Twitter Thread by Dr Emma Hodcroft

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To add to the excitement of your Saturday evening, the focal S:N501 build is now updated with data from 8th Jan, including 48 new seqs in 501Y.V1 (B.1.1.7 #b117) & 501Y.V2.

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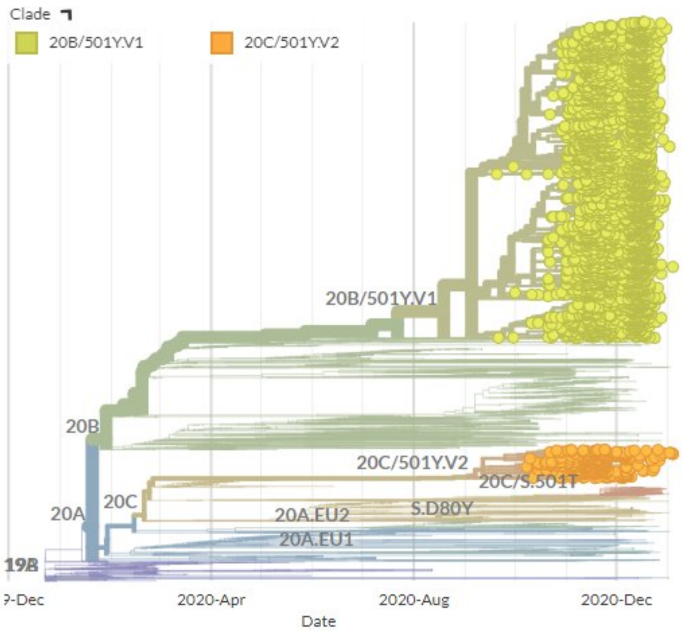
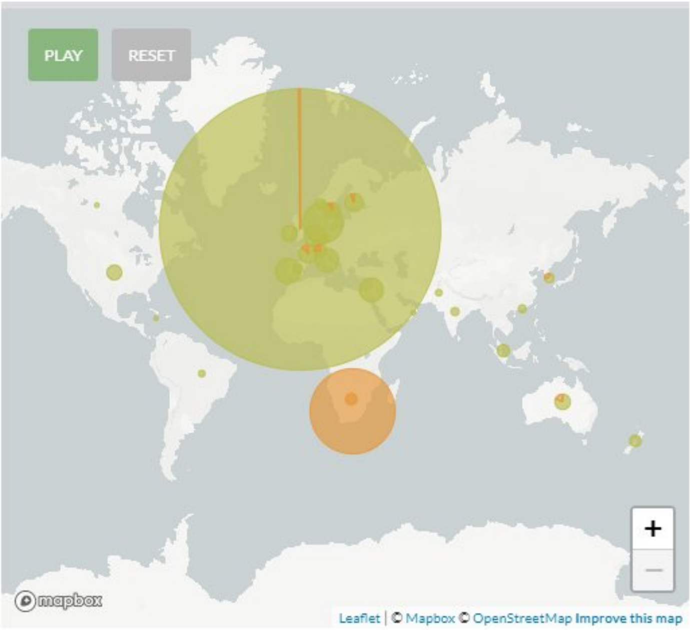
https://t.co/AbdhO1rqpw





There are 46 new non-UK sequences in 501Y.V1, from the Netherlands, Italy, Israel, Ireland, Norway, Sweden, the USA, and Luxembourg.
And 2 new non-South African sequences in 501Y.V2, from Australia for the first time.

