

Living conditions and quality of life

Access to essential services for people on low incomes: Energy, public transport and digital communications



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Contents

	Executive summary	1
	Introduction	3
	Evaluating access to services: Dimensions	3
	‘People in need’: Target groups of the policy measures	4
	Types of policy measures to support access to essential services	4
	Service providers	4
1.	Energy services	7
	EU policy context in brief	7
	Risk of increased energy poverty: The challenge of diverse definitions	8
	Easing access to energy services amid high price increases	9
	New measures facilitating the green transition: Further impetus from rising energy prices	19
	Potential impacts on supported groups: Current evidence and past lessons	26
	Key findings and policy pointers	29
2.	Public transport	33
	EU policy context in brief	33
	Reducing user costs for vulnerable groups: Potential benefits	34
	Reducing user costs: Evidence from Member States	35
	Digital ticketing: Overcoming barriers and finding alternatives	40
	Key findings and policy pointers	41
3.	Digital communications	45
	EU policy context in brief	45
	Underconnected groups and support measures	46
	Supporting low-income groups	48
	Addressing digital skill gaps	50
	Key findings and policy pointers	54
	Conclusion	57
	References	59

Executive summary

This report focuses on specific national measures aimed at improving access to energy services, public transport and digital communications for people on low incomes that were introduced over the period from 2020 to early 2022. The right to access the services mentioned is referenced in Principle 20 of the European Pillar of Social Rights, and is also relevant in the context of advancing digital transformation, the green transition and the objectives of Social Europe. The report provides an overview of the measures aimed at making essential services accessible across the EU Member States by clustering the measures based on major types or targets, and by succinctly listing the main country-level examples.

The considerable rise in energy prices over 2021 and 2022 posed a specific challenge for access to and the affordability of energy and transport services – in Europe and globally. The most dynamic area in terms of the large range of measures developed in the period covered was measures to address the costs of energy services. Most Member States have applied reduced tariffs and/or provided cash benefits to assist groups in need of support to pay for energy services; however, the majority of recent decisions countries have adopted to reduce the cost for end users focus on universal measures (they are not targeted solely at people on low incomes). In some instances, social tariffs, namely reduced tariffs for certain supported groups, have been adjusted. However, the extent of the relief these measures provide to people on low incomes or groups in vulnerable situations is still difficult to quantify. Public access to the evidence used for modelling the impact of energy costs and of the newly adopted measures is limited so far; the evidence base for ongoing policy adjustments will need to catch up.

Support for access to public transport is characterised by a wide array of measures – many Member States support certain target groups by introducing reduced tariffs. As has been the case previously, the income criterion for eligibility for this support is rarely directly used, but calculations of the minimum income sometimes include a budget for public transport. Further examples of extending affordable access to more people have emerged across the EU recently, even if only with a limited number of incremental examples. The scope of the entitlement to subsidised public transport also differs considerably: notable examples include free public transport for everyone in Luxembourg and free cross-country travel for older people in Ireland and Hungary.

The vast majority of the population in many EU countries are regular users of digital communications, and most countries have ambitious targets to further upgrade their technical infrastructure to improve connectivity. However, these measures do not target specific user groups (or the remaining non-users), and in particular are not targeted according to users' income levels. There are some recent examples of the application of social tariffs for installing internet access and paying for connection/data services, but some Member States where an affordability barrier to using the internet was reported previously still have no measures directed at people on low incomes. Provisions for the basic/uninterrupted supply of digital communications exist in only a small number of countries, which suggests that progress towards ensuring internet access as an essential service has been limited.

The extraordinary rise in the costs of energy explains the need to focus on affordability, especially of energy services and public transport. Improving digital skills and ensuring access to digital communications could support the use of smart metering – to improve awareness of costs and potential savings when using energy services. Moreover, in the case of all three service areas considered, a recurring theme that arose during our research was the importance of non-financial measures to improve access, ideally for all but, owing to their potential vulnerability, particularly for people on low incomes.

In the case of energy services, more could be done to protect people in vulnerable situations from being disconnected; preventing situations (such as arrears or indebtedness) that lead to a risk of disconnection could also be aided by timely and adequate advisory and support services.

In the area of public transport, the availability of transport networks that meet existing needs remains an important dimension beyond affordability. In a broad social and policy context, certain needs could benefit from further recognition, such as the need for digital ticketing and information services to be accessible to people with disabilities, the need for transport services that take into account the requirements of carers and the need to increase the range of options for active mobility. For the green transition to be scaled up, solutions to greening mobility need to consider access to good-quality housing near workplaces and other services.

Regarding access to digital communications, there seems to be a trend in the making – emerging measures aim to ensure that the population has the skills to not only access, but also make best use of, what digital technologies and information can offer. However, it seems that measuring the impact of upskilling programmes is yet to be applied more broadly so that policymaking can be guided by evidence.

Although the report focuses rather specifically on identifying particular measures in the current period, it is suggested that access to energy, public transport, digital communications or other essential services can also be seen as part of social citizenship and could be promoted via general measures to improve living standards; this could also help build societal resilience in the long term. Reducing the costs of services such as energy, public transport and digital communications

can benefit people on low incomes or in vulnerable situations, who typically spend a larger proportion of their income on these services than more affluent groups. These cost reductions can also help extend the user base of, for example, energy sources or modes of transport that are preferable for improving environmental sustainability. The potential of digital communications to reduce dependence on transport (through remote work and study), to help reduce energy costs by using smart metering, and to improve access to public services and information could also benefit from further attention regarding improving the resilience of the population. However, monitoring the take-up and use of the support for accessing essential services could be developed to inform how to better adapt the measures to people's needs.

Introduction

Everyone has the right to access essential services of good quality, including water, sanitation, energy, transport, financial services and digital communications. Support for access to such services shall be available for those in need.
Principle 20 of the European Pillar of Social Rights (EPSR)

In collecting information on essential services, the European Commission requested Eurofound to provide input on certain aspects of existing and planned measures in Member States to improve access to essential services (European Commission, 2023). The focus of this report is on energy services, public transport¹ and digital communications.

This report comprises three chapters, each focusing on one of the aforementioned types of essential services (energy, public transport and digital communications). These service areas are specific in terms of their regulatory frameworks, providers, suppliers and other features, and are largely independent of each other; therefore, they are covered separately, with their own set of key findings and policy pointers. Although the overview focuses on national measures, each chapter includes a brief section on the EU policy context to help contextualise the developments within a broader background. The general conceptual points regarding evaluating the access to services and types of supporting measures are briefly highlighted in this Introduction, and some overarching considerations are suggested in the Conclusion at the end of the report.

The report covers the period from 2020 to early 2022. During this time, Member States adopted an exceptionally large number of measures in the area of energy services (and at the time of writing this report, Q2 2022, were continuing to dynamically update policies), which is understandable in the context of the continued volatility of energy prices and the challenges in securing energy supplies in Europe. With this in mind, the chapter on energy services is the largest in this overview. Transport services are covered in a dedicated chapter that focuses on public transport – because of its relative importance for people on lower incomes and vulnerable groups with limited access to or ability to use private transport. The chapter on digital communications reviews the national agendas on improving connectivity and how people on low-incomes feature in the policy plans, depicts specific initiatives to support access to digital tools during the COVID-19

pandemic, and highlights the new emerging focus that goes beyond access to devices and extends to digital skills.

To source information, Eurofound created a questionnaire for its Network of Eurofound Correspondents, which collected information provided by each Member State in February and March 2022, with a reporting period of 2020–2021/early 2022. This was complemented by March–June updates from the Network of Eurofound Correspondent to EU PolicyWatch (Eurofound’s online database of national-level policy measures) and desk research.

Previously, an overview of the national measures was produced by the European Social Policy Network (ESPN) in the 2020 report *Access to essential services for people on low incomes in Europe* (ESPN, 2020). That report was produced prior to the extraordinary challenges of the pandemic and the large rise in energy prices over 2021–2022, and therefore the relevance of reassessing the situation has increased. The increasing significance of developing essential services such as energy services, public transport and digital communications is underscored by the goals of the green transition and digital transformation in the EU.

Evaluating access to services: Dimensions

Monitoring access to services of general interest for EU policy development purposes tends to centre around availability, accessibility and affordability. An important milestone in identifying the dimensions of service quality, including access, was a 2010 voluntary European quality framework for social services, which drew attention to input, output and process-related dimensions, and highlighted both the person-centredness of service provision and aspects of partnership and good governance in service provision. The Eurofound (2020a) report on care services, in relation to the framework above, has highlighted the following dimensions that can shape all stages of the

¹ ‘Public’ here means transport accessible to everyone; public transport services may be delivered by public or private providers.

access continuum, from recognising to meeting care needs: informed access (information and awareness), availability, accessibility (reachability), affordability, timeliness (waiting lists, relevance, punctuality/reliability (transport)), trust (perception of service quality, preferences for specific providers, safety) and stigma (acceptability, especially in relation to taking up certain support measures). Although the current report focuses on existing measures, readers are invited to take a broad understanding of the term access when drawing their own conclusions about the adequacy and relevance of the reported measures.

As mentioned, the services that are the focus of this report – energy, public transport and digital communications – are by and large specific in terms of their providers and regulatory frameworks. Specific services may have their own peculiarities in terms of access barriers.

‘People in need’: Target groups of the policy measures

Regarding the population that needs to secure access to essential services, this exercise aimed to focus on those at risk of poverty or social exclusion (AROEPE²).

However, it is acknowledged that the target groups of relevant policies differ between Member States. As will be seen in the country-level examples, many national measures target groups on the basis of either income or expenditure levels or eligibility for certain categories of social benefits (and do not use a single income threshold or a more complex definition of social exclusion). Given that an income criterion is used relatively widely, this report routinely refers to ‘people on low incomes’; however, other groups that are relevant in specific national contexts are also considered.

Types of policy measures to support access to essential services

Ensuring access to essential services may involve (but is not limited to) a range of social policy measures, and is part of what strengthens the EU’s social dimension. Any measure taken to improve access to services is also expected to respect the general principles of equality and fairness: according to Article 36 of the Charter of Fundamental Rights of the European Union, measures

to secure access to services should not introduce discrimination:

The Union recognises and respects access to services of general economic interest as provided for in national laws and practices, in accordance with the Treaties, in order to promote the social and territorial cohesion of the Union.

With regard to the main types of measures applied to assist people on low incomes, this report covers reduced tariffs, cash benefits, in-kind benefits and measures to ensure basic or uninterrupted supply (the key types used in a prior exercise carried out by the ESPN (2020)). However, it is important to acknowledge that, in some cases, assessment of measures may benefit from more context. For example, in the context of an energy cost crisis, several countries reduced value-added tax on energy – although this may lead to lower prices for end users, it is not a targeted reduction of tariff for a specific group per se (unless specified). It is also a challenge to consistently distinguish cash benefits from in-kind benefits: in this report, direct financial assistance in the form of income support is described as ‘cash benefits’. This applies, for example, to minimum income support: although the methodology may involve the provision of specified amounts to pay for transport services or to cover digital communication costs, beneficiaries can presumably spend the money received as they please, based on their own priorities. Voucher-type support (whether or not involving the actual provision of vouchers), whereby the beneficiaries can claim reimbursement or have costs covered for strictly defined goods (such as devices for using digital communications), is considered ‘in-kind benefits’.

Furthermore, it has not always been feasible within this project to make a fully comprehensive mapping of measures, especially where regional and local measures vary. In such cases, key examples are presented, rather than comprehensive lists of measures applied by each Member State.

Service providers

Principle 20 of the European Pillar of Social Rights (EPSR) does not specify the arrangements for the provision of essential services. For the purposes of this exercise, essential services are understood to be services for the public regardless of whether they are provided by the government (public sector) directly, a private initiative or a mixed partnership, with or without some public funding involvement (Table 1).

² For more information on the term, see the Eurostat glossary, available at [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:At_risk_of_poverty_or_social_exclusion_\(AROEPE\)](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Glossary:At_risk_of_poverty_or_social_exclusion_(AROEPE)).

Table 1: Main guidelines defining the scope for reporting to the Network of Eurofound Correspondents

Time frame	1 January 2020 to present, focusing on new/changed measures since ESPN (2020)
Status of the service providers	Services for the public, regardless of the provider type (not limited to only government services)
People in need – target groups of the policy measures	AROE population or people on low incomes (as in ESPN, 2020); other groups relevant in national contexts
Types of policy measures to support access to essential services – in place or planned	In order of priority, these are: <ul style="list-style-type: none"> • social policy measures (income related) • consumer protection (such as against disconnection) • other
Assessing access to services – a continuum between having a need and meeting a need	Focus is on affordability, accessibility and availability

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

1 Energy services

The main aim of this chapter is to map the national measures introduced to secure access to energy services for people on low incomes amid rising energy prices. The focus is on energy services for households, so the consumption of energy that is needed for accommodation is considered, for example heating oil, gas and electricity. In addition, when relevant, transport energy, such as fuel for cars (diesel, petrol or liquefied gas), is also discussed.

Concerns about energy poverty and its causes (such as low income and heavy dependence on high-cost, inefficient energy consumption) have been part of European and national policy discourse since well before the reporting period of this research (2020–2022). Member States have used various (direct or indirect) measures to improve access to energy services for low-income groups and broader strata of society.

Recently, especially in 2021 and 2022, Member States have adopted a vast array of measures in response to a trend of rising energy prices. Russia's invasion of Ukraine since February 2022 is often cited as a major factor affecting the supply and the market costs of fossil fuels. In fact, the trend started long before the Ukraine invasion, and energy prices rose enormously throughout 2021 (International Energy Agency, 2022). It should also be added that the rise in private expenditure on energy began prior to that – during the COVID-19 pandemic. The pandemic situation led to a loss of income for some people (restrictions to working) and to increased consumption of energy as a result of spending more time at home (leading to higher bills).

EU policy context in brief

In line with its commitment to guaranteeing access to essential services, including energy, the EU has played a major role and extended its engagement in essential service provision over time. The European Commission guides efforts by Member States, especially within the context of the European Green Deal. It also provides coordination in response to rising energy prices and the war in Ukraine. The active role of the EU is manifested, among other things, in legislation (for example, the Electricity Directive, (EU) 2019/944; the Gas Directive, 2009/73/EC – currently under revision; the Energy Efficiency Directive, (EU) 2018/2002; and the Energy Performance of Buildings Directive (2018/844/EU)).

One of the main objectives of the recent legislative package Fit for 55 is to help Member States alleviate energy poverty, and to empower and protect vulnerable customers. Particularly within the context of a just transition, Article 3 (d) of Regulation (EU) 2018/1999 on the governance of the energy union and climate action asks Member States to assess the number of households in energy poverty and, if significant, to develop a plan to reduce it. Of great importance, in terms of funding, are not only the Recovery and Resilience Facility and Just Transition Fund, but also the proposal for a Social Climate Fund. Initiatives for sharing good practices are also part of the EU's active role in this area (for example, Renewable energy for vulnerable groups (2019–2023), financed by Interreg Europe, and the Energy Poverty Advisory Hub (EPAH – see their online database³ as well as exemplary cases of local level action (European Commission, 2021a)), as is the facilitation of exchanges between Member States by the European Commission within the Energy Poverty and Vulnerable Consumers Coordination Group.

The considerable rise in energy prices posed a specific challenge for access to and the affordability of energy services throughout 2021 and 2022 – in Europe and globally. In autumn 2021, the European Commission highlighted potential measures that Member States could employ to support their vulnerable populations during the challenging period (European Commission, 2021b; see also European Commission, 2020a). This policy area continues to be actively developed throughout 2022 (at the time of writing), as seen, for example, in the REPowerEU plan (European Commission, 2022a), the aim of which is to rapidly reduce dependence on Russian fossil fuels and to 'fast forward the green transition'. The focus of this chapter, however, is on Member States.

The measures presented in this chapter are categorised by their main types. The chapter focuses on the initiatives/policies that have been introduced since the beginning of 2020 (and sometimes as part of a longer-term, multiannual programme) with the aims of easing access to energy services, tackling energy poverty and facilitating the green transition. The chapter also outlines the issue of take-up by summarising the information gathered from the national correspondents.

3 EPAH ATLAS online interactive database, available at https://energy-poverty.ec.europa.eu/discover/epah-atlas_en.

Risk of increased energy poverty: The challenge of diverse definitions

The focus of this chapter is on the challenges that primarily low-income individuals and households must face when accessing energy services amid rising energy prices. For people in disadvantaged situations, the threat of energy poverty has become acute, and this issue should be tackled immediately. Moreover, middle-income groups could be affected too.

As the review of the national measures reveals, target groups differ across Member States, and the definition of energy poverty also varies across the EU. The definition could be crucial owing to its link to data collection; hence, it could be central to national policy measures. For example, in France, Article 11 of Law No. 2010-788, of 12 July 2010, on a national commitment to the environment, defines a person affected by energy poverty as follows:

a person who experiences in his dwelling particular difficulties in obtaining the energy supply necessary to satisfy his basic needs due to the unsuitability of his resources or his housing conditions.

In addition, the National Energy Poverty Observatory, in its assessments of the phenomenon, relies on three indicators,⁴ on the basis of which it is estimated that 12 million people in France are living in energy poverty, and 4 million people are unsheltered or poorly housed (Fondation Abbé Pierre, 2022).

When defining energy poverty in **Ireland**, a variety of different metrics have been used, measuring fuel expenditure against wider income. The 2011 Better Energy Warmer Homes strategy put forward a ‘preliminary’ official definition based on reported expenditure (Department of Communications, Energy and Natural Resources, undated). It proposed a ‘core indicator’ of energy poverty, defined as a household spending more than 10% of its income after housing costs on energy services, and supplementary indicators of ‘severe’ and ‘extreme’ energy poverty, defined as spending more than 15% and 20%, respectively. This

metric appears to be generally followed by the state when defining energy poverty. A statistical report, released by the Central Statistics Office of Ireland, and based on the 2016 census data, identified those groups that are specifically vulnerable (Central Statistics Office, 2021).⁵

In **Romania**, the National Strategy of 27 November 2020 on long-term renovation of residential and non-residential building stock (both public and private) defined energy poverty as the result of a mix of different factors: low income, high energy costs, limited access to services, etc. In addition, the law on social protection measures for vulnerable energy consumers (adopted on 16 September 2021) defines vulnerable energy consumers as individuals/families who, due to health, age, insufficient income or lack of access to energy sources, cannot cover their energy needs, and so require social protection measures and additional services to ensure meeting at least their minimum energy needs (Article 3). In practical terms, however, the concrete support measures are still the household allowances for heating or other forms of energy, and the beneficiaries are mostly defined according to their income.

In **Spain**, the issue of hidden energy poverty (HEP) is noted and monitored by the Ministry for Ecological Transition and the Demographic Challenge (Miteco).⁶ The term HEP, which is relatively new and which is found only in recent literature, refers to the phenomenon of self-restricting residential energy consumption, which leads to underconsumption. Depending on the indicators used, individuals experiencing HEP could be overlooked by the data, which tend to focus on income. However, some research considers a relatively new indicator, the share of the population whose absolute energy consumption is very (abnormally) low (below half of the national median). This information is important because, as some examples have shown, the share of those with abnormally low consumption, who are not technically classified as energy poor, can be quite substantial, as has been estimated to be the case in **Austria**.⁷

4 These are (i) the energy effort rate: any household spending more than 10% of its income on energy, and belonging to the poorest 30% of the population in France; (ii) the low-income, high-expenditure indicator: households are considered to be in energy poverty if they fulfil two conditions – their income is low (below the poverty line) and their energy expenditure, in relation to the size of the dwelling (m²) or the family composition, is high (above the national median); and (iii) the feeling of discomfort (cold) – a subjective indicator of cold.

5 It found that people aged 75 or over, sole occupants, farmers and people with disabilities live in dwellings with the lowest energy efficiency. Ten per cent of households with a reference person aged 75 or older live in dwellings with an energy efficiency rating of ‘G’, which is the lowest of the seven categories in Ireland. Eight per cent of people living alone live in G-rated dwellings. Farmers (11%) and agricultural workers (8%) are the groups most likely to live in G-rated dwellings. Eight per cent of people with mobility difficulties live in G-rated dwellings, compared with 4% of people with no mobility difficulties. In addition, 7% of people in very bad health live in G-rated dwellings, compared with 4% of people in very good health. Although the headline figures of the report appear to identify older people living in rural areas as those living in the least energy-efficient and coldest homes, the same issues seem to apply to older urban dwellers, for instance working-class people in Dublin.

6 Miteco (2022). The HEP indicator is also reported to be in use in Belgium (Bouzarowski and Thomson, 2019, p. 45).

7 According to findings from Austria, ‘a third of deprived households not classified as energy poor cope by self-restriction’ (Eisfeld and Seebauber, 2022).

One of the reasons for the diversity of the definition may be the variation between countries in groups targeted by measures addressing energy poverty. The European Social Policy Network (ESPN, 2020) lists 13 groups, for example low-income elderly pensioners, larger households with dependent children, households living in rural areas, single-parent households, and Roma people living in segregated and other marginalised communities. The diversity of the list shows the challenges of governance at different levels (central, regional and local/municipal), for example the difficulty of reaching out to all of these groups and making sure that adequate measures are available for them.

There have been attempts to coordinate and advance the measurement of energy poverty at European level (European Commission, 2020a, 2020b), and these efforts are ongoing.⁸ The Commission highlights the importance of any definition capturing all three drivers/dimensions: income, prices and energy efficiency. The national definitions and, consequently, the scope and depth of the policy measures, however, still differ between Member States at present. This has to be kept in mind when reading this overview of the measures applied in the countries.

A direct comparison of measures across the Member States is challenging not only because the measures vary greatly, but also because there are important differences in the context within which the support systems operate. For example, in **Denmark**, there is no official definition of ‘essential services’ (the ‘utility services’ refer to water, sanitation and energy – the last referring to heating and electricity). There is, however, a clear distinction between welfare services which are available to all (such as education and childcare) but for which low-income groups receive support, and other services, which, in contrast, are not free for anyone, even those on low-incomes. Access to or the costs of the latter type of essential services are not considered when determining access to welfare benefits. Thus, until recently, there were no specific measures (reduced tariffs, in-kind benefits, etc.) to facilitate access to essential services on the grounds of low income. In 2021, however, as a result of the increase in wholesale energy prices in Europe, the price of electricity in Denmark rose by 305%. In response, the Danish government decided to introduce a ‘heat cheque’ support measure from 2022, to help vulnerable households pay their energy bills (Sgaravatti et al, 2022).

Similarly, **Sweden** does not have a national definition of low income in the context of essential services. Energy poverty is also not an established term in Sweden because the social insurance system covers costs for adequate warmth and other household- and energy-related needs, including accommodation for low-income and other vulnerable groups. The social insurance system is governed at national level and is supported by governance at municipal level. This means in practice that individuals can apply for social assistance from municipalities, but the structure varies from municipality to municipality. Electricity prices are regulated by the Swedish Energy Markets Inspectorate’s electricity revenue framework, which in turn prevents the electricity companies from charging fees that are, as stated in the Electricity Act, unreasonable, biased and discriminatory. The revenue framework is regulated in advance and is valid for four years at a time.

In **Ireland**, however, certain social welfare benefits are used as a criterion, or entry point, for wider support.⁹ In **Croatia**, there is currently no distinction in legislation between energy poverty and general poverty, and direct payment of utility bills is the only measure of help for (energy-) poor households. In **France**, two types of measures exist: supporting access to energy through financial aid (*chèque énergie*) and guaranteed minimum access to energy and granting financial aid for renovation in dwellings (housing).

Easing access to energy services amid high price increases

Increases in energy prices were recognised as a challenge in many Member States even prior to 2020, when price volatility first became an issue. This may partly explain the fact that ongoing reforms or reforms announced in 2019 relate mainly to the area of energy support services, rather than to other essential services (namely, water, sanitation, public transport, digital communication and financial services) (ESPN, 2020, p. 19).

Energy prices have been increasing substantially over 2021–2022. The consequences of the war in Ukraine have contributed further to an existing trend of increasing energy prices (European Commission, 2021b).

⁸ The European Commission proposed a definition in the review of the Energy Efficiency Directive, currently under negotiation in the Council and the European Parliament. The Council recommendation on a fair transition, adopted in mid-2022, establishes links to that the proposed definition. A dashboard of indicators, launched in 2021, is currently administered by EPAH.

⁹ The two major means-tested benefits are jobseekers’ allowance and the non-contributory state pension. Although the system for means testing is somewhat complex, a person will usually only be eligible for these benefits if their income is less than the benefits themselves. An unemployed person under the pension age of 66 will need to be in receipt of less than €208 per week and a person applying for a pension will need to be in receipt of less than €242 per week.

For example, in January 2022, in Ireland, the 12-month increase in ‘Electricity, gas & other fuels’ stood at 27.4%.¹⁰ In Belgium, according to figures released in spring 2022, the average household electricity bill rose by more than 30% in 2021, and the average gas bill rose by more than 120%, despite increased support in the form of reduced tariffs. The price increase was especially steep in mainland Europe.

The measures taken in 2020–2021 have been insufficient to outweigh the additional costs deriving from the sharp rise in energy prices, and the strengthening of social tariffs appears to be among the most preferred measures. However, to ease the impact, Member States have introduced new and/or extended recent measures, and in many cases the previously introduced schemes for the green transition were reconsidered (for example, in Ireland, the carbon tax).

