

What do Surveyors and Other Spatial Professionals need from an Interoperable GNSS System of Systems?



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What do Surveyors need?

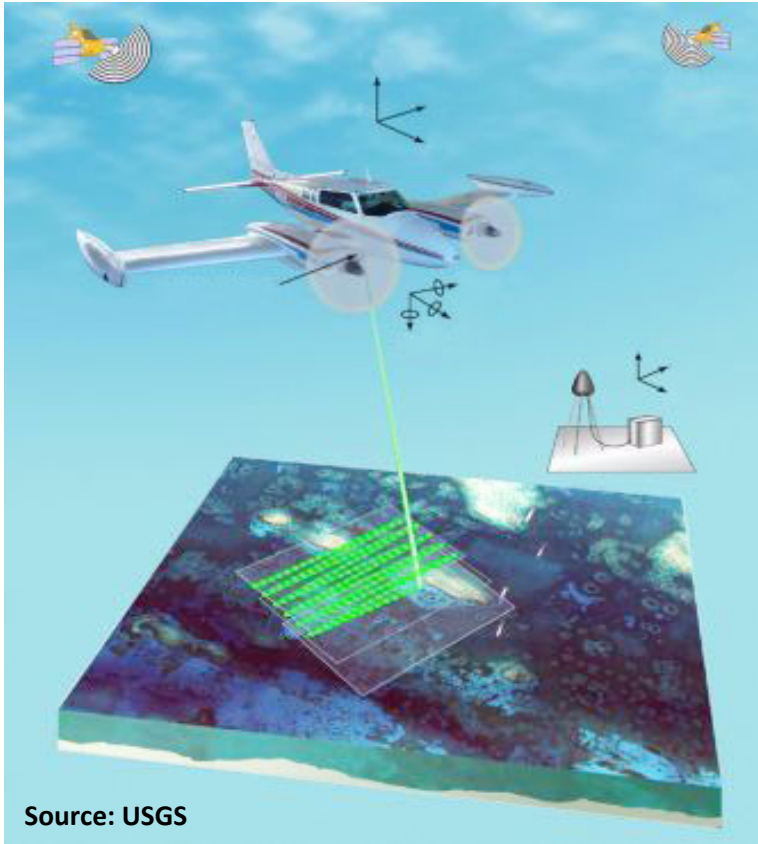
- Increasing accuracy with increasing reliability and increasing availability and with decreasing cost of equipment and infrastructure.

Thanks for your attention.

Presentation Outline

- Part 1:
 - Some Trends in Precise Positioning;
- Part 2:
 - How those trends drive what we need from an interoperable System of Systems;

