## **UE 14**

Terre et société Mini-projet

# Projet N°6

# DO RENEWABLES DESTROY JOBS?

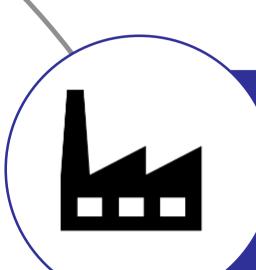
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### Context

Climate change and the energy transition are on everyone's lips, the objective to save the planet is taking deeper roots in people's minds. But by over-focusing on technical aspects and renewable energies, we might forget those who are to enjoy it: men. An overall shift in technologies would shake the employment sector to its foundations, and the success of the decarbonization of energies would have a bitter taste if it was accompanied by massive lay-offs. We have therefore looked into the implications of the energy transition on employment, in order to estimate its impact on the final number of jobs.

### Sensitivity model:



- -10% non-renewable energy production
- This leads to the destruction of jobs in Coal, Oil & Gas

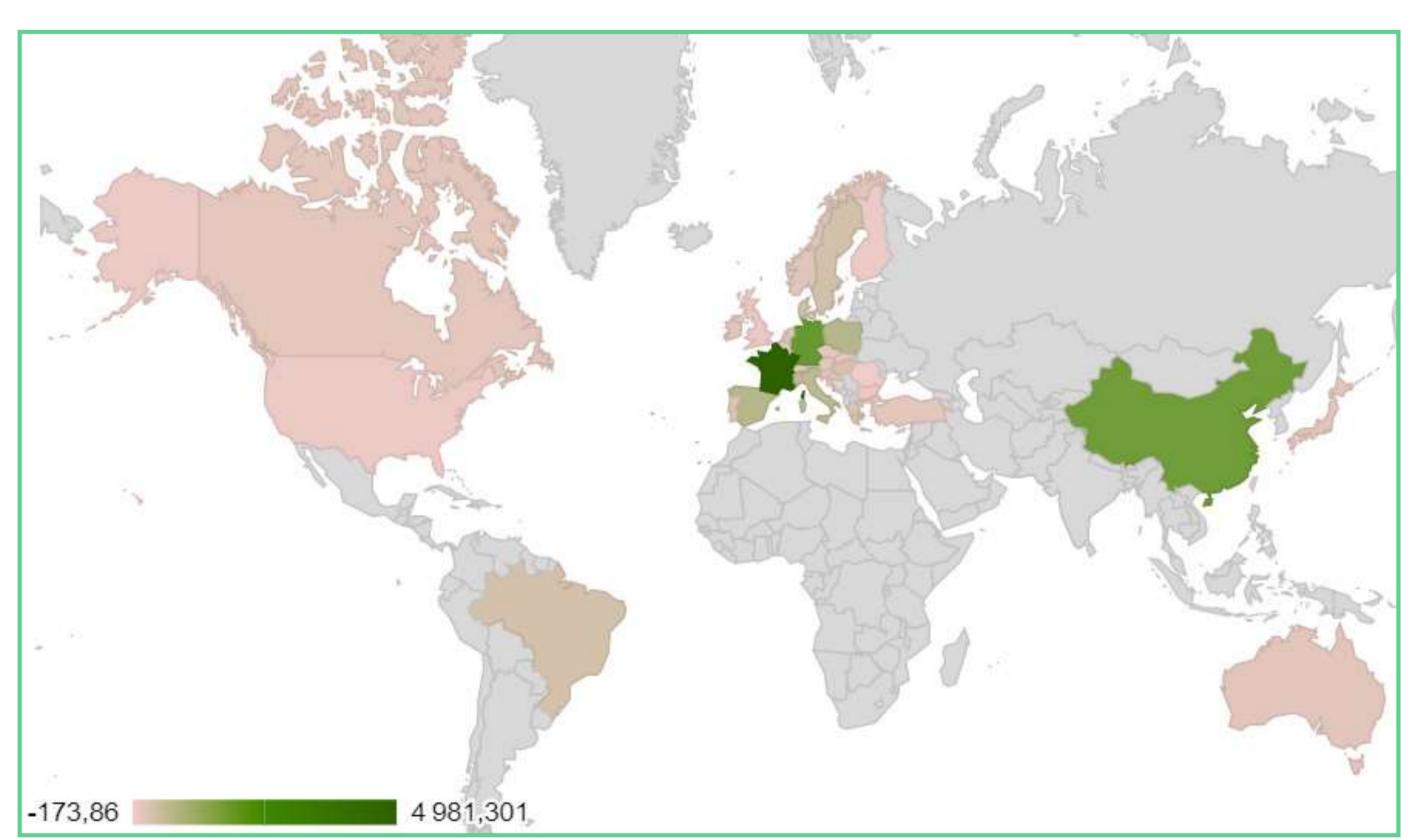


Which we replace with renewables

