



TRAFIKVERKET

The Swedish Transport Administration's successful work in removing barriers



Niklas Kemi
Ecologist, Senior specialist at the STA



Railway

14,200

km of track

535

stations

10,600

switches and crossings

4,100

bridges

165

tunnels

- Transport system planning for roads, railways, shipping and aviation
- Construction, operation and maintenance of State roads and railways
- Procuring inter-regional public transport
- Shipping aid
- Civil defence transportation sector



Road

98,500

km State roads

16,600

bridges

30

tunnels

2,400

road safety cameras

775

weather stations



- **Approximately 30% of road-water crossings are assessed as barriers. ~ 20 000 crossings in the two northernmost counties.**
- **Measures with "earmarked" financial resources started around 1995. Today approximately 90 000 000 € in total.**
- **Old environmental "sins and mistakes" in focus.**

Main distribution of earmarked finances today



Noise and vibrations



Contaminated areas

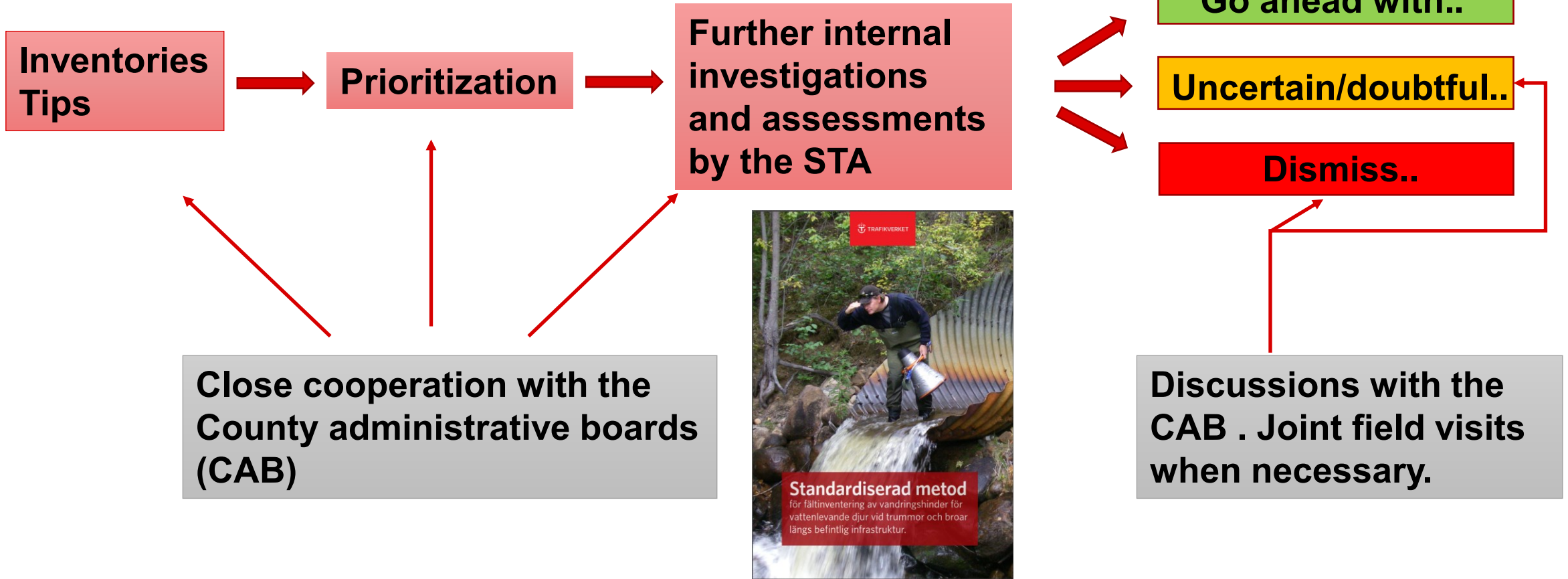


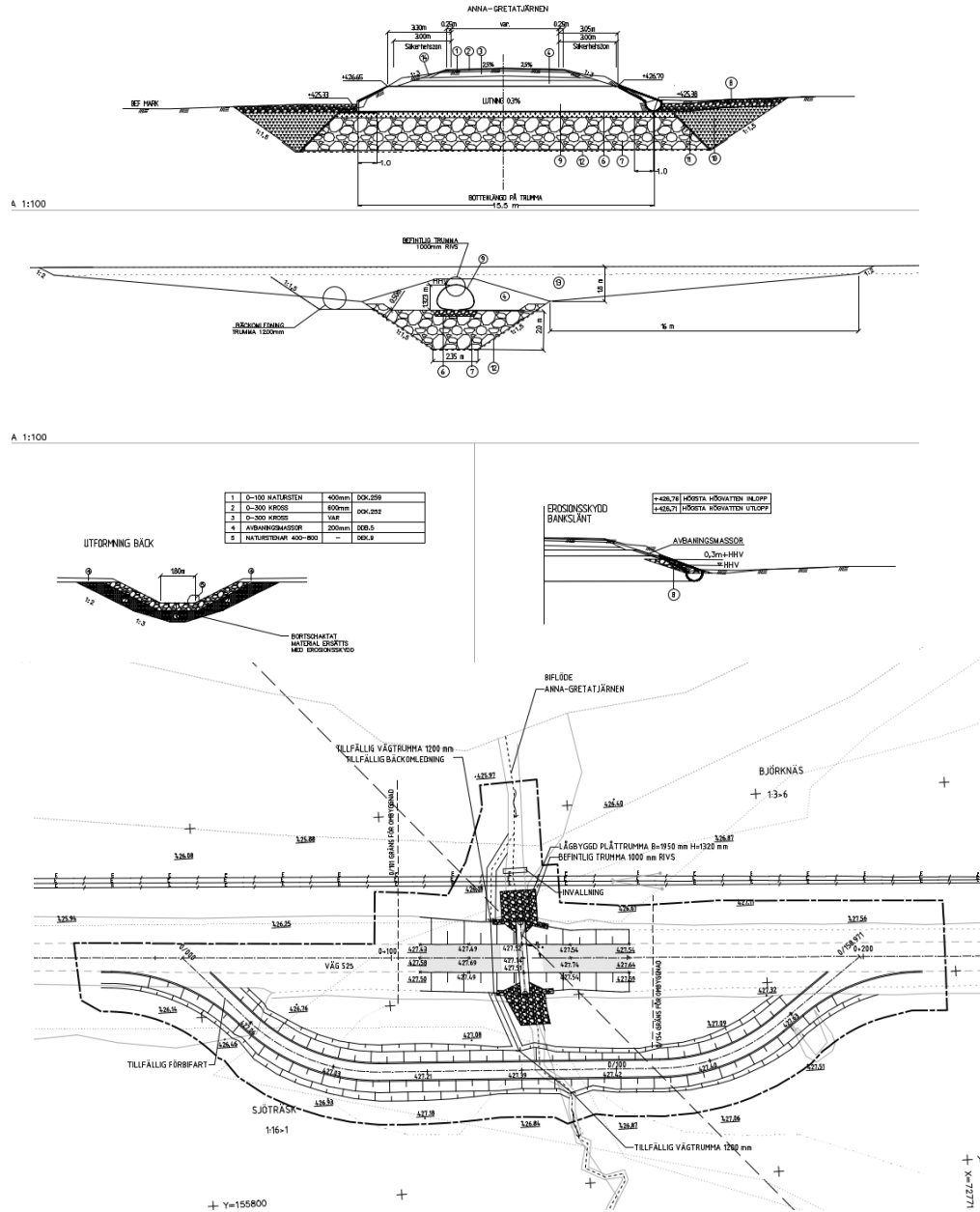
Biodiversity and cultural values



Surface- and groundwater

Working process..





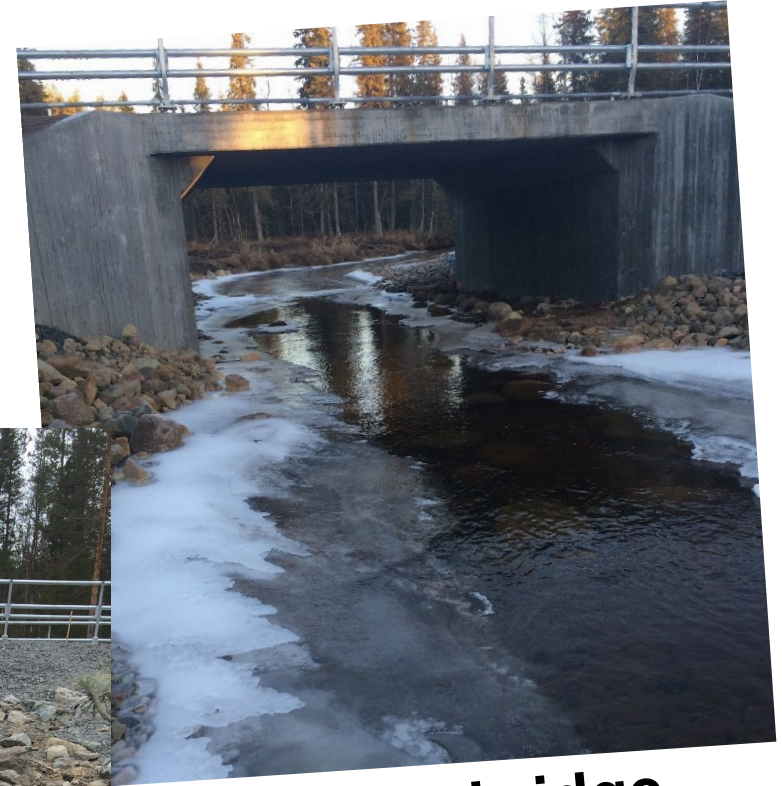
- Public procurement of consultants (designs/drawings, permits, technical and ecological requirements...).
