



45TH ASECAP STUDY & INFORMATION DAYS 2017

The Concession model in the decarbonization era: preparing the infrastructure of the future

**INNOVATIVE CHALLENGES IN THE DIGITALIZED MOTORWAY SECTOR
BIG DATA, DIGITALIZATION, CYBERSECURITY**

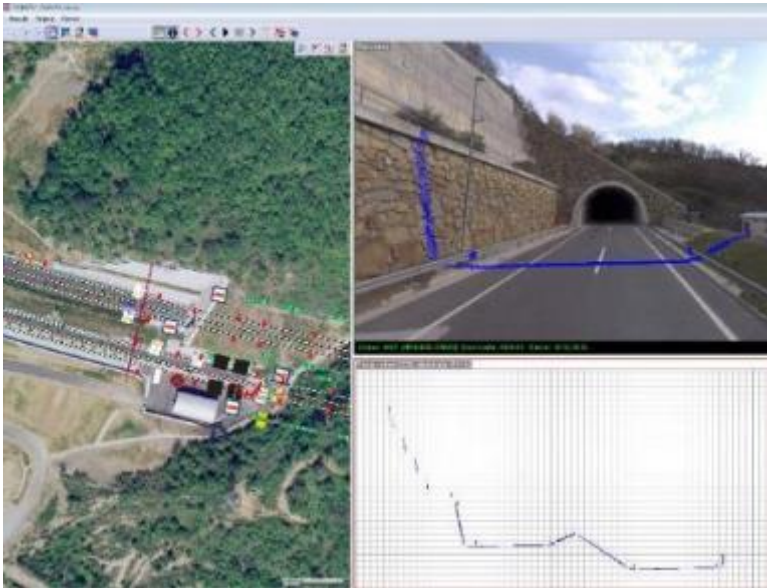
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Spherical and laser recordings of the motorway network managed by DARS d.d.



Bojan Banfi

DARS d.d.

Motorway Company in the
Republic of Slovenia

Motorway system in the Republic of Slovenia



610 km of motorways and express roads

MANAGEMENT OF DIGITAL DATA



DARS

MANAGEMENT OF DIGITAL DATA



PROJECT CONTENTS

- Spherical recording
- Laser recording
- WEPS
- RAMPA

COURSE OF THE PROJECT



- Mobile recording, speed approx. 50 km/h
- Computer data processing
- Setting up the scanner
- Implementation and maintenance
- Duration of the project: one year

EQUIPMENT

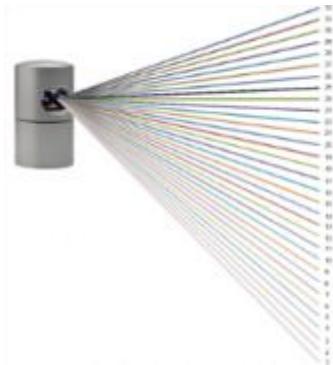
■ PHOTO EQUIPMENT:



PointGrey spherical camera

6 cameras with 5 MP → total 30 MPix

■ LIDAR SENSOR:



