

Skills for the Energy Transition



A Policy Brief from the Policy Learning Platform on Low-carbon economy

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Summary

A systematic transition to renewables, clean technologies and energy-efficient applications will be key to achieving the European Union's climate targets in the next decade and beyond. However, the availability of innovative technology solutions risks being of little use without an adequate number of skilled workers and trained professionals to enable their large-scale deployment in our daily lives. That is why policy-makers must not forget to invest in the human factor, which is the only real enabler of the green transformations that lie ahead. The [European Green Deal](#) has made this point very clear, acknowledging the urgency of adopting proactive upskilling and reskilling schemes at all levels.

The 10-year forecast of EuropeOn, the Electrical Contractors Association, provides a glimpse of the magnitude of the challenge that lies ahead: to reach the envisaged climate targets, Europe will need to have enough skilled workers to install 3,000 solar panels, 1,000 electrical vehicles' recharging points and 15,000 heat pumps on a daily basis. However, the forecast alerts precisely about the lack of staff with adequate skills, perceived as a barrier to investments and as the most serious issue respectively by 75% and 25% of businesses in the sector,¹

Against such a backdrop, this policy brief proposes strategies and highly transferrable good practices whose wider deployment should be encouraged to foster skills for the energy transition at local and regional levels. Successful training and education initiatives developed within the Interreg Europe community and beyond are featured, along with solutions for raising awareness and providing initial advice on energy efficiency. Dedicated structures for boosting energy skills, and strategies for creating their demand, equally fall in the scope of this work.

The EU Policy Context

On 17 December 2020 the German Presidency of the [European Council](#) submitted the updated nationally determined contribution (NDC) of the European Union and its Member States to the United Nations Framework Convention on Climate Change ([UNFCCC](#)). In the NDC, the EU has revised upwards its contribution to the implementation of the [Paris Agreement](#), committing to reduce its greenhouse gas emissions by at least 55% by 2030 instead of the 40% cut previously agreed upon. The minimum 55% target might be further increased, should the European Parliament manage to defend its position (-60%) within the ongoing negotiations of the first-ever [European Climate Law](#), in the attempt to bring the EU commitment even closer to science and calls of climate activists. What is clear, regardless of the level of ambition ultimately pursued, is that stronger climate action, as the spearhead of the European Green Deal, will lead to reviews of the Renewable Energy Directive ([RED II](#)), the Energy Efficiency Directive ([EED](#)) and the Energy Performance of Building Directive ([EPBD](#)) aimed at making them consistent with the increased economy-wide 2030 target that Europe will have subscribed to.

This translates into going beyond the job creation potential envisaged by the European Commission in 2016 on the occasion of the Clean Energy for All Europeans package² launch, i.e., 900,000 new jobs from 2020 to 2030. And of course, this also gives a greater sense of urgency to all initiatives aimed at making sure that the existing workforce is well trained for the energy transition and that citizens, businesses and institutions are increasingly ready to embrace it. In the past few months, the European

¹ <https://europe-on.org/wp-content/uploads/2020/05/Letter-on-Skills4Climate-online.pdf/>.

² https://ec.europa.eu/commission/presscorner/detail/en/IP_16_4009.



Commission has prepared the ground for the transformations that lie ahead through the adoption of a number of policy instruments.

The Renovation Wave

Adopted in October 2020, this [initiative](#)³ wants to double renovation rates up to 2030 and ensure that renovations lead to higher energy and resource efficiency. According to Commission estimates, it could lead to the renovation of 35 million buildings and to the creation of up to 160,000 additional green jobs in the construction sector. Most notably, the initiative acknowledges that a 'climate-neutral building stock' is achievable only if existing jobs integrate green and circular skills and if new job profiles emerge, such as deep renovation specialists. That is why the Renovation Wave pursues skills-related objectives like boosting specific skills for the design, installation and operation of circular and low carbon solutions. It also calls for more inclusiveness and an increased share of women in the construction sector to improve the availability of skills and qualified professionals, and for better access to information for SMEs on training and apprenticeship programmes. To achieve these objectives, it underlines how crucial it is to involve social partners with solid expertise in upskilling workers. Finally, it is also worth recalling here what the Commission announced via this initiative concerning the future implementation of comprehensive heating and cooling planning in coordination with renovation projects. In this respect, the Renovation Wave anticipated that the revision of the EED (expected by June 2021) will seek to strengthen the role of local authorities for creating the conditions to decarbonise heating and cooling systems, which also involves building a workforce specifically trained for this.

