



Medicine Manufacturing

**The Case for Change
in Europe**





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Executive Summary

The COVID-19 pandemic has highlighted the critical importance of open borders to ensure a supply of essential goods, including the medicines millions of us rely on every day. As part of its mission to understand and serve the needs of patients, Teva gathered insights from 3,000 Europeans with chronic conditions, seeking their perspectives on medicine supply and manufacturing.

While 73% of patients have struggled with access to healthcare services at some point since COVID-19 hit, 90% of them didn't experience more disruption to their supply of medicines than before.

It is testament to the efforts of the pharmaceutical industries that Europe's medicine cabinets have remained stocked throughout the pandemic. The results however clearly demonstrate how the pandemic has triggered a great interest among patients on pharmaceutical manufacturing – stimulating consideration for Europe's role in the manufacturing landscape. The survey found that seven in 10 people now care about the origin of their medicines – and more than three-quarters (76%) believe Europe is too dependent on other regions.

This helps explain why 84% of patients want their government to support manufacturing investments to avoid overdependencies. Furthermore, 70% want to see Europe remain as competitive as other regions and expect their government to take action to support this.

Reflecting on the bigger picture, so far Europe remains strong in producing finished medicines, but recent studies and reports show how Europe has gradually lost its leadership position in Active Pharmaceutical Ingredient (API) manufacturing, especially in the off patent generic sector¹. In its place, we've seen a consolidation in API manufacturing in Asia – a situation put under the spotlight during the pandemic when Europe's dependency for essential API as basic as paracetamol became an obvious weakness. The main reported root cause for this growing imbalance over the past decade has been the continual erosion of prices to unsustainable levels as governments and health insurers have embraced cost containment measures for generic medicines such as cost-only based tenders. This race to the bottom on price, combined with an onerous European regulatory framework, have forced many generic companies to manufacture or source their products outside of Europe to survive. Today European patients are witnessing the side effects: Lack of supply diversity and growing dependencies².

Interestingly, when patients were asked which criteria should be considered by health insurers when selecting pharmaceutical companies, 72% believe that supply security should be the top priority. Although patients believe the pharmaceutical industry's biggest contribution is to provide effective treatments, 73% think it also has a crucial role to play in ensuring stability and reliability of medicine supplies. In addition, 59% say the industry can contribute to Europe's strategic autonomy especially for some critical medicines.

Moving forward, to best address patients concerns, Teva has identified three key policy recommendations aimed at securing Europe's manufacturing investments:

- 1 Support a robust medicine supply chain by addressing the economic and regulatory root causes which are pushing investments outside of Europe.**
- 2 Secure European investment by maintaining an outward-looking and open trade system while adjusting Europe's policies, such as public funding to support new economic and technological realities to maintain Europe's open competitiveness in strategic areas.**
- 3 Map Europe's pharmaceutical manufacturing capacity and capability and monitor investments that are pivotal to best inform policy making.**

The jolt of the pandemic has provided a wake-up that the growing imbalance in the generic value chain cannot continue. However, there is an opportunity to seize this watershed moment and build back better, creating an ecosystem in which European investments are welcomed and encouraged to complement the rest of the global supply chain. With the needs of patients at its heart, a new equilibrium also stands to improve Europe's resilience as well as securing a significant economic contribution to the region.

¹ European Parliament Study: Post COVID-19 value chains: options for reshoring production back to Europe in a globalised economy.
[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653626/EXPO_STU\(2021\)653626_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653626/EXPO_STU(2021)653626_EN.pdf)

² HIRIS Study Aprendiendo de COVID-19: La Visión de los Directivos Sanitarios.
<https://www.tevapharma.es/news-and-media/article-minister-salvador-illa-receives-the-conclusions-of-the-study-learning-from-covid-19/>

Introduction





COVID-19 has led to a dramatic loss of human life worldwide and brought unprecedented challenges for everyone. The economic and social disruption caused by the pandemic has been devastating. Tens of millions of people have been put at risk of falling into extreme poverty³.

Threats to public health had been manifesting for a long time before the pandemic (think obesity, air pollution, or health inequality and mental health), yet COVID-19 shocked all nations, and its impact is outlasting the virus. Health is expected to dominate the 2020s like finance did the 2000s and technology the 2010s⁴.

Creating **healthier lives** and **healthier living environments** is becoming increasingly important for even more people and societies worldwide⁴.

The following report aims to understand what people who are facing chronic health challenges expect from pharmaceutical companies and governments regarding supply and manufacturing of medicines in view of their experience during the pandemic.



The global supply-chain breakdown triggered by COVID-19 was unseen.

The pandemic affected all major economies in just a few months, exposing consumers to their dependency on open borders in many categories. The concept of the 'global consumer' unravelled as supply lines were cut, flights grounded, and borders closed – even for essential medicines and active pharmaceutical ingredients. COVID-19 raised the perception of the importance of a guaranteed availability of essential goods and services that are important to fulfil consumer needs and that are part of our accustomed routines⁵.

The global virus outbreak was a wake up call for European policy makers to concede that the time had come to **break unbalanced manufacturing dependencies** especially for strategic, essential goods.

Our reliance on other countries was emphasised with global suppliers shutting down offices and factories in China for example and governments closing borders to try to contain the spread of COVID-19. It shook many industries, including the pharmaceutical sector, with intricate global supply chains⁶. **It further highlighted that nationalistic approaches don't work in such highly connected and interdependent value chains.**

³ WHO, Impact of COVID-19 on people's livelihoods, their health and our food systems: <https://www.who.int/news/item/13-10-2020-impact-of-covid-19-on-people's-livelihoods-their-health-and-our-food-systems>

⁴ InSites Consulting, Culture + Trends 2021: <https://insites-consulting.com/reports/2021-culture-trends-report/>

⁵ Savanta COMRES Study – Policy lessons from COVID-19. <https://www.tevapharm.com/teva-in-europe>

⁶ Politico, Coronavirus forces Europe to confront China dependency: <https://www.politico.eu/article/coronavirus-emboldens-europes-supply-chain-security-hawks/>



According to the European Commission (EC), these uncoordinated national measures were not effective in overcoming the virus⁷.

