

Grid Connection Options for Large Data Centres in Slovenia



Methodology for connecting large data centers to the transmission grid

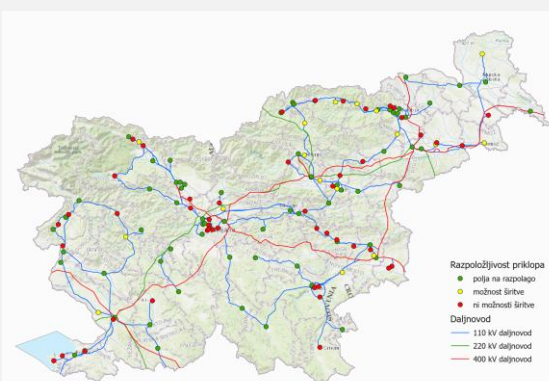
I.

Conducting grid analyses / power flow simulations



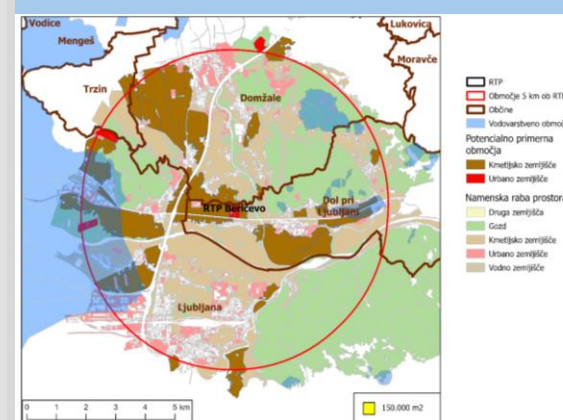
II.

Assessment of available bays and switchyard expansion options for connection



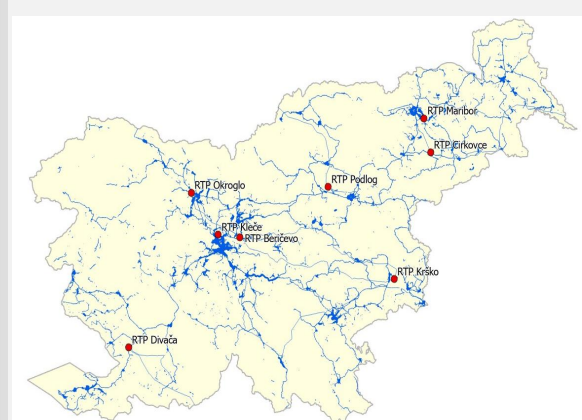
III.

Analysis of land availability in the immediate vicinity of substations



IV.

