



SRG SSR idée suisse

Digital Radio DAB+ better than FM?

Thomas Saner

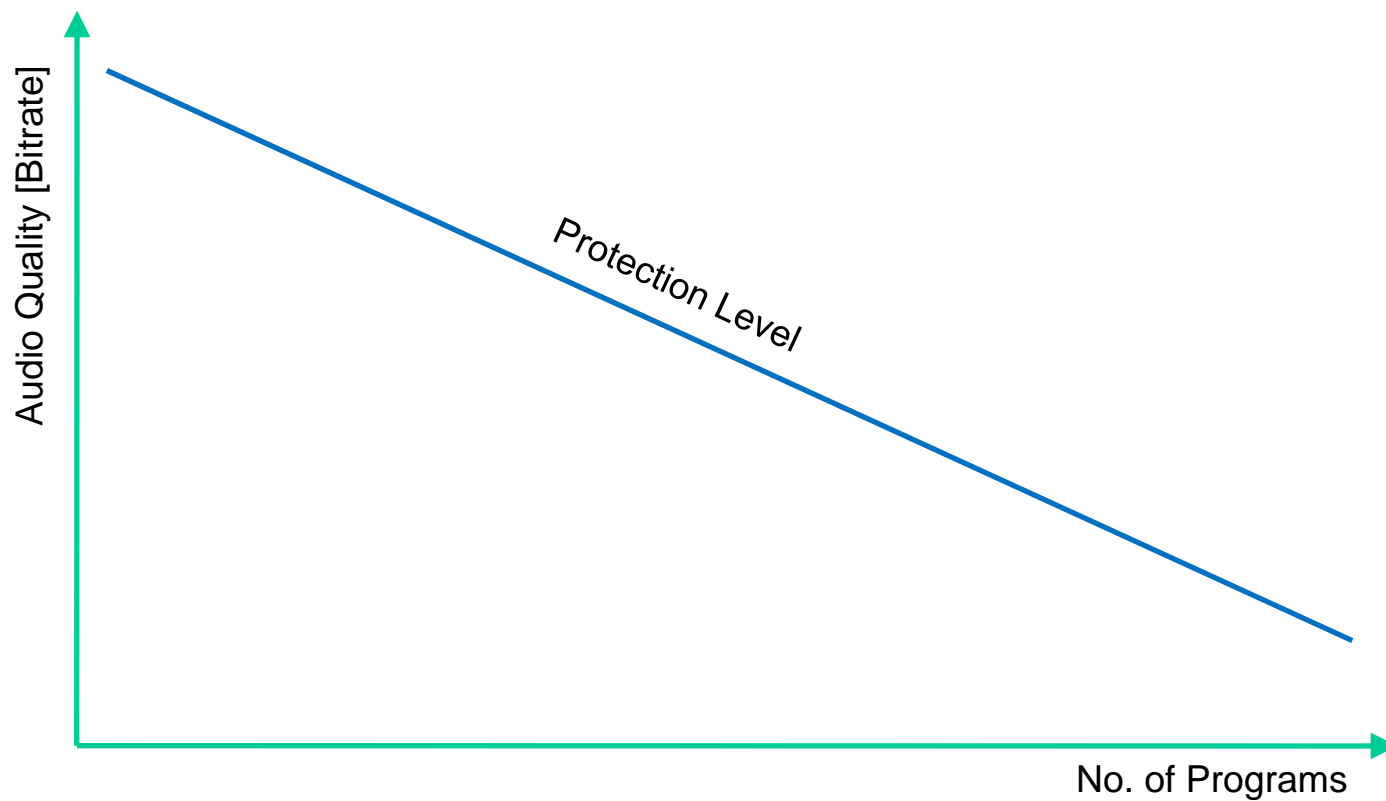
What is Digital Radio

- Eureka 147 Family DAB, DAB+, DMB
- DRM
- DRM+
- Internet Streaming Radio

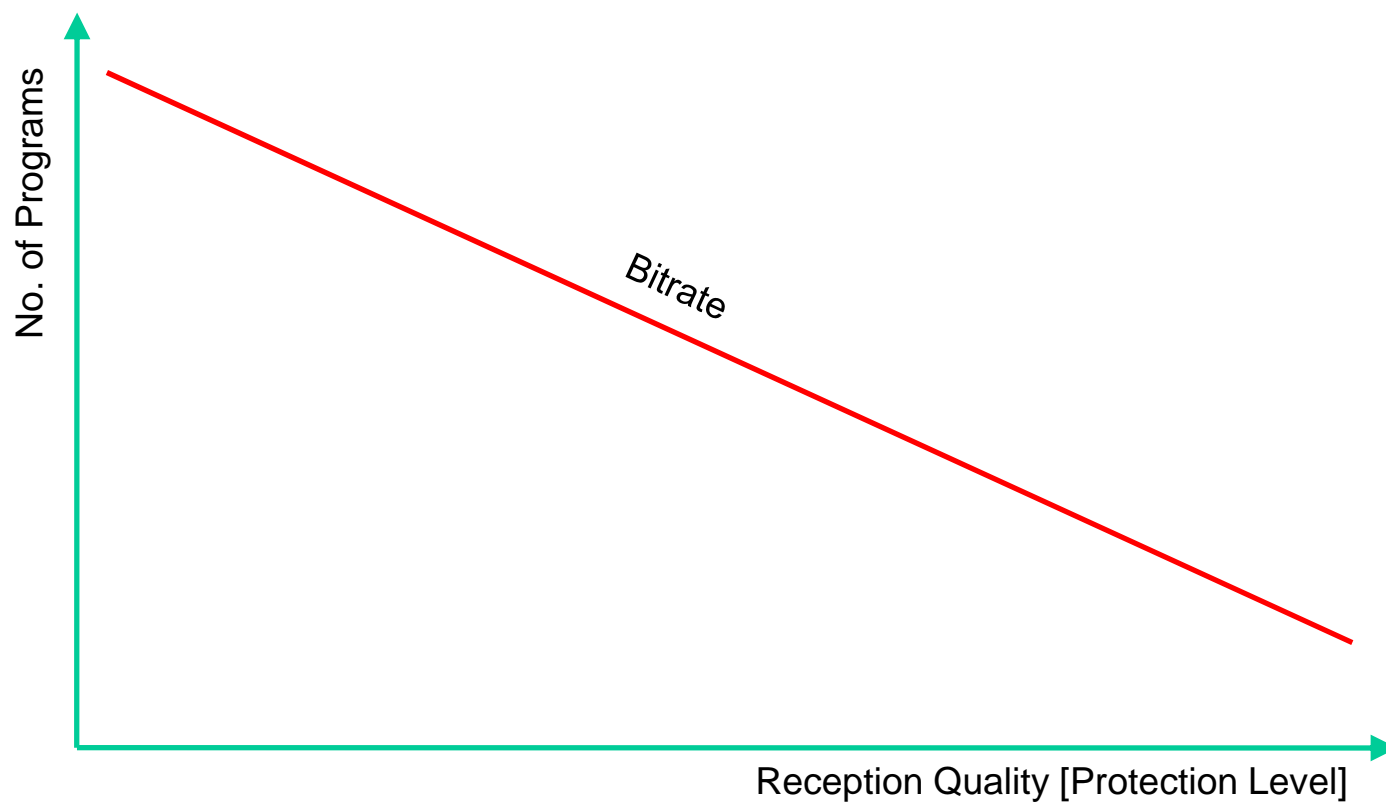
Digital Radio DAB+ is flexible

- DAB+ uses a flexible multiplex on an SFN basis
- No. of programs in a multiplex is adaptable
- Audio quality of each program is adaptable
- Reception quality of each program is adaptable
- Amount of additional data is adaptable for each program and for the whole multiplex

