2019 REPORT

EUROPEAN CITIZENS PERCEPTION SURVEY

R&D IN THE BIOPHARMACEUTICAL INDUSTRY
HEALTH PRIORITIES FOR THE EU
ACCESS TO MEDICINES
DIGITAL HEALTH

Lilly

With the European Union (EU) embarking on a new 5-year mandate in 2019, the debate around public health remains lively across the continent. European citizens expect high levels of healthcare, including the provision of new, innovative medicines. Meanwhile, policy-makers must continuously explore ways in which to make health systems more sustainable and equitable, while faced with growing demographic and political challenges.

In this context, Lilly carried out a survey of the general public in six European countries (Belgium, France, Germany, Republic of Ireland, Italy and Spain) to assess views on a series of health-related topics. We looked at 4 key areas:

- Public awareness of the scale and scope of research and development (R&D) in the biopharmaceutical industry;
- Opinions on levels of access to medicines;
- Opportunity presented by digital health; and
- Priorities in healthcare.

Below is a snapshot of some of the key findings from the survey.

There are notable knowledge gaps in public understanding of R&D in the biopharmaceutical industry. It costs €1.9 billion on average to develop a medicine[1] but a large majority of Europeans surveyed believe that it is much cheaper or do not know. 23% of respondents believe it costs less than €10 million with Irish respondents most likely to say it costs less than €10 million (32%).

Europeans surveyed by Lilly consider healthcare, and specifically cancer, key European priorities. 70% consider cancer to be one of the most important illnesses or conditions over the next 5 years, followed by Alzheimer's disease and dementia.

Most Europeans surveyed trust their national health systems. Despite that, 3/10 believe that the breadth of medicines available and the speed of access to medicines in their own country is slower compared to elsewhere in the EU.

Europeans surveyed are open to digital health solutions. Over 2/3 of respondents would be comfortable providing their health data anonymously in order to use innovations in digital healthcare, especially people in Italy, Spain and Ireland (79%, 77% and 75%).
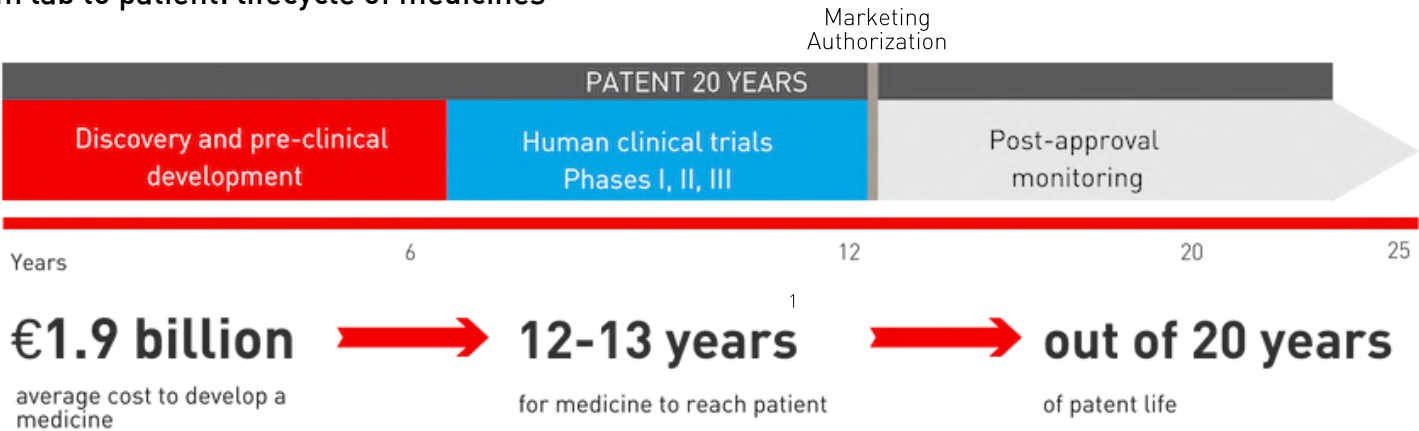
R&D IN THE BIOPHARMACEUTICAL INDUSTRY

The biopharmaceutical industry invests the largest percentage of its income of any industry on R&D in the EU[1], yet only 27% of Europeans surveyed by Lilly assume this is the case. This section outlines survey findings around public knowledge of R&D in the biopharmaceutical industry.

1. Source: The 2016 EU Industrial R&D Investment Scoreboard, European Commission, JRC DG RTD

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R&D of medicines in the biopharmaceutical industry is a lengthy and resource-intensive process. It starts at drug discovery, and goes through a further three phases – pre-clinical development, clinical trials, and registration and authorization – before a medicine can become available to patients.
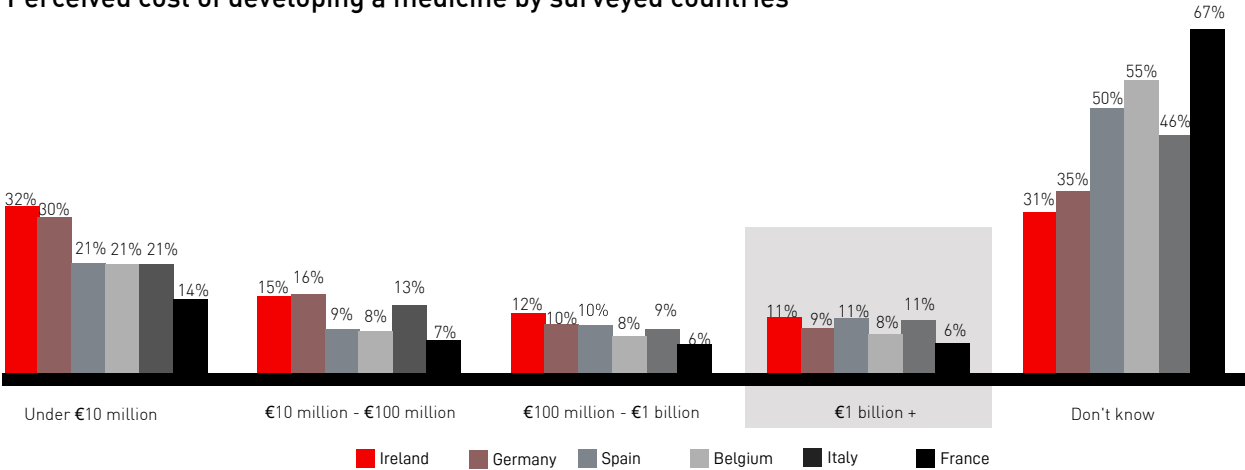
From lab to patient: lifecycle of medicines

