Eurofins SAFER@WORK™ Programmes Deliver 1-2-3 Punch Against COVID-19 Outbreaks on Its Own Laboratory Site

Eurofins Steins Laboratorium, Vejen, Denmark

Eurofins Steins Laboratory is the leading food testing laboratory in Denmark, with 6 buildings—30,000 total sq ft—and 350 on-site employees; its services include nutrition, contaminant, residue, and microbiology testing. As the entire country depends on Steins for safe, traceable food from the country's primary dairies and slaughterhouses, any laboratory disruption during the SARS-CoV-2 pandemic would be catastrophic.

SAFER@WORK: Surface Testing for Early Detection

June 2020: Steins deploys the first line of Eurofins' COVID-19 action plan on site: surface testing. The Steins site had already intensified their daily cleaning of high-touch surfaces during the COVID-19 crisis (door handles, for example, were disinfected three times each day) and used surface testing to demonstrate that the disease would not spread among staff via such surfaces.

Using Eurofins' ready-to-use SARS-CoV-2 surface sampling kits every two to three days, Steins tested the most frequently touched surfaces in all buildings, including canteen/kitchen areas, restrooms, elevators and other high-touch interiors. Eurofins SAFER@WORK surface testing

can even detect SARS-Cov-2 in areas where the virus is no longer contagious, further empowering teams to monitor less-tracked areas.

Although the Eurofins Steins lab has experts on site, no special training is required to execute surface testing, and Steins received same-day results, enabling teams to swiftly address hot spots.

Surface contamination was detected in only a single case in Autumn 2020, and the Steins site immediately audited and enhanced its cleaning/disinfecting protocols.

SAFER@WORK: Wastewater Testing for Early Detection

In July 2020, Steins implemented the next layer of defence: wastewater testing. Another component of the Eurofins SAFER@WORK services bundle, governments and industries around the globe have deployed wastewater testing to monitor and track the virus, and stifle the spread of COVID-19 in communities and work sites. Steins' structural logistics and consistent on-site populations enable segregation of teams, so Eurofins SAFER@WORK teams can sample in hyper-focused locations.

Wastewater testing is proven to provide a cornerstone for ongoing, on-site COVID-19 outbreak prevention. **Eurofins' wastewater testing can detect** SARS-CoV-2 in a population with an infection rate as low as **2 to 10 infections per 10,000 people. Equally powerful, preliminary data indicate it can detect the presence of SARS-CoV-2** on a site **up to one week before infected occupants even experience symptoms,** enabling leadership to immediately isolate and remove infected persons, and continue operations.[i]

This predictive component is critical, as the data enables large sites and government agencies to predict, prevent, and contain outbreak; and can help businesses make safer, more informed decisions to avoid disruption and maintain productivity.

In August 2020, as COVID-19 cases rose in Denmark, Steins' leadership accelerated its wastewater testing program, from once per week to twice weekly. In November 2020, the test detected a positive case on site, the location of the infection was identified and the team members in that location were individually PCR tested. Only one tested positive, and was sent home for quarantine and recovery. Three days later, all staff who had contact with the infected person were PCR tested again—not one more tested positive.

Yet again, Eurofins' SAFER@WORK site monitoring proved it could successfully disrupt the spread of infection. However, laboratory continuity at the Steins site is so critical to the country's food supply, its leadership team deployed one more line of defence.

SAFER@WORK: Worn Mask Testing for Early Detection

In November 2020, following the success of surface and wastewater testing, Steins began testing worn masks. Staff are separated into teams of 6-10 people working closely together, and worn masks from the first 1-2 hours of the working day are collected from each team. A small sample area from each worn mask is cut, and the cuts from each team are mixed together and analysed for presence of virus. In case of a positive finding, the team is isolated and individuals are tested.

During November and December, worn masks were tested once per week. The testing paid off: In late November, a team was identified as positive, despite the absence of any symptoms in any member of the team. Individual testing of the team disclosed three positive team members;

the remaining seven team members were all negative, as were colleagues in neighboring teams.

During mid-December, another two cases appeared. In both cases, positive worn mask testing detected the presence of a single non-symptomatic infected team member, and Steins again avoided outbreak.

Returning from Christmas and New Year—after holiday travel—the site escalated frequency to daily worn mask testing. In January, another positive infection was detected in a team that is critical to daily production. Again, the Steins Laboratory was able to isolate the infection fast enough to avoid any further spread.

Svend Aage Linde, Managing Director of the Eurofins Steins Laboratorium Vejen, commented: "In all the positive cases, the people were asymptomatic**. I have no doubt these testing and monitoring services, taken together, saved the laboratory from a disastrous disruption. It saved our production**—not one time did we fear we could not deliver our critical services. And people feel comfortable coming to work, knowing we are protecting them, and protecting ourselves. We cannot right now prevent the virus entirely, but we can significantly limit the consequences."

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Eurofins is a global life sciences leader in food, environmental, and pharmaceutical testing; along with testing and laboratory services for clinical diagnostics, genomics, pharmacology, forensics, and in the support of clinical studies. With more than 800 laboratories in over 50 countries, more than 50,000 employees, and over 200,000 analytical methods, we are uniquely positioned to deliver end-to-end solutions in the global fight against COVID-19. **Eurofins has performed more than 15 million SARS-Cov-2-related tests in its laboratories between 2020-2021.**

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[i] Larsen, D.A., Wigginton, K.R. Tracking COVID-19 with wastewater. *Nat Biotechnol* **38,** 1151–1153 (2020). https://doi.org/10.1038/s41587-020-0690-1