How to Use This Guide

Visual Media

Audio / Podcast

Charts and Graphs

Lesson Plans

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Outlining Standards

Three sets of standards have been linked to each of the learning objectives in this packet. The **Washington State K-12 Social Studies Learning Standards** and the accompanying Grade Level Requirements are the social studies standards for WA State.

The College, Career, & Civic Life C3 Framework for Social Studies State Standards are the standards published by the National Council for the Social Studies. Guiding the packet as a whole is the Framework for Global Learning created by the Asia Society and the Council of Chief State School Officers titled *Educating for Global Competence: Preparing Our Youth to Engage the World* (2011).

Cross-objective standards are listed at the beginning of the packet, and content-specific standards can be found after each learning objective.

The standards provided have been selected for relevance, but are not exclusive: many other standards, such as Common Core, may be applicable to the resources and learning objectives identified in this packet. The intention for this packet's organization is to provide educators with an idea of resources available and possible uses for resources. Users should feel free to create their own learning objectives and to select resources according to the specific needs of their classrooms.

The student understands and applies reasoning skills to conduct research, deliberate, and form and evaluate positions through the processes of reading, writing, and communicating.

WASHINGTON STATE K-12 SOCIAL STUDIES LEARNING STANDARDS

There are five EALRs in Social Studies, one for each of the discipline areas: civics, economics, geography, and history, and a fifth for social studies skills.

(1) Social Studies EALR 1: CIVICS

The student understands and applies knowledge of government, law, politics, and the nation's fundamental documents to make decisions about local, national, and international issues and to demonstrate thoughtful, participatory citizenship.

(2) Social Studies EALR 2: ECONOMICS

The student applies understanding of economic concepts and systems to analyze decision-making and the interactions between individuals, households, businesses, governments, and societies.

(3) Social Studies EALR 3: GEOGRAPHY

The student uses a spatial perspective to make reasoned decisions by applying the concepts of location, region, and movement and demonstrating knowledge of how geographic features and human cultures impact environments.

(4) Social Studies EALR 4: HISTORY

The student understands and applies knowledge of historical thinking, chronology, eras, turning points, major ideas, individuals, and themes on local, Washington State, tribal, United States, and world history in order to evaluate how history shapes the present and future.

(5) Social Studies EALR 5: SOCIAL STUDIES SKILLS

The student understands and applies reasoning skills to conduct research, deliberate, and form and evaluate positions through the processes of reading, writing, and communicating.

COLLEGE, CAREER, & CIVIC LIFE C3 FRAMEWORK FOR SOCIAL STUDIES STATE STANDARDS

The C3 Framework is organized into the four Dimensions, which support a robust social studies program rooted in inquiry.

The four Dimensions are as follows:

(1) Developing questions and planning inquiries;

(2) Applying disciplinary concepts and tools;

(3) Evaluating sources and using evidence;

(4) Communicating conclusions and taking informed action

DIMENSION 1: DEVELOPING QUESTIONS AND PLANNING INQUIRES	DIMENSION 2: APPLYING DISCIPLINARY TOOLS AND CONCEPTS	DIMENSION 3: EVALUATING SOURCES AND USING EVIDENCE	DIMENSION 4: COMMUNICATING CONCLUSIONS AND TAKING INFORMED
Developing Questions and Planning Inquiries	• Civics • Economics • Geography	• Gathering and Evaluating Sources • Developing Claims and Using Evidence	• Communicating and Critiquing Conclusions • Taking Informed Action

Dimension 2 has four disciplinary subsections: **(1) Civics; (2) Economics; (3) Geography; (4) History**. Each disciplinary subsection has three to four additional categories, which provide an organizing mechanism for the foundational content and skills within each discipline.

C3 Framework Organization

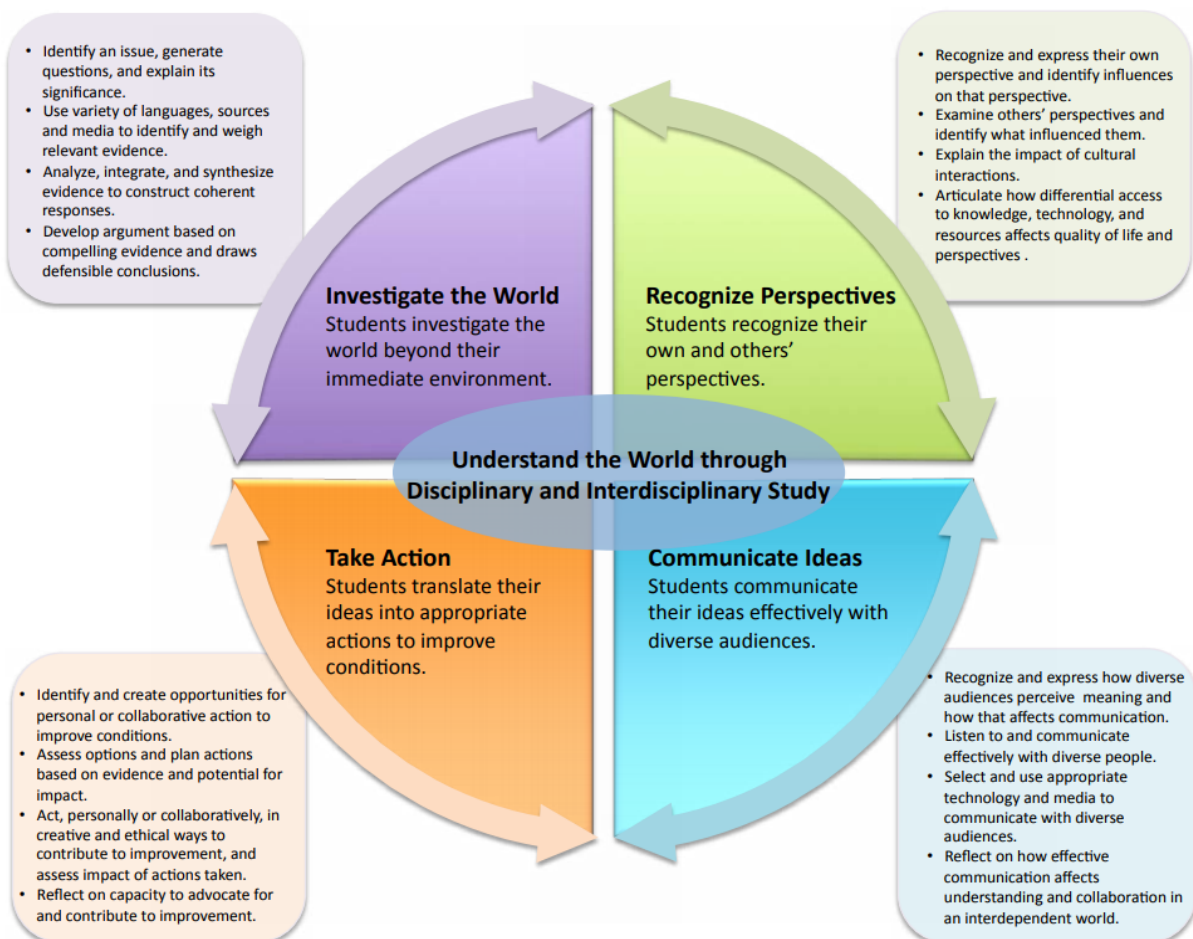| CIVICS	ECONOMICS	GEOGRPAHY	HISTORY
Civic and Political Institutions	Economic Decision Making	Geographic Representations: Special Views of the World	Change, Continuity, and Context
Participation and Deliberation: Applying Civic Virtues and Democratic Principles	Exchange and Markets	Human-Environment Interaction: Place, Religions, and Culture	Perspective
Processes, Rules, and Laws	The National Economy	Human Populations: Spatial Patterns and Movements	Historical Sources and Evidence
	The Global Economy	Global Interconnections: Changing Spatial Patterns	Causation and Argumentation

Educating for Global Competence

Frameworks taken from *Educating for Global Competence: Preparing Our Youth to Engage the World (*Asia Society and the Council of Chief State School Officers 2011*)*.

"**Global competence is the capacity and disposition to understand and act on issues of global significance**" (Chapter 2).

Globally competent students are able to perform the following four competences:

1. **Investigate the world** beyond their immediate environment, framing significant problems and conducting well-crafted and age-appropriate research.

2. **Recognize perspectives** others' and their own, articulating and explaining such perspectives thoughtfully and respectfully.

3. **Communicate ideas** effectively with diverse audiences, bridging geographic, linguistic, ideological, and cultural barriers.

4. **Take action** to improve conditions, viewing themselves as players in the world and

- Identify an issue, generate questions, and explain its significance.
- Use variety of languages, sources and media to identify and weigh relevant evidence.
- Analyze, integrate, and synthesize evidence to construct coherent responses.
- Develop argument based on compelling evidence and draws defensible conclusions.

Investigate the World
Students investigate the world beyond their immediate environment.

Recognize Perspectives
Students recognize their own and others' perspectives.

- Recognize and express their own perspective and identify influences on that perspective.
- Examine others' perspectives and identify what influenced them.
- Explain the impact of cultural interactions.
- Articulate how differential access to knowledge, technology, and resources affects quality of life and perspectives .

Understand the World through Disciplinary and Interdisciplinary Study

Take Action
Students translate their ideas into appropriate actions to improve conditions.

Communicate Ideas
Students communicate their ideas effectively with diverse audiences.

- Identify and create opportunities for personal or collaborative action to improve conditions.
- Assess options and plan actions based on evidence and potential for impact.
- Act, personally or collaboratively, in creative and ethical ways to contribute to improvement, and assess impact of actions taken.
- Reflect on capacity to advocate for and contribute to improvement.

- Recognize and express how diverse audiences perceive meaning and how that affects communication.
- Listen to and communicate effectively with diverse people.
- Select and use appropriate technology and media to communicate with diverse audiences.
- Reflect on how effective communication affects understanding and collaboration in an interdependent world.

Historical Background of the European Union (EU)

European Union—The History of the European Union

From resistance fighters to lawyers and parliamentarians, the EU pioneers were a diverse group of people who held the same ideals: a peaceful, united and prosperous Europe.

EU Members Countries in Brief

This list of EU member states includes information about each country's capital, population size, flag, languages, currency, and more!

European Union—Countries

The EU was not always as big as it is today. When European countries started to cooperate economically in 1951, only Belgium, Germany, France, Italy, Luxembourg and the Netherlands participated. Over time, more and more countries decided to join. The Union currently counts 27 EU countries. The United Kingdom withdrew from the European Union on 31 January 2020.

Historical Background of the European Union (EU)

EU Symbols

Symbols of the European Union include its blue flag with a circle of yellow stars, but it also has an anthem and motto.

History—Consilium

The European Council, one of the main governing institutions of the European Union, has selected pivotal events that have shaped the EU following its creation after World War II. This webpage features an interactive timeline with images, key treaties, policies, and enlargements, as well as several videos and a documentary tracing the history of the European Council.

#EUArchives—50 Years of the EU in the World

With images and videos from the archives of the European Union, this video from the European Commission showcases how the EU has changed the face of Europe with increased stability and prosperity across the region.

EU Learning—Introduction

Intended for enriching Canadian secondary school students about the European Union, this launchpad from Carleton University provides all secondary school educators resources about the history, politics, economics, and culture of the EU as well as lesson plans, programs, and games.

Resources For Teachers

Straight from the European Union itself, this page offers lesson plans divided by age group, for students 9-15+. Ranging from videos and presentation slides to teaching kits, brochures, and more, these EU-approved learning materials are an asset to learning about the history of the union.

European Union Geography

Europe in a Global Context: Geographical Perspectives

Columbia University's journal, EuropeNow, gives a thorough history and description of the geography's uses and significance in understanding Europe's politics, especially in the last century. It provides a background for subjects that would become paramount to the European Union's policymaking, including the European Green Deal, geography in economics, and Europe's success in achieving the UN SDGs. The source also explores the relationship between the European Union and the European Association of Geographers (EUROGEO).

European Union Maps

Maps depicting the various enlargements of the European Union, the total number EU member states (prior to Brexit), and some candidate countries provide a great visual for students to understand the breadth of EU territory and its role across the 20 and 21st centuries.

European Union Geography

Geography: The Language of Europe

The Royal Geographical Society has put together a cross-cultural lesson plan outline for introducing the geography of the European Union. It focuses on understanding which countries are in the EU, what the EU's primary goals are and why, and how the EU prioritizes unity in light of its diversity.

The Geography of EU Discontent

In response to the growing opposition to the European Union, the EU conducted a study to determine which constituents and geographical areas were more likely to have discontent with the EU. They looked at demographics pertaining to region, age, education levels, and more. This source also has an interesting interactive map.

Learn Europe—Educational Open E-Tools

This website gives a teaching guide (lesson planning resource) for educators who wish to teach about the foundations of the European Union through geography, history, and the economy. It also provides topics (e.g. energy policy, fisheries policy, sustainable development) for classroom debates, mirroring the conversations being held among the EU.

Did You Know?

There are 24 official languages in the European Union. The most commonly used are English, French, and German!

Geography Activity

Lizardpoint.com

CAN YOUR STUDENTS NAME THE NATIONS OF THE EU AND EUROPE?

