

## Philippe Vivien: Global growth, productivity and inflation are more and more disconnected – the energy transition is paving the way for future generations

The question is quite complex. How do national employment policies, HR processes in the companies evolve at the moment when the economy is almost flat, productivity remains a permanent challenge and inflation is low. All these factors are disconnected from each other.

Even if the economy recovers, the positive impact on employment and jobs creation is lower than what happened in the past decades. It takes more time and it's more and more difficult to return to pre-crisis levels of unemployment rate. As an example, a McKinsey research has shown that it has taken 45 months to the US economy to restore the jobs lost in 2008-2009. In Europe most of the economies have not recovered strongly enough to top the pre-crisis numbers.

In the period of uncertainty we are facing, all the companies adapt the nature of work to the new reality of their business. It doesn't mean that they do not recruit anymore. It is just the opposite... It means that they redefine how and where operations stand and will be developed.

Globalization is a major driver too. The access to new customer and labor markets close to the European base change the paradigm. The resource they offer sounds cheaper as well as well trained. The extension to new pools of highly talented people creates a new competition between the regions and education systems.

The creation of new jobs in Europe will mainly depend upon two mega trends:

- Technology
- Sense of urgency and opportunities regarding Political strategic issues such as the Energy transition.

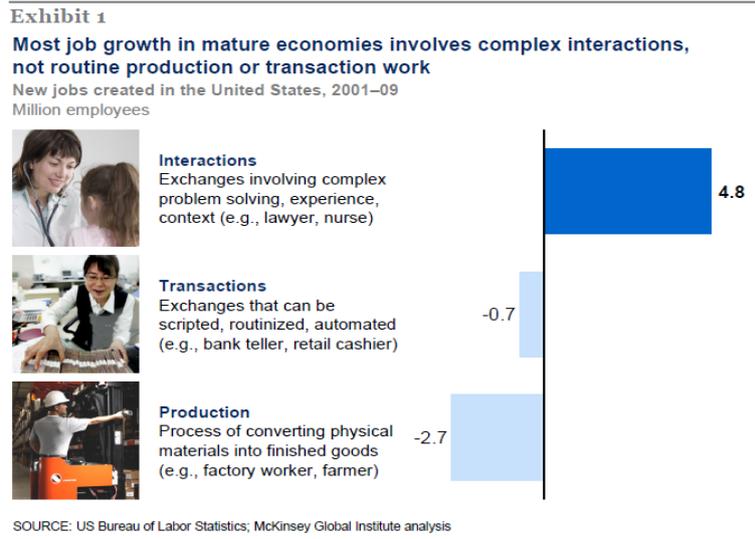
As a basic principle the Energy Transition is not, and will not be, the first driver to kill the poisoning and unacceptable high level of unemployment, but this is a new and "emerging local market" which creates a potential positive breakthrough for jobs creation.

### **1. Technology has deeply changed the nature of work in most of the advanced economies**

The new jobs created by most of the companies strongly differ from those of the past. The jobs lost never come back. For decades, technology has been transforming the nature of Work and raising Productivity. Three major waves succeeded. First, the automation and the introduction of smart machines and robots created "jobless" assembly lines. Then came the time for processing the transaction jobs (ATM, Call centers...) and now has raised a third phase impacting jobs that involve complex interactions and sometimes a very specific set of knowledge.

These jobs of the knowledge economy include many of the white collars. These interactions jobs which integrate both high-skill people as well as low-skill ones are the main -and sometimes- the only one kind of net creations

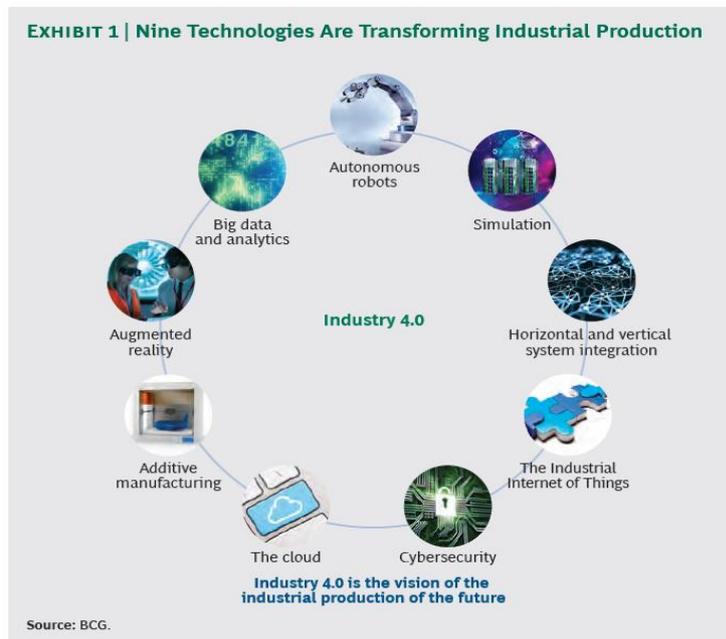
A Mc Kinsey survey established that in the USA from 2001 to 2009, the largest part of the job creations depended upon the Interaction jobs.



