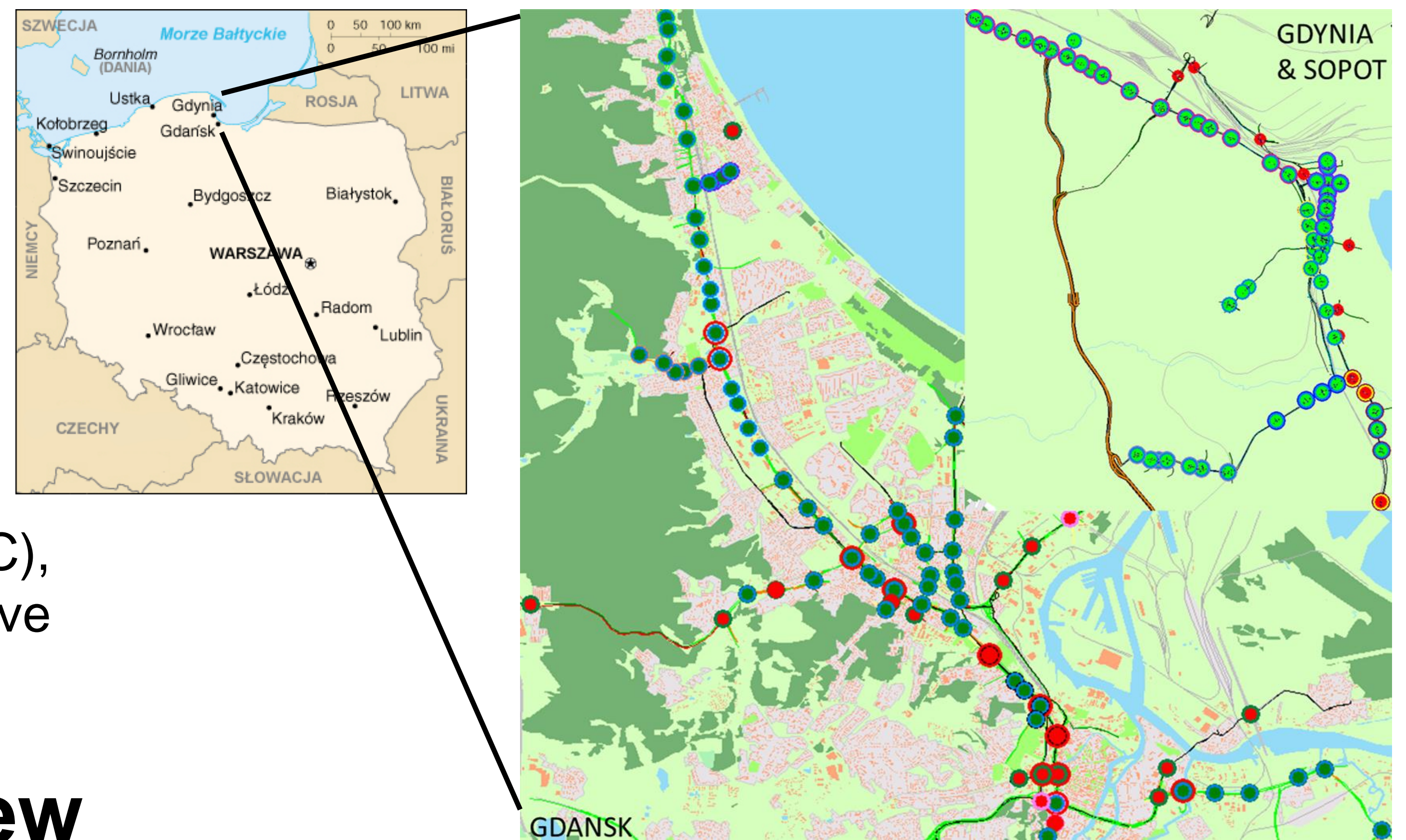


The Intelligent Transport System of TRISTAR – Theory becomes Practice

Jonas Lüßmann, Bernd Thormann, Carsten Kemper, GEVAS software GmbH
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The TRISTAR Project