HAVE YOUR STUDENTS IDENTIFY THE NATIONS ON THE MAP IN SMALL GROUPS OR AS A CLASS.

HOW DO THEY THINK EUROPE'S GEOGRAPHY MIGHT IMPACT ITS CLIMATE POLICY?

Sustainable Development Goals (SDGs)

The SDGs in Action

The Sustainable Development Goals (SDGs), also known as the Global Goals, were adopted by the United Nations in 2015 as a universal call to action to end poverty, protect the planet, and ensure that by 2030 all people enjoy peace and prosperity.

SDGs Working Group

These working groups engage young people in the work of GCE, providing the opportunity to have an active role in EU decision making and be heard on climate and environmental issues. Each working group is managed by two coordinators. The currently working groups are: Biodiversity, Circular Economy, Climate Justice, Clean Mobility , and the Sustainable Development Goals.

The SDGs Explained For Business

No matter how large or small, and regardless of their industry, all companies can contribute to the SDGs. While the scale and scope of the global goals is unprecedented, the fundamental ways that business can contribute remain unchanged. The UN Global Compact asks companies to first do business responsibly and then pursue opportunities to solve societal challenges through business innovation and collaboration.

MODULE 1

Europe's Twin Transitions

CLIMATE NEUTRALITY & DIGITAL TRANSFORMATION

Dr. Max Lemke

HEAD OF INTERNET OF THINGS (IOT) UNIT, EUROPEAN COMMISSION'S DIRECTORATE-GENERAL FOR COMMUNICATIONS NETWORK, CONTENT & TECHNOLOGY

Introduction to Session Speaker

Dr. Max Lemke is the Head of Internet of Things (IoT) unit in the European Commission's Directorate-General for Communications Networks, Content and Technology. He is responsible for Horizon 2020 programmes on the digital transformation of key industrial sectors, including in particular in agri-food, smart energy and mobility. In the new Horizon Europe and DIGITAL programmes, he coordinates the developments on the next generation IoT as well as on data spaces and digital industrial platforms for the above sectors.

In his previous roles at the Commission, Max Lemke had a leading role in developing and coordinating the Digitising European Industry strategy, and was involved in the development of the European Strategy for Artificial Intelligence. He was responsible for embedded and cyber-physical systems, advanced computing, and ICT for manufacturing (Industry 4.0). for Manufacturing SMEs) initiative. He was co-responsible for the joint technology initiative ECSEL (Electronic Components and Systems for European Leadership) and the public-private partnership Factories of the Future. In the latter context, he has gradually built the I4MS (ICT Innovation

Max has a scientific background in numerical mathematics, high-performance computing, and software engineering. He holds diploma in Mathematics and Computer Science, as well as a Doctorate in Natural Sciences. In 2020, he conducted a study on "The digital industrial ecosystems in the Pacific Northwest" and taught a course on "Geopolitics of innovation: The US, the EU and China" as a European Union Fellow at the University of Washington in Seattle.

Key Terms

European Union: international organization comprising 27 European countries and governing common economic, social, and security policies. Originally confined to western Europe, the EU undertook a robust expansion into central and eastern Europe in the early 21st century. The treaty was designed to enhance European political and economic integration by creating a single currency (the euro), a unified foreign and security policy, and common citizenship rights and by advancing cooperation in the areas of immigration, asylum, and judicial affairs.

European Commission: an institution of the European Union (EU) and its constituent entities that makes up the organization's executive arm. The EC has legislative functions, such as proposing new laws for the European Parliament, and judicial functions, such as finding legal solutions to business and trade issues between countries within the EU.

Council of Europe: organization of European countries that seeks to protect democracy and human rights and to promote European unity by fostering cooperation on legal, cultural, and social issues. The Council of Europe addresses issues of common concern to its members, including human rights, crime prevention, drug abuse, environmental protection, bioethical issues, and migration. To manage these affairs, the council has devised more than 160 international agreements, treaties, and conventions that have replaced literally tens of thousands of bilateral treaties between various European states.

Digital Revolution: The Fourth Industrial Revolution heralds a series of social, political, cultural, and economic upheavals that will unfold over the 21st century. Building on the widespread availability of digital technologies that were the result of the Third Industrial, or Digital, Revolution, the Fourth Industrial Revolution will be driven largely by the convergence of digital, biological, and physical innovations.

Zero-Energy Building: Also called net zero-energy building, any building or construction characterized by zero net energy consumption and zero carbon emissions calculated over a period of time. Zero-energy buildings (ZEBs) usually use less energy than traditional buildings as well as generate their own energy on-site to use in the building; hence, many are independent from the national (electricity) grid.

Climate Neutrality: Climate neutrality can be achieved if CO_2 emissions are reduced to a minimum and all remaining CO_2 emissions are offset with climate protection measures. If climate-damaging greenhouse gases are completely avoided or if gases that have already been emitted are saved elsewhere, this is referred to as "climate-neutral

Learning Objectives

1. Students will be able to identify, analyze, and discuss the impact of climate change on European nations, including efforts to mitigate the impact of climate change on local, national, and regional communities.

2. Students will be able to identify and explain the European Union's strategy to achieve climate neutrality and accelerate digital transformation through green technologies.

3. Students will be able to identify and evaluate the role of digital technology and infrastructure development projects, including the Digital Europe Programme, to address environmental issues across the EU.

4. Students will be to explain components of the EU's Destination Earth (DestinE) program, including its efforts to create a digital twin of the Earth, and evaluate its role in Europe's Green Deal.

5. Students will be able to identify and explain how collaboration among European Union members will accelerate efforts to mitigate climate change issues.

6. Students will be able to identify, analyze, and discuss their potential role in addressing climate change and environmental sustainability through individual and collective action.

Guiding Questions for Educators

•How does this topic fit into the context of your curriculum? Strategies for bringing this into the classroom?

•What enduring understandings do you want your students to learn from this topic/issue? Key concepts, skills, and ideas?

•Application to 4 pillars of global competence?

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Climate & the Digital Future

Destination Earth

Destination Earth (DestinE) aims to develop a high precision digital model of the Earth to monitor and simulate natural and human activity.

The Environmental Impact and Potential of Digital Technology

France has released a new bill that's goal is to "*reduce the digital world's environmental footprint.*" While an important bill in addressing energy concerns, it can be difficult to mark the environmental cost of technology. In many ways technology makes industries more efficient, reducing their impact on the environment and in other ways technology increases energy and resource use.

Towards a Green, Competitive and Resilient EU Economy: How can Digitalization Help?

This paper, prepared for Germany's Presidency of the Council of the European Union, serves to inform EU member states' ministers of the environment on the rationale and prospects for aligning the EU's sustainability and digitalization agendas. It summarizes the main findings and policy recommendations of the European Policy Centre's (EPC) project 'Digitalization and Sustainability', which was commissioned by the German Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) and carried out between 2019 and 2020.
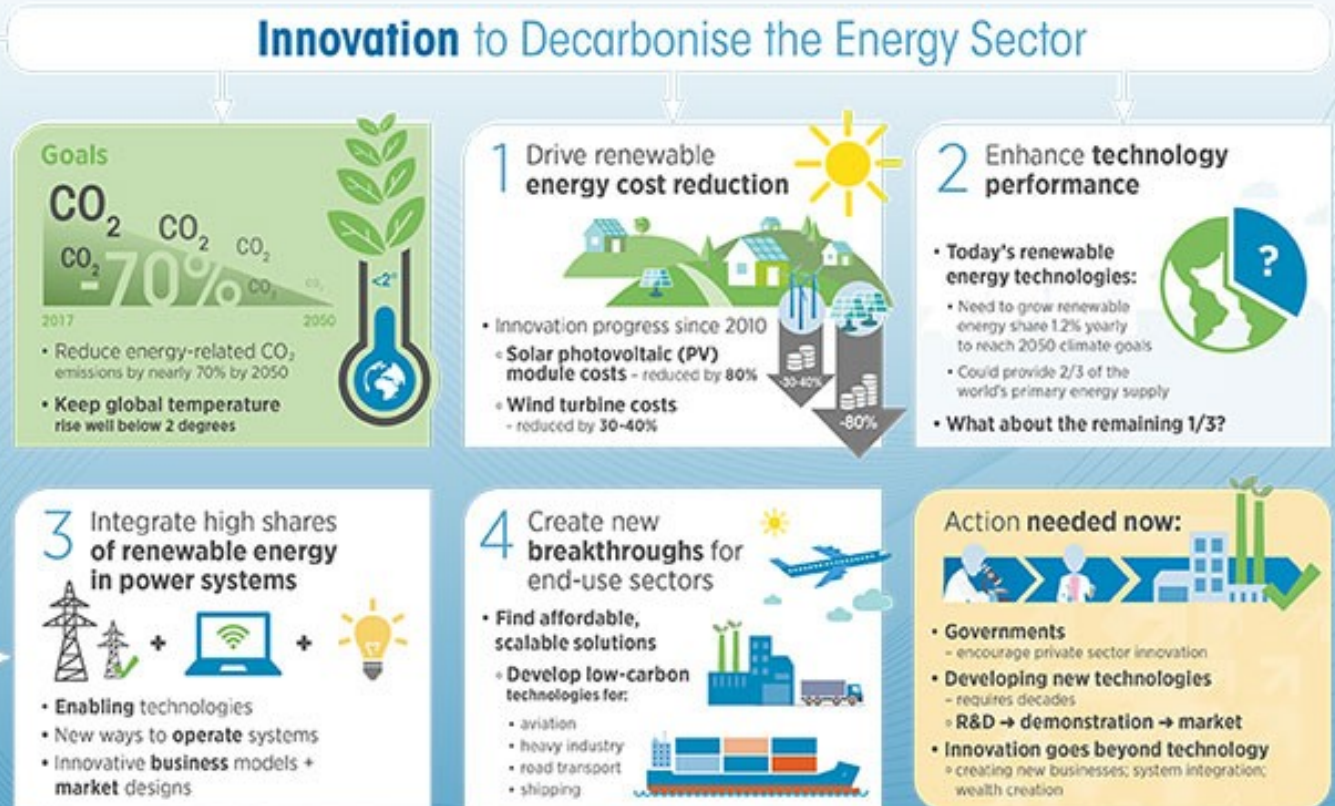
Climate & the Digital Future

Breakthrough Climate Technologies

From carbon capture to hydrogen to climate intervention/geo-engineering to synthetic biology and more, exciting new tech, and new uses of established tech, are transforming how we work to slow and reverse climate change. *In this episode of the Techstars Climate Tech Podcast, host Cody Simms talks with Clay Dumas, Partner at* Lowercarbon Capital*, about the breakthrough climate technologies that have the most promise to address our climate crisis.*

On Climate Action, Europe must Learn from its Digital Mistakes

The World Economic Forum states that in the digital revolution of the early 2000's, Europe mistakenly did not invest. As climate change transforms the world's economy in the coming years, Europe must become a leader in green energy and a sustainable economy. This may be a difficult feat, for while most Europeans believe in the reality of climate change, very few believe it could boost their economy.

Innovation to Decarbonise the Energy Sector

Goals

CO$_2$ CO$_2$ CO$_2$ CO$_2$ -70%

2017 — 2050

- Reduce energy-related CO$_2$ emissions by nearly 70% by 2050
- Keep global temperature rise well below 2 degrees

1 Drive renewable energy cost reduction

- Innovation progress since 2010
- Solar photovoltaic (PV) module costs - reduced by 80%
- Wind turbine costs - reduced by 30-40%

2 Enhance technology performance

- Today's renewable energy technologies:
  - Need to grow renewable energy share 1.2% yearly to reach 2050 climate goals
  - Could provide 2/3 of the world's primary energy supply
- What about the remaining 1/3?

3 Integrate high shares of renewable energy in power systems

- **Enabling** technologies
- New ways to **operate** systems
- Innovative **business** models + **market** designs

4 Create new breakthroughs for end-use sectors

- Find affordable, scalable solutions
- Develop low-carbon technologies for:
  - aviation
  - heavy industry
  - road transport
  - shipping

Action needed now:

- **Governments**
  - encourage private sector innovation
- **Developing new technologies**
  - requires decades
  - R&D → demonstration → market
- **Innovation goes beyond technology**
  - creating new businesses; system integration; wealth creation

To learn more, see **Perspectives on the Energy Transition**

IRENA
International Renewable Energy Agency

Climate & the Digital Future

[EU Countries Commit to Leading the Green Digital Transformation](#)

26 Member States and Norway and Iceland have signed a declaration to accelerate the use of green digital technologies for the benefit of the environment. They will deploy and invest more green digital technologies to achieve climate neutrality and accelerate the green and digital transitions in priority sectors in Europe, for example by using the NextGenerationEU and InvestEU funds.

[The Digital Europe Programme](#)

The Digital Europe Programme (DIGITAL) is a new EU funding programme focused on bringing digital technology to businesses, citizens and public administrations.

[Shaping Europe's Digital Future](#)

The digital transition should work for all, putting people first and opening new opportunities for business. Digital solutions are also key to fighting climate change and achieving the green transition.