Key types of measures

The measures considered in this overview include those that constitute either immediate reaction regarding the price increase (new measures, sometimes even temporary) or those that were in place from before 2020

but were recently modified. They include measures both directly addressing access for people on low incomes and universal measures within the context of the rise in energy prices. It is notable that many of the emergency measures identified in the current overview were of a universal nature,¹¹ but there are also examples of targeted schemes that were extended (in terms of the amount allocated and/or the coverage).

In some instances, in order to better understand the country context (for example, why new measures were not introduced to the same extent as in other countries), longer-term measures are indicated even if they have not been recently changed. The categorisation in Table 2 mainly follows the groupings used by ESPN (2020):

- reduced tariffs
- cash benefits
- in-kind benefits
- basic/uninterrupted supply

A detailed description of the measures by country (where relevant) is presented after Table 2.

Table 2: Main types of temporary, ongoing and planned measures supporting access to and affordability of energy services for people on low incomes

Member State	Reduced tariffs	Cash benefits	In-kind benefits	Basic/uninterrupted supply
Austria	1	1		1
Belgium	1	1		1
Bulgaria	1	1		
Croatia	1	1	1	1
Cyprus	1			
Czechia		1		
Denmark		1		
Estonia	1	1		
Finland	1		1	
France	1	1	1	1
Germany	1	1		1
Greece	1	1		1
Hungary	1		1	
Ireland		1	1	1
Italy	1	1		
Latvia	1	1		
Lithuania	1	1		
Luxembourg	1	1		

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

¹⁰ Within the consumer price index, the increase in Subdivision 4.3 (namely, maintenance and repair of the dwelling, which increased by 6.7%) is also of some concern (Central Statistics Office, 2022).

¹¹ Some reasons for this tendency are included in OECD (2022).

Table 2: Main types of temporary, ongoing and planned measures supporting access to and affordability of energy services for people on low incomes

Member State	Reduced tariffs	Cash benefits	In-kind benefits	Basic/uninterrupted supply
Malta	1			
Netherlands	1	1		
Poland	1	1		
Portugal				1
Romania	1	1	1	1
Slovakia		1		
Slovenia	1	1		
Spain	1			1
Sweden		1		

Notes: '1' indicates that a measure of that type exists in a country (blank is the absence of measures). The measures are included irrespective of scope, that is both targeted and universal ones.

The table covers the measures that were introduced or were in place during the reporting period (2020–2021/early 2022). Note that, as regards type of measure, ESPN (2020) distinguished a separate category of advice and informational support; in the current overview, such measures are included under the section on in-kind benefits.

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

As can be seen in Table 2, the most preferred methods of support are reduced tariffs and cash benefits. Each of these types of measures is applied in 21 countries; 11 countries (Austria, Belgium, Cyprus, Estonia, Hungary, Italy, Latvia, Lithuania, Luxembourg, Slovenia and Spain) have recently introduced even more such measures. The measures regarding basic/uninterrupted supply are also in place quite widely (10 countries), whereas in-kind benefits seem to be the least popular (6 countries).

The measures, even if they can be categorised, take diverse forms. One of the reasons for this is that, in many cases, they form part of a more comprehensive programme – often as a long-term plan (for example in **Croatia**) – whereas in other countries they are single or even one-off (often emergency) measures. In the next sections, the four types of measures (outlined in Table 2) are discussed and selected country examples are provided to illustrate how such measures apply in specific national cases.

Reduced tariffs

Reduced tariffs seem to be one of the most common policy reactions to the energy price increases. Measures of this type can be further grouped into subcategories.

Reductions in value-added tax or other taxes/duties/levies

At a time of reporting, in March–June 2022, a reduction in value-added tax (VAT) on electricity or fuels for

domestic heating was in place in Cyprus, Lithuania, Poland and Slovenia, and was planned in Croatia. Other tax reductions can be seen in Austria, Cyprus,¹² Germany,¹³ Italy, the Netherlands, Poland, Slovenia and Spain. A reduction excise duty is planned in Hungary. In three countries (Austria, Germany and Slovenia), the tax reductions are intended to reduce the amount people pay for utilities, although, in some countries, this meant that financing the green transition has had to be put on hold.

So, as can be seen, in many countries, taxes (VAT, excise duties, contributions to the green transition and other specific taxes/duties/levies) that add to the price of energy and fuel have been reduced. The price structure reflects the proportion of taxes (for example, according to some data, taxes account for a relatively high proportion of the final price in Spain and Italy (Rogulj, 2022)). It can also be concluded that tax cuts seem to be the simplest and most straightforward policy response to increased market prices. At the same time, all these measures have their administration costs and may lead to reductions in government revenue – hence, many of these measures are temporary. However, although taxes are an important source of revenue for public budgets, any type of tax on domestic energy is usually regressive, as the burden is relatively higher for low-income groups. Therefore, any cuts to such taxes are distributionally progressive, even if everyone benefits to some extent.

¹² For details, see Eurofound (2022a).

¹³ In Germany, the government, in April 2022, adopted a decision that the energy tax rates for the fuels mainly used in road traffic will be reduced to the level of the minimum tax rates of the EU Energy Tax Directive (2003/96/EC) – see Eurofound (2022b) for further details.

Price freezing or price caps

These are applied in one form or another in five countries: Bulgaria, France, Malta, Romania and Hungary (in Hungary, the price cap applies only to diesel and petrol).

Extended coverage of previously introduced measures (which were often related to the reduction of prices) is used as a tool for cushioning the impact of the energy price increase in four countries: Austria (where this time all households were included), Belgium (where the measure remained targeted), Greece and Spain. Reduction in network costs (which are user contributions intended to pay for the maintenance of the electricity or gas network) have been implemented in Estonia, Luxembourg and Poland. Other costs that contribute to the final price include distribution costs, which have been reduced in Finland, Latvia and Slovenia. In Finland and Slovenia, these measures adversely affected the profit rate for electricity companies; in Latvia, costs are lowered through compensation of the electricity transmission system fee and of the mandatory procurement component (OIK) from the state budget (Eurofound, 2022b). A similar measure has been implemented to some extent in Spain, where a windfall tax has been introduced for those companies that benefited hugely from the higher energy prices. This is also being discussed in other countries, for example Ireland. Since March 2022, when this overview was being prepared, policy developments in Europe, to identify sources of energy other than Russia and to address energy cost implications, have accelerated.¹⁴

To demonstrate the details of the aforementioned types of policies to reduce tariffs via taxes or price freezes, selected detailed examples are provided below.

Lithuania applies a reduced VAT rate of 9% (compared with the standard VAT rate of 21%) on district heating. In 2019, this reduced VAT rate was extended to firewood and wood products used by households. Owing to the energy price increase, a further (temporary) reduction in VAT on district heating (to zero) was adopted for the period January–April 2022.¹⁵ The laws have been amended to allow the National Energy Regulatory Council to spread the increase in the price of natural gas

to consumers, as well as the additional component of publicly supplied electricity transmission services to household consumers, over five years. The measure does not single out specific social groups.

In **France**, the state covers the additional costs incurred by suppliers owing to the price freeze. The measure prevented a substantial increase in price and prevented an increase in expenditure of €500 per year for each household. Another submeasure is freezing the increase in regulated electricity sales tariffs at 4% (including tax) on 1 February 2022 for residential consumers¹⁶ (without this intervention, the increase would have reached 35%,¹⁷ €300 per year for each household). The inflation allowance is one payment made by employers to employees; employers are then fully compensated by the state for these payments through aid in the payment of their social security contributions. Two other submeasures, which are not means tested, aid motorists by reducing the price of petrol and diesel at the pump.

In **Germany**, the revenue from the Renewable Energy Act levy is used to finance the expansion of the renewable energy supply. As of 1 January 2022, the levy dropped from 6.5 to 3.723 cent per kWh of electricity. That is a reduction of around 43%. Under the label ‘Socially fair energy prices’, the new government has announced that it will stop financing the expansion of the renewable energy supply via the electricity price as of 1 January 2023. In the future, the financing will come from the Energy and Climate Fund, which is fed by the income from the emissions trading systems (the Fuels Emissions Trading Act and EU Emissions Trading System) and a subsidy from the federal budget.

In **Poland**, many of these types of measures (reduced tariffs, price freezes/price caps) are clustered into a set of policies that the Polish government has called ‘the anti-inflation shield’. This set of measures was adopted in December 2021 and was updated twice over the course of 2022.¹⁸ The energy-related measures encompass the following:

- a reduction in VAT on system/network heat from 23% to 8% in January–March 2022, lowered to 5% for the remaining months of 2022 in subsequent updates of the ‘anti-inflation shield’

14 For a summary of a broad range of measures to shield consumers from rising energy prices, see the continued update of Bruegel’s overview (Sgaravatti et al, 2022). Bruegel monitors the introduction of financial support and, for example, windfall taxes, although it does not detail the measures for vulnerable groups that are the focus of this overview.

15 On 17 March 2022, the Lithuanian parliament adopted a temporary measure of a 0% VAT rate for district heating. The 0% VAT rate was applied retroactively from 1 January 2022 to 30 April 2022 (LRS, 2022).

16 For more information, see Décret n° 2022-84 du 28 janvier 2022 relatif à la minoration des tarifs de l'accise sur l'électricité prévue à l'article 29 de la loi n° 2021-1900 du 30 décembre 2021 de finances pour 2022, and Arrêté du 28 janvier 2022 relatif aux tarifs réglementés de vente de l'électricité applicables aux consommateurs non résidentiels en France métropolitaine continentale.

17 See French Government (2022).

18 More information is available on the Polish government website for the general public, available at <https://chronimyrozdiny.gov.pl/>; further information from 23 August 2022 from the Ministry of Finance on extending the ‘anti-inflation shield’ until the end of 2022 is available at <https://www.gov.pl/web/finanse/rzad-przedluzyl-dzialanie-tarczy-antynflacyjnej-do-konca-2022-r>. As per a decision in August 2022, Poland extended most of these measures until the end of 2022 – more information will be provided in the forthcoming updates to Eurofound’s online database EU PolicyWatch.

- a reduction in VAT on natural gas from 23% to 8% in January–March 2022, lowered to 0% for the remaining months of 2022 in subsequent updates of the ‘anti-inflation shield’
- a reduction in VAT on electricity from 23% to 5% in January–March 2022, later extended until the end of 2022
- the abolition of excise duty on electricity (PLN 5/MWh; €1.12 euro as at 26 June 2023) for households (for other entities, a reduced rate was applied) in January–March 2022, later extended until the end of 2022
- the abolition of retail sales tax on transport fuels in January–May 2022 (the amount of the tax depends on seller’s turnover– but is between 0% and 1.4% of revenue), later extended until the end of 2022
- a reduction in excise duty on transport fuels to the EU minimum (€359/1,000 litres for petrol, €330/1,000 litres for diesel, €125/tonne for liquefied petroleum gas) – from 20 December 2021 to 20 May 2022, later extended until the end of 2022
- the abolition of emission charge in fuels from 20 December 2021 to 20 May 2022, later extended until the end of 2022

In **Spain**, the electricity social voucher’s discount rate is 60% for vulnerable and 70% for severely vulnerable consumers. Owing to the COVID-19 crisis, the coverage was also extended to unemployed people and those who are affected by a temporary workforce restructuring plan; in the case of self-employed people, it was extended to those who reduced their working hours owing to care responsibilities or other similar circumstances entailing a substantial loss of income.

In **Cyprus**, in September 2021, it was decided to reduce the electricity price (10% reduction for the average household consumer) to mitigate the effects of rising fuel costs and the cost of purchasing greenhouse gas emission allowances. The measure was applied to bills from November 2021 to February 2022. Another measure introduced a reduction in VAT on electricity consumption, from 19% to 5%, in the Electricity Authority of Cyprus tariffs. This measure covers a period of six months, but, in contrast to the reduction in the electricity price, which applied to everyone, targets only vulnerable consumers.

In **Estonia**, price caps were defined for both electricity and gas (the cap included VAT)¹⁹ – caps covered up to 650 kWh per month for electricity and up to 2.75 MWh

per month for gas consumption. The measure was adopted on 5 February 2022, applied for the period January–March 2022. In the case of district heating, 65% of the part of the heating bill that exceeds the level of unit price in October 2021 will be compensated to the consumer. The reduction is similar to other measures, that is the consumer benefits automatically, and the service provider can apply for state reimbursement. The measure was adopted on 3 February 2022, and applied for the period January–March 2022.

In **Malta**, the government has allocated funds to Malta’s sole energy provider to address the hike in fuel prices after the fuel hedging agreement expired in March 2022. Once these funds are exhausted, the government is hoping to have signed a new hedging agreement that will ensure fuel and energy supply at a reasonable price. The government claims that the agreement has led to an annual average saving of €500 per household. This measure is both a by-chance continuation and new. Malta’s energy price stability is the result of a seven-year fuel hedging agreement that has been in force since 2015. The objective of such an agreement is to reduce exposure to unfavourable price changes. What is new is the government’s commitment to absorbing the price of higher fuel costs from March 2022, when this agreement came to an end.

Given that Malta has been benefiting from price stability, utility prices are affordable for the majority. According to data from 2020, 93.7% of the population did not report any arrears on utility bills. The hedging agreement measure is universal, but vulnerable individuals could also make use of the existing ‘Energy Benefit’.²⁰ During 2020, a total of 5,993 people received the Energy Benefit. Malta has been relatively unaffected by the rising energy price of liquefied natural gas, which is used to operate its power stations. After March 2022, Malta must buy its required gas at the current market rates.²¹ In February 2022, the government claimed that households would have experienced a €500 increase in their energy bills during 2022 if the government had not intervened in October 2021 to freeze future energy prices. In April 2022, Malta signed new agreements ‘to lock in prices ‘for a substantial volume’ of the country’s supply of liquefied natural gas’. According to this deal, the state energy supplier is to set the price of varying volumes of gas at different rates, with the government’s objective being to keep utility bills stable and absorb the impact of possible price increases (Times of Malta, 2022).

19 It was 12 cent per kWh, which did not include the cost of network service, excise duty or renewable energy charges. In the case of gas, the price ceiling was 6.5 cent per kWh or €0.6792/m³.

20 More information on the benefit is available at https://www.servizz.gov.mt/en/Pages/Inclusion_-Equality-and-Social-Welfare/Social-Solidarity/Benefits-and-Services/WEB630/default.aspx.

21 See *Times of Malta* (2021).

Italy introduced specific measures aiming to reduce the impact of energy price increases on household bills in 2021 (the conversion law of Decree-Law No. 73 of 25 May 2021 (passed in July 2021), and Decree-Law No. 130 of 27 September 2021, the 2022 Budget Law and Decree-Law No. 17 of 1 March 2022). They contained some general measures, essentially aiming to contain payments connected to system expenses and taxes, and specific initiatives to increase the funding of energy bonuses, which were applicable to one specific quarter. The measures targeted the ‘households in need’ (defined in the legislation), including households receiving the citizenship income – these households are also covered by the energy bonuses.

In **Belgium**, the national social tariff for gas and electricity was extended to cover those households that are eligible for the ‘enhanced repayment of health care’. This repayment is granted to all households below a certain income threshold – irrespective of the sources of income. This criterion covers approximately 880,000 households (17% of the population). Prior to the extension of coverage, the number of households eligible for the social energy tariffs was 445,000. In principle, the social tariff is granted automatically, so as to minimise non-take-up. The social tariff is identical throughout Belgium, regardless of the region where one lives, and regardless of the energy supplier or network operator. At federal level in **Belgium**, there is ongoing policy debate about the implementation of measures more radical than the social tariffs applied so far, for example whether to reduce VAT from 21% to 6% or to introduce more flexible or selective measures.

In **Greece**, because of the expansion of coverage of various measures (such as heating allowances), the government estimated that the number of beneficiaries would exceed 1 million in 2021, compared with 700,000 in 2020. The discount on natural gas was raised from 16% to 40% for the period October–November 2021, and to €34 per thermal MWh in December of the same year. The discount was €11 per thermal MWh in October and €16 per thermal MWh in November. Household consumers saw an additional reduction of an average of €15 per thermal MWh resulting from the network use charge suspension for November and December 2021. Overall, the household discount was €31 per thermal MWh in November and €49 per thermal MWh in December. The government-owned Public Power Corporation (PPC) also expanded its existing discount policy to fully cover the price rise for the average household with a consumption of up to 600 kWh per

month; special discounts were given to older people (8%). Moreover, as part of a one-off special aid measure (introduced in December 2021 and administered by the Ministry of Environment and Energy) for reconnecting electricity supply to those who were disconnected owing to an inability to pay, the government covers the reconnection fees and takes over part of the household debt²² (see more in the section ‘Basic/uninterrupted supply’). Other than that, a subsidy for the selling price of diesel was introduced in Greece, but only for April 2022. Later, a direct fuel subsidy to low-income citizens was also applied to cover one part of the price increase for three months (April–June 2022). This measure, however, was targeted at low- and middle-income households: the beneficiaries were individuals who were tax residents of Greece and had a declared family income of up to €30,000 (Eurofound, 2022c).

Cash benefits

Cash benefits to cushion high energy costs constitute one of the most frequently applied measures, similarly to previous years (it used to be ‘by far the most common measure’, according to ESPN (2020)). Understandably, amid rising energy prices, the most widely applied measures involve extending the coverage and/or increasing the amount of benefits: this is the case in Czechia (coverage and amount), Greece (coverage and amount), Italy (increased amount), Lithuania (coverage) and the Netherlands (extra amount for lower-income groups). In Croatia, there are plans to increase the scope and amount of the previous firewood grant. Measures that could be considered as new (even if temporary) can be seen in the following countries:

- Austria (energy cost compensation voucher – temporary, high-income groups are not eligible (Eurofound, 2022d) – and inflation compensation – also temporary and targeted)
- Bulgaria (lump-sum financial support for heating for vulnerable individuals/families)
- Denmark (targeted heating cheque²³)
- Estonia (means-tested reduction in energy costs – a temporary national measure)
- France (inflation allowance)
- Germany (a 10% increase of the housing benefit, according to the Act to reduce burdens of heating costs in the housing benefit in the context of CO₂ pricing)
- Ireland (Electricity Costs Emergency Benefit Scheme (Eurofound, 2022g))

22 The special aid is structured as follows: for debts of up to €6,000, the entire debt is paid once; for debts of more than €6,000 and up to €9,000, 75% of the debt is paid once; for debts over €9,000 and up to €12,000, 50% of the debt is paid once; for debts over €12,000, 30% of the debt is paid once; the remaining amount is paid by the consumers in interest-free monthly instalments. Pertinent pieces of legislation are Joint Ministerial Decision Αριθμ. ΥΠΕΝ/ΔΗΕ/70697/861/2020, Official Government Gazette, No. 3088/B, 24 July 2020; Joint Ministerial Decision Αριθμ. ΥΠΕΝ/ΔΗΕ/124788/2150, Official Government Gazette, No. 6302, 29 December 2021; and Joint Ministerial Decision Αριθμ. ΥΠΕΝ/ΔΗΕ/52001/1821, Official Government Gazette, No. 2567, 24 May 2022.

23 There has been a recent extension of the amount of the heat cheque for economically vulnerable groups. See Eurofound (2022f).

- Latvia (new temporary and targeted measures)
- Luxembourg (energy bonus for low-income households)
- Poland ('shield allowance')
- Romania (aid for heating the home and aid for energy consumption – targeted)
- Slovenia (one-off solidarity allowance – targeted (Eurofound, 2022h))
- Sweden (electricity price compensation)

The current findings confirm the previous ones (see ESPN, 2020): national-level measures are most common (even if they are in some cases applied by local governments, such as in Estonia). Some measures are part of a bigger package (for example, in Belgium, France, Romania, and planned in Croatia). Even if cash benefits were used frequently in the past, there are many new measures, which in most cases are temporary.

To demonstrate the details of how the cash benefits are designed, selected examples are provided below.

Estonia introduced a measure that targets disadvantaged families in November 2021. Households with an income per member that is below the median income are reimbursed 80% of the total energy price that exceeds €120/MWh (for electricity; the level is €49/MWh for gas and €78/MWh for district heating). The measure is applied by local governments. The reimbursement is linked not to receipt of any social benefits, but to the household income.

The **Czech** government considered increasing the 'standard costs' for housing allowance further, but only for 2022.

In December 2021, **Croatia** implemented a programme to combat energy poverty, including the use of renewable energy sources in residential buildings in assisted areas and in areas of special state concern for the period by 2025 (*Official Gazette*, No 143/21). The programme covers the renovation of buildings (but only in assisted and special care areas) if residents are not able to contribute to financing necessary repairs, especially if these repairs aim to make the building more energy efficient. Co-financing and implementation of the programme will be provided from the funds of the Recovery and Resilience Facility through the National Recovery and Resilience Plan 2021–2026, and from the state budget. The Central State Office for Reconstruction and Housing oversees the implementation of the programme. On 26 January 2022, the Prime Minister announced that the government would maintain and improve social inclusion through three segments and protect the most vulnerable in Croatian society, particularly regarding energy poverty. The first activity is to adopt a new regulatory framework that increases the scope and the amount of the firewood grant benefit (a measure that has been in place for a long time). The second part of the package refers to the consideration of fees, which determine the price of gas or electricity. The third element considers changes to the tax policy.

In several countries, the concept of 'protected consumers' or vulnerable customers is applied (for example, in Hungary, Latvia, Lithuania and Romania). As an illustration, Box 1 provides an example of its coverage/definition in Latvia.

Box 1: The concept of a protected consumer in Latvia: its origins and the extension of its coverage in 2022

In Latvia, the special policy for people in need was introduced from 2015, after the liberalisation of the Latvian electricity market (amendments to the Electricity Market Law, made in 2014). Before this date, household electricity tariffs had been lower than the market price of electricity. After the liberalisation, household electricity prices increased significantly. In January 2015, the concept of a protected consumer was introduced to support groups in vulnerable situation.

The coverage of protected customers was extended in 2022 to the following categories: low-income households (or people), a large family, a family (or person) who cares for a child with a disability or a person who falls into a certain group of disability (called disability I) and uses electricity for final consumption in their own household (Electricity Market Law, Section 1 (2) 2).

Access to energy sources (gas, firewood, centralised heating, etc.) for certain social groups was facilitated even before that, and this was managed through the household allowance (Law on assistance in solving apartment matters, Section 1, paragraph 5 (2001); and Law on social services and social assistance, Section 35 (1) 20 (2002)).

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

In-kind support

At first sight, in-kind support seems a somewhat less popular reaction to the price increase than the other measures: it was found in a total of six countries (in Romania, two in-kind support schemes were noted). At the same time, it has to be acknowledged that in-kind support could be a complementary part of another measure. For example, in Greece, provision of weekly information and the telephone line (both in-kind support measures) help consumers who are at risk of a power cut or experience an actual power cut due to failure to pay their debts for electricity. Therefore, this measure is intricately linked to the broader measure of securing continuous supply (see further discussion of this measure in section 'Basic/uninterrupted supply'). Unlike an earlier report of in-kind support at regional/local levels (see ESPN, 2020, p. 70), this time, mainly central-level measures were identified. This may be linked to the fact that many of the measures are emergency ones.

Of all the in-kind support measures, apart from the measure in Greece mentioned above, only two other countries provide information and advice: Romania and Croatia. In both countries, the aim is to combat energy poverty; in Croatia, in-kind support is part of a bigger programme and, as in Greece, it supplements the financial support given to energy consumers. Two measures are linked to access and affordability. In Romania, a new emergency decree of October 2021 made it possible for vulnerable consumers to defer payment of their bills for a period of one month or six months at no extra cost. In France, the broad scheme of the *chèque énergie* sets up the right to protection in electricity and natural gas contracts – this means that no connection fees apply when moving house. The other four schemes are special ones. In Ireland, the scheme is linked to renovation – the Better Energy Warmer Homes scheme, which is an existing measure, has recently been extended and makes a major free energy upgrade arrangement targeting low-income households possible. In Finland, the measure concerns

work-related travel and how it is taxed: there is an increase in the maximum tax reduction for this travel from €7,000 to €8,400. According to estimates, this may affect 570,000 taxpayers. Another similar in-kind benefit is under consideration in Finland: make park-and-ride parking deductible from work-related travel tax.

The In-kind benefit measure of 'welfare fuel support' has been in place in Hungary for a long time (since 2011), and the number of beneficiaries has recently increased: according to estimates, 180,000–190,000 households received the support in 2021. This measure is provided directly through municipalities with a population of less than 5,000, and the funding (emanating from the state budget) is used to purchase fuel (firewood and lignite), which is distributed to households in need in accordance with locally defined criteria. The local decree must stipulate that the distribution of fuel prioritises those receiving old-age benefits or income supplements from the municipality, or families receiving benefits for looking after their underprivileged children. Since 2016, the maximum amount that can be requested has been determined centrally, taking into consideration the number of people in the public works scheme and the number of inhabitants aged over 80. In October 2021, more than 2,300 municipalities successfully applied for the social fuel tender, issued by the Ministry of Interior. Municipalities may also provide such support for those in need over and above this central programme.

Although reported instances of the use of in-kind support were not numerous, such support is an important measure in terms of targeting groups in disadvantaged situations. As seen in the examples presented, this type of support could even play a crucial role in the specific case of easing access to very basic energy services. However, in 2022, policymakers also began looking into options for other types of basic support, such as granting priority access to energy services in potential crises, which might eventually affect the evolution of the concept of essential services at national level (see Box 2).

