

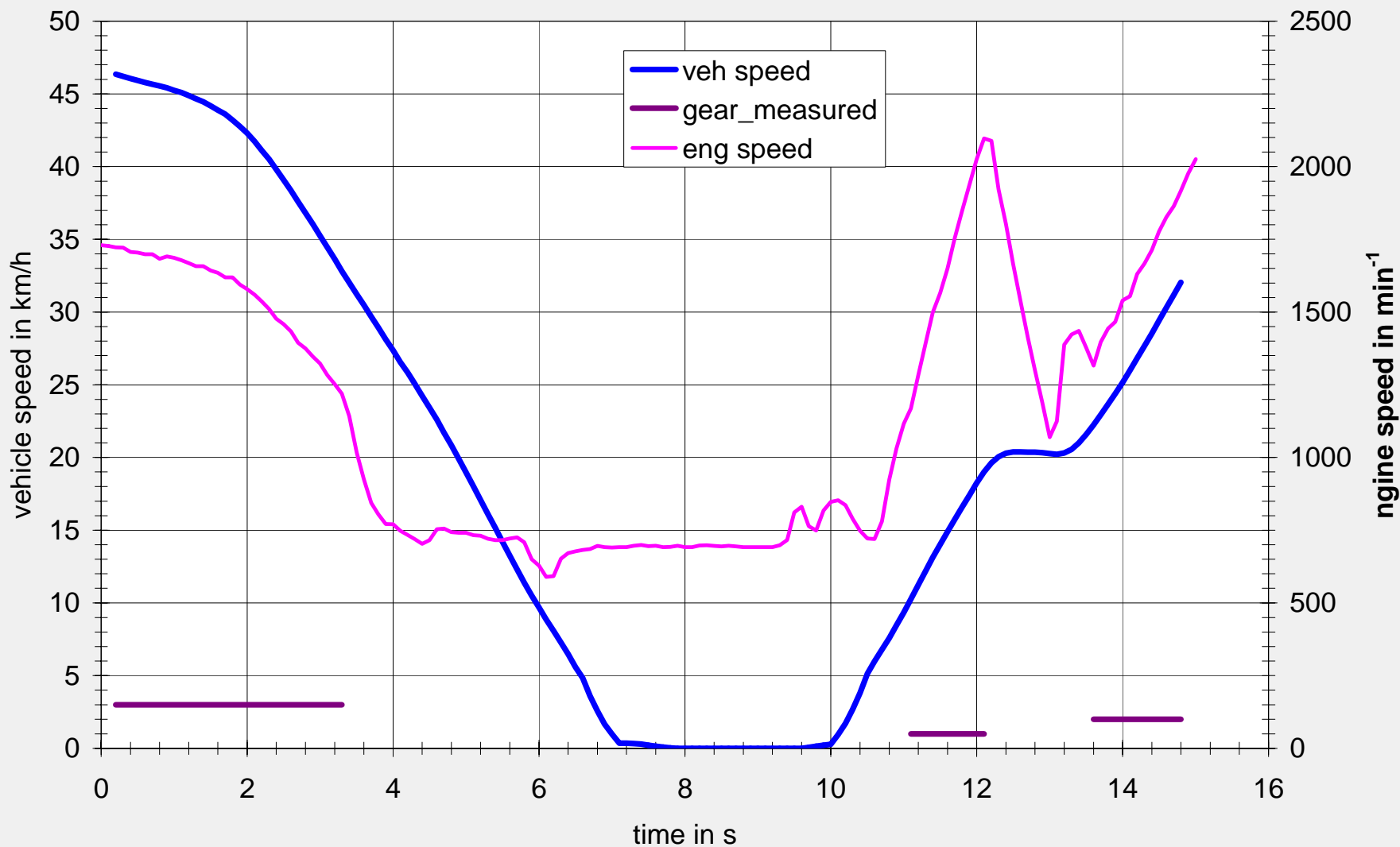


Within WP 50 a first validation measurement was carried out:

