The case of Europe's disappearing medicine cabinet

New data brought by Teva Pharmaceuticals Europe



Disclaimer

The analysis presented using IQVIA data was conducted by Teva Pharmaceuticals Europe alone, and does not constitute an IQVIA position on Generic product erosion or market shortages



Introductory remarks



About Teva in Europe

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 everyday.

As a European employer and manufacturer, Teva creates jobs and contributes to the

economies in which it operates.

Manufacturing facilities in 15 countries across Europe



of Teva's global portfolio is manufactured in Europe



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



of the APIs that
Teva uses in Europe
are produced in
Europe



About Teva in Europe

In 2021 across Europe...



The company supported 100,000 jobs



Generated **€4.9B**in labour income



Generated **€25.8B**in economic output



And saved healthcare systems an estimate of €8.4B across these markets



You may remember seeing this....unfortunately not a one-off



Why Europe's drug shortages may get

worse

February 8, 2023



EMA update on shortages of antibiotics in the EU News 26/01/2023



Farmaceuci alarmują, że brakuje leków. Minister zdrowia odpowiada: Niedobory a lakala w kraju

POLITICO PRO

Europe is running out of medicines

JAN 29

20minutos

La falta de medicamentos en las farmacias crece un 150% por la escasez de principios activos y la crisis de materias primas

31.01.2023





LE FIGARO Pourquoi la France manque de médicaments

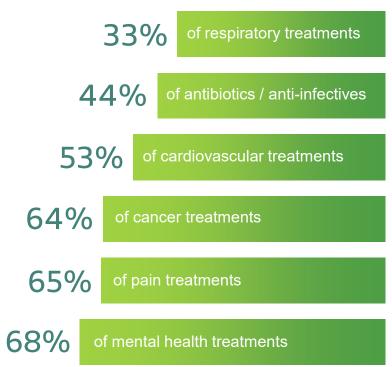




What's the goal of our analysis?

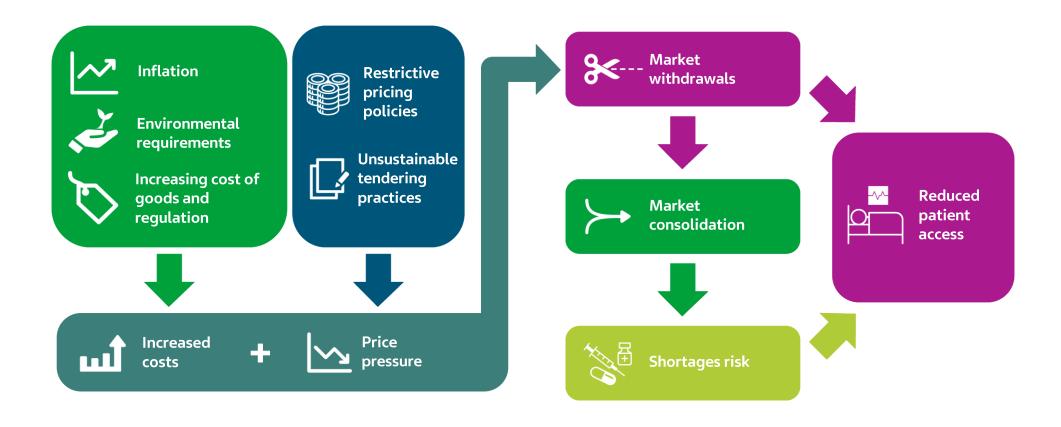
- Over the past years, European countries have reported shortages of medicines such as antibiotics and oncology medicines impacting patients' access
- Many of them are part of the WHO essential list which includes mature generics
- COVID-19 highlighted the importance of these medicines
- The increased cost of living post COVID-19 and the energy crisis add extra pressure on the economic stability of lowprice generics
- How far can the generic market further absorb shocks without further compromising patients' access?
- Teva's mission is to improve lives through access to quality medicines. As a leader in generic medicines, access to medicines is in our DNA
- Our goal? To create an accurate assessment of what and where we are – a "health check" of the generic market supply

Of the World Health Organization's essential medicines, Teva's portfolio covers:





Our analysis provides the underlying facts of the generics' market challenges



From active pharmaceutical ingredients (API) to finished products



What the analysis shows: Europe's medicine cabinet is in decline!