EUROPE'S ROLE IN TACKLING CLIMATE CHANGE

Debating Europe

CLIMATE CHANGE IS A KEY CONCERN

CO₂

Carbon dioxide emissions grew from

9,200 Kilotons in the 1960s

to

34,600 Kilotons in 2011

Over the past century, the global temperature has climbed

0.7 °C

almost 10 times faster than the average rate of ice-age-recovery warming

By 2050, the global population is expected to exceed

9 Billion

and the demand for energy and water will rise by over **30%**

Total demand for food in 2050 will grow by

60%

The area of available arable land per person may decrease by

1,5% per year

EUROPEAN TARGETS

The EU climate strategy for 2020 includes:

20% of energy to be produced by **renewables**

20% lower **greenhouse gas emissions**

20% increase in **energy efficiency**

A New Global Agreement — PARIS CLIMATE SUMMIT

195 countries signed the first **legally binding climate deal** in Dec. 2015

All countries committed to lower their **carbon emissions**

There was agreement to try and limit the **global temperature** increase to 1.5C

Progress will be reviewed every five years

WHAT WILL BE THE CONSEQUENCES FOR EUROPE?

Extreme weather will affect Europe

The number of people affected by **flooding** anually by 2085 could increase from 775,000 to 5.5 million

Over 80% of Europeans are exposed to **particulate matter (PM) concentrations** in air, and will see their life expectancy go down by an average of nearly 9 months

Temperature-related cases of **Salmonella infection** could rise by 50%

WHAT WILL BE THE CONSEQUENCES FOR THE WORLD?

By 2030, Europe and North America will be the only regions not experiencing significantly **reduced wheat, rice, and soy crops**

Demand for land leads to **deforestation**, and this will increase in Africa, Latin America, and the Caribbean

Terrestrial biodiversity will decline from 68% in 2010 to around 60 % in 2050

European Green Deal

The EU's goal of climate neutrality by 2050

The EU has committed to achieving climate neutrality by 2050. Reaching this objective will require a transformation of Europe's society and economy, that will need to be cost-effective, just, and socially balanced. The European Commission's European Green Deal communication sets out policy initiatives that aim to help the EU achieve its 2050 climate neutrality goal. The **Council** discusses legislative and other initiatives under the European Green Deal after they are proposed by the Commission.

The European Green Deal

Ditte Juul Jørgensen, director general for energy with the European Commission, talks with Nikos Tsafos (CSIS) about the European Green Deal. This new roadmap provides a framework for the EU to be carbon neutral by 2050 and develops best practices to meet new energy targets and to maintain forward momentum for the energy transition across Europe (recorded in late February).

Climate Action Tracker

The Climate Action Tracker, which evaluates global attempts at climate change mitigation strategies in relation to the Paris Agreement, has given the EU the rating "insufficient." Its assessment investigates the successes and remaining challenges of the EU's approach to climate action, and considers the policy projections for the future.

European Green Deal

The European Green New Deal—A Commitment to Future Generations

On 11 December 2019, the European Commission announced the European Green Deal to transform the European Union into the first climate neutral continent by 2050. Over the last year, the European Commission has been working on a significant number of fronts to achieve this overall objective. The EU's recovery from the coronavirus pandemic will be a green recovery.
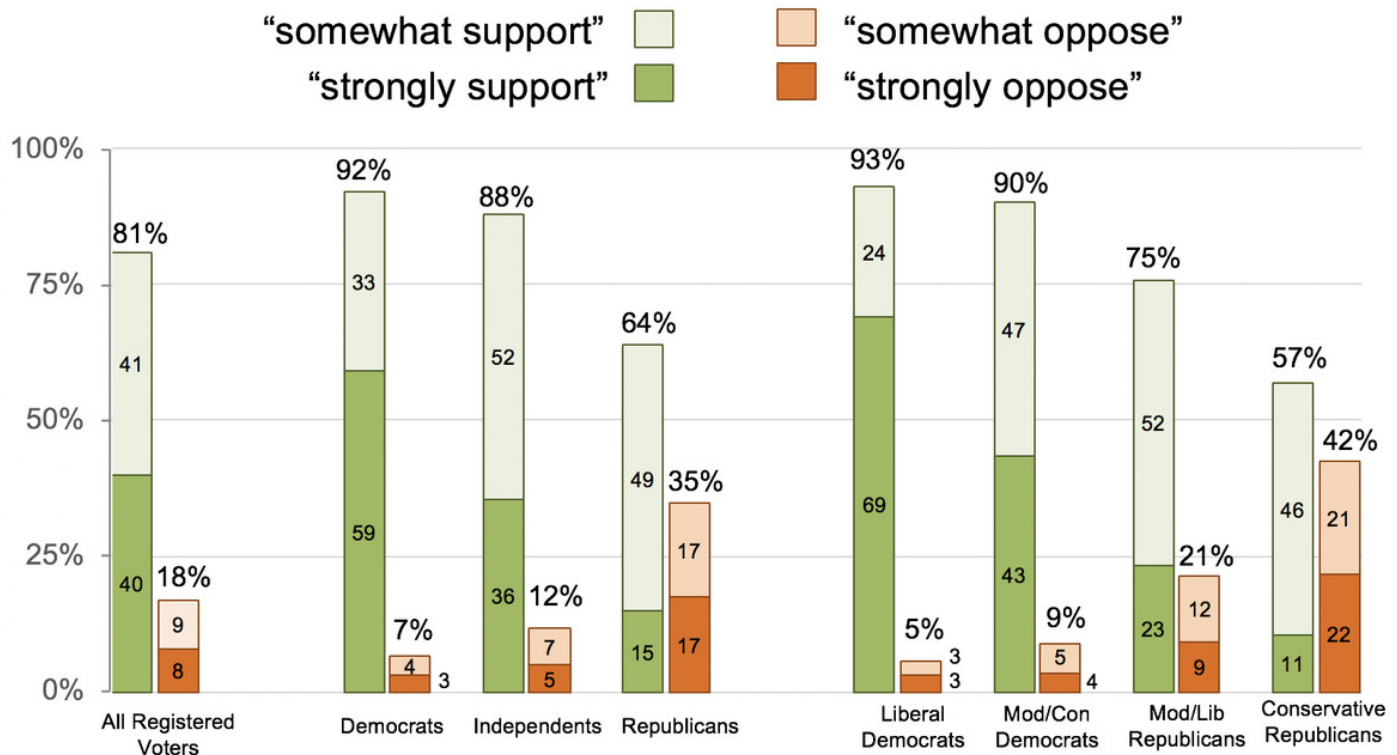
Europe's Green Deal, Unveiled

New European Commission President Ursula von der Leyen presented on December 11 a plan to make the bloc the first climate-neutral continent by 2050. The Green Deal consists of a roadmap to address environmental challenges while, at the same time, promoting an efficient use of resources.

Support for the Green New Deal among Registered Voters

Legend:
- "somewhat support" (light green)
- "strongly support" (green)
- "somewhat oppose" (light orange)
- "strongly oppose" (orange)

Group	somewhat support	strongly support	somewhat oppose	strongly oppose
All Registered Voters	41	40	9	8
	(81%)		(18%)	
Democrats	33	59	4	3
	(92%)		(7%)	
Independents	52	36	7	5
	(88%)		(12%)	
Republicans	49	15	17	17
	(64%)		(35%)	
Liberal Democrats	24	69	3	3
	(93%)		(5%)	
Mod/Con Democrats	47	43	5	4
	(90%)		(9%)	
Mod/Lib Republicans	52	23	12	9
	(75%)		(21%)	
Conservative Republicans	46	11	21	22
	(57%)		(42%)	

"Some members of Congress are proposing a 'Green New Deal' for the U.S. They say that a Green New Deal will produce jobs and strengthen America's economy by accelerating the transition from fossil fuels to clean, renewable energy. The Deal would generate 100% of the nation's electricity from clean, renewable sources within the next 10 years; upgrade the nation's energy grid, buildings, and transportation infrastructure; increase energy efficiency; invest in green technology research and development; and provide training for jobs in the new green economy. How much do you support or oppose this idea?"

December 2018. Base: 966 registered American voters. Weighted to U.S. Census parameters. Due to rounding and non-response, sums may not equal 100%.

YALE PROGRAM ON Climate Change Communication

GEORGE MASON UNIVERSITY CENTER *for* CLIMATE CHANGE COMMUNICATION

European Green Deal

Metals Recycling in EU could collapse under new rule, companies say

Europe's metals recycling industry could collapse under the European Commission's proposed changes to waste shipments that clamp down on exports to encourage recycling, members of the Bureau of International Recycling (BIR) have warned. The EU proposals aim to restrict the export of waste materials such as metals, plastics and textiles as part of efforts to increase recycling within the bloc and stop waste being shipped to emerging market countries where it may be dumped rather than recycled.

The EU's Deforestation Package: A Test for Taking the Green Deal Global

The EU is preparing a new deforestation package with international dimensions. After failing to meet its target of halting deforestation by 2020, this time the union must be aggressively ambitious. That means changing business-as-usual strategic and geo-economic behavior.

European Green Deal

Citizen Support for Climate Action

A 2019 survey by the European Commission showed that 93% of EU citizens think that climate change is a serious problem, while 79% think it is a very serious problem. A large majority of respondents believe that political action on climate is important for improving the EU's economy, while 93% have already taken personal action to fight climate change. Surveys, statistics, and infographics on climate opinions from various EU member nations can be accessed.

Ready for the Green Challenge?

An educational toolkit providing fresh ideas and background information for classroom sessions on sustainability issues is available for secondary school teachers. The toolkit was developed as part of the Green Trip campaign, promoting sustainable projects and lifestyles among young Europeans.

The Geopolitics of the European Green Deal

The European Green Deal will have profound geopolitical repercussions, some of which are likely to have an adverse impact on the European Union's partners. The European Council on Foreign Relations published this paper with recommendations on how to mitigate any negative effects to improve international political relationships as well as global climate policies.

"The European Green Deal is our new growth strategy – it is a strategy for growth that gives more back than it takes away. And we want to really make things different. We want to be the frontrunners in climate friendly industries, in clean technologies, in green financing.

But we also have to be sure that no one is left behind."

- European Commission President, Ursula von der Leyen

European Green Deal

Developing a Sustainable Blue Economy in the European Union

The European Commission is proposing a new approach for a sustainable blue economy in the EU for the industries and sectors related to oceans, seas and coasts. A sustainable blue economy is essential to achieving the objectives of the European Green Deal and ensuring a green and inclusive recovery from the pandemic.

Blue Economy:
a long-term strategy aimed at supporting sustainable economic growth through oceans-related sectors and activities, while improving human well-being and social equity and preserving the environment

Building a Climate-Resilient Future— A New EU Strategy on Adaptation to Climate Change

The European Commission adopted today a new EU Strategy on Adaptation to Climate Change, setting out the pathway to prepare for the unavoidable impacts of climate change. While the EU does everything within its power to mitigate climate change, domestically and internationally, we must also get ready to face its unavoidable consequences. From deadly heatwaves and devastating droughts, to decimated forests and coastlines eroded by rising sea levels, climate change is already taking its toll in Europe and worldwide. Building on the 2013 Climate Change Adaptation Strategy, the aim of today's proposals is to shift the focus from understanding the problem to developing solutions, and to move from planning to implementation.

The EU Green Deal

The European Green Deal is about **improving the well-being of people**. Making Europe climate-neutral and protecting our natural habitat will be good for people, planet and economy. No one will be left behind.

