Forecasting of coronavirus COVID19 epidemic (SIR model)

It is assumed that the model is a reasonable description of the one-stage epidemic. In particular, the model assumes a constant population, uniform mixing of the people, and equally likely recovery of infected. The model is data-driven, so its forecast is as good as data are. The forecasting change with new or changed data.

**DISCLAIMER**: The model may fail in some situations. In particular, the model may be inadequate; the model may fail in the initial phase and in when additional epidemic stages or outbreaks (not described by SIR model) are encountered. Use it at your own discretion.

**Source of data**

<https://www.worldometers.info/coronavirus/coronavirus-cases/#case-tot-outchina>

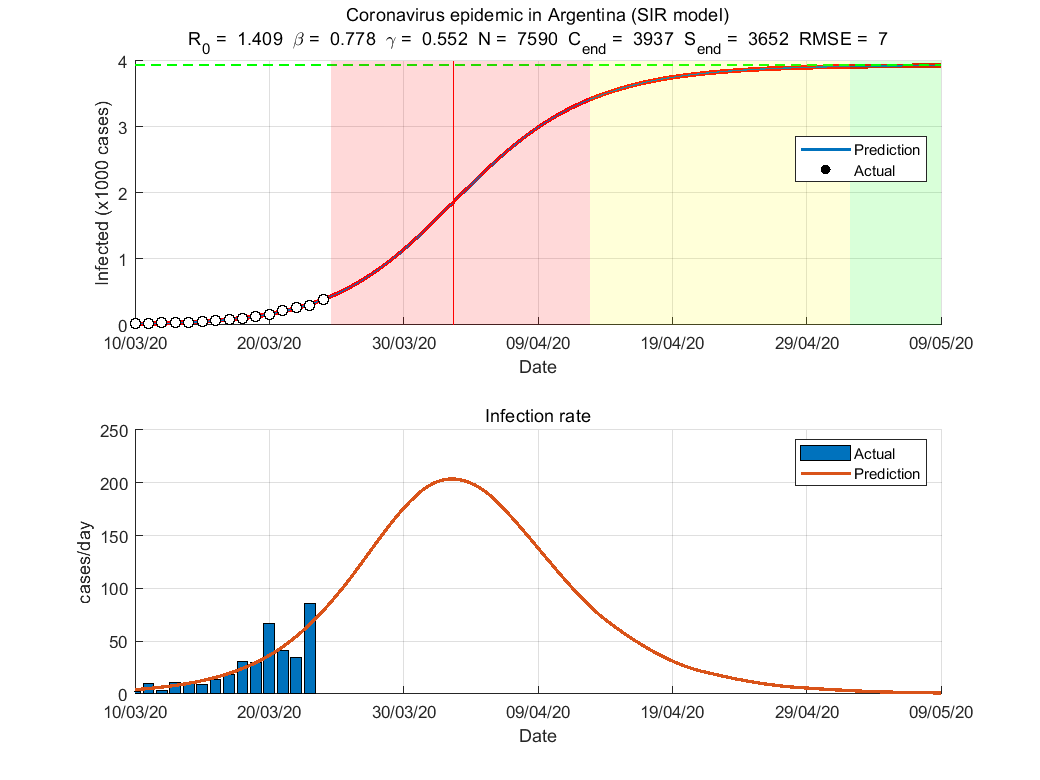
<https://en.wikipedia.org/wiki/2019%E2%80%9320_coronavirus_pandemic_by_country_and_territory>

An actual source of data is for each country reported in the corresponding getData function.