Reintroduction of internal border controls, for example, impacted the movement of goods. These measures disrupted vital supply chains and prevented the flow of essential goods and services across the internal market. The EC communication also states that European citizens have been increasingly clear that they expect the **EU to have a more active role in protecting their health, particularly in protecting them from health threats that transcend national borders⁸. Doing so in a manner which is coordinated would deliver a more effective answer to that concern.**



Why this survey?

As part of Teva's mission to help patients around the world to access affordable medicines and benefit from innovations to improve their health, and as a key contributor to Europe's economy, Teva wanted to understand the implications that the pandemic had on patients' views and expectations regarding pharmaceutical manufacturing resilience. What had changed? What is important to European patients moving forward and what can policy makers do? And what are the implications?

Following the first outbreak of COVID-19, Teva commissioned several in-depth and large-scale market studies to understand the views of key health stakeholders, including the patient voice⁵. Initial research in the fall of 2020 amongst a small cohort of healthcare related stakeholders indicated that in a world affected by COVID-19, **the impact of the pandemic on the healthcare community raised critical questions across many stakeholder groups.**

Questions were raised about Europe's pharmaceutical manufacturing capacity and capability, especially when it came to essential medicines and APIs⁵.

To get a better understanding of the views and expectations, Teva subsequently commissioned a large-scale European study amongst patients with chronic conditions to understand the impact on this group. The research was conducted in Spring 2021, so patients had a full year of experience about the implications of the pandemic.

⁷ European Commission, EC Communication: Building a European Health Union: Reinforcing the EU's resilience for cross-border health threats: <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52020DC0724>

⁸ European Parliament, Eurobarometer:

<https://www.europarl.europa.eu/at-your-service/en/be-heard/eurobarometer/public-opinion-in-the-eu-in-time-of-coronavirus-crisis-2>

⁵ Savanta COMRES Study – Policy lessons from COVID-19. <https://www.tevapharm.com/teva-in-europe>



The study objectives

- Assess the impact of COVID-19 on patient access to medicines
- Assess patient understanding/sensitivity regarding supply and manufacturing security
- Understand patient knowledge and interest in manufacturing
- Evaluate how manufacturing is seen in the overall economic make-up of Europe post COVID-19 and what patients expect
- Understand the value & benefits patients attach to manufacturing in Europe

A total of 3,000 patients participated across 6 European countries

(Croatia, the Czech Republic, France, Germany, the Netherlands and Spain; 500 per country).

The sample was spread equally over gender, and chronic conditions included arthritis, asthma, cancer, cardiovascular disease, depression, etc. to have a representative sample of people who were familiar and sensitive to the topics covered by the study.

The study indicated that sustainable and resilient European manufacturing is imperative to make patients feel protected, especially for critical medicines. Patients admit to not knowing very much about medication manufacturing, but they want to know more. The importance patients attach to Europe's pharmaceutical manufacturing resilience is also high.

Patients have clear views about the vital role the pharmaceutical sector needs to play in the recovery from the COVID-19 pandemic and have identified clear attributes and benefits in this area. From here on, patients place a greater responsibility on policy makers to secure the investment in what they consider a strategic economic sector in order to enhance Europe's competitiveness to ensure production, and minimize strategic overdependencies on other regions, especially for some critical medicines. The study expanded on these areas.



5 Key findings

1.

The supply of medicines has proven to be resilient and remains a key priority for patients

Despite the impact of border closures, inducing demand spikes and national hoarding, **COVID-19 has had limited negative impact on the availability of medicines.**

90% of patients did not experience more shortages of medicines than before COVID-19.

73% struggled with access to healthcare services.

The pandemic shows the importance that patients attach to the availability of medication.



2.

The pandemic has triggered an interest among patients regarding manufacturing

66% of patients have no idea where medicines are produced, but want to know more about it.

Patients consider Europe as the centre of the pharmaceutical industry, but **overdependencies for API in other regions concern them.**





85% of patients in Europe believe the pharmaceutical sector is of key importance to recover from the COVID-19 pandemic.

73% of respondents believe that the industry can ensure stability and reliability of medicine supplies and can contribute to Europe's production sovereignty and autonomy, especially for some critical medicines **(59%)**.

The most important benefits expected by patients from the industry are to bring them **effective treatments, drive economic growth and invest in innovation**. However, operating in a socially and environmentally responsible way is also an important expectation.

3.

Patients call for support in supply security and manufacturing

84% of patients want their government to support manufacturing investments to avoid overdependencies.

72% believe that supply security should be the most important criteria to be considered by health insurers.

74% also find it important to know that their government cares about attracting medicines manufacturing investments.

71% is interested in knowing Europe remains as competitive as other regions.

4.

The pharmaceutical industry is considered important in the recovery post-COVID

5.

Patients attach benefits to European manufacturing to balance the global supply chain

65% of patients have a clear preference for Europe as a manufacturing location and increasingly believe that the creation of jobs and the support to the local economy are key benefits. There is also an emerging understanding of benefits, as well as protecting Europe's expertise and know-how.





1.

The supply
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to be resilient

73%
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90%
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shortages

Industries at large are challenged to build in more supply chain flexibility in order to better protect against future disruptions, first and foremost for products that are indispensable such as essential medicines. That being said, **in the face of the unprecedented pressure by COVID-19 on systems worldwide, the pharmaceutical supply chain demonstrated a strong resilience⁹.**

Patient research confirms that COVID-19 did not have a major impact on medicine availability in Europe. Only 10% of patients reported more frequent shortages of medicines to treat their condition than prior to the pandemic. Of interest and worth further exploration was the difference in treatment interruption noted across age groups: while only between 2-5% of the over 55-year-olds were impacted, 16% of the younger cohort (25- to 34-year-olds) were impacted.

