

# REFOCUS THE EUROPEAN UNION: PLANET, LIFETIME, TECHNOLOGY

A report by the European Reformists, edited by Heather Grabbe and Tomáš Valášek



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## About the Project

This report is a rallying cry for Europeans to pull together and mobilize the EU's assets to manage the three biggest changes of our times. Each section briefly diagnoses the consequences of climate change, aging populations, and digital revolutions and then explores the role the EU could play in supporting the inevitable transitions. The purpose is not to provide a detailed blueprint for each transition, but rather to launch a new kind of debate about the EU—a debate that does not revolve around how to tweak the current institutions but instead how to address a reordered set of priorities.

The insights and recommendations presented draw on ideas and analysis that emerged from a series of discussions between a group of Europeans with innovative ideas and a pro-reform mindset. This group, referred to as the European Reformists, was brought together by the Open Society European Policy Institute and Carnegie Europe between October 2017 and December 2018 to discuss the continent's biggest challenges over the next fifteen years.

These challenges are not necessarily new, and the EU has started work on most of them. But much faster and more radical action is essential to avoid massive social, economic, and political disruption. The time is now ripe for two reasons. First, there is a renewed political appetite for a positive vision in which the EU provides solutions to people's worries.<sup>1</sup> Second, there is no time to waste.

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**Kristof Braekeleire** created the illustrations in this report. An illustrator and visual strategist, Braekeleire is based in Brussels. He partners with the graphic facilitation company Visual Harvesting and is the founder of JIXSO, a company that stimulates group learning and participation through visual storytelling and strategic illustrations.

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## Meet Lucia and Peter. They are eagerly expecting the birth of their daughter, Claudia, on Europe Day, May 9.

But they are anxious about the world she will grow up in. Huge changes are coming due to climate change, aging populations, and digital revolutions. Will she have clean air and water? Will she have steady work and a pension? Will the technology that protects her safety and health be secure? Millions of Europeans share the anxieties of Lucia and Peter. But children born in 2019 could have an even better life than their parents—if Europe manages the turbulent transitions ahead successfully. Let's see what that future could look like if the European Union gets its priorities right.



# **A Rallying Cry for Refocusing the European Union**



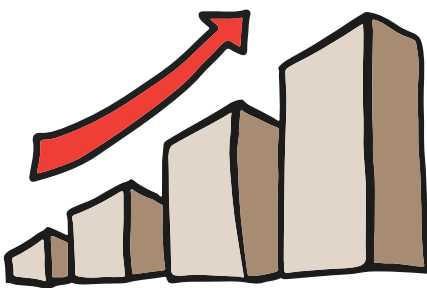
Europe's political leaders need to take much faster action on three huge, transnational, and interconnected challenges. These challenges are already on their doorstep: climate change, aging populations, and digital revolutions (hereafter called the "Big 3"). They are already altering the lives of Europeans in ways that could break the long-standing social contract between citizens and state, damaging both democracy and well-being. The European Union has a vital role to play in managing these challenges, but to do so successfully, it will have to change its priorities, refocus its resources and policies, and create the necessary political will.

**EUROPE'S POLITICAL DEBATES** are currently focused on single-issue problems that have largely divided people into defensive tribes. Populists have turned migration into Europe's single biggest political challenge. There are indeed complex issues that migration policy needs to address, but the attention devoted to them is all out of proportion and comes at the expense of other pressing issues. Meanwhile, most mainstream parties have run out of new ideas to meet voters' fears about jobs, identity, and security. This misdirection of political energy is self-defeating and paralyzing.

A new vision is needed to break the political impasses preventing rapid progress in addressing the major changes happening to planet, lifetime, and technology. Each one has already begun to transform economies, societies, politics, and physical environments and will increasingly affect current thinking around many other issues, including migration. These enormous, scary changes are hitting most parts of the world, but in different ways, making it hard for governments to make the necessary trade-offs between the long-term interests of all humans and the short-term interests of their own populations. Great political leadership is needed for the human race to make the necessary adaptations without major conflicts and violence.

But no global power seems willing to lead a global response, and, in this respect, the European Union (EU) and its member states have a unique advantage. They have a regional governance structure that is better suited to manage the adaptation than individual governments or other forms of international cooperation. Europeans have developed institutions and policies that can manage trade-offs and tap into a political community with the capacity for collective problem-solving. That gives them unusually rich resources: a community of law, a community of political solidarity, and deep transnational networks of expertise across businesses, science and academia communities, civil society organizations, national administrations, and supranational institutions.

If the EU successfully applies these resources to the Big 3 challenges, it could set global norms and provide political leadership on a scale that would help not only Europeans but also the rest of the world to adapt. The EU is not, by any means, the whole solution; national governments need to do the bulk of the adaptation, and business and civil society have big roles to play. But the EU offers five key advantages in addressing the looming transitions:

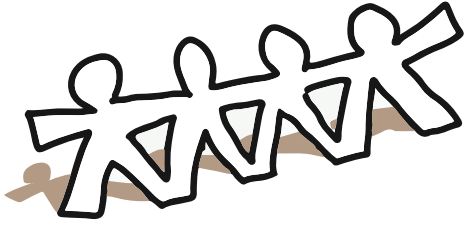


### Scale

People can achieve things at the scale of half a billion that they cannot in smaller communities. But it is hard to scale up solutions if the incentive is not great enough for governments to collaborate rather than go it alone and to overcome other collective action problems. If the EU's policy frameworks can bring together communities, they can achieve more at scale and overcome blockages to collective action.

### Open societies

The EU has relatively well-educated people who are free to express their opinions in democratic debates and open media and to choose their identities and lifestyles.



Europe's deep networks of scientists and academics, businesspeople, civil society organizations, and state administrations have extensive expertise, knowledge, and practical experience. If the EU can pull together its collective intelligence and make its open societies and cultural diversity an asset, it could produce much better solutions to the problems created by the Big 3.

### Sticky agreements

The EU's community of law makes agreements stick. Unlike loose intergovernmental pacts that signatories can withdraw from on the whim of their political leader, the EU's members are bound into a system with legal remedies and political pressure that makes it far more difficult to renege on agreements, even though governments will test the boundaries. If the EU can produce similarly sticky agreements on solutions to the Big 3, that will give everyone—from state actors to businesses—more certainty that EU agreements will hold, which sets firmer expectations and changes their behavior much faster than an international agreement alone would.



### Money

The EU has a relatively small common budget, but it is big enough—at 1 percent of the EU's gross domestic product (GDP)—to bring in additional resources when the economic and social pain of adaptation becomes too great for one democratic society to bear. The adaptation will create asymmetric shocks across Europe. If the EU can direct its common money toward providing buffers to ease the transition, it could help preserve democracy in struggling countries and maintain social peace in communities.

### Global norms

The EU has the power to set global norms in the public interest, thanks to its sophisticated legal and political infrastructure and its administrative capacity to lead multilateral cooperation on the Big 3. At the transnational level, it has greater powers than other regional bodies to regulate competition, consumer policy and trade, and to protect consumers, workers, and the environment with product and process standards. The standards it sets for the EU's large internal market of \$20 trillion tend to get adopted by other economies trading with it. If the EU sets effective rules that serve the public interest, it could foster global norms capable of managing the shift to a low-carbon economy, the changes to social contracts, and the effects of digital products and services.



These five advantages are vital to handling the transnational dimensions of the Big 3. The cross-border effects that could cause conflicts between states will need buffering through cooperation and mechanisms to spread the burden of adaptation. The EU has a community of governments and political elites that are used to working together and finding common ground. The EU's trust-building political frameworks could be strengthened to prevent governments' beggar-thy-neighbor reactions that often lead to interstate friction. In addition to keeping the peace within Europe, the collaboration could allow the EU to play a positive role in resolving interstate conflicts born from new pressures elsewhere in the world.

We believe that the EU must use these resources really well to manage the coming transitions. Europeans have a historic opportunity to adapt to the inevitable reformation of economies, politics, and society. If they manage it successfully, the solutions they find also could help other parts of the world.

If they manage it badly, the EU will have little purpose in the transformed Europe of the future. If misdirected, its resources could be at best wasted, and at worst they could be used to block the adaptation and lengthen the economic and social pain. The EU will wither if it is not used as the framework for this adaptation to the Big 3. The cost of missing this opportunity would be existential for the EU. Europeans will lose the capacity to shape their own future, suffer from a declining quality of life and more social unrest, and could even experience a return to violence.

The aim of this report is not to justify the current EU, nor give it a future role for the benefit of the institutions or elites. Rather, it is to direct the resources of an institution with unique advantages at three of the greatest challenges facing humankind in the twenty-first century. These should be the EU's focus for the foreseeable future.

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## Lucia and Peter's daughter, Claudia, just turned twenty-one and has a high quality of life that respects the planet's limits.

Although climate change has caused disruptions worldwide, the EU helped reduce the impact by adapting its environmental and agricultural policies to decrease waste and regenerate nature and by providing global leadership in cutting carbon emissions. Claudia enjoys cleaner air than her city has known since the nineteenth century, while the surrounding countryside has rewilded species of plants that had become extinct in her region. Her hot showers and cool interiors are provided by renewable energy under the EU's single energy market. It would never occur to Claudia to buy a car when she can use one of the numerous shared mobility services for short or long journeys. Single-use plastics no longer exist, and the products Claudia uses daily are affordable, reusable, and recyclable thanks to EU regulations on design. She avoids products made of primary materials from unsustainable sources, as they are very expensive and heavily taxed. Claudia is vegan and has abundant restaurants and locally produced foods to choose from.



# Planet 1

## What's at stake?

**THE GLOBAL ECONOMY** of 2019 is fundamentally unsustainable. Methods of production and consumption are causing climate change but also transgressing many other planetary limits, leading to land degradation and a loss in biodiversity. Just trying to green the current economic system will not solve the problems.

On both the transition to a low-carbon economy in Europe and global action on climate change, the EU has a key role to play. The union has already taken the lead on reducing car emissions, funding carbon capture and storage, and reducing plastic litter. EU member states have made significant reductions in greenhouse gas emissions due to renewable energy use (see figure 1). Single-use plastic will be banned starting in 2021. When citizens get fed up with the lack of government action, the EU can move ahead of the national governments on the issue.

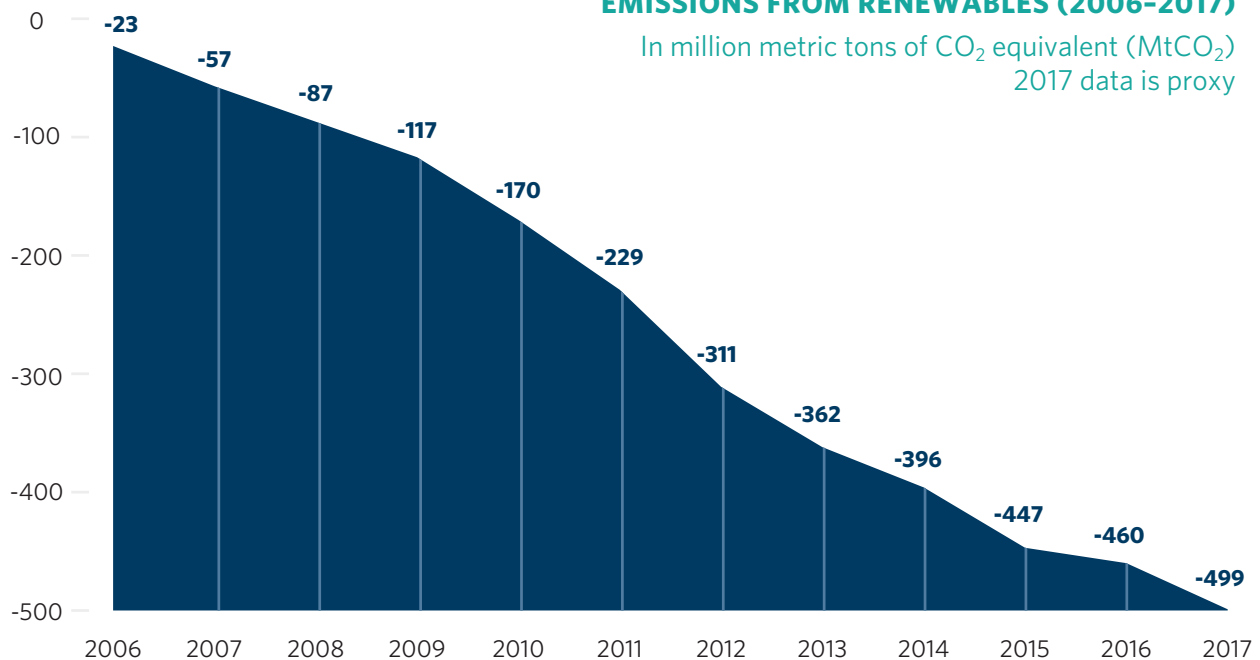
Climate change is affecting all regions, not only Europe. And environmental damage will not be the only consequence; climate change will increase competition for land and resources, with aftershocks felt beyond the immediately affected regions. But while the problem transcends continental boundaries, neither the United States nor China currently seem willing to lead a global system for managing climate action.