Box 2: Considerations for priority access to energy services

Until recently, essential services were mostly considered at national level in terms of ensuring service continuity and limiting the options for industrial action (strikes) (Mironi and Schlachter, 2019). Typically, essential services with such limitations were identified in the area of statutory services (police, army and rescue) and sometimes transport or welfare services, and involved the public sector workforce. Following the recent developments around energy services discussed in this report, new reflections by policymakers are emerging around strengthening preparedness for crises and ensuring that essential services are not interrupted.

The challenges throughout 2022 provided a strong impetus for the Member States to prepare for various scenarios regarding potential disruptions to the energy supply. The scenarios considered included the protraction of Russia's war in Ukraine, the decrease or cessation of Russia's supply of gas to some Member States (as occurred when Nord Stream 1 was closed in mid-July and early September), high market prices of oil and the planned reduction in the purchase of oil from Russia as part of EU sanctions. Some governments, while emphasising in communications that the worst-case scenarios are not expected to actually happen, are

nevertheless working on plans to ration fuels and establish categories of essential workers who would have priority access to fuel in the case of severe shortages. For examples, see Reuters (2022) and Bray (2022).

Attempts to address similar concerns are reflected in EU initiatives such as REPowerEU, which aims to save energy, diversify energy sources and accelerate the transition to clean energy; it also emphasises contingency measures in case interruptions to supply are needed (European Commission, 2022a, 2022d).

Such developments are likely to further influence the understanding of essential services at national level and increase the practical importance of the concept – possibly beyond the services addressed by Principle 20 of the European Pillar of Social Rights (EPSR). The clarity around prioritisation in case of necessity, and the readiness to sustain key services and assist the groups most in need could be helpful for overall resilience to crises.

Basic/uninterrupted supply

Measures to secure uninterrupted supply can be seen in 11 countries: Austria, Belgium, Croatia, France, Germany, Greece, Hungary, Ireland, Portugal, Romania and Spain.

The government in **Portugal**, in the context of the COVID-19 pandemic, decided to implement an exceptional temporary measure, *Guaranteed access to essential services – supply of electricity and natural gas* (introduced on 7 July 2021, amended on 23 December 2021), to ensure these services could not be suspended until 31 March 2022. In the case of debt, a payment plan adequate to the current income of the consumer must be drawn up (within a reasonable time).

In **Romania**, according to a new decree for the protection of the vulnerable consumer,²⁴ it is forbidden to disconnect places of consumption where vulnerable consumers live from the electricity network. However, there is no official register for identifying a number of the vulnerable clients. According to a press release issued by the National Authority for Energy Regulations (ANRE, 2021), more than half of Romania's household electricity consumers, more than 4.5 million people (the total number of consumers in Romania is 8.7 million), fall into the category of vulnerable consumers, with an average consumption of 55 kWh per month.

In some cases (where measures have been in place previously, according to ESPN (2020)), the COVID-19 context seems to have played an important role. For example, in **Ireland**, the government instituted a blanket ban on disconnections at the beginning of the COVID-19 crisis (this was, however, lifted in June 2021). In **Austria**, however, the measure used during the COVID-19 pandemic (Continuous supply of electricity and gas) was reintroduced in late 2021/early 2022. Therefore, it was in force from March to June 2020 and from 23 December 2021 to 31 January 2022. The measure guarantees electricity and gas supply for household customers and small businesses having

problems paying their energy bills. It is a temporary measure (an agreement concluded originally on 25 March 2020 between the Federal Ministry of Finance and the associations of electricity and gas companies).

In **France**, however, an entirely new measure was launched on 1 April 2022, called *Fin des coupures d'électricité* (An end to power cuts). In contrast to previous schemes, this new measure is applicable for the whole year (not just the winter period) in the case of unpaid bills. It replaces power cuts with a limited amount of power supply,²⁵ and it is applicable to all, unless technically impossible. This means that a minimum service will be maintained while waiting for the customer to regularise their situation, although the energy bills remain due. If necessary, EDF (the main electricity supplier, which launched the programme) puts in place solutions to facilitate payment. In **Germany**, a similar measure, the 'right to refuse payment', was implemented, among other services of general interest, during the COVID-19 pandemic. The measure was intended to prevent hardship and ensured the continued supply of energy for those who were unable to pay owing to disruptions caused by COVID-19 (for example, job loss). This COVID-19-specific temporary measure has now, however, come to an end.

In **Spain**, within the framework of the social vouchers, a non-suspension of supply for vulnerable consumers (who are eligible for the social vouchers) was introduced, and it was planned to last until 28 February 2022.

Croatia's amended Electricity Market Act (last modified on 30 May 2019) stipulates that distribution system operators have to establish and maintain a register of vulnerable customers (potentially, this could serve as an administrative source of data on energy poverty). It also specifies that a protected customer has the right to be supplied with a certain amount of electricity in the event of a crisis. However, so far protected customers have not been defined.

²⁴ Emergency Ordinance No 27 of 18 March 2022 on the measures applicable to end users in the electricity and natural gas market during the period from 1 April 2022 to 31 March 2023.

²⁵ 1 kVA (kilovolt-ampere), which is 0.8 kW (more information on the different units is available at <https://powerelectrics.com/blog/the-difference-between-kw-and-kva>).

In **Belgium**, the regional authorities introduced temporary bans on cutting off energy supply to consumers around the end of 2020, for a period that extended into 2021. In the Flemish Region, to assist households in receipt of energy loans from the Flemish government (selected low-income groups not limited to social benefit recipients) were automatically granted a three-month repayment extension, from April to July 2020. The loans are limited to €15,000, with a repayment period of 10 years. Later in 2020, also in the Flemish Region, a temporary ban on disconnections or limitations of delivery through budget/prepayment meters was introduced to ensure continuous supply to users with payment problems. The ban applied during the period November 2020 to February 2021, in the case of disconnections, and in November–December 2020, in the case of limited delivery.

In **Belgium's** Walloon Region, a ban on disconnection was also introduced for a similar period (the Walloon temporary ban on disconnection or new budget/prepayment meters) and a possibility of continued delivery when the limit of the budget/prepayment meter was reached. The measure was in place from November 2020 to March 2021. Clients in a situation of 'energy precarity' were eligible to benefit. Another measure targeting households was the temporary suspension of the obligation for Walloon households with budget meters to prepay the next delivery period during March–June 2020. In addition, a scheme entitled 'Protected client status for Walloon unemployed or social assistance recipients with payment arrears' was introduced in September 2020 (extended until 31/12/2021). According to another measure, households that use budget/prepayment meters and experiences payment problems were eligible for a one-off Walloon payment of €100 for electricity and €75 for gas in 2020 (under the decree of the Walloon government of 20 June 2020). Furthermore, a one-off support was introduced for temporarily unemployed people (again, for households with budget/prepayment meters) in autumn 2020: it was a Walloon payment of €50 for electricity and €150 for gas.

In the Brussels Region, a temporary ban on disconnections (gas and electricity) was also introduced from March 2020 until May 2021. During the periods of

legal bans implemented by the regional governments in **Belgium**, there was a sharp decline in the number of disconnections. However, as soon as the bans expired, the numbers soared again: in the Brussels Region, for example, 30% more disconnections took place during summer 2021 than in the same period in 2019 (Observatoire de la santé et du social de Bruxelles, 2022).

In **Greece**, if a request is submitted through the telephone line established for helping vulnerable customers in the case of a power cut (mentioned above),²⁶ requests for reconnection are considered immediately, and the competent authorities will cover the reconnection cost for citizens whose requests are approved. The budget for this extraordinary support will amount to €40 million and will be provided by the Energy Transition Fund. The measure provided for the reconnection cost and debt assistance for those who were disconnected until 31 March 2022. To be eligible for support, the request for reconnection must relate to the applicant's main residence, and applicants must meet specific income criteria. In addition, applicants must declare that the value of their real estate does not exceed €120,000 (in the case of a one-person household) plus €15,000 for each additional household member, to a maximum of €180,000 and that they have not spent money on luxury expenses (for example, yachts, private school tuition, housekeepers).²⁷ For context, the number of consumers that cannot pay their electricity bills even by settlement has continued to increase in 2022, as has the number of 'orphaned' electricity meters, that is consumers who, owing to accumulated debts, cannot find a provider. According to unofficial market data for the first quarter of 2022, a total of 19,000 electricity meters were passed over for the universal service provision by the government-appointed provider, increasing the total number from 148,000 at the end of 2021 to 167,000 (Cretaliva, 2022).

Germany introduced a right to refuse payment in the first half of 2020 to protect consumers from cuts in provision of services of general interest (including energy) because of the COVID-19 pandemic. The measure has been stopped, and it remains to be seen whether it will be resurrected as a result of rising energy prices, or if another measure will replace the COVID-specific measure.

26 The Energy Solidarity telephone line for information and for requesting reconnection is under the supervision of the Ministry of Environment and Energy and operates from Monday to Friday, 08:00–20:00. According to the legislation in force since 2011, residential and commercial electricity consumers whose contracts have been terminated and who are not active in changing or finding a new one are supplied with electricity from the so-called universal service. This tariff is set by the Energy Regulatory Authority (RAE) and is approximately 12% more expensive than average. Until 2019, the service was assigned exclusively to the PPC by law. The regime was reformed so that the service is awarded through a competitive process carried out by RAE and, in the event of no interest, to the five largest suppliers based on shares and in proportion to the number of meters each represents. After an unproductive tender, RAE awarded universal service tasks for the period June 2020 to June 2022 to the five largest providers, namely the PPC, Protergia, Elpedison, Hron and NRG.

27 See Joint Ministerial Decision Αριθμ. ΥΠΕΝ/ΔΗΕ/124788/2150, *Official Government Gazette*, No. 6302, 29 December 2021, and Joint Ministerial Decision Αριθμ. ΥΠΕΝ/ΔΗΕ/52001/1821, *Official Government Gazette*, No. 2567, 24 May 2022.

In Ireland, each energy supplier must have a code of practice for vulnerable customers, which prescribes how the suppliers should engage with these customers. This includes banning disconnection during the winter months (1 November to 31 March) for non-payment of bills, and suppliers must also ensure that all registered vulnerable customers are on the most economic tariffs available, etc., according to the Commission for Regulation of Utilities.

As can be seen from Table 2, after reduced tariffs and cash benefits, the measures of securing a basic/uninterrupted supply can be regarded as one of the most significant targeted measure types, and they were applied to support people who lost their jobs or had difficulties making ends meet. Ensuring supply or addressing payment challenges can help by not only easing immediate social hardship, but also preventing household over-indebtedness, as arrears on utility bills constitute an important source of indebtedness.

New measures facilitating the green transition: Further impetus from rising energy prices

The increase in energy prices – related to the rising costs of imported fuels still widely used in the Member States – could be a further impetus to introduce measures for reducing dependence on fossil fuels.²⁸ Therefore, another main group of measures that will shape access to and use of specific energy services are those where the main aim is to facilitate the green

transition. These are often linked to short-term (temporary) measures to address the rise in energy prices, but there are others that are planned as longer term measures. The schemes also follow the provisions in the Energy Efficiency Directive, on achieving energy savings (Article 7). The measures in the Member States include the following categories:

- household retrofitting schemes
- improving energy efficiency
- various other incentives/support for the green transition

As can be seen in Table 3 and the more detailed description below, a number of countries target these measures directly at vulnerable groups (Belgium, Cyprus, France, Greece, Ireland, Lithuania, the Netherlands, Portugal – there are plans for targeting in Croatia). In many of these cases, and in the cases of some non-targeted measures, the policies often focus on the state of the buildings, and, understandably, on houses supplied with obsolete energy systems. The beneficiaries are usually individuals, but sometimes are housing associations, which are often managed by cooperatives (for example, in Estonia). Even if there is no explicit targeting of vulnerable individuals/households, people with low incomes can benefit from the measures, as they tend to live in substandard housing conditions (in old houses/apartments). However, even when the take-up of these measures by vulnerable groups can be regarded as satisfactory, some groups (for example those living in remote, rural areas) may not be eligible, leading to failure to tackle high energy dependence among these groups.²⁹

Table 3: Overview of measures facilitating the green transition

Reductions/increases of taxes to promote the green transition	Household retrofitting schemes	Improving energy efficiency	Various other incentives/support for the green transition
Sweden: tax deduction for green technique (since 1 January 2021). A permanent measure (until further notice), which replaced the previous solar cell support (which stopped in December 2020)	Ireland: a series of household retrofitting schemes, and a series of grants for any household carrying out retrofitting work	Slovakia: recovery and resilience plan and legislation planned to improve the energy efficiency in households	Denmark: tax benefits for electric car charging
Denmark: green reorganisation of heating taxes (in force since 1 January 2021). Aim is to incentivise the switch to renewable heating by making it cheaper	France: MaPrimeRénov', designed to encourage households to carry out energy renovation work in their homes	Portugal: efficiency vouchers	France: ban on renting out homes with high energy consumption (<i>interdiction à la location les logements dits passoires énergétiques</i>)

²⁸ However, as has been shown in this chapter, in certain cases, efforts to facilitate green transition were put on hold (for example, when levies collected for building up renewable energy facilities were reduced).

²⁹ Regarding the need to shift the focus to reducing energy dependence, see Eurofound (2022aPREVDUBOIS).

Reductions/increases of taxes to promote the green transition	Household retrofitting schemes	Improving energy efficiency	Various other incentives/support for the green transition
	Austria: renovation cheque for thermal insulation; and Get out of oil and gas (facilitating the replacement of fossil heating systems with sustainable heating systems)	Croatia: the Energy Efficiency Act stipulated the elaboration of national energy efficiency action plans (NEEAPs) to create energy-saving conditions and address energy needs	Germany: plans under discussion for property owners to have to cover part of the heating costs, the percentage depending on how climate-friendly the building is
	Portugal: Support Programme for more Sustainable Buildings	Lithuania: a targeted measure providing support for use of renewable energy sources (solar) for the electricity needs of deprived people and/or for the replacement of fossil fuel heating installations (2021–2022)	Croatia: Energy Poverty Reduction Programme's information and financial support measure
	Cyprus: the sponsorship plan Saving – Upgrading the Homes	Cyprus: Grant scheme for the replacement of energy-intensive electrical appliances in homes of vulnerable consumers of electricity	Finland: Government funding to compensate for scrapping of peat production machinery (temporary and new)
	Estonia: reconstruction grant for small residences	Romania: aid for the purchase of energy-efficient household equipment, as the third measure within the package (targeted measure)	Belgium (Wallonia): simplified subsidy scheme for small energy-saving investments
	Lithuania: support for housing renovation and heating boilers, 2021–2022	Netherlands: extra money for insulation measures for vulnerable households for 2022	Malta: eco-reduction, an award (discount) to consumers staying below a certain level of electricity and water consumption
		Belgium: the Flemish government approved a draft multi-annual plan to combat energy poverty. Obligatory renovation measures are being considered in the Flemish and Brussels regions	
		Luxembourg: the 'Acceleration of energy transition' measure was introduced in 2022.	
		Greece: the Energy Saving 2021 programme provides subsidies for energy-saving interventions.	

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

Modification of taxes

Examples of designing taxes to encourage desirable developments were noted in Denmark and Sweden.

In **Sweden**, a support measure for installing solar cell systems was modified in 2021: the Swedish Tax Authority grants a discount of up to 15% of the costs of materials and installation of solar cells for strong own-produced electricity energy, and the subsidy for installing charging points for electric vehicles is 50%. The reduced tariffs are designed in the same way as the Swedish tax reduction system for services in homes, meaning that the reduction comes into effect directly

when one receives the invoice for the installation and materials (individuals do not need to apply for it). The target groups are house or apartment owners. This means that households that rent their house or apartment are not eligible for the tax reduction. Although support for solar panel installation under the former policy was higher, at 20%, the big difference now is that people do not have to apply for the support. Instead, the company that installs the solar panels deducts the subsidy from the customer's bill and then is subsequently refunded by the Swedish Tax Authority.³⁰ By comparison, the old system was considered ineffective because the waiting times were long: it could

30 More information on the tax reductions is available at <https://www.skatteverket.se/privat/fastigheterochbostad/gronteknik.4.676f4884175c97df4192860.html>.

take a year for the consumer to get a decision about the support. In addition, the budget was predetermined, but was insufficient to fund support for everyone who qualified for it, making it necessary for the government to invest more (Dagens industri, 2020). Now that it is a tax reduction, the budget is no longer predetermined.

In **Denmark**, the aim is to form a new heating tax system. The measure increases the tax rate for fossil fuels from DKK 56.7 (€7.61)/GJ to DKK 62.3(€8.36)/GJ, and aims to reduce the tax rate for electric heating from DKK 0.15(€0.02)/kWh to DKK 0.004(€0.00054)/kWh for businesses and to DKK 0.008(€0.0011)/kWh for households (equivalent to the EU minimum rates).

Household retrofitting schemes

Incentives in the area of retrofitting are applied across a large number of Member States.

A series of household retrofitting schemes in **Ireland**, run through the Sustainable Energy Authority of Ireland (SEAI), are funded by the national government. This agency and its programmes are a central point of Ireland's planned transition to a low-carbon country. In addition, a series of grants are available for any household carrying out retrofitting work such as installing additional attic insulation, photovoltaic solar panels or a heat pump. These are general schemes: participants pay the costs upfront and then claim back some financial support. Funding for these grants was increased in the last budget. A 'one-stop shop' scheme, the home energy upgrade scheme, was also announced at the same time. Launched in 2022, the scheme is managed by the SEAI. An SEAI project manager coordinates with contractors who carry out a series of approved upgrades.

In **France**, MaPrimeRénov' is designed to encourage households to carry out energy renovation work in their homes. The amount of aid is calculated according to the income of the beneficiaries, based on four income categories, and the energy gains made possible by the work. It was introduced in January 2020 (it replaces two previous measures) and was updated within the framework of France Relance (a programme supporting recovery from COVID-19). It has become the main state aid for energy renovation. Since 11 January 2021, it has been open to all homeowners, regardless of their income and irrespective of whether they are occupants,

lessors or co-owners.³¹ A further change (expansion) of this measure was implemented on 15 April 2022: a €1,000 increase in support for any change in the heating system that allows a shift from fuel oil or gas. Its submeasure, called MaPrimeRénov' Sérénité, targets specifically low- or very-low-income households. This is an advisory service³² and provides financial aid to support energy renovation for eligible households. For very-low-income households, the measure can cover up to 50% of the total amount of the work, excluding tax, to a maximum of €15,000. In addition, those who qualify are eligible, from 1 July 2022, to receive Energy Savings Certificates (*Certificats d'économies d'énergie*, CEEs) as a supplement to the MaPrimeRénov' Sérénité aid. As part of the policy for making homes more energy efficient, the CEEs have already been in place since 2005. The scheme is now in its fifth period (2022–2025). The measure makes it possible for the energy suppliers ('obliged parties') to offer financial aid to individuals to partially or fully finance energy-saving work in their homes. In this way, they can obtain a CEE for standard work. The amount of aid offered takes into account the extent of the energy savings achieved and the beneficiary's income.

In **Austria**, a renovation check for thermal insulation scheme was in place in 2009–2018 and was reintroduced in 2020, then further extended in 2021. The renovation check applies to private individuals in single- and two-family houses or terraced houses, and supports thermal refurbishments in private residential buildings that are at least 20 years old. Comprehensive refurbishments (in accordance with a specifically defined *klimaaktiv* environmental standard) and partial refurbishments that lead to a reduction in the heating requirement of at least 40% are eligible for funding. The eligible costs consist of the costs of materials, planning (such as an energy certificate) and assembly. The funding is awarded in the form of a one-time, non-repayable grant to cover the investment cost. Funding is limited to a maximum of 30% of the eligible investment costs. A maximum annual budget has been allocated to the measure; if it is exhausted, no further funding is available. As reflected in the eligibility conditions, the refurbishment support is aimed at (co-)owners and those living in houses;³³ thus, it targets middle- to high-income groups rather than low-income groups.

31 It aims to finance the renovation of 400,000 to 500,000 homes per year and has an additional budget of €2 billion for 2021 and 2022.

32 A professional from a specialised association or a design office could, for example, help applicants to adapt their project to the characteristics of their home and their situation. The professional will provide assistance with a diagnosis of the dwelling, and the definition and costing of the project, and will take steps to obtain all the financial aid to which applicants are entitled.

33 That is, owners, those authorised to build, and tenants of a detached, semi-detached or terraced house. Special funding criteria apply to buildings with three or more residential units.

Another **Austrian** measure with a similar purpose focuses on heating, and is called ‘Get out of oil and gas’. It is intended to facilitate the replacement of fossil heating systems by sustainable heating systems. The change eligible for the payment is the replacement of a fossil heating system (oil, gas, coal/coke burners and electricity-operated night or direct storage heaters) with a new climate-friendly heating system; funding is primarily provided for connection to a highly efficient or climate-friendly local/district heating system. If this connection is not possible, the changeover to a wood-fired central heating system or a heat pump is also promoted. The upper ceiling of payments lies at €7,500 (it used to be €5,000 before it was raised in October 2021); up to 50% (35% before October 2021) of the investment costs are compensated. A surcharge of €2,000 is paid for the replacement of a fossil heating system by a highly efficient local/district heating in a town centre in areas supplied with natural gas. The measure is available to (co-)owners, building owners and tenants of one-/two-family houses or terraced houses, and building owners or their authorised representatives (for exaproperty managers) in the case of multi-storey residential buildings with at least three residential units.

As a part of the Economic and Social Stabilisation Programme in **Portugal**, the Support Programme for more Sustainable Buildings was approved in June 2020, and the deadline for applications was extended until March 2022, although the programme will terminate when the planned budget is exhausted. It aims to finance measures that promote rehabilitation, decarbonisation, energy efficiency, water efficiency and the circular economy, contributing to the improvement of the energy and environmental performance of buildings. This measure is intended for houses built before 2006.

Cyprus’s sponsorship plan ‘Saving – Upgrading the Homes’ (announced in 2020) is a new measure that aims to extensively upgrade existing homes to improve their energy efficiency. The sponsorship covers 60% of the approved budget of each application (in the case of vulnerable consumers, the sponsorship increases to 80%) and can cover costs related to thermal insulation of the house shell, replacement of frames, installation of shading systems, and the installation and/or replacement of technical systems (such as solar systems, photovoltaic systems, air conditioners, storage batteries and control systems). Another measure with a somewhat similar purpose was also introduced in 2021 (although with a retrospective effect that is applicable to investment since June 2020 and houses for which the permit application was submitted before 21 December 2007). Although the measure was in effect until 20 December 2021, the plan has been included in the proposals for possible funding from the Recovery and Resilience Facility. The measure covered not only insulation, but also installation of photovoltaic systems.

The third measure with a similar objective is called the Sponsorship plan for installation or replacement of solar hot water production systems in homes for the year 2021. This was a new measure that ran from April to August 2021. It covered two categories of investment: (i) installation or replacement of an integrated solar water heating system (cylinder and solar panels) – in this case the sponsorship amount was €350; and (ii) installation or replacement of solar panels, in which case the sponsorship amount was €175. Natural persons were eligible for the support.

In **Estonia**, the reconstruction grant for small residences was introduced originally in 2016 and was modified in 2020. The aim of the support is to achieve energy efficiency and a better indoor climate in small houses, to reduce energy costs and to encourage the use of renewable energy. In 2020, the maximum amount was increased from €15,000 to €20,000. The grant is intended to be spent on comprehensive reconstruction; the size of the grant depends on the location of the property but covers between 30% and 50% of the cost, with a corresponding maximum of between €30,000 and €50,000. Previously, regional differences were not applied. Changes in 2022 are envisaged, but no further information is available. The measure is available to private persons and must be used to renovate a detached house, a terraced house or semi-detached house, a two-apartment house or terraced house that was officially taken into use before the year 2000. It is not linked to social benefits. Another measure, called support for element-based reconstruction of an apartment building, was adopted in 2020. The grant’s aims are facilitating the adoption of new technical solutions in the reconstruction of apartment buildings, achieving energy efficiency and a better indoor climate for apartment buildings, and reducing energy dependency and greenhouse gas emissions. A grant could be obtained of 50% of costs or up to €1,000,000 per apartment association. It was aimed at apartment associations (managed by cooperatives, namely the owners of apartments forming an association with a management company) that were located in an apartment building of up to five floors built with a standard (Soviet) project before 1993. The third project with a similar purpose is the extraordinary apartment building reconstruction grant. The first grants were allocated in 2015, but, in 2020, an extraordinary grant from the COVID-19 crisis budget was allocated. In addition to the general objectives, the purpose was to mitigate the effects of the COVID-19 pandemic in the construction sector. The eligibility conditions also changed slightly in 2020. The grant could be applied for when fixing up an apartment building built before 2000 that had an apartment association. The grant is allocated to apartment associations, not private persons, and is not related to receipt of social benefits.

Improving energy efficiency

Croatia's Energy Efficiency Act stipulated the elaboration of NEEAPs with an aim to create energy-saving conditions and address energy consumption needs. The NEEAPs contain long-term goals, energy efficiency measures and indicators for improving energy efficiency. The action plans consist of one planned programme (in process) and standard programmes from the third NEEAP (the continuation is planned for the period 2021–2027). A measure currently implemented is the Energy Poverty Reduction Programme until 2026. The programme envisages combatting energy poverty (Majdandžić et al, 2021). As mentioned, in December 2021, Croatia adopted a programme to combat energy poverty, including the use of renewable energy sources in residential buildings in assisted areas and in areas of special state concern for the period up to 2025.