From individual points to point clouds



***Use of Airborne
and Terrestrial
Laser Scanners is
exploding***

Individual point clouds need to join and/or overlay

From Static to Dynamic



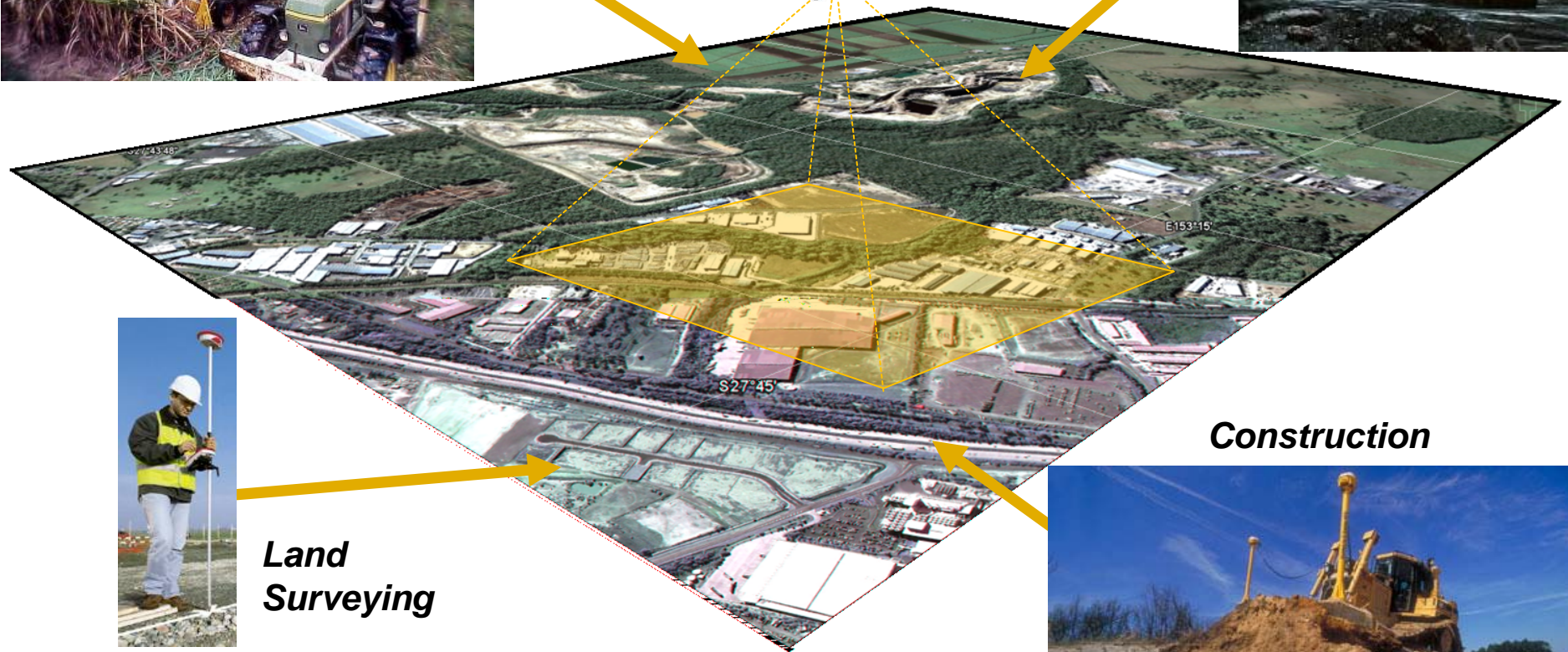
Agriculture



Mining



Aerial Surveying



Land Surveying



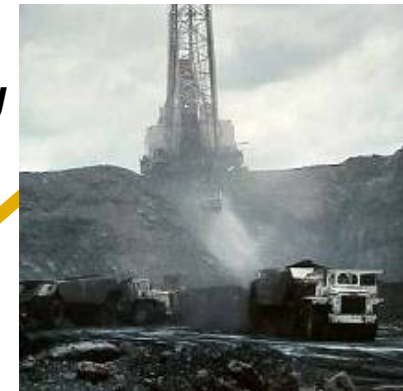
Construction

How to check a moving platform?