The EU's future role will be vital in creating a common energy market and coordinating energy efficiency. It needs to make the political case for why a low-carbon economy will increase the quality of life. Europeans would benefit from better air and water quality; pleasantly heated and cooled buildings with passive systems rather than noisy, electricity-gobbling ones; and lots of green jobs.

FIGURE 1

### EU-28 REDUCTION IN GREENHOUSE GAS EMISSIONS FROM RENEWABLES (2006-2017)

In million metric tons of CO<sub>2</sub> equivalent (MtCO<sub>2</sub>)  
2017 data is proxy



Source "Renewable Energy in Europe - 2018: Recent Growth and Knock-on Effects," European Environment Agency Report No 20/2018, December 18, 2018, <https://www.eea.europa.eu/publications/renewable-energy-in-europe-2018>.

## Building a sustainable economy

To bring the economy back within planetary limits, EU policies need to address environmental degradation by reducing equitably the rate at which member states use energy and natural resources to curb the depletion of ecosystems and environmental resources. The challenge is immense because of the different interrelated elements of the system that need to change. And the problem is inherently transnational, so the EU needs to encourage and manage the shift to a sustainable economy.

Some decoupling of economic growth from environmental degradation is already evident; Europe is producing some goods and services with fewer resources and energy. However, more and more evidence shows that the required radical decoupling is impossible. That would mean maintaining the current growth-based economy while using fewer natural resources every year.

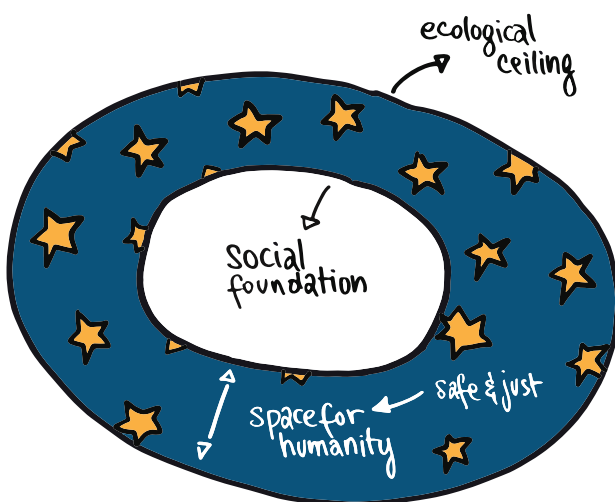
The EU needs a new economic vision that provides a higher quality of life, reduces inequality, and focuses on well-being, while at the same time restores crucial ecosystems. The new type of economy will need a new blueprint, in which citizens work less in total over their lifetimes and consume less, experience less inequality, and have more autonomous time. Whereas the twentieth-century model was a welfare state based on a growth economy, the twenty-first-century model should be a well-being state based on an ecological economy, providing every citizen with freedom and security.

There is already a lot of good thinking on what a low-carbon economy would look like and how to transition to it. Now is the time for the EU to develop consistent policies to manage that transition successfully. An inspiring concept is the Doughnut Economy of economist Kate Raworth.<sup>2</sup> She created a doughnut-shaped diagram that

integrates ecological limits and social goals. The outer circle represents the limits of the earth's vital systems—the ecological ceiling that the human economy must not exceed or life will die on our planet. The inner circle stands for the social foundation of what the economy must provide for every person on earth. In between the two circles lies the safe and just space for humanity, which can only be realized with an economy that is generative and distributive by design. (See figure 2 for an adapted version of Raworth's concept.<sup>3</sup>) Contrary to an extractive economy, this philosophy incorporates profit but demotes it from a central objective. Think about a farmer who, by farming ecologically, not only provides for herself or himself but also enhances biodiversity and community life.

The current approach to resources—“take-make-use-waste”—also has to

**FIGURE 2**  
**KATE RAWORTH'S DOUGHNUT ECONOMY**  
(Adapted for the EU)

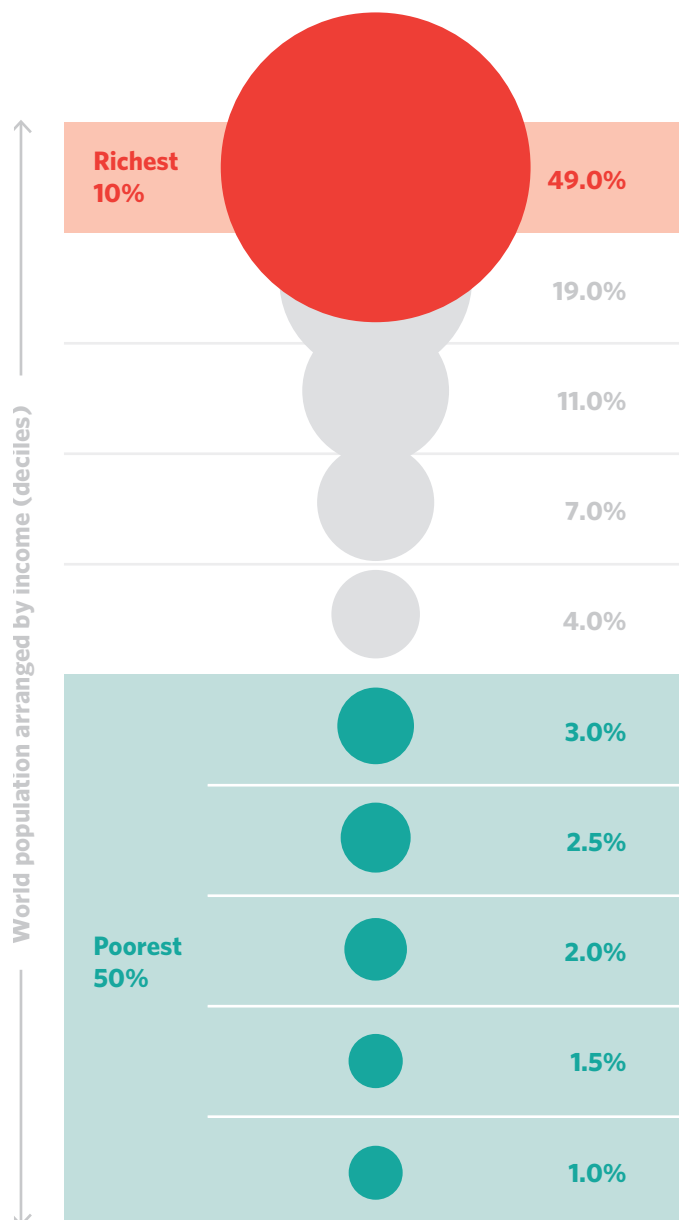




be replaced; waste and pollution must be greatly reduced, while promoting the regeneration of natural systems. This “circular” approach requires the development of more regional economies and a relocalization of production. This will have the added benefit of generating new employment opportunities closer to home. But a circular economy is in itself neutral toward social goals, so it would be essential to combine the approach with other innovative concepts to ensure social justice.

A new economy should also improve equality but not put further pressure on resources. Currently, the richest 10 percent of the world’s population is responsible for 50 percent of all greenhouse gas emissions, while the poorest 50 percent of the population is only responsible for around 10 percent (see figure 3). If poorer populations succeed in raising their income levels and, in turn, consumption levels rise, the stress on planetary resources will increase. To avoid this, long-term policies at the EU level need to encourage “contraction and convergence.” The goal would be to reduce the overall use of natural resources to a safe level (contraction) by each country harmonizing its consumption of natural resources per capita to an equal global level (convergence). This will require transferring new technologies and knowledge to poorer countries as cheaply as possible, so that they can live better without tipping the planet into irreversible degradation.

**FIGURE 3**  
**WORLD’S RICHEST ARE RESPONSIBLE FOR HALF OF GREENHOUSE GAS EMISSIONS**  
 Percentage of CO<sub>2</sub> emissions by world population



**Source** “Extreme Carbon Inequality,” Oxfam Media Briefing, Oxfam, December 2, 2015, [https://www-cdn.oxfam.org/s3fs-public/file\\_attachments/mb-extreme-carbon-inequality-021215-en.pdf](https://www-cdn.oxfam.org/s3fs-public/file_attachments/mb-extreme-carbon-inequality-021215-en.pdf).

## Ensuring global commitment to tackling climate change

Climate change will increase competition for resources globally. That will drive future conflicts over water, energy, minerals, and other resources, causing the displacement of people in many regions. The EU needs to be a global leader both in prevention (for example, cutting its own carbon emissions) and mitigation (helping to manage the impact on vulnerable people globally).

The EU should use its political and economic weight as a global norm-setter on climate and as a large single market to keep climate on the global trade agenda. But Europe cannot alone prevent climate change; in addition to reducing its own emissions and environmental impact, the EU needs to work with growing economies to create a more sustainable model for the whole planet or its own efforts will be wiped out by emissions and waste elsewhere.

The EU should continue to engage partner countries and hold itself and them accountable to the commitments already made to supporting energy innovation and pollution reduction. To catalyze the emergence of a clean energy-based political economy, Europeans should engage directly with state and local authorities, particularly in countries where the central government denies that climate change exists. By focusing on the commercial aspects of climate diplomacy, Europeans can build vital local allies in the United States, who can, in turn, put pressure on future administrations to move climate policy in the right direction.

## Speed up the transition to a low-carbon, circular economy

In September 2018, a group of 250 European academics called in an open letter for the EU and its member states to plan for a post-growth future in which human and ecological well-being are prioritized over GDP as currently defined.<sup>4</sup> The letter makes four concrete proposals that the EU should take up immediately:

- Establish a special commission on post-growth futures in the European Parliament.
- Incorporate alternative indicators beyond GDP—such as well-being—into the macroeconomic framework of the EU and its member states.
- Rethink the Stability and Growth Pact (SGP) to emphasize reducing resource use and waste emissions to a sustainable level. For example, states could be allowed to break deficit rules if their investments aim to reduce the use of natural resources. This makes financial and political sense; essentially, future taxpayers would be helping to pay for green investments that they will benefit from.
- Urge each member state to establish a ministry for economic transition. Its purpose would be to drive the move away from an exclusive focus on growth and coordinate related actions across the government.

In their next term, EU institutions need to take immediate steps to align Europe-wide policies and regulation with the goal of a sustainable economy:

- Set ambitious CO<sub>2</sub> emission targets to accelerate the uptake of electric and low-emission vehicles.
- Fully enforce the existing rules on carbon emissions, and ensure that national authorities also enforce them.
- Encourage the generation of durable products (in use longer, even with different owners) by setting a framework of legal guarantees and eco-design requirements that prevent premature obsolescence.
- Set more ambitious policies for energy efficiency (through energy labels and eco-design requirements) and the promotion of renewables.
- Build public trust in the circular economy by ensuring that products made from recycled materials are as safe as the primary materials. This is especially important for chemicals, because a chemical that is safe in a car may not be safe in a toy or a textile. The product safety system needs to factor in re-use from the start.