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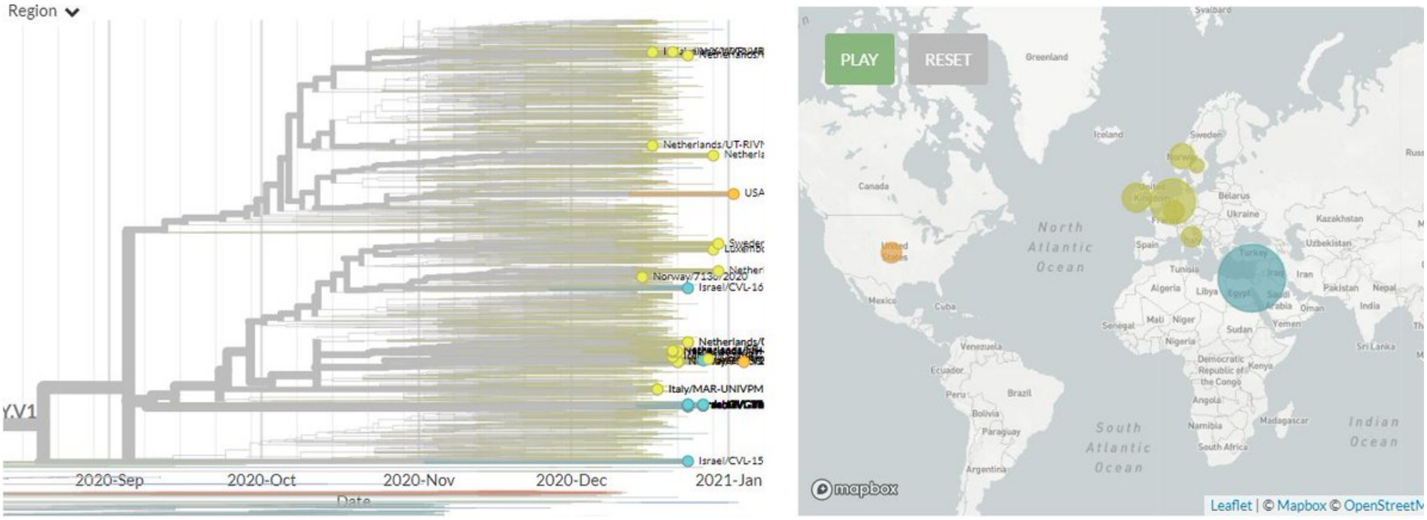

In 501Y.V1:

Ireland has 4 new sequences (orange). 2 sit separately but are identical, indicating an additional introduction. 2 link to a previous sequence (green), 1 mutation away each. This could indicate location transmission, unsampled diversity, or a common exposure.

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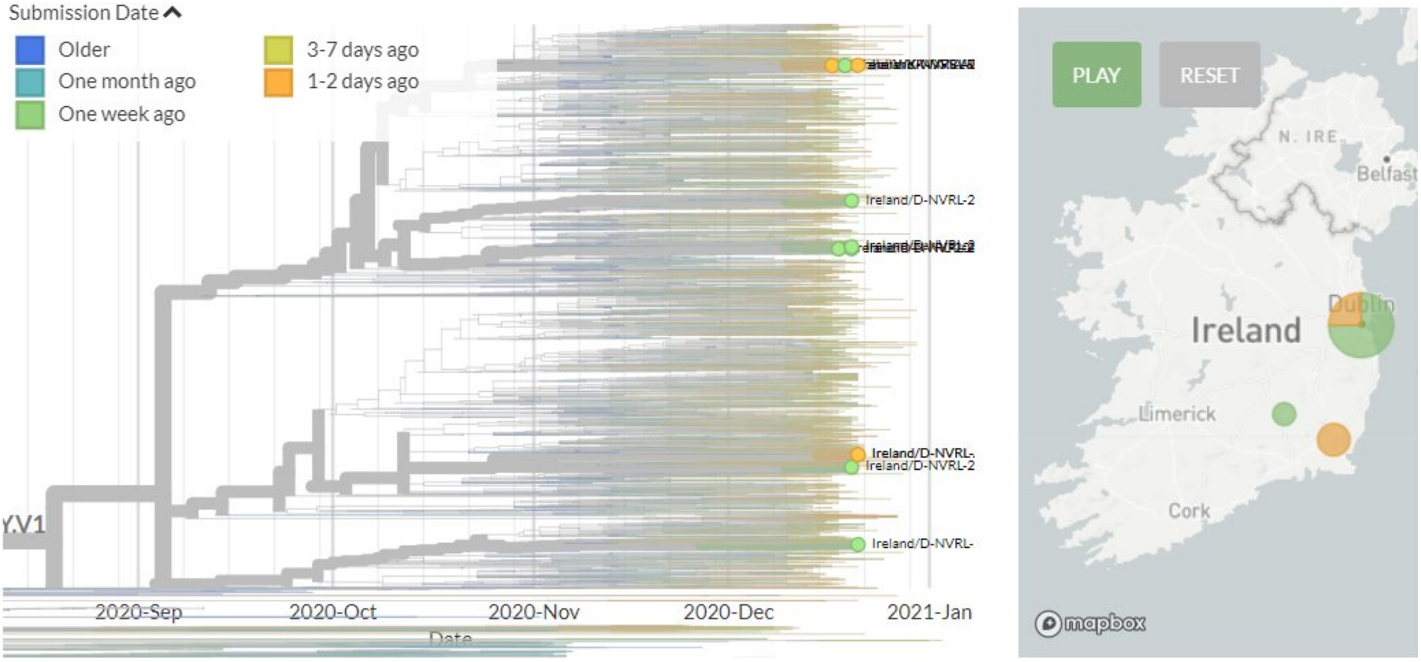