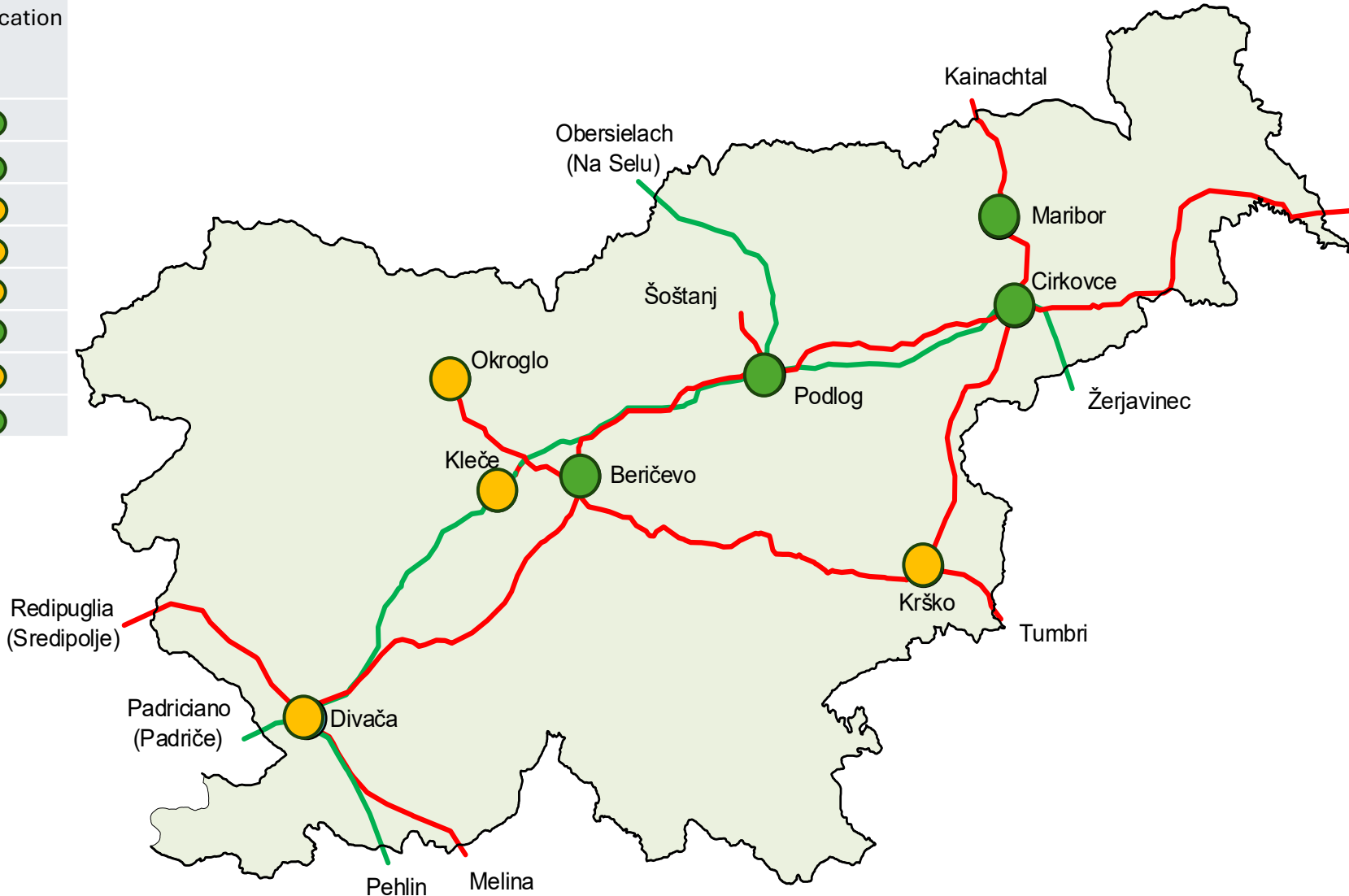
Assessment of suitability in terms of optical fibre connectivity



Possibility of connection to major nodes (220 kV and 400 kV voltage levels)