- Over the past 5 years the Generics market has increased affordable access to medicines for patients
 - Although the market looks healthy, generic competition has decreased dramatically
- Reduction in competition directly challenges supply and reduces options for patients
 - Some treatments options are disappearing at a local level
- The decrease is driven by a race to the bottom on pricing and an onerous regulatory regime
- This issue is systemic across Europe:
 - Not exclusive to antibiotics and oncology medicines, nor to a specific market
- We are seeing the same issue in finished products as in active pharmaceutical ingredients

There is an urgent need to stop the race to the bottom, via complementary reforms at EU & national level to drive synergies that will protect patients' access to generics



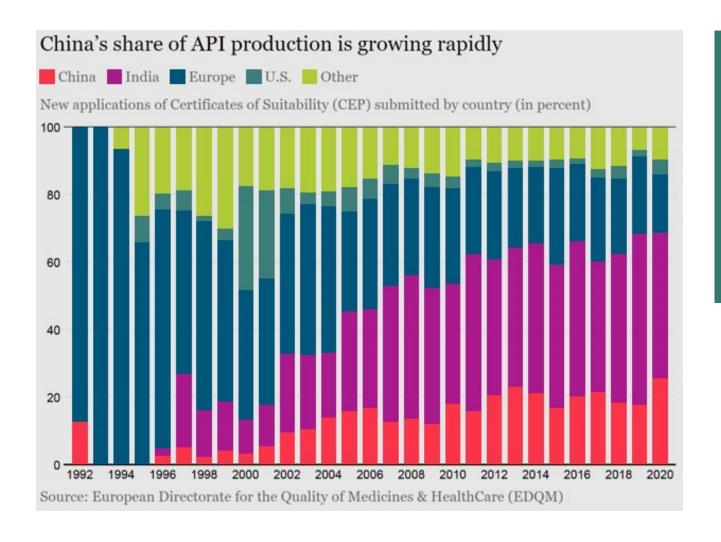


Chapter 1: upstream consolidation of the active pharmaceutical ingredients (or API)

A dramatic reality highlighted by COVID19



Active ingredients for Europe's medicines have moved East



"China's API manufacturing share rapidly increasing - it now accounts for more than 20% of new API applications.

The trend continues – some cholesterol medicines don't even have European certificates behind them.

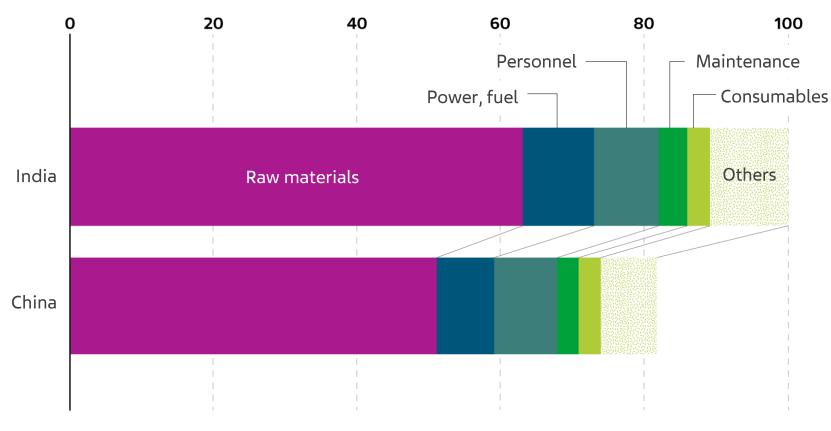


China enjoys a significant Cost Production Advantage



Compared to India*

API production total cost breakdown; India = 100%



A drug can be produced for 20% less in China than in India



China enjoys a significant Cost Production Advantage



Compared to Europe

	West	East
Factory labour costs (2005)	20–30\$ per hour	1\$ per hour
Electricity costs (€ cost for kWh) (2021)	Germany: €0.317 Spain: €0.242 Italy: €0.214	China: €0.078 India: €0.072
Water costs (€ per cubic meter)	France (2020): €4 Italy (2020): €2	China (2016): <€0.50 China (2021): €1.26

A cost savings of between 20% to 60% if produced in China

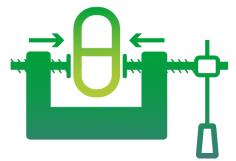


China enjoys a significant Cost Production Advantage



EU inflation widens the gap







Current pricing models for generic medicines are not fit for purpose

It's time to protect Europe's medicines cabinet! Inflation over 9% in Europe in 2022



A picture that worries patients very much

"Of course, it is about manufacturing drugs. Will it be possible to receive EU support in order to manufacture drugs within the EU?

