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THE CHEMICAL INDUSTRY IN ITALY: SITUATION AND OUTLOOK

DECEMBER 2018

IN A MORE PROBLEMATIC FRAMEWORK
WORLD GROWTH IS SLOWING BUT WILL NOT STOP

The current phase is particularly complex as it associates signs of widespread economic slowdown to a climate full of uncertainties and it could lead institutes of economic forecasts and operators to an excess of pessimism.

The international context has undoubtedly seen a significant deterioration compared to the extremely favorable conditions of 2017.

Factors of risk are several (increase in interest rates in presence of a high public and private debt, protectionism, geo-political tensions, Brexit, Euro-skepticism) and in large part of a political nature. On the one hand these risks fuel uncertainty, but on the other hand they **will not necessarily have a strongly negative outcome**.
On the contrary, it is precisely the deterioration of economic conditions that leads to automatic adjustments (such as the decline in oil price and the $ strengthening) and that could lead, at least partially, to review policies.

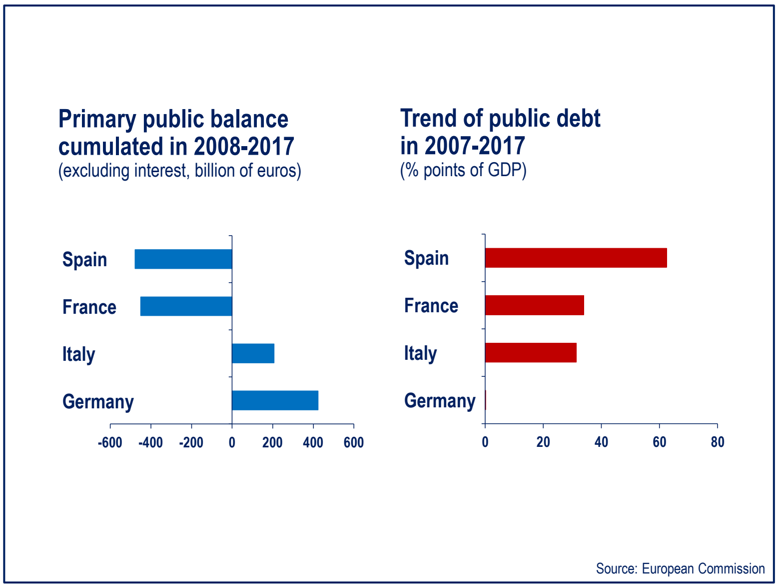
Global economy will inevitably face a slowdown which, however, should not be too abrupt (GDP from 3.7% in 2018 to 3.3% in 2019)

ITALIAN FISCAL POLICY INCREASES THE DEFICIT WITHOUT LASTING BENEFITS FOR GROWTH

In Italy, a specific factor of uncertainty is connected to fiscal policy and the adverse reaction of European Authorities and financial operators which led to a significant increase in the spread, i.e. the differential between interest rates of Italian and German government bonds, in an already delicate phase due to the gradual decrease in purchases made by the ECB.

First of all, it should be noted that the high public debt **does not derive from a senseless budget policy**: Italy has cumulated a surplus excluding interest expenditure of more than 200 billion euros since 2008, while France and Spain have achieved deficits above 450 billion euros.

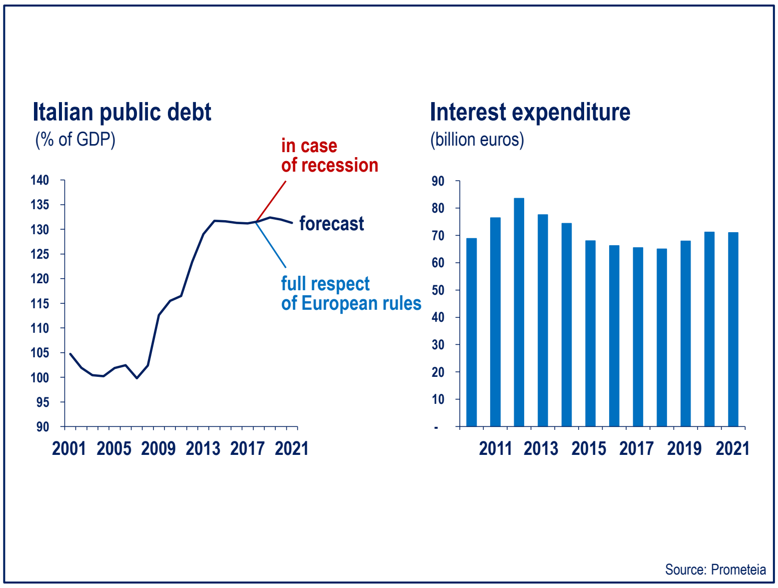
The recent experience has made it clear that such a high public debt drains huge resources in terms of interest expenditure and, as a consequence, its reduction is of interest to the nation as a whole.