Marketing Authorization

PATENT 20 YEARS		
Discovery and pre-clinical development	Human clinical trials Phases I, II, III	Post-approval monitoring

Years   6   12   20   25

€1.9 billion
average cost to develop a medicine

12-13 years[1]
for medicine to reach patient

out of 20 years
of patent life

Q.	How much do you think it costs on average to take a medicine from 'drug discovery' to make it available for patients?	ANSWER: €1.9 BILLION

Most Europeans surveyed do not know how much it costs to develop a medicine, while many believe it is considerably cheaper than it actually is.

Perceived cost of developing a medicine by surveyed countries

Under €10 million
Ireland 32%, Germany 30%, Spain 21%, Belgium 21%, Italy 21%, France 14%

€10 million - €100 million
Ireland 15%, Germany 16%, Spain 9%, Belgium 8%, Italy 13%, France 7%

€100 million - €1 billion
Ireland 12%, Germany 10%, Spain 10%, Belgium 8%, Italy 9%, France 6%

€1 billion +
Ireland 11%, Germany 9%, Spain 11%, Belgium 8%, Italy 11%, France 6%

Don't know
Ireland 31%, Germany 35%, Spain 50%, Belgium 55%, Italy 46%, France 67%

Legend: Ireland, Germany, Spain, Belgium, Italy, France

23% of Europeans surveyed think it costs less than €10m to develop a medicine.

People in Ireland and Germany are most likely to say that developing a medicine costs less than €10 million (32% and 30% respectively).

