

COVID-19 INNOVATION REPORT

2021

Prepared by:



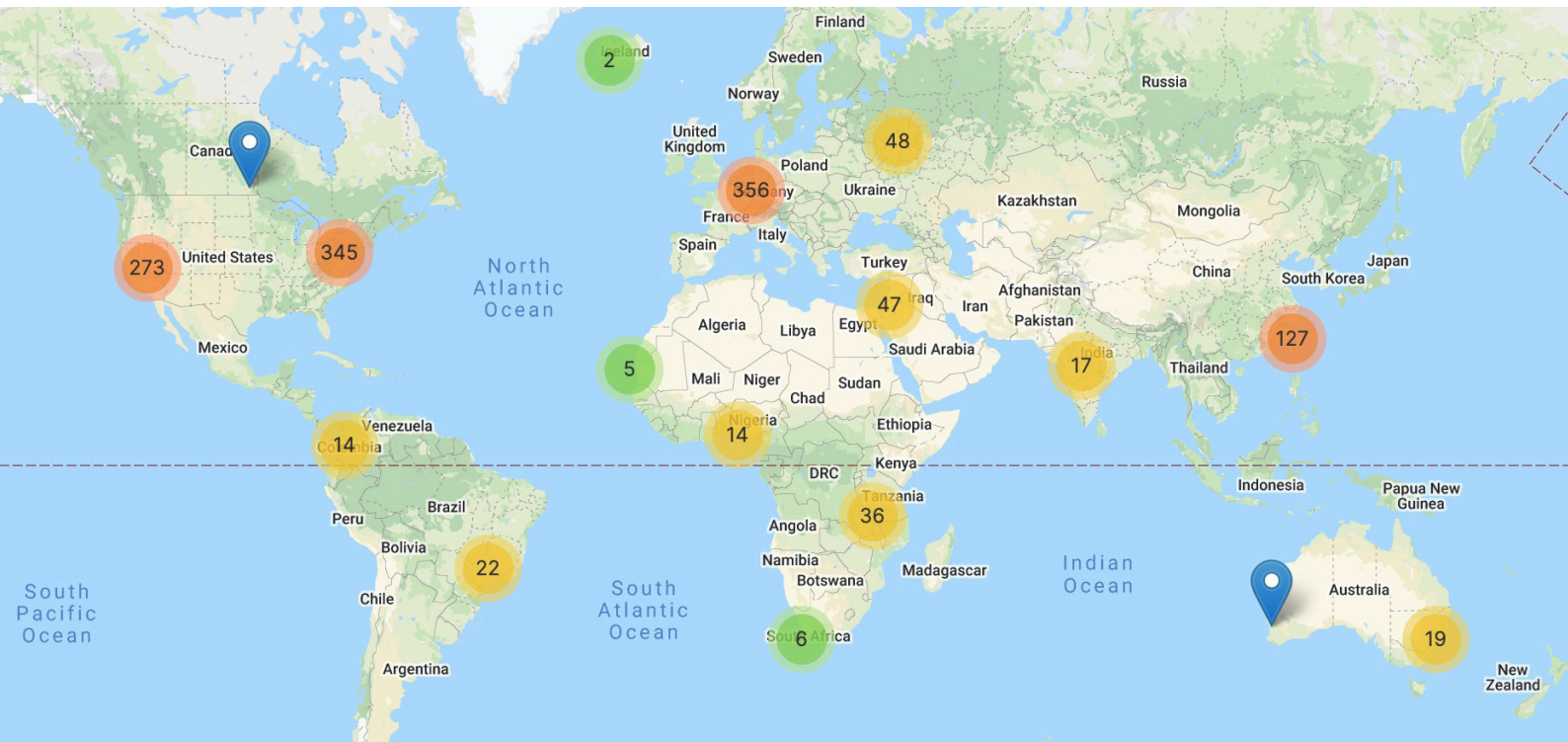
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Introducing the Coronavirus Innovation Report

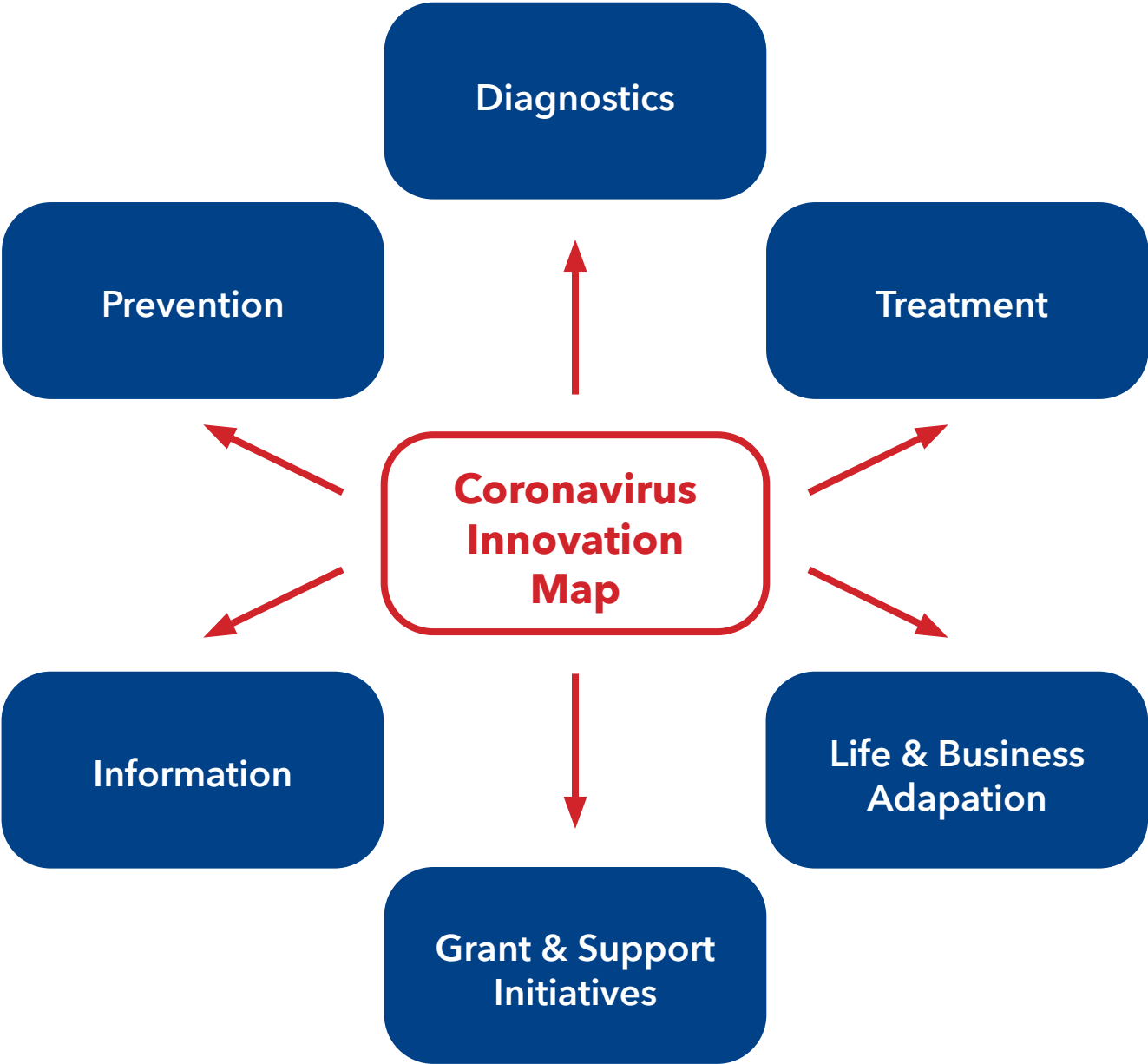
The shared insights in the Coronavirus innovation Report are based on a joint effort begun in April 2020 aimed at building a comprehensive [global map showcasing the solutions](#) created to face the pandemic.



The Coronavirus Innovation Map is a visual global directory of more than 1,300 projects intended to facilitate global data flow of COVID-19 solutions and help innovators cooperate and collaborate.

A project will be eligible to join the directory if it directly offers a scalable innovative solution to one of the below mentioned categories linked to the pandemic. The innovations were scouted by the StartupBlink research team and contributors creating one of the world's most comprehensive databases on COVID-19 innovations. The innovation map is also crowdsourced, allowing everyone to submit their projects to the map. Those projects are reviewed by the StartupBlink team to make sure they are relevant and innovative.

Projects are presented in different categories, such as vaccines, prevention innovations, diagnostics, treatments, grants, and lifestyle adaptation. The map features a special section showcasing Champion projects that have made a substantial impact during this crisis.



The data gathered on the map is crowdsourced, curated by the founding partners (HIEx by UNAIDS and StartupBlink), and enhanced by data provided by various municipalities, governments, and economic development corporations around the world.

We believe that once the pandemic is over, the COVID-19 innovation map will be a valuable information resource to help overcome future challenges relating to disease prevention, diagnosis, and treatment.



Based on the data gathered on the map, we have created an algorithm to measure innovation across cities and countries globally. The rankings celebrate the countries and cities that went above and beyond during this crisis, producing inspiring projects to the benefit of their local community and developing solutions that have had an impact around the world.

This report is structured as follows:

First, we will showcase the top ranked 40 countries and 100 cities. Second, we will review key insights from the rankings and offer case studies of ranked countries. The sources of information for country case studies include the following:

- The population and GDP are from the [World Bank](#) (2018).
- The number of COVID-19 cases and deaths are from the [World Health Organization](#) retrieved on March 5, 2021.
- The data on the number of hospital beds is from the Global Health Observatory ([World Health Organization, 2017](#)).
- The rankings, categories, and the innovations are sourced from the [Coronavirus Innovation Map](#) (2021).

Please note that the innovations presented in each country are not endorsed by the writers, and just like any other innovative solution or startup may or may not be successful.

Methodology

Adapted from the [StartupBlink](#) annual [Global Startup Ecosystem Rankings](#), this report uses a simplified approach and a smaller sample to measure innovation specific to the COVID-19 pandemic. The ranking algorithm considers the number and type of innovations in each city and country with extra points given for outstanding initiatives, identified as the **Champions**. ★

The projects which comprise the basis of this analysis were reviewed to ensure that only the most relevant and useful innovations are considered. It is important to note that the ranking of the countries takes into account population size, ensuring we adjust expectations from countries with relatively low population in comparison to countries with a bigger population.

In June 2020, we published our first COVID Innovation report with updated rankings of 32 countries and 80 cities across 1,000 projects. This second version of the report ranks 40 countries, 100 cities, and takes into account more than 1,300 COVID-related innovations.

Foreword



by Pradeep Kakkattil,
Director, Office of Innovation



COVID-19 continues to challenge our collective progress towards sustainable development goals and global health security. The COVID-19 crisis laid bare the underlying challenges in global health and revealed how underprepared the world is to face emerging pandemics. Poor health surveillance systems, combined with new mutations of the coronavirus, underfunded and broken health infrastructure, and acute shortage in health workforce have collectively resulted in over 167 million infections and nearly 3.5 million deaths, many of which could have been prevented. COVID-19's economic impact has been devastating and it's clear that the world as we know it has changed forever.

Amidst this ongoing devastation, we see a glimmer of hope. Progress in prevention, testing and diagnostics, treatment, logistics and supply chain, life and business adaptations to the rapid development, and roll out of nearly 1.5 billion doses of the COVID vaccine is a testament to human ingenuity. The UNAIDS Health Innovation Exchange (HIEx) has partnered with StartupBlink to help identify innovations that can be transformative in responding to COVID-19 and in strengthening the broader health response. The HIEx works to facilitate countries' access to technologies, innovations, and capacities to effectively respond to COVID-19 and to strengthen access to health care.

We have seen hundreds of innovators, from large corporations to one person startups and from technology to social innovators; people from all walks of life are rallying together to find solutions to challenges facing the world today.

We have seen extraordinary and spontaneous collaboration across the world, bringing new ideas and approaches and their collective talent to solve the complex challenges of COVID-19 as well as broader health and development.

We have also seen exemplary collaborative efforts between the public and private sector. Countries have embraced new ideas and innovations and deployed them, on a pace and scale that was unimaginable even a year ago. We want to salute and celebrate our leaders at all levels - city, country and global - who have worked hard to create innovative breakthroughs and solutions, developing policies and spaces for effective deployment of these innovations in saving lives and ameliorating the impact of this pandemic.

While these innovations will certainly help the world combat the immediate threat of COVID-19, there is clearly a need for greater investments in improving access to health care and preparing for the challenges of the future. It is unacceptable that today one in two people globally don't have access to basic health care, and every year over 100 million people fall into extreme poverty due to health care costs. COVID-19 has clearly demonstrated that *no one is safe until everyone is safe*.

The report highlights the power of innovation in building resilient systems for health in the wake of COVID-19. The innumerable innovations that were born out of this crisis, and the knowledge accumulated from the innovators and startups featured in this report, will certainly help mitigate and enable countries to be better prepared to face future pandemics. By leveraging the power of innovation, we can not only scale access to quality and affordable health care, for example through scaling digital health infrastructure to deliver last mile health care, but also prevent future pandemics at a fraction of the cost compared to the economic losses of another global pandemic.

If there is one message from the COVID-19 crisis and the mapping of the innovations by StartupBlink, it is this:

Innovators can and have risen to the challenge. It is time for the world to invest in leveraging these solutions to save lives, NOW!

Coronavirus Innovation Countries Rankings



Rank	Country	Rank Change (from 2020)	Score
1	United States	–	14.706
2	Israel	–	4.945
3	Canada	–	4.196
4	Belgium	–	3.262
5	Switzerland	–	2.866
6	United Kingdom	–	2.440
7	Singapore	+4	2.234
8	Spain	+2	2.139
9	South Korea	+10	2.138
10	Luxembourg	new	2.103
11	Estonia	–4	2.049
12	Denmark	+3	2.034
13	Ireland	–4	1.796
14	Taiwan	+3	1.707
15	China	–2	1.653
16	Germany	–4	1.597
17	Russia	+10	1.585
18	France	–2	1.388
19	Croatia	–5	1.380
20	Italy	–12	1.377
21	Australia	–1	1.332
22	The Netherlands	+2	1.258
23	Finland	–5	1.082
24	Sweden	–3	1.008
25	Norway	new	0.940
26	Poland	–4	0.785
27	Austria	new	0.766
28	Kenya	–5	0.575
29	Japan	–4	0.546
30	South Africa	+2	0.532
31	Brazil	–1	0.430
32	India	–6	0.396
33	Hungary	new	0.368
34	Portugal	–6	0.359
35	Philippines	–6	0.354
36	Czechia	new	0.323
37	Nigeria	–6	0.259
38	Uganda	new	0.210
39	Mexico	new	0.182
40	Colombia	new	0.137

Coronavirus Innovation Cities Rankings



Rank	City	Country	Rank Change (from 2020)	Score
1	San Francisco Bay	United States	–	14.4167
2	New York	United States	–	7.1500
3	Moscow	Russia	+14	4.9573
4	Boston Area	United States	–1	4.9500
5	Toronto	Canada	–1	3.1440
6	Tel Aviv Area	Israel	–1	3.0827
7	Los Angeles Area	United States	+2	2.9500
8	Seoul	South Korea	+19	2.6453
9	Taipei City	Taiwan	+1	2.5553
10	San Diego	United States	–3	2.5167
11	London	United Kingdom	–5	2.4997
12	Barcelona	Spain	+8	2.3707
13	Seattle	United States	–6	2.3167
14	Washington DC	United States	–3	2.2833
15	Paris	France	–1	1.9190
16	Singapore City	Singapore	–	1.8630
17	Antwerp	Belgium	–5	1.6683
18	Berlin	Germany	+13	1.5733
19	Atlanta	United States	–	1.5167
20	Zurich	Switzerland	–5	1.3680
21	Chicago	United States	+20	1.3500
22	Minneapolis	United States	+36	1.3500
23	Milan	Italy	–10	1.3183
24	Nairobi	Kenya	–2	1.3140
25	Austin	United States	–1	1.3050
26	Beijing	China	–3	1.2777
27	Madrid	Spain	+2	1.2171
28	Munich	Germany	–7	1.2060
29	Denver	United States	+4	1.1700
30	Miami Area	United States	+16	1.1250

Coronavirus Innovation Cities Rankings



Rank	City	Country	Rank Change (from 2020)	Score
31	Daejeon	South Korea	new	1.0496
32	Dublin	Ireland	-6	1.0488
33	Montreal	Canada	+4	1.0304
34	Lagos	Nigeria	+14	1.0071
35	Basel	Switzerland	-7	0.9576
36	Johannesburg	South Africa	new	0.9200
37	Raleigh Durham	United States	-2	0.9000
37	Portland	United States	-2	0.9000
39	Vancouver	Canada	-14	0.8960
40	Haifa	Israel	-1	0.8773
41	Helsinki	Finland	-3	0.8487
42	Brussels	Belgium	-24	0.8455
43	Copenhagen	Denmark	+13	0.8274
44	Tallinn	Estonia	-12	0.8227
45	Philadelphia	United States	+16	0.8100
46	Vienna	Austria	+6	0.7486
47	Hangzhou	China	-13	0.7266
48	Brisbane	Australia	new	0.7195
49	Bangalore	India	-9	0.7170
50	Quebec City	Canada	new	0.7168
50	Kitchener Waterloo	Canada	-7	0.7168
52	Ghent	Belgium	-22	0.7120
53	Manila Area	Philippines	+11	0.6596
54	Shenzhen	China	-10	0.6459
55	New Delhi	India	-	0.6373
56	Cincinnati	United States	-11	0.6300
57	Ottawa	Canada	+1	0.6272
58	Sofia	Bulgaria	new	0.6190
59	Salt Lake City	United States	+2	0.5850
60	Hong Kong	China	+14	0.5651

Coronavirus Innovation Cities Rankings



Rank	City	Country	Rank Change (from 2020)	Score
61	Zagreb	Croatia	-12	0.5456
62	Oslo	Norway	-2	0.5428
63	Baltimore	United States	new	0.5400
63	Burlington	United States	-13	0.5400
63	Detroit	United States	new	0.5400
63	St. Louis	United States	new	0.5400
63	Houston	United States	new	0.5400
68	Leuven	Belgium	-17	0.5340
69	Brasilia	Brazil	new	0.5308
69	Recife	Brazil	new	0.5308
71	Warsaw	Poland	new	0.5132
72	Sydney	Australia	-19	0.4946
73	Sao Paulo	Brazil	-19	0.4900
74	Monterrey	Mexico	new	0.4884
75	Melbourne	Australia	new	0.4497
76	Malmo	Sweden	new	0.4140
76	Stockholm	Sweden	-17	0.4140
78	Boulder	United States	new	0.4050
78	Orlando	United States	new	0.4050
80	Amsterdam	The Netherlands	new	0.3993
81	Tunis	Tunisia	-18	0.3594
82	Edinburgh	United Kingdom	-6	0.3555
83	Prague	Czechia	new	0.3499
84	Budapest	Hungary	-13	0.3413
85	Tokyo	Japan	-19	0.3148
86	Kingston	Canada	new	0.3136
87	Kampala	Uganda	-7	0.3013
88	Geneva	Switzerland	-21	0.2736
89	Madison	United States	-21	0.2700
89	Kansas City	United States	new	0.2700
91	Canberra	Australia	-22	0.2698
92	Calgary	Canada	-22	0.2688
93	Jerusalem	Israel	-16	0.2632
94	Lisbon	Portugal	-22	0.2554
95	Vilnius	Lithuania	new	0.2546
96	Luxembourg City	Luxembourg	new	0.2542
97	Cape Town	South Africa	-18	0.2400
98	Cali	Colombia	new	0.2392
99	Buenos Aires	Argentina	new	0.2358
100	Pretoria	South Africa	new	0.1200

Key Insights from the Rankings

Key Country Insights

- This updated ranking iteration re-confirms our observations from the last COVID-19 innovation report: that some of the cities badly hit by the pandemic, including Milan, New York, Barcelona, and several cities in Belgium have been over-performing in the ranking charts. This validates the old saying “necessity is the mother of invention,” as these are some of the cities hardest hit by the pandemic.
- We also see strong positions held by locations that are relatively unscathed by the pandemic, like Taipei and Singapore, as they focus on innovative approaches and policies that could be adapted by other cities.
- The United States leads global coronavirus innovation efforts, while Israel and Canada hold leading positions at 2nd and 3rd globally. In the top 10 ranked countries, Belgium, Switzerland, and the UK held their positions at 4th, 5th, and 6th respectively.
- Both Belgium and Switzerland are clearly overperforming in COVID-19 innovation compared to other verticals. We have been particularly impressed by the success of Singapore, South Korea, and Taiwan, ranked 7th, 9th, and 14th respectively, are the top-performing Asian countries and all enjoy positive momentum compared to the previous report.
- Spain has improved its position and is now ranked 8th in the world. Closing the top 10 is Luxembourg, which is the highest ranked country that made a debut in this report.
- Also worth mentioning are other countries that made their debut in this report: Norway (25), Austria (27), Hungary (27), Czechia (33), Uganda (36), Mexico (39), and Colombia (40).

