UNIVERSITY OF CAMBRIDGE
INSTITUTE FOR SUSTAINABILITY LEADERSHIP

CLG Europe

Working towards a climate neutral Europe:

Jobs and skills in a changing world

Webinar Hosted by MEP Pilar del Castillo Vera

Welcome and opening remarks

Webinar host and CLG Europe Chair

MEP Pilar del Castillo Vera, EPP Group Member: Former Spanish Minister of Education and Culture from 2000 to 2004, del Castillo was elected to the European Parliament for the first time in 2004 and belongs to the ITRE Committee (Industry, Research and Energy). Professor in Political Science and Administration. Active member of numerous fora including EUIF, K4I and the Transatlantic Policy Network.

Harry Verhaar, Head of Global Public and Government Affairs, Signify and CLG Europe Chair: Over 20 years' experience in the lighting industry. Since end 2003, the architect the Signify strategy on energy and climate change, which has resulted in a global momentum on phasing out of old lighting technologies. Active member of a number of partnership and stakeholder networks and recipient of the 2011 UN Leader of Change Award.

Agenda

11:00-11:10 **Welcome and opening remarks**	• Webinar host, MEP Pilar del Castillo Vera • Harry Verhaar, Head of Global Public and Government Affairs, Signify and CLG Europe Chair
11:10-11:35 ***Working towards a climate neutral Europe: Jobs and skills in a changing world*, report launch**	• Eliot Whittington, CLG Europe Director • Julian Popov, ECF Fellow • Miguel Ángel Muñoz Rodríguez, Head of climate policies, Chairman's area, Iberdrola • Raúl Alfaro-Pelico, Sustainability Manager, ACCIONA • Matthias Pohl, LBBW
11:35-11:45: **Policy options to drive jobs, growth and put the EU on track to climate neutrality**	• Joost Korte, Director-General, Employment, Social Affairs and Inclusion, European Commission

Agenda

11:45-12:05 **Building a climate-neutral, green, fair and social Europe**	• MEP Dragos Pîslaru • MEP Agnes Jongeriu • MEP Michael Bloss • MEP Jeroen Lenaers • MEP Pilar del Castillo Vera
12:05-12:25 **Q&A**	• With insights from Cornelia Suta, Project Manager Cambridge Econometrics
12:25-12:30: **Closing remarks**	• Eliot Whittington, CLG Europe Director

CLG Europe

A climate-focused progressive business platform

- Convened by the University of Cambridge Institute for Sustainability Leadership (CISL)
- Highest common denominator positions amongst its membership

A voice for business that is influential, cross-sectoral and pan-European, bringing together:

- World-class thought leadership
- High-level policy-related convening
- Impactful communications and engagement

Full members

Affiliate members

Report presentation

Working towards a climate neutral Europe: Jobs and skills in a changing world

Eliot Whittington, Director CLG Europe

Overview

Purpose:

- Explore impact of transformative forces – **megatrends** – on the European economy and labour markets
- In the context of four key megatrends, look at labour market impacts of the transition to a climate neutral Europe

Key questions:

- How does climate action interact with megatrends?
- How will other megatrends facilitate or impede progress towards climate neutrality?
- How can climate policies provide direction on the future shape of the economy?

Skills gap is considered a major issue by 78 per cent of executives

Long-term factors affecting jobs and skills

- Megatrends: Major transformations in the labour markets over the next 30 years
- Policy framework: Can help to mitigate the most disruptive megatrend impacts
- Climate transition: Potential to create new opportunities

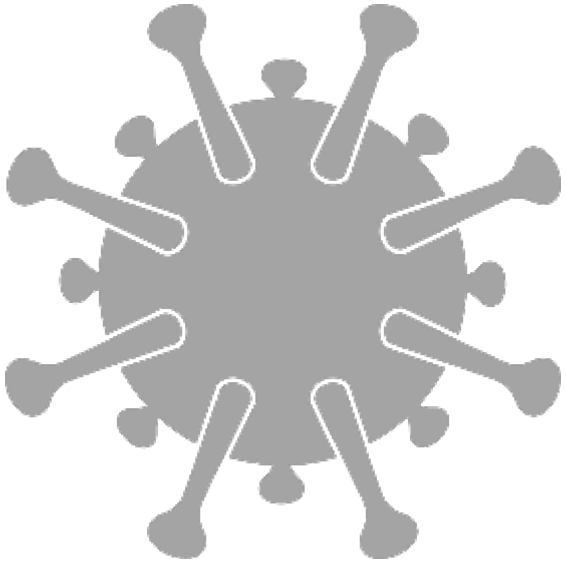
COVID-19

Work completed before impact of COVID-19

- High uncertainty in extent of economic and social impact of COVID-19
- Clear that employment is key area of impact