The Pact for Skills

Launched on 10 November 2020, the [Pact for Skills](#) is the first flagship action of the [European Skills Agenda](#). Through the Pact the Commission calls upon public and private organisations to team up in order to foster upskilling and reskilling of people to support a fair recovery as well as the green and digital transformations envisaged by the European Green Deal. To join the Pact, organisations are asked to adhere to the key principles of: *i*) promoting a culture of lifelong learning for all; *ii*) building strong skills partnerships; *iii*) monitoring skills supply/demand and anticipating skills needs; and *iv*) working against discrimination and for gender equality and equal opportunities.⁴ Starting from 2021 the EC will support the signatories of the Pact with a series of initiatives responding to the needs that will be identified. The Pact was preceded by a [communication](#)⁵ published in summer 2020 that shed light on its pan-sectoral nature and the intention to support, with priority, the industrial ecosystems hit hardest by the crisis and in urgent need of ambitious up- and reskilling strategies. One of the ecosystems identified in this respect is construction. The EU executive highlights how difficult is to attract young and qualified workers in the sector and recommends closing the skill gaps - in a pool of 12 million workers - by focusing on upskilling for energy and resource efficiency, decentralised energy solutions and renovation of existing constructions, among others.⁶

³ European Commission, communication of 14 October 2020 on 'A Renovation Wave for Europe - greening our buildings, creating jobs, improving lives', COM COM/2020/662 final, available [here](#).

⁴ To apply for joining the Pact for Skills click [here](#).

⁵ European Commission, communication of 1 July 2020 on 'European Skills Agenda for sustainable competitiveness, social fairness and resilience', COM COM/2020/274 final.

⁶ On this point, see also para. 38 the recommendation of the European Parliament on vocational education and training (VET) linked at p. 15.



The European Climate Pact

This initiative was officially launched by the Commission with an [online event](#) that took place on 16 December 2020, with the aim of reaching the broadest possible audience. The [European Climate Pact](#) is indeed addressed to all EU citizens and actively seeks their engagement as protagonists of climate action. The underlying idea of the Pact is to enable people, communities and organisations to *i)* connect and share knowledge; *ii)* learn about climate change; and *iii)* develop, implement and scale up solutions. The Climate Pact will support skills for the energy transition in the context of ‘green skills’ which, together with ‘green areas’, ‘green mobility’ and ‘green buildings’ constitutes one of its four priority areas where immediate benefits from civic engagement can be achieved. According to the [communication](#)⁷ that established the conditions for its implementation, the Pact will support educational and training institutions to improve the development of and accessibility to green skills development programmes. It will also seek the involvement of relevant stakeholders in the Pact for Skills and spur the dissemination of achieved results, for instance, by the [European Vocational Skills Week](#) and [Erasmus+](#) projects. The Pact will be open to schools, academia, education and training institutions committed to foster climate and environmental literacy, and to bring the science and urgency of the climate crisis into people’s lives, in policy-making and the economy.

Training programmes teaching skills for the energy transition at all levels

A decade ago the International Labour Organization ([ILO](#)) and the European Centre for the Development of Vocational Training ([CEDEFOP](#)) warned policy-makers that ‘*skills are not a pure servant of the economy expected to react and adjust to any change*’.⁸ Today, their warning assumes even greater importance given the imperative of making our economy fit for reaching the goal of the Paris Agreement, i.e., limiting global warming to well below 2°C and pursuing efforts to limit it to 1.5°C compared to pre-industrial levels.

Investing in new skills and putting the workforce in the position of upgrading their knowledge on energy-efficient and climate-friendly solutions through life-long learning, education and training must therefore become a target of all policy-makers and businesses involved in the transition. A forecast of the type of skills and the number of qualified professionals is an excellent start and can result in a gap analysis that shows where public intervention for skills development should be targeted. The EU BUILD UP skills initiative has supported such road-mapping exercises in many countries with a focus on skills for the building sector.

