

P3.2-3 Promoting Green Innovation and Green Growth: Policy Instruments and Challenges in terms of Employment and Human Capital Comment

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The promotion of green innovation and green growth depends on the necessity to tackle two types of externalities: environmental and technological externalities. Technological externalities are twofold: knowledge diffusion externalities in the invention phase and adoption externalities in the diffusion phase, which both lead to a paradox of under-investment in green technologies. Though profitable, such technologies lack for instance of early adopters.

To tackle both types of externalities, it would seem consistent to use two types of policy instruments. However, there is a debate among economists regarding the types of instruments that would best promote green growth. Nordhaus (2010) supports the

notion of price fundamentalism, whereby “internalising the pollution externality suffices ... there would be no grounds for further special treatment for the green R&D activity”. On the contrary, for Acemoglu, Aghion et al. (2009) innovation does respond to changes in prices, it is thus possible to attract innovation to the green sector with a combination of carbon taxes and research subsidies. Moreover, the sooner the intervention, the lower the overall cost. In terms of employment and labour market outcomes, the need for green competencies and human capital is huge, and to avoid green innovation policies being consumed by rises in wages (because labour supply is inelastic in the short run), labour market and education policies are also needed.