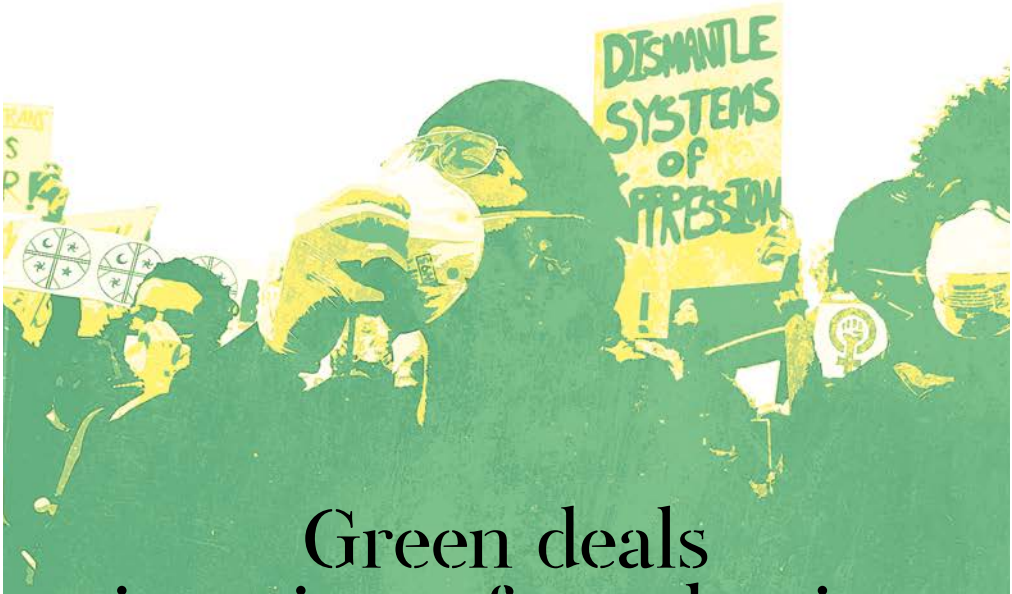

Green deals in a time of pandemics

THE FUTURE WILL BE CONTESTED NOW

Alfons Pérez

ODG
OBSERVATORI DEL DEUTE EN LA GLOBALITZACIÓ

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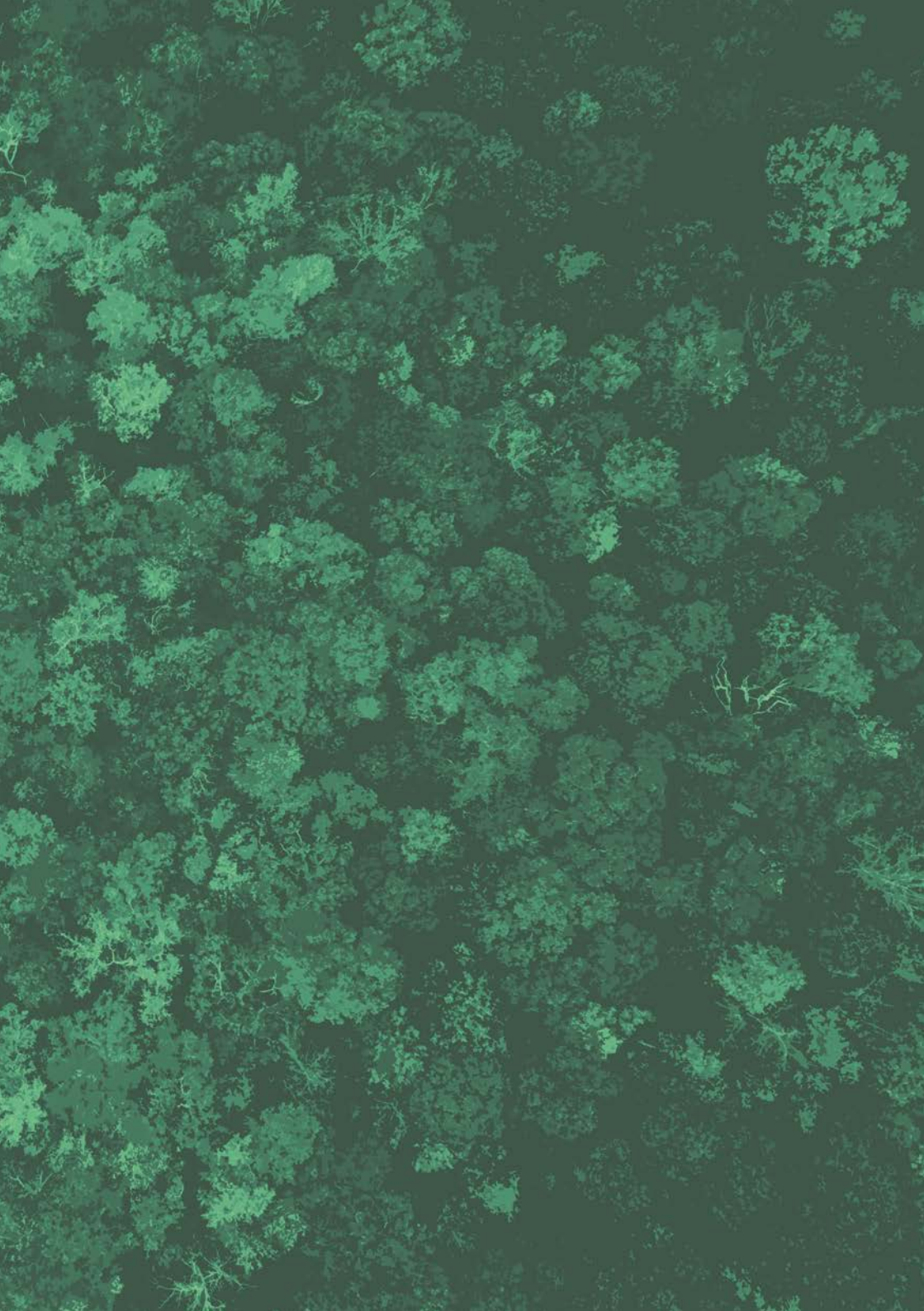

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Contents

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1.
Introduction

The world was still recovering from the financial crisis of 2008 when, completely unexpectedly, a microscopic and relentlessly contagious virus exploded into our lives and spread throughout the world through the web created by globalisation. The impact on the economy has been severe, but it would be too easy to blame everything on COVID-19. The pandemic has accelerated the arrival of a new phase in the crisis, which never completely disappeared and is interrelated with and aggravated by other 21st century global challenges.

Green deals in a time of pandemics was written and updated in this complex, unsettling, uncertain and (for some) dramatic context. Its aims spring from the conviction that, despite living in an intersection of emergencies (health, climate, environmental, feminist, etc.) and wide-ranging restrictions (total, partial or regional lockdowns, forced closures in various sectors, curfews etc.), we are not prepared to look to the future to come as mere spectators.

We are seeing growing agreement amongst the political class regarding the diagnosis of our situation. And the scientists are pressing for action. They declare that we are on the brink of ecological collapse, with continuing growth in CO_2 emissions and a massive loss of biodiversity. They also show that human advances into previously untouched ecosystems enable viruses to jump from animal species to humans, as happened with COVID-19. Given these arguments, it is difficult not to accept the fact that the current economic model and those who benefit from it must bear some of the responsibility.

A little over a year ago, numerous institutional proposals for economic reform sprung up based on this assessment of the critical global situation, currently compounded by the pandemic. The unifying concept is the Green New Deal, a dynamic trend which has been seen as a window of opportunity for promoting a range of "green" policies, which vary widely in nature, origin, focus and depth. Under this umbrella we find neoliberal and neo-Keynesian standpoints (such as the European Green Deal), the progressive standpoint of the US Democrats (led by Alexandra Ocasio-Cortez), the Green New Deal for Europe (published by a coalition of European activists and researchers), the Southern Ecosocial Deal (Pacto Ecosocial del Sur, driven by post-extractive organisations in Latin America) or the feminist green deals (whose proposals can be traced back to ecofeminism).

Instead of silencing institutional green policies, the pandemic has established a symbiotic relationship with them and turned the European Green Deal into a frame of reference for the economic recovery. The Deal has been hailed as a strategy for the growth of a new green, digital economy which would resituate the European Union as a leader on the world stage. Although instead of suppressing the plan, the pandemic has pushed it to the top of the political agenda, and the inconsistencies and controversies associated with it are emerging with renewed vigour: green growth based on the assumption that it is possible to both grow the economy and drastically reduce consumption and emissions; a technological transformation driven by natural resource extraction planned without

regard to its biophysical viability or its impact on communities in the Global South; employment created by digitalisation which will masculinise the workplace and require more machines and fewer people; and a green economic recovery based on instruments such as Next Generation EU, financed with billions of euros of public money, which widens the "green consensus" amongst large corporations by offering them a perfect, state-funded opportunity to transform their business models.

In the face of this situation, we need to ask ourselves what we can do. It seems logical that this is the moment to build more and stronger connections, create networks and form common fronts rooted in diversity. It is important to tackle deep-rooted, complex issues like expunging commodification, patriarchy and colonialism from our practice and our thinking, whether or not we use the "green deal" concept as a tactical element. However we also have to push ourselves to debate the issues which concern people the most: at the moment, these are surely health and employment.

Bringing together these elements, *Green deals in a time of pandemics* arrives at a historic moment, in which institutions are making a large number of decisions very quickly, decisions which could shape our lives and those of the generations to come. This is why we need to redouble our efforts and redouble our care for each other, because the future will be contested now.

2.
What can I find in this book?

Green deals in a time of pandemics: the future will be contested now has various aims which have been condensed into the title. The two plurals indicate not only the diversity of "green deals" which have emerged in little more than a year, but also that while COVID-19 is most definitely a pandemic, so are capitalism, patriarchy and colonialism.

With the intention of taking a wide, multidimensional viewpoint and embracing complexity, the text opens with an introductory chapter which briefly outlines the origins of neoliberal, Keynesian, degrowth-focused, post-extractive and ecofeminist "green deals" and justifies the need to focus on a critical analysis of the European Green Deal (EGD) as it is the most significant at a global level and has become the European Union's green recovery strategy.

After this brief explanation, a chapter on green growth explores the differences between relative and absolute decoupling, and exposes the effects of outsourcing and technological innovation, and the illusion of absolute decoupling at a global scale.

Expanding on these reflections, chapter 4 looks into the raw material requirements of technological innovation, which involve increased extraction of natural resources. The race to acquire critical raw materials such as cobalt, lithium, nickel, neodymium or dysprosium is based on demand projections which exceed the biophysical limits of the planet and could cause a plethora of socio-environmental conflicts.

Next comes the central chapter, "The green recovery and the European Green Deal". This chapter exposes an initial phase of corporate bailouts financed with public funds, free of environmental and social criteria, and a second phase of supposedly green recovery which will mobilise a large

quantity of public money through the Next Generation EU framework. The chapter delves into impacts of the aspects of Next Generation EU which are favourable to large corporations. In addition, it explores the ways in which the conditions and funding criteria attached to EU funding encroach upon national sovereignty and will lead to future over-indebtedness.

Following on from these three core chapters, the consequences of the European Green Deal on employment are briefly examined, emphasising the impacts of digitalisation and the need to focus on essential and socially meaningful work. The next chapter goes on to review various strategies used by corporations to intensify greenwashing during the pandemic.

The book concludes by reflecting on alternatives, aiming to embrace complexity and sketch a possible strategy for debate, to stimulate discussion about whether or not to use the concept of a "green deal" as a framework for political discussion and as a tactical concept.

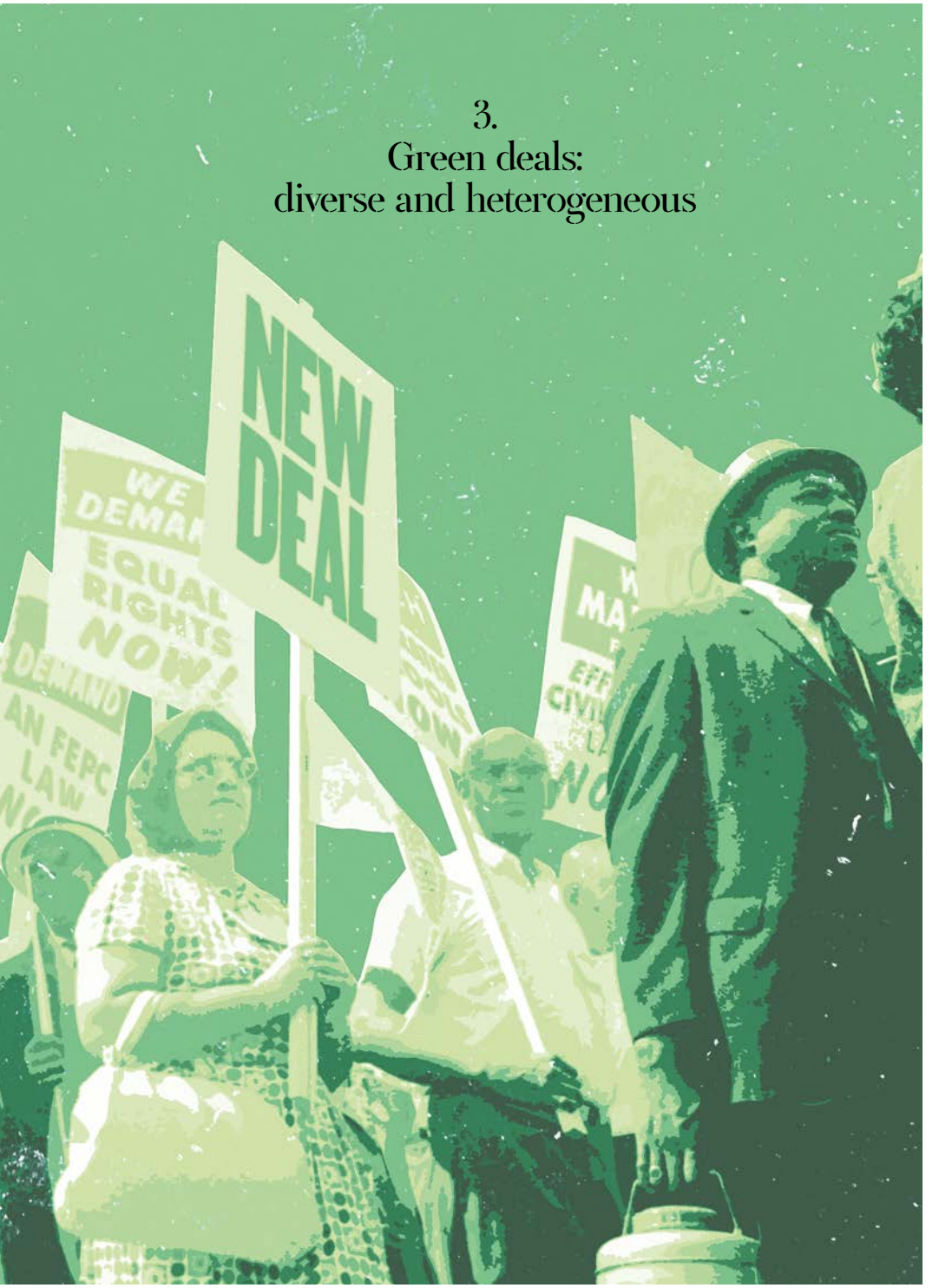
The text is enriched with numerous boxes which aim to clarify concepts, introduce depth in relevant issues and spark reflections leading to new ideas. These give *Green Deals in a time of pandemics* a pedagogical, informative quality, even though the text includes complex technical passages which will take more time to digest.

This is why we at the Debt Observatory in Globalisation are providing an email address here so that you can contact us, whether you want to settle personal doubts or set up reading groups, book readings, events or anything else you can imagine. Don't think twice - use it!: pactes.verds@odg.cat

We hope you enjoy the book.


NEW DEAL NOW!
WE DEMAND
WE MARCH FOR
JOBS FOR ALL NOW!
NEW DEAL NOW!

3.
Green deals:
diverse and heterogeneous



3.
Green deals: diverse and heterogeneous

Why the plural?

We use “green deals” in the plural because a diverse collection of proposals[1] have sprung up under the Green New Deal “brand”, taking advantage of this window of opportunity. These proposals are the result of long periods of work undertaken by collectives, organisations, campaigns and networks. Although the original essence of the Green New Deal involved large-scale institutional intervention, today more diverse proposals are emerging and being recognised as green deals. In fact, currently, in a time characterised by increased environmental awareness and mobilisation, the Green New Deal has come out very strongly and become hegemonic. For exactly this reason, because the Green New Deal is also the consequence of far-reaching work by social movements, the aim of this chapter is to highlight green deals under other names (ecosocial, ecofeminist, degrowth, post-extractive, post-capitalist, just transition etc.), which are driven by calls for change from the grassroots and aim to affect political change.

A brief history of green deals

The historical ancestor of the Green New Deal concept was US President Franklin D. Roosevelt's New Deal. In 1933, Roosevelt put forward a package of social, economic and financial policies including banking reforms, social care programmes, agriculture programmes, unemployment programmes and public works (to create employment) in response to the Great Depression which followed the economic crash of 1929. The rapid implementation and depth of the reforms was driven by strong pressure from the working class, which filled the streets of the US's largest cities with protests, riots and strikes[2]. "New Deal" became an umbrella term for an institutional intervention which, under significant pressure from citizens, reorganised practically every area of the administration in response to a crisis.

New uses of the term first appeared in the 1990s, when the first discernible references to a Green New Deal appeared in academia and political debates[3]. Shortly afterwards, in 2007, precisely in the period before the election which would hand Barack Obama the US presidency, Thomas Friedman (triple Pulitzer Prize winner and New York Times columnist) argued that the candidate who managed to put together an agenda focusing on the environment and industrial transformation, which he called the Green New Deal, would have a clear advantage in the presidential race.

The following years saw various proposals under the same name, such as the New Economic Foundation's "A Green New Deal" publication[4], which claimed to provide a solution to the triple challenge of the financial crisis, climate change and high oil prices. The same period saw a document focused on green modernisation and renewable energy from the European Greens[5], and the UNEP book *Rethinking the Economic Recovery: A Global Green New Deal*, which included the role of the international community in a green future[6].

However, it was Alexandra Ocasio-Cortez who really blew the starting whistle on what we now call green deals. In February 2019[7], the US congresswoman presented the Green New Deal for the US[8], based on advocacy and policy design work by the Sunrise movement[1]. It is a highly ambitious proposal to combat climate change, creating employment in green industries and driving the energy transition through 15 mobilising projects and 15 guiding principles which aim to reach net zero emissions, without specifying in which year this is to be achieved[9]. The plan, which was rejected by the Republican Senate, has a large technological component but also includes social objectives. These objectives include creating high-quality employment, providing training to re-skill workers affected by the transition, expanding the welfare state to provide free medical care and accessible housing to the entire population, supporting environmental justice and making reparations for the historical oppression of vulnerable communities[10]. Shortly afterwards, during the 2020 Democratic Party presidential primary elections, Bernie Sanders presented his green deal which included elements considered radical by US standards, such as banning the import and export of oil and gas, banning open-pit mining and *fracking*, a moratorium on permits to drill on public land, and a 71% reduction in emissions by 2030 with the aim of partially compensating climate debts to the Global South[11].

A particularly important driver of this proliferation of updated "Green New Deals" was the scientific evidence in the report "Global Warming of 1.5 °C"[12], which gave little more than a decade in which to act to avoid a climate disaster. This scientific evidence fuelled the emergence of new international movements, including Fridays for Future[13], Extinction Rebellion[14] and By2020WeRiseUp[15], which called for action to halt the environmental and climate crises. What is more, the general public became increasingly concerned by the climate emergency. This led more and

1 Sunrise is a US activist movement which fights to halt climate change and create millions of well-paid jobs. It emerged in 2017 to influence the Democratic primary elections and later focused on achieving consensus within the Democratic Party in support of a Green New Deal.

more institutions, political parties, corporations and social and ecological organisations to establish their positions and publish their own green deals.

The European context exhibits a wide range of proposals. For example, at the end of 2019 the European Union presented the European Green Deal[16], the Labour Party in the UK put forward its own deal[17] and groups of activists and researchers published the Green New Deal for Europe[18]. As well, we see an abundance of stances taken by large environmental organisations such as the WWF, Greenpeace, Friends of the Earth, etc.

However, this propagation of green deals is not only happening in the Global North. From all corners of the planet, we see new proposals such as the Southern Ecosocial Deal[19] or the Red Deal: Indigenous Action to Save Our Earth[20], deals that break with the dominant Europe- and US-centric viewpoints. The Southern Ecosocial Deal, for example, is a collection of integrated proposals which include solidarity-based taxation reform, the waiving of external state debt, the creation of national and local care systems, a universal basic income and the construction of post-extractive societies.

At the same time, the feminist movement has put forward proposals for a feminist green deal, establishing alliances with the climate justice movement[21]. As well as demanding a just transition, recognition and respect for indigenous communities and the end of environmental racism, they call for the prioritisation of alternative forms of leadership, gender justice and human rights in policymaking and public discourse through dismantling power structures dominated by the patriarchy.

A possible categorisation of green deals by narrative

As we have seen, the proliferation of green deals and the large diversity in their policy proposals require a detailed analysis, especially if we are to gain a more differentiated picture of each approach. The work of Ricardo Mastini, Giorgios Kallis and Jason Hickel in this direction in their article "A Green New Deal without growth?"[22] is useful in understanding the narratives behind the various deals. In the article, the authors carry out an in-depth narrative analysis of Roosevelt's New Deal, institutional new deals and those put forward by social movements, with a special focus on degrowth and the possibility or impossibility of creating green growth.

Mastini, Kallis and Hickel proposed a four-way categorisation of narratives: New Deal, green deal 1.0 and 2.0 and degrowth. Their intention was to compare the narratives of the green deals with the degrowth narrative. In contrast, here we will consider degrowth alongside other green deals and add two more narrative categories: post-extractive and feminist.

Our categorisation can be summarised as follows:

New Deal: **this refers to the deal created by Franklin R. Roosevelt following the Great Depression.**

Green deal 1.0: **deals which put forward an environmental form of modernisation focused on investment in technological solutions with little regulation of emissions. They seek to take advantage of capitalist investment to fund research and development, light subsidies and market mechanisms. They can be considered technocratic programmes.**

Green deal 2.0: **deals which drive environmental regulation, public investment and public ownership of energy sector assets, just transition policies, including guaranteed employment, decommodification and universal access to basic services, and policies to reduce resource use.**

Degrowth: deals which are critical of continuous economic growth or green growth, given their biophysical impossibility, and promote environmental and social justice based on decreased consumption of material goods and energy.

Post-extractive: deals which aim to move beyond extractivism and overcome capitalism, neo-colonialism, racism and patriarchy. In doing so, they call for recognition and respect for indigenous, Afro-descendant and rural communities.

Feminist: deals which seek to bring an end to patriarchal power structures and humanity's domination of nature. They recognise ecodependence and interdependence: the human species depends on healthy ecosystems (air, water, fertile land etc.), social relationships and social care for its survival. These deals aim to overcome various systems which oppress women and take an intersectional view embracing LGTBIQ communities, people with minority ethnic, migrant or asylum-seeking backgrounds, indigenous communities, people who are disabled or neurodiverse, children and adolescents and the elderly, amongst others.

These categories are not watertight and do not provide a perfect or indisputable classification of the various green deals, as many of them combine various narratives. It may also prove controversial to include degrowth, post-extractivism and feminism as green deal categories. Their inclusion, as explained at the beginning of the chapter, responds to the need to make space for alternatives to the official rhetoric which have been developed over a period of years, rest on deep, multi-dimensional and systemic analyses, and are free to target structural problems such as capitalism, patriarchy and colonialism.

Table 1.

Comparison of narratives for various categories of green deal. Adapted from "A Green New Deal without growth?". [23]

	Objectives	Origins	Expression
New Deal	Employment. Additional stimulation of consumer demand.	Trade unions, US President (Franklin D. Roosevelt), New Deal Coalition.	Social programmes, public works, financial reforms and regulations.
GD 1.0	Stimulation of growth. Employment and environmental standards.	Keynesian economists, UNEP, Barack Obama's presidency, G20.	Opinion pieces, policy proposals from the US Green Party and the European Greens, G20, green investments in key sectors.
GD 2.0	Mitigation of climate change. Employment. Social and environmental justice.	Red-green alliance of US movements, New Consensus, left wing of the US Democratic Party, UK Green Party, UK Labour Party, DiEM25.	Opinion pieces, Resolution 109 in the US House of Representatives, GND jobs platform, decarbonisation and economic strategies in draft bill 2017-19, policy reports.
Degrowth	Ending the quest for growth. Reducing all pressures on the environment. Autonomy / limits, social and environmental justice.	Grassroots environmental activists, social and environmental sciences and academia.	Academic articles and books, opinion pieces.
Post-extractive	Ending extractivism and anti-ecological, colonial, ethnocentric and patriarchal relationships. Recognition and respect for indigenous, Afro-descendant and rural communities.	Environmental activists in the Global South, indigenous, Afro-descendant and rural communities, academia.	Opinion pieces, academic books, constituent assemblies in Bolivia (2006-2007) and Ecuador (2007-2008). "Keep it in the ground" slogan.
Feminist	Gender, racial, ethnic, disability and LGBTIQ justice, amongst others. Recognition of community leadership and participation, especially the voices and experiences of women and dissident identities. Commitment to the defence of human rights and the rights of nature as a whole. Emphasis on the "metabolic" importance of social reproduction and care work.	Women's organisations, dissident identities, feminists and activists working to recover common and natural goods. Activists working in the fields of decolonialism, community action, anti-extractivism and environmental justice. Academic circles.	Opinion pieces, public manifestos, communication campaigns, activist and community work and best practice books and manuals.