The recovery and resilience plan of **Slovakia** focuses on reducing households' energy consumption by improving the energy efficiency of family houses. The measures are not targeted at low-income households.

Portugal included the efficiency vouchers programme in its recovery and resilience plan, and launched it in April 2021. The plan is to deliver 100,000 efficiency vouchers to vulnerable families by 2025, each worth €1,300 plus VAT. In this way, they can invest in improving the thermal comfort of their home, either through refurbishment, or by replacing or acquiring energy-efficient equipment. The current phase aims to deliver 20,000 vouchers. The following people are eligible: beneficiaries of the social electricity tariff; those who own and permanently reside in the dwelling to which the efficiency voucher is applied, if they have not received the voucher.

Regions in **Belgium** have also recently announced further measures in favour of low-income groups. In December 2021, the Flemish government approved a draft multi-annual plan to combat energy poverty, with a shift of emphasis from remedial to preventative measures (financial aid to households for energy-saving investments). Obligatory renovation measures are being considered too, in the Flemish and Brussels Regions.

In October 2021, the **Netherlands** decided in favour of extra money for insulation measures for vulnerable households (valid for 2022). Households with lower incomes in poorly insulated homes are specifically exposed to high energy prices. The initial €150 million available for this purpose was doubled by the government in March 2022 (Eurofound, 2022j) and, similarly to the initial amount, it was also directed to

municipalities, which can start targeted work in neighbourhoods with high levels of energy poverty. Municipalities decide how to do this, in consultation with housing corporations. This can be done, for example, by issuing vouchers for the purchase of energy-saving products; distributing energy boxes containing useful items, for example, draught excluders, radiator foil and LED lights; or providing energy advice by having energy teams visit households. This measure can be seen as a step towards a more fundamental approach and large-scale insulation (floor, roof and façade) via the national insulation programme. The measure does not directly address affordability, but rather provides assistance in insulating homes – which, through reducing the costs of energy and high energy dependency, indirectly contributes to affordability, of course. This measure is specifically aimed at the 550,000 households that were defined as living in energy poverty in research carried out in 2021. It is not specifically linked to social benefits or minimum income schemes, although it is likely that most households in the target group would fall under these categories.

Cyprus runs a project called 'Tackle energy poverty in households with disabled people and support social integration, 2021–2026', that will subsidise the implementation of small-scale energy renovations in 300 energy-poor households of people with disabilities. Thermal energy retrofits can significantly alleviate energy poverty and, if combined with small renewable energy system installations, can dramatically reduce household energy consumption in the long term. In addition to the well-established solutions, tailored interventions will be identified. Subsidies can fund up to 80% of the costs. Another scheme with a similar purpose, but for a broader group of vulnerable consumers³⁴ and for a shorter period, was introduced in 2021. It is called the 'Grant scheme for the replacement of energy-intensive electrical appliances in homes of vulnerable consumers of electricity', and it will last from December 2021 to December 2022. The project aims to provide financial incentives in the form of government sponsorship for the implementation of energy-saving measures and specifically for the replacement of energy-intensive electrical appliances (specifically, refrigerators, washing machines and up to three air conditioners) in homes of vulnerable consumers of electricity, and to contribute to the achievement of the national renewable energy obligations.

In February 2022, **Luxembourg** introduced a new temporary measure, called 'Acceleration of energy transition'. The government will strengthen financial aid measures for energy renovation, the promotion of

³⁴ In Cyprus, vulnerable consumers of electricity are defined in the relevant decree of the Minister of Energy, Trade and Industry. They are as follows: beneficiaries of the guaranteed minimum income, recipients of public aid from the Social Welfare Services, recipients of the severe physical disability allowance, recipients of the benefit to low-income retirees (if single and 70+), beneficiaries of care allowance (for people with severe disabilities and paralysis who require care), recipients of the sponsorship for the blind, and a large (more than five-member) family receiving child allowance.

heating systems based on renewable energies, sustainable mobility and the installation of renewable energies in order to continue to help households in the energy transition. Details of this measure are to be elaborated.

Greece's Energy Saving 2021 is a continuation of the long-term programme Energy Saving at Home (a project that provided subsidies for energy-saving interventions). The previous programme has been recently extended, while this new cycle is financed through the Recovery and Resilience Facility. It is designed for the residential sector, offering financial support for, among other things, interventions in buildings, heating/cooling systems, and installation of renewable energy systems for domestic hot water production and energy-saving measures. The current programme provides a subsidy ranging from 40% to 75% based on income criteria, with a low-interest loan for the remaining investment. The programme Energy Saving at Home II aims to improve residential buildings' energy performance through the provision of interest-free loans and subsidies for the installation of renewable energy system plants and energy-saving measures. The programme is expected to benefit social groups such as people with disabilities, single-parent families, long-term unemployed people, large families, households with high energy needs, buildings of lower energy classes, older buildings and low-income households.

Owing to the energy price increase in **Lithuania**, the electricity market liberalisation process (which started in 2021) was temporarily postponed until July 2022 (instead of 31 December 2021), to cushion households from the significant rise in energy prices, and further postponement was debated during summer 2022.³⁵ The deregulation of electricity prices for household consumers will take place in parallel with the introduction of smart meters that will allow household consumers to monitor and assess their electricity consumption needs more easily and, based on this, to choose the electricity supplier that best fits their needs. In accordance with the Law on Electricity, smart meters will be installed free of charge for vulnerable consumers or consumers with disabilities (other groups of consumers will have to cover at least 50% of costs related to the installation of the smart metering system). The legislation allows for those vulnerable consumers to be disconnected from the public electricity provider in the last phase, unless they themselves choose an independent supplier earlier.

Other incentives/support

Tax benefits for electric car charging in **Denmark** is a part of the political agreement 'Green conversion of road transport', which was introduced in December 2020. The measure extends the scheme, with low electricity taxes for charging zero- and low-emissions vehicles until 2030. The measure aims to make it more attractive and affordable for people to buy electric cars. The import of electric cars substantially increased when the measure was introduced.

France has introduced a ban on renting out homes with high energy consumption (*interdiction à la location les logements dits 'passoires énergétiques'*). Homes with the highest energy consumption, known as *passoires thermiques* (thermal strainers), will be banned from being rented out from 2023 onwards for an unlimited period. As these dwellings are generally occupied by low-income households, the measure is intended to contribute to fighting energy poverty by obliging property owners to bring their dwellings up to standard or risk losing the right to rent them out.

In **Germany**, a new measure is being discussed, which has some similarities to the aforementioned French policy. According to plans, in the future, property owners will have to cover part of the heating costs, the percentage depending on how climate-friendly the building is. The model means that buildings are to be divided into seven tiers – depending on the amount of CO₂ emissions per square metre per year. In the lowest, and therefore most climate-friendly, tier, with emissions of less than 5 kilograms of CO₂, tenants would have to bear the entire cost of heating. At the highest level, which comprises poorly renovated and poorly insulated buildings with CO₂ emissions of more than 45 kilograms per square metre, tenants would have to bear only 10% of the costs.

Croatia adopted the Energy Poverty Reduction Programme's information and financial support measure for the years 2021–2030, within the framework of the Long-term Strategy for the Reconstruction of the National Building Stock by 2050. The measure was approved in 2020. The goal of the new information and financial measure is to mitigate energy poverty and related vulnerability. Furthermore, the aim is to establish an energy poverty monitoring system. The activities include capacity building under the Energy Poverty Reduction Programme through local information centres by providing adequate information and advice on energy efficiency measures. This will contribute to the reduction of energy poverty, and to the possibilities of co-financing in this field. The

³⁵ Within three years, household consumers have to sign contracts with independent electricity suppliers (in the interim, electricity is supplied by the public electricity supplier). The electricity market liberalisation process in the country is to be carried out in three phases.

measure is mostly an updated form of previous similar measures. The indicators necessary to monitor energy poverty will be identified and a system for their assessment will be established. This will be done primarily through the existing database on household consumption (information on which is collected regularly by the Croatian Bureau of Statistics). Based on the data, a possible extension of the criteria for obtaining the status of vulnerable people (with regards to energy) will be proposed. The energy efficiency measures will take the form of co-financing to enable poor households to replace household appliances under an ‘old device for new’ system or to improve or replace heating systems, especially systems based on electricity and fuel oil. The improved or new heating systems should be more environmentally, economically and energy efficient. Co-financing will be particularly directed towards heating systems based on renewable energy sources and the implementation of other technical energy efficiency measures. The target groups include primarily energy-poor citizens and citizens at risk of energy poverty. The support is not linked to receipt of social benefits.

A temporary measure, introduced on 8 February 2022, in **Finland** (Governmental Decree 77/2022, adopted on 27 January 2022) provides government funding to compensate for the scrapping of peat production machinery. To ensure a just transition to a low-carbon economy as peat is phased out, the government has reserved over €29.1 million for the endowments (the endowments follow EU *de minimis* regulations and thus an applicant can receive a maximum of €200,000, even if they scrap machinery with a higher total value).

In **Belgium** (Wallonia Region), a simplified subsidy scheme for small energy-saving investments (< €3000) was introduced in July 2021. The scheme is means tested. In **Malta**, a new, fairer billing system that calculates household utility usage was introduced in January 2022. The new system addresses the anomaly that resulted in some consumers being charged high prices per unit owing to high energy consumption during the peaks of summer and winter, when energy consumption is typically at its highest. Given that billing was calculated on a bimonthly basis, these consumers were charged a higher rate, although they had not exceeded their allocated annual quota of cheaper units, known as eco-reduction. It is a way of awarding a discount to consumers who stay below a specific amount of electricity and water consumption.

The issue of (non-)take-up

Many of the measures aiming to address energy poverty that are described in this chapter extended their coverage recently: sometimes the provision became automatic, or a previously targeted initiative became universal. This already shows how important the extent of take-up of measures aiming to protect people from social hardship (especially in times of a sudden and

rapid increase of energy prices). The (non-)take-up of any social protection measure has a significant impact on how efficient that measure is, that is to what extent it can remedy those problems the given initiative is designed to address. In addition, from a broader societal perspective, larger take-up of social protection measures can improve fairness and equity across society (Eurofound, 2015). This is specifically relevant to the topic of this chapter, especially from the point of view of addressing energy poverty.

The non-take-up of a social benefit could be defined as ‘a situation in which someone is eligible for, but does not receive, a (social) benefit’ (Goedemé and Janssens, 2020). The literature on the concept of take-up of social protection measures points out that coverage and take-up are closely related (as some country examples show – see below). At the same time, the authors also emphasise that this relationship is not that straightforward, mainly because coverage can be defined and measured in different ways. In addition, even if the coverage is well-defined, there could be a substantial group of people who, although eligible for a certain type of support, do not take up the benefit that aims to ease the disadvantaged situation they are in. The reasons for non-take-up could be diverse. Apart from the general reasons often highlighted in the literature (for example, social-psychological, social-informational, social-cultural and public administration reasons – see, for example, Guogis and Bernotas (2022)), there could be more specific reasons related to access to energy services, as highlighted by the examples below.

In most countries, data on take-up are not available. However, there are some interesting examples. In terms of ensuring access to energy services and managing the cost of energy, some countries have recently introduced measures that are automatically granted to all customers. For example, in **Estonia**, **Ireland** and **Austria**, a reduction in the price of electricity, which previously was available only to low-income households, and only on application, was extended to all households. Non-take-up in these cases is obviously less of a risk than in the case of measures for which households need to apply, but there could be other problems. In the case of **Austria**, before 2022, people on lower incomes were eligible for exemption from contributions towards building up green electricity systems (which was in the cost of electricity). Although the numbers of beneficiaries remained relatively stable, the number of people who claimed the exemption was significantly lower than the number of eligible people (estimated at around 300,000). Reasons for not claiming the exemption are manifold and – according to E-Control’s *Consumer protection report 2020* (E-Control, 2021, p. 25) – are most likely to include a lack of awareness of the possible exemption, the effort involved in applying, and the fact that eligible people are not necessarily always (direct) contractual partners with energy supply companies.

In addition, other problems may emerge; for example (poor) households who do not use electricity clearly cannot benefit.

Take-up has been recognised as an important issue in **France** since the early 2000s, when the Observatory of non-take-up of rights and services (Observatoire des non-recours aux droits et services (Odenore)) was set up. Odenore suggested some reasons for the non-take-up of measures against energy poverty, such as lack of knowledge and non-application. In its survey of March–July 2020 at regional level, Odenore found that a substantial proportion of the people surveyed (78% in the case of tax credit and MaPrimeRénov' and 35% in the case of assistance for reducing energy costs) were unaware of the measures.

Some country examples give interesting insights into reasons for non-take-up of certain measures for specific groups. For example, in **Malta**, non-take-up is particularly common among asylum seekers and refugees. None of the former and very few of the latter are eligible for the energy benefit. However, even among those who are eligible, many chose not to apply for the benefits available to them because of the language barrier. The issue of take-up/non-take-up was examined more generally (for individuals at risk of poverty or social exclusion (AROPe)) by the Foundation for Social Welfare Services. It found that one of the main barriers is a general lack of awareness, while stigma is another. Those who have accumulated utility arrears may feel too overwhelmed and/or disempowered to access energy benefits. Mental health difficulties and intellectual difficulties are other factors hindering access to existing benefits. These challenges at times limit service users from understanding what is available to them or may make accessing the benefits harder and thus disempowering.

Another important aspect, identified in **Lithuania** but likely to apply elsewhere, concerns socially disadvantaged people who are not the owners of the premises they live in, who as a result are unable to apply for support for installing modern equipment. Another obstacle for socially disadvantaged people (also identified in Lithuania) concerns the high costs of the equipment: it is reported that, if the compensation payment does not cover the full price, the difference in the price of the equipment to be purchased is still not affordable.

In summary, take-up of social benefits (including those aiming to compensate for the high costs of energy) plays a key role in how effective welfare services/benefits can be. In principle, extending coverage, and especially introducing universal services could improve the take-up rate or even eliminate

non-take-up; the advantage of universal services is that no administrative costs are involved for examining the eligibility criteria. An important prerequisite for improving the situation in general is to collect more data on take-up of services, as, in this way, the decision-makers can obtain a clearer picture of how to improve the effectiveness of the measure.

Potential impacts on supported groups: Current evidence and past lessons

Impact of previous measures

Although no new national measures have been evaluated so far, some impacts and lessons can be outlined.

In **Ireland**, there has been some research on the projected impact of the carbon tax strategy on energy prices and on energy poverty. The Economic and Social Research Institute (ESRI) (O'Malley et al, 2020) conducted a detailed counterfactual analysis, that is it aimed to determine what would have happened if various targeting measures to assist low-income households (mostly increases in various benefits) had not been adopted. The ESRI projected that, without assistance, the rate of energy poverty (defined as energy expenditure of more than 10% of income once housing costs have been deducted) in Ireland would increase from 17.5% to 18.9%. The prevalence of severe energy poverty (energy expenditure of over 15%) would increase from 5.6% to 6.1% and of extreme energy poverty (energy expenditure of more than 20%) would increase from 3.0% to 3.3%. This was based solely on increasing increase in carbon tax by €7.50 per tonne. Another recent study (Tovar Reaños, 2021), based on projecting the impact of the carbon tax increases on energy poverty, estimated that a 1% increase in fuel prices for residential heating due to carbon taxation would raise the proportion of people experiencing energy poverty from 11.5% to 12%. Given that fuel prices have risen by nearly 30% in the past year, it would follow that a significant increase in the rate of energy poverty is likely. It is interesting that both these studies identified low-income single parents as being particularly at risk.

In **France**, the energy voucher was introduced in 2018 (replacing the previous social tariffs) with a view to targeting households in energy poverty better than previously, this time extending the measure by supporting households irrespective of the amount of energy they use. However, the scheme has been criticised because the voucher can be used to purchase

any type of energy (carbon or decarbonised), which goes against France's climate objectives.³⁶ Furthermore, the longer-term implications of some of the schemes have yet to be seen in France. For example, in the case of the ban on renting out homes with high energy consumption, the measure may have short-term implications for rent prices, that is it could lead to a shortage of flats for rent, which may drive up rent costs.

In some cases, tax reductions seem to have had little or negligible impact. From studies in **Germany**,³⁷ it seems that the reduction of the Erneuerbare-Energien-Gesetz (Renewable Energy Act) levy did not have a major effect, if any at all. For 1.6 million households covered by 192 basic suppliers, there was an increase in electricity price. Even for those households (1.2 million) covered by the 21 basic suppliers that did reduce their price, the benefit was marginal: €37 a year for an average (model) household.

Implementation challenges: Lessons learned

Although many countries have introduced measures meant to limit the costs of energy services on a temporary basis, the sustainability of certain schemes (especially the longer-term ones) could be a concern. For example, in **Hungary**, there is a debate about the sustainability of the utility cost reduction programme, which has been in place for almost 10 years.³⁸ Although similar concerns were raised in **Poland** because of the total cost of the two anti-inflation shields, it seems the budgetary situation has now improved. At the same time, according to a survey by YouGov for the European Climate Foundation, people are willing to save energy in their households voluntarily, and are more willing to install energy-saving equipment and retrofit their households – especially in the context of attempts to become less dependent on energy imports from Russia. If the energy prices do not increase any further, this attitude could relieve the burden on the budget, as the anti-inflation shields could be reduced.

In **Austria**, experts found that the National Energy and Climate Plan fails to address vulnerabilities in different socioeconomic groups (due to age, gender, state of health, etc.) (Lamura et al, 2022). Beyond income, structural inequalities, which are closely intertwined with energy poverty, are also addressed to only a limited extent. The Chamber of Labour (Arbeiterkammer, 2021) recommendations include both short- and medium-term solutions. Short-term

(immediate) solutions include not switching energy off during the cold season, a right to payment in instalments, an increase in heating costs subsidies and a temporary reduction in sales tax. In the case of medium-term solutions, the suggested measures include establishing an Energy and Climate Aid Fund, securing increases in the heating subsidies provided by the federal states, introducing a one-stop shop for heating replacements and renovations, reducing the tax burden on renewable energy sources, improving consumer rights regarding heating supply, introducing consumer-friendly standard tariffs and undertaking longer-term surveillance of the energy markets.

In **Estonia**, the National Recovery and Resilience Plan describes the main risks and obstacles when implementing the renovation support measure, as follows.

- Apartment owners lack motivation, or it is very difficult to get all owners to agree to complete reconstruction.
- Reconstruction prices fluctuate significantly, and as a result owners are reluctant to commit to energy efficiency work.
- Growing demand in the reconstruction market has led to higher prices and long waiting times, leading some owners to abandon plans for complete reconstruction.
- The increase in demand has reduced the availability of builders, experts and technical consultants. In addition, availability of certain types of construction materials in the construction sector as delivery times increase.

In the case of private houses, the main obstacle to use of the renovation measure is that renovation costs are too high, even with the support.

A similar experience is noted in **Ireland**, where it was also reported that not only energy prices but also (perhaps to some extent related) construction prices have increased. As a consequence, retrofitting of houses/flats has become increasingly difficult; generally, the purchasing power of households for this purpose has decreased. For example, according to the Central Statistics Office, in January 2022, the 12-month increase in the cost of 'Electricity, gas & other fuels' stood at 27.4%. The increase in the cost of 'maintenance and repair of the dwelling', 6.7%, is also concerning. In **Malta**, affordability problems for installing solar panels (for example, for the AROPE group) were also reported.

36 In terms of extending energy use as an eligibility condition for support, a similar measure was introduced in Hungary in 2018. This was a one-off measure, called the winter utility bill reduction scheme (HUF 12,000, about €33 per household), and this time beneficiaries were not only those who used mains gas and district heating, but also those who used wood, coal and bottle gas.

37 They are quoted in tagesschau.de (2022).

38 Extra taxes on multinational companies, banks and airlines have recently been announced – the move has been explicitly justified by the need to keep up the utility cost reduction programme.

Similarly, other existing schemes present affordability issues because upfront costs are too high, deterring vulnerable individuals from making use of the schemes. As already indicated above, the government has decided to continue with its green energy alternatives. However, both the initial costs and factors such as property ownership (also mentioned within the context of non-take-up in Lithuania, above) make it very unlikely that the AROPE population would find such schemes affordable.

In **Lithuania**, according to experts, the main barrier to reducing energy poverty is not low income alone, but rather ‘poorly insulated inefficient multi-apartment building stock inherited from the Soviet past and low rates of mass renovation’ (Streimikiene, 2022, p. 221). Streimikiene (2022) also suggests that slow progress in the renovation of multi-apartment buildings is related to institutional, organisational and behaviour barriers (the ‘low-income population is lacking knowledge and know-how for initiation of energy renovation in their apartments’). There is also a lack of consensus among the owners of multi-apartment buildings on the renovation of the buildings (Streimikiene, 2022, p. 221). On the basis of their survey of 104 households, Streimikiene and Baležentis (2020) identified the following reasons for households’ lack of willingness to renovate their homes: low financial education, low energy literacy, lack of information, low motivation to initiate energy efficiency projects themselves and insufficient co-financing for the renovation of multi-apartment buildings. The authors also identified the main barriers to renovation: organisational barriers (absence of a household association in a multi-flat building, failure of apartment owners to agree to a common renovation project and the absence of leaders willing to assume responsibility for the organisation of renovation), economic barriers (low incomes of the households and reluctance to take out loans), public policy barriers (inadequate state support and the support schemes are not well shaped), behaviour and psychological barriers. The study found that over 90% of households would choose to pay for energy renovation by having renovation costs included in their monthly heating bills. Liobikienė and Dagiliūtė (2021) found (based on a survey of 1,005 respondents) that the main barrier to choosing and consuming renewable energy is usually the higher price. According to the authors, these findings show the difficulty of motivating people to choose more expensive renewable energy.

Although, as mentioned, the focus of this chapter is on the experiences of individual countries, it is worth noting that there are also cross-country project-based measures that are running in a number of Member States and target the low-income groups (sometimes more directly than other national policy measures). Examples include the international project ‘Renewable energy for vulnerable groups (2019–2023)’, financed by Interreg Europe (2014–2020), with a budget of €1 million and the goal of sharing good practices. The project aims to increase the use of renewable energy among vulnerable groups. The participating countries are Bulgaria, France, Lithuania, Poland and Spain.³⁹ Another similar international project, Community Tailored Actions for Energy Poverty Mitigation (2020–2023) (ComAct), with a budget of €1 million, aims to make high-impact and high-cost energy-efficient improvements in multi-apartment building block in the central and eastern European region and in the former Soviet Union republics (CIS region) affordable and manageable for energy-poor communities, and to create the assistance conditions necessary to lift them out of energy poverty.^{40,41} Another example is Solutions to Tackle Energy Poverty (2019–2021), funded by the EU Horizon 2020 (participating countries are Bulgaria, Cyprus, Czechia, Latvia, Lithuania, Poland, Portugal, Slovakia and the United Kingdom (UK)).⁴² The project aims to alleviate energy poverty by promoting changes in consumer behaviour, informing consumers affected by energy poverty about the opportunities to save energy costs, and sharing the good practices of other countries.

In addition, there has been increasing interest from researchers and policymakers in exploring local-level and community-oriented initiatives to mobilise social innovation addressing groups under energy poverty (for example, by supporting energy self-production, and offering sustainable and cheap energy for vulnerable and deprived communities).⁴³

This interest is also being reinforced by concerns about regions that are likely to be affected during the green transition, for instance in terms of initial job loss.⁴⁴

Against the background of the long-term goal of switching to use of environment-friendly types of energy, some questions for policy design relate to the effectiveness (for the green transition purposes) of taxing energy use and the regressive effect of universal measures in the areas of energy and transport services.

39 More information is available at <https://atlas.energy-poverty.eu/node/857>.

40 More information on ComAct is available at <https://comact-project.eu/the-project/> and <https://comact-project.eu/lithuania/>.

41 More information is available on the EPAH ATLAS online interactive database, available at https://energy-poverty.ec.europa.eu/discover/epah-atlas_en.

42 More information on Solutions to Tackle Energy Poverty is available at <https://www.stepenergy.eu/>.

43 See Mikkonen et al (2020) and Caramizaru and Uihlein (2020).

44 For example, see the set of challenges for the coal-producing regions in European Commission (2021c).

Büchs et al (2021) carried out an analysis of household expenditure on energy and transport in combination with data on carbon emissions – in search of optimal policies to bring society towards a greener lifestyle. They concluded that taxes on home energy aiming to reduce carbon emissions should be combined with compensation schemes that counteract the regressive distributional impact of those taxes. Taxes on transport were also found to have regressive effects, but in many Member States to a lesser extent than taxes on home energy, and compensation schemes were considered relevant in such cases. The authors estimated the impact of the compensatory measures (tax rebates) in comparison with an alternative type of in-kind support or a certain amount of free-to-user services such as tax free green voucher schemes for energy or public transport. The latter option was found to have the potential for greater emission reductions, fairer cost distribution and lower levels of poverty than carbon tax policy options (European Commission, 2022e).

Finally, citizens' involvement in the transition process is crucial, yet recently it may have been overshadowed by the need for prompt policymaking in the area of energy costs. Debourdeau et al (2022) used the concept of 'energy citizenship', and elaborated steps that could promote citizens' involvement in the transition process. Similarly, citizens' involvement is the main focus of a project entitled Fair Energy Transition for All, coordinated by Belgium's King Baudouin Foundation. A survey of disadvantaged groups across the Continent found a sense of unfairness, mistrust of political institutions and fear of losing agency. Therefore, measures aimed at improving access for low-income groups should be seen and assessed in a wider social policy context. This matters at both national and EU levels. In the Member States, synergies with other measures are important, such as facilitating access to essential household services, and interlinkages between the central government and regional and local authorities.

