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CONFINDUSTRIA

THE CHEMICAL INDUSTRY IN ITALY: SITUATION AND OUTLOOK

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GERMANY BRINGS DOWN EUROPEAN MANUFACTURING, BUT STABILISATION IS FORESEEN FOR 2020

Weakness in industry impacts, but does not halt world growth

The current slowdown is driven by manufacturing, troubled by many different factors, such as crisis in the automotive, trade war between the US and China, stagnation of international trade and further uncertainties in the geo-political picture (such as the instability in the Middle East).

These tensions reflect a wider phenomenon characterized by widespread social unease, sense of insecurity, conflicts between countries and crises of international institutions. Issues such as climate change and social equity have become a major part of the political agenda, but, due to the insufficient capacity of coordination between the major players on the world's stage, there are no clear answers.

In this context, politics may play a significant role in preventing further deterioration, but significant improvement are unlikely. As a result, world trade will only slightly improve in 2020 (+1.2% from +0.5% in 2019).

The prolonged weakness of manufacturing will amplify the world economy slowdown (GDP forecast from +3.0% in 2019 to +2.6% in 2020), but a more abrupt downturn will be avoided thanks to broadly expansive economic policies and resilient service sector.

Oil price volatile, but not steadily high

In the next year the price of oil is expected to be, on average, slightly above $60, i.e. at levels substantially in line with 2019.

The effects of production cuts made by OPEC Plus will be offset by weaker demand and a continuous increase in American supply. Tensions in the Middle East may lead to sudden fluctuations, but price increases will not last long.

European manufacturing towards stabilisation in 2020

The contraction in European manufacturing production (-1.4% in the first ten months) was driven by Germany (-4.3%), while other European countries have been more resilient. Referring to sectors, the collapse in the automotive was accompanied by downward trends in several other sectors.

In the near future, different drivers will support European economy, avoiding recession. Despite the slowdown in employment growth, the positive trend in wages will support household consumption. Highly expansionary monetary policy will ensure favourable credit conditions and limit the risks of euro appreciation (forecast $1.15). Fiscal policy will also be moderately expansionary, with a substantial fiscal space on which Germany can rely in case of further deteriorates.

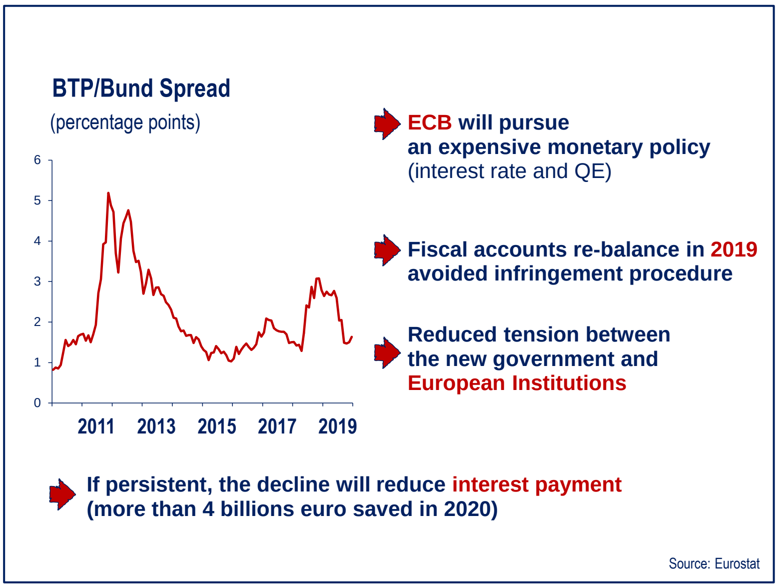
In this context, European economy will continue to be subdued during 2020, but it is not expected to weaken further (GDP Euro Area +1.1% in line with 2019). However, German and European manufacturing will stabilise without widespread growth prospects (production in the Euro Area: +0.5% expected in 2020 after -1.3% in 2019). It will therefore remain exposed to downside risks (import duties on cars, Brexit or other unpredictable factors).