The EU will:

Become climate-neutral by 2050

Protect human life, animals and plants, by cutting pollution

Help companies become world leaders in clean products and technologies

Help ensure a just and inclusive transition

Total greenhouse gases emissions*
per EU country in 2017

[kilotonnes CO_2 equivalent**]
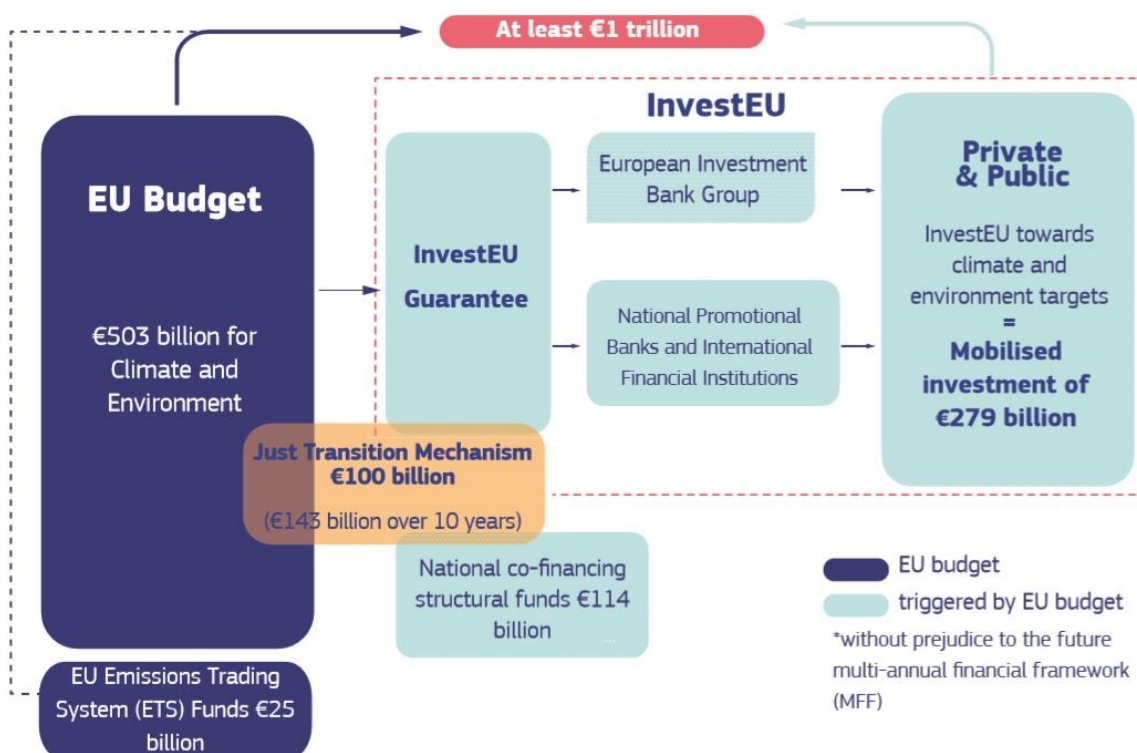
European Union (total)
4,323,163

Country	Emissions
Austria	82,261
Belgium	114,540
Bulgaria	61,367
Cyprus	8,945
Czech Republic	128,675
Germany	906,611
Denmark	47,612
Estonia	20,880
Greece	95,421
Spain	340,231
Finland	55,334
France	464,593
Croatia	25,020
Hungary	63,788
Ireland	60,744
Italy	427,708
Lithuania	20,417
Luxembourg	10,236
Latvia	11,306
Malta	2,152
Netherlands	193,260
Poland	413,781
Portugal	70,546
Romania	113,796
Sweden	52,660
Slovenia	17,454
Slovakia	43,316
United Kingdom	470,509

* All sectors excluding land use, land-use change and forestry (LULUCF)
** CO2, N2O in CO2 equivalent, CH4 in CO2 equivalent, HFC in CO2 equivalent, PFC in CO2 equivalent, SF6 in CO2 equivalent, NF3 in CO2 equivalent

europarl.eu

European Green Deal

WHERE WILL THE MONEY COME FROM?

At least €1 trillion

EU Budget

€503 billion for Climate and Environment

InvestEU Guarantee

Just Transition Mechanism €100 billion

(€143 billion over 10 years)

EU Emissions Trading System (ETS) Funds €25 billion

InvestEU

European Investment Bank Group

National Promotional Banks and International Financial Institutions

National co-financing structural funds €114 billion

Private & Public

InvestEU towards climate and environment targets = **Mobilised investment of €279 billion**

███ EU budget
███ triggered by EU budget

*without prejudice to the future multi-annual financial framework (MFF)

*The numbers shown here are net of any overlaps between climate, environmental and Just Transition Mechanism objectives.

The Economic Cost of Climate Change in Europe

The objective of the COACCH project (CO-designing the Assessment of Climate CHange costs) is to produce an improved downscaled assessment of the economic costs of climate change in Europe that is of direct use to end users from the research, business, investment, and policy making community. To help inform the framing of the project and the first stakeholder workshop, the project has undertaken a review of the current knowledge on the economic costs of climate change in Europe.

Lesson Plan: Teaching Opportunity Costs of Greenhouse Gas Emissions

Global warming due to greenhouse gas emissions from the burning of fuel, is an important aspect of climate change. This lesson plan will enable your students to apply their understanding of opportunity costs for the use of a greenhouse gas emitting fuel in product manufacturing. This resource will allow your students to experiment with individual/consumer choices and budget constraints for production decisions by trading emissions permits at a fixed market price in an interactive classroom experiment. Thus, the use of this lesson plan allows you to integrate the teaching of a climate science topic with a core topic in Economics.

European Green Deal

Illustrative Socio-Economic Tipping Points

Figure labels:
- Failure of critical infrastructure e.g. transport or protection
- Large scale retreat from coastal zones
- Low-lying Alpine resorts close because of increase in winter temperatures
- Repeated major urban heat wave and mortality events
- International supply chain shocks
- Southern European food production shocks, e.g. shifts out of suitability, sudden price shocks
- Climate induced large-scale migration into Europe

Climate change will unevenly impact the European financial system

Climate change will impact those parts of the financial system most exposed to its disruptive effects. This column analyses a new financial stability risk mapping for the EU financial system, linking financial exposures of thousands of banks, insurance companies, and investment funds to millions of firms subject to climate risk. It highlights a high level of risk concentration, both in European regions subject to climate hazards as well as economic sectors with diverse carbon emission intensities. Long-term scenario analyses suggest that the risks will be best addressed through proactive policies that directly contain global temperature rises.

Green Taxation – in support of a more sustainable future

The EU has adopted ambitious legislation across multiple policy areas to implement its international commitments on climate change. EU countries have set binding emission targets for key sectors of the economy to substantially reduce greenhouse gas emissions.

EU Green Deal – Timeline of upcoming initiatives with potential trade implications

2021

2022

2023

2025

EU climate law -
Adoption: April
2021

Fit for 55 Package:
Revision of RED, ETS, ESR
and LULUCF – Legislative
proposals: June 2021

EU study on genomic
techniques –
Publication: April 2021

Sustainable finance
taxonomy – Adoption:
April/May 2021

Carbon border
tax – Legislative
Proposal – Q2
2021

Deforestation-free
supply chain –
Legislative proposal:
Summer 2021

Reducing
packaging waste -
Legislative Proposal:
Q2 2021

EU carbon farming
initiative -
Publication: Q4 2021

Revision of the feed
additive regulation –
Legislative proposal:
Q4 2021

Framework for bio-based plastics
and biodegradable or compostable
plastics – Legislative proposal: 2021

Mandatory recycled
content and plastic waste
reduction - Legislative
Propoal: 2021/2022

Revision of the Food Information
to Consumers regulation: front-of
pack labeling, nutrient profiles,
origin labeling, date marking –
Legislative proposal: Q4 2022

Revision of the
sustainable use of
pesticides directive –
Legislative proposal: Q1
2022

Reducing pesticide
use - Legislative
Proposal: Q1 2022

Revision of EU
marketing standards–
Legislative proposal:
2022-2023

Revision of agricultural products
promotion programs - Legislative
proposal: Q1 2022

Revision of EU rules on food
contact materials - Legislative
proposal: Q4 2022

Sustainable food
systems – Legislative
proposal: 2023

Sustainable food
labeling – Legislative
proposal: 2024

Revision of animal
welfare legislation
- Legislative
Propoal: Q3 2024

Food waste targets –
Legislative proposal:
2023

Legislative proposals

Non-legislative initiatives

Climate Neutrality

A Beginner's Guide to Climate Neutrality

So you want to understand climate neutrality but don't know where to start? Let this beginners' guide help you get started. And while climate neutrality is something that countries, cities, organizations and individuals need to aim for, this guide focuses on organizations and individuals, so you can start taking the steps needed to help get the planet to net zero emissions.

2050 Long Term Strategy

The EU aims to be climate-neutral by 2050– an economy with net-zero greenhouse gas emissions. This objective is at the heart of the European Green Deal and in line with the EU's commitment to global climate action under the Paris Agreement.

5 Facts About the EU's Goal of Climate Neutrality

What does climate neutrality mean and how will the EU achieve this goal while promoting the wellbeing of its citizens? Here are five facts you need to know about the EU's climate ambitions.

EU Agrees To Be Carbon Neutral by 2050 on Eve of US-Led Climate Summit

The European Union reached a tentative climate deal that should make the 27-nation bloc climate-neutral by 2050, with member states and parliament agreeing on the targets on the eve of a virtual summit that U.S. President Joe Biden will host.

Balancing Green Energy, Energy Security, & Geopolitical Security

Dr. Sarah Lohmann

ACTING ASSISTANT PROFESSOR, EMERGING TECHNOLOGY, BIG DATA, & DISINFORMATION, HENRY M. JACKSON SCHOOL, UNIVERSITY OF WASHINGTON

Introduction to Session Speaker

Dr. Sarah Lohmann is an Acting Assistant Professor in the Henry M. Jackson School for International Studies and a Visiting Professor at the U.S. Army War College. Her current teaching and research focus is on cyber and energy security and NATO policy, and she is currently a co-lead for a NATO project on "Energy Security in an Era of Hybrid Warfare".

She joins the Jackson School from UW's Communications Leadership faculty, where she teaches on emerging technology, big data and disinformation. Previously, she served as the Senior Cyber Fellow with the American Institute for Contemporary German Studies at Johns Hopkins University, where she managed projects which aimed to increase agreement between Germany and the United States on improving cybersecurity and creating cybernorms.

Key Terms

Greenhouse Gas Emissions: Greenhouse gases are gas molecules that have the property of absorbing infrared radiation (net heat energy) emitted from Earth's surface and reradiating it back to Earth's surface, thus contributing to the phenomenon known as the greenhouse effect.

Climate Change: periodic modification of Earth's climate brought about as a result of changes in the atmosphere as well as interactions between the atmosphere and various other geologic, chemical, biological, and geographic factors within the Earth system.

EU Enlargement (Integration): has expanded a number of times throughout its history by way of the accession of new member states to the Union. To join the EU, a state needs to fulfil economic and political conditions called the Copenhagen criteria, which require a stable democratic government that respects the rule of law, and its corresponding freedoms and institutions. The process of enlargement is sometimes referred to as European integration. This term is also used to refer to the intensification of co-operation between EU member states as national governments allow for the gradual harmonization of national laws.

Geopolitics: analysis of the geographic influences on power relationships in international relations. In contemporary discourse, *geopolitics* has been widely employed as a loose synonym for international politics.

Energy Security: the uninterrupted availability of energy sources at an affordable price. Energy security has many aspects: long-term energy security mainly deals with timely investments to supply energy in line with economic developments and environmental needs. On the other hand, short-term energy security focuses on the ability of the energy system to react promptly to sudden changes in the supply-demand balance.

Renewable Energy: usable energy derived from replenishable sources such as the Sun (solar energy), wind (wind power), rivers (hydroelectric power), hot springs (geothermal energy), tides (tidal power), and biomass (biofuels).

Learning Objectives

 1. Students will be able to identify, analyze, and discuss the impact of climate change on European nations, including efforts to mitigate the impact of climate change on local, national, and regional communities.

2. Students will be able to define the concept "green energy" and analyze strategies across the European Union to address climate and environmental sustainability issues.

3. Students will be able to define the concept "geopolitics" and explain how EU policymakers are attempting to balance energy security and geopolitical issues within the context of their Green Deal.

4. Students will be able to define "energy security" and explain/discuss its role in shaping political, economic, and environmental decision-making among nations, including the EU.

5. Students will be able to analyze and discuss the implications of Europe's Green Deal on its non-European political and economic partners.

6. Students will be able to analyze data resources, such as public opinion polls across EU member states, to assess citizen support (and concern) for climate and environmental sustainability initiatives/policies.
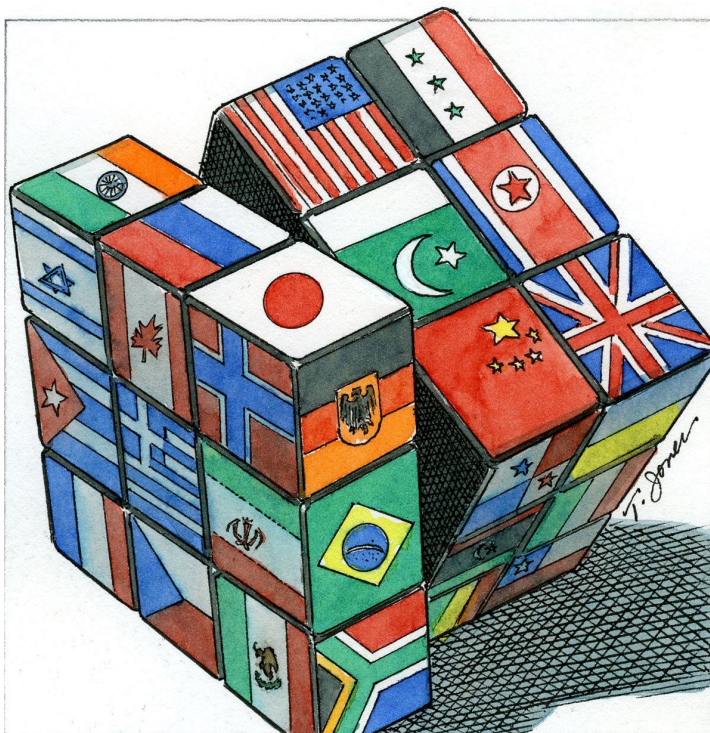
Energy Security

Europe Unveils Plan to Shift From Fossil Fuels, Setting Up Potential Trade Spats

The Proposal would impose tariffs on some imports from countries with looser environmental rules. It would also mean the end of sales in the European Union of new gas-and-diesel powered cars in just 14 years.

EU Environmental Sovereignty and Security Under the Green Deal

Think 2030 is an evidence-based, non-partisan platform of leading policy experts from European think tanks, civil society, the private sector and local authorities. The platform meets at least once every two years for a high-level conference to discuss and present the outcomes of the collaborative work.

