# Success Story Templates

NCC Estonia

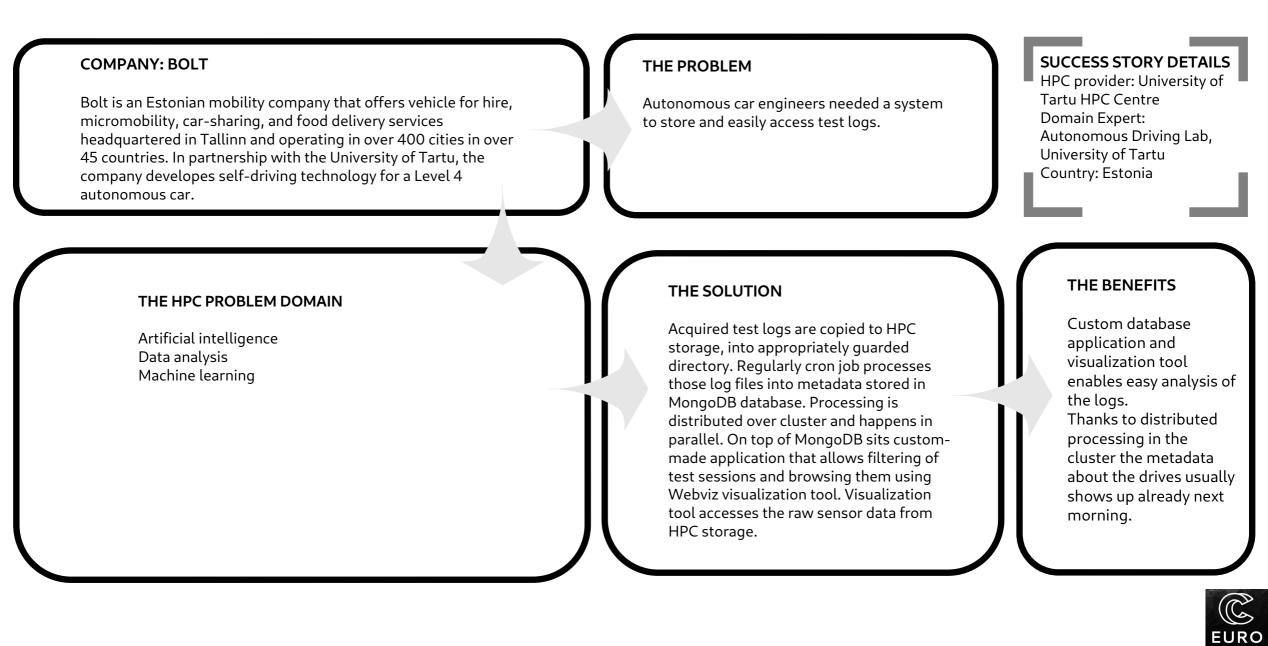
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Industrial HPC Course



# SUCCESS STORY: AUTONOMOUS VEHICLES



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#### THE PROBLEM

Autonomous cars acquire up to 357 GB/hour of data during test drives. Autonomous car engineers needed a system to store and easily access those test logs.

## THE HPC PROBLEM DOMAIN

Artificial intelligence Data analysis Machine learning

## THE SOLUTION

Acquired test logs are copied to HPC storage, into appropriately guarded directory. Regularly cron job processes those log files into metadata stored in MongoDB database. Processing is distributed over cluster and happens in parallel. Longest logs can take up to 24 hours to process, so processing them sequentially would be very time-consuming. On top of MongoDB sits custom-made application that allows filtering of test sessions and browsing them using Webviz visualization tool. Visualization tool accesses the raw sensor data from HPC storage.

## THE BENEFITS

- Thanks to petabytes of storage at the HPC Centre, the company can keep all the data they need
- Thanks to distributed processing in the cluster the metadata about the drives usually shows up already next morning
- Thanks to custom database application and visualization tool the team members can easily analyze the logs and share their findings with each other