REDUCED TENSIONS ON ITALIAN PUBLIC DEBT AND A MODERATELY FISCAL POLICY TIGHTENING

Despite the deterioration of the international context, financial tensions on Italian public debt, have significantly decreased.

The main factors underlying this reversal are not merely temporary, meaning that the decline will persist with significant reduction in interest expenditure (with more than 4 billion euros saved in the 2020).

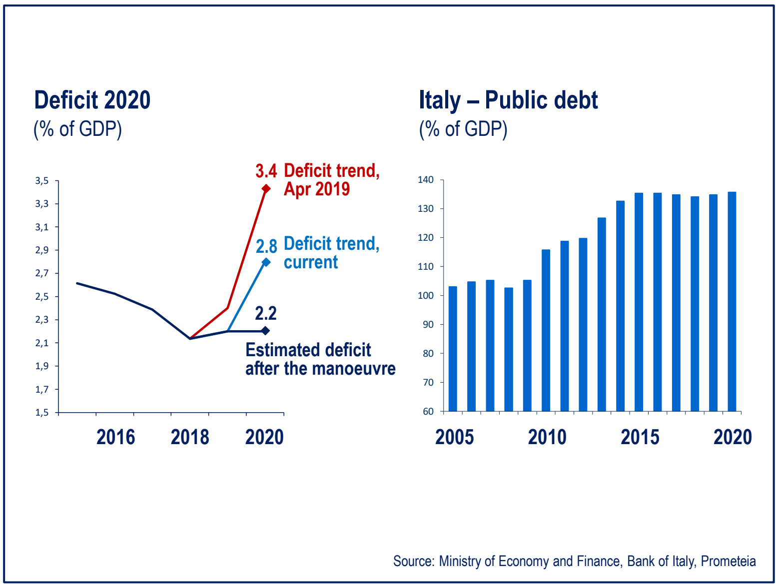
The deterioration in the international economy landscape has led to a review of the ECB's monetary policy, which will remain strongly accommodative throughout 2020, also through the resumption of the asset purchase programme.



Other important factors are the avoided infringement procedure for excessive debt and, more generally, the more relaxed relations between the Italian Government and the European institutions.

Fiscal policy for 2020 will be moderately restrictive, as the 2.2% deficit target implies a correction of €11 billion, avoiding the €23 billion increase in VAT related to the safeguard clauses.

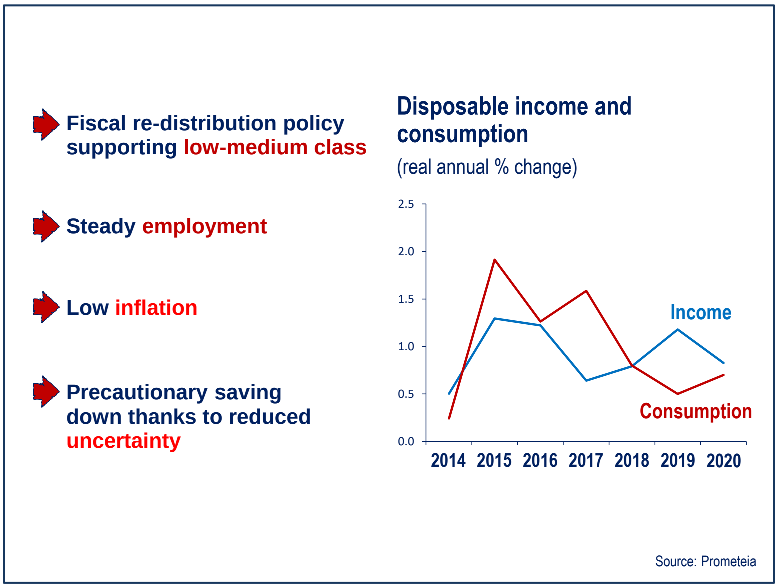
The trend in public finances improved, thanks to higher revenues (part of which from fighting tax evasion) and cost savings (more limited adherence to *Quota 100* and *Citizenship income*, in addition to the aforementioned interest expen-diture). Greater collaboration with the European institutions makes this solution plausible, knowing that a too restrictive fiscal policy would push Italy into recession, with



negative consequences also for the stability of the debt-to-GDP ratio. Public debt will stabilize but at high levels (135% of GDP).

