

# The New VPG: End-to-End Solutions

S. Safdar

Who are we!



# AB Dynamics Group



Track Testing  
Lab Testing  
Robots



Automate Mining and  
Agricultural vehicles



Full-scale track testing  
R&D services  
Human Factors



Objective and  
subjective evaluation  
of complete vehicles



advanced simulation  
Hardware and Software



**35+**

years' experience  
delivering vehicle testing  
and simulation solutions



**100%**

of the world's top  
vehicle manufacturers  
use our solutions



**£100m**

Global revenue in  
FY23 financial year



**10**

Offices in strategic  
locations worldwide



**490**

talented people  
employed across  
the group



**£700m**

of approximate market  
capitalisation within this  
publicly listed business

Measure → Simulate → Validate



Dan Clark – Managing Director



Leading provider of advanced high-fidelity  
driving simulators to the global automotive  
and motorsport market.

Primary Location: UK (Norfolk)  
Other Locations: UK (BoA), Germany, US  
Annual Turnover: £19m  
Staff: 55



Real-time simulation software and digital  
twins used to accelerate vehicle development  
including testing and validation

Primary Location: UK (Romsey)  
Other Locations: US, Japan  
Annual Turnover: £9m  
Staff: 41



# Global footprint and customers



## Motorsport

- New vehicle concepts
- Setup optimisation
- Race preparation
- In-the-loop with powertrain testbed



## Powertrain development

- Validation of drivability
- Calibration
- Engine, transmission
- In-the-loop with powertrain testbed



## Vehicle dynamics

- Vehicle concept testing
- Suspension kinematics, ride & handling
- Tyre development
- Active chassis controls



## ADAS & AV

- ADAS calibration & subjective feeling
- Human factors research
- Driver monitoring studies
- HMI & UX design evaluation

Largest Install base

Supporting customers Since 2009 .  
40+ Large Dynamic Simulators .  
4 continents, 9 countries and counting .

## Our mission



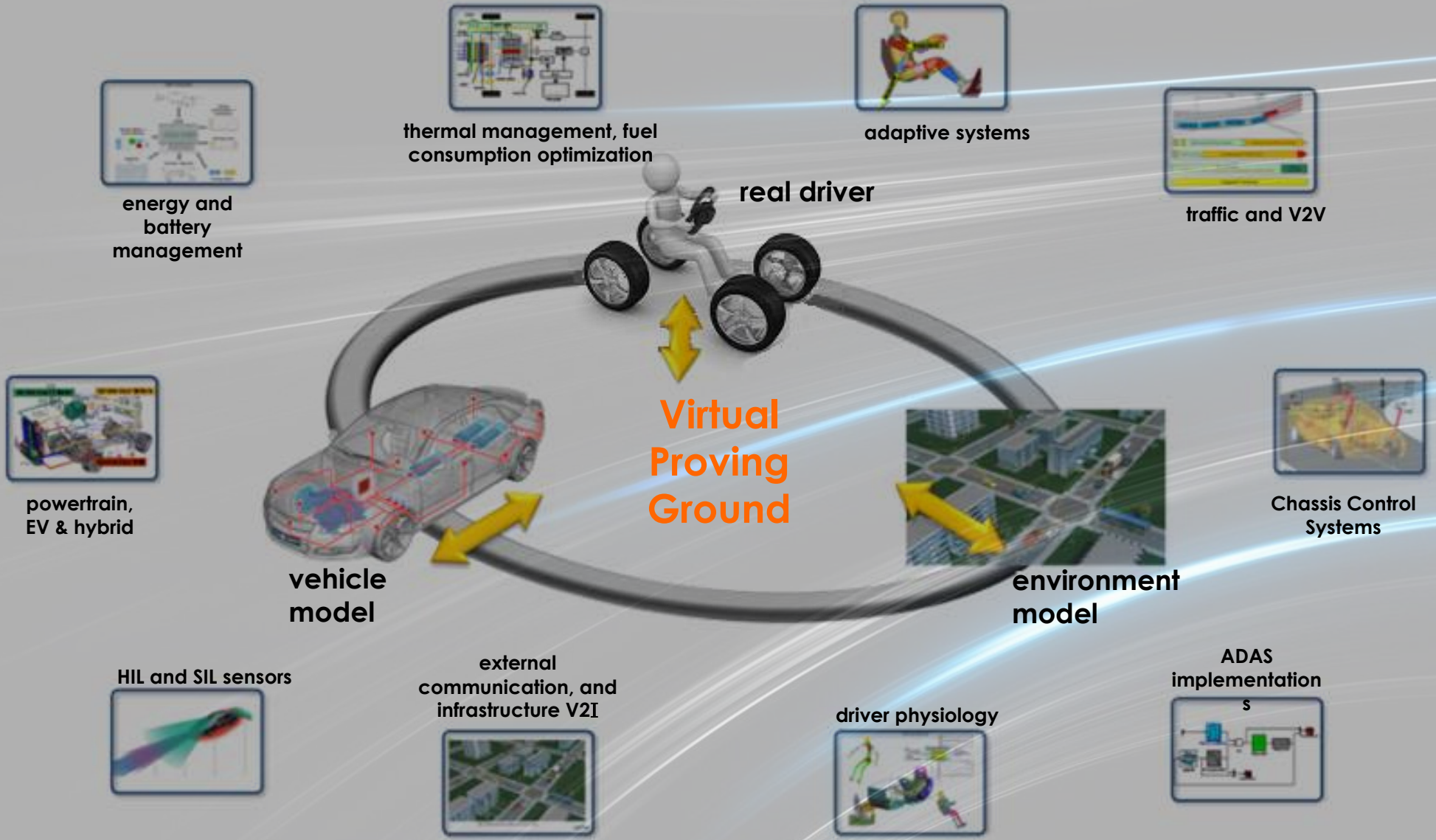
Provide Driver-in-the-Loop (DIL) simulation solutions that allow real people to participate in virtual vehicle evaluations



