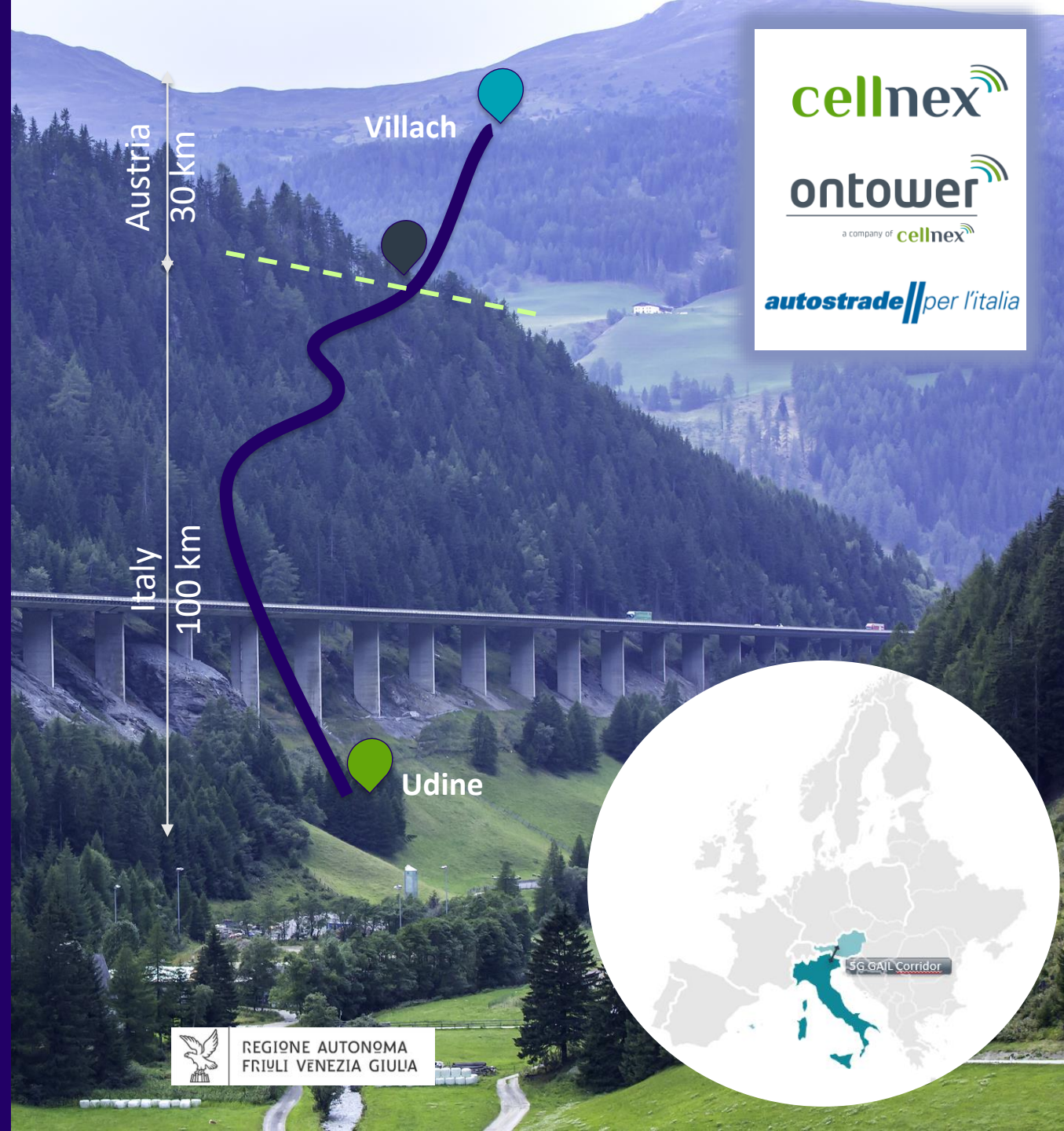


5GGail

Inception study for the deployment of 5G in the cross-border section of the Carnic and Gailtal Alps between Italy and Austria

Key achievements:

- Adequate level of infrastructure in terms of legacy 4G coverage both in Austria and Italy
- Low maturity of services and uncertainties in the value chain of 5G applications and passive infrastructure requirements Step change that requires a high level of investment (e.g. electronic components), and the need to support high recurring costs stably over time (especially energy)
- High level of cooperation among stakeholders required
- One of the results of the study shows that the DAS architecture implemented in an indoor environment (tunnel) appears to be the most suitable to overcome the infrastructure challenges in market failure areas



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Challenges and recommendations

Main challenges

- Market failure area, with really poor interest from MNOs to invest in 5G coverage.
- On the Italian side, at the date of this study, several public funding initiatives are underway (NGEU, PNRR, Piano Italia 5G), fully concurrent with the 5G GAIL study, that have determined the necessity to define a series of assumptions relative to the value chain.
- The corridor crosses a mountain area, with heterogeneous characteristics.



What we learnt

- It is essential a very high level of cooperation among stakeholders
- The financial convenience of the initiative is hindered by the low attractiveness of the area for operators; despite the useful contribution for the coverage of CAPEX by the CEF, the sustainability of the operational phase requires solutions and revenue models different from the traditional ones,
- The financial sustainability gap would persist and may need to be covered by other instruments of Public/Private funding which complement CEF by supporting costs also in the operating phase, beyond the investment phase.
- The case for this public support is backed up by the results of the Economic Analysis (from the social point of view), whereby the conditions of socio-economic convenience of 5G deployment are indeed obtained



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