Velodyne

32 lasers

SPHERICAL AND LASER SCANNING STATISTICS

Avtocestni sistem v Republiki Sloveniji



Spherical recording

→ 3,249 km =

650,000 recordings

Lidar recording

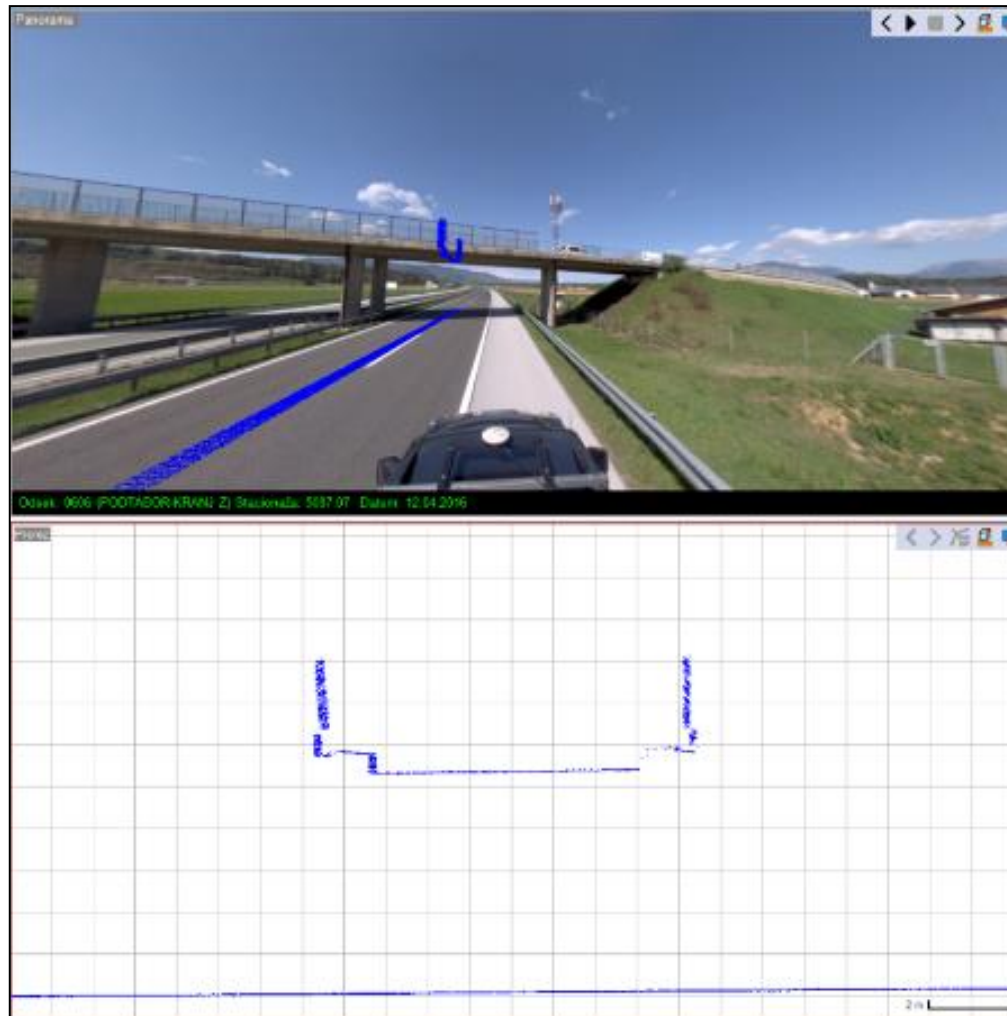
→ 2,700 km =

over 111 billion points

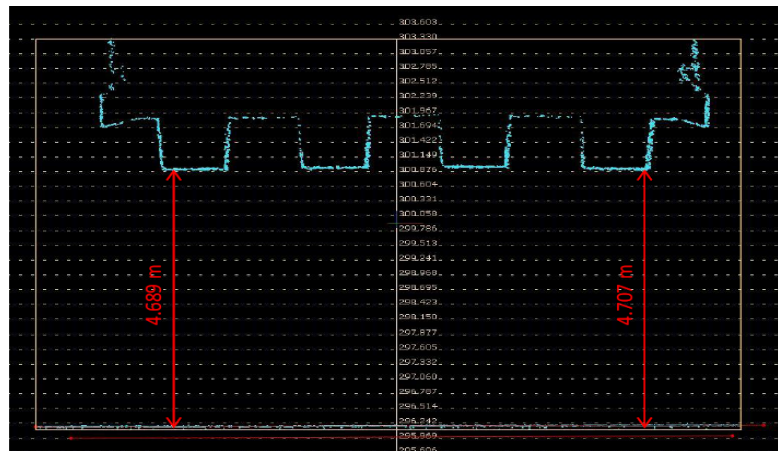
RAMPA - SPHERICAL RECORDING



RAMPA - CROSS AND CUSTOM SECTIONS



INVENTORY OF TRAFFIC SIGNALISATION AND TRAFFIC EQUIPMENT



WIDE RANGE OF USE

- Highway maintenance personnel
- Traffic experts and transport institutions
- Planners
- Inspection and monitoring
- Legal certainty

DARS

Quality data to drive safely!