However, the stabilization of the debt-to-GDP ratio has been achieved only since the economy began to grow again. On the contrary austerity had recessionary effects which ended up increasing this ratio, weakened the economy and, above all, the social stability of the country, fueling a widespread sense of insecurity and mistrust in national and European institutions.

With this in mind, Italian fiscal policy arises from real problems:
- the share of population in absolute poverty conditions has never stopped increasing in the last ten years, exceeding 8% with much higher peaks in some areas;
- employment recovery mainly concerned the over-fifties, also due to the extension of the retirement age, while it is much weaker for the other age groups.

The central question is whether this fiscal package, diverting from European constraints on public accounts, is able to provide effective responses to problems and to raise growth in a lasting way, favoring also a gradual decline of public debt.

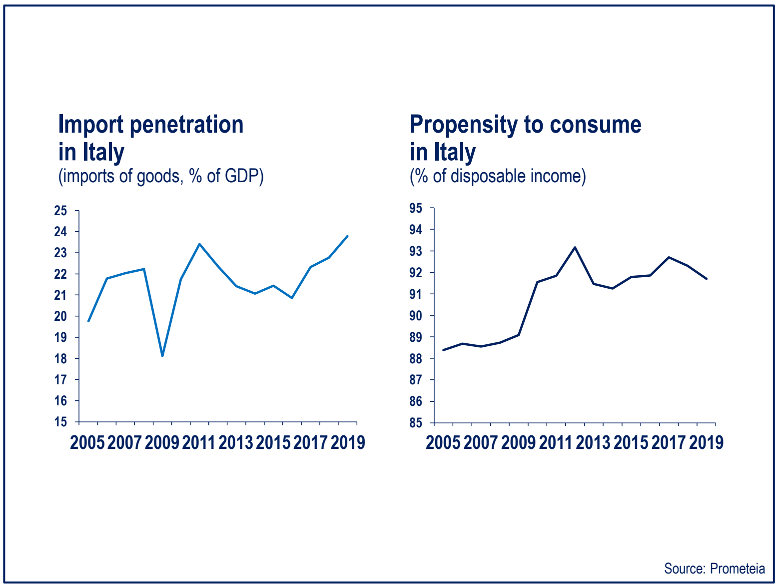


The maneuver by itself does not determine the explosion of public debt, which is expected to be substantially stable in relation to GDP. The current level of spread does not reflect so much the situation of public accounts but rather the clash with European institutions.
A compromise solution would contribute substantially to reduce tensions, anyway – even with a spread on current levels for larger part of 2019 – the impact on financing costs of public debt would be significant but not unmanageable, as they will continue to benefit from issuance at very favorable rates in the last years.

In any case fiscal policy generates counterproductive effects and risks, especially over the medium term:
- it will further increase interest expenditure (from 65 billion euros in 2018 to 71 billion euros in 2021);
- by not reducing public debt, it creates the conditions for not being able to intervene with measures to support companies and households in case of a possible future recession;
- pension reform will boost costs at the expense of young people.

At the end fiscal policy will determine an increase in deficit without leading to any significant benefit in terms of growth in 2019, on the contrary:
- country risk affects banks' accounts and ends up weighing also on companies through less availability of credit and higher costs;

