

HACKATHONS FOR INNOVATION: CASE LIVING LAB BUS AND PASSENGER GAME BUSSIG IN JUNCTION 2017

Juho Kostainen, VTT Technical Research Centre of Finland Ltd.

Jani-Pekka Jokinen, Aalto University

Nikola Pantic, Filip Marko & Gustav Bylund, Bussig Team

www.LivingLabBus.fi

THE CONTEXT:

LIVING LAB BUS

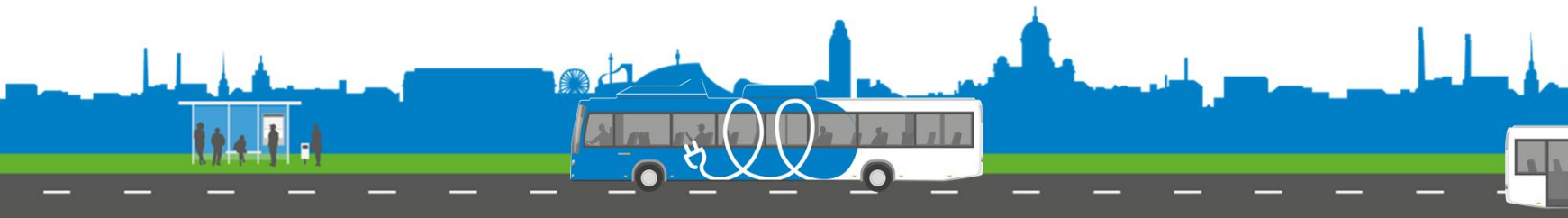
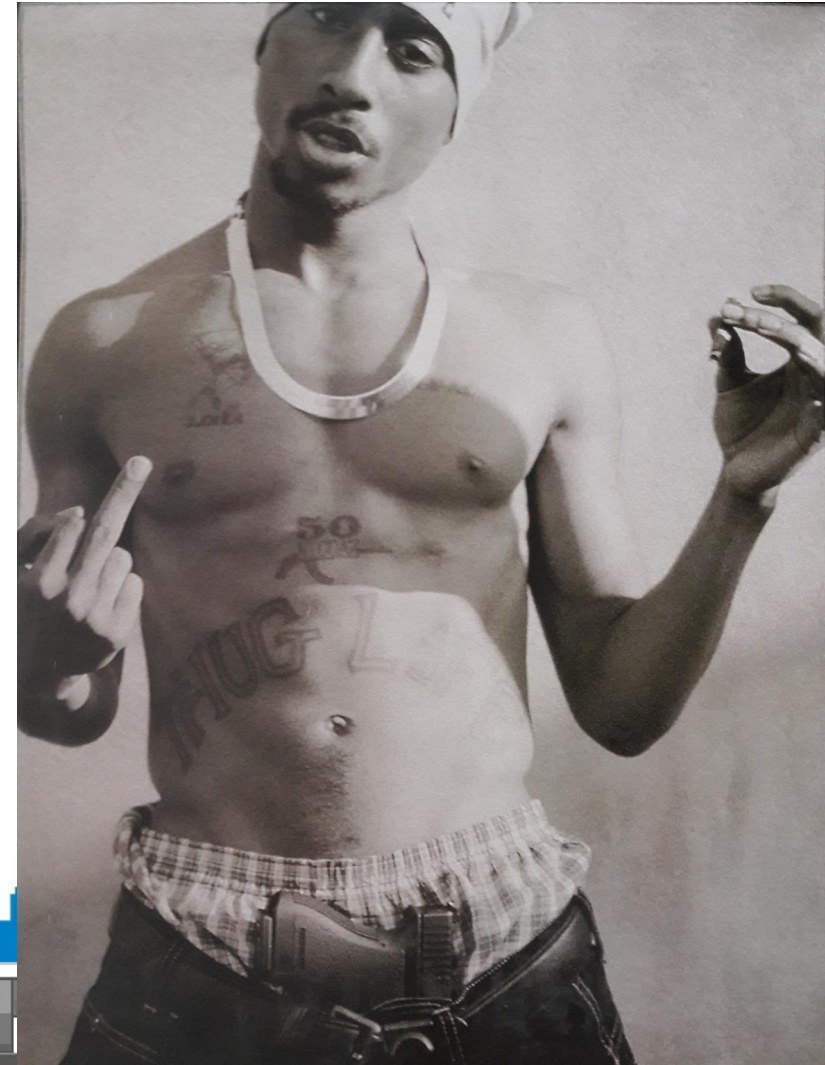
- Innovation platform of a fleet of buses in normal operation
 - Data from the vehicles and sensors
 - Chance to present services and collect user feedback
 - Opportunity to install and test devices in real context



WHO'S GOT THE IDEAS?