- **A BMW 530 d was driven along a test track and vehicle speed and engine speed were recorded over a distance of 80 m with a sample rate of 10 Hz.**
- **8 microphones were positioned along the track in 7.5 m distance vertical to the driveline and in a distance of 10 m to each other.**
- **The noise levels of each microphone were also recorded with the same sample rate.**



WP 50, validation

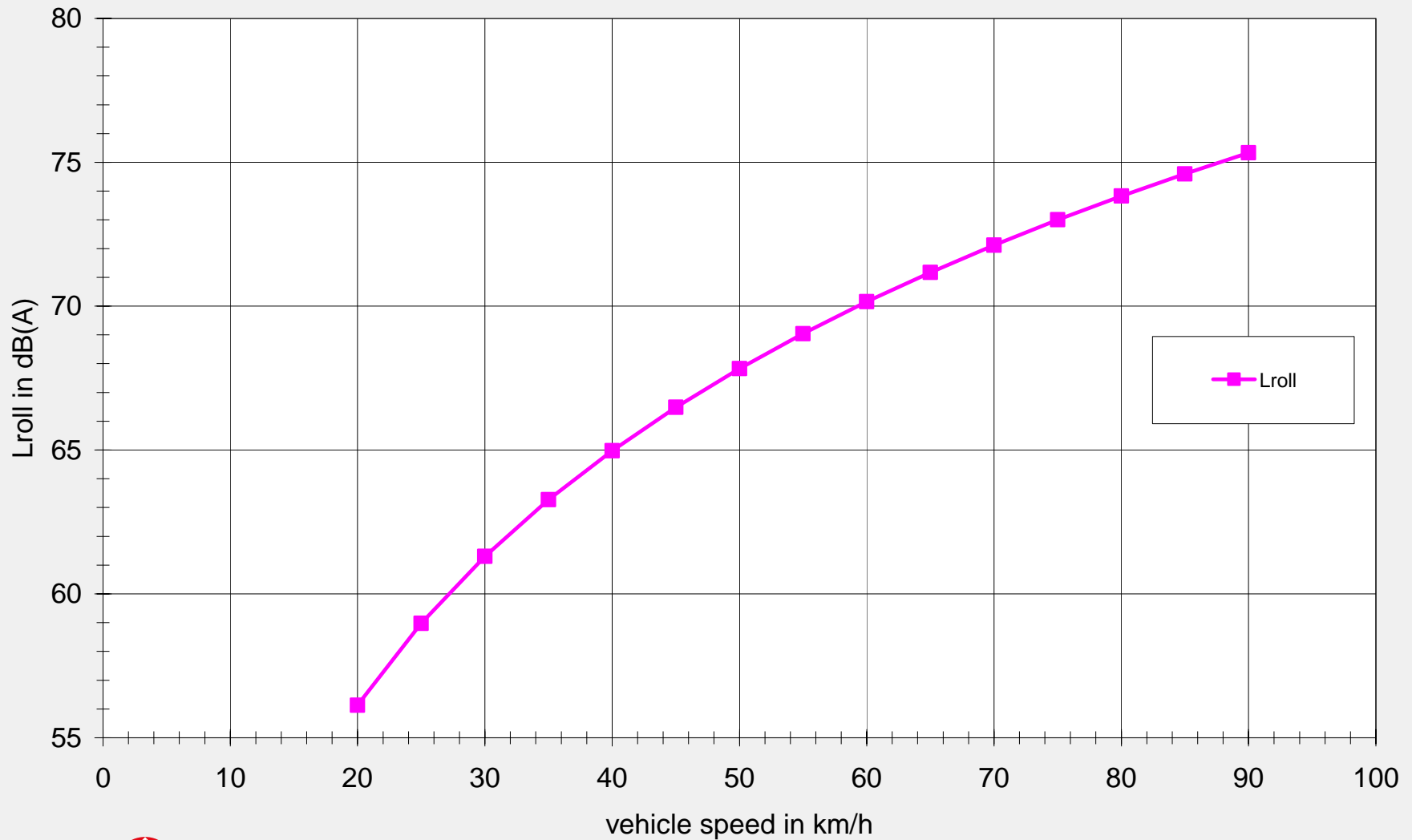




- **The rolling noise and propulsion noise levels were modelled on the basis of results from controlled pass by measurements.**
- **The vehicle speed pattern and vehicle information were put into the drivetrain model and the engine speed and load pattern were calculated by the model.**
- **These pattern were then used to calculate the propulsion noise, the rolling noise and the overall noise levels.**
- **The calculated noise levels were then compared with the measured noise levels within a distance of 1.5 m before and behind the microphone plane for each stationary microphone.**