In Focus: Energy Security in the EU

The constant supply of energy is something we often take for granted. Securing that energy supply is vital. It ensures our homes are heated – or air-conditioned – that we can phone, use lights and computers and that our hospitals, public transport and other essential services, like water distribution, function. How does the EU contribute to assure energy security to its nearly 500 million citizens? And what happens if the security of that energy supply is threatened?

Energy Security in the EU

The energy policies of European countries increasingly incorporate security of supply as a required element. States are determined to rule out politically motivated disruptions to energy supply or significant price spikes and reduce the risk that they might, in the most extreme case, be subject to direct coercion by threats of denial of access to energy. Security is an explicit element in the European Union's long-term strategy concerning its energy supply. SIPRI studies the potential security risks associated to energy supply across Europe and the ways in which these can be minimized.

7 AFFORDABLE AND CLEAN ENERGY

World's Largest Lesson

World's Largest Lesson promotes use of the Sustainable Development Goals in learning so that children can contribute to a better future for all. They are a programme from Project Everyone and produce creative tools for educators and action focused learning experiences for children and young people that build skills and motivation to take action for the SDGs.

Goal 7:

Ensure access to affordable, reliable, sustainable and modern energy for all.

Energy Security

What's the best way to improve energy security in Europe?

Since 2014, the price of oil has fallen by over 70%. With Saudi Arabia keen to keep production high in order to maintain its market share, coupled with a slowdown in China and the lifting of sanctions against Iran, oil prices could indeed fall further. What does this mean for energy security in Europe? Does cheap oil make it harder for Europe to break its dependency on energy imports?

Speech by Commissioner Simson at the North Atlantic Council meeting on energy security

2020 was a breakthrough year for energy. The oil supply shock and the pandemic provided a preview of how a renewable based energy system can look like. In Europe, for the first time electricity from renewable energy overtook electricity generated by fossil fuels. Many EU Member States accelerated the phase out from coal. New technologies and innovations kept coming to the market. Yet, the pandemic also brought to the fore our vulnerabilities, from the dependence on global supply chains to the vital role of functioning digital and electricity infrastructure.

Geopolitics of the Green Deal

The Green Deal will affect geopolitics through its impact on the EU energy balance and global markets; on oil and gas-producing countries in the EU neighborhood; on European energy security; and on global trade patterns, notably via the carbon border adjustment mechanism. At least some of these changes are likely to impact partner countries adversely.

> ### Be Thinking About...
>
> **1.** How does EU energy and environmental policy shape local, national, regional, and global decision-making?
>
> **2.** What key concepts (and skills) do you want students to know/acquire?
>
> **3.** What teaching strategies could you use to teach these topics in your classroom?

ENERGY SECURITY
in the EU

THE EU IS

HIGHLY DEPENDENT

ON ENERGY IMPORTS

TODAY, THE EU IMPORTS **53%** OF ALL ENERGY IT CONSUMES

ALL IMPORTS ACCOUNT FOR MORE THAN **€1 BILLION/DAY** *

*AROUND €400 BILLION IN 2013

ENERGY MAKES UP MORE THAN **20%** OF THE EU'S TOTAL IMPORTS

RUSSIA
IS THE BIGGEST SUPPLIER OF:
(IN % OF TOTAL IMPORTS)

SOLID FUELS	28.8%
OIL	33.5%
GAS	39%

CRUDE OIL
THE EU IMPORTS 90% OF THE CRUDE OIL IT CONSUMES

SAUDI ARABIA	NORWAY	RUSSIA
8.6%	11.7%	33.5%
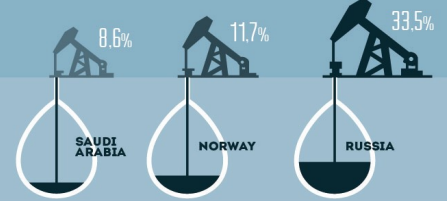
NATURAL GAS
THE EU IMPORTS 66% OF THE NATURAL GAS IT CONSUMES

IN 2013, 39% OF GAS IMPORTS BY VOLUME CAME **FROM RUSSIA**

RUSSIA

NATURAL GAS SUPPLIES FROM RUSSIA OFTEN GO THROUGH TRANSIT COUNTRIES SUCH AS UKRAINE OR BELARUS

BULGARIA	ESTONIA	FINLAND	LATVIA	LITHUANIA	ROMANIA	SLOVAKIA	CZECH REPUBLIC	GREECE	HUNGARY
100	100	100	100	97.6	89.7	75.7	64.3	58.3	57

WHICH COUNTRIES ARE MOST RELIANT ON GAZPROM? *

*PERCENTAGE OF TOTAL NATURAL GAS IMPORTS

THIS DEPENDENCE LEAVES THE EU VULNERABLE TO SUPPLY DISRUPTIONS, WHETHER CAUSED BY POLITICAL OR COMMERCIAL DISPUTES, OR INFRASTRUCTURE FAILURE.

ELECTRICITY
TODAY, THE EU IS THE ONLY MAJOR ECONOMIC ACTOR PRODUCING 50% OF ITS ELECTRICITY WITHOUT GREENHOUSE GAS EMISSIONS

RENEWABLE ENERGY 23%

27% NUCLEAR ENERGY
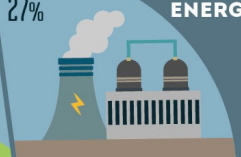
THE EU CAN SECURE ITS ENERGY SUPPLY BY...

INTEGRATING ITS ENERGY MARKET — **ENERGY MARKET**

REPLACING GAS AND OIL CONSUMPTION WITH RENEWABLES: WIND, SOLAR, HYDROPOWER, BIOMASS — **RENEWABLES**

ENERGY METERS — HELPING CONSUMERS TO LOWER THEIR ENERGY CONSUMPTION WITH SMART ENERGY METERS

OTHER IMPORTS — INCREASING GAS IMPORTS FROM NORWAY AND THE OPEC COUNTRIES

IMPORTING SHALE GAS FROM THE US

THE FUTURE

BY 2020, THE EU WANTS 20% OF ITS ENERGY CONSUMPTION TO COME FROM RENEWABLES

Climate & Geopolitical Security

[European Energy Diversification: How alternative sources, routes, and clean technologies can bolster energy security and decarburization](#)

This issue brief was informed by discussions at an Atlantic Council Global Energy Center roundtable on European energy security in Berlin on October 9, 2019, as well as other conversations with government officials, private sector executives, and leading academics in the global energy sector. The information in this issue brief will not be attributed to any specific individual since the discussions took place under the Chatham House Rule. This is the second issue brief in a series; it complements the findings in the first issue brief, "European Energy Security and Transatlantic Cooperation: A Current Assessment," which covered the current state of the European Union's regulatory environment and energy markets with a specific focus on energy security and natural gas markets.

[Peace Points: Climate Security: Challenges and Progress](#)

Dan Smith discusses challenges and progress made over the past year on addressing the climate-related security risks, as highlighted in the new report 'Climate Security – Making it #Doable. The report was recently published ahead of the 2019 Planetary Security Conference.

Climate & Geopolitical Security

The Geopolitics of Energy Security in Europe

Since Russia cut off the gas flowing through Ukraine in 2006 and 2009, energy security has been high on the minds of NATO's member states. These crises briefly halted major industrial production in the affected states and caused measurable economic harm. They also highlighted a clear vulnerability on the part of NATO countries, which could be exploited in future crises on the Eastern flank. That is why, although major decisions about individual nations' energy mixes and infrastructure investments are for those states and the European Union (EU) to make, NATO also has a distinct interest and a role to play.

European Energy Security: Options for EU Natural Gas Diversification

As a major energy consuming region, Europe faces a number of challenges in addressing its future energy needs. For member states of the European Union (EU), challenges include rapidly rising global demand and competition for energy resources from countries such as China and India, tensions with Russia, efforts to integrate the EU's internal energy market, and a growing need to shift fuels in keeping with the EU's climate change policy goals. As a result, energy supply security has become a key concern for the EU. European energy security is also of significant interest to the United States.

The Political Economy of Clean Energy Transitions

The 21st Conference of the Parties (CoP21) to the United Nations Framework Convention on Climate Change (UNFCCC) shifted the nature of the political economy challenge associated with achieving a global emissions trajectory that is consistent with a climate. The shifts generated by CoP21 place country decision-making and country policies at centre stage. Under moderately optimistic assumptions concerning the vigour with which CoP21 objectives are pursued, nearly every country in the world will set about to design and implement the most promising and locally relevant policies for achieving their agreed contribution to global mitigation. These policies are virtually certain to vary dramatically across countries. In short, the world stands at the cusp of an unprecedented era of policy experimentation in driving a clean energy transition.

Climate & Geopolitical Security

The EU Energy Strategy in 5 Graphs

The EU wants to insulate itself against the risk of energy supply disruption. The crisis in Ukraine has heightened the sense of vulnerability, particularly for those countries in the eastern EU that rely heavily on Russian gas. The European Commission has explored recent and expected future trends to see how greater energy security could be achieved. Here are five graphs that give you a flavour of what it says.

Why The EU Needs A Geopolitical Commission

History has shown that rogue leaders only understand the language of diplomacy when it is backed by force. With the return of great power rivalry, the EU has felt the need to gradually adapt its posture on the increasingly conflicted world stage. Last year, the newly appointed President of the European Commission, Ursula von der Leyen – a former defence minister of Germany, even defined her institution's mandate as being a geopolitical one. In her first State of the Union address, she has every reason to double down on that mission.

How The EU Can Survive in a Geopolitical Age

The euro, trade and competition policy, the norm-setting power of the internal market, and the EU's financial strength give the union the necessary means to thrive. But to fully use these instruments, the EU needs more decisive leadership, and its way of doing business will have to change.

2021, A Crucial Geopolitical Year For The European Green Deal

 While the Covid-19 health crisis has frustrated the hopes and expectations of 2020, which was due to be a year of major momentum for environmental multilateralism, the coming year gathers opportunities brought by the Green Deal for an ambitious ecological transition and renewal of the globalisation, but also geopolitical challenges. France, which will hold the EU presidency at the start of 2022, will have to contribute to the diplomatic resolution of several of these key issues, in close alignment with the 2021 Portuguese and Slovenian presidencies and in coordination with Germany, whose presidency has just ended, particularly on the issue of trade where it has sought to bring about change.

The Rise of Green Parties in European & EU Politics

WITH A FOCUS ON GERMANY

Dr. Niko Switek

DAAD VISITING ASSISTANT PROFESSOR FOR GERMAN STUDIES, HENRY M. JACKSON SCHOOL FOR INTERNATIONAL STUDIES AND THE DEPARTMENT OF POLITICAL SCIENCE, UNIVERSITY OF WASHINGTON

Introduction to Session Speaker

Dr. Niko Switek is DAAD Visiting Assistant Professor for German Studies at the Henry M. Jackson School for International Studies and the Department of Political Science at the University of Washington. His research interests focus on political parties and party systems as well as on coalition politics. He wrote extensively about the green party family in Western Europe and he worked on parties on European level ('Europarties')

Key Terms

The Greens, Green Party: any of various environmentalist or ecological-oriented political parties that formed beginning in the 1970s. The European Greens have committed themselves to the basic tenets of Green politics, such as environmental responsibility, individual freedom, inclusive democracy, diversity, social justice, gender equality, global sustainable development and non-violence.

Green Party of Germany: German environmentalist political party. It first won representation at the national level in 1983, and from 1998 to 2005 it formed a coalition government with the Social Democratic Party (SPD). The Green Party traces its origins to the student protest movement of the 1960s, the environmentalist movement of the 1970s, and the peace movement of the early 1980s.

Environmentalism: political and ethical movement that seeks to improve and protect the quality of the natural environment through changes to environmentally harmful human activities; through the adoption of forms of political, economic, and social organization that are thought to be necessary for, or at least conducive to, the benign treatment of the environment by humans; and through a reassessment of humanity's relationship with nature. In various ways, environmentalism claims that living things other than humans, and the natural environment as a whole, are deserving of consideration in reasoning about the morality of political, economic, and social policies.

Environmental Law: principles, policies, directives, and regulations enacted and enforced by local, national, or international entities to regulate human treatment of the nonhuman world. The vast field covers a broad range of topics in diverse legal settings, such as state bottle-return laws in the United States, regulatory standards for emissions from coal-fired power plants in Germany, initiatives in China to create a "Green Great Wall"—a shelter belt of trees—to protect Beijing from sandstorms, and international treaties for the protection of biological diversity and the ozonosphere.

Global Greens Charter: cooperative agreement made by an international group of environmentally minded political parties (green parties) and other organizations, who have pledged to work together on environmental and social causes on the basis of six guiding principles. The Global Greens Charter was signed at the Global Greens Congress in April 2001, in Canberra, Australia, by more than 800 delegates from 72 countries.

Learning Objectives

1. Students will be able to identify, analyze, and discuss the impact of climate change on European nations, including efforts to mitigate the impact of climate change on local, national, and regional communities.

2. Students will be able to define "Green Party" and identify/explain the role of green parties within/across the European Union.