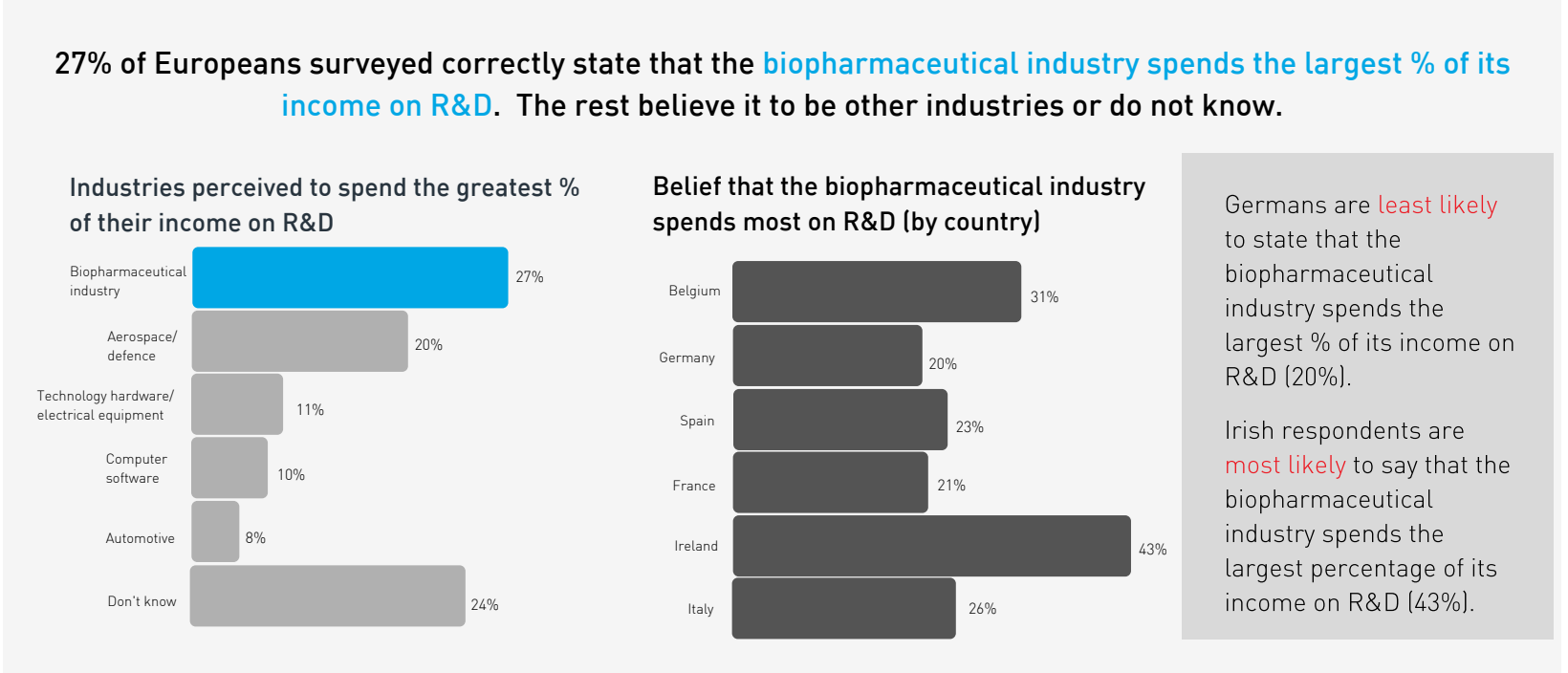Lilly

Q. To the best of your knowledge, which of the following industries spends the largest percentage of its income on R&D in the EU?
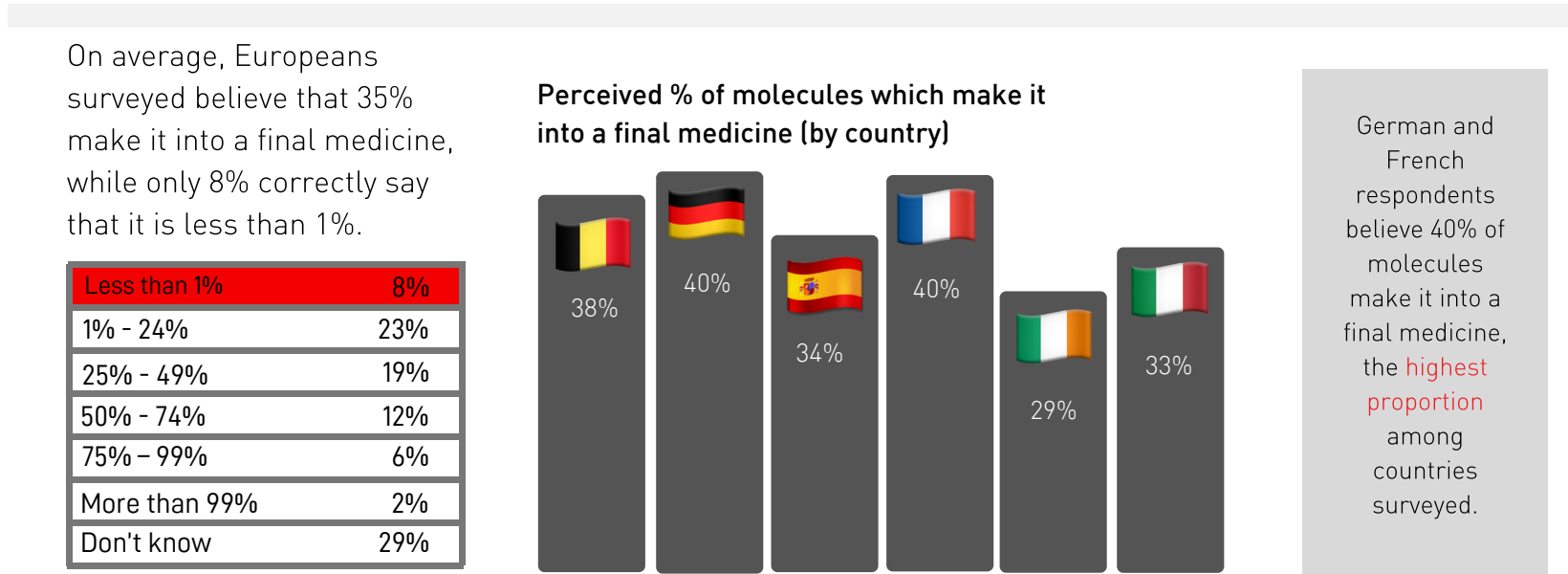
ANSWER:
BIOPHARMACEUTICAL INDUSTRY

27% of Europeans surveyed correctly state that the biopharmaceutical industry spends the largest % of its income on R&D. The rest believe it to be other industries or do not know.

Industries perceived to spend the greatest % of their income on R&D

Industry	%
Biopharmaceutical industry	27%
Aerospace/defence	20%
Technology hardware/electrical equipment	11%
Computer software	10%
Automotive	8%
Don't know	24%

Belief that the biopharmaceutical industry spends most on R&D (by country)

Country	%
Belgium	31%
Germany	20%
Spain	23%
France	21%
Ireland	43%
Italy	26%

Germans are least likely to state that the biopharmaceutical industry spends the largest % of its income on R&D (20%).

Irish respondents are most likely to say that the biopharmaceutical industry spends the largest percentage of its income on R&D (43%).

Q. In the 'drug discovery' stage, molecules are tested to find out if they can be used in a medicine. What percentage of these do you think make it into a medicine that becomes available for patients?

ANSWER:
ONLY 0.01% OF MOLECULES TESTED MAKE IT INTO A FINAL MEDICINE[1]

On average, there is a tendency to believe that more molecules tested make it into a final medicine than actually do, although many people, understandably, do not know.

On average, Europeans surveyed believe that 35% make it into a final medicine, while only 8% correctly say that it is less than 1%.

Less than 1%	8%
1% – 24%	23%
25% – 49%	19%
50% – 74%	12%
75% – 99%	6%
More than 99%	2%
Don't know	29%

Perceived % of molecules which make it into a final medicine (by country)

Belgium 38%
Germany 40%
Spain 34%
France 40%
Ireland 29%
Italy 33%

German and French respondents believe 40% of molecules make it into a final medicine, the highest proportion among countries surveyed.
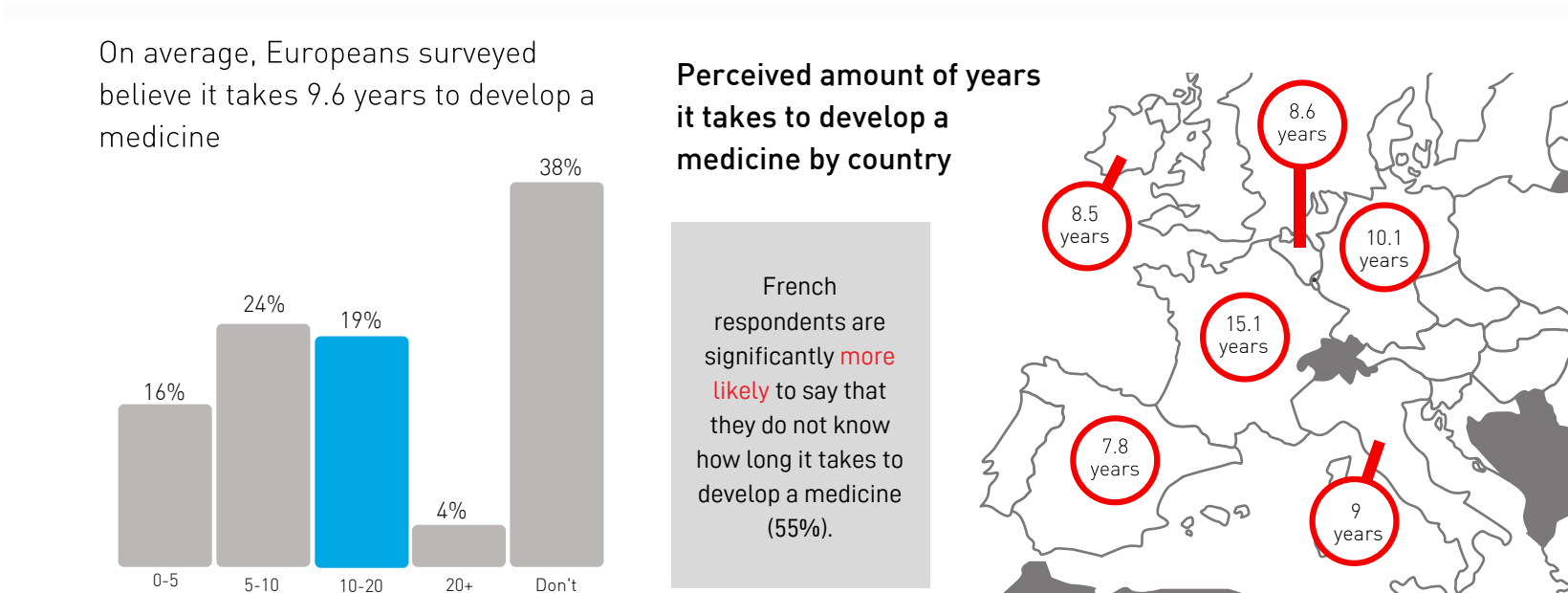
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Q. How long do you think it takes to develop a new medicine on average from 'discovery' to being made available for patients?