## Provide incentives to shift to a low-carbon, circular economy

There is no silver bullet to bring about the scale of change needed. A range of new transnational policies is clearly required, and the EU is better equipped than any other regional or international organization to develop them:

- Cap the use of resources over a certain period of time. For example, the EU already caps the amount of harvested fish per annum in certain sea areas.
- Reduce the production of waste, and enact stricter rules on its disposal to lessen its environmental impact.

- Institute a radical shift in taxation to increase incentives for sustainable products and practices and penalize unsustainable ones. So, for example, shift the taxing of labor—which encourages companies to cut jobs and discourages people from seeking employment—to the use of natural resources and energy and the production of waste (including greenhouse gas emissions). But any eco-tax reform, such as a carbon tax, should be part of a more fundamental change of the fiscal system that helps to create jobs and finance the pension system. An isolated carbon tax would be a regressive tax, in that it could affect low-income groups disproportionately.

Change on a large scale can only be achieved by leveraging innovation and new technologies. Small and large innovations to improve energy efficiency and lower resource consumption and emissions are urgently needed (for example, clean airplanes and meat substitutes). The EU should increase its innovation budget and reallocate it toward new technologies that benefit the whole world. This makes economic sense: once a technology is well established, the market grows (for example, in the United States and Australia, building solar power is cheaper than operating existing coal-fired power plants).

### **Increase public investment and generate a new political narrative**

Getting to zero emissions is an objective within reach. Time is the real constraining factor: change needs to happen quickly. The EU needs to limit greenhouse gas emissions (and the consumption of other resources) systematically and promote important innovations and incentives to make the transition socially acceptable and attractive. Many economists think that imposing carbon prices (taxes) would be most effective, but there are other methods to consider:<sup>5</sup>

- Connect loans by the European Investment Bank to CO<sub>2</sub> emissions.
- Channel income from climate taxes and border adjustment taxes (tariffs on dirty imports) into cleaner and greener infrastructure that facilitates the transition to a new low-carbon economy. For instance, a European climate investment fund should help pay for clean infrastructure (for example, trains and tunnels) for regions and cities that radically rebuild their public space (for example, for bicycle infrastructure and lanes).<sup>6</sup>

Political management of the transition to sustainability looked tough until teenagers started marching in cities from Stockholm to Brussels to protest against the intergenerational injustice of those currently in power failing to prevent climate change. Now is the moment for European leaders to develop a narrative about shifting to a low-carbon economy—one that focuses on improving quality of life for all and ensuring a sustainable future for next generations. Not only will everyone benefit from preserving nature and preventing natural disasters, but the transition to greener infrastructure will create jobs. Leadership on climate action is the best way for the EU to show its relevance to future voters.

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## Lucia and Peter are older but feeling healthier and fitter than ever.

Their life expectancy is longer than that of their parents, and people are remaining active in society and the economy for as long as they are in good shape. Workplaces are designed to foster the well-being and contribution of older workers. Peter's gardening business is going well, and Lucia works as an online therapist for people with chronic health conditions that require lifestyle changes, such as diabetes. The tax system makes it easier to balance their income-generating work with unpaid care for their grandchildren and other family members, and it rewards constant retraining and continuing education every few years. However, they have had to adjust to major shifts in the labor market and social security system. The changes were often at odds with their expectations of the traditional arc of life: education-work-retirement. In the 2030s, they took part in EU-wide deliberative consultations with fellow citizens to co-create new social guarantees. Lucia and Peter felt empowered when they saw a sustainable, social safety net emerge that protects them from poverty and social exclusion during their whole lifetimes.





**Lifetime**

## What's at stake?

**THE SOCIAL CONTRACT** between citizens and the state will be reshaped by both digital transformations and long-term shifts in the demographics of European societies. Europeans are living longer, and elderly people represent an increasing share of the population. Over the next thirty years, the number of those currently defined as working age will go down, while the number of retired and incapacitated people will go up. Unless people work until far later in their lives than is currently the norm, the demographics will fundamentally change the dependency ratio of the old and the young.<sup>7</sup> The latest figures project that by 2070, the EU will have gone from having 3.3 working-age people for every person over age sixty-five to only two working-age people (see figure 4).<sup>8</sup>

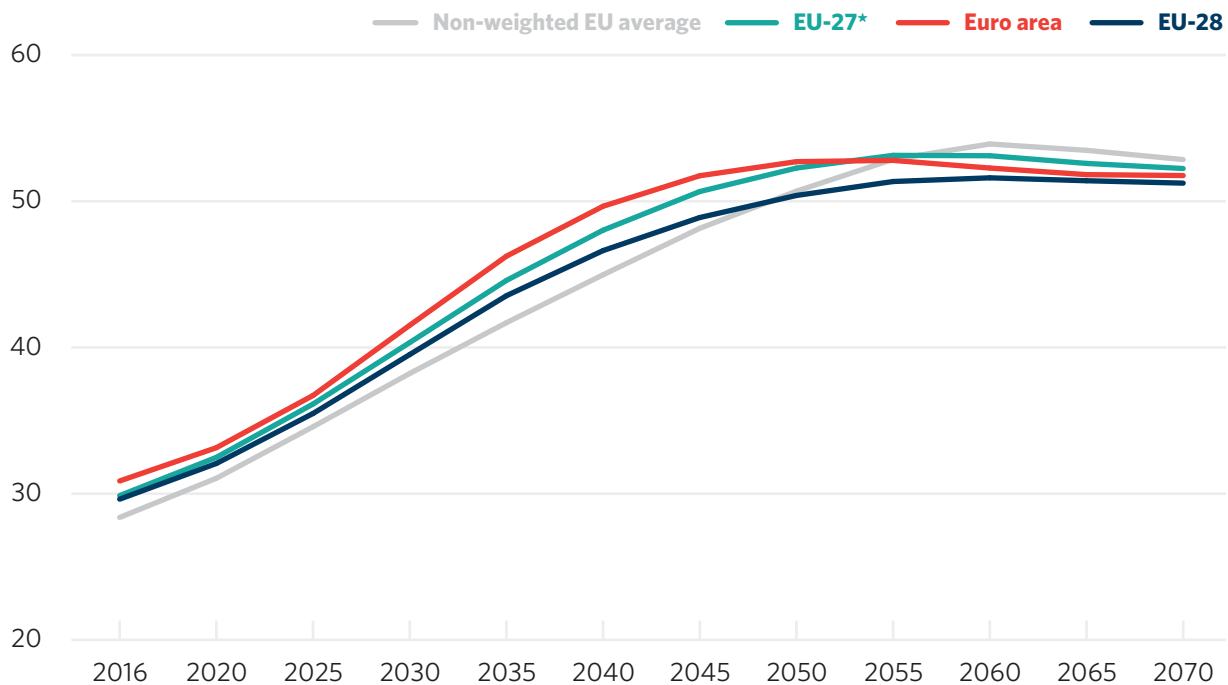
By 2030, Europeans' average life expectancy will be approaching ninety.<sup>9</sup> Europe's aging population will have a wide-ranging impact on economies, affecting savings, investment, consumption, labor markets, pensions, taxation, the need for healthcare services, and intergenerational relationships. Unless people work until much later in their lifetimes, the share of revenue from labor will fall, forcing fiscal changes in social policies.

Some Central and Eastern Europe countries could lose one-quarter of their population by 2080, with most seeing a 15 percent decline on top of massive losses from emigration already.<sup>10</sup> Immigration could offset much of the economic impact of demographic changes, but European societies show little appetite for accepting migrants on the scale that would be required—and migrants grow old, too.

FIGURE 4

### EUROPE'S ELDERLY REPRESENT AN INCREASING SHARE OF THE POPULATION

Old-age dependency ratio, 15-64 years



\* All EU Member States except UK

**Source** "The 2018 Ageing Report: Economic and Budgetary Projections for the European Union Member States (2016-2017)," Economic and Financial Affairs Institutional Paper 079, Table III.I.60: Old-age Dependency Ratio 15-64, May 25, 2018, [https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070\\_en](https://ec.europa.eu/info/publications/economy-finance/2018-ageing-report-economic-and-budgetary-projections-eu-member-states-2016-2070_en).

The aging of European societies will coincide with a technological revolution that fundamentally changes the demand for labor and the options available to earn a living. The use of robots is projected to explode as artificial intelligence gradually allows machines to shift from doing menial jobs to more sophisticated tasks, such as diagnosing diseases or studying legal contracts. This will eliminate many (human) jobs but create new ones, too.

Forecasters disagree about whether the number of new jobs created by the digital revolution will be smaller or greater than the ones destroyed.<sup>11</sup> The more jobs are lost, the more difficult governments will find it to sustain current spending levels on pensions and welfare unless the tax system changes. Many people who lose employment will find jobs elsewhere, but most will need additional training. They may not be able to gain the new skills fast enough without governments and companies making a concerted effort to finance and facilitate training courses. Further, the new job requirements may be too onerous for many people to be successful—not everybody can become a coder, for example. The new jobs also may not pay as well. Consequently, society could become polarized between a small number of highly paid skilled workers and a large number of poorly paid service providers—profoundly affecting the organization of work, wage bargaining, and workers' rights.<sup>12</sup> Lastly, the new jobs may be created in other regions, exacerbating depopulation and disparities, with major political effects.

Automation and demographic changes are likely to force a fundamental shift in the concept of “lifetime” for Europeans. The current arc of life is education-work-retirement. People have grown up with the idea that education finishes before work begins and then work ends with retirement. However, in the future, a larger elderly population and automation will change the arc of life, whereby education underpins every stage and people are contributing to society well beyond the traditional retirement age. Lifelong learning will become essential to maintain an effective workforce.

How can the EU effectively manage these demographic and technological transitions to ensure social protection? To transform the welfare state, the EU can share best practices, manage a common budget for skills training needed across the EU, and coordinate the reform of social protection systems. To prevent upheaval in labor markets from turning into social unrest, the EU could establish a policy framework that supports keeping skills up to date, reduces income gaps, and prevents people from slipping into poverty for prolonged periods of time.



### Skilling Europeans for a changing labor market

As technology wreaks havoc on labor markets and makes many jobs redundant, there will be a shortage of qualified workers in some fields owing to Europe's shrinking working-age population (see figure 5).<sup>13</sup> Economic development will mainly depend on an increase in productivity, which, in turn, depends on a combination of automation and reskilling of the available labor force.

Early childhood development is a vital investment for the future labor force, because solid cognitive and social-emotional skills are the foundation for all job-related technical skills, continual training, and lifelong learning. The EU has a big skills gap, with one-fifth or more of youth (under age fifteen) underperforming in reading, mathematics, and science.<sup>14</sup> But there is a political obstacle to increasing investment in the young: the voting power of the old. If "gray power" forces governments to prioritize spending on pensions and healthcare coverage, it will squeeze out money for early education and the retraining of active-age workers.

Policies that prioritize investment in children are essential because child poverty depletes the productivity of society as a whole. If children grow up with their basic physical and emotional needs met, they will gain better cognitive skills, achieve better educational outcomes, and ultimately perform and cope better in a changing labor market. They will also be more capable of lifelong learning. The prevention of child poverty requires investment in accessible childcare, education, and universal social benefits for families with children.

As adults, people will need lifelong learning to keep their skills up to date and adjust to the massive changes in labor market needs. They will need constant retraining to be employable and compete with, or complement, machines. This needs not be expensive for the state if it sets the right incentives for both individuals and employers to invest in skills upgrades at multiple times over the lifetime. More and more learning takes place in different contexts than formal education (for example, through training services or online).

FIGURE 5

#### THE EU'S NUMBER OF WORKING-AGE ADULTS WILL SHRINK BY 2030

Labor force growth (% annual rate) by age (2018-2030)



Source "Skills Forecast: Trends and Challenges to 2030," European Centre for the Development of Vocational Training Reference Series 3077, December 2018, <http://www.cedefop.europa.eu/en/publications-and-resources/data-visualisations/skills-forecast>.