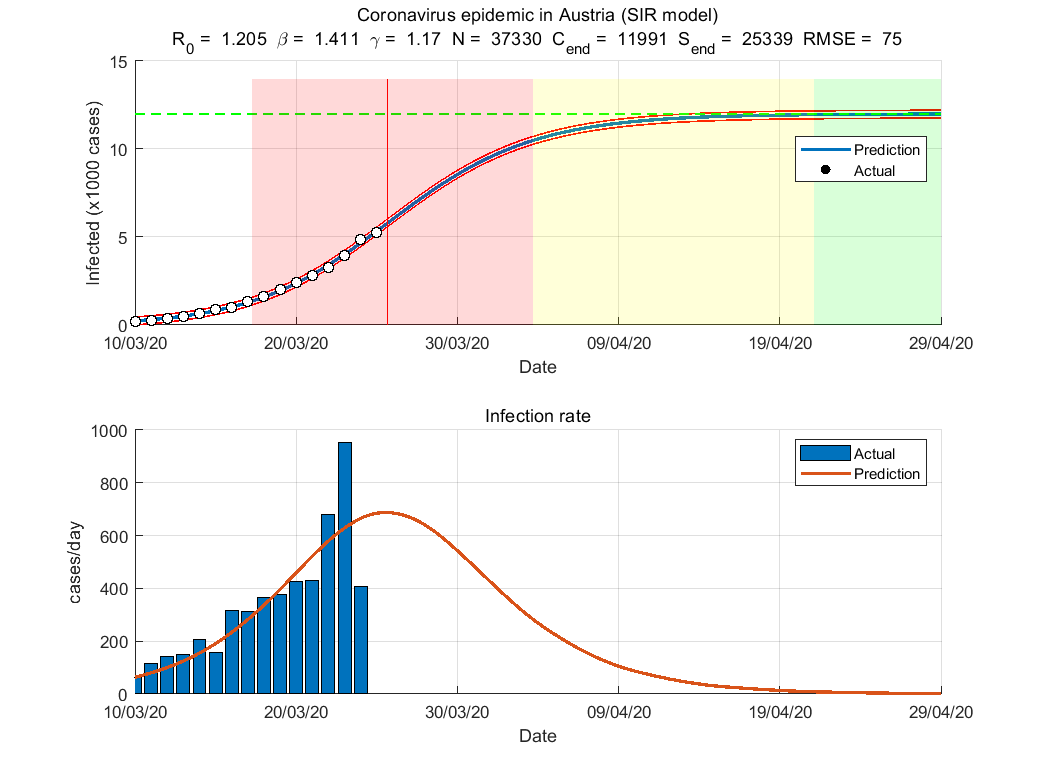
**Report**

Date: 25-Mar-2020

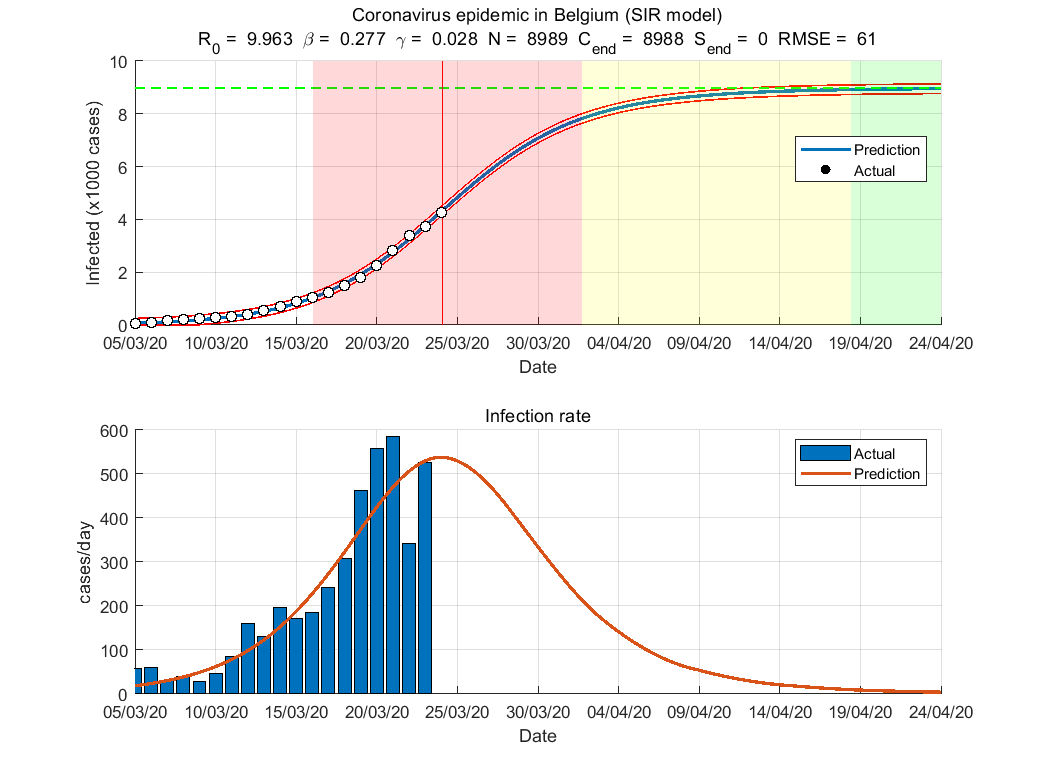
**Argentina**



**Austria**



**Belgium**

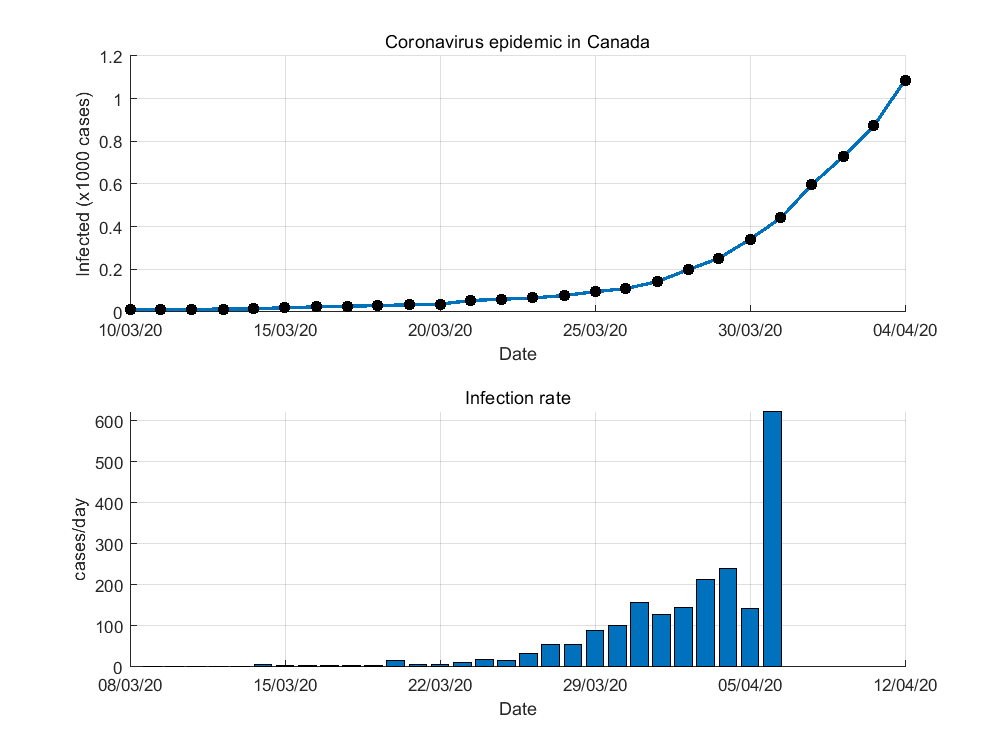


**Canada**

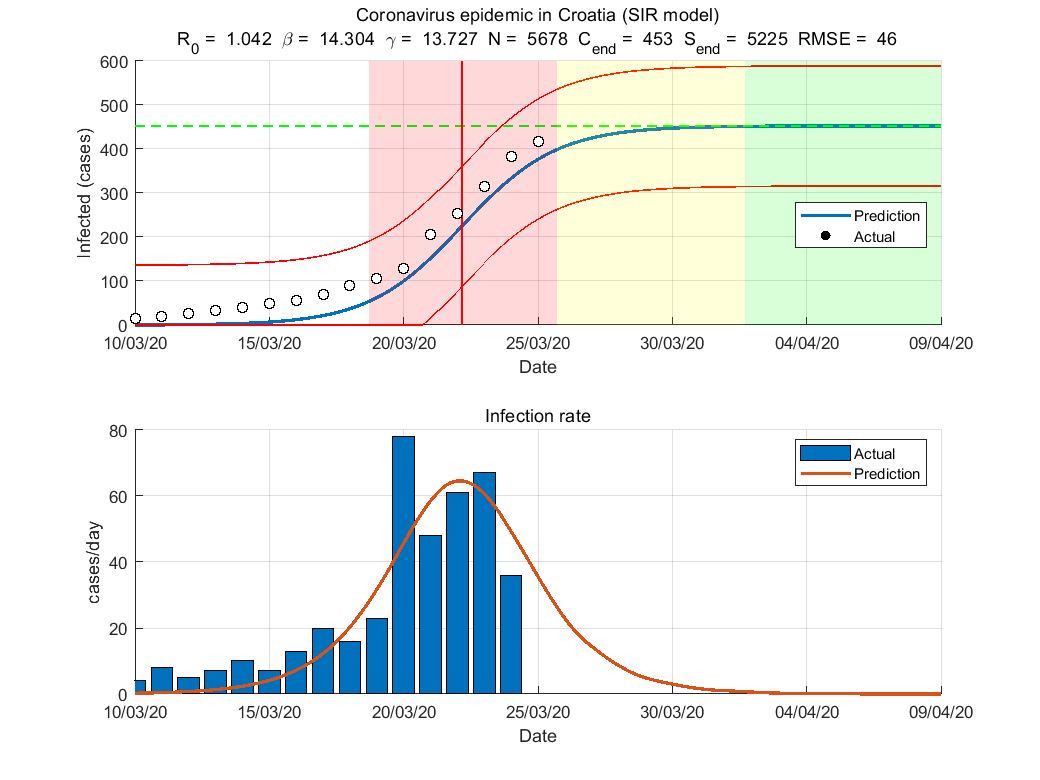
Fail to obtain parameters.

ini: beta = 0.845523 gamma = 0.563682 N = 11675.4 I0 = 0.554123

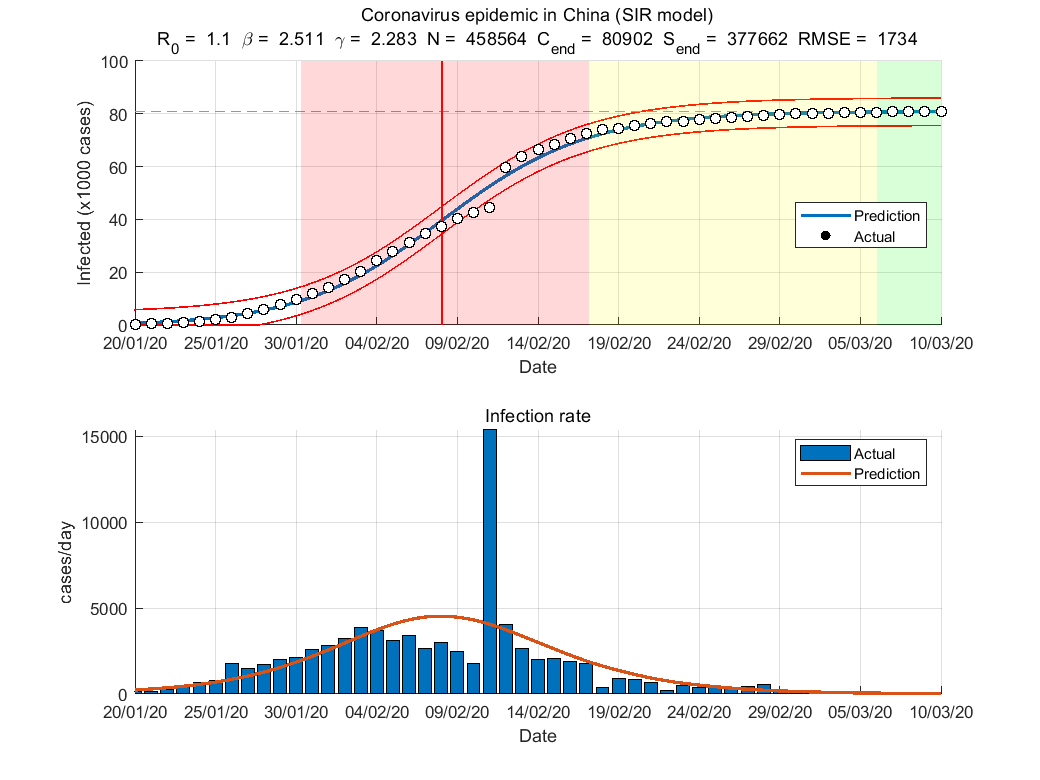
calc: beta = 0.461908 gamma = 0.183288 N = 2.18236e+07 I0 = 0.362171