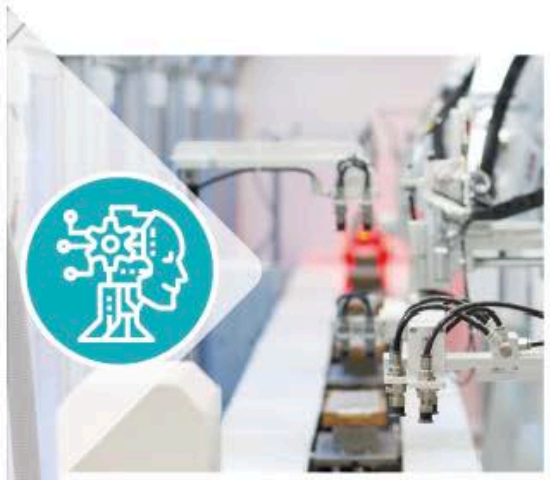
Implications:

- Increased need to develop firm foundations for future employment and to develop a skilled and competitive workforce
- In the same way that they are now trying to protect people and businesses from the effects of COVID-19, policymakers will need to protect social welfare in response to the megatrends



Megatrends

Report cites the preliminary results of a modelling study combining the impact of four key megatrends



1 Technological change

2 Globalisation

3 Demographic change

4 Resource scarcity

Impact of megatrends on employment & interaction with low carbon transition

Technological change

Could **lead to substantial net employment losses**

New low carbon technologies could **expand employment** for the EU-28 by 0.5 per cent in 2030

Globalisation

Likely to drive significant economic inequality and polarisation

Could lead to **reduction of global emissions through technology transfer**

Demographic change

Ageing population has negative effects on GDP and digital competences scarce among older adults

Impacts consumption patterns and energy use

Resource scarcity

Shifting resource patterns may challenge common action towards climate neutrality

Circular economy could create **700,000 (net) new jobs**

Impact of megatrends on employment & interaction with low carbon transition

Effects of the transition to climate neutrality on GDP and employment **might be a lot smaller** than the impacts of megatrends

Low carbon policies:

- Operate relatively independently of what happens in the other megatrends
- Have a **small positive impact of around 1 per cent in 2050 on GDP and employment** in both the best and the worst case scenarios compared to scenarios without the low carbon policies

Well-designed and implemented climate policies can help improve how Europe manages megatrends and offset some negative impacts

Impact of megatrends on employment & interaction with low carbon transition

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Worst combination of scenarios

By 2030: Employment could decrease by 9.5 per cent.

By 2050 employment could decrease by 27.5 per cent.

Best combination of scenarios

By 2030, employment is relatively unaffected.

By 2050, employment could be reduced by 3.4 per cent.

Case studies

Report looks at impact of selected megatrends on five sectors that will play a key role in achieving climate neutrality by 2050:

1.Steel manufacturing in Sweden

Offshore wind in the UK

Automotive manufacturing in Germany

Coal mining in Romania

Agriculture in Spain

Policy recommendations

Policy recommendations

1 Commit to the European Green Deal

- Build market leadership in design, production, assembly and marketing of clean products
- Align educational programmes with climate neutrality

2 Scale up skills and adaptability

- Build an adaptable workforce
- Adopt lifelong learning approaches
- Address digital skills needed across sectors

3 Establish a just transition framework

- Invest in reskilling
- Invest in economic diversification
- Give priority support to regions dependent on single sector

Policy recommendations

4 Define a shared European future of work agenda

- Co-create a regulatory framework for the future of work with other stakeholders
- Identify sectors that will thrive in the future, as well as skills gaps and shortages

5 Implement Green and equitable COVID-19 recovery plans

- Invest in sectors and products needed for a resilient economy
- Use public procurement to provide markets
- Align efforts in support of climate neutrality goals

Case studies

Fossil-free steel in Sweden

- Steel is used widely, with increasing global demand:
  - 15,700 employed in Sweden (in 2018)
  - 4 per cent of Sweden's total exports of goods
  - Swedish expertise in highly processed steel grades and niche-oriented products
- **Drivers of change:**
  - New technologies for low carbon steel production
  - Ageing steel sector workforce
- **Implications for jobs and skills:**
  - Sector competitiveness will depend on technological innovation
  - Future jobs will be either in recycling-based steel or in new forms of steel production e.g. hydrogen-based technologies
- **HYBRIT joint venture**
  - Collaboration between SSAB, Vattenfall and LKAB for **fossil-free hydrogen-based steelmaking by 2035**

UK offshore wind power

Global leader in the offshore wind power generation sector:

- 8.5 GW installed capacity (in 2019)
- 7,200 employed full-time equivalent (FTE) (in 2018)
- £3.7 billion of turnover (in 2018)
- World-renowned engineering expertise

UK target:

- 30 GW of total installed capacity (providing 1/3 of national electricity generation)
- Employ 27,000 highly skilled workers in the sector by 2030

Photo Credit: Iberdrola

UK offshore wind power

- Drivers of change:
  - Sector growth
  - Automation of wind farm operation needs highly skilled individuals
- Implications for jobs and skills:
  - By 2032, sector might provide 58,000 FTE jobs
  - Skills needed: engineering and technical skills, scientists, offshore-specific skills
  - Could offer alternative employment for offshore oil and gas workers

Iberdrola | Scottish Power Renewables (SPR): Sponsored places on an 'Offshore Wind Transition Course'

  - Aimed at individuals with previous experience in engineering

Automotive manufacturing Germany

Largest industrial sector in Germany:

- Employed 866,000 people (in 2017)
- €500 billion of turnover (in 2017)
- 12% of German exports (in 2017)

Drivers of change:

- Competition and lower export demand e.g. from China
- Technological change e.g. EVs and autonomous vehicles
- Regulation of emissions and phase out of internal combustion engine

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Automotive manufacturing Germany

Implications for jobs and skills

- Job losses due to decline in demand
- Job losses due to switch to EVs which contain fewer parts and are less labour intensive to manufacture
- By 2030, 145,000 jobs could be created in different sectors due to investment in EVs
- Skills needed: In automated systems and battery production
- Occupations: Chemists, materials scientists, engineers, computer scientists

Active reskilling of workers and establishing domestic supply chains where possible, will be fundamental to avoid further job losses

Photo Credit: Lenny Kuhne on Unsplash

Romania and European coal regions

Rapidly shrinking sector:

- Employed 16,000 people (in 2018)
- Uneconomical sector since 1990s

Drivers of change:

- Phase out of coal for energy generation
- Beneficiary of EU Just Transition Fund, which will allocate €7.5 billion to help regions impacted by low carbon transition

Support reskilling and redeployment of former coal industry employees in Romania and Bulgaria that have high cost-competitive potential for wind and solar energy generation

Photo Credit: Lenny Kuhne on Unsplash

Romania and European coal regions

Implications for jobs and skills:

- Developing a local renewable energy sector could boost the local economy
- Skills needed: highly skilled engineers and technicians for wind and solar industries
- Replacing coal generation capacity with gas units means fewer employment opportunities than in renewables

Agriculture in Spain and Southern Europe

One of the most important sectors of the Spanish economy:

- Employed 750,000 people (in 2017)
- Small-scale farmers heavily reliant on EU subsidies

Drivers of change:

- Climate change
- Technological change
- Shrinking and ageing population in rural areas
- Global competition

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Agriculture in Spain and Southern Europe

Implications for jobs and skills

- To exploit technology solutions workforce needs to be equipped with advanced technical skills
- Skills needed: multidisciplinary skillset including machinery operation, informatics, robotics, meteorology, chemistry and biology

ACCIONA

- R&D unit collaborating with Grupo Bodegas Palacio 1894 winery to test and adopt adaptation and mitigation technologies to address climate risks
- Using cloud-based, sensor and drone technologies

Photo Credit: Grupo Bodegas Palacio 1894

To strengthen agricultural labour force, education in high-tech skills needs to be boosted and a higher level of lifelong learning implemented with special attention given to rural areas

Policy options to drive jobs, growth, and put the EU on track to climate neutrality

Joost Korte
Director-General for Employment, Social Affairs, and Inclusion
EU Commission

The future of work and skills in a climate neutral Europe
11:35, 28 April 2020

Issues

- COVID-19 disruption
- Labour market shocks
- Climate-neutral transition and social dimension
- Skills

EU-level responses

- European roadmap to lifting containment measures and Recovery plan
- SURE (Support to mitigate Unemployment Risks in an Emergency)
- European Green Deal
- Updated Skills Agenda

Next Steps

- Green Deal post COVID-19
- Implementation of EU support (CRII+ and Emergency Support Instrument)
- European Pillar of Social Rights

Thank you

European Commission

Building a climate-neutral, green, fair and social Europe

MEP Discussion

MEP Dragos Pîslaru

Renew Europe Group Member

MEP Agnes Jongerius

S&D Group Member

MEP Michael Bloss

Greens Group Member

MEP Jeroen Lenaers

EPP Group Member

MEP Pilar del Castillo Vera

EPP Group Member

Q&A

With insights from Cornelia Suta
Project Manager Cambridge Econometrics

Closing remarks

Eliot Whittington, CLG Europe Director

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