Results	Geographical prevalence	Examples	
Wall Street Reform, relief packages for farmers, social security, changes in the political power balance through the Democratic New Deal Coalition.	US.	New Deal.	**New Deal**
$513,000 million fiscal stimulus from the G20.	US, China, South Korea, EU.	European Green Deal. UNEP "Global Green New Deal" policy report. New Economics Foundation "A Green New Deal" report.	**GD 1.0**
Standing candidates for US elections, raising public awareness (exemplified by Google trends).	US, UK, EU.	Green New Deal (Alexandra Ocasio-Cortez, Bernie Sanders).	**GD 2.0**
Biennial Degrowth International conferences, post-growth conference in the European Parliament (2018), academic discourse, radicalisation of environmental NGOs and activist groups.	France, the Spanish State, Italy, UK.	Green New Deal for Europe. A Green New Deal for an Ecological Economy (series of proposals)[24].	**Degrowth**
Local resistance, and networks against agro industry, mineral and fossil fuel extractivism. Promotion of "good living", or Sumak Kawsay, and other cosmologies by indigenous and non-indigenous collectives. Yasuní-ITT initiative.	Ecuador, Bolivia, Colombia, Chile, Argentina, Brazil, Mexico, Peru, Venezuela.	Southern Ecosocial Deal. CJA and the Green New Deal: Centering Frontline Communities in the Just Transition[25]. The Red Deal: Indigenous Actions to Save Our Earth.	**Post-extractive**
Amplifying a multitude of voices from women and communities fighting against climate change, as well as bringing various feminist principles into the debate, including the central role of care work, the need to redistribute work and wealth and an understanding of the unequal impacts of oppressive systems on bodies and territories. Raising awareness.	US, UK, EU, Fiji-Pacific alliance, pan-African ecofeminist alliance (South Africa, Senegal, Mozambique, Kenya, Burkina Faso, Democratic Republic of the Congo, Madagascar, Nigeria, Sierra Leone, Uganda, Guinea-Conakry, Zimbabwe).	A Feminist Agenda for a Green New Deal[26]. UK Women's Budget Group and WEN (Women's Environmental Network)[27]. Feminist Fossil Fuel Free Future. Ecofeminist Impact Assessment. Feminist decolonial global Green New Deal[28].	**Feminist**

What's in the green deals?

As we have seen, each deal's focus, orientation and proposals are very different. Without attempting an exhaustive comparative analysis, it is interesting to compare the deals put forward by institutions with those coming from civil society.

Amongst the institutional green deals, the European Green Deal (EGD) stands out. However, we will also look at the Green New Deal for Europe, in many ways an alternative response to the EGD, and the Southern Ecosocial Deal, a Latin American initiative that breaks with the dominant perspective of the Global North.

The European Green Deal

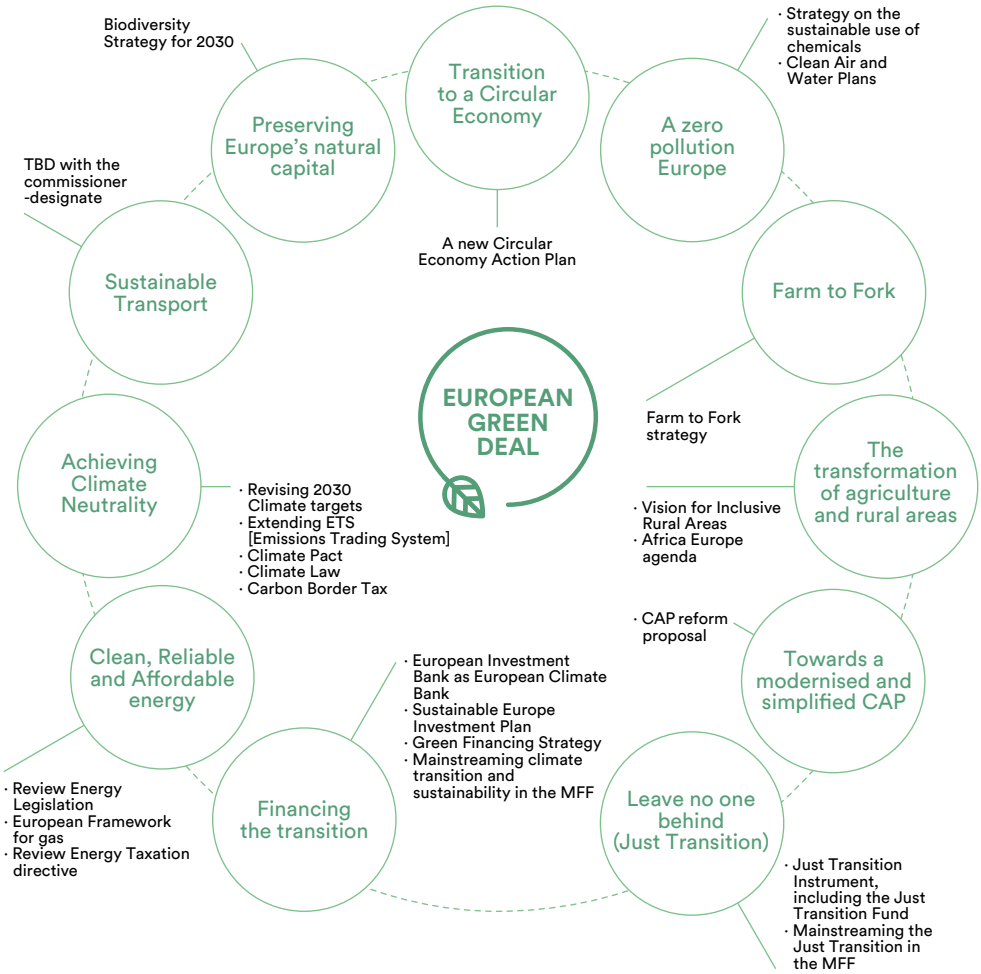
The EGD is a programmatic framework of reforms affecting a wide range of sectors, in an enormous mobilisation of economic resources affecting the largest single market on the planet. The founding document published on the 11th December 2019 opens with a diagnosis that is shared by many other green deals: "The atmosphere is warming and the climate is changing with each passing year. One million of the eight million species on the planet are at risk of being lost. Forests and oceans are being polluted and destroyed".

However, soon afterwards the document warns: "Delivering additional reductions in emissions is a challenge. It will require massive public investment and increased efforts to direct private capital. [...] This upfront investment is also an opportunity to put Europe firmly on a new path of sustainable and inclusive growth".

This idea of "turning an urgent challenge into a unique opportunity" is very present in the text of the EGD. The European Union sees the EGD as an opportunity to lead the world, in an international environment monopolised by the US and China, by being the first to implement far-reaching green reforms which will strengthen its economic model.

Figure 1

Initiatives, strategies and policies within the European Green Deal framework[29].



Source: European Compost Network

Figure 1 shows most of the initiatives included in the EGD, and their associated directives, plans and strategies. The main sectors affected are energy, transport and agriculture, with the aim of achieving climate neutrality and zero pollution and transitioning to a circular economy. To this end, the EGD proposes a funding framework which brings in actors such as

the European Investment Bank on one hand, and attempts to integrate the EGD into the European budget and introduces new instruments such as the Just Transition Fund on the other.

Perhaps one of the most important points to highlight is that, contrary to expectations, the arrival of the pandemic has given the EGD momentum. In other periods of economic crisis environmental policies have been subordinated to recovery plans. Now, in contrast, the EGD (which already partially resembled a plan for reactivating the economy) is Europe's hope for a future economy modernised by the massive implementation of green and digital technology and an exciting prospect for institutions, businesses and investors. The following chapters will be dedicated to the impacts of the EGD at various levels.

The Green New Deal for Europe

The Green New Deal for Europe is the brainchild of a coalition of European activists and researchers, born out of the clear desire to respond to and challenge the EGD, as well as to propose alternatives which are summarised in 10 pillars:

1. **Accept the scale of the challenge presented by the scientific evidence. We need to prevent the temperature increase exceeding 1.5 °C by investing 5% of European GDP in transition and transformation measures across production, consumption and social policy.**

2. **Lobby for idle resources to be used in the public interest through the issue of European Investment Bank "green bonds" which will provide returns for Europe's ailing savers, ensuring the cost of the transition is not borne by European working families.**

3. **Empower citizens and their communities through citizen assemblies and local governments to ensure a democratic energy system, support the communities most affected by the climate emergency and protect worker's rights.**

4. **Guarantee decent, high-quality, skilled and stable employment and recognise the role of care work in our economy, guaranteeing that it is not only recognised and compensated, but also that the activities which contribute to the regeneration of our natural systems play a central role in the economy.**

5. **Raise the standard of living, creating public prosperity instead of private profit, by substituting incentives to consume for investments in public services and social rights, such as health, education, art and culture. In addition, reduce working hours to create space for building communities.**

6. **Entrench social and economic equality and end financialisation, recognising the barriers to equality that race, nationality, gender identity, sexual orientation, age and ability represent.**

7. **Invest in the future, using the opportunity to reimagine the future including RDI aimed at developing new, exciting solutions, which must not be co-opted by corporate power.**

8. **End the dogma of endless growth, abandoning economic growth as a measure of progress and adopting more holistic measures of human advancement which take into account equality, the environment, happiness and health.**

9. **Support climate justice around the world, recognising Europe's historic responsibilities and colonial legacy, guaranteeing a decent life for climate refugees, and ensuring that the ecological transition does not lead to increased extraction of resources in the Global South.**

10. **Commit to immediate action. The Green New Deal is not a framework, a treaty, or an agreement. It is a set of concrete actions that move us rapidly towards our climate goals.**

The Green New Deal for Europe includes significant elements of participatory democracy, the care economy, public services, just finance and intersectionality, which do not appear in the EGD text (or at least not with the same conviction and intensity). What is more, it also challenges economic growth, extractivism, neo-colonialism and financialisation: a direct critique of the financial structures and focus on green and digital technologies proposed in the EGD. Furthermore, this deal proposes measures against COVID-19 connected with care, such as a European health and care standard or a minimum income for carers. At the same time, it proposes a programme of public purchases of empty buildings, the creation of green state employment, reducing the working week to four days and substituting the GDP indicator with a Genuine Progress Indicator[II], a composite of 9 environmental, 10 social and 7 economic indicators.

The Southern Ecosocial Deal

The Southern Ecosocial Deal is an initiative created by a group of people and organisations comprising indigenous communities, academics, researchers and activists etc. from a number of Latin American countries, motivated and united by the will to "urgently construct social dynamics capable of curbing and challenging the dynamics of capitalist realignment, wealth concentration and ecosystem destruction which have emerged from the COVID-19 crisis, and to design, together, a collective future horizon for the transformation of Latin America which guarantees a decent future".

II The Genuine Progress Indicator (IPG) is a measure designed to increase the visibility of well-being in a community, region or State. The health of the economy is only a part of the measure. It also includes environmental and social factors which do not appear in GDP, and is proposed to replace or complement GDP. More information in: Gross National Happiness USA. *Genuine Progress Indicator.*
Accessed at: https://gnhusa.org/genuine-progress-indicator/.

The context surrounding the Southern Ecosocial Deal is summarised in this paragraph:

"The crisis laid bare by the pandemic has worsened inequalities and shows that our future is at stake. Some people are under lockdown; others are facing contagion, repression and hunger. Indigenous and Afro-Latin American peoples are exposed to a new wave of extermination; patriarchal and racist violence and femicides have increased. Meanwhile, powerful groups both old and new are taking advantage of the emergency to make sure that "the return to normality" or "the new normal" does not deprive them of their privileges."

The Southern Ecosocial Deal takes a clear stand against capitalism, patriarchy, colonialism, racism and the use of the pandemic to strengthen these oppressive structures. Instead, the text of the deal recognises that there is a window of opportunity to construct "our future based on caring for life". The proposal, which defines itself as a social, ecological, economic and intercultural deal for Latin America, calls on all kinds of actors including not only social movements, territorial organisations, guilds and communities but also local governments, public servants, members of parliament and judges to shift power relations using instruments such as plebiscites, legislation and many other strategies with real influence.

The deal is based on concrete measures which aim to facilitate justice in the areas of redistribution of wealth, gender, ethnicity and the environment, in which public institutions and grassroots work share centre stage:

1. Solidarity-based tax reform, including taxes on inheritances, extreme wealth, megaprojects and financial earnings, in order to redistribute wealth.

2. External state debt waivers and the construction of a new global financial architecture.

3. Create national and local care systems, prioritising public policies which link care with social protection.

4. A Universal Basic Income which unifies social welfare policy through the introduction of a basic income for everyone and a reduction of the working day, allowing care work to be better distributed.

5. Prioritise food sovereignty with policies which target the redistribution of land and water access, and which prioritise ecological agriculture, forestry, fisheries, small-scale farming and urban farms, promoting dialogue and knowledge exchange.

6. Construct post-extractive economies and societies which protect cultural and natural diversity, and allow for an orderly and progressive withdrawal from our dependence on fossil fuels, mining, deforestation and large-scale monoculture.

7. Restore and strengthen means of community-based learning and communication in streets, public spaces or cultural venues.

8. Autonomous, sustainable local societies: increase the self-determination of indigenous, rural and Afro-American communities and promote experiences of communal urban communities, as well as demilitarising territories, democratising credit and achieving local energy sovereignty.

9. Sovereign regional and global trade favouring local, national and regional trade systems and introducing new currencies as alternatives to the dollar.

The Southern Ecosocial Deal combines new proposals with other ideas such as the elimination of debt, public sovereignty, post-extractivism, self-determination for indigenous, rural and Afro-American communities and the experiences of communal urban communities.

Why the focus on the European Green Deal?

The following chapters of this book will look into various dimensions of the EGD, taking a global perspective and building in various aspects related to the impacts of the pandemic. Green deals which do not originate in institutions, such as the Southern Ecosocial Deal or the Green New Deal for Europe (and many others) will continue to promote themselves using their own strategies, bringing in more collectives and organisations and expanding their influence. In contrast, all the EGD proposals are now being put into action.

As mentioned at the beginning of this chapter, the EGD has already been approved, making it the most significant green deal on the planet, in terms of population affected, market size, sectoral reach and mobilisation of economic resources. It truly is a large-scale experiment which could become a benchmark for other global powers. Herein lies its importance, and the necessity for a critical analysis. What is more, the EGD has been bolstered by the pandemic and has become a framework for economic recovery. This has speeded its implementation and it is hoped it will give new momentum to economic growth based on the injection of public money through programmes like Next Generation EU and the massive implementation of green and digital technologies.

4.
Green growth: more with less?

4.
Green growth: more with less?

"The European Green Deal which we are presenting today is the new growth strategy for Europe."

Ursula von der Leyen, European Commission president

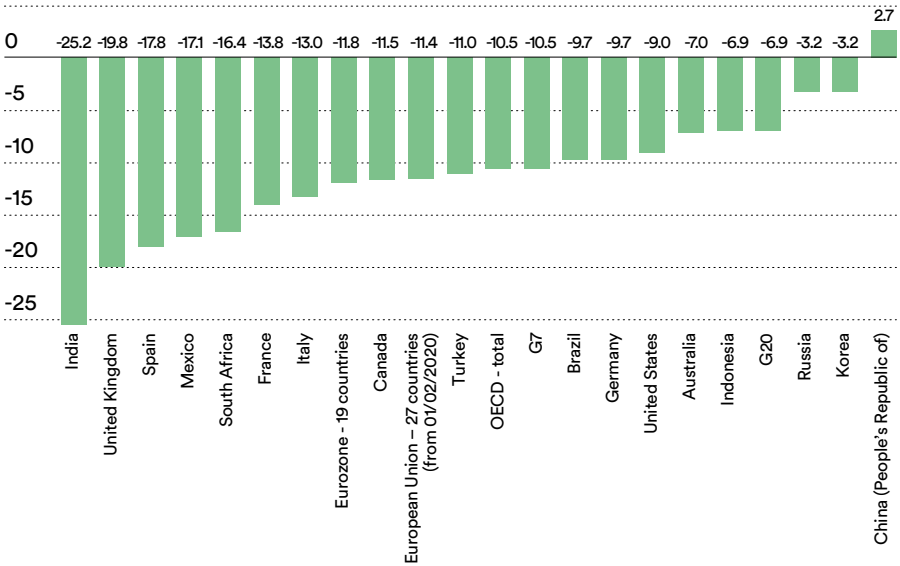
The European Union (EU) is pushing a "growth strategy [...] where economic growth is decoupled from resource use"[30]. In other words, the EU is aiming for green growth[III], or economic growth which uses natural resources in a sustainable way.

The need to sustain and increase economic growth, whether green or not, is omnipresent within institutions as GDP is the leading indicator of the health of the economy. Going by this indicator, the pandemic has certainly been lethal. The second quarter of 2020 will be remembered for setting a number of grim records: India registered a 25.2% fall in GDP; the UK, 19.8%; and the Spanish State, 17.8%. The average falls in the EU and the countries of the Organisation for Economic Co-operation and Development (OECD) were 11.4% and 10.5% respectively.

III Defined by the Organisation for Economic Co-operation and Development (OECD) as: "fostering economic growth and development, while ensuring that natural assets continue to provide the resources and environmental services on which our well-being relies. To do this, it must catalyse investment and innovation which will underpin sustained growth and give rise to new economic opportunities". More information at: https://www.oecd.org/greengrowth/48012345.pdf

Graph 1.

Economic growth in the second quarter of 2020 compared with the previous quarter



Source: OCDE Quarterly Data[31]

It is very probable that under these conditions, as already happened after the 2008 financial crisis, getting back on a road to growth will take centre stage in institutional and public policy debates. However, it seems that in Europe the growth will be green.

So-called "green growth" rests on the idea that an absolute decoupling of economic growth and environmental impact can be achieved through technological innovation, more efficient use of natural resources and intelligent use of economic incentives. In other words, it assumes that we can increase the production of goods and services and also reduce resource and energy use, and the generation of waste and emissions. However, as we will see, this theory is highly problematic.

Box 1.

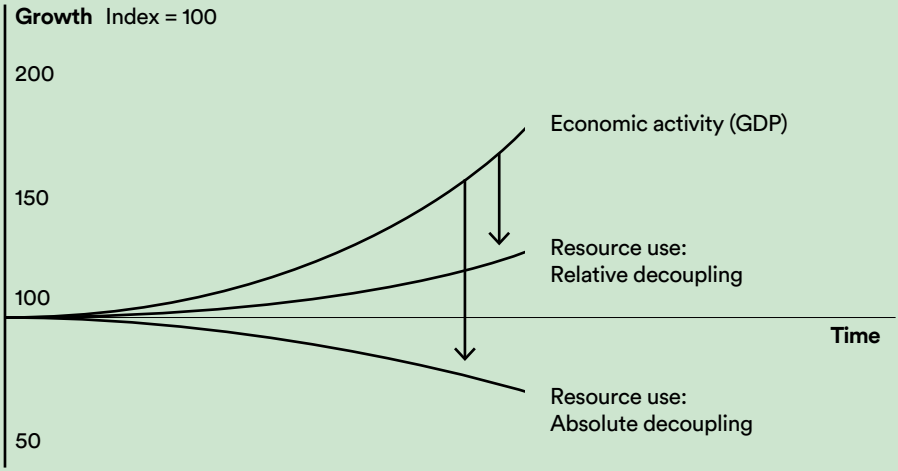
Relative and absolute decoupling

Before continuing this chapter, let's take a moment to define *relative decoupling* and *absolute decoupling*, as they will play a central part in the arguments against green growth.

Relative decoupling happens when the rate of economic growth is positive and larger than the rate of increase of environmental impacts (which is also positive). Efficiency has increased, but not enough to reduce total environmental impacts.

Absolute decoupling is when the rate of economic growth is positive and the rate of increase of environmental impacts is negative. Efficiency has been improved to such an extent that total environmental impact is reduced.

Figure 2.
Relative and absolute decoupling of economic activity from resource use



Note: the x-axis shows evolution over time and the y-axis shows a normalised index which begins at 100 and shows the cumulative percentage increase in each variable.

Source: Absolute and relative decoupling: resource use and GDP[32]

Let's take a practical example to illustrate this difference: say that a cooperative manufactures LED light bulbs and its sales increase by 3% per year. The cooperative implements an efficiency plan which reduces the increase in emissions to only 1% per year. This means that the emissions produced per unit have reduced, but as the number of units continues to increase by 3%, total emissions continue to grow. In this case, the cooperative has achieved relative decoupling.

Later, the cooperative decides to go further and achieves a 1% annual decrease in emissions despite an annual economic growth rate of 3%. The production process has been improved so much that the total volume of emissions still decreases, despite the increased production. In this case, the cooperative has achieved absolute decoupling.

The theory of green growth rests on the premise that it is possible to both achieve continued economic growth and to reduce environmental impacts fast enough to avoid the risks of climate change and the other dimensions of the ecological crisis[33]. This theory has been the dominant response to the environmental and ecological crisis in national and international policy since the Rio+20 UN Conference on Sustainable Development in 2012, and has been mainly supported by international multilateral organisations such as the World Bank[34], UNEP[35] and the OECD[36]. Although each institution defines green growth in a different way, they all agree on the mechanisms required to achieve it: technological improvements, innovations and replacements which improve the environmental efficiency of our economy, and a system of governance which speeds up this process through appropriate regulations and incentives.

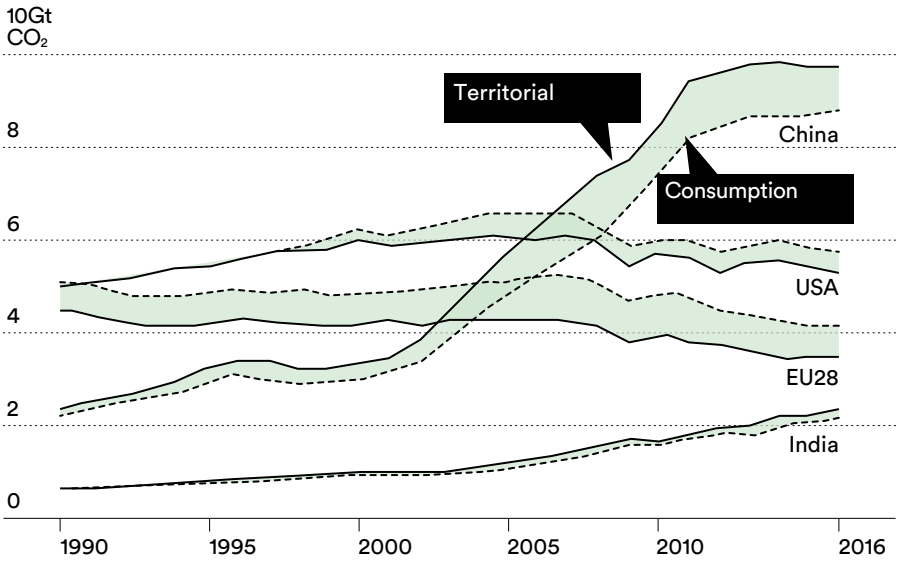
Having looked at the definition, intention and supporters of green growth, we will now go on to look at some of its most controversial aspects.

Offshore production and the externalisation of environmental impacts.

In the EGD, the European Commission sets itself a target to achieve "a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050"[37]. To demonstrate its capacity to decouple growth and emissions and achieve climate neutrality, it declares "between 1990 and 2017, it reduced greenhouse gas emissions by 22%, while the economy grew by 58%". In reality, in this period industrial processes were moved offshore to places with laxer regulation and cheaper labour[38].

Graph 2.

Annual territorial and consumption CO_2 emissions, for selected regions.



Source: Global Carbon Budget (2018) [39]

Table 2.

Global emissions, per capita emissions and historical emissions for each country or region

	United States	China	European Union	India	Russia	Japan
Territorial emissions 2018 (% of global emissions)	15	28	9	7	5	2
Consumption emissions 2017 (% of global emissions)	16	24	12	6	4	3
Historical contribution to emissions (1870-2018) (% of global emissions)	25	13	22	3	7	4
Historical contribution to emissions (1990-2018) (% of global emissions)	20	20	14	5	6	4
Per capita emissions (2018) relative to the global average	+245%	+45%	+39%	-59%	+143%	+89%

Note: territorial emissions are emissions generated in the country itself, and consumption emissions also include emissions associated with imported consumer goods expressed as a percentage of global emissions. The emissions per capita and historical emissions only include territorial emissions.

Source: Global Carbon Project [40]

Both Graph 2 and Table 2 show that the EU is primarily an importing region, as shown by the gap between territorial and consumption emissions, and how China, in contrast, has raised its profile as an exporting country in the past two decades with more territorial emissions than consumption emissions. There is a relationship between these two factors, since in that period the EU increased its imports from China fourfold, increasing from 90,420 million euros in 2002 to 420,800 million euros in 2019. In 2019 China represented 20.5% of EU imports[41]. Therefore, any EU emission reduction plan which excluded its external responsibilities would be incomplete.

Focusing on resource use, we see exactly the same problem. The 2017 edition of the annual "Green Growth Indicators" report[42] concluded that many countries have achieved relative decoupling and that their economies are showing improved efficiency with regard to resource use. The report goes as far as to claim that some EU countries have even achieved absolute decoupling between economic growth and the use of resources. However, the calculations do not include the resources used in the production and transport of imported goods[43]. This is particularly relevant in a globalised economy where the Global North externalises much of its production to the Global South[IV].

IV There is a need to distinguish indicators which can be used to characterise the externalisation phenomenon, such as resource footprints and carbon footprints (which include factors related to consumption, production and transport), from indicators like Domestic Material Consumption (DMC) which do not include the impacts of trade.

