

Survey on testing for SARS-CoV-2

1. **What tests is your country using and what is their intended purpose?** Please specify if tests are diagnostic (RT-PCR or antigen) or to assess immunity (antibody). Please provide information regarding test manufacturers/ brands used.
2. **For each type of test in use (or where future use is planned), what quantities does your country foresee in the next 3 -6 months?**
3. **What is your country's approach regarding mass testing?**

| COUNTRY     | DIAGNOSTIC TESTING |                                                                                                                                                                                  | IMMUNITY TESTING                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                   |
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| EU/EEA + UK | Test type          | Quantity                                                                                                                                                                         | Test type                                                                                                                                                                                                                                                                                                                                                                                                                      | Quantity                                                                                                                                                                                                          |
| Austria     | RT-PCR             | Depending on extent of monitoring activities, estimations of up to 7 million (however there are considerations regarding pooling of samples).                                    | <ul style="list-style-type: none"> <li>Antibody (ELISA) Test: for defined research questions or in addition to RT-PCR in case of negative PCR.</li> <li>Antibody (Lateral-Flow) Tests: not currently endorsed by official bodies but consideration being given to areas of possible meaningful use (e.g. epidemiological studies, evaluations on seroconversion, supplementary use before hospital discharge, etc.)</li> </ul> | Antibody (ELISA): Depending on extent of their supplementary use, estimations of up to 3.5 million. Antibody (lateral-Flow): Depending on extent of a meaningful supplementary use, estimates of up to 1 million. |
| Cyprus      | RT-PCR             | Two large scale testing schemes have been announced, each consisting of 20,000 tests. Approximately 1500 additional tests are being done daily outside of these testing schemes. | Ministry of Health does not recommend rapid tests for detection of IgM/ IgG. However, some private laboratories are currently performing these tests. Plans to use antibody testing to assess immunity in the population at                                                                                                                                                                                                    | -                                                                                                                                                                                                                 |

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|         |                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                        | a later stage.                                                                                                                                                                                                                                                                                                           |                                                             |
| Croatia | RT-PCR                                                                                                                                                                                                                                                                                                              | Approx. 100,000 tests in next 6 months.                                                                                                                                | Plans to start sero-epidemiological survey(s) using EIA test to assess seroprevalence among general population and some specific population groups (e.g. HCWs).                                                                                                                                                          | -                                                           |
| Czechia | RT-PCR                                                                                                                                                                                                                                                                                                              | Quantity of tests is sufficient for a period of six months.                                                                                                            | Rapid tests used when there is insufficient RT-PCR capacity for patients at later stage (to find out if they are recovered or if they have antibodies). Also used when testing randomized sample of population for antibodies.                                                                                           | Quantity of tests is sufficient for a period of six months. |
| Germany | RT-PCR                                                                                                                                                                                                                                                                                                              | Approx. 900.000 / week, the capacities are being further increased, difficult to predict capacities in 3-6 months, but likely to be at least 1.3 million tests / week. | On a case-by-case basis to confirm diagnosis if PCR is negative but symptoms concordant to COVID19 - To assess immunity, antibody tests are not being recommended (but nevertheless already used in laboratories). Under discussion: to use antibody tests as an offer to test personnel who cares for COVID19 patients. | Not monitoring antibody capacities at the moment.           |
| Ireland | RT-PCR <ul style="list-style-type: none"> <li>• Accuscience Allplex 2019 n-COV Molecular Assay + Extraction Consumables</li> <li>• Z-Path-COVID-19-CE GENESIG KIT BY PRIMERDESIGN</li> <li>• Aquilant Scientific SARS-CoV-2 PCR Assay and Extraction Kit</li> <li>• Syntec Credo Vita PCR Sars Cov-2 Kit</li> </ul> | 100,000 tests per week (from 18th May 2020)                                                                                                                            | -                                                                                                                                                                                                                                                                                                                        | -                                                           |

