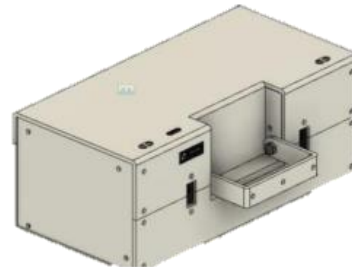


1st & 2nd Battery Systems For Our Overseas Strategy Planning



Energy Storage from The Battery Specialists



Partnership Proposal

ACEON DELIVERING RESEIDENTIAL ENERGY STORAGE



Partnership:

- Manufacturer 24v & 48V ESS
- Battery Pack Facility
- Recycling Opportunity

Oversea Partner

- Manufacturer in Own Country
- Help Set Up Battery Assembly Plant
- Supply Components



Partner Proposal

ACEON DELIVERING PORTABLE ENERGY STORAGE



AceOn Group Overseas Strategy to license & manufacture AceOn PES :

- **AceOn Supply Modules & Cells**
- **AceOn Supply BMS**
- **AceOn Supply Battery Box**
- **AceOn Supply AC Charger**
- **AceOn Supply Inverter**
- **AceOn to Supply Sample PES for Oversea Manufacturing**
- **AceOn to Support Set Up Operation Overseas**



Partner Proposal

SETTING UP PRODUCTION LINES ABROAD

AceOn Group Overseas Strategy to license & manufacture AceOn PES :

- Purchase Automatic Welding Machine
- Supply components for Assemble
- In-House Training
- Produce 8- 40 units Per Day



Product Range

ACEON DELIVERING RESEIDENTIAL ENERGY STORAGE



Product Code (48V)	Cells per Unit	Ah	kWh	Size / Weight KG	Per Day
M848LI82	420	82	4.2kWh	482 x 398 x 88 / 22.1	8-40
M848LI50	280	50	2.4kWh	482 x 398 x 88 / 16.8	8-40

MB24LI Series - 24V Batteries



MB48LI Series - 48V Batteries

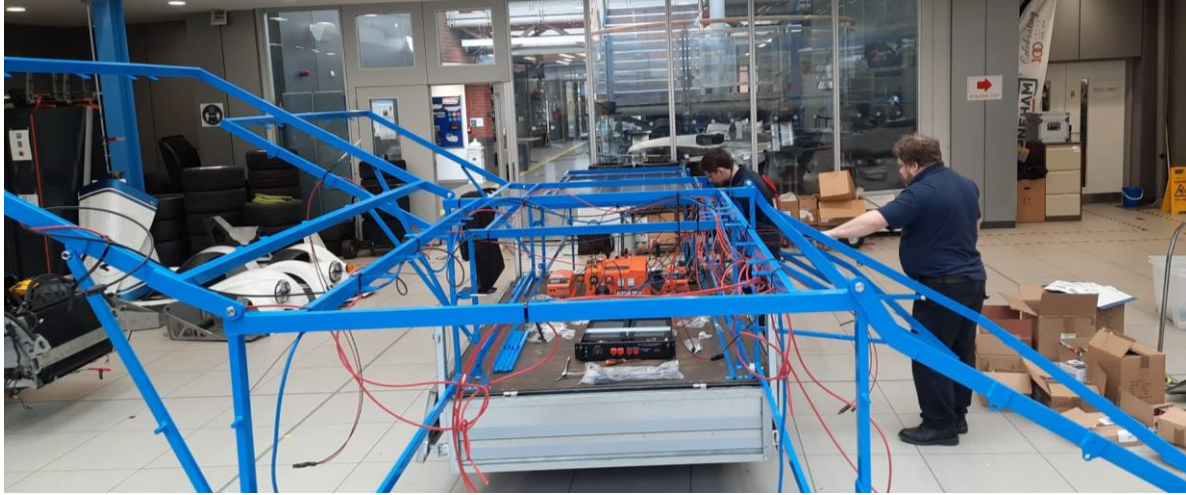


Product Code (24V)	Cells per Unit	Ah	kWh	Size / Weight KG	2 People Per Day
M848LI82	392	140	3.5kWh	482 x 398 x 88 / 22.1	8-40
M848LI50	280	70	1.8kWh	482 x 398 x 88 / 16.8	8-40



Trailer Using 48v Products

ACEON DELIVERING PORTABLE ENERGY STORAGE



Assembly process

- Battery pack training will be required.
- Staff will require a level of experience/education to complete training.
- Technical Support
- New Product & Process Development



