# Our sales & researcher partnerships

**MAL RESEARCH AND DEVELOPMENT LIMITED**

# *A little about our Technology*

# Quick facts about the industry

A quick glance at facts related to the green transportation sector, and projected changes before 2030

2030 is the government deadline by which all new cars must go electric in the UK

Entities involved in the re-sale of green technologies are projected collectively to earn £5.7B by the 2030 deadline

Over 40,000 garages in the UK are projected to go out of business without a change in business model

Garages and stations provide a key platform for more bespoke experiences and repeat customers

Government subsidies will boost car conversion services, which can be resold for a healthy margin

CO2-free drivers will continue the same pattern of refuelling and requesting maintenance

The first licensees of a new CO2-free car conversion and refuelling system will have the advantage

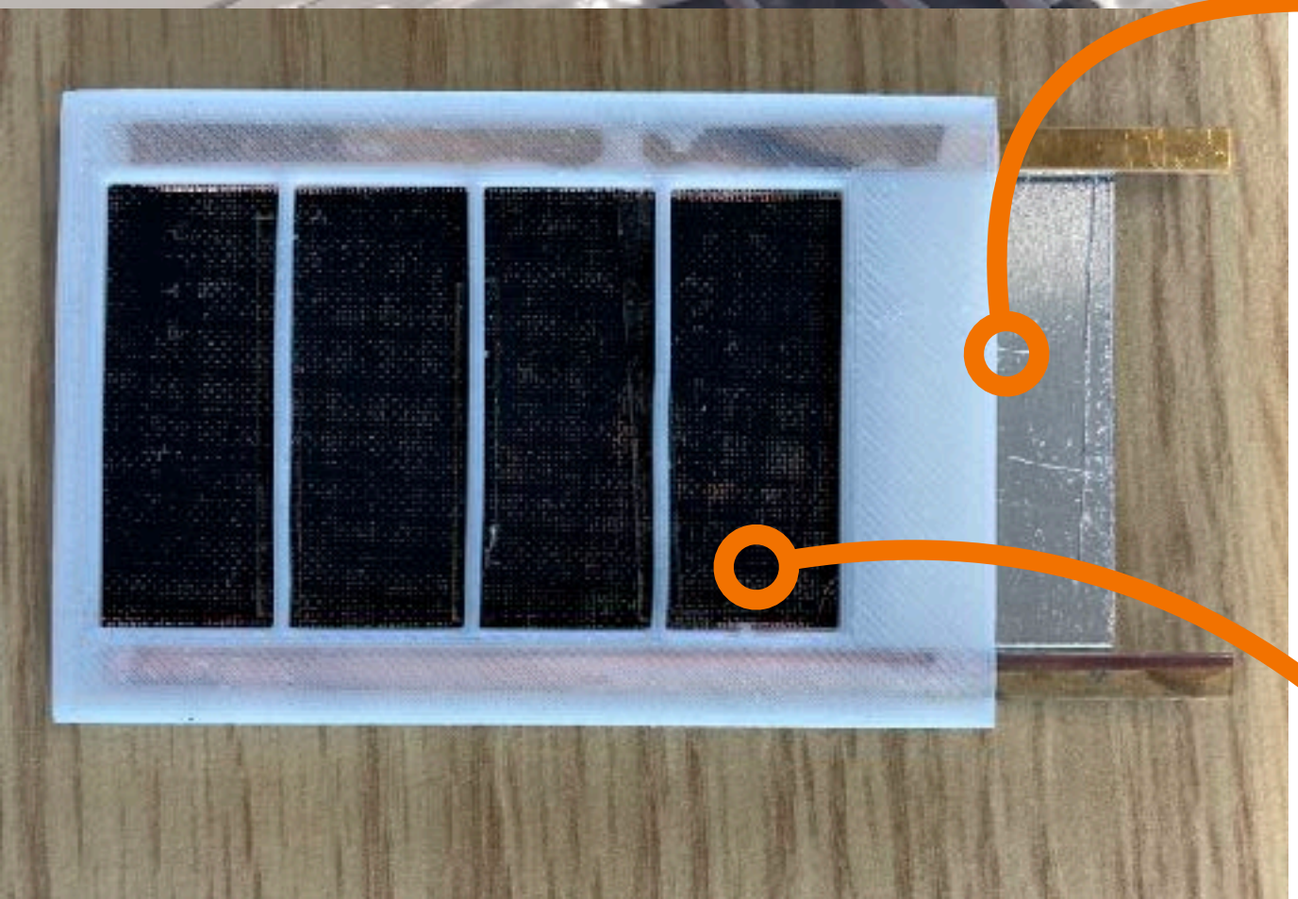
COVID-19 has accelerated trends towards CO2-free alternatives of transport