Companies are reacting more rapidly to the need for new skills than the traditional education system; for example, some digital companies are providing specific courses in coding that are worth a lot in the labor market, complementing university courses that provide a broader education. The EU can help set quality standards by establishing pan-European accreditation and certification systems for nontraditional schooling. This would increase people's trust in company-provided training courses and give them portable vocational qualifications. The EU could revamp existing instruments such as the European Fund for Transition to offer systematic support to workers in need of training after a dismissal or plant closure.<sup>15</sup>

These retraining systems would not only give people access to the whole EU labor market, but also enable them to work in another country without leaving home. The current debate about the 2 million posted workers will become less important than the one surrounding the growth of online services that outsource tasks to anyone anywhere through digital platforms. The downside of online services is that there are no borders preventing social dumping. EU-wide policies will be needed to create a level playing field, with common international standards for working conditions and workers' rights.<sup>16</sup>

The EU has long tried to engineer economic convergence through transfers of financial capital, goods, and infrastructure via its structural funds. However, differences between member states are increasingly the result of shortcomings in governance and human capital due to uneven education and retraining outcomes. The EU should redirect its funds toward addressing these shortcomings to prevent the gaps from becoming hardwired for future generations.

### **Supporting citizens through their life cycle and work transitions**

People are likely to experience significant ups and downs in their income rather than steady growth and then a reliable pension. Self-employment could become more widespread, with traditional employment contracts (including the legal entitlements they bring) ever rarer. New forms of self-organization (for example, into commons or workers' collectives) could emerge. Transition periods between different forms of work will become more common, and social protection systems need to be adapted to this new reality.

To even out the periods of lower and higher income, and to enable people to take breaks and deal with ill health or incapacity, the state needs a new deal with citizens about who pays for what. The distinction between employment and unemployment will become fuzzier, so support mechanisms will need to change accordingly. Currently, people on short-term contracts often do not qualify for protections and benefits. Trade unions may have to start focusing more on people with short-term contracts, in addition to those in long-term employment.

Historically, the EU has prioritized lifting barriers to trade and innovation via the single market. The social dimension remains based on a loose "open method of coordination" among member states. Now the EU needs to bring the social side into focus. One way that it can help is to set up a European personal account like France's *compte d'activité personnelle* (personal activity account); it enables people with a French

social security number to accumulate points for skills and activities, which they can then trade in for state-funded free or subsidized training or to set up a business. A similar EU-wide account would be refilled by the worker's tax or social security contributions when they are working again or undertaking community service or unpaid care work.

The main obstacle to such an EU scheme is Germany—the largest contributor to the EU's common budget—where there are fears that the country would end up funding unemployment insurance for the rest of the EU. To allay this concern, the EU could set up the system but only partly fund it through the EU budget. National governments would then have to contribute to the scheme, but the fiscal discipline that would accompany an EU contribution would increase citizens' trust in the social safety-net provided at European level to match the EU-level fiscal discipline. This would set a minimum level of labor market risk that people would face, giving citizens a personal sense of "*l'Europe qui protège*" (a "Europe that protects" them).

A Europe-wide data system for personal records could also greatly benefit citizens. E-health records of the kind pioneered in Estonia would be beneficial for healthcare systems across the EU. Beyond health records, a Europe-wide system could record both paid and voluntary work across the lifetime, allowing the state to take a more active and consistent role in paying for the care of relatives, children, and the elderly. The EU could promote a notion of work that recognizes the increasing share of human activity dedicated to noncommercial activities, such as volunteer work focused on family and elderly care, environmental protection, or civil society engagement. Workers in these areas bring a lot of value to society but are often the most exposed to hardship and the least protected by traditional welfare schemes. Rights frameworks and tax systems need to account for the value of these activities and provide equivalent protection.

Tax systems in general need to be rebalanced now. Technological change is increasing the concentration of income accruing to capital and capital holders. Taxes on labor remain stubbornly high in most European countries.<sup>17</sup> This will make no sense in the future, when jobs will likely become scarce. Governments should be incentivizing, not punishing, job creation and unpaid care work. The EU could help with coordination and reassurance. Because a unilateral adjustment in one country can affect that country's competitiveness, the EU needs an orchestrated approach.

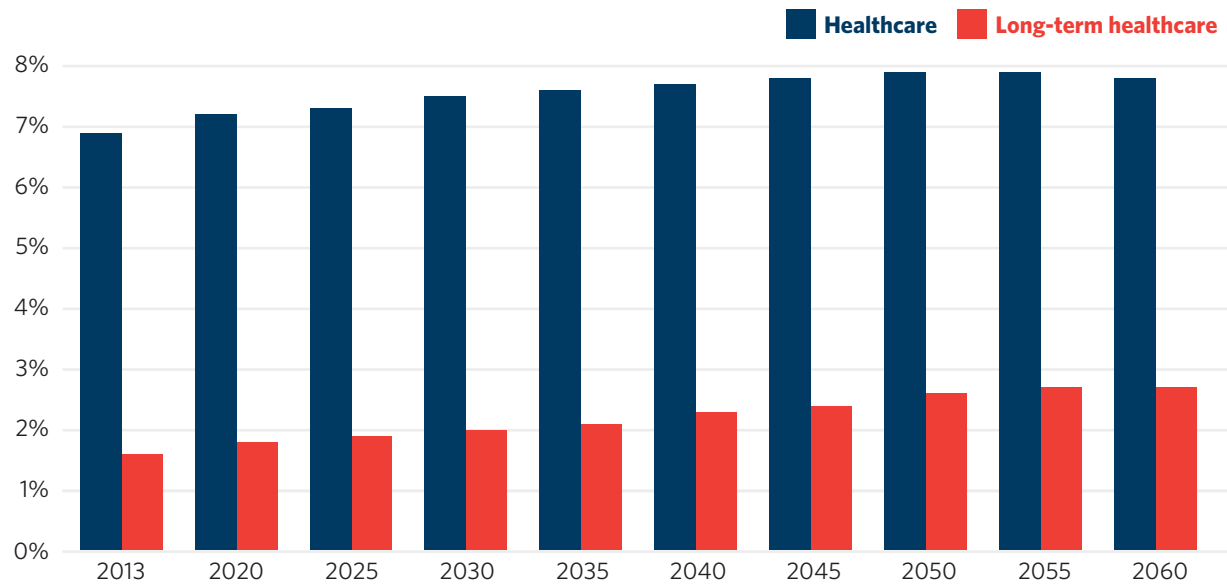
Many policy thinkers are considering the combination of a universal basic income, or negative income taxes, and a deepening of the welfare state. Although this primarily concerns national governments, failed reform attempts would quickly become a pan-European issue if people who are not cared for by their own state move to another one. That would further erode public support for the free movement of persons and the European directives on equal access to social benefits and services for EU migrants. The choice before the EU and its members is either to limit or remove access to social benefits to anyone from another member state or to create an EU fund to underpin social services. The latter option would require revenue to offset the expense, most likely in the form of an EU tax on digital services.

Another approach is to create public funds to incentivize employment, as Norway does.<sup>18</sup> The EU could devote less of its budget to path-dependent policies and more to a large fund for innovation in labor, for example.

FIGURE 6

**HEALTHCARE SPENDING WILL BECOME UNSUSTAINABLE**

Public spending on healthcare and long-term care as percentage of GDP in EU-28



**Source** “Health at a Glance: Europe 2016: State of Health in the European Union Cycle,” Chapter 8, October 28, 2016, [https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2016/public-spending-on-health-care-as-a-percentage-of-gdp-2013-to-2060\\_health\\_glance\\_eur-2016-graph195-en#page1](https://read.oecd-ilibrary.org/social-issues-migration-health/health-at-a-glance-europe-2016/public-spending-on-health-care-as-a-percentage-of-gdp-2013-to-2060_health_glance_eur-2016-graph195-en#page1).

**Ensuring healthy aging and demographic renewal**

Older workers should be able to keep contributing for longer because most workplaces will increasingly require less physical effort than in the past. However, taxation systems need to value socially beneficial work more highly, and caregivers should be better compensated so that people with longer working lives can cope with periods of illness and other forms of dependency.

Europe has a long tradition of organizing healthcare on the basis of solidarity and universal access. However, lengthening life expectancy will likely make current healthcare systems unsustainable. The EU’s role in solving this challenge is not straightforward. There is no EU competence on healthcare, and national systems remain diverse. However, many issues are transnational, because the EU has free movement of labor. This causes a double problem: healthcare professionals leave poorer countries to work in richer ones where wages are higher, causing shortages of doctors and nurses in their own countries. And people who temporarily work in another EU country need access to healthcare there, but the costs of treatment may be much higher, putting a burden on their home systems.

Technological advancements will increase states’ healthcare expenditures (see figure 6). While pharmaceutical companies should be rewarded for their investment in the development of new treatments, European coordination is needed to ensure access to treatment by all who need it and to limit the abuse of monopoly positions. Demographic trends and expenses related to the introduction of new medicines and technology will increase the stress on healthcare systems. Individual countries’

healthcare systems already suffer from brain drain. To lessen the strain, the EU could create a fund to mitigate the effects of labor market failure by requiring healthcare employers (whether public or private) to reimburse the public institutions that educated the healthcare professionals.

Moreover, these healthcare and welfare challenges will affect the economic and social cohesion of EU member states, as well as the sustainability of their public finances and productivity and therefore those of the union as a whole. The EU should play a role in offering guidance, support, and incentives to address these challenges, because the more robust each member is individually, the greater the strength of the union.

To offer its citizens opportunities, enable success, and ensure development in the future, the EU needs to adapt to and cope with political, cultural, demographic, and economic challenges never seen before. Upcoming generations may have fewer children to care for, but they face mounting pressure to gain the higher qualifications needed to succeed and to provide care for aging family members.

To ensure demographic renewal, European societies need to support working parents better, as fertility rates have stayed higher only in countries that provide high-quality, affordable childcare and education. States should also help people enhance their skills, so that they can take on higher-level positions later in life, when their family care responsibilities are lighter. Demographic renewal is an important goal, but it cannot be achieved through increasing fertility rates alone, as more people with the same level of consumption would increase Europe's carbon footprint, which is already higher per capita than in developing countries. Government policies should support families to have as many children as they choose, but at the same time, enact policies to respect planetary boundaries.

## **Establish EU standards and measures to invest in workers and prevent exploitation**

To prevent the combination of automation and aging populations from creating disruptive social tensions, the EU should:

- Set quality standards for online learning through pan-European accreditation and certification systems. This will enable people to continually improve their skills—a key requirement of the likely future labor market—and will build trust in this form of education.
- Revamp existing instruments such the European Fund for Transition to systematically support workers in need of training after a dismissal or plant closure.
- Explore measures, such as an EU-wide minimum safety net, to prevent social dumping, which may be a side effect of more work being done remotely.
- Redirect EU funds to prevent long-term differences in EU member states' capacity to provide retraining or continuing education and to adjust to new labor markets.
- Introduce a regulatory framework to prevent abuse and exploitation of people who work through online platforms.

## Ease the transitions between jobs and care work

With long-term jobs likely becoming a rarity in the future, occasional job insecurity and loss of income could become more frequent. To ease the transitions, the EU could:

- Set up a European personal account that allows people to accumulate points for skills and activities and then trade in those points for state-funded free or subsidized training or to set up a business.
- Create a Europe-wide system that records both paid and voluntary work across individuals' lifetimes, allowing the state to take a more active and consistent role in paying for the care of relatives, children, and the elderly. This will also have a positive effect on demographic trends.

To prevent the increasingly uneven distribution of gains from new technology use, and to encourage the preservation of existing jobs and the creation of new ones, the EU could:

- Coordinate member states' efforts to lower the tax burden on labor.
- Create public funds to incentivize employment.

The effects of automation could be less jarring if companies assume more social responsibility for their individual employees. To this end, the EU could:

- Promote mechanisms that channel resources to companies that produce positive benefits for society, thus reconnecting wealth creators with the world around them (see the Conclusions chapter).