Professional proposal PES

- Stackable Battery Capacity .
- Stackable Inverter to 4 units



AceOn Proposal

ACEON DELIVERING PORTABLE ENERGY STORAGE



AceOn Group Overseas Strategy to license & manufacture AceOn PES :

- AceOn Supply Modules & Cells for Swappable Power Pack
- AceOn Supply BMS
- AceOn Supply Battery Box
- AceOn Supply AC Charger
- AceOn Supply Inverter
- AceOn to Supply Sample PES for Oversea Manufacturing



AceOn PES

UK Case Study – Munchbox Roadside Kiosk



For 25 years Munchbox kiosk has used a petrol generator to power their lighting, fridge freezer, toaster and others electrical appliances.

Weekly petrol consumption has been ~12 litres/week (624litres/annually) creating a CO2 output of ~27.72Kg/week (or 1441Kg/year).

Munchbox trialled AceOn's PES which cost £2 to charge powering the kiosk for a week.

Using average fuel emissions annual benefits include:

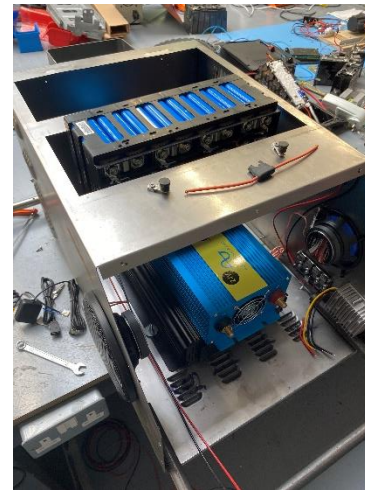
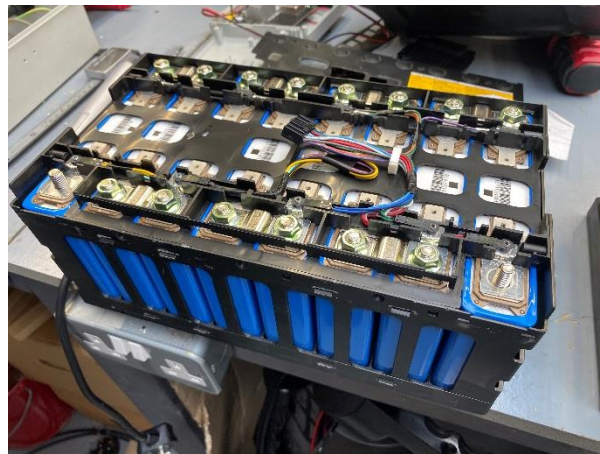
- Reduced pollution and noise
- Removes requirements for handling petrol in catering environment
- Cost saving - £800 <https://www.youtube.com/watch?v=Oz41Blll97g>
- CO2 reduction – 1441Kg
- Petrol reduction – 624 litres