The hope for winning the battle for employment needs to integrate the impact of technological advances in industrial productivity and business competition. This is what people call “the new digital industrial revolution”: Industry 4.0.

Should this new approach of the industrial world save or -even better- boost the recovery of jobs creation in Europe? Definitely Yes! we have no choice if we intend to maintain in Europe a robust industrial footprint. But the curve is risky and most of the countries are just unprepared for the race.

BCG envisioned quite well this future:



Most of those technologies have already been included into many manufacturing sectors. The new revolution consists in the integration of each of them. All of the new energy transition is based upon this new vision.

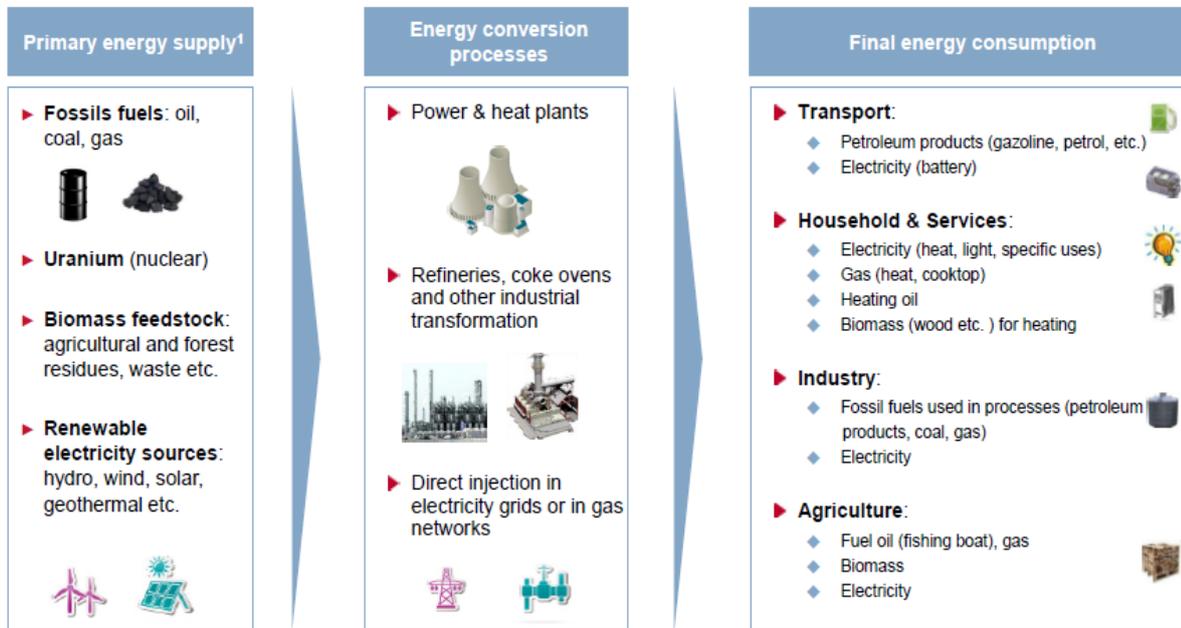
Capabilities to deal with Mobility, Security, Predictability, interactions of small systems make the difference.

## 2. Energy transition as a booster for the European recovery

Jean Jouzel is the best specialist to talk about this issue. He will give us an amazing speech tomorrow but I would like to share with you some assumptions and links between.

- Global population on the planet is soaring: From 1 billion inhabitants in 1900 to 3 billion in 1960, 7 billion today, 9 billion in 2050 with a huge increase of the cities: 60 % of the inhabitants live in urban areas in 2050,
- Growth of the GDP at 3 % on the long run,
- Minimize the impact of climate change. We must divide by 2 or 3 the level of the CO<sub>2</sub> emissions to limit the impact of global warming. If nothing happens with the current technology the increase of the temperature should top +3°C to +4°C. At this level the size of the deserts would be multiplied by in 2100 and ocean would be up by 1m30 in 2200.