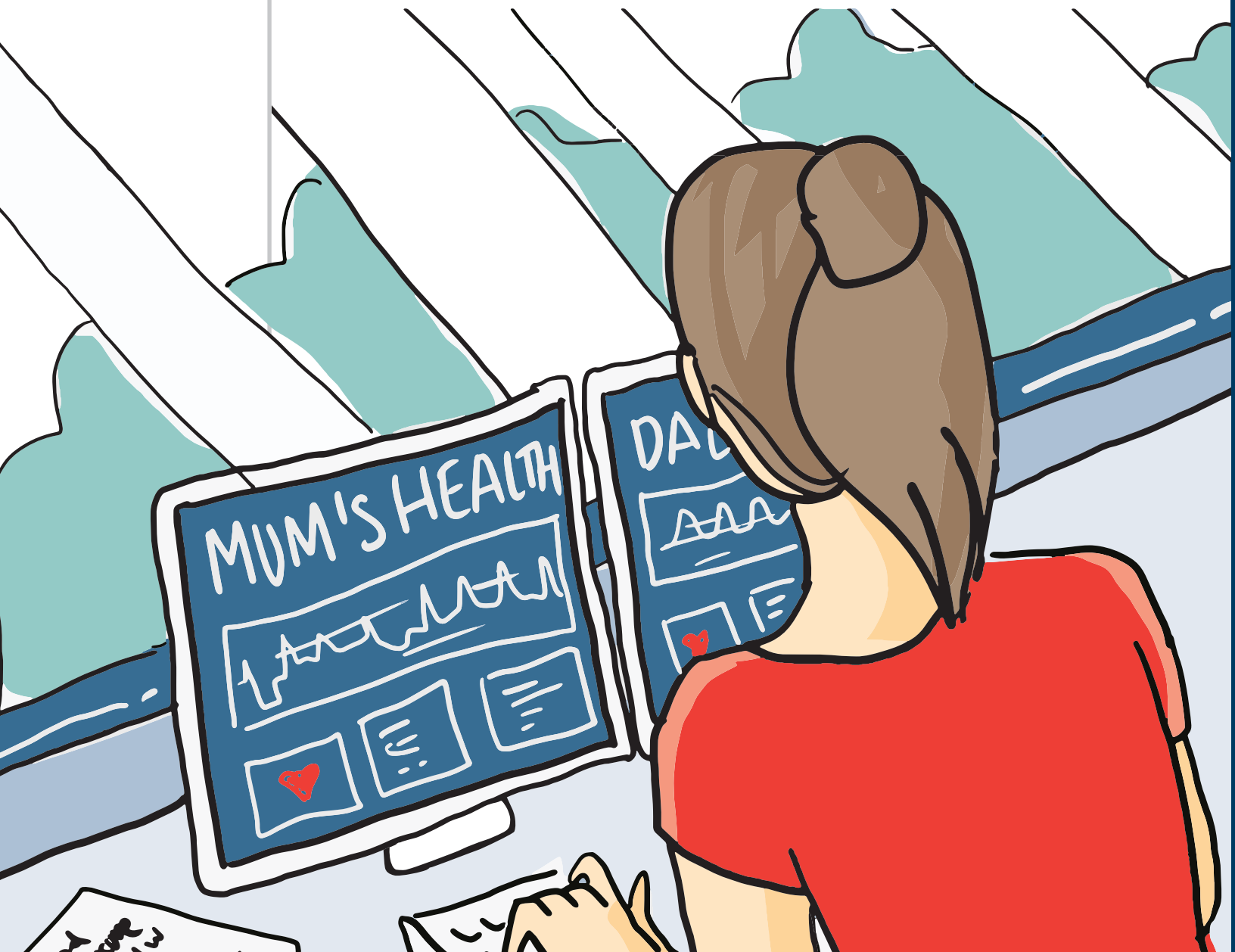
## Help prevent market failure

The EU can play a role in preventing and mitigating the impact of healthcare market failures. It can help coordinate necessary changes at the national level, as well as develop new supportive models at the EU level. Moreover, these healthcare and welfare challenges will affect the economic and social cohesion of each EU member state, particularly the sustainability of its public finances and productivity, and, therefore, of the union as a whole. In the long run, it makes sense to move toward a Europe-wide universal social protection system covering unemployment, child benefits, basic healthcare, and a guaranteed income for the elderly. The system could be funded by a mixture of public spending and personal contributions. Rather than pay as you go, it would include proper insurance schemes, similar to those the Centre for European Reform suggested.<sup>19</sup>

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## Claudia is using her edEUcredit account to sign up for online classes.

The EU and its member states jointly administer the edEUcredit program to encourage lifelong education. Claudia is training to become a teacher of basic cyber hygiene, which is now taught in primary school, followed by digital literacy in secondary school. She can also check her parents' health online on Healthnet, where Lucia and Peter have agreed to share their medical records with their closest relatives and chosen doctors. Major cyber attacks on Healthnet in the 2020s temporarily cut off doctors' access to patient data, but ultimately led to a significant upgrade of the software protecting critical platforms. Claudia recently joined a civil society organization dedicated to monitoring the security of local infrastructure.



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**Technology**



## What's at stake?

**TECHNOLOGY HOLDS THE PROMISE** of making our lives better. It will reduce the need for humans to conduct many menial tasks. It will play an essential role in caring for the elderly and people with disabilities. Health checks will be done from the comfort of home, and artificial intelligence–powered computers will check for problems instantly. Technology will also play a key role in building more sustainable economies.<sup>20</sup> Connectivity will make travel less essential, but at the same time, travel will become more environmentally friendly (for example, through using high-speed trains powered by electricity from renewable sources).

However, technology also carries risks. As mentioned in the previous chapter, it will increasingly create social, ethical, political, and security challenges. Management of these challenges will often be the job of governments and corporations, but the EU can play a supportive role—as it has already done in safeguarding people's data online (via the General Data Protection Regulation, GDPR). Such intelligent interventions could be made in three domains—democracy, cybersecurity, and the development of ethical technology—and each would have the potential to set global norms.

## The challenges

### Protecting democracy

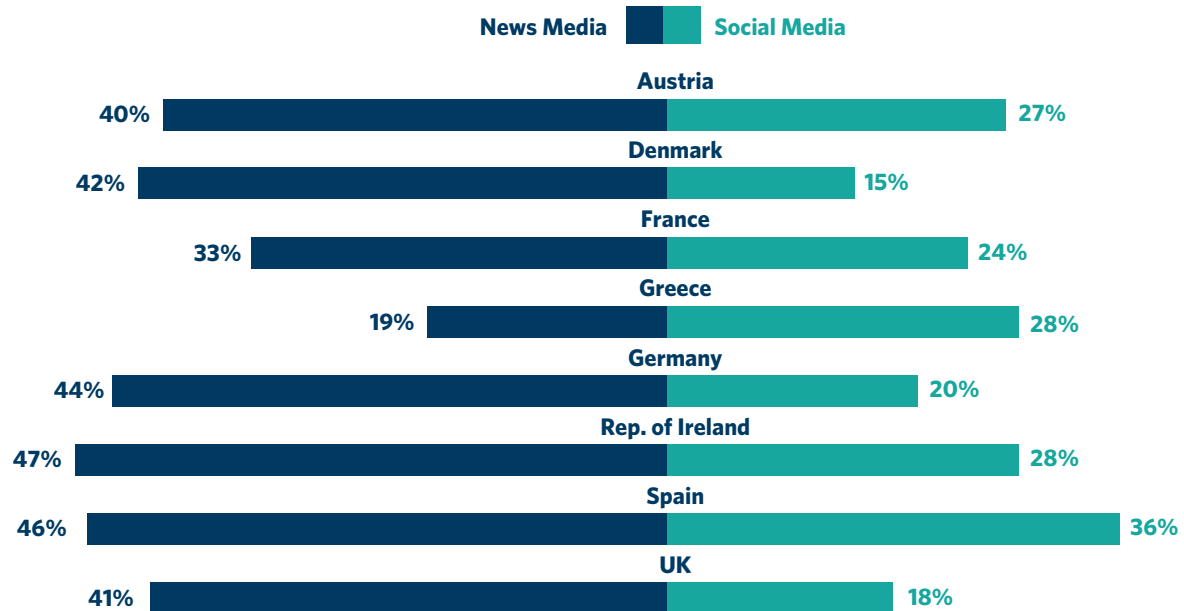
In Europe, technology has greatly expanded access to information and facilitated the emergence of citizen assemblies.<sup>21</sup> If developed to play a bigger role in democratic choices, these assemblies could increase the effectiveness and level of public participation in democracy, giving people more of a say on issues of national importance. But technology has also begun to threaten political systems that were set up in a different age in terms of trust in institutions, accessibility of information, and representation of interests. Among its many effects on politics, technology has weakened one of the fundamental premises of democracy, namely that voters make informed choices about their leaders and cast aside those who are corrupt, malevolent, or incompetent or who ignore the voters' wishes. This theory presumes that voters have access to reasonably objective assessments of the incumbent's performance and the challenger's plans, that this information has reached most of the population, and that a healthy debate takes place between people holding opposing views. The model starts breaking down when the electorate fragments into isolated information ghettos and when political entrepreneurs, including foreign intelligence services, figure out ways to manipulate voter preferences.

The concentration of media advertising income in the hands of Google and Facebook (nearly 60 percent of all online advertising income in the United States in 2018) is a contributing factor.<sup>22</sup> To compensate for the loss of revenue, most mainstream media have introduced paywalls, driving readers away to less reliable but free alternatives. This is where most disinformation is planted, because readership of curated and fact-checked information provided by mainstream media has been declining for most of the past decade. However, there are indications of a rebound due to people becoming more savvy about the dangers of unregulated online sources (see figure 7).<sup>23</sup>

FIGURE 7

**MANY EUROPEANS ARE CONCERNED ABOUT DISINFORMATION ONLINE**

Proportion that agree the news media/social media does a good job in helping separate fact from fiction



Source "Reuters Institute Digital News Report 2017," [https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital%20News%20Report%202017%20web\\_0.pdf](https://reutersinstitute.politics.ox.ac.uk/sites/default/files/Digital%20News%20Report%202017%20web_0.pdf).

In addition, EU member states—who are the guardians of national electoral systems and who oversee the European elections—are already leading efforts toward a solution. For example, in 2016, Latvia introduced a sophisticated national program to improve digital media literacy.<sup>24</sup> In 2017, the German government and major social media platforms agreed on a Code of Conduct, whereby *harmful* online content would be voluntarily removed (later that year, a German law made the removal of *criminal* content mandatory).<sup>25</sup> And, in 2018, France passed a law that empowers judges to order the removal of “false news” during the period of the election campaign if such news is false, virally spread, and potentially sponsored by foreign actors.<sup>26</sup>

The EU as a whole is also playing a useful role. Through the European Centre of Excellence for Countering Hybrid Threats in Finland, governments are sharing lessons learned and best practices in countering disinformation. At the European External Action Service (EEAS), a special task force called East StratCom has, for years, monitored attempts by outside actors (mainly Russia, so far) to spread disinformation. The 2018 EU Action Plan Against Disinformation allocates more resources to StratCom task forces and calls for a 24/7 Rapid Alert System for member states to notify of foreign disinformation campaigns.<sup>27</sup> It also places more responsibility on major online platforms to direct advertising away from sites spreading disinformation, make political advertising transparent, address the issue of fake online identities, empower consumers to report disinformation, and share necessary data with researchers monitoring online disinformation, in line with the 2018 EU Code of Practice on Disinformation.<sup>28</sup>

But more can be done, and a 2018 report by the European Commission's High-Level Expert Group on Fake News and Online Disinformation suggests how.<sup>29</sup> The group recommends expanding the teaching of online media literacy, increasing the funding for independent journalism, and establishing a permanent review mechanism to monitor whether the agreed EU steps make enough difference.