ITALY'S GROWTH WILL BE WEAK ALSO IN 2020

In the light of an uncertain international environment, the outlook for domestic demand is of particular importance.



In 2020, **household consumption** will be supported by fiscal redistribution measures in favour of the middle-lower classes, characterized by a higher propensity to consume. In particular, the *Citizenship income*, paid in mid-2019 and worth 6 billion of euros, will be fully implemented together with the reduction of the tax wedge (3 billions). However, these benefits will be partly offset by the introduction of the plastic packaging tax, that may result in a significant cost increase for many consumer goods.

Disposable income will grow (+0.8%, net of inflation) although at a slower pace than in 2019, due to the feeble increase in employment (+0.2%). Nevertheless, household consumption will slightly consolidate (+0.7% from +0.5% in 2019) thanks to lower uncertainty, related to public finances which, in the current year, has led to a substantial increase in precautionary savings. On the other hand, to contain public expenditure, public administration consumption will be slightly reduced (-0.2% in 2020).

Italy – macroeconomic forecast
(real annual % change)

	2018	2019	2020
GDP	**0.7**	**0.2**	**0.4**
Private consumption	0.8	0.5	0.7
Public consumption	0.4	0.2	-0.2
Machinery and means of transport	3.4	1.6	1.9
Investment in construction (*)	1.5	2.5	2.0
Exports (goods)	1.3	1.6	1.1
Imports (goods)	2.4	1.3	2.7
Inflation (%)	1.1	0.6	0.7
Employment	0.8	0.5	0.2

Note: (*) transfer costs excluded
Source: Prometeia, OCSE, Ance

Investments in **capital goods** (machinery and means of transport) will experience only a moderate strengthening (from +1.6% in 2019 to +1.9% in 2020). On the one hand, they will be supported by the need for business renewal, the easing of financial conditions and the confirmation of tax incentives; on the other hand, however, uncertainty on the international and European context together with the increase in taxation on company cars, will held them back.

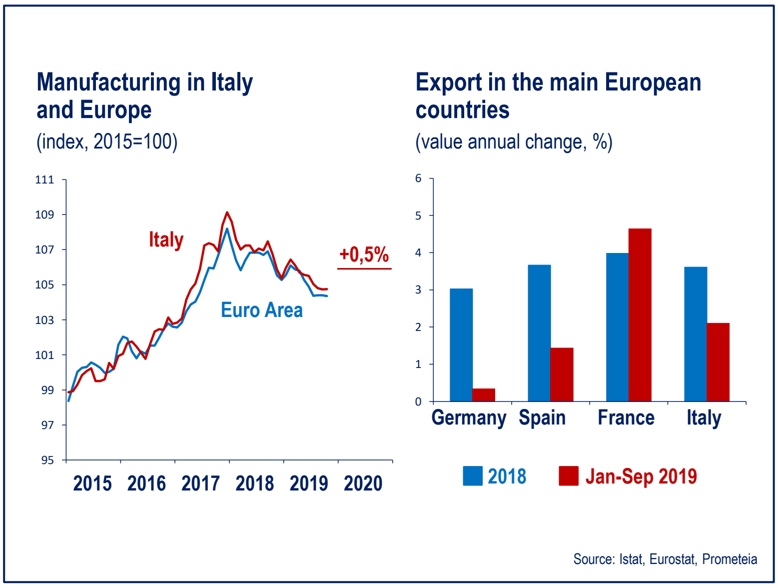
After a long and deep recession, **investments in the construction sector** will continue their recovery even if at a slower pace (+2% in 2020 after +2.5% in 2019). The boost of private building (residential and non-residential) is confirmed by the increase in building permits which, however, experienced a slowdown during 2019. Recent years' strengthening in funding is finally turning into public works.

Improving domestic demand will lead to a significant increase in **imports** (+2.7%) after a 2019 denoted by widespread weakness (+1.3%).