- German stakeholder





A picture that worries patients very much

Patients surveyed call for support in supply security and manufacturing

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

71%

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

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.

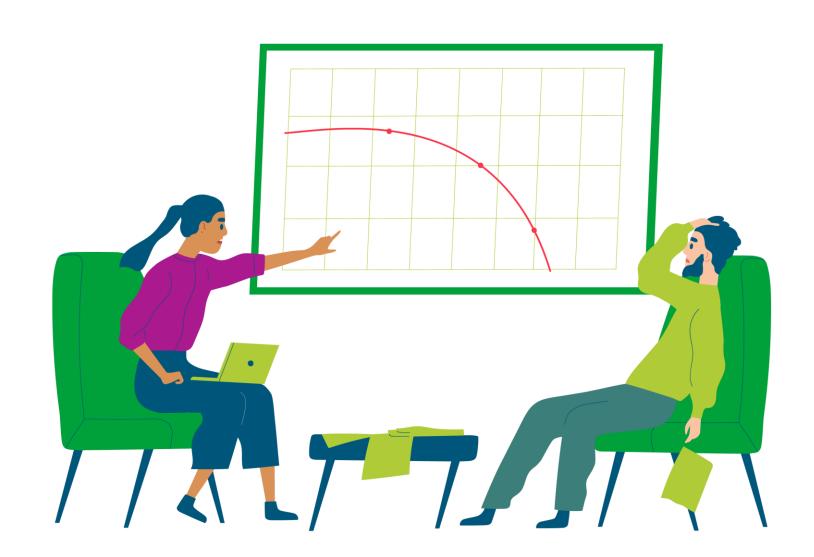


Chapter 2: downstream consolidation of finished medicines

Patient access risk is increasing as further consolidation happens



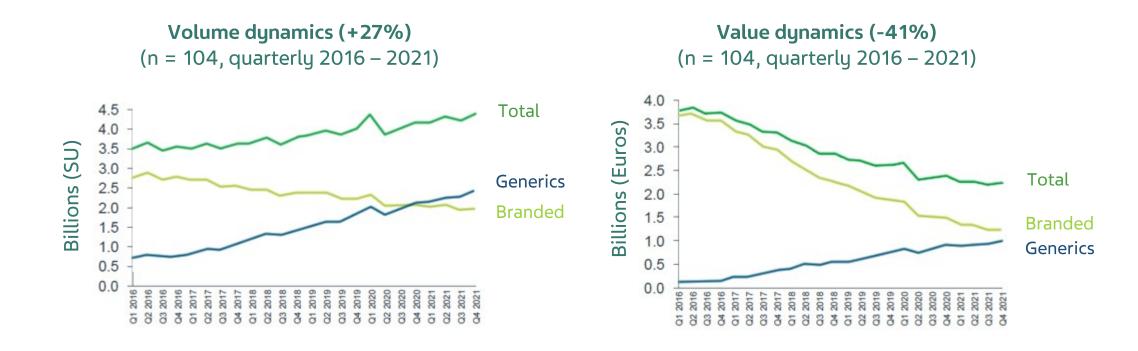
We've moved from gentle slide to massive cliff edge!





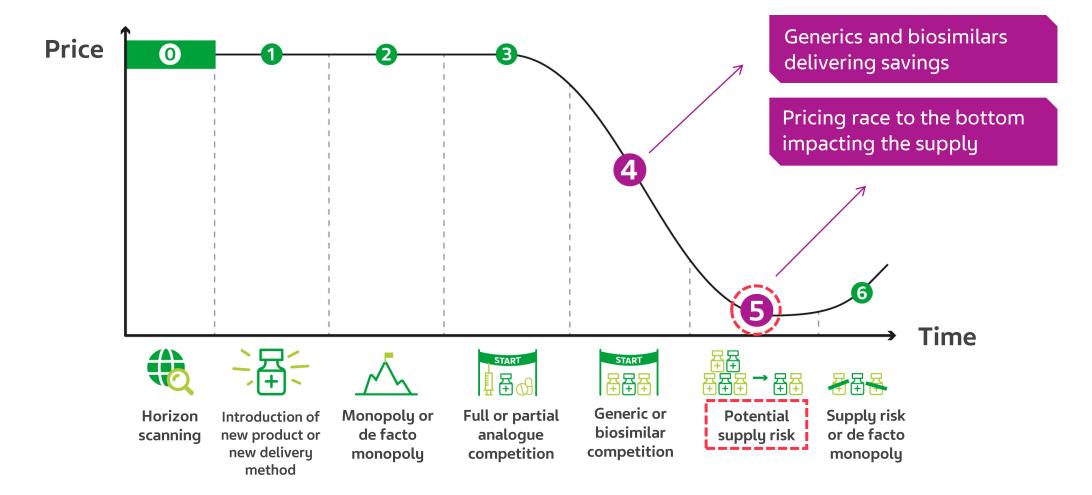
Over the past five years, generics launches brought more savings than access