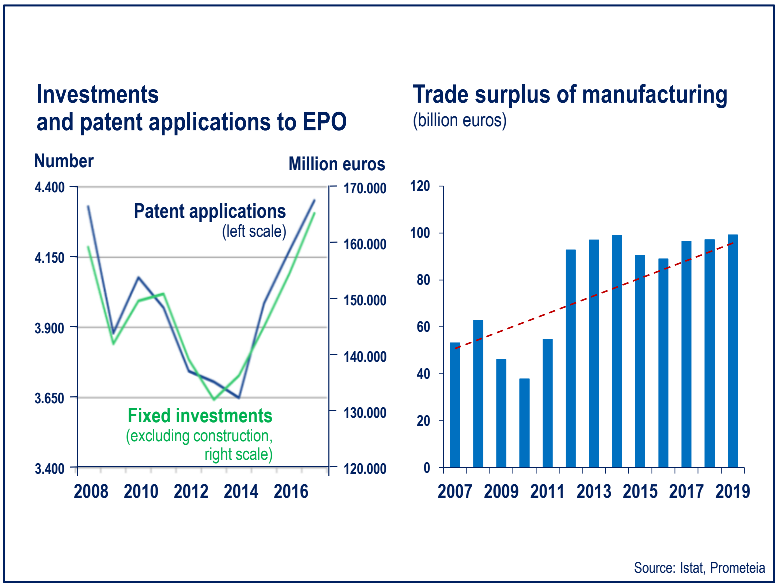
- planned expansionary fiscal policy measures (in particular, minimum income and more flexible retirement scheme) – acting above all on demand rather than on competitive conditions – have limited effectiveness also because, in part, they only translate into higher imports;
- under conditions of uncertainty households prefer to save money and companies are less oriented to invest and create jobs, as a consequence public resources do not trigger any virtuous circle.



INDUSTRY: STRENGTH OF THE ITALIAN ECONOMY

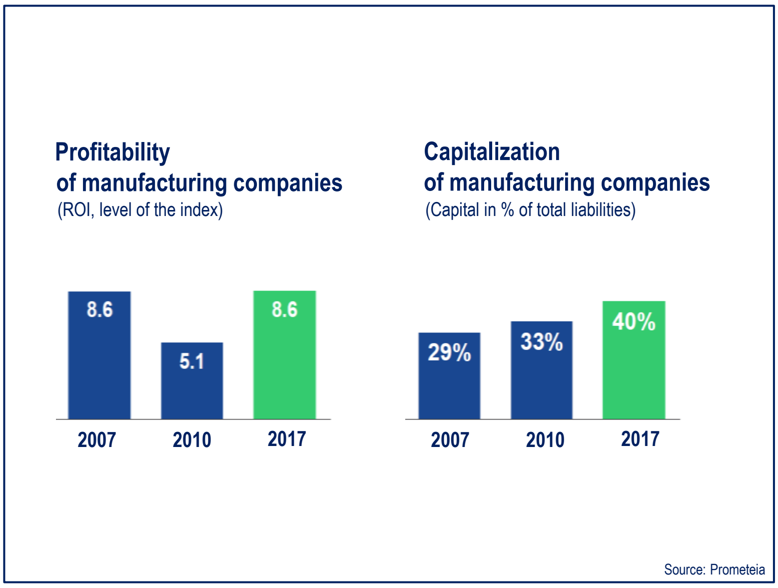
In assessing Italian situation, it is important to bear in mind that **fragility of the political framework does not at all correspond to a similar fragility of the industrial system.**

In the years following the crisis, **Italian industry has changed profoundly and has strengthened its competitiveness**, increasingly orienting itself towards international markets.
In particular, it has repositioned towards medium-high technology sectors (mechanics, pharmaceuticals, the chemical industry itself) and, even in the so-called traditional sectors, it has strengthened innovative contents, as evidenced by the sharp increase in patent applications.



