HEALTHY BUILDINGS, HEALTHY PEOPLE

SPECIAL REPORT | 29 MAY - 2 JUNE 2017
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One in six Europeans – equivalent to the entire population of Germany – live in a damp or mouldy building, which increases their chances of getting illnesses such as asthma, according to a new study.

Europeans living in an “unhealthy” building – with a leaking roof, walls or foundations – are significantly more likely to report poor health, according to the 2017 edition of the Healthy Homes Barometer, to be unveiled on Wednesday (31 May).

People living in unhealthy buildings are also more likely to suffer from asthma, found the report, which will be officially published on Healthy Buildings Day in the European Parliament.

Unhealthy buildings are not just a matter of concern for poor people unlucky enough to live in damp or mouldy houses. It is also a public health concern, which is weighing heavily on the European economy.

The study looked at the overall health costs associated with asthma and chronic obstructive pulmonary disease, including public health costs and sick days where employees fail to show up at work.

The total cost of asthma in Europe is estimated at €17.7 billion per year, with productivity losses alone making up €9.8 billion, according to the World Health Organisation (WHO).

EU COMMISSION SEES “ALARMING” TREND

The healthy homes barometer is published every year by Velux, a Danish company that specialises in roof windows and skylights. It was produced by consultancy firm Ecofys, German public research firm Fraunhofer, and Copenhagen

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Economics, a consultancy.

“It is alarming to read that one out of six Europeans reports living in an unhealthy building,” said Vice-President for the Energy Union, Commissioner Maroš Šefčovič.

“The Barometer also shows that improvement of the building stock through renovation can have a major impact on our health and well-being, and it offers solutions to some of our most important societal and climate issues,” Šefčovič stated.

Air pollution is a major cause of health problems linked to fossil fuel combustion, according to the International Energy Agency (IEA). The WHO estimates that indoor and outdoor air pollution causes around 7 million deaths each year.

But there is also growing awareness about the poor quality of indoor air, which can be exacerbated by bad heating and insulation. Ensuring homes – but also factories and offices – are properly ventilated is seen as key to tackling health risks linked to indoor air pollution.

“Buildings with a good indoor environment can reduce healthcare costs and are a way to tackle energy poverty,” Šefčovič said, adding this was recognised in the Commission’s proposal for a revision of the Energy Performance of Buildings Directive.

“This further reaffirms the importance of tackling energy poverty through building renovations,” Šefčovič added.

Not all countries are affected in the same way, however.

46.5% of people in Bulgaria are unable to keep their homes adequately warm in winter, while rates in northern countries are much lower – only 4.2% in Estonia, 2.6% in Denmark and 1.4% in Sweden, according to Eurostat.

40% of Polish homes have no insulation whatsoever, said Pelle Perdersen, of the Danish pension fund PKA, which is helping to run a housing renovation programme in Denmark. And a large number of Polish homes are using low-quality waste coal for heating their homes, which makes indoor air pollution worse.

“So the health factor there is a huge issue,” Pedersen told EURACTIV.com, saying energy efficiency “is becoming recognised as the solution for much bigger issues”.

**BARRIERS TO RENOVATION**

The renovation rate in Europe is still desperately low, however, languishing at around 1% per year.

This means it would take a century to decarbonise the entire European building stock when in reality, a tripling of the renovation rate is necessary for the EU to meet its objective of cutting CO2 emissions 80% by 2050.

Vice-President Šefčovič said he was conscious that “barriers to renovation do exist”, citing financial constraints faced by homeowners and a lack of incentives to renovate.

He underlined the need to unleash private finance to boost the renovation rate.

In Denmark, PKA has helped put together a one-stop-shop where homeowners can secure funding and meet the whole range of contractors to perform the actual renovation works on the ground.

These are exactly the kinds of schemes the Commission would like to see scale up and expand across Europe. As part of its smart finance for smart buildings initiative, the EU executive wants to encourage national platforms where money can meet projects and where technical assistance is provided to help homeowners arrange renovation works.

“We haven’t really seen these types of solutions move at scale and that’s what we’re trying to do now,” Pedersen said. “Of course, we’re looking at Denmark, but down the road, we could potentially consider broadening the scope to also include the rest of Europe.”