- In Europe, a new IQVIA study showed generics reduced costs by 41% between 2016 and 2021, despite a 27% volume growth
 - Total savings for payers was significant with a CAGR of -8% from 2016 2021 products alone





The natural evolution (and competition) of generics when led by price alone is leading to supply risks, which directly impacts patients





Let's look at a real case in cancer care & antibiotics



Exhibit A: an oncology product to treat ovarian or small cell lung cancer

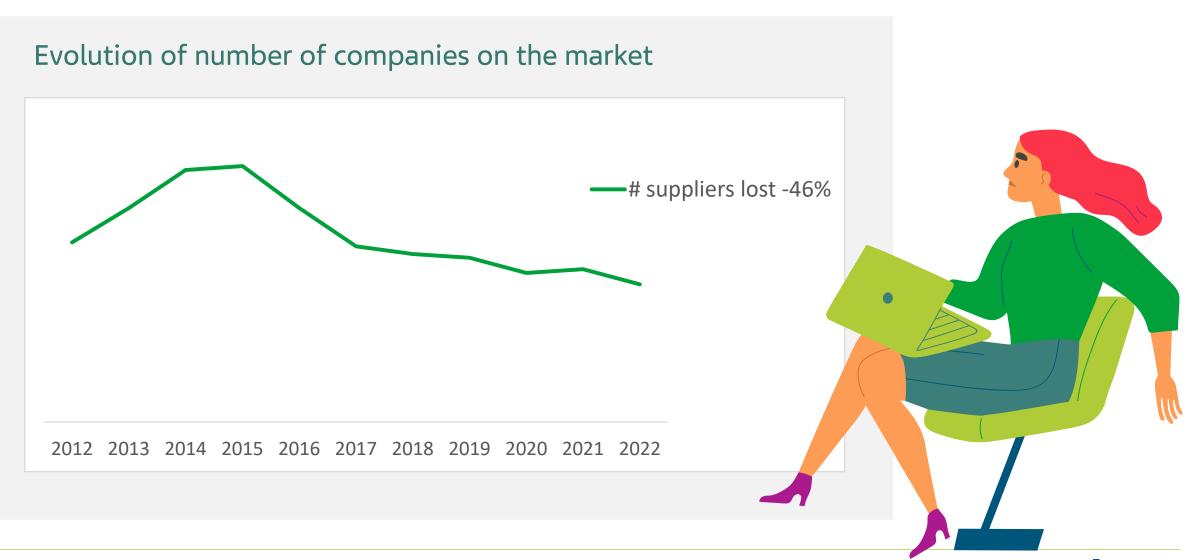




Exhibit A: an oncology product to treat ovarian or small cell lung cancer

Details per countries

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU	47	56	66	67	56	46	44	43	39	40	36
AT	2	3	3	3	3	2	2	1	1	1	1
BG	3	3	4	3	3	1	2	2	2	2	1
HR			2	2	2	2	1	1	1	1	2
CZ	5	6	6	3	3	2	2	2	2	2	2
DK	1	2	3	3	2	1	2	2	1	1	1
FI	1	1	3	3	3	2	2	2	2	2	2
FR	2	4	5	7	7	7	5	5	4	4	4
DE	7	8	8	8	8	8	5	5	4	4	4
HU	2	4	4	4	2	1	2	2	2	2	2
IT	5	5	6	6	4	4	4	4	3	3	3
NL	1	1	3	4	3	3	3	2	2	2	2
PL	4	5	5	4	3	2	2	2	2	2	2
PT	4	3	3	5	3	2	3	3	3	4	3
ES	4	4	4	4	4	3	3	3	3	3	2
SE	3	4	4	4	3	3	3	3	3	3	2
СН				1					1	1	1
UK	3	3	3	3	3	3	3	4	3	3	2

- In 10 years 46% of suppliers of this product have exited the market.
- Leaving just one supplier or two in the majority of the countries studied.
- This product is tendered in most countries focusing on price only.