ANSWER:
12-13 YEARS

38% of Europeans surveyed do not know how long it takes to develop a medicine and a further 40% believe it takes less time than it does in reality.

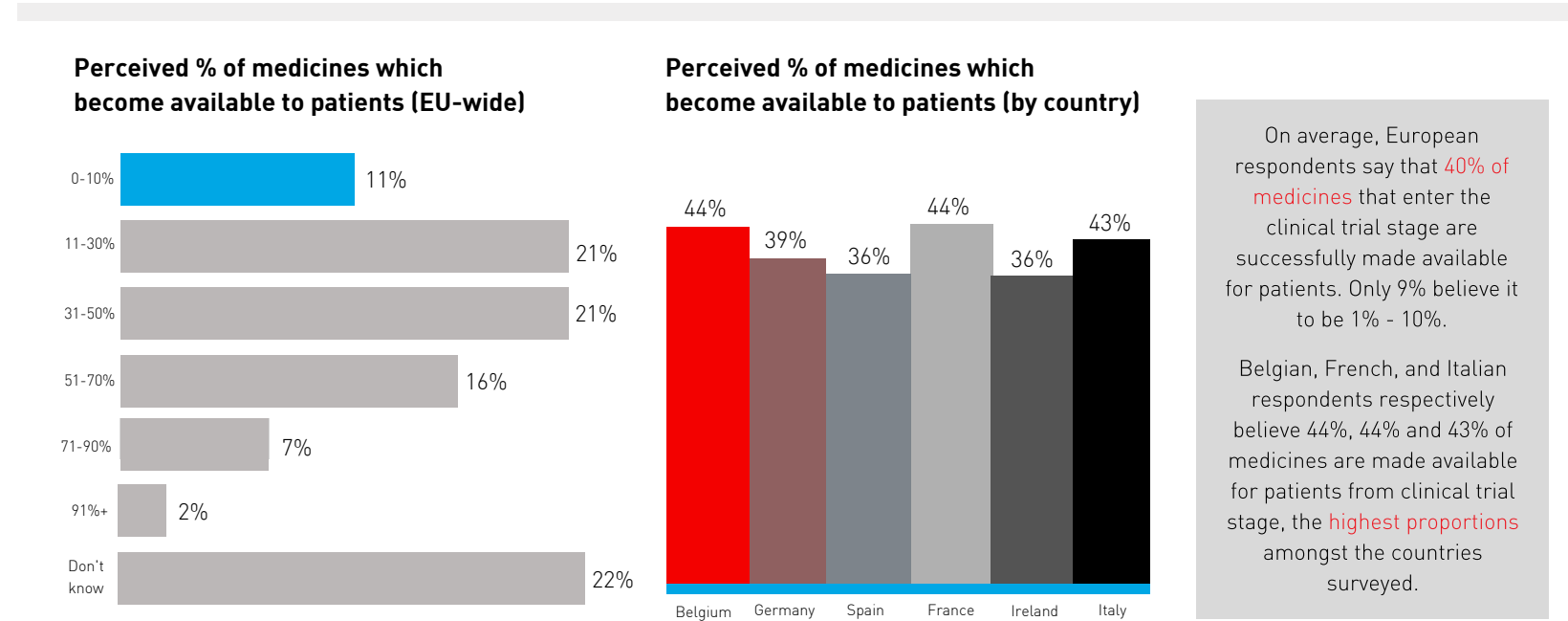On average, Europeans surveyed believe it takes 9.6 years to develop a medicine

- 16% 0-5 years
- 24% 5-10 years
- 19% 10-20 years
- 4% 20+ years
- 38% Don't know

Perceived amount of years it takes to develop a medicine by country

French respondents are significantly more likely to say that they do not know how long it takes to develop a medicine (55%).

- 8.6 years
- 8.5 years
- 10.1 years
- 15.1 years
- 7.8 years
- 9 years

Q. What percentage of medicines that enter clinical trials stage do you think are successfully made available for patients?

ANSWER:
10%[1]

Most Europeans surveyed do not know what % of medicines finish the development process after entering clinical trials or believe this to be higher than reality.

Perceived % of medicines which become available to patients (EU-wide)

- 0-10%: 11%
- 11-30%: 21%
- 31-50%: 21%
- 51-70%: 16%
- 71-90%: 7%
- 91%+: 2%
- Don't know: 22%

Perceived % of medicines which become available to patients (by country)

- Belgium 44%
- Germany 39%
- Spain 36%
- France 44%
- Ireland 36%
- Italy 43%

On average, European respondents say that 40% of medicines that enter the clinical trial stage are successfully made available for patients. Only 9% believe it to be 1% - 10%.