The lowered accessibility of healthcare services and healthcare professionals may have played a role in inducing medicine shortages for patients during COVID-19. For instance, 1 in 5 patients (22%) indicated their doctor had to cancel or postpone an appointment at some point during the pandemic, hindering timely prescriptions of medicines. **Overall, 3 out of 4 patients (73%) struggled at one point during the pandemic with access to healthcare services and healthcare professionals.**

90% of patients did not experience more shortages of medicines than before COVID-19, but many of them (as outlined below) did at some point have to turn to alternatives to the usual.

For **33%**
of chronic patients a doctor
had to switch
them to an **alternative
prescription medicine**
at some point

30%
had to turn to **another
pharmacy to get their
medication**; this was the case
for no less than 36%
among the patients
aged under 45

A holistic approach to ensure treatment supply for patients is recommended in consultation with all concerned stakeholders.

The root causes of identified infirmities in the medicines' supply chain should be properly identified, assessed, and addressed in the face of possible new COVID-19 waves or other crises as well as in normal life. **Information sharing, dialogue with authorities, regulatory flexibility must be built into the chain to always safeguard the supply of critical medicines.** Critical medication supplies should never become our health systems' weakest link; quite the opposite, it should become stronger and more resilient in this 'decade of health'⁴ notably by supporting the diversification of the supply chain.

⁹ Global Trade, Resilience of Pharma Supply Chains and the Impact of COVID-19 Pandemic: <https://www.globaltrademag.com/resilience-of-pharma-supply-chains-and-the-impact-of-covid-19-pandemic/>

⁴ InSites Consulting, Culture + Trends 2021: <https://insites-consulting.com/reports/2021-culture-trends-report/>

A person wearing a white lab coat and white gloves is working with a green medical device. The device has a circular opening and a green handle. The person is holding the handle with both hands. In the background, there are shelves with various items, including yellow and white boxes. The image is overlaid with a large green circle containing the number 2 and a text block.

2.

The pandemic has triggered an interest among patients regarding manufacturing



The pandemic affected all major economies worldwide in just a few months and exposed consumers to their dependency on open borders in many categories.

The concept of 'global consumer' unravelled as supply lines were cut, flights grounded, and borders closed even for trucks carrying medicines.

Whereas as we have seen earlier COVID-19 had a limited impact on the availability of non-COVID-19 medicines despite border closures, demand hike, and hoarding of medicines.

It did **raise the awareness and the importance people attach to medication manufacturing**. They realized knowing little about it and wanted to learn more.

When surveyed, 66% of participants indicated that before COVID-19 they had no idea about where their medicines are produced; **now, the majority (7 in 10 patients) wants to obtain more information**. Spanish patients are most interested (74%) in learning about the manufacturing of medicines, Dutch (59%) and Czech patients (61%) are somewhat less inquisitive.



Asked about the presumed manufacturing location of their medicines, 32% believes their medicines are manufactured in Europe, 23% in China, 20% in the US, 14% in India, and the rest elsewhere.





Country differences

There are a few notable differences to report between the countries, as French patients agree the most with the overdependency on manufacturing outside of Europe (85%), whilst Czech patients subscribe significantly less to this statement (61%). We see similar differences on related statements with France and the Czech Republic being the outliers upward and downward from the European average.

	EU	Czech Republic	Croatia	France	Germany	Netherlands	Spain
The COVID-19 pandemic has shown that for some medicines, Europe is too dependent on manufacturing medicines outside of Europe	76%	76%	61%	85%	79%	73%	82%
The COVID-19 pandemic has made me realize the importance of manufacturing medicines within my country	76%	78%	61%	86%	78%	68%	85%
The COVID-19 pandemic has made me realize the importance of manufacturing medicines within Europe	76%	76%	62%	85%	78%	68%	84%
The COVID-19 pandemic has increased my level of awareness on the importance of manufacturing medicines in Europe	75%	76%	57%	81%	80%	74%	80%



The global virus outbreak soon prompted European policy makers to concede that the time had come to assess and address **UNBALANCED STRATEGIC DEPENDENCIES⁶**

⁶ Politico, Coronavirus forces Europe to confront China dependency:
<https://www.politico.eu/article/coronavirus-emboldens-europes-supply-chain-security-hawks/>

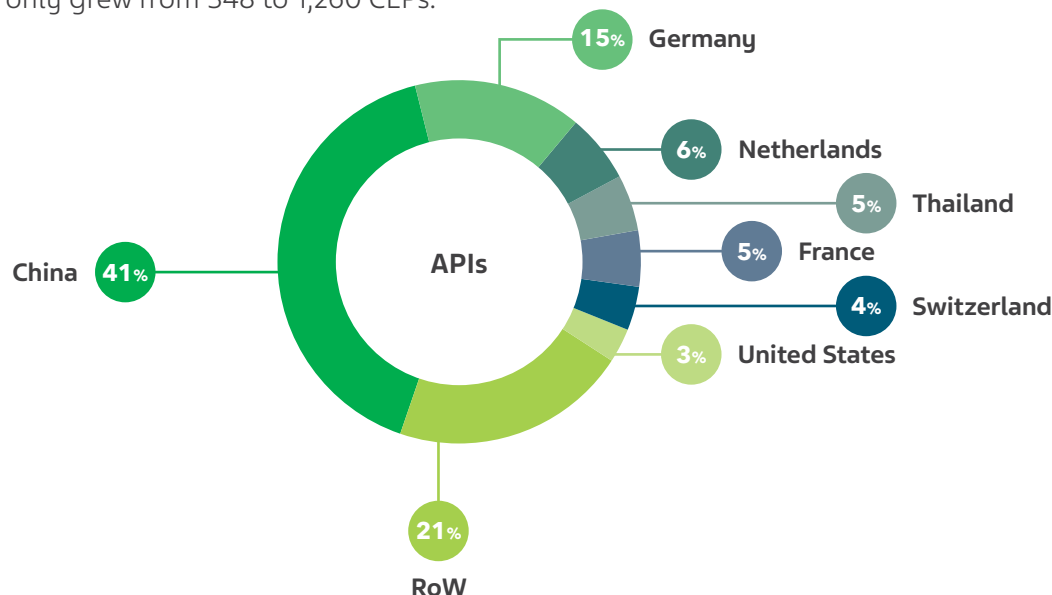


Checking the facts: Europe has lost its strong position as an API producer.