What we offer!



# Thing Big, Target Virtual Proving ground!



**Realistic Target!**

50% Reduction in Program Time

40% reduction in Engineering time

60% increase in Test boundaries

**Clean Green Approach**

# We are passionate engineers!

- Motion Platforms



Transportable | Compact

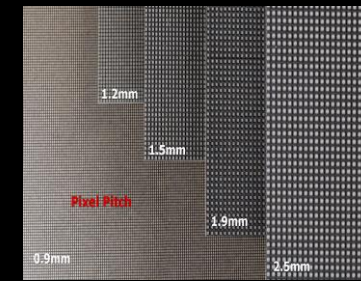
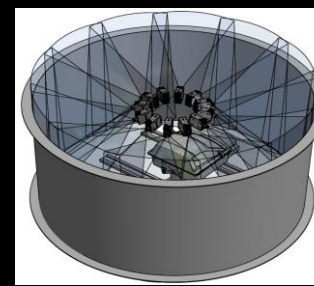
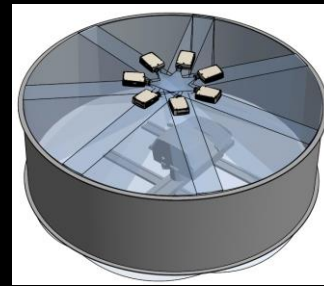
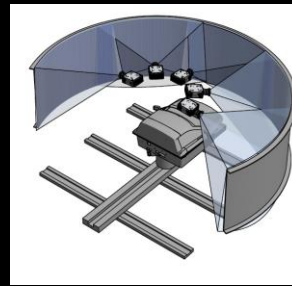


Static | Full-size

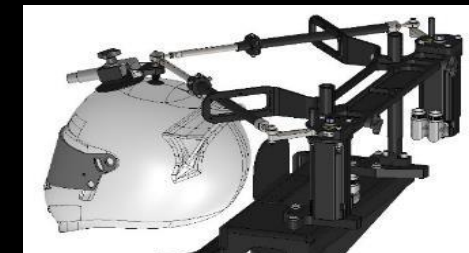
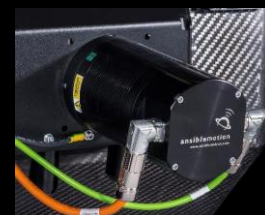


