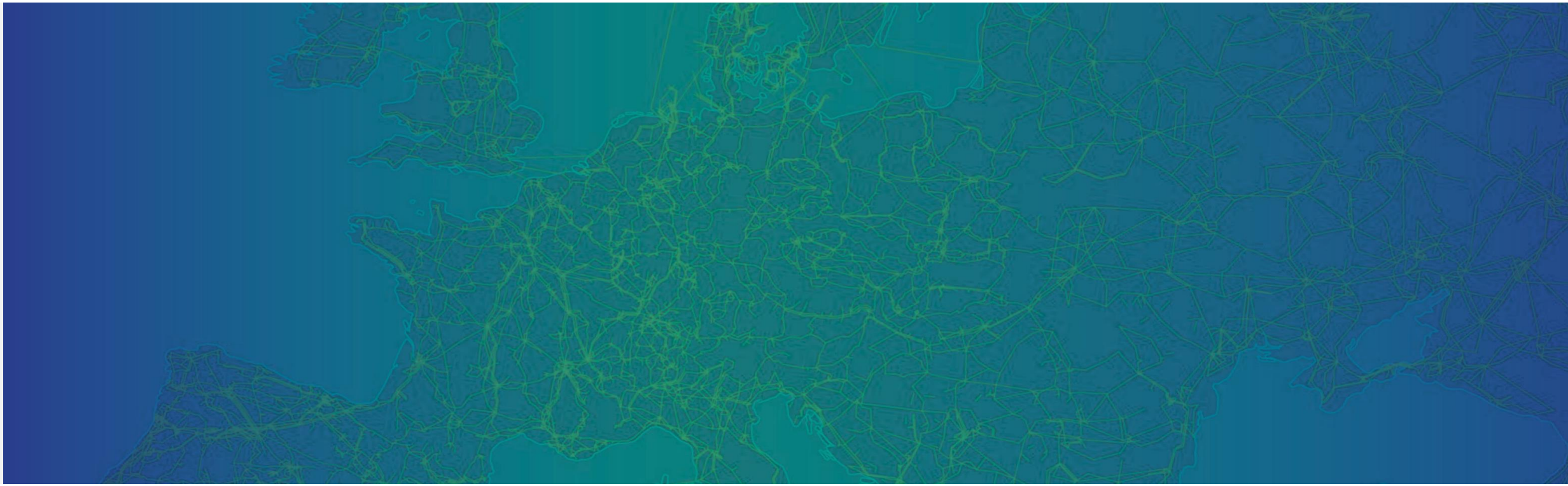
Winter Outlook 2020/2021

11 December 2020: Energy Community 9th web-meeting – Security of Supply



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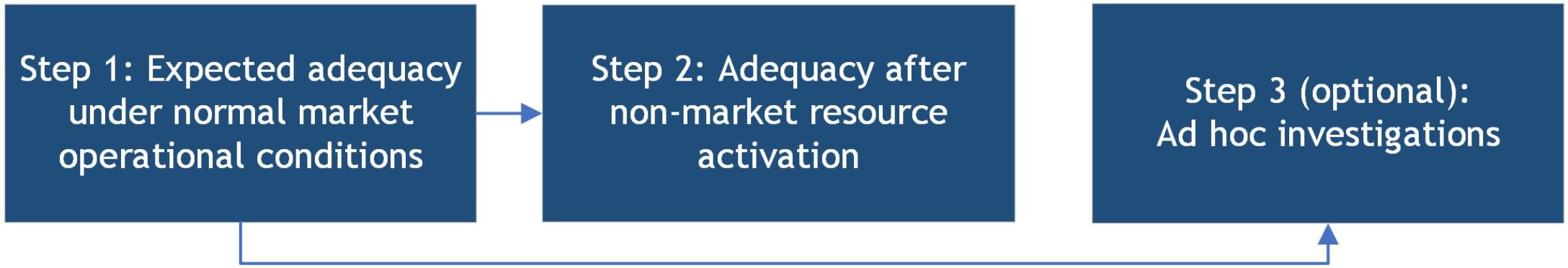
Reliable Sustainable Connected

Winter outlook approach



Information available in late September;

COVID-19 pandemic impact from first wave

Activation of non-market resources

European cooperation

Qualitative information about demand decrease due to pandemics: decrease in September and potential decrease if pandemic would peak.