From Post Processed to Real Time



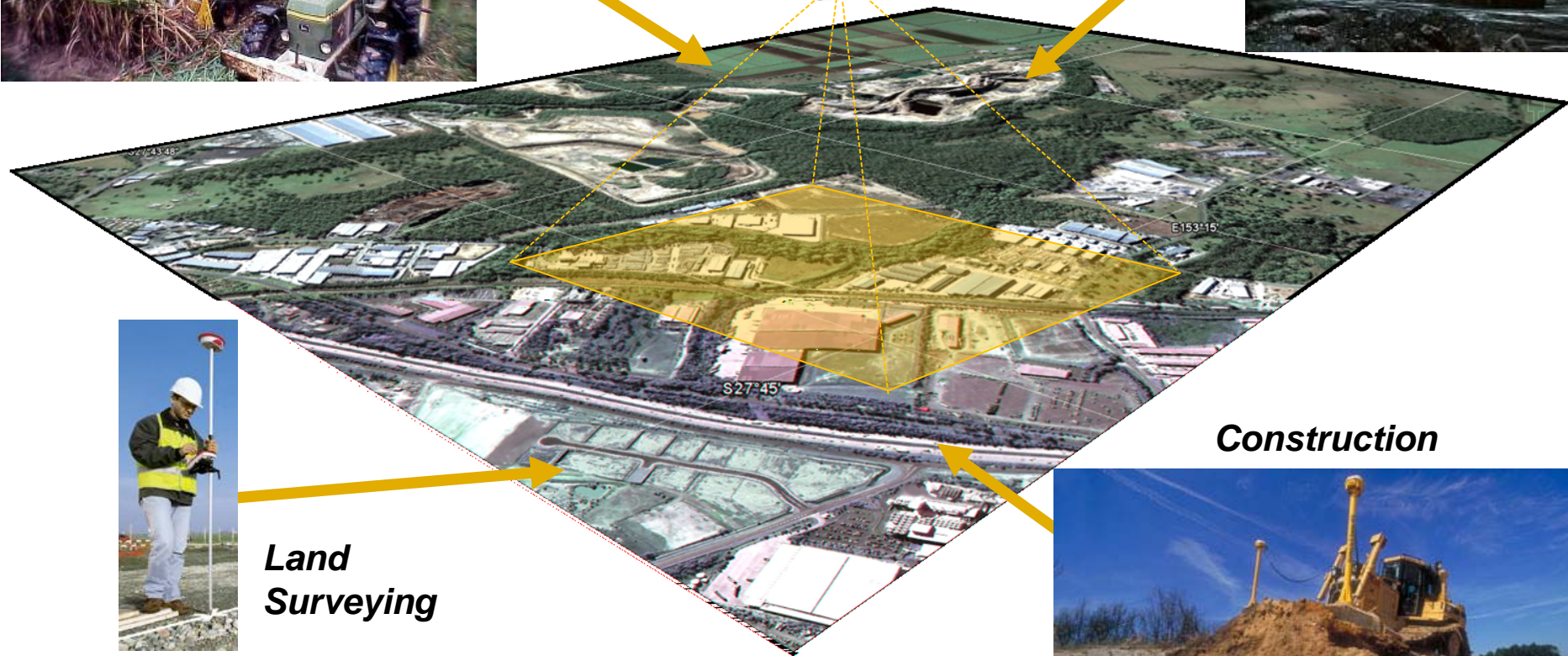
Agriculture



Mining



Aerial Surveying



Land Surveying

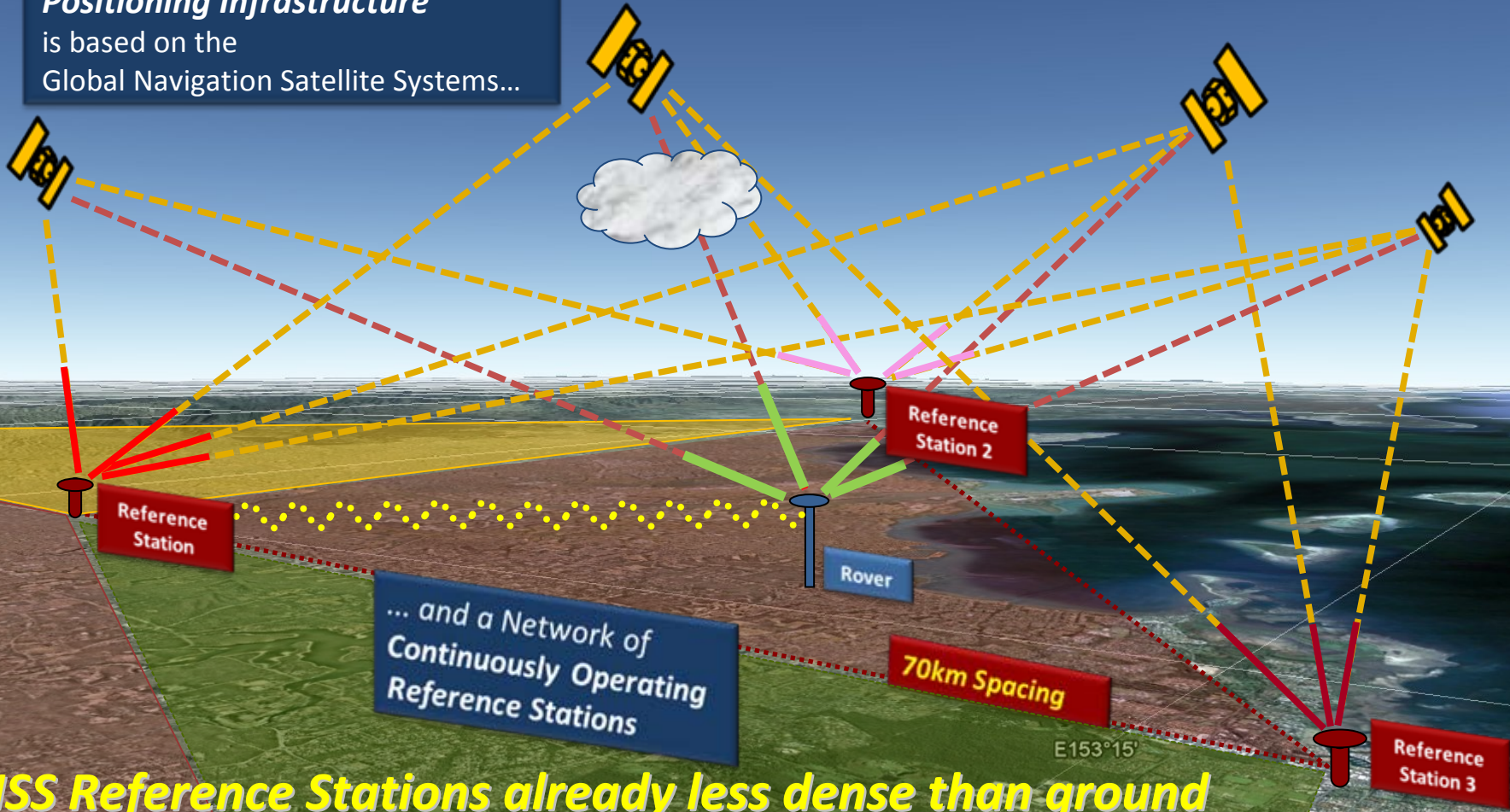


Construction

A problem and an opportunity?