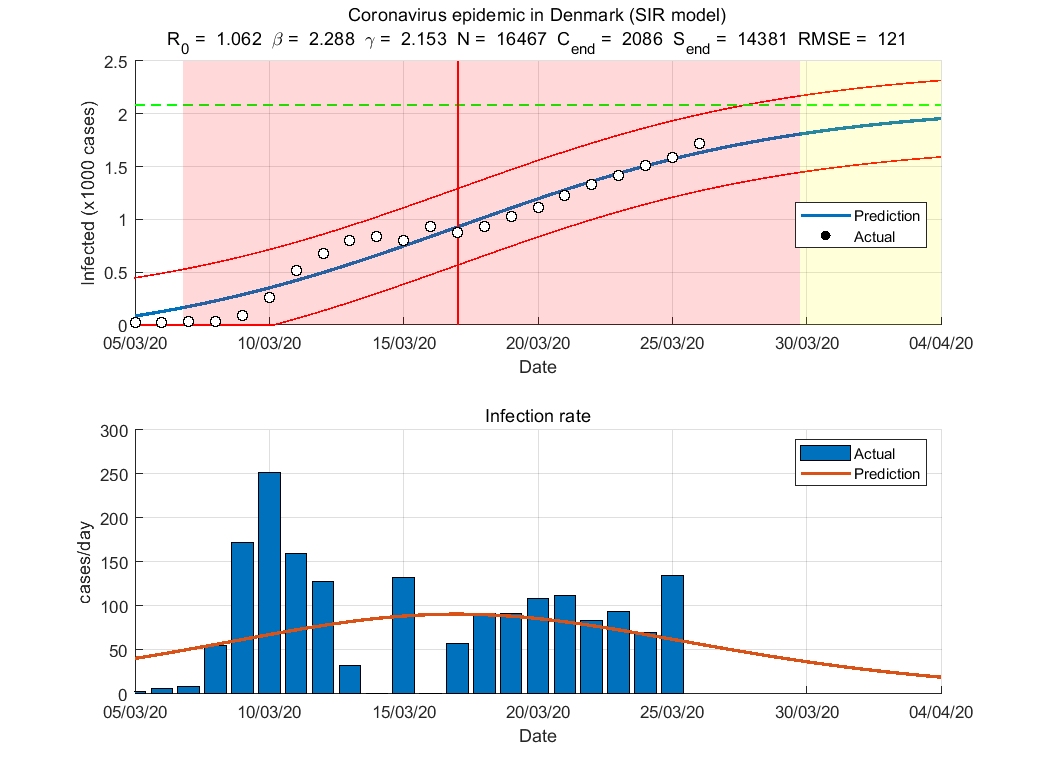
**Croatia**



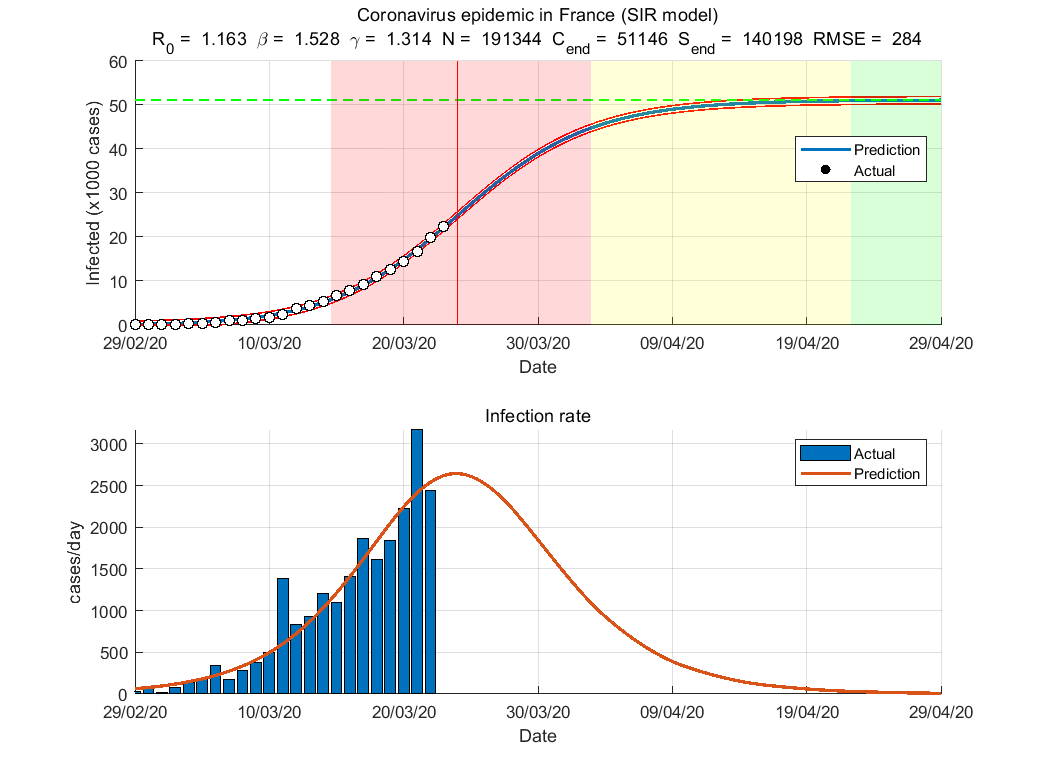
**China**



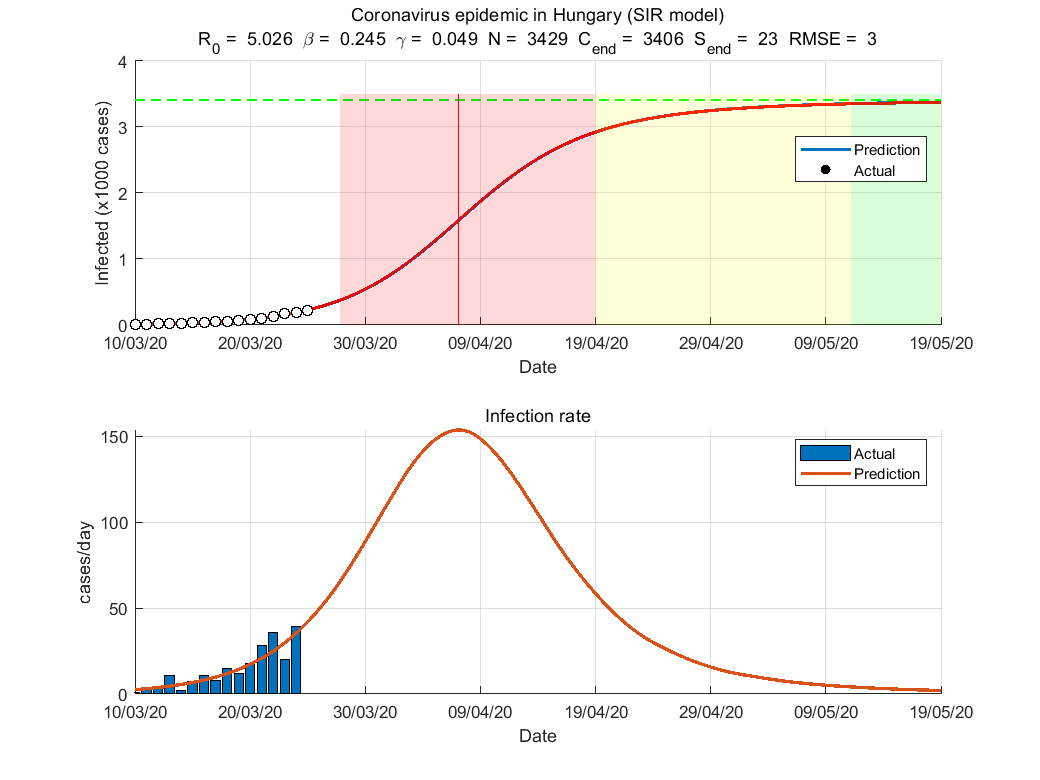
**Denmark**



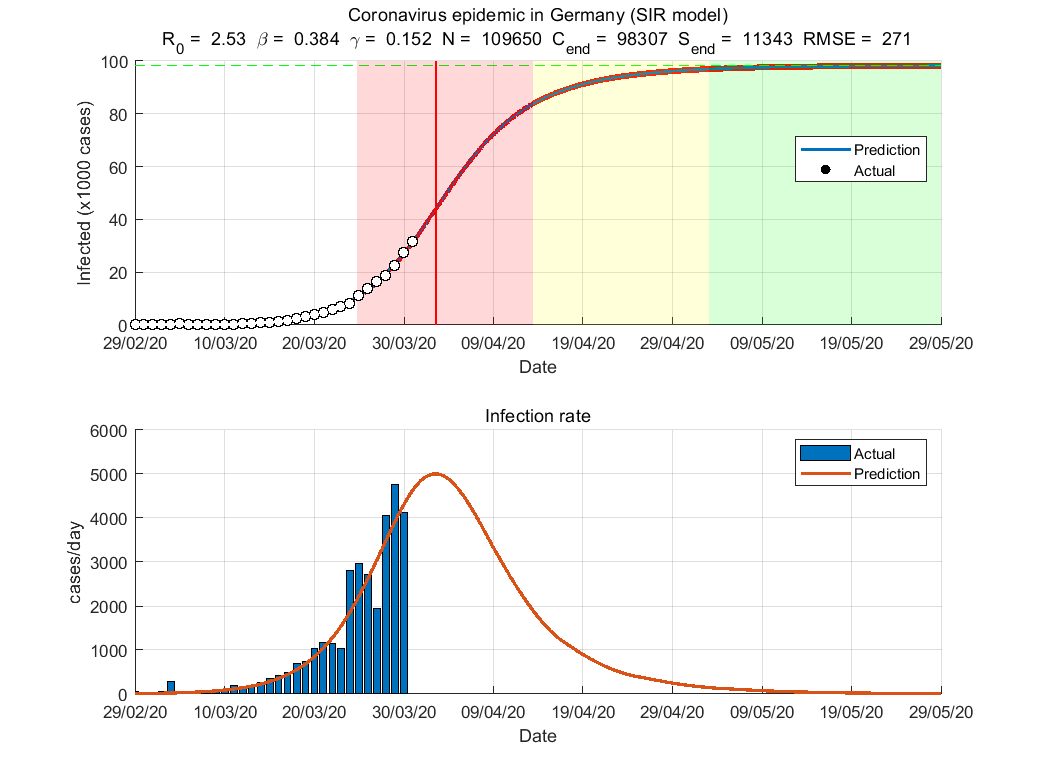