Key findings and policy pointers

Key findings

The information presented in this chapter has shown that all Member States reacted to the increase in energy prices. The measures applied, however, were diverse across the countries and ranged from direct measures to support access to energy services (such as reduced tariffs, cash benefits, in-kind benefits and the extension or introduction of securing basic/uninterrupted supply

of energy) to those that aimed at accelerating the green transition by supporting household retrofitting, energy efficiency improvement and other actions.

Most Member States have implemented specific measures (such as cash benefits in 21 countries) to provide targeted support. Reduced tariffs and cash benefits are the most widely applied. This is understandable as, in such emergency situations, direct policy interventions are quicker and easier to implement than building up or enhancing the preconditions for other measures, such as retrofitting of houses and building/expanding energy-efficient social housing stock.

However, it is notable that most of the recent emergency measures in the area of energy services are not targeted, but apply to the entire population (this is different from structural measures, which are usually targeted). Reductions in various taxes, duties and levies are tools used across Member States to address rising energy prices – several countries have reduced VAT on energy provided to consumers and applied reductions to some other taxes. Within this context, it can be noted that, in several countries (Austria, Germany, Luxembourg and Slovenia), there have been cuts to contributions that aim to facilitate the green transition. It is clear, however, that the intention is not to slow the green transition process (measures facilitating the green transition have not necessarily been reduced). The cuts either are temporary and/or are directly compensated by an increased contribution from the state (for example in Luxembourg), or, in the case of Germany, from a special fund dedicated to the extension of the renewable energy supply (the Energy and Climate Fund) from 2023.

The tax regulation measures apply to all consumers in most cases. There are exceptions. For example, in Cyprus, the VAT reduction applies only to vulnerable groups (they are defined and various categories are identified – see details in the paper); in the Netherlands, the measure is universal, but the discounted amount depends on the energy consumption of the household.

Price freezes, price caps and moratoria are also widely used in relation to energy prices, but very often as only temporary measures. In some countries, price regulation measures were applied to fuel costs for cars (for example in Hungary and Poland in 2022), although these types of measures are usually not targeted.⁴⁵ There are some exceptions however; for example, in Greece, low-income households benefited from a temporary direct fuel subsidy in 2022.

⁴⁵ In Hungary, although not targeted at low-income groups, the measure was amended in summer 2022 so that the price cap no longer applies to, for example, company cars (but it does continue to apply to taxis, certain motorised agricultural vehicles and private cars).

Several Member States (Belgium, Portugal and Spain) have established social tariffs (discounted prices) for energy services that apply to households that include vulnerable customers and people on low incomes.

In some countries, not only are the new measures provided automatically, but the coverage of the previously introduced measures has been extended such that they too are provided automatically this has been mainstreamed for the social tariffs in Belgium, and, in Austria, the exemption from green tax and contribution was extended to all households. These measures could be regarded as good practices in the area of extending take-up, but it remains to be seen whether they will be maintained.

In terms of easing access to essential energy services for low-income groups, guaranteeing basic/uninterrupted supply is of special importance (this has been stipulated in EU legislation: the provisions of the Electricity Directive (EU) 2019/944 include this requirement). In this regard, few changes can be observed since 2020. The measure continues to be applied mainly on a seasonal basis in those countries where it already existed (such as France, even if a reduction in certain fees in the case of a payment incident applies). Recently, two more countries have temporarily introduced this measure: Portugal and Romania.

The measures adopted by the Member States in 2020–2021 to address rising energy prices and the risk of energy poverty do not seem to have been sufficient: further measures, including revision or extension of reduced ('social') tariffs, were being reported or considered in many countries throughout 2022.

The real impact of these measures may depend on how long the reduction will apply, whether any conditions are set for eligibility or types of consumption (applicable for all consumption or for only certain essential needs), and the impact these measures may have on inflation, which could have the greatest effect on the most vulnerable groups. Assessing these aspects may create room for countries to adjust and target their tax measures (if the related administrative costs are acceptable), tackle the tax revenue and, in this way, address concerns about the sustainability of supporting energy consumers in the long term. In view of the evolving energy crisis, the policy pointers below both consider the current situation and aim to predict potential future challenges for vulnerable consumers, such as the risk of accumulating utility arrears and thus falling into indebtedness.

The new measures facilitating the green transition will obviously have long-term effects, the extent of which

may depend on the budget allocated for these measures. From this overview, it seems that currently about one-third of Member States have such schemes targeted directly at vulnerable groups or plan to have them in the immediate future. In the case of more indirect measures (for example, grants for renovation of old buildings, where the main criterion is the obsolescence/inefficiency of the energy system), the extent to which these measures could reach the most vulnerable groups remains to be seen – accessibility for and take-up by the low-income groups is not always readily assessed.

Policy pointers

As a reaction to the energy price increase during the last couple of years, a large number of universal (rather than targeted) financial measures that aim to reduce the energy cost to end users have emerged across Member States. However, the longer-term effects on access to energy services will depend not only on the developments in the energy markets and the impact of the war in Ukraine, but also on the extent to which these measures are able to reach the people most in need. Therefore, it remains imperative to **keep monitoring the affordability of energy services, particularly to low-income groups.**⁴⁶

The fast-evolving challenges to energy supplies and the volatility of energy prices in the first half of 2022 suggest that risks of utility arrears and indebtedness may also increase. Particular attention should be paid to preventing over-indebtedness, especially among low-income households (see Eurofound, 2020b). Therefore, **debt counselling and preventive supporting services should be prepared to help**, and their readiness could be reassessed before the heating season.

Apart from the immediate mitigation of energy costs for vulnerable households, more focus is needed on reducing their overall energy dependence, facilitating means that help decrease energy consumption and waste, such as through improving the energy efficiency of buildings. Equitable access to renewable energy sources by all social groups, including those on low incomes, also has to stay on the radar of the energy transition measures.

In terms of policy measures addressing access to energy services, **the focus should not be solely on financial measures, but also on non-financial ones such as an automatic ban on disconnections and addressing arrears/debts, and securing transparent and accessible information and advice. To guarantee continuous supply for vulnerable consumers, a ban on disconnections should be automatically provided to**

⁴⁶ An International Monetary Fund (2022) blog post called for a shift of policies from broad-based measures to targeted ones, including income support for the most vulnerable groups.

them on the grounds of vulnerability – for this, building up, maintaining and updating administrative databases have to be addressed. The measures to secure the basic supply of energy are of specific importance owing to the direct impact the adequate use of energy services has on health. Where affordability is a challenge, outreach to low-income groups is needed to prevent situations that risk preventing access to energy services; complicated procedures for applications should be avoided.

Non-financial measures could include facilitating the energy transition for low-income groups by accelerating and facilitating the energy efficiency of buildings, and deploying renewable energy resources for these groups.

If the measures are based on solid evidence, they can be more sustainable and successful. This is one of the reasons why **a clear definition of energy poverty is needed at both EU and national levels** – this should be

operationalised so that hard data can be provided. Data are necessary for well-targeted measures and for impact tracking.

In addition, disaggregated data on energy poverty are needed. As could be seen in the overview of the measures, municipalities have a key role in addressing energy poverty – these data can also be crucial for them when targeting the support and incentives properly.

Citizens' involvement in the transition process is crucial, but recently has been overshadowed by the need for prompt policymaking in the area of energy costs.

The rapid increase in energy prices exposed the need for a more elaborate public regulation of the energy sector could have a longer-term impact on how energy markets and energy service provision work and lead to more secure and more reliable access for vulnerable groups in the long term.

2 | Public transport

This chapter focuses on access to transport services, which are available to the public via set routes, on specified schedules and on the basis of defined fares. Such transport services are commonly known as ‘public transport’. ‘Public’ refers to the fact that transport is accessible to everyone; public transport services may be delivered by public or private providers. Although the precise definition can be discussed, for the purposes of this report, it generally refers to urban and suburban services of buses/trolleybuses, trams, trains and metros (but could also include ferries). Trains (often) and buses (sometimes) tend to be used for longer-distance travel, whereas other forms of transport are more local. The use of cars, planes, taxis and car-sharing service is not covered in this review – these modes of transport are largely used in a private capacity, and lack the regularity and collective use that are generally common to public transport.

Public transport is used more by people with low incomes than by people with high incomes, hence the decision to focus on public transport in this overview of access to essential services for people on low incomes. Women are also over-represented among public transport users (European Parliament, 2015; Ingvarsson and Nielsen, 2019). Access to public transport is particularly important for the many people in the EU who do not own or cannot use a car, such as people with disabilities, older people, children and young people, women, and people with low incomes (European Parliament, 2015; regarding reported needs for access to transport, also see Eurofound, 2023). In addition, sensitivity to financial incentives to switch from driving cars to using public transport tends to be greater among these groups (Simićević et al, 2016).

This overview focuses mostly on schemes that reduce the cost for end users, and on the support for low-income groups and groups who may (or may not) otherwise be in vulnerable situations, including people with disabilities, carers, unemployed people, retirees, children and students. It includes national and subnational schemes. It is based on the inputs from the Network of Eurofound Correspondents and desk research by Eurofound. The chapter also draws on literature, some national administrative data and other documentation, including evaluations of measures.

EU policy context in brief

Assessments of the distributional impacts of climate policies in Europe warn of the potentially disproportional impact on less resourced groups unless the measures are balanced out to smoothen the green transition (Eurofound, 2021). Against this background, there is interest in monitoring access to transport services for groups with low incomes. A recent Council recommendation on ensuring a fair transition towards climate neutrality (16 June 2022) invites Member States to ‘develop further research and strengthen evidence concerning the definition, monitoring and evaluation of progress towards the provision of adequate access to essential services, in close cooperation with Member States and taking into account national approaches, also by developing the concept of ‘transport poverty’ if appropriate, in particular within the context of the green transition towards a sustainable well-being economy’.

In 2021, the European Commission issued a second package of proposals to support a transition to cleaner, greener transport following the publication of the Commission’s Sustainable and Smart Mobility Strategy in December 2020. It includes measures for faster European rail connections with easy-to-find tickets, and support for cities to increase and improve public transport and infrastructure for walking and cycling (European Commission, 2021d). The latter, the updated EU Urban Mobility Framework, puts a strong emphasis on safe, inclusive and affordable public transport, and states that it ‘must be at the centre of sustainable urban mobility planning, be available and attractive to all and offer barrier-free access’. Public transport is eligible for further funding from the public sector loan facility under the Just Transition Mechanism. This mechanism should enable the communities in the most affected regions to reduce the socioeconomic costs of the transition towards a climate-neutral Europe by 2050.

Furthermore, the United Nations Sustainable Development Goals, to which the EU has subscribed, include a public transport-related target under its goal to ‘make cities and human settlements inclusive, safe, resilient and sustainable’. It aims, by 2030, to ‘provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons’.⁴⁷

47 More information on Sustainable Development Goal 11 is available at <https://www.globalgoals.org/goals/11-sustainable-cities-and-communities/>.

Reducing user costs for vulnerable groups: Potential benefits

In this chapter, the focus is on measures aiming to reduce public transport costs for groups in vulnerable situations, who are often specifically at higher risk of being unable to afford public transport. However, the unaffordability of public transport can be addressed by more than cost reductions alone (Eurofound, 2020a). For instance, general income support (such as via minimum income schemes) can enable public transport use.

Since low-income groups are more likely to use public transport, measures to reduce the cost of public transport tend to benefit low-income groups (or other groups in vulnerable situations) more than high-income groups, even if they are not specifically targeted at low-income groups. However, income-focused support measures fail to resolve the issues for people without access to adequate public transport who are left in need. This often concerns people living in rural areas, but also certain groups of people in urban areas (see, for example, NSMOT, 2020). For them, existing public transport networks do not meet their needs owing to various access problems. Stops may be too far away or difficult/unsafe to reach, timetables may not suit, connections may be inadequate, travel time may be too long, people may not feel safe when using public transport (including because of gender-based violence), or public transport may not be well suited for people travelling with buggies or walkers, or people with physical or intellectual disabilities, including wheelchair users. Public transport networks have often faced reductions over the past few decades, including cuts to rail transport networks. For instance, since 1989 in Poland, 3,733 km of railway lines has fallen out of use, whereas only 196 km has been restored (Trammer, 2019).

Public transport has been identified as one of the most important services to enable people's everyday lives, after healthcare (EIGE, 2020). It plays a somewhat more important role for women than for men: in a survey carried out by EIGE (2020), about two-fifths of women in the EU and UK together said that public transport had been 'very important' in enabling them to participate in education (40%) and employment (42%), compared with around one-third of men (32% for education, 33% for employment). Women on low incomes often view such services (along with, for instance, good footpaths and pavements, and streetlights) as enablers of education, employment, domestic and care work, social relations and taking care of their own physical and mental health. Inability to access transport services and lack of own transport are linked not only to unemployment, but also to limited access to social and educational services for children, social exclusion and lack of access to healthcare (NSMOT, 2020, 2021).

Public transport is an important source of accessibility for jobs, in particular for people on the edge of the labour market, many of whom do not have access to other forms of transport. In addition, work is much less attractive if it is necessary to spend a large proportion of the salary on the work-home commute. Bad access to transport can add to challenges in reaching work, with negative implications for quality of life (NSMOT, 2020, 2021). In an Irish study, 45% of households without a car said that the lack of transport was a significant barrier to finding a suitable job or changing jobs, compared with 22% of one-car households and 18% of multi-car households. Most car-owning respondents found that a car was necessary to get about. Among households without a car, 30% reported that they did not need a car as they can get around satisfactorily without one, whereas 70% said a car was necessary to get about where they live (Rock et al, 2016).

Public transport can help reduce financial stress if it makes car ownership or access to a car unnecessary. In the Irish study mentioned above, about half of low-income multi-car households reported car ownership as a particularly large financial burden (Rock et al, 2016). Car loans, often with high interest rates, especially for lower-income groups, are also among the contributors to over-indebtedness, with all its adverse consequences (Eurofound, 2020b). Another study identified geographical areas where people are at particular risk of forced car ownership owing to a lack of access to public transport and low income levels. Forced car ownership implies that people find themselves in need of a car to get where they need to be, while often experiencing economic stress due to owning a car (regarding the costs of owning a car in the EU, see Gössling et al, 2022). Investment in public transport reduces such forced car ownership (Carroll et al, 2021).

Transport needs are not a given. They depend on the need to travel to work, school, childcare providers, shops, healthcare providers, friends and family, and leisure activities such as sports. Some of these needs can be eliminated if services can be reached on foot or can be accessed digitally. It is important to note that transport is not an objective as such, but rather a means to get where one needs to be. Issues with transport services can thus be addressed both by making transport more accessible and by reducing dependence on transport to access services, work and leisure activities. Digitalisation (facilitating teleworking, e-healthcare and e-government services) and improving access to services near people's homes can play an important role (Eurofound, 2018, 2020a). Improving access to affordable housing of adequate quality near work and services can also be part of the answer (Eurofound, 2023). Other important factors are sustainable urban mobility planning, to reduce the need to travel long distances, and promotion of public

transport and active mobility as the most sustainable and inclusive mobility options (Dubois, 2022).

Facilitating public transport rather than car usage is in line with the European Green Deal's aims to address climate change and environmental degradation, and with the aims of the EU Urban Mobility Policy, as public transport tends to be more energy efficient. For instance, tariff reduction in public transport in areas in Portugal (discussed below) led to a decrease in road traffic in 2019 (-4.1% in the Lisbon metropolitan area and -3.5% in the Porto metropolitan area) and reduced carbon dioxide emissions by 154,000 tons (Botelho, 2020). By being both progressive and in line with the European Green Deal's aims, development of public transport could also (in the most affected regions) qualify for assistance under the EU's Just Transition Mechanism. This mechanism aims to ensure that the transition towards a climate-neutral economy happens in a fair way, leaving no one behind. However, better access to transport services can also enable people to get to places that would otherwise be inaccessible. This would, of course, incur additional energy consumption, which would not be in line with the European Green Deal's aim to become the first climate-neutral continent by 2050, but it could contribute to quality of life and better access to services in harmony with the EPSR.

Public transport use is also good for population health – helping to reduce air pollution and increasing physical activity. This is particularly true of electric-powered public transport that does not release harmful exhausts. Lower socioeconomic groups tend to be more exposed to air pollution (EEA, 2020). There is thus more for them to gain from reducing air pollution, in terms of health. Older people, children and those with pre-existing health conditions are also more susceptible. Thus, reducing air pollution is likely to benefit these groups to a greater extent than others. Public transport also has the potential to improve health, as it involves more physical activity than car use (Van Soest et al, 2020). It is associated with increased active mobility (walking and cycling). Both initiating and increasing public transport use have been found to be associated with increased physical activity and a reduced body mass index (Laverty et al, 2018). Thus, public transport can contribute to addressing the surge in overweight, currently most pronounced among older people with lower incomes (Eurofound, 2022k). Moreover, public transport is also a relatively safe mode of transport, with fewer casualties due to collisions than car usage (González-Sánchez et al, 2018). So, public transport contributes to reducing health problems, disabilities and deaths in three ways, by improving air quality and

increasing physical activity and traffic safety. Owing to this positive impact on health, public transport can have positive economic impacts, increasing life expectancy, reducing medical costs, increasing productivity and enabling employment and education; it can also contribute to reducing traffic jams. However, especially in urban contexts, where walking and cycling infrastructure is well developed, there is a risk that people shift from these cleaner and healthier modes of transport to public transport if the balance of attractiveness shifts towards the latter.

Naturally, there are public expenses involved, which can come at the cost of not addressing other needs. The reduced-fare and free public transport measures discussed below lead to increases in public expenditure. Even without the expansion of entitlement to free or reduced-cost travel, there are upwards pressures in the long run; for example, in an ageing society, more and more people reach the age at which they qualify for discounted/free travel. In addition, crises can push expenses upwards, such as when people's income is not in line with the threshold for discounted/free travel or when many people become unemployed. During the pandemic, there have been specific restrictions on access to public transport. Furthermore, the recent European Investment Bank Climate Survey found that 67% of Europeans were less likely to use public transport because they are worried about their health owing to the COVID-19 pandemic.⁴⁸ This led to a sharp decline in income from ticket sales, often partly compensated by the public purse. For instance, in Bulgaria, in December 2021, bus carriers were supported with BGN 40 million (close to €20.5 million). However, given that better access to public transport can contribute in particular to increased employment and reduced healthcare needs, expenditure on improving access should be seen as an investment, with financial costs offset by the benefits.

Reducing user costs: Evidence from Member States

Targeting specific groups

People on low incomes

ESPN (2020) noted that support measures to facilitate access to public transport for people on low incomes seldom target people on low incomes specifically. This report confirms that finding, yet has identified some further exceptions in which income is a criterion.

48 <https://www.eib.org/en/infographics/67-percent-eu-avoiding-public-transport-health-concerns>

Measures to reduce user costs for public transport are sometimes purely income based. For instance, in Utrecht (the Netherlands), families earning up to 125% of the social welfare benefit can request a card on which €120 is loaded per year. The part of this funding that can be used for public transport was increased from €30 to €75 in 2020. In Vienna (Austria), people receiving the minimum income/social assistance or minimum pension are entitled to subsidised public transport through the Mobilpass scheme.

Sometimes support for public transport is included in a broader cash benefit for low-income groups. For instance, estimated public transport expenditure is part of the expenses on which the benefit calculation is based. In Germany, over 2.7 million households received minimum income benefits in November 2021. Part (€41.13 per month for a single-person household) of this minimum income (€449 for a single-person household) is based on a calculation of typical transport costs (January 2022 figures).

However, more often, support for low-income households is provided not to all low-income households, but only those that also meet specific socioeconomic criteria (for example, are also in a vulnerable situation for some other reason), for example household that include people with disabilities, carers, children, unemployed people or pensioners with low incomes.

- In Zagreb (Croatia), free public transport is available to (i) pensioners or people over 65 whose total income is less than HRK 3,200/month (€432); (ii) people with disabilities in receipt of guaranteed minimum benefit, and those unable to work and earn; (iii) full-time school or university students from a household whose total monthly income per member is less than HRK 2,000 (€270); (iv) people granted asylum and foreign people under subsidiary protection residing in the city of Zagreb; and (v) unemployed people whose total monthly income per household member is less than HRK 2,000 (€270).
- Šiauliai City Municipality (Lithuania) has provided free city bus transport to children from disadvantaged or low-income families attending day-care centres since 2018.
- In Amsterdam and Weesp (Netherlands), informal caregivers (aged between 18 years and state pension age) earning up to about 125% of social welfare benefits (and with few assets) who travel more than 3 km to their care address have received a monthly €20 public transport credit since 2018.
- In Poland, travel costs for work/training can be reimbursed by public authorities for a maximum of one year for someone who has been referred by a labour office, has taken up work/training and has an income of up to 200% of the minimum.

- In Slovakia, the public transport company in Prešov offers reduced fares for Prešov town or Ľubotice village citizens (i) aged 65 and older whose monthly retirement pension is up to €300 a month (and is their sole income), or (ii) with disabilities with an income of up to €300 a month.

There are several Member States where public transport support is not specifically for low-income groups; discounted fares may be available for certain groups, and public transport may be subsidised more generally, but discounts do not depend on people's income as such (for example, in Denmark).

People with disabilities and carers

Reduced-fee or free public transport for **people with disabilities** is commonly offered in many countries and localities.

Germany has provided people with disabilities with free public transport (depending on the grade of the disability and only those with a German disability certificate) since 2016; Ireland does so as well. In Malta, from 2021 onwards, people with disabilities are entitled to free public transport. In Slovakia, people with disabilities travel for free on trains. In Croatia, subgroups of people with disabilities, and those with disabilities caused by war (either military or civilian persons) are entitled to reduced fees for rail and coastal public transport. In Greece, people with disabilities have the right to free travel on the public transport of Athens (Athens Urban Transport Organisation) and Thessaloniki (Thessaloniki Urban Transport Organisation), and (for people with more severe disabilities) a 50% discount for sea travel applies.

Municipalities also offer public transport at reduced costs to people with disabilities. For instance, in Riga (Latvia), people with disabilities are entitled to free travel. In Slovakia, people with disabilities are entitled to free local public transport in Žilina, and people with disabilities who are in a wheelchair and blind people are entitled to this in Prešov.

Often **carers** are entitled to the same discount or fee waiver. For instance, in Germany, people accompanying (assisting) passengers with disabilities may join them free of charge if the authorisation to take an accompanying person is documented in their disability pass. In Ireland, carers are entitled to free travel. In Zagreb (Croatia), people with parent-caregiver or caregiver status are entitled to free city public transport. In Lithuania, families with children with disabilities have received a 20% discount on train (LTG Link) services since 2022, as part of a family card scheme. In Denmark, people with limited mobility or a mental illness can seek a companion card for public transport, entitling both the companion and the person with disabilities to travel at reduced fees (equal to that for children). In Hungary, students at a special education institute with two escorts and residents of a care facility (either live-in or

day care) with one visitor and up to two escorts receive a 90% discount; disability benefit recipients receive 16 return journeys a year at a 50% discount and 2 return journeys at a discount of 90%. In Austria, besides war victims, people with disabilities pay 50% of the ticket price, whereas carers who are noted on the disability pass can accompany the person with disabilities for free.

People with disabilities can sometimes also take **support other than human carers** with them. For instance, in Austria and Germany, they can take a dog with them free of charge and, in Germany, they can also take a bike.

Qualification for such schemes is usually limited to subgroups of people with disabilities, in accordance with national criteria. For instance, the Austrian discount applies to those who are 'at least 70% disabled'; free travel in Germany is for those with an extraordinary walking disability and blind people (anyone with the symbol 'G' and 'H' on their disability pass); free public transport in Athens and Thessaloniki (Greece) is for those who are 'at least 67% disabled' and discounted sea travel is for those who are 'at least 80% disabled'; and free public transport in Riga is for people with disabilities in 'group I and II' (and all people with disability below 18 years of age), and carers for people with disabilities in group I (and all people with disabilities below 18). Coverage of schemes for people with disabilities thus differs widely between Member States. The Irish scheme seems to be among those with the largest coverage: 190,000 people, or 3.8% of the Irish population, qualify for free travel because they are in receipt of a disability-related primary payment (19% of all people entitled to free travel in Ireland).

Unemployed people

Fewer examples were found of countries or localities providing public transport at reduced user costs for the unemployed. In Greece, unemployed people (registered at the Hellenic Manpower Employment Organization) have been able to use public transport free of charge since 2016. However, from 2020 to 2021, this entitlement was not available to non-residents using buses in Athens and Thessaloniki or the Athens metro, tram and electric railway system. In Zagreb (Croatia), unemployed people with disabilities are among those entitled to free public transport.

Sometimes schemes focus on reducing the cost of travel to training facilities. In Hungary, unemployed people can travel at a 90% discount from their home to a place of training. In Malta, since 2016, individuals who participate in training sessions to enhance their skills to find a job have benefited from free public transport credit to attend their training sessions and job interviews.