And the room for improvement is huge. “If you just look at the existing building stock in Europe, it’s estimated that between 75 and 90% will still be up and running by 2050, so there’s tremendous potential,” Pedersen added.

Down the line, the health benefits could be handsome. “If just 2% of European homes were renovated with an emphasis on health every year, by 2050 we could halve the number of Europeans who live in a damp and unhealthy home,” said Michael Rasmussen, SVP of Brand at the Velux Group.
INTERVIEW

MEPs:

Building renovation ‘isn’t sexy but it’s bloody important!’

Renovating Europe’s building stock isn’t just critical for meeting EU climate and energy savings targets – it will dramatically improve living conditions and health while boosting the overall economy, according to the three MEPs leading the European Parliament’s work on the Energy performance of buildings directive.

Bendt Bendtsen is a Danish conservative MEP (EPP) and the rapporteur for the Energy performance of buildings directive in the European Parliament. Morten Helveg Petersen (ALDE, Denmark) and Florent Marcellesi (Greens/EFA, Spain) are shadow rapporteurs.

They spoke to EURACTIV’s Eric Drosin.

If energy efficiency is such low-hanging fruit, why hasn’t it been plucked yet?

[Bendtsen]: Many people and politicians in particular have made a connection between energy efficiency and lower production. But this doesn’t have to be correct: it’s about smarter production, not lower levels of production.

[Petersen]: This is a key question! Energy efficiency seems to solve so much simultaneously and is obviously the thing to do... and yet: there’s resistance in member states despite the fact it stimulates the economy and creates jobs and benefits. We need ambitious policies and targets to push this issue. Currently, energy efficiency is not high enough on the agenda and there’s too much focus on spending and costs, and not enough on how it can benefit the economy, create jobs and help us meet our climate goals.

[Marcellesi]: There are actually quite some success stories on energy

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efficiency policies in Europe, including national programmes under the Energy Efficiency Directive. In quite some member states well-designed energy efficiency programmes have delivered very good results, especially in the building sector.

Existing barriers are not necessarily economic barriers. Bendtsen has shared his experience with us, where it was key to mobilise all stakeholders from investors to construction industry, from policy to civil society, from house owners to mortgage federations, in order to achieve a common vision, a societal consensus to create the necessary platform to make large scale building renovations happen.

What specific factors have prevented EU member states from taking decisive action on energy efficiency? How has this impacted the stakeholders concerned (industry; civil society; policy-makers)?

[Petersen]: Overall, buildings consume so much energy that it’s unavoidable to have policies for them. We have to address the building issue; it’s not sexy but it’s bloody important! member states may be sceptical on this, which is why we need to push.

[Marcellesi]: Let’s make first the link between healthy people and energy efficiency. Due to energy poverty, in Spain alone more than 3.3 million households cannot keep their home at an adequate comfort level in winter and about 4.5 million have problems with overheated homes in summer.

According to a WHO report, the elderly especially suffer from early mortality in poorly insulated homes, a phenomenon reinforced by heat waves. If buildings were better insulated and hence had a higher energy performance, people would be able to keep adequate temperature levels in their homes and would also spent less money on heating and cooling costs, therefore being lifted out of energy poverty.

What is the link between healthy buildings and the quest for energy efficiency?

Why are healthy buildings important to the EU and its citizens? What benefits can they deliver?

[Marcellesi]: Financial actors keep telling us, that there is not a lack of private money . We want private funding working to help deliver energy efficiency. Pension funds are a perfect example. Private money alone can’t solve the problem. We need long-term security for investment, hence the need for a clear political priority of energy efficiency to activate the private money.

[Marcellesi]: In healthy buildings, adequate ventilation and lightening will give healthier indoor climates for people; and what makes them healthier also makes them more productive! And this includes productivity in schools too.

[Petersen]: It was new to me that so many health issues were related to indoor air quality. I hadn’t realised that indoor health has such implications on productivity and well-being. Again, this is why being ambitious with our policies and our targets is so important and necessary.

Air quality in general is also an important point: In a large number of member states, heating with solid fuels such as coal or wood is still widespread, leading to the release of a high number of emission pollutants. Finally, we cannot forget that healthy buildings include also that they are build from healthy, sustainable, durable, repairable and recyclable materials, that are safe and for the people.