Key City Insights

- The top two cities San Francisco and New York keep their lead positions on the list of most innovative cities combating coronavirus, matching their position in our 2020 Global Startup Ecosystem Report.
- New York, well known for its Fintech startups, managed to take the second spot again this year. The city's response and adaptation to the effects of the Coronavirus crisis have been outstanding, considering that it has been one of the worst-hit cities in the world; we believe this is exactly why they're excelling.
- Moscow, at the 3rd spot, rose 14 spots from the last report and is a new city in the top 10; likely because it produced the first commercially available vaccine in the world.
- Boston is featured in the fourth spot, dropping one spot from last year. It is followed by Toronto (5th), Tel Aviv (6th), and Los Angeles Area (7th). Seoul, at 8th place, increased by an impressive 19 spots from last year, and Taipei recorded a 1 spot increase, reaching rank 9.
- Asian countries are doing well in dealing with the crisis as we see fewer COVID-19 cases in most of them compared to European and North American countries. Closing the top 10 is San Diego, reflecting the power of the USA to innovate in several key cities regardless of the damage the virus has inflicted.
- The highest debut of a city in this report is Daejeon in South Korea, ranked 31st. We also want to commend Barcelona, ranked 12th, and Berlin, which has been gaining ground since the first report to now rank 18th. In North America, Chicago (21st), Minneapolis (22nd), the Miami Area (30th), and Quebec city (50th) have all greatly increased their positions in the ranking.
- In South America, we have Brasilia and Recife that are side by side with Sao Paulo in COVID-19 innovations. In Africa, we witnessed a rise of COVID-19 innovation, with Lagos, Nigeria increasing 14 positions to become the highest ranked African city at rank 34. As well, Johannesburg debuts at 36th.
- Other notable mentions for debuts in this report include: Copenhagen (40th), Brisbane (48th), Baltimore (63rd), Detroit (65th), St. Louis (66th), Houston (67th), Monterrey (74th), Melbourne (75th), Malmo (76th), Vilnius (95th), Cali (98th) and Kingston (86th).

Regional Analysis

In the following section we present the top ranked countries and cities in each region.

North America

North America has a total of 2 countries and 35 cities ranking in the top 100; 27 cities in the USA and 8 in Canada. Please note that Mexico has been included in the Latin American region.

The USA has kept its place as the top ranked country since 2020, while Canada has also retained its spot at 3rd, despite its highest ranking city, Toronto, decreasing by one place from 4th to 5th in the overall city rankings.

Regional rank	Country	Global Rank	Global rank change (from 2020)	Total Score 2021
1	United States	1	–	14.706
2	Canada	3	–	4.196

Representing the USA as the top performing cities overall are San Francisco and New York, both of which have retained their rank at 1 and 2 respectively. While Boston has decreased by one place to 4th, Los Angeles has increased by 2 places to rank 7th. The only Canadian city to rank in the regional top 5 is Toronto.

Regional rank	City	Global Rank	Global rank change (from 2020)	Total score 2021
1	San Francisco Bay, United States	1	–	14.417
2	New York, United States	2	–	7.150
3	Boston Area, United States	4	–1	4.950
4	Toronto, Canada	5	–1	3.144
5	Los Angeles Area, United States	7	+2	2.950

Europe

As the region with the second most cities in the rankings, Europe has a total of 24 countries and 33 cities in the top 100, with Belgium, Switzerland, and the United Kingdom ranking 4th, 5th, and 6th respectively. While all three countries have not changed in their ranking since last year's report, the top performing cities in Europe have changed significantly.

Regional rank	Country	Global Rank	Global rank change (from 2020)	Total score 2021
1	Belgium	4	–	3.262
2	Switzerland	5	–	2.866
3	United Kingdom	6	–	2.440

Moscow has made a substantial jump of 14 places, now ranking 3rd place globally after the successful release of the Sputnik V vaccine, while Barcelona has led the way for the Spanish response to the pandemic by moving up 8 places to 12th overall.

In contrast, London, which was a unique epicenter of the response early on, has fallen by 5 places to 11th. In addition, Paris and Antwerp have fallen to 15 and 17 in the global rankings.

Regional rank	City	Global Rank	Global rank change (from 2020)	Total score 2021
1	Moscow, Russia	3	+14	4.957
2	London, United Kingdom	11	–5	2.500
3	Barcelona, Spain	12	+8	2.371
4	Paris, France	15	–1	1.919
5	Antwerp, Belgium	17	–5	1.668

Asia-Pacific

The Asia-Pacific region has a total of 8 countries and 16 cities ranking in the top 100, the highest performing of which are from the tiger economies of South Korea, Taiwan, and Singapore, the latter of which is ranked first in the region and 7th overall.

All three countries have made major progress on their innovative responses to the pandemic over the last year, with South Korea jumping by 10 spots in the overall rankings to land in the top 10, while Taiwan reflects strength by taking the 14th position.

Regional rank	Country	Global Rank	Global rank change (from 2020)	Total score 2021
1	Singapore	7	+4	2.234
2	South Korea	9	+10	2.138
3	Taiwan	14	+3	1.707

At the city level, South Korea's national jump can be explained by the increase of its capital, Seoul, which jumped up 19 places to rank 8th (jumping 19 places), and the debut on the COVID Innovation rankings of its 5th largest metropolis, Daejeon.

Taipei City represents Taiwan as the 2nd highest ranking Asia-Pacific city in the overall rankings, Singapore retains its place at 16th in the overall rankings, and Beijing falls by 3 places to 26th.

Regional rank	City	Global Rank	Global rank change (from 2020)	Total score 2021
1	Seoul, South Korea	8	+19	2.645
2	Taipei City, Taiwan	9	+1	2.555
3	Singapore City, Singapore	16	–	1.863
4	Beijing, China	26	–3	1.278
5	Daejeon, South Korea	31	new	1.050

Middle East & Africa

The Middle East & Africa has a total of 6 countries and 10 cities ranking in the top 100. Israel, one of the first countries to safely distribute the vaccine, takes the lead in the region and ranks at 2nd behind the USA in the overall rankings. Both Kenya and South Africa represent the region in the top 40.

Regional rank	Country	Global Rank	Global rank change (from 2020)	Total score 2021
1	Israel	2	–	4.945
2	Kenya	28	–5	0.575
3	South Africa	30	+2	0.532

Ranked 6th overall, the Israeli capital Tel Aviv is the highest ranking city in the region, joined by another Israeli city, Haifa, ranked 5th in the region. Lagos represents Nigeria in the rankings, jumping by 14 places to feature in the top 40 cities overall at 34. Both Nairobi (2nd in the region) and Johannesburg (4th) earn an impressive debut in the rankings, ranking overall at 24th and 36th respectively.

Regional rank	City	Global Rank	Global rank change (from 2020)	Total score 2021
1	Tel Aviv Area, Israel	6	–1	3.083
2	Nairobi, Kenya	24	–2	1.314
3	Lagos, Nigeria	34	+14	1.007
4	Johannesburg, South Africa	36	new	0.920
5	Haifa, Israel	40	–1	0.877

Latin America and the Caribbean

With 4 countries and 6 cities featuring in the top 100 from the region, Latin America and the Caribbean have made a significant contribution in the response against the COVID-19 pandemic. Brazil, one of the hardest hit countries in the region, ranks at 31st overall, while both Mexico and Colombia feature in the top 40 for the first time.

Regional rank	Country	Global Rank	Global rank change (from 2020)	Total score 2021
1	Brazil	31	-1	0.430
2	Mexico	39	new	0.182
3	Colombia	40	new	0.137

At a city level, 3 of the top 5 cities in the region are Brazillian. Both Brasilia and Recife have entered the rankings for the first time, at 69th and 70th respectively. The other Brazilian city to feature, São Paulo, has fallen 19 places to 73rd since last year. Representing both Mexico and Colombia are the cities of Monterrey and Cali, featuring for the first time in the rankings at 74th and 98th.

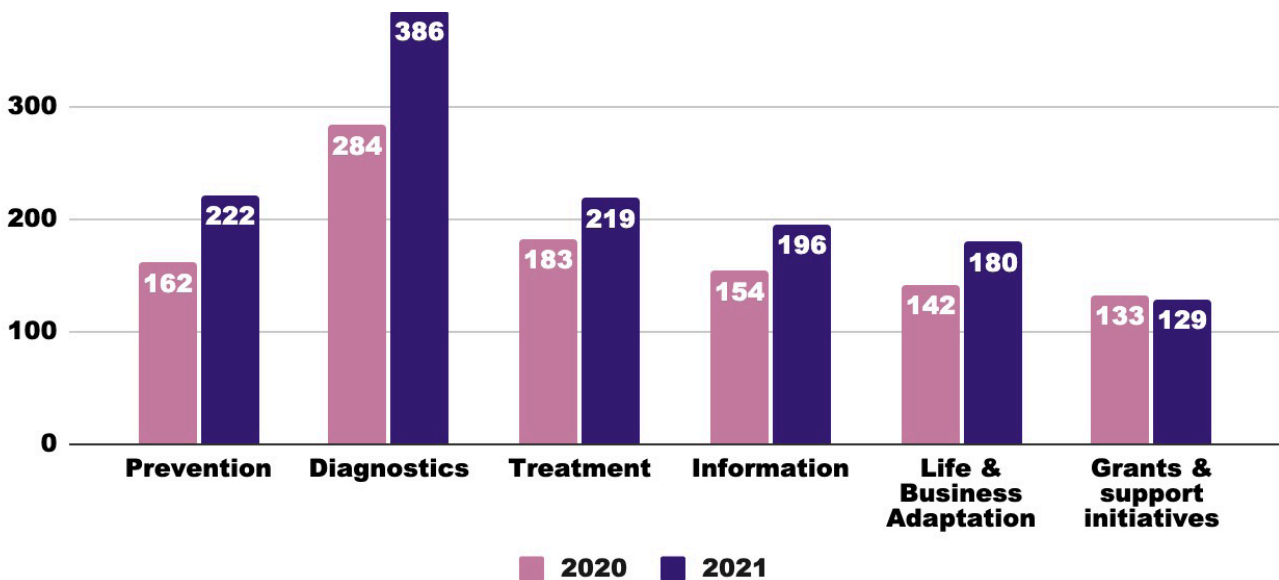
Regional rank	City	Global Rank	Global rank change (from 2020)	Total score 2021
1	Brasilia, Brazil	69	new	0.531
2	Recife, Brazil	70	new	0.531
3	Sao Paulo, Brazil	73	-19	0.490
4	Monterrey, Mexico	74	new	0.488
5	Cali, Colombia	98	new	0.239

Category Analysis

General overview on categories

In the following section we will present the main categories tracked on the Coronavirus Innovation Map and how the number of innovations has changed from the previous report.

➔ Number of Entities per Category



➔ General overview on the categories: which categories have the most innovation

Since the last report in July 2020, we saw a 25% increase in the number of innovations on the Coronavirus Innovation Map.

Looking at the categories, we see that the top three categories in terms of number of innovations are Diagnostics, Prevention, and Treatment. Although most of the categories increased, we saw the Diagnostics and Prevention categories increasing by 102 and 60 initiatives respectively. This shows that innovators are now more geared towards creating initiatives that would help prevent the spread of COVID-19 and are more medically focused.

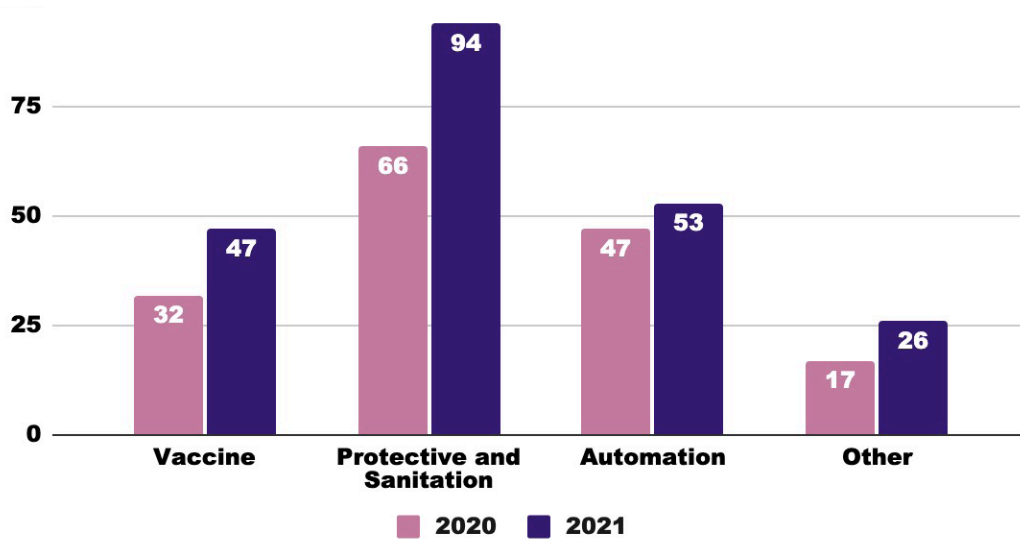
There has been a slight decrease in the Grants and Support initiatives subcategory, since the initial urgency presented by the pandemic has subsided.

Analysis per Category

We will now present a breakdown of innovations across the different subcategories in each of the main COVID-19 categories, and the variations in initiatives from the previous report. We will also be presenting the notable Champions innovations in each category.

Prevention

Initiatives per Subcategory



Analysis

For these updated rankings, we see that Protective and Sanitation still has the highest number of initiatives at 94 mapped innovations in total. We also saw an increase in mapped vaccines (both commercially available and in testing) of 46.9%. This increase shows the combined efforts both to innovate on prevention and to make sure that more sustainable solutions to the pandemic, vaccines, are developed.

Notable Champions



AstraZeneca ★

Corporation

Location: Cambridge, United Kingdom

AstraZeneca is trying to identify antibodies as a treatment to prevent COVID-19.

Category: Prevention - Vaccine



Sinopharm ★

Corporation

Location: Beijing, China

Sinovac, a Beijing-based biopharmaceutical company, is behind CoronaVac, an inactivated COVID-19 vaccine.

Category: Prevention - Vaccine

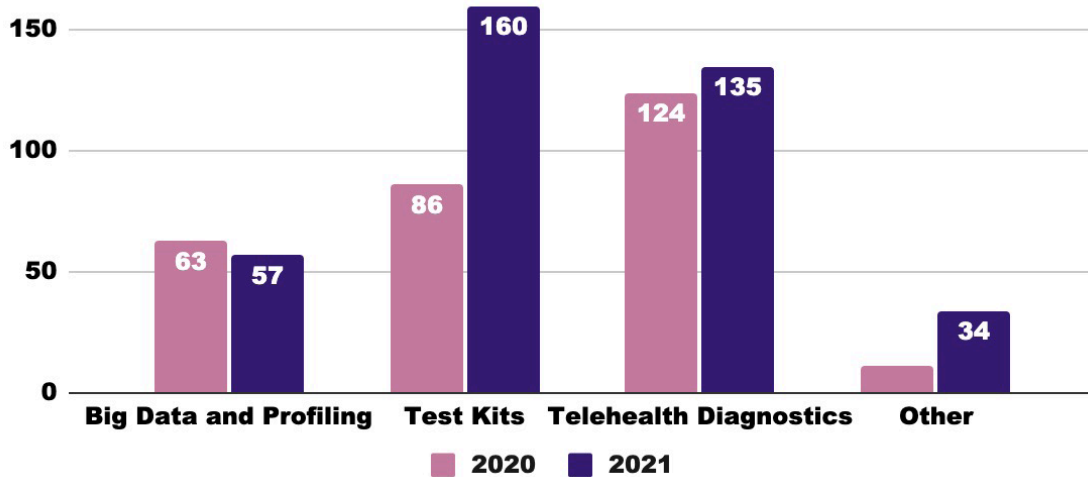
Location: Moscow, Russia

The first registered COVID-19 vaccine on the market. A viral two-vector vaccine based on the human adenovirus fused with the spike protein of SARS-CoV-2 to stimulate an immune response. Developed by Russian Gamaleya Research Institute of Epidemiology and Microbiology. Introduced into civil circulation from January 1, 2021.

Category: Prevention - Vaccine

Diagnosics

➔ Initiatives per Subcategory



➔ Analysis

As mentioned in the general overview of the categories, we saw that innovations under Diagnostics were the most often mapped and recorded the biggest increase (37%) of all the categories. Looking at the graph for its subcategories, most of this increase can be attributed to the increase in test kits available. Among our mapped initiatives, we saw an increase in rapid test kits as well as at-home kits. As more countries move towards mass testing and allowing movement once an individual is tested, innovators are focusing on the need to provide more choices for testing that give results in a shorter period of time.

➔ Notable Champions



Location: Munich, Germany

GISAID developed the Next hCov-19 App which allows Laboratories around the world to share genome sequences of COVID-19 that are freely available to people.

Category: Diagnostics - Big Data and Profiling

Location: Barcelona, Spain

Grifols has accelerated the development of diagnostic and screening tests for the detection of COVID-19.

Category: Diagnostics - Test Kits



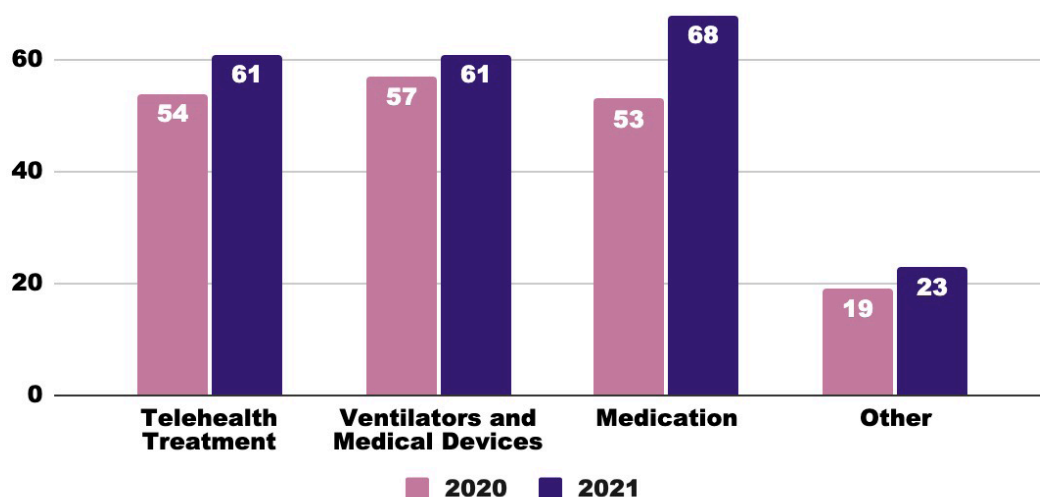
Location: Basel, Switzerland

Swiss drug and diagnostics maker Roche, developed a COVID-19 test kit which has been approved by the FDA.

Category: Diagnostics - Test Kits

Treatment

Initiatives per Subcategory



Analysis

All subcategories under Treatment showed an increase in the number of innovations, however, Medication had the highest increase, while other categories which were considered critical initially, such as Ventilators, are no longer in the spotlight of innovative research. Despite the fact that there is at present no fully effective medication for COVID, we do see the development of medicine to alleviate the symptoms of the virus.

➔ Notable Champions



Takeda ★

Corporation

Location: Osaka, Japan

Takeda initiates the development of a potential treatment, an anti-SARS-CoV-2 polyclonal hyperimmune globulin (H-IG) being developed to treat infected, high-risk individuals with COVID-19.