Early evidence indicates that the steps may not be adequate and that the voluntary nature of the Code of Practice may need to be examined. In its first year of existence, the German Code of Conduct only led to the removal of 1 percent of harmful content on Twitter, according to German government estimates.<sup>30</sup> If the EU Code of Practice turns out to have a similarly limited effect, the next European Commission and European Parliament should consider making its major provisions mandatory. However, the decision should be preceded by a public discussion that leads to a clearer definition of what constitutes harmful content—to avoid the law being used to censor free speech.<sup>31</sup> Alternatively, the individual member states most concerned about disinformation could take action on their own, but this would distort the EU market of digital content, which is why a pan-EU approach is preferable.

In the long run, the business model of social media platforms, which has created a nourishing environment for disinformation, may have to change. Currently, platforms encourage click baiting, collect and monetize vast amounts of data on individuals, track individuals' preferences, and use this knowledge to herd consumers into information bubbles. But a change appears to be afoot, mostly under pressure from Europe. The EU's GDPR has limited the platforms' ability to resell data, for example. The German anticompetition court has been looking into whether Facebook is abusing its market dominance to force people to hand over data. Over time, regulation may force platforms to rely less on advertising and data sales, which would level the playing field with mainstream media and make the online world less welcoming to peddlers of disinformation.

## **Developing cyber-resilient security**

The vital public infrastructure that make it possible for people to travel safely by air and train; that run nuclear, hydroelectric plants and electricity grids; and that manage modern hospitals are all increasingly automated and networked. The same applies to previously off-grid consumer technologies, such as cars and pacemakers. This has led to great savings and efficiencies but has also introduced new risks. What is automated and networked can also be attacked and abused. Instead of using bombs and missiles, malicious actors can in theory now inflict comparable damage using little more than complicated code and computers.

This should change the way governments think about their security. Cyber attacks are just as effective a means of coercion as conventional military attacks. Particularly pernicious are hybrid strikes that combine physical attacks (for example, a cyber-induced explosion of a gas pipeline) with disinformation and chaos-inducing attacks on hospitals or banking systems. These strikes risk starting panic that topples political systems and causes more deaths than they would separately. And vulnerability to such attacks is increasing. More and more devices, both household and industrial,

are connected to the internet, with little regard to how well they are protected from malicious attacks. This has a doubly corrosive effect on security; those devices can not only be attacked themselves, they can also be harnessed for use in attacks on other information and communication technology (ICT).

European governments are already responding to the challenge by developing the means to strike back at the attacker (thus deterring challengers from attempting mischief in the first place) and by forcing public and private utilities to increase their capacity to resist cyber attacks. But the effects of these remedial measures to date have

been mixed,<sup>32</sup> and public concern is growing (see figure 8). More needs to be done, as signatories to the Paris Call for Trust and Security in Cyberspace recognized recently.<sup>33</sup> This action will mostly occur at the national level (such as making cyber hygiene—the basics of cyber security—a mandatory part of curricula, starting with young children), but the EU can also help and is already doing so.

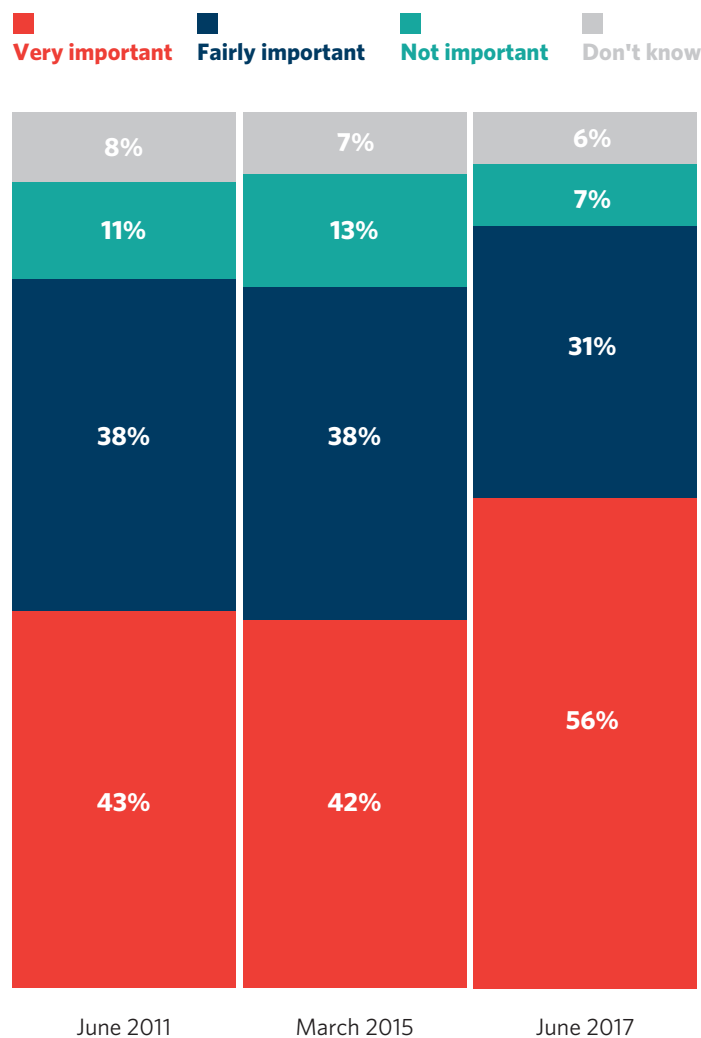
To protect critical ICT infrastructure, an EU 2016 directive obligated member states to secure better the networks governing their energy, water, transport, finance, and health systems.<sup>34</sup> States must have national emergency response teams, hold cyber exercises, and supervise the protection of critical sectors. This has led to improvements, but serious breaches continue to occur, such as the WannaCry cyber attack that crippled the United Kingdom's national healthcare system in May 2017.

In contrast, the European Commission's broader Cybersecurity Act has taken a more timid approach. On the positive side, it will convert the EU Agency for Network Information Security from essentially a provider of advice (for example, to future teachers of cybersecurity) to a permanent EU cybersecurity agency, with strengthened powers and increased resources.<sup>35</sup> It will also produce (voluntary) EU safety standards for ICT equipment.

FIGURE 8

### EU CITIZENS' CONCERN OVER CYBERSECURITY IS GROWING

How important is cybersecurity to the internal security of the EU?



Source "Europeans' Attitudes Towards Cyber Security," European Commission, 464a, September 2017, <http://ec.europa.eu/commfrontoffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/SPECIAL/surveyKy/2171>.

However, many producers of ICT equipment, particularly for households, treat security as an afterthought or unnecessary expense. Naivety about digital risks is common. The incentives are also misaligned: protection costs money, while risks to the infrastructure are not easily quantified. This needs to change: security has to be part of the products' design. However, voluntary standards alone will not bring this about. Mandatory standards and criminal penalties would be needed. In the interim, a mandatory labeling policy indicating how secure ICT equipment is (similar to energy efficiency labels on light bulbs or washing machines) would steer consumers toward buying safer equipment. Similarly, a system rating to indicate how well service providers protect access to data could direct consumers away from companies that expose users to undue risk of theft because of lax security.

### **Fostering human-centered, ethical technologies**

In terms of ethics, the next technological challenge will be preventing new forms of discrimination born from algorithmic segregation. More and more life and death decisions (medical diagnoses, driving responses) are being automated. This is mainly a good thing—for example, self-driving cars could greatly reduce deaths on the roads and artificial intelligence could greatly improve the accuracy of medical diagnoses.

But the increasing reliance on technology raises many questions. Can an algorithm be trusted to decide whether a health treatment plan should be discontinued, and on what basis does it decide? Will a connected car prioritize the survival of a driver over that of a pedestrian in case of an accident? Could algorithms that decide who is given a mortgage inadvertently discriminate against minorities or create new forms of discrimination not covered by law? Who is liable if artificial intelligence makes a decision that causes harm? Governments have a hard time understanding the challenges, much less responding to them, given that the vast majority of experts who create and apply algorithms work in the private sector. And some of the biggest players do not necessarily put ethical questions on top of their list of concerns.

In 2017, the European Parliament called for EU laws to be updated in light of these new challenges, and the European Commission set up a special High-Level Expert Group on Artificial Intelligence to provide more specific guidance.<sup>36</sup> Its December 2018 draft guidelines on ethics argue for new laws that make algorithms undergo impact assessments, make them auditable (meaning that the way they make decisions can be assessed), ensure that they are properly tested before use, strictly monitor the effect of their use, and clarify who is responsible should their use cause harm.<sup>37</sup>

## **Increase resilience against disinformation**

To stem social media's negative impact on the quality of online public discussion and to reduce the spread of disinformation, the EU should:

- Dig into the sources of disinformation by conducting an in-depth analysis of the link between the platforms' revenue models and the incentives to spread disinformation.
- Increase funding for independent investigative journalism.
- Mandate the removal of harmful and misleading content from social media, within strict time limits, if the voluntary code of conduct proves ineffective.
- Clearly define what constitutes harmful and misleading content online to prevent legislation being misused to remove legitimate content.
- Invest in teaching critical thinking from a young age (to lead the next generation to question dubious sources), as well as lifelong learning in digital literacy.
- Address the decline, unless reversed by market forces, in advertising income for mainstream media (for example, through public information campaigns encouraging readership).
- Examine the desirability and feasibility of European legislation and standards that would bring transparency on whether humans or bots are using online media for political discourse.

## **Set standards in the ethical use of artificial intelligence**

The EU is leading efforts to put ethics at the center of thinking about future artificial intelligence—to make sure the technology advances the well-being of humans, protects the vulnerable, and is designed to observe fundamental rights and values. The EU should:

- Build on the 2018 European Commission guidelines and agree on formal rules for the ethical development of artificial intelligence.
- Promote the global adoption of such norms.
- Invest in the research of artificial intelligence technologies that can be assessed and audited and are resilient to attack and abuse.

## **Increase incentives for improving the security of critical ICT infrastructure and connected appliances**

To complement national efforts to harden critical digital systems against attacks, the EU should:

- Introduce mandatory labeling that indicates the security level of ICT products (for example, routers and internet-of-things devices, such as connected cars).
- Examine the feasibility of introducing legislation that imposes penalties for lax security standards in ICT equipment and possibly bans products that fail to meet the standards.
- Work with the insurance industry to incentivize investment in the protection of critical ICT infrastructure.

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Twenty-two-year-old Claudia and her parents, Lucia and Peter, have lived through major changes in their physical environment, job and education opportunities, and physical and social protections.

Their quality of life is higher in many ways than it was when Claudia was born. Moreover, their lifestyles are sustainable for the foreseeable future, so they feel more secure than people did in 2019. Europe's success in managing the transitions is in large part thanks to the EU's timely actions—which often drew from examples set by cities and local communities—and to transnational coordination that committed successive governments to stay the course. The EU's advantages of scale, open societies, sticky agreements, money, and position to set global norms were used well, and the union is more relevant than ever.





# **Conclusions and Inspirations**



## **Many of the recommendations set out in this report are not only achievable, they are already being put to the test—at the local and city levels.**

The ideas in this report (for example, the Doughnut Economy) are ambitious and may sound daunting, even politically impossible at present. Politicians may be tempted to retort, as Jean-Claude Juncker once did, that “We all know what to do, we just don’t know how to get re-elected after we’ve done it.”<sup>38</sup>

This sense of paralysis is precisely what feeds populist narratives. The populists’ vision is based on a promise of security and community solidarity that voters across Europe are yearning for. But the measures they propose will not achieve either goal, as their political strategy divides countries and societies. But the EU’s political infrastructure and resources could help achieve both security and community if they are concentrated on the transnational challenges set out in this report.

Contrary to xenophobic populist claims, it is possible to create security and inclusion for all people, including the marginalized and vulnerable, as well as a sense of community across borders. Many of the recommendations set out in this report are not only achievable, they are already being put to the test—at the local and city levels. The problem is that central governments and EU institutions have not leveraged the innovations emerging in society and at lower levels of government.