Past periods of economic crisis

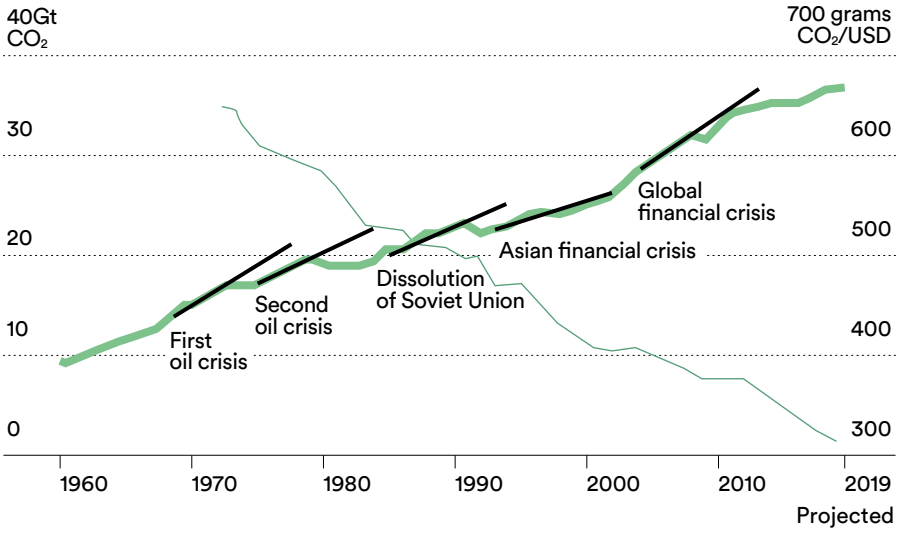
If we look at the historical evolution of the reduction of emissions in the EU, we see that between 1990 and 2008 emissions fell by 11%, followed by a reduction of 15% between 2008 and 2017. However, half of the reduction in the latter period happened between 2008 and 2009, driven by the economic crisis. Excluding these two years, the reduction of emissions in the EU in the last 25 years has been 0.7% per year[44].

The initial EU emission reduction target of a 40% reduction by 2030 was superseded by the Commission's proposal to increase it to 55%[45] agreed by the European Council on the 11th December 2020[46], which would require a reduction of 8% per year between 2020 and 2030. This enormous reduction in emissions is doomed to fail if EU does not take sufficiently structural and rapid action to tackle the climate emergency.

Although it would deem sensible to exclude periods of economic crisis from the emissions balance sheet in order to assess the real impact of the policies applied, in the end they are always included and make the figures seem more optimistic. Given this situation, it is important to make two points. The first, self-evident, point is that institutions should not take the recurring crises of the economic system as an affirmation of their action on climate change. The second point is that, historically, crisis recoveries have not brought about a change of thinking with regards to the environment or the climate. The economic recoveries have caused rebound effects and brought about even more pollution[47].

Graph 3.

Global CO_2 emissions and CO_2 intensity in various times of crisis.



Source: Rapid growth in CO_2 emissions after the 2008–2009 global financial crisis, Global Carbon Project [48]

Graph 3 shows various historical periods of economic crisis: the oil crises, the collapse of the USSR, the 2008 financial crisis etc. After a slight fall in emissions, the economic recoveries brought about continued growth in emissions in global terms. All of this occurs in a context of decreased CO_2 intensity (a reduction in the emissions required to generate one unit of GDP) which is completely wiped out by the continuous growth of the global economy.

A lot has been written on this point during the pandemic. Although it is still too early to say what the final impacts of the pandemic will be in terms of emissions and environmental impacts, at the beginning of the lockdowns there was a spectacular fall in emissions of between 17% and 25%[49]. However, the trend was reversed quickly, above all when the

global factory, China, was switched back on. This is the source of more than a quarter of global emissions, but responsibility for these is shared by importing countries, as discussed in the previous section[50].

The importance of the global scale

It is important to stress that when we refer to carbon emissions or resource use, what really matters in terms of global warming or resource depletion is the global total. For example, emissions of carbon dioxide to the atmosphere in relation to the size of the global economy declined from 730g CO_2 per dollar in 1960 to 330g/$ in 2016, a reduction of 54% in half a century[51]. This means that goods and services are now produced with fewer emissions per monetary unit. However, emissions continue to grow in absolute terms because we are producing a much greater volume of goods and services, and the efficiency improvement is cancelled out by the increase in production. At a global scale, there is no evidence of absolute decoupling. In fact, at a global scale, the quantity of CO_2 emitted into the atmosphere each day is 60% larger today than it was in 1990[52].

However with CO_2, the aim is not only to reduce emissions. It is also vitally important to keep total emissions within the carbon budgets set to avoid a global temperature rise of 1.5 or 2 °C[v]. According to IPCC forecasts[vi], a scenario where the global economy grows by 3% annually would require absolute decoupling at a scale of 10.5% per year, that is to say, in a year

v Global warming is not, nor will it ever be, homogeneous throughout the planet. Due to a series of feedbacks known collectively as "Arctic amplification" or "polar amplification", we know that average annual temperatures will rise much more in these regions. Today, the temperature rise at high altitudes in the northern hemisphere (60-90N) has already reached 3.5 °C.
More information at: http://www.realclimate.org/index.php/archives/2006/01/polar-amplification/

vi The Intergovernmental Panel on Climate Change is a United Nations organisation whose mission is to provide the world with an objective scientific opinion on climate change, the natural, political and economic impacts and risks associated with it, and possible mitigation options.

where the economy grows by 3%, we would need a 10.5% reduction in emissions to avoid a 1.5 °C temperature rise, or 7.3% to avoid a 2 °C rise[53].

The green growth concept claims that decoupling on this scale is possible. However, the highest rate of absolute decoupling ever achieved in the history of the modern economy was less than 3% and this happened immediately following the oil crisis in the 1970s[54]. Even the most optimistic models estimate that the maximum achievable rate of decoupling on a global scale is 3% per year, with respect to a growth rate of 3%[55,56].

Dematerialising the economy through the service sector

The service sector encompasses subsectors like retail, communications, call centres, tourism, hospitality, leisure, culture, public services, finance, and so on.

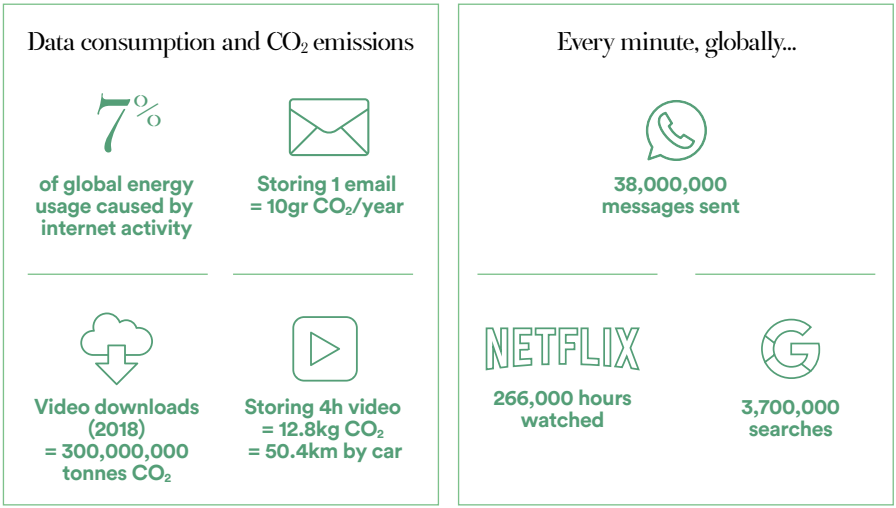
Proponents of the possibility of absolute decoupling argue that it could be achieved by transitioning from a manufacturing economy to a service economy. This would be driven most conspicuously by digitalisation, allowing information and communication technologies and the finance sector to take centre stage within the service sector.

However, the theory that decoupling can be achieved by dematerialising and building a service economy is not supported by data on a global scale. The increase in the service sector's percentage share of global GDP from 63% in 1997 to 69% in 2015[57] has not turned into any kind of decrease in emissions – in fact, exactly the opposite has happened.

This fact is even more relevant since the arrival of COVID-19 and the associated rise in the use of digital tools for work and leisure. Digitalisation can give a false sense of the dematerialisation of productive activity. Behind the screens of our computers, tablets and mobiles there is a system which offers us an enormous quantity of constantly available data. This requires the maintenance and provision of antennas, routers, servers and so on and consumes a large (and increasing) amount of energy, representing an ever-larger proportion of global energy consumption. What is more, digitalisation technologies depend on the extraction of aluminium, cadmium, cobalt, copper, gallium, indium, lithium, neodymium, nickel and many other critical elements which exist in limited quantities. We will look at the impacts of this in chapter 5.

Figure 3.

The impact of our internet consumption.



Source: Opcions magazine [58]

Figure 3 provides interesting figures which show the impacts of everyday actions like sending an email or streaming or downloading video. In fact, the internet comprises some 100 million servers spread throughout the world's data centres (the largest are called "data farms"), 300 underwater fibre optic lines (counting both those in use and those under construction, a total of 900,000 km), antennas and routers to distribute the data packets and, finally, our own digital devices[59].

The information technology giants' electricity comes from carbon-intensive energy mixes[VII]. In 2017, 67% the electrical energy used for ICT (information and communication technology) by Alibaba.com came from coal-fired power stations. For Amazon this figure was 30% and for Microsoft, 31%[60].

Technological innovation and regulation

A key pillar of the theory of green growth is technological innovation accompanied by the right government policies to promote it. As discussed at the beginning of the chapter, this is the main argument put forward by the main international multilateral institutions such as the OECD, the World Bank and UNEP. To support this, they rely on studies which analyse a variety of possible future scenarios based on different variables[61,62,63].

Amongst the variables used in these projections are technological innovation rates (which show the relative speed at which technological advances appear and influence productive processes), the price of carbon as a market mechanism to disincentivise the use of fossil fuels, taxes on resource extraction to disincentivise extractive processes, other changes in regulation, planning or government procurement, rate of economic growth and population size.

VII An energy mix is an energy supply which uses a variety of sources to cover the energy demand.

The result of these studies is that even the best scenarios (a progressive increase in the price of carbon, a very high technological innovation rate, high levels of taxation etc.) still only result in relative decoupling, never absolute decoupling. What is more, the amount of relative decoupling tends to be very small once the so-called “rebound effect” is taken into account, because the increased efficiency per unit of a product or service is overcome by increased use of the product or service.

These models suggest that absolute decoupling at a global scale is not possible in a context of continuous economic growth, since the increases in production due to increased efficiency combined with the rebound effect tend to increase total effective demand.

Getting past green growth with alternatives to GDP

Throughout this chapter we have seen that there is no evidence that absolute decoupling of emissions from economic growth could be achieved quickly or lastingly enough to meet the targets set out in the Paris Agreement[VIII]. In terms of resource use, the situation is even more pessimistic and decoupling at national or regional level is achieved by offshoring production. Neither the service economy nor technological innovation will be enough to offset the energy and resources required to sustain economic growth.

Given the above, it is worth noting that the green growth narrative associated with the EGD is based on green growth arguments and disregards the evidence of the planet's biophysical limits, including upper limits to energy and resource production and maximum capacities for absorbing pollution. Even more worrying is that the green growth idea will become even more present due to the pandemic. The obsession with increasing GDP, justified by linking it to employment and welfare, will certainly play a central role in the economic recovery from the pandemic. This is why the time to contest the contradictions in the official rhetoric outlined above and put forward proposals based on degrowth[64] or post-growth[65] ideas is now. At the same time we can put forward alternatives to GDP as the main (and sometimes almost the only) indicator-objective used in economic governance, given that GDP rewards actions which are highly destructive to human society and to the sustainability of the planet: the arms trade, reconstruction after natural disasters, planned obsolescence and so on.

VIII The 2015 Paris Agreement aims to prevent the rise in global temperatures from exceeding 2 °C above pre-industrial levels and also calls for additional efforts which could prevent the rise from exceeding 1.5 °C.

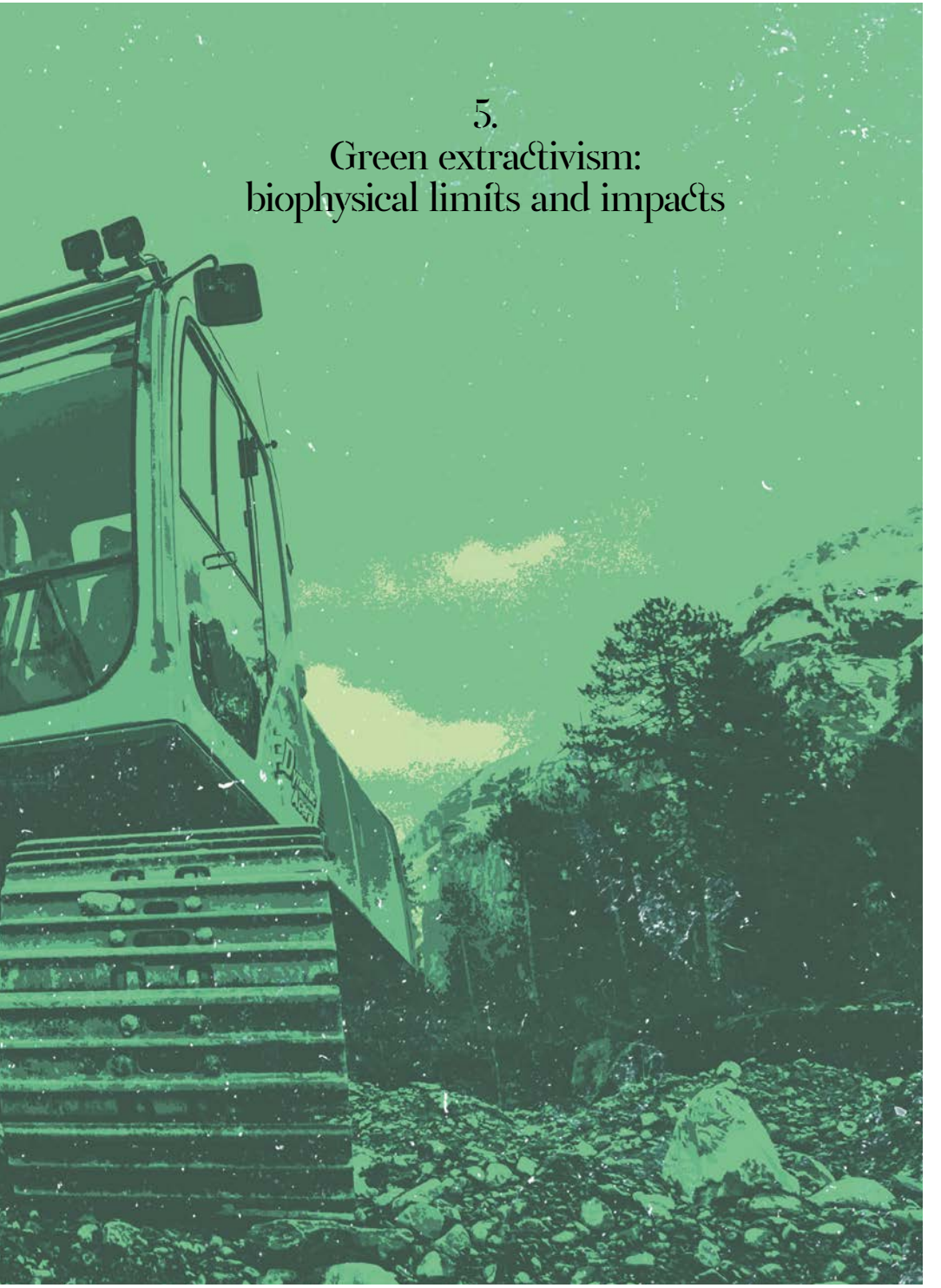
Before proposing alternatives to GDP, it is important to recognise that an economy designed to satisfy people's needs has to go further than the development of alternative indicators and requires policies which do not prioritise economic growth. What is more, the design of indicators and indices will always be controversial because, often, they aim to simplify a complex reality. However, a time of economic recovery is a good opportunity to demand the use of different indicators, as the Green New Deal for Europe did with the Genuine Progress Indicator.

To this end, dashboards containing multiple indicators have been created which enable a more diverse and multidimensional analysis. One such dashboard is "Focus on Human-scale Development" (EDEH, after the Spanish acronym), which aims to reflect the satisfaction of basic needs. This instrument was designed to help communities to develop themselves free of the need for economic growth. The EDEH is based on nine universal human needs which should be satisfied for a satisfactory life: subsistence, protection, care, understanding, participation, leisure, creativity, identity and freedom. The important part of this approach is that it differentiates needs (finite and known) from those things which satisfy needs. These vary depending upon the historical, geographical or cultural context[66]

There are also other institutional proposals like the Living Standards Framework in New Zealand, a dashboard of indicators with 12 categories of wellbeing including housing, health, security, social connections, environment and cultural identity[67].

The potential of these dashboards lies in the separation of basic needs from commodified, monetised goods, which achieves a conceptual division between personal satisfaction and material consumption.

5.
Green extractivism: biophysical limits and impacts



5.
Green extractivism: biophysical limits and impacts

The European Green Deal and its green growth strategy rest on a material basis which needs to be analysed carefully. In the case of the EGD, as with other institutional green deals, technology forms a central pillar of the economic transformation intended to achieve climate neutrality.

COVID-19, as discussed in the previous chapter, has done nothing but accelerate a green and digital technology agenda which will increase the need for "green extraction" and subsequently the pressure on territories with reserves of critical raw materials[IX]. These raw materials are not infinite, and some are subject to inevitable bottlenecks, especially if global demand increases substantially. Despite the institutional green deal rhetoric which speaks of "justice" and "leaving no-one behind" or the "do no significant harm" principle[X], the proposal paradoxically implies

IX Critical raw materials are mineral resources considered critical for the economy and national security. This term was introduced by the United States military during its preparation for the Second World War. More information at:
https://www.ecologistasenaccion.org/wp-content/uploads/2019/12/Report-Speculative-Mining-in-Spain.pdf

X The "do no significant harm" principle refers to the idea that a population should not be exposed to increased risks by actions taken.

advancing the resource extraction front and extracting, processing and supplying more raw materials, with impacts on people and ecosystems which we will examine later.

In the case of the EU, the European Commission is aware that between 1970 and 2017 the annual global extraction of raw materials tripled, and that this growth is showing no signs of stopping. This is a global risk. More than 90% of biodiversity loss and water stress in extraction zones is caused by extractive processes and the processing of raw materials, fuels and foodstuffs. To remedy this, the Commission proposes a new circular economy[XI] through a "complete mobilisation of industry" combined with "absolute decoupling of economic growth and resource use", again opting for technological innovation within a philosophy of non-negotiable economic growth[68].

As we saw in Chapter 4, if we only consider domestic consumption in our calculations, we can see that the EU increased its resource use efficiency by 40% between 2000 and 2018, while the economy grew by 30%. However, if we take the raw materials used in the production and transport of imported goods into account then consumption has grown relentlessly in the EU, as has the bloc's material resources import dependency. In 2017, the total volume of imported goods was three times larger than the total volume of exports.

XI The circular economy is a strategy which aims to reduce both the use of raw materials and the production of waste, by closing ecological and economical resource cycles or flows.

Table 3.

Material import dependency (by categories) for EU countries. between 2000-2017 Percentage of imported materials with respect to total.

Import dependency	2000	2007	2017
Biomass (%)	**8.6**	**10.5**	**10.7**
Metallic minerals (%)	**62.4**	**68.5**	**54.4**
Non-metallic minerals (%)	**2.1**	**2.5**	**2.7**
Fossil energy resources (%)	**48.1**	**56.6**	**63.8**
Total dependency (%)	**18.5**	**20.7**	**23.2**

Source: Eurostat[69]

This structural dependency of the EU has consequences which transcend its borders and therefore the bloc has an external responsibility to the regions it imports from, along the entire supply chain.

Box 2.

Dependencies and security policies

Perceptions of dependencies and security are very emotional, and therefore they are habitually drawn upon in political communications. Traditionally, political powers have created narratives which draw strong links between dependencies (for resources, energy, food etc.) and the vulnerability of the dependent territory and its inhabitants. This legitimises and facilitates security policies which guarantee supplies through a variety of actions: from bland diplomatic measures to the occupation or militarisation of other territories.

In the European Union, we have seen this very recently with the Energy Union[70] and energy security. The underlying idea in the official documents is that the EU was highly dependent upon energy imports, the vast majority of which came from Vladimir Putin's Russian Federation. Therefore, it was appropriate to take diplomatic and financial measures to diversify supplies and take back power from the Russian behemoth through the construction of alternative ways to obtain energy. Under this mantra of dependency, vulnerability and diversification, by a variety of diplomatic and financial means, one of the most expensive and controversial energy projects in the EU's history was constructed: the Southern Gas Corridor, a mega-pipeline for gas which will connect the corrupt and oppressive Azerbaijani regime with southern Italy, with a length of 3,500 km and a budget of 45,000 million dollars. This project, absurd in terms of its climate impact, economic viability and contribution to the energy transition, made a lot of sense for the public image of the Aliyev family, which has governed the Caucasus state since the fall of the USSR, and for companies like BP, the main promoter of the project. All in the name of energy security[71].

Expanding on these arguments we should add that vulnerability and insecurity are not only produced in importing countries. Dependency also impacts exploited exporting territories which can suffer from increased exposure to international markets (depending upon the relative proportion of exports in the economy), increased internal inequality with national and international elites dominating commerce, the dismantling of sectors unrelated to resource extraction and significant impacts on vulnerable communities and social groups.

At the end of the day, security policies are nothing but neo-colonial tentacles which operate with a partial, blinded view of reality. These policies create mobile borders which can reach out to ensnare resources or retract to form impassable walls against migrants and asylum seekers[72].

Critical raw materials for the energy transition

The European Commission's latest report on critical raw materials (2018) emphasises the fact that some critical raw materials are essential for the energy transition and "are irreplaceable for the manufacture of solar panels, wind turbines, electric cars and low-energy lighting"[73]. It also shows that there are 27 critical elements[XII] which play a fundamental role in the European economy, 62% of which come from China[74]. With this in mind, the Commission states very clearly in the EGD declaration that "access to resources is a strategic security question for Europe's ambition to deliver the Green Deal" and that it is crucial to "ensure the supply of sustainable raw materials, in particular of critical raw materials necessary for clean technologies, digital, space and defence applications"[75].

The EU's race to secure access to strategic resources has to be understood in a competitive global context where other countries will also battle for the same resources. Therefore, as discussed in the previous chapter, it is important to maintain a global perspective in order to understand the bottlenecks in the supply of critical raw materials.

XII A critical raw material, according to the International Resource Panel, is a raw material of high economic importance which is exposed to supply risks (geographical or geopolitical) and for which there is currently no economically viable substitute. More information at https://www.ecologistasenaccion.org/wp-content/uploads/2019/12/Informe-Mineriia-Especulativa-en-Espana.pdf

In this respect, the "Responsible minerals sourcing for renewable energy" report prepared by Earthworks for the Institute of Sustainable Futures (ISF)[76], finds that "new mining is likely to take place to meet demand in the short term, and new mines are already under development linked to renewable energy (e.g. for cobalt, copper, lithium, rare earths[XIII], nickel). If not managed responsibly, this has the potential for new adverse environmental and social impacts".

The Earthworks study projects a possible future in which the world avoids a temperature rise of more than 1.5 °C and successfully decarbonises the world energy system by 2050. Within this future, the report explores demand for raw materials under five scenarios[XIV]: total demand (current materials efficiency and no recycling), current recycling (current materials efficiency and current recycling rates), potential recycling (current materials efficiency and improved recycling rates), future technology (improved materials efficiency but with no recycling) and minimum demand (improved materials efficiency and improved recycling).

The report concludes that "demand from renewable energy and storage technologies could exceed reserves for cobalt, lithium and nickel[XV]". Table 4 summarises these bottlenecks in the supply of the most important raw materials for the manufacture of renewable technology.

XIII *Rare earths* are not types of earth – the name comes from the use of "earth" in chemistry to mean an oxide. The so-called *rare earths* are a group of 17 chemical elements: scandium, yttrium and the 15 elements of the lanthanide group (lanthanum, cerium, praseodymium, neodymium, promethium, samarium, europium, gadolinium, terbium, dysprosium, holmium, erbium, thulium, ytterbium and lutetium).

XIV These scenarios were developed by the Institute for Sustainable Futures (ISF) at the University of Technology Sydney (UTS) in association with the German Aerospace Centre (DLR), Institute for Engineering Thermodynamics, and Department of Systems Analysis and Technology Assessment (STB).

XV These three elements are used in the manufacture of lithium (Li-Ion) batteries, designed to store electrical energy. Lithium is used for the production of the battery's anode and electrolyte and nickel and cobalt are used in the cathode. For information on the other elements, see the Earthworks report: www.earthworks.org/cms/assets/uploads/2019/04/MCEC_UTS_Report_lowres-1.pdf

Table 4.