3. Students will be able to identify, analyze, and discuss three initiatives proposed by green parties in Europe, including the possible impact of these initiatives or policy proposals on the EU.

4. Students will be able to identify and evaluate the role of a national green party within the EU, such as Germany, and discuss how it is influencing public discourse, policymaking, and cooperation.

5. Students will be able to compare green party goals/initiatives in the European Union with similar parties in the United States or other contexts around the world.

6. Students will be able to analyze and discuss the rise of green parties within/across the EU and their role in shaping Europe's Green Deal.

The Green Party

This European Green Party video describes their values, goals and aspirations for Europe. They state "We're striving for a Green transformation of Europe and its economy, that will bring about a progressive and sustainable future for all its citizens. We focus on strengthening human rights, tackling climate change, creating good jobs, empowering young people and building a strong, democratic Europe."

The European Green Party's charter gives further insight into their guiding principles and political intentions. They stand for the sustainable development of humanity on planet Earth, a mode of development respectful of human rights and built upon the values of environmental responsibility, freedom, justice, diversity and non-violence.

The world's second-largest exercise in democracy produced big wins for Europe's left-wing Green Party, some gains for far-right politicians, and a collapse of traditional centrist parties. The episode breaks down what these results actually mean for the people of Europe, the European Union, and the rise of fringe parties around the world.

The Green Party

The Emergence of Green Parties in Western Europe

Recent literature on green parties identifies them as parties of the New Left which share with the old Left a critique of the capitalist system but reject its policy alternatives and the ideological foundations of socialism. A recurring question raised by this literature is whether the greens in western Europe are primarily a protest movement or have become an established party. Green parties have apparently been able to balance elements of their heritage in the protest movement with imperatives of electoral competition, but judgment on their success is not final. More conclusive answers on the future of green parties require more comparative research that moves away from an excessively rigid understanding of the postmaterialist value cleavage and investigates more extensively the interrelationships between old and new Left.

The Present and Future of the #GreenWave - Part 1: The Present and Part 2: The Future

The European Greens look back on two exceptional years of electoral history. In 2019, members of the European Green Party (EGP) won record numbers of seats in the European election. This two-article series shows how EGP members profited from this electoral wave in 2020 and sheds light on what to expect from elections in Europe in 2021. This first article shows that the Greens in Europe generally were able to establish themselves further at the local and regional level in Western Europe and get a foot in the door in some Eastern European countries.

A quiet revolution sweeps across Europe as Greens become political force

In the 2019, European elections, the Green Party pulled off several unexpected wins, becoming the party with the highest number of votes that year. This upheaval will transform the party and the nature of politics in Europe.

The Green Party | Germany

The European Green Party is a political party that is active across the entire European continent, both within the European and beyond. Check out this interactive map to learn more about each member.

Green parties developed out of a wave of radical social activism, especially the student protest of the 1960s and the antinuclear movement of the 1970s and 80s. Their entrance into mainstream politics, especially in Europe, gave them significant influence but revealed divisions over nonviolence, energy policy, and economics. Greens are now seeing their support grow in many countries as climate becomes a top issue among voters, but the implications for the future of global politics are unclear.
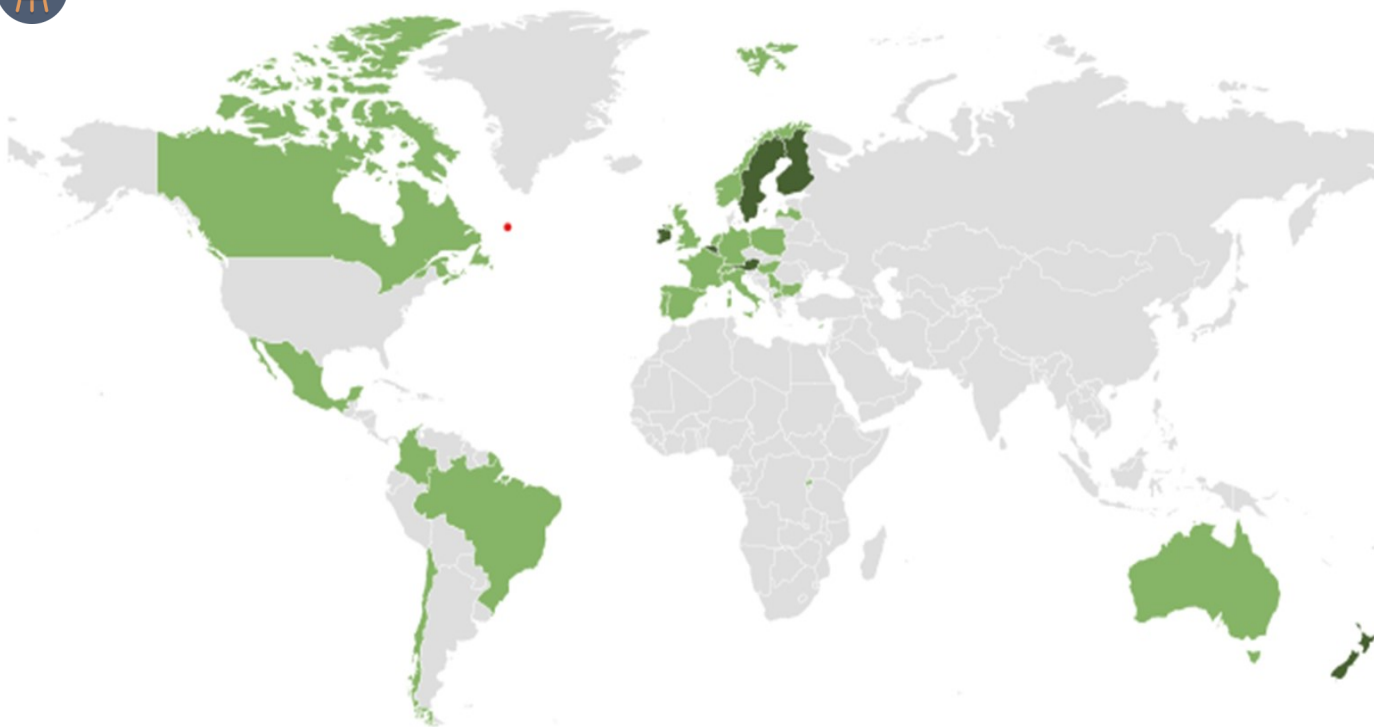
● **Green party in governing coalition**
Austria, Belgium, Finland, Ireland, Luxembourg, New Zealand, Sweden

● **Green party represented in national legislature**
Australia, Brazil, Bulgaria, Canada, Chile, Colombia, Cyprus, France, Italy, Germany, Hungary, Latvia, Mexico, Netherlands, North Macedonia, Norway, Poland, Portugal, Rwanda, Serbia, Spain, Switzerland, United Kingdom

Source: CFR research.

The Green Party | Germany

The Greens

The Greens/EFA was established in 1999, when two progressive European political families - The Greens and the European Free Alliance (EFA) - agreed to join forces in the European Parliament. The Greens/EFA now includes members of Green movements, Pirate and Independent MEPs, as well as MEPs from the European Free Alliance (EFA) representing stateless nations, regions and minorities, standing up for the right to self-determination.

German Green Party Presents Plan For Flood Prevention

The Greens have long warned of the extreme weather effects of climate change. Now, they're proposing a program to prevent a recurrence of July's flood disaster.

How Germany's Greens Moved From Fringe To Contenders

Germany's Greens party has come a long way from the radical *fringe* group of the 1980s, *moving* into the mainstream and appealing to a wider swath of voters .

© picture-alliance/dpa
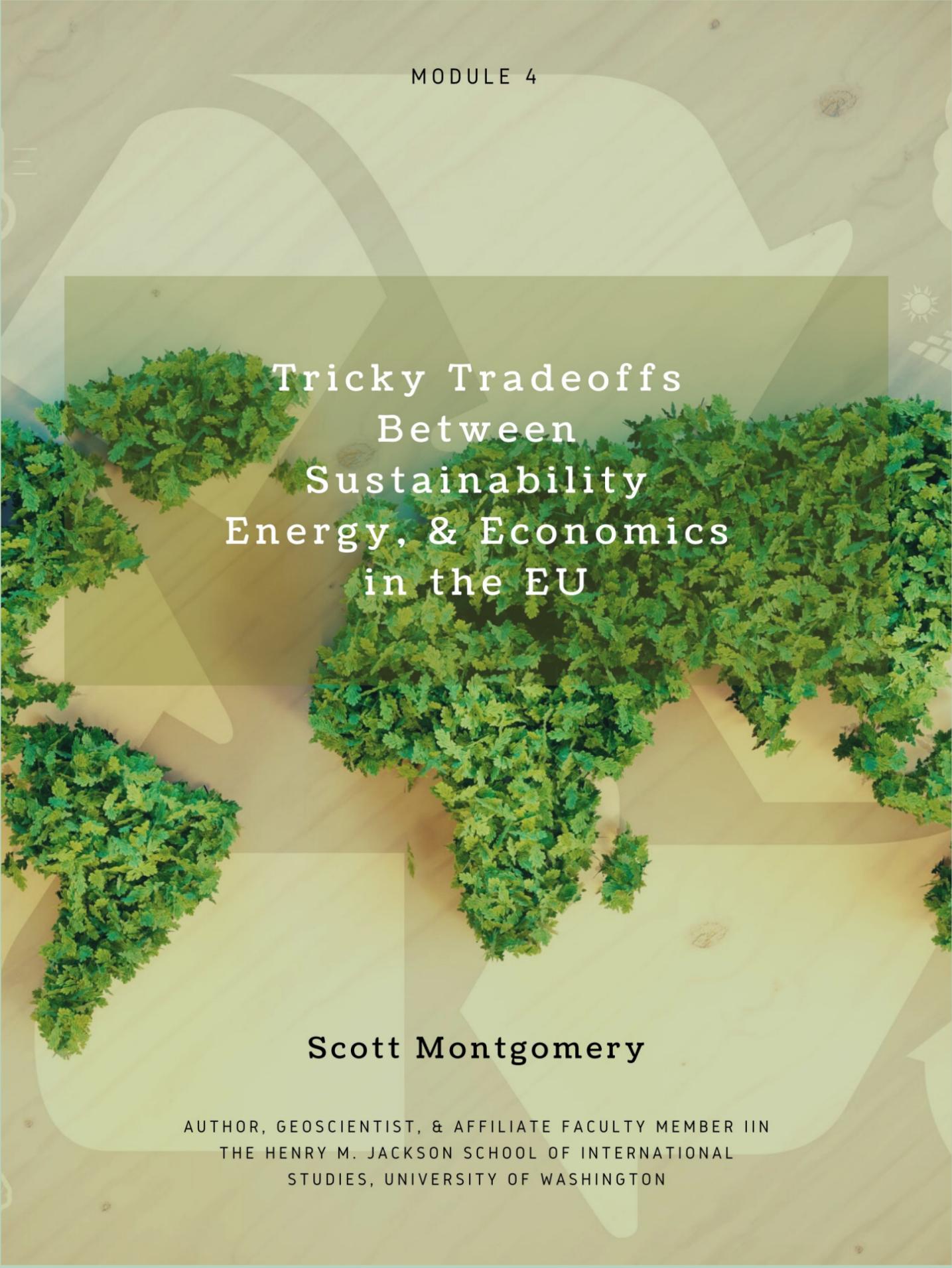
Tricky Tradeoffs Between Sustainability Energy, & Economics in the EU

Scott Montgomery

AUTHOR, GEOSCIENTIST, & AFFILIATE FACULTY MEMBER IIN
THE HENRY M. JACKSON SCHOOL OF INTERNATIONAL
STUDIES, UNIVERSITY OF WASHINGTON

Introduction to Session Speaker

Scott L. Montgomery is an author, geoscientist, and affiliate faculty member in the Jackson School of International Studies, University of Washington. He writes and lectures on a wide variety of topics related to energy (geopolitics, technology, resources, climate change), American politics, intellectual history, language and communication, and the history of science. He is a frequent contributor to online journals such as The Conversation, Forbes, and Fortune, and his articles and op-eds are regularly featured in many outlets, including Newsweek, Marketwatch, The Huffington Post, and UPI. He also gives public talks and serves on panels related to issues in global energy and their relation to political and economic trends and ideas of sustainability. For more than two decades, Montgomery worked as a geoscientist in the energy industry, writing over 100 scientific papers and 70 monographs on topics related to oil and gas, energy technology, and industry trends.

Montgomery is the author of 12 books and is currently pursuing several areas of research, including the role of Enlightenment ideas in present-day American politics, as well as the future of petroleum and its role in geopolitics and climate change.

Key Terms

Green /Environmental Taxation: tax measures that either impose a tax cost on some product or activity that is environmentally damaging, or that give a tax benefit to some product or activity that is environmentally beneficial

Carbon Neutrality: net zero CO_2 emissions; a state of balance between the CO_2 emitted into the atmosphere and the CO_2 removed from the atmosphere; in business practices, carbon neutrality is often used to include all greenhouse gas (GHG) emissions when referring to emissions reduction targets

Green Architecture: philosophy of architecture that advocates sustainable energy sources, the conservation of energy, the reuse and safety of building materials, and the siting of a building with consideration of its impact on the environment. In the early 21st century the building of shelter (in all its forms) consumed more than half of the world's resources.