Digital Radio DAB+ is flexible



Digital Radio DAB+ is flexible



Digital Radio DAB+ is flexible

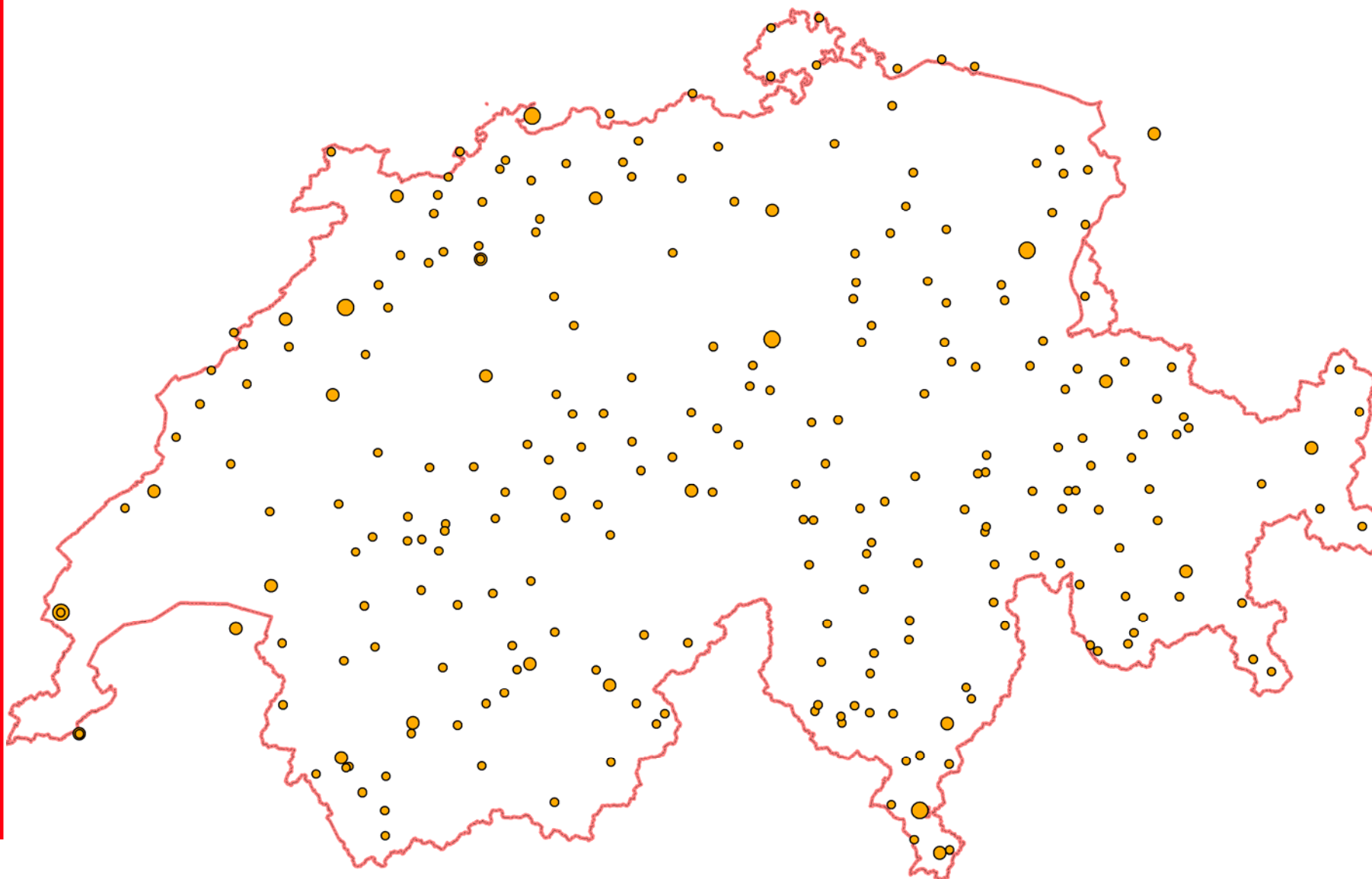
Programm	Audio [kb/s]	Daten [kb/s]	PL	CU
La Première	128	0	4	84
Espace 2	160	0	4	104
Couleur 3	128	0	4	84
Option Musique	128	0	3	100
WRS	128	0	3	100
Swiss Jazz	104	8	3	84
Suisse Classique	120	8	4	84
Swiss Pop	120	8	4	84
Rete Uno	56	0	4	35
DRS 1	56	0	4	35
Radio Rumantsch	56	0	4	35
EPG		0	3	0
TPEG		0	3	0
				829