Summary of risks under a future demand projection

	Annual demand in 2050 compared to current extraction	Cumulative demand compared to resources and reserves
Aluminium	< 5% of extraction in all scenarios	< 5% of reserves in all scenarios
Cadmium	< 5% of extraction in all scenarios	< 5% of reserves in all scenarios
Cobalt	> 500% of extraction in all scenarios	> 100% of reserves in all scenarios and resources in total demand scenario
Copper	< 50% of extraction in all scenarios	< 20% of reserves in all scenarios
Dysprosium	> 500% of extraction in all scenarios	< 20% of reserves in all scenarios
Gallium	< 50% of extraction in all scenarios	< 5% of reserves in all scenarios
Indium	< 50% of extraction in all scenarios	> 50% of reserves in highest scenario
Lithium	> 100% of extraction in all scenarios	> 100% of reserves in most scenarios
Manganese	< 50% of extraction in all scenarios	< 20% of reserves in all scenarios
Neodymium	> 500% of extraction in all scenarios	< 20% of reserves in all scenarios
Nickel	> 100% of extraction in all scenarios	> 100% of reserves in highest scenarios
Silver	< 50% of extraction in all scenarios	> 50% of reserves in highest scenarios
Selenium	< 20% of extraction in all scenarios	< 20% of reserves in all scenarios
Tellurium	> 100% of extraction in all scenarios	> 50% of reserves in highest scenario

Note: the first column reflects the increase in annual demand between 2018 and 2050 to show which critical raw materials will be under the most pressure, and the second column compares the total demand from 2018 to 2050 with available reserves and resources to evaluate if it is biophysically possible to satisfy the projected demand.

Source: “Responsible minerals sourcing for renewable energy” by Earthworks [77]

Table 5.

Peak annual resource demand for renewable energy and storage compared to current annual extraction (2017) for a 1.5 °C scenario

	Tonnes		% of annual extraction		Year of peak demand	
	Total demand	Lowest scenario	Total demand	Lowest scenario	Total demand	Lowest scenario
Aluminium	18,852,177	17,822,832	3%	3%	2036	2033
Cadmium	700	479	3%	2%	2035	2028
Cobalt	1,966,469	747,427	1788%	679%	2050	2031
Copper	5,626,579	4,493,216	29%	23%	2050	2033
Dysprosium	11,524	7,299	640%	406%	2050	2031
Gallium	89	57	28%	18%	2035	2028
Indium	276	181	38%	25%	2035	2028
Lithium	4,112,867	727,682	8845%	1565%	2050	2033
Manganese	6,438,599	2,447,220	40%	15%	2050	2031
Neodymium	94,687	59,118	592%	369%	2050	2031
Nickel	6,581,326	2,501,469	313%	119%	2050	2031
Selenium	404	289	12%	9%	2035	2028
Silver	9,926	6,646	40%	27%	2035	2027
Tellurium	834	555	199%	132%	2035	2028

Note: Total and lowest demands correspond to the scenarios described previously. The percentage of annual extraction is calculated relative to 2017 and the peak demand is the year of maximum demand.

Source: “Responsible minerals sourcing for renewable energy” by Earthworks [78]

Table 5 shows figures which reveal that the resource demand for renewable energy and energy storage will increase to double current extraction levels for almost half of the elements shown: cobalt, dysprosium, lithium, neodymium, nickel and tellurium. Lithium demand is projected to increase

by 1,565% in the lowest demand scenario and 8,845% in the total demand scenario, compared to current extraction. These figures are 679% and 1,788% for cobalt, 369% and 592% for neodymium, 119% and 313% for nickel and 406% and 640% for dysprosium. For cobalt, nickel and lithium, as shown in Table 4, the projected demand will exceed reserves and make the future projected in the report biophysically impossible.

Yet another factor to take into account is that renewable energy is not currently one of the main sectors requiring critical raw materials: it will need to compete with other strategic sectors including construction, aviation, nuclear technology, electronics and arms manufacturing[79]. This means that the race to secure access to these resources is only going to intensify in the coming years.

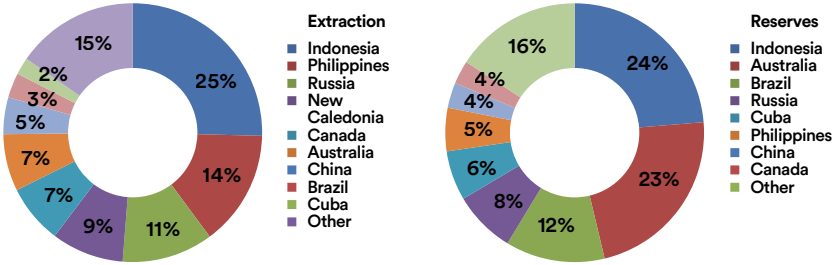
To conclude, it is important to recognise that the Earthworks study, in common with the majority of such reports, does not question economic growth or consider the possibility of achieving a drastic reduction in energy demand.

Geographical distribution of critical raw materials

The geographical distribution of the current extraction and reserves of critical raw materials looks very different to that of fossil fuel extraction. Whilst the Middle East has been the geostrategic epicentre of hydrocarbon supplies, the focus is now moving to other parts of the planet. The key regions for the exploitation of critical elements are concentrated in the Global South and regions such as Sub-Saharan Africa, Southeast Asia, South America, Oceania and China.

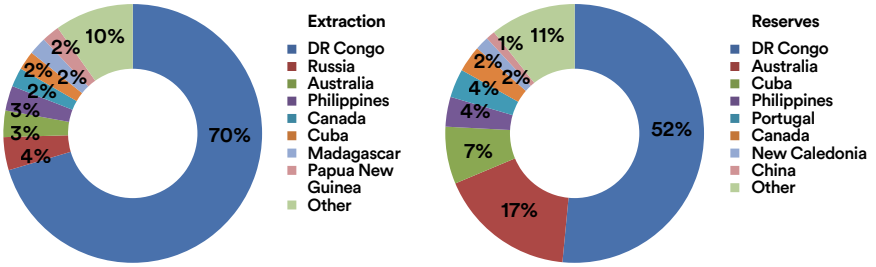
Graph 4.

Global nickel extraction and reserves in 2018



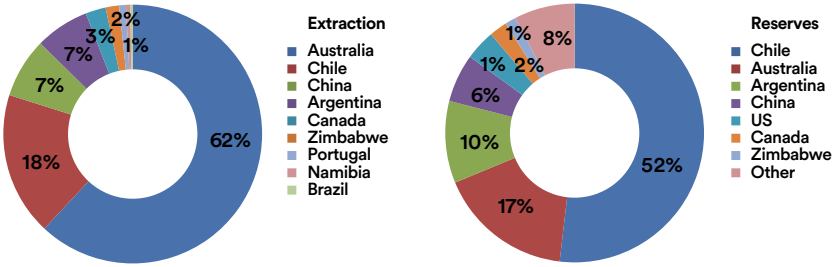
Graph 5.

Global cobalt extraction and reserves in 2018



Graph 6

Global lithium extraction and reserves in 2018



Source: Prepared by the author based on data from the U.S. Geological Survey, Mineral Commodity Summaries[80]

To assess current and future scenarios it is necessary to distinguish between extraction, reserves and resources. The extraction of raw materials is the activity already happening to meet national and international market demand. Reserves are the raw materials whose extraction would be legally, economically and technically viable. Finally, resources include the results of prospective explorations and are estimated using geoscientific models[81]. Given this:

Extraction: **the graphs above show strong concentrations of lithium extraction in Australia (62%)[XVI], nickel extraction in Indonesia (25%) and cobalt extraction in the Democratic Republic of the Congo (DR Congo) (70%).**

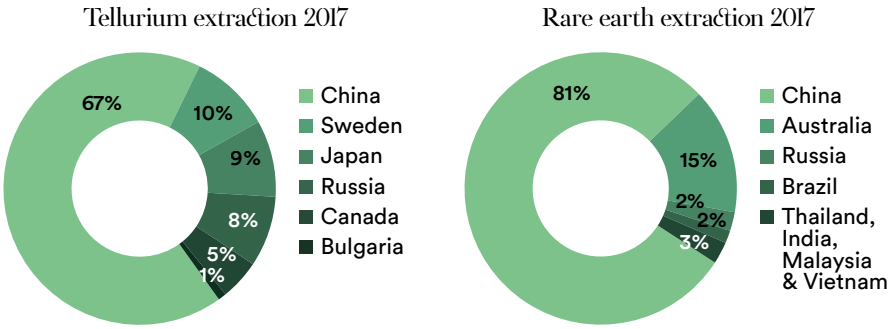
Reserves: **Chile contains 51% of lithium reserves, Indonesia contains 24% of nickel reserves, closely followed by Australia with 22%, and DR Congo contains 51% of cobalt reserves[82].**

Resources: **the majority of cobalt resources are found in DR Congo, Zambia, Australia, Cuba, Canada and Russia. For nickel, new discoveries have fallen dramatically and this has sparked explorations in more complex regions such as central-eastern Africa and the subarctic zone[83]. In contrast, discoveries of lithium have increased, led by Bolivia, Argentina and Chile followed by Australia, China, DR Congo, Canada and Mexico. European countries such as Germany, Czech Republic, the Spanish State, Portugal, Austria and Finland also have lithium resources[84].**

In contrast to the geographical distribution of cobalt, lithium and nickel, the extraction of other vitally important elements for the energy transition[XVII] is concentrated in China, which produced 81% of global rare earths, 67% of global tellurium and more than 50% of global aluminium in 2017.

XVI This percentage does not include extraction in the US, as these data are not published.
XVII Neodymium and dysprosium are used in electric car batteries and wind turbine magnets.

Graph 7.



Source: "Responsible minerals sourcing for renewable energy" by Earthworks [85]

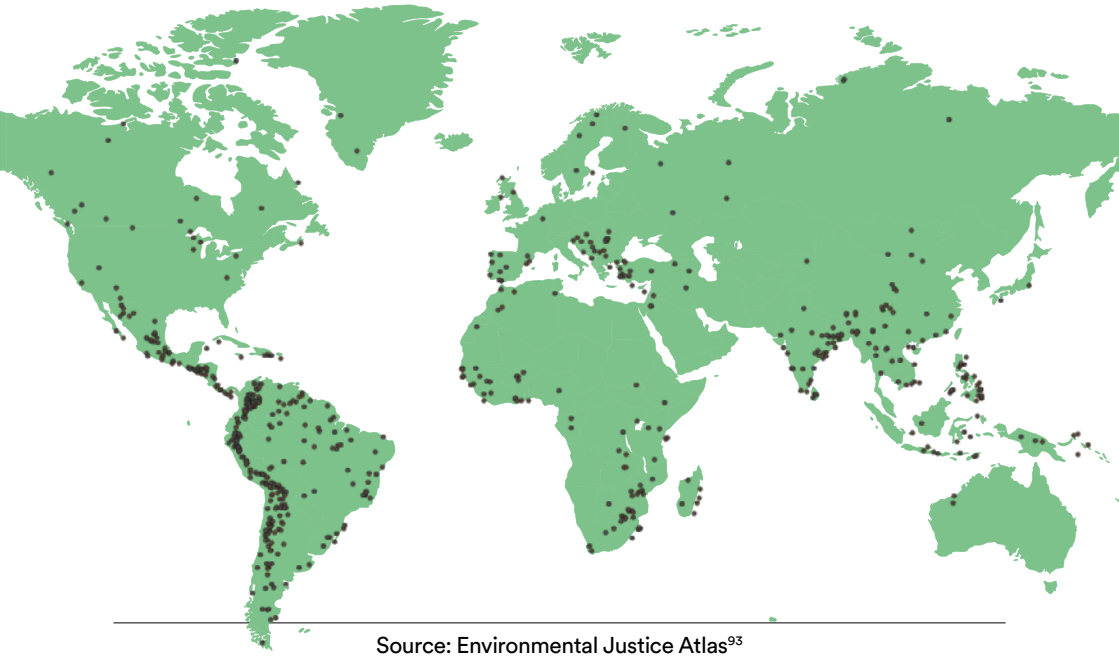
The impacts of mining on communities and ecosystems

The Earthworks study warns that in a future scenario like the one studied, the impacts of extraction and processing could be severe. Amongst various other concerns it details how cobalt mining can cause heavy metal pollution of the air, water and soil, and have impacts on the health of miners and the communities living near the mines. An example of this is found in DR Congo, where cobalt is extracted from one of the ten most densely populated areas in the world. Currently new mines are proposed in the DR Congo, Australia, Canada, Indonesia, the US, Panama and Vietnam.

In the case of lithium mining, the largest impacts may be felt in the "lithium triangle" of Argentina, Chile and Bolivia, through possible pollution of water sources and the effects this could have on the communities which depend on them. The same is happening with nickel mining, which could affect everything from freshwater resources to marine ecosystems in Canada, Russia, Australia, the Philippines, Indonesia and New Caledonia[86].

In fact, the impacts of mining are a chronic, structural and current issue. Numerous socio-environmental conflicts concerning mining are currently ongoing. The Global Environmental Justice Atlas (EJOLT)[87], compiled by researchers at the Autonomous University of Barcelona, lists 648 socio-environmental conflicts associated with mining worldwide. Amongst them we see conflicts related to the critical raw materials required for the energy transition: from the struggle of the cobalt miners in Bouazar, Morocco, who report working in conditions of near slavery[88], to the pollution of water and ecosystems by the Glencore-Katanga mines in the DR Congo[89], where activists suffer threats and violence. Other current serious areas of conflict are the acid rain and sulphur dioxide emissions (caused again by Glencore) in Zambia[90], the struggle of the indigenous Karonsi'e Dongi people against the mining company Vale S.A. in Indonesia[91] and the open conflict for lithium resources in the Uyuni salt flat in Bolivia[92], a fierce struggle between mining interests and protectors of the water resources and tourism which benefit the local population.

Figure 4.
EJOLT map of environmental conflicts in the "extraction of minerals and construction materials" category



Source: Environmental Justice Atlas[93]

The darkest side of these socio-environmental conflicts is reflected in the report "Defending Tomorrow"[94] by Global Witness. The study reveals that 2019 was the most lethal year on record for defenders of territories and the environment. 212 activists were murdered during that year and mining was the sector most often implicated, accounting for 50 deaths. There are cases around the world: Colombia, the Philippines, Brazil, Mexico, Honduras, Guatemala, Venezuela, India, Nicaragua, Indonesia, DR Congo etc. Disgracefully, this is not a one-off situation, but a dynamic with a long history which has caused 1,500 deaths in the past 15 years, 230 of which were connected to mining and agriculture [95].

If these statistics of repression are disaggregated by gender, we can see that one in ten of the activists were female, but this figure hides the structural violence female activists suffer daily. Women frequently take on tasks related to caregiving, social reproduction and community sustainability and take responsibility for children and elderly people, food, health and social well-being. At the same time, they are excluded and silenced in decision-making processes when mining companies arrive on the scene. If they manage to make it into positions of public visibility, they suffer from gender-specific threats ranging from personal discreditation based on their private lives to sexual violence and are stigmatised for rejecting traditional gender roles[XVIII].

Photo: A woman of the Arhuaco people during the occupation of a mine.
July 2017, Valledupar, Colombia.

XVIII Global Witness has documented the experiences of women like Cressida Kuala (Papua Nuew Guinea), Francia Márquez (Colombia) and Bai Bibyaon Ligkayan Bigkay (the Phillipines) in their struggles against mining projects.

Mining and recycling in Europe

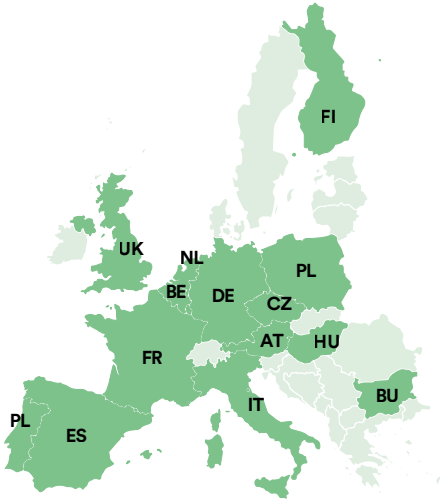
"Perceptions of uncertainty of supply of minerals can incentivise some countries to open mines that were previously considered unprofitable. If trade tensions continue and countries wish to guard against supply risks, they may invest more heavily in extractive industries."

Jane Korinek, OECD economist[96]

The high geographical concentration of some critical raw materials, along with tensions in the context of global trade[97] and Europe´s structural dependency on these elements for its industrial and energy systems have seen the EU set its sights on domestic mining as a viable solution. However, this return to domestic mining has three weak points which would complicate implementation and could lead to conflicts: (1) some raw materials are either not found in EU territories or have already been exhausted; (2) there is a severe lack of data on the topic, leading some lobbies to push the Commission to increase its data collection and mapping capabilities; (3) there is significant public opposition to this kind of undertaking in Europe.

Figure 5.

Extraction of critical raw materials in the EU. Units are tonnes and percentage contribution to EU supplies. 2010-2014.



Austria (AT)
Natural graphite 382 (<0%)
Tungsten 403 (8%)
Vanadium 25 (<1%)

Belgium (BE)
Indium 30 (19%)
Vanadium 927 (9%)

Bulgaria (BG)
Bismuth 0.8 (<1%)

Czech Republic (CZ)
Coking coal 4,936,774 (8%)
Vanadium 5 (<1%)

Finland (FI)
Cobalt 1,233 (66%)
Germanium 13 (28%)

France (FR)
Hafnium 30 (71%)
Indium 17 (11%)
Silicon metal 112,000 (19%)
Vanadium 5 (<1%)

Germany (DE)
Baryte 55,874 (9%)
Coking coal
5,5713,600 (9%)
Gallium 25 (26%)
Natural graphite 179 (<1%)
Silicon metal 29,519 (5%)
Vanadium 168 (2%)

Hungary (HU)
Coking coal
11,855,520 (19%)
Vanadium 0.4 (<1%)

Italy (IT)
Vanadium 13 (<1%)

Netherlands (NL)
Vanadium 220 (2%)

Poland (PL)
Coking coal
11,855,520 (19%)
Vanadium 0.4 (<1%)

Portugal (PT)
Tungsten 843 (17%)

Spain (ES)
Fluorspar 105,685 (13%)
Silicon metal 53,500 (9%)
Tungsten 749 (15%)
Vanadium 5 (<1%)

UK (UK)
Baryte 33,819 (5%)
Coking coal 263,400 (<1%)
Fluorspar 34,684 (4%)
Vanadium 277 (3%)

Source: Report on critical raw materials and the circular economy, European Commission[98]

In response to the fact that "only 12% of materials used [in the EU] come from recycling"[99], the European Commission proposes to promote the circular economy[XIX] to increase the recycling and reuse of materials. However, the limitations of recycling are evident and industry is well aware of them. The European Mineral Resources Confederation (EUMICON) declared that "as recycling efforts will be insufficient to meet demand, the supply of primary raw materials is irreplaceable" and demanded a long-term strategic plan to tackle the issue.

The geopolitical context is very important in the search for so-called "sovereignty over natural resources": "how can the European Union ensure that it does not end up a middle power, caught between the two hegemons – the United States and China?" is the question posed by Maroš Šefčovič, Vice-President of the European Commission, at the European Strategy Conference in October 2019. Responding to this question required a well-structured, strategic plan based on firm premises, and this is exactly what the European Commission published in March 2020 in the form of its Industrial Strategy Plan[100]. The plan shows which elements will be key to the green transition, the digital transition and competitiveness on a global level. The brief text of the plan emphasises the need to establish industrial alliances for developing hydrogen, low-carbon industries, cloud computing and industrial platforms and raw materials.

XIX The Commission is very insistent regarding the potential of the circular economy and uses the term 20 times in the 28-page European Green Deal document.

Regarding this last alliance, we can identify several trends in the EU concerning domestic mining of raw materials:

European Investment Bank (EIB): **even though the EIB's new energy policy ends its investments in the fossil fuel sector, includes an "eligibility" criterion for projects applying for finance which requires them to be related to "the supply of critical raw materials required for EU low-carbon technologies"[101].**

A change in public opinion: **the industry expects public opinion to be one of the main obstacles to a return to domestic mining. To mitigate this, the European Mineral Resources Confederation (EUMICON) asks that the raw material extraction industry be perceived within the EU as a *sunrise industry*[xx]. Within this context, projects such as Mireu[102], funded by the EU, have been initiated to understand European perceptions of mining.**

The creation of a new market or the dismantling of environmental regulation? **The costs of domestic mining could be uncompetitive compared with Chinese or African imports due to regulatory frameworks such as Natura 2000, the Birds and Habitats Directive or the water and biodiversity framework directives. The new industrial strategy could put pressure on the EU to weaken these regulatory frameworks in the name of increasing the global competitiveness of the EU mining industry.**

xx *A sunrise industry* is a new or relatively new industry expected to grow and become important in the future.

The geopolitical perspective: Ursula von der Leyen announced on the 10th September 2019 that she would lead a "geopolitical" European Commission. To tackle critical raw materials dependencies, the Commission proposes that free trade agreements "incentivise" other countries to raise their environmental standards. In particular, the new Commission prioritises the African continent (which possesses large reserves of critical raw materials such as coltan and platinum[103]) and the reform of the World Trade Organisation (WTO) conflict resolution mechanisms[104].

Data collection and digitalisation: the green and digital agendas are the two main European priorities. The European Commission intends to increase its capacity to standardise and collect information on critical raw material resources within its borders. The use of new technologies such as next generation Copernicus satellites could improve on existing data.

However, perhaps the main stumbling block for European domestic mining will be the public rejection which tends to be triggered by mining activity. There are already open conflicts concerning the extraction of gold in Bulgaria, Romania and Greece, lignite in the Balkans and potash in Catalonia, amongst many others[105]. The clearest example of this public rejection was the outcry triggered by the arrival of *fracking*[xxi] at the beginning of 2010. In a short period of time, a strong citizen reaction was sparked in all corners of the world: Argentina, Brazil, Chile, Colombia, Mexico, Tunisia, Algeria, South Africa, Canada, the US, Australia and the EU, which saw numerous local platforms spring up in Ireland, the UK, Romania, France, Poland and the Spanish State[106]. These local responses – along with the creation of national, regional and international networks – were able to halt the advance of *fracking* and put an end to most of the proposed projects, which were shown, in the end, to have been speculative[107].

Access to resources: external debt and free trade and investment agreements

Like security policies, macroeconomic measures can enable access to critical raw materials with varying levels of subtlety. In the first instance, external debt can force countries to extract and export raw materials to cover repayments. In addition, trade and investment agreements are the perfect way to help protect extractive activities.

External debt and resource extraction have a long history of interrelation. In the 1980s, the sudden increase in interest rates and the international fall in the price of raw materials led to a debt crisis in the Global South.

xxi *Fracking* is an aggressive technique which involves fracturing rocks which contain gas and/or oil in order to extract them. The rocks are fractured by the injection of a cocktail of chemical components, sand and large quantities of water, and the associated environmental risks caused alarm.

The countries affected resorted to loans from the International Monetary Fund (IMF) and the World Bank (WB) which, through conditions tied to the loans, led to the privatisation of public goods and services, reduced public spending, fiscal reforms and the opening of national markets to the export of raw materials through transnational corporations largely based in the Global North. All of this in order to service debts[108].

Today, although COVID-19 is again showing the extreme vulnerability of these economies to demand levels and the international context (reduced demand levels – reduced prices – fiscal deficits), the IMF continues to exhort indebted countries to follow the same strategies regarding external debt repayments and the extraction of natural resources. For example, in the middle of the COVID-19 crisis in April 2020 the IMF recommended that Mozambique (classified as being in the highest level of debt crisis) should continue with plans to restart economic growth and achieve a better fiscal balance through natural gas exports[109]. China transferred 150,000 million dollars to African governments (Angola, Ghana Kenya, Ethiopia, Cameroon, Mozambique, Ivory Coast, Zambia, DR Congo and Nigeria) and state-owned companies to ensure the supply of raw materials and the success of its Belt and Road Initiative (China's global infrastructure project)[110].

In turn, free trade and investment agreements allow for protection systems and the inclusion of clauses for the resolution of conflicts between investors and states which allow investors to circumvent national courts and present lawsuits in private arbitration tribunals. These tribunals end up making decisions on topics which affect communities, indigenous peoples and entire countries, and endanger the self-determination of indigenous people, human rights and ecosystems. Some examples of such lawsuits are:

- **The US company Occidental Petroleum (Oxy) demanded that Ecuador pay 1,700 million dollars plus interest after the country declared that an operation contract had expired in 2006 after pressure from indigenous people and social movements within the country.**

- **The Canadian company Crystallex made a claim against Venezuela, demanding 1,202 million dollars plus interest in compensation for the cancellation of a mine's operation contract.**

- **In 2017 Zamin Ferrous from the UK filed a claim against Uruguay for the sum of 3,535 million dollars in relation to a new mining law which negatively affected its operations.**

- **In 2019 the US company Odyssey Marine Exploration registered a claim against Mexico for a sum of 3,540 million dollars after it was unable to obtain the necessary permits to advance its overseas phosphate mining projects off the coast of southern Baja California.**

- **The British-South African company Anglo American filed a lawsuit against Venezuela in 2014 for 400 million dollars after its nickel mining concessions were cancelled due to the company's non-compliance with the conditions in the contract.**

Companies in extractive industries, particularly oil, gas and mining, profit hugely from these clauses and there are currently 140 active lawsuits filed by companies against states[111]. The negotiations of the EU-Mercosur free trade agreement[112], the treaty signed at the beginning of 2020 with Vietnam (a country with cobalt reserves[113]), CETA, an agreement between Canada and the EU which puts Member States at risk from Canadian mining companies[114], or the Energy Charter Treaty, which enabled the claim made by Uniper against the Netherlands[115]: these are all instruments which can be used against any country. Free trade and investment agreements give corporations the possibility to file lawsuits against any country which tightens regulations or introduces progressive laws which could affect their activities.

The post-extractive transition

In this chapter we have explored the bottlenecks in the supply of raw materials for the global energy transition, which could serve as a reference for the EGD. The scenarios were constructed without questioning economic growth and without considering energy demand management which could lead to degrowth. Based on these premises, the demand projections for raw materials such as cobalt, lithium or nickel would imply a large increase in extraction which, at some point, will meet its biophysical limit – that is to say, there will not be enough of these raw materials to manufacture renewable energy generation and energy storage technologies. This is without even considering that the renewables sector will be competing with other sectors for the same critical elements.