At the beginning of the outbreak international suppliers based out of the Wuhan region had to shut down offices and factories in a great effort to contain the spread of COVID-19 and this wreaked havoc in many industries, including the pharmaceutical API sector, with intricate supply chains in this key global hub¹¹.

Equally so, as India was banning the exportation of a list of APIs, COVID-19 also opened the eyes of European patients, making them realize that Europe's strategic autonomy for some essential medicines was too dependent on production outside of the continent (e.g., Paracetamol API production concentration in India).

According to a study performed by MundiCare for Pro Generika¹⁰, Europe has lost its strong position as an API producer. Looking at new approvals of CEPs¹¹ between 2000 and 2020, Asia significantly outperformed Europe: Asian manufacturers increased the number of their CEPs from 183 to 2,369, while European manufacturers only grew from 348 to 1,260 CEPs.



Global Trade Share of API - Graph Source: UN Comtrade, 2020 (WITS)

In addition, there seems to be a further increasing trend in the consolidation of generic APIs being produced in India and China.

Data also indicates that there are specialisation patterns whereby certain medicines may no longer be produced in the EU due to cost pressures¹⁰.

The report finds that two-thirds of the currently valid CEPs are held by Asian manufacturers. For 93 out of the 554 APIs with valid CEPs considered in the analysis, there is no European production at all¹⁰.

Still, European manufacturers maintain their key position as regards specific (high-end) APIs with low production volumes and complex production processes. European APIs producers are reputed for the highest quality and maintain an important share in the global market¹.

¹⁰ MundiCare on behalf of Pro Generika, Where do our active ingredients come from?
<https://www.progenerika.de/studies/where-do-our-active-ingredients-come-from/?lang=en>

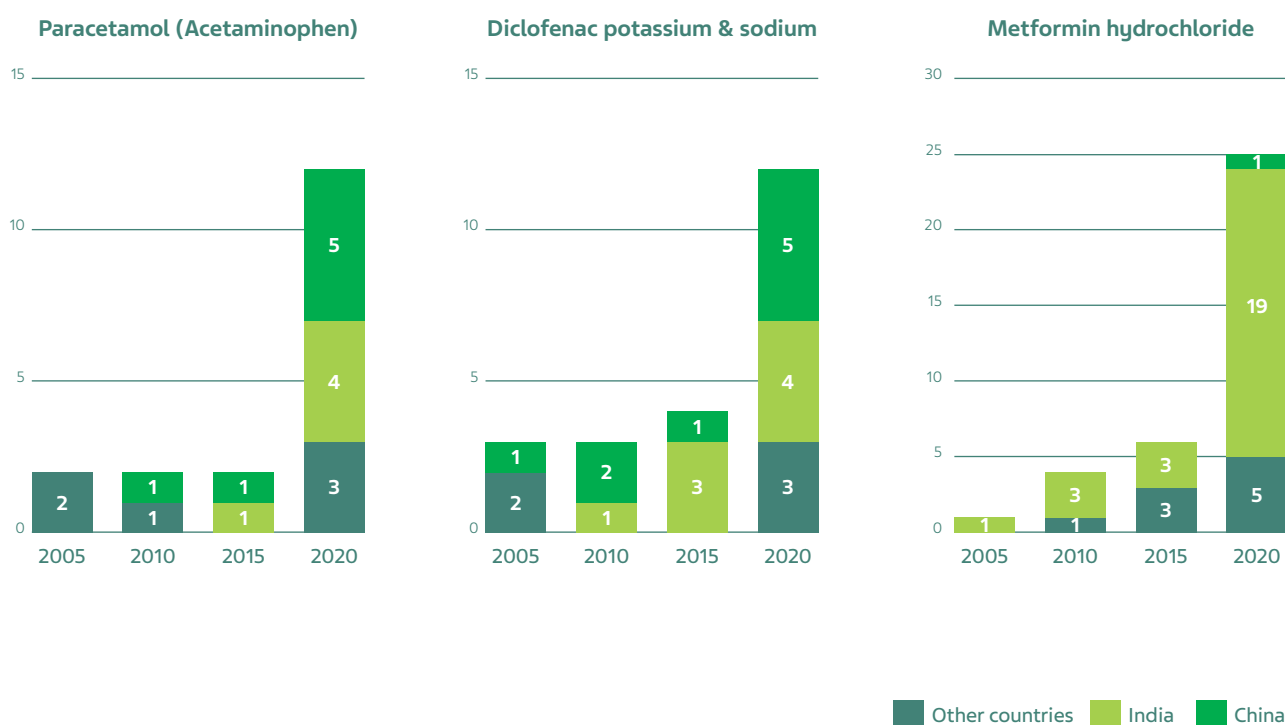
¹¹ Certificate of Suitability of Monographs of the European Pharmacopoeia (CEP) – that is, APIs that comply with European regulatory requirements

¹ European Parliament Study: Post COVID-19 value chains: options for reshoring production back to Europe in a globalised economy.
[https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653626/EXPO_STU\(2021\)653626_EN.pdf](https://www.europarl.europa.eu/RegData/etudes/STUD/2021/653626/EXPO_STU(2021)653626_EN.pdf)



For the anti-inflammatory remedy Diclofenac, a net of 8 manufacturing sites were added in India and China (four in each country) between 2005 and 2020 whereas a single production facility was added in other parts of the world (as seen in the figure). The type 2 diabetes treatment Metformin experienced an even more significant increase of 19 additional sites in India and China (18 in India and 1 in China) compared to 5 in other countries¹².