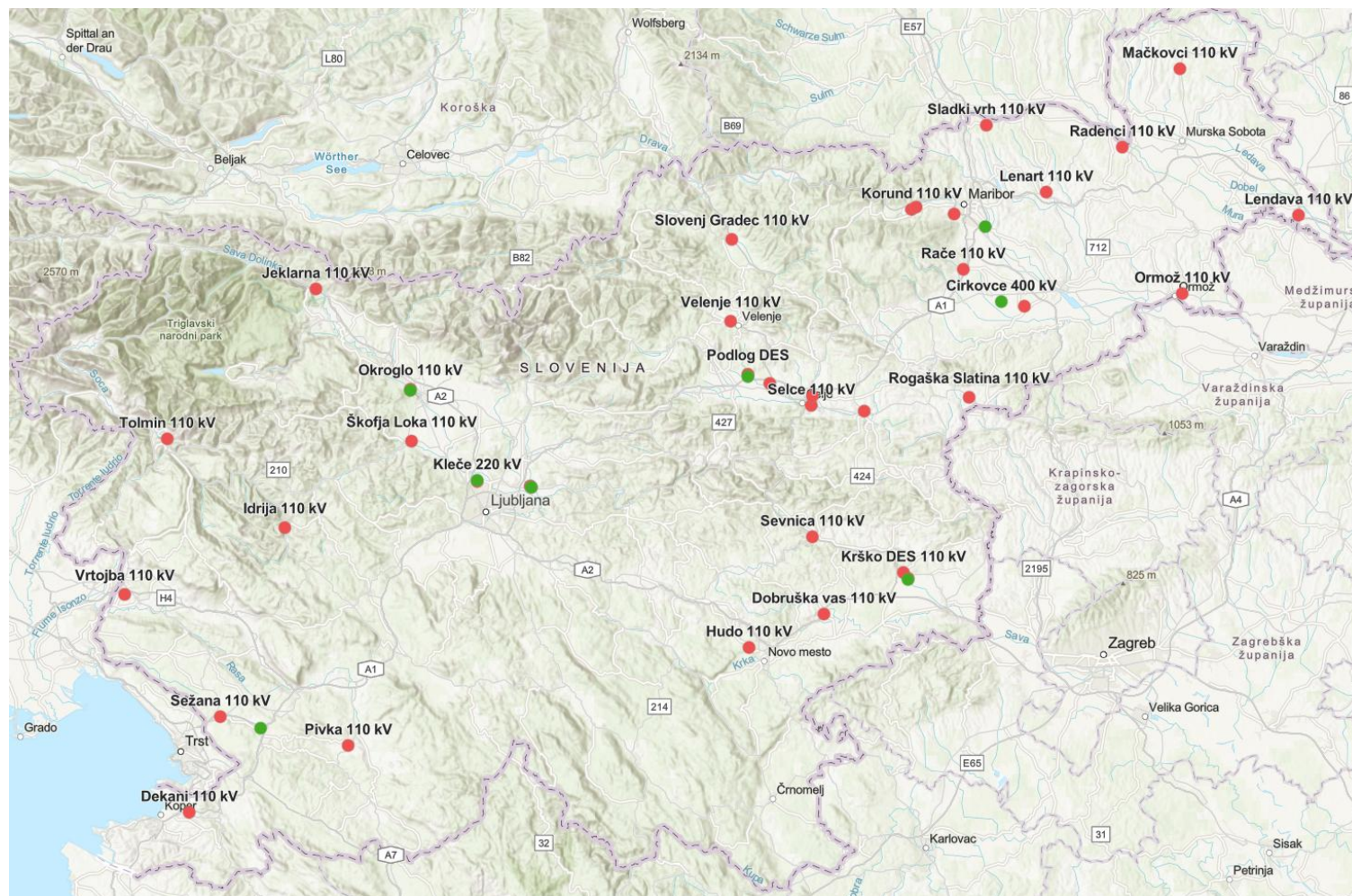
Substation (SS)	Connection capacity based on the power system without spatial constraints (MW)	Number of available bays within the SS	Classification
SS Beričevo	> 200	1	●
SS Cirkovce	> 200	2	●
SS Divača	> 200	2	●
SS Kleče	> 200	4	●
SS Krško	> 200	4	●
SS Maribor	> 200	1	●
SS Okroglo	> 200	4	●
SS Podlog	> 200	1	●

Substation classification legend	
●	Bays are available
●	No bays are currently available, but substation expansion is possible



Possibility of connection to major nodes (110 kV)

Substation	Connection capacity based on the power system without spatial constraints (MW)	Possibility of switchyard expansion
Beričevo 110	200	YES
HE Vuhred 110	200	YES
Kidričevo 110	200	YES
Kleče 110	200	YES
Krsko 110	200	YES
Okroglo 110	200	YES
Podlog 110	200	YES
Velenje 110	200	YES
Korund 110	180	YES
HE Ozbalt 110	170	YES
Selce 110	150	YES
Jeklarna ACRONI 110	120	YES
Lenart 110	110	YES
Krsko DES 110	100	YES
Ruse 110	100	YES
Slovenj Gradec 110	100	YES
Vuzenica DES 110	100	YES
Radvanje 110	90	YES
Sevnica 110	90	YES
Skofja Loka 110	90	YES
Podlog DES 110	80	YES
Idrija 110	70	YES
Ormoz 110	70	YES
Pivka 110	70	YES
Tolmin 110	70	YES
Trnovlje 110	70	YES
Dravograd 110	60	YES
HE Dravograd 110	60	YES
Hudo 110	60	YES
Dobruska vas 110	50	YES
Vrtojba 110	50	YES



The interactive map is available at: [Grid Connection Capacity](#)