Exhibit B: an injectable antibiotic used to treat serious infections

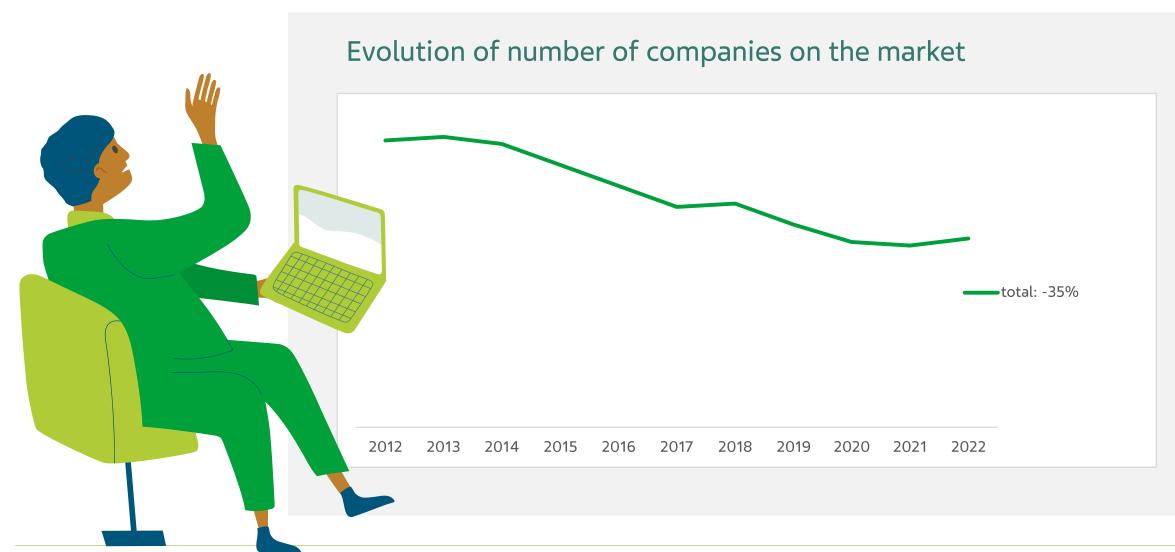




Exhibit B: an injectable antibiotic used to treat serious infections

Details per countries

Country	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
EU	82	83	81	75	69	63	64	58	53	52	54
AT	4	3	2	2	1	2	2	1	1	1	1
BG	3	3	3	3	2	2	2	2	2	2	2
HR	3	5	5	5	5	5	4	4	3	3	3
CZ	4	4	3	3	3	2	2	2	2	2	2
DK	2	2	2	2	2	1	2	2	1	1	2
FI	3	3	4	2	1	2	2	1	1	1	2
FR	8	8	8	8	9	8	8	8	8	7	7
DE	8	8	9	9	9	7	6	5	4	4	3
HU	3	2	2	2	2	1	1	1	1	1	2
IT	10	10	10	10	9	9	9	7	7	6	5
NL	5	5	4	3	1	1	1	1	1	3	3
PL	6	6	5	5	5	4	6	6	4	4	5
PT	4	4	5	3	3	2	2	2	2	2	2
ES	5	6	6	5	5	4	5	4	4	4	4
SE	3	3	3	2	2	2	2	2	2	2	2
СН	4	4	3	3	3	3	3	3	3	2	2
UK	7	7	7	8	7	8	7	7	7	7	7

- In 10 years 35 % of suppliers of this product have exited the market.
- Leaving just one supplier or two in the majority of the countries studied.
- This product is tendered in most countries focusing on price only.



And in antibiotics

In 10 years, several antibiotics options have totally disappeared from local countries, for example:



16 antibiotic drugs in **Poland**



11 antibiotic drugs in **Spain**



10 antibiotic drugs in **France**

(Although they remain available elsewhere in Europe)



And here's one reason why...