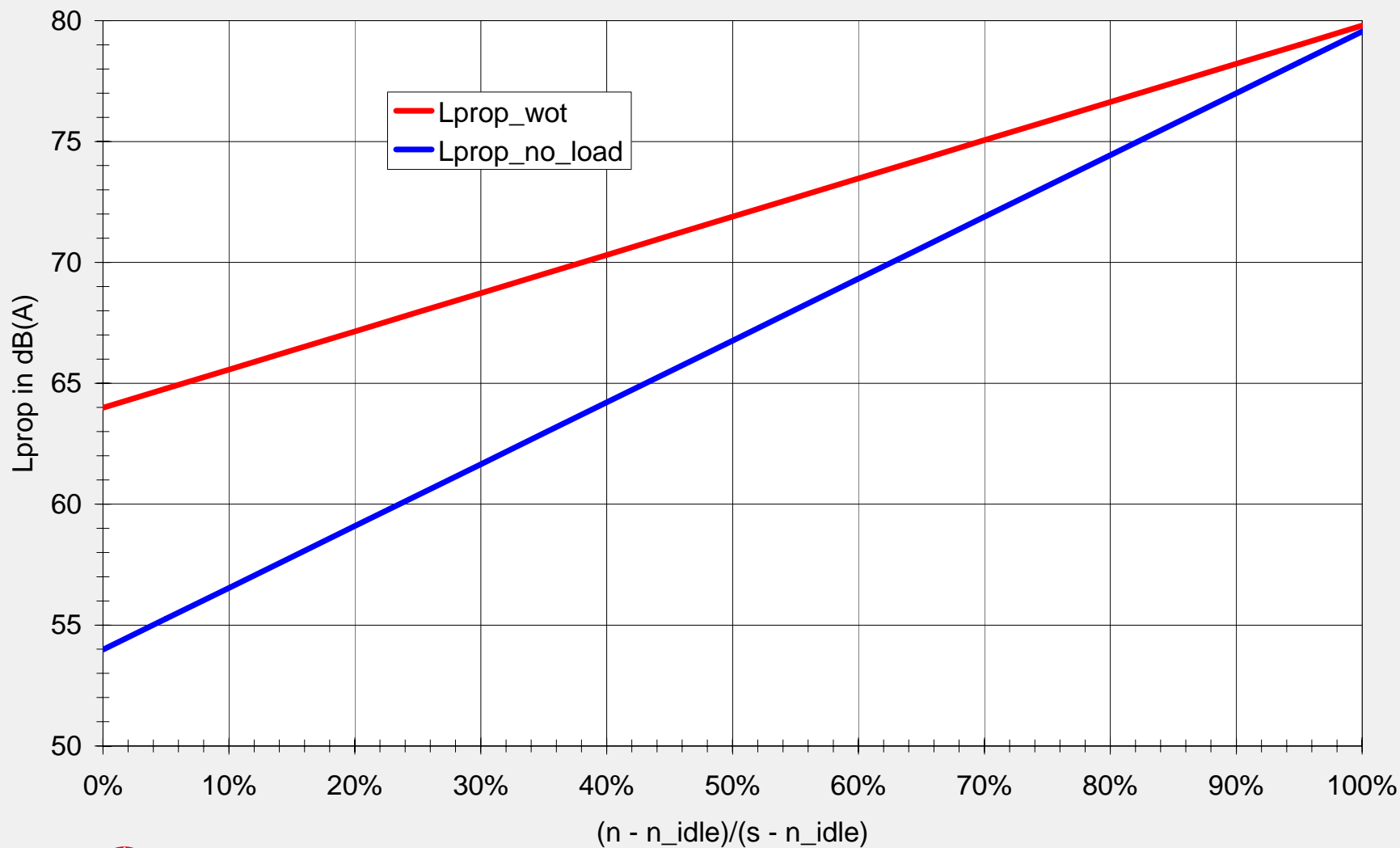


WP 50, validation