The Netherlands has 10 new seqs (orange). Many sit apart on the tree, indicating additional introductions. 3 cluster together separated by a few mutations. 2 are identical to an older seq. 1 falls in a cluster of older seqs. Some of these could indicate local transmission.

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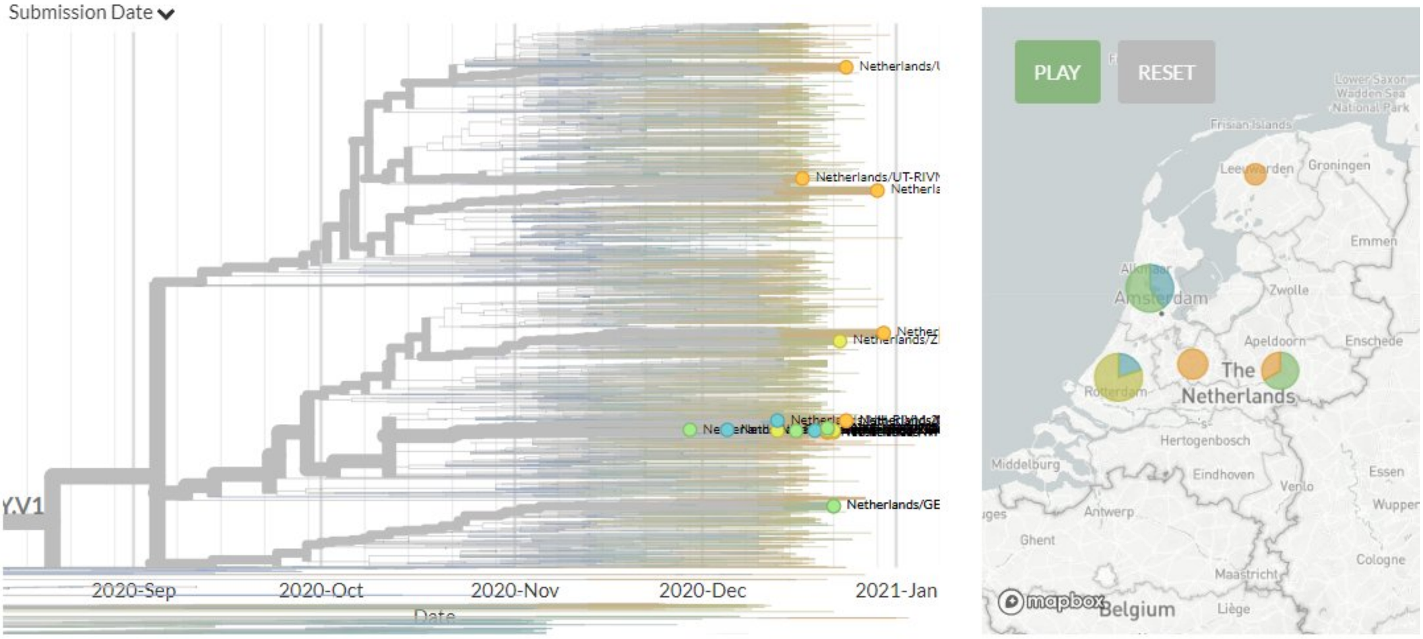
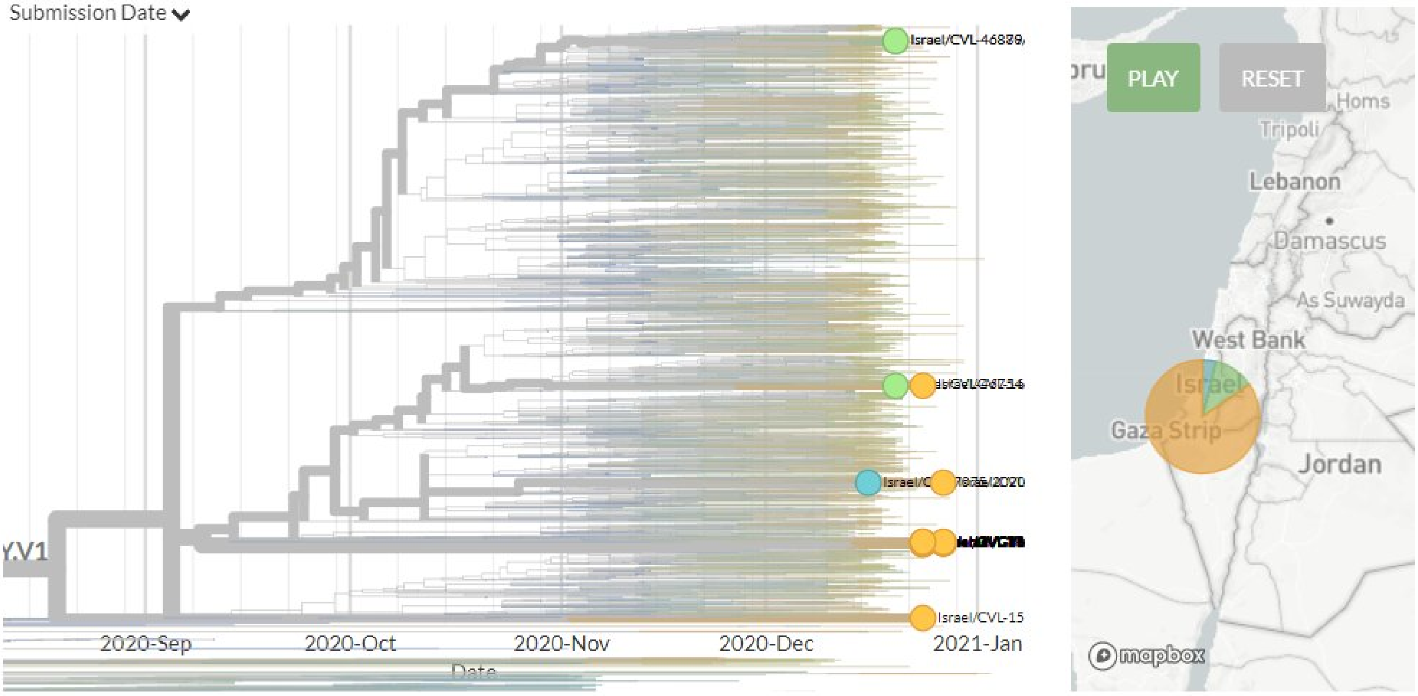
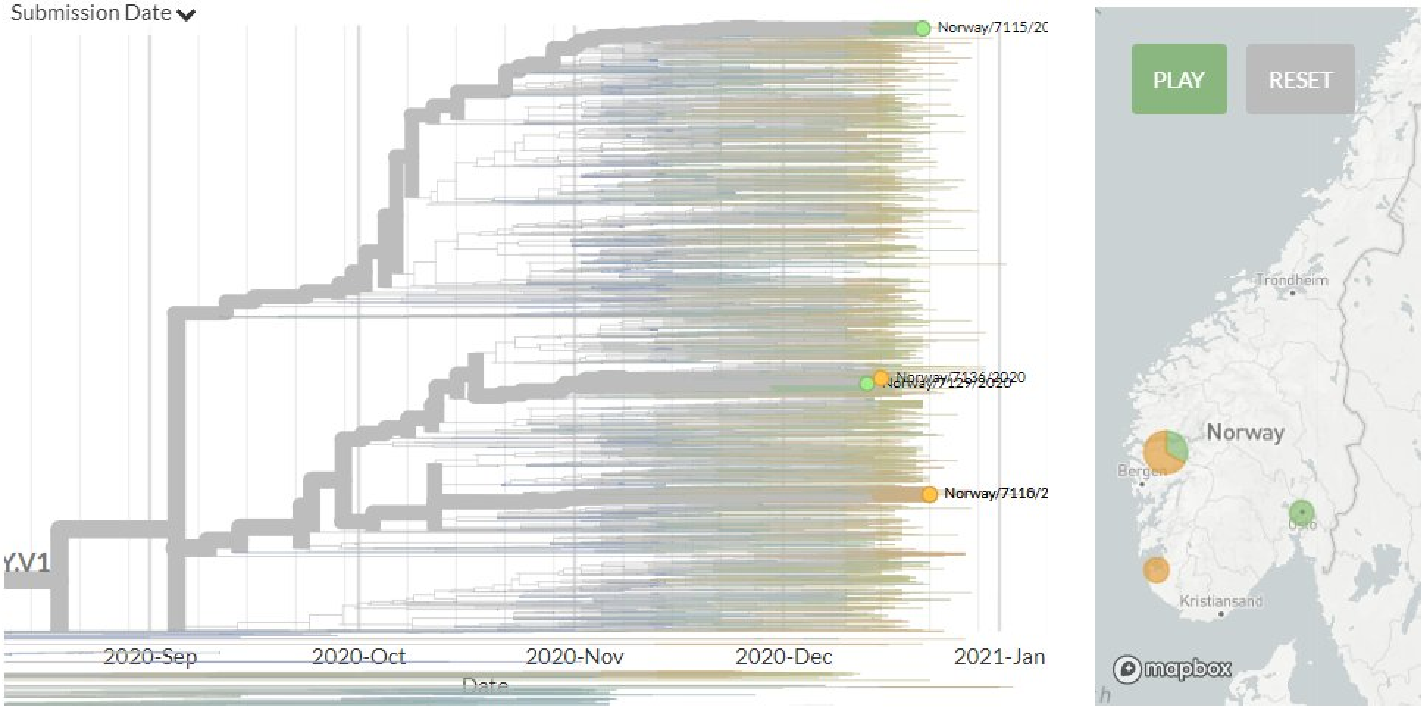