Given the increased strategic value of certain resources, it follows that the pressure on the territories where the resources are extracted and the communities living there would increase. Indebtedness or free trade and investment agreements, helped along by security policies, can be used as tools to access resource deposits: all justified by the need for resources.

In this context, it is certainly a complicated task to propose alternatives which go beyond the contentious concept of “responsible mining”. However, a good point of reference and source of inspiration is the report “A Just(ice) Transition is a Post-extractive Transition”[116]by War on Want and the London Mining Network. These organisations assert that, as discussed earlier, forecasting studies looking at mining never point to the need to reduce the energy and resource demands of the Global North. On this basis, the report develops proposals based on two central principles:

Indispensable extraction, developed by Eduardo Gudynas, which proposes that only the resources necessary to safeguard human wellbeing should be extracted, operating within ecological limits, and Resource sufficiency, explored by Friends of the Earth, which is based on equity and wellbeing within ecological limits[117].

Building on this, War on Want and the London Mining Network propose:

1. **Establishing limits, referencing the work done by the Resource Cap Coalition on "energy budgets"[118] or the idea of focusing discourse around budgets and how these budgets should be determined in terms of social, environmental and climate justice.**

2. **Just demand: whom and what should this demand serve? This is particularly relevant in the case of critical raw materials such as cobalt, nickel and lithium, whose reserves are already predicted to be insufficient to cover demand.**

3. **Urban mining: instead of underground resources, this exploits "above-ground" resources which have already been extracted and can be reused. The study recognises that there is insufficient information on the existence of materials at the surface, but urban mining could reduce primary demand and reduce the pursuit of extraction.**

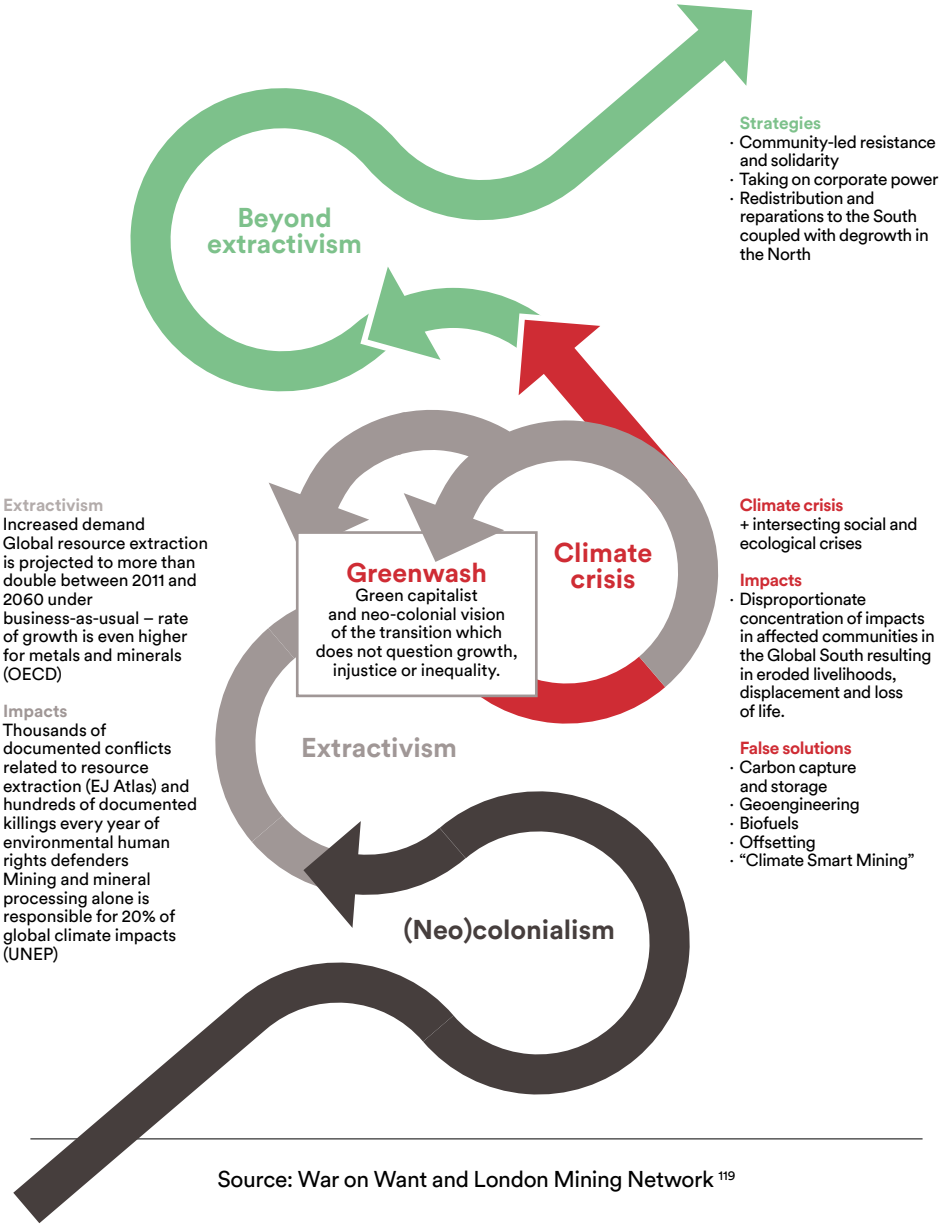
4. **Circular economy and end-of-life: a strong new regulatory framework is proposed in order to make companies take responsibility for their products. The cost of recycling is expected to decrease by 15%, in contrast to mining costs, which are rising. The problem is that recycling requires more labour and less capital than mining and is therefore less attractive to investors[XXII].**

5. **Solidarity with communities resisting mega-mining: their demands and visions should be heard, which are diverse and context- and location-specific.**

XXII Primary extraction is energy- and capital-intensive, whereas secondary extraction is much more labour-intensive (OECD, 2019: 106).

Figure 6.

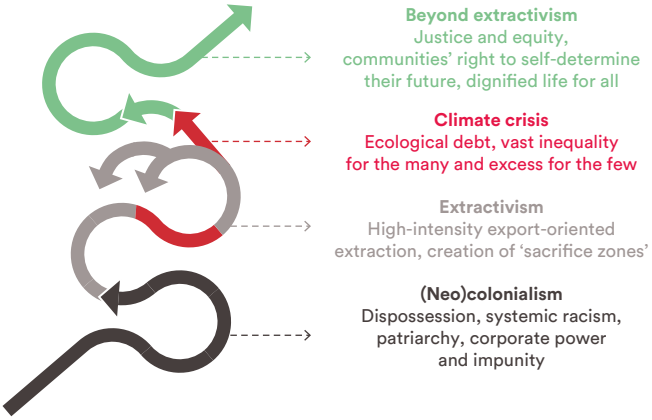
The post-extractive transition.



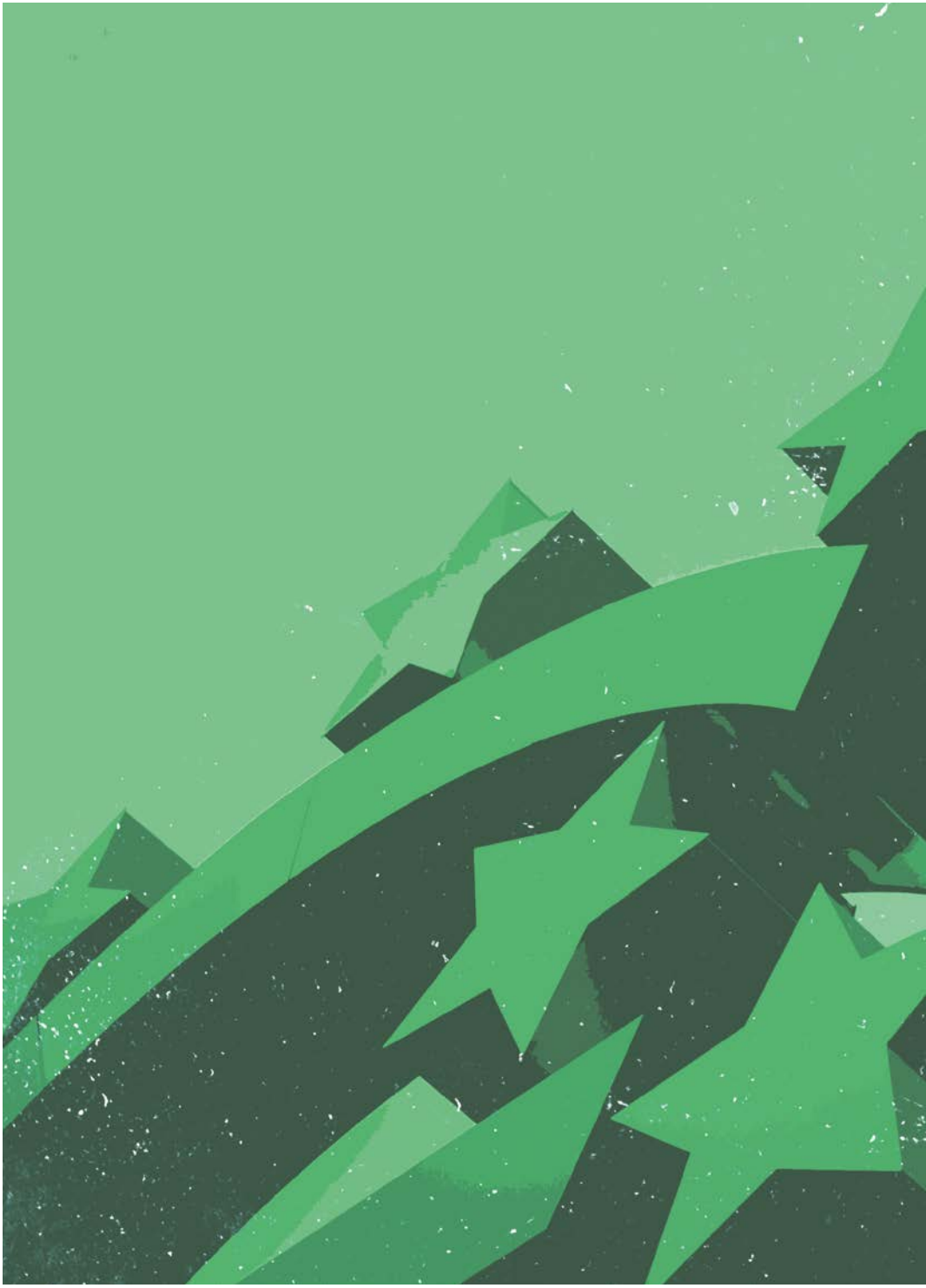
Source: War on Want and London Mining Network [119]

This infographic describes the transition from a neo-colonial model, marked by dispossession, systemic racism, patriarchy and corporate power and impunity to a post-extractive model characterised by justice and equity, the right of communities to self-determine their future and a dignified life for all.

We will add just one more example, which is the work of the Global Campaign to Reclaim Peoples Sovereignty, Dismantle Corporate Power and Stop Impunity, a coalition of 200 social movements, networks and organisations which works to challenge the power of large corporations. The Global Campaign proposes an International People's Treaty and the establishment of a Binding Agreement within the United Nations which would regulate the operations of transnational companies[XXIII].



XXIII For more information about this initiative, see the Dismantle Corporate Power website: https://www.stopcorporateimpunity.org/



6.
The green recovery and the European Green Deal

6.
The green recovery and the European Green Deal

"The recovery plan turns the immense challenge we face into an opportunity, not only by supporting the recovery but also by investing in our future: the European Green Deal and digitalization."

Ursula von der Leyen (27/05/20)[120]

After having undertaken a critical reading of green growth, the critical strategic pillar of the EGD, and explored the limitations and impacts which will face us if we create a massive demand for critical raw materials, we are now ready to explore how the EGD is to be financed. This is, without a doubt, a key chapter for understanding the importance of what is happening during the pandemic.

The arrival and spread of COVID-19 into a social and economic fabric still battered by the 2008 financial crisis has simply exposed existing weaknesses, worsening the next economic crisis and accelerating its arrival. The astronomical scale and phenomenal speed of the injection

of money and securities into the economy by public institutions, from the purchase of public and corporate bonds and low-interest lending to the purchase of promissory notes, subsidies, emergency contracts and public-private partnerships[xxiv] is unprecedented. What is more, the EU calls for a large part of this support to be directed towards the green transition and the digital transition: certainly an unusual situation.

Within this institutional response, we should certainly make a distinction between two types of policies: policies for the bailout of the productive economy and economic recovery policies. This distinction does not imply that these types of policies are unrelated and do not influence or contradict each other. Rather, it is a way of showing that, firstly, the short-term bailout measures display a marked lack of conditions which would align them with the much-publicised aims of environmental transition and decarbonisation, whilst secondly, the proposed economic recovery measures have been justified based on the idea of using this opportunity to drive a green, digital transformation and modernisation of the economy. As previously discussed, the aim of a green recovery from the crisis is new compared with other historical moments of economic crisis where environmental policies were subordinated to economic recovery policies.

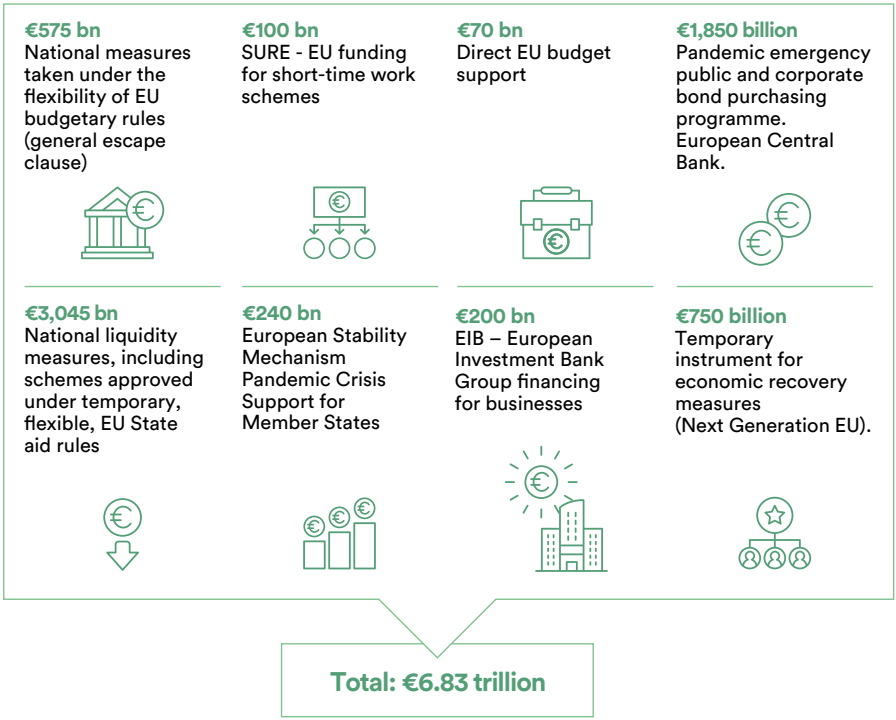
We will now go on to look at the foundations of these packages of bailout and economic recovery policies.

xxiv These are arrangements whereby the private sector constructs and manages goods or services which were traditionally public, like hospitals, schools, roads, railways, water supplies, sewerage or energy supplies. Backed by public guarantees, they transfer risks to the public sector.
For more information see: https://odg.cat/es/publicacion/cpp-herramienta-privatizacion/

The public sector goes to the rescue of the private sector

According to European Commission data, the total cost of measures adopted to tackle COVID-19, both by European institutions and Member States, comes to almost 7 trillion euros[121], including the ECB's bond purchase programme and the Next Generation EU (NGEU) instrument which we will look at in the section on economic recovery.

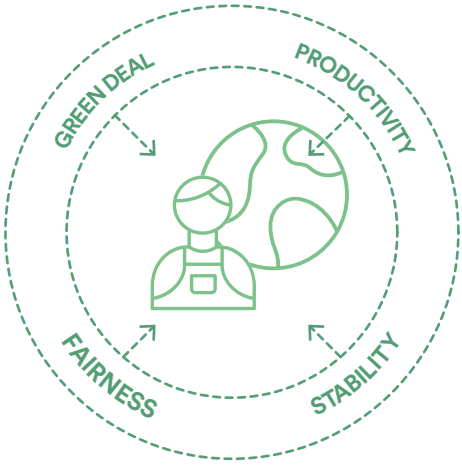
Figure 7.
European response to the coronavirus.



Created by the author based on an infographic by the European Commission[122]

All of these actions, implemented very quickly by the standards of European institutions and public institutions in general, have aimed to rescue the economy through an unprecedented set of changes which has included, for example, the temporary suspension of the Stability and Growth Pact (SGP)[123], the central instrument used to enforce the economic discipline of Member States. The European Semester (the framework used to coordinate the economic policies of European countries) has also refocused its strategy to promote "competitive sustainability" and build an economy which functions for people and the planet, based on four dimensions: economic stability, social fairness, the Green Deal and productivity and competitiveness.

Figure 8.
Competitive sustainability within the European Semester.



Created by the author based on an infographic from the European Commission[124]

In the following sections we will look at what this rapid response to save the economy and the steps taken towards the green recovery have entailed.

The role of European financial institutions

The first actor we will consider is the European Central Bank (ECB). Following in the footsteps of the US Federal Reserve, the ECB has intensified its public and corporate debt purchasing programme. In 2014 the ECB created a financial asset purchasing programme in a format known as quantitative easing (QE), whereby it purchased debt from Eurozone countries. A short while later it extended its corporate bond purchasing programme, which has benefited a select club of 300 companies including ACS, Adecco, Allianz, BASF, Bayer, BMW, Coca-Cola, Danone, E.ON, Enagás, ENEL, ENI, Michelin, Nestlé, Peugeot, Renault, Ryanair, Unilever and many others.

On the 24th of March 2020, due to the impacts of the coronavirus, the ECB activated a sovereign and corporate bond purchasing programme costing 750,000 million euros[xxv], called the Pandemic Emergency Purchase Programme (PEPP). With this measure, the ECB intended to increase access to credit for states and corporations ever further. The beneficiaries of this extension of the bond purchasing programme include companies such as Total, Airbus, Shell, Akzo Nobel, E.ON, OMV, Carrefour, Repsol, Naturgy, Iberdrola, CEPSA, Suez and more than 50 multinationals[125]. These are some of the most polluting corporations in the EU[126].

xxv The programme was extended by 600 billion euros on June 4th 2020 and by another 500 billion euros on the 10th December 2020.

In this regard, it is important to highlight the following:

1. **No environmental, social or economic conditions are applied to companies whose bonds are purchased. If we look at the information available on the PEPP, in the Q&A section there is a very specific question: are green criteria included in the PEPP? The answer is that the selection criteria are the same as for the programme containing the PEPP, the Assets Purchase Programme (APP)[127]. In the information on the APP we find another clear question: does the Eurosystem favour or exclude certain industrial sectors? The response is conclusive: there is no negative or positive discrimination based on environmental or social criteria[128].**

2. **When a public institution like the ECB buys bonds issued by a company in the fossil fuels or mining sector for 5 to 10 years with no social or environmental criteria, it is creating a relationship where the public and extractive sectors share risks until the bonds are returned. That is to say, a financial partnership is established in which the companies need to perform well in order to be able to pay back the loaned funds and interest. This means that if the companies do badly, the non-payments are assumed by public institutions, and if they do well and return the money, this will probably be at the cost of pollution as the loan was given free of pre-established conditions.**

A good example of just how good the PEPP is for large companies can be found in the hydrocarbons sector itself. Shell, Repsol, Total and Cepsa, amongst others, were suffering a perfect storm: falling oil prices[xxvi], an unprecedented reduction in fossil fuel consumption due to lockdowns[xxvii] and tumbling share prices, in some cases a fall of 50% compared to the beginning of the year. The ECB's debt purchasing programme has been an oxygen pump for the oil companies which, under these conditions, would have found themselves in severe financial difficulties. At the same time, as discussed earlier, this is a very risky operation for a public institution to undertake as it assumes that the companies can return the money by the specified dates under very unfavourable conditions[129].

In the case of the ECB, support is mostly directed towards the productive and industrial economy. In this first phase of the pandemic, many large corporations lacked the necessary liquidity to survive the temporary paralysis of their productive activities and have resorted to support from the public sector. Nonetheless, however high their fixed costs may have been, it is reasonable to argue that these companies, as represented by their shareholders and directors, have been living beyond their means. Given their size, they should have been able to implement foresight and prevention mechanisms which would have allowed them to survive at least the first months of the virus' spread.

For its part, the EIB, the European Union public investment bank, has created an emergency package worth 40,000 million euros[130] and a guarantee fund of 25,000 million euros to mobilise private capital to a value of 200,000 million euros[131]. These two mechanisms are intended to facilitate lending through intermediaries like commercial banks and

xxvi This fall led to oil futures selling for a negative price, an unprecedented situation. More information in: Walker, A., "US oil prices turn negative as demand dries up", *BBC News*, 20th April 2020. Accessed at https://www.bbc.com/news/business-52350082

xxvii The demand from January to July was 10.5 million barrels per day, fewer than in 2019. More information in: IEA, *Oil Market Report*, September 2020.
Accessed at https://www.iea.org/reports/oil-market-report-september-2020

support small and medium-sized enterprises (SMEs). However, in the name of business confidentiality, information on who the ultimate beneficiaries of these funds are is mostly unknown, a situation which reduces the transparency and traceability of public spending. What is more, there is also a clear lack of environmental and social criteria, which goes against the energy policy approved by the Bank itself for the coming years[132] and its self-proclaimed status as a public finance sector climate leader in the Climate Bank Roadmap 2021-2025[133].

The role of States

To make this enormous intervention possible, the European Union, using "a temporary framework for state aid intended to support the economy in the context of the current COVID-19 outbreak", has loosened or even suspended very important parts of its competition policy[134], a cornerstone of the EU itself used to ensure free competition between countries. Therefore, direct aid from States to companies has been permitted, and even the recapitalisation[xxviii] of companies by States has been allowed, which essentially confers the authority to partially nationalise companies within the laws of the market and the limitations imposed by the European Commission.

So far, each country can use the majority of the funds in the way in which its own institutions consider the most appropriate[135], within the limits established in current European regulations. If we take a look at national policies, in particular those of France, Germany and the Spanish State, we see that the first wave of the state stimulus package has been

xxviii Recapitalisation refers to a process whereby a company increases its capital holdings due to a need to overhaul its structure and respond to its short- and medium-term obligations. More detail on recapitalisation during the pandemic can be found here: https://ec.europa.eu/commission/presscorner/detail/en/ip_20_838

directed to three very polluting sectors: the automotive sector, civil aviation and energy[xxix].

The German government, for example, managed to persuade Lufthansa's shareholders to accept the State's presence as a fellow shareholder in the company. The State became the majority shareholder, with a share of 20%, in return for a cash injection of 9,000 million euros delivered through capitalisation and direct aid by the state bank KfW. The French government also had to save its own airline Air France using 7,000 million euros in the form of loans and guarantees, and use other instruments to support Airbus, although in these cases the government has not increased its capital stake in the companies[136]. Nonetheless, the French government already has an elevated level of influence within the companies, possessing 14% of Air France shares and 16% of Airbus shares.

In the case of the Spanish State, the government agreed to guarantee the loans which the once Spanish air travel company Iberia obtained for from various banking entities (specifically, 750 million euros for Iberia[xxx] and 260 million for Vueling) after they refused to grant the loans without government guarantees. These guarantees mean that, in the case of non-payment, the Spanish government must use taxpayer's money to cover 70% of the costs. The guarantee is implemented through the Official Credit Institute (Instituto de Crédito Oficial, ICO), which is a type of public bank but less structured and with more limited competencies

xxix These sectors are characterised by large multinationals supported by public policy decisions in favour of privatisation, deregulation and productive and financial globalisation both within the EU and within global institutions, through which they distance themselves further and further from the territories they operate in and the associated social and environmental responsibilities.

xxx There is no evidence that the Spanish government's agreement to act as Iberia's guarantor is subject to any environmental, economic or social conditions. This is surprising considering that in Iberia's case question marks surround not only its cash management, but its solvency. The bond credit rating businesses S&P and Moody's have downgraded the IAG group to –BBB, which is one step above a "junk" bond, and both express concerns about the future viability of the company in the time period from now until 2023. Iberia's case is even more complex because in order to operate in the domestic European market, the EU requires that more than half of the company's capital comes from the EU. Iberia is part of the IAG group, alongside British Airways and other smaller companies, and after the departure of the UK from the EU, the majority of IAG's capital will be in non-EU hands.

than many of its counterparts across Europe. In contrast to Germany, the Spanish State does not have a fully-functioning public bank and leaves the risk analysis of companies seeking support to private banks. More recently, the Spanish government rescued the airline Air Europa (which it considers strategically important) for 475 million euros[137]. This was done through the Solvency Fund for Strategic Companies (Fondo de Apoyo a la Solvencia de Empresas Estratégicas)[138], an instrument created during the COVID-19 crisis.

Another aspect to take into consideration is that the fall in large companies' share prices on the stock market has thrown the potential for investment funds and other financial actors to purchase shares for next to nothing into sharp relief. The Spanish government, for example, needed to step in to protect strategic companies from more than 10% of their shares being purchased by non-EU capital[139,140], establishing its right to impose a veto where necessary.

All of these aids and public guarantees do not protect the rights of working people because they do not ensure that corporations will not restructure the workforce in the short- or medium-term. The president of Iberia announced the need to reduce fixed costs to adapt to the new situation, including staff costs[141], and 22,000 jobs at Lufthansa are in jeopardy[142,143]. At Air France, one of the conditions imposed by the French government is to ensure the economic viability of the company which, given the current level of global competition, will inevitably affect the number of employment positions.