API manufacturing sites with CEP filings to supply the European market between 2005 and 2020

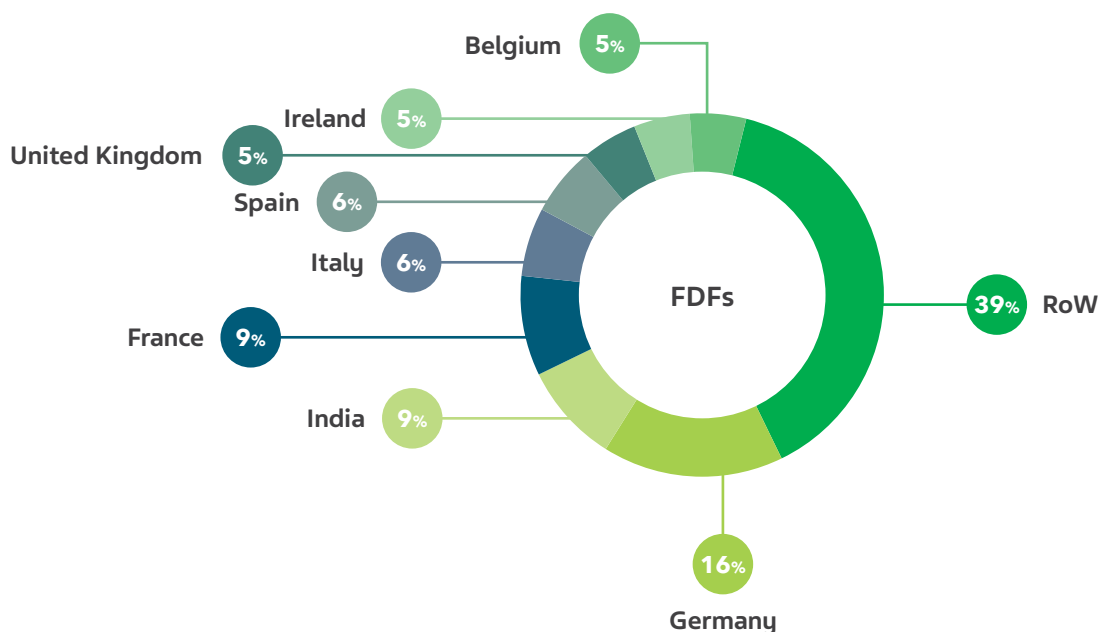


The main reason for this development is the race to the lowest prices^{9,10}. As governments and health insurance companies worldwide expanded the use of public tenders and cost containment measures to keep rising healthcare costs in check, price became the primary deciding factor. Market participants such as generics companies were thus forced to work with the most affordable sources. This resulted in the outsourcing or the transfer of the companies' own API production to lower cost countries like India and China.

¹² QYOB, COVID-19 Could Trigger "Backshoring" Of Pharmaceutical Manufacturing From India and China: <https://qyobo.com/white-paper/covid-19-could-trigger-backshoring-of-pharmaceutical-manufacturing-from-india-and-china/>
⁹ Global Trade, Resilience of Pharma Supply Chains and the Impact of COVID-19 Pandemic: <https://www.globaltrademag.com/resilience-of-pharma-supply-chains-and-the-impact-of-covid-19-pandemic/>
¹⁰ MundiCare on behalf of Pro Generika, Where do our active ingredients come from? <https://www.progenerika.de/studies/where-do-our-active-ingredients-come-from/?lang=en>



Checking the facts: The picture is less imbalanced regarding finished medicines but until when?



Global Trade shares of Finished Medicines - Source: UN Comtrade, 2020 (WITS)

According to a recent ECIPE study on “International EU27 Pharmaceutical Production, Trade, Dependencies and Vulnerabilities” 81% of pharmaceutical imports in the EU27 come from Europe itself. Looking at quantities, the picture is similar with 71% of pharmaceutical products coming from Europe. The report also note that if all countries in the world would go for reductions in imports, the EU will be hardest hit in the world, because 64% of all global final pharmaceutical product exports come from the EU¹³.

The generic / off patent pharmaceutical value chain is exposed to greater levels of vulnerability than on-patent or branded products, because it is subject to a higher degree of consolidation of production of API outside of Europe. **The main challenge for generic APIs to the EU is notably related, according to the Mundicare study, to cost pressure.** Buyers in the EU (health insurance funds, hospitals, etc.) are focusing on price and quality and not (or only to a very limited extent) on other criteria such as security of supply or environmental and labour standards and company investing in this area are not recognised or rewarded. The cost pressure is also pushing investments East.

¹³ ECIPE Study on International EU27 pharmaceutical production, trade, dependencies and vulnerabilities: a factual analysis (June 2021). <https://www.efpia.eu/media/602699/production-import-dependencies-and-export-vulnerabilities-of-pharmaceuticals-for-the-eu27-final.pdf>



3.

Patients call
for support in supply security
and manufacturing



84%

of patients
**WANT THEIR GOVERNMENT
TO SUPPORT MANUFACTURING
INVESTMENT** to ensure
Europe can produce critical
medicines, in areas with
overdependencies.

89%

**OF OLDER PATIENTS
(65+ yo.) are in
favour of this.**



Inquired about which pharmaceutical companies should be given priority by health insurers and social security systems, **more than 7 in 10 European patients (72%)** believe that **providing a stable and reliable supply chain of medicines** should by far be the most important selection criterion.



In Europe (74%) also find it important to know that the government in their country cares about **attracting investments** in order to secure the capabilities to manufacture their medicines.