Winter outlook context – uncertainty in light of pandemics

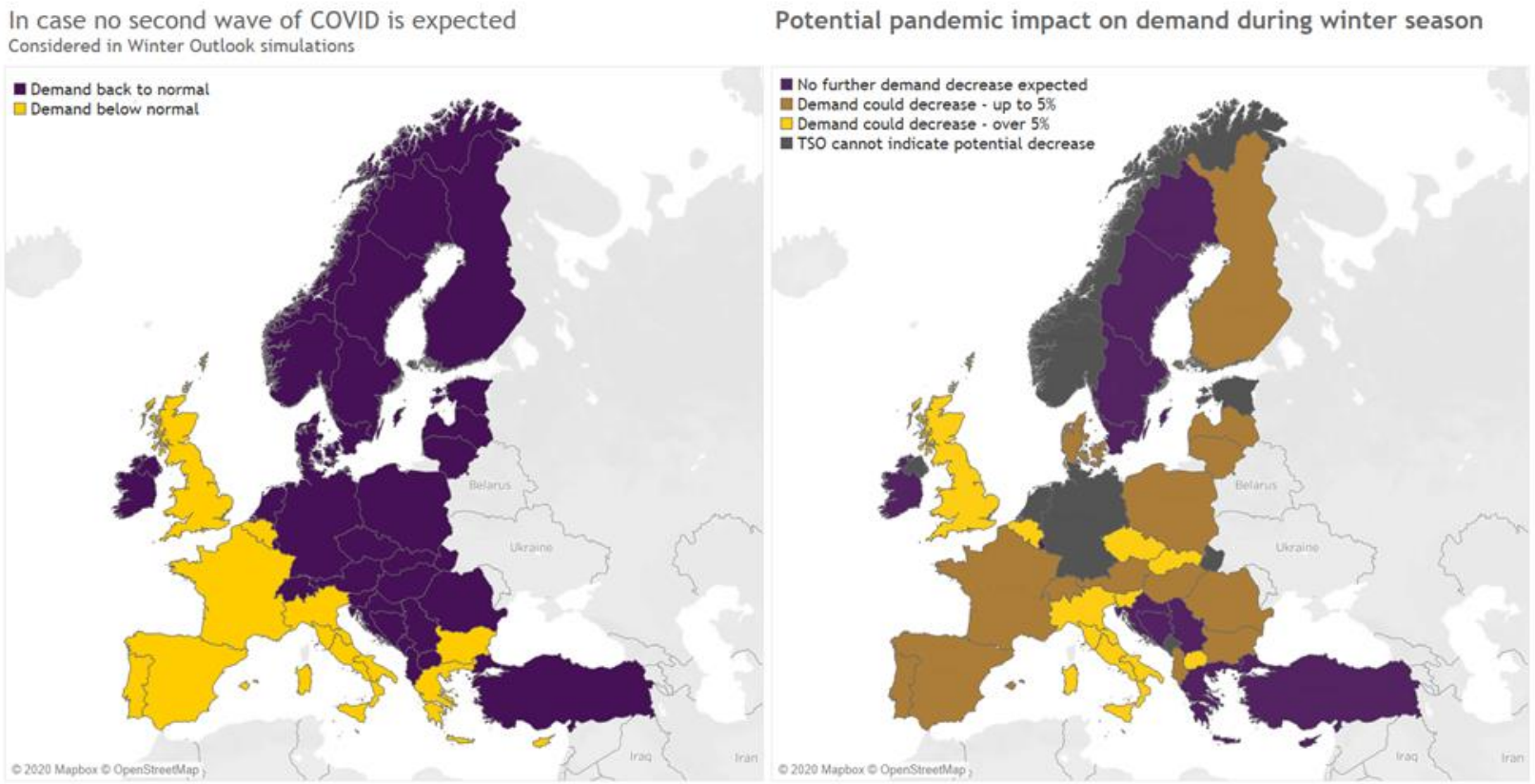
Residual impact of pandemics from spring/summer:

- **Demand** has not recovered everywhere
- **Planned outages** were reschedulled into winter

The pandemic in winter is expected to:

- **reduce demand**; but
- **considerable uncertainty on generation planned outage** might outweigh the demand decrease and then worsen adequacy.