These forecasts provide evidence that skills must be developed at all qualification levels. Thus, parallel actions need to be taken for training – blue-collars and high-skilled professionals alike. Exploiting the reskilling/upskilling potential of medium-skilled occupations can in fact lead to the emergence of new jobs, such as wind turbine operators, and bring much needed innovation into occupations such as roofers and plumbers. Likewise, university-level upskilling programmes can boost the emergence of new highly-skilled occupations, such as energy auditors and energy consultants, while promoting the upgrading of professional skills required by the existing ones, such as building facilities managers, architects and engineers.⁹

⁷ European Commission, communication of 9 December 2020 on ‘European Climate Pact’, COM COM/2020/788 final.

⁸ ILO/CEDEFOP, *Skills for Green Jobs: A global view. Executive Summary*, (2011), p. XXIV, available [here](#).

⁹ ILO, *Skills for a Greener Future*, (2019) linked at p. 15. See, in particular, Table ES 1. Changes in skills required, by skill level of occupation’.



The CROSKILLS project - Strengthening energy efficiency skills and certification schemes for construction workers (Croatia)

Prior to the CROSKILLS project, carried out under the EU-wide 'Build Up Skills' initiative, Croatia had neither systematic lifelong training for construction workers on energy efficiency nor a certification scheme for workers or SMEs improving the energy performance of buildings. The project was implemented in six different stages which included the provision of specific training to trainers, the testing of training modules as well as the development of a certification scheme and the roll out of targeted information campaigns. Since its inception in 2012, the project has been promoted by Croatian institutions and professional associations in the construction, energy and education sectors through the National Qualification Platform (NQP). CROSKILLS was successful in launching an educational offer composed of 18 training modules, 3 for each of the 6 targeted construction professions (bricklayer, plasterer, carpenter, housepainter, roofer and drywall installer) and resulted in the opening of 11 training centres, the accreditation of 90 certified trainers and the issuing of 330 energy efficiency certifications to 330 construction workers. The project has the merit of having increased the attractiveness of the targeted construction profession. It can inspire regional initiatives to make sure that enough individuals have the skills required to meet demand for renovation and to complete renovations in a way that contributes to the EU energy and climate targets for 2030.

[Click here to find out more about this practice](#)



BUILD UP Skills is an EU-promoted initiative on continuous “education and training of craftsmen and other on-site construction workers and systems installers in the building sector”. The initiative seeks to “increase the number of qualified workers across Europe to deliver building renovations which offer high-energy performance as well as new, nearly zero-energy buildings”. It covers “skills in relation to energy efficiency and renewable energy systems and measures” in the building stock. More information here: <https://www.buildup.eu/en/skills/about-build-skills>



WE Qualify project - Improve Skills and Qualifications in the Building Workforce (Cyprus)

Initially co-funded under the Intelligent Energy Europe programme and later under the Build Up Skills Initiative, the project promoted vocational training among workers with technical occupations in construction and other sectors performing installation and maintenance of energy saving and renewable energy systems. WE Qualify delivered three different training modules, respectively addressed at thermal insulation installers, double-glazing and exterior sunshade installers, and installers of biomass boilers and stoves. Full projects results, epitomised in the upskilling of 92 installers and in the certification of 76, can be consulted in this [publication](#). The good practice confirms the importance of implementing training schemes on the basis of the results of a gap analysis conducted with the purpose of identifying missing energy skills, and skills in need of an upgrade. European regions can learn from the approach adopted in Cyprus to promote skills for the energy transition and support employment.