In Spain, the price of pediatric amoxicillin was set at 98 cents (\$1.05) for 60 ml in 2003. In 2013, that became the price for 40 ml

Half the generic medicines sold in Spain are priced below 1.60 euros per box or bottle

From Reuters article: "Why Europe's drug shortages may get worse"

In Germany, the price that manufacturers receive for the daily therapy dose of a generic drug fell from an average of 12 cents to 6 cents per day.

From ProGenerika analyses: <u>Generics in figures: Drug supply under cost pressure (progenerika.de)</u>



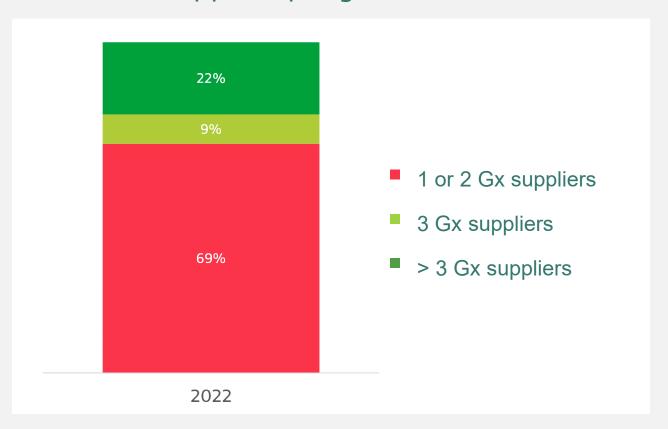
This isn't isolated by disease

Supplier consolidation is high across the generics market



The whole market is already highly consolidated – raising issues about resilience and security of supply

Number of suppliers per generics market in 2022

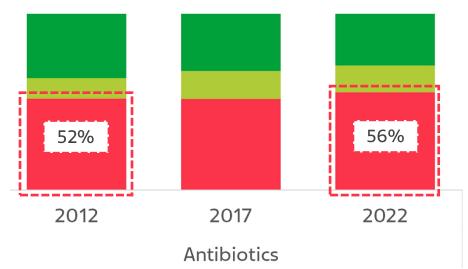


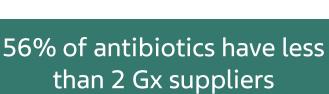
In 2022: 69% of EU generics medicines marketed have less than 2 suppliers each

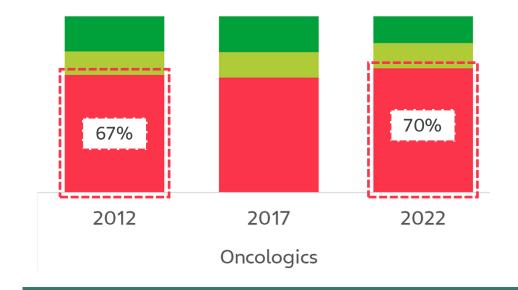


And in sensitive therapeutic areas the consolidation is increasing

of Gx suppliers in 2012 on the market 2017, 2022







70 % of oncologics Gx have less than 2 Gx suppliers







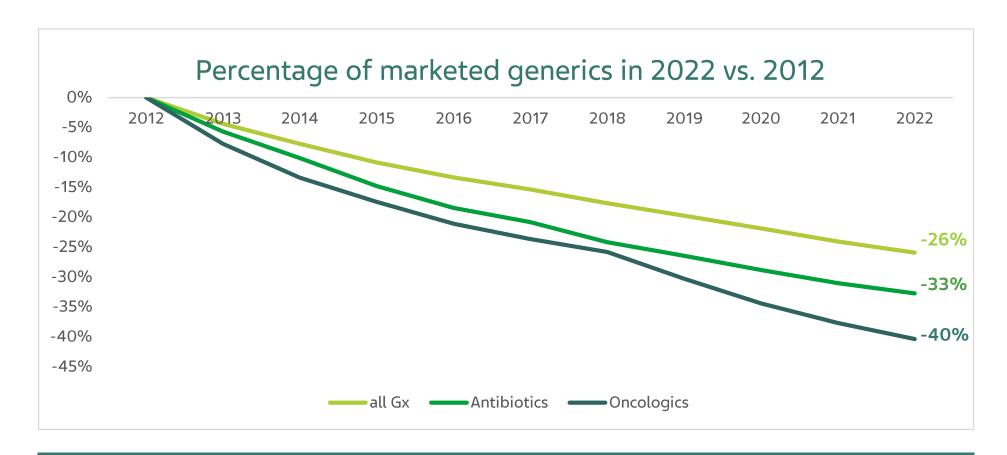


From supplier consolidation to medicine withdrawals

Leaving patients with fewer treatment options



Decrease in suppliers means reduced options for patients



In 10 years 26% of Generics medicines have disappeared from the European markets, 33% for antibiotics and 40% for oncology drugs



