

## Swindon Powertrain Monthly Newsletter

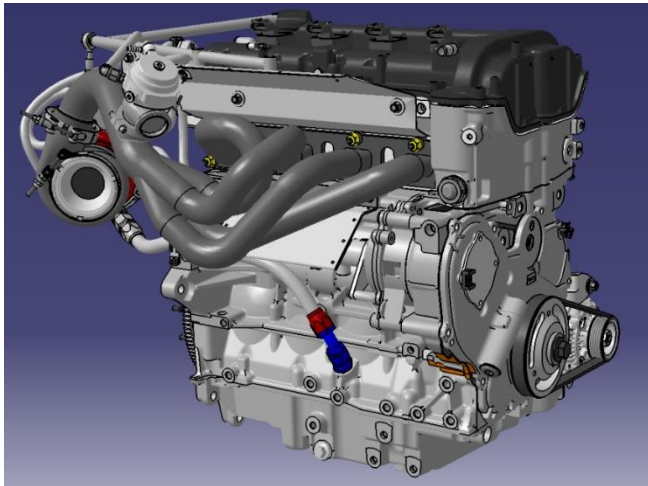
Design & Simulation Dept

January 2021

### General

We would like to take this opportunity to wish all our customers and avid followers a very happy, healthy & successful start to 2021 and whilst the UK has now unfortunately been thrust in to yet another national lockdown, at Swindon Powertrain we will continue to service the needs of our clients across all of our business sectors, so please do not hesitate to contact us as normal during this challenging time.

### 2021 TOCA Engine Development



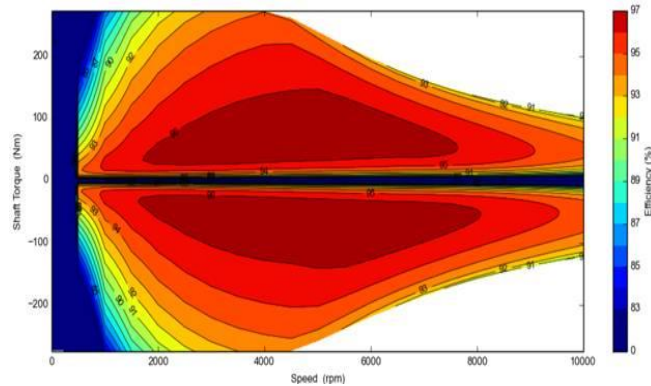
With the scheduled opening round of the 2021 BTCC season barely 3 months away, work continues in earnest on the Swindon Powertrain TOCA engine development programme.

And whilst we obviously can not go into the specifics of the development programme itself, it is fair to say that even after 11 years of continual development the Swindon Powertrain engineers continue to push the boundaries with the TOCA engine both in terms of combustion engine efficiency and powertrain durability.

So which driver, powered by a Swindon Powertrain TOCA engine, will lift the BTCC Drivers' Championship crown in 2021?

The season opener is scheduled for 03-04 April 2021 at Brands Hatch Indy, so stay tuned for regular BTCC updates.

### NVN Feasibility Study



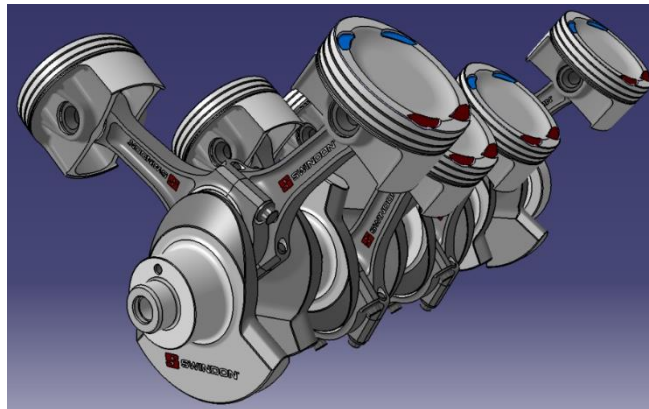
We are proud to announce that we have recently been awarded funding by NVN to conduct a feasibility study into the next generation of electric machines.

The objective is to define the design of a new generation of traction motor, which will negate the need for a gearbox to be coupled to the motor’s output shaft.

The electromagnetic analysis is conducted using proprietary software dedicated to electric motor design, performance simulation & analysis.

Fulfilling the objective will result in a vastly simplified and significantly reduced EV powertrain system BOM cost in addition to smaller powertrain packaging envelopes.

### Powertrain Projects



Since the last Design & Simulation Dept newsletter, issued back in September 2020, we have been working on a wide and diverse array of customer powertrain projects: both conventional ICE & fully electric powertrains.

The combustion engine projects range from valve & cranktrain developments for a range of engines from numerous OEMs through to full engine development programmes for several discerning motorsport clients.

In addition, whilst we continue to develop our range of innovative, compact and efficient electrification products we are witnessing a significant influx of enquires from Niche Vehicle Manufacturers for full vehicle electrification programmes. Are you ready for the electric revolution?