# A Little About the MAL A-Air Cell

This is where the electrolyte liquid is inserted between the membrane and anode

There is 4.3kWh/kg of electrical energy available when reacted with Oxygen in an Aluminium-Air ‘Semi-Fuel Cell’

Aluminium is most abundant metal on Earth and is recyclable, low cost, lightweight and non-flammable



This is the aluminium anode

The overall discharge reaction is: $4\ Al + 3O_2 + 6H_2O \rightarrow 4Al(OH)_3$ at +2.71V

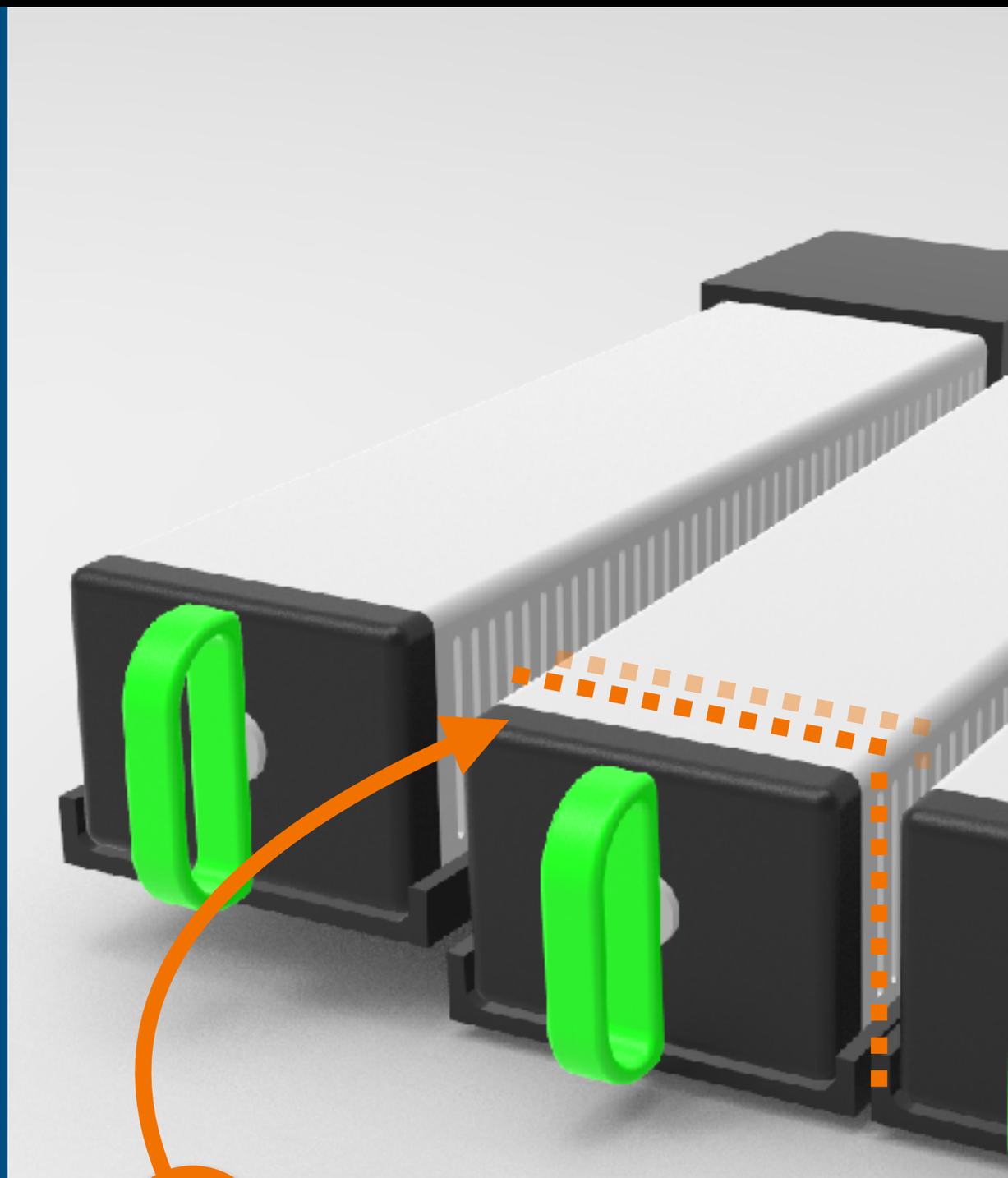
The parasitic hydrogen–generating reaction is: $Al + 3H_2O \rightarrow Al(OH)_3 + 3/2\ H_2$

