

## Summary of the NFP 73 project “Transition to a Green Open Economy: Labour Market Effects and Implications for the Swiss Economy”

The project is a joined work by researchers from Economics Department of the University of Basel, from B,S,S, an economics consulting firm, and experts from the Swiss Federal Institute for Vocational Education and Training (SFIVET). In the talk on June 18, I will outline the idea of the whole project. The focus will be on the first part, the classification of green jobs.

The research project investigates the labour market challenges associated with stricter Swiss environmental policy, taking into account both the economic and environmental effects of this policy. Investigating jobs and skills required for the transformation towards a green economy (in the following “green jobs & skills”) should yield new insights regarding the readiness of the Swiss labour market to cope with a transition towards a green economy. The project is structured in three parts.

In the first part, we analyse how stricter environmental regulations affect the demand for green jobs & skills. In doing so, we will use o\*net data and methods from machine learning to classify ISCO-occupations as green, potential green or non-green. This analysis will also reveal which skills are important to perform green tasks. The results are then aggregated at the industry level and analyzed, whether stricter environmental regulations affect the relative number of green occupations. This analysis will be done for Switzerland and several EU-countries.

In the second part, we use our classification of green jobs from part one and analyse whether the Swiss labour force can provide the green jobs & skills that are required for the green transformation. To achieve this, we will (a) quantify and characterise the demand and supply for green jobs & skills, respectively, and bring together demand and supply in order to identify evidence for possible skills shortages and mismatches, (b) focus on migration as a way to acquire the needed skills to cope with a skills shortage or mismatch due to a transition to a green economy, and (c) differentiate the analysis by industry to learn about the relative demand of specific industries for jobs and skills.

In the third part, we build on the results of the first two parts and identify possible deficits in green skills in Switzerland’s work force and show under which circumstances this might be a major problem (e.g., in the tradeable sector) or only a minor problem (e.g., under certain requirements in the non-tradeable sector). Next, we show how the supply of green skills has to be adapted in order to meet the future demand for these skills. We thereby show in which fields of education or training course changes need to be made, so that students and/or trainees can obtain the necessary (green) skills to carry out green jobs. The necessary changes in the selected curricula will be identified and analysed in detail. For this task, we will work together with experts from the Swiss Federal Institute for Vocational Education and Training (SFIVET). This part thus delivers key insights about which conditions have to be fulfilled for Switzerland’s transition to a green economy so that its resource use reaches a sustainable level and the Swiss economy is not overburdened.