[Click here to find out more about this practice](#)



From Stump to Boiler, bioenergy educational environment (Finland)

REDU is the largest vocational education provider in Lapland, owned by 6 municipalities and funded by them and through state subsidies. Among others, it operates an educational district heating plant providing a training environment for professionals along the bioenergy production chain, from harvesting to refining biomass for energy production. Short-term training modules are offered at the REDU plant in a way that allows the effective transfer of knowledge and practical skills to students who, due to legal constraints in Finland, are otherwise not allowed to do full-fledged apprenticeships at energy production facilities. Regional policymakers and vocational centres around Europe could learn from the on-site, short-training approach proposed by REDU to develop skills for their workforce in a way that responds effectively to energy needs at regional level. Regardless of the type of renewable energy sources and installations, workers trained for the energy transition will always make the difference when it comes to lengthening lifecycles and cutting emissions.

[Click here to find out more about this practice](#)



European Master in Renewable Energy coordinated by EUREC



The European Master in Renewable Energy is an initiative proposed and developed by the association of European Renewable Energy Research Centres ([EUREC](#)) and a consortium of Universities to meet the increasing need of skilled people in the field of Renewable Energy.

Developed from ALTENER funding from the European Commission in the late 1990s, the programme is targeted at graduates with a Bachelor degree in engineering or a scientific discipline who wish to specialise in renewables and has grown to be one of the major providers of postgraduate education in renewable energy technology. It offers the possibility to study parts of the programme in different languages and focuses on the technical understanding and implementation of Renewable Energy Technologies with the opportunity to specialise in one particular supply technology or in their integration into the energy system. The programme has been run since 2002 by a network of nine European Universities and research centres who are leading the way in renewable energy research, development and demonstration and is coordinated from Brussels by EUREC.

In 2015, following the demand from companies and from students who studied soft sciences, EUREC together with relevant European university partners, launched a second Master programme that would combine technical knowledge with economic, legal and business skills. In 2015, the European Master in Sustainable Energy Management (SESyM) welcomed its first students, who choose between four Universities in four different countries.

For both programmes, curricula were created with the needs of the industry in mind. The concept of movement between European countries as part of the course and the inclusion of pan-European issues in the content are important parts contributing to add soft skills to the academic knowledge acquired by EUREC Master students. These skills are also enhanced by the multicultural aspect of the programme.

The two EUREC Masters stand out thanks to:

- 10 top partnering Universities excelling in training renewable energy professionals;
- Their innovative teaching structure and methods;
- Their international character.

Students from more than 30 countries around the world joined the 2020 EUREC Masters intake. These students joined the **EUREC Alumni Network**, with more than 800 professionals sharing knowledge and jobs. For more information visit the EUREC Masters websites: <https://master.eurec.be/> and <https://sesym.eurec.be/>.



Dedicated structures supporting skill development

A common thread of many success stories at the forefront of the transition is having dedicated structures. That is *inter alia* the case of the [Samsø Energy Academy](#), which was instrumental for turning Samsø into the first Danish island to become 100% powered by renewables in 2007 as reported in the [Islands of Innovation](#) project. As explained by [CEDEFOP](#), their scale may vary (i.e., regional/national) as well as their approach to training and advice. What they all do in any case, without regard to their inclusion into broader skills anticipation mechanisms, is to foster the provision of green skills, including energy efficiency ones. Probably this is the simplest way to classify these organisational experiences which differ very much from one another. They indeed range from the [Onemev](#) in France, whose mission encompasses the identification of skills and training schemes for the transition at the national level, to regional energy efficiency agencies, as in Upper Austria, or dedicated centres of competences, as in Luxemburg. The added value of having a dedicated structure is the possibility to grow this into the main regional contact and competence point for e.g., energy efficiency, where knowledge on legislation, regulation and funding are combined with training courses targeted at different groups and complemented with more general awareness raising activities. Such dedicated structures typically receive public support and have a public mission. They can also serve as so-called one-stop-shops.¹⁰

The Upper Austria Energy Saving Agency (Austria)



The *Energiesparverband Oberösterreich* was established by the Region of Upper Austria in 1991. The Agency can be regarded as a pioneer and a model in the fields of energy skills training and independent energy advice. Its expertise in energy efficiency and renewables is available to households, businesses and municipalities. The Agency offers:

- An [energy academy](#) providing training with over 30 seminars per year;
- A [residential buildings programme](#) that fosters energy saving in the construction and building sector. It supported over 100,000 refurbishments since 1993;
- [Energy advice](#) in the scale of an average 10,000 advice sessions per year to households, businesses and municipalities;
- [Energy information and awareness-raising](#) regularly performed through campaigns, competitions, publications and events;
- [Support programmes](#) on energy contracting and innovative energy technologies;
- [Support to municipalities and schools](#) in the development of local energy plans and projects;
- A [cleantech-cluster](#) providing a business network for energy technology companies;
- [Assistance](#) on regional, national and EU funded projects.

