

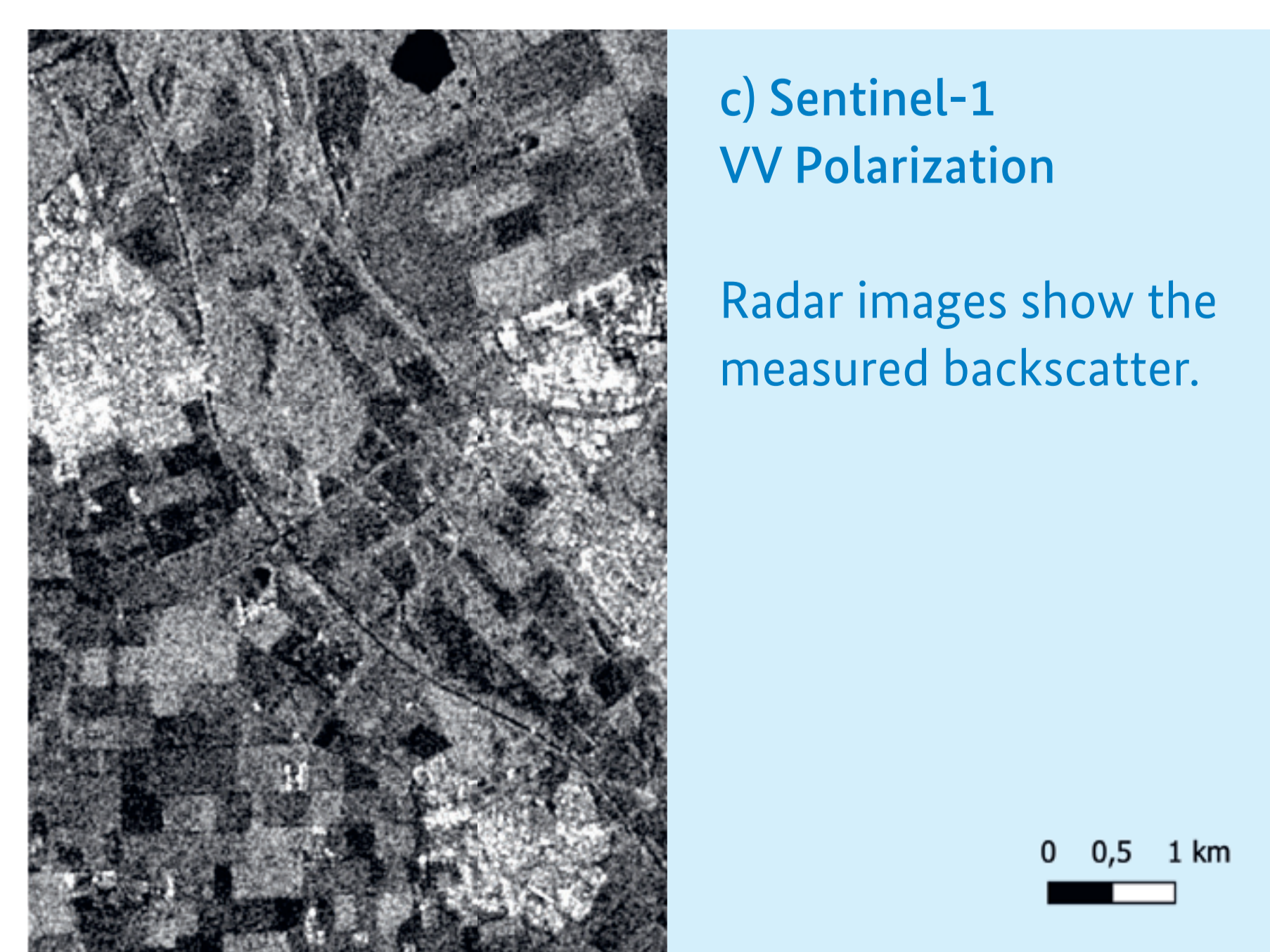
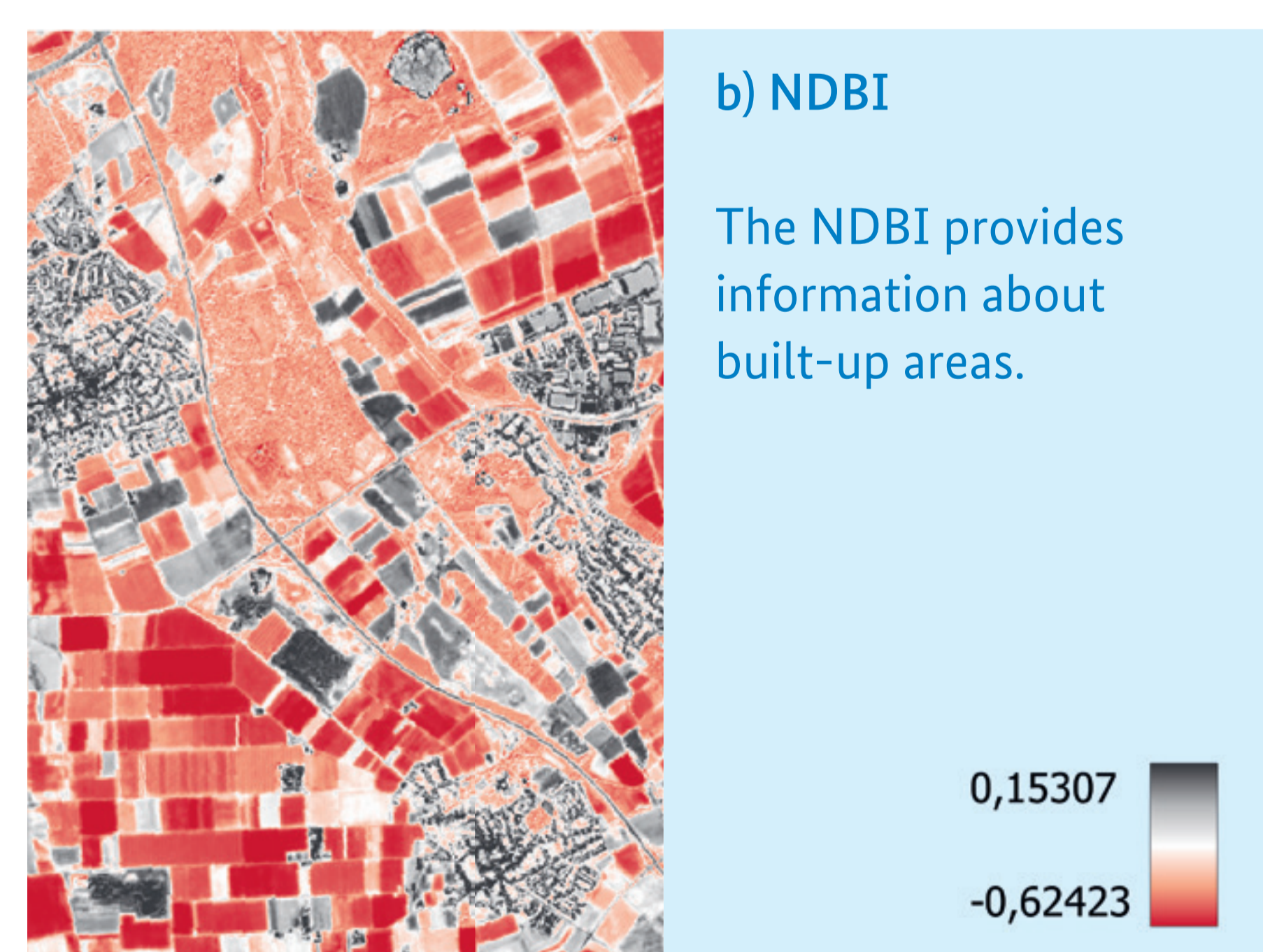