In a scenario characterised by a complicated but not worsening international context and by a slight improvement of domestic demand, favoured by reduced financial tensions on public debt, Italy will avoid recession but will still experience growth in 2020 (+0.4% after +0.2% this year).

ITALIAN MANUFACTURING FACES A CHALLENGING ENVIRONMENT WITH IMPROVED ECONOMIC AND FINANCIAL CONDITIONS

During 2019 Italian manufacturing, besides suffering from European and international deterioration, faced the effects of the tensions on Italian public debt and the following tightening of credit conditions, effects that gradually vanished in recent months. **In such an adverse context, Italian manufacturing production experienced a significant contraction (-1.7% in the first ten months), substantially in line with the Euro Area average (-1.4%).**

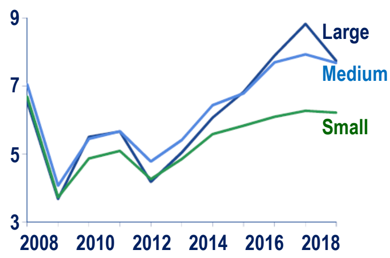


This contraction is mainly due to the weakening of domestic demand. As far as export is concerned, Italy is keeping a positive trend (+2.1% in value in the first nine months). Such a performance is even more valuable if compared to the European average and considering the strong commercial relation with Germany (first trading partner with a 12% share of Italian exports). The diversification of the Italian production represents an advantage in this phase, with positive trends mainly in pharmaceutical sector and, to a lesser extent, in the food and fashion sectors, which have been less affected by the economic deterioration. Italian companies have also been able to benefit from the new EU trade agreements with Canada and Japan and have, in some cases, gained market share in the United States, in the light of duties on Chinese products.

Other supporting factors, which will fade away in the upcoming months, are the strong exports growth to the United Kingdom (linked to stocking effects to anticipate the risk of a Hard Brexit) and the currency depreciation. In the near future, the impact of US duties, following Airbus subsidies case, will be rather limited (affecting about 1% of Italian agri-food exports), while the risks associated with the introduction of duties on the automotive sector and the worsening of the German economy are much more significant.

Although the current situation is far from easy the Italian manufacturing can rely on solid financial conditions. After the tough selection process caused by the previous crisis and the significant technological improvement, **industrial profitability has returned to pre-crisis levels in all size classes**. Investments, both tangible and intangible, have also returned to levels not far from 2007 and rely to a greater extent on internal resources (self-financing) and less on bank credit. Overall, **Italian manufacturing companies have a balanced financial situation, allowing them to strengthen investments, even though the widespread uncertainty calls for some caution, as evidenced by the increase in available liquidity.**

Profitability in Italian manufacturing by size class
(ROI)



Financial flows and investments in Italian manufacturing
(% of revenue)

	2007	2017
Fixed net investment	4.1	3.8
Net internal resources	2.5	3.7
Net liquidity variation	0.3	0.8

Note
- Fixed net investment equals to tangible and intangible after deduction of di-sinvestment
- Net internal resources equals to autofinancing after deduction of fiscal burden, taxes, dividends and changes in working capital

Source: Prometeia, Confindustria

In conclusion, excluding a further deterioration of the international framework, **in 2020 Italian manufacturing production is expected to stabilize (+0.5% after -1.4% in 2019) in line with the European average**. The partial reactivation of domestic demand will not match with the strengthening of exports (+1.1% from +1.6% in 2019) due to the vanishing temporary support factors and the partial appreciation of euro/$ exchange rate.

AFTER A MODERATE DECLINE, IN 2020 CHEMICAL INDUSTRY IN ITALY WILL NOT GO BEYOND STABILITY

During 2019 chemical production in Italy fell moderately compared to the previous year (-0.4% in the first ten months) in an environment of more pronounced contraction of the European chemical industry (-0.8%) led, in particular, by Germany (-3.4%).