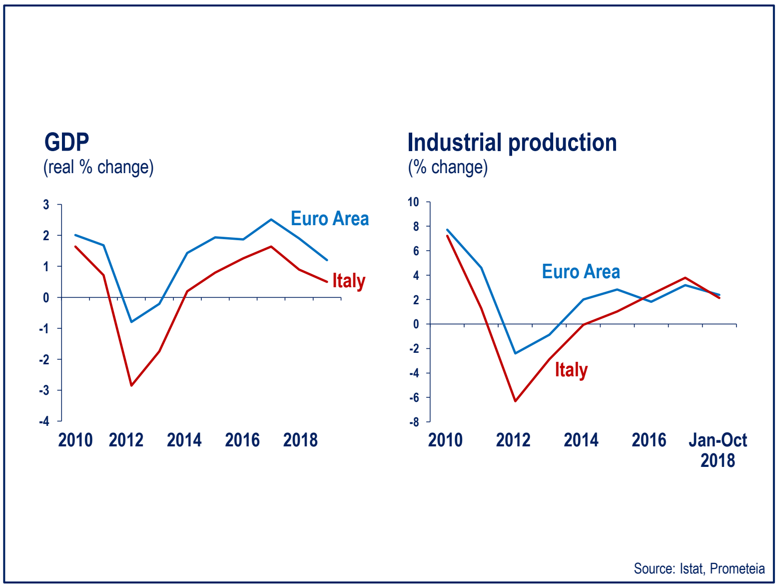
Italian manufacturing has also started **a renewal phase of plants**, in particular with reference to Industry 4.0 technologies also supported by tax incentives (although partially reduced by recent measures).
The results are clearly visible in trade balance, which has almost doubled in the last decade and is expected to moderately expand further also in 2019 – despite a less favorable international framework – reaching almost 100 billion euros.

Risks of a heavy credit restriction, triggered by the increase in the spread on government bonds, **are limited and industry appears less exposed than in the past**:



- banks have made significant progresses – in terms of capital strengthening and **reduction of non-performing loans** (currently 10%, down from 17% in 2015) – which were also reflected in recent stress tests conducted at European level;
- increase in spread translates, in part, to interest rates charged by banks but, thanks to the still accommodating monetary policy, **levels remain still very favorable**;
- industrial companies are less dependent on bank loans, **thanks to restoration of profitability on pre-crisis levels accompanied by greater capitalization**.

The need to contain public debt has constantly been a constraint on domestic demand, as a consequence economic growth in Italy has constantly been lower than the European average. However, **in recent years, Italian manufacturing has been able to close the gap with Europe, representing the main driver of recovery**.



Italian industrial production is slowing down, but still expanding at a pace (+2.1% in the first 10 months of 2018) not far from European average (+2.4%).
However, this gap risks reopening as a result of the counter-productive effects of a fiscal policy that is risky and does not pay attention to competitiveness.

In conclusion, excluding the most extreme scenarios with respect to the political situation and the relationship with European institutions, **Italian economic and industrial system presents several elements of solidity that allow it to face without derailments cyclical slowdown and current phase of turbulence.**

IN ITALY GROWTH CONTINUES, BUT AT AN EVEN MORE MODERATE PACE

Given the presented scenario – characterized by a less favorable but not adverse international context and a compromise solution on fiscal policy mitigating tensions with European institutions – **economic growth in Italy is expected to continue but at a more modest pace in 2019** (+0.5% after +0.9% in 2018).

Macroeconomic forecasts for Italy
(real % change, unless otherwise indicated)

	2017	2018	2019
GDP	**1.6**	**0.9**	**0.5**
Private consumption	1.5	0.6	0.6
Government consumption	-0.1	0.1	0.8
Gross fixed investment			
- machinery, equipment and transport means	6.5	5.5	-1.0
- constructions (*)	1.1	1.7	0.9
Exports of goods and services	6.3	1.0	2.4
Imports of goods and services	5.6	2.0	1.9
Inflation (%)	1.2	1.2	0.9
Total employment	0.9	0.5	0.1
Households' disposable income	0.6	1.1	1.2

Note: (*) excluding property transfer costs
Source: Prometeia, Ance

The easing of fiscal policy will lead to a greater expansion of **Government consumption** (+0.8% in 2019 compared to the substantial stability in 2018).

Private consumption, despite the increase in the propensity to save for precautionary purposes, will show a moderate growth (+ 0.6% in line with 2018), as a result of

- fiscal measures (minimum income, tax reductions for VAT-registered workers and for individual companies);
- a slight recovery in wages in the presence of even lower inflation (+0.9% from +1.2% in 2018), notwithstanding a flattening of employment growth (+0.1% after +0.5% in 2018).

Investments in capital goods will see a setback due to uncertainty and the weakening of incentives (-1.0% after +5.5% in 2018). Investments in **construction** will also slow down (+0.9% after +1.7% in 2018). The continuous and significant strengthening of government budget for public works over the last few years will find difficulty in becoming actual work sites due to bureaucratic constraints.

