The 4 transitions: what skills do we need and how to provide them?

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- The impact of the tech revolution on employment, skills, work organization and working conditions
- New trends in responsible consumption: an opportunity for employment?
The job structure in France has changed significantly in the last 15 years

- Partly related to globalization and technological change: an evolution of employment that has benefited high skilled and qualified individuals - a validation of the hypothesis of biased technological progress in favor of "non-routine" tasks, and in disfavor of "routine" tasks;
- Climate change: "green jobs" : + 9% (2007-2012)

New jobs (BIM - Building Information Modeling - manager)

A profound evolution of jobs content in connection with the diffusion of new technologies: a generalized complexification/hybridation, an increase in analytical and relational skills

Job vacancies 80 000 (close to 10%) in the digital/electronic sectors and Jobs/Skills location (ex: tech skills)
Our findings: new trends in responsible consumption (shorter production and sales channels, “green”, organic, made in local, circular economy, fair trade, RBC) will continue. They can be a real opportunity for employment in France if:

- competitive offer
- skills

Examples: short circuits: 2.3 jobs /farm vs. 1.5; organic: +9.2% / year since 2012; employment in the circular economy: +11% in 5 years; up to 800,000 jobs into the next decades linked to the green transition.

Our study: +150,000 new jobs if French people «re-located» 10% of imported goods.

Impact on job content (hybridation) and skill needs («savoir-faire»; new skills for organic products, new skills in the short circuits economy) + digital skills (circular economy, short circuits).
Tech revolution: High demand for 3 groups of skills

- Expert tech skills

- Professional/technical skills (transformation of jobs)

- For all workers: transversal skills (basic digital – cognitive – social and relational skills)
Tech revolution: a high demand and a great transferability for some tech skills

Three skill groups should be much more involved in a digitized economy:

- Expert skills in new technologies, in the technology sector itself, but also in all economic sectors using these technologies;
- New technical skills related to the recomposition of approximately 50% of jobs;
- And, for everyone in the workforce, an increase in the need for so-called “cross-cutting” or transversal skills, which include basic digital skills, cognitive skills (literacy, numeracy), and social and situational skills.
50% of current jobs liable to profound transformation

- less than 10% of existing jobs are subject to cumulative vulnerabilities liable to threaten their existence due to automation and digitalisation;
- but half of existing jobs are liable to change in terms of content, from significantly to very significantly;
- technological advances should continue to promote qualified and highly qualified jobs. Of those that may be vulnerable, over-represented professions with respect to volume or their percentage of total employment, are often non-skilled or low-skilled jobs

<table>
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<tr>
<th>% vulnerable jobs</th>
<th>% jobs liable to change</th>
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<td>Less than 10 %</td>
<td>About 50 %</td>
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Jobs liable to a profound transformation
In a digitized working environment, the frequency of solicitation of transversal skills is high and increasing with the intensity of digitization.

This applies to all skill levels (including the low and unskilled); whatever the age or professional sector.

This applies to all transversal skills, especially for cognitive skills: the gap between a non-digital environment and a highly digital environment reaches 94% for numeracy and 54% for literacy.
Main findings

- Looking separately at the impacts of each megatrend can make sense in some ways.

- But governments, the social partners and businesses should consider them globally:
  - Real life
  - A lot of common issues
    - Pace
    - Jobs hybridation
    - Reinforced need for transversal and transferable skills
Main challenges

- Lifelong guidance and support
- Our « classical » methods to anticipate skill needs do not work properly anymore
- Need to break down the walls (education/lifelong training; between professional branches)
- Need for new methods of learning
- Need for new methods of securing and accompanying professional transitions
- Warning : acquiring new skills is not the only issue
Thank you for your attention