For more info visit the Agency [website](#).

¹⁰ See [Policy Brief on One-Stop-Shops for energy refurbishment](#).



The Luxembourgish Centre of competences (Luxembourg)



CENTRE DE COMPÉTENCES
Génie Technique Parachèvement

For this policy brief we decided to reach out to the *Centre de Compétences* in Luxembourg. This institution of the Duchy offers a wide array of [training courses](#) on energy efficiency and renewable energy skills which could be of inspiration for similar dedicated structures and regional policy-makers.

Oliver Deckers, Project Manager at the Centre, replied to a few questions.

→ What importance does the Centre attribute to skills for the energy transition? “As major actor in Luxembourg in the field of training for the crafts sector, the energy transition is a key element on our agenda. The compliance with new regulations and emission goals has to be achieved and therefore all economic actors need to play their role. Training the employees of the sector on new green technologies and skills is therefore essential.”

→ What kind of training is indispensable to make the transition happen? “Companies need to understand that they can’t continue working ‘as they always did’ because they will lose market share and their competitiveness. Besides the actual trainings on the new technologies such as for example photovoltaic installations, heat pumps or KNX electric programming, training on soft skills will be needed. The transition will be impossible without a change in the mindset of the people, so we need to find solutions related to this topic.”

→ What is the added value of the Centre? “The added value is certainly the national reach within the crafts sector in Luxembourg. Moreover, our trainings are free of charge for our members, so we are the first address for them when it comes to skills and training. We can rely on a solid network of experts who are able to train the right skills to the people within the sector.”

→ What should policymakers do to foster these skills at regional level? “Policymakers should contribute in raising the awareness of the changes which are coming. Not all economic actors seem to be aware of how their activity will be affected when new regulations take effect. It will be key to anticipate the skills rather than reacting when a regulation takes effect because it will then be too late to acquire the needed skills.”

For more information visit the Centre [website](#).



‘Energy Lift’ (Sweden)

The Swedish Energy Agency has coordinated a network of regional energy offices to prepare the construction sector for the ‘nearly-zero energy building’ (NZEB) standard that applies to new public buildings since 2019 and kicks off in 2021 for all new building in accordance with the EPBD. Under the lead of the Agency, web courses and seminars are being promoted. They target all the key professions in the value chain (e.g. engineers, architects, construction managers, etc). Available data show that over 2,740 individuals improved their competences. As a relatively low-cost good practice ‘Energy Lift’ should inspire action by other regions seeking innovative ways to enhance the knowledge base in one or more target groups in the construction sector, through dedicated structures and possibly with the support of EU funds.

[Click here to find out more about this good practice](#)

Skills for awareness raising & initial advice to citizens

In most cases energy efficiency applications and solutions find a way into people’s lives if they are ‘introduced’ by professionals who are adequately trained to enable their breakthrough. Thanks to their skills and technical preparation they identify areas where households and businesses can grab low-hanging fruits in terms of energy savings and/or accompany them in the realisation of more substantial energy performance improvements.

Who has the skills to be able to make first contacts with citizens, to explain the costs and benefits of renewables and energy efficiency, to come up with first possible applications and to provide information for follow-up in a convincing and credible way? Such skills are already in high demand, and regions keen to meet their climate targets should invest in creating such a pool of ‘initial advisors’. To this end, they could cooperate with their local universities or technical colleges and incentivise them to launch short-term qualification courses for energy advisers for households.