Israel has 22 new sequences (orange). 1 links to an older sequence, but is separated by 3 mutations, so may be separate introductions. Another is identical to an older sequence. But most new sequences cluster together (blue), clearly indicating local transmission.



Norway has 3 new sequences (orange). 2 cluster together but differ by 1 mutation, making their relationship hard to confidently infer. The other sits separately and indicates an independent introduction.



Italy has 2 new sequences (orange). Zooming in (divergence view) we can see they are identical (yellow), so are likely a single introduction.

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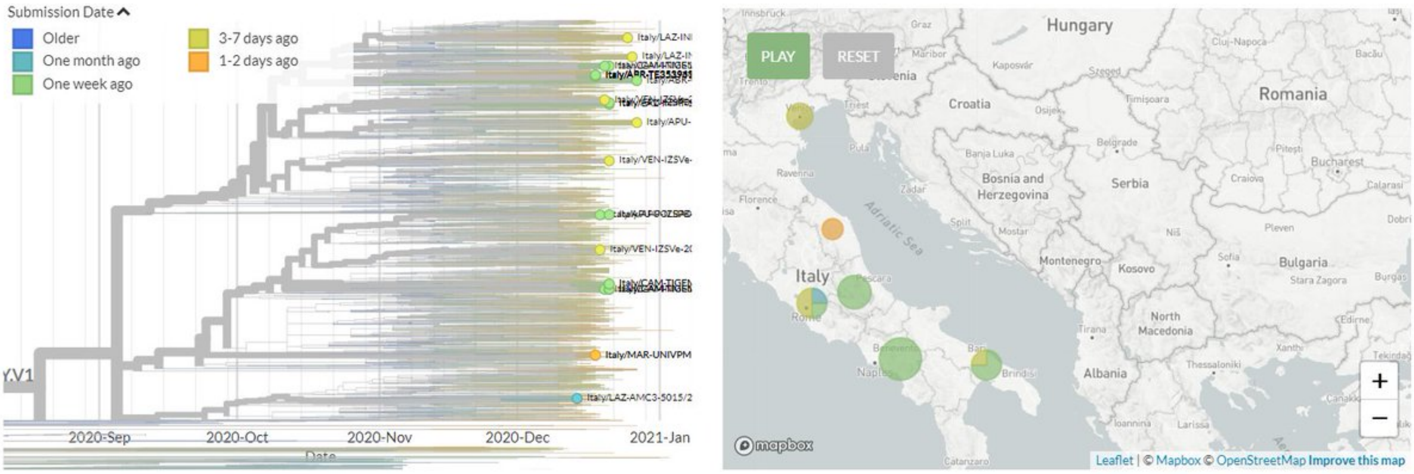

The USA has 2 new sequences, from Connecticut (orange). They sit separately from each other & other USA sequences on the three, indicating independent introductions.