Retirees

It is rather common in the EU that retirees can travel at reduced fees or even for free. Usually countries apply an age limit on entitlement to free (available in Malta from age 70, Hungary from age 65 and Ireland from age 66) or reduced-fee travel (available in the Netherlands and – for trains – Germany from age 65, and Slovakia from age 62). Sometimes the entitlement is connected to receiving a pension. For instance, in Denmark and Sweden, there is an age requirement (65+), but pension recipients below that limit also qualify, including early retirees and disability pension recipients. In Hungary, people aged 65+ are entitled to free public transport. However, survivor and early pension recipients below the age of 65 (and their spouse/carers) are entitled to 16 return journeys a year at 50% off and 2 return journeys at 90% off. Sometimes free national transport is limited to a certain transport mode: in Slovakia, retired people are entitled to free train travel.

Municipalities also provide discounted or free public transport. In all Slovak municipalities, people aged 62+ receive a discount. In some municipalities, older people can use public transport free of charge; for instance, in Žilina and Prešov, people aged 70+ are entitled to free travel on all public transport. In Lithuania, Vilnius provides a 50% discount for retirees on city public transport, and substantial discounts for people 80 or older; Klaipėda City Municipality introduced a 50% discount for state pension recipients (for annual or semi-annual tickets for local buses), and a 96% discount for people aged 70+ for annual tickets for local buses in 2022.

Some countries and localities have recently expanded schemes to reduce public transport user costs for older people. In Slovenia, people aged 65+ became entitled to free intercity train transport from July 2020, and also to free city bus transport in Ljubljana and Maribor from October 2021. In Malta, the age at which free public transport is granted was brought down from 75 to 70 in 2021.

Children/young people

In the EU, children under a certain age are often entitled to free public transport, without the need to register (under seven years in Greece, under six in Slovakia, under five in Ireland, and under four in Malta and the Netherlands). Then, until a more advanced age, they are often entitled to reduced fees (Ireland, 5–18; the Netherlands, until the age of 11 on buses; Greece, those aged 7–18 are entitled to a 50% discount on city transport) or free of charge (until the age of 16 on trains in Slovakia and until the age of 11 on trains in the Netherlands), usually with the need to register for certain cards (sometimes at a small flat fee).

Sometimes support based on young age extends well beyond the ages above, and there are several examples of schemes offering discounted or free travel for young

people having been expanded recently. For instance, in Malta, people aged 14–20 are entitled to free public transport. In Greece, people aged 7–18 are entitled to a 50% discount on urban public transport. From January 2022, the region of Andalusia (Spain) has provided a 20% discount to residents under 30. In metropolitan areas, this discount is added to the existing 30% discount on the general card, bringing the total discount to 50%. In Ireland, since May 2022, people aged 19–23 have received a 50% reduction in fares on all subsidised public transport.

Some schemes reduce public transport user costs for large families. Greece, for instance, provides a 50% discount on urban transport for families with four children or more, meaning this is for the parents as well. In Lithuania, since 2020, a 20% discount on train travel has applied to holders of a family card (for tickets purchased online), and Kaunas City Municipality has introduced reduced rates for children aged 7–18 from large families.

Pupils/students

In **Croatia**, primary and secondary school students and full-time university students are entitled to reduced rail and coastal public transport fees. In Romania, from 2017, a 50% reduced tariff for domestic railway travel has applied to students up to 26 years (previously limited to four trips annually). In addition, students who are orphans or from children's homes can travel for free. In Riga (Latvia), pupils and vocational students are entitled to free travel. In Slovakia, pupils and students aged 6–26 are entitled to free rail travel, and to reduced fees on local public transport. In some municipalities, they can use public transport for free (for example, in Žilina for pupils up to 16).

In **Greece**, students of all levels of public education residing at a certain distance from their schools are entitled to free public transport. Other students travel at reduced fees. In **Finland**, since 1997, pupils living at a certain distance from their primary schools, and paying more than a certain amount for transport, are entitled to financial support. From 2021, the minimum distance was reduced from 10 km to 7 km. From August 2022, secondary school pupils now also qualify, in line with the extension of compulsory education to secondary education (up to 18) (Eurofound, 2022k, p.26). Those who pay more than €54 per month for travel to their school qualify. Some municipalities add to this national scheme. For instance, in Kouvola, all students in secondary education institutions receive a free monthly pass.

In 2017, **Slovakia** entitled primary school pupils to free public transport to school if there is no school in their municipality or a school bus run by the municipality or school. A key goal was to increase attendance among children from low-income households. In 2021, when primary school became compulsory from age five

(previously six), the minimum age of entitlement was decreased to five. Schools refund the fare to the pupil's parent on a monthly basis, upon demonstration of the tickets. An evaluation revealed some gaps in the effectiveness of the measure (NKÚ, 2021, p. 13). The allowance is not usable if there is no connection between the child's home and the school, and it does not cover the parent's fare to accompany the child to school. Furthermore, children who live in remote settlements of the municipality (often Roma) are not entitled to the allowance, as it is provided only for commuting to a different locality. However, this group can have long commutes to the part of the municipality where the school is located.

Other groups

The groups above are by no means all of the target groups of schemes that offer discounted or free public transport for people in vulnerable situations. Other groups qualifying for reduced-fee/free public transport include people travelling to healthcare providers (Hungary, which also included dental care in 2020), children in foster care (Hungary), people with refugee status (entitled to free public transport in Greece), people living in remote parts of the country (residents of Greek islands are entitled to reduced-fare sea travel) and war veterans (entitled to free train travel and, from 2021, free city bus travel in Slovenia).

During the pandemic, for instance, Hungary offered free public transport for groups of essential workers (from late 2020 until 18 June 2022).

Russia's invasion of Ukraine, with the resulting refugee crisis, has led to public transport entitlements for Ukrainian refugees. In Slovakia, a Ukrainian ID/passport qualifies people for free travel from the Ukraine–Slovak border to other parts of Slovakia. In Bulgaria, Sofia entitled Ukrainian citizens who left Ukraine after 24 February to free public transport from March 2022 until June 2022 (upon showing a passport or registration card with a personal number); a similar measure applies to the city public transport in Vilnius (Lithuania). In the Netherlands, Ukrainian refugees travel for free, but only when entering the country or travelling to reunite with family members.

General reduction in user costs

For all travel

Although reporting in this chapter focuses on targeted measures for groups in vulnerable situations, general measures that reduce public transport fees tend to benefit low-income people disproportionately as well, as they rely more on public transport than others do. The reporting here focuses on support. However, there have also been developments to the contrary. Public transport has often become more expensive on the whole in several countries, and networks have been reduced. For instance, in **Poland**, in January 2022, the

prices of train tickets were increased considerably (on the same day gasoline prices were reduced).

An example of a general measure reducing transport fees comes from Portugal: 21 intermunicipal communities and 2 metropolitan areas reduced and simplified public transport tariffs in 2019. Another example includes the €365 ticket in Germany, an annual subscription to local public transport. However, sometimes upfront payment of larger amounts is needed, which can be a problem for some households. In spring 2022, Ireland also reduced public transport costs nationwide for the first time in the last 75 years, by around 20% (with larger cuts for young adults – see above) (RTE, 2022). In Germany, in 2022, a €9 monthly ticket was introduced to travel on public transport for June, July and August. In Spain, to alleviate the impact on inflation in 2022, several medium-distance (commuter) train routes were made free, and other public transport ticket costs were reduced from September to December 2022 (Xataka, 2022).

Public transport is also sometimes provided for free nationwide (Luxembourg since 2020; Maltese buses from October 2022), or locally (Tallinn in Estonia; from April 2022, metro and trams in Valencia). In Lithuania, free passenger transport has been approved in 4 out of 60 municipalities (in Tauragė since 2021, and Mažeikiai, Raseiniai and Varėna since 2022). Some other municipalities (for example, Trakai District Municipality) are also considering the idea of free transport (LRT.lt, 2022), whereas others (for example, Plungė District Municipality) have discontinued free passenger public transport (PRST, 2022). Free public transport has been introduced in the context of discussions of a car pollution tax, which might result in a higher cost for using private transport.

An advantage of a general measure such as free transport for all customers is that it does not single people out, which may lead to stigmatisation or non-take-up, depending on how it is implemented. Local evidence supports the notion that introducing free public transport mainly benefits low-income groups. For instance, in Mažeikiai (Lithuania), five months after the introduction of free public transport, increased passenger flows were recorded. Users were mainly people without their own transport or those on low incomes, school children, seniors and socially disadvantaged people (eBus.lt, 2022).

In **Malta**, a study by Caritas Malta (2020) on three low-income categories gives an idea of the savings achieved by specific groups benefiting from the widening of the free public transport provisions. According to this study, an older couple aged 65+ spends €208 annually on public transport. From 2021, those aged 70+ will save this amount, as they can travel for free. Two adults with two children spend an average of €980 annually, whereas a single parent with two children spends €688

annually on public transport. These amounts have fallen since 2021, as, although younger children could always, travel for free, older children (up to 20) can now also do so.

Investment in certain dimensions of public transport (including offering free travel) can fail to reach people with bad access to public transport in other dimensions (such as reachability of stops, physical accessibility, adequate frequency and operating hours, and ensuring safety for users (Eurofound, 2018, 2020a)). Reports of experience with free travel implementation confirm this. For instance, free train travel for groups in **Slovakia** does not benefit people from remote areas without rail access. They can travel only by bus, which does not offer free travel under the same conditions as rail travel. Moreover, free rail travel led to a decrease in the sale of long-distance bus tickets and closure of national long-distance bus lines (Kašík 2022a,b; Kyp et al, 2019).

Home-to-work travel

Several schemes across the EU still encourage car usage rather than cleaner transport alternatives for commuting. In this report, however, the focus is on facilitation of public transport use. Examples of promoting the use of public transport for commuting include the following measures.

- In **Estonia**, as of 2020, compensation for the ticket price of the public transport used to transport employees between their home and work is not subject to taxation.
- In **France**, since long ago, employees in the private sector who use public transport (metro, bus, tramway, train, bike hire) to get to their workplace are entitled to partial reimbursement of these expenses from their employers. Reimbursement is given for 50% of the second-class fare based on the shortest possible journey. Only season tickets are paid for by the employer. These can be annual, monthly or weekly. Reimbursement by the employer is made monthly (including for annual season tickets) and by the end of the month following the purchase of the ticket. Partial reimbursements of the price of season tickets are exempt from income tax.
- In **Hungary**, a measure in place since 2015 has been adjusted: from 2022, employers can subsidise travel from the employee's residence to the workplace (and from the residence to the permanent home if different from the residence), and back, up to four times a month, tax free. Employers can reimburse 86–100% of the cost of a monthly season ticket on long-distance travel without paying tax. If an employee has a disability or a child of 10 or younger, and cannot use public transport (because it does not exist or because of a disability), the employer can compensate up to 60% of the travel costs free of tax.

- In **Luxembourg**, cross-border workers benefit from reduced rates on public transport on the most used railway lines (for example, Nancy–Metz–Luxembourg, Arlon–Luxembourg, Trèves–Luxembourg) and certain buses.
- In **Spain**, using commuter trains was made free from September to December 2022 (see above).

Digital ticketing: Overcoming barriers and finding alternatives

This section briefly discusses digitalisation of ticket purchase, the barriers to use presented by digitalisation and measures taken to overcome these barriers. Many of the cost reduction schemes outlined above require digital access, for instance, in **Denmark**, application for reduced fees for people with disabilities (and their travel companions) requires digital ID.

If cost reduction arrangements are only available digitally, it can present an affordability barrier because some vulnerable groups may not have sufficient internet access, the digital devices or the devices that can use latest software updates.

It should be noted that digitalisation, in general, can improve access to public transport. The digital purchase of tickets is more time-efficient than queuing to buy tickets and avoids the physical problems associated with queuing. Other forms of digitalisation in public transport also have great advantages for users. For instance, digitalised real-time information can reduce waiting times. Furthermore, apps have been developed to help people with disabilities use public transport. In the **Netherlands**, several such apps are available (for example, the GoOV app and Step-Hear). In Sweden, an app that uses digital ushering and augmented reality techniques is available to help visually impaired individuals to use public transport (Vinnova, 2022).

However, digitalisation has also created access problems. In **France**, the closure of some train stations and the abolition of ticket offices in others have made it more difficult for users to purchase train tickets (Défenseur des droits, 2022). Furthermore, at an increasing number of stations it is not possible for travellers to purchase a ticket before boarding the train. This is a barrier to travelling for users who do not own a smartphone, which includes many people with disabilities, older people and people with very low incomes. Options to buy tickets without (or with more limited) the need for digital skills, when still available, may come at extra cost. For instance, in Czechia, the Office of the Ombudsman has noted that an electronic train ticket includes a free seat reservation; in contrast, when a ticket is purchased at the counter, seat reservation incurs an additional charge.

A Dutch study found that people apply coping strategies when confronted with digital problems on public

transport, and that their social network is the main safety net. Family, friends and colleagues can offer support, for example by guiding, reassuring or taking over tasks. Study respondents also reported asking for help from fellow passengers or transport system staff. Some deliberately planned longer journey times or carefully prepared the journey at home. In some extreme cases, respondents reported that they sometimes choose to use public transport without a ticket, to return home without finishing the trip, to travel by another mode of transport or to not travel at all. People also tap into formal help through courses or from volunteers. The study involved in-depth interviews with older people, people with a non-western migration background and people with lower education levels, including those with low levels of literacy and people with mild cognitive impairments (Kennisinstituut Mobiliteit, 2021).

Measures to specifically address problems of access to public transport due to digitalisation seem to be rare, and, in several Member States, none were identified (for example, Estonia, Latvia and Slovenia). Many of the initiatives intended to address digital exclusion are more general. Sometimes support for digitalisation in public transport is explicitly part of broader digital support packages. This is the case, for instance, in the European cooperation project Digital Skills for People Living in the 3rd Age – Effective Digital Access to Public Services (implemented in Bulgaria, Czechia, the Greek municipality of Karditsa, the Netherlands, Spain and the UK), which aims to train older adults to develop the specific digital skills needed to access public services online. In **Sweden**, digital inclusion measures include increasing older people's digital knowledge, for instance by means of events organised by pensioners societies where pensioners can get information from public transport actors on how to use the phone apps (Tebini et al, 2020). However, public transport is often not explicitly part of these broader approaches. An example of such broad approaches includes the Digital Inclusion Charter in Belgium, and many other initiatives that aim to improve digital literacy generally (for example, the project Digital Literacy in Croatia).

Often Member States also offer multiple ways to buy a ticket to prevent digital exclusion. Usually these include the option to buy a paper ticket at a physical desk. Even when ticket purchase systems are provided by private companies, contractual requirements set by public bodies tend to specify that such alternative options should be offered. Simplifying digital systems can also help to reduce digital barriers. In **Romania**, as an alternative to using an app, in many cities one can pay for travel or subscriptions via a single short message service (SMS) message. In Barcelona (**Spain**) and Sofia (**Bulgaria**), since May 2021, people have been able to use public transport simply by tapping their bank cards from any bank. This is also the case in a growing number of Polish cities (and since 2014 on the London Underground).

Key findings and policy pointers

Key findings

This research found that a wide array of measures are used to reduce the cost of public transport for groups in vulnerable situations. They include measures for people with disabilities, carers, unemployed people, retired people, children and students. Reduced tariffs are a particularly common approach. Free public transport, especially for the entire population, is rarer, but is occasionally provided at national (Luxembourg, and buses in Malta) or local level (municipalities in Estonia, Lithuania and Poland). Free public transport is more commonly provided for children, usually children under four, but sometimes also for older children (such as in Greece, Ireland, Malta, the Netherlands and Slovakia), and sometimes for older people (Ireland) or people with disabilities (for example, Germany, Ireland and Malta). More rarely, public transport subsidy takes the form of credit that can be spent on various types of public transport (for example, in Utrecht, the Netherlands).

Reducing user costs of public transport not only generally benefits people with lower incomes and other groups in vulnerable situations more than affluent groups, but can also contribute to addressing climate change and environmental degradation. In the context of the EU's efforts to leave nobody behind in the transition to a climate-neutral economy, it may seem desirable to reduce public transport costs for low-income groups or for all citizens (such as in Ireland and Luxembourg) – albeit, from an environmental perspective, caution should be exercised to avoid overstimulating travel. Spain has tried to address this by facilitating free travel only after the holiday period. However, apart from numerous initiatives to make public transport more accessible by reducing user costs in many countries, increased public transport costs have also been reported over the study period (for example, in Greece and Poland).

Measures to reduce user costs of public transport are rarely targeted at people on low incomes specifically, but more commonly are aimed at vulnerable groups, such as older people and/or people with disabilities (ESPN, 2020), many of whom are likely also to have a relatively low income. However, many low-income earners who do not fall into these groups also experience problems affording public transport. They should not be overlooked.

More extensive use of public transport can result in improved air quality, increased physical activity among users and traffic safety. It can thus contribute to reducing health problems, including problems leading to disabilities, and deaths. This benefits lower socioeconomic groups disproportionately, as they are more exposed to these risks, and comes with wider economic and social benefits for the people involved and for society.

The magnitude of public transport discounts and the number of groups who are entitled to them in some countries are substantial; for example, cross-country travel is completely free of charge for people above a certain age in Ireland, and for all citizens in Luxembourg. However, there are also population groups and countries in the EU that do not benefit from such entitlements.

Municipalities often go further than national measures in reducing public transport costs for certain groups. In some countries, schemes are mainly set by regions (for example, Italy). This leads to intra-Member State inequalities.

Few examples were found of cost reductions specifically for people with low incomes. An exception was a local measure in Utrecht (the Netherlands). Furthermore, minimum income benefit calculations sometimes include a budget for public transport.

Few examples were found of cost reductions specifically for unemployed people (other than subsidising transport to training facilities or job interviews); Greece has such reductions, but the benefit for unemployed people there was recently reduced.

Although reduced fees or free travel for people with disabilities and their carers is common in the EU, there are large differences, with some schemes involving much wider groups of people with disabilities than others.

Children usually travel for free on public transport – the eligible age is mostly set at under four years (but often applies to children up to the age of seven). The risk of reduced access to transport for children (and reduced disposable income for households spending money on public transport for children) emerges usually when children are older and cannot travel free of charge.

Digitalisation is being applied in public transport use, for instance in ticket purchasing systems, real-time information and travel planning. This facilitates access, but also creates access problems. For instance, non-digital alternatives for ticket purchasing may address access problems, but can be more expensive for the user than digital alternatives and may pose further barriers to access (for example, by increasing waiting times).

Policy pointers

The importance of affordable public transport

Policymakers interested in enabling groups in vulnerable situations to access services, training and work can seek to step up the cost reduction of public transport use. People with low incomes and other groups in vulnerable situations are particularly dependent on public transport. Therefore, universal reductions in the user cost of public transport most benefit these groups. However, many of the schemes

discussed in this chapter target groups in which people in vulnerable situations tend to be over-represented, and therefore are of even greater benefit. Women depend on public transport for access to work and services more than average, as they often do not have other transport options (for example, a car). Investment in access to public transport more generally can thus also contribute to the EU Gender Equality Strategy.

Information on household income should be complemented with information on access to goods and services, including access to public transport.

When household income is compared within or between countries, it is important to also take into consideration differences in entitlements to reduced-cost or free public transport (and other services). For instance, children and older people with incomes just above the poverty line may be worse off in countries or areas where they have limited or no access to public transport (and other services) than in areas where free access to good public transport is widely available. To reduce the negative impacts of child poverty, Member States could increase the age limit for entitlement to free transport (which at present is commonly seven years, or even younger).

Resilience should be enhanced by providing public transport as a viable alternative. The reduction of public transport costs, together with improved availability and accessibility, can contribute to resilience by providing people with an affordable alternative in the event of fuel price increases, freeing up resources for other household expenses, and facilitating access to services and social contacts. Forced car ownership and indebtedness due to the use of private transport can be useful indicators to identify groups who could benefit.

Public transport can be responsive to needs; its potential to support people in vulnerable situations could be better exploited. Many examples were presented of Ukrainian refugees being entitled to free public transport, usually upon showing their passport. User costs have also been reduced as a response to rising inflation. Such measures demonstrate that countries can use public transport to improve the living conditions of groups in vulnerable situations. This could be mirrored, for instance, by stepping up access to free transport for children to reduce the negative impacts of child income poverty.

Looking beyond affordability alone

Access to public transport needs to be improved along dimensions beyond affordability alone. Reducing transport costs does not improve access if other barriers are dominant, such as a lack of high-quality public transport networks. This is the case when people do not feel safe using public transport or when public transport has been designed in ways that exclude use by people with certain disabilities. There are groups in vulnerable

situations that do not benefit from user cost reductions, even if public transport is free of charge. Other measures need to be considered to reach them, including improving access to public transport on dimensions beyond affordability alone. It is important to consider the needs of users and (current) non-users when seeking to improve access to public transport, including for people with physical or intellectual disabilities. A comprehensive perspective on access should thus be taken (Eurofound, 2020a). Otherwise, access to public transport cannot be guaranteed, which would constitute a failure to assure this right, as established by the EPSR.

Policies should be informed by people's reasons for travel, rather than just by features of the transport system. ESPN (2020) notes that 'without an assessment of these people's actual transport needs, there is no evidence that the support is being adequately channelled to those who are most in need of assistance.' This is certainly important. However, at the same time, it should also be acknowledged that transport needs are variable and can be influenced by policies. Access to transport is not an end in itself. Policymakers should by all means focus principally on making sure that people can get where they need to go, and the best way of doing so, but they should also take into account the reason, or necessity, for travel. This implies that measures beyond transport should receive more attention. These include digitalisation (facilitating teleworking, e-healthcare and e-government services), improving access to services near people's homes and improving access to good-quality homes near services and work.

Schemes that reduce public transport user costs for certain groups should not be taken at face value. The groups covered and the extent to which schemes are actually used should be carefully monitored. Entitlement criteria differ widely, and there are a multitude of reasons why entitlement is not always taken up, including failure to apply entitlements automatically (Eurofound, 2015). Furthermore, the effectiveness of such schemes is reduced if access to transport is limited for non-financial reasons. Such reasons could include the lack of adequate networks (see the first point in this section) or the fact that schemes fail to facilitate access for the carers of people with disabilities. In addition, children from low-income households may be unable to benefit from reduced-cost or free public transport if their parents cannot afford to accompany them. Overall, formal entitlement criteria should be considered alongside actual take-up data and user experiences to determine the extent to which transport needs are actually satisfied.

Stigma must be prevented. To reduce stigma, measures could apply to broader groups or be implemented in ways that the user cannot be identified as belonging to a specific group in a vulnerable situation

when using public transport (for example, by providing a mainstream season ticket or discount card). This prevents discrimination and non-take-up.

Variety in local measures risks inequality and non-take-up. Many support measures are municipal. This allows for a wide variability of criteria in deciding who is entitled to such support (ESPN, 2020). Although possibly responsive to local needs, local approaches also come with risks. First, there is a risk of exacerbating inequalities between different localities within Member States, with richer municipalities better able to provide support than others. Second, when measures vary widely from one place to another, there is a risk of non-take-up, as it can be challenging for those entitled to support to be aware of entitlements in each area.

Digitalisation should be sought in ways that benefit everyone. Policymakers should investigate simplification of digital systems to address access problems due to digitalisation, but also to make sure that groups who are currently digitally excluded benefit from the advantages of digitalisation. An example of this would be simplification of payment/ticketing systems (for example, by enabling users to pay for public transport by tapping any bank card and being charged the most favourable tariff, but also providing a solution for digitally excluded groups who do not have a bank card).

Public transport should be promoted along with even greener and affordable opportunities for active mobility, enhancing resilience. Especially in urban areas, where the vast majority of the EU population lives, policymakers should be cautious of focusing too much on public transport alone. They should also seek to stimulate even healthier and greener active modes of mobility: walking – with or without a walker or buggy, moving around in a wheelchair and cycling. Such active modes transport may be used in combination with public transport and are particularly affordable for users. Policymakers can facilitate this green and affordable mobility, and further enhance its contribution to population health and safety, by investing in appropriate infrastructure: high-quality networks of wide pavements and cycle lanes. This also contributes to resilience, as physical infrastructure cannot be as easily dismantled as benefit systems (European Parliament, 2020). The pandemic has triggered some advances in this direction, for instance the creation of temporary cycling lanes and wider footpaths in multiple cities. It remains to be seen whether, in post-pandemic times, policymakers continue down this route, taking bolder steps to facilitate active mobility.

Public transport should be considered in conjunction with broader social protection measures. Although this study investigated cost reduction in public transport, measures to increase income (for example, minimum income schemes) can also improve the affordability of public transport.

3 Digital communications

For quite some time, advances in digitalisation have been both a source of optimism, because they make technologies and information more accessible to many people, and a source of concern, because there is a risk of a digital divide between those who have and those who do not have access to digital technologies. Digital communication tools are a major element in today's economy, and they change rapidly. This presents a challenge to those who need to keep up their digital skills, even if only in the area of daily communication tools. However, digitalisation is rapidly also becoming a common means of delivering and administering public services and, in this respect, ensuring the accessibility of various services for all citizens has gained a new dimension. During the recent COVID-19 pandemic, the use of digital devices, for social contacts, work communication and especially education of schoolchildren and students, was increasingly seen as essential. The lack of such tools or an internet connection was an impediment to adapting to the new reality of physical contact restrictions (for telework and online schooling by necessity), and also for reducing the need for commuting when work and studies can be done remotely (for telework and online schooling/studying by choice). It has been suggested that internet access should be considered a public good or an essential service, and therefore equitable access to digital communications for all, including those in disadvantageous situations or with limited incomes, is relevant to the policy agenda.