Belgian, French, and Italian respondents respectively believe 44%, 44% and 43% of medicines are made available for patients from clinical trial stage, the highest proportions amongst the countries surveyed.

1. Source: DiMasi et al, Journal of Health Economics, January 2016

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HEALTH PRIORITIES

This section reveals the opinions of those Europeans surveyed on whether healthcare should be a key area for the EU to tackle, and which diseases it should consider a priority. While we found that 40% of Europeans surveyed consider health to be one of the 3 main issues for the EU to address, we delve into where health as a priority stands compared to other leading issues, and what specific diseases those surveyed believe need to be a future European priority.

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Q. Which of the following, if any, do you think are the most important issues for the European Union to focus on over the next five years?

ANSWER:
40% OF RESPONDENTS BELIEVE HEALTHCARE IS A TOP-3 ISSUE FOR THE EU

Healthcare is considered to be an issue that is more important for the EU to focus on than technology, energy, and education, but less so than climate change, immigration, and economic growth.

12% of respondents rank healthcare as the most important issue for the EU to deal with.

Issue	Ranked 1st	Ranked 1st-3rd
Climate change	22%	52%
Immigration	20%	49%
Economic growth	15%	42%
Healthcare	12%	40%
Security and defence	10%	39%
Education	7%	32%
Energy	5%	26%
Technology	4%	16%
Other	4%	6%

Irish respondents are most likely to rank healthcare within the top-3 issues for the EU to focus on (56%) with people in Spain closely behind (45%).

Participants who rate healthcare in top-3 most important issues (by country)

34% 39% 45% 28% 56% 37%
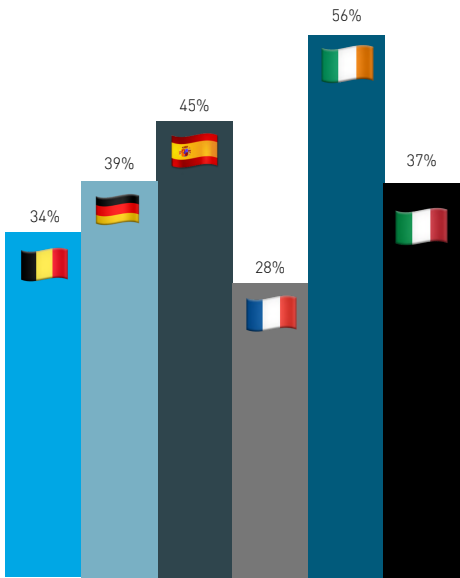
Q. Which of the following illnesses or conditions should be the biggest priorities for the European Union to focus on over the next five years?

ANSWER:
70% BELIEVE CANCER SHOULD BE ONE OF THE TOP-3 HEALTH PRIORITIES FOR THE EU

Cancer is considered to be the biggest illness/condition for the EU to prioritize over the next 5 years.

Spotlight on top priorities: cancer, Alzheimer's disease and dementia, and cardiovascular disease (% of people ranking in top-3)

Cancer: 45% 70% 68% 68% 78% 58% 80% 71%
Alzheimer's disease and dementia: 11% 44% 43% 43% 52% 37% 45%
Cardiovascular disease: 8% 41% 38% 42% 42% 38% 44% 40%

EU total: top priority | EU total: top-3 priority | Belgium: top-3 priority | Germany: top-3 priority | Spain: top-3 priority | France: top-3 priority | Ireland: top-3 priority | Italy: top-3 priority
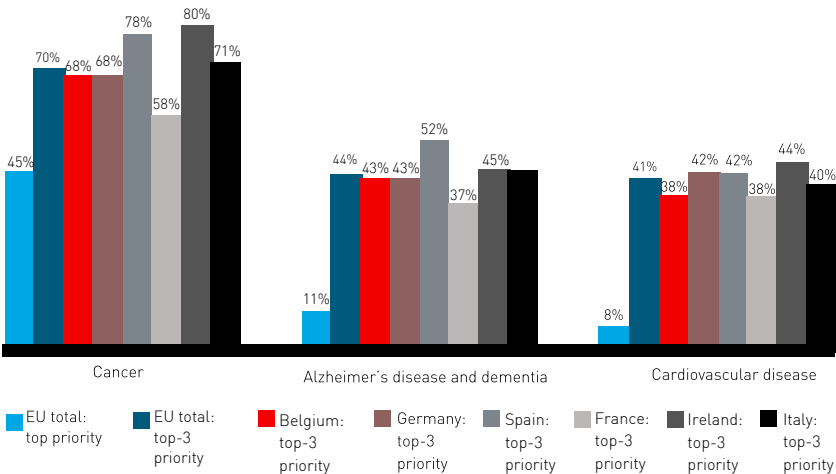
Cancer and Alzheimer's disease / dementia are considered to the biggest illnesses or conditions for the EU to prioritize over the next 5 years with 70% and 44% selecting these within their top three priorities, followed by cardiovascular disease, mental health and diabetes (41%, 29%, 23%).

Irish and Spanish respondents are more likely than those in the other countries tested to say that cancer is within the top three priorities for the EU (80% and 78% respectively).

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ACCESS TO MEDICINES

This section explores public perceptions of access to medicines, in terms of the number of medicines available and the speed at which they become available compared to other European countries. Most respondents believe that the breadth of medicines available and the speed of access to medicines is better or as good in their country compared to others, but the results vary depending on the country surveyed.

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Q. How do you think access to medicines in your country compares to access to medicines in the European Union more broadly?

Q. How do you think the speed of access to medicines in your country compares to speed of access to medicines in the European Union more broadly?

Over a third of respondents in the European countries tested say that access to medicine is about the same in their country as it is in the EU more broadly in terms of speed (37%) and quantity (38%). But around three in ten European respondents believe that they have fewer medicines available in their country than in the EU, and that their access to medicines is slower.