What do you see as priorities in creating healthy buildings? How will this be financed?

[Bendtsen]: The problem is that public money alone can’t solve the problem. We need long-term security for investment, hence the need for a clear political priority of energy efficiency to activate the private money.
financial resources or instruments to trigger the necessary renovations of our homes. Ambition and long-term strategy are key. An investment in buildings makes sense, as it brings down energy bills, increases energy security through reduced imports, fights fuel poverty, creates local green jobs, increases the competitiveness of our industry, increases comfort levels in houses with the associated health benefits and contributes to achieve our climate targets.

In our renovations, we have to take a holistic, integrated approach. For healthy buildings, all factors such as insulation, replacement of windows, ventilation, as well as the interaction of the building in its neighbourhood (the energy system, the mobility system, etc.) must be seen together. That is why we favour the approach of deep, or staged deep renovations, which apply this approach.

**EU energy ministers appear to be diluting energy efficiency targets, following an informal energy council meeting in Malta in May. What is your response?**

[Bendtsen]: When I hear about what’s coming out from member state meetings it’s clear there’s an attempt to water things down! The current draft of the EPBD from our side in Parliament will ensure lower energy bills and healthier buildings. It will also create more blue- and white-collar jobs.

We have to deliver with the EPBD, as buildings play such a big role. It’s not just a public investment: we have to make the private business case too. The EPBD draft makes things more concrete to stimulate more long-term renovation rates using clear milestones. It also acknowledges the differences between member states, given what works in one country may not be adapted to another.

[Petersen]: I’m really saddened to hear this, particularly when we see certain member states invoking the subsidiarity argument to avoid taking action. Any weakening of EU energy efficiency targets really does make me sad given they feed into the Paris Agreement and EU goals. This is why we need ambitious targets and policies on energy efficiency in place. The opportunities are big, the benefits are big and there is potential to create millions of jobs.

[Marcellesi]: It seems that even though the Malta presidency had indeed gone far on diluting targets to accommodate requests from some member states, the meeting ended without conclusions, as other countries want to show more ambition.

The level of ambition is not sufficient. A 30% energy efficiency target means business as usual, 40% means reaping cost effective potential and associated benefits on job creation, energy poverty and health. It actually triggers the necessary investments. If we shy away from ambition, we slow down the development on investments, and we put several sectors and associated jobs at risk, leave our citizens in energy poverty situations empty-handed and don’t live up to the commitments we have taken in Paris.
Building renovation can provide new momentum to the European project

Politicians often ignore building renovation programmes as low-level politics reserved for energy experts. This is misguided, says Oliver Rapf – as renovation stands at the crux of economic, energy, social and even health policies.

Oliver Rapf is Executive Director of the Buildings Performance Institute Europe (BPIE).

Our buildings are – to a large degree – no longer fit for purpose. 75% of the EU building stock is considered inefficient. Recent data from the European Building Stock Observatory shows that an average of 16% of buildings (ranging to over 30% in some countries) do not provide adequate indoor quality, resulting in high social, economic and environmental costs.

It is high time to make our buildings fit for purpose, and in the process, create local jobs, generate economic growth and reduce fossil fuel dependency.

Without doubt, we need to address this issue urgently, and the ongoing political negotiations on the Clean energy for all Europeans package over the coming months are the once-in-a-decade opportunity to define a framework which creates both clear regulation and a system of incentives to drive deep renovation.

The multiple benefits of renovation are well known: deep renovation leads to energy security, employment creation, reduced air pollution and poverty alleviation, as well as improved health, comfort and productivity.

But the momentum to renovate our buildings is far too sluggish, because the well-documented barriers are not really tackled, and the proposed revision of the Energy Performance of Buildings Directive (EPBD), as currently drafted, will

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miss the opportunity to change this. Renovation investments should be encouraged at so-called trigger points.

These are events in the life of a building which make it more convenient for owners and tenants to renovate, more cost-effective for investors (who may or may not be the occupant), and more strategic by avoiding problems for later upgrades.

Of course, using a trigger point effectively requires having a good plan in place. An individual building renovation passport provides exactly this plan. It identifies which renovation measures could be taken, in which order and with what investment. As they are tailored to each building, they are not abstract documents but are relevant to people's particular circumstances.