**France**



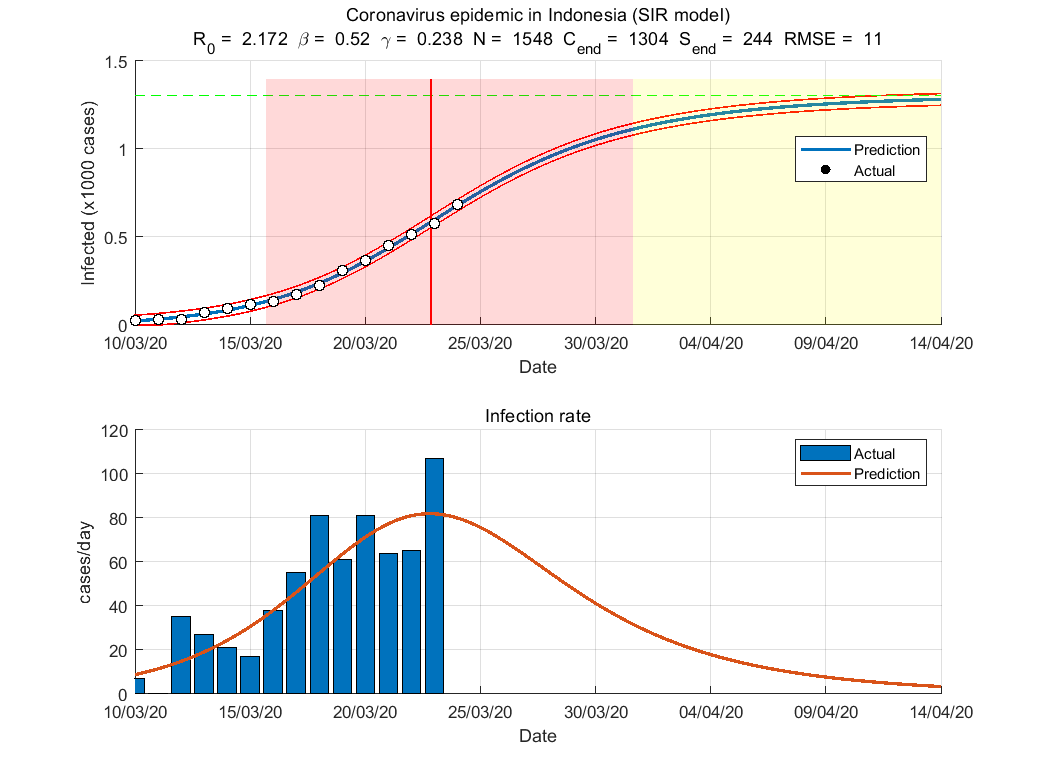
**Hungary**



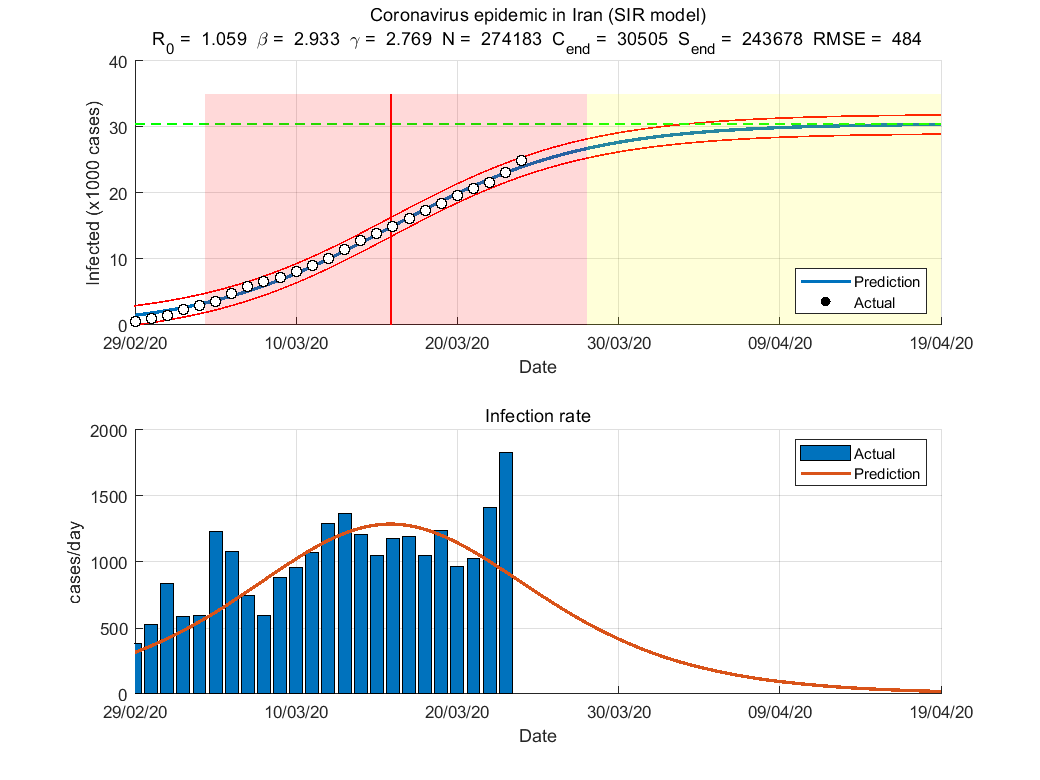
**Germany**



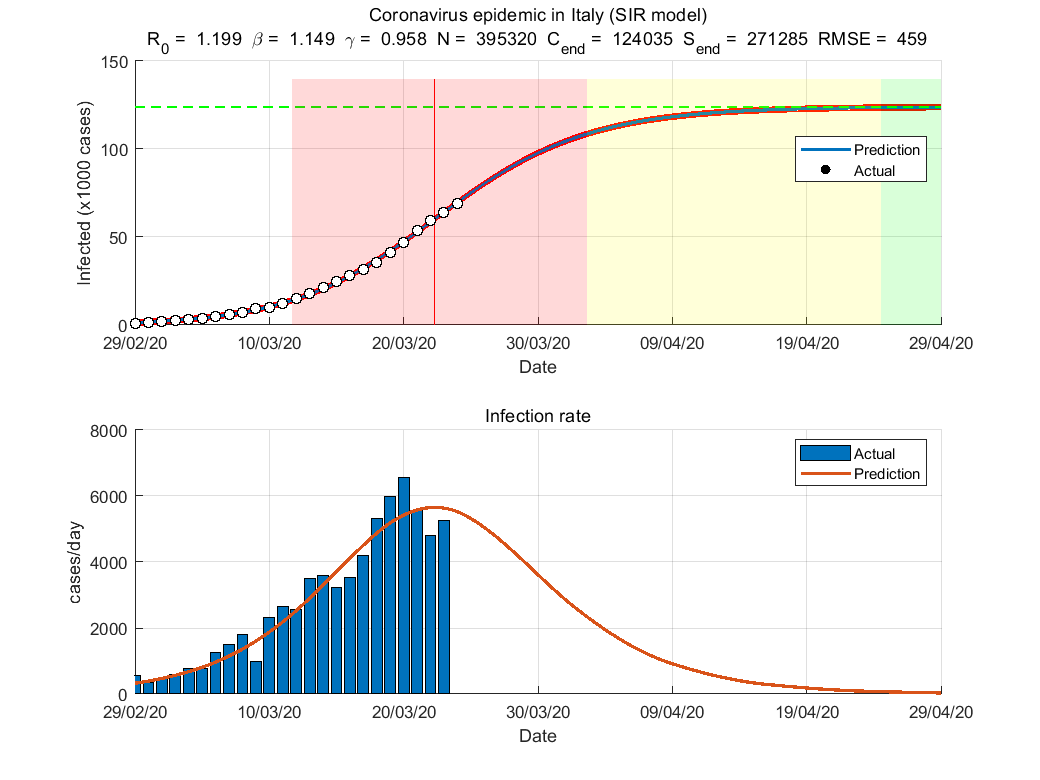