Actions targeted at awareness raising and providing initial advice on energy efficiency and renewables are frequently embedded in comprehensive sustainability strategies that regions carry out to reach wider societal and environmental goals. That was clearly the case of the [EcoGozo Policy](#) in Malta, portrayed as a good practice under the [SUPPORT](#) project. This policy was implemented until the end of 2020 and encompassed *inter alia* the implementation of specific training for building energy certifiers as well as the deployment of an information and awareness campaign to reach Gozitan households.



Training for energy advice and awareness raising campaign in Gozo (Malta)

In 2011 The Ministry for Gozo, as part of its “Eco-Gozo” policy, subcontracted the University of Malta to organise and manage a very ambitious public education program with the aim to attempt to visit every single home on the island (~15,600) as well as to visit all small businesses on the island (hundreds). An initial adviser would do a walk-through visit and spend 30-40 min with each individual to perform a questionnaire and make practical recommendations for energy, water use and waste reduction. A call was made to recruit to-be-advisers, requiring a technical background (students were eligible), and they were promised an attractive remuneration. Thirty people were recruited and had to attend 13 three-hour lectures on all relevant topics and pass an oral exam at the end, which was set as a mock visit to a client.

[Click here to find out more about this practice](#)

In other cases, similar initiatives may be underpinned by local authorities joining forces to increase energy efficiency and combat energy poverty and associated problems, such as poor health, as described in the [Warm & Well](#) advice and installation scheme ([BUILD2LC](#) project).



The ENSVET project - Energy Advices for Citizens (Slovenia)

The project made possible the set-up of over 50 offices giving free-of-charge advice to citizens on how to implement energy efficiency measures in their homes. These offices also help households that intend to apply for grants and soft loans made available by the Slovenian Eco Fund to undertake energy efficiency interventions. This good practice has an impressive reach and a clear impact on improving the energy performance of buildings. According to reported data, over 5,000 expert consultations are given on a yearly basis, which leads to an average of 18.6 million kWh in energy savings from the national building stock.

[Click here to find out more about this practice](#)



Creating demand for energy efficiency skills

While skills development policies and initiatives cater for the supply-side of skills, policy-makers should not forget to create, in parallel, a demand for the newly developed skills. Otherwise, there might not be sufficient traction in the market and people might not perceive re-skilling and up-skilling as attractive options. For this reason, carbon reduction targets should be associated with incentives and subsidies to stimulate the emergence of green jobs requiring energy efficiency skills, at least until their tipping point is reached.

Initiatives of this kind often take the form of nation-wide fiscal incentives. One notable example is the so-called '[Ecobonus](#)' that Italy adopted to boost energy efficiency in renovations. Over the years this scheme has been progressively strengthened, foreseeing tax reductions that range from 50% (e.g., for changing fixtures and frames) to 90% in the case of façade renovations. By virtue of the so-called '[Superbonus](#)', introduced during the first lockdown as a measure to counteract the adverse economic impact of the COVID-19 pandemic, tax deductions can go up to 110% for expenditures incurred between 2020 and 2022 to improve energy efficiency, implement anti-seismic solutions, install photovoltaic systems and charging points for electric vehicles in private buildings. In other cases, in lieu of fiscal incentives, policy-makers may choose to promote energy efficiency and renewables through open calls for project proposals like Croatia did thanks to the EU Cohesion Policy between 2014 and 2020, by targeting SMEs in sectors such as construction, manufacturing and tourism. As explained in the context of the [FIRESPOL](#) project, calls for projects and availability of additional financial resources for their realization are further enabled in the country by the Environmental Protection and Energy Efficiency Fund.



The 'Sustainable Construction Promotion Programme' (PICS) - Spain

The PICS programme was run between 2009 and 2015 by the Andalusian Energy Agency to facilitate the achievement of EU climate and energy targets for 2020 at regional level. It mainly consisted of giving incentives to companies in the construction sector for the installation of energy efficiency solutions in the building stock. Thanks to the programme a total of 6,419 interventions were carried out in 5 years. Beside translating into measurable CO₂ emission reductions, this good practice has had a very tangible effect on employment. According to available estimates, the scheme engaged over 8,200 enterprises and enabled the creation or maintenance of 20,000 local jobs. Such results indicate that energy efficiency measures not only help reduce energy costs but also contribute to the local economy by either creating new jobs or upgrading the skills required to perform existing ones.