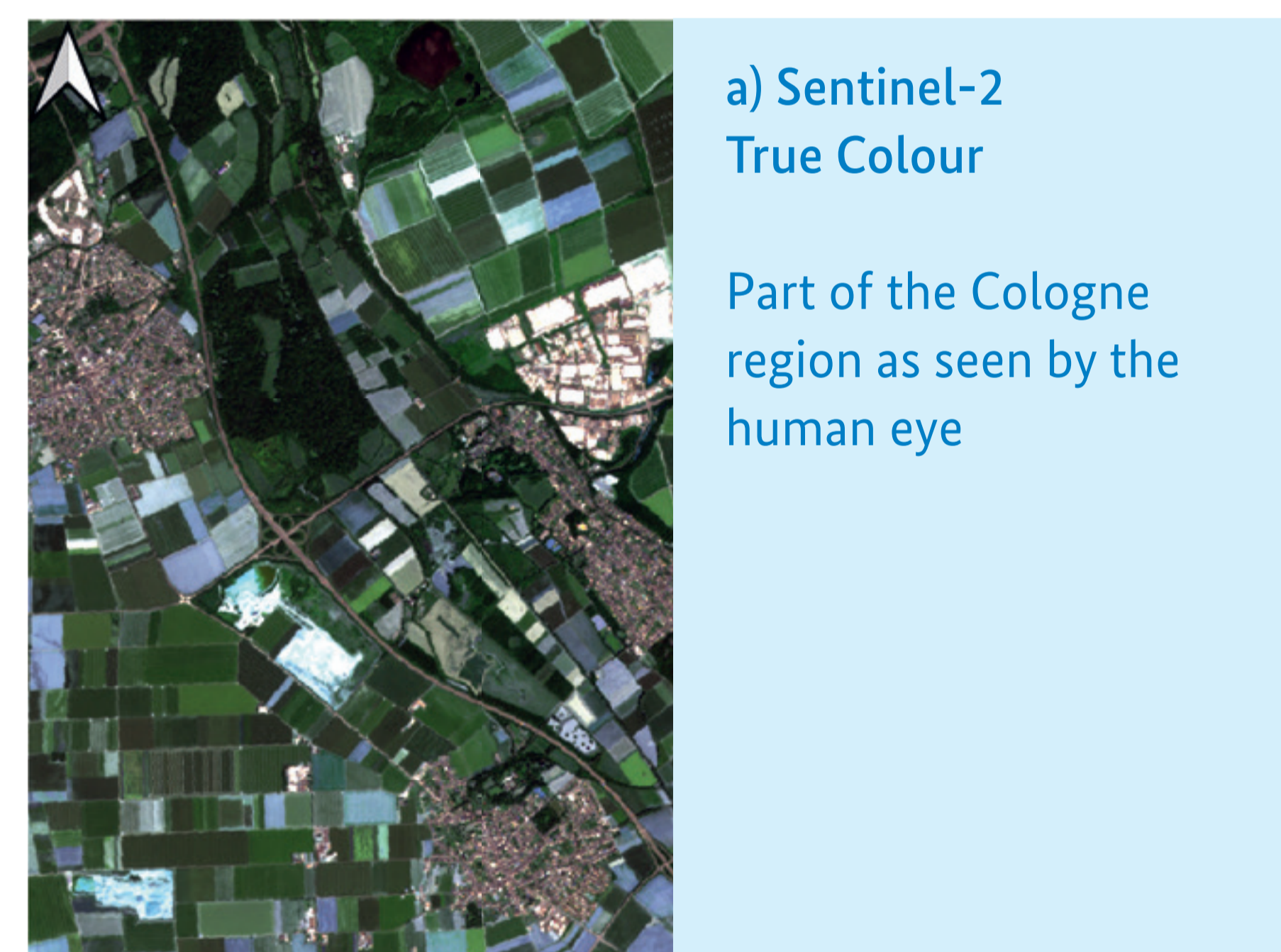
Satellite data for road infrastructure and road traffic management