Category: Treatment - Medication



OneBreath ★

Corporation

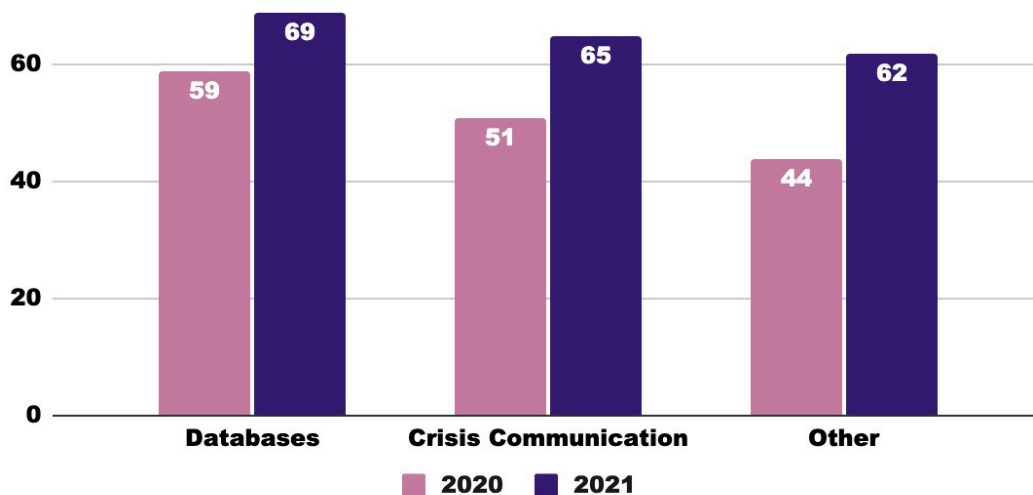
Location: Bangalore, India

OneBreath produces precise and reliable mechanical ventilation at an affordable cost, making ventilator treatment more accessible to patients with COVID-19

Category: Ventilators & Medical Devices

Information

➔ Initiatives per Subcategory



➔ Analysis

Information dissemination is important in the time of a pandemic as it helps people stay informed and guides policy makers on what to do next. This is why innovations within this category are increasing. We see more databases and crisis communication being used locally, allowing for information to be spread in local languages and thus inform more people.

➔ Notable Champions



[Johns Hopkins University](#) ★

University

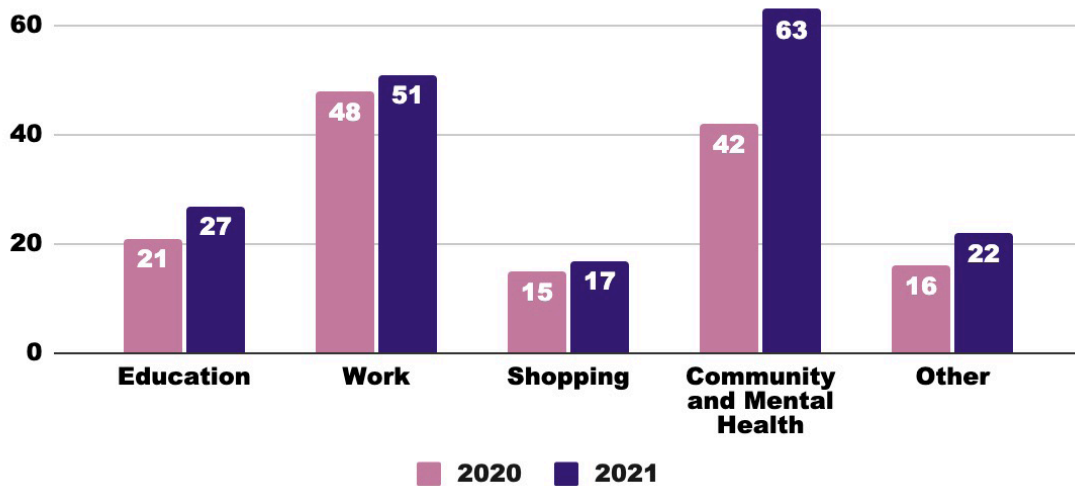
Location: Baltimore, Maryland

Johns Hopkins University's Tracker updates in real-time on the current global situation of the virus severity.

Category: Information - Databases

Life & Business Adaptation

➔ Initiatives per Subcategory



➔ Analysis

As we mark more than a year since countries and cities around the world first implemented lockdowns, we are now seeing the pandemic's effect in our everyday life and on our mental health. This is reflected in the increase in mapped entities under the community and mental health subcategory, which has increased from 42 initiatives to 63.

➔ Notable Champions



Google Classroom

[Google Classroom](#) ★

Corporation

Location: Mountain View, United States

Google has seen hundreds of thousands of students start using both Google Meet, their video-conferencing tool available to all G Suite users, and Google Classroom, to join classes and continue schooling remotely from home.

Category: Life & Business Adaptation - Education



[Zoom](#) ★

Corporation

Location: San Jose, United States

Zoom has enhanced the capabilities of the current free license due to the COVID-19 crisis.

Category: Life & Business Adaptation - Work



[Slack](#) ★

Corporation

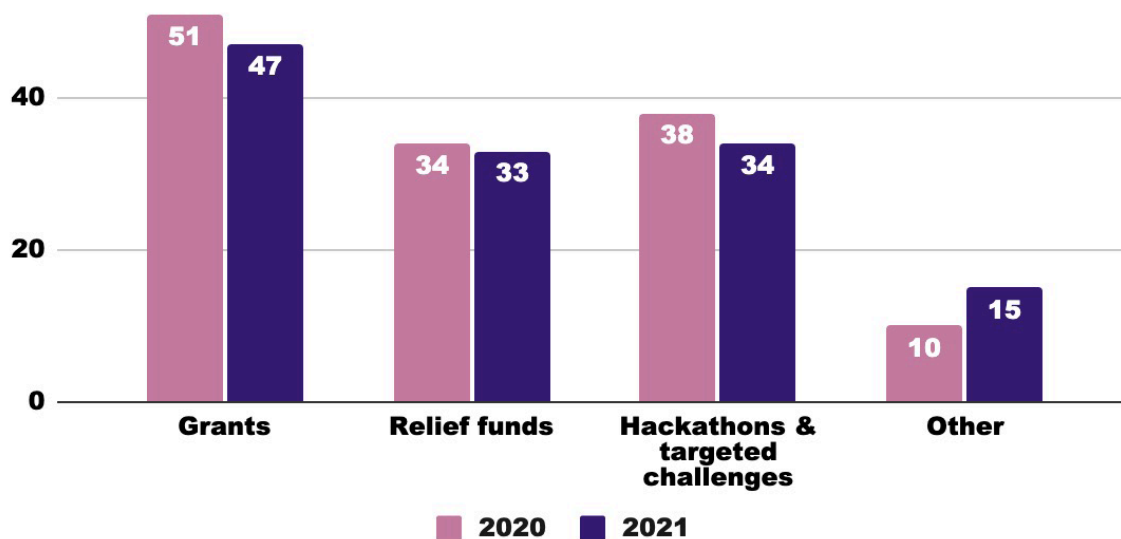
Location: San Francisco, United States

Slack has been a great tool for all industries in regards to maintaining communication and collaboration in companies that now implement remote work due to COVID-19.

Category: Life & Business Adaptation - Work

Grant & Support Initiatives

Initiatives per Subcategory



Analysis

Grants & Support initiatives is the only category that decreased in its number of mapped initiatives. We see this decline in all but one of its subcategories. This decrease shows that countries are now refocusing their efforts on adaptation and/or an exit strategy, such as vaccination.

1 | USA

General Location Information



Population:
328.2 million



GDP Per Capita:
\$62,794



Cities Rankings:

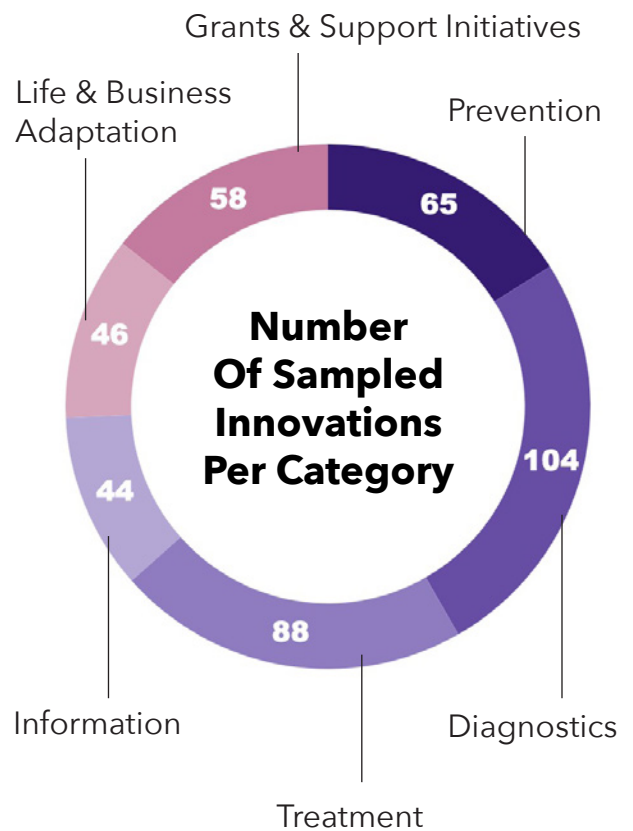
San Francisco Bay: **1st**

New York: **2nd**

Boston: **4rd**

Los Angeles: **7th**

Seattle: **13th**



COVID-19 Related Information



Confirmed cases*:
28.5 million



Deaths*:
515,013



Hospital beds:**
28.7

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The USA has been leading the world on innovation for the last few decades. As expected, the USA has continued to lead the world on creating the most important innovations for the pandemic. San Francisco remains the highest ranked city globally, showing strength across different verticals. The USA ranks 1st for COVID-19 innovation as well as 1st in the Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Prevention, with a total of 405 mapped innovations and 24 Champions.

USA: Notable Innovations



[Johns Hopkins University](#) ★

University

Location: Baltimore, Maryland

Johns Hopkins University's Tracker provides updates in real-time on the current fight against COVID-19.

Category: Information - Databases

moderna™

[Moderna](#) ★

Corporation

Location: Cambridge, Massachusetts

Room has redesigned their flagship phone booth to become Moderna Therapeutics, a biotech company based in Cambridge, Mass., has mass-shipped its approved mRNA COVID-19 vaccine with over 95% efficacy.

Category: Prevention - Vaccine



[Johnson and Johnson](#)

Corporation

Location: New Jersey

The Presto Contactless Dining Kit enables restaurants to provide an J&J's approved Vaccine is 72% Effective in the US and 66% Effective Overall at Preventing Moderate to Severe COVID-19, 28 Days after Vaccination. Only approved single-dose vaccine.

Category: Prevention - Vaccine

2 | Israel

General Location Information



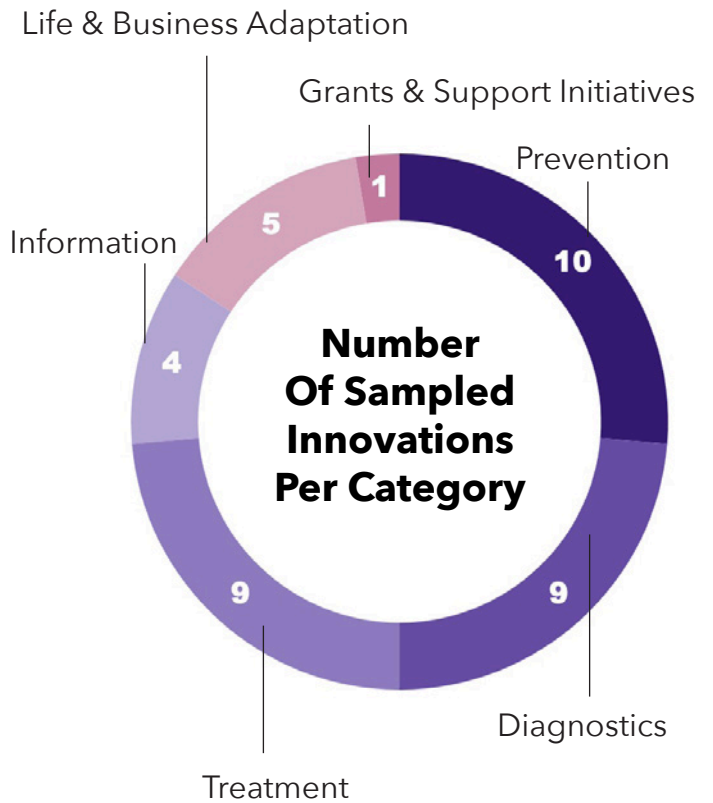
Population:
9 million



GDP Per Capita:
\$43,110



Cities Rankings:
Tel Aviv Area: **6th**
Haifa: **40th**
Jerusalem: **93rd**



COVID-19 Related Information



Confirmed cases*:
781,888



Deaths*:
5,778



Hospital beds:**
29.8

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Israel is a relatively small country that has always excelled in innovation; it's no surprise Israel has overperformed in creating solutions to combat the COVID-19 pandemic. Other than producing innovation, Israel has also deployed mass vaccination faster than any other country in the world. Israel now ranks 2nd for COVID-19 innovation, and 3rd in the latest StartupBlink Global Ecosystem Rankings. The country's strongest categories are Prevention, Treatment, and Diagnostics, with a total of 38 mapped innovations and 2 Champions.

Israel: Notable Innovations



[Temi Robots](#) ★

Startup

Location: Tel Aviv, Israel

Temi Robots have been deployed in hospitals in China, Japan, and the USA to enable COVID-19 patients to consult with their doctors and to automate the temperature taking process at a distance.

Category: Prevention - Automation



[Vaccine Tracker](#)

Startup

Location: Tel Aviv, Israel

The Vaccine Tracker is a live dashboard of how the COVID-19 vaccine is being administered across the globe.

Category: Information - Databases



[Resmetrix Medical](#)

Startup

Location: Haifa, Israel

Resmetrix has developed a wearable respiratory monitoring system that accurately monitors the respiratory pattern of respiratory disease patients (such as Asthma), sending alerts to the patient smartphone and the medical team when early signs of respiratory deterioration occur.

Category: Treatment - Telehealth Treatment

3 | Canada

General Location Information



Population:
37.6 million



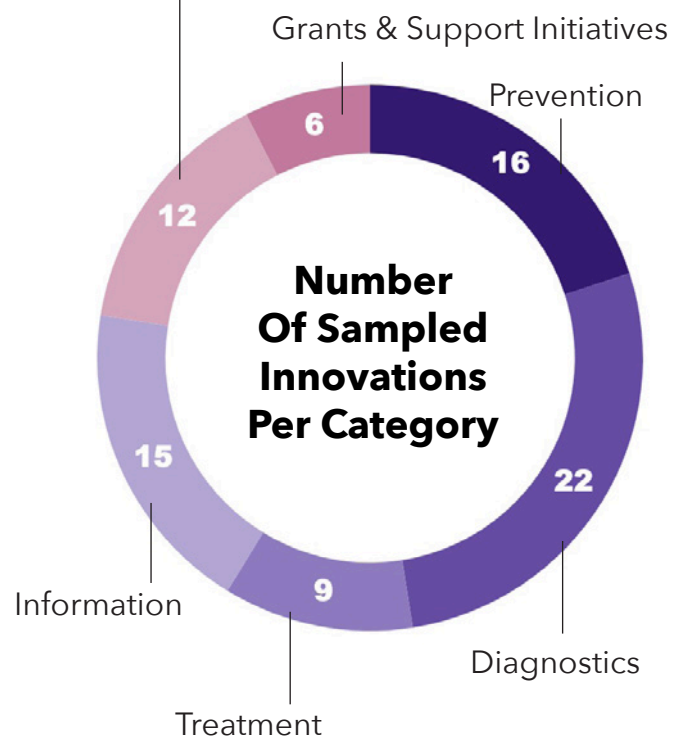
GDP Per Capita:
\$46,370



Cities Rankings:

- Toronto: **4th**
- Montreal: **37th**
- Vancouver: **25th**
- Kitchener Waterloo: **43th**
- Quebec City: **51st**

Life & Business Adaptation



COVID-19 Related Information



Confirmed cases*:
875,559



Deaths*:
22,105



Hospital beds:**
25.2

* As of March 5, 2021

** per 10,000

Ecosystem Overview

As a Healthtech hub there is no surprise that Canada is in the top 5 for COVID-19 innovation. Toronto is ranked 5th in COVID-19 Innovation and 24th in StartupBlink's Global Startup Ecosystem Ranking. This shows that Toronto has excelled in innovation during COVID-19 pandemic. As a country, Canada ranks 3rd for COVID-19 innovation and 4th in the Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Information, with a total of 80 mapped innovations and 1 Champion.

Canada: Notable Innovations



[O2 Canada](#) ★

Startup

Location: Kitchener, Canada

The O2 Curve claims to provide superior protection with a better seal and more breathability than any other respirator.

Category: Prevention - Protective and Sanitation



[Telus Health](#)

Startup

Location: Toronto, Canada

TELUS Health has partnered with the Government of Alberta to deliver physician services to patients virtually through Babylon in response to COVID-19.

Category: Telehealth - Telehealth Treatment



[Spartan Bioscience](#)

Startup

Location: Ottawa, Canada

Spartan Bioscience is using their rapid, on-site DNA testing technology to help with the COVID-19 outbreak.

Category: Diagnostics - Test Kits

4 | Belgium

General Location Information



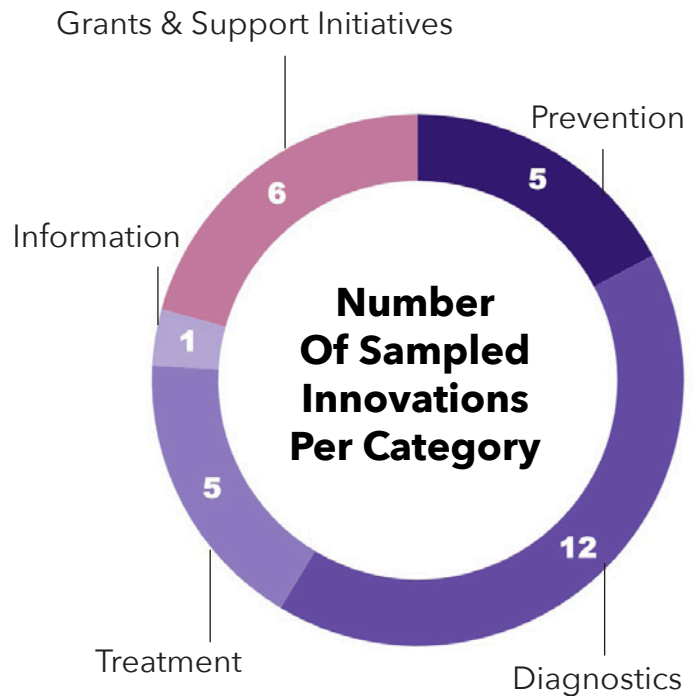
Population:
11.6 million



GDP Per Capita:
\$48,030



Cities Rankings:
Antwerp: **17th**
Brussels: **42nd**
Ghent: **52nd**
Leuven: **68th**



COVID-19 Related Information



Confirmed cases*:
777,608



Deaths*:
22,169



Hospital beds:**
55.8

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Per capita, Belgium was one of the countries hardest hit by the COVID-19 pandemic. It is therefore commendable that Belgium has risen above and beyond with four cities included in the rankings. Belgium ranks 4th for COVID-19 innovation, while it ranks at 24th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics and Grants and Support Initiatives, with a total of 29 mapped innovations.

Belgium: Notable Innovations



[Materialise](#)

Corporation

Location: Leuven, Belgium

Materialise has released a hand-free handle to avoid contact while opening doors, minimizing contact risk from the COVID-19 virus.

Category: Prevention - Protective and Sanitation



[Andaman7](#)

Startup

Location: Brussels, Belgium

Andaman7 helps patients, healthcare professionals, call centers, hospitals and authorities to manage the crisis via a free in-app Pandemic Module.

Category: Information - Databases



[Ergotrics](#)

Corporation

Location: Antwerp, Belgium

Ergotrics has developed Inflatable Prone Ventilation (IPV) pillows for use in intensive care units amid the COVID-19 crisis.

Category: Treatment - Telehealth Treatment

5 | Switzerland

General Location Information



Population:
8.6 million

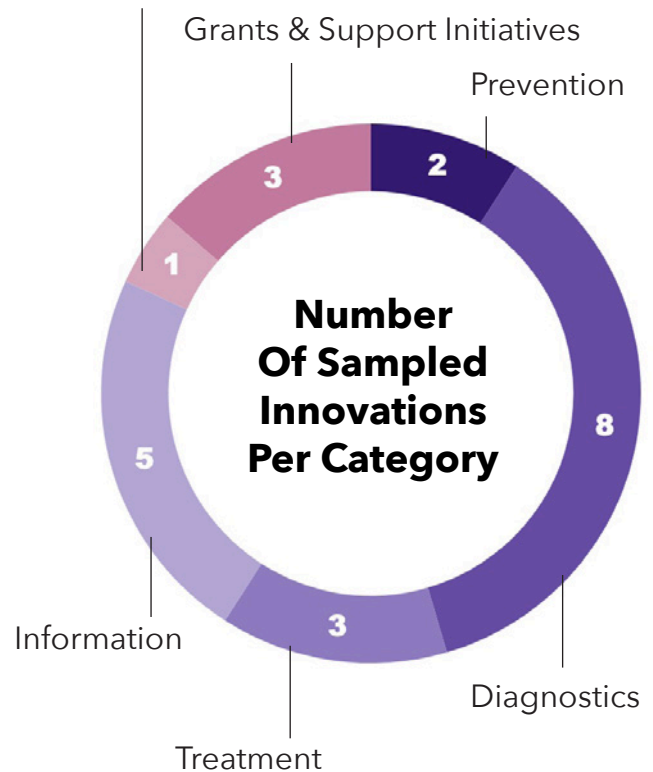


GDP Per Capita:
\$85,500



Cities Rankings:
Zurich: **20th**
Basel: **35th**
Geneva: **88th**

Life & Business Adaptation



COVID-19 Related Information



Confirmed cases*:
557,188



Deaths*:
9,258



Hospital beds:**
46.3

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The main engine of Swiss innovation related to COVID-19 is the city of Zurich, which is over performing and ranking 20th globally, while sister city Basel is ranked 35th. As a country, Switzerland ranks 5th for COVID-19 innovation and 8th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Information, and Treatment, with a total of 22 mapped innovations and 2 Champions.