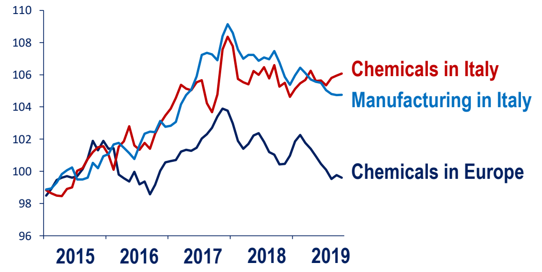
Italy's relative stability is partly due to its specialisation in fine and speciality chemicals, which account for 58% of production (11 percentage points more than European average) and show a less negative trend than basic chemicals.

The improvement experienced at the beginning of 2019 proved to be a mere stocking effect and was not confirmed during the rest of the year. In absence of solid signs of change and taking into account the possibility of reduction in stocks in the last quarter of the year (as occurred markedly at the end of 2018), it is estimated for the whole of 2019 a decline in chemical production in Italy of 0.4%.

The chemical sector is affected by the strong contraction of the automotive sector which, in recent months, shows no recovery but, at most, signs of stabilization or slight fall. **The weakness in chemicals demand is not only due to automotive but includes many other customer sectors and, to some extent, the leather sector**. Only non-durable consumer goods (food, detergents and cosmetics maintain a positive trend). The demand in the construction sector is also improving, although discontinuously, with differences across the country. In any case the severity of a ten-year crisis is still affecting this specific sector.

Chemical and industrial production

(index, 2015=100)



Yearly % change	2018	Jan-Oct 2019
Manufacturing in Italy	+0.9%	-1.7%
Chemicals in italy	+0.4%	-0.4%
Chemicals in Europe	-0.6%	-0.8%

Source: Istat, Eurostat

The strong link the chemical sector has with the global market makes it particularly sensitive to almost every event that take place in the international context. Protectionism is one of those. **The climate of persistent uncertainty translates into fragmented and fluctuating orders from consumers, causing of a significant cost increase for chemical companies.** High volatility of oil prices is an additional disruptive factor.

Overall, exports and imports are affected by the general weakness of international trade. **Exports, which in past years had represented a solid driving force for the chemical sector, are going down: -1.7% in value with respect to the previous year, even if the most recent months show signs of stabilization**. Basic chemistry and fibers are falling significantly (-6.0%), while fine and specialty chemicals keep their positive trend, albeit at a slower pace than 2019 (+2.9%).

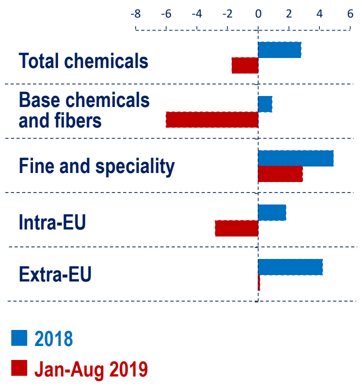
This trend was mainly affected by the **contraction of the European economy (-2.8%), which is the main export market of Italian chemical industry (accounting for more than 60%)**. This weakness does not only affect Germany (the leading trading partner with a 14% share of exports), but it also extends to France and Spain. The increase of sales to United Kingdom (+3.6%) is in a marked slowdown as stocking effect, linked to prevent the possible Hard Brexit, have faded away.

Exports and Imports in the Chemical industry in Italy

(value index, 2015=100)

Italian export performance in 2018-2019

(Yearly % changes, value)



Source: Istat

Despite a depreciating euro/$ exchange rate, sales in non-European markets are stagnant in the annual comparison (+0.1%) even if show, in recent months, some signs of recovery.

Imports, similarly to exports, experienced, a significant decline (-2.4% in value) with divergent trends between European (-5.0%) and non-European (+5.6%) suppliers. Decreasing imports and exports led, overall, to an improvement in the sectoral trade balance (+€328 million in the first nine months).

