Measuring "Indirect" Investments in ICT in OECD Countries

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ICT components, such as microprocessors, may be embodied in other capital goods not recorded as ICT in National Accounts. We name 'indirect ICT investment' the value of embodied ICT components in non-ICT investment. The paper provides estimates of 'indirect ICT investment' based on detailed and unpublished Supply-Use tables (SUT) in 12 OECD countries: Australia, Belgium, Canada, Chile, Czech Republic, Denmark, France, Germany, Japan, Israel, Mexico, New Zealand, the United Kingdom, and the United States.
Our main finding is that ICT investment appears significantly higher when considering its indirect component, the average increase being about 35%. The inclusion of indirect ICT investment, excluding software (for which firms' expenditures are difficult to measure), changes significantly the relative position of countries with respect to the ICT intensity of their investments. The inclusion of software further increases indirect ICT investment but the increase is smaller (in percentage) than without this inclusion. A final result, but concerning only three countries, it that the diagnosis of a stabilisation, or even a decrease, of ICT investment in percentage of GDP or of total investment, observed from the beginning of the century, is not modified if we take into account the indirect ICT investment.