At the same time, these plans are an important tool for investors, as they describe the investment opportunity in detail. Combining hundreds or thousands of these investment plans makes aggregation of smaller projects into one big investment pool possible, because renovation passports will contain standardised information. And this pool becomes an attractive investment opportunity for large scale investors, like pension funds who are looking for long-term and safe investment opportunities.

Unfortunately, in the current discussions on the future Buildings Directive, the European Parliament is the only proponent for such consumer- and economy-friendly measures. The Commission's proposal shied away from triggering more renovation activities, and the member states, under the presidency leadership of Malta, are doing their best to reduce ambition.

This is despite the fact that some countries are implementing effective measures. For example, the Estonian funding scheme for renovation has a leverage of 2.3, meaning that for every Euro of public money invested, private investment of 2.3€ is triggered. A similar programme in the Czech Republic is leveraging 2.7€, and Malta's scheme 5.5€. The Netherlands even claim to have a funding scheme which triggers 83€ of investment for every euro of public funding! This is because funding is provided as a preferential loan paid back by the investors. Also, the Dutch scheme benefits from a partnership agreement between the government, banks and energy experts which seeks to resolve specific barriers to implementation.

In the meantime, Germany is moving ahead with upscaling renovation advice: the government just announced the introduction of renovation passports, calling them "renovation timetables".

So why do the EU presidency negotiators not seize the opportunity to translate these good national examples in a European framework which supports other countries to take similar steps? Why not enable the millions of building owners in Europe to renovate their homes and workplaces, and empower public authorities to renovate crumbling schools and hospitals? It is not a question of money – as every banker will tell you, the money is there, but we need to begin channelling this money to the right investments.

The political negotiations in the coming months between the EU institutions are a once-in-a-decade opportunity to give European citizens access to healthy, comfortable and efficient buildings powered by clean energy. This would be very much delivering on the title of the Commission's proposal. Let's ensure we grasp that opportunity.
A social housing project in one of Brussels’ poorest neighbourhoods aimed to demonstrate that renovation doesn’t have to be expensive and brings many other side benefits – a notion that resonates with what policymakers are trying to achieve on the other side of town, from the posher buildings of the EU district.

It’s fitting to find the RenovActive social housing development project in the ‘Bon Air’ (Fresh Air) neighbourhood of the Brussels commune of Anderlecht. Velux, the Danish company that led the project, makes roof windows and skylights, while the crisp, clean lines of the renovated two-story dwelling contrast sharply with many of the surrounding houses, most of which are in various stages of disrepair.

Behind the affordable RenovActive project lies a colossal and ambitious pan-European effort to renovate Europe’s building stock, in a bid to improve health, boost growth and jobs and secure ambitious climate change targets.

It’s clear they have their ‘renovation’ work cut out for them. The European Commission has vowed to put “energy efficiency first” in its plans for an Energy Union, arguing that the Paris Agreement on climate change justified ramping up EU plans to slash energy consumption.

But lawmakers in the European Parliament are fighting to ramp up the Commission’s proposed 30% energy savings target for 2030, saying a more ambitious 40% target is more fitted to achieve the bloc’s decarbonisation objectives.

Backed by an army of energy and environmental stakeholders, they argue a more ambitious objective would increase renovation rates from a paltry 1% to 3%, add 1 million more jobs, lower energy imports, boost investor confidence and remove uncertainties about the future of the EU building market.

However, some member states are already looking for ways to slow things down, fearful of the economic burden.

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Supporters of energy efficiency see smarter productivity precisely because people will live and work in healthier homes and offices.

**TAKING THE TOUR**

The RenovActive project is tangible evidence of this argument.

Completed in 2015 with social housing company Le Foyer Anderlechtois, owner of 3,600 housing units in the commune, the 80 m² semi-detached house from the 1920s was renovated according to the RenovActive concept. It focuses on the health and well-being of residents, ensuring they enjoy living comfort, energy efficiency and minimal environmental impact.

Most importantly, the concept is reproducible, affordable and adaptable to the type of residence, techniques and climate involved. For instance, a gas boiler was used in the RenovActive project (rather than a geothermal pump) given its popularity and familiarity on the Belgium market. This flexibility is also clearly a riposte to the member states that lament, and therefore reject, what they claim is a one-size-fits-all approach to energy efficiency.