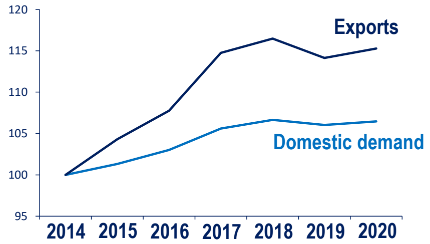
The outlook for 2020 remains full of uncertainties. Chemical industry is affected by the ban of single-use plastics and the tax on plastic packaging will further hamper the sector. More generally, penalizing initiatives from individual institutions and operators are multiplying, often without any scientific basis**.**

Major risks include the worsening of German economy and of trade disputes. In particular, the danger of duties on European cars imported in the US cannot be completely excluded yet.

Outlook for the chemical industry in Italy

	(Billions of €) 2018	(Yearly % change) 2018	2019	2020
Domestic demand	64	+1,0	-0,6	+0,4
Imports	31	+2,3	-2,0	+1,5
Exports	39	+1,5	-2,0	+1,0
Production	56	+0,4	-0,4	0,0

Domestic demand and exports
(volume index, 2007=100)



Source: Istat, Federchimica

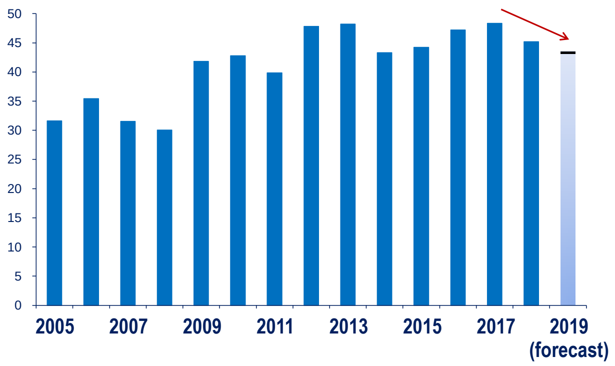
Even without a further deterioration of the international framework, chemical production in Italy will not worsen further.

Export growth will be limited (+1.0% volume after -2.0% in 2019) also considering the risks of potential euro/$ appreciation, and will be accompanied by the parallel reactivation of imports (+1.5%). Room for improvement in domestic demand is limited as well (with a +0.4% from -0.6% in 2019).

INCREASED IMPORT PRESSURE WEIGHS ON EUROPEAN CHEMICAL INDUSTRY

The problem European chemical production is facing is twofold: the deterioration of local industrial demand from one side and the growing import pressure from abroad on the other side (+5.6% annually in the first 8 months compared to +3.0% for exports). Indeed, for the second year in a row, the sector is witnessing a declining trade surplus concentrated in basic chemicals against the continuous expansion in fine and specialized chemicals.

European chemistry trade balance
(Billions of euro)



Source: Eurostat

Trade tensions between US and China have significant effects on the European chemistry, hampering supply chains and moving exports from competing areas towards the European market, given lower absorption capacity by Asia and massive investments in the US, related shale oil and gas cost advantage.

The European ambition to be a leader on environmental issues must be sustained by appropriate industrial policy measures to grant a smooth transition to circular economy and compensate for the asymmetries in regulation that might result, eventually, in a loss of competitiveness for European chemicals. The risk associated is to feed up imports, without any positive effects neither for the European economy nor for environmental protection.

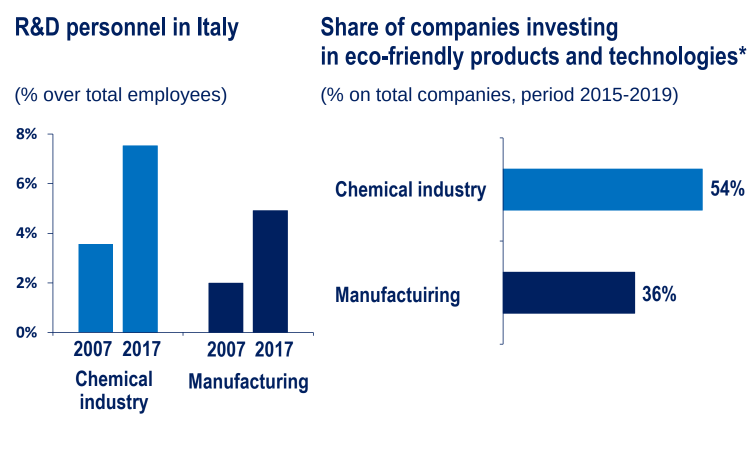
Although Italy seems less affected by the increased import pressure, the risks associated with the weakening of European chemical industry are significant, considering the highly integrated supply chain at continental level. In particular, problems on the upstream phases may damage the downstream activities due to the strong interconnections in research and innovation. Typically, indeed, base chemicals develop new substances and materials that are made available to all industrial sectors.