The beginning of this century brought a remarkable wave of new grassroots initiatives (called commons). Instead of being merely consumers or voters, individuals are taking the future into their own hands. They do this through, for example, energy cooperatives, co-housing projects, complementary currency systems, urban agriculture projects, and repair cafés. This is not a fad but a structural trend across Europe.<sup>38</sup>

These efforts can be a source of much inspiration and encouragement. They should be actively nourished and networked, to help develop state and EU-level solutions where local approaches do not suffice. A new partner state model is waiting to emerge. But the challenges are multifaceted and complex, and the solutions will require engagement from all levels of the state, economy, and society to be well formulated and implemented.

## Corporations as socially responsible actors

The major changes to lifetime, the growing role of tech companies in the economy, and the effect of both on the labor market and social protection have spawned a debate about the future of capitalism. Do corporations have a broader set of stakeholders than their shareholders? If so, what are companies' responsibilities toward those stakeholders?

The EU could promote mechanisms that channel resources toward corporations that produce a positive social impact. The private sector's function could shift from generating profits for shareholders to producing greater good for the broader society. In past centuries, enlightened industrialists, such as the Cadbury and Rowntree families in the United Kingdom and Tomáš Baťa in Central Europe, made the well-being of employees top priority, constructing entire cities to house and educate their workforces. Responsible, twenty-first-century entrepreneurs would make it easy for employees to balance work and family care and encourage them to continue their education and take on voluntary work.

## Citizens as leaders

From a historical perspective, a third wave of commons is occurring. Such waves appear when both the government and market fail; for example, the guilds—a commons of merchants and artisans—appeared in medieval and early modern cities in response to rapid urbanization and the rise of the market economy. The response to the industrial revolution in the eighteenth and nineteenth centuries was workers' cooperatives and trade unions.

By the turn of the twenty-first century, as a result of a fiscal squeeze, lack of public investment, and other factors, many individuals were fed up with the failure of both state and market to provide public goods such as sustainable energy and elderly care homes. Individuals responded by starting their own initiatives, in countries like Denmark, Germany, and the Netherlands. After the 2008 global economic crisis, these local innovations spread to other countries where austerity had further weakened state capacity to provide goods and services.

Energy co-ops are a great example of individuals' engagement. They started in places like Freiburg in Germany, where locals pooled their money to buy equipment to produce renewable energy—at a time when governments and energy companies were unwilling to invest in it. The locals produce enough energy (from a windmill or solar panels) to cover their own needs and sell the rest to the national grid. These co-ops are not an oddity but rather a great example of a structural change: in Germany, in 2016, private citizens owned one-third of all renewable energy installations.<sup>39</sup>

### Cities as pioneers of innovation and experimentation

Cities have been the main breeding ground for the commons. The Commons City Lab in Bologna, Italy, supports experimental initiatives by helping to devise commons agreements and to disseminate successful initiatives and models. Dozens of other cities across Europe have introduced specific regulations for enhancing commons’ work, as well as created a fruitful synergy between state and commons.

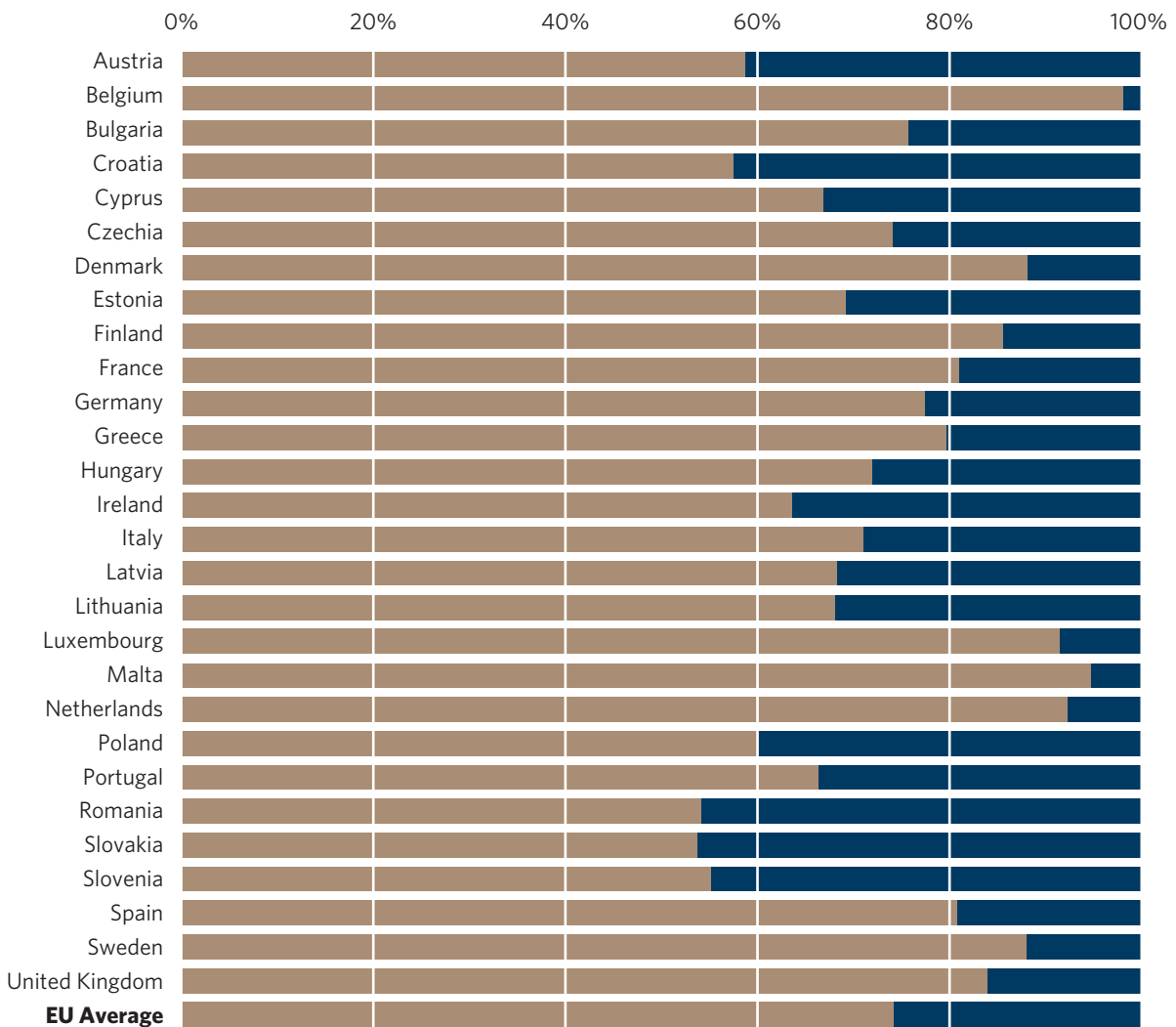
There is a precedent for cities, rather than national governments, to be the locus of policy innovation. In the late Middle Ages, city-states led the way in both governance

FIGURE 9

#### EUROPE’S URBAN POPULATION IS LARGE

Urban Rural

Population residing in urban and rural areas by region (2020)\*



\*Projection for 2020

Source "World Urbanization Prospects 2018," United Nations DESA/Population Division, File 1, <https://population.un.org/wup/Download/>.

and economic development. Cities tend to be open and networked—their initiatives inspire other cities. Horizontal inspiration works fast: one city can copy another's initiative within a year, such as when Barcelona in Spain copied the digital platform for electric car-sharing developed in Ghent, Belgium.

Cities are increasingly acting as one network. For example, through the Fearless Cities movement developed in Barcelona, municipalities around the globe share examples of the successful integration of migrants, often challenging restrictive national government policies.<sup>40</sup> In another example, cities promote public transport schemes and restrict parking, while national governments focus on building new roads.

Although cities are at the locus of innovation, individual-led initiatives sprouting in the countryside should not be ignored. As the state has retreated from providing services in many rural areas and the market sees no opportunities, locals have been filling the gap, setting up elderly care homes and reopening village cafés, pubs, and shops. The obvious next step is to connect their initiatives with those in the cities. Over 70 percent of Europeans now live in cities, and rural voters feel disconnected (see figure 9). In reality, the two worlds have much to offer each other. More and more urban dwellers want sustainably produced food, which requires a connection with producers in nearby rural commons. This happens far too little, and the irony is that while farmers often cannot make a good living, consumers in cities only a few kilometers away fret about their carbon footprint and expensive imported foods. Local production at zero or a few kilometers would create a lower-carbon system of food production and help restore the relationship between cities and rural areas, as many farmers' markets serving regionally grown foods in Europe's cities are proving.

### **The EU's role in bringing it all together**

These grassroots initiatives offer a new and hopeful opportunity for the EU. With many states finding it politically hard to respond to challenges such as migration and environmental degradation, the private sector, society, and local levels of government are taking the lead. One lesson is that populism is not the only possible answer to the crises Europe faces. Ordinary people prove daily that new challenges can be tackled without sacrificing values or liberties. The connected nature of their initiatives serves as an antidote to nationalism.

Moreover, the initiatives alleviate feelings of helplessness and disempowerment, thus depriving populism of some of its fuel. People who take meaningful action to resolve their problems are less likely to demand that a strongman does it in their place.

EU institutions, like most political entities, often find it difficult to engage with nongovernmental and dispersed initiatives, which have long existed outside of established organizations and structures. The EU should find ways to (1) nurture these initiatives and (2) connect new commons by formally engaging them in crafting and implementing policies. These bottom-up initiatives are indispensable counterparts to top-down measures (such as those on planet, lifetime, and technology proposed in this report). When locals organize to slow down climate change or alleviate the effects of demographic decline, less governmental action is needed and tax money is saved. When new regulations and government interventions are required, their design could

be greatly improved by incorporating lessons learned from community initiatives, and their effects could be multiplied by mobilizing local resources in support of the shared goals. The following steps could help achieve this synergy:

- **Create an EU Community Initiatives Fund** Currently, there is no feasible way for nongovernmental organizations (NGOs) or social groups to access EU funding. Its anti-fraud rules have created very bureaucratic requirements that are nearly impossible for them to meet. An EU Community Initiatives Fund—created outside official structures and endowed with EU and member state donations—could enable NGOs and social groups to easily and quickly apply for small to medium-sized grants. This way, grassroots projects and initiatives could be supported without having to create another legal entity that would likely use inaccessible language and have structural barriers. Moreover, the fund would tie applicants and recipients closer to the EU and EU identity.
- **Encourage the private sector to support local communities** In supporting small and medium-sized enterprises and new businesses, the EU should insist that they engage with, and make a positive contribution to, their local communities. Rather than corporate social days, pro-bono consulting services, or “gifts in kind” such as free marketing, European communities need sustainable engagement (for example, multi-year financial donations and joint social and community projects). Unlike traditional corporate social responsibility activities, co-created projects can mutually benefit employers and communities as they join forces to find solutions to local problems.
- **Build a partner state** Societies need to shift from top-down policymaking to horizontal co-production that treats community leaders as co-creators of policies. This requires a change in both the culture and structure of policymaking. The new model would integrate commons in the formulation, testing, and implementation of new policies. The EU’s decision to include energy co-ops as policy-shapers and implementers in the new energy package is a good example.

The EU is well positioned to provide citizens the security and sense of community they yearn for during uncertain times. But it will only be able to deliver that security—physical, economic, and social—if it focuses its resources and political attention on the massive challenges stemming from climate change, aging populations, and digital revolutions. And to remain relevant politically, the EU needs to ensure that all parts of society participate in this effort. National governments alone cannot meet the challenges.

The EU has the convening power to bring together states, local levels of government, political elites, the private sector, and urban and rural communities. The EU owes it to future generations to refocus its resources on the challenges that will shape their lives and to work with other continents in developing a sustainable global economy that protects and raises people's quality of life.