Switzerland: Notable Innovations



[Novartis](#) ★

Corporation

Location: Basel, Switzerland

Novartis has reached an agreement with the US Food and Drug Administration (FDA) to proceed with a Phase III clinical trial of hydroxychloroquine in hospitalized patients with COVID-19.

Category: Treatment - Medication



[Roche](#) ★

Corporation

Location: Basel, Switzerland

Swiss drug and diagnostics maker Roche offers a COVID-19 test kit which has been approved by the FDA and has started shipping up to 400,000 test kits for mass testing.

Category: Diagnostics - Test Kits



[Ancora.ai](#)

Startup

Location: Zurich, Switzerland

Ancora.ai is designed to connect the surge of new COVID-19 clinical trials to participants.

Category: Treatment - Other

6 | United Kingdom

General Location Information



Population:
66.8 million



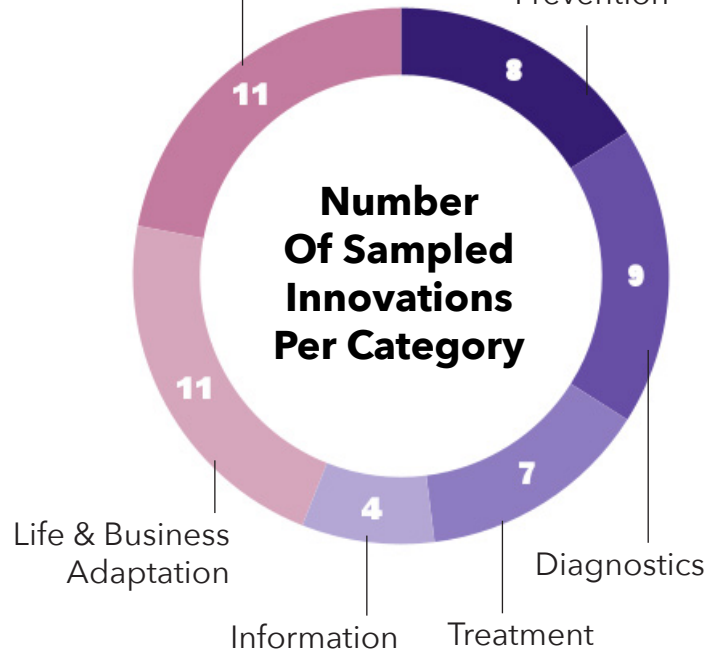
GDP Per Capita:
\$42,220



Cities Rankings:
London: **11th**
Edinburgh: **82nd**

Grants & Support Initiatives

Prevention



COVID-19 Related Information



Confirmed cases*:
4,194,789



Deaths*:
123,783



Hospital beds:**
24.6

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Although the United Kingdom is ranked lower in COVID-19 Innovation compared to its global startup ranking, the country did produce the AstraZeneca vaccine, one of the strongest champions of innovation in 2021. The United Kingdom ranks 6th for COVID-19 innovation, while it ranks 2nd in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Grant & Support Initiatives, Diagnostics, and Life & Business Adaptation, with a total of 50 mapped innovations and 2 Champions.

United Kingdom: Notable Innovations



[AstraZeneca](#) ★

Corporation

Location: Oxford, United Kingdom

AstraZeneca is one of the leading commercially available vaccines.

Category: Prevention - Vaccine



[DeepMind](#) ★

Corporation

Location: London, United Kingdom

DeepMind is the AI division of Google. It uses its AI algorithm to crack the protein structure that might make up COVID-19 to help find treatments.

Category: Treatment - Other



[AlphaBiolabs](#)

Corporation

Location: Warrington, United Kingdom

The AlphaBiolabs IgM-IgG Combined Antibody Rapid Test is one of the world's first rapid screening tests for the identification of COVID-19.

Category: Diagnostics - Test Kits

7 | Singapore

General Location Information



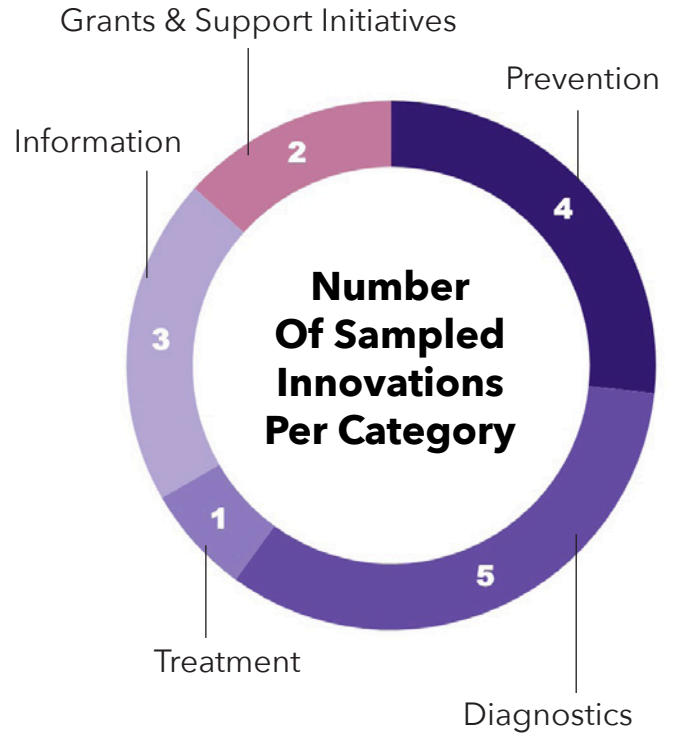
Population:
5.7 million



GDP Per Capita:
\$59,590



Cities Rankings:
Singapore City: **16th**



COVID-19 Related Information



Confirmed cases*:
59,998



Deaths*:
29



Hospital beds:**
24.9

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The government of Singapore has dealt with the COVID-19 pandemic in a very organized and successful way. This has allowed it to become the most innovative hub in Asia in the context of the COVID-19 pandemic. Singapore ranks 7th for COVID-19 innovation, while it ranks 16th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Information, with a total of 15 mapped innovations.

Singapore: Notable Innovations



[TraceTogether App](#)

Public Sector

Location: Singapore City, Singapore

TraceTogether is an app from the Singapore Government aimed at stopping the spread of COVID-19 through community-driven contact tracing.

Category: Information - Databases



[Bot MD](#)

Startup

Location: Singapore City, Singapore

Bot MD is an AI assistant that empowers frontline medical workers with free instant access to evidence-based clinical information in their native language. Medical staff can identify symptoms, conduct swab testing, locate the nearest testing facility, and more.

Category: Treatment - Telehealth Treatment



[JN Medsys](#)

Startup

Location: Singapore City, Singapore

JN Medsys Pte Ltd has developed RT-qPCR kit for COVID-19 detection.

Category: Diagnostics - Test Kits

8 | Spain

General Location Information



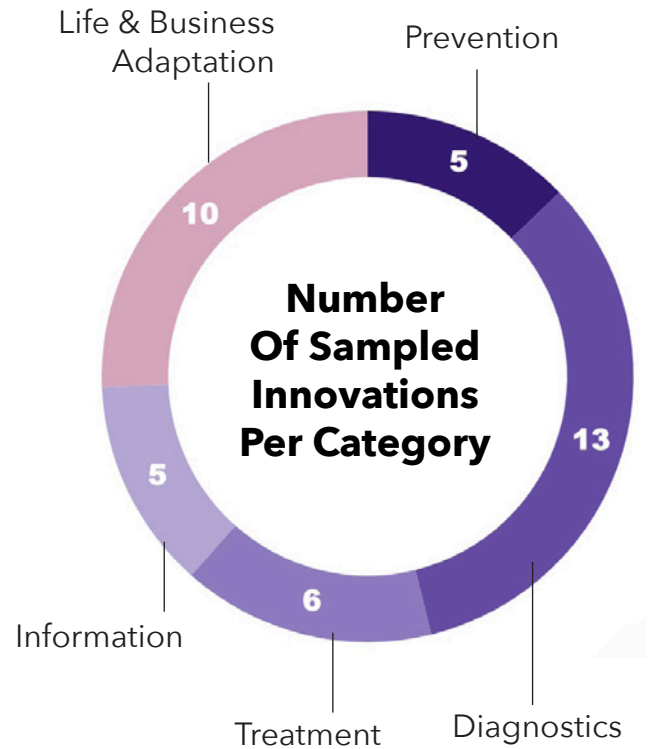
Population:
47 million



GDP Per Capita:
\$30,390



Cities Rankings:
Barcelona: **12th**
Madrid: **27th**



COVID-19 Related Information



Confirmed cases*:
3,136,321



Deaths*:
70,247



Hospital beds:**
29.8

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Spain was badly hit by the pandemic, however the country came up with some exceptional innovations that have challenged the spread of the virus. Spain has overperformed in COVID-19 innovation compared to their global ranking; Spain ranks 8th for COVID-19 innovation, while it ranks 9th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Information, with a total of 39 mapped innovations and 1 Champions.

Spain: Notable Innovations

GRIFOLS

[Grifols](#) ★

Corporation

Location: Barcelona, Spain

Grifols has accelerated the development of diagnostic and screening tests for the detection of COVID-19.

Category: Diagnostics - Test Kits



[PAL Robotics](#)

Corporation

Location: Barcelona, Spain

PAL Robotics developed a robot that integrates UV-C ultraviolet light devices for disinfection through autonomous navigation, disinfecting surfaces in its path.

Category: Prevention - Protective and Sanitation



[Genomica](#)

Corporation

Location: Madrid, Spain

Genomica has developed two different diagnostic kits for COVID-19 detection.

Category: Diagnostics - Test Kits

9 | South Korea

General Location Information



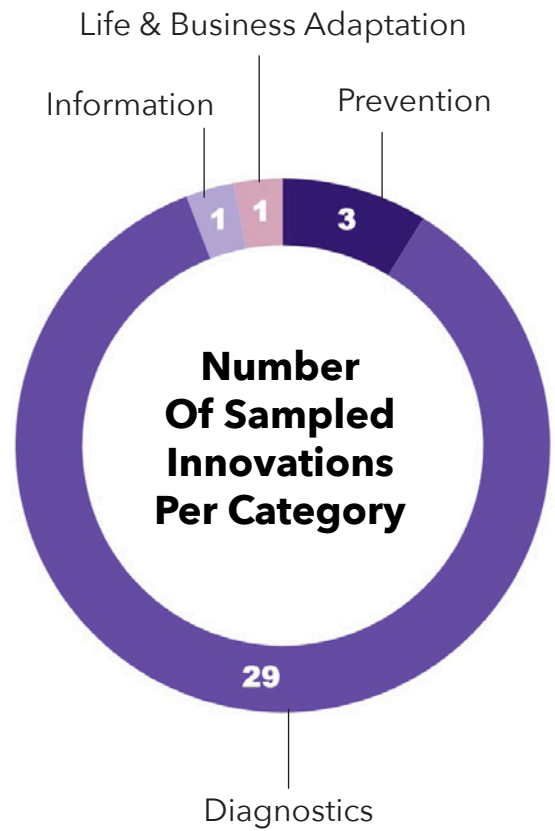
Population:
51.7 million



GDP Per Capita:
\$33,790



Cities Rankings:
Seoul: 8th
Daejeon: 31st



COVID-19 Related Information



Confirmed cases*:
436,728



Deaths*:
8,119



Hospital beds:**
131

* As of March 5, 2021

** per 10,000

Ecosystem Overview

South Korea has done incredibly well through consistent technological innovation focused on diagnostics and prevention aimed at managing the spread of the COVID-19 virus. Much like Singapore, South Korea is another country that has proven itself through innovation. South Korea ranks 9th for COVID-19 innovation and 19th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Information, with a total of 34 mapped innovations.

South Korea: Notable Innovations



[CoronaBoard](#)

Other

Location: Seoul, South Korea

CoronaBoard allows users to stay up to date on information about COVID-19 spread with anonymous infection information, along with the ability to chat with users.

Category: Information - Crisis Communication



[Classum](#)

Startup

Location: Seoul, South Korea

Classum is now offering its premium services for free to enable educators to teach online during the COVID-19 pandemic.

Category: Life & Business Adaptation - Education



[Seegene](#)

Corporation

Location: Seoul, South Korea

Seegene developed the Allplex 2019-nCoV Assay which cuts the diagnosis time for COVID-19 to just 2 hours.

Category: Diagnostics - Test Kits

10 | Luxembourg

General Location Information



Population:
619,896

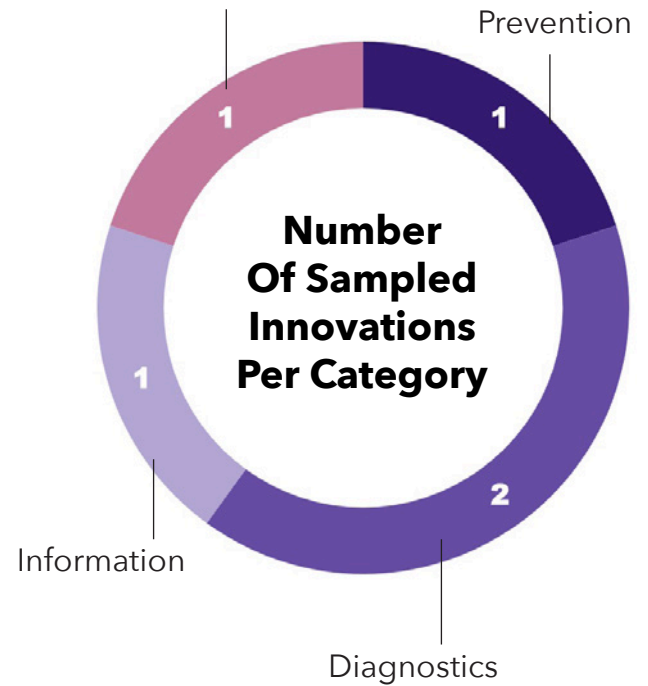


GDP Per Capita:
\$73,910



Cities Rankings:
Luxembourg City: **96th**

Grants & Support Initiatives



COVID-19 Related Information



Confirmed cases*:
55,902



Deaths*:
643



Hospital beds:**
49.3

* As of March 5, 2021

** per 10,000

Ecosystem Overview

With a population of less than 1 million people, Luxembourg is a surprising entry into the top 10. Luxembourg has shown the world that smaller countries can still innovate successfully with the right startup ecosystem. Luxembourg ranks 10th for COVID-19 innovation and 40th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Information, with a total of 5 mapped innovations.

Luxembourg: Notable Innovations



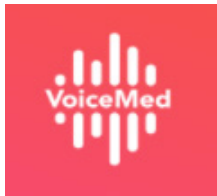
[NoCorona](#)

Startup

Location: Junglinster, Luxembourg

NoCorona is a mobile app that helps monitor proximity for people potentially infected by COVID-19.

Category: Prevention - Other



[VoiceMed](#)

Startup

Location: Strassen, Luxembourg

VoiceMed's solution offers a chance to see if you are infected by COVID-19 or not simply by coughing or speaking towards your phone/pc and answering a few questions.

Category: Diagnostics - Telehealth Diagnostics



[SATMED](#)

Corporation

Location: Luxembourg City, Luxembourg

Fast and multi-level response to the COVID-19 pandemic with eHealth platform solutions for resource poor regions.

Category: Diagnostics - Telehealth Diagnostics

11 | Estonia

General Location Information



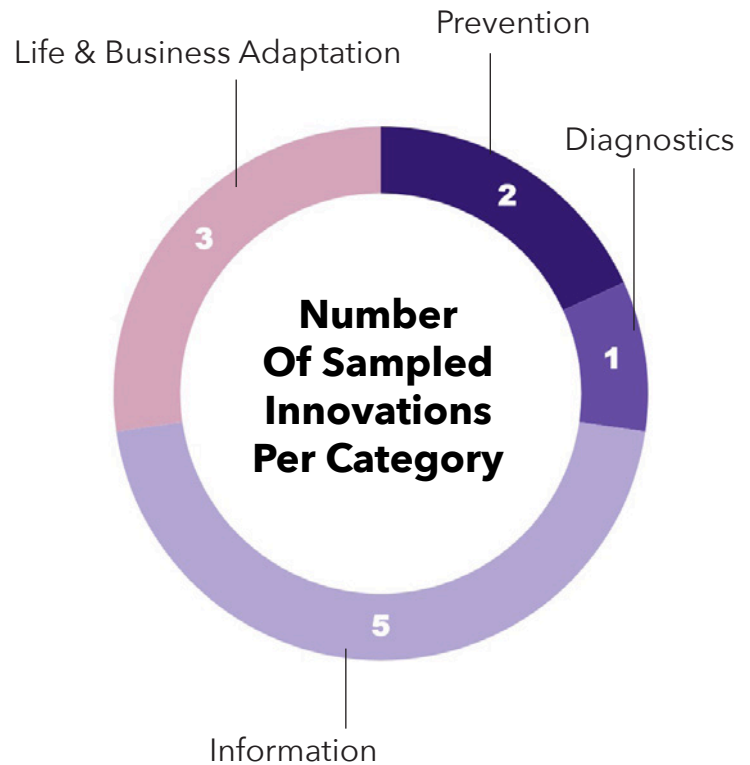
Population:
1,328,360



GDP Per Capita:
\$23,266



Cities Rankings:
Tallinn: 44th



COVID-19 Related Information



Confirmed cases*:
70,610



Deaths*:
623



Hospital beds:**
47

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Estonia has been considered a digital champion for a long time, and has continued to innovate within the context of COVID-19. Estonia ranks 11th for both COVID-19 innovation and the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Information, Life & Business Adaptation, and Prevention, with a total of 11 mapped innovations.

Estonia: Notable Innovations



[HealthCode AI](#)

Startup

Location: Tallinn, Estonia

HealthCode AI provides physicians with support in daily COVID-19 patient management by using an Artificial Intelligence (AI) diagnostic platform to pre-evaluate patients.

Category: Prevention - Automaton

The logo for Velmio consists of the word "Velmio" in white, bold, sans-serif font, centered within a dark blue rectangular box.

[Velmio](#)

University

Location: Tallinn, Estonia

Velmio developed the corona-tracker for Estonian and Australian users to analyze their COVID-19 symptoms and to estimate risk level.

Category: Diagnostics - Big Data and Profiling

The logo for Koroonakaart features the word "Koroonakaart" in a bold, sans-serif font, with "Koroon" in black and "kaart" in blue.

[Koroonakaart](#)

Startup

Location: Tallinn, Estonia

Koroonakaart shows the COVID-19 cases in all counties of Estonia based on the data collected from government organizations including the Health Board and Estonia Statistics.

Category: Information - Databases

12 | Denmark

General Location Information



Population:
5.8 million



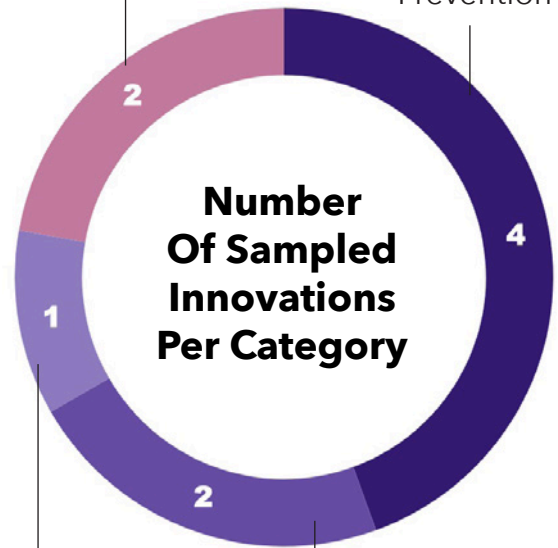
GDP Per Capita:
\$61,350



Cities Rankings:
Copenhagen: 43rd

Grants & Support Initiatives

Prevention



Treatment

Diagnostics

COVID-19 Related Information



Confirmed cases*:
212,798



Deaths*:
2,370



Hospital beds:**
26

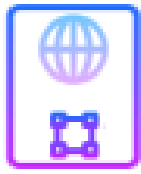
* As of March 5, 2021

** per 10,000

Ecosystem Overview

Denmark has greatly overperformed in comparison to their StartupBlink Global Startup Ecosystem Ranking, and is leading the Nordic countries in terms of COVID-19 innovation. Denmark ranks 12th for COVID-19 innovation and 22nd in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Prevention, Diagnostics, and Grant & Support Initiatives, with a total of 9 mapped innovations.