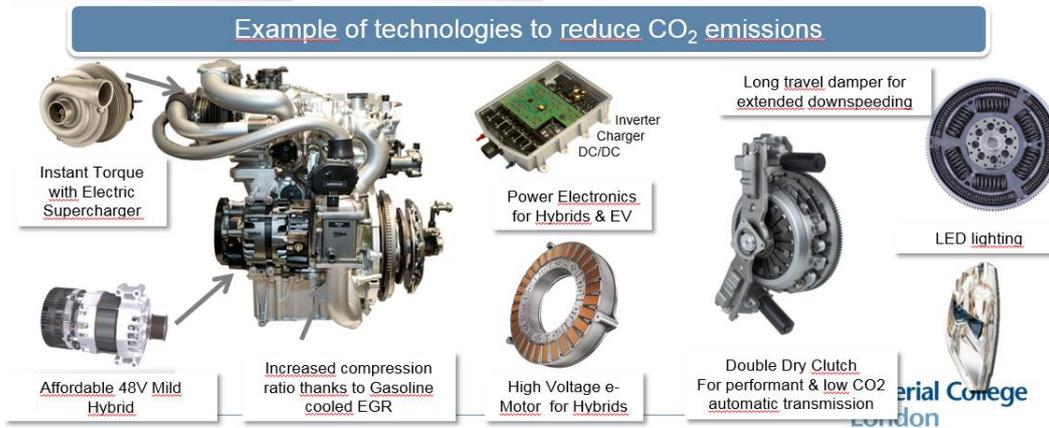
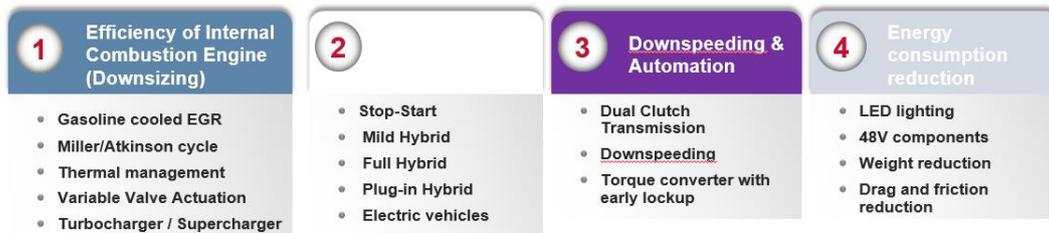
The good news is that we have in hands most of the technologies to handle the issue:



1. Primary energy supply is the sum of the primary production, the stock variation and the energy balance (imports – exports).

Let's take an example: The automotive industry.

## Technologies to reduce CO<sub>2</sub> emissions



The best way to reduce CO2 emission is the development of the electrical car, but all the hybrid-engine systems are positive too.

Typical impact of technologies on CO2 emissions during the cycle	
<b>Stop/Start</b>	<b>-4%</b>
<b>Mild hybrid</b>	<b>-15%/-12%</b>
<b>Full hybrid</b>	<b>-25%/ -20%</b>
<b>Plug-in hybrid</b>	<b>-70%/-60%</b>
<b>Electric</b>	<b>-100%</b>

Young people are keen to modify their approach of the individual vehicle and eager to jump into new technologies.

What does it mean for companies and HR policies?

- First, redefine the role of all the companies within the industrial sector. Emphasize the role of the new companies and start ups that create the most innovative products or services. Entrepreneurship should be developed and rewarded,
- Then develop a large talent pool of high-skill engineers and specialists with a strong ability to envision new systems,
- More important, manage the teams through “fab labs” and collaborative programs,
- Establish bridges and opportunities for career development across companies,

**EXHIBIT 12 | Differences in the Urgency Rankings of Selected HR Subtopics by Industry**

	Consumer goods	Energy	Financial institutions	Health care	Industrial goods	Insurance	Professional business services	Public sector	Technology, media, and telecommunications	
Leadership	1	1	1	1	1	3	1	2	1	Very urgent
Talent management	3	2	2	2	2	1	4	5	3	1
Behavior and culture	4	3	6	4	5	5	2	1	5	2
HR and people strategy	2	4	4	3	3	8	3	4	6	3
Employee engagement	5		3	6	7	6	6	3	4	4
Strategic workforce planning	6	5	8	5	6	9	8	6	2	5
Career models and competencies	10	6	5	10	4	4		9	7	6
HR communication			9		8			7		7
Performance management	8	10		9				8		8
Training and learning		8			9	10	9		9	9
Employer branding				8	10	2	5		8	10
Social media	7						7			Urgent
Rewards and recognition	9		7				10		10	
Other HR and workforce analytics		9	10	7		7		10		Other
HR staff capabilities										>10

Source: 2014 BCG and WFPMA proprietary Web survey and analysis.

Note: Urgency is determined by calculating the difference between future importance and current capabilities, and then multiplying that difference by future importance; there were 3,507 respondents in this section.

This is a new paradigm, a win-win endeavor that HR needs to lead...