

# meteoLCD Weblog

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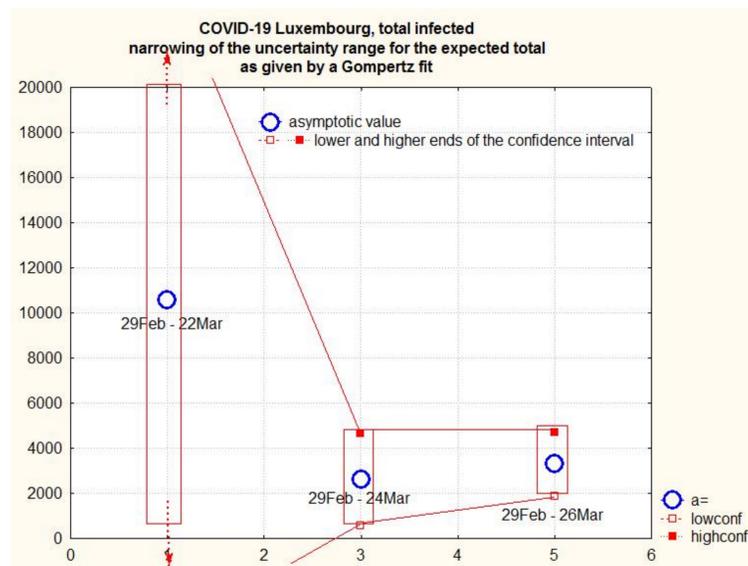
## Covid-19 Luxembourg: narrowing of the uncertainty range (3/x)

In the previous blog ([link](#)) I wrote about the fact that with few data points, the Gompertz fit asymptotic value (= the maximum of infected people to be expected) has an extremely large uncertainty. The interval may extend to impossible negative and also impossible high positive values.

As an example I will show how the situation changes if we extend the full data series (starting the 29th February) from the 22nd March to the 24th and finally the 26th March.

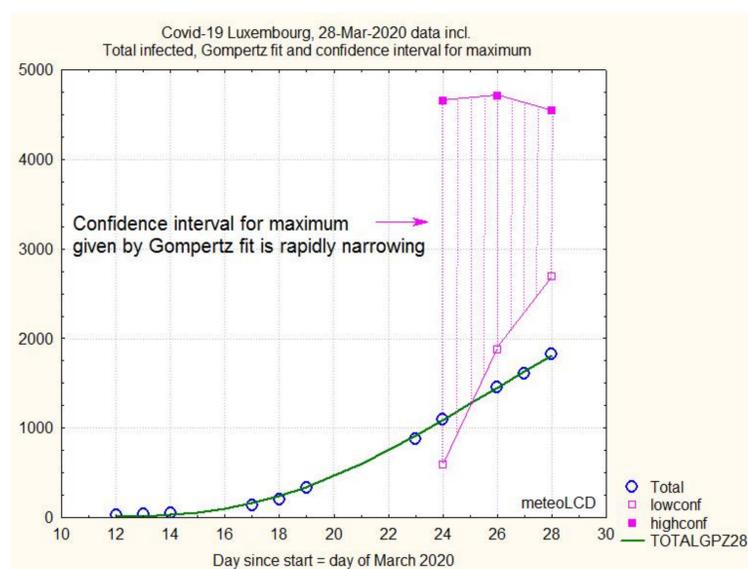
If we stop at the 22nd, the lower bound is about -22430 and the higher 43532, and the parameter  $a$  of the Gompertz fit (i.e. the asymptote) is not statistically significant.

When we extend the period to March 24, and then again up to March 26, everything changes: the computed asymptotes become statistically significant, and the uncertainty interval narrows spectacularly:



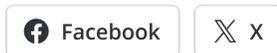
The blue circles represent the asymptotic values, and the red boxes the range of the uncertainty interval. I will continue this investigation when data up to the 28th March are available.

PS: here is the situation with the 28-March data included:



(to be continued)

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