Digital Radio DAB+ is flexible

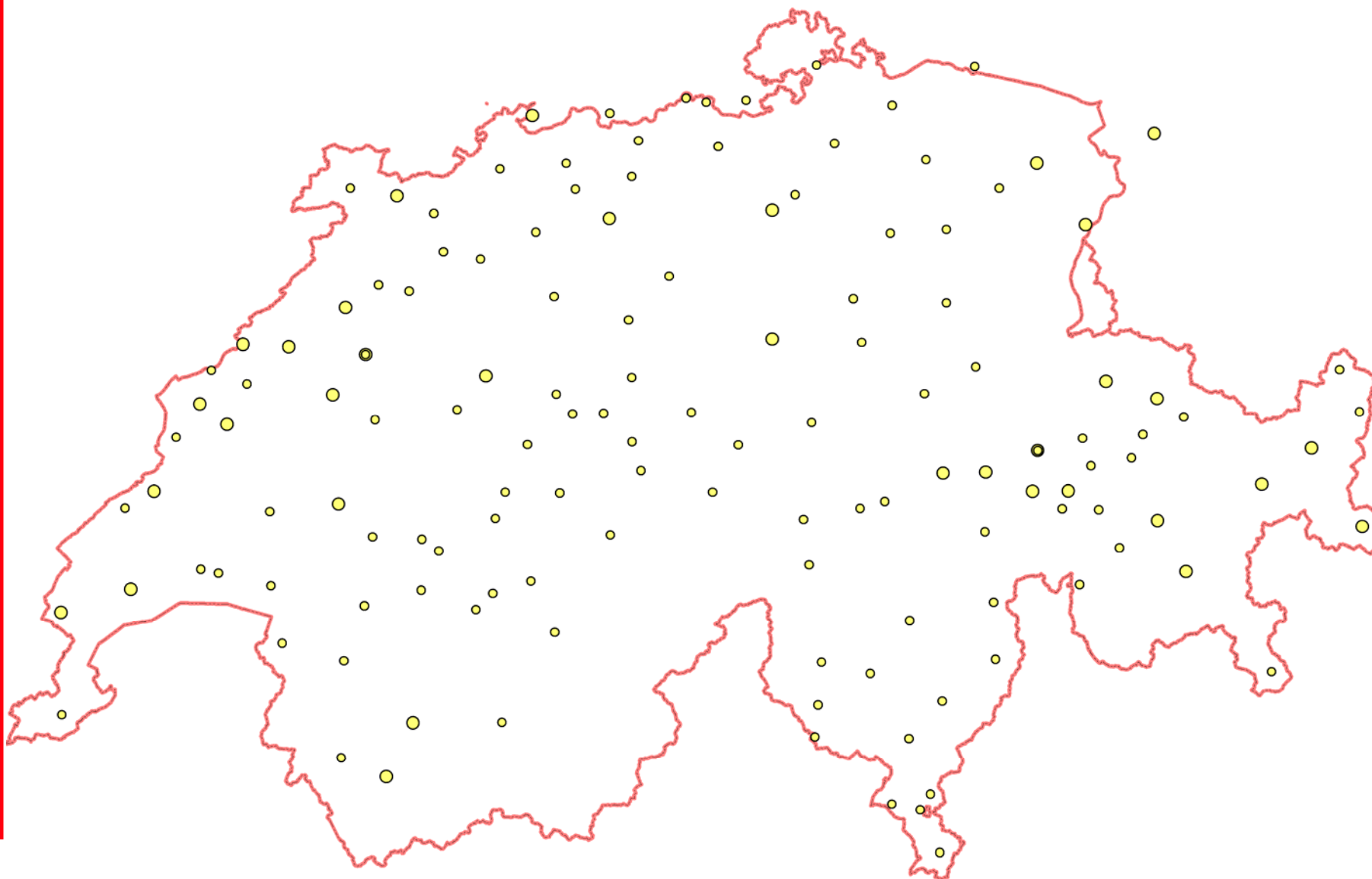
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Espace 2	160	0	4	104
Couleur 3	128	0	4	84
Option Musique	128	0	4	84
WRS	128	0	4	84
Swiss Jazz	104	8	4	70
Suisse Classique	56	0	4	35
Swiss Pop	112	0	4	70
Radio Rumantsch	56	0	4	35
RSR info	64	0	3A	48
Suisse Classique	88	0	3A	66
DRS 1	32	0	3A	24
Rete 1	32	0	3A	24
DRS Musikwelle	64	0	3A	48
EPG		0	3A	0
TPEG		4	3A	3
				863