Land availability analysis around SS Beričevo

⚡ Technical requirements

100 MW connection capacity
7,5–15 ha of land

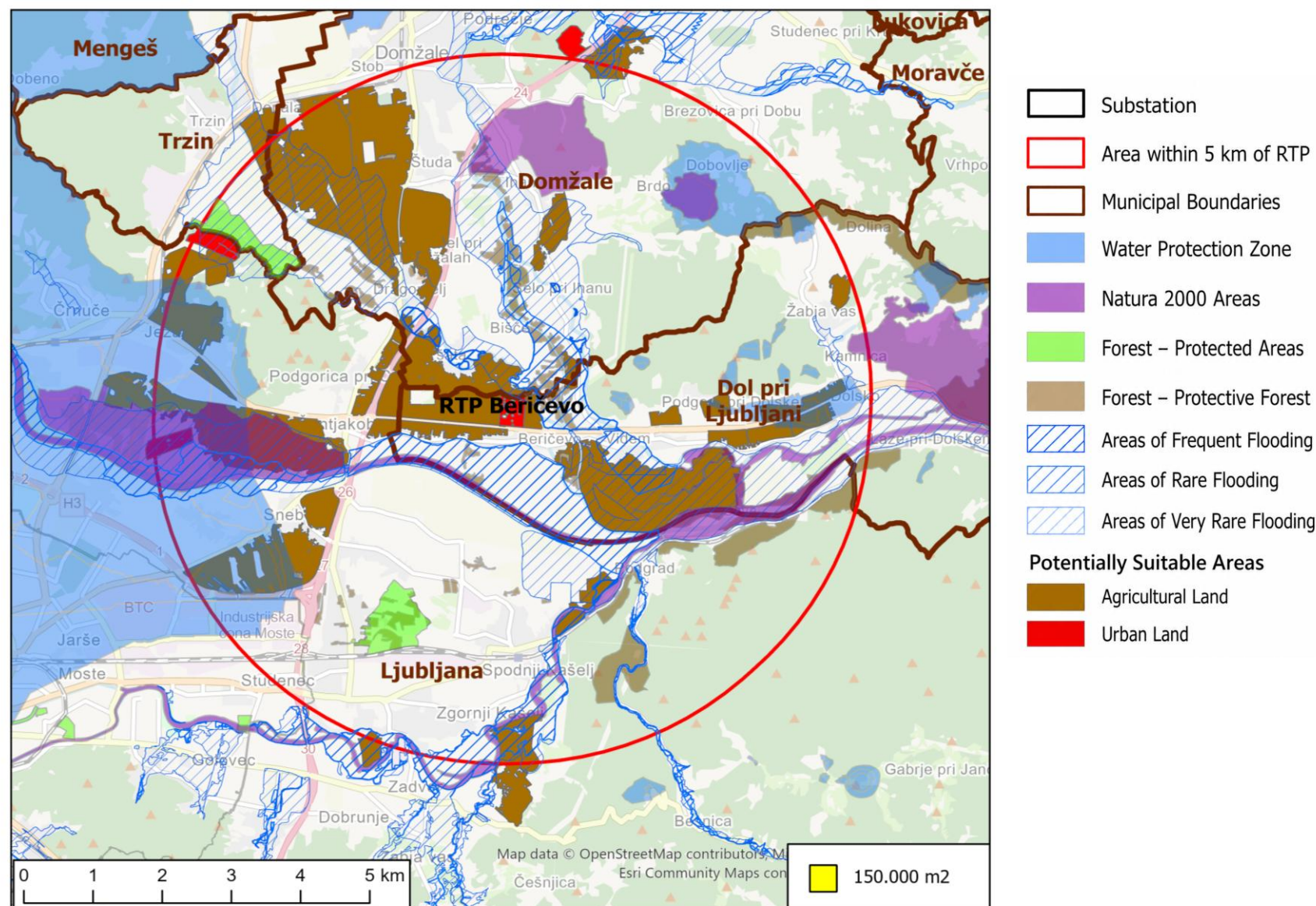
📍 Location criteria

≤ 5 km from the substation

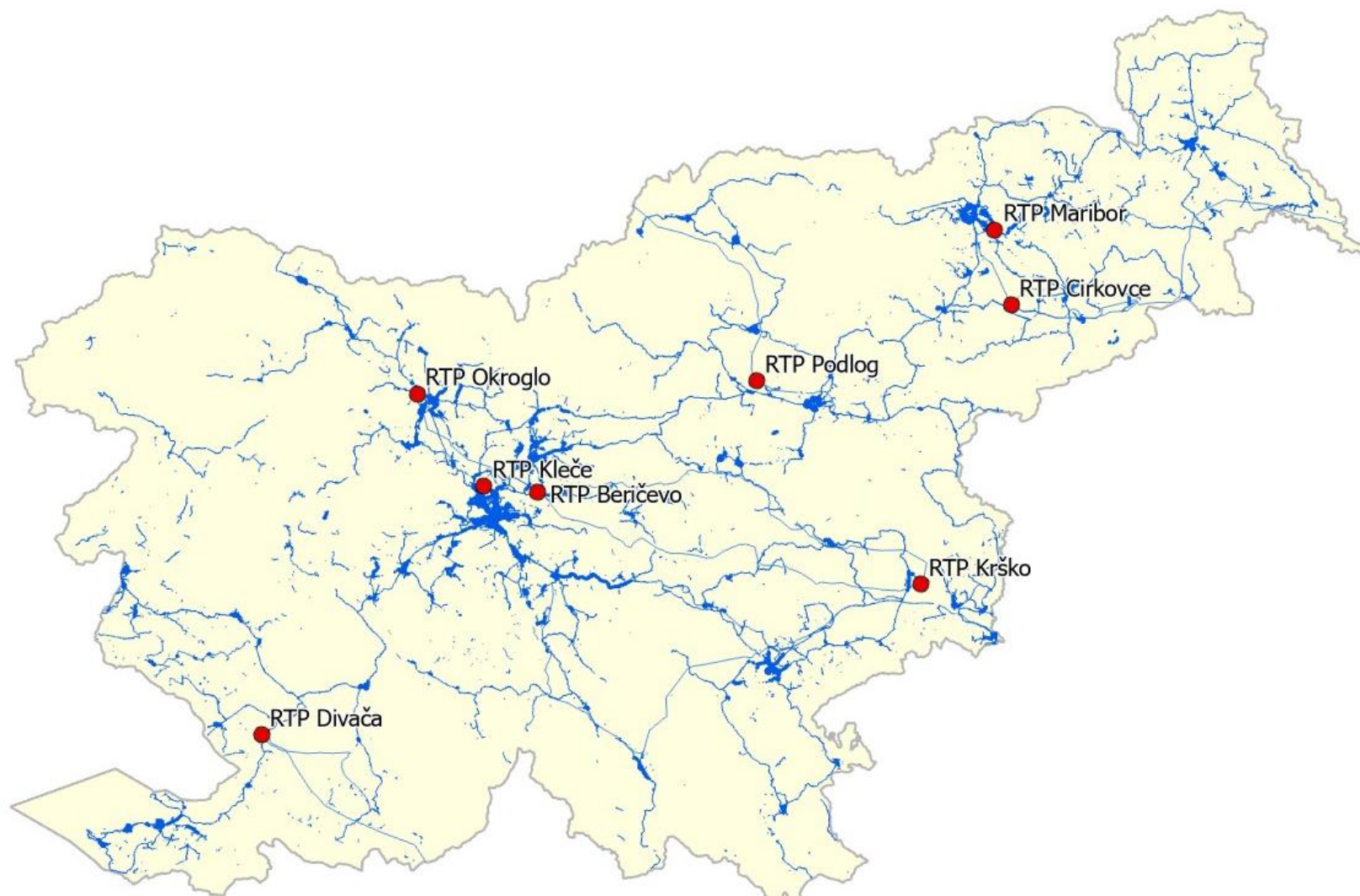
● Residential land use
● Agricultural land use restrictions (flooding, etc.)

🚫 Spatial constraints

Roads and railways
10 m buffer around buildings
Water areas
Gas pipelines (5 m buffer)
Slope > 10%
Forest areas excluded



Optical fibre connectivity



Source: Consolidated Cadastre of Public Infrastructure (Zbirni kataster gospodarske javne infrastrukture)

Thank you.