71% is interested in knowing about the competitiveness of manufacturing in Europe and how it is kept on par with the rest of the world. To ensure Europe remains competitive in a globalized world, patients put forward various criteria – other than price and security of supplies – to go in the balance when making choices as to which companies to subsidize and which treatments to reimburse.

Considerations that patients also find important to be included in the balanced scorecards of selection procedures – tender procedures for example – are:

53%

the time a medicine takes from being manufactured to reaching the hands of a consumer in any given circumstance

43%

the measures taken to limit the environmental impact along the supply chain

39%

the overall ESG (Environmental, Social & Governance) assessment of the medicine manufacturer



4.

The pharmaceutical industry is considered important in the recovery post-COVID



Building on the wider role that businesses can play, **85% of patients in Europe believe pharmaceutical companies are key** in many ways to recovering from the COVID-19 pandemic.

Patients consider the pharmaceutical industry to be strategically important for Europe moving forward out of the pandemic, because it can ensure stability and reliability of medicine supplies (73%), because it can always keep the European healthcare system operational (61%), and because it can secure Europe's sovereignty and autonomy, especially for some critical medicines (59%).

Why do you believe the pharmaceutical sector is of strategic importance for Europe to move forward? Please rank your top 3 reasons in order of importance.

It can ensure stability and reliability of supply of medicines



It can keep the system of healthcare in Europe fully operational



It can secure Europe's production sovereignty and autonomy especially for some critical medicines



It can drive jobs and economic growth



It can stimulate industrial technology, innovation, and competitiveness of Europe



It can secure Europe's legacy in pharmaceutical manufacturing



It can join the industrial green transformation



● 1st reason ● Top 3 reasons



When asked about the main role pharmaceutical companies should play, **patients highlight effective treatments.** This answer was chosen as a top option by more than **56%** of respondents.



5.

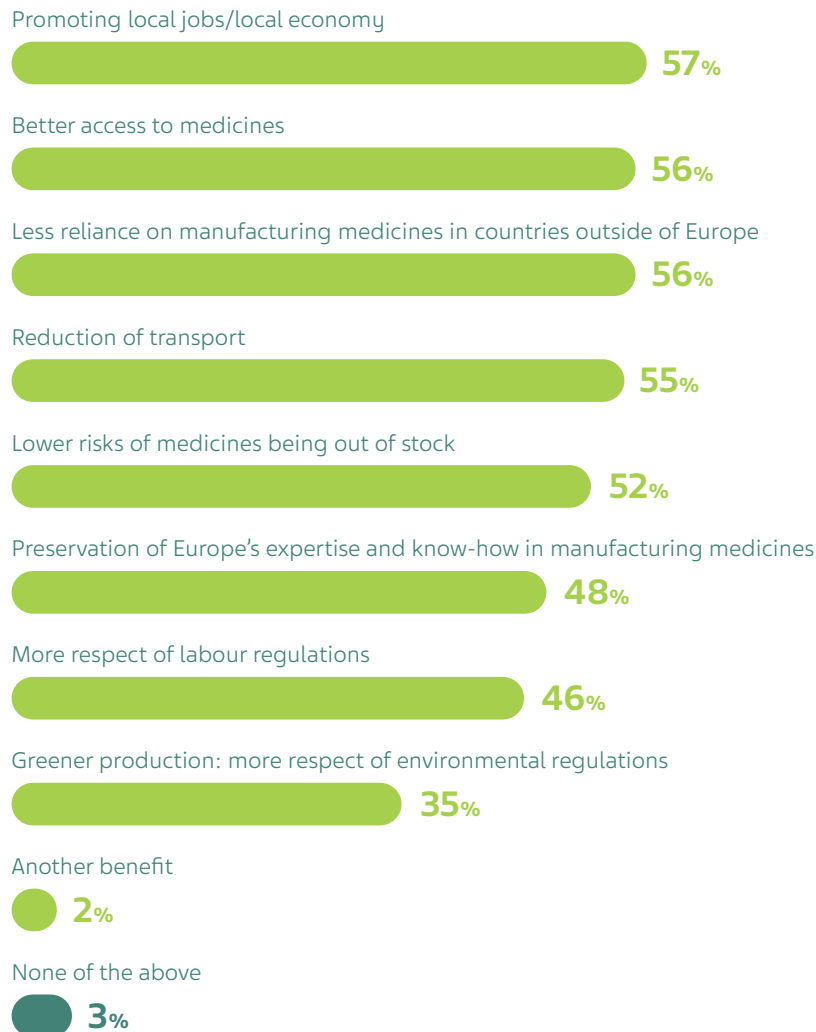
Patients attach benefits
to European manufacturing
to balance the global
supply chain



Patients attach a variety of benefits to European manufacturing.

The most important ones that surface are economic, societal, and environmental benefits (see figure), again pointing to this increasing interest in ESG.

What are the benefits of medicines being manufactured in Europe versus the rest of the world? Please select all that apply.



There is no surprise in the broad focus on European manufacturing benefits that touch upon different ESG components given the growing importance people generally attach to this.

The results confirm recent studies showing consumers are also more interested in **environmental and social aspects of companies**.

According to PWC, more than 8 in 10 consumers think companies should actively shape best ESG practices¹⁴.

¹⁴ PWC, Beyond compliance: consumers and employees want businesses to do more on ESG, <https://www.pwc.com/us/en/services/consulting/library/consumer-intelligence-series/consumer-and-employee-esg-expectations.html>

1

Regarding Economic & Social Benefits

Having barely recovered from the most recent recession, COVID-19 has brought economies to the cusp of a potentially much deeper one. **The biggest debate for governments around the world is how to reconcile the need to protect the population without causing long-lasting harm to the economy.**

Against this backdrop, it may be that patients value the promotion of local jobs and local economies alike (57%) as an important benefit of medicines manufactured in Europe versus elsewhere in the world. In Spain – a country hit unequally hard by the previous economic recession – no less than 7 in 10 patients mention the promotion of local jobs and local economy as the most critical benefit of European manufacturing.