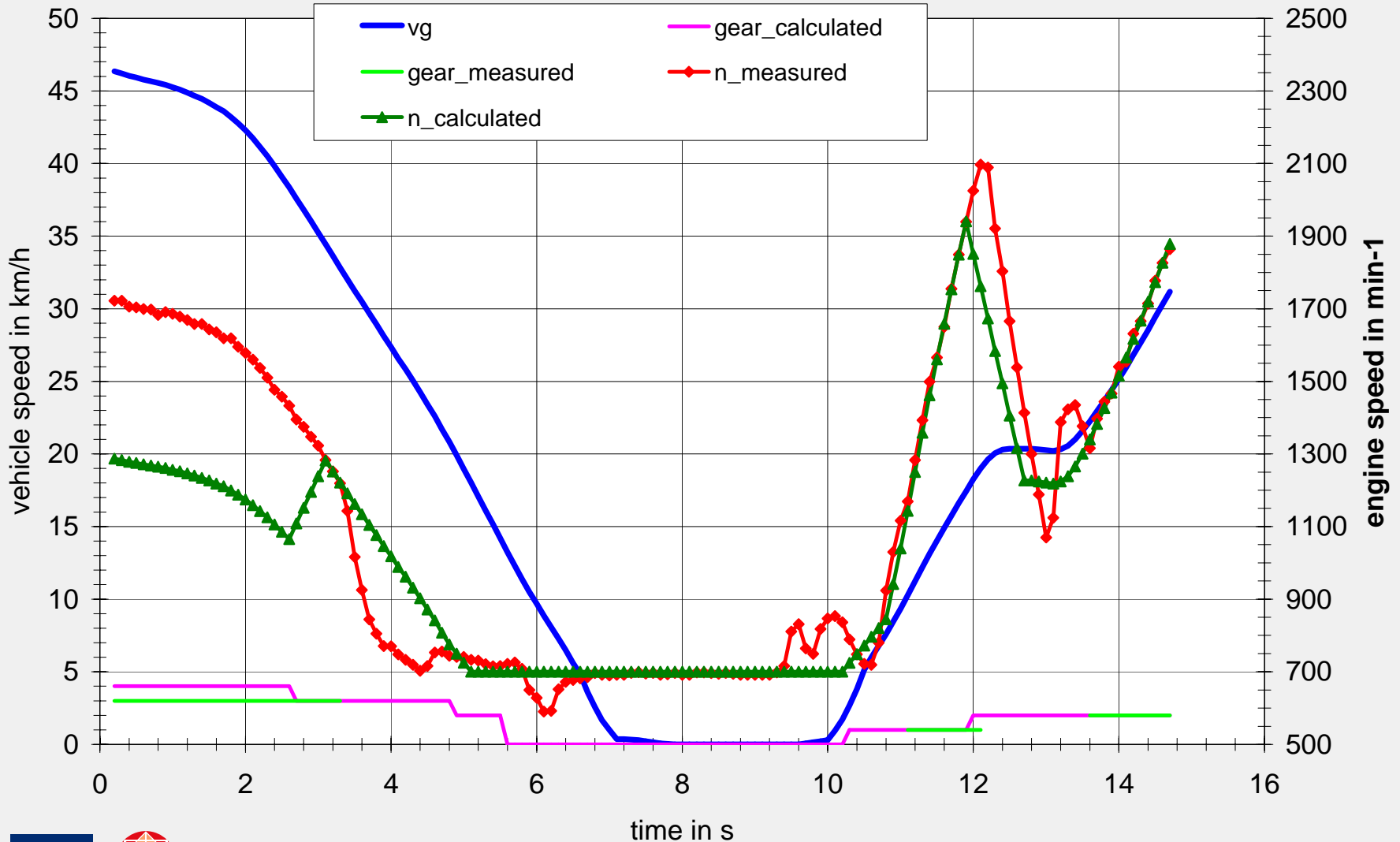


WP 50, validation



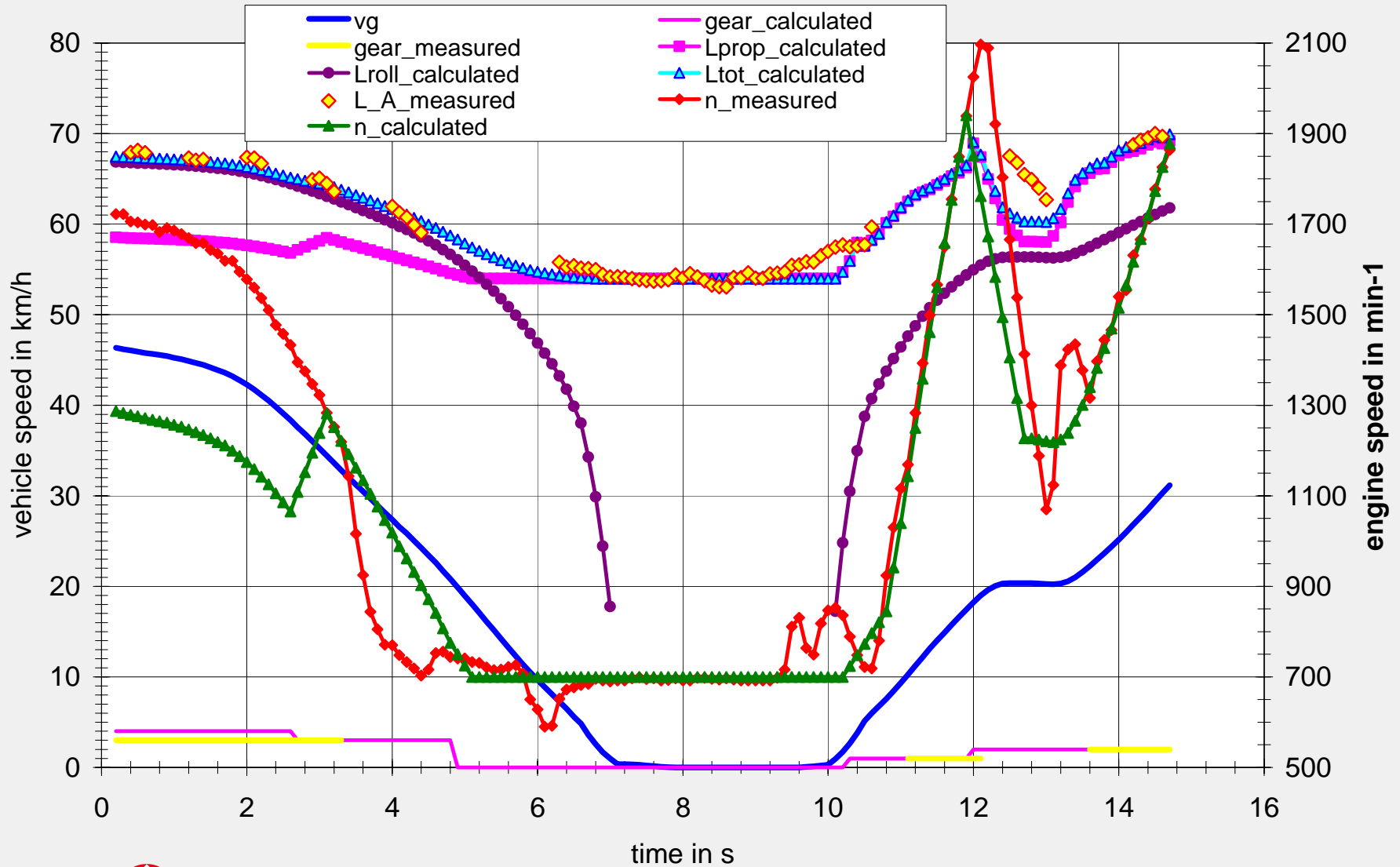