Denmark: Notable Innovations



[Xainport](#)

Startup

Location: Copenhagen, Denmark

Xainport is a digital passport that brings governments the opportunity to certify the COVID-19 immunity of their citizens without sacrificing sovereignty.

Category: Prevention - Vaccine



[Blue Ocean Robotics](#)

Startup

Location: Odense

Blue Ocean Robotics has deployed its disinfection robots to cities around the world hit hard by the coronavirus. This disinfectant robot uses UV rays to promote contactless cleaning to help prevent the spread of the virus.

Category: Prevention - Vaccine

COVIDmeter



[COVIDmeter](#)

Corporation

Location: Copenhagen, Denmark

COVIDmeter is a weekly questionnaire that monitors the levels of COVID-19 and assists the authorities.

Category: Diagnostics - Big Data and Profiling

13 | Ireland

General Location Information



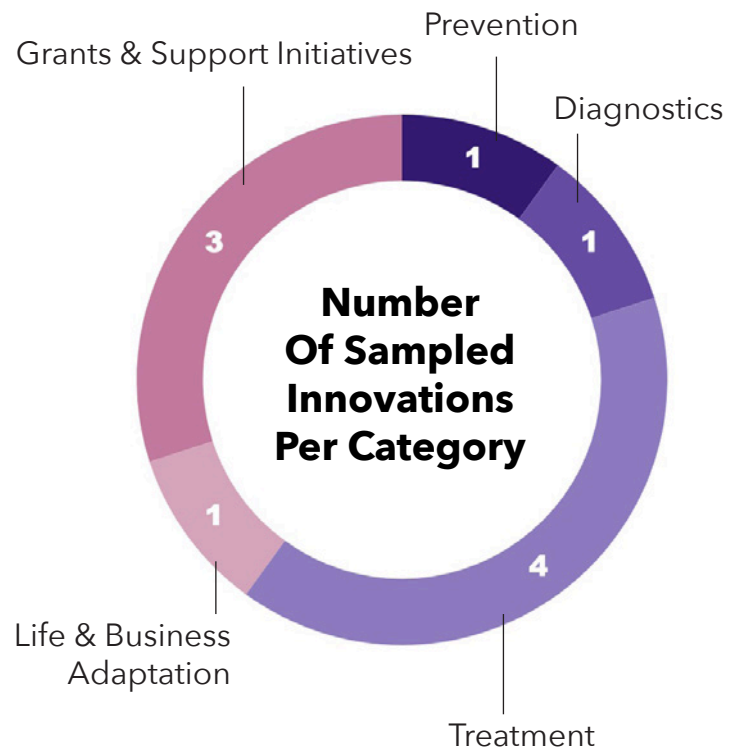
Population:
4,935,518



GDP Per Capita:
\$77,771



Cities Rankings:
Dublin: **32nd**



COVID-19 Related Information



Confirmed cases*:
221,189



Deaths*:
4,357



Hospital beds:**
29.7

* As of March 5, 2021

** per 10,000

Ecosystem Overview

With a focus on treatment innovations like the Combilift ventilator and the Galway VentShare, Ireland has seen some success in combating the symptoms of the COVID-19 virus. Ireland ranks 13th for COVID-19 innovation, while it ranks 18th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Treatment, Grant & Support Initiative, and Prevention, with a total of 10 mapped innovations and 1 Champion.

Ireland: Notable Innovations



[Combilift](#) ★

Corporation

Location: Monaghan, Ireland

Combilift has developed Combi-Ventilate, a splitter device that turns one ventilator into multiple ventilation stations.

Category: Treatment - Other



[Galway VentShare](#)

University

Location: Galway, Ireland

An open-source system that allows one ventilator to deliver independent tidal volumes to two patients.

Category: Treatment - Ventilators & Medical Devices



[PMD Solutions](#)

Corporation

Location: Cork, Ireland

PMD Solutions has developed RespiraSense: a remote respiratory monitoring device that provides real-time respiratory data tracked on a dashboard at the nurses' station, and that issues an audible alarm when the respiratory rate is outside the patient's specified range.

Category: Treatment - Ventilators & Medical Devices

14 | Taiwan

General Location Information



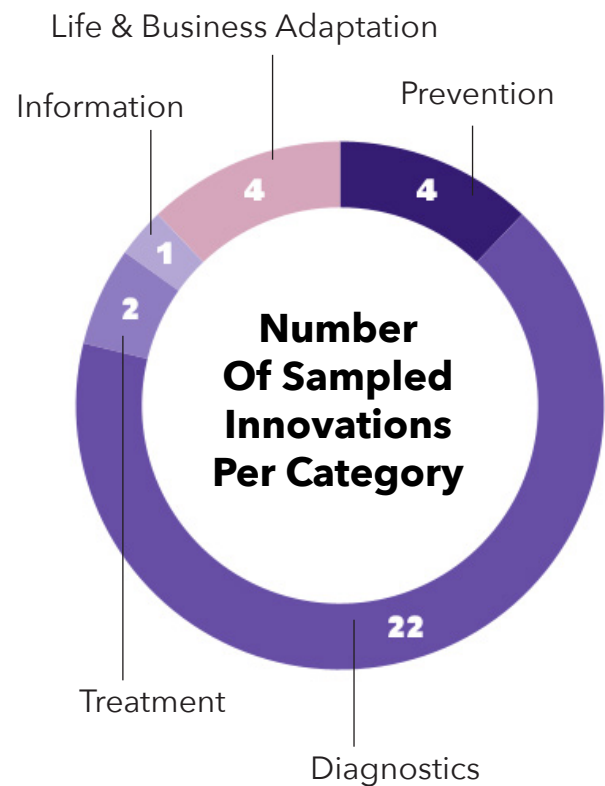
Population:
23,815,210



GDP Per Capita:
\$24,828



Cities Rankings:
Taipei City: **9**



COVID-19 Related Information



Confirmed cases*:
978



Deaths*:
10



Hospital beds:**
43.54

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Taiwan has dealt with the pandemic in one of the most organized and successful ways. Taiwan is a regional health tech hub and has deployed its resources in creating meaningful innovation that has made an impact against COVID-19. Taiwan ranks 14th for COVID-19 innovation and 30th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Treatment, with a total of 33 mapped innovations.

Taiwan: Notable Innovations

AIPHAS

[AIPHAS](#)

Startup

Location: Taipei City, Taiwan

AIPHAS's AIoT healthcare solution includes system design, smart ward solution, and process optimizing, enhancing the safety of ward staff and patients.

Category: Prevention - Automation



[Huijia](#)

Startup

Location: Taipei City, Taiwan

Huijia's non-invasive Smart Care System is based on nFOPT core technology that can accurately and instantaneously track various first symptoms of the virus, including respiratory rate, changes in heart rate, persistent coughs, sleep quality, and much more.

Category: Treatment - Telehealth Treatment



[Winnoz](#)

Startup

Location: Taipei City, Taiwan

Winnoz offers a total solution for this unmet need by bundling Haiim, the vacuum assisted fingertip blood collection system developed by Winnoz Technology Inc, with various testing kits to identify infections.

Category: Diagnostics - Test Kits

15 | China

General Location Information



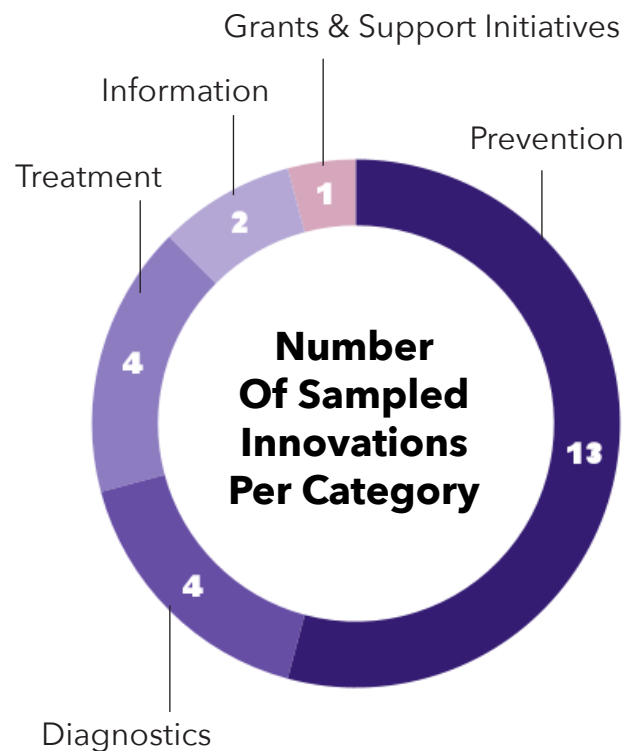
Population:
1,392,730,000



GDP Per Capita:
\$9,770.85



Cities Rankings:
Beijing: **26th**
Hangzhou: **47th**
Shenzhen: **54th**
Hong Kong: **60th**



COVID-19 Related Information



Confirmed cases*:
102,015



Deaths*:
4,846



Hospital beds:**
43.1

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Even though the country rankings take into account the population size of each country, China has managed to maintain a strong level of innovation. China ranks 15th for COVID-19 innovation, while it ranks 14th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Prevention, with a total of 24 mapped innovations and 6 Champions.

China: Notable Innovations



Sinopharm ★

Corporation

Location: Beijing, China

Sinovac, a Beijing-based biopharmaceutical company, is behind CoronaVac, an inactivated COVID-19 vaccine.

Category: Prevention - Vaccine



XAG ★

Corporation

Location: Guangzhou, China

XAG has deployed robots and drones in continued efforts to disinfect Chinese cities.

Category: Prevention - Protective and Sanitation



JD.com ★

Corporation

Location: Beijing, China

JD.com, Inc launched an automated delivery robot to enable deliveries in China with no human contact.

Category: Prevention - Automation

16 | Germany

General Location Information



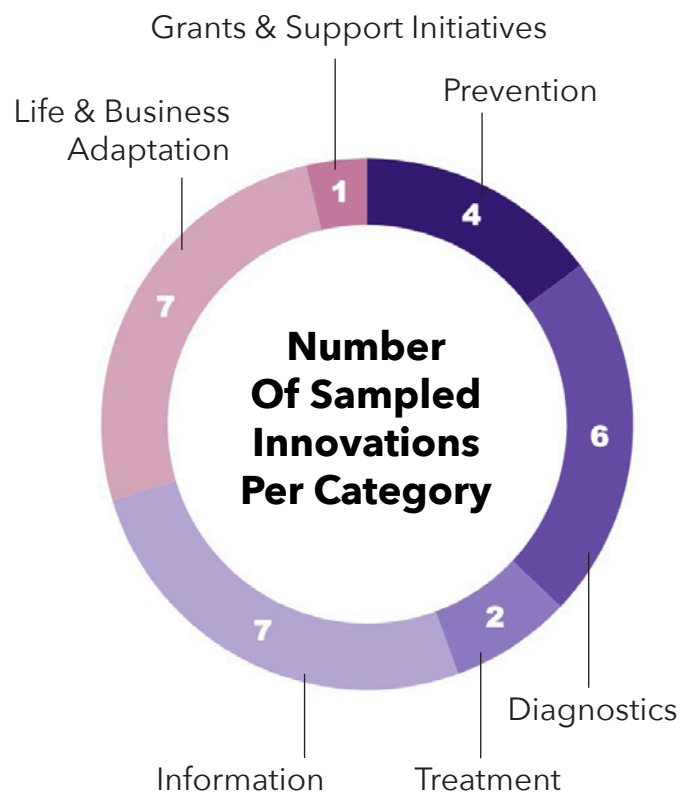
Population:
83,132,799



GDP Per Capita:
\$47,603.03



Cities Rankings:
Berlin: **18th**
Munich: **28th**



COVID-19 Related Information



Confirmed cases*:
2,471,942



Deaths*:
71,240



Hospital beds:**
80

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Although Germany is underperforming compared to their global startup ranking, the country has innovated in the field of Diagnostics with the development of the Next hCov-19 App. Germany ranks 16th for COVID-19 innovation, but 5th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Prevention, with a total of 27 mapped innovations and 1 Champion.

Germany: Notable Innovations



[GISAID](#) ★

Other

Location: Munich, Germany

GISAID developed the Next hCov-19 App which allows Laboratories around the world to share open source genome sequences of COVID-19.

Category: Diagnostics - Big Data and Profiling



[Corona-Datenspende](#)

Startup

Location: Berlin, Germany

Corona-Datenspende is an app that recognizes the symptoms of a COVID-19 infection at an early stage and records geographical spread via smartwatches.

Category: Diagnostics - Big Data and Profiling



[Plastique Fantastique](#)

Corporation

Location: Munich, Germany

Developed by Plastique Fantastique, the Mobile PPS is a pneumatic bubble where doctors can treat patients in a transparent protective space. It has constant overpressure, which means air flows only toward outside of the space, keeping out the COVID-19 virus. Clean air supply is guaranteed by a ventilator located outside or in an adjacent decontaminated space.

Category: Prevention - Protective and Sanitation

17 | Russia

General Location Information



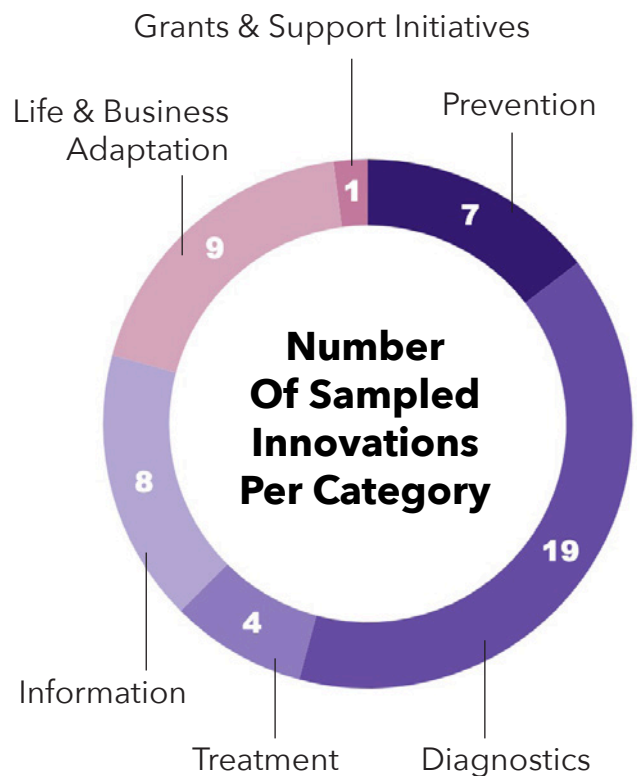
Population:
144.4 million



GDP Per Capita:
\$11,260



Cities Rankings:
Moscow: **3rd**



COVID-19 Related Information



Confirmed cases*:
4,290,135



Deaths*:
87,823



Hospital beds:**
83.5

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Moscow took a massive jump forward to rank 3rd in COVID-19 innovation globally and the only ranked Russian city in our report. Russia's main innovation is the Sputnik V vaccine that is now distributed globally. Russia ranks 17th for both COVID-19 innovation and the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Life & Business Adaptation, and Information, with a total of 48 mapped innovations and 1 Champion.

Russia: Notable Innovations



[Gamaleya Research Institute](#) ★

Corporation

Location: Moscow, Russia

Produced the first registered COVID-19 vaccine on the market. A viral two-vector vaccine based on the human adenovirus fused with the spike protein of SARS-CoV-2 to stimulate an immune response. Developed by Russian Gamaleya Research Institute of Epidemiology and Microbiology. Introduced into civil circulation from January 1, 2021.

Category: Prevention - Vaccine



[Yandex](#)

Corporation

Location: Moscow, Russia

Yandex has launched a COVID-19 test delivery service.

Category: Diagnostics - Test Kits



[SmartAirkey](#)

Startup

Location: Moscow, Russia

Using artificial intelligence, SmartAirkey provides analysis of data collected from contact networks and notifies users about the proximity of potentially infected people and places.

Category: Prevention - Automation

18 | France

General Location Information



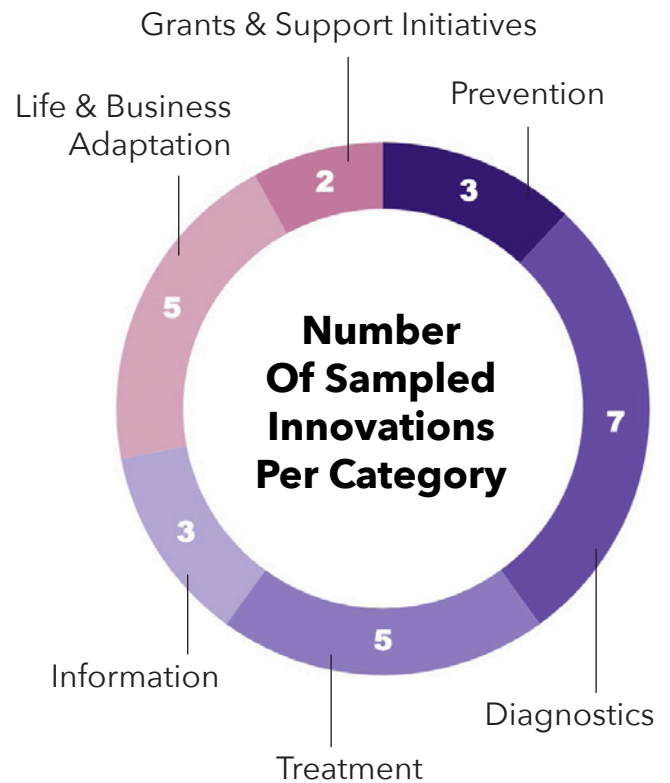
Population:
67 million



GDP Per Capita:
\$42,450



Cities Rankings:
Paris: **15th**



COVID-19 Related Information



Confirmed cases*:
3,744,060



Deaths*:
87,093



Hospital beds:**
61.3

* As of March 5, 2021

** per 10,000

Ecosystem Overview

France is underperforming compared to its global ecosystem rank. The country has managed to produce the very important champion Sanofi, which has had a global impact on treatment related to COVID-19. France ranks 18th for COVID-19 innovation and 12th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Life & Business Adaptation, with a total of 25 mapped innovations and 1 Champion.

France: Notable Innovations



[Sanofi](#) ★

Corporation

Location: Paris, France

Sanofi has partnered with several pharmaceutical companies worldwide to develop COVID-19 vaccine treatments and candidates. These include the drugs: Hydroxychloroquine, Testing of Flu Vaccines, and Kevzara.

Category: Treatment - Medication



[Doctolib](#)

Startup

Location: Paris, France

Doctolib is a free medical video consultation platform used by patients and physicians.

Category: Diagnostics - Telehealth Diagnostics



[Ventum Biotech](#)

Startup

Location: Montpellier, France

Ventum Biotech offers a One Touch, medical grade air and surface disinfection system for hospitals, research labs, hotels, transit services, and private use.

Category: Prevention - Protective and Sanitation

19 | Croatia

General Location Information



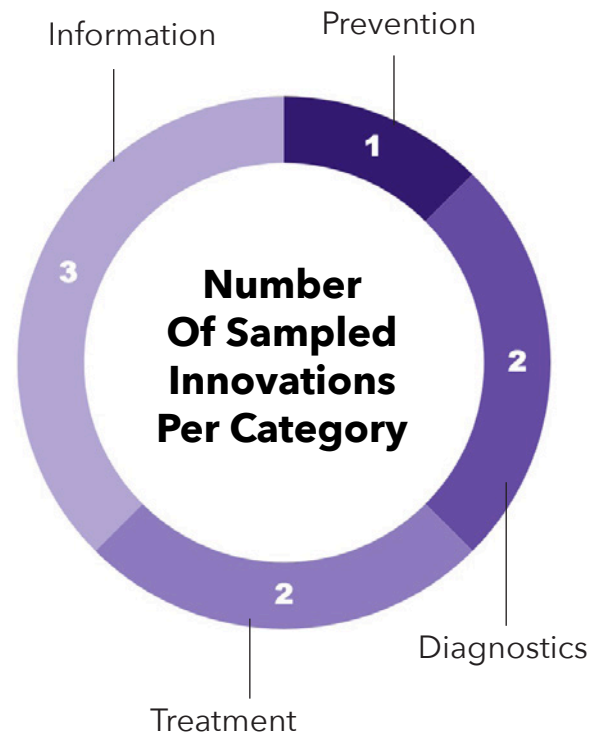
Population:
4 million



GDP Per Capita:
\$14,980



Cities Rankings:
Zagreb: 61st



COVID-19 Related Information



Confirmed cases*:
244,872



Deaths*:
5,564



Hospital beds:**
55.6

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Croatia has overperformed in COVID-19 innovations, showing the country's potential as a startup ecosystem that can innovate on a global scale. Croatia ranks 19th for COVID-19 innovation, while it ranks 39th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Information, Diagnostics, and Treatment, with a total of 8 mapped innovations.