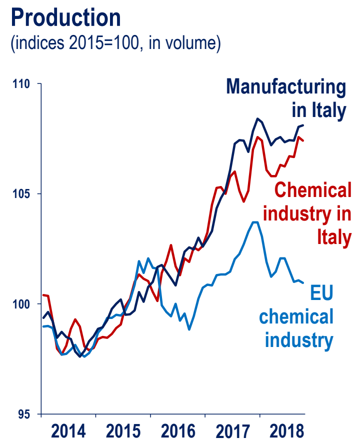
Italian **exports** will increase a little more (+2.4% after +1.0% in 2018) thanks to

- mitigation of the "disorientation feeling" of market operators, following the increase in uncertainty and slowdown exceeding expectations, which hampered spending decisions in the second half of 2018;
- a less unfavorable euro/$ exchange rate;
- the ability demonstrated in recent years by Italian companies to defend and conquer market shares at international level.

The lack of homogeneity in the performance of companies is a constant feature of the competitive scenario, both present and future, as not all companies are able to face with equal success the necessary change to take advantage of opportunities. This feature is even more important in the current phase because a more challenging framework will **make growth less generalized and more selective in terms of sectors and companies**.

IN A CONTEXT FULL OF UNCERTAINTIES
CHEMICAL INDUSTRY IN ITALY LOSES MOMENTUM

After a very positive 2017 chemical industry in Italy shows a disappointing trend in 2018, in a context of particular weakness of the sector at European level. Compared to substantial stagnation of European chemical production (-0.1% year on year in the first 10 months), in Italy levels of activity are still above the previous year (+ 1.5%), however signals of further slowdown – recorded by companies in recent months, especially in terms of domestic demand – lead to estimate a growth of only 1.0% for 2018. Recent trends, which are not easy to interprete because of the overlapping of factors of different nature, are of particular concern in the perspective of 2019.



Production
(% y-o-y change, in volume)

	2017	Jan-Oct 2018
Chemical industry in Italy	+3.5%	+1.5%
EU chemical industry	+1.9%	-0.1%
Manufacturing in Italy	+3.8%	+2.0%

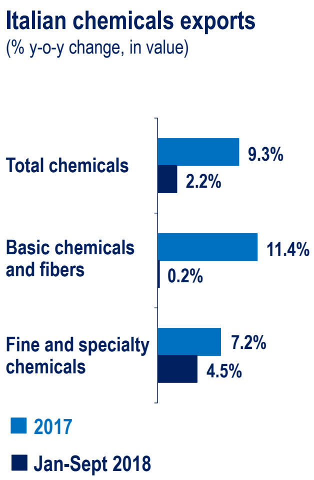
Source: Istat, Eurostat

Demand for chemical products is decidedly less favorable because of
- sharp slowdown in the car industry at European level,
- widespread slowdown of almost all main customer sectors,
- the lack of recovery in construction in Italy.

Chemical industry suffers from a context full of uncertainties in an amplified way. In fact, purchasing behaviors of industrial customers are oriented to utmost prudence in order to keep warehouses as light as possible. High volatility of oil prices is a further factor of disturbance. Moreover, the sector, which is strongly integrated in the global market, is affected by several tensions (above all protectionism and Chinese slowdown).

Italian chemical exports – after the strong progress registered in 2017 (+9% in value) – continue to expand, but at a moderate pace (+2% in value). Slowdown is more consistent in basic chemicals (+0.2%) compared to fine and specialty chemicals (+4.5%).

Situation is very fragmented for individual destination markets:
- the decline of sales in Germany (-3%) weighs significantly, view that Germany is the main trading



Trend of Italian chemical exports in main destination markets
(% share and % y-o-y change, in value)

	% share 2017	% change 2016-17	% change Jan-Sept 2017-18
Germany	14.4	13.3	-3.3
France	10.1	13.9	4.4
Spain	6.6	7.4	6.3
United States	5.6	2.1	12.9
UK	4.2	6.0	3.8
Poland	3.7	16.0	-7.1
Turkey	3.5	12.4	-1.8
Belgium	3.4	6.9	-7.8
Netherlands	3.2	10.0	4.6
China	2.8	16.9	9.4
Switzerland	2.1	8.5	1.6
Russia	2.0	7.7	-4.3
Romania	1.8	6.5	1.7
Austria	1.7	4.3	3.7
Czech Republic	1.6	8.4	-3.0

Source: Istat

partner;

- exports to Poland (-7%), Turkey (-2%), Belgium (-8%), Russia (-4%) and the Czech Republic (-3%) are also declining;
- sales in almost all other markets lose momentum but remain positive, a phenomenon that is in some ways physiological after very dynamic growth in 2017;
- United States is the only market that is strongly strengthening (+ 13%).