A tour around the RenovActive project is an obvious and lasting reminder of the universal need for indoor air quality and well-being amongst EU citizens, whether at home or at work.

Architects who developed the concept for the house used daylight and natural ventilation to make it as comfortable as possible while guaranteeing optimum energy efficiency.

The house has been extended via a flat-roofed wooden annex, where the kitchen is located. It enjoys a “living roof”, completely covered with vegetation planted over a waterproofing membrane. The annex helps create a bright, healthy and comfortable living space, bringing light to the building and ensuring a view of the garden. In addition, the staircase was moved to the centre of the house to provide maximum natural ventilation and light.

**NECESSITIES, NOT LUXURIES**

These are not luxuries, they’re necessities, according to the promoters of the project.

One in six Europeans – equivalent to the entire population of Germany – live in a damp or mouldy building, which doubles their chances of getting illness such as asthma, according to the 2017 edition of the Healthy Homes Barometer.

Europeans living in an “unhealthy” building – with a leaking roof, walls or foundation – are almost twice as likely to report poor health, and are 40% more likely to suffer from asthma, found the report, which was published today (31 May) on Healthy Buildings Day in the European Parliament.

The overall health costs associated with asthma and chronic obstructive pulmonary disease is estimated at €82 billion per year, found the study, which is based on Eurostat data and supported by Velux.

There is growing awareness about the poor quality of indoor air, which can be exacerbated by bad heating and insulation. Ensuring homes – but also factories and offices – are properly ventilated is seen as key to tackling health risks linked to indoor air pollution.

“It is alarming to read that one out of six Europeans reports living in an unhealthy building,” said Vice-President for the Energy Union, Commissioner Maroš Šefčovič. 

“If just 2% of European homes were renovated with an emphasis on health every year, by 2050 we could halve the number of Europeans who live in a damp and unhealthy home,” said Michael Rasmussen, SVP of Brand at the Velux Group.

**LET THE SUN SHINE**

This explains why the RenovActive project focuses on providing maximum daylight and natural ventilation.

Velux used a simulator to visualise daylight levels in the building, resulting in excellent levels of natural light following the renovation. In view of the glazed surfaces, which guarantee levels of natural light and passive solar gains in winter, excess heat is controlled using fully automated solar protection. The opening and closing of the exterior blinds will depend on the hours of sunshine and the outdoor temperature.

To ensure a healthy indoor atmosphere and a maximum of fresh air in the house, a natural ventilation system was fitted, making it possible to easily open or close windows. Sensors monitoring levels of humidity, temperature and CO₂ are integrated into the ventilation unit and control the opening of the windows, guaranteeing optimum indoor air quality.

In winter, air is let in by ventilation flaps integrated into the windows, ensuring ventilation levels adapt to user needs in real time. This system also saves energy, as it avoids excessive ventilation. The house has been designed with optimum insulation in mind, with RenovActive reducing heating needs from 385 Kw/h/m²/year to around 19 Kw/h/m²/year, a major achievement, given the tens of millions of Europeans who currently live in energy poverty.

**EAT, OR HEAT?**

The Healthy Homes Barometer points out that on cold days, 49 million Europeans face a dilemma of whether they will heat their home or eat. The health consequences are enormous –
twice as many people have poor health when living in energy poverty.

Looking over the European economic landscape, one in three people have difficulties making ends meet, and over half of them live in a cold dwelling. 45% of them actually keep temperatures down in their homes in order to lower their energy bills. Europeans who live in energy poverty are almost three times as likely to live in a damp, unhealthy building.

“Buildings with a good indoor environment can reduce healthcare costs and are a way to tackle energy poverty,” Šefčovič said, adding this was recognised in the Commission’s proposal for a revision of the Energy Performance of Buildings Directive.

“This further reaffirms the importance of tackling energy poverty through building renovations,” Šefčovič added.

**WHERE’S THE MONEY?**

Private homeowners are key to achieving a more energy-efficient building stock, according to the Healthy Homes Barometer.