COVID-19 impact on demand overview (winter expectations seen from September 2020)

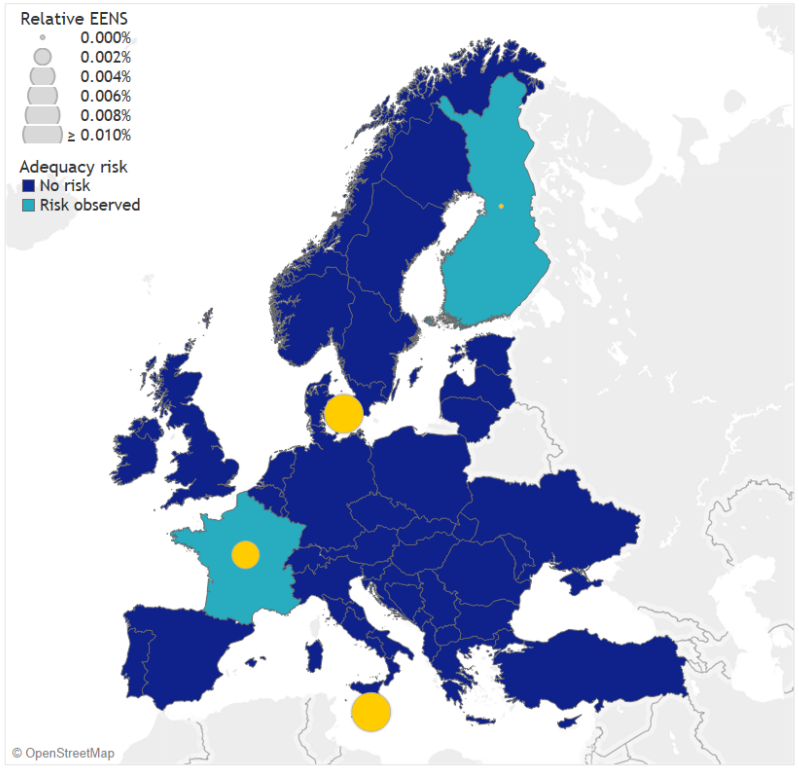


Adequacy overview

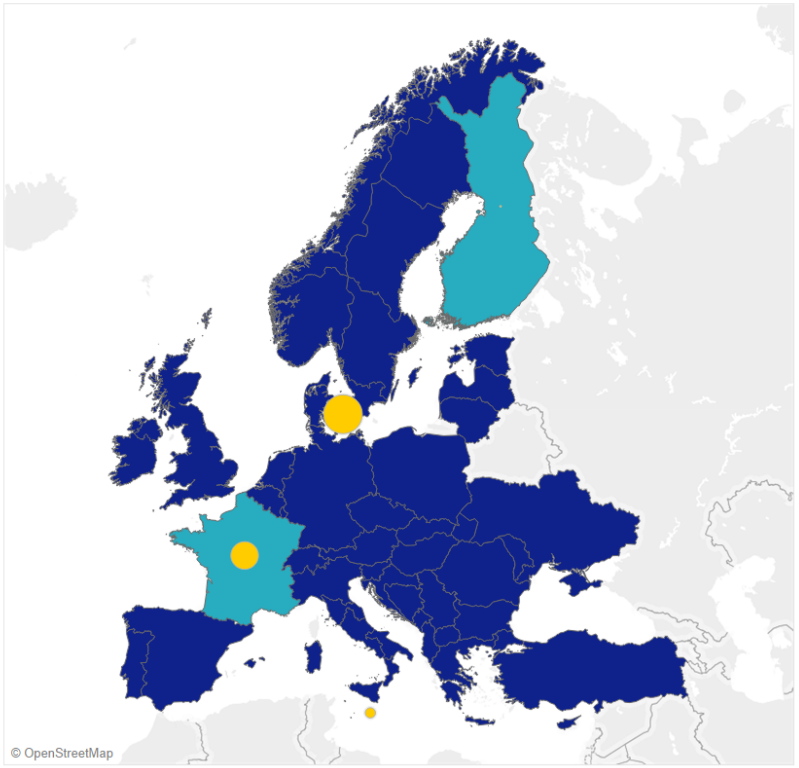
Adequacy concerns are identified in Denmark, Finland, France and Malta. Adequacy risks are expected to be addressed by out-of-market measures in Finland and Malta. All TSOs are closely monitoring adequacy concerns together with RSCs.

