

# Covid-proof eating out: here's how

**In the *Samen Slim Open* project (Staying open smartly), Quirine ten Bosch has developed a simulation model for Covid-proof layouts in restaurants.**

Ten Bosch, who works at Quantitative Veterinary Epidemiology, has been doing research with scientists from Delft and Rotterdam on how Covid-19 spreads in indoor spaces. 'Our simulations show something different to the general models used by the National Institute for Public Health and Environment (RIVM),' she says. Ten Bosch looks specifically at what happens when a group of people come into a restaurant. How do they deal with the one-and-a-half-metre distancing rule? What route do they take from their table to the toilet?

## Risk profile

Ten Bosch and her colleagues from the Erasmus Medical Centre in Rotterdam simulate the presence of a person infected with the coronavirus in an indoor space, to see how that person transmits the virus through the air, how many virus particles are in the air, and how this can lead to a new infection.

Scientists from TU Delft have been modelling the behaviour and movements of restaurant guests under different sets of Covid rules. This model was developed at railway stations for the national railway company NS and has now been adapted for restaurants. It provides a tool with which restaurant owners can work out which layout and rules would serve best in their space for limiting transmission of the coronavirus.

## 'On the basis of the risk profile we can make the indoor space Covid-proof'

There is no such app yet, but Ten Bosch can already draw a few conclusions from the study. The length of the contact time is a crucial factor in the transmission of Covid-19. Restaurants can limit the contact time between diners by letting people in for a maximum of 45 minutes, with no overlap in the time slots. 'We can draw up a risk profile per room,' says Ten