Access to medicines

European respondents' total perceptions

Don't know 15%
More 19%
Fewer 28%
Same 38%

Country Specific Perceptions

More medicines available
Fewer medicines available
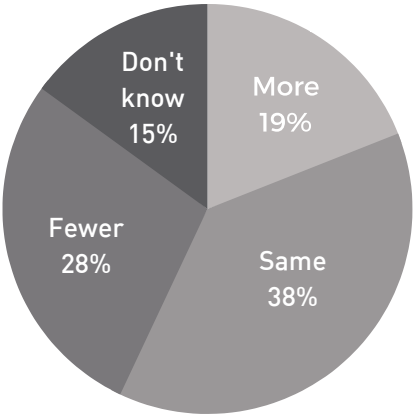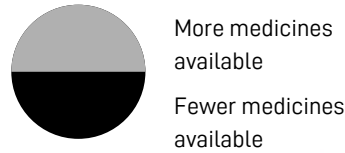
Respondents in Germany and France are least likely to say that they have fewer medicines available (19% and 22%) and that their access is slower (20% and 24%).

23% / 23%
9% / 48%
26% / 19%
21% / 22%
23% / 26%
12% / 30%
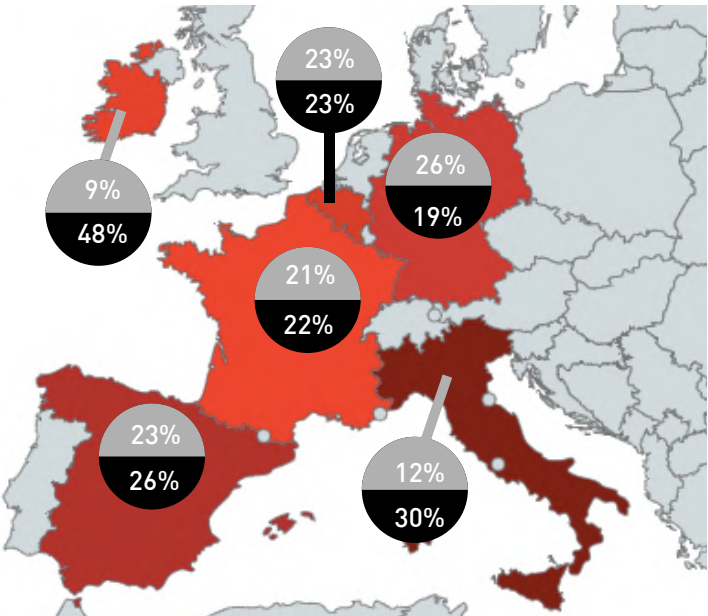
Speed of access

European respondents' total perceptions

Don't know 15%
Faster 17%
Slower 30%
Same 37%

Country Specific Perceptions

Faster in my country
Slower in my country
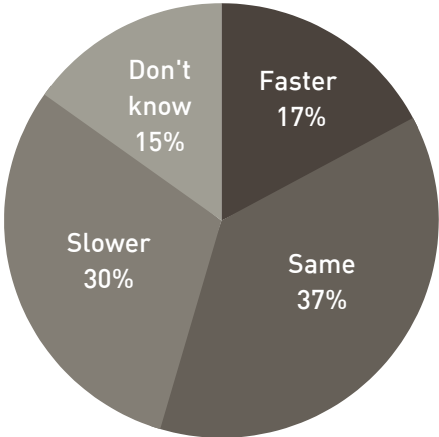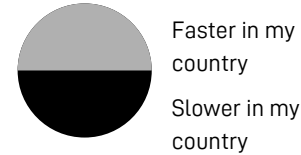
Respondents in Ireland and Italy are more likely to say that they have fewer medicines available in their country (48% and 30%) and that their access to medicine is slower (49% and 35%).

19% / 25%
9% / 49%
23% / 20%
20% / 24%
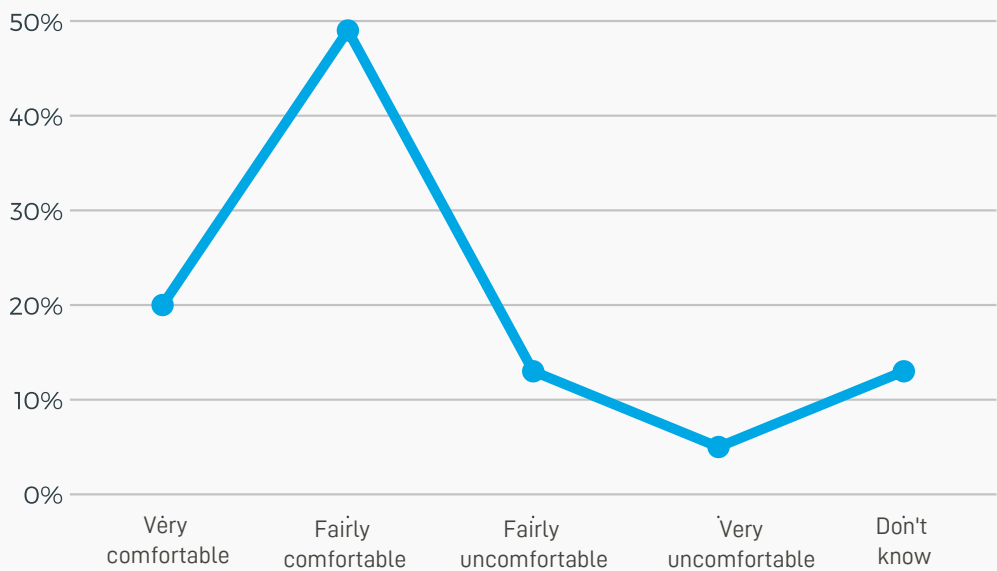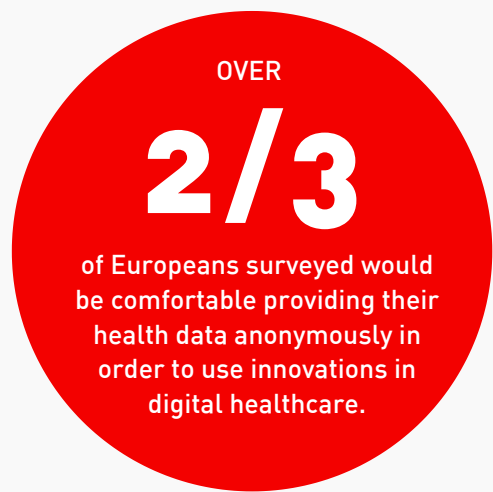20% / 30%
13% / 35%