Sustainability: the long-term viability of a community, set of social institutions, or societal practice. In general, sustainability is understood as a form of intergenerational ethics in which the environmental and economic actions taken by present persons do not diminish the opportunities of future persons to enjoy similar levels of wealth, utility, or welfare.

Emissions Trading: an environmental policy that seeks to reduce air pollution efficiently by putting a limit on emissions, giving polluters a certain number of allowances consistent with those limits, and then permitting the polluters to buy and sell the allowances. The trading of a finite number of allowances results in a market price being put on emissions, which enables polluters to work out the most cost-effective means of reaching the required reduction.

Learning Objectives

1. Students will be able to identify, analyze, and discuss the impact of climate change on European nations, including efforts to mitigate the impact of climate change on local, national, and regional communities.

2. Students will be to define the term carbon-neutral and explain the EU's strategy to become the first carbon -neutral continent.

3. Students will be able to analyze and discuss how EU members are attempting to balance the implications of energy and sustainability policies with economic goals.

4. Students will be able to define sustainability and identify and evaluate how the EU is developing/ implementing sustainability practices into their policy priorities. In addition, students will identify and discuss strategies to adopt sustainable practices in their own lives.

5. Students will be able to define the United Nations' Sustainable Development Goals (SDGs) and explain the purpose/target for Goal 7 (affordable and clean energy) and Goal 13 (climate action). In addition, students will identify, analyze, and discuss progress toward Goals 7 and 13 within the EU.

EU Environmental Policy

Environment

EU citizens benefit from some of the highest environmental standards in the world. The EU and national governments have set clear objectives to guide European environment policy until 2020 and a vision beyond that, of where to be by 2050, with the support of dedicated research programmes, legislation and funding.

Climate Change: What the EU is doing

The EU has adopted ambitious legislation across multiple policy areas to implement its international commitments on climate change. EU countries have set binding emission targets for key sectors of the economy to substantially reduce greenhouse gas emissions.

Putting a Price on Pollution

The New York Time's Daily Podcasts discusses the new environmental policies from the EU. The European Commission, the E.U.'s executive arm, recently introduced ambitious legislation aimed at sharply cutting emissions to slow down climate change within the next decade, specifically by weaning one of the world's biggest and most polluting economies off fossil fuels. But can it generate the political will to see it through?

Green Taxation—in support of a more sustainable future

As part of the European Green Deal, the EU has set out ambitious targets to tackle climate change and foster a cleaner environment, aiming for a 55% reduction in greenhouse gas emissions by 2030 and to become a climate-neutral continent by 2050. As we work towards these objectives, green taxation can play an active and positive role in support of other EU climate and energy policies such as the EU Emission Trading System.

The EU Climate Law Explained

The European Commission tabled its much-awaited Climate Law in March this year, in a bid to carve into stone Europe's objective of becoming the first climate-neutral continent in the world by 2050. EURACTIV explains what the Climate Law does, how it works and what its criticisms are.

EU Environmental Policy

EU Climate Change Policy

This lesson plan has four parts and teacher instructions: Part 1: EU Climate Change Overview; Part 2: EU Domestic Policy; Part 3: EU International Climate Change Policy; Part 4: Strategy of EU Member States and Canada

Eurostat—Environmental Statistics

Eurostat provides a range of statistics and accounts about the state of the environment and the drivers, pressures and impacts of our societies on the environment. in this section, you find information about: Air emissions; Biodiversity; Energy accounts; Environmental protection; Environmental sector; Hazardous substances; Material flows and resource productivity; Taxes; Water. Eurostat statistics support policies about climate change, the circular economy, sustainable development, biodiversity and natural capital, among others.

A European "Model" Defined by public Policies - European Environmental Policy

Despite its primarily economic origins and its belated concern for the environmental issues, the EU became, after 1972, one of the major international actors in the protection of the environment. Recognized in treaties from 1986 onwards, environmental policy was organized around the notion of sustainable development and gave rise to a strong legislative agenda and the establishment of structures of information, financing and control on a European level. In so doing, the EU found a new form of legitimation.

Economics & EU Sustainability

Europe's External Energy Policy: Between Geopolitics and the Market

While energy security has gradually been incorporated into the EU's foreign policy calculus, the declared approach of extending a nexus of 'market-governance' energy norms has been realised only to a limited extent. The EU has eschewed a comprehensively political approach to energy security, with its energy security policy currently hovering ineffectively between market and geopolitical approaches. The EU needs to address more effectively the way in which governance structures in producer states impact upon European energy interests.
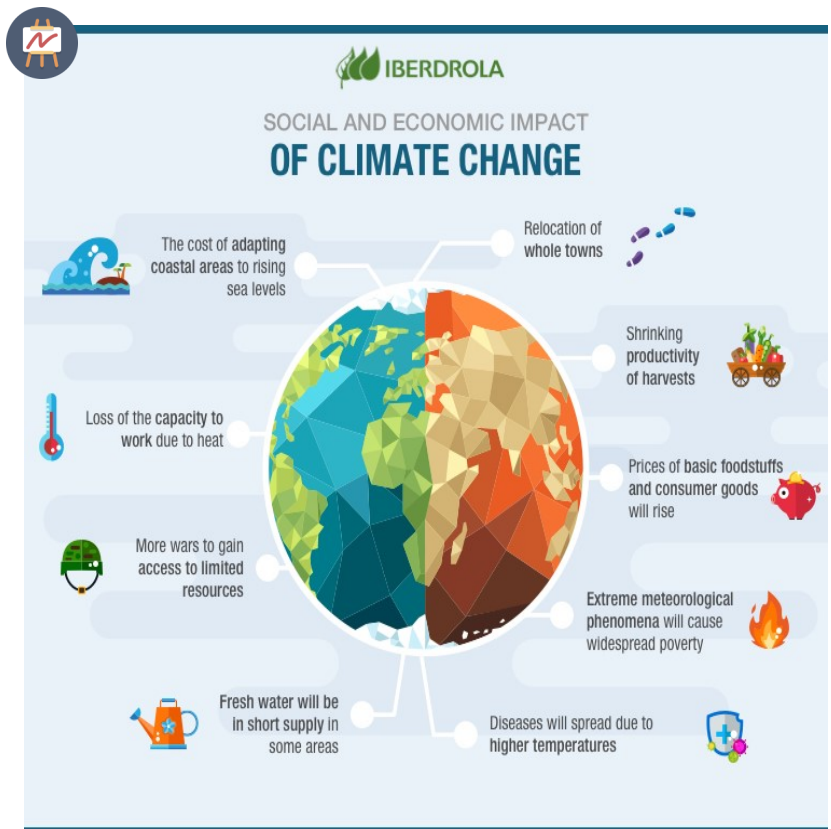
World economy set to lose up to 18% GDP from climate change

Climate change poses the biggest long-term threat to the global economy. If no mitigating action is taken, global temperatures could rise by more than 3°C and the world economy could shrink by 18% in the next 30 years. But the impact can be lessened if decisive action is taken to meet the targets set in the Paris Agreement, Swiss Re Institute's new Climate Economics Index shows. This will require more than what is pledged today; public and private sectors will play a crucial role in accelerating the transition to net zero.

How Europe's Ambitious New Climate Agenda will Effect Businesses

The European Union's plan to cut its greenhouse gas emissions by more than half by the end of the decade will touch almost every industry in the trade bloc, with profound consequences for jobs and the bloc's economy. European leaders said the climate package presented on Wednesday could put Europe at the forefront of new technologies like electric car batteries, offshore wind generation or aircraft engines that run on hydrogen. The far-reaching plan to reduce the trade bloc's carbon footprint includes tougher mandates for automakers, steel makers, airlines, energy producers and other industries.

Economics & EU Sustainability

93% of Europeans
see **climate change** as a serious problem.

93% of Europeans
have taken at least one **action**
to tackle climate change.

92% of Europeans
agree that greenhouse gas emissions should
be reduced to a minimum in order to make the
EU economy climate neutral by 2050.

How to Balance the Trade-off between Economic Development and Climate Change?

Climate change is not only an environmental issue but also a development problem. Maintaining rapid economic development while simultaneously mitigating climate change is a pivotal and challenging task. Previous studies mainly focused on testing the validity of the environmental Kuznets hypothesis but ignored the internal influencing mechanism. This paper extends the past work in three aspects. First, it will theoretically discuss the interaction of the scale, structure and technology effects of economic development and the impact on carbon emissions based on a classic model and the general equilibrium theory. Second, the relationship between carbon emissions and these three effects are examined by considering the quadratic term, and the interactive mechanism among them is evaluated by applying multiple mediating analysis. Due to the important role of the technology effect, this work will further divide it into different sources to reveal its impact on carbon emissions and discuss the rebound effect. Finally, the policy effect is considered, and the results demonstrate that the implementation of effective environmental regulations can mitigate the adverse impact of economic development on carbon emissions. This research is an initial attempt to thoroughly explore the pathways to balance the trade-off between development and environment from the perspective of internal influencing mechanisms. The empirical results can serve as an important reference for making policies about energy conservation and emission reduction.

Europe's Sustainable Energy

The Green Revolution: "The EU must not fail" - Juan Espadas

Finding a balance between all the different needs of European territories will be challenging, but this is a very important reason why, maybe more than ever, local and regional authorities need to be involved in the decisions to make sure the responses decided at European level match with the reality on the ground. The way forward is to find complementarity and synergies between protecting human lives, economic recovery and moving towards climate neutrality, getting EU citizens on board by providing them with quick results in terms of sustainable jobs. The EU needs to turn this crisis into a new beginning by organizing our recovery within the Green Deal framework.

Europe's plan to become the first carbon-neutral continent

President of the European Commission, Ursula Von Der Leyen states her goal for a carbon-neutral Europe. "In the European Union, we have a good record of turning ambitions into successes. We are a political and economic union with 27 countries and the total population of 450 million people. On the ashes of two world wars, we have secured lasting peace among us. From a divided continent, we have created a union without borders. And I strongly believe we can also achieve our next challenge: becoming the first carbon-neutral continent."

Optimal and Sustainable: Renewable Energy Revamp Lesson Plan

In this lesson, students will be challenged with an optimization problem. The fictitious town of Solutionville has decided to replace coal, their current source for electricity, with more sustainable energy sources. In designing Solutionville's sustainable energy future, students must consider not only the geographic constraints of various renewable energy options—wind energy, hydroelectric power, geothermal energy, and solar energy—but they must also meet specific energy production requirements and budgetary constraints.
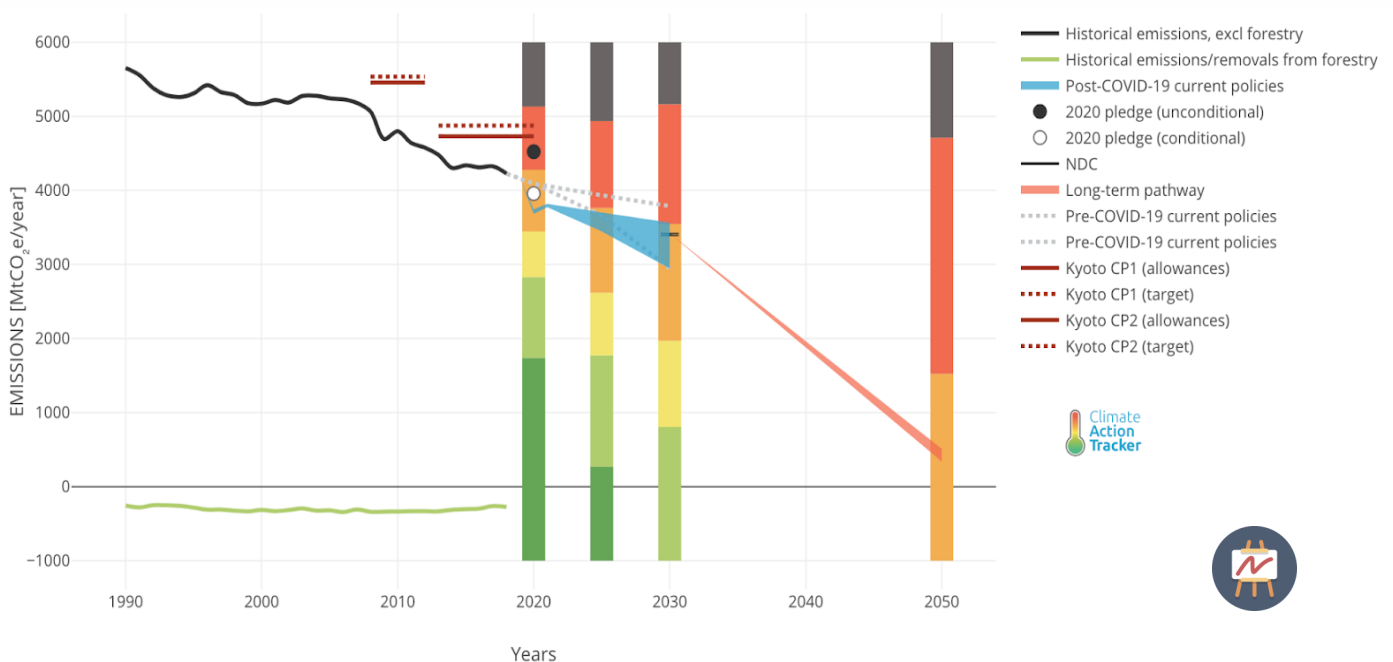
Different Approaches to Energy