And this story is systemic across Europe NOT just confined to one or two diseases or countries – the whole generic medicines cabinet is at risk

Percentage of marketed generics in 2022 vs. 2012 per country

	Antibiotics	Oncologics	all Gx
# of products 2022	vs. 2012	vs. 2012	vs. 2012
	%	%	%
AT	-36%	-47%	-23%
BG	-31%	-54%	-26%
HR	-28%	-34%	-23%
CZ	-40%	-49%	-31%
DK	-27%	-50%	-25%
FI	-40%	-50%	-32%
FR	-17%	-34%	-18%
DE	-48%	-42%	-36%
HU	-38%	-52%	-29%
IT	-20%	-26%	-20%
NL	-44%	-49%	-32%
PL	-34%	-51%	-26%
PT	-38%	-49%	-29%
ES	-34%	-36%	-21%
SE	-34%	-37%	-24%
СН	-29%	-16%	-17%
UK	-32%	-26%	-28%
TOTAL	-33%	-40%	-26%



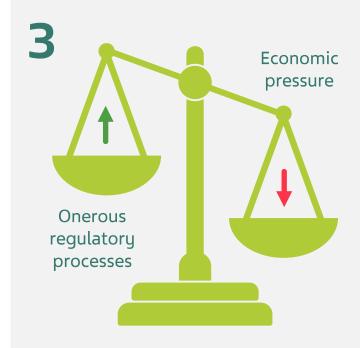


So, what's the answer?



Let's dare to recognise and address the obvious

- 1 Stopping the race to the bottom on pricing is crucial to ensure a sustainable and resilient supply of essential medicines
- The current
 pharmaceutical policy
 landscape is challenging
 the sustainability,
 resilience and diversity of
 supply, leading to the
 consolidation of the
 generic medicines market



- Consolidation of the supply chain both downstream and upstream
- Fewer suppliers in the market
- Increased chance of shortages

4 Security of supply must be ensured by addressing the root causes of medicines shortages and implementing sustainable economic, regulatory and industrial policies.

5 Complementary national and EU level policy reforms



The right answer can only come from complementary local & EU policy reforms

At national level

- New pricing models are required, adapted to countries' pricing systems.* For example:
 - Automatic price adjustment to reflect inflation
 - Dynamic models based on number of suppliers
 - Delinking from originator price
- Stop claw back / pay back taxation

At EU level

- Regulatory optimisation & digitalisation, including in the security of supply provisions in the revision of the pharmaceutical legislation
- Safeguard security of supply in all policies including in the new environmental legislations
- Multi-winner and multi-criteria Tender
 Guidance
- Efficient & competitive funding mechanisms





Q&A

Thank you

Contact:

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Annex 1: Methodology

- Source of data: IQVIA MIDAS® Quarterly Sales data released Q4 2022, Measure: USD MNF, Time Period: MAT Q3 2012-Q3 2022, reflecting estimates of real-world activity.
- Timeframe: 2012 2022
- Generic competitor population:
 - Excluding PI competition according to IQVIA-def. "PI" and "manufacturer"
 - According to IQVIA def. "non-innovative-branded" & "non-branded"
- Selected products population:
 - All generics
 - Generic antibiotics based on IQVIA-definition ATC2 "J1"
 - Generic oncologics based on IQVIA-definition ATC2 "L1"
 - Excluding (2013/2018-2022)-launches
 - Excluding "product-from-whole market-discontinuations (2013/2018 to 2022)"
 - Number of products:
 - # count on Level 1 (INN_NFC1_#of competitors) by country
 - # count on Level 2 (per product* the competition* in each market) (*excluding PI; Gx only)
- Selected markets with available IQVIA data:
 - AT, BG, HR, CZ, DK, FI, FR, DE, HU, IT, NL, PL, PT, ES, SE CH, UK