WP 50, validation



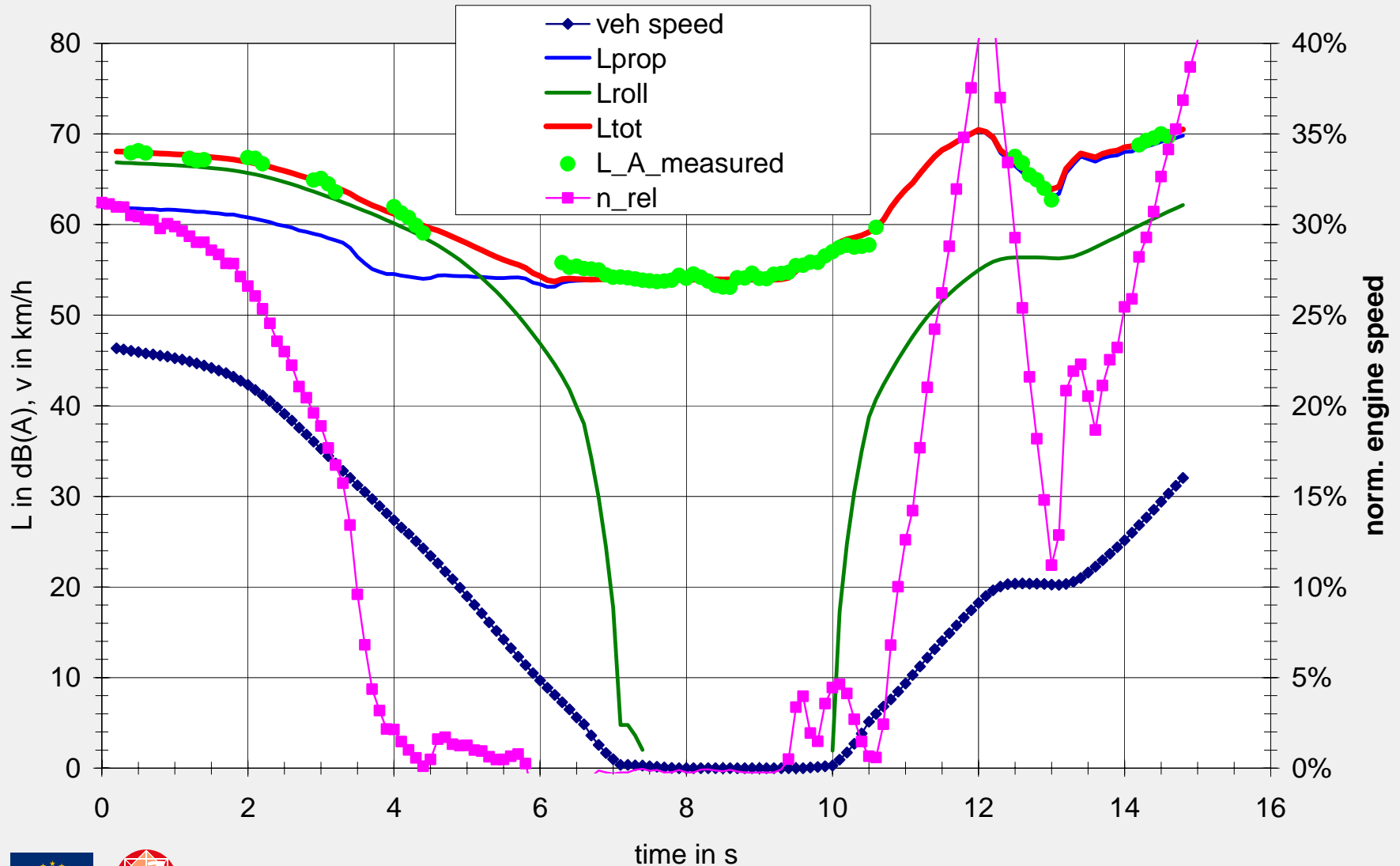


WP 50, validation





WP 50, validation





Thank you again