Croatia: Notable Innovations



[Infobip](#)

Corporation

Location: Pula, Croatia

Infobip offers a free service for public health and government institutions to help prevent the spread of COVID-19.

Category: Information - Crisis Communication



[VentCore](#)

Startup

Location: Kosovo, Croatia

The purpose of VentCore's ventilator is to automate the operation of BVM (bag-valve-mask) in a simple, inexpensive, and controllable way. Useful for emergency cases, it is designed as an open system that can be easily produced and replicated fast.

Category: Treatment - Ventilators & Medical Devices



[GDi](#)

Startup

Location: Zagreb, Croatia

GDi provides a free portal that gives users clear insight into the spread of COVID-19.

Category: Diagnostics - Big Data and Profiling

20 | Italy

General Location Information



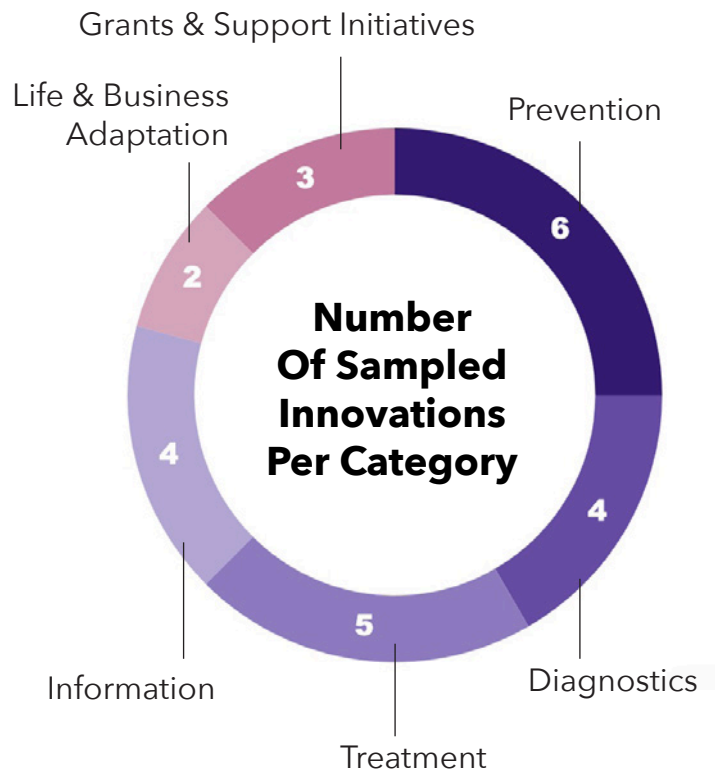
Population:
60,297,396



GDP Per Capita:
\$33,228.24



Cities Rankings:
Milan: **23rd**



COVID-19 Related Information



Confirmed cases*:
2.9 million



Deaths*:
98,635



Hospital beds:**
32

* As of March 5, 2021

** per 10,000

Ecosystem Overview

As one of the first to be heavily hit by the pandemic, Italy has done well in innovating against the virus, as can be seen by Milan's rank of 23rd. This shows that for countries suffering the most from the virus there is a tendency for more exceptional innovation. Italy ranks 20th for COVID-19 innovation, while it ranks 25th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Prevention, Treatment, and Diagnostics, with a total of 24 mapped innovations and 1 Champion.

Italy: Notable Innovations



[Isinnova](#) ★

Startup

Location: Brescia, Italy

Isinnova is a startup which creates valves for respiratory equipment using 3-D printing.

Category: Treatment - Other



[Paginemediche](#)

Startup

Location: Salerno, Italy

Paginemediche has launched a chatbot to help citizens of Italy with updated information and screening for COVID-19.

Category: Diagnostics - Telehealth Diagnostics



[Pharmap](#)

Startup

Location: Milan, Italy

Pharmap is a digital platform that connects consumers with pharmacies, making medicines more accessible during the COVID-19 crisis.

Category: Treatment - Medication

21 | Australia

General Location Information



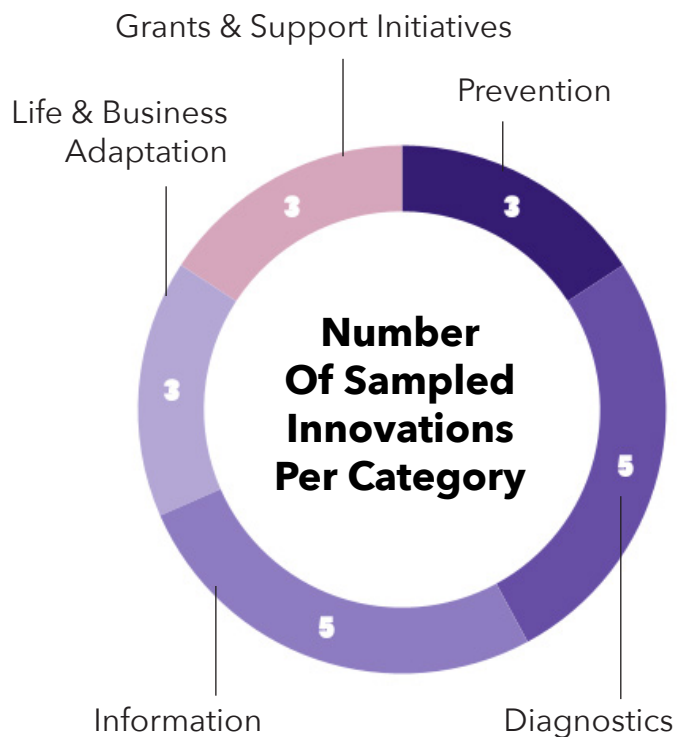
Population:
25,364,307



GDP Per Capita:
\$55,060.33



Cities Rankings:
Brisbane: **48th**
Sydney: **72nd**
Melbourne: **75th**
Canberra: **91st**



COVID-19 Related Information



Confirmed cases*:
29,002



Deaths*:
909



Hospital beds:**
38.2

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The rankings show Brisbane is the only Australian city ranked in the top 50 cities globally for COVID-19 innovation. This is unusual, as the strongest startup ecosystem hubs in Australia are Melbourne and Sydney. Australia ranks 21st for COVID-19 innovation, while it ranks 7th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Information, and Prevention, with a total of 19 mapped innovations.

Australia: Notable Innovations



[University of Queensland](#)

University

Location: Brisbane, Australia

The University of Queensland is developing a shot in the arm vaccine for COVID-19.

Category: Diagnostics - Other



[BetterConsult](#)

Startup

Location: Sydney, Australia

BetterConsult can pre-screen patients by using a digital questionnaire.

Category: Diagnostics - Telehealth Diagnostics



[Unleash Live](#)

Startup

Location: Sydney, Australia

Unleash Live connects city street cameras, mobile cameras, and drones to run crowd density AI algorithms on live video streams, producing real-time analytics (dashboards or alerts) of where crowds are forming or where social distancing is not being adhered to.

Category: Prevention - Automation

22 | The Netherlands

General Location Information



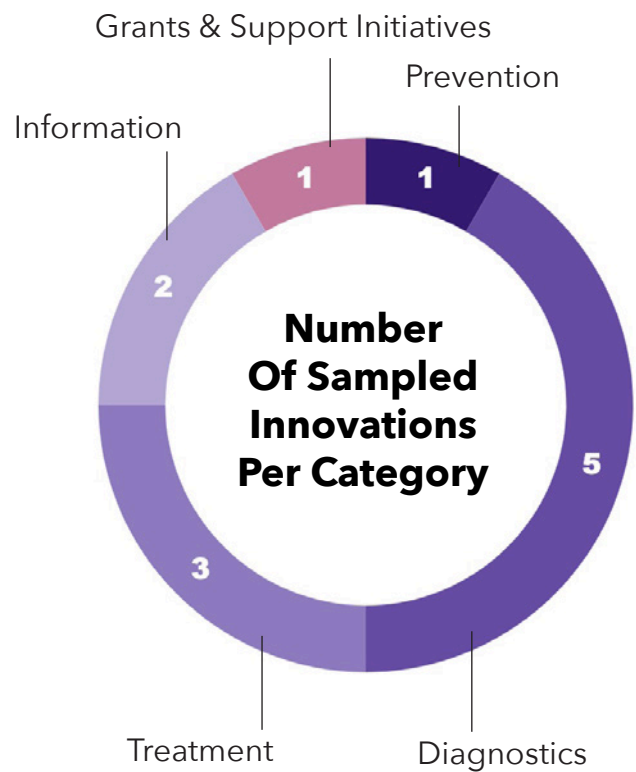
Population:
17,332,850



GDP Per Capita:
\$52,331.32



Cities Rankings:
Amsterdam: 80th



COVID-19 Related Information



Confirmed cases*:
1.1 million



Deaths*:
15,697



Hospital beds:**
34.9

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The Netherlands have innovated in the fields of Diagnostics and Treatment mainly through digital based innovations. The Netherlands ranks 22nd for COVID-19 innovation and 6th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Information, with a total of 12 mapped innovations.

The Netherlands: Notable Innovations



[Delft Imaging](#)

Startup

Location: Delft, The Netherlands

Delft Imaging focuses on providing affordable, innovative diagnostic imaging techniques and solutions, and has developed a tool to help diagnose COVID-19 cases by indicating affected lung tissue. The firm specialises in tuberculosis (TB) screening and with its proven CAD4TB has screened over 6 million people in 40 countries. The solution has been optimized for triage patients and is being launched free-of-charge.

Category: Diagnostics - Other



[Philips](#)

Corporation

Location: Amsterdam, The Netherlands

Philips Healthcare offers critical care point-solutions to treat respiratory disease, such as patient monitoring solutions, ventilators, and medical consumables for invasive, non-invasive, and mixed-mode ventilation, respiratory conditions, diagnostic imaging systems, hospital telehealth solutions, and home telehealth solutions

Category: Treatment - Ventilators & Medical Devices



[BeSure Healthcare](#)

Startup

Location: The Hague, The Netherlands

BeSure Online is a digital health management platform for stroke prevention and rehabilitation. Using wearable devices, IoT, and medical equipment, the platform gathers information about patients' conditions. The team has developed Precise COVID-19, a remote patient monitoring and clinical decision support for healthcare providers with patients.

Category: Prevention - Automation

23 | Finland

General Location Information



Population:
5,520,314

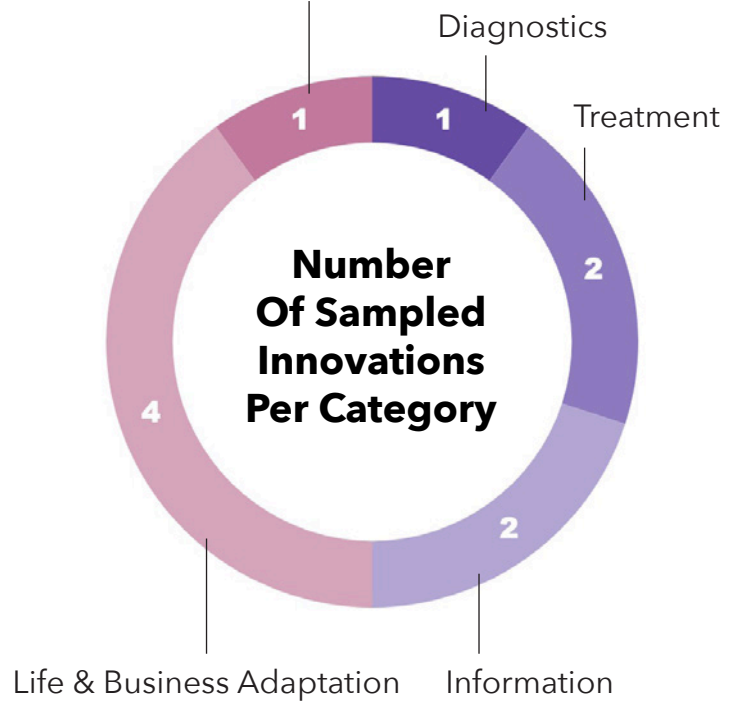


GDP Per Capita:
\$48,782.79



Cities Rankings:
Helsinki: **41st**

Grants & Support Initiatives



COVID-19 Related Information



Confirmed cases*:
59,442



Deaths*:
759



Hospital beds:**
43.5

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Managing to adapt to lockdowns in an organized manner, Finland has excelled in maintaining business as usual during the pandemic, as can be seen by the country's many innovations in life and business adaptation. Finland ranks 23rd for COVID-19 innovation, while it ranks 13th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Life & Business Adaptation, Information, and Treatment, with a total of 10 mapped innovations.

Finland: Notable Innovations



[FeverMap](#)

Startup

Location: Helsinki, Finland

FeverMap's goal is to help society as a whole in the fight against the COVID-19 pandemic by providing a map of the situation. The Fevermap works by having ordinary people self-report their temperatures.

Category: Diagnostics - Big Data and Profiling



[Finnovatec](#)

Startup

Location: Helsinki, Finland

Finnovatec developed a free risk assessment tool for workplaces, making it easy for staff to raise health and safety issues or to make suggestions, involving them in identifying and controlling health and safety risks at work, and ensuring that risk assessments address new risks from COVID-19.

Category: Life & Business Adaptation - Work



[Popit](#)

Startup

Location: Espoo, Finland

Popit has released an enhancement to its adherence platform that makes it a valuable tool for research in finding a cure for COVID-19. The solution tracks medication use and gathers data in real time. It also helps reduce hospitalizations for other conditions, reducing healthcare system load.

Category: Treatment - Telehealth Treatment

24 | Sweden

General Location Information



Population:
10,285,453



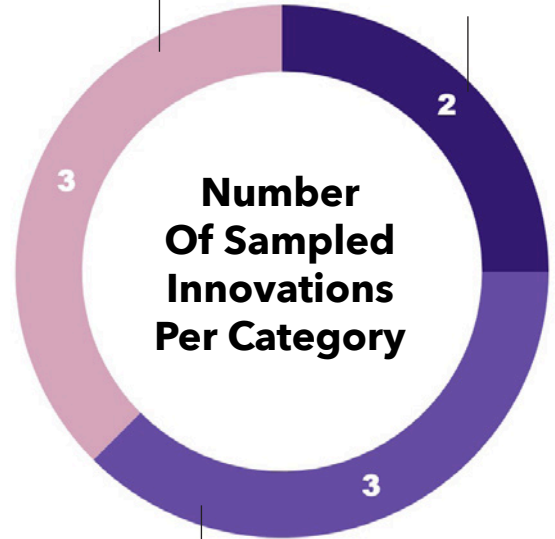
GDP Per Capita:
\$51,615.02



Cities Rankings:
Malmö: **76th**
Stockholm: **76th**

Life & Business Adaptation

Prevention



Diagnostics

COVID-19 Related Information



Confirmed cases*:
675,292



Deaths*:
12,964



Hospital beds:**
21.4

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Sweden is underperforming compared to the country's global startup ranking score. Interestingly, the city of Malmö has ranked higher at 76th than the capital of Sweden, Stockholm, which is ranked at 77th. Sweden ranks 24th overall for COVID-19 innovation and 10th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Life & Business Adaptation, and Prevention, with a total of 8 mapped innovations.

Sweden: Notable Innovations



[Kry](#)

Startup

Location: Stockholm, Sweden

Kry has expanded their at-home monitoring service across Europe and has launched Care Connect, a free platform that enables any European healthcare professional to see their patient via video. They have also developed a COVID-19 symptom checker available for free via the KRY app.

Category: Diagnostics - Telehealth Diagnostics



[Panion](#)

Startup

Location: Malmö, Sweden

Panion is the only keyword-searchable social app that helps you make genuine connections with people with similar interests, now with added functions for dealing with the pandemic.

Category: Life & Business Adaptation - Community and Mental Health



[Peltarion](#)

Startup

Location: Stockholm, Sweden

Peltarion is helping virologists, epidemiologists, medical researchers, and people working on projects related to COVID-19 by offering free access to their platform. As well, Peltarion will provide hands-on help in turning an idea into something that makes a difference.

Category: Diagnostics - Big Data and Profiling

25 | Norway

General Location Information



Population:
5,347,896



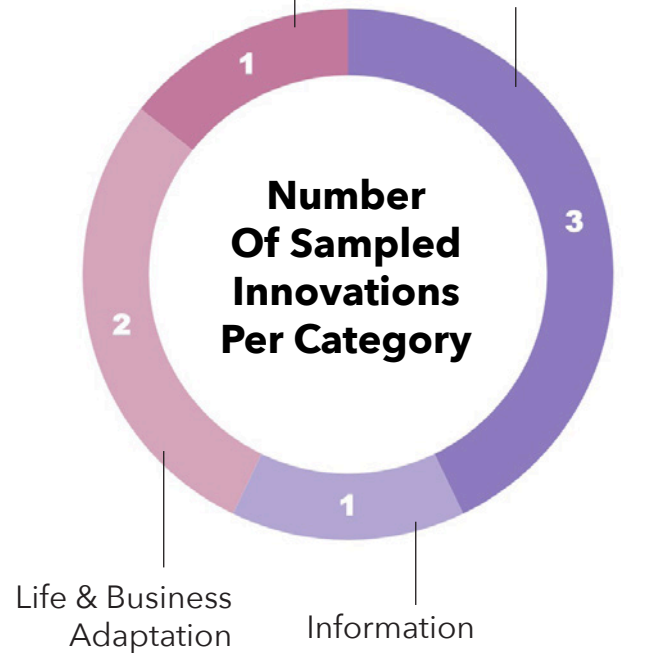
GDP Per Capita:
\$75,419.63



Cities Rankings:
Oslo: 62nd

Grants & Support Initiatives

Treatment



COVID-19 Related Information



Confirmed cases*:
72,233



Deaths*:
632



Hospital beds:**
35.3

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Norway is overperforming compared to the country's global startup ranking. Norway has done well in monitoring and controlling the spread of the virus through various innovations, ranking 25th for COVID-19 innovation and 33rd in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Treatment, Information, and Life & Business Adaptation, with a total of 7 mapped innovations.

Norway: Notable Innovations



[EpiGuard](#)

Corporation

Location: Oslo, Norway

EpiGuard develops Specialised Isolation Units (SIU) and the EpiShuttle solution to help people affected by COVID-19 go into safe quarantine.

Category: Treatment - Ventilators & Medical Devices



[Generation Mobility](#)

Startup

Location: Oslo, Norway

Generation Mobility develops SALUS, which addresses mental and emotional welfare connected to the crisis. It is now free to use during the pandemic.

Category: Life & Business Adaptation - Community and Mental Health



[RESPINOR](#)

Startup

Location: Oslo, Norway

RESPINOR is developing a novel, non-invasive, ultrasound-based medical device for continuous diaphragm monitoring, helping healthcare workers monitor patients with breathing difficulty, a key symptom of the COVID-19 virus.

Category: Treatment - Ventilators & Medical Devices

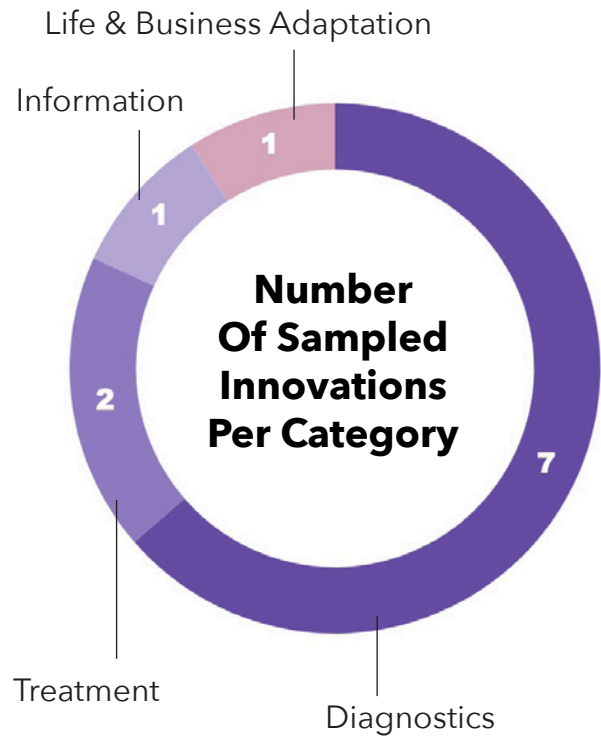
26 | Poland

General Location Information

 **Population:**
37,970,874

 **GDP Per Capita:**
\$15,692.51

 **Cities Rankings:**
Warsaw: **71st**



COVID-19 Related Information

 **Confirmed cases*:**
1.7 million

 **Deaths*:**
44,649

 **Hospital beds**:**
65.4

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Poland has done well in Diagnostics, producing viable solutions for COVID-19 screening. Poland ranks 26th for COVID-19 innovation, while it ranks 27th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Information, with a total of 11 mapped innovations.

