



**Address by Stefania Giannini**  
**Minister of Education, Universities and Research**  
**on the occasion of "LET's 2014 "**

**Bologna, October 1, 2014**

Dear Authorities,  
Dear Colleagues,  
Ladies and Gentlemen,

The dense program of the LET's Conference, which the Italian Presidency proudly organized in cooperation with the European Commission here in Bologna, definitely pointed out the importance of research, development and innovation in Key Enabling Technologies to Europe's future growth.

We know that the shape and potential of industry world-wide will be transformed over the next decade.

New goods and services will be created for rapidly growing markets in both developed and emerging economies.

Technologies such as micro- and nanoelectronics, photonics, nanotechnology, biotechnology, advanced materials and smart manufacturing systems will contribute to addressing the great global and societal challenges of our time.

These technologies will directly or indirectly stimulate competitiveness and generate jobs, growth and wealth in the countries where research, development and innovation related to such technologies will take place.

In other words, countries which will innovate, master, deploy and manufacture KETs will be at the forefront of economic development.

And they will achieve high growth figures in both production and employment, and contribute to the general objective of strengthening industrial competitiveness to support economic recovery and enable the transition to a low-carbon and resource-efficient economy.



Europe is proactively stimulate the necessary actions to foster the emergence of key players and producers in this very strategic economic orientation.

More specifically, Europe does not want to miss this opportunity. Europe wants to be there, playing a leading role in this game-changing effort that is required in the coming decade.

This is already a fact. But how can we make it happen faster? What means and initiatives shall we conceive and implement in order to further foster KETs for the Renaissance of Europe's competitiveness in high tech?

No single and unique recipe exists, of course.

We need a mix of actions, properly blended, that will aim at increasing the impact of public spending on innovation, at promoting coordination among national and international research programs, at strengthening the innovation ecosystem, at deploying the new research infrastructures roadmap. And, needless to say, at reinforcing the links between public and private research and between public researchers and industry.

So, where are we now?

Certainly, some concrete steps have already been taken in the European landscape. For instance, in the field of micro- and nano-electronics, the ECSEL JTI has been established as a joint effort between the European Commission and several Member States.

ECSEL, which links the nano-electronics community to the embedded systems community and the smart systems integration community, offers the opportunity of contrasting the current fragmentation of existing (local) innovative supply chains through networking actions and clustering initiatives.

It will thus stimulate a synergy across Europe in the execution of R&D&I projects with major industrial involvement and significant business impact.

In addition, ECSEL will also be an experiment of virtuous use of funds from heterogeneous sources (e.g., EU funds, national funds, local funds).



Similar initiatives, yet with different legal architecture, have been started in other KET sectors.

However, additional work is necessary in order to further increase R&D investments, both from the private and the public sector, and to make public-private partnerships in research and innovation more effective.

One key action which is urgently needed entails the promotion of markets for innovation and demand-side policies, with a broad range of initiatives, among which let me refer to three in particular:

1. smart regulation;
2. public procurement of innovation and pre-commercial procurement related to societal challenges and social needs;
3. most important, the single European digital market.

Concerning the public side, in order to allow it to play a virtuous role in public-private alliances, some structural conditions should be put in place.

I am convinced that the most important one that is in our hands, in order to induce better and higher spending and improve innovation performance in the private sector, is stability.

Stability in our strategic intent, in our policies, in our incentives, in our procurement practices, in our infrastructural investments and, on the top of everything, in our budgets for innovation.

A second, not less relevant issue refers to improving the cohesion between European, national and regional innovation policies.

In this context, the Smart Specialization Strategies, which are being defined and put in place at the national and regional levels, will originate significant benefits and positive impact at the industrial level, as well as on citizens and the society.



Ladies and gentlemen, since time is running, let me go back to KETs, which is the main item of today's discussion.



KETs represent, with different flavors, the substrate on top of which application domains which are vital for the European economy can grow and consolidate.

Automotive, aerospace, chemicals, electronics, textiles, energy, environment, pharma, health, construction and telecom are examples where KETs can provide an essential boost to development of new products and services, which are needed to deliver a sustainable and inclusive European growth.

It is worth noting, at this point, that every single high-value product or service in the sectors mentioned above requires a manufacturing process behind it.

The complexity of such process is stretched further if the manufactured product or service relies on KETs. Manufacturing has therefore a critical “enabling” role.

Europe hosts a manufacturing base that builds its strength on a long-established engineering tradition, a strong R&D capacity rooted in research centers and academia, the ability of industry to adapt to technological progress and to produce high quality products that find customers all around the world.

Europe is the homeland of major manufacturing industries, which have been a focal point of value creation for the society for centuries.

The same manufacturing industry provides technologies and solutions, which are needed to respond to key challenges of the new millennium, including, climate change, energy efficiency, security, ageing society and sustainable mobility.

Today, however, Europe’s position as industrial player is eroding and its leadership in several business sectors is being challenged by global competitors, leading to a progressive decline in employment.

A reaction is thus needed, immediately, without further delays. The European economy must be put back on a positive track of growth and job creation.

Despite growing globalization and challenges from low-wage economies, manufacturing holds, potentially, a bright future in Europe.

There is a strong indication of the re-emergence of the EU manufacturing sector as part of the new sustainable economy. But it is clear that such sustainable



development requires continuing innovation in the underlying products and processes, with a need for consistent and effective research over the next decade based on a clear and long-term vision.

Research and innovation in new manufacturing technologies is therefore a priority, to be addressed by adequate investments and synergy of intents across all the stake-holders, both from the public and the private sector.

Yet, technology development will not be sufficient if it will not be paired by know-how creation and dissemination in the manufacturing community.

Background and expertise accumulated in Europe in more than a century of industrial history is an asset that must be leveraged while designing the manufacturing systems of the future.

The “factory of the future” will exploit a mix of innovation and tradition; proper training and education actions should then be promoted. The concept of a “manufacturing academy”, aiming at taking advantage of the know-how in manufacturing process which is wide-spread in Europe may represent a valuable approach to be investigated.

If manufacturing is key for Europe, so are the other KETs.

More discussion, new ideas and proposals are needed to further fertilize a land which is already generous for the European society, but which holds the potential for greater development and for acquiring a driving role for the economy of our continent.

Before concluding, please allow me a quick, announcement, which I believe could be interesting to all of you.

We will further discuss the two ICT KETs, micro- and nano-electronics and photonics, and their impact on cities and citizens in a specific event in Rome, on October 29 and 30. EU Vice President Kroes will honor us with her presence. I hope to see you all there.

Thank you for your attention.