce the energy needs for heating or cooling, and energy use for lighting and ventilation, hence improving thermal and visual comfort.</p>
<p>Green spaces and sustainable urban planning to promote a comfortable and healthy living environment.</p>	<p>Green public spaces, parks and playgrounds offer equal opportunities for citizens to enjoy nature, active lifestyles and a sustainable living environment.</p>

	<p>By including sustainability criteria in urban planning, we can improve the environment and our cities, improving their impact on the climate and their habitability for citizens.</p>
<p>The Renovation Wave and New European Bauhaus initiatives must be joined and coordinated.</p>	<p>The New European Bauhaus initiative will support constructive renovation with analysis, experimentation, innovation and debate.</p>
<p>The Renovation Wave must take into account the EU's ageing population and the needs of persons with reduced mobility</p>	<p>Renovation should improve quality of life for people with disabilities by increasing the overall accessibility of buildings for people with physical disabilities and by providing clear and universal signs, especially in public buildings, for people with intellectual disabilities.</p>