**Indonesia**



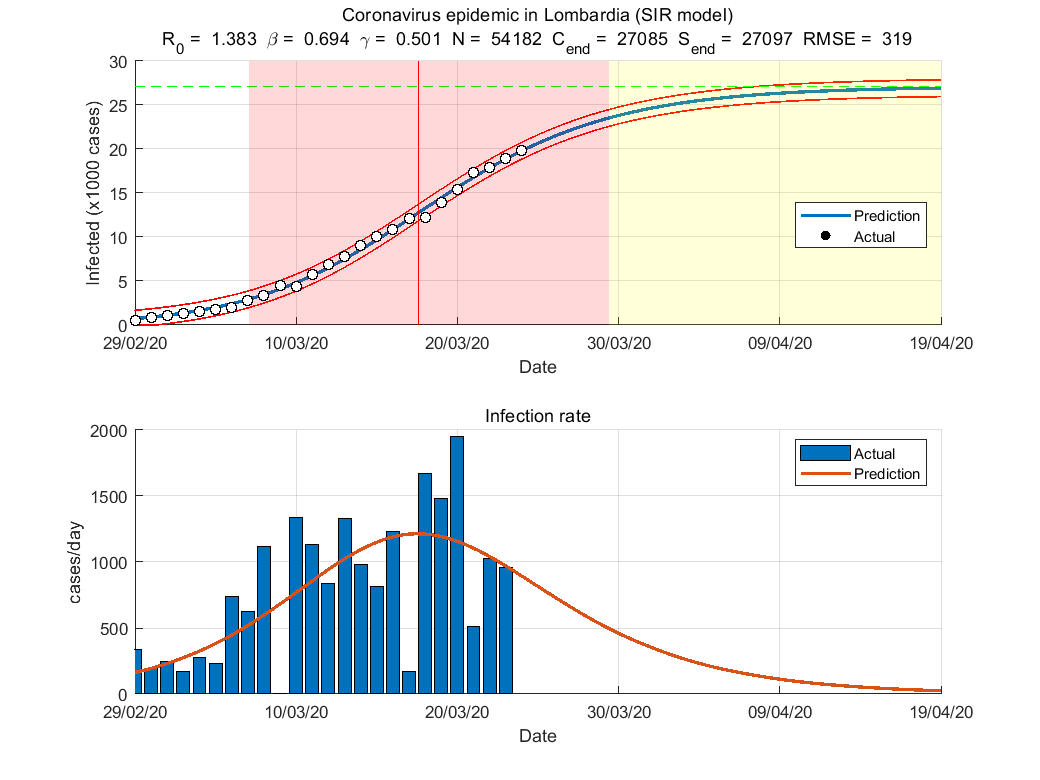
**Iran**



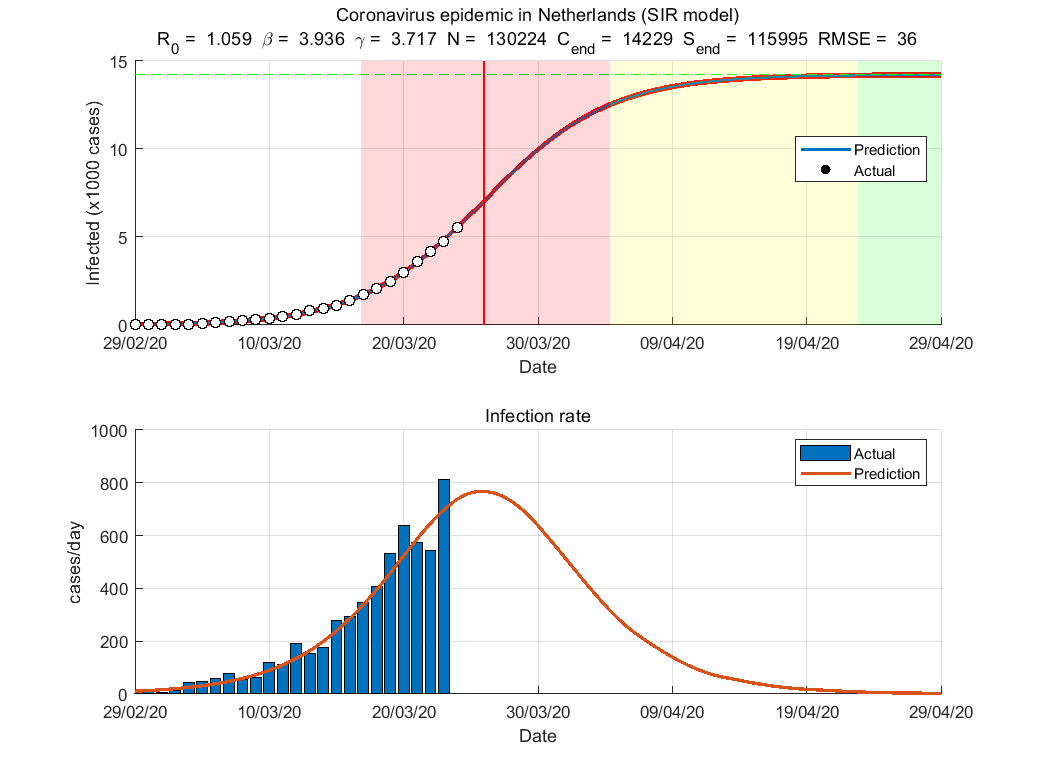
**Italy**



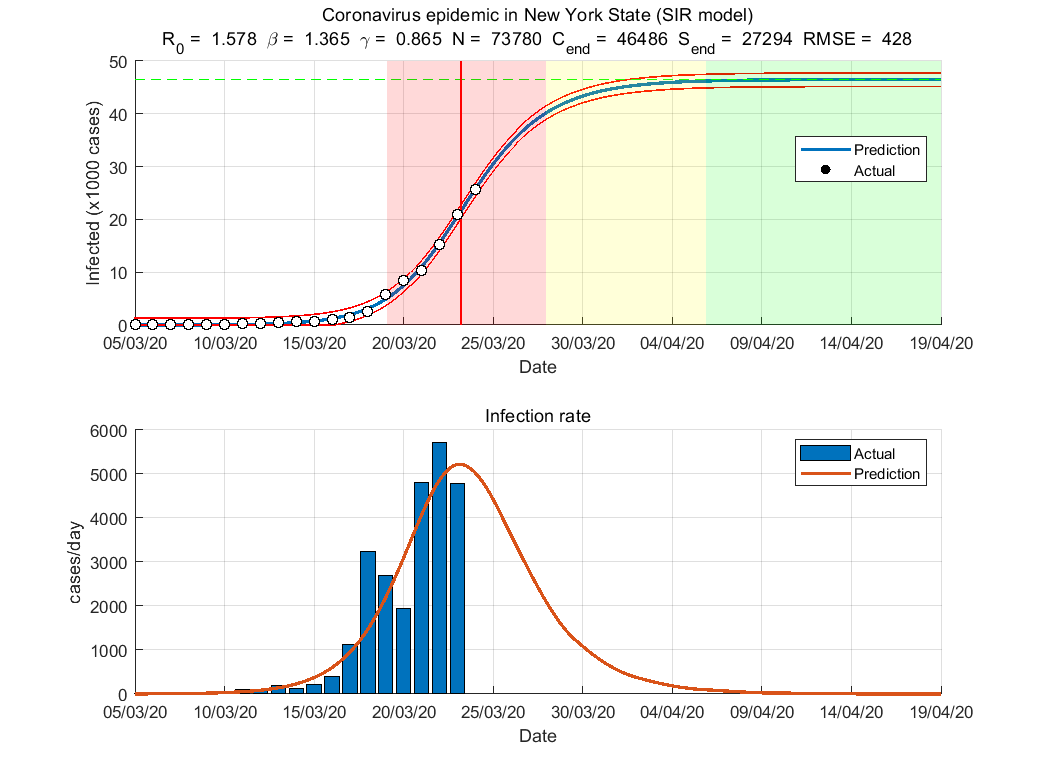