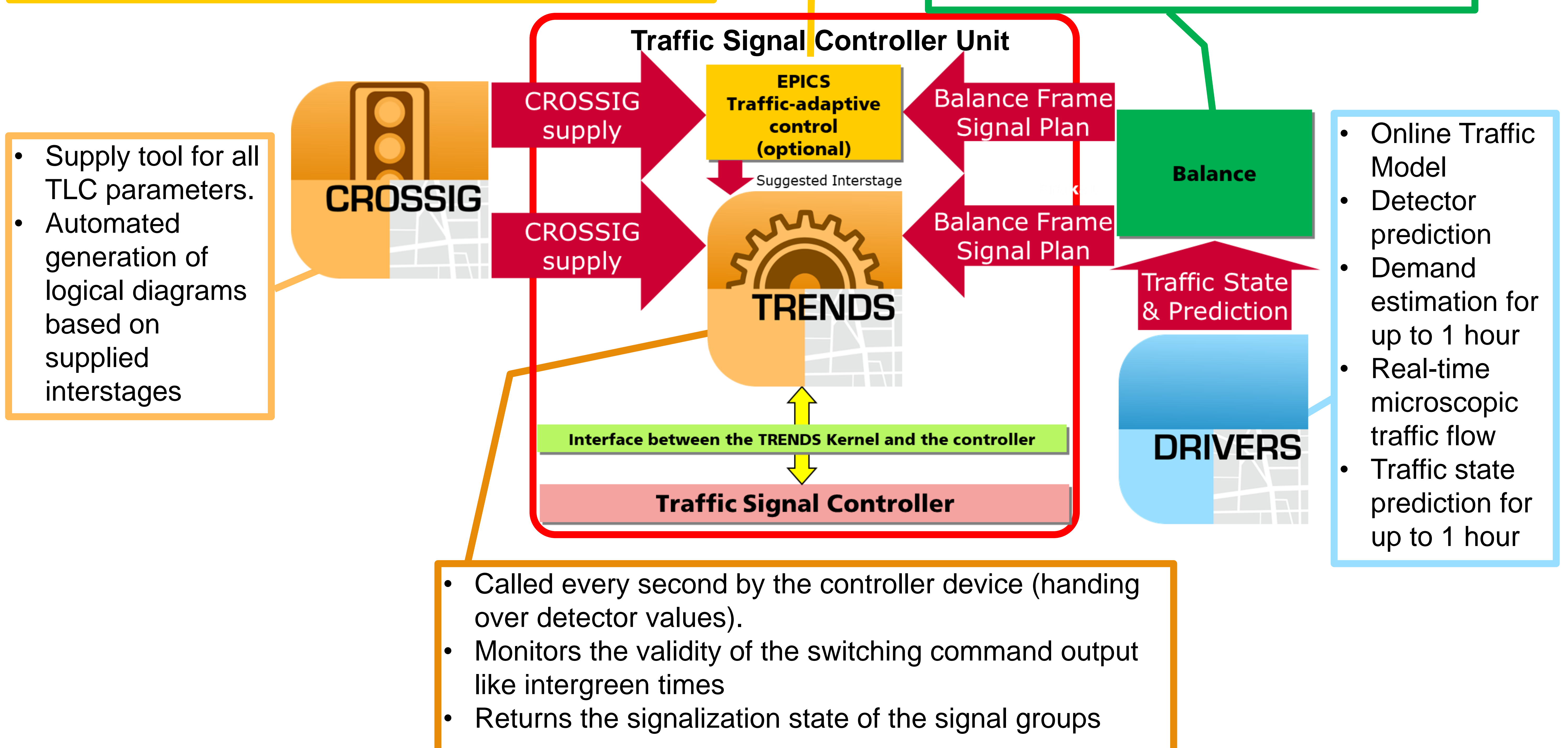
- Poland's Tricity, the metropolitan area around Gdansk.
- Gdansk, Sopot and the seaport of Gdynia.
- Agglomeration of about 700.000 inhabitants.
- Most comprehensive ITS project in Poland.
- Over 150 traffic lights
- Focuses on both Individual Traffic and Public Transport.
- Project partners: QUMAK S.A. (main contractor), MSR (TLC), GEVAS software (Traffic Management), PTV group (adaptive TLC), Cities Gdansk, Sopot, Gdynia (supply and operation).



Traffic Light Control System Overview

- Model-based real-time local optimization tool
- Embedded into TRENDS kernel
- Suggests interstages to switch (validated by the TK)
- Adapts Balance Frame signal plans

- Adaptive network control
- Optimizes green waves every 5 minutes
- Based on Genetic Algorithms
- Utilizes the traffic state from DRIVERS



Evaluation

- Conducted by the University of Gdansk as part of the Site Acceptance Tests on all major routes in the three cities
- Comprehensive measurement, using floating cars and manual counting.

