



Technology Innovation Agency

“Technology Development and Innovation Support Instruments for the Auto Industry”

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General Manager, Strategic Partnerships & Business Development



science, technology
& innovation

Department:
Science, Technology and Innovation
REPUBLIC OF SOUTH AFRICA



TIA ROLE

FUNDER

Providing risk funding and support to progress ideas towards market entry and commercialisation



CONNECTOR

Catalyse partnerships between SMMEs, industries, universities and science councils to develop an enabled environment supporting sector-specific innovations for global competitiveness



FACILITATOR

Attract and facilitate late-stage funding for the commercialisation of market ready technologies



ENABLER

To reduce barriers of access to expensive high-end skills and equipment for innovators by repositioning Technology Stations and Platforms.



FUNDING INSTRUMENTS



SEED FUND

- Funds researchers at Universities, Science Councils and SMMEs
- For ideas and research outputs to develop prototypes
- Proof of concept (ideas that has been proven to work and has a potential market)



TECHNOLOGY DEVELOPMENT FUND

- From prototype to technology demonstration
- Make early-stage technology development more attractive and less risky to the market
- Co-funding may be sourced from the private sector



COMMERCIALISATION SUPPORT FUND

- Follow-on funding
- Market testing and validation
- TIA connects innovators with business and investment opportunities



INDUSTRY MATCHING FUND

- To leverage TIA funding through risk sharing with other funders
- To attract industry participation that offers market access and incubation to TIA invested companies

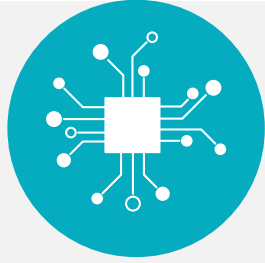


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SECTORS | INDUSTRIES WE SUPPORT



ADVANCED MANUFACTURING



AGRICULTURE



ENERGY



HEALTH



INFORMATION
COMMUNICATION
TECHNOLOGY



NATURAL RESOURCES



INDIGENOUS KNOWLEDGE
SYSTEMS – (*Hemp based
auto products*)



