



Driving Clean Technology

*Presentation by Nicholas Gill,
Corporate Director of Aeristech Ltd*

April 2012

- ***worlds most power dense electric motor***
- ***accelerates to 150,000 RPM in 0.5 secs***
- ***1st application - zero lag electric turbo***
- ***enhances engine downsizing***
- ***by 2020 60mn cars pa fitted with turbos to save fuel***

Aeristech's achievements



*35kW motor compressor
can accelerate to 150,000
RPM in 0.5 seconds*

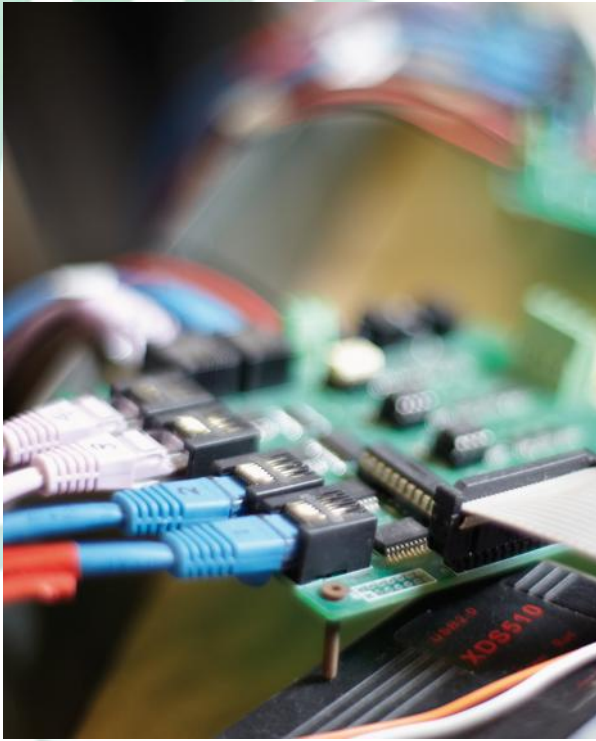
*• 20 times more powerful
• twice the top speed of
competing compressors*

- **Devised a new way to control electric motors**
- **First patent granted. Other global patents pending**
- **\$3.5mn of equity / grants already secured**
- **Projects with 10% of global car manufacturers (+10% more)**
- **These are paid projects which are providing early revenues**
- **Board has excellent corporate & commercialisation expertise**

Both a Control Technology Company & a Motor technology Company

Advanced Novel Control
Technology Capability

Electrical switching frequency is lower than conventional motor drives delivering higher efficiency and torque density. This allows exceptionally accurate high-transient motor control.



Power Dense Motor Design and
applications development Company



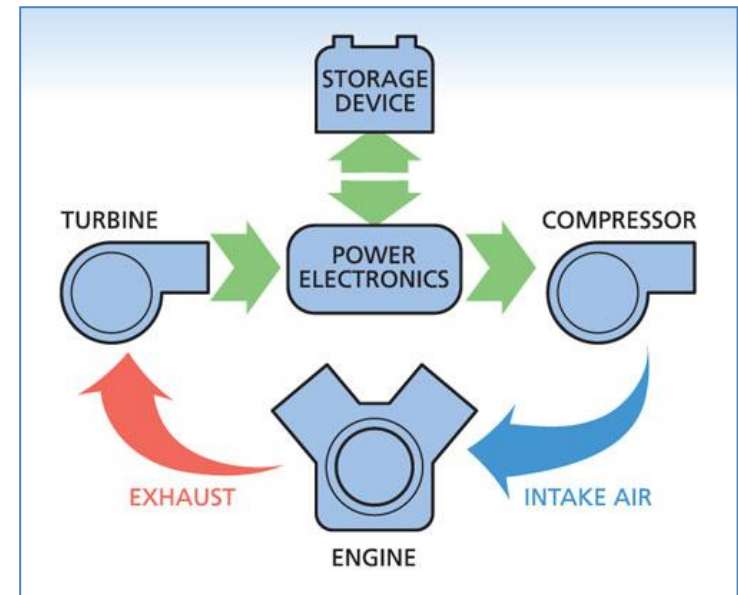
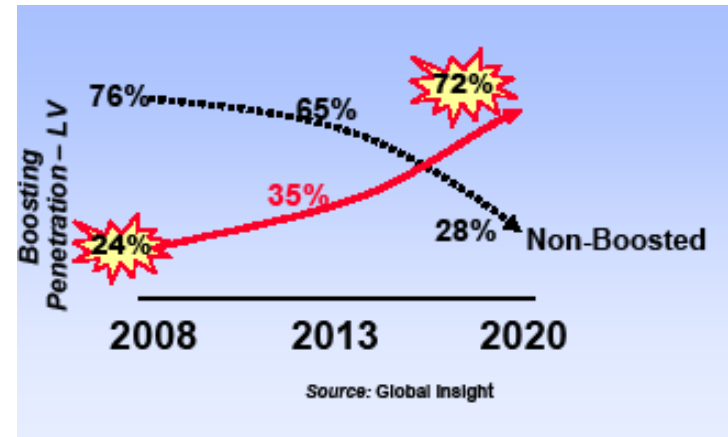
Instantaneous Air Boost Capability

Instantaneously compresses air into an engine to enhance combustion

Compressor & generator - full electric turbo to replace mechanical turbos

Summary Advantages

- Eliminates turbo-lag
- Greater engine downsizing (2L to 1L)
- Enhances fuel efficiency by 25%
- Reduces particulate emissions
- Legislation Drivers
 - Vehicle fleet carbon footprint
 - Particulates emissions



Why will Aeristech's electric turbo-charger succeed?