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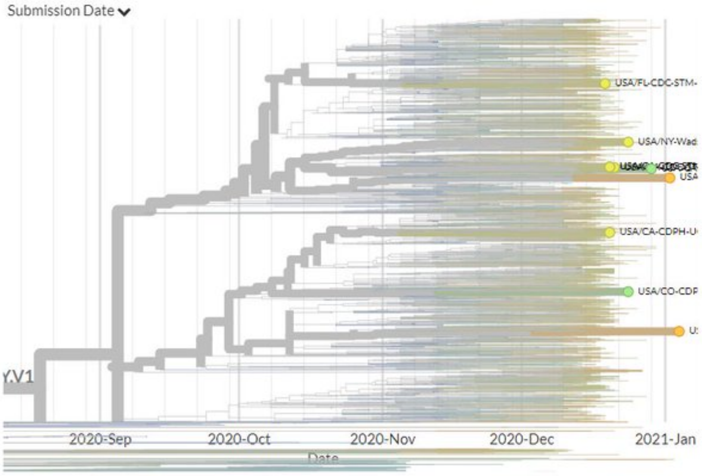

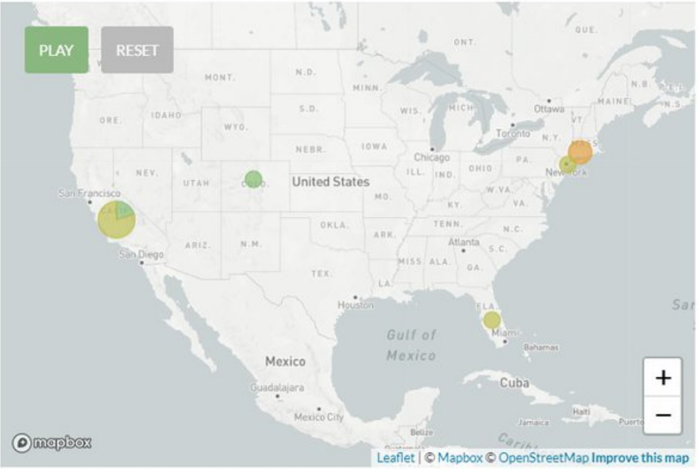

Luxembourg has 2 new sequences (orange). They sit apart on the tree, indicating separate introductions.

Sweden has 1 new sequence (orange). It sits separately, indicating an additional introduction

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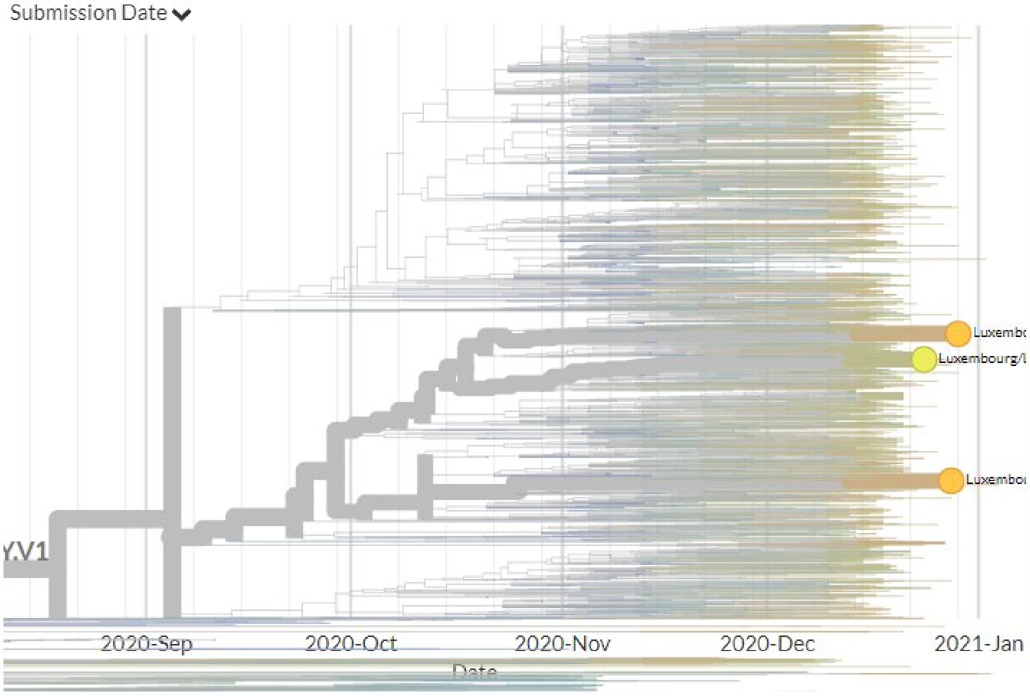