Adequacy overview (considering late September information)

Normal market operations



Considering non-market resources



EENS = Expected Energy Not Served, RSC = Regional Security Coordinator
Relative EENS – EENS representation considering power system size (i.e. design to compare EENS on pan-European scale)

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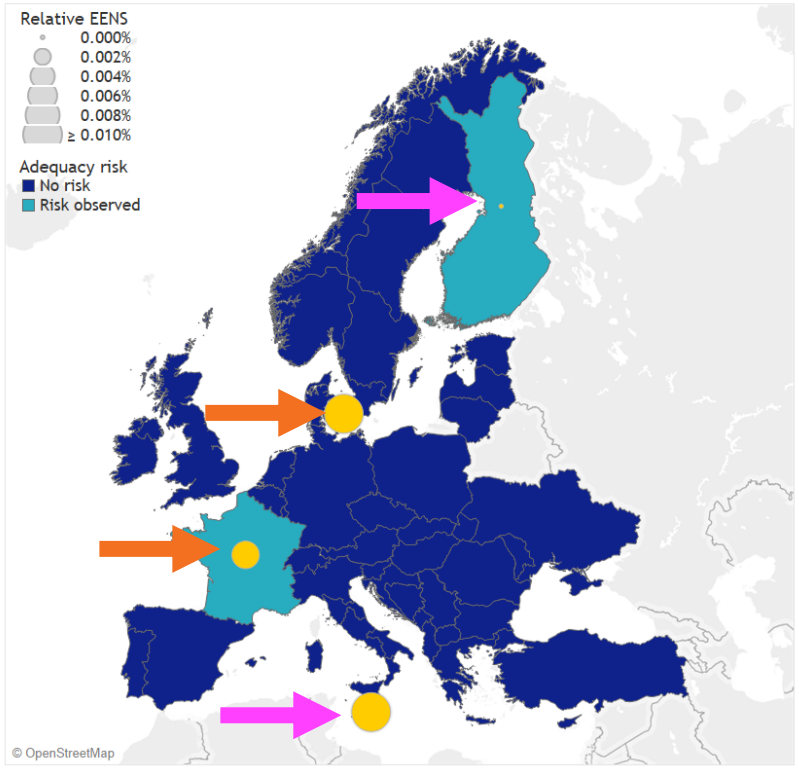

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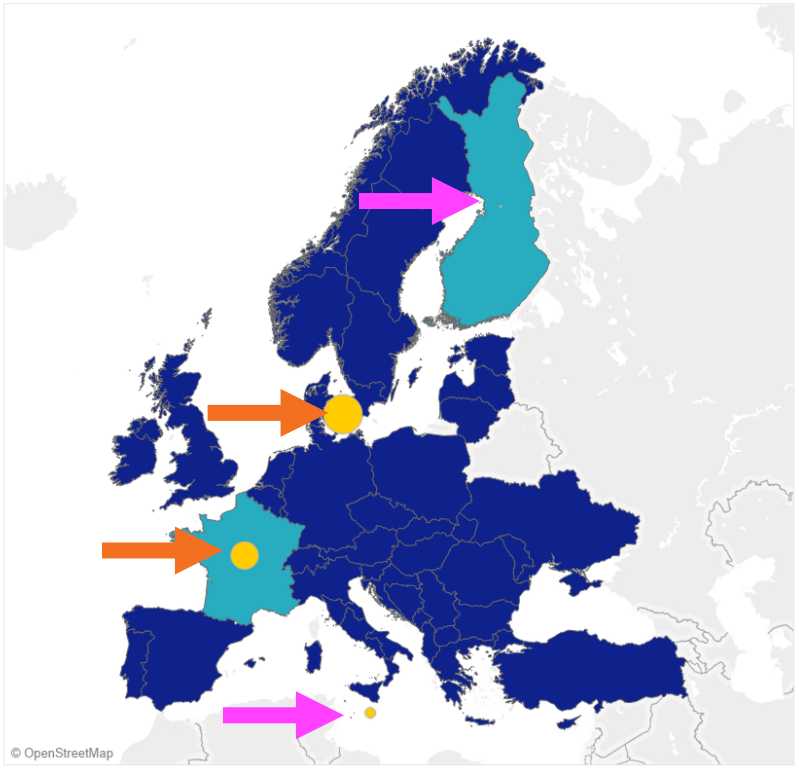