In the automotive sector, the German and French governments are offering state-funded assistance on two basic conditions: the relocation of high value added activities to their own countries, and investment in electric cars and electric batteries. On these conditions, the French government has offered 7,000 million euros to Renault through state guarantees and direct loans (the French government owns 15% of Renault shares). The German government is dedicating funds to investments in electric cars and the development of electric batteries and hydrogen power[144], but the

industry is asking for even more state investment[145]. Both countries intend to bring their own industries to the cutting edge (as even before the crisis they were falling behind Asian and North American competitors) and probably intend to become competitive in electric car manufacturing.

The starting point in the Spanish State was very different to those in France and Germany, because despite having the second largest car manufacturing industry in Europe[146], the Spanish State has not had its own automotive company since SEAT was acquired by Volkswagen. Relocation (which seems to be a trend in the automotive industry) and analyses solely based on profit have led Nissan to leave the country after years of investor apathy, despite being 44% owned by Renault and having received various state subsidies during its time in the country.

Nonetheless, the Spanish State, disregarding home-grown companies, has initiated a plan of incentives to buy both fossil fuel and electric vehicles, with the aim (or pretext) of renewing the fleet of vehicles used within the State, as has the French government[147]. The German government, on the other hand, has only incentivised the purchase of electric vehicles[148].

Box 3.

But... who exactly are we bailing out? Financialisation and the extractive elites

We keep referring to the names of companies when we list the beneficiaries of state assistance, but financialisation[XXXI] – that is to say, the process by which financial actors, instruments and institutions have become extraordinarily powerful – has changed everything. Therefore, when we bail out a company, we also:

Bail out its shareholders. Amongst them, we frequently come across names like BlackRock[XXXII], Vanguard, Capital Group or State Street, investment managers which are shareholders in practically all large corporations: Banco Santander, Deutsche Bank, BNP Paribas, ING, Renault, Volkswagen, Crédite Agricole, JP Morgan, ExxonMobil, Chevron, Shell, Total, BP, Repsol, Airbus, Inditex, Lufthansa, Google, Amazon, Facebook, Apple, Microsoft and a plethora of others.

Bail out its dividends. If no conditions are set to control the distribution of dividends, the profits are shared by the shareholders. A recent Oxfam Intermón report[149] claims that despite the pandemic, 20 Spanish companies have distributed 9,500 million euros in dividends. Among them are Repsol and ACS, beneficiaries of ECB bond purchases.

Bail out individual, named managing directors. Bernard Looney (BP), Florentino Pérez (ACS), Antoni Brufau (Repsol) and Larry Fink (BlackRock) have astronomical salaries (between 1 and 10 million euros per year) connected to the share price of their company. As an example, the Oxfam report shows that the highest salary in ACS is 531 times higher than the average salary within the company.

XXXI For a more detailed definition, see: https://odg.cat/en/financialisation/

XXXII BlackRock is an investment management company with the largest portfolio of shares in fossil fuels in the world, with a total value of 87,300 million dollars. The company has obtained a consultancy contract to study how to integrate environmental, social and governance (ESG) factors within EU banking supervision. Numerous organisations have condemned this clear conflict of interest and the risk it carries for the distribution of investment. BlackRock has criticised and blocked progress on environmental policies, voting against or abstaining in 82% of votes on proposals in the shareholder meetings of the companies it has shares in. https://www.blackrocksbigproblem.com/

The green recovery and the European funds

On the 14th of January 2020 the European Commission announced the European Green Deal Investment Plan, known as the Sustainable Europe Investment Plan (SEIP). The objective of this plan is to mobilise[xxxiii] 1 trillion euros in "sustainable investment" over the next 10 years using various instruments including the EU budget and other associated instruments, in particular InvestEU[xxxiv]. The plan also includes the Just Transition Mechanism which aims to guarantee a green and just transition for the areas most affected[xxxv] by the EU transition[xxxvi].

However, the SEIP has been eclipsed by the arrival of COVID-19 and new proposals for funding the green recovery. In May 2020 a package of measures was approved which combines the European budget or Multiannual Financial Framework (MFF) for the next seven years with a specific recovery programme called Next Generation EU (NGEU), the new key weapon in the fight against the pandemic. In the same month, changes were also proposed to InvestEU to respond to new needs, using its ability to capture private investment with public guarantees[150].

xxxiii In this case, the word *mobilise* indicates that part of the public funds will be used to attract private investment. That is to say, the EU will not invest 1 trillion euros of its own money but intends to mobilise this sum by offering a series of advantages and guarantees to investors who decide to participate in its projects.

xxxiv InvestEU is the continuation of the European Fund for Strategic Investment, known as the Juncker Plan, an EIB and European Commission initiative to mobilise private capital for strategic investments between 2016 and 2018.

xxxv Mainly for people working in the extraction of coal, lignite, oil shale and peat or regions with major industries responsible for greenhouse gas emissions.

xxxvi On the 15th September 2020 the European Parliament voted in favour of including gas projects in the transition fund just a few days before making its emissions reduction targets more ambitious: on the 6th of October the target was increased to a 60% reduction by 2030. More information in: Simon, F. (16th September 2020). "Parliament vote to allow gas projects in the Just Transition Fund". *Euractiv.com.* Accessed at www.euractiv.com/section/energy/news/parliament-votes-to-allow-gas-projects-in-the-just-transition-fund/

Both the European budget and NGEU aim to contribute to the transformation of the European Union in line with its major policy directions: in particular the European Green Deal, the digital revolution and resilience.

In fact, the European budget and NGEU contribute jointly to various funds such as InvestEU, Horizon Europe, the European Agricultural Fund for Rural Development and the Just Transition Fund.

Table 6.

MFF and Next Generation EU budget headings in millions of €

	Total MFM (millions of €)	MFF-NGEU-budget headings (millions of €)	Next Generation EU (millions of €)
1. Single market, innovation and digital	**132,781.00**		
Horizon Europe		75,900.00	5,000.00
InvestEU		2,800.00	5,600.00
2. Cohesion, resilience and values	**377,768.00**		
REACT EU			47,500.00
Recovery and Resilience Facility			672,500.00
RescEU		1,106.00	1,900.00
Financing costs Next Generation EU		12,914.00	
3. Natural resources and environment	**356,374.00**		
European Agricultural Fund for Rural Development (EAFDR)		77,850.00	7,500.00
Just Transition Fund		7,500.00	10,000.00
4. Migration and border management	**22,671.00**		
5. Security and defence	**13,185.00**		
6. Neighbourhood and the world	**98,419.00**		
7. European public administration	**73,102.00**		
TOTAL	**1,074,300.00**		**750,000.00**
Climate action 30%	**322,290.00**		**225,000.00**

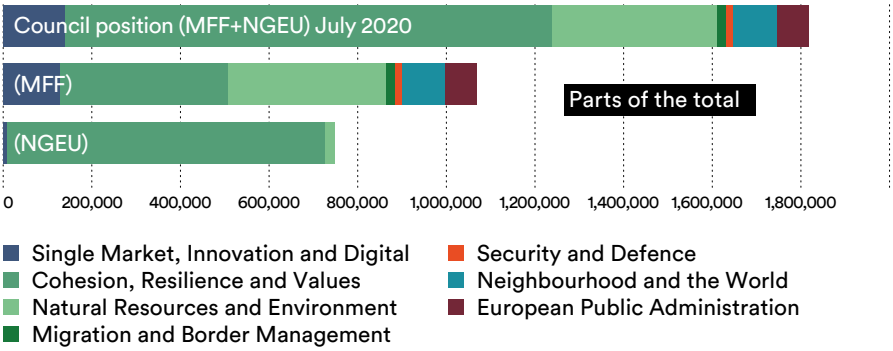
Note: the table rows do not represent a complete breakdown of the European budget, as the table would become unnecessarily long. Detail is only given on headings which are connected with NGEU. Therefore, the first column shows the total allocation to each budget category. The second, in contrast, aims to show the relation between the European budget (MFF) and NGEU, whether they each contribute a share or whether only the MFF contributes, as in the case of NGEU financial costs. The ultimate column shows the full detail of NGEU.

Source: compiled by the authors using data from CAN Europe[151]

The total comes to 1,824,300 million euros with a climate action contribution of 547,290 million euros[xxxvii] over the next 7 years.

Graph 8.

European budget 2021-2027, Next Generation EU and their combined total



Total commitments over MFF period, in milions of euros

Note: the seven categories correspond to chapters of the European Budget.

Source: created by the authors using European Commission data[152]

xxxvii It is important to note that these sums are spread between 2021 and 2027 for the MFF and between 2021 and 2023 for NGEU.

Next Generation EU and the Recovery and Resilience Facility

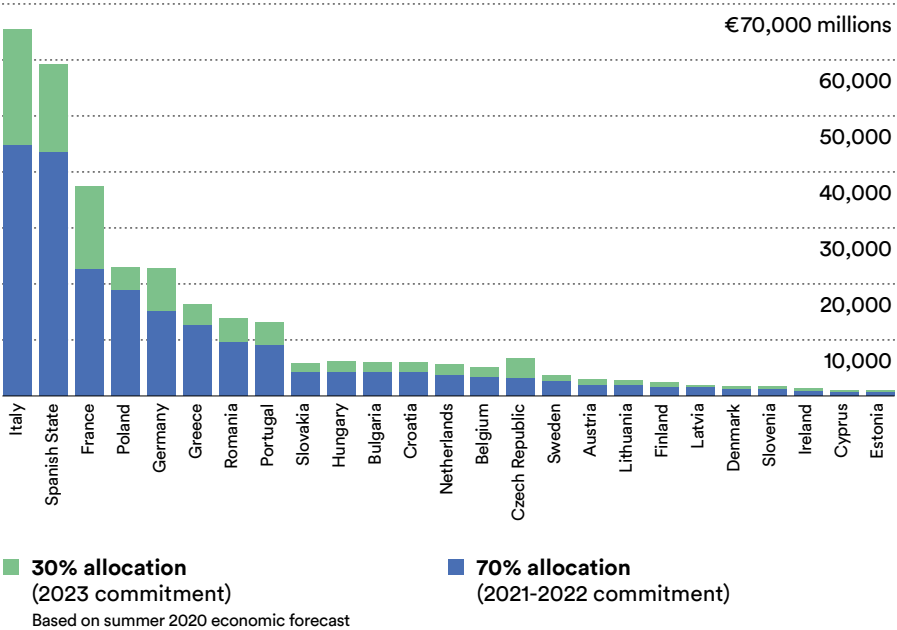
NGEU is a temporary instrument which will drive recovery measures with an allocation of 750,000 million euros for "a sustainable and resilient recovery, job creation and repairing the damage caused by COVID-19, as well as supporting green and digital priorities"[153]. 360,000 million euros is allocated to loans and 390,000 million euros to grants.

In order to attract funds from capital markets, the Commission will issue bonds to the value of 900,000 million euros over the time period up to 2026, which will turn the EU into the largest supranational issuer of debt in the world. The issue of European bonds is a historic act which was strongly resisted by Germany, which opposed the pooling of debt[154]. Funds raised through these Eurobonds will be directed into NGEU and the SURE fund, an aid instrument for mitigating the risk of unemployment in emergencies[155].

Amongst the various NGEU instruments, the Recovery and Resilience Facility (RRF) is the most prominent, with an allocation of 90% of the total budget. These 672,500 million euros (312,500 in subsidies and 360,000 in loans) are spread over various projects and reforms and 70% will be spent in 2021 and 2022. This is a lot of spending over a short timeframe which is intended to contribute to the EGD and restore economic growth and competitive sustainability as defined above.

Graph 9

Distribution of Recovery and Resilience Facility (RRF) funds by Member State



Source: created by the authors using data from the European Commission[156]

The distribution of funds is very uneven across Member States. Italy and Spain, the two countries most affected by the first wave of coronavirus, have been allocated up to 40% of the total. The process for receiving funding begins with the preparation of national 2021-2023 recovery and resilience plans which will be reviewed by the European Commission. The Commission commits to reviewing the plans within two months and, after this review, the European Council's approval process should be completed within four weeks. Each recovery and resilience plan must include a minimum of 37% green investment and 20% digital

investment[xxxviii]. It is also important to commit to progress towards other environmental objectives, in harmony with the European Green Deal[157].

All the reforms and investments included in the recovery and resilience plans should respect the "do no significant harm" principle, which means that they should not have detrimental impacts on climate and environment objectives.

Without a doubt, eligibility criteria, exclusion criteria, conditions, taxonomy, the principle of "do no significant harm" and any other element which determines what is "green" or "climate friendly" and what is not will be key in terms of public financial support.

What are the risks of these funds?

The large quantity of money routed through Brussels is not free of conditions, which need to be taken into consideration as they may become a burden on national economies and, consequently, on citizens.

As discussed in this chapter, the Stability and Growth Pact has been suspended. In fact the Pact, signed in 2011 at the height of the financial crisis, contains two exceptional clauses for moments of emergency in the EU: the "unusual events clause" and the "general escape clause". The first enables states to use their own budgets to respond to emergencies free of the conditions set out within the Stability Pact. The "general escape clause", according to the Commission, allows the reach of measures to be extended, but the rules of the Stability Pact still apply.

xxxviii These percentages are still under discussion and could be subject to slight modification.

The clause whose application allows states to operate above established debt ceilings is the "general escape clause". This clause stipulates that its application should not put fiscal sustainability at risk and that deviations allowed under it must be temporary. The Commission confirms that the clause can be applied for as long as is necessary, but that if too much time passes, states will become severely indebted and a return to the Stability Pact requirements will not be easy.

The NGEU is no exception to this philosophy and is tied to the European Semester[xxxix], which is principally regulated by the Stability and Growth Pact and should be consistent with the specific recommendations for each country. What is more, it is known that the Frugal Four (the Netherlands, Sweden, Austria and Denmark) and Germany are pressing for tighter conditions which would give European institutions further inroads into national sovereignty. The justification for these tighter controls comes from opposition to transferring funds to countries like Hungary or Poland without strict control over how and on what the funds will be spent, over fears that the countries will not respect the rule of law. This distrust in the governments of Viktor Orbán and Mateusz Morawiecki opens the door to stricter demands which respond to the interests of the Frugal Four and Germany but could negatively affect southern Europe.

In addition, the European Commission notes regarding national plans that "in exceptional circumstances where one or more Member State considers that there are serious deviations from the satisfactory fulfilment of the relevant milestones and targets of another Member State, they may request that the President of the European Council refer the matter to the next European Council. The Commission will adopt the decision on disbursement under the "examination procedure" of comitology[xl]. If the Member State has not

xxxix The Semester is a programme for enforcing European economic discipline within Member States. It has its own calendar according to which Member States receive advice and present plans for reform, stability or convergence to be evaluated by the EU. Once these have been reviewed, Member States receive recommendations for national policy, in the form of budget adjustments or reforms.

xl This refers to the set of procedures through which the European Commission exercises the implementing powers conferred on it by the EU legislator, with the assistance of committees of representatives from EU countries.

satisfactorily implemented the milestones and targets, the Commission will suspend all or part of the financial contribution to that Member State"[158].

The procedures established for the review, approval and the partial or total suspension of financial contributions will be the key determinant of its true impacts. Particularly worrying is the combination of free-handed public spending and the future reactivation of the Stability Pact. What is more, the funds generated by NGEU through increased public debt are not destined for the "key" sectors which became more visible during the pandemic (care, health, education and so on) but are more like an economic stimulus for conventional sectors which need to transition to the modern "green, digital European economy" and see a unique opportunity to do it with public money. The intensive bureaucratic processes involved in obtaining European funding are also an obstacle for many small- to medium-sized businesses, and for the cooperative sector and the social and solidarity economy.

These bureaucratic obstacles are also bringing other actors onto the scene: consultancy giants like Deloitte, Ernst & Young, KPMG and PriceWaterhouseCoopers, who prepare reports to help their clients access European funding[159]. The risk here is that national governments end up delegating the task of evaluating projects to large consulting companies, through lack of resources or preparation[160].

Finally, it is important to bring to light the medium-term risks of this mobilisation of capital in terms of public over-indebtedness. Firstly, the European Central Bank still establishes the risk premium of Eurozone countries through the purchase of state bonds, but these have a return date. In the same way, there is a clear non-payment risk from the ECB corporate bond purchasing programme. Secondly, some of the funds which are distributed as loans, guarantees or the purchase of promissory notes at a national scale are also at risk of non-payment, and a part of NGEU (360,000 million dollars to be exact), will be in the form of repayable loans to Member States. On top of this we need to add the pooled Eurobond debt, which is expected to come to an astronomical amount.

Bringing all of this together, it is important to lay bare the limitations and structural conditions of the European funds: economic discipline, large actors, bureaucratic complexity and over-indebtedness.

Can we finance the recovery using other instruments?

As we have seen in this chapter, European funding comes loaded with conditions from within the EU's own architecture and could pose a risk to national sovereignty and the future over-indebtedness of Member States.

In the current crisis, this substantial and very rapid flow of money is framed as unavoidable and irreplaceable, but there are other ways of obtaining the necessary funds for an economic recovery. These proposals are inspired by the work of the ELA trade union in their report "The European funding trap"[161], the report by the Platform for Just Taxation (Plataforma Fiscalitat Justa) entitled "Bailouts, emergency measures and proposals for the structural reform of the taxation system in the time of COVID-19"[162] and the historical work of the Citizens Debt Auditing Platform (Plataforma Auditoria Ciudadana de la Deuda)[163].

The key components of their proposals are as follows[XLI]:

1. **Elimination of European conditions imposed on funding applications. Funding should not be tied to public spending cuts, to pensions or to the obligation to prioritise debt repayments. In the Spanish state this would mean repealing Article 135 of the Constitution which sets a ceiling for public deficit and prioritises debt repayments over other budget headings.**

XLI Some of these proposals are formulated in the context of the Spanish State.

2. **Direct financing of States by the European Central Bank without the issue and purchase of public bonds, and therefore the end of the ECB bond purchasing programme. This would require the abolition of Article 123 of the Maastricht Treaty.**

3. **Public citizen debt audits and the non-payment of illegitimate debt. Citizen audits involve the active participation of citizens and independent associations, with the aim of confirming that public administration, concessions and contracts, loans and institutional financial operations have all been carried out in the interests of the general public.**

4. **Taxation (within the framework of the Spanish State): increase taxation and limit tax allowances on wealth, inheritances and donations, societies and personal income tax (Renta de las Personas Físicas, IRPF). What is more, VAT on luxury goods should be increased and a COVID tax of 1-3% could be imposed on fortunes of more than one million euros within the EU, which would affect 1% of the population. This last measure would raise 1.05% of the EU's annual GDP.**

There are also proposals for taxes on credit institution deposits, taxes on Google and on other technology giants, a financial transaction tax and a ban on contracting or giving public assistance to businesses headquartered in tax havens.

All of these measures would enable funds to be collected or freed up to finance the economic recovery, as part of an ecosocial transition free of conditions or future indebtedness and could form the first step on the road to public-community control[164] of key socioeconomic structures.

Box 4.

What is considered "green" funding? A look at EU taxonomy

The EU taxonomy establishes a regulatory framework to facilitate sustainable investment under the Action Plan on Financing Sustainable Growth[165]. This will give the private sector a basic introduction to what is considered a green investment and establishes the basis for a European-scale classification system for environmentally sustainable economic activities.

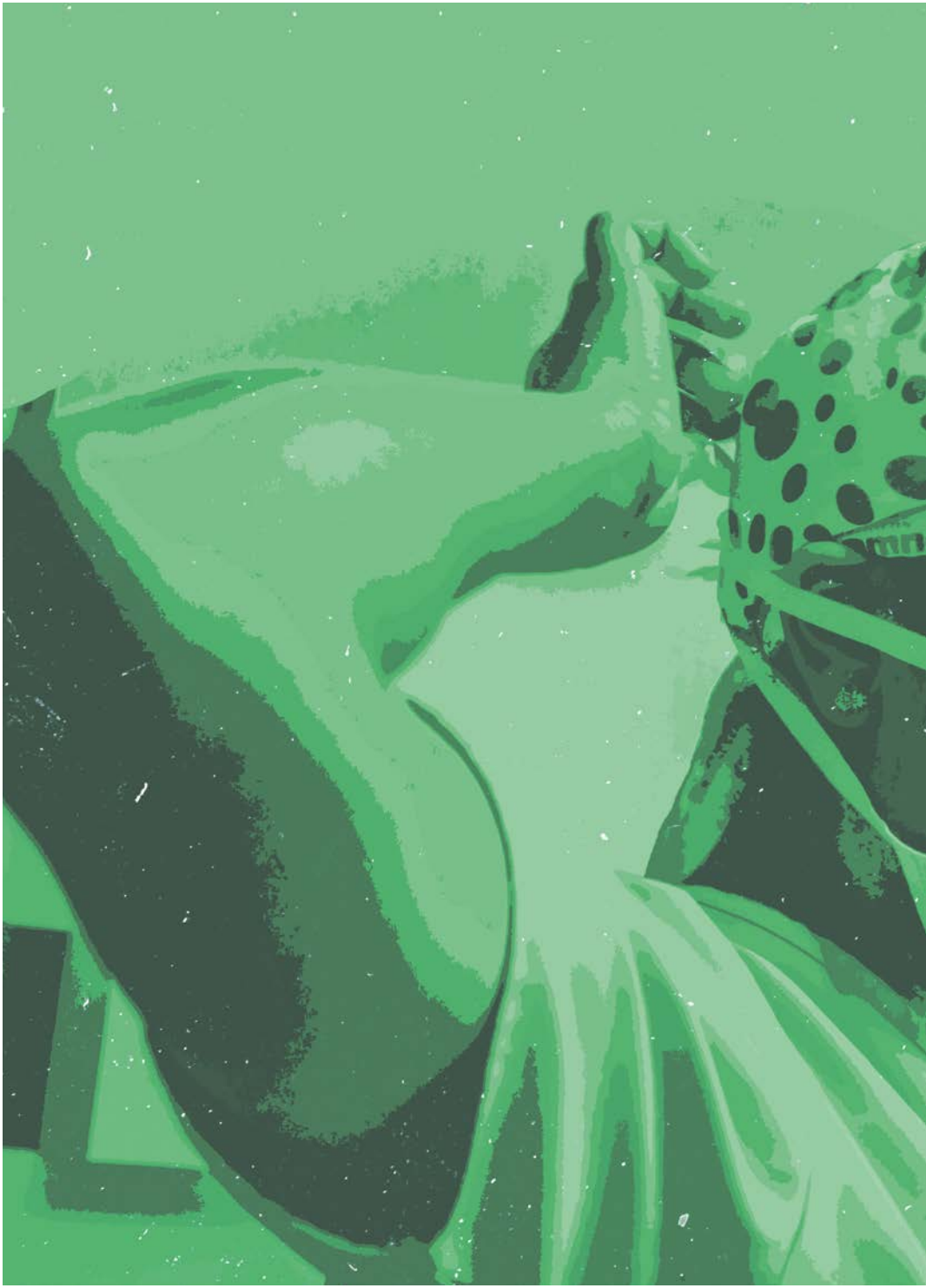
Given its strategic importance, various business lobbies have pressed for a more lax set of criteria. EU associations representing the financial sector, led by the European Fund and Asset Management Association (EFAMA), the Association for Financial Markets in Europe (AFME), the European Banking Federation (EBF) and EuropeanIssuers, have pressed for a voluntary approach to the taxonomy, restricted to products marketed as sustainable. Groups from the oil and gas sector (Eurogas, GasNaturally, the International Association of Oil and Gas Producers (IOGP) and FuelsEurope) are working intensively to weaken climate criteria and include economic activities like the combustion of natural gas without carbon capture and storage[166].