Subdued growth of exports is connected, in part, to temporary factors having an impact especially on Germany

- industrial and, in particular, chemical activity is affected by Rhine's low water level, which is generating logistical and supply problems with cascade effects along the supply chains;
- in recent months, the automotive sector is also suffering from difficulties in adapting to the new emission measurement system.

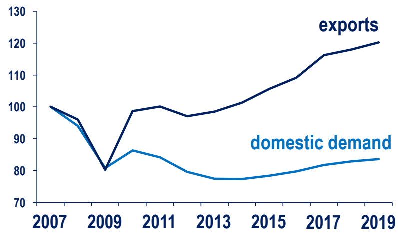
Assuming that these temporary braking factors will be overcome and that a compromise solution on fiscal policy will mitigate financial tensions, chemical production in Italy is expected to increase by 0.7% in 2019.

However, at international level, there are still numerous factors of risk that could affect the performance of the sector: trade tensions between US, China and EU (in particular the threat of limitations on US car imports), internal conflicts in Europe (also in view of European Parliament elections) and possible turmoil related to the reversal of monetary policy.

Outlook for the chemical industry in Italy

	2017 billions of €	% change in volume 2017	2018	2019
Domestic demand	62	2.5	1.4	0.9
Imports	37	4.2	2.0	2.0
Exports	30	6.5	1.5	1.9
Production	55	3.5	1.0	0.7

Domestic demand and exports
(indices in volume, 2007=100)



Source: Istat, Federchimica

FURTHER UNCERTAINTIES COMING FROM REGULATORY FRAMEWORK

In an already complex scenario, specific uncertainties – connected to the application of national regulations and infrastructures – hinder the chemical industry in Italy.

For this sector the simple observance of regulations, which are correctly rigorous, entails a high cost, estimated by the European Commission in 12% of the added value and 30% of the gross operating result. Consequently, the cost differential between national regulations can be decisive for companies.

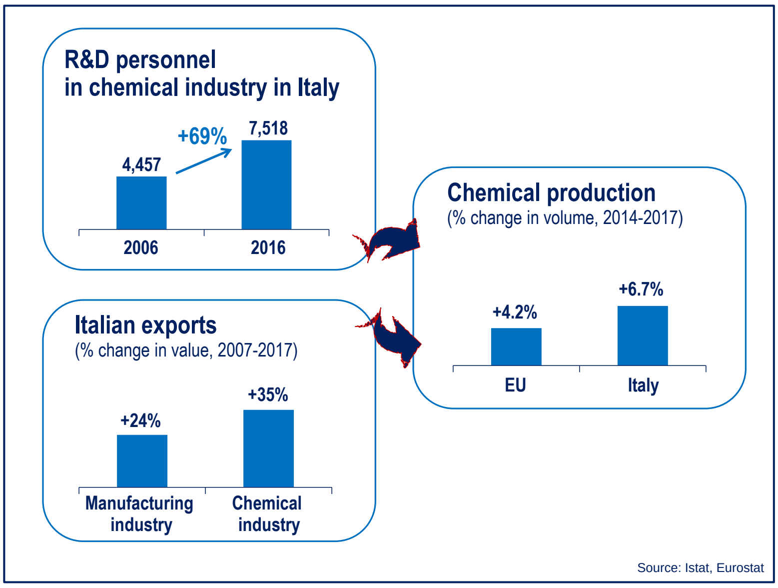
A critical issue is related to the strong increase in energy costs, partially related to the trend in oil prices (most of the contracts were closed in the peak phase) and, more generally, of energy sources. Besides this, the cost of CO_2 emission quotas have practically tripled in view of the European reform, that, from 2019, will impose the reduction of available quotas and further reductions from 2021, in the light of the most ambitious targets set for 2030. This aspect represents **an additional penalization for chemical industry in Italy because, unlike main European competitors, there is no reimbursement for the so-called ETS indirect costs resulting from the transfer of CO_2 value to electricity prices**.