CHEMICAL RESEARCH IS THE KEY TO SUSTAINABLE DEVELOPMENT AND CIRCULAR ECONOMY

As the worsening economic situation is accompanied by profound changes in the competitive scenario, also in relation to the transition to the circular economy, the chemical industry is dealing with several challenges that, if exploited, might turn into opportunities. The chemical industry plays a strategic role in promoting the circular economy as one of the crucial nodes on many supply chains, fundamental for the management of substances and the transformation of matter.

Chemical industry in Italy can rely on important strengths. **In the last four years, it has grown more than the European average (+7.0% compared to +3.3%) and, also during 2019, shows a less negative trend**. Employment trend confirms the vitality of the sector: from 2015, in fact, employment has kept rising (+4%), although at a slower pace in 2019. Chemical companies are hiring again, after the deep crisis and the increase in retirement age, paving the way to new skills in strategic areas, such as research and digitization.

Indeed, one of the key factors for innovation is the deeper commitment to structured research, which increasingly involves SMEs. **In 2017, R&D personnel exceeded 8,000 in the chemical sector, with a share on total workforce close to 8% which is considerably higher than manufacturing average (5%)**. Research is more and more focused on technological solutions that promote eco-friendly development, addressing the major global challenges related to climate change and resource scarcity.



*Products and technologies with higher energy-efficiency and/or lower environmental impact
Source: Istat, Symbola Fundation –Greenitaly Report

According to the latest Greenitaly Report, more than half of chemical companies invest in products and technologies with higher energy efficiency and/or lower environmental impact

(54%, far above manufacturing average, equal to 36%). Moreover, based on companies information on R&D projects provided to update Federchimica Yearbook on research for sustainable chemistry, it is clear that **the commitment on environmental involves many aspects and requires the development of a wide range of technologies**. The main areas of research are the following: most effective treatment of wastewater (45% of companies participating in the Yearbook), reduction of greenhouse gas emissions (54%), lower use of water in processes (49%), chemistry from renewable sources (62%) and biotechnology (45%).

The transition to circular economy, which is necessary to protect the environment and the well-being of future generations, can also be a turning point for development. Citizens and institutions must, however, be aware of the scale of the challenge, which requires major investments and a general rethinking of supply and consumption patterns.

Extemporary measures carried out without a clear vision of medium-term industrial policy are harmful, as they increase uncertainty and discourage investments. Moreover, choices without a solid scientific basis compromise entire industrial value chains by fuelling unfounded anxieties and a sense of disorientation among citizens.

CO_2 emission per plastic packaging production

Packaging	CO_2 (Kg) / product
Platter PP for meal 0,5 l	0,084
Bottle PET 1,5 l	0,085
Package PP Yogurt 0,5 l	0,073
Platter PS 0,5 l	0,065
Film LDPE 1 sqm	0,049

CO_2 emission for food waste in case of no plastic packaging

Alimento	CO_2 (Kg) / Product (Kg)
Bovine meet	13,3
Coffee	8,5
Soft cheese	1,95
Milk	1,3
Pasta	0,92

Source: IK, German Assosiaction for Plastic Packaging

The case of the Plastic Tax and the campaigns against **plastics**, also carried out by several public institutions, is emblematic since it indiscriminately hit plastics without taking into account its different functions and the real environmental impact that can only be assessed considering the entire life cycle.

Not only are plastic packaging **recyclable and lightweight**, which makes an important contribution to limiting transport emissions, but they also play a key role in **food preservation**: without them, food waste would increase considerably, resulting in greenhouse gas emissions of 20, in some cases even 150, times more. In several areas, such as detergents, they also ensure adequate **safety conditions** during use.

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