What are the benefits of medicines being manufactured in Europe versus the rest of the world? Please select all that apply.

	EU	Czech Republic	Croatia	France	Germany	Netherlands	Spain
Promoting local jobs/local economy	57%	54%	55%	54%	61%	49%	69%
Better access to medicines	56%	66%	61%	49%	54%	49%	58%
Less reliance on manufacturing medicines in countries outside of Europe	56%	48%	57%	54%	63%	62%	49%
Reduction of transport	55%	43%	53%	65%	63%	54%	51%
Lower risks of medicines being out of stock	52%	60%	45%	61%	53%	50%	43%
Preservation of Europe's expertise and know-how in manufacturing medicines	48%	57%	40%	50%	49%	59%	35%
More respect of labour regulations	46%	40%	36%	56%	56%	42%	45%
Greener production: more respect of environmental regulations	35%	34%	28%	46%	41%	31%	32%
Another benefit	2%	2%	3%	1%	2%	3%	2%
None of the above	3%	3%	2%	3%	4%	5%	0%

2

Regarding Environmental Benefits

Whereas environmental concerns dominated the news in 2019 with Greta Thunberg named 'Time's Person of the Year' and the UN stating we had 12 years left to save the planet, COVID-19 diverted the attention in 2020, but interest in the environmental subject has not faded. People witnessed how deserted streets and lockdown 'ghost towns' benefited the environment with direct positive short-term impact, especially in terms of emissions and air quality¹⁵.

Given the "green context", 55% of patients in Europe mention the reduction of transport as an evident environmental benefit of European production.

35% of patients (and even as many as 46% of the French patients) believe that Europe also guarantees a greener production with more respect for environmental regulations.

Almost 2 in 3 patients in Europe (65%) attach value to knowing their medication production is environmentally sustainable. Croatian (75%) and Spanish (81%) patients emphasize this even more.

To what extent do you agree with each of the below statements?

	EU	Czech Republic	Croatia	France	Germany	Netherlands	Spain
I would like to know more about where my medicines are made	70%	72%	61%	75%	73%	59%	78%
It is important to me that the medicines I take are made in a way that is sustainable for the environment	65%	75%	49%	61%	66%	59%	81%
I think more positively about a medicine if it is made in Europe	65%	66%	60%	67%	74%	58%	64%

Patients indicate a clear preference for EUROPE AS A MANUFACTURING LOCATION (65%), with German patients thinking most positively about European production (74%).

Accordingly, and across borders, a vast majority (81%) also agrees that their country should focus more on securing manufacturing investments in Europe.

The focus on manufacturing in Europe is most preferred in France (91%) and Germany (85%), and least – but still strongly – in the Czech Republic (72%) and the Netherlands (75%).

Overall and considering the patients' interest regarding the benefits industry could bring to Europe, the industry should deploy communication efforts about their economic, social, and environmental activities.

¹⁵ European Environment Agency, COVID-19 and Europe's environment – impacts of a global pandemic: <https://www.eea.europa.eu/publications/covid-19-and-europe-s/covid-19-and-europe-s-environment#:~:text=These%20include%20temporary%20improvements%20in,lower%20levels%20of%20noise%20pollution>

A photograph of two men in a pharmacy or laboratory setting. The man on the left is wearing a white lab coat over a blue button-down shirt and black-rimmed glasses. He is looking towards the man on the right. The man on the right is older, with grey hair and a beard, and is wearing a dark sweater. He is looking back at the first man. In the background, there are shelves stocked with various pharmaceutical products. A large green circular graphic is overlaid on the bottom half of the image, containing the title text.

Teva's Key Policy Recommendations



Support, Secure & Inform



Support the robustness of medicines supply chain

All in all, the negative impact of COVID-19 on the availability of medicines has been kept to a minimum, which is testament to the robustness of the pharmaceutical supply chain.

COVID-19 raised the perception of the importance of a robust medicines supply chain for most patients.

It is therefore important to investigate the numerous root causes underlying the vulnerabilities of the supply chain. These root causes can be related to economic, regulatory reasons, lack of supplier diversity or to a lack of information on supply & demand stopping all actors in the supply chain to better prevent or at least better mitigate shortages.

The race to the lowest price generic has demonstrated its limits as it forces manufacturing investments to happen gradually elsewhere is one word.

For example, public procurement rules must be adapted, to allow tender decisions to be made based on multiple criteria and not just on price alone, rewarding companies who are investing in improving the robustness of their supply chain or greening their activities rather than focusing on cost only. This could secure and even attract investments while reviving growth and jobs, creating a virtuous circle of benefits which are of interest and relevance to patients.

Europe's regulatory environment should be optimised and should capitalise more on the power of digital technologies (e.g. boost the development of e-Leaflet and ensure a two way dialogue between industry and regulator based on an harmonised set of data to best address the risk of shortages).



Secure for European investment in manufacturing

European patients want governments to secure manufacturing investments.

Patients also rely on policymakers to guarantee Europe's global competitiveness of a resilient European pharmaceutical manufacturing (71%) and thus reduce overdependency on countries outside of Europe, notably for some specific critical medicines.

As the world looks at the lessons learned and the implications of Europe's lack of coordination and solidarity at the start of the pandemic, it must be concluded that inward-looking policies that restrict and are protectionist simply won't boost manufacturing investment in Europe overall.

Due to the interconnected global nature of the pharmaceutical industry value chain, it is simply unrealistic to believe that the EU or any countries can be wholly self-sufficient. On the contrary, and as stated in "Business for Europe" position on smart technological sovereignty¹⁶, **the EU must adjust its policies to new economic and technological realities, while expanding its competitiveness and geopolitical position by attracting strategic foreign direct investment in key areas.** Therefore, maintaining an outward looking and open trade system in place is paramount.

It is also as equally important that the EU creates incentives for pharmaceutical production in Europe in order to reduce dependencies like the use of public funds to enable generic companies to invest in green technology or energy while remaining globally competitive.