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|        | <p>Genemark Sars Cov 2 Panel<br/>CO-Diagnostics USA Test Kit</p> <ul style="list-style-type: none"> <li>• Cruinn Diagnostics</li> </ul> <p>CerTest Viasure PCR Kit + Consumables<br/>Cepheid Gene Xpert Covid 19 Test Kit</p> <ul style="list-style-type: none"> <li>• Serosep</li> </ul> <p>RespiBio SARS- CoV-2 Assay kit - 240 tests</p> <ul style="list-style-type: none"> <li>• Launch Diagnostics</li> </ul> <p>Anatolia Geneworks Bosphore Sars Cov - 2 PCR Assay</p> <ul style="list-style-type: none"> <li>• Roche Diagnostics</li> </ul> <p>COVID Assay for Cobas 6800 equipment<br/>COVID Assay for MagNa Pure equipment</p> <ul style="list-style-type: none"> <li>• Abbott Molecular</li> </ul> <p>Test Kits and Extraction Consumables</p> <ul style="list-style-type: none"> <li>• Idexx</li> </ul> <p>OPTI-SARS-CoV-2 RT-PCR</p> <ul style="list-style-type: none"> <li>• Shanghai ZJ Bio-Tech Co., Ltd.</li> </ul> <p>Novel Coronavirus (2019-nCoV) Real Time Multiplex RT-PCR Kit<br/>Viral RNA Isolation Kit (Preloaded for Auto-Extraction)</p> |                                                  |                                                                                                                                                                                                          |         |
| Italy  | <p>RT-PCR</p> <p><u>Also, but only in case of urgent diagnosis:</u><br/>rapid diagnostic tests (Point of care tests) based on molecular detection of viral genes.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               | RT-PCR: about 7,000,000 or more in next 3 months | <p>Serological tests for IgG detection (Kit of CLIA and/or ELISA type) are used for a national epidemiological study</p> <ul style="list-style-type: none"> <li>• Tests purchased from ABBOTT</li> </ul> | 150,000 |
| Latvia | <p>RT-PCR</p> <ul style="list-style-type: none"> <li>• QIAamp Viral RNA Mini extraction</li> </ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | Around 2200-2600 samples per day.                | Validating detection of antibody against SARS-CoV-2 using blood samples from RNA-positive patients                                                                                                       | -       |

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|             | Kits: <ul style="list-style-type: none"> <li>• NucliSENS® easyMag</li> <li>• Seegene STARMag 96 x 4 Universal Cartridge Kit</li> <li>• <b>Abbott M2000SP Instrument</b></li> <li>• IndiMag Pathogen Kit</li> <li>• Ribospin™ vRD (GeneAll).</li> <li>• Natch CS</li> </ul> |                                                                                                                                                                                                                                             | and epidemiologic sites.                                                                                                                                                                                                                |                                                                                                                                              |
| Malta       | RT-PCR <ul style="list-style-type: none"> <li>• ABI diagnostics</li> </ul>                                                                                                                                                                                                 | In the coming 3 months: 65,000 to 110,000                                                                                                                                                                                                   | Currently validating COVID-19 serological assays to assess population immunity.<br><b>Manufacturers:</b> <ul style="list-style-type: none"> <li>• Abbott</li> <li>• Euroimmune</li> <li>• Eagle</li> </ul>                              | 20,000                                                                                                                                       |
| Netherlands | RT-PCR                                                                                                                                                                                                                                                                     | 28.000 tests per day in June, increasing to approximately 31.000 tests per day in September.                                                                                                                                                | Antibody tests are used, mainly for research purposes.                                                                                                                                                                                  | Still uncertain. One million antibody tests have been delivered, a portion of which will be used in the coming months.                       |
| Portugal    | RT-PCR                                                                                                                                                                                                                                                                     | In the next 3 - 6 months: around 489.000 tests (same as last 3 months). Despite decrease in the confirmed cases, diagnosis surveys are planned in especial groups of the population and the strength of the sentinel COVID-19 surveillance. | ELISA and/or CLIA as a complement for the RT-PCR mainly in hospitalized and severe COVID-19 cases. ELISA and/or CLIA tests are also used for seroepidemiological studies in especific groups of the population like healthcare workers. | 15,000 tests (IgA, IgG and IgM) for a national population survey to be conducted over one year. Other seroepidemiological studies planned in |