Dynamic | Full-size

- Vision Systems



- Supplemental Cues



- Cabins / Cockpits Access





# And we push the limits!

## S3 offers Flexibility and Scalability:

### Delta S3 can be scaled:

- 4mx4m to 7m x 7m

### Delta S3 spin:

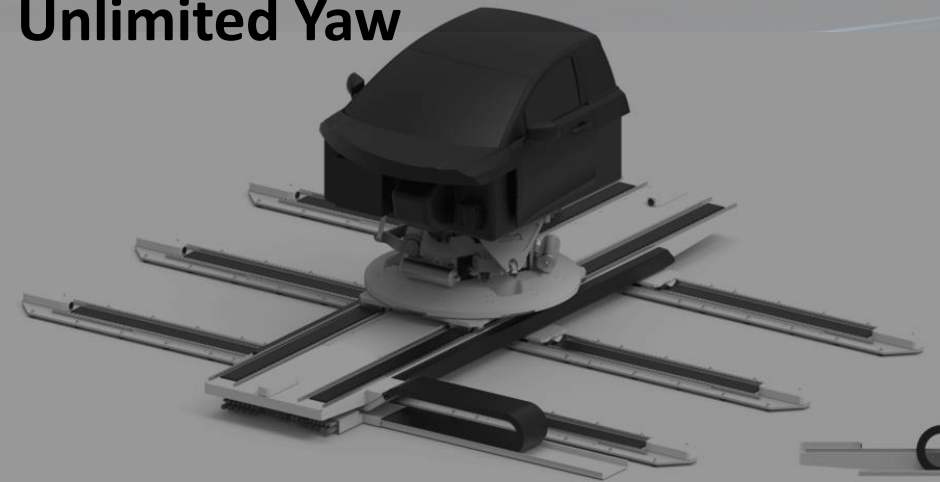
- Unlimited Yaw angle

### Delta S3 Thrust:

- Upto 1.5G (X Y) acceleration
- Upto 700kg payload

## Biggest and Most Powerful Simulator

### Unlimited Yaw

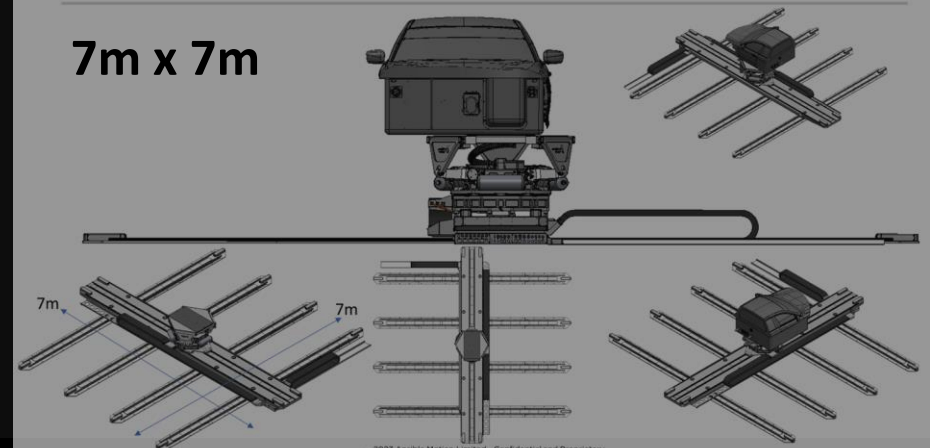


### Delta S3 Spin

### Delta S3 Thrust simulator



### 7m x 7m



# Our Partners

- Vehicle Model



- Engineering



- Tire Model



- HiL applications



# Most advanced Driving simulator



- **higher fidelity motion** – e.g. in braking phases, subtle steering inputs etc
- **longer duration motions** – more realistic corner entry and increased mid corner feel
- **Large Yaw** – key to human perception especially in city driving and lower dynamic situations
- **lower washout rates** - especially for yaw, which may not need any washout depending on scenario

**Want to know more!!**



**Visit us at**  
**Ansible motion Booth**