Energy sources of selected countries (quadrillion British thermal units)

● Nuclear, renewables, and other   ● Coal   ● Natural gas   ● Petroleum and other liquids
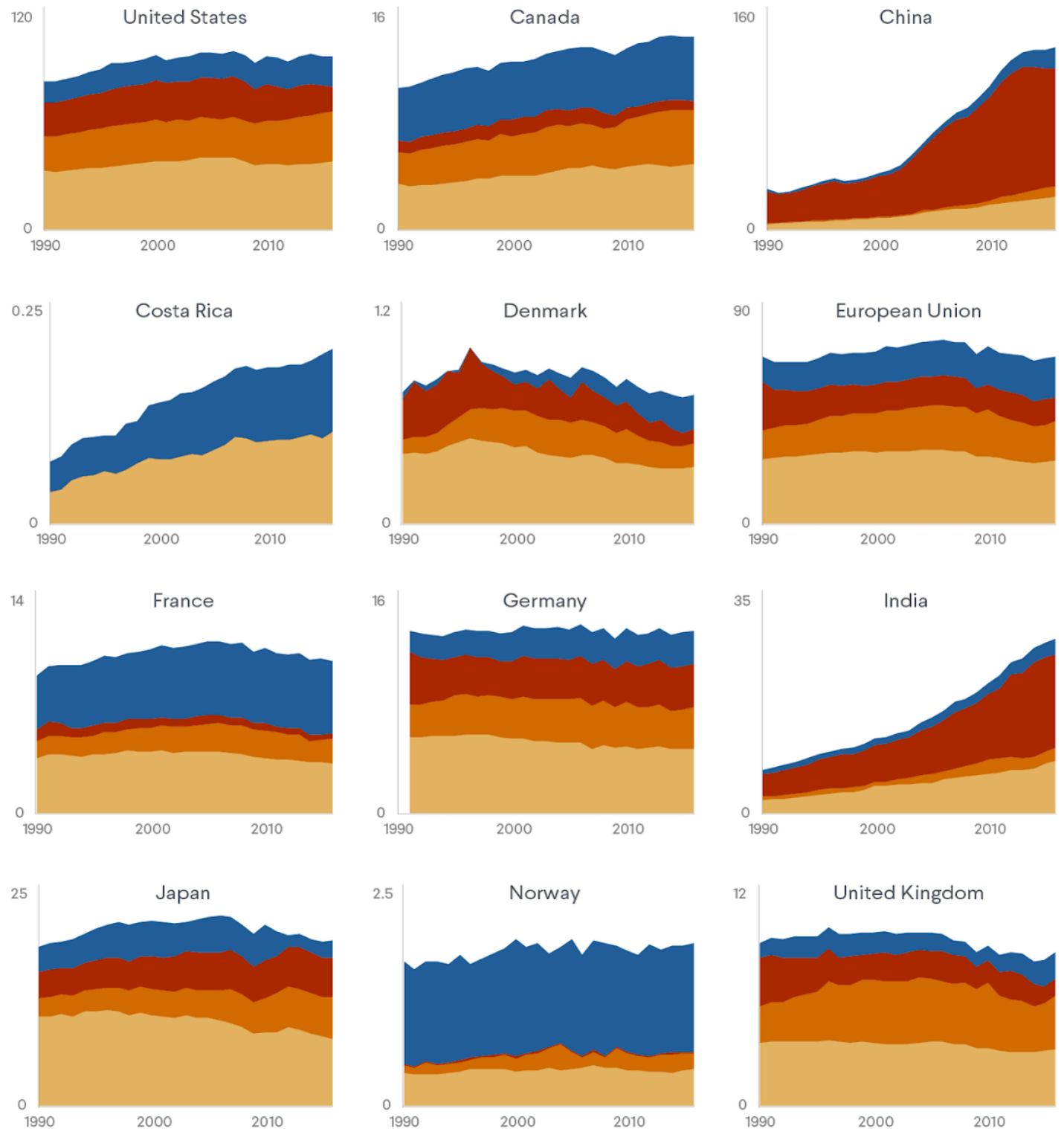
Source: U.S. Energy Information Administration.

COUNCIL on
FOREIGN
RELATIONS

Europe's Sustainable Energy

Towards a greener and more sustainable Europe

EU citizens benefit from some of the highest environmental standards in the world. The EU and national governments have set clear objectives to guide European environment policy until 2020 and a vision beyond that, of where to be by 2050, with the support of dedicated research programmes, legislation and funding.

What is the Environmental Implementation Review?

EU citizens consider environmental protection to be of crucial importance. The European Union has some of the most ambitious environmental protection rules and policies in the world. However, their proper implementation remains a major cause of concerns to society. In April 2019, the European Commission published a set of reports on the state of implementation of environmental laws in Europe: the Environmental Implementation Review.

Circular Economy Explained: The circular economy is all about identifying and closing loops so as to create self-sustaining systems where producers and consumers are closely coupled to enable constant feedback. For example, food production, consumption, and disposal might be organized to be part of the same closed cycle. In a circular system resource input and waste, emissions, and energy leakage are minimized by slowing, closing, and narrowing energy and material loops; this can be achieved through long-lasting design, maintenance, repair, reuse, remanufacturing, refurbishing, or recycling. This is a regenerative approach where things are being constantly repurposed to serve new functions.

1 Hunting and fishing
2 Can take both post-harvest and post-consumer waste as an input
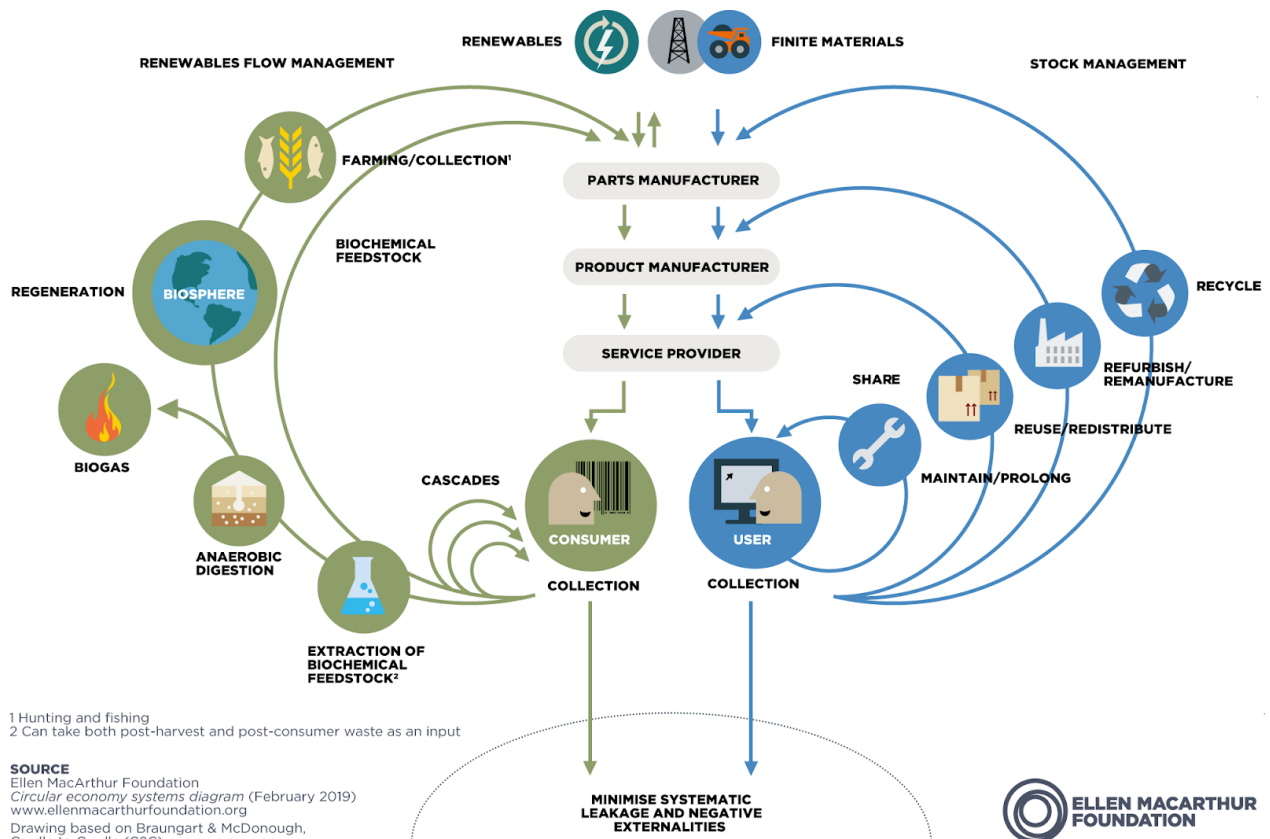
Climate Action

We the Power is an inspiring film that follows friends, families and visionaries, some of them REScoop.eu members, as they break down legislative barriers and take power back from big energy companies to put it in the hands of locals and strengthen their towns. It chronicles local cooperatives from deep in Germany's Black Forest to the streets of ancient Girona in Spain and the urban rooftops of London, England, as they pave the way for a renewable energy revolution and build healthier, financially stable communities.

This article provides an overview of statistical data on SDG 13 'Climate action' in the European Union (EU). It is based on the set of EU SDG indicators for monitoring of progress towards the UN Sustainable Development Goals (SDGs) in an EU context.

Monitoring SDG 13 in an EU context focuses on climate mitigation, climate impacts and initiatives that support climate action. On the basis of the used indicators, the EU is not on track to meeting two of the three climate and energy targets monitored here, including the increased 2030 greenhouse gas emissions reduction target. In addition, the EU continues to face unfavourable trends in climate impacts, such as rising surface temperatures and ocean acidification. Moreover, economic losses due to climate-related events have increased in recent years, although these remain subject to high year-to-year variability due to the natural variability of the underlying hazards. However, support to climate action is increasing in the EU, both in terms of climate-related expenditure and the number of local and regional governments signing up to the Covenant of Mayors for Climate and Energy.

13 CLIMATE ACTION

TAKE URGENT ACTION TO COMBAT CLIMATE CHANGE AND ITS IMPACTS

GLOBAL COMMUNITY SHIES AWAY FROM COMMITMENTS REQUIRED TO REVERSE THE CLIMATE CRISIS
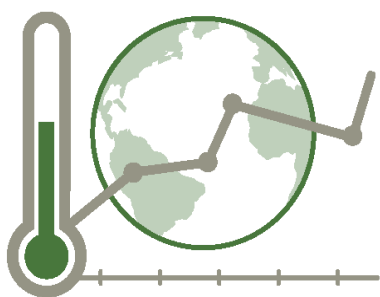
2019 WAS THE SECOND WARMEST YEAR ON RECORD

GLOBAL TEMPERATURES ARE PROJECTED TO RISE BY UP TO 3.2°C BY 2100

ONLY **85 COUNTRIES** HAVE NATIONAL **DISASTER RISK REDUCTION STRATEGIES** ALIGNED TO THE **SENDAI FRAMEWORK**

GHG

COVID-19 MAY RESULT IN A 6% DROP IN GREENHOUSE GAS EMISSIONS FOR 2020

STILL SHORT OF **7.6% ANNUAL REDUCTION** REQUIRED TO LIMIT GLOBAL WARMING **TO 1.5°C**

CLIMATE FINANCE: INVESTMENT IN FOSSIL FUELS CONTINUES TO BE HIGHER THAN INVESTMENT IN CLIMATE ACTIVITES

2016

	781 BILLION	681 BILLION
	FOSSIL FUEL	GLOBAL CLIMATE FINANCE

800
600
400
200
0
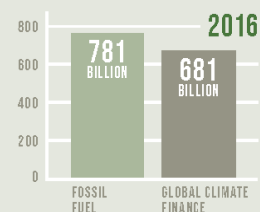
CLIMATE CHANGE CONTINUES TO EXACERBATE THE FREQUENCY AND SEVERITY OF **NATURAL DISASTERS**

MASSIVE WILDFIRES   DROUGHTS   HURRICANES   FLOODS

AFFECTING MORE THAN **39 MILLION PEOPLE** IN 2018

U.S.—EU Relations

The European Union: Questions & Answers

The Federation of American Scientists compiled a detailed document explaining the basic structure and operations of the European Union as well as the EU's relationship with the United States. It notes that the EU currently faces many challenges, though several of them are shared by the US: responding to the COVID-19 pandemic, strengthening democracy, improving trade and technology, and, of course, addressing the growing threat of climate change.

A Transatlantic Green Deal Can Revive the US-EU Partnership

The so-called Green Deals on the table in Europe and the US present an enticing prospect to rejuvenate the greatly diminished transatlantic relationship — and help hit crucial climate targets before it is too late. The European Green Deal, proposed last year with much fanfare by EU commission president Ursula von der Leyen, overlaps significantly with the Green New Deal, an ecological spending program devised by congressional Democrats and endorsed by the party's presidential candidate, Joe Biden.

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