



THE FOURTH LEVELLING OF ESTONIA

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NETWORK

- ⊕ 12 polygons, average perimeter: 250 km
- ⊕ Total length of the levelling lines: *ca* 2800 km
- ⊕ Includes:
 - Levelling benchmarks
 - Points of the gravimetric network
 - Points of the "GPS" networks
 - Tide gauges
- ⊕ Distance between the benchmarks: *ca* 2.5 km



NETWORK



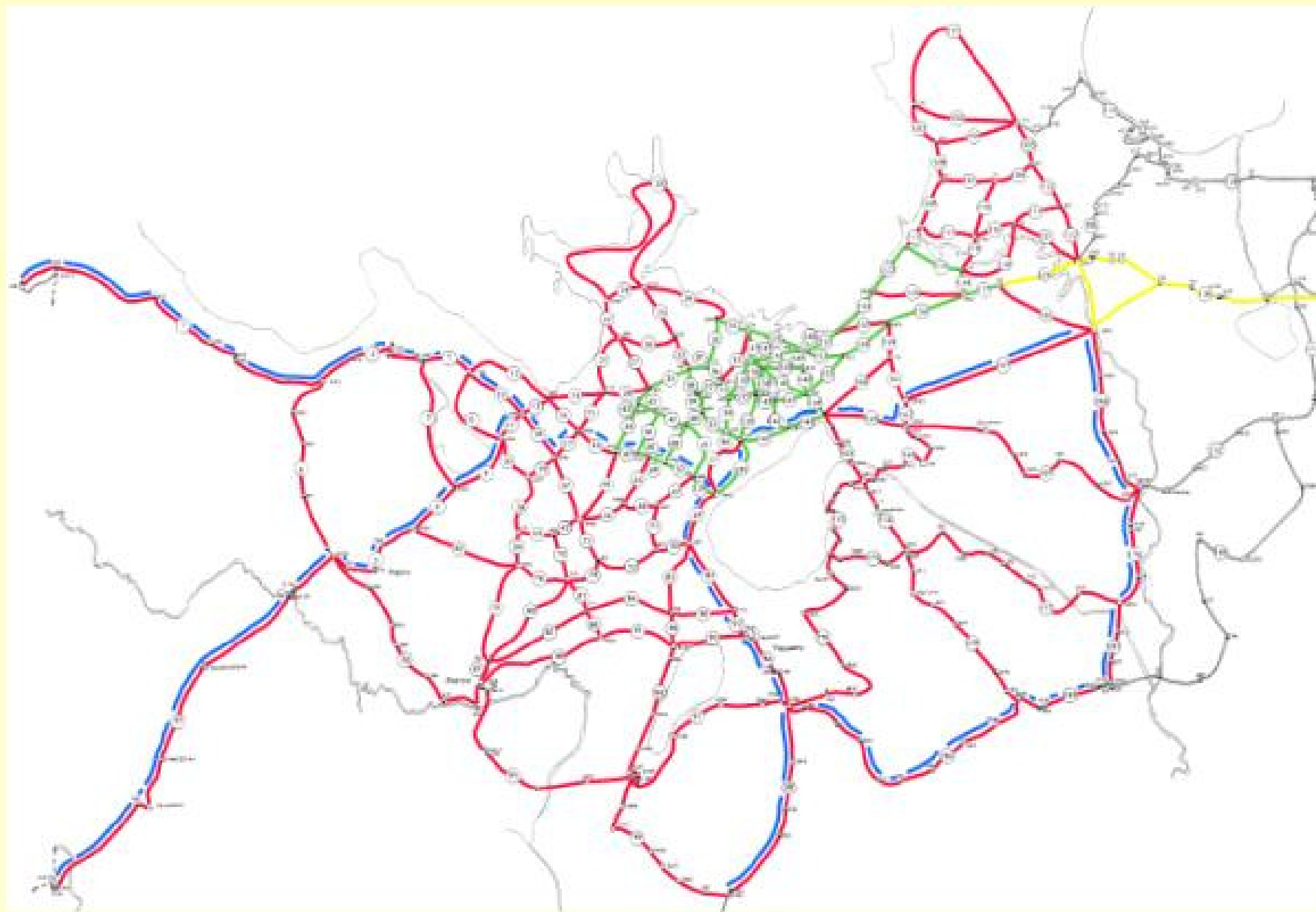


TALLINN 2003 – 2005





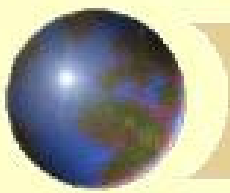
TALLINN 2003 – 2005





TALLINN 2003 – 2005

- ✚ 37 polygons
- ✚ Total length of the levelling lines: 321 km
- ✚ Includes:
 - Levelling benchmarks
 - Points of the gravimetric network
 - Points of the "GPS" networks
- ✚ Distance between the benchmarks: *ca* 500 m
- ✚ Number of the benchmarks: 635



Schedule for 2003 –2004

- ✚ Preparation of lines: 1727 km
- ✚ Levelling: 367 km





Old benchmarks





New benchmarks





Levelling

- DiNi12
- NEDO LD
- Regular calibration of rods at FGI
- Max sighting distance: 40 m
- Min height of the sight: 0.7 m
- BFFB – FBBF
- Measurements: september → november





Levelling



$$\eta = 0.14 \text{ mm/km}$$

$$\sigma = 0.01 \text{ mm/km}$$