[Click here to find out more on this practice](#)



European support to skills for the energy transition

The Multiannual Financial Framework (MMF) for the period 2021-2027 is now adopted. Both the European Parliament and the Council have considered regional policy pivotal to mitigate the effects of the COVID-19 pandemic, pursue European Green Deal policy goals and trigger the recovery. Projects on energy skills, designed to make Europe greener and smarter, will certainly be well-placed to attract EU investments in the next 7 years. Based on the latest initiatives adopted by the Commission it is fair to say that the near future looks bright for local and regional authorities wishing to invest in upskilling and reskilling the workforce in their territories.

With the Renovation Wave the EU executive has indicated already that the [Build UP Skills initiative](#) will continue under the [LIFE programme](#) and pointed at [Horizon Europe](#) as an instrument that could channel support to renovation skills via the Mission area on [Climate-neutral and sustainable cities](#). The Commission also encouraged Member States to boost skills by making full use of the [European Social Fund+](#) and the [Just Transition Fund](#). Through the European Climate Pact, it underlined the unique role that [Erasmus+](#) will play for developing forward-looking skills and university-level partnerships for cooperation on skills for climate action and the environment. Finally, in the Pact for Skills, the EC further confirmed that the Union's budget lines will be open for promoting upskilling and reskilling schemes at local and regional levels also in the form of grants and loans that will be allocated to the Member States through the newly established Recovery and Resilience Facility (RRF), i.e., the financial arm of '[NextGenerationEU](#)'.

In light of the above and considering the need for prioritising skills to achieve a carbon neutral economy by 2050, as well as the zero-pollution goal enshrined in the European Green Deal, governments of the EU-27 should have a clear interest in including upskilling and reskilling for the energy transition into their respective National Recovery and Resilience Plans.¹¹ Such plans will be submitted by April 2021 and will need to outline in detail all projects to be implemented along the way to recovery, up to 2026. The Commission has expressively clarified that each national plan will have to devote at least 37% of the foreseen expenditure to green investments and reforms to stimulate progress towards the achievement of climate action and environmental objectives.

Recommendations & key learnings

Whilst the next generation of EU funds is on the starting blocks and the deadline for submission of National Recovery and Resilience Plans is rapidly approaching, looking at the wealth of good practices and policies on energy skills is a useful exercise for regions to gain better insight on how to foster them for the transition in the months and years to come. The main lessons that can be drawn on this matter as presented in this policy brief can be summarised as follows:

EU policy & support

- Stronger climate action under the European Green Deal to implement the Paris Agreement will require an upward review of EU targets on energy efficiency and renewables for 2030;
- This will exacerbate the need of measures to ensure that workers in key sectors possess an adequate skillset to meet the increased level of ambition for the next decade;
- The nexus between skills and the coming transformations is tackled in the [Renovation Wave](#), the [Pact for Skills](#) and the [European Climate Pact](#), adopted last year by the Commission;

¹¹ See, in this regard, the call of 'Renovate Europe': <https://www.renovate-europe.eu/national-recovery-and-resilience-plans/>.



New and old budget lines in the MFF as well as NextGenerationEU will foster energy skills e.g., through the [ESF+](#), [Erasmus+](#), [Horizon Europe](#) and the [Just Transition Fund](#).

Training and Education

- Propose upskilling and reskilling regional schemes based on the results of thorough analysis to identify what skills are missing or require upgrading in key sectors. Learn from what [Croatia](#) and [Cyprus](#) did for the construction sector in the framework of the [Build-Up Skills Initiative](#);
- Integrate energy efficiency skills into vocational education & training (VET) programmes offered in your region and adopt flexible and innovative approaches to offer training modules in a way that is compatible with workers' needs (e.g., on-line solutions, staggered timetables). Draw from the experience of REDU in [Lapland](#) (Finland) and the '[Energy Lift Programme](#)' of the Swedish Energy Agency;
- Get inspired by the [CROSKILLS](#) programme and find ways to increase the attractiveness of occupations targeted by training while ensuring that training modules are delivered by qualified professionals in accredited centres;
- Untap the re- and up-skilling potential of blue-collar workers and white-collar workers in parallel – targeting all workers is fundamental to ensuring that energy efficiency skills are improved across the board along value chains while favouring the emergence of new occupations in your region;
- Consider working with the academic institutions of your region to enable the offer of university-level programmes such as the [EUREC masters](#).