This is the air-breathing membrane

# An example Level B Power System

Here are some facts about the custom power packs that contain our proprietary MAL A-Air cells

- The design of a custom power pack can vary according to application, including rectangular, circular and modular variations
- Individual cells can be inserted and removed with ease, both for the initial installation and later during refuelling
- A design developed during Level B is then mass-produced and licensed exclusively under Level C for a chosen vehicle or appliance.
- With MAL remaining the Legal proprietor of its A-Air IP, future refuelling kits and installations will benefit from the latest performance enhancements



The number of cells contained within the power pack unit will depend on requirements such as range and power density

# The Future Installation Process for Clients

Depending on the configuration, copies of the exclusive power pack design will be installed by hand or by a trained on-site technician.

Here are some logistical points to consider when receiving copies of the exclusive power pack design:

- To ensure the correct climatic conditions, delivery personnel will need access to an approved warehouse, factory or storage centre
- The procedure for installing each power pack unit can be developed and tailored for the client's on-site inventory personnel
- The licence covering each vehicle or appliance model includes replacements of faulty units and anonymous location data from our licensed unit tracking
- The first batch of units for installation will also come with several refuelling kits for the end user

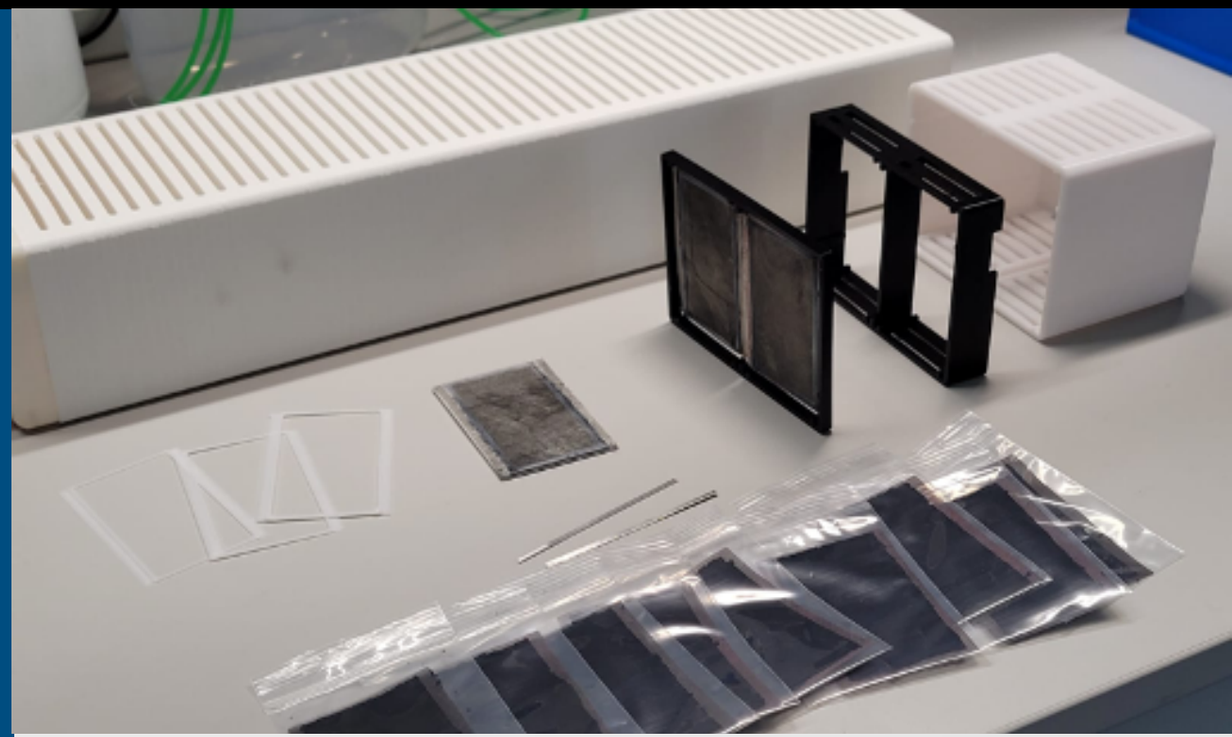
# Refuelling kits

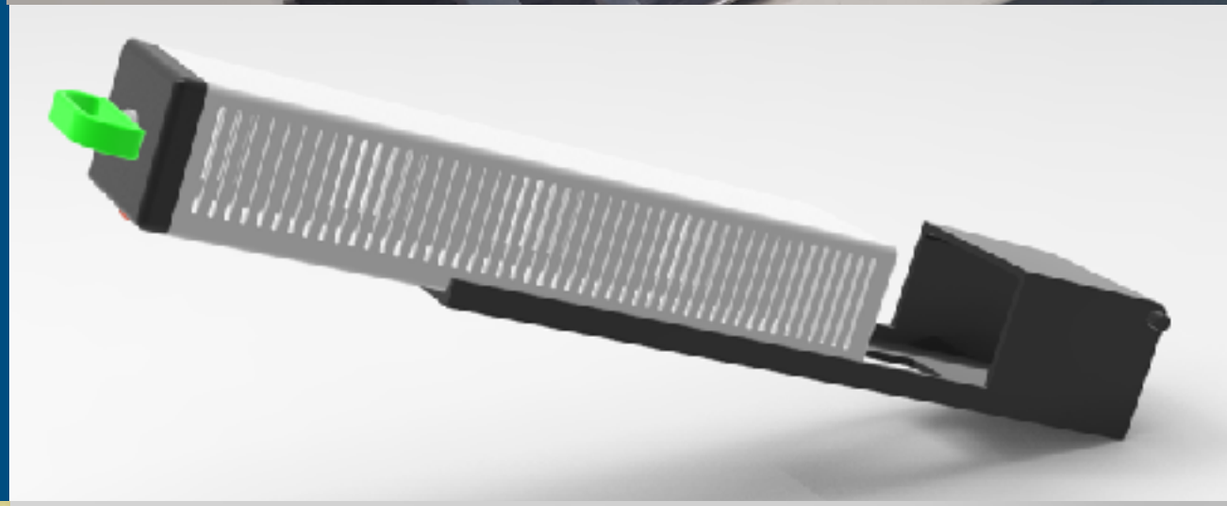
Here are some facts about refuelling kits and refuelling process:

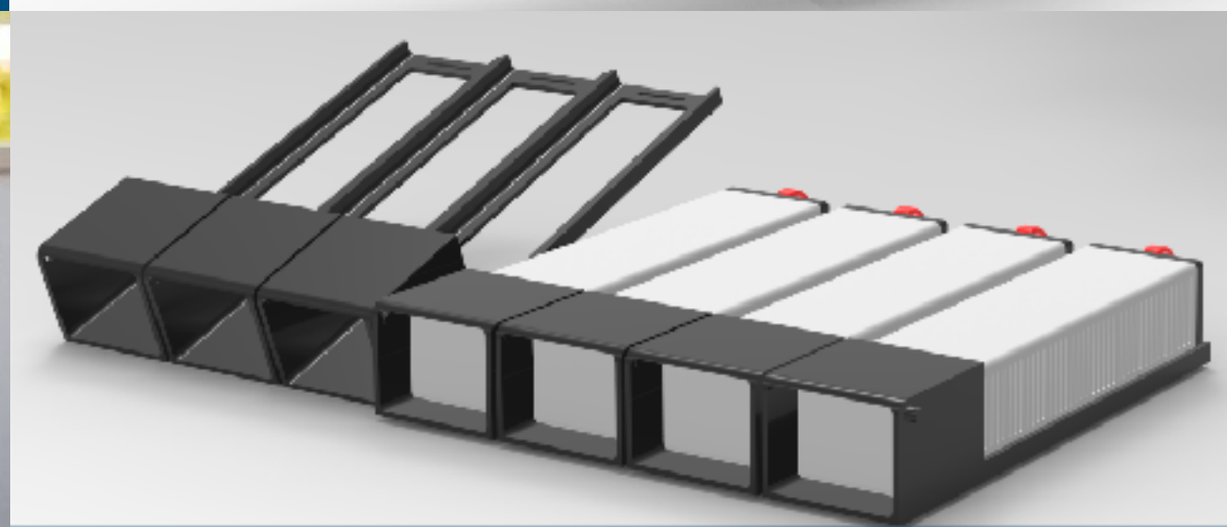
For a unique JV partnership involving a part of the aluminium supply chain, minimalist powder-based refuelling kits can be made available

For clients seeking to only offer the installation to users, users will be able to order refuelling kits directly from MAL via an app interface

The ideal configuration will include collection of used aluminium for recycling, supporting a fully CO2-free lifecycle and improved refuelling kit prices







# *About our Commercial*

# *Partnership Options*

# Benefits of our partnership programme

A quick glance at the benefits of our partnership programme

Engage in qualitative and quantitative research projects related to your area of expertise

The option of earning commissions related to new commercial clients that join as a result of the partnership

The option of identifying new joint-venture opportunities and acting as an official partner for potential MAL clients