**Lombardia**



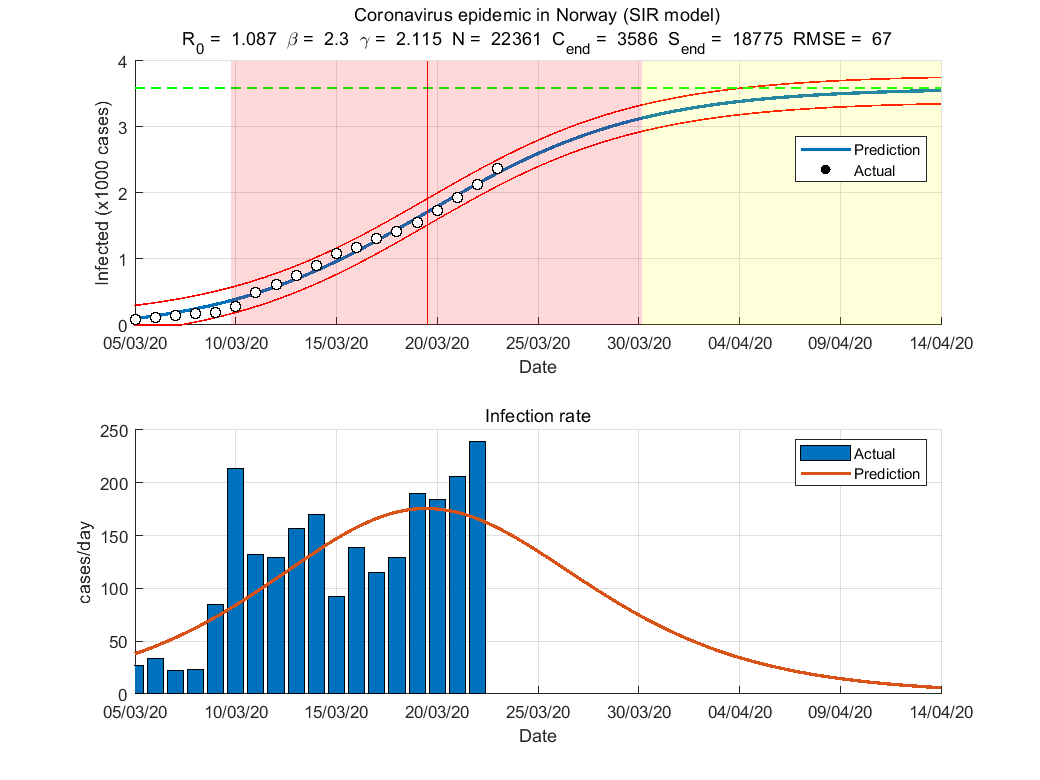
**Netherlands**



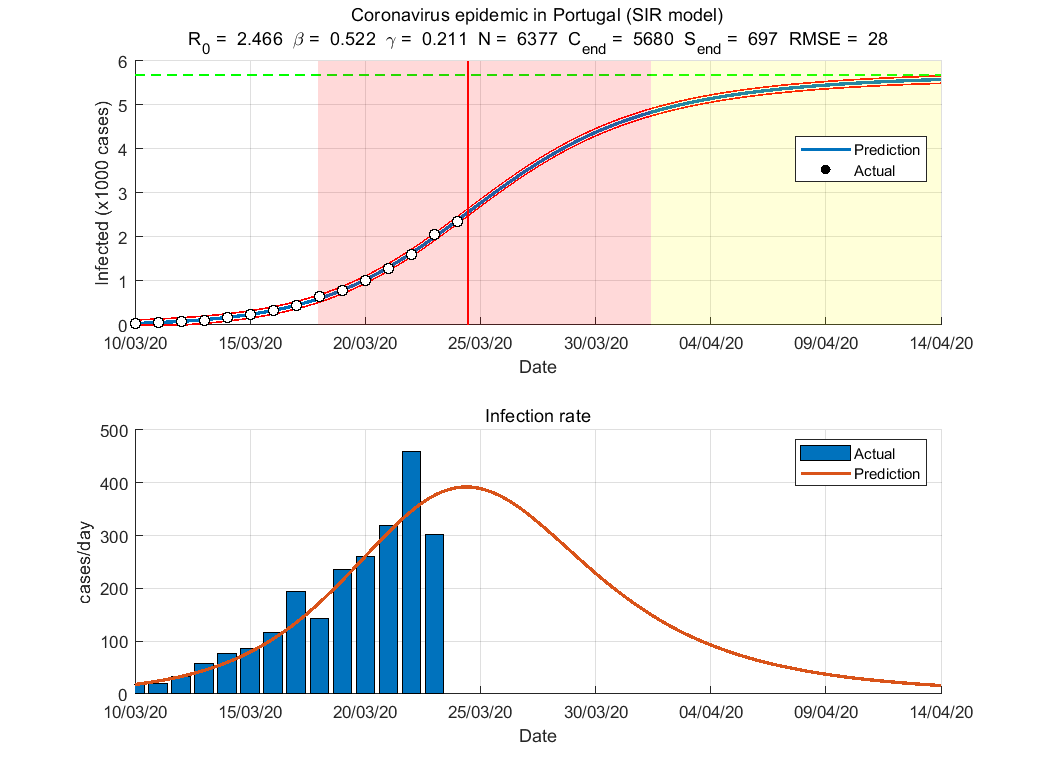
**New York State**



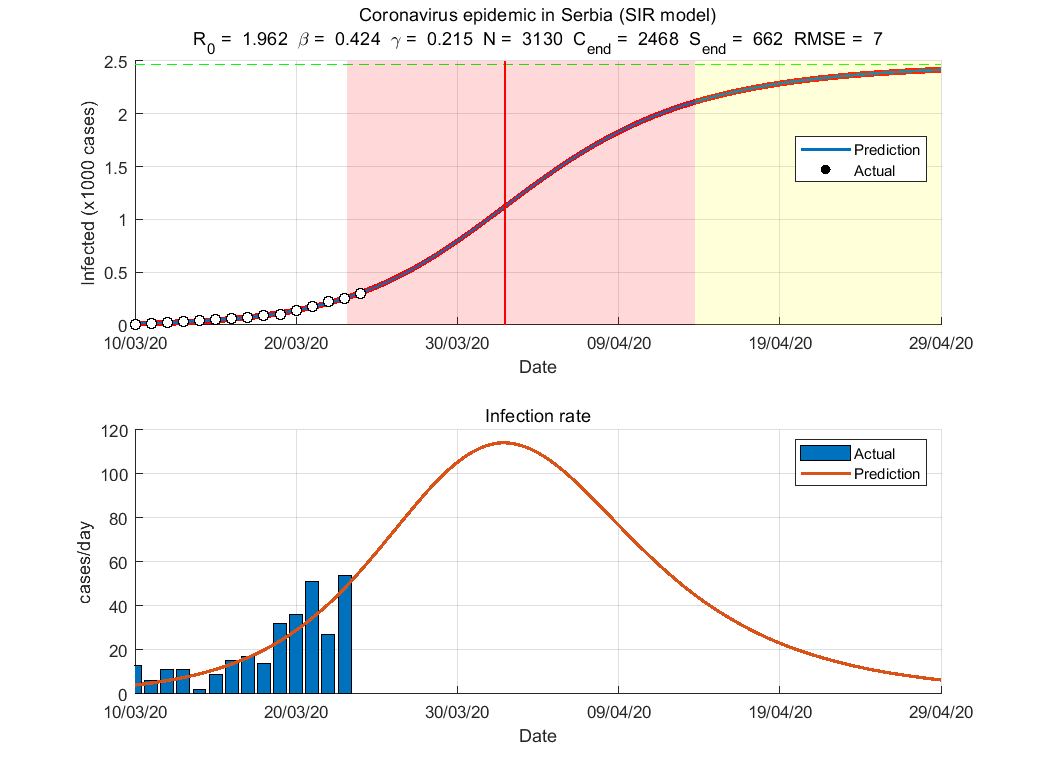
**Norway**



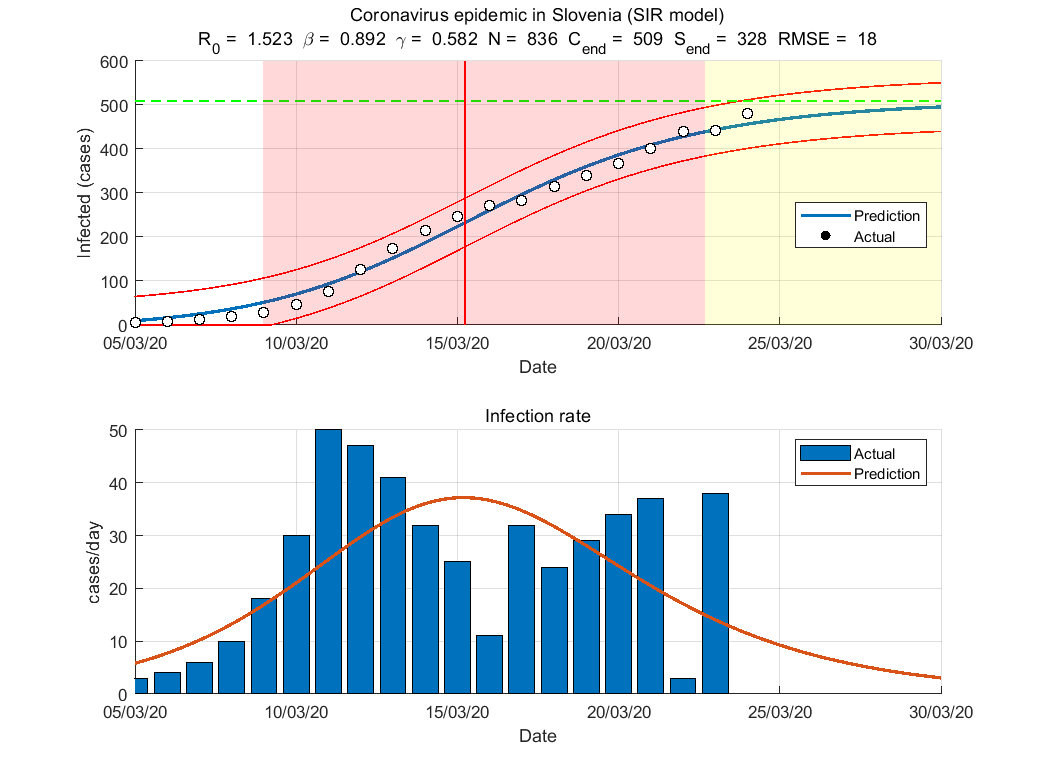