Satellite data and services hold great potential for road infrastructure and road traffic management and can be used in a wide range of tasks, for example

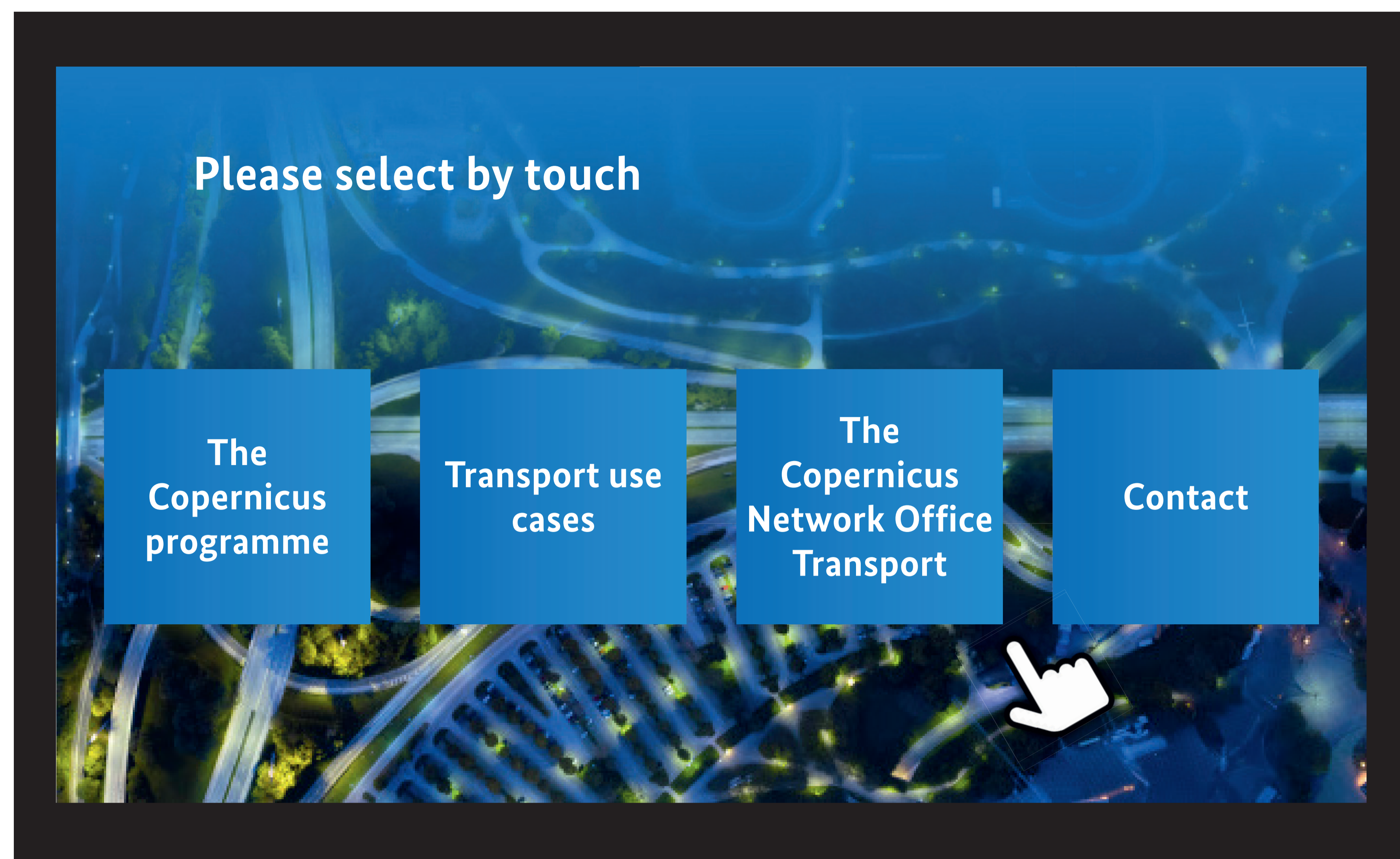
- to monitor changes in road transport infrastructure and ground movements
- for the detection of road traffic and traffic congestion
- to obtain environmental information
- for road network extraction
- to derive vegetation in the vicinity of road infrastructure.

The Copernicus Network Office Transport supports, advises and connects actors in land transport who use or would like to use remote sensing data and services.

Satellite images of the Cologne region



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Advantages of satellite data

- Satellite data are versatile: In addition to optical satellites (Fig. a), which are e. g. used for observing vegetation, there are also radar satellites (Fig. c). These are independent of weather and light conditions and provide important information on ground movements, for example.
- Indices such as the Normalized Difference Built-up Index, in short NDBI (Fig. b), allow for quick information retrieval. Built-up areas (higher values) are darker in colour than non-built-up areas (lower values) (Fig. b).
- Satellite data contains more information than visible to the human eye. For example, information from near-infrared and short-wave infrared light are obtained by some satellites (Fig. d & e).
- Satellite data are up-to-date: A great advantage of the sentinel satellites of the Copernicus programme is the high temporal resolution of a few days.
- Satellite data offer area-wide information with global coverage. For example, changes in the land surface over time can be observed for large areas.

Comparing different satellite images of a stadium



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Further information →