Manufacturers recognise that existing turbo-charging solutions suffer from turbo-lag and limit engine downsizing (which is essential to meet legislation drivers).

A global top 5 manufacturer has acknowledged Aeristech's unique offering for (1) efficient control of high-speed machines, (2) very rapid response, and (3) high-power "FULL" electric turbo-charging.

Thus Aeristech's competitors like Turbodyne are not really competitors.

Interest in electric boosting demonstrated by Valeo's recent acquisition of a much less powerful electric supercharger technology for \$47mn.

No challenges about integrating technology into a vehicle. Aeristech's control technology can be readily integrated into the vehicles system.

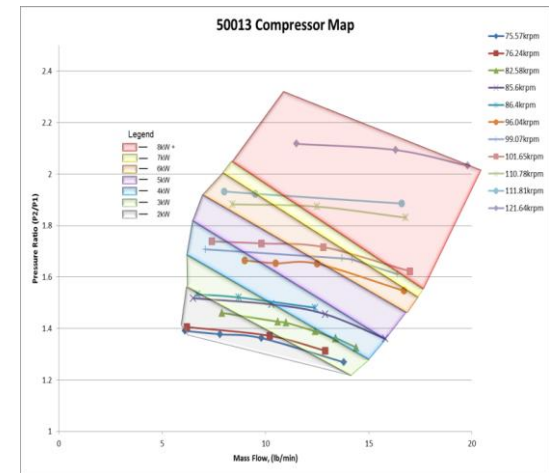
With mass production, technology cost to OEM will be \$350 per unit.

Aeristech's Customers & Initial Markets

10% of global car manufacturers testing electric turbo prototypes - paid projects.

Further 10% discussing paid projects.

Off-highway vehicles – legislation driven customer testing prototype to reduce particulate emissions



Electric Vehicle Customers for our motors & generators



Sports Car Projects

- Aeristech motor generator being considered for Formula 1 cars for the 2014 Season
- Aeristech generator in a high temperature appⁿ for a 2014 Le Mans vehicle

Main Drive Electric Motor

Project looking at main drive motor as a cheaper power option.
Requires 20% fewer rare earths

Micro Gas Turbine Range Extender

Power generation for EVs using our compact low cost generator

Hydrogen fuel cell air compressor

Existing fuel cell air blowers have insufficient speed/power

Aeristech's Board of Directors



Mike Woodroffe – NED, Chairman of Aeristech, experienced CEO and Chairman power sector.



Bryn Richards – Inventor, founder & CEO, a Mechatronics Engineer, former efficiency analyst and R&D manager with E.ON



Nicholas Gill - Corporate Director - Merchant Banking & VC, Raises equity, grants & commercializes platform technologies



Andy Tempest – NED. Ex MD Prodrive, FD Lotus Engineering, CEO Wagon Automotive. Current CEO of Emerald Automotive Ilc



Hugh Kemp - NED. Ex Engineering Director at Lotus Engineering & Prodrive. Expert in auto engineering & commerce.



Tim Bullock – NED. CEO of New Wave Ventures LLP. Expertise financial sector & involvement in successful mergers acquisitions.



Duncan Kerr – Board Advisor. Director of Investor Midven, Expertise in business growth in high tech companies.

Commercialization Overview

Aeristech enters into prototype demonstration projects with global car manufacturers to create customer demand pull.

Business model to license FE^{TT} to a Tier 1 with our prototype demonstrations providing the Tier 1 with ready customers. Indeed the manufacturers are already discussing integrating their Tier 1s/Tier 2s into our development programmes.

Tier 1s include Honeywell, BorgWarner, Cummins, Robert Bosch, etc

The Honeywell logo consists of the word "Honeywell" in white, sans-serif font, centered within a red rectangular background.

**BorgWarner
Turbo Systems**



**Turbo
Technologies**

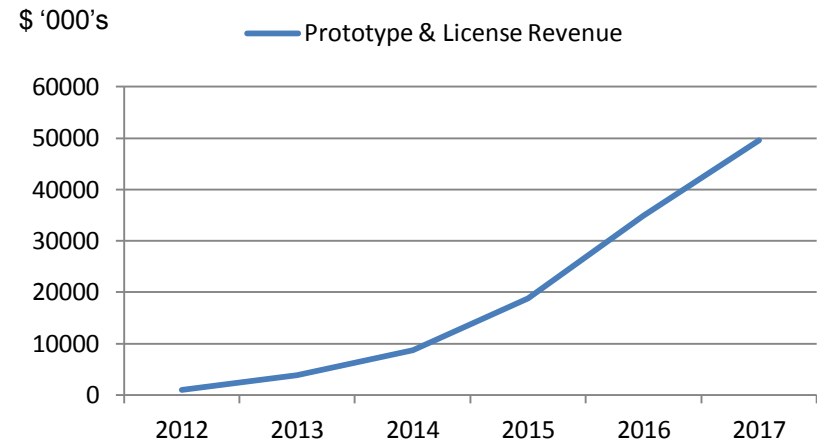


**Bosch Mahle
TurboSystems**

The Aeristech logo features a stylized, blue, circular icon with a white arrow-like shape inside, followed by the word "aeristech" in a blue, sans-serif font.

Commercialization & Investment Opportunity

- **Turbo penetration to build to 60mn cars by 2020.**
- **5% market share worth \$1bn pa to Tier 1 by 2017.**
- **Other revenue streams.**



Investment Opportunity

Aeristech rights issue of up to \$1mn for working cap

Will be seeking up to \$5mn later in 2012 (Series B)

Commercialization Opportunity

Licensing & venturing with Corporate Partners