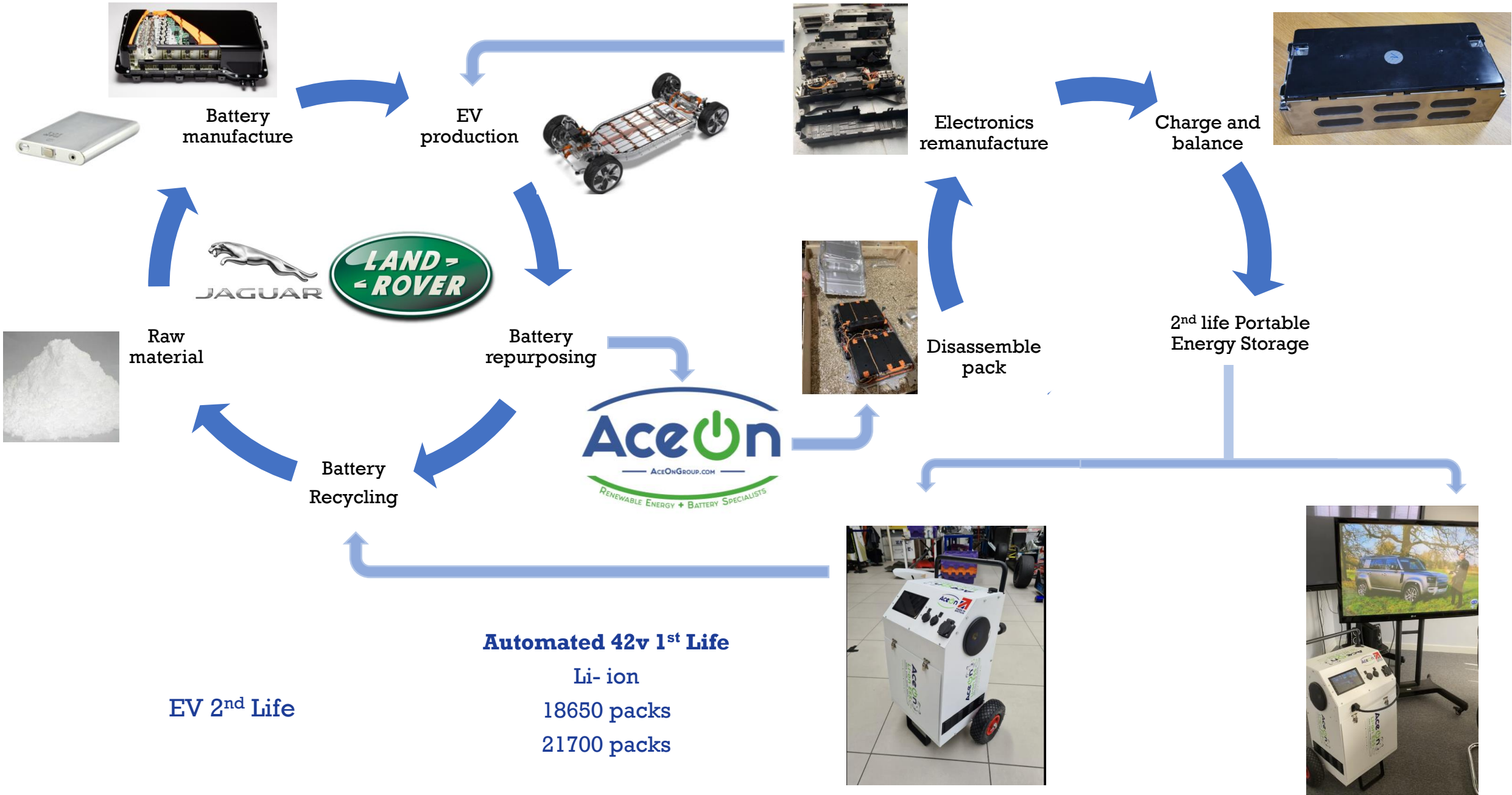


ACEON GROUP – 2nd Life



- Training at automotive OEM (April)
- Swappable Prototype Boxes have been manufactured
- Other automotive OEM's
- AceOn IP – components for PES





Product Review- Low Cost PES Battery



2nd Life Electric Vehicle (EV) Battery



Battery CAD

Nigeria – ‘PES Power’