Risks do not change

Risks decrease

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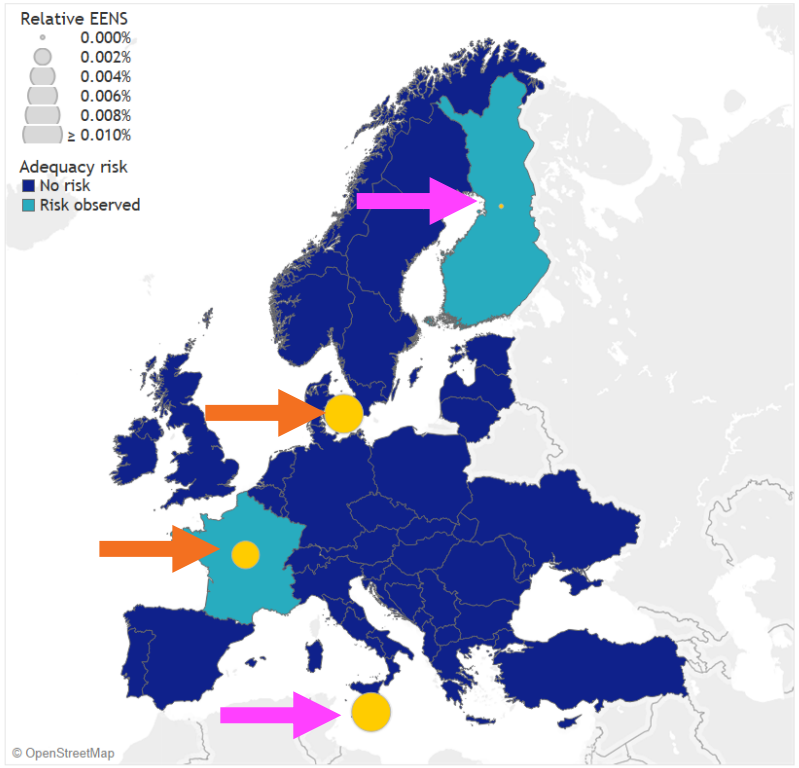

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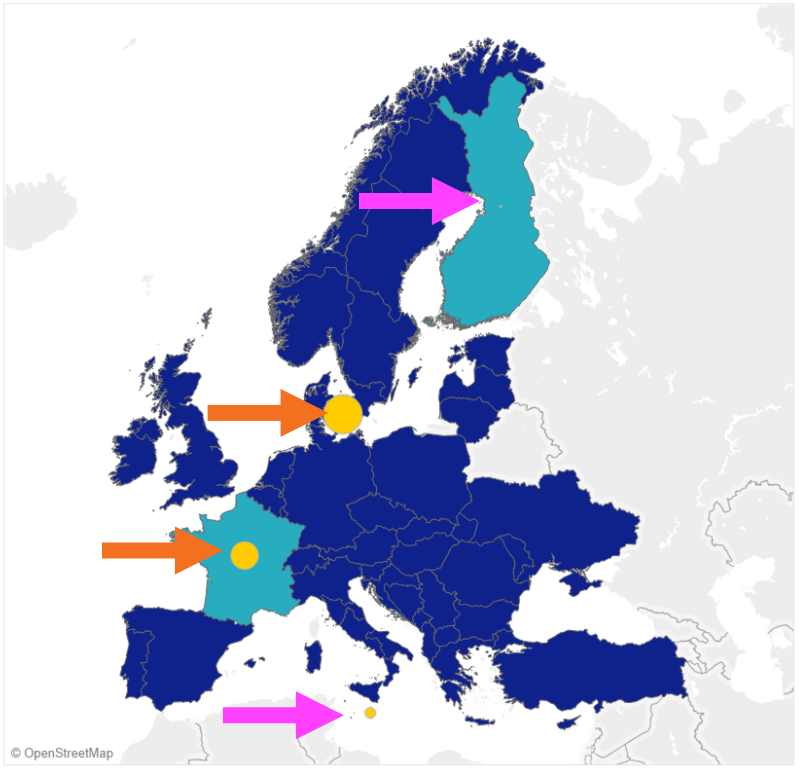

Updates after September:

1. Energinet revised outages in network – risks decreased
2. Nuclear outages in France were rescheduled. Risks in November decreased, but remained in January and February