In 501Y.V2:

Australia has sequences that fall into 501Y.V2 for the first time. Zooming in (divergence), we can see they are identical, indicating one introduction.

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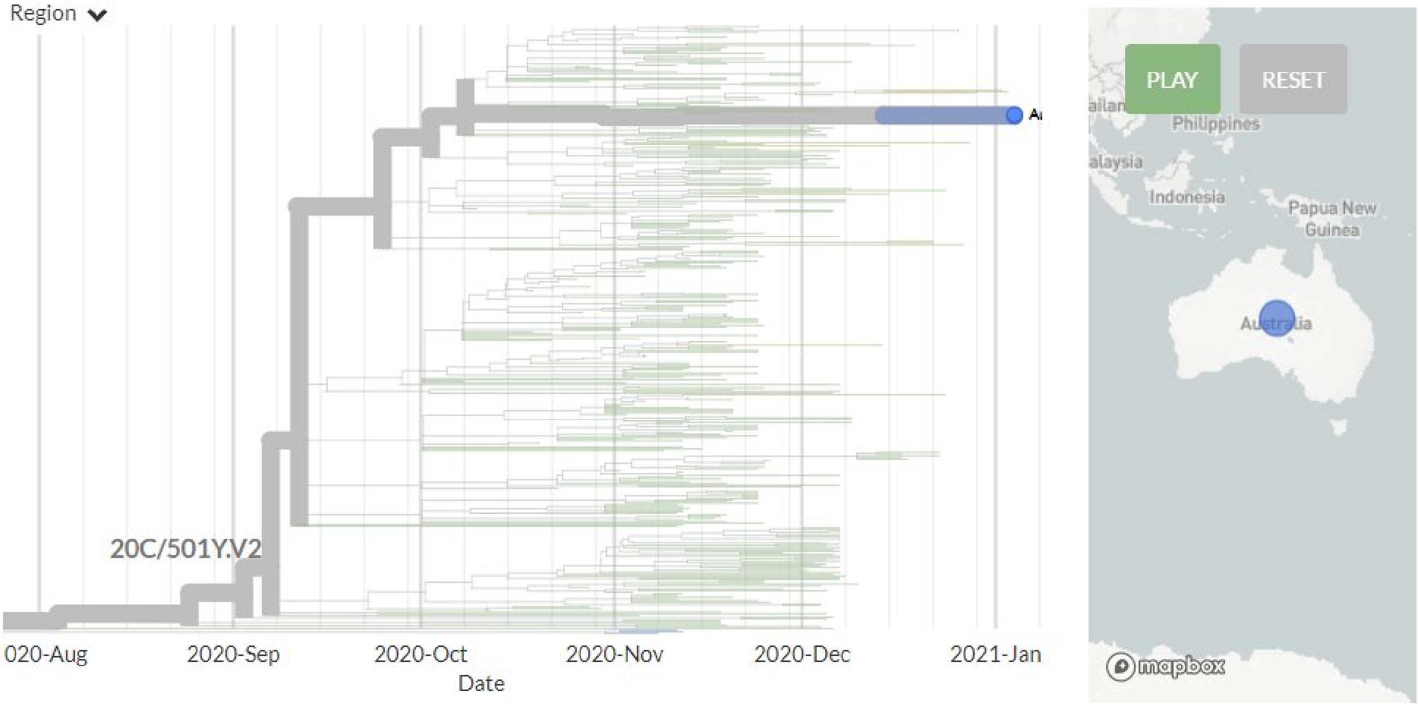

As always, the S:N501 "reduced UK" build is updated, & the country-graphs are also updated - remember: many places are preferentially sequencing S:N501 (hot pink), so the frequencies shown may not accurately reflect the true proportion of S:N501!

