Climate Change: The Challenges for Labor

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1 Opportunities of Transition
2 Current Situation and Challenges
3 Overview and Experiences in Germany
4 The Concept of Just Transition
The Confederation of German Trade Unions (DGB) is the Umbrella Organisation of German Trade Unions.

8 trade unions:
~ 6 million members
Opportunities of a Just Transition

- Decreasing the dependency on fossil fuels and imports
- Environment & climate protection
- Better living conditions & prosperity
- Innovation & sustainable jobs
- Strengthening regional economic cycles

JUST TRANSITION
Historical Emissions

Worldwide 35,755

Source: European Commission (EDGAR) 2018
Challenges

Emission Scenarios matching the Paris Climate Targets
(from 1.5 to 2.0 degrees)

- **2020 Maximum**: 800 Gt CO₂-Budget
- **2016 Maximum**: 600 Gt CO₂-Budget

Historical emissions

Source: Spiegel-Online, Global Carbon Project, Rahmstorf 2018
Emission Reduction by Sectors until 2030

- **Energy Sector**
  - 1990: 466
  - 2014: 358
  - 2030: 179

- **Industry**
  - 1990: 283
  - 2014: 181
  - 2030: 141.5

- **Buildings**
  - 1990: 229
  - 2014: 119
  - 2030: 71

- **Transport**
  - 1990: 163
  - 2014: 160
  - 2030: 96.5

Source: BMU 2017
Development of RE in Germany

- **RE share of gross final energy consumption**
- **RE share of gross electricity consumption**

Source: AGEE-Stat 2018

*German Targets for 2030*
Importance of Industry

Share of Industry in GDP

Source: Eurostat 2018
Structural Change in the Energy Sector

Job losses through rationalization as a result of reunification and liberalization of the energy market as well as the phase-out of hard coal mining

<table>
<thead>
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<th>Year</th>
<th>Electricity Supply</th>
<th>Gas Supply</th>
<th>Hard Coal Mining and Grafting</th>
<th>Lignite Mining and Grafting</th>
<th>District Heating Supply</th>
<th>Mineral Oil Processing</th>
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</table>

**Source:** BMWi

The energy sector and the definitions by the Federal Statistical Office encompasses single economic sector but not the related economic areas that depend on them.
Employment in the RE Sector

Source: BMWi 2018

Overall Jobs RE

105,130 227,170 390,844 335,540 338,594

0 20,000 40,000

60,000 80,000 100,000 120,000 140,000 160,000 180,000

0 20,000 40,000

60,000 80,000 100,000 120,000 140,000 160,000 180,000

Working Conditions in RE Sector

- Salaries in the renewable energy industry are lower than in the metal and electrical industry.
- Employees in the renewable energy industry work on average more than 40 hours a week.
- Despite a high degree of identification with their work, only 20% of the colleagues could imagine working at their current company until their retirement.
- Compliance to high standards of work safety.

Comparison of collective agreements

- **Metal and electrical industry**: 100%
- **Wind industry**: 81%
- **Photovoltaics industry**: 67%

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Effectiveness of collective agreements within the RE Sector

- Temporary employment contracts: 3.3% vs. 8.6%
- Training rate: 5.4% vs. 2.4%
- Labor leasing rate: 8.6% vs. 17.1%
- Strategic personnel planning: 34.6% vs. 0%
- Recruitment problems: 42.5% vs. 66.7%

Source: Survey IG Metall / AGS 2016
## Just Transition

### Trade Union Concept

- Anchored in the preamble of the Paris-Agreement
- Transition must be actively shaped by government, companies, trade unions
- High sustainable investments ensure climate protection and profits
- Create decent work and maintain jobs
- Strengthen participation and leave no one behind
- Ensure qualification and lifelong education for workers
- Fair cost allocation
Thank you for your attention!

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Backup
Gross Electricity Generation in Germany 2017

- Lignite: 23%
- Hard coal: 14%
- Nuclear energy: 12%
- Natural gas: 13%
- Other energy carriers: 5%
- Wind power onshore: 13%
- Wind power offshore: 3%
- Hydropower: 3%
- Biomass: 7%
- Photovoltaics: 6%
- Household garbage: 1%

Renewables: 33%

Source: AGEB 2018