Digital Radio DAB+ is cheaper than FM

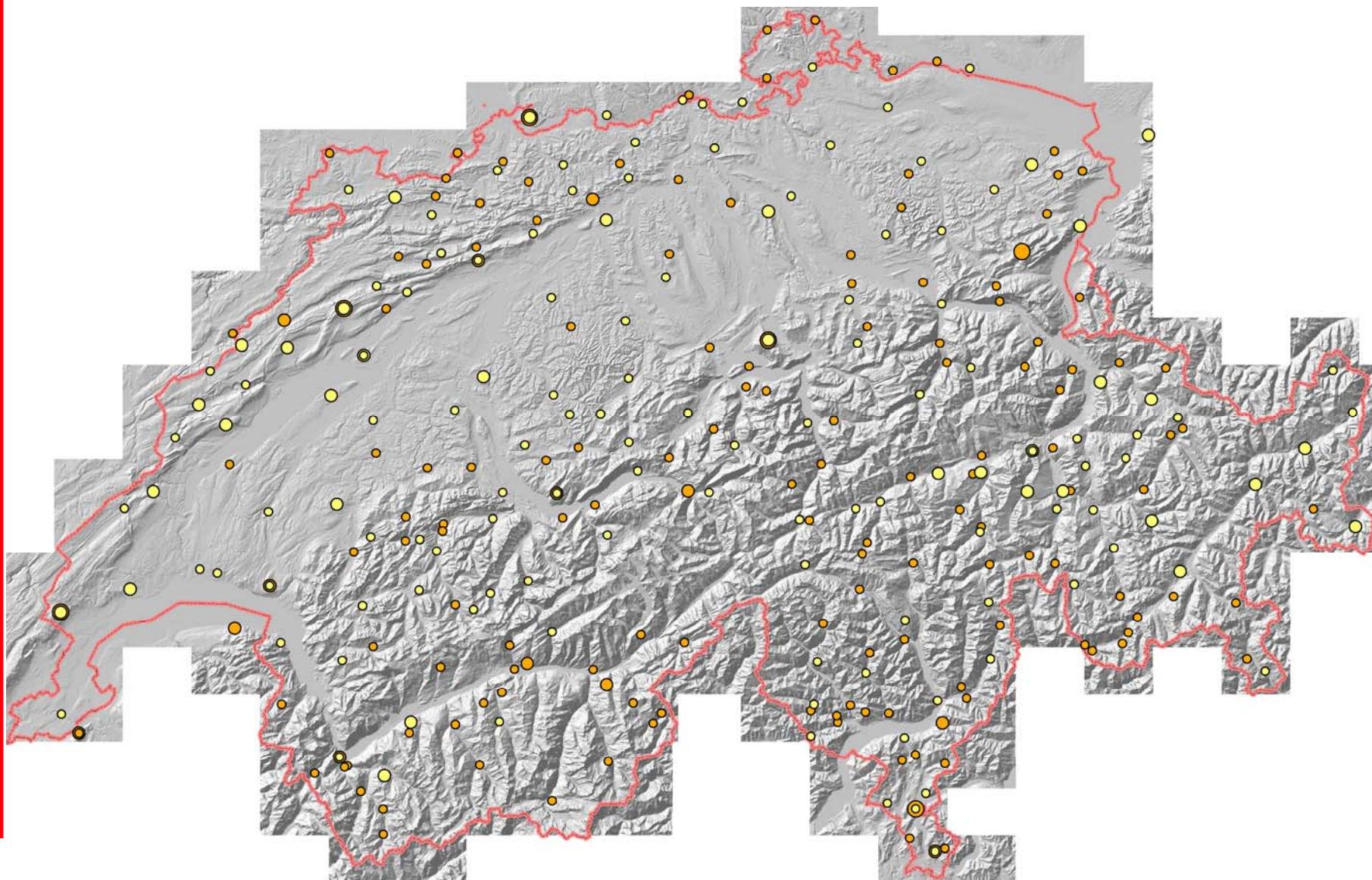
SRG SSR Network FM



SRG SSR Network DAB+



SRG SSR Network DAB+ vs. FM



Cost comparison SRG SSR DAB+ with FM

- No. of FM programs: ~ 4
- No. of FM transmitters sites: 280
- No. of FM transmitters: ~ 855
- Cost of network: x €
- Cost per program: $x/4$ €

- No. of DAB+ transmitter sites: 180
- No. of DAB+ programs: 12
- No. of DAB+ transmitters: 185
- Cost of transmitter network: $x/2$ €
- Cost per program: $x/24$ €

- The distribution of a DAB+ program costs 1/6 of an FM program

Digital Radio DAB+ is green

- ERP FM network: 1200 kW
- ERP DAB+ network: 300kW

- Power consumption FM network: 41GWh
- Power consumption DAB+ network: 3 GWh

Digital Radio DAB+ is Multimedia

- Flexible addition of Multimedia Elements to each program or to the whole multiplex.
- No additional costs for the user