- 1 See, for example, Emmanuel Macron, “Dear Europe, Brexit Is a Lesson for All of Us: It’s Time for Renewal,” *Guardian*, March 4, 2019, <https://www.theguardian.com/commentis-free/2019/mar/04/europe-brexit-uk>.
- 2 Kate Raworth, “Exploring Doughnut Economics,” <https://www.kateraworth.com/doughnut/>.
- 3 The illustration, as noted in the text, is inspired by Kate Raworth’s Doughnut Economy diagram. The original diagram is available here: <https://www.kateraworth.com/doughnut/>.
- 4 “The EU Needs a Stability and Wellbeing Pact, Not More Growth,” *Guardian*, September 16, 2018 (<https://www.theguardian.com/politics/2018/sep/16/the-eu-needs-a-stability-and-wellbeing-pact-not-more-growth>). The letter was published in eighteen European languages in the run up to the Post-Growth 2018 Conference, hosted in Brussels on September 18–19, 2018, by ten members of the European Parliament from five different political groups, alongside trade unions and nongovernmental organizations, <https://www.postgrowth2018.eu/>.
- 5 See, for example, the work of Ottmar Edenhofer, director of Potsdam Institute for Climate Impact Research, <https://www.pik-potsdam.de/members/edenh>.
- 6 An example of this type of work is provided by Janette Sadiq-Khan, a former commissioner of the New York City Department of Transportation. See her book, *Streetfight: Handbook for an Urban Revolution* (New York: Penguin Books, 2017).
- 7 The European Commission projects that the EU population will grow by 1.7 percent between January 1, 2016, and January 1, 2080 (see European Commission, *People in the EU—Population Projections*, December 2017, [https://ec.europa.eu/eurostat/statistics-explained/index.php/People\\_in\\_the\\_EU\\_-\\_population\\_projections](https://ec.europa.eu/eurostat/statistics-explained/index.php/People_in_the_EU_-_population_projections)). This increase is only due to immigration. There are differences between member states: “decline in the number of inhabitants is projected to be within the range of 11-13 % in Italy, Hungary, Slovakia and Estonia, while reductions of 22-27 % are projected for Croatia, Poland, Romania and Portugal. Larger contractions — with the total number of inhabitants falling by approximately one third — are projected for Greece, Latvia and Bulgaria, while the largest reduction of all is projected in Lithuania, as its population is predicted to fall by 42.6 % between 2016 and 2080.” The median age is projected to increase by 4.2 years between 2015 and 2080 to 46.6. Europe’s population will fall behind significantly in comparison to Africa and Asia (see European Environment Agency, *Population Trends 1950–2100: Globally and Within Europe*,” October 2016, <https://www.eea.europa.eu/data-and-maps/indicators/total-population-outlook-from-un-stat-3/assessment-1>).
- 8 “2018 Ageing Report: Policy Challenges for Ageing Societies,” European Commission, May 25, 2018, [https://ec.europa.eu/info/news/economy-finance-policy-implications-ageing-examined-new-report-2018-may-25\\_en](https://ec.europa.eu/info/news/economy-finance-policy-implications-ageing-examined-new-report-2018-may-25_en).
- 9 Kontis et al., “Future Life Expectancy in 35 Industrialised Countries: Projections with a Bayesian Model Ensemble,” *Lancet* 389 (2017): 1323–35, <https://www.thelancet.com/action/showPdf;pii=S0140-6736%2816%2932381-9>.
- 10 A lack of opportunity at home and the lure of Western Europe—made accessible by EU membership—has resulted in millions leaving Central and Eastern Europe (see European Commission, *People in the EU—Population Projections*).
- 11 The Organization for Economic Cooperation and Development (OECD) found that approximately 14.7 percent of jobs could be lost to automation and that it may be difficult to retrain many of the people who lose their jobs. Most jobs likely to be lost are those that require little or no education (see Ljubica Nedelkoska and Glenda Quintini, “Automation, Skills Use and Training,” *Social, Employment, and Migration Working Papers*, OECD, March 8, 2018, [https://www.oecd-ilibrary.org/fr/employment/automation-skills-use-and-training\\_2e2f4eea-en](https://www.oecd-ilibrary.org/fr/employment/automation-skills-use-and-training_2e2f4eea-en)). The World Economic Forum argues that robots will replace 75 million jobs globally but also create 133 million new ones (see “WEF: Robots ‘Will Create More Jobs Than They Displace,’” *BBC News*, September 17, 2018, <https://www.bbc.com/news/business-45545228>).
- 12 By reducing the number of low-skilled jobs, automation creates a divide between the educated and uneducated. This is already evident in voting patterns and political attitudes across Europe (see the “diploma democracy” argu-



- ment by Mark Bovens and Anchrith Wille, "It's Education, Stupid: How Globalisation Has Made Education the New Political Cleavage in Europe," London School of Economics and Political Science, July 2017, <https://blogs.lse.ac.uk/europpblog/2017/07/05/its-education-stupid-how-globalisation-has-made-education-the-new-political-cleavage-in-europe/>).
- 13 Szymon Górka, Wojciech Hardy, Roma Keister, and Piotr Lewandowski, "Tasks and Skills in European Labour Markets," Instytut Badań Strukturalnych, May 2017, <http://pubdocs.worldbank.org/en/303651521211509917/Tasks-and-Skills-in-European-Labor-Markets.pdf>.
  - 14 The problem is that EU member countries are facing a large foundational skills gap. Across half of the EU, a fifth or more of 15-year-olds performed below the proficiency level in reading and mathematics in the Program for International Student Assessment. A large segment of young people all over the EU lack the necessary skills to do cognitive and nonroutine tasks, which will be even more important in the future labor market (see European Commission, Eurostat, "Underachievement in Reading, Maths or Science," 2018, [https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg\\_04\\_40&plugin=1](https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=sdg_04_40&plugin=1)).
  - 15 European Parliament Press Release, "European Fund for Transition to Support More Workers Made Redundant," January 16, 2019, <http://www.europarl.europa.eu/news/en/press-room/20190109IPR23022/european-fund-for-transition-to-support-more-workers-made-redundant>.
  - 16 International standard-setting organizations, such as the International Labor Organization (ILO), should try to get consensus around new global standards for the digital field of work. See, for example, the latest report from the ILO Global Commission on the future of work, which strongly recommends that all relevant organizations in the multilateral system work together toward setting standards (see ILO, Global Commission on the Future of Work, "Work for a Brighter Future," January 22, 2019, [https://www.ilo.org/global/topics/future-of-work/publications/WCMS\\_662539/lang-en/index.htm](https://www.ilo.org/global/topics/future-of-work/publications/WCMS_662539/lang-en/index.htm)).
  - 17 European Commission and Bocconi University, *The Role and Impact of Labour Taxation Policies* (Milan: Bocconi University, Center for Research on the Public Sector, 2011), <https://ec.europa.eu/social/BlobServlet?docId=7404&clangId=en>.
  - 18 See, for example, the work of the European Economic Area and Norway Grants Fund for Youth Employment, <https://eeagrants.org/What-we-do/The-EEA-and-Norway-Grants-Fund-for-Youth-Employment>.
  - 19 Charles Grant, Sophia Besch, Ian Bond, Agata Gostyńska-Jakubowska, Camino Mortera-Martinez, Christian Odendahl, John Springford, and Simon Tilford, "Relaunching the EU," Center for European Reform, November 2017, <https://www.cer.eu/publications/archive/report/2017/relaunching-eu>.
  - 20 The digital economy is growing seven times faster than the rest of the economy, with investments in ICT accounting for half of European productivity growth (see European Commission, *The Digital Economy and Society Index*, 2018, [https://europa.eu/european-union/topics/digital-economy-society\\_en](https://europa.eu/european-union/topics/digital-economy-society_en) and <https://ec.europa.eu/digital-single-market/en/desi>).
  - 21 Luke Field, "A User's Guide to the Citizens' Assembly," RTE News, January 11, 2018, <https://www.rte.ie/eile/brainstorm/2018/0104/930996-a-users-guide-to-the-citizens-assembly/>.
  - 22 "Data Suggests Surprising Shift: Duopoly Not All-Powerful," eMarketer, March 19, 2018, <https://www.emarketer.com/content/google-and-facebook-s-digital-dominance-fading-as-rivals-share-grows>.
  - 23 Nic Newman with Richard Fletcher, Antonis Kalogeropoulos, David A. L. Levy, and Rasmus Kleis Nielsen, *Reuters Institute Digital News Report 2017* (Oxford: Reuters Institute for the Study of Journalism, 2017).
  - 24 EACEA National Policies Platform, "6.8 Media Literacy and Safe Use of New Media," European Commission, December 2018, <https://eacea.ec.europa.eu/national-policies/en/content/youthwiki/68-media-literacy-and-safe-use-new-media-latvia>.
  - 25 Act to Improve Enforcement of the Law in Social Networks," *The Bunderstag*, July 2017, [https://www.bmjv.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/NetzDG\\_engl.pdf?\\_\\_blob=publicationFile&v=2](https://www.bmjv.de/SharedDocs/Gesetzgebungsverfahren/Dokumente/NetzDG_engl.pdf?__blob=publicationFile&v=2).
  - 26 "France Passes Controversial 'Fake News' Law," Euronews, November 22, 2018, <https://www.euronews.com/2018/11/22/france-passes-controversial-fake-news-law>.



- 27 “Action Plan Against Disinformation,” European Commission, December 5, 2018, [https://ec.europa.eu/commission/sites/beta-political/files/eu-communication-disinformation-euco-05122018\\_en.pdf](https://ec.europa.eu/commission/sites/beta-political/files/eu-communication-disinformation-euco-05122018_en.pdf).
- 28 “Code of Practice on Disinformation,” European Commission, September 26, 2018, <https://ec.europa.eu/digital-single-market/en/news/code-practice-disinformation>.
- 29 “Final Report of the High Level Expert Group on Fake News and Online Disinformation,” European Commission, March 12, 2018, <https://ec.europa.eu/digital-single-market/en/news/final-report-high-level-expert-group-fake-news-and-online-disinformation>.
- 30 Klára Votavová and Jakub Janda, *Making Online Platforms Responsible for News Content* (Prague: European Values Think-Tank, 2017).
- 31 “Germany: Flawed Social Media Law,” Human Rights Watch, February 14, 2018, <https://www.hrw.org/news/2018/02/14/germany-flawed-social-media-law>.
- 32 “Review of Cyber Hygiene Practices,” European Union Agency for Network and Information Security (ENISA), December 2016, <https://www.enisa.europa.eu/publications/cyber-hygiene>.
- 33 “Cybersecurity: Paris Call of 12 November 2018 for Trust and Security in Cyberspace,” France Diplomatie press release, November 2018, <https://www.diplomatie.gouv.fr/en/french-foreign-policy/digital-diplomacy/france-and-cyber-security/article/cybersecurity-paris-call-of-12-november-2018-for-trust-and-security-in#>.
- 34 The European Parliament and The Council of the European Union, “Directive Concerning Measures for a High Common Level of Security of Network and Information Systems Across the Union,” Official Journal of the European Union, July 6, 2016, <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32016L1148&cf=EN>.
- 35 Better Internet for Kids, “European Cybersecurity Month—European Teachers ‘Get Cyber Skilled,’” September 28, 2018, <https://www.betterinternetforkids.eu/web/portal/practice/awareness/detail?articleId=3574321>.
- 36 “European Parliament Resolution of 16 February 2017 With Recommendations to the Commission on Civil Law Rules on Robotics,” European Parliament, February 16, 2017, <http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P8-TA-2017-0051&language=EN&ring=A8-2017-0005>; <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=COM%3A2018%3A237%3AFIN>.
- 37 “Draft Ethics Guidelines for Trustworthy AI,” European Commission, December 18, 2018, <https://ec.europa.eu/digital-single-market/en/news/draft-ethics-guidelines-trustworthy-ai>.
- 38 Kati Van de Velde and Dirk Holemans, “Citizens Building a New Europe,” Green European Foundation, June 5, 2017, <https://gef.eu/publication/citizens-building-new-europe/>.
- 39 “Citizens Own One Third of German Renewables Capacity,” Clean Energy Wire, February 2, 2018, <https://www.cleanenergywire.org/news/coalition-transport-agreement-citizens-own-one-third-renewables/citizens-own-one-third-german-renewables-capacity>.
- 40 Fearless Cities is a global municipalist movement that seeks to defend human rights, democracy, and the common good (see <http://fearlesscities.com/en/about-fearless-cities>).



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