**Portugal**



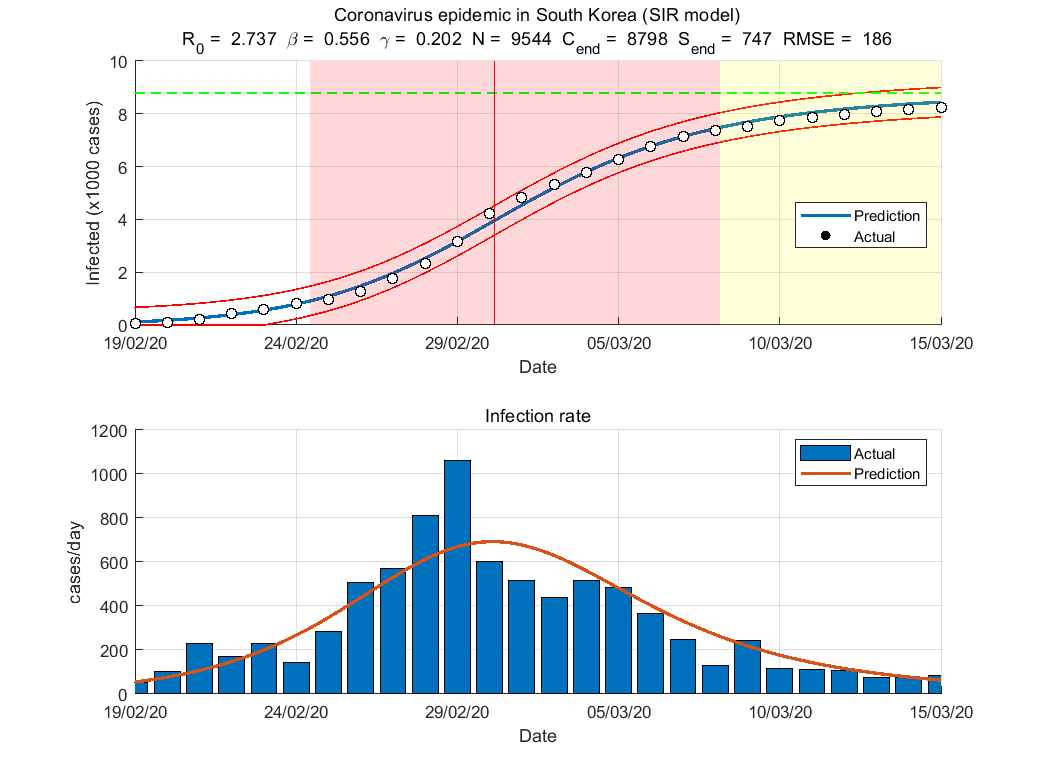
**Serbia**



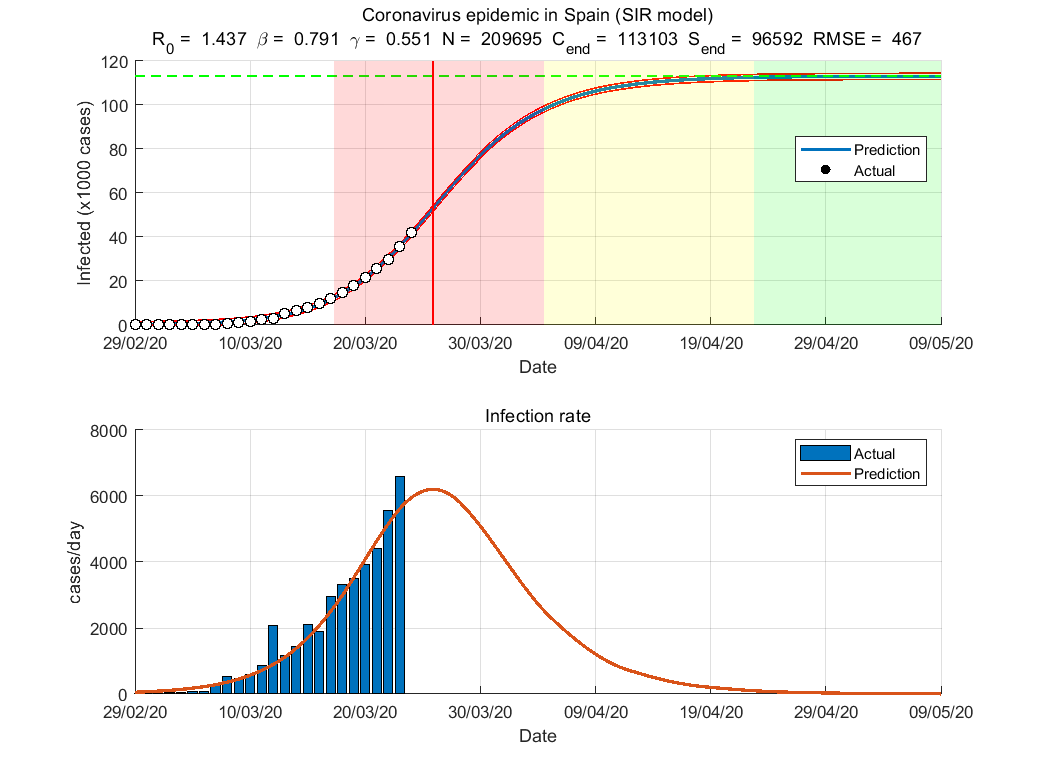
**Slovenia**



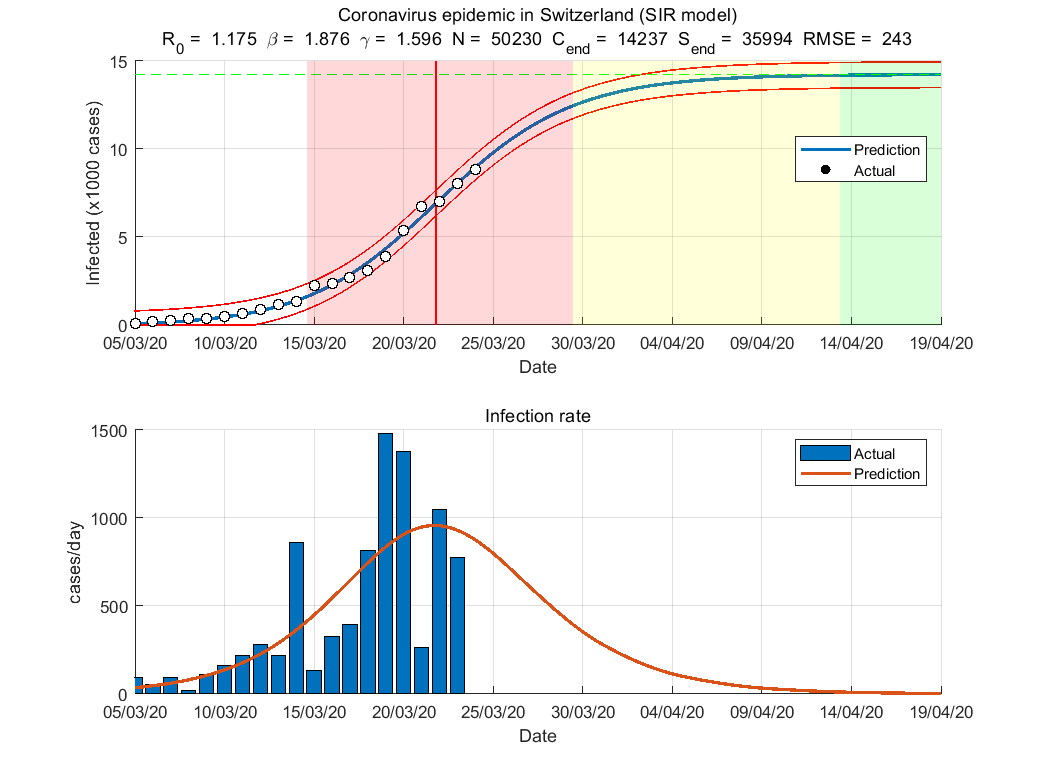