Dedicated structures

- Set up a dedicated structure to promote skills for the energy transition in your region;
- Get inspired by well-established regional energy agencies such as the [Upper Austria Energy Saving Agency](#) and training centres committed to boosting energy efficiency skills like the [Luxembourgish Centre of Competences](#). Define the mission/focus of your dedicated structures.

Awareness raising & initial advice

- Discover the successful initiative carried out in [Gozo](#) (Malta) to form a pool of trained professionals to facilitate the breakthrough of energy efficiency and renewable energy applications into people's lives;
- Embed the free-of-charge provision of energy advice for households and businesses into your regional sustainability strategy and learn from the [Slovenian Eco Fund](#) how to set up a network of offices for delivering such advice;
- Check the '[Warm & Well](#)' approach adopted in England (UK) and build local partnerships for delivering energy efficiency advice and spurring the uptake of energy-efficient solutions while combating energy poverty and associated problems (e.g., poor health).

Creating demand for skills

- Design mechanisms to stimulate the growth of jobs where energy skills acquired by workers through training schemes are put to use;
- Push for the adoption of fiscal measures to carry out renovation works as done in [Italy](#) and see how [Croatia](#) launched calls for project proposals on energy efficiency targeting specific sectors;
- Introduce incentives based on the model of the Sustainable Construction Promotion programme in [Andalusia](#) (Spain) to engage SMEs in energy efficiency and support employment in your region.



Sources and further information

Policy Learning Platform information:

- Policy brief on [One-Stop-Shops for energy refurbishment](#)
- Policy brief on [Skills for Innovation](#)
- Policy brief on [Behaviour change for energy efficiency](#)
- Article, [European Commission launches the Renovation Wave](#)
- Article, [Opportunities for the low-carbon economy in the COVID-19 Recovery Plan](#)
- [EMOBICITY](#) project, [Training for Fleet Auditors and Managers](#) (2020)
- [INTENSIFY](#) project, [First UK Zero-Carbon Skills Summit Goes Virtual](#) (2020)
- [SUPPORT](#) project, [FAMP's On-going training programme](#) (2020)

Other sources:

- European Commission, [Blueprint for sectoral cooperation on skills](#)
- European Commission, [Digital Skills and Jobs Coalition](#)
- European Commission, [Digital construction skills: enabling the energy transition in Europe's building stock](#) (2019)
- European Commission, [Equipping building professionals with the new skills to achieve European energy targets](#) (2019)
- European Commission, [New skills for the construction sector to achieve European energy targets](#) (2018)
- European Commission, [SETIS Magazine, Jobs and skills in the energy transition](#) (2018)
- European Parliament, [Legislative train schedule on the 'Updated Skills Agenda for Europe'](#) (2020)
- European Parliament, [Report on maximising the energy efficiency potential of the EU building stock](#) (2020)
- European Parliament, [Council recommendation on vocational education and training \(VET\) for sustainable competitiveness, social fairness and resilience](#) (2020)
- European Centre for Development of Vocational Training (CEDEFOP), [Skills for green jobs. 2018 Update. European Synthesis Report](#) (2018)
- EU Energy Poverty Observatory, [Training Resources](#) (2021)
- International Labour Organization (ILO), [Skills for a greener future: a global view](#) (2019)
- International Training Centre (ITC-ILO), [Greening-with-Jobs Learning Forum](#) (2021)
- EuroACE, [Towards a job-rich recovery with sustainable buildings](#) (2020)
- RENOVATE EUROPE, [Building renovation: a kick-starter for the EU recovery](#) (2020)
- FEDARENE, The European Federation of Agencies and Regions for Energy and the Environment, <https://www.fedarene.org/>

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#EnergyTransition*



Interreg Europe Policy Learning Platform on
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