From Dense to Sparse Infrastructure

Positioning Infrastructure
is based on the
Global Navigation Satellite Systems...



... and a Network of
Continuously Operating
Reference Stations

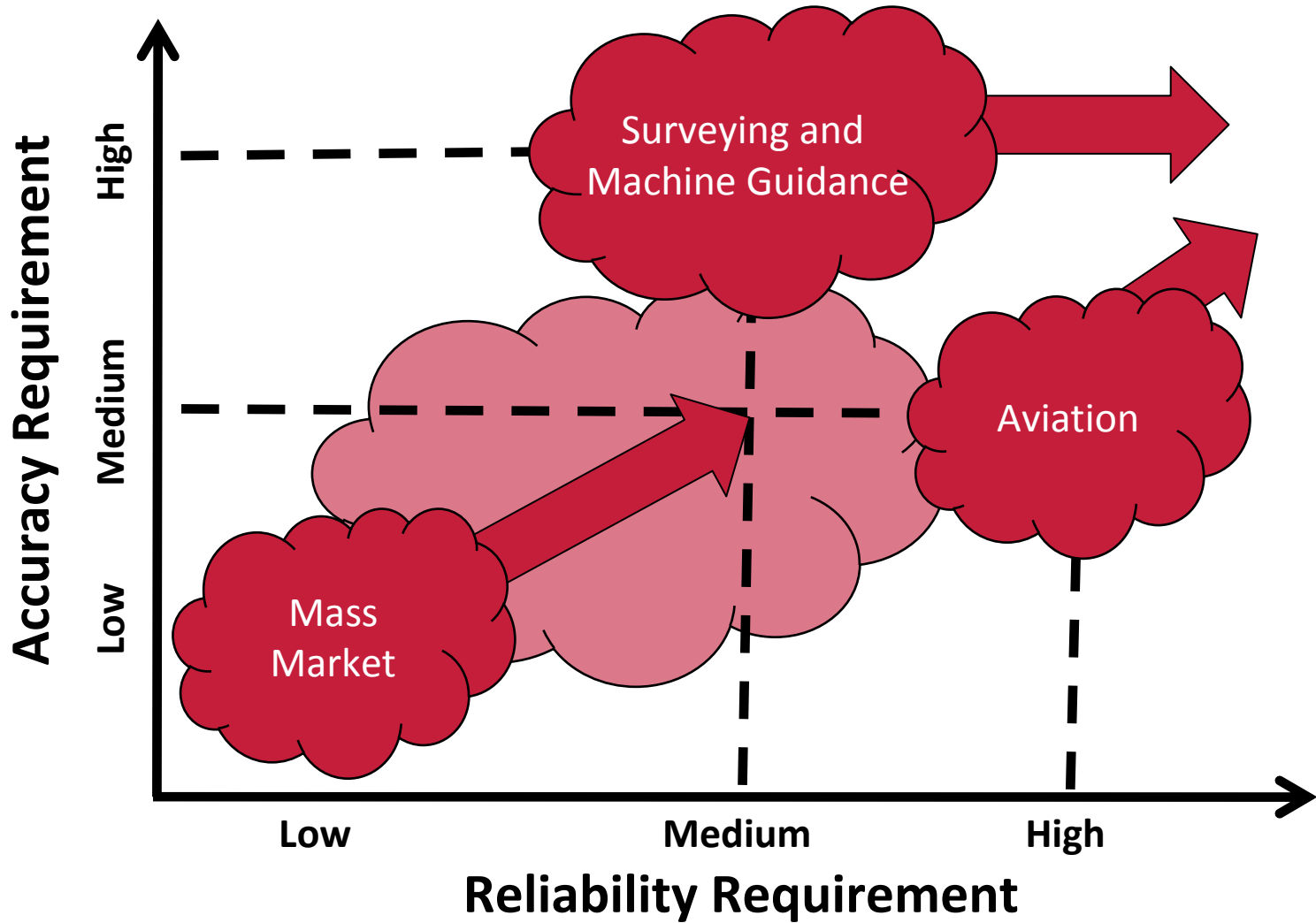
GNSS Reference Stations already less dense than ground marks but future suggests an even more sparse infrastructure.