Total available capital in households across Europe totals over €30 trillion. Research conducted by Copenhagen Economics reveals that the available capital of an average European household is €139,000. Taking the national distributions of wealth into account, this means 70% of European households are able to afford a staged renovation.

Renovations not only deliver long-term savings through improved energy efficiency but also offer improved living conditions, as well as making a significant contribution to the future value of a property.

“We want private funding working to help deliver energy efficiency,” said Bendt Bendtsen, a Danish conservative MEP and the rapporteur for the Energy performance of buildings directive (EPBD) in the European Parliament. “Pension funds are a perfect example. Private money needs long-term security for investment, hence the need for a clear political priority of energy efficiency to activate the private money.”

The revision of the EU’s Energy Performance of Buildings Directive (EPBD), which seeks to deliver quality and modernity in the building stock, is working its way through the European Parliament.

Spanish EQUO lawmaker Florent Marcellesi (Greens/EFA), one of the EPBD shadow rapporteurs, believes that “a holistic, integrated approach” is a must.

“For healthy buildings, all factors such as insulation, replacement of windows, ventilation, as well as the interaction of the building in its neighbourhood (the energy system, the mobility system, etc.) must be seen together. That is why we favour the approach of deep or staged deep renovations, which apply this approach.”

**HEALTHY HOME**

The new residents of the RenovActive project, a family of political refugees from Guinea, are deeply content with their new home, given just how far removed it is from the squalid private accommodation they were housed in prior, one which resulted in repeated health problems for the family and need for medical attention.

The push to ensure that families living in renovated homes such as this seek to make them the norm, and not the exception.

Just across town, in the heart of the EU quarter, many are insisting that the current level of ambition on energy efficiency isn’t sufficient.

Marcellesi underlines that “a 30% energy efficiency target means business, as usual, 40% means reaping cost effective potential and associated benefits on job creation, energy poverty and health. It actually triggers the necessary investments.”

He concludes with a warning. “If we shy away from ambition, we slow down the development of investments, and we put several sectors and associated jobs at risk, leave our citizens in energy poverty situations empty-handed and don’t live up to the commitments we have taken in Paris”.

A last-minute push by energy activists has convinced the European Commission to include indoor air quality considerations into the revised Energy Performance of Buildings Directive (EPBD). Making it happen on the ground could prove a bigger challenge, however.

European countries will be required to take indoor air quality into consideration when buildings undergo renovation work, under draft legislation currently debated by EU lawmakers.

The proposed revision of the Energy Performance of Buildings Directive (EPBD) – which still needs final approval – acknowledges the health dimension of building renovation, saying “Improvements to the indoor climate will significantly reduce mortality, morbidity, and health care costs”.

“Better performing buildings... improve health by reducing mortality and morbidity from a poor indoor climate,” reads the revised EPBD proposal, tabled last November.

“Adequately heated and ventilated dwellings alleviate negative health impacts caused by dampness, particularly amongst vulnerable groups such as children and the elderly and those with pre-existing illnesses,” it adds.

This was not a foregone conclusion. Energy efficiency campaigners say it took a concerted push with three EU commissioners – in charge of climate, health and regional policy – to get the health dimension into the picture.

“It is proven that cold homes are directly linked to premature deaths in Europe,” said Clémence Hutin from Friends of the Earth, an environmental pressure group. “Acting ambitiously on energy efficiency reconciles environmental, health and social policy,” she told EURACTIV.com.

Research published earlier this week shows that one in six Europeans live in a damp or mouldy building, which doubles their chances of respiratory illnesses. People living in unhealthy buildings are also 40% more likely to suffer from asthma, according to the 2017 edition of the Healthy Homes Barometer, unveiled on Wednesday (31 May).

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The European Commission tabled the revised EPBD in November last year as part of a wider package of clean energy laws that promised to generate a GDP increase of up to 1% over the next decade and create 900,000 new jobs.

It is now being examined by lawmakers in the European Parliament and the Council of Ministers, representing the 28 EU member states.

Commission Vice-President Maroš Šefčovič, in charge of the Energy Union, said he was “alarmed” at the findings of the 2017 Healthy Homes Barometer, pointing to chronic respiratory diseases such as asthma, which are exacerbated by poor insulation and ventilation.