Poland: Notable Innovations



[Biomaxima](#)

Corporation

Location: Lublin, Poland

Biomaxima has developed the Rapid IgG/IgM combined antibody assay pre screening test kit, which diagnoses potential COVID-19 patients in just 10 minutes.

Category: Diagnostics - Test Kits



[StethoMe](#)

Startup

Location: Poznan, Poland

StethoMe offers telemedicine companies and hospitals a solution for monitoring the condition of the lungs and heart, and a dedicated solution for doctors exposed to infected COVID-19 patients.

Category: Diagnostics - Telehealth Diagnostics



[Infermedica](#)

Startup

Location: Wrocław, Poland

Infermedica makes it easier to pre-diagnose, triage, and connect patients with the appropriate medical services. They have also developed a new set of API endpoints dedicated solely to COVID-19 risk assessment.

Category: Diagnostics - Telehealth Diagnostics

27 | Austria

General Location Information



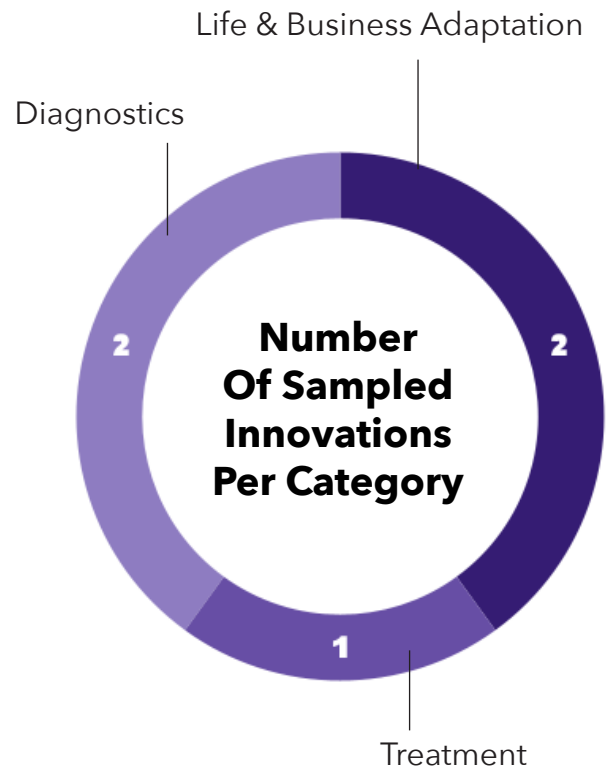
Population:
8,877,067



GDP Per Capita:
\$50,137.66



Cities Rankings:
Vienna: **46th**



COVID-19 Related Information



Confirmed cases*:
461,683



Deaths*:
8,470



Hospital beds:**
72.7

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Vienna is overperforming compared to its global startup ranking, and has excelled in creating a number of notable Diagnostic innovations. Austria ranks 27th for COVID-19 innovation, while it ranks 28th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Information, and has a total of 5 mapped innovations.

Austria: Notable Innovations



[Apeptico](#)

Corporation

Location: Vienna, Austria

APEPTICO announced that it has supplied its Investigational medicinal product Solnatide to the Medical University of Vienna to assess efficacy in COVID-19 patients.

Category: Treatment - Medication



[APEIRON Biologics](#)

Corporation

Location: Vienna, Austria

Apeiron Biologics is developing the potential drug candidate APN01, based on their ACE2 platform, to address the growing global health threat of COVID-19.

Category: Treatment - Medication



[Imaging AI](#)

Corporation

Location: Vienna, Austria

Imaging AI aims to automate the diagnosis of COVID-19 on CT scans, and to quantify the disease burden in the lungs of infected patients. The developed AI model is freely accessible to all participating hospitals and institutions.

Category: Prevention - Automation

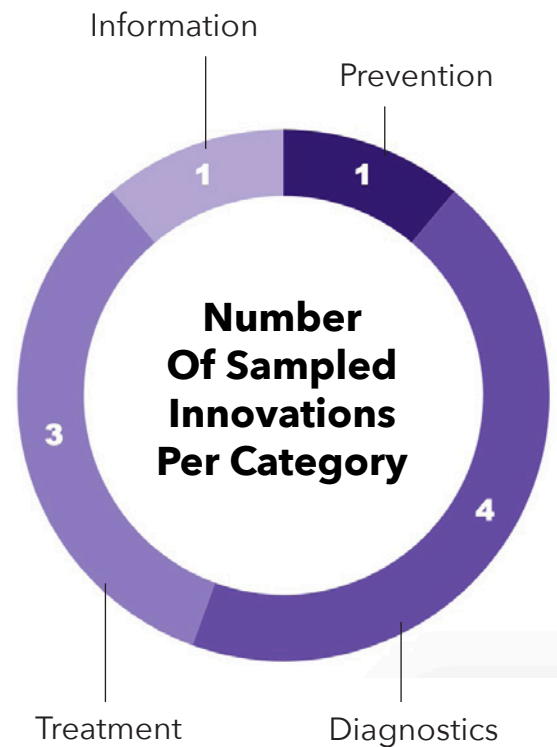
28 | Kenya

General Location Information

 **Population:**
52,573,973

 **GDP Per Capita:**
\$1,816.55

 **Cities Rankings:**
Nairobi: **24th**



COVID-19 Related Information

 **Confirmed cases*:**
106,801

 **Deaths*:**
1,866

 **Hospital beds**:**
14

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Ranked in the top 30 globally, Kenya is the highest ranked African country for COVID-19 Innovations in 2021. Kenya ranks 28th for COVID-19 innovation, while it ranks 62nd in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Treatment, and Prevention, with a total of 9 mapped innovations.

Kenya: Notable Innovations



[Kenyatta University](#)

University

Location: Nairobi, Kenya

Kenyatta University has produced the country's first homegrown ventilator to help treat patients severely affected by COVID-19.

Category: Treatment - Ventilators & Medical Devices



[SaniTap](#)

Corporation

Location: Nairobi, Kenya

SaniTap is designed to supply the daily handwashing requirements of a household, making it an ideal tool for social distancing and avoiding crowds at water access points.

Category: Prevention - Protective and Sanitation



[Penda Health](#)

Startup

Location: Nairobi, Kenya

Penda Health operates a citywide network of medical centers that deliver affordable, high quality healthcare that patients can trust. All centers are located in low-income, densely populated areas that are expected to be hardest hit by COVID-19. Penda also operates a "Pigia Penda" telemedicine hotline that enables medical providers to give free consultations to patients over the phone.

Category: Diagnostics - Telehealth Diagnostics

29 | Japan

General Location Information



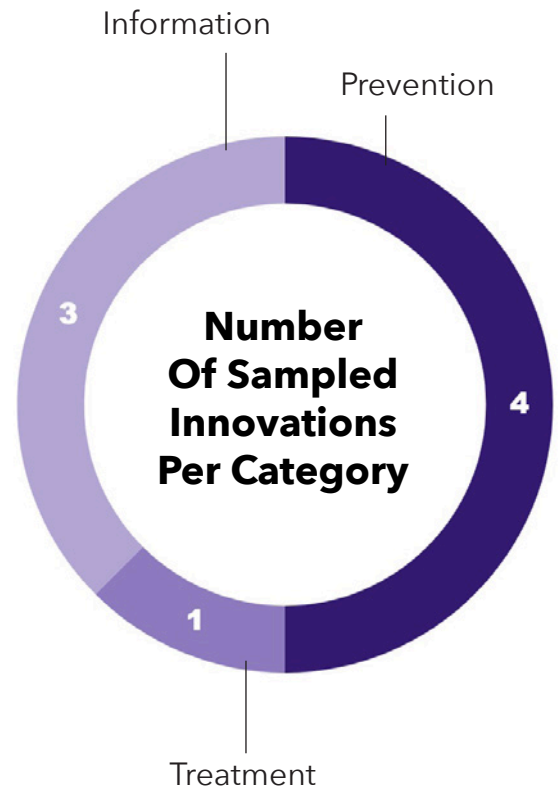
Population:
126.3 million



GDP Per Capita:
\$41,710



Cities Rankings:
Tokyo: **85th**



COVID-19 Related Information



Confirmed cases*:
91,638



Deaths*:
1,627



Hospital beds:**
116

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Japan's only champion, Takeda, has developed a treatment for COVID-19 and blazed a trail for treating infected, high-risk individuals. Japan ranks 29th for COVID-19 innovation and 21st in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Information, with a total of 8 mapped innovations and 1 Champion.

Japan: Notable Innovations



[Takeda](#) ★

Corporation

Location: Osaka, Japan

Takeda has developed a potential treatment, an anti-SARS-CoV-2 polyclonal hyperimmune globulin (H-IG), to treat infected, high-risk individuals with COVID-19.

Category: Treatment - Medication



[Donut Robotics](#)

Startup

Location: Fukuoka, Japan

Donut Robotics' C-Face is the world's first "smart-mask that works with smartphones," developed by applying robotics technology.

Category: Prevention - Protective and Sanitation



[Terra Drone](#)

Corporation

Location: Tokyo, Japan

Terra Drone is deploying its drones to transport medical supplies and quarantine equipment in China.

Category: Prevention - Automation

30 | South Africa

General Location Information



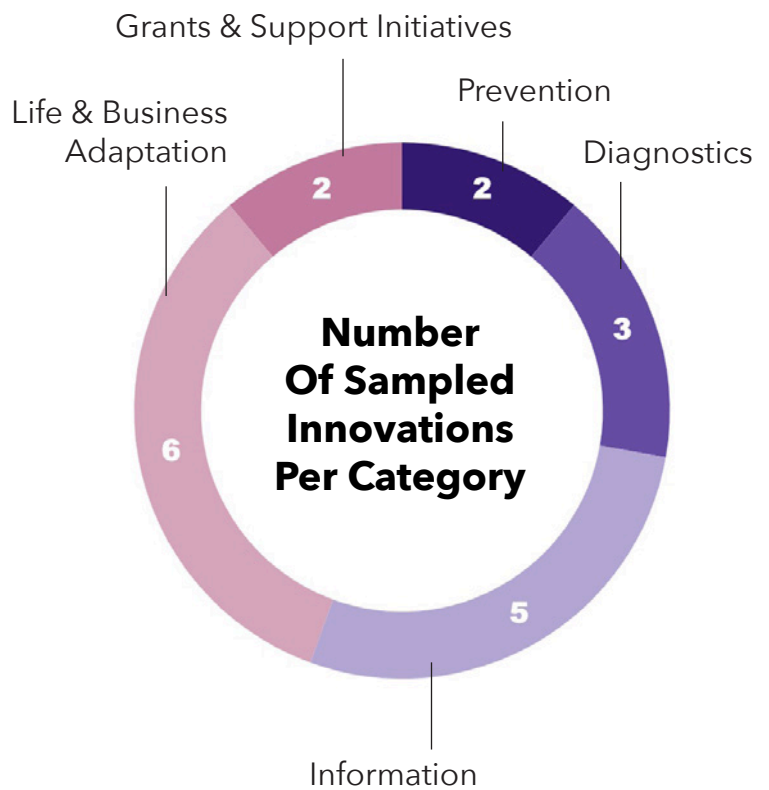
Population:
58.6 million



GDP Per Capita:
\$6,040



Cities Rankings:
Johannesburg: 36th
Cape Town: 97th
Pretoria: 100th



COVID-19 Related Information



Confirmed cases*:
15,162,62



Deaths*:
50,366



Hospital beds:**
23

* As of March 5, 2021

** per 10,000

Ecosystem Overview

The second highest ranking African country in this report, South Africa has done well to innovate in 2021. Most especially, Johannesburg has done incredibly well, featuring in the top 50 globally. South Africa ranks 30th for COVID-19 innovation and 52nd in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Life & Business Adaptation, Information, and Diagnostics, with a total of 18 mapped innovations.

South Africa: Notable Innovations



[Envisionit Deep Ai](#)

Startup

Location: Johannesburg, South Africa

RADIFY, a product of Envisionit Deep Aim, detects 20 major abnormalities on chest X-rays, including COVID 19 pneumonia related pathologies, and automatically prioritises them for further testing. It can label 2000 x-rays per minute, 2,000 times faster than a human being, alleviating strain on doctors and radiologists.

Category: Diagnostics - Other



[CoronaFighter](#)

Startup

Location: Sandton, South Africa

CoronaFighter is a turnkey employee health monitoring and access management solution with advanced compliance reporting capabilities.

Category: Life & Business Adaptation - Work



[GreenFingers Mobile](#)

Startup

Location: Cape Town, South Africa

GreenFingers Mobile has repurposed their platform to match aggregated food supply to quantifiable and growing demand. They digitally load all households into the system, track food parcels and vouchers, and measure food needs in a community over time. They even aggregate data with organisations working in the same community to produce a complete map.

Category: Life & Business Adaptation - Shopping

31 | Brazil

General Location Information



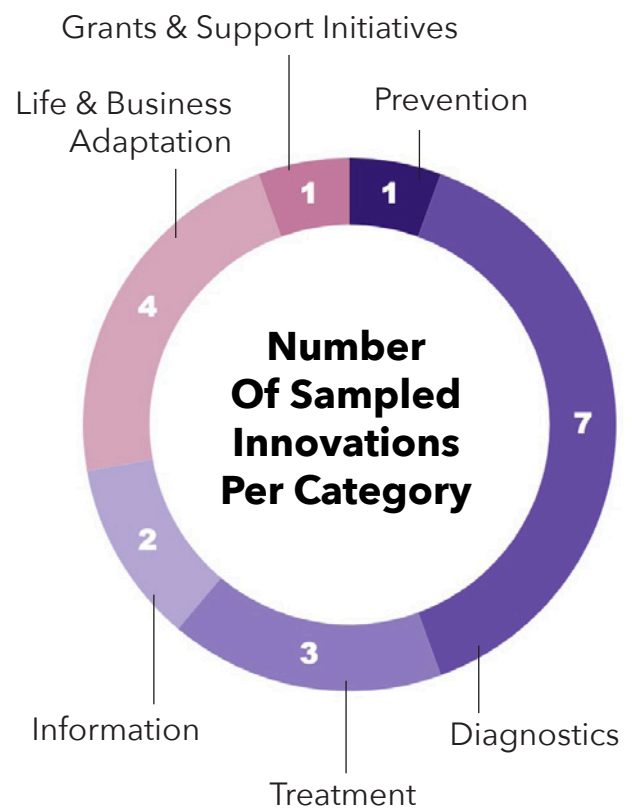
Population:
211 million



GDP Per Capita:
\$9,130



Cities Rankings:
Brasilia: 69th
Recife: 69th
São Paulo: 73rd



COVID-19 Related Information



Confirmed cases*:
10,718,630



Deaths*:
259,271



Hospital beds:**
21

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Sao Paulo's dominance as an innovation hub in the Brazilian startup ecosystem has been challenged in the context of COVID-19 by Brasilia and Recife, showing that innovation is occurring throughout the country. Brazil ranks 31st for COVID-19 innovation, while it ranks 20th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Information, and Treatment, with a total of 18 mapped innovations.

Brazil: Notable Innovations



[FullDNA](#)

Startup

Location: Recife, Brazil

FullDNA developed a test that identifies the genetic risk of COVID-19.

Category: Diagnostics - Other



[Mascara para Todos](#)

Other

Location: São Paulo, Brazil

Mascara para Todos created a public interactive map where anyone can view and register points of sale for masks, alcohol gel, gloves and psychological help throughout Brazil.

Category: Information - Databases



[Magnamed](#)

Startup

Location: São Paulo, Brazil

Magnamed develops and manufactures high precision medical equipment. Magnamed helps medical facilities during the crisis by recommending the proper ventilator based on specific coronavirus situations.

Category: Treatment - Ventilators & Medical Devices

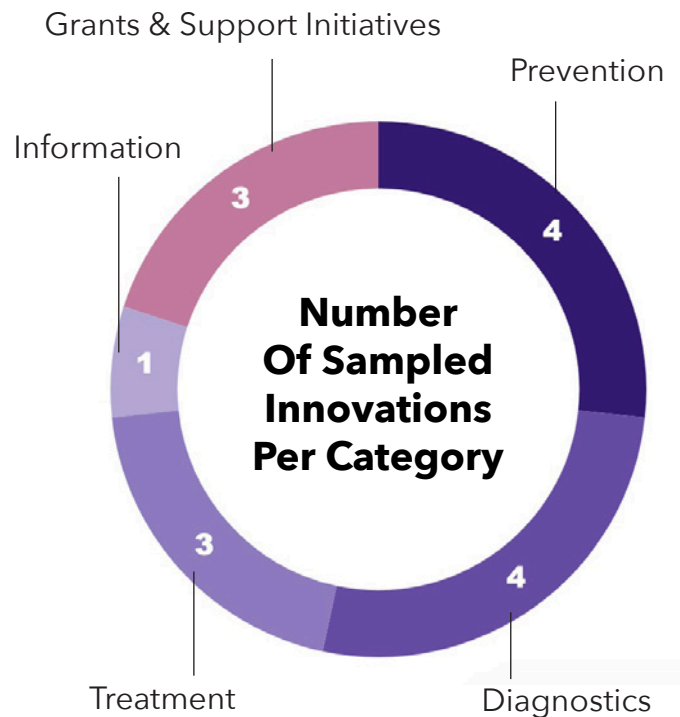
32 | India

General Location Information

Population:
1.336 billion

GDP Per Capita:
\$2,120

Cities Rankings:
Bangalore: 49th
New Delhi: 55th



COVID-19 Related Information

Confirmed cases*:
11,173,761

Deaths*:
157,548

Hospital beds:**
5.8

* As of March 5, 2021

** per 10,000

Ecosystem Overview

With Bangalore in the top 50 globally, India has produced some impressive Treatment innovations, such as OneBreath affordable ventilators. India ranks 32nd for COVID-19 innovation and 20th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Prevention, Diagnostics, and Treatment, with a total of 15 mapped innovations.

India: Notable Innovations



[OneBreath](#) ★

Corporation

Location: Bangalore, India

OneBreath is addressing one of the most difficult problems in critical care medicine: Delivering high precision, high reliability mechanical ventilation at an affordable cost.

Category: Treatment - Ventilators & Medical Devices



[CareMother](#)

Corporation

Location: Mumbai, India

CareMother has an app, Ada's COVID-19 assessment and screener, to check symptoms and find out what to do next.

Category: Diagnostics - Telehealth Diagnostics



[Serum Institute of India](#)

Organization

Location: Pune, India

Serum Institute of India is licensed to produce Covishield vaccine from AstraZeneca and Covaxin.

Category: Prevention - Vaccine

33 | Hungary

General Location Information



Population:
9.7 million

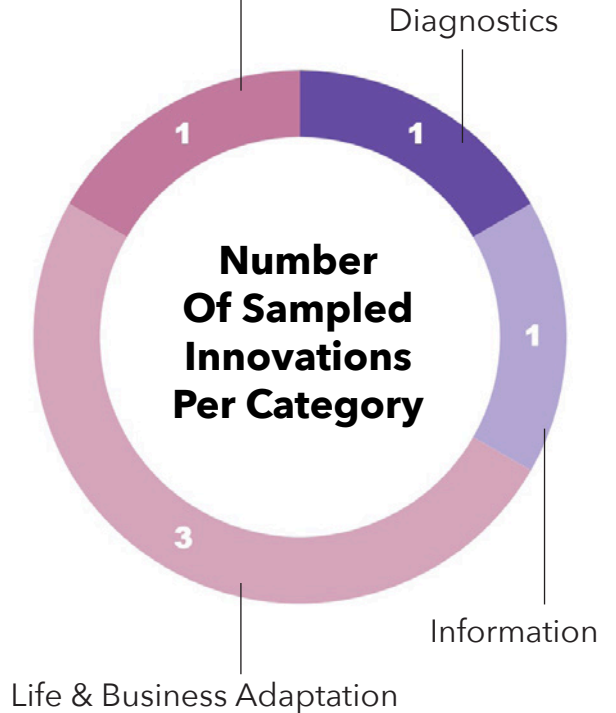


GDP Per Capita:
\$16,500



Cities Rankings:
Budapest: 84th

Grants & Support Initiatives



COVID-19 Related Information



Confirmed cases*:
446,178



Deaths*:
15,476



Hospital beds:**
69.9

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Hungary ranks 33rd for COVID-19 innovation, while it ranks at 37th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Life & Business Adaptation, Diagnostics, and Information, with a total of 6 mapped innovations. Hungary appears on the COVID-19 report for the first time this year.