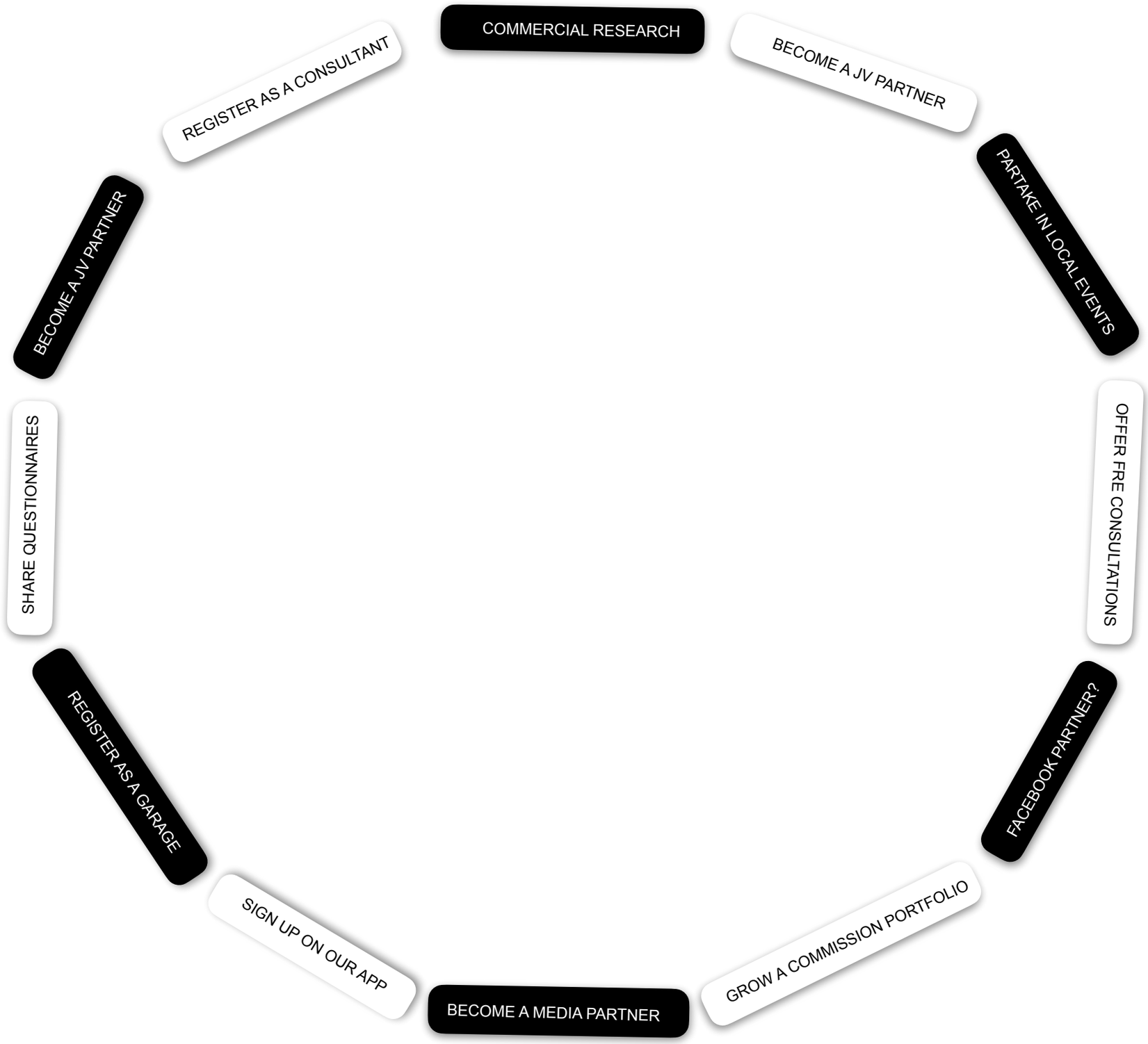
Combine MAL services with offerings in your own organisation and consultancy services related to green technology

Offer exclusive MAL discounts and time-limited offers to colleagues within your network

# Our partnership suggestions

MAL is open-minded when it comes to new partnerships and we prefer to keep the discussion organic when it comes to working together.

This may involve agreeing to act as a sales agent for MAL in exchange for an agreed commission percentage; acting as a registered garage and service partner for the future 2030 roll-out; or acting as a partner as a formal JV partner if your expertise and resources are related to aluminium recycling, smelting and manufacturing outside the United Kingdom.



# The process for our clients

Before the sharing of sensitive technical data and a virtual demonstration during a paid Level A or B service, our clients can schedule an introductory call with one of our team members using using options and process below:

They visit our website www.metalectrique.com to schedule an introductory call using our online scheduling portal

They can contact our projects team an email at projects@metalectrique.com or to our Admin & Commercial Assistant at commercial@malrnd.com

1. **Identify and pre-qualification**: this brief admin stage simply involves checking that their project is compatible with each project stage

2. **Choosing your best option**: this stage involves the client signing their project contract and processing their first payment to reserve their onboarding dates

3. **Onboarding**: this stage involves completing their onboarding conference call and organising your project startup workshop

4. **Project workshop**: this stage involves identifying the in-depth requirements of their project and exploring their prototype concept design