“Buildings with a good indoor environment can reduce healthcare costs and are a way to tackle energy poverty,” Šefčovič underlined, saying this was “recognised” in the Commission’s proposal for a revision of the Energy Performance of Buildings Directive.

HEALTHCARE COST SAVINGS

However, the extent of those cost savings will depend on the level of ambition that lawmakers will eventually take as the bill goes through the European Parliament and EU Council of Ministers for adoption.

An impact assessment study of the revised EPBD evaluated the theoretical healthcare and morbidity cost savings related to the 25 billion square meters of buildings in the EU. In total, these were estimated at €139bn, or an average of €5.6 in cost savings per square meter, according to the Commission’s calculations.

The Commission’s own plans for the revised EPBD are more modest, however. Under the most ambitious scenario (option 3), annual cost savings from lower mortality could reach €793m by 2030, with an additional €133m saved in healthcare costs. The lowest ambition scenario (option 1) would result in unspecified costs savings from lower mortality or productivity gains and a mere €3.5m in healthcare costs.

Moreover, energy activists fear the health aspect of building renovation will be lost when lawmakers in the European Parliament debate the revised directive.

Policymaker’s attention has so far focused more on headline-grabbing issues like the number of charging points that will be required for electric vehicles in buildings with more than 10 parking spaces. Miguel Arias Cañete, the EU Commissioner for climate action and energy, is seen as a big supporter of electro-mobility, which is “the reason why it’s so strongly pushed in the Commission,” explained a disheartened energy efficiency lobbyist.

And European capitals are unlikely to make indoor environmental quality an issue when the directive lands in the EU Council of Ministers. The mood music coming from European capitals is indeed rather negative, with a majority of EU member states pushing for a dilution of the bloc’s energy savings objectives, fearing the economic burden coming from a higher renovation obligation.

FILLING THE REGULATORY GAPS

At the end of the day, EU lawmakers are unlikely to agree to any detailed requirements when it comes to indoor environmental quality (IEQ) in the revised buildings directive.

The Commission’s own analysis highlighted huge “gaps” between EU countries on the matter, noting “health-based mandatory minimum IEQ requirements can hardly be found in several national or regional building codes”.

Such wide disparities would make it premature to impose any kind of harmonisation at EU level. And even the most fervent supporters of building renovation aren’t asking for harmonisation at this stage. Velux, the Danish company that specialises in roof windows and skylights, says it is merely asking the Commission to “give guidance” to EU member states on how to ensure healthy indoor environments for inhabitants, “including the provision of daylight and fresh air”.

“In Germany and Denmark for instance, energy performance certificates take elements such as energy balance and other health parameters into account, but this is not always the case. Such guidance would help, at the very least, by creating awareness,” said Jernej Vernik, a senior EU policy advisor at Velux.
Health activists join EU building renovation crusade

Health campaigners have called on European lawmakers to impose an EU-wide indoor air quality performance certificate for buildings to prevent mould and dampness from poisoning the air people breathe inside their homes and offices.

“We have standards and certifications for energy efficiency in buildings in Belgium, but none whatsoever – nothing – for indoor air quality!,” angrily exclaimed the representative of a Belgian industry association at a European Parliament event on Wednesday (31 May).

The Parliament event marked the publication of the 2017 edition of the Healthy Homes Barometer, which measures how buildings affect people’s health.

According to the study, one in six Europeans – equivalent to the population of Germany – live in a damp mouldy building, which doubles their chances of getting respiratory illnesses such as asthma.

“The entire respiratory system becomes vulnerable when exposed to poor indoor air quality, which can provoke the onset of various respiratory illnesses and even raise the risk of developing non-respiratory diseases,” the report said.

In fact, people are 40% more likely to have asthma when living in a damp or mouldy home, the study found, with 2.2 million Europeans suffering from it as a direct result of poor housing conditions.

And the costs to the European economy are massive. In total, respiratory illnesses cost €82 billion per year to society as a whole – half of which goes directly to medicine and care, according to the study. The other half, almost €40 billion, is calculated as indirect costs such as loss of work productivity.

The Healthy Homes Barometer is published every year by Velux, a Danish company that specialises in roof windows and skylights. It is based on research by consultancy firm Ecofys, German public research firm Fraunhofer, and Copenhagen Economics, a consultancy, which conducted the research independently.