Another concern for chemical companies is related to the **technical and logistical shortcomings of the national urban and special waste management system**. It's necessary to address and solve the reasons that have prevented the development of an adequate infrastructural network for the disposal or recovery (also for energy purposes) of waste. By now, for some types of waste, it is no longer a question of "how much" disposal or recovery cost (even if, in some cases, the costs are doubled or tripled compared to the recent past) but of "where" waste can be placed, since waste management plants located abroad have reduced their capacity to accept waste from Italy, partly due to the recovery and the consequent need to treat more waste in their own country.

In conclusion, it's more and more necessary to streamline and harmonize, as much as possible, the regulatory framework in order to facilitate "doing business" in Italy.

The chemical industry is increasingly proving to be one of the pillars of Sustainable Development and the growth objectives of industry as a whole can not be reached without the significant contribution of the sector, which is a fundamental technological infrastructure for Made in Italy. Consequently, **a regulatory and infrastructural framework suited to the competitiveness needs of chemical companies is more than ever necessary and essential in order to achieve growth and sustainability objectives of the entire country.**

A COMPETITIVE CHEMICAL INDUSTRY GENERATES AND DISTRIBUTES WELL-BEING ON THE TERRITORY



Chemical industry is among protagonists of the strengthening process of Italian industrial competitiveness, which represents an important factor of resilience for the economy as a whole (in the face of the fragility connected to the high public debt).

Over the last decade, despite the crisis, R&D personnel has increased by almost 70%, reflecting the growing commitment of chemical companies towards innovation based on structured research.

During the same period both Italian owned companies and branches of foreign-based groups have strengthened their international projection, making chemical industry the third Italian exporter sector, thanks to an expansion of exports (+35%) well above the Italian manufacturing average (+24%).

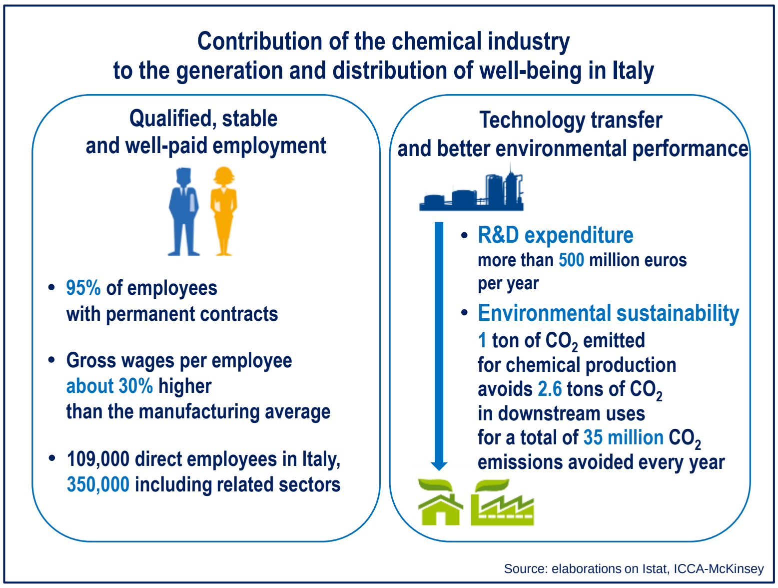
This process has brought concrete results:

- in the last 3 years chemical production in Italy has grown more than European average (+6.7% compared to +4.2%) and this result will be confirmed also in 2018;

- despite the substantial financial resources required by research, chemical industry profitability (Return On Investment) is close to 14%, a level well above Italian industrial average (9%).

Competitiveness and profitability are not an end in themselves, because they allow chemical industry to generate and distribute well-being in Italy. In fact, chemical industry

- offers throughout Italy qualified, stable and well paid job opportunities (with wages about 30% higher than manufacturing average);
- activates more than 2 jobs for each direct chemical worker for a total of about 350 thousand jobs through investments, purchase of goods and services and taxes paid to the State;
- invests over 500 million euros per year in R&D;
- improves sustainability of the whole system as, net of direct and indirect emissions during production, its technological solutions avoid emissions of greenhouse gases in Italy for over 35 million tons of CO_2 per year.
- fuels industrial competitiveness by allowing all user sectors to offer products with a higher technological content and better environmental performance.



Source: elaborations on Istat, ICCA-McKinsey

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