Looking at the contents in a little more detail, the taxonomy covers six environmental objectives: climate mitigation, climate adaptation, the protection and sustainable use of water and marine resources, the transition to a circular economy, pollution prevention and control and ecosystem protection. For an economic activity to be classified as "sustainable" it must:

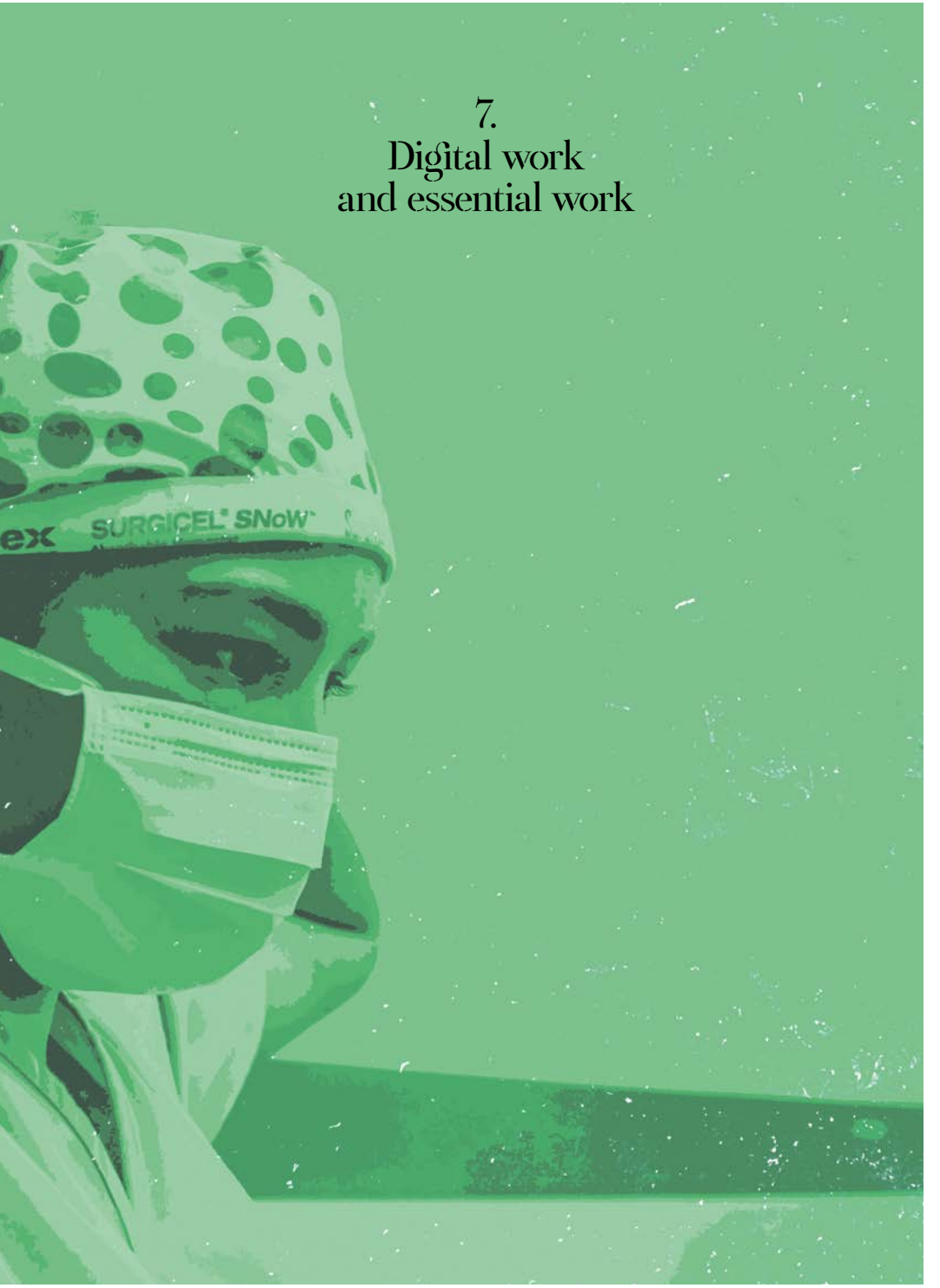
- **Contribute substantially to at least one of the six environmental objectives.**
- **Do no significant harm to the other environmental objectives.**
- **Comply with a minimal level of social safeguards.**
- **Comply with a set of technical criteria which evaluate the first two points in this list.**

The development, publication and implementation process for the taxonomy will take place in two parts: the climate taxonomy (mitigation and adaptation), which should be adopted by the Commission on the 31st December 2020 and brought into force on the 31st December 2021, and the taxonomy for the other objectives (water, the circular economy, contamination and biodiversity) which will be adopted by the Commission on the 31st December 2021 and become applicable on the 31st December 2022[167].

The final content, practical application and areas of application of the taxonomy will determine the real flavour of European finance. For industry, it is vitally important to stay connected this flow of green finance which, in the time of COVID-19, could be a real oxygen pump for businesses .



7.
Digital work and essential work



7.
Digital work and essential work

"People are concerned about jobs, heating their homes and making ends meet, and EU institutions should engage with them if the Green Deal is to succeed and deliver lasting change."

European Green Deal

In its founding document, the EGD makes multiple mentions of the importance of an intensive but sustainable expansion of economic activity for job creation, the circular economy for creating new types of employment, the renovation of buildings to generate local employment and the Just Transition Mechanism to help with reskilling workers for these new sections of the economy.

However, the smooth employment transition proposed by the EGD has changed completely during the pandemic. The measures taken to alleviate and contain the pandemic have had a significant impact on working people, with an almost complete halt of non-essential economic activity and sectors such as the tourism sector, with no clear short-term exit strategy. Parts of state policies and aid programmes, as discussed in the previous chapter, have been focused on bailing out large sectors which should have potentially played a part in the productive transformation necessary to achieve decarbonisation objectives. Disgracefully, the bailout of the polluting productive sector has been exempt from criteria and conditions related to the transition, and businesses have used the volume of direct and indirect jobs they could potentially provide as a

bargaining chip, although some of them are still able to carry out internal restructuring at short notice to adapt to a new low-production context.

The arrival of the pandemic has also led to the rapid digitalisation of the world of work in order to maintain certain productive activities on one hand and to the increased prominence of key workers and socially meaningful work essential for sustaining life on the other. It can also not be forgotten that many people have been and will be expelled from the labour market and that intuition says that unemployment will be one of the most important issues of this decade. Therefore, this chapter will take a brief look at digitalisation and essential and socially meaningful work, and how they can be used to solve the problem of unemployment.

Digitalisation of work

Although this chapter focuses on employment, digitalisation does not only affect the world of work. It is a process which can affect and/or transform multiple areas of life: health, security, social relationships, consumption, leisure, etc. COVID-19 has accelerated the digitalisation agenda in many spheres of activity, so much so that the Recovery and Resilience Facility is allocating 20% of its budget to digitalisation projects[XLII]. It is important to recognise, for example, that teleworking has been called for by workers as an alternative to onsite working in several sectors as it offers greater flexibility and a better fit with home and family life, and saves time and money spent on commuting. However, with the sudden arrival of the pandemic there has been no time for negotiating what compensation or tools employees need to work from home.

XLII Digitalisation refers to the process of transforming analogue processes into digital processes using microelectronics, telecommunications, computer architectures, robotics and software. It is commonly related to big data, artificial intelligence or the internet of things.

A recent study by the World Economic Forum on "The Future of Jobs"[168] asserts that the pandemic has accelerated the emergence of the future of work and that areas including cloud computing, big data and electronics are the main priorities for business leaders. There is also growing interest in encryption, non-humanoid robots and artificial intelligence. The report claims that 83% of businesses want to scale up home working, 84% want to accelerate digitalisation and 50% want to accelerate automation.

Figure 9.
Automation rates in 2020 and 2025.

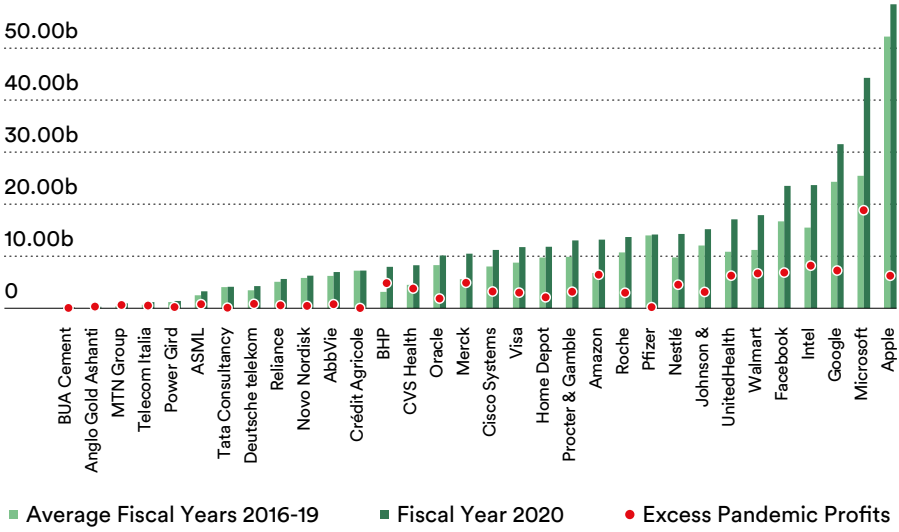
Source: Future of Jobs Report 2020, World Economic Forum[169]

Given all of this, there needs to be a response to the restructuring imposed by the technological integration already being implemented by large companies and coming hand-in-hand with digitalisation. The same report states that 43% of businesses are preparing to reduce their workforce, 41% are planning to contract specialist work out to subcontractors and, in contrast, just 34% are expecting to expand their workforce. A significant number of businesses are projecting changes to their locations and their supply chains in the next five years. The report also claims that by 2025 as much work will be done by machines as by humans. 85 million jobs will

become obsolete, but 97 million new jobs will be created in alignment with a new division of labour between humans, machines and algorithms.

The winners emerging from this digitalisation and virtualisation scenario are the GAFAM technology giants (Google, Apple, Facebook, Amazon and Microsoft), also known as Big Tech or the Big Five, whose profits have gone up during the pandemic - to the tune of 46,000 million dollars.

Figure 10.
Average annual profits before the pandemic (2016-2019) and in 2020 (extrapolated to 12 months)



Source: Oxfam report[170]

Amongst these, Amazon has emerged the victor with 95% more net profit than the previous year – some 6,400 million dollars[171]. In July 2020, Amazon had 786,000 full- or part-time staff, which made it one of the largest employers in the world[172]. Amazon has faced allegations of attempting to prevent unionisation and has been forced to close warehouses for health reasons during the pandemic, after a fierce battle with employees[173].

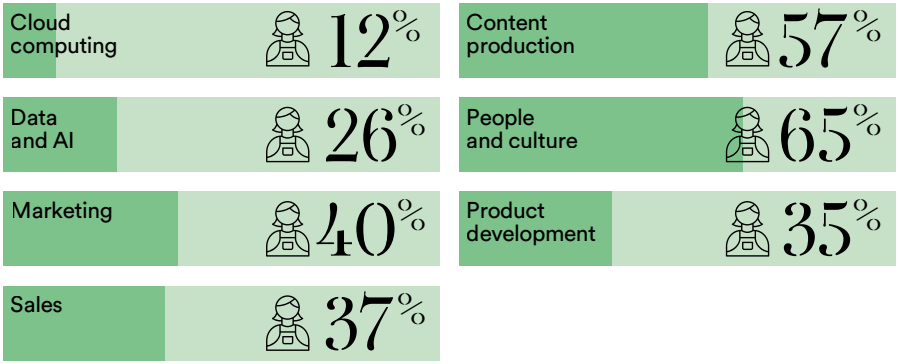
Another controversial issue is digital supply chain management, which hands increasing power to algorithms which continually control and watch over employees[174]. Platform capitalism[XLIII] which characterises this model of work, touts the opportunity to choose how and when you want to work. However, the end result is that algorithms work to keep workers constantly "online" and available.

Going back to the EGD, we see constant repetition of the idea of digitally transforming the economy and placing increasing value on technical, skilled work connected to the competitive economy, which will come accompanied by increased specialisation and technology use. This is intended to enable research, development, innovation, production, maintenance, repair and recycling in the green and digital technology sectors. Following this line of argument through, the World Economic Forum report we referred to earlier recognises that the promotion of these types of employment will impact the gender division of labour, as there is a much smaller percentage of women in jobs related to digitalisation.

XLIII This refers specifically to activities of the GAFAM and others such as Uber, Airbnb and so on, whose business models consist of providing platforms consisting of software and hardware.

Figure 11.

What will be the role of women in tomorrow's world of work?



Source: Global Gender Gap Report, 2020, World Economic Forum[175]

Essential and socially meaningful work

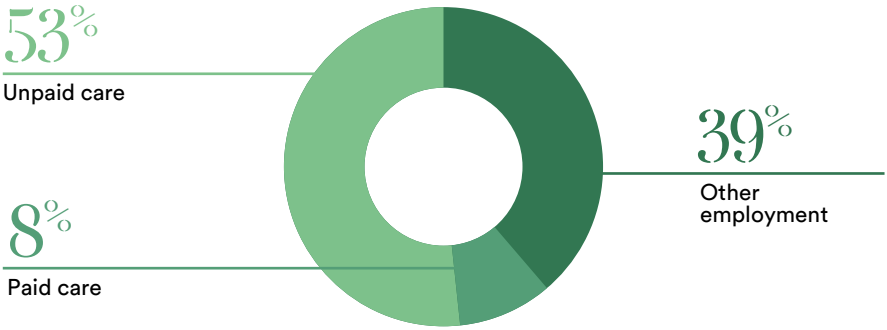
In contrast to the digitalisation of work which tends towards increased precariousness and reduced employment, as well as deepening the gender gap in employment, the socially meaningful work "sector" requires increased participation. The achievements of healthcare workers are the most obvious, but they are joined by small farmers, shopkeepers, carers, transport workers and many others. Green deals should deliberately give differential treatment to occupations which have low impacts and which sustain life, liberating them from all market pressures.

What is more, not all socially meaningful or essential work is paid. Reproductive work, a large part of which is not recognised and carried out by women, should also be considered as part of any deal. An example of this is how, in both the 2008 crisis and the current health emergency, responsibility for managing the burdens of the emergency has been delegated to households, ultimately to those who carry out domestic reproductive work.

However, there is also a great need for the redistribution of work. There are specialised sectors such as construction (90% men) and manufacturing (70% men) which have a very low proportion of women. In contrast, education (70% women), health (80% women) and paid domestic activities (90% women) exhibit a very low proportion of men[176]. On top of this, there is the difference in the number of hours of reproductive work done by women as compared to men. For example, the gender equality index shows that in the EU-28 38% of women spend time daily on education and care for children and the elderly, compared to 25% of men, and 79% of women do domestic chores daily compared to only 34% of men[177].

Graph 10.

Distribution of total hours worked by type of work



Source: Work Scenarios in the Ecosocial Transition Report 2020-2030. Ecologistas en Acción, 2019[78]

A recent study by Ecologistas en Acción again stressed the importance of taking unpaid care work into consideration, which accounted for 53% of total working time in the Spanish State in 2017[179].

It seems evident that COVID-19 could spark a debate about which sectors are essential, which are superfluous and should be rethought, and even which sectors put our lives at risk. However, the direction which economic recovery policies are taking side-steps this very necessary debate.

In this context, green deals should aim for relocation and ecological regeneration, for a locally-rooted economy based on local resources, shrinking global supply chains as far as possible. This new economy should recognise, value[XLIV] and redistribute unpaid care work, bolster essential, socially meaningful work and contribute to the transformation of superfluous productive work and the progressive elimination of harmful or dangerous sectors.

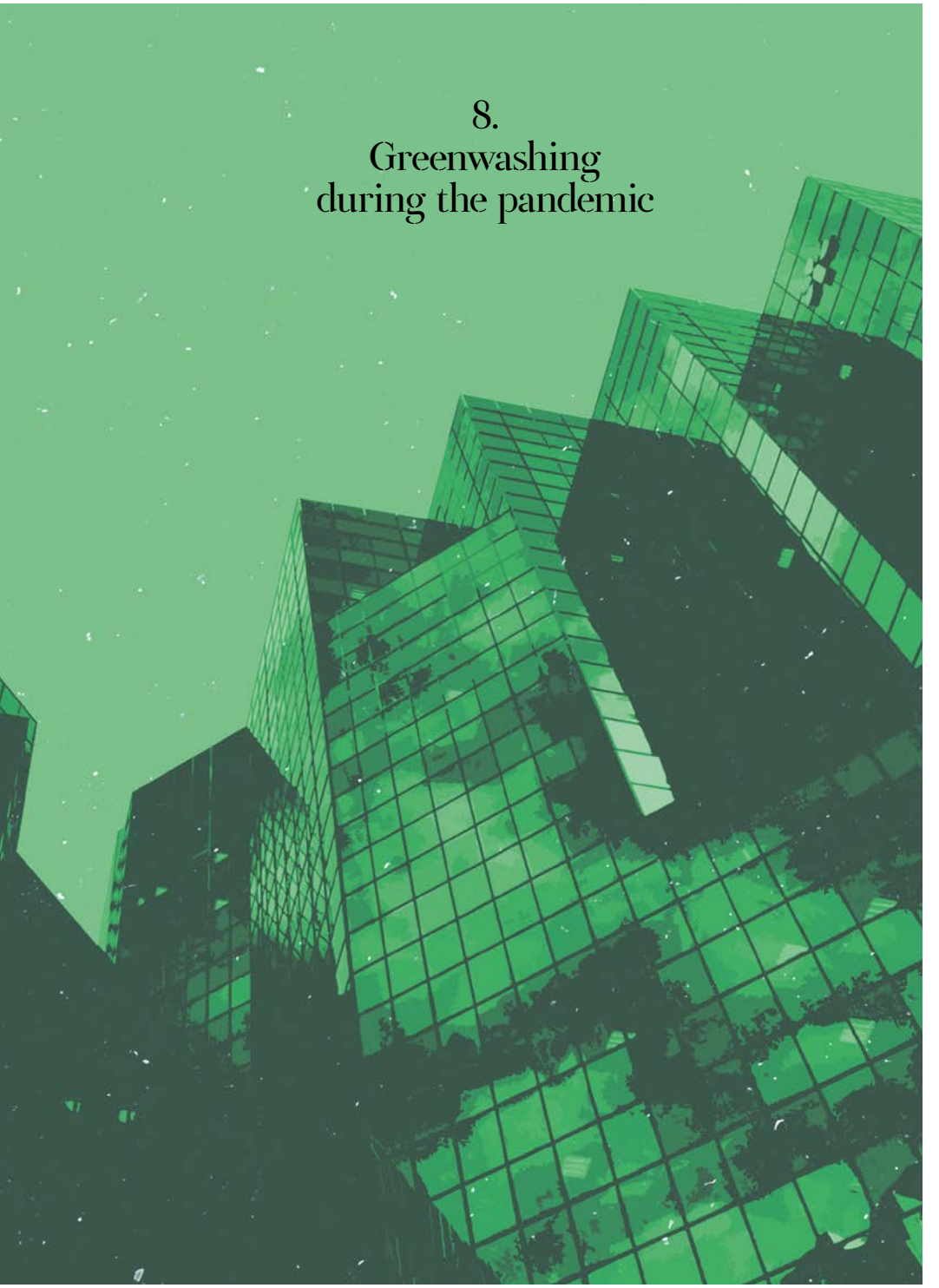
Box 5.

Research during the pandemic: another example of the gender gap in the world of work

An illustrative but worrying example of how the patriarchy penetrates all areas of professional and social life is the pronounced reduction in the scientific productivity of women during the pandemic. Various studies highlight the fall in scientific article publication rates for women, including those related to the coronavirus itself, due to the unequal distribution of care work[180]. The studies state that this situation could have implications for the availability of and demand for datasets disaggregated by gender, therefore introducing blind spots into our understanding of COVID-19[181]. What is more, gender inequalities in research could reduce our ability to quickly and successfully tackle the pandemic[182].

XLIV "Value" is meant in non-monetary terms.

8.
Greenwashing during the pandemic



8.
Greenwashing during the pandemic

One risk which reappears in each and every chapter of this book is that any action, investment or policy can (apparently) be green. As we wait to see how far the EU taxonomy will go, we see how numerous institutions from the OECD[183] to the IMF[184] and large oil, gas and mining corporations such as BP, Shell or Vale S.A. are increasingly aligning themselves with climate ambitions and the green recovery. To give an example, eleven top representatives of large European corporations met on the 1st of October 2020 at the inaugural conference of the European CEO Alliance, which includes companies such as Iberdrola, Enel and Siemens. The company chiefs declared that "We support the EU Green Deal. The climate targets are feasible, with sustainable growth and future-proof jobs ahead". They also committed to achieving climate neutrality by 2050, and supported the Paris Agreement and the ambition to increase the EU's climate objectives[185].

This appeal to public opinion by playing the green card during a pandemic could make one wonder if these companies are "wolves in sheep's

clothing": they make themselves appear more and more open to the climate debate because they see an opportunity to finance a potentially prohibitively expensive transition with public money.

Therefore, this chapter will look at some examples of so-called *greenwashing*: when a company or organisation makes efforts to appear caring or concerned regarding the environment as a marketing strategy to achieve its economic objectives[186].

The mining sector

> "Our products are essential to almost every aspect of modern life and are critical to a successful transition to a low-carbon economy. [...] The low-carbon economy is relying upon responsible miners to take action."
>
> **Anglo American website**

The mining sector, just like the rest of the extractive industry and the corporate sector in general, tends to use the Corporate Social Responsibility (CSR) framework to justify its actions as being of benefit to society and the environment, but has been hostile to any regulation which could hinder its activities. CSR, which is voluntary, flexible and bland, has become a framework for making mining activities more acceptable through, for example, making philanthropic donations to communities or society in general or developing and implementing a portfolio of "best practices"[187].

Within the CSR framework, mining corporations like Glencore, Vale, Anglo American, BH and others have redoubled their efforts to position themselves as central actors in the low-emission economy. They argue that only they are capable of supplying all the critical raw materials which we studied in Chapter 5.

Mining companies use two strategies: firstly, they try to play down or deny claims that the extraction of strategic minerals is unsustainable, unjust and limited by a real, physical lack of reserves. Secondly, they use the transition and the need for critical raw materials like lithium, cobalt and nickel to legitimise the extraction of copper, iron, aluminium and other elements which, although they could be necessary for the transition, are currently mainly used in the construction industry and other sectors[188].

For example, the Brazilian mining corporation Vale S.A updated its climate objectives in June 2020, aiming to reach net-zero emissions by 2050. Vale, "to align with world-class sustainability best practices, will invest at least US$ 2 billion to reduce by 33% the company's carbon emissions by 2030. [...] It is the largest investment ever undertaken by the mining industry to tackle climate change" [189]. Vale S.A. has a long history of environmental and humanitarian disasters, with two recent examples being the Mariana and Brumadinho cases.

The British company Anglo American is even more ambitious and claims it will achieve net-zero emissions by 2040 with a plan centred on a technological overhaul of its activities and the use of renewable energy.

Both Vale and Anglo American support the Paris Agreement and commit to work towards a 1.5 °C scenario, but they are under no legal obligation to comply with their stated objectives.

Beyond the corporations themselves, institutions like the World Bank also contribute to greenwashing in the mining sector. In a publication called "The growing role of minerals and metals for a low carbon future", the World Bank called for a wide-ranging dialogue between the mining sector and the energy and climate communities because, in its own words, "a low carbon energy shift will be very much dependent on a robust, sustainable and efficient mining and metals industry". It is worth remembering that as an industrial sector, mining is a large energy consumer, and increased mining activity will also lead to increased energy consumption.

The oil and gas sector

In April 2020, in the middle of the COVID-19 crisis, Royal Dutch Shell announced its intention to reach net-zero emissions by 2050[190], quickly followed by Total[191] (May 2020) and Oxy[192] (November 2020), joining other corporations such as BP[193] February 2020) and Repsol[194] (December 2019).

Shell's commitment, for example, takes into account the emissions of its activities, but does not include the larger quantity of emissions which come from its products (mainly various forms of oil and natural gas). These represent 80% of Shell's emissions. BP hopes to reduce the emission intensity[XLV] of its products by 50% and Shell hopes to achieve 65% by 2050. As far as the remaining emissions go, Shell assures us that it will support its clients to use various carbon offsetting methods, from the planting of trees to carbon capture (a technology which is still not commercially available).

The large gas and oil companies were already planning to show friendlier faces in the time before the pandemic struck, when politicians, the media and public opinion were becoming more sensitive to environment and climate issues, and often pointed fingers at fossil fuels. However, the pandemic has accelerated greenwashing as a crutch for a sector facing markedly hostile circumstances: low oil prices, falling demand and pessimistic future projections, and a green recovery which, if the taxonomy works, could cut it off from state assistance.

The oil and gas sector knows that the public money being distributed now could reconfigure the corporate power structure in the years to come, at least in the energy sector. This means that the plans for net-zero emissions are also, in the time of the pandemic, fundraising strategies to capture public funds.

XLV This refers to emissions per unit of energy.

Hydrogen: an emerging sector

The European Union has its own hydrogen strategy based on the argument that hydrogen is a raw material which can be stored and used for many applications (industry, transport, energy, construction and so on) and is considered essential to achieving climate neutrality by 2050[195]. Hydrogen, according to the EU strategy, could solve the intermittency issues suffered by renewable power sources and the problems with electricity storage and transport, and it could be extended to applications in industrial processes, agriculture and domestic energy and heating. Therefore, the national plans being presented to the Recovery and Resilience Facility are proposing numerous hydrogen projects which could be the springboard to this technology becoming a major presence[196].