- Public procurement of contractors.





- **Ensure that the construction and maintenance of infrastructure does not result in new barriers.**
- **In our procured road and railway projects, we must ensure that ecological aspects are taken care of.**
- **The EU Water frame Directive implemented in the Swedish legislation, (the Environmental code).**
- **Internal technical and ecological requirements.**
- **Ecological competence is necessary in planning, designing and construction.**

Examples..



Open bridge



Arch bridge

Examples..



Larger culverts



Raise of water-level with weirs/natural material

Examples.. Arch culvert divided into sections with concrete beams to prevent material from being washed away.



Examples.. Medium-sized animals



Cooperation and joint projects bring success..



Life+ Nature 2011-2016

Trafikverket, Länsstyrelsen Norrbotten, Länsstyrelsen Västerbotten, Havs och Vattenmyndigheten, Skogsstyrelsen, SCA, Sveaskog, Holmen skog, Swedish agency for marine and water management



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Trafikverket, Länsstyrelsen Västerbotten, Länsstyrelsen Västernorrland, Länsstyrelsen Jämtland, Havs och Vattenmyndigheten, Karlstad Univ., Munchen Univ., Strömsunds kommun, Ragunda kommun, Åre kommun SCA, Sveaskog, Holmen skog, Billerudkorsnäs, Sportfiskarna

Thank you for listening