**South Korea**



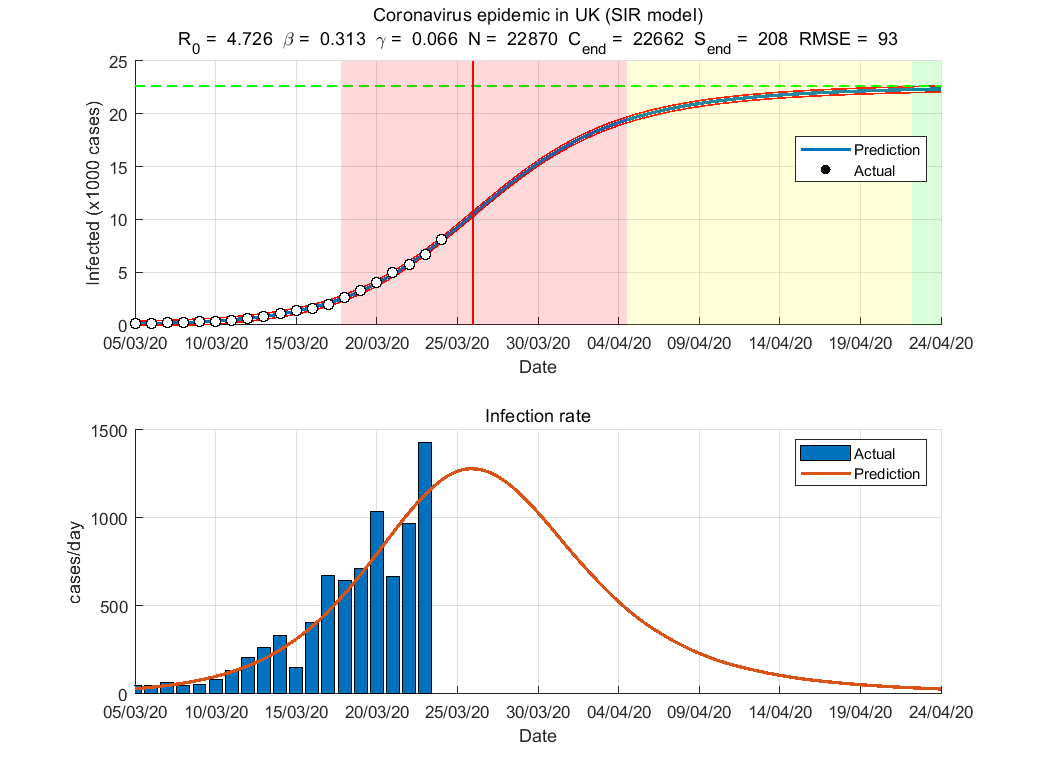
**Spain**



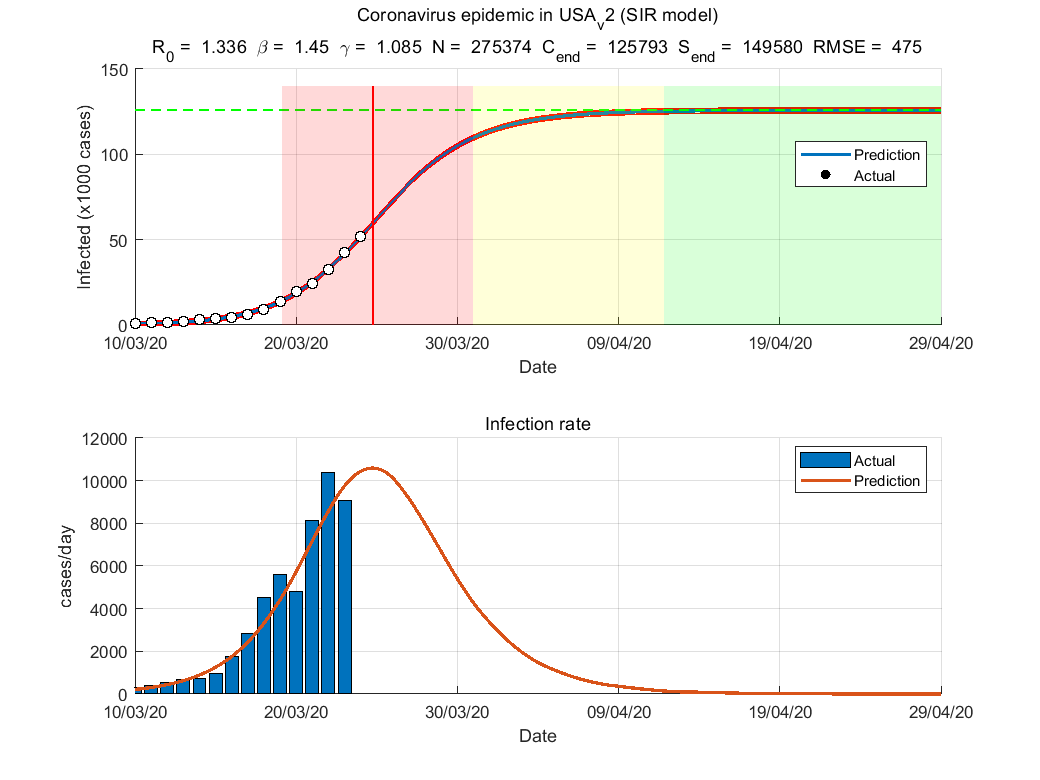
**Switzerland**



**UK**



**USA**



**Countries outside of China**