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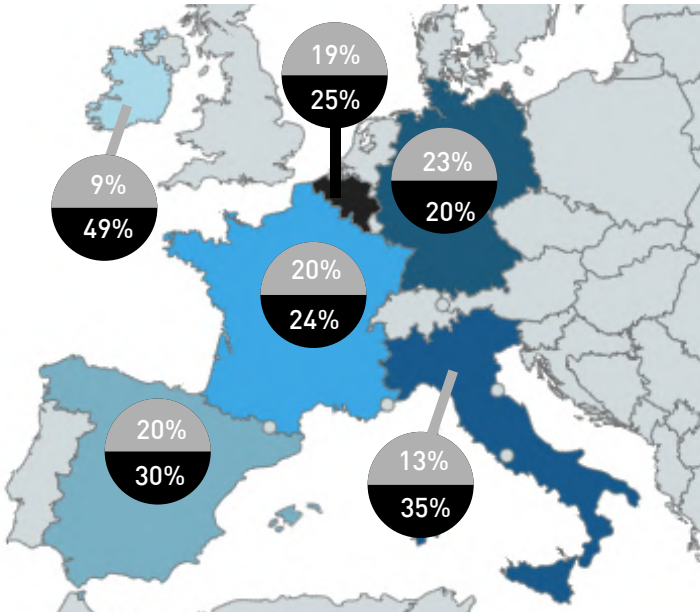
DIGITAL HEALTH

This section explores whether respondents believe the EU should spend more on digital health, if they would personally use digital health solutions, and feel comfortable providing their data.
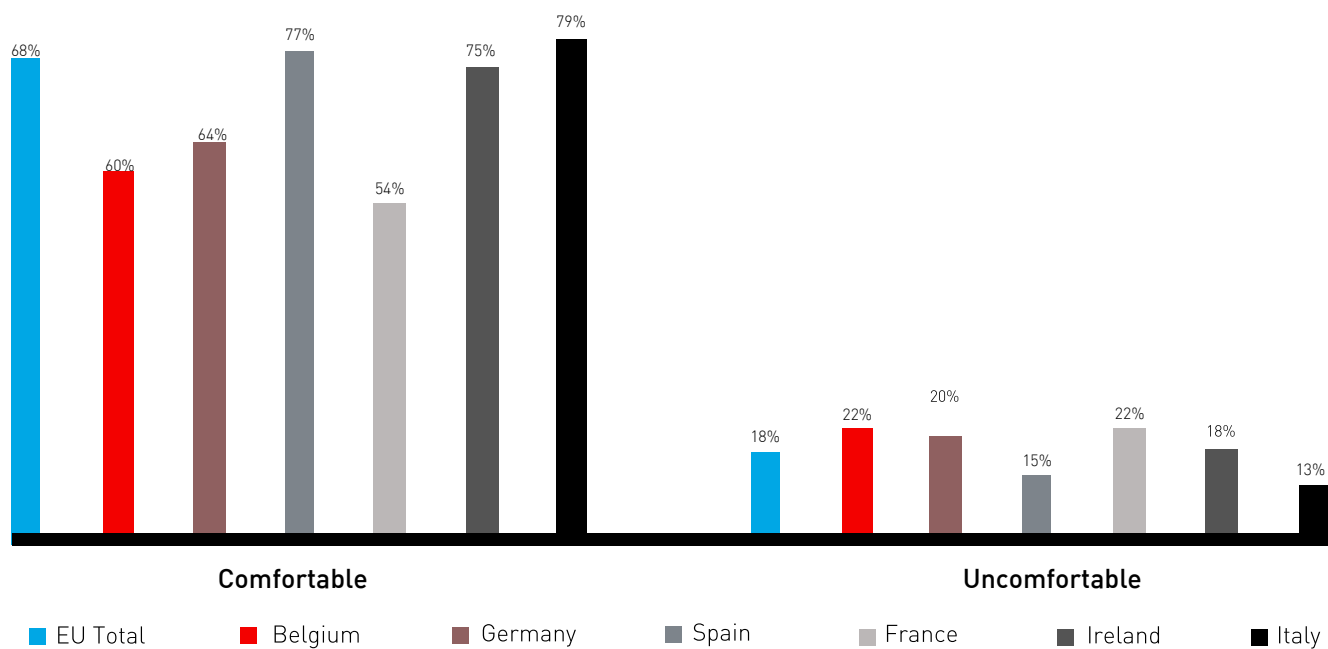
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Q. To what extent would you be comfortable providing your health data anonymously, in exchange for using innovations in digital healthcare?

European average

OVER

2/3

of Europeans surveyed would be comfortable providing their health data anonymously in order to use innovations in digital healthcare.

| | Very comfortable | Fairly comfortable | Fairly uncomfortable | Very uncomfortable | Don't know |

Country-specific responses

Comfortable

68% 60% 64% 77% 54% 75% 79%

Uncomfortable

18% 22% 20% 15% 22% 18% 13%

■ EU Total   ■ Belgium   ■ Germany   ■ Spain   ■ France   ■ Ireland   ■ Italy

Respondents in Italy, Spain and Ireland are most likely to say that they would be comfortable providing their health data (79%, 77% and 75%).

French and Belgian respondents would be most likely to be uncomfortable providing their health data (22%).

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Q. Which, if any, of the following digital health areas would you like to see the EU spend more money on in the near future?

Q. Which, if any, would you consider using personally?

Technologies for improving the identification of an illness are considered to be the most important digital health area for the EU to invest in by almost half.

Half would also say that they would consider using such new technologies personally.