For the purposes of this report, the term 'digital communications' refers to the devices and infrastructure necessary for digital communication. In practice, it is mostly about the quality of access to the internet, and any barriers to this connection and to making good use of it in line with the needs of a user.

EU policy context in brief

Digitalisation, including improving users' connectivity and the information and communication technology (ICT) skills needed to participate in the economy and society in the future, is firmly on the agenda of the EU Member States. The policy goals around digitalisation also stand out at EU level as a strategic policy direction. Access to digital communications is a subject with various aspects to consider, as seen in a sample of the EU policy measures.

The Universal Service Directive (2002, amended by Directive 2009/136/EC) covers the availability and affordability of access to the internet. During 2021, the principles of universal service provision were

transposed into national legislation place in several Member States, including Estonia, Lithuania and Luxembourg and, at the time of writing (in spring 2022), legislation was in preparation in Slovenia (however, this directive is not the focus here – the Directorate-General for Communications Networks, Content and Technology is monitoring the transposition).

EU funds for infrastructure, such as WiFi4EU, are intended to support initiatives that enable public bodies to provide free internet connection (including in schools and hospitals).

The 2020 EU digital strategy 'Shaping Europe's digital future' recognises digital literacy and skills as important both for jobs and for participation in contemporary society.

The EU's Digital Compass sets out digital goals for 2030. One aim is that, by that date, 80% of EU citizens aged 16–74 should have at least basic digital skills (European Commission, undated-a). At the time of launching the Digital Compass, in 2021, the figure was 54%. The previous target was 70% by 2025 (European Commission, undated-b).

In addition, digital transformation (including the related skills) is one of the six pillars of the Recovery and Resilience Facility and therefore a key dimension of EU funding.

The Digital Economy and Society Index (DESI) has been the EU's monitoring measure to track progress on digitalisation since 2016. It should be noted that the calculation of the digital skills indicator changed in 2021 (based on the five competence areas of the revised Digital Competence Framework).

With regard to developing digital skills in European societies, the following EU initiatives are planned:

- recommendation on improving the provision of digital skills in education and training (non-legislative, Q3 2022)
- recommendation on the enabling factors for digital education (non-legislative, Q3 2022)

In this broad European policy context, Member States also pursue their own digitalisation pathways. To assess whether the measures being taken will benefit all social groups, this chapter overviews national measures for assisting underconnected groups, including those on low incomes. It also considers the type of challenges arising on the continuum of access to digital communications (from availability and awareness to receiving services and meeting needs) are addressed, and what potential gaps remain.

Underconnected groups and support measures

According to a DESI report, 92% of households in the EU had subscriptions to the internet in 2021. Overall, 78% of households had fixed-broadband internet (41% had at least 100 Mbps of fixed broadband) and 87% of individuals were using mobile broadband (European Commission, 2022b).

Most internet users (87%) use the internet regularly (defined as use at least weekly), while almost 80% report using the internet either every day or almost every day. Nevertheless, there are still countries where a considerable proportion of people are not using the internet. For example, in Bulgaria and Greece, one in five individuals have never used the internet. In comparison, only about 1% or less of the adult population in Ireland, Sweden and Luxembourg have never used the internet (European Commission, 2022c).

It must be noted that in Member States measures intended to advance digital inclusion are focused on strengthening the capacities of service providers, rather than on the end users of digital communication technologies; however, this overview is primarily dedicated to measures aimed at end users, and especially the barriers they may experience.

Improving general connectivity

Several national evidence sources provide information on the percentage of households with internet access (the focus also being on broadband access); some also have information on mobile network coverage (4G or 5G).

National plans and programmes have targets for providing access to internet to households, and some include specific connectivity standards. In Denmark, which tops the list of EU Member States in terms of connectivity (DESI, 2022), there is no issue of take-up of access to the internet and the focus is on advancing digital technologies and improving their take-up by the workforce and enterprises. The scope of targets varies. For example, Finland aims to provide all households with at least 100 Mbps of broadband connection by 2025 whereas Bulgaria has more cautious targets, such as providing very high-level connection coverage to about half of households (while ensuring the provision of 100 Mbps of fixed broadband connection to a further 33% of households) (see below). Although the percentage of households with fixed broadband remains a relevant measure, the need for a fixed connection may decrease somewhat with the advancement of mobile connection coverage (as suggested in Finland's review).

Country examples of current connectivity targets

Finland aims to provide internet connection of at least 100 Mbps to all households by 2025. **Sweden**, while having an ambitious general strategy to benefit from high-level digitalisation, relies on setting a minimum standard based on the concept of adequate, or functional, broadband internet (*grundläggande or funktionell tillgång till internet*): according to Post- och telestyrelsen (PTS, 2022), until 2018, the minimum standard was 1 Mbps, but this was raised to 10 Mbps in March 2018.

Austria has still to achieve its goal, set out in the Austrian Broadband Strategy 2020, of providing nearly all Austrian residences with fast broadband connections, targeted for the end of 2020, though large investments have accelerated the expansion of the network infrastructure (Friesenbichler et al, 2021).

In **Germany**, the federal government, in April 2021, adopted a funding programme that targets 'grey spots', defined as areas where the download bandwidth is below 100 Mbps (around €12 billion will be made available to promote fibre-optic links over the period up to 2025).

Estonia's Digital Agenda 2030 sets the target of internet access of at least 100 Mbps for everyone by 2030 (in 2021 the figure was 58%). Although the target of providing such access to the whole population has been extended, the funding via the Estonian National Recovery and Resilience Plan sets out relevant actions to be taken in this area, including improvement of connectivity in less populated areas.

In **Bulgaria**, the national broadband infrastructure plan, Connected Bulgaria, published in 2020, includes the goals of improving connectivity in peripheral or rural areas and overcoming the digital divide; however, the plan gives no details of assistance for specific groups having issues accessing digital communications. Bulgaria intends to use Recovery and Resilience Facility funding for large investments in connectivity. Specific targets set out in Connected Bulgaria include that 52% of households are to be covered by the very high-capacity fixed network and that 33% of households should have 100 Mbps fixed broadband.

Some Member States where access to internet is nearly universal, such as **Denmark**, focus not on access as such but on implementing access to digital training and education (for everyone in the labour force, including self-employed people, in the period 2020–2023, as per the Danish parliament decision of 20 June 2020).⁴⁹

⁴⁹ More information from the DESI country performance profiles for 2022 is available at <https://digital-strategy.ec.europa.eu/en/policies/countries-digitisation-performance>.

To summarise, national plans to advance connectivity tend to address gaps in territorial coverage and aim to extend the availability of high-quality connectivity to less populated, remote or thus far underserved areas. Although the expansion of the technical infrastructure does not specifically target certain groups of individuals or households, and does not apply an income criterion, it may be the case that the areas that will most benefit are those where a large part of the population on lower incomes live. To ensure the take-up and use of the new technical opportunities once they are rolled out, countries could consider additional measures. As the cases of the countries with advanced levels of connectivity show (for example Denmark, above), there remains room to upskill users, even when the technical possibilities for using digital communications are abundant.

Providing internet access as an essential service

In 2020, ESPN (2020, p. 88) reported only two countries (Germany and Finland) with some kind of mechanism to ensure basic and/or uninterrupted access to the internet. Based on the inputs from the Network of Eurofound Correspondents in early 2022, Finland and Germany retained such provisions, while Portugal introduced a temporary guarantee against cut-off from ‘electronic communications’ in the context of the pandemic (see below). The underpinning for such provisions seems to have been further debated in Germany (see Busch, 2021) at least, but the provisions have not changed substantially in other Member States.⁵⁰

Finland considers broadband connection an essential service, and thus a universal broadband service is ensured by the Finnish Transport and Communications Agency (Traficom). People with hearing and speech impairments have special provisions, as a broadband connection enabling video connection is considered essential (Traficom, 2020). Standards in **Slovenia**, although they do not reference the concept of essential services, ensure the accessibility of websites and mobile apps for public service providers (update of the Accessibility of Websites and Mobile Applications Act in 2021).

Germany amended its Telecommunications Act (Telekommunikationsgesetz) at the end of 2021; it explicitly requires the provision of an adequate standard of voice and internet connection in urban and rural areas (‘equivalent living conditions in urban and rural areas and a high common level of protection for end-users’). Further regulations that detail how the

affordability and adequacy of access to these communications will be ensured were planned for June 2022. The amended act specifically mentions that rights to access have to be respected for the end users of services with disabilities, who are older or who have ‘special social needs’.

The rise in telework and reliance on the internet for distance learning during the pandemic has contributed to debates on how essential internet access is. In February 2021, the **Belgian** network of ombudspersons adopted a resolution in which it considered access to internet to be a ‘social necessity’, calling on the federal, regional and local governments in the country to recognise access to the internet as a basic need that requires specific legal protection, and to take the necessary measures to ensure it.⁵¹

In the meantime, **Portugal** adopted a guarantee for access to essential services – specifically electronic communications. This temporary and exceptional measure was established in the context of the COVID-19 pandemic (Decree Law 56-B/2021 of 7 July, amended by Decree Law 119-B/2021 of 23 December), and it set out that, until 31 March 2022, the supply of essential services such as electronic communications cannot be suspended. If users incur debts related to the provision of these services, a payment plan adequate that takes into consideration the current income of the consumer must be prepared within a reasonable time. Until 31 March 2022, consumers who are unemployed or who experience a drop in household income equal to or greater than 20% of the previous month’s income can apply for a temporary suspension of telecommunication contracts, without penalties or additional clauses for the consumer, with payment resuming on 1 April 2022 or on a date agreed between the supplier and the consumer.

In **Estonia**, according to the Electronic Communications Act, connection to a communications network in a fixed location enabling telephone services is considered a universal service (Article 69), and it is specified that it must enable the use of data communication services sufficient to permit functional internet access, taking into account the hardware and software used by most end users (Article 70). Disconnecting the user for delayed payment or other specific breaches of contract is regulated by the act; however, pricing is not: a maximum fee that can be charged to end users is specified in the act, but it applies only to the cost of telephone connection, not to the cost of internet service. In **Lithuania**, in 2021, similar legal provisions were adopted to ensure that the providers of digital communication services cannot refuse a contract

50 However, more scrutiny in checking this could be applied via the European Commission (Directorate-General for Communications Networks, Content and Technology) review of the Universal Service Directive’s transposition that is meant to take place in 2022.

51 More information on the resolution is available at <https://www.ombudsman.be/nl/nieuws/resolutie-over-de-toegang-tot-internet>.

(services) to people on a low income or to social benefit recipients (see further details below).

In **Malta**, authorities have explicitly considered reduced-tariff options for people on low incomes in the context of universal service obligations (MCA, 2020), and continue to provide reduced tariffs (see more in the section ‘Reduced tariffs’). Thanks to those measures, and to high internet penetration rates and the wide availability of free Wi-Fi access, inability to access or to afford internet connection has not been reported.

In **Ireland**, awareness of the importance of an uninterrupted supply of services increased during the COVID-19 pandemic; however, internet providers gave only voluntary commitments, and users were not afforded formal rights. Although there was a ban on energy suppliers disconnecting customers during the COVID-19 pandemic, this did not extend to communication providers. However, the major communication providers signed up to a voluntary programme to help people through the crisis -

So that customers can remain connected during the crisis, service providers will engage with any customer that contacts them who is in financial difficulty as a result of COVID-19 and has difficulty paying their bills to agree the best way of keeping them connected to voice and data.

(Government of Ireland, 2020)

One of Ireland’s leading charities (the Society of St Vincent de Paul) called on the government to institute a wider moratorium on disconnections during the pandemic, stating that it was:

more important than ever that vulnerable and marginalised groups can stay connected with loved ones and access up-to-date health advice. We are also concerned that children in low income families will fall behind on their schoolwork if they do not have access to internet services.

(Society of St Vincent De Paul, 2020)

Supporting low-income groups

As has been noted by ESPN (2020), a relevant indicator of cost-related barriers for accessing digital communications is the percentage of the population who **cannot afford internet connection for personal use at home** (ESPN (2020), based on the data from EU-SILC, 2015). Typically, this percentage is higher among people at risk of poverty – three times higher, according to 2015 data (ESPN, 2020, p. 85). By and large, the distribution of this indicator between EU countries seems similar to that of the risk of poverty.⁵²

The DESI (see ESPN, 2020) has reported on **households who do not have internet access at home**, and their reasons for not having it. The three main **reasons** (no need or interest, insufficient skills and cost-related barriers) have varied prominence across the Member States.

It could be interesting to see if the countries with the highest proportion of people who cannot afford internet at home (such as Bulgaria, Greece, Hungary and Romania, according to 2015 data (ESPN, 2020, p. 85)) or where the cost barrier is a prevailing reason for households that do not have internet (53% in Portugal, according to DESI (2020)) have policy measures in place to address these factors. On one hand, even in the Member States with the lowest DESI scores, the rate of fixed-broadband coverage was rising rapidly – reaching 90% (reported in Romania) in 2020. On the other hand, Member States with lower overall DESI scores, such as Romania, do not have measures to assist low-income groups directly. They have mostly used in-kind support for groups in need in the last two years, largely the provision of equipment to assist with online learning during the pandemic (such as providing devices to schools or pupils).

Cash benefits

To address barriers to the affordability of digital communications, some countries apply very **specific targeted allowances** (for example, **Germany’s** defined component within a minimum income benefit). Some have a system of general social allowances to support one’s overall income level (Finland); in Sweden, the social allowance system covers telephone expenses (Chapter 4 of the Social Services Act 2001, p. 453) but not internet access, which is not covered by the act. However, even in a welfare system that provides general income support such as **Finland’s**, there are additional allowances⁵³ at municipal level that may be used to cover the extra costs of digital communications. In **Sweden**, too, municipalities that administer the social allowances can choose to cover recipients’ internet costs, but this is not an entitlement and may change in the future – the Swedish National Digitalisation Council recommends that costs for internet use be included in the supporting regulation to the ‘state norm’ (*riksnormen för försörjningsstöd*), which defines what the basic social allowance needs to cover (food, clothes, telephone, etc.). If the costs for using the internet are added to the definition of the supported income, all recipients of social allowances would benefit from it automatically (Swedish National Digitalisation Council, 2019; Ekot, 2021).

⁵² A qualitative observation so far (the precise correlation has not been tested).

⁵³ Supplementary social assistance (*täydentävä toimeentulotuki*) and preventative income support (*ehkäisevä toimeentulotuki*).

Reduced tariffs

Social tariffs (whereby some providers offer a specific reduced tariff to recipients of social benefits, or groups based on other criteria), have existed in Austria, Cyprus, Italy, Malta and Slovenia since before the reporting period (2020). There have also been further developments in the last two years in designing such tariffs.

Belgium's new, comprehensive telecommunications law (adopted in 2021, to come into force in 2022) revised the regulations around the social tariffs provided by telecommunications operators. Although the specific target groups to which social tariffs apply largely remain as before (people on minimum income, low-income elderly people and low-income people with disabilities, if any of these people's annual household income is below the income threshold for enhanced reimbursement of healthcare costs), the new legislation aims to extend the law to mobile telephone/internet access. It requires indexing the social tariffs (last done in 2005), and will apply the social tariff to eligible users automatically. Although the precise figures for non-take-up of social tariffs for telecommunications are not reported, the complexities of claiming such tariffs are recognised, and the new measure is expected to address this problem.

Portugal updated its social tariffs for provision of fixed or mobile broadband internet access services in November 2021 (Decreto-Lei No. 66/2021, Tarifa social de acesso à Internet em banda larga). It aims to ensure affordability for consumers from vulnerable socioeconomic backgrounds or with special social needs who, for financial reasons, are excluded from access to essential digital services.

The **Malta** Communications Authority (MCA), the national regulatory authority of the electronic communications sector, has, through a designated provider, continued to provide reduced-tariff options so that people who cannot afford the standard tariff can have access to such universal services. The designated provider is currently offering a reduced 'line rental' tariff scheme to eligible subscribers who have been identified by the government. A number of criteria established by the Ministry for the Family, Children's Rights and Social Solidarity must be met in order to benefit from this assistance; low-income users and people with special needs are noted as target groups (the pertinent legislation is the Social Security Act). The MCA (2020) considered that, as this scheme has met its objectives, it should be continued. Figures published by the MCA in

September 2021 show that 3,687 individuals benefited from this reduced tariff scheme in 2017.

In January 2022, **Hungary** raised the standards for maximum download speed in its Digital Welfare Basic Package⁵⁴ (in place since 2017), which entitles beneficiaries to low-priced internet access packages. Eligibility was also broadened: the entitlement is no longer limited to those who previously had no connection at all, as was the case in the 2017 version.

Lithuania does not yet have specific tariffs applied in practice; however, in 2021, amendments were made to Law No. IX-2135, the Electronic Communications Law, which transposes the provisions of the European Electronic Communications Code obliging the providers of electronic communications to ensure the availability and affordability of the minimum set of electronic communications services of a specified quality for people on low incomes and recipients of social benefits. The affordability indicator is being analysed and an assessment of the affordability of services is being carried out;⁵⁵ nevertheless, from now on providers cannot refuse contracts for digital communication services to, for example, social benefit recipients (for the purpose of this overview, this shall be considered a variant of 'ensuring supply').

Although increasing attention is being paid to the adequacy and affordability of internet access (as seen in the developments around social tariffs), existing policy measures for people on low incomes may need to be updated, such as those in **Cyprus** and **Italy**. In Cyprus, the reduced tariff (50% of the regular tariff) applies to fixed (landline) internet connections but not to mobile/wireless internet services (social tariffs have, in contrast, been extended in Belgium, for example). However, many households in Cyprus do not have landline telephones (the majority of the lowest income households are in this category). Moreover, according to data provided by the Statistical Service of the Republic of Cyprus, use of wireless telephone and internet services is widespread, even in low-income households. Although there are no issues regarding service availability, the affordability of these services for low-income people is concerning, as wireless telephone and internet services account for a significant proportion of their expenditure. In **Italy**, low-income users are eligible for a discounted tariff (50% of a regular monthly tariff) for access to the fixed-line telephone network and a basic internet connection from the universal service provider TIM (the service includes 30 minutes of calls to any national number for free) but this has not been updated

54 More information on the Digital Welfare Basic Package is available at <https://digitalisjoletprogram.hu/hu/tartalom/dja-digitalis-jolet-alapcsomag>.

55 The study was initiated by Lithuania's Communications Regulatory Authority and started on 28 April 2022 (more information on the study can be found at <https://www.rtt.lt/telefono-rsys-internetas-tv/paslaugu-kainos-kokybe/universaloji-el-rysiu-paslauga/>). The results were not yet available at the time of writing.

for some time. It should be noted that the price of the discounted service may in fact be higher than the market offers for a mobile connection that cover calls and data.⁵⁶

In-kind support

Some countries provide support for the installation of broadband internet connection, some with and some without reduced tariffs for the connection itself. This support is often defined in terms of its monetary value, but, because it must be used for a specific good or service, it could be considered an in-kind measure (although in practice the support covers a cost and therefore can be seen as a financial/cash measure). An example of this is the support provided by Sweden's PTS for those who cannot obtain broadband through a private supplier. The individual applying for the support pays SEK 5,000 (€500) for the installation of broadband; the rest is covered by the state (PTS, 2022).

Many countries provided in-kind support to pupils and students to enable remote learning online during the pandemic.

In some Member States, this type of measure (in-kind support to students) was the only type identified in terms of targeted support for accessing digital communications in the last two years, and was recorded in Bulgaria, Czechia, Greece, Poland and Romania. Poland has adopted several highly targeted measures addressing, for example, teachers involved in delivering remote education (a grant of PLN 500 for purchasing equipment in 2020), pupils in orphanages, and supporting children and grandchildren of former state-owned farm (państwowe gospodarstwo rolne) workers. Many of these measures were temporary by definition (addressing the necessity for online education due to pandemic-related restrictions), whereas some were of a more permanent nature, such as provision of teaching aids, compensatory aids or special software for students with disabilities, as reported for Czechia.

The measures to support remote learning varied in focus – devices and/or support for internet connections – and in their target groups, such as focusing on pupils with disabilities, on pupils from vulnerable backgrounds, or more broadly on those who lacked the necessary devices or internet connection (Eurofound, 2022k, forthcoming). The measures focused on students are not included in Table 4 (at the end of the chapter) under 'support measures for low-income groups' owing

to their very specific focus and mostly temporary nature; however, it has to be noted that, in most cases, the description of the measures specifies that the 'financial situation of the family' would be considered when allocating support with devices for online learning.

However, some countries had pandemic-period measures that targeted a broader group than students, such as the connectivity benefit to low-income households in Italy⁵⁷ and the digital voucher programme (2021–2023) for vulnerable households in Spain. In Hungary, in the context of the pandemic, the government introduced an extraordinary measure requiring internet service providers to offer free internet access to teachers and families with children in secondary education.

Although the in-kind support discussed above mostly refers to the provision of means for accessing digital communications, there are new initiatives in terms of assisting/servicing people who lack digital skills or have other practical difficulties in using digital communications. This type of in-kind measure and informational support that addresses digital skill gaps seems to be a growing area of intervention, and is discussed in the dedicated section below.

Addressing digital skill gaps

In many Member States, training measures are a popular type of action to address the lack of digital skills; however, the scale and scope of these measures differ widely, and the criterion of low income is rarely at the centre. Instead, there is a variety of broad target groups through which some people on low incomes can be reached.

Targeted actions to improve digital literacy, including training

Digital skills indicators are some of the key performance indicators in the context of the Digital Decade, which sets out the EU's vision for digital transformation. The Digital Compass sets out an aim for 80% of EU citizens aged 16–74 years old to have at least basic digital skills by 2030. In 2021, 54% of people in the EU aged 16 to 74 had at least basic overall digital skills.

(Eurostat, 2022)

⁵⁶ The standard monthly fee for a fixed-network connection from the universal service provider TIM is €18.87, whereas the discounted fee is €9.44. TIM has also committed to providing, whenever possible, a standard 7-MB ADSL connection at a 50% discount rate. This is an obsolete type of connection, which was offered at a flat monthly rate of €21.90; the reference discounted fee would be €10.95. The eligibility threshold of the annual household income (the Equivalent Financial Status Indicator) for these discounted connections is €8,112.23, according to the Autorità per le Garanzie nelle Comunicazioni. For reference, the current TIM offer for mobile connections, including 50 GB of data with a 5G connection and unlimited calls and messages, is provided at a flat monthly rate of €14.99. Some low-cost providers have lower rates: for instance, Iliad offers 80 GB and unlimited calls and messages for €7.99 per month, or 40 GB and unlimited calls and messages for €4.99 per month.

⁵⁷ When the measure was in force in Italy in 2020–2021, it provided €500 for low-income households, defined as those with an annual income below €20,000 (based on the Equivalent Financial Status Indicator). The funding could be used to buy high-speed internet connections of at least 30 Mbps and a tablet or a personal computer. The beneficiary had to choose a certified provider and the fastest available connection at their location.

The concepts that emerge from national measures to tackle the implications of a lack of connectivity or skills include ‘digital marginalisation’ (Finland runs a national artificial intelligence project called AuroraAI that aims to improve access to digital services and combat digital marginalisation) and ‘digital exclusion’, in response to which specific measures are adopted, such as the Digital Inclusion Charter in Belgium (initiated by the coalition DigitAll in 2021). Many Member States have programmes that engage various public, private and not-for-profit actors in engaging with groups that are less savvy than others in terms of digital skills. Target groups chosen for such measures reflect who is seen as lacking sufficient skills, for example older people or young people at risk of social exclusion.

Some research identifies the groups that are particularly disadvantaged in terms of their digital skills level, such as young people, and in particular those not in employment, education or training, in rural areas in Bulgaria and Romania. It was found that digital inclusion and virtual mobility have direct positive effects on local communities (Neagu et al, 2021), thereby providing a case for investing in supporting such groups. (For more on skill-sharing and actions at community level, see the section on generational differences below.)

However, those Member States that have so far had limited measures for targeting access to digital communications at specific groups have prioritised focusing the support on what can be seen as enablers: for example, in Bulgaria, a help desk was established to serve the school information technology (IT) administrators and to assist with the roll out of digitalisation in the public education system (from the handing out and use of devices for distance learning to support in using electronic means for exams and admissions).

Certain Member States have explicitly targeted the skills of job seekers. For example, **Spain’s** 2021 National Plan for Digital Skills (*Plan Nacional de Competencias Digitales*), apart from updating the curriculum of compulsory education to include coding and programming skills ‘as element[s] of literacy’, also contains measures for creating vocational education and training programmes for digital training, and specific targeted measures (such as digital literacy training for unemployed persons hired within the framework of the Employment Promotion Plan in the Agriculture Sector).

The **Finnish** parliament, in December 2020, adopted a continuous learning reform that aims to increase the competence level of working-age people. Digital skills are a component of the reform, and the project

developing the content of the service package runs until the end of 2024. However, information on the impact of such schemes on improving labour market outcomes for these target groups is limited. To ensure that future policies are more effective, it is recommended that such schemes are evaluated and the relevant findings disseminated in an easy to access way.

There seems to be a set of training measures across the Member States to reduce digital illiteracy or improve digital proficiency via assistance and skill-sharing.

Many countries rolled out measures to support schools and students implementing online education while restrictions on physical meetings were in effect. Some countries took advantage of the pandemic to promote **digitalisation in education** by developing the digital skills of certain groups of staff, such as school technical administrators and teachers. In Bulgaria, an informational support helpline for IT queries was established by the Ministry of Education (as mentioned above) and, in Germany, the DigitalPakt Schule was updated in November 2020 to allocate €500 million to fund digital training and support for professional IT administration and support staff (DigitalPakt Schule, undated).