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From Relative to Absolute



From Useful to Necessary



So What Do we Need?

Need GNSS 2.0!

Improved accuracy and consistency of Geodetic and Timing references

Improved ability to model atmospheric effects

**Improved multipath and interference mitigation;
Improved availability and reliability;
Less complex equipment;
and
Improved certainty in equipment investment decisions**

Open standards for data and communications

Improved certainty in Infrastructure investment decisions

Need this all to be appreciated and managed as a True Infrastructure

Thanks for your attention.

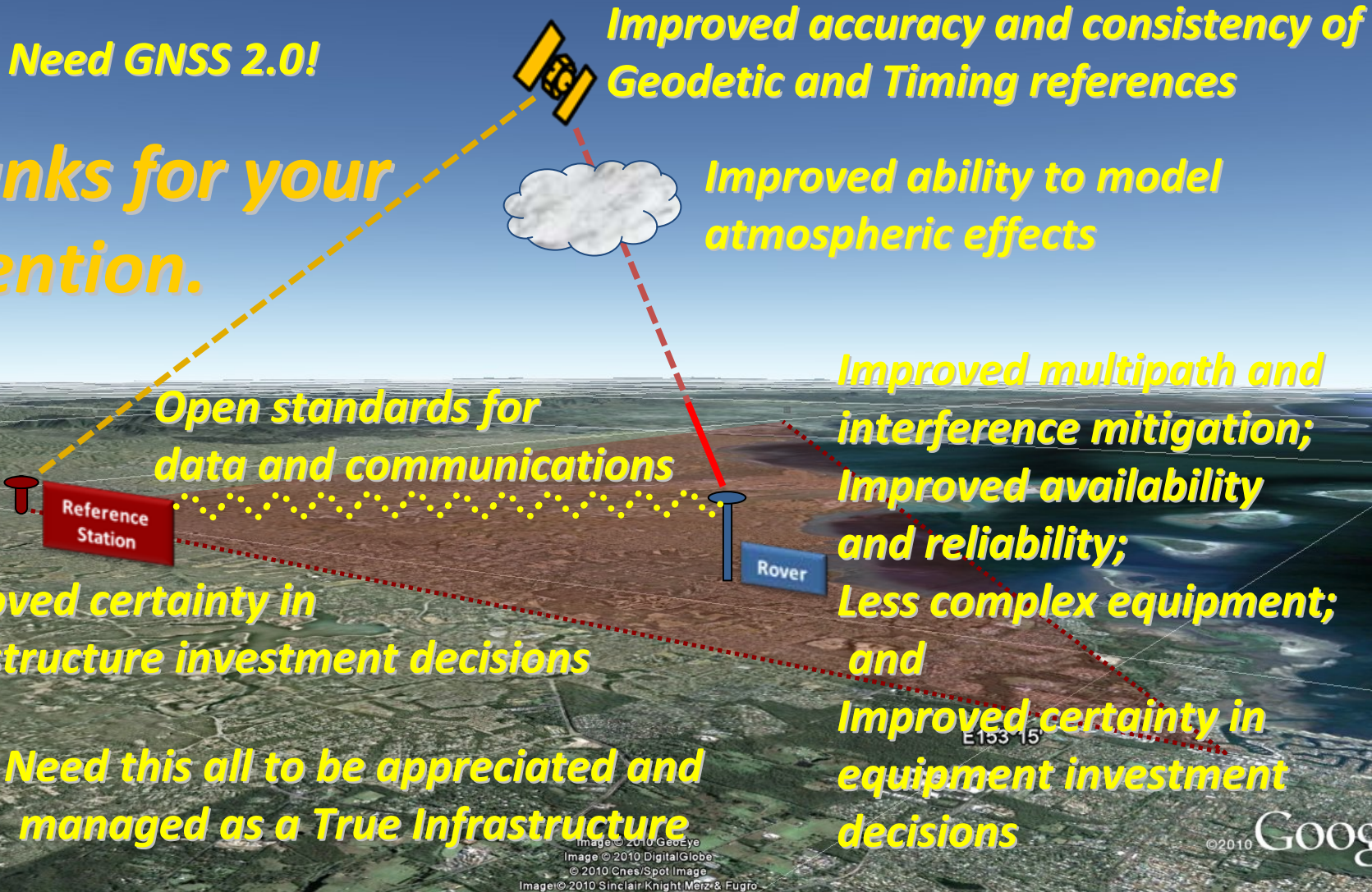


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