Should the EU Invest in Digital Health?

German survey respondents are most likely to say that new technologies for improving the identification of an illness or condition are the digital health area they would most like to see the EU invest in (61%).

Respondents in France are least likely to say they would like to see the EU spend money on new technologies to identify illnesses or conditions (24%).

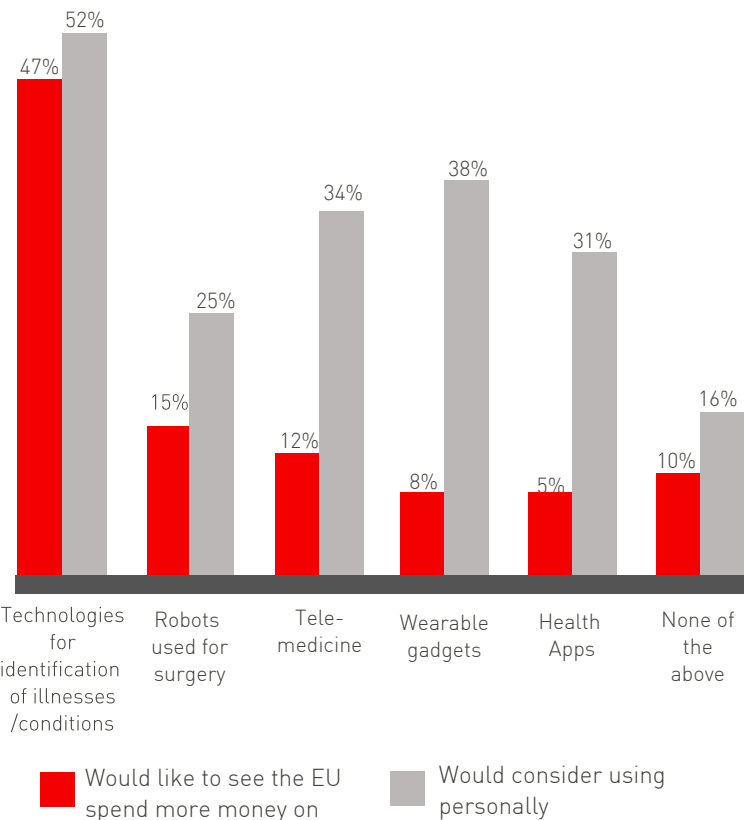## Would you personally use the new technologies?

Respondents in Ireland (64%), Spain (63%) and Germany (62%) are most likely to consider using new technologies to improve identification of an illness or condition.
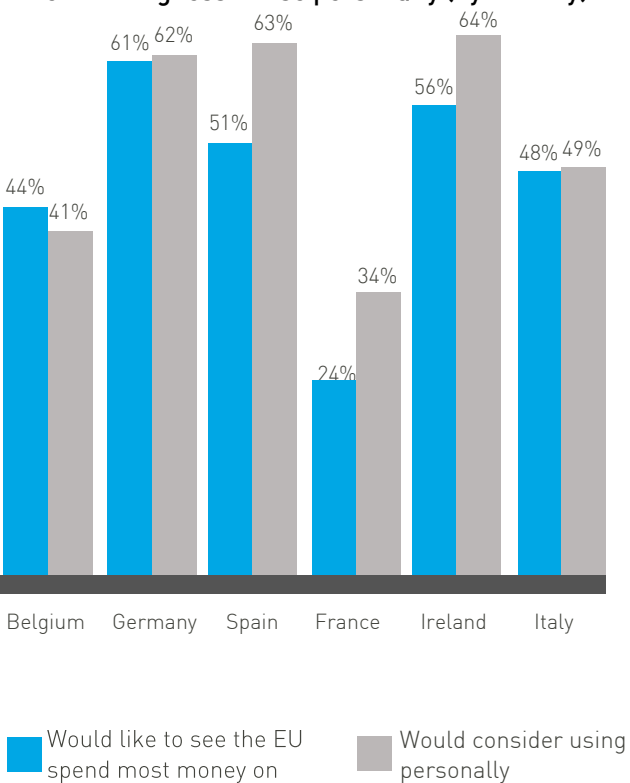
French respondents are significantly less likely to say that they would consider using these same technologies (34%).

Digital health areas for the European Union to spend money on in the near future (overall)

Area	Would like to see the EU spend more money on	Would consider using personally
Technologies for identification of illnesses /conditions	47%	52%
Robots used for surgery	15%	25%
Tele-medicine	12%	34%
Wearable gadgets	8%	38%
Health Apps	5%	31%
None of the above	10%	16%

New technologies for the identification of conditions / illnesses for the EU to spend money on in the near future & willingness to use personally (by country)

Country	Would like to see the EU spend most money on	Would consider using personally
Belgium	44%	41%
Germany	61%	62%
Spain	51%	63%
France	24%	34%
Ireland	56%	64%
Italy	48%	49%

LILLY IN EUROPE

Lilly is a biopharmaceutical company with over 38,000 employees worldwide, and headquartered in Indianapolis in the United States. Founded over 140 years ago and established in Europe in 1934, our pioneering medical breakthroughs through the years include the first commercially available human insulin and the polio vaccine.

Lilly's commercial activities span the whole of Europe, and in addition, we have a considerable R&D and manufacturing presence located across six sites in Europe, as well as 10 beyond. Our researchers are currently seeking breakthrough therapies in Diabetes, Oncology, Immunology, Neurodegeneration and Pain. Approximately 22% of our sales are reinvested into research and development globally.

To learn more about Lilly in Europe, please visit us at www.lillypad.eu.

METHODOLOGY

Lilly commissioned ComRes to survey 3,096 adult members of the public in the Republic of Ireland (n=503), Spain (n=551), Germany (n=504), Belgium (n=505), Italy (n=509) and France (n=524) between the 7th and 14th of January 2019.

Data were weighted to be demographically representative of all adults aged 18+ in each country by age, gender and region.

ComRes is a member of the British Polling Council and abides by its rules.

You can find the full data tables on the ComRes website in the published polls section.

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