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### Information and Communication Technologies and Skill Upgrading: The Role of Internal vs. External Labour Markets

by Luc Behaghel, Eve Caroli, Emmanuelle Walkowiak  
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#### Abstract:

Following the adoption of information and communication technologies (ICT), firms are likely to face increasing skill requirements. They may react either by training or hiring the new skills, or by a combination of both. We first show that ICT is indeed skill biased and we then assess the relative importance of external and internal labour market strategies. We show that skill upgrading following ICT adoption takes place mostly through internal labour markets adjustments. The introduction of ICT is associated with an upward shift in firms' occupational structure, of which one third is due to hiring and firing workers from the external labour market, whereas two-thirds are due to promotions. Moreover, we find no compelling evidence of external labour market strategies based on "excess turnover". In contrast, French firms heavily rely on training in order to upgrade the skill level of their workforce, even if this varies across industries.

**Text:** See [Discussion Paper No. 5494](#)



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