For health activists, the report is proof that European policymakers should intervene to introduce EU-wide standards for buildings.

“We need an EU indoor air quality performance certificate,” stated Daniela Morghenti, a policy adviser for the European Federation of Allergy and Airways Diseases Patients’ Associations.

She cited research lead by the Finnish National Institute for Health and Welfare which found that asthma and allergies have been increasing in Western industrialised countries since the 1960s, particularly amongst young people.

The industry, civil society and political stakeholders gathered at the

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EU Parliament event were united in their call to renovate Europe’s building stock, saying it will improve health, boost growth and jobs and secure ambitious climate change targets.

“We need to find solutions for the current unhealthy building stock – a reality that impacts Europeans, their health and well-being. This means aiming for the mass (of the building stock), not a 110% solution,” said Michael K. Rasmussen, SVP brand of Velux.

“Buildings are not an energy container, but a people container,” Rasmussen stressed.

ŠEFČOVIČ: CLIMATE CHANGE FIGHT STARTS AT HOME

The European Commission tabled the revised Energy Performance of Buildings Directive (EPBD) in November last year as part of a wider package of clean energy laws that promised to generate a GDP increase of up to 1% over the next decade and create 900,000 new jobs.

It is now being examined by lawmakers in the European Parliament and the Council of Ministers, representing the 28 EU member states.

“We’re not just speaking about buildings, but people, workers, the air we breathe. The fight against climate change starts at ‘home’;” said Commission Vice-President Maroš Šefčovič, in charge of the Energy Union, who spoke to delegates in a video address.

The reasons for acting on buildings are evident when looking at how much time people spend indoors.

“The shift away from outdoor work to ‘desk jobs’ has left Europeans spending far more time indoors” than outdoors, the report said. “In fact, today 90% of our time is spent inside – two-thirds of that within the home,” according to the study, which cited 2013 figures from the World Health Organisation.

Copenhagen Economics, an economic consultancy and co-author of the report, emphasised that access to private funds was not a blocking issue for building renovation: “€30 trillion in private capital is available for renovation, although it’s unevenly distributed across and within EU countries.”

For Copenhagen Economics, the reality is that “over half of all households should be able to afford staged renovations”.

Vice-President Šefčovič wouldn’t disagree. “Buildings with a good indoor environment can reduce healthcare costs and are a way to tackle energy poverty,” he said in a foreword to the report.

“This further reaffirms the importance of tackling energy poverty through building renovations,” Šefčovič wrote.

EXPECTED RESISTANCE FROM MEMBER STATES

The MEPs leading the charge on revision of the Energy Performance of Buildings Directive are equally in agreement over the need for action. They even get sanguine about the level of resistance from national energy ministers, who continue to equate action on building renovation with onerous costs.

“We need member states to commit to taking action on (building) renovation and much more ambition and commitment from (them) and the European Commission!,” said an exasperated Bendt Bendtsen, the Danish conservative MEP (EPP) and rapporteur for the EPBD in the European Parliament.

The Danish MEP drummed up support for the EPBD, hoping to overturn resistance from the 28 EU member states. “I need full support from the (Parliament’s) political parties with 500 MEPs behind the draft,” Bendtsen exclaimed.

Morten Helveg Petersen, is shadow rapporteur on the EPBD for the liberal ALDE group in Parliament. “I’m constantly surprised by the effects on health,” he told delegates. “The studies prove this basic point which needs to be hammered home and so greater awareness is welcome.”

Petersen emphasised again the need to mobilise funding for renovation.

“Deploying private capital is so important here, given Member States and EU budgets can’t cover all of this,” he said, referring to building renovation programmes at the national level.

Another shadow rapporteur on the EPBD, Spanish MEP Florent Marcellesi (Greens/EFA), pointed out that the Greens had been “trying to raise awareness of the link between health and energy for years and years.”

For Marcellesi a holistic approach is required to tackle the issue. Key to achieving this is ensuring so-called “trigger points” are used more systematically as opportunities for renovation – for example when houses change owners or tenants. He also called for independent energy counsellors to help advise homeowners on renovation and for initiatives to build the necessary skills for building workers.

“The cheapest price today is the highest price tomorrow,” Marcellesi warned.