

## Guide

# Don't underestimate the challenges of meeting Euro 5b & OBD II

## Legislation

One of the key changes to Euro 5 legislation is the introduction of OBD Stage II monitoring systems. OEMs need to test their OBD systems to show they will effectively work when emissions levels of CO, THC and NOx pass a threshold limit, also known as OBD limit.

CATAGEN can help address your challenges in meeting OBD II regulations!

This legislation will come into effect for new vehicles in 2024 and existing vehicles in 2025.

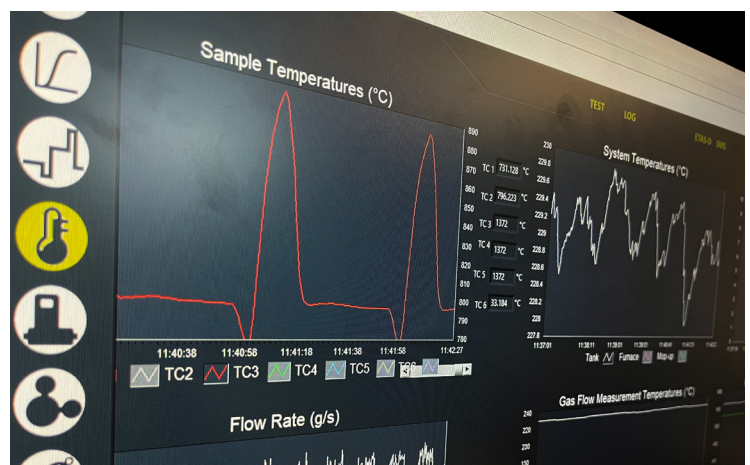
OBD stage II monitoring is a new concept to the motorcycle industry which brings challenges. The magnitude of these challenges cannot be underestimated particularly when previous legislation did not require this type of development.

## Challenges

CATAGEN have been working with our motorcycle partners since 2019 to tackle the OBD stage II monitoring challenge and have developed a testing process which helps achieve the limits.

The challenges that we have seen with OBD stage II monitoring:

- Availability of test capacity for motorcycles to begin development
- Plateauing of catalyst degradation (difficulty in reaching the OBD limit)
- Within Motorcycle companies there is difficulty in measuring the OSC across a range of temperatures & flows.



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### To reach OBD Stage II Limits:

- 1 Accelerated ageing to 35,000km
  - a) We understand at this point the emissions at FUL
- 2 Use of CATAGEN kinetic model to predict a Light-Off performance to reach OBD Limits
- 3 Iterative accelerated ageing phases to reach predicted LO performance
  - a) Due to motorcycle catalyst PGM, reaching OBD through thermal ageing only may not be possible
- 4 Poisoning, or chemical degradation, of catalyst may be required to reach the OBD limit

### Conclusion:

The OMEGA technology produces repeatable and reproducible data to meet emissions standards, enabling informed confident decisions on your aftertreatment system.

As a result, this process has helped our partners with their timeline for aftertreatment development for OBD stage II which in turn will ensure they get to 2024 with the capability to sell their new models without homologation roadblocks.

As we begin the countdown to 2024, it is critical that motorcycle OEMs have the best solution in place to develop OBD Stage II aftertreatment system.


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