Hungary: Notable Innovations



[Talk-A-Bot](#)

Startup

Location: Budapest, Hungary

CHEQ Crisis - A free tool for internal company communication during the COVID-19 outbreak. CHEQ Crisis is instantly deployable for companies with a high amount of physical workers, and integrates with Viber or Microsoft Teams chat.

Category: Life & Business Adaptation - Work



[GRAID Medical](#)

Startup

Location: Budapest, Hungary

GRAID is a radiological reporting software assistant that empowers healthcare industry professionals to create structured medical reports.

Category: Diagnostics - Telehealth Diagnostics



[Pozi.io](#)

Organization

Location: Budapest, Hungary

This is a competition that focuses on but is not limited to the difficulties caused by the epidemic (e.g. health, education). It aims to make it easier and more direct for innovators to collaborate.

Category: Grants & Support Initiatives - Hackathons & Targeted Challenges

34 | Portugal

General Location Information



Population:
10.3 million



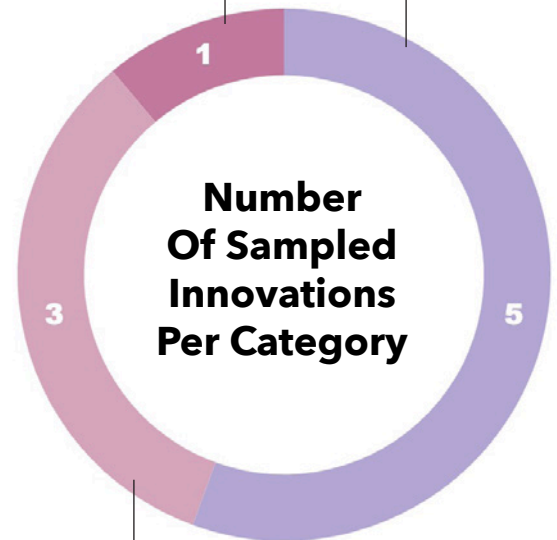
GDP Per Capita:
\$23,200



Cities Rankings:
Lisbon: **94th**

Grants & Support Initiatives

Information



Life & Business Adaptation

COVID-19 Related Information



Confirmed cases*:
806,626



Deaths*:
16,430



Hospital beds:**
33.7

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Portugal ranks 34th for COVID-19 innovation and 31st in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Information, Life & Business Adaptation, and Grant & Support Initiatives, with a total of 9 mapped innovations.

Portugal: Notable Innovations



[Project Open Air](#)

Organization

Location: Lisbon, Portugal

Project Open Air is a community of builders who are working on medical devices, offering a fast and easy solution that can be reproduced and assembled locally worldwide.

Category: Information - Other



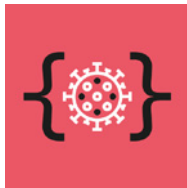
[Taikai](#)

Startup

Location: Lisbon, Portugal

Fight Open Challenge is an open collaboration effort in which participants will produce creative solutions which can help fight against the current epidemic of COVID-19.

Category: Diagnostics - Telehealth Diagnostics



[Tech4COVID-19](#)

Startup


Location: Lisbon, Portugal

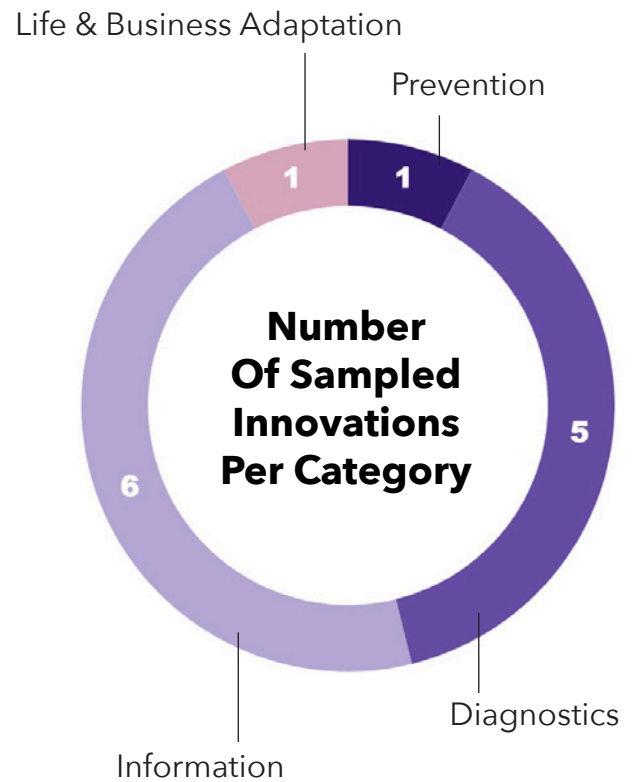
Tech4COVID-19 is a platform for people around the world to collaborate, raise funds, and contribute to solving various problems caused by COVID-19.

Category: Life & Business Adaption - Community and Mental Health

35 | Philippines

General Location Information

-  **Population:**
108,116,615
-  **GDP Per Capita:**
\$3,485.08
-  **Cities Rankings:**
Manila Area: **53rd**



COVID-19 Related Information

-  **Confirmed cases*:**
584,667
-  **Deaths*:**
12,404
-  **Hospital beds**:**
9.9

* As of March 5, 2021

** per 10,000

Ecosystem Overview

With Manila at rank 53, the Philippines ecosystem has been active during this pandemic and performing well in COVID-19 innovation compared to their position on the StartupBlink Global Ecosystem Ranking. Philippines ranks 35th for COVID-19 innovation and 53rd in the StartupBlink rankings. The country's strongest categories are Information and Diagnostics, and it has a total of 13 mapped innovations.

Philippines: Notable Innovations



[ThingsPH](#)

Startup

Location: Manila Area, Philippines

ThingsPH has developed Project Greengrass, a free online community map of real-time street monitoring using CCTV networks and AI video analytics.

Category: Prevention - Automation



[Zennya Health](#)

Startup

Location: Manila Area, Philippines

Zennya Health provides end-to-end essential solutions designed to help businesses reopen and manage the health and safety of employees, customers, partners, and communities during the crisis.

Category: Diagnostics - Telehealth Diagnostics



[Sakay](#)

Startup

Location: Manila Area, Philippines

Sakay provides free directions for informal-transit based areas like the Philippines. In light of COVID and the ensuing suspension of mobility, Sakay created tools to help governments plan and visualize crisis-response transport routes. These publish to a public app and website, allowing frontliners and health workers to easily plot routes to work using government- and community- provided shuttles.

Category: Information - Crisis Communication

36 | Czechia

General Location Information



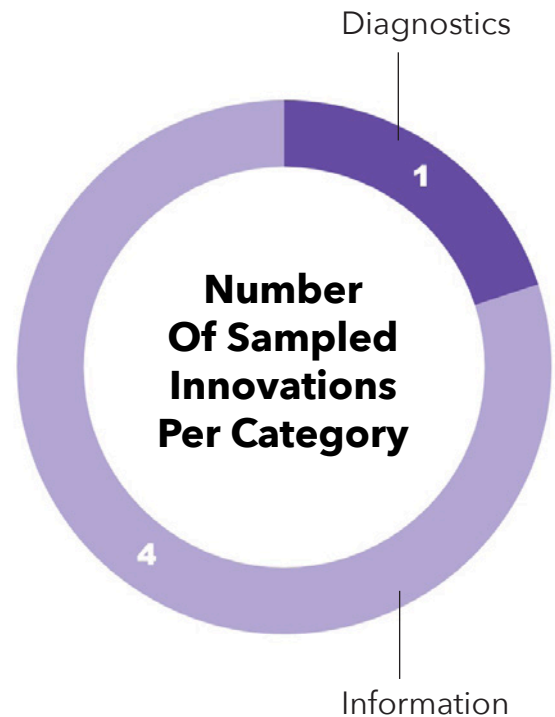
Population:
10,669,709



GDP Per Capita:
\$23,494.60



Cities Rankings:
Prague: **83rd**



COVID-19 Related Information



Confirmed cases*:
1,284,288



Deaths*:
21,128



Hospital beds:**
66.7

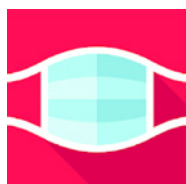
* As of March 5, 2021

** per 10,000

Ecosystem Overview

Czechia, one of the countries worst hit by the pandemic, ranks 36th for COVID-19 innovation, while it ranks 26th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Information and Diagnostics, and it has a total of 5 mapped innovations. This is the first year that Czechia is ranked on the COVID-19 innovation report.

Czechia: Notable Innovations



[eRouska](#)

Startup

Location: Prague, Czechia

eRouška is part of the Smart Quarantine system of the Ministry of Health of Czechia.

Category: Diagnostics - Other



[CleverMaps](#)

Startup

Location: Prague, Czechia

CleverMaps developed and launched a smart tracing tool for the Coronavirus spread with the help of location data from phones and banks. With the agreement of an infected person, a memory map is created that transparently shows where and for how long the infected person moved around over the prior 3 weeks.

Category: Information - Databases



[Mluvii](#)

Startup

Location: Prague, Czechia

Mluvii led the pack among several other companies in launching the national COVID-19 hotline in Czechia, "1212."

Category: Information - Crisis Communication

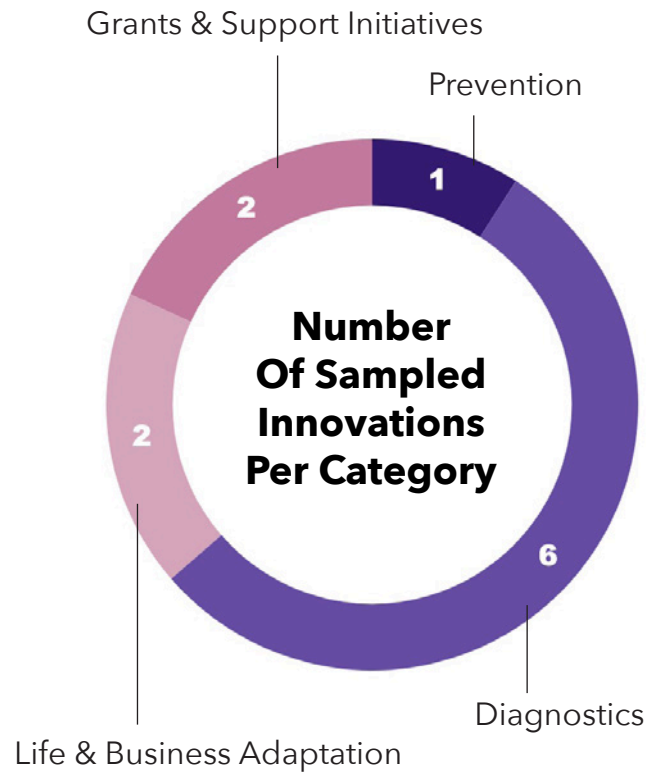
37 | Nigeria

General Location Information

 **Population:**
201 million

 **GDP Per Capita:**
\$2,030

 **Cities Rankings:**
Lagos: **34th**



COVID-19 Related Information

 **Confirmed cases*:**
156,963

 **Deaths*:**
1,939

 **Hospital beds**:**
5

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Nigeria is third in Africa in terms of COVID-19 innovations. Lagos, Nigeria's largest city, significantly outperformed its rank of 127th in the StartupBlink Startup Ecosystem Rankings to place 34th in COVID-19 innovations. Nigeria ranks 37th overall for COVID-19 innovation, while it ranks 68th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Life & Business Adaptation, and Grant & Support Initiatives, with a total of 11 mapped innovations.

Nigeria: Notable Innovations



[LifeBank](#)

Startup

Location: Lagos, Nigeria

LifeBank's Home Sample Collection Kit is an easy to use kit created to help individuals collect nasal and oral swab samples used for the RT-PCR Screening Test.

Category: Diagnostics - Test Kits



[SORMAS](#)

Corporation

Location: Lagos, Nigeria

SORMAS-ÖGD is a specialized version of contact person management within the SARS-CoV-2 pandemic. It supports the health authorities in identifying and monitoring contact persons.

Category: Diagnostics - Other



[Kuda Bank](#)

Startup

Location: Lagos, Nigeria

Kuda is a digital banking startup that has launched a relief fund for the underprivileged in Lagos. Kuda allows customers to donate electronically through their Kuda banking app.

Category: Grant & Support Initiatives - Relief Funds

38 | Uganda

General Location Information



Population:
44.2 million

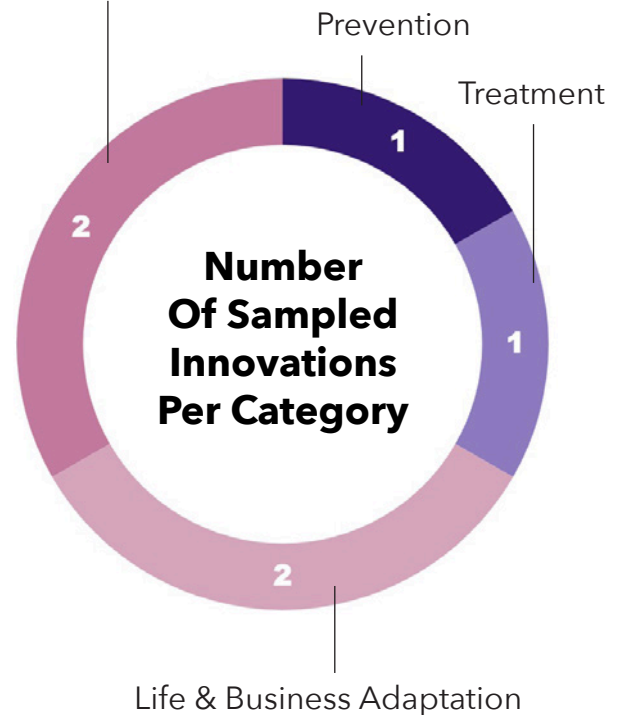


GDP Per Capita:
\$780



Cities Rankings:
Kampala: 87th

Grants & Support Initiatives



COVID-19 Related Information



Confirmed cases*:
40,408



Deaths*:
334



Hospital beds:**
5

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Uganda makes its debut in the 2021 COVID-19 innovation ranking with Kampala entering the top 100 innovative cities. Uganda ranks 38th for COVID-19 innovation, while it ranks 89th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Life & Business Adaptation, Grant & Support Initiatives, and Treatment, with a total of 6 mapped innovations. This is the first year that Uganda appears on the COVID-19 innovation report.

Uganda: Notable Innovations



[Rocket Health](#)

Startup

Location: Kampala, Uganda

Rocket Health offers pharmacy delivery and refills, reducing clinic consultations during COVID-19.

Category: Treatment - Telehealth Treatment



[The Innovation Village](#)

Startup

Location: Kampala, Uganda

The Knock-Down Innovation Challenge was launched to develop a solution to alleviate the stress that the COVID-19 virus will have on the economy of Uganda.

Category: Grant & Support Initiatives - Hackathons & Targeted Challenges



[School 2 Go](#)

Other

Location: Kampala, Uganda

School2Go is on a mission to make schooling possible by investing in e-learning alternatives to a physical classroom, and partnering with subject matter experts in a revenue share model.

Category: Life & Business Adaptation - Education

39 | Mexico

General Location Information



Population:
127.6 million

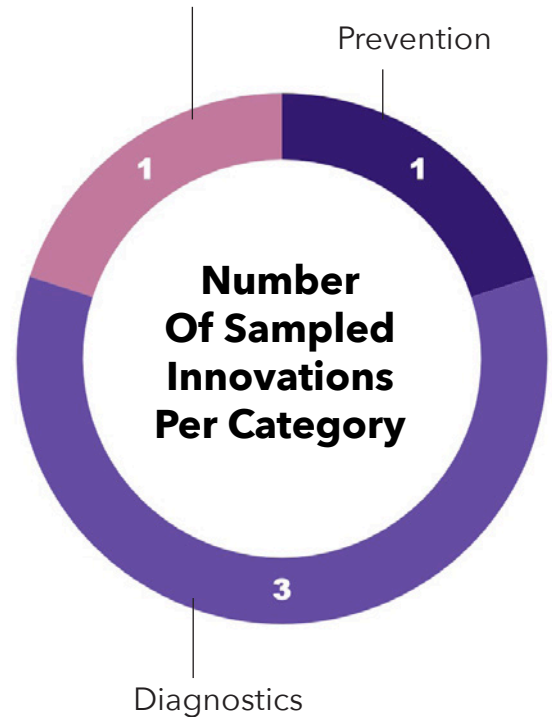


GDP Per Capita:
\$9,480



Cities Rankings:
Monterrey: 74th

Grants & Support Initiatives



COVID-19 Related Information



Confirmed cases*:
2,104,987



Deaths*:
188,044



Hospital beds:**
9.8

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Surprisingly, at rank 74, the city of Monterrey is leading COVID-19 innovation in Mexico. Mexico ranks 39th for COVID-19 innovation and 41st in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Diagnostics, Prevention, and Grant & Support Initiatives, with a total of 5 mapped innovations. This is the first year that Mexico appears on the COVID-19 innovation report.

Mexico: Notable Innovations



Osiris HealthTech Systems

Startup

Location: Monterrey, Mexico

Osiris HealthTech systems has developed a suspected COVID case auto-screening survey based on WHO guidelines and Mexican Social Security Institute to offer telemedicine and medication delivery through partners.

Category: Diagnostics - Telehealth Diagnostics

XE INGENIERIA MEDICA

XE Ingeniería Médica

Other

Location: Mexico City, Mexico

XE Ingeniería Médica developed the CápsulaXE, an infectious disease isolation chamber that allows for the safe transportation of a patient potentially infected with COVID-19.

Category: Prevention - Protective and Sanitation



Agencia Espacial Mexicana

Public sector

Location: Mexico City, Mexico

A hackathon focused on developing solutions to mitigate the pandemic

Category: Grants & Support Initiatives - Hackathons & Targeted Challenges

40 | Colombia

General Location Information



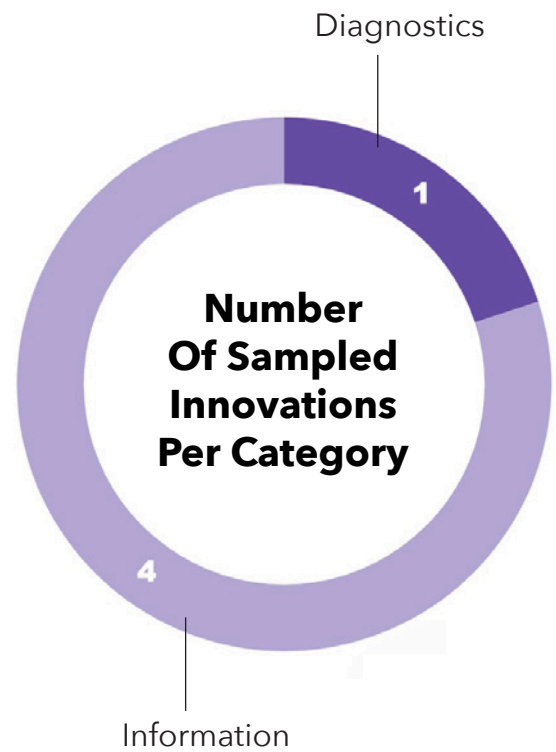
Population:
50.3 million



GDP Per Capita:
\$6,510



Cities Rankings:
Cali: 98th



COVID-19 Related Information



Confirmed cases*:
2,262,646



Deaths*:
60,082



Hospital beds:**
17.1

* As of March 5, 2021

** per 10,000

Ecosystem Overview

Surpassing Bogota and Medellin, Cali is the highest ranked city in Colombia in terms of COVID-19 innovations, ranking 98th. Colombia ranks 40th overall for COVID-19 innovation, while it ranks 46th in the StartupBlink Global Ecosystem Rankings. The country's strongest categories are Information and Diagnostics, and it has a total of 5 mapped innovations. It is the first year that Colombia appears on the COVID-19 innovation report.

Colombia: Notable Innovations



[Ruta De Vida](#)

Startup

Location: Cali, Colombia

Ruta De Vida helps identify potentially COVID-positive individuals to prevent users from contracting the virus.

Category: Information - Databases



[DeepSea Developments](#)

Startup

Location: Cali, Colombia

Thermographic Cameras allow human body temperature monitoring for early detection of fever, identification, alerts, and reporting of COVID-19 symptoms.

Category: Diagnostics - Big Data and Profiling



[Ninus Design and Technology](#)

Startup

Location: Cali, Colombia

Ninus Design and Technology has developed VIDABOT, a virtual assistant that services a community by providing information related to COVID-19 through a facebook chat or website.

Category: Information - Crisis Communication

Acknowledgement

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THANK YOU.



Prepared by:



COVID-19 Innovation Report 2021

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