- *"I'm not saying I'm gonna change the world but I guarantee that I will spark the brain that will change the world – and that's our job."*

- T. Shakur



HACKATHONS: CASE JUNCTION 2017

- About 1500 participants and 100 nationalities
- Challenges in many tracks
 - Artificial intelligence, entertainment, fintech, intelligent buildings, legal tech, **mobility**, space etc.
- Mobility track had 5 challenges
 - One of which was our "**Brilliant Bus Display**"



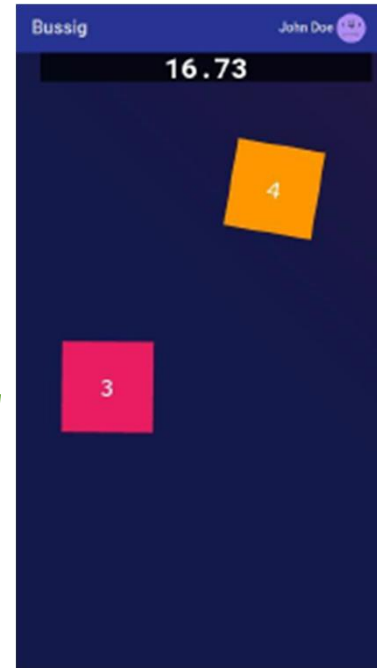
"BRILLIANT BUS DISPLAY"

- The challenge: "Innovative public screen services and applications that will improve the travel experience of the bus passengers (and preferably use our data)"
- Criteria
 - Utilization of the LLB REST API data
 - Innovativeness and feasibility
 - Potential positive impacts on the travel experience of the passengers



BUSSIG: INTERACTIVE ENTERTAINMENT FOR PASSENGERS

- Reducing boredom with Web Application mini games
- Leaderboard shown on a display in the bus
 - Play against commuters onboard the same bus



Leaderboard

1. 🤪	Muumipappa	411 pts
2. 🤪	Mymmeli	353 pts
3. 🤪	Nikola	318 pts
4. 🤪	Mörkö	301 pts
5. 🤪	Muumipappa	185 pts
6. 🤪	Mrs judge	180 pts
7. 🤪	Muumipappa	175 pts
8. 🤪	Oski	103 pts

Global Leaderboard

1. 🤪	Mörkö	411 pts
2. 🤪	Tuutikki	353 pts
3. 🤪	Nikola	318 pts
4. 🤪	Hattivatti	301 pts
5. 🤪	Muumimamma	185 pts
6. 🤪	Mrs judge	180 pts
7. 🤪	Hattivatti	175 pts
8. 🤪	Oski	103 pts



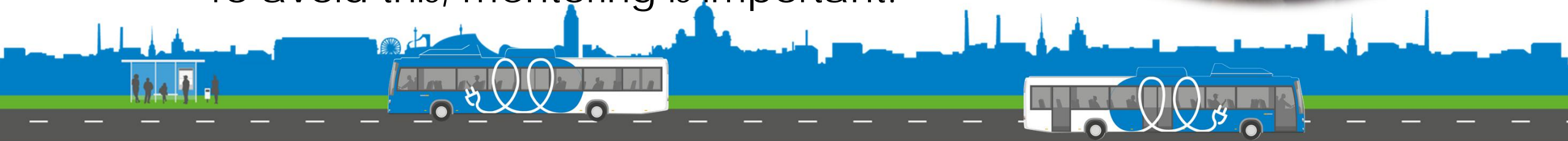
Do you want to play? Connect to bussig.fi or scan the QR code to your right.
If you do well you might show up on the leaderboard!



bussig.fi

THOUGHTS ON HACKATHONS

- People with different backgrounds bring **fresh ideas and perspectives**...
- ...but on the other hand, being unfamiliar with the context may lead to **obvious ideas rather than new innovations**
 - To avoid this, mentoring is important!



CONSIDERATIONS FOR PLANNING

- Support (technical and mentoring; F2F and online)
- Resources (live and test data where feasible)
- Criteria (clarity for participants and judges)
- Dialogue (active mentor-team discussions and guidance)
- Challenge coordination (collaboration to define challenges)





Passenger Engagement Tools



Environment Perception for Automated Driving



Enhanced Weather Predictions



Road Slipperiness Detection



Driving Optimization
Via CAN bus data



Intelligent eMobility
Emission free buses



Road Data Collection



PASSENGER EXPERIENCE



ENERGY EFFICIENCY



SMART SERVICES

THANK YOU

Juho Kostainen

VTT Technical Research Centre of Finland Ltd.

juho.kostiainen@vtt.fi