Hydrogen is classified into various categories depending on the energy source used to produce it[XLVI]:

Grey: **uses fossil energy (oil, coal or gas).**
Blue: **uses fossil energy, but with carbon capture.**
Pink: **uses nuclear energy.**
Green: **uses renewable energy.**

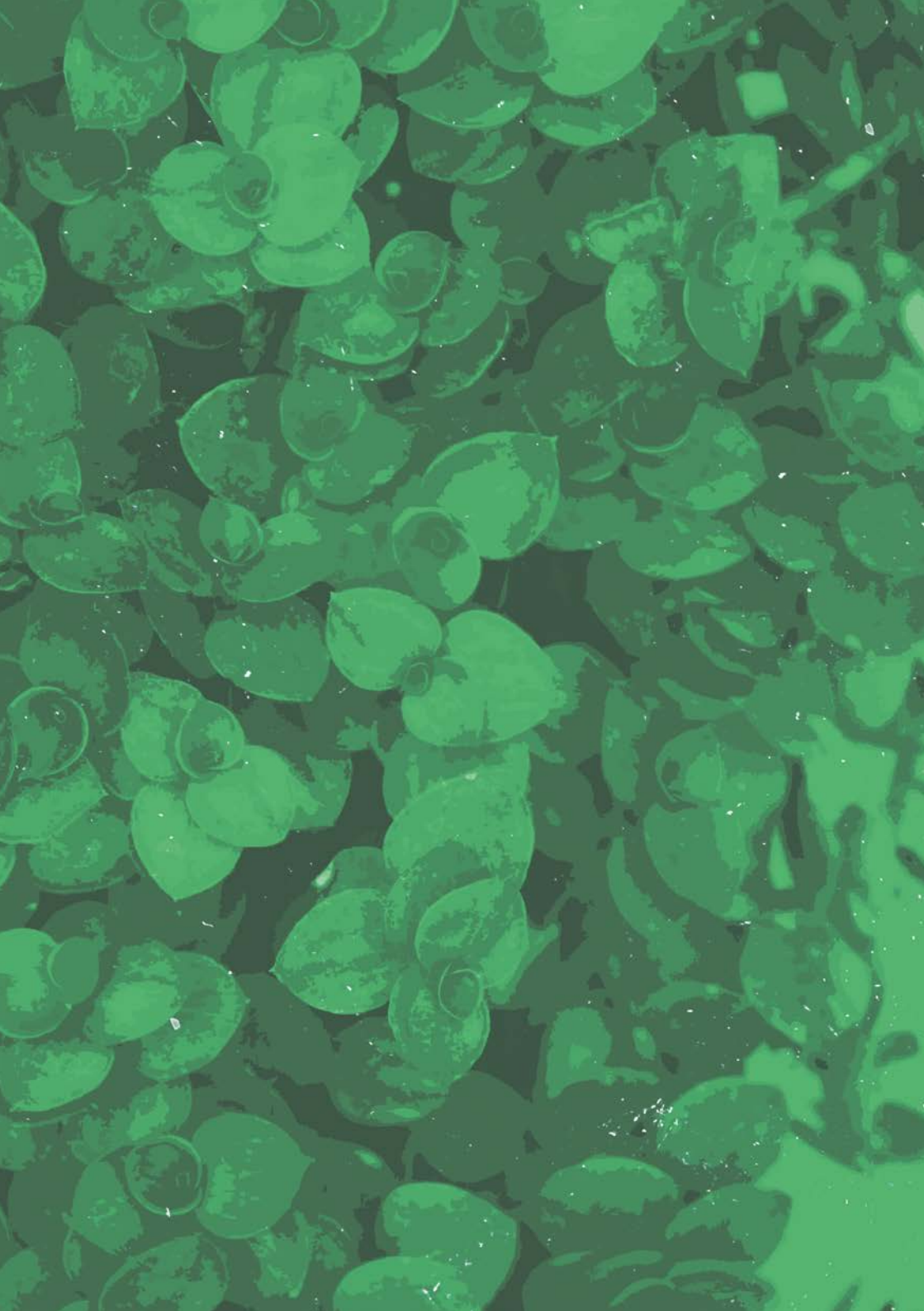
The large gas companies want to see the expansion of hydrogen so that they can continue to extract fossil fuels. The idea would be to promote blue hydrogen, which would require the construction of carbon capture and storage (CCS). People have been researching these systems since the 1990s, but they are expensive and unavailable on a commercial scale. CCS cannot solve the problem of methane gas leaks along the natural gas supply chain from extraction to the instant just prior to combustion. Methane has a large short-term impact on the climate[198].

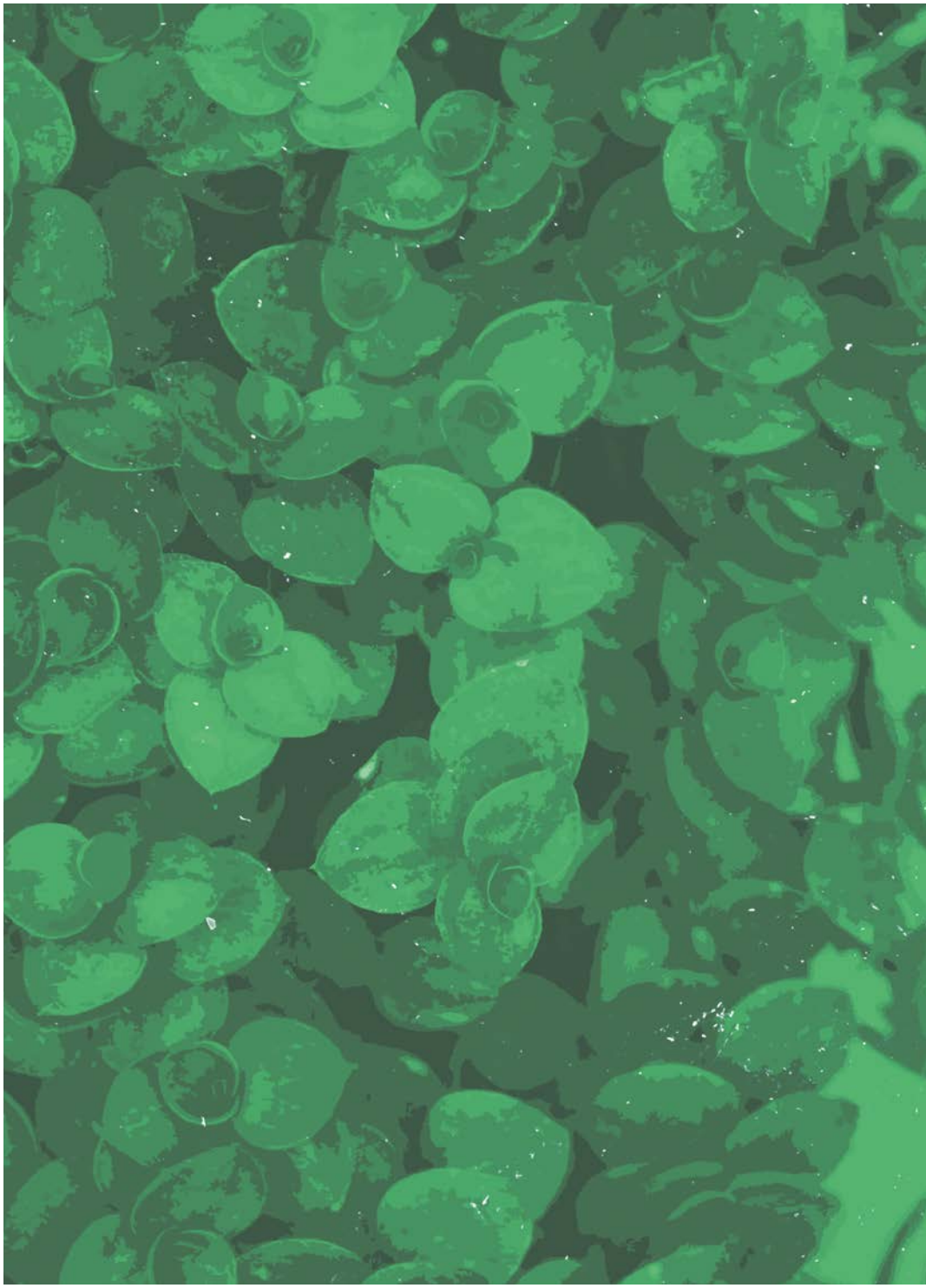
One of the main problems in hydrogen development is that it is an expensive technology requiring a large amount of public investment which rests on the assumption that we can make natural gas sustainable and generate green hydrogen. What is more, the virtues extolled by industry and hydrogen promoters stand in stark contrast to the technical problems involved: hydrogen needs to be stored at high pressure (750 bar), storage containers are very expensive, and it is volatile and highly flammable. It is corrosive and reacts with steel, which is exactly the material most often used for large gas pipelines. And if we look at the entire hydrogen cycle

XLVI Hydrogen generation is sometimes split into seven categories (brown, grey, blue, turquoise, green, pink and yellow), but it is more common to speak of grey, blue and green hydrogen, sometimes including pink hydrogen. More information in: Frontier Economics. (October 2020). *Green, blue hydrogen -Potentials and security of supply. DVGW Congress Perspectives for H2 Module #1.* Accessed at https://www.frontier-economics.com/media/4258/prs-bothe-green-blue-hydrogen-potential-and-security-of-supply-en-stc.pdf

we see that every stage (production, compression, liquefaction) requires energy inputs, because hydrogen is not an energy source but an energy vector. All of the energy required to run the hydrogen cycle needs to be factored in and this reduces hydrogen's efficiency.

However, above and beyond the technical issues connected with the technology (which, at the end of the day, affect almost all technological innovations), it is necessary to take a more structural look at the promotion of hydrogen to see if it contributes to greenwashing by large corporations. In addition, it must be taken into account that the massive public investment required for hydrogen development must, by necessity, displace other activities. Proposals like this which use the colour green to bypass public scrutiny distract attention from other, more familiar and just as necessary alternatives which also create jobs, such as renovating energy-inefficient buildings, installing community-managed renewable energy generation plants in partnership with local authorities, creating energy communities and electric shared mobility projects.





9.
Is the green deal an alternative – or do we need an alternative to the green deal?

9.
Is the green deal an alternative – or do we need an alternative to the green deal?

Having completed a critical reading of the European Green Deal, are there grounds to adopt the concept of a "green deal" as a framework for action? Which advantages and disadvantages would this have? Would this trap us in a philosophy which contradicts our objective of an ecosocial transition?

It may seem obvious that we need a deal to tackle the global challenges of the 21st century, a deal able to gather together enough of a social majority to make deep structural changes – urgently. It also seems beyond question that it needs to be green, as our shared home, the Earth, is suffering irreversible changes through human activity (especially from the privileged groups in the Global North) which affect all life on the planet.

The problem is that all green deals fit these basic tenets (although used purely rhetorically in some cases), including the European Green Deal. Therefore, we cannot use them to answer our questions in the necessary depth. Perhaps it would be more interesting to sketch a possible outline strategy which, without being exhaustive, would allow the work towards an ecosocial transition to continue and accelerate in the time of the pandemic. The strategic proposal is based on various premises which will be developed in this chapter:

1. In the short term, public institutions have a role to play in the ecosocial transition due to their regulatory, financial and planning capabilities, however imperfect they may be.

2. This institutional capacity will only respond to calls for transformation which are backed by a sufficient social majority and succeed in maintaining pressure over time.

3. This sufficient social majority can be achieved by placing numerous alternatives and/or calls for transformation under a common concept or umbrella term which allows them to be presented as an exciting and desirable future.

4. Creating this umbrella concept requires more connection between various movements and struggles, using networks, coordination, platforms or other methods.

5. In order for the exciting and desirable future to inspire sufficient backing, it should take into account the problems most affecting the population at the time when it is launched.

To begin with, to say that institutions should have a role in the ecosocial transition may appear obvious to some and very controversial to others – and there may even be those who find it to be both. Given this, it is important to think carefully about what relationship public institutions would have to the ecosocial transition, and how they would participate in it. Normally, most advocacy campaigns aim to build increased pressure on institutions to bring about planning, programmatic, legal or administrative changes. They accumulate strength in order to strengthen their negotiating position but, in the end, they recognise institutions as interlocutors and accept their power to act. Therefore, to give them this role would not be a large deviation from the normal modus operandi of some movements. A possible additional component to the strategy would be a proposal to achieve autonomy through political intervention.

How? By building pressure to achieve community-public collaborations on specific projects or regulatory changes which would facilitate this[199].

In another vein, institutions are injecting an enormous quantity of public money at unprecedented speed, which will shape our economic future in this key decade. In contrast to other moments of economic crisis, this time the path to recovery has been declared to be green. Scientific evidence confirms the claims of the environmentalist movement: climate science confirms the state of emergency and the need for urgent and substantial action, and epidemiology shows that environmental degradation and the advance of the anthropic frontier (that is, increased human intervention in ecosystems) facilitate zoonosis, where viruses jump from animal species to humans, as happened with COVID-19.

In this scenario, the environmentalist movement (alongside other allied movements such as feminists, anti-racists, human rights and workers' rights groups, housing movements, and neighbourhood and rural movements) should have an advantage as it has access to a large quantity of systemic and technical knowledge. Now that institutions are talking of making everything green, they are moving further than ever into this territory (although in some cases this is just a window-dressing manoeuvre) and this has to be the moment to intervene more strongly. Without being naive, because the balance of power is not in our favour, it is important to be aware of the present opportunity which could be a historic opportunity – or simply, the last opportunity.

"Rescuing and recovering the economy" could be taken as carte blanche to fund the transition for large corporations through increased public debt to be repaid by ourselves, the general public. To make this process democratic, we need to drag this into the light of day and create spaces for discussion and debate. This intervention should react to institutional proposals, but should also interrogate institutions on how they plan to contribute to an ecosocial deal containing points of wide consensus and principles shared by many individuals and groups. This will require tactical positioning, within a strategy

which recognises advocacy as a necessary tool and aims to "hack"[XLVII] the concept of a green deal or use it as a Trojan horse for advocacy. This tactical movement will come at a historic moment where strategies to tackle global challenges should be versatile and flexible, and even embrace dualities and contradictions, to adapt to an uncertain, changing context of intersecting emergencies. We have been declaring that "our house is on fire"[XLVIII].

One of the key aspects in the construction of an ecosocial deal could be focusing on the process rather than the result, which would not be too different from the proposals we analysed in Chapter 3. A healthy mix of the Southern Ecosocial Deal and the Green New Deal for Europe, adapted to the relevant sociocultural and territorial context, could be more than sufficient as a founding text. The key here is to think of a process that, on the one hand, embraces the sensibilities of a range of movements (environmentalist, feminist, anti-racist, housing rights, healthcare, basic services, agro-ecology, workers' rights etc.) and on the other hand makes proposals that break out of the self-referential bubbles the movements find themselves in and appeal to a wider audience, to connect with the concerns and needs of the general public. These are not new challenges: in fact, they are recurring issues. The main difference lies in the context they appear in.

At the beginning, there will be a definite need for spaces for building friendship and empathy. We are not starting from scratch: the historical conflicts and disputes which already exist should be addressed from the beginning in mediated reconciliation spaces to help to (re)build the movements' fitness. Later, thought should be given to meetings to progress political proposals, never forgetting that, at the end of the day, the goal is not only to create a deal but for the process itself to generate sufficient confidence to create a diverse and heterogeneous front with far-

XLVII In the sense of taking the concept apart and using it for another purpose.

XLVIII This phrase was delivered by the activist Greta Thunberg in January 2019 at the World Economic Forum in Davos, as reported in: Thunberg, G. (25th of January 2019). "'Our house is on fire': Greta Thunberg, 16, urges leaders to act on climate". *The Guardian. Climate Change*. Accessed at https://www.theguardian.com/environment/2019/jan/25/our-house-is-on-fire-greta-thunberg16-urges-leaders-to-act-on-climate

reaching shared principles. To this is end it is just as important to actively listen to proposals from others as to express our own points of view. To build ideas up rather than to knock them down. To practice patience and generosity[200]. Creating empathy, fellowship and trust at the beginning could be key to seizing the opportunity to quickly scale up intervention when the moment comes[XLIX].

How to achieve a sufficient social majority has been the topic of hours of meetings, debates and assemblies, of essays and theses, and the issue cannot be resolved in this brief text. Our only aim is to highlight the need to recognise that, despite the havoc of the pandemic, windows of opportunity are opening to build alliances and proposals which reach a wider audience. For example, in the years to come there are two topics which will never be out of the headlines: health and employment. What answers could an ecosocial deal give on these key topics? Are there any clear, concrete measures which could generate consensus?

Without aiming to provide the answer, but rather aiming to show that this idea is not a pipe dream, a measure which could gain such a consensus is a reduction of the working week, for example to 30 hours or four days per week. This proposal could provide more jobs, more free time for participation and leisure, wider scope for the redistribution of reproductive work and many more benefits. However, it would also raise a plethora of questions. The most common would surely be, “And what about my wages?” In countries where precariousness at work and the poor and impoverished working class grow ceaselessly, or where families are in large amounts of debt, this is not a trivial question. However, on second thoughts (and setting worries about the immediate future aside), the idea of four days at work and a three-day weekend is sure to spark a complicit smile. Starting from this exciting and desirable future could be the key to many other transformations.

XLIX There are examples of citizen climate assemblies that could fulfil this function. More information at: https://cast.ac.uk/wp-content/uploads/2020/03/CAST-Briefing-03-Climate-Change-Citizens-Assemblies.pdf

To finish off, there are another couple of issues to highlight. The first is that, although we have stressed the necessity to intervene politically, to give weight to the process of creating connections between movements and to focus on issues like health or work, in a context as changeable as the pandemic it is vital to remain vigilant. Currently, the European Green Deal is the leading management framework although the (green and digital) economic recovery is the subject of public and media attention. Without losing sight of the underlying strategy, we need to take tactical steps to help us to flag up moments of opportunity. To do this we need to not only study and debate the context (not a new exercise for political movements but one which needs to be intensified in the time of pandemic) but also create spaces for discussion which speak to society in general.

The second consideration is that in 2018 and 2019 the general public began to be more concerned about the climate emergency. New international movements sprung up, such as Fridays for Future, Extinction Rebellion or By2020WeRiseUp, which called for action to halt the climate and environmental crises[L]. Public institutions signed a plethora of climate emergency declarations and the media covered the scientific evidence and the demands of environmental movements like never before. The climate demonstrations in cities around the world marked a historic milestone. All of this momentum seems to have been cut short by the virus.

It will certainly be necessary to again take up the maxim that made climate justice movements make the jump to direct action: “we need to shrink the gap between analysis and action”. In addition, the energy of the young people who erupted onto the scene in defence of their future needs to be rallied once more[201].

L In this vein the work of the Glasgow Agreement is also important, which calls for reclaiming the initiative and creating tools for action (inventory and climate agenda) and a space for strategy and coordination of the climate justice movement. More information at: https://glasgowagreement.net/

Mobilisation and civil disobedience are certainly difficult during the pandemic. However, attempts must go on, respecting public health measures but also respecting the conviction that now, more than ever, it is time to take to the streets.

Towards a green deal?

In the formulation of this question, we are using the "green deal" concept tactically: any collectively constructed deal would not necessarily need to have this name. Ecosocial deal, ecosocial and ecofeminist deal, ecofeminist deal, livelihoods deal, deal for life and just transition deal (to name just a few) could also be used as titles for green deals in the time of the pandemic.

However, the critical analysis developed in this book will still not lead us astray. Any proposal, from our perspective, should challenge capitalism, patriarchy and colonialism, three oppressive systems which have made large contributions to the current intersection of emergencies. A green deal which seeks deep economic transformation should aim for decommodification, depatriarchalisation and decolonisation, and may find itself within the following basic principles:

Recognise and respect biophysical limits: there is no space for an economic system which promotes continuous growth connected to the consumption of large quantities of resources and energy. It is necessary and unavoidable to reduce the use, processing and consumption of energy and resources.

Recognise, highlight and value reproductive work as a central element of caring for life. COVID-19 has brought to light its importance and the central role it should play in any new economic model.

Evaluate and reconsider proposals which call for a deepening of the colonial relationships with third countries or territories to service the environmental transition of the Global North. A huge push of green and digital technologies, as is proposed for Europe, could have devastating effects even beyond its borders.

These interconnected principles should be combined with new priority alliances with the work and employment sectors, but also with the local sphere and social municipalism, with the rural world and with sectors such as the social and solidarity economy.

For some, this may raise the question of whether any of this is new. It is certainly not completely new, but this text is more of an exercise in bringing together, enumerating and prioritising existing ideas. What is really new is the context we are now living in, an unusual, uncertain and changing context in which windows of opportunity are opening and closing rapidly. Perhaps one of these opportunities will be the toehold we need to create change, and perhaps the space opened by the "green deal" concept is just a place for political debate on environmental and social transformation issues. We must not be naive or self-complacent: the difficulties are huge, but at the same time we can have no doubt that a shared vision of the situation is solidifying day by day, and that redoubling advocacy, coordination and mobilisation efforts during the economic recovery period can be fruitful. Right now, every second counts.

Box 6.

So, then: what's the alternative?

Although a little different in tone to the rest of the book, it seems interesting and necessary to dedicate a few lines to a more theoretical and reflective question: how to answer the "alternatives question", repeatedly asked of critical analyses on any topic.

In 2013 the Corner House collective published *Energy Alternatives: surveying the territory*, an inspiring text which tackles this very issue. According to the authors, the question "What's the alternative?" is often used as a booby trap. Indeed, the Slovene philosopher Slavoj Žižek says that when one is asked "but what's the alternative?" one should reject the question, as it is a request to "express yourself in my terms or shut up!"[202].

Perhaps it is true that the defenders of "Plan A" aim to ensnare critical thinking and delegitimise "Plan B" in an act of self-defence, discreditation and self-interest. At the same time, there are also people who do not reject critical ideas but, overwhelmed by fear or the sensation of vulnerability, need a reassuring response which sketches a fast resolution or hope for the future. In this group, there are also those who feel an urgent and compelling need to act. This sense of urgency is heightened by the scientific evidence which gives a very short period for action before we reach the point of no return. The effect of this restlessness and need for rapid action can lead us to reject critical discourse as a self-defence or survival mechanism, or to allow it to lodge inside us without appropriate tools for processing it.

A lot has been written on the mobilising or paralysing effects of these emotions, and as a general rule, it is thought that we do not allow ourselves enough space for risky, countercultural work[LI]: allowing ourselves to feel the fear, the rage and the vulnerability so that they can be the driving force for change, and using this as a basis for building transformative visions. This "allowing ourselves to feel" could be a good exercise to do collectively, hand in hand with disciplines like deep democracy and process work[203].

The alternatives that would keep us within biophysical limits and at the same time, allow cultural change bringing us closer to decommodification, depatriarchalisation and decolonisation do not have magic recipes, simple formulas or single, homogeneous and completely correct answers. And above all, alternatives to proposals such as the European Green Deal cannot be drawn up in one paper or discussion. The recognition of this multidimensional complexity does not, in any case, aim to dodge the question of "what's the alternative?" If we are aware and certain that the question is complex, the answer should be too, and should explore this complexity.

LI "Counterculture" refers to values, trends and social relationships opposing the established culture within a society.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10.
Final reflections

This book was begun at the beginning of 2020 and it was finished in the same year. All the signs seemed to show that 2020 would be the "year of climate action" as 2019 had been the perfect run-up. International activist networks were created which organised all kinds of historic actions and demonstrations. Climate change leapt up political agendas, climate emergency laws and declarations were made, and the media gave an unprecedented level of coverage.

And then came the first mistake in our calculations: 2020 will not be remembered as the "year of climate action". At the beginning of the year, it seemed extremely relevant to provide a critical reading of the European Green Deal highlighting its continued lack of criticism of the growth paradigm, the impacts it could cause beyond Europe's borders and the quantity of money to be invested in seemingly "green" projects. In fact, putting the green deals proposed by Ocasio-Cortez, Bernie Sanders or Ursula von der Leyen alongside other deals built from the bottom up was intended to show that there are proposals which aim to correct the root causes of the problems of the 21st century. However, when the pandemic

struck, the green deal vanished off the map. It seemed that when the cry to “save the economy!” went up, leaders would have carte blanche to dilute climate ambitions and to again subordinate environmental and social issues to the salvation of the economy. “Too big to fail” began to echo once again in the heads of the European political class. Criticism then had to be directed towards a “grey recovery”: the text of this book seemed out-of-date and condemned to the wastepaper basket.

Again, however, we were wrong. 2020 will not be the year of climate action, but nor will it be the year of the “grey recovery”, at least as far as institutional rhetoric goes. The action taken by European institutions has revitalised the European Green Deal and cast it as a recovery instrument for the green, digital modernisation of the economy. In the European Union, this is also an act of self-affirmation aimed at gaining a more prominent role on the world stage. And so in the end, it made sense to pick the book up again and reinterpret it for the time of the pandemic. There are points in it which still apply, perhaps even more strongly: the inconsistency and incoherence of “green growth”, the biophysical limits to critical raw materials and issues with the proposed financial structures, to name a few. Other topics are newer: for example, the new funds bulging with millions of euros, a strengthened “green consensus” amongst the central actors in the capitalist system, the fast-tracked digitalisation of work and, most importantly, the acceleration of all these proposals.

The European Green Deal has become a strategy for a green recovery, a driving force accelerating the green digital agenda which, surprisingly, has learned nothing from our past year of coping with the virus. Does it not see the need to reinforce healthcare systems? Have we not seen first-hand the risks of global supply chains? Have we not seen that some of the most invisible forms of work are the most important and socially meaningful? The Deal and the recovery strategy leave a never-ending string of questions unanswered.

In fact, there are even more questions: what are we prepared to pay for a recovery, and who should bear the cost? Eurocentrism overlooks the

impacts of the plan on populations in vulnerable circumstances in DR Congo, Indonesia, Bolivia, Chile, Argentina and many others. There is even deliberate ignorance of the limits of cobalt, lithium, nickel, neodymium and dysprosium reserves. The digital future's tendency to create highly masculinised specialised employment and the substitution of people with machines by large companies is not addressed either.

Given all of this, and recognising that the years to come are unlikely to be easy or simple, we need to redouble efforts and redouble our care for each other. In the face of so much myopic, interested "green" thinking, we do not know if we should gather under the banner of green deals, ecosocial deals, ecofeminist deals, livelihoods deals, deals for life or just transition deals: this could be just the push we need. The task is enormous, but it is the one that has fallen to us. We already knew that the 21st century would be the century of huge global challenges, but is seems that the pandemic is drumming that into us.

If we want to be the protagonists of our own future to come,
the contest starts now.

GREEN NEW DEAL

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Green deals in a time of pandemics

THE FUTURE WILL BE CONTESTED NOW

The pandemic has accelerated the arrival of a new phase in the crisis, which never completely disappeared and is interrelated with and aggravated by other 21st century global challenges.

The economic recovery is strengthening the premises of the Green New Deal in Europe. The dangers of supporting a growth model by arguing for absolute decoupling, the impacts of increasing extraction to obtain the critical raw materials required by the green, digital transition and the risks of over-indebtedness leading to the reactivation of austerity measures are more present than ever. In this context, the large corporations are aligning themselves with green policies and presenting themselves as key actors to capture the lion's share of the public resources available.

This book analyses this situation and aims to recognise the work of many collectives and movements which have created green deals as alternatives to the official line and do not shy away from structural, systemic and radical criticism of capitalism, patriarchy and colonialism.

Green deals in a time of pandemics is an invitation to come together in these difficult times, united by the conviction that, in this key decade, we are not prepared to be mere spectators of the future to come - which will be contested now.

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