 This leads to the creation of jobs in renewables

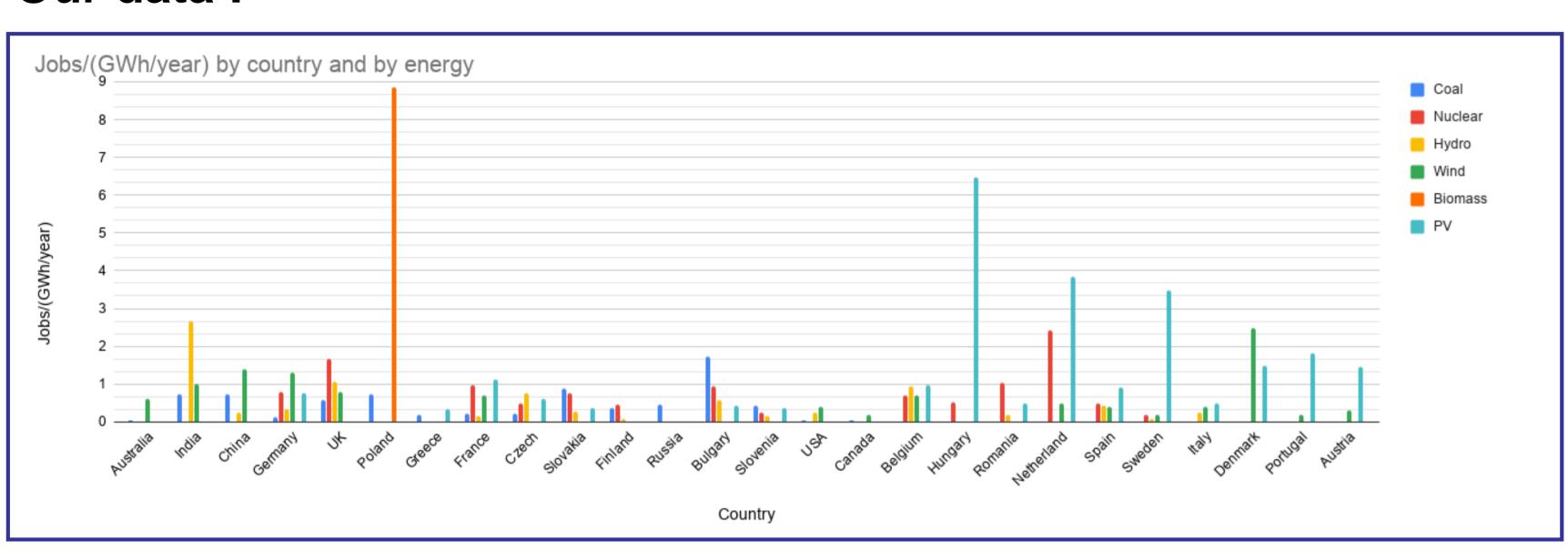


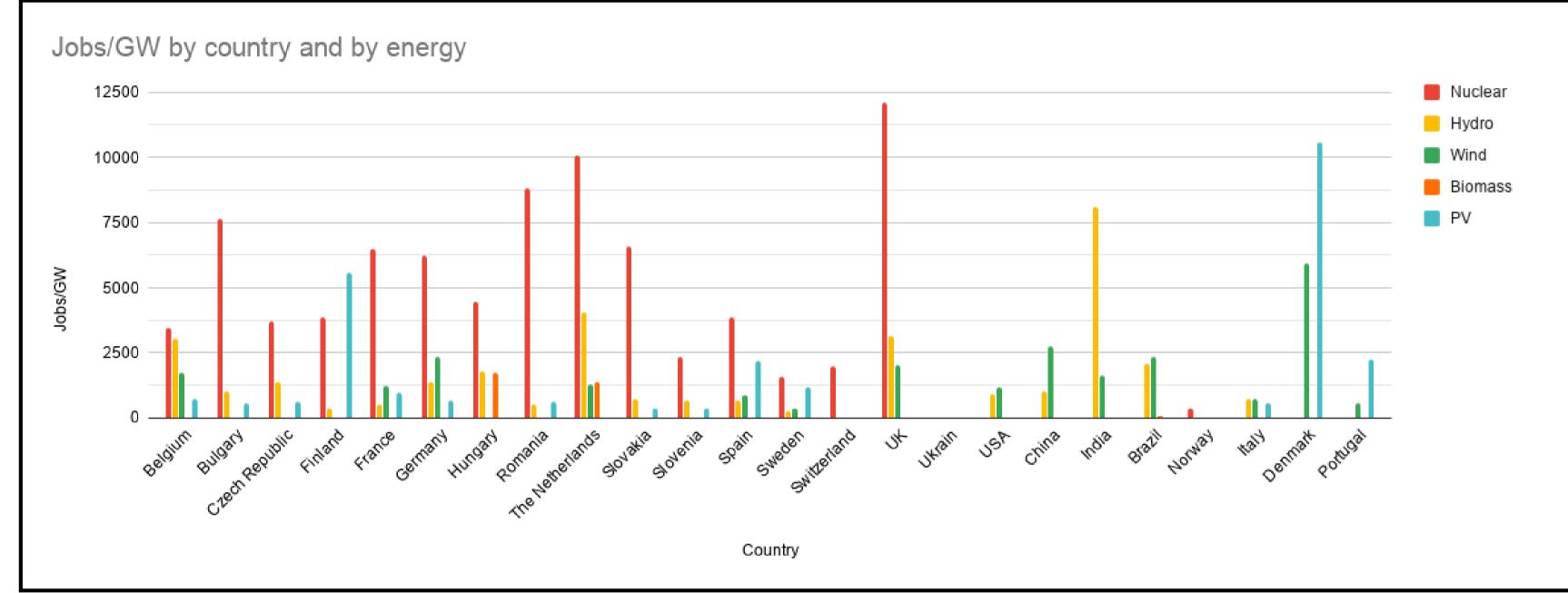
And compute the corresponding output of total job creation/destruction



# -173,86

### Our data:

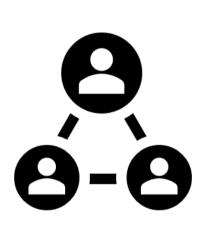




### **Our results:**

- Job Loss for European countries relying heavily on coal
- + Job Gain for European countries already having a developed renewable energy sector

Overall: For Europe, more jobs are gained than destroyed



### Job related issues of the energy transition:

Our results confirm that the energy transition will create jobs instead of destroying them, as it is sometimes misbelieved to be. Further additional parameters need to be taken into account and many issues ought to be faced in order to combine a efficient energy transition with minimal social precariousness:



- •Reallocation of jobs: job losses will occur in conventional energy supply sectors and mainly in coal mining and refineries as well as in extraction and manufacturing of fossil-fuel. These jobs will be reallocated towards renewable energies. However, jobs in fossil and renewable energies are very different; while the former ones are often low-skilled and repetitive, the latter ones are mainly highly-skilled and flexible.
- •Transferability of skills: low-skilled jobs will be both created and destructed during the energy transition. Therefore there will not be significant employment losses in this category, even if how to smoothen the shift remains an open-ended question. On the other hand, medium-skilled and highly-skilled jobs will undeniably grow. In this context, transferring skills from the fossil sector to the renewable one is a *sine qua non* condition for transitioning.



•Training and educational programs: are essential both at the short and long term. While in the first case they will help workers to adapt and convert their skills to match with new jobs, in the second one they will ensure the durability of such transition.