Other than the specific priorities of the pandemic, the following attempts at training and assisting skill-sharing have been noted.

In **Belgium**, the Digital Belgium Skills Fund (established in 2016) finances projects that aim to strengthen the digital skills of socially vulnerable individuals, mostly young people. One recipient of such funding is BeCode, an organisation that provides different types of training on digital skills (ranging in duration from a few weeks to several months, and in level from basic to advanced). There are also a range of measures under the federal and regional ‘*relance*’ programmes, adopted around 2021, that provide for informational and other support, with a focus on (diverse) vulnerable groups.

In **Estonia**, the government has implemented several digital skill development projects over the years, many of which were targeted at children. Adult training programmes were targeted and included training in advanced ICT skills (to increase the labour force available to the ICT sector) and digital literacy improvement courses mainly targeting library workers, people aged 50+ (2012–2021) and unemployed people (via the Unemployment Insurance Fund). In 2021, there were public–private partnership projects between public agencies and Google, whereby the company provided free virtual training on applied digital skills for the general public (online content, social media marketing, etc.) and donated funds for training to the

Estonian Trade Union Confederation (for the provision of courses for employees⁵⁸ and leaders⁵⁹).

In **Greece**, a number of public–private partnerships for delivering digital skills training have been formed in the last couple of years, some of which were created in the framework of the National Coalition for Digital Skills and Jobs. For example, the Hellenic Manpower Employment Organization, in cooperation with Google, Microsoft and Amazon, carried out training projects across the country and held courses for unemployed people, some of which targeted young unemployed people, and required knowledge of the English language. Some of these courses led to traineeships. It is worth highlighting Greece’s Hellenic Integration Support for Beneficiaries of International Protection and Temporary Protection project, supported by the International Organization for Migration, which assists the organisation’s target groups (refugees, migrants and asylum seekers) in using digitalised public services. The project’s staff have been remotely supporting the beneficiaries on a one-to-one basis in using digital services, such as the issuance and renewal of unemployment cards and e-registration to vocational high schools.

In **Slovakia**, a breakthrough in developing digital skills for certain target groups (including elderly people, Roma, and students in primary, secondary and tertiary education) is planned for the future – with the help of funding expected from 2022 onwards via the national Recovery and Resilience Plan of Slovakia 2020.

However, sometimes digital tools need to be used instantly, for example to access public services. The advancing digitalisation of administrative services, including social security and benefits, presents a challenge for their users, who need to stay up to date and be sufficiently skilled to use the channels necessary to communicate their needs and to receive support. Specific schemes for referring clients to appropriate sources of assistance, training or peer support were not often reported, and this is a potential area for policy development. For instance, in **France**, the Aidants Connect platform has, since 2021, enabled a temporary mandate for authorised professionals to carry out formalities on behalf of people lacking digital literacy (for example, filling in forms to obtain access administrative services or social welfare).

In **Lithuania**, too, attention on digital public services is growing, with a focus on their quality, accessibility (including for people with disabilities) and attractiveness, coupled with the improvement of digital skills among socially vulnerable groups (in particular, among people with disabilities) (VSPP, 2021); this is addressed by Lithuania’s 2021–2030 Programme for the Development of Suitable Environments for People with Disabilities (Neigaliesiems Tinkamos Aplinkos Visose Gyvenimo Srityse Pletros Programa).⁶⁰ However, there is a view that the national recovery and resilience plan (New Generation Lithuania) pays insufficient attention to effectively ensuring that public services provide content that is accessible to people with disabilities. Regarding the rapid digitalisation of public services, the Lithuanian anti-poverty network has also highlighted cases of people living in poverty who need assistance to overcome difficulties in filling in applications or registering online; moreover, people in poverty are often unaware of measures and entitlements that are on websites (NSMOT, 2021).

Addressing generational differences in internet use

In the countries with the highest levels of internet coverage in the EU (for example, the Nordic countries and the Netherlands), internet coverage is close to universal, which contributes to the fact that the affordability of access and preventing disconnection is not prominent in public discourse. However, even in these national contexts, which are also characterised by digital skills above the EU average, it is recognised that some groups – such as older people – may lack skills and cannot keep up with the rapid digitalisation of public services (a concern debated in Finland).

The concern about older people has led to special programmes for their digital inclusion, such as the DigitalPakt Alter in Germany (August 2021). The German initiative provides, among other things, live streams on a diverse range of topics (such as safe online shopping or using Siri, Alexa and similar services) and an overview of local initiatives providing practical support to older people. The initiative has also provided microgrants for 100 projects supporting the development of older people’s digital skills at local level. For example, the projects deliver consultation services on using digital devices, and offer meeting places where older people can discuss any digital issues they might have.⁶¹

58 More information on the employee courses is available at <https://eakl.ee/koolitus/google-koolitusprogramm>.

59 More information on the leader courses is available at <https://eakl.ee/koolitus/google-koolitused-liidritele>.

60 See the following relevant webpage of the Ministry of Social Affairs and Labour of Lithuanian Republic, <https://socmin.lrv.lt/lt/veiklos-sritys/strateginis-valdymas/aktualus-strateginiai-dokumentai/pletros-programu-pazangos-priemones/neigaliesiems-tinkamos-aplinkos-visose-gyvenimo-srityse-pletros-programos-priemones>

61 An overview of the projects under the DigitalPakt Alter is available at https://www.digitalpakt-alter.de/digitalpakt-alter/erfahrungsorte-1/?tx_wvt3list_recordlist%5Baction%5D=index&tx_wvt3list_recordlist%5Bcontroller%5D=Recordlist&tx_wvt3list_recordlist%5Bpage%5D=1&cHash=b9e3ef6613237b84793076db30d2974f#c1853.

Examples include a phone helpline operated by the German Caritas society to guide or assist older people with practical user skills. The not-for-profit organisation PIKSL provides similar assistance to people with disabilities. In so-called laboratories, people with no disabilities and people with disabilities can meet to work on digital issues. Workshops are held to teach basics of using digital devices, browsers, social networks, email services, etc.

Poland runs the Centre for Polish Digital Projects (Centrum Projektów Polska Cyfrowa), which receives both national and EU funding (including Recovery Assistance for Cohesion and the Territories of Europe funding). This entity supports non-governmental organisations, local government units and universities of the third age, and aims to support teachers in the field of modern technologies in their daily work with students, which will make it easier for them to navigate the digital world, allow them to use e-educational materials and create their own e-resources. To promote action at local level, the centre runs a Digital Commune (*Cyfrowa Gmina*) project (although the proportion of its activities for training cannot be identified at the moment). In addition, Poland uses European Funds for Social Development 2021–2027 to create digital development clubs in existing libraries, community centres or universities of the third age. There are also numerous local initiatives, such as the programme to increase the digital competencies of Wrocław residents (CyberMistrz). One problem with numerous relatively small local initiatives is the lack of evidence for their effectiveness and efficiency.

The accessibility of the internet for older people in the otherwise highly digitalised Swedish society is seriously addressed by policy because ‘e-legitimation’ is used widely and it is an essential to have skills to use it for accessing digital public services. In 2020, PTS was commissioned by the government to improve the accessibility of the internet for the elderly owing to the COVID-19 pandemic. PTS launched a website called Digitalhjälp, which provides guidance on how to use different digital services. PTS has also created a network to improve coordination among actors responsible for digital inclusion. In addition, it has carried out information campaigns aimed at elderly people who are digitally excluded (PTS, 2021).

Initiatives in the Member States to address the loneliness of older people during the pandemic often included equipping them with the means and skills to communicate online (Eurofound, 2022l).

Preventing the digital divide

National-level evidence to inform digital inclusion policies

Although it was possible to obtain an overview of what types of groups are seen as needing skill development, evidence on the scale of their upskilling efforts and the impact achieved is much scarcer. Organising a systematic evidence collection in this regard could help improve policy development and effectiveness. For overview purposes, a list of relevant references is presented in Table 5 (at the end of the chapter).

Although several pieces of evidence suggest that lower-income groups tend to have more limited digital skills, most measures reported for digital literacy development do not seem to use an income criterion. Instead, they target groups in relation to, for example, age (older people or young people). For example, data on how low household income relates to higher levels of having no internet access are reported in the sources of national statistics in Germany (Statistisches Bundesamt, 2021), and some subnational data have also suggest that the rate of internet use is lower in low-income groups, and, within those groups, among women and older people (Ministerium für Arbeit, Gesundheit und Soziales des Landes Nordrhein-Westfalen, 2020). Nevertheless, the largest programmes for supporting digital inclusion or skill-sharing tend to target criteria other than income, as exhibited by the federal initiatives DigitalPakt Schule and DigitalPakt Alter.

Public infrastructures

It appears that utilising existing networks or infrastructure can be a basis for addressing the digital divide – as an example, public libraries often serve as hubs providing free internet access. However, The availability and accessibility of libraries, the extent to which they are used and the support services they provide may differ across countries.

The engagement of the public library network in the Netherlands stands out for the provision of a set of measures that simultaneously address connectivity, skills and referral to services. The suite of interlinked measures promote digital literacy and proficiency, and prevent digital exclusion. These measures were funded or co-funded by the national government and were rolled out evenly across the country. They include the introduction of Digital Government Information Points (Informatiepunten Digitale Overheid (IDO)) in public libraries (200 IDOs in mid-2021, to reach 400 by the end of 2022, with every citizen to be within 1.9 km of an IDO); making Klik&Tik training courses in basic online literacy available for free at IDOs and online; introducing a digital help line accessed via phone so those who cannot go to an IDO but are in need of guidance can be

assisted; ensuring the accessibility of the governmental websites for people with disabilities; and proactively targeting digital literacy campaigns.⁶² All of this was set out in the Dutch Digitalisation Strategy (2018) and implemented over three to four years. Access to digital communications is also assured via the provision of devices. There are monitoring tools to track and improve the activities of the libraries and the programmes such as IDOs or training courses.

In **Finland**, preventing digital marginalisation in the course of digitalisation is addressed at ministerial level; Digi arkeen – an advisory board set up to identify potential concerns related to the digitalisation of public services, was established in 2017. This board includes representatives from the public sector and non-governmental organisations, and researchers.

In **Belgium**, the Digital Inclusion Charter was established in 2021.

It was noted that in **Greece** the National Coalition for Digital Skills and Jobs (an initiative started by the European Commission) plays a role in facilitating digital skills training and skills-sharing activities, whereas, in other Member States, the coalition is less engaged or less visible.

Key findings and policy pointers

Key findings

These are the main types of measures supporting access to digital communications in the Member States.

- In-kind support has been applied much more widely since the COVID-19 pandemic (before 2020, it was used in only a few Member States) and was provided in most Member States during 2020–2021. In countries with lower DESI scores, such as Romania, in-kind support in the last two years has mostly targeted groups in need, and has mostly taken the form of equipment to assist with online learning during the pandemic (such as devices for schools or pupils).
- The number of countries using reduced tariffs has increased since 2020. A progressive development in the area of reduced tariffs was noted in Belgium, where decisions were taken to index the social tariffs, to cover mobile as well as landline internet access, and to apply the social tariff to eligible users automatically, thereby addressing the problem of non-take-up. However, in the cases of Cyprus and Italy, the conditions for reduced tariffs (only available for landline internet) are outdated, as they

are not in alignment with the current pattern of mobile/wireless internet use by a large proportion of internet users in these countries.

- Cash benefits are applied in only some countries – for example, very specific and targeted allowances (for example, Germany’s defined component within the minimum income benefit, and Finland and Sweden’s supplementary social assistance).
- There are Member States where there are no measures specifically targeting low-income groups.
- Provisions for basic/uninterrupted internet supply exist in only a small number of Member States (in Germany, Finland)pre-dating the pandemic) and, since the pandemic, in Portugal), suggesting that there has been limited policy progress towards firmer foundations for securing access to the internet as an essential service.
- Advice/informational support measures are widespread and mostly provided universally (to any interested users), but their impact is rarely assessed systematically. Training projects are often small scale and at grass-roots level.

Policy pointers

Although several pieces of evidence suggest that lower-income groups tend to have more limited digital skills, most measures reported for digital literacy development do not seem to use an income criterion. Instead, they target groups in relation to, for example, age (older people or young people). Some small-scale projects target young people who are socially excluded.

Although it was possible to obtain an overview of what types of groups are seen as needing skill development, evidence on the scale of upskilling efforts and the impact achieved is much scarcer. Therefore the following policy pointers can be suggested:

- organising a systematic evidence collection on the impact of training and skill development measures to help improve overall policy development and effectiveness
- potentially carrying out more projects with EU support in training/e-inclusion

Utilising infrastructures and existing networks can be a basis for addressing the digital divide – as an example, public libraries are meant to serve as hubs where free internet access is provided. However, the availability and accessibility of libraries, the extent to which they are used and the support services they provide may differ across countries. The following specific policy pointers can be suggested.

62 For instance, in 2021, measures for improving digital literacy were directed at senior citizens, ‘technostressed’ workers, 18-year-olds and children.

- The development of a set of complementary measures that include informational support, basic assistance and training would help to address the problems of digitally underskilled people or underconnected groups. The suite of interlinked support services delivered through the network of public libraries in the Netherlands should be considered as an example of good practice.
- Appropriate institutional arrangements could help sustain relevance, continuity and learning when developing measures for preventing digital exclusion. In this respect, examples of good practice include Finland's advisory board, which identifies concerns related to digitalisation of public services, and Belgium's Digital Inclusion Charter.

Table 4: Measures in place to support access to digital communications for people on low incomes

Member State	Reduced tariffs			Cash benefits			In-kind benefits			Ensuring basic/uninterrupted supply of service			Informational support to users		
	National	Regional	Local	National	Regional	Local	National	Regional	Local	National	Regional	Local	National	Regional	Local
Austria	1			1											
Belgium	1							1						1	
Bulgaria															
Croatia													1		
Cyprus	1														
Czechia							1								
Denmark															
Estonia															
Finland						1				1					
France							1						1		
Germany				1			1	1	1	1					
Greece							1								
Hungary	1						1						1		
Ireland															
Italy	1						1								
Latvia															
Lithuania										1					
Luxembourg													1		
Malta	1						1								
Netherlands	1						1						1		
Poland							1								
Portugal	1									1					
Romania							1		1						
Slovakia															
Slovenia	1						1								
Spain							1								
Sweden						1	1								

Notes: This table is created as an update to ESPN (2020), Table A6, using the inputs from the Network of Eurofound Correspondents covering 2020–2021 (and early 2022).

A grey shaded background means that the measure is newly introduced or was updated after 1 January 2020.

As national measures based on a specific criterion of low income are rare, this table includes measures that are based on other criteria or are universal, and thus are relevant to people on low incomes indirectly or in combination with other criteria. Connectivity benefits or support for purchasing devices that provided cash for strictly defined purchase types are considered here as 'in-kind benefits'.

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

Table 5: Main studies that provide (evaluated) evidence on the impact of digital inclusion measures

Member State	Study
Belgium	Brotcorne and Mariën (2020). The digital inclusion barometer is funded by the King Baudoin Foundation and carried out by Vrije Universiteit Brussel and Université de libre de Bruxelles, and is based on the 2019 survey of ICT use by households and individuals. The study highlighted inequalities in access to digital communications and digital skills, and the limited use of administrative and other services online.
Croatia	As part of the Digitalna.hr project, the Network for the Development of Digital Literacy is researching the need to develop public policies for the digital inclusion of vulnerable groups: elderly people, people with disabilities, and residents of rural areas and islands. The report is expected in 2022.
Greece	Alexopoulou (2020). The paper highlights the 'grey digital divide' and describes practices, including those from other countries, that could help develop practical digital skills for older people in Greece.
Ireland	National Economic and Social Council (2021). The report pointed out some key barriers to accessing digital communications in the areas of connectivity, skills gaps and a lack of motivation. It also reviewed the Digital Skills for Citizens Scheme (2017–present), which provides for 10 hours of classroom training on basic ICT. In 2020, Age Action Ireland has also criticised this training arrangement for being inadequate, and advocated that the scheme be replaced or the training improved (for example by focusing on one-to-one delivery mode).
Poland	Świącicki (2021). According to the research by the Polish Economic Institute, during the pandemic, as many as 53% of all nine poviats (medium-level local government units) experienced at least one form of digital exclusion owing to an insufficient internet connection speed. Centrum Cyfrowe (2020). This report identifies the following major challenges. <ul style="list-style-type: none"> There is a lack of broadband internet access with adequate capacity in some areas of Poland, especially in rural areas. There are no data on the exact scale of the problem. There are problems with data limits for mobile access to the internet – this mainly concerns the 50% of children who have pre-paid phones. There is a need to share the necessary equipment (computers and laptops) between siblings or between children and parents. According to the study, this problem affects at least 1 million pupils (around 25% of all pupils). Teachers lack the competence required for distance learning (online learning) and the use of digital tools. The study indicates that up to 30% of teachers do not have the basic competencies necessary to conduct online learning. Bartol et al (2021). Motivational exclusion remains the key form of digital exclusion. Almost 66% of people who do not use the internet justify this through their lack of need, even though – depending on the sociodemographic group – 20–45% of them have a device at home that provides access to the internet. It appears that digital exclusion today is related more to a lack of digital awareness and skills than to physical problems in accessing the internet. The basis for the occurrence of motivational exclusion is a low awareness of the purposes for which the internet can be used.
Romania	Neagu et al (2021).
Slovakia	Bednárik et al (2020) and Hamarová (2022).
Spain	Observatorio Nacional de Tecnología y Sociedad (2022). The report highlights that the households with the lowest incomes are most affected by the digital divide: slightly more than 289,000 households with incomes below €900 per month do not have internet access. There are also many (slightly more than 200,000) households with incomes between €900 and €1,600 per month that do not have access to the internet. Hernández and Maudos (2021). Educational attainment, occupation and age are the three most important determinants of the digital skills gap; gender, in contrast, is much less statistically significant. For example, being older than 55 increases the probability of having low skills or no skills at all by 23.1%. Those with an intermediate education are 17.6% more likely to reach an advanced level of digital skills than those with a basic education, while those educated to higher level are 36.2% more likely than those with a basic education to have advanced skills. Going from being unemployed to being employed also increases the probability of having advanced digital skills. Fundación de Ayuda Contra la Drogadicción (2021). This study found that in public educational centres the number of students per computer (with an efficient internet connection) averaged 3.4. Only 35% of public schools have an efficient broadband connection. Private educational centres have more efficient internet access than public centres in the vast majority of cases.

Notes: The requested review period was 2020–2021, although studies outstanding beyond this period may have been mentioned. This table omits the basic reports of the results from the survey on the use of ICT by households and people that is carried out by the national statistical institutes of the Member States in agreement with Eurostat.

There were no relevant studies in Austria, Bulgaria, Cyprus, Czechia, Denmark, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Portugal or Slovenia, so these countries are not included in the table.

Source: Eurofound (based on the inputs from the Network of Eurofound Correspondents), 2022

Conclusion

This overview focused on specific national measures aimed at improving access to energy services, public transport and digital communications for people on low incomes that were introduced over the period from 2020 to early 2022. These service areas are specific in terms of their regulatory frameworks, providers, supplies or other features, and are largely independent of each other; therefore, the concluding messages mostly focus on each area individually, although some overarching considerations are suggested.

Addressing the costs of energy services was one of the areas in which the measures were most numerous and most dynamically developed during the period covered: most Member States have adopted universal or targeted measures regarding energy costs for private accommodation, and some countries also made efforts to reduce the cost of fuel for cars by regulating the price, changing taxation or subsidising certain groups. This dynamism is understandable in the context of the continued volatility of energy prices and the challenges in securing energy supplies in Europe. Even before the energy cost crisis, most Member States applied reduced tariffs and/or provided cash benefits to help groups in need of support to pay for energy services; however, the majority of recent measures that countries have adopted to change the cost for end users are universal, that is to say they are not targeted solely at people on low incomes). Although there are instances of social tariffs (for supported groups) being adjusted, the anticipated impact on people on low incomes or groups in specific vulnerable situations is still difficult to identify. Public access to the evidence used for modelling the impact of energy costs and of the newly adopted measures is limited so far; the evidence base for ongoing policy adjustments will need to catch up.

Support for access to public transport is characterised by a wide array of measures – many Member States are supporting a range of target groups by introducing reduced tariffs. As has been the case previously, the income eligibility criterion for this support is rarely directly used, but calculations of the minimum income sometimes include a budget for public transport. Further examples of extending affordable access to more people have emerged across the EU recently, although it remains the case that such measures are present in only a minority of Member States. The scope of the entitlements to subsidised public transport also

differs considerably: notable examples include free public transport for everyone in Luxembourg and free cross-country travel for older people in Ireland and Hungary; other countries or social groups lack such entitlements.

Reducing the costs of services such as energy and public transport benefits people on low incomes or in vulnerable situations disproportionately,⁶³ and can help extend a user base of, for example, energy sources or modes of transport that are preferable for improving environmental sustainability.

The vast majority of the population in many EU countries regularly use digital communications, and most countries have ambitious targets to further improve their technical infrastructure for better connectivity. These measures are often focused on territorial units and rarely target specific user (or the remaining non-user) groups, especially not in relation to their income levels. However, in-kind support to students or families with children engaged in online education was applied across the EU during the COVID-19 pandemic but was typically the only type of support provided in those Member States with the overall lowest levels of digitalisation in the EU. There are some recent examples of the application of social tariffs for installing internet access and paying for connection/data, but some Member States where an affordability barrier to using the internet was reported previously still have no measures directed at people on low incomes. Provisions for the basic/uninterrupted supply of digital communications exist in only a small number of countries, and this suggests that progress towards ensuring internet access as an essential service has been limited.

The extraordinary rise in costs of energy explains the need to focus on affordability, especially of energy services and public transport. However, in the case of all three service areas considered, a recurring theme that arose during our research was the importance of non-financial measures to improve access, ideally for all but, owing to their potential vulnerability, particularly for people on low incomes.

In the case of energy services, one must consider the appropriateness of the regulations that protect people in vulnerable situations from being disconnected from services – to prevent extreme impacts on their housing

⁶³ As has been pointed out before, the same absolute expenditure constitutes a larger proportion of total expenditure for someone with a low income than for someone with a high income. Conversely, a cost reduction of the same absolute magnitude frees up a larger proportion of the income of someone on a low income than of someone on a high income.

conditions and health; preventing situations (such as arrears or indebtedness) that lead to a risk of disconnection could also be aided by timely and adequate advisory and support services.

In the area of public transport, the availability of transport networks that meet existing needs remains an important dimension beyond affordability. Digital ticketing systems the provision of information about public transport services in digital form are developing and changing quickly, and the accessibility and take-up of digital ticketing by people with disabilities need to be monitored. In a broad social and policy context, certain needs could benefit from further recognition, such as the adequacy of transport services for carers and the range of options for active mobility. The scale-up of green transition will be aided by greening mobility, which could include reducing the needs for energy-intensive travel, for example by improving access to good-quality housing close to workplaces and services, or by improving connections between the two by developing infrastructure that prioritises active modes of mobility.

Regarding access to digital communications, there seems to be a trend in the making – policies recognise the skills dimension more than before. Although access to the technical means for using digital communications remains a challenge for certain parts of society in several Member States, measures are being designed to ensure that the population has the skills to not only access, but also make best use of, what digital technologies and information can offer. However, it seems that methods of measuring the impact of upskilling programmes are yet to be developed so that policymaking can be guided by evidence.

Any policy measure, if it is to achieve its full impact, requires maximum take-up and use of the services it addresses. Striking an optimal balance between universal and targeted or locally specific measures can be a challenge. It is important to reach those most in need and to respond to community preferences. In this respect, local support measures allows enable entitlement criteria and services to be varied as required. However, heterogeneity of measures raises the risk of non-take-up; the equity of services and their quality between richer and poorer regions or municipalities may also be affected.

Although this report focused rather specifically on identifying particular measures in the current period, it is suggested that access to energy, public transport, digital communications or other essential services can also be seen as part of social citizenship and could be promoted via general measures to improve living standards (including income support policies); this could also help build societal resilience in the long term. The general social policy context is to be kept in mind when addressing access to essential services in the future – this has already been emphasised in the European Pillar of Social Rights. Access to paid services could be facilitated by, for example, having good minimum income schemes or other general welfare measures, and could be complemented by services that are free at the point of use, as is the case with wireless access to internet in many public places and the increasing instances of experimenting with free public transport.

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In collecting information on essential services, the European Commission requested Eurofound to provide input on certain aspects of existing and planned measures in the EU Member States to improve access to essential services in reference to Principle 20 of the European Pillar of Social Rights. For this exercise, the scope covered energy services, public transport and digital communications, and the focus was on people at risk of poverty or social exclusion (in most cases, in practice, people on low incomes).

This report provides an overview of the measures in the Member States and is based mainly on the inputs from the Network of Eurofound Correspondents, collected in February–March 2022. The report reviews the measures across the entire EU by clustering them based on their major types or targets to make essential services accessible, and by succinctly listing the main country-level examples. It provides information to aid understanding of the diversity and similarities of the measures applied and suggests pointers in areas where policy action could be developed.

The European Foundation for the Improvement of Living and Working Conditions (Eurofound) is a tripartite European Union Agency established in 1975. Its role is to provide knowledge in the area of social, employment and work-related policies according to Regulation (EU) 2019/127.