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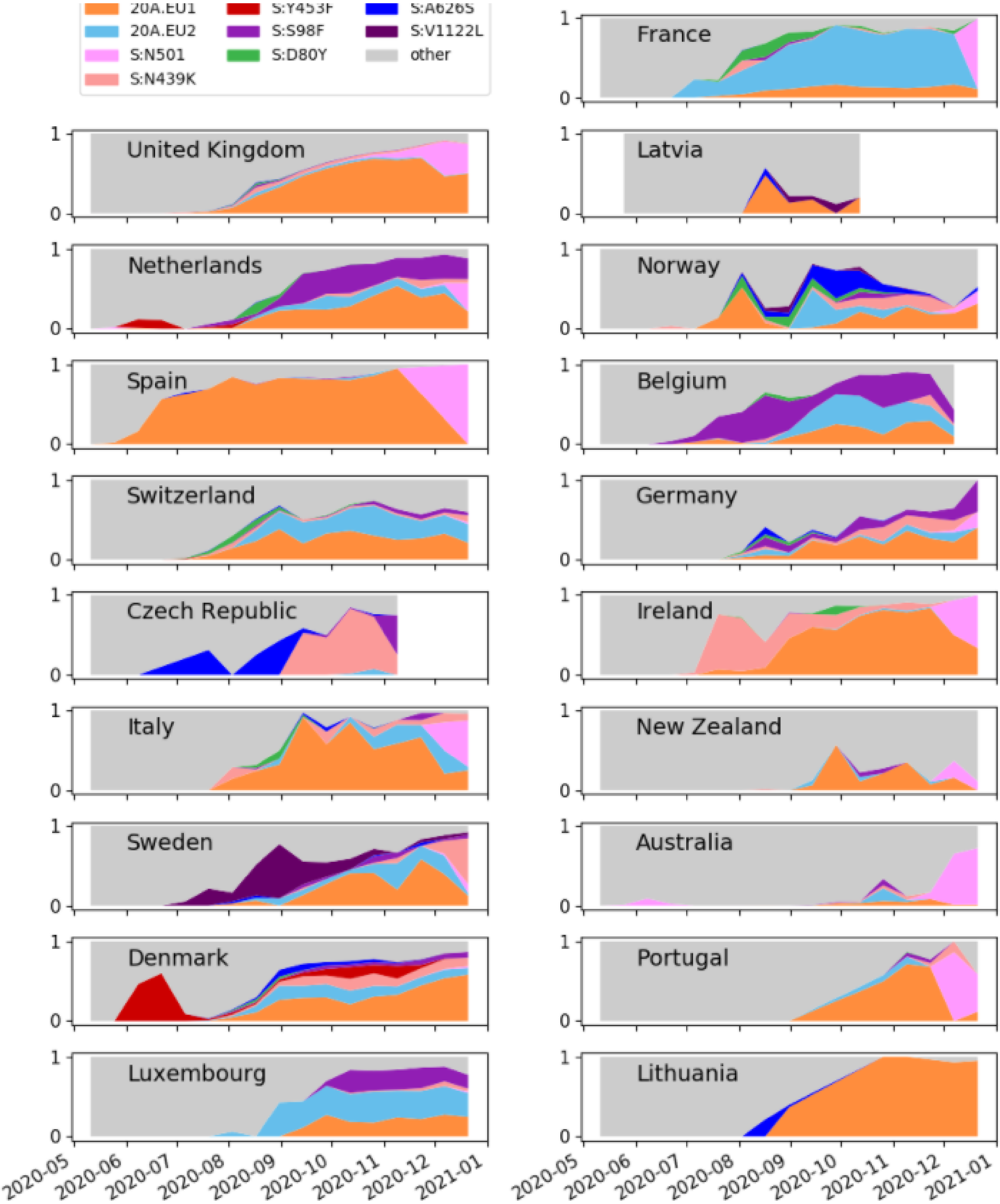
https://t.co/c7wlQOLRiq



Finally, the main CoVariants SARS-CoV-2 Variant Tracking page is updated with new links & a new section for S:E484 - but as always, I welcome Pull Requests & Issues in the repository, with papers or online resources I've missed!

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https://t.co/6qBdWhREtl