→ Risks do not change

→ Risks decrease

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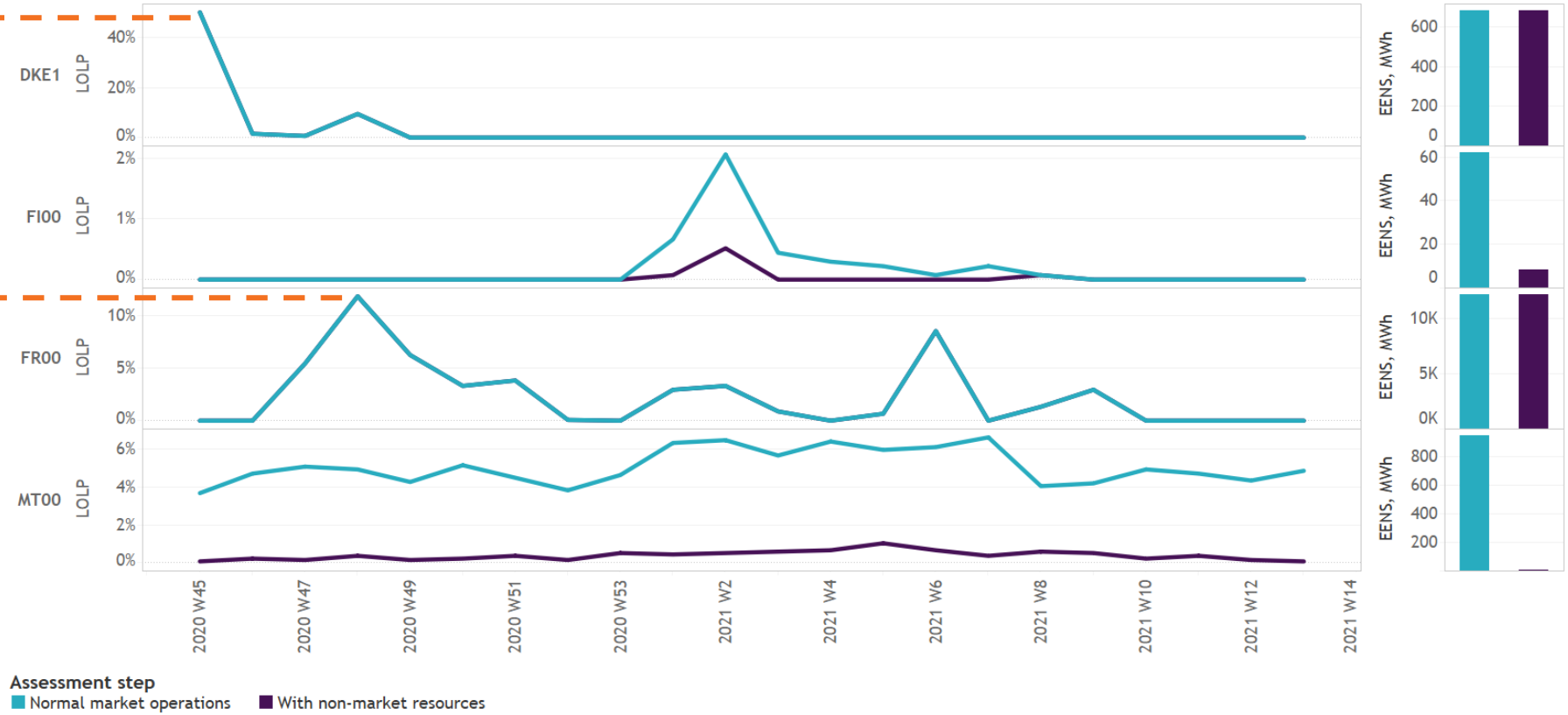
Adequacy details

Loss of Load Probability (LOLP) in Finland and Malta is reduced considering contribution of the non-market resources during the first months of 2021. Malta and Finland are able to reduce EENS by 99% and 87% respectively. However, total European EENS remains significant.

Detailed adequacy overview - weekly LOLP and EENS

Mitigated by network outage updates

Mitigated by nuclear outage updates



EENS = Expected Energy Not Served, LOLP = Loss of Load Probability (probabiliyu that at least 1 consumer could loose electricity supply)

Thank you for your attention