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|          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                            |   | coming months. An increase in number of serological tests is foreseen in the next 3-6 months. |
| Slovakia | RT-PCR                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | In the next 3-6 months: predicted about 450,000 – 900,000. | - | -                                                                                             |
| Sweden   | RT-PCR<br><br><u>Molecular platforms with associated detection kits or in-house methods:</u><br>ABI 7500<br>Abbott m2000<br>BD Max<br>CFX96<br>CFX384<br>LightCycler 480<br>qTower86<br>Quantstudio 5<br>Quantstudio 6 Flex/Pro<br>Quantstudio 7 Flex/Pro<br>Quantstudio 12K<br>RotorGene Q<br>cobas6800<br>GeneXpert<br>MIC<br><br><u>Other kits used:</u><br>TATAA GrandPerformance SARS-COV-2 Detection/Screening kit (CE-IVD)<br>TaqMan FAST Virus 1-step MM(4x)<br>Panther Fusion, path-ID | Approx. 50 – 100 000 tests per week.                       | - | -                                                                                             |

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|                | Seegene CFX 96, Inhouse på MIC<br><br><u>Rapid PCR:</u><br>GeneXpert                                                                                                                                                                                                                                    |                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                  |                                                                         |
| United Kingdom | RT-PCR <ul style="list-style-type: none"> <li>• Abbott</li> <li>• AusDiagnostics</li> <li>• BD</li> <li>• BGI</li> <li>• BioMérieux</li> <li>• Cepheid</li> <li>• Hologic</li> <li>• Novacyt</li> <li>• Perkin Elmer</li> <li>• Qiagen</li> <li>• Roche Diagnostics</li> <li>• Thermo Fisher</li> </ul> | UK testing strategy is currently for 100,000 tests a day. Looking to increase significantly, in particular when starting use of antibody tests to assess if an individual has previously had COVID-19.   | Currently only using antibody testing for seroprevalence. In the event of a validated test, will also use to assess if an individual has raised antibodies against COVID-19.                                                                                     | -                                                                       |
|                | <b>Test type</b>                                                                                                                                                                                                                                                                                        | <b>Quantity</b>                                                                                                                                                                                          | <b>Test type</b>                                                                                                                                                                                                                                                 | <b>Quantity</b>                                                         |
| Norway         | RT-PCR <ul style="list-style-type: none"> <li>• Roche covid-19 assay</li> <li>• Roche cobas 6800 covid-19 assay</li> <li>• EasyMag covid19 assay</li> <li>• Geneexpert covid-19 assay</li> <li>• TibMolBio covid-19 assay</li> </ul>                                                                    | Expect approx. 15-20,000 persons per week the next few weeks. To be reduced if epidemic intensity lowers. Probably less than 10,000 tests a week during summer.                                          | Abbot Arcitect<br>In-house flowcytometry (illumine)<br>EuroImmune<br>DiaSorin<br>Roche kit<br>Wantai SARS-CoV-2 Ab ELISA kit                                                                                                                                     | Probably a couple of hundred each week if the epidemic is not evolving. |
| Switzerland    | RT-PCR <ul style="list-style-type: none"> <li>• Kits by TibMolBio (=Roche kits)</li> <li>• Kits by Seegene</li> <li>• Kits by Altona</li> <li>• Kits by CDC</li> <li>• Kits by Lifereiver</li> </ul>                                                                                                    | In total, approx. 280'000 diagnostic tests have been conducted. Depending on the evolution of the pandemic, future needs could range from a few thousand tests (end of pandemic) to 1 million tests (big | Antibody tests not currently recommended but information from laboratories indicates the following tests are being/will be employed in serosurvey and possibly for private customers <ul style="list-style-type: none"> <li>• Luminex (in house test)</li> </ul> | No estimate.                                                            |

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|            | <ul style="list-style-type: none"> <li>Kits by Thermofischer</li> <li>Kits by Perkin Elmer</li> <li>Kits by Qiagen</li> </ul> <p>+ BD Max Platforms (BecktonDickinson)<br/>+ GeneXpert Platforms (Cepheid)<br/>+ COBAS Platforms (Roche)</p> | second wave).                                                                   | <ul style="list-style-type: none"> <li>EuroImmun IgG</li> <li>Epitope Diagnostics IgG</li> <li>Roche Test (Elecsys)</li> </ul> |                                                                                         |
| Montenegro | RT-PCR                                                                                                                                                                                                                                       | Currently 6000 tests monthly (18,000 for three months / 36,000 for six months). | Plans to conduct serosurvey using ELISA test (possibly Euroimmun IgG and IgA testing devices).                                 | Representative serosurvey should be based on a sample size of cca. 4000 tested persons. |