Better information provision

Europeans have an interest in knowing where their medicines are made.

A clear and regular mapping of Europe's pharmaceutical manufacturing capacity and capability should be invested in. The exercise needs to be "dynamic" i.e., a living, ongoing mapping to ensure transparency about the state of Europe's manufacturing abilities. This would help serve policy makers in directing their efforts as well as being a 'real-time' focus on investment trends.

¹⁶ Business Europe, Position Papers: Smart technological sovereignty: How it could support EU competitiveness.
<https://www.buinesseurope.eu/publications/smart-technological-sovereignty-how-it-could-support-eu-competitiveness>



Teva Conclusion

In conclusion, COVID-19 has vividly shown people how easily undesirable disruption in supplies can occur but also **demonstrated how resilient the pharmaceutical supply chain is.**

Although security of supply remains a key priority for patients, the pandemic has raised patient's awareness about a new area of interest: Europe's manufacturing capacity, capabilities and strategic autonomy.

In terms of possible consequences, this is clearly more drastic in some categories, such as API and essential generics medicines manufacturing. **It goes without saying that supporting supply diversity and securing manufacturing investments are mostly important to achieve this objective notably by ensuring Europe remains strongly competitive in the world.**

The inward policy approach of some other regions unfortunately does not consider the global interconnected nature of the pharmaceutical value chain and therefore the EU must remain united and strong in promoting the benefits of an open competitive world, while introducing necessary changes to secure manufacturing investments.

Patients see the **value of having a strong European pharmaceutical footprint** and have identified the pharmaceutical industry as a key sector to keep the healthcare system fully operational, ensure stability of supply and for recovery of the European economy,

associating clear social and environmental benefits that the industry and policymakers should focus more on. Attention should be brought to support the robustness of the supply chain, to secure Europe's manufacturing investments in critical medicines and to monitor continuously Europe's manufacturing capacity and capabilities. The focus on the lowest generic price combined with an onerous regulatory regime have seriously impacted Europe's industrial competitiveness, pushing investments outside of Europe and should be addressed via ambitious legislative reforms to enable the off patent industry that supply most of 70% of medicines to European patients to grow again.



More on methodology

Data collection: digital survey, survey length of 10-15 minutes, in local language

Data source: consumers member of online access panels by Datadiggers and Fulcrum

Sample size: 3,000 in total, 500 in each of the 6 countries covered

Countries:

Country	Language
Croatia (HR)	Croatian
Czech Republic (CZ)	Czech
France (FR)	French
Germany (DE)	German
Netherlands (NL)	Dutch
Spain (ES)	Spanish

Time of fieldwork: 27 April to 13 May 2021

Sample screening:

- Participants consent to sharing of personal details following an Adverse Event, for reporting of the AE and for follow-up contacting following the AE
- Participants are 25 years or older
- Participants regularly take medication to treat at least 1 chronic disease

Chronic conditions:

The list of chronic conditions included in the survey: Alzheimer's Disease, Arthritis, Asthma, Cancer, Cardiovascular Disease, COPD, Depression, Diabetes, Heart Disease, Hypertension, Hypercholesterolemia, Migraine, Osteoarthritis, Other.

54% of the sample suffers from 1 chronic condition, 46% suffers from multiple chronic conditions.

Other sample specifications:

- Natural sampling, no sample quota applied
- 52% females, 48% males
- 38% 25-45yo, 43% 45-65yo, 19% 65+yo

Statistical significance:

Given the robust sample sizes of the study, significant differences between relevant sub-groups in the data (e.g., between markets or between age groups) could be reported with a 95% confidence interval for differences from 4% and more and with a 99% interval for differences of 6% or more. A significant difference means that the difference we see between two relevant analysis groups cannot be explained by chance alone.

The study was conducted by the independent global research agency [InSites Consulting](#).

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About Teva



65%

of Teva's global portfolio
is manufactured in Europe

96%

of Teva medicines sold in
Europe are manufactured
at Teva's European
sites

40%

of the active
pharmaceutical
ingredients that Teva
uses in Europe
for its finished products
are produced in
Europe

According to
Teva's latest Economic
Impact Report
performed by Matrix
Global Advisors (MGA)
in 2021 across
9 EU countries¹⁷

TEVA'S MISSION
is to be a global leader in generics
and biopharmaceuticals, improving
the lives of more than 200 million
patients across the world every day.
As a European employer and
manufacturer, Teva creates jobs and
contributes to the economies
in which it operates.

The company supported
100,000 jobs



Generated
€4.9B
in labour income

Generated
€25.8B
in economic output

And saved healthcare
systems an estimated of
€8.4B
across these markets¹⁷



Teva Pharmaceutical Industries Ltd. is the world's leading provider of generic medicines, offering quality medicines and treatments to patients. Teva also has a growing portfolio of innovative specialty, or branded, medicines and biopharmaceutical products, with a promising pipeline focused on medicines for central nervous system disorders, oncology, and respiratory diseases.

Teva Pharmaceutical Industries Ltd. develops, manufactures, and delivers innovative specialty medicines and quality, affordable generics for millions of people across the globe, saving patients and healthcare systems billions of dollars every year. The company's operations, including research and development and manufacturing, result in high-quality jobs, tax revenues, and economic output around the world.

In 2020, Teva's workforce in Europe consisted of 19,000 full-time-equivalent employees. Teva has manufacturing sites in Bulgaria, Croatia, the Czech Republic, Germany, Greece, Hungary, Ireland, Italy, Lithuania, Malta, the Netherlands, Poland, Romania, Serbia, Spain, and the United Kingdom. In total, Teva operated 32 manufacturing and research and development facilities across Europe in 2020.

¹⁷ Matrix Global Advisors (MGA) on behalf of Teva: Economic Impact Report 2021: <https://www.tevapharm.com/our-impact/economic-impact-report/>

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