Africa 2nd life products

Modular design and assembly

Ingress Protection

On demand battery case manufacture capability



Swappable Battery Using 2nd Life Batteries & AceOn ESS Powerpack



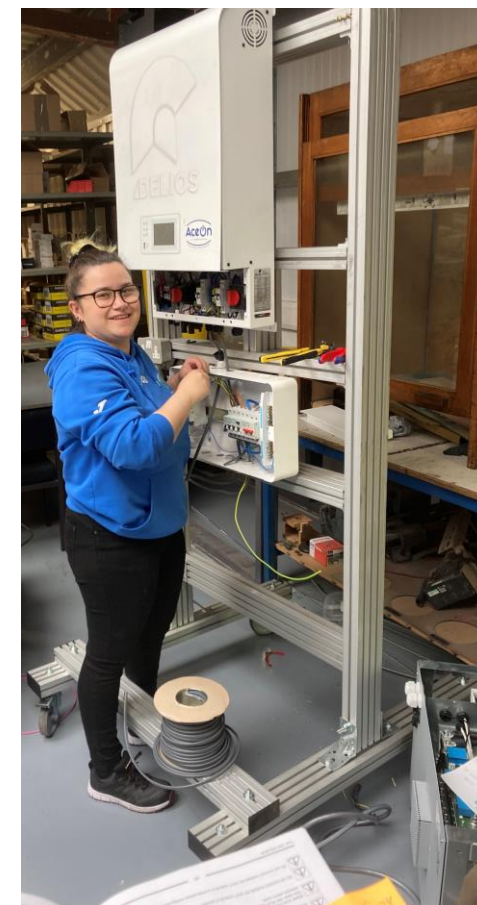
Battery Trailer



TRAINING THE FUTURE WORKFORCE

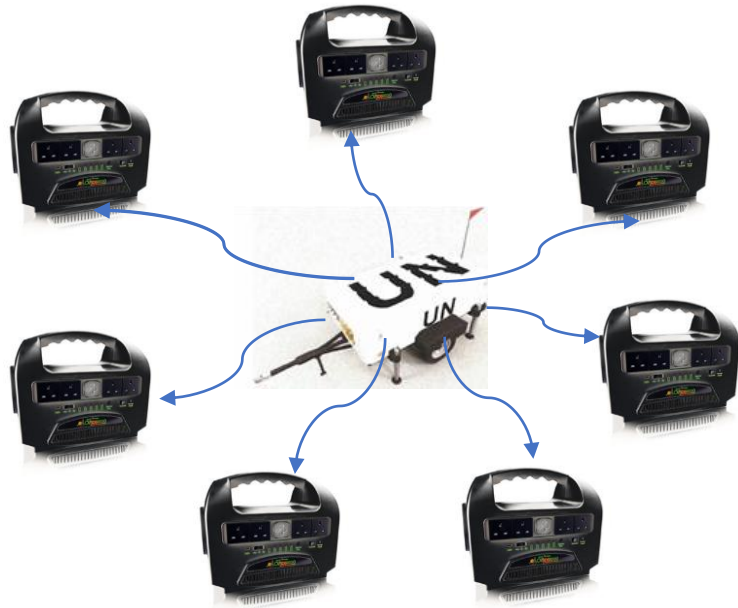
In collaboration with MCS, AceOn support and can offer a programme of tailored installation training opportunities:

- Energy Storage system
- Solar PV
- In-Roof Solar PV
- Electric Vehicle Charging Equipment
- Wiring Regulations
- Air Source Heat Pumps
- New Battery Manufacturing Technician Apprenticeship



UK Microgeneration Certification Scheme (MCS) -
Helped **create and develop** the Battery Storage Standard (MIS 3012)

ACEON – WORKING ON UK NEW BATTERY TECHNOLOGY- EC 8



Ultra Safe

- Stage – A Sample
- UN38.3 – Q2 2023
- Samples to customers – Shipped

Initial orders received for Ultra Safe cells



Cell Characteristics

Nominal Capacity	30Ah
Average Voltage	3.1V
Gravimetric Energy Density	140Wh/kg
Volumetric Energy Density	230Wh/l
Continuous Power Density	0.23kW/l
Peak Power Density (10sec pulse)	0.5kW/l
Weight	670g
Voltage Range	1V – 4.2V

Physical Characteristics



UK Registered Design No. 6237351



YES – SODIUM ION MANUFACTURED IN THE UK

Sodium Ion Batteries shaping up to be big technology breakthrough

KNOWLEDGE TRANSFER PARTNERSHIP

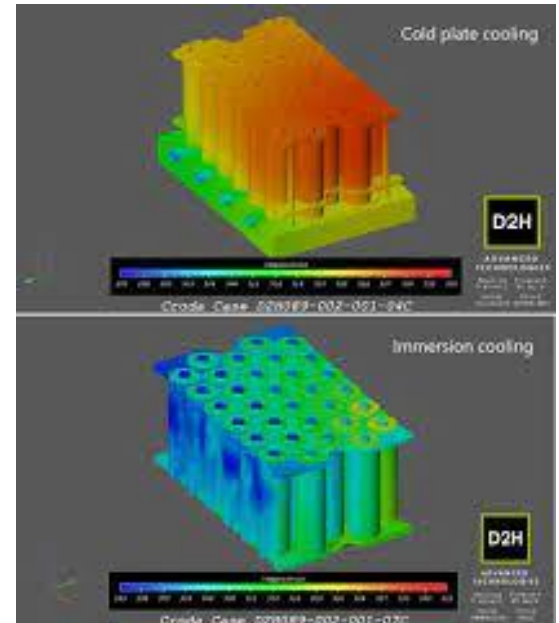


Materials and Manufacturing

Knowledge Transfer Partnerships (KTP) are part-funded by Innovate UK to support business-university interactions in the UK.

AceOn, working with University of Wolverhampton, have secured an exciting KTP opportunity to:

- **Carry out thermal characterisation of batteries through simulation and experimental testing.**
- **Develop additive manufacturing process parameters to build a prototype.**
- **Manufacture and carry out thermal analysis.**
- **Carry out thermal performance characterisation of the manufactured geometries.**
- **Use simulation techniques to ascertain optimum thermal performance of generatively designed complex geometries.**
- **Manufacture of proof-of-concept battery module demonstrators.**



ACEON – HELPING TO LEAD THE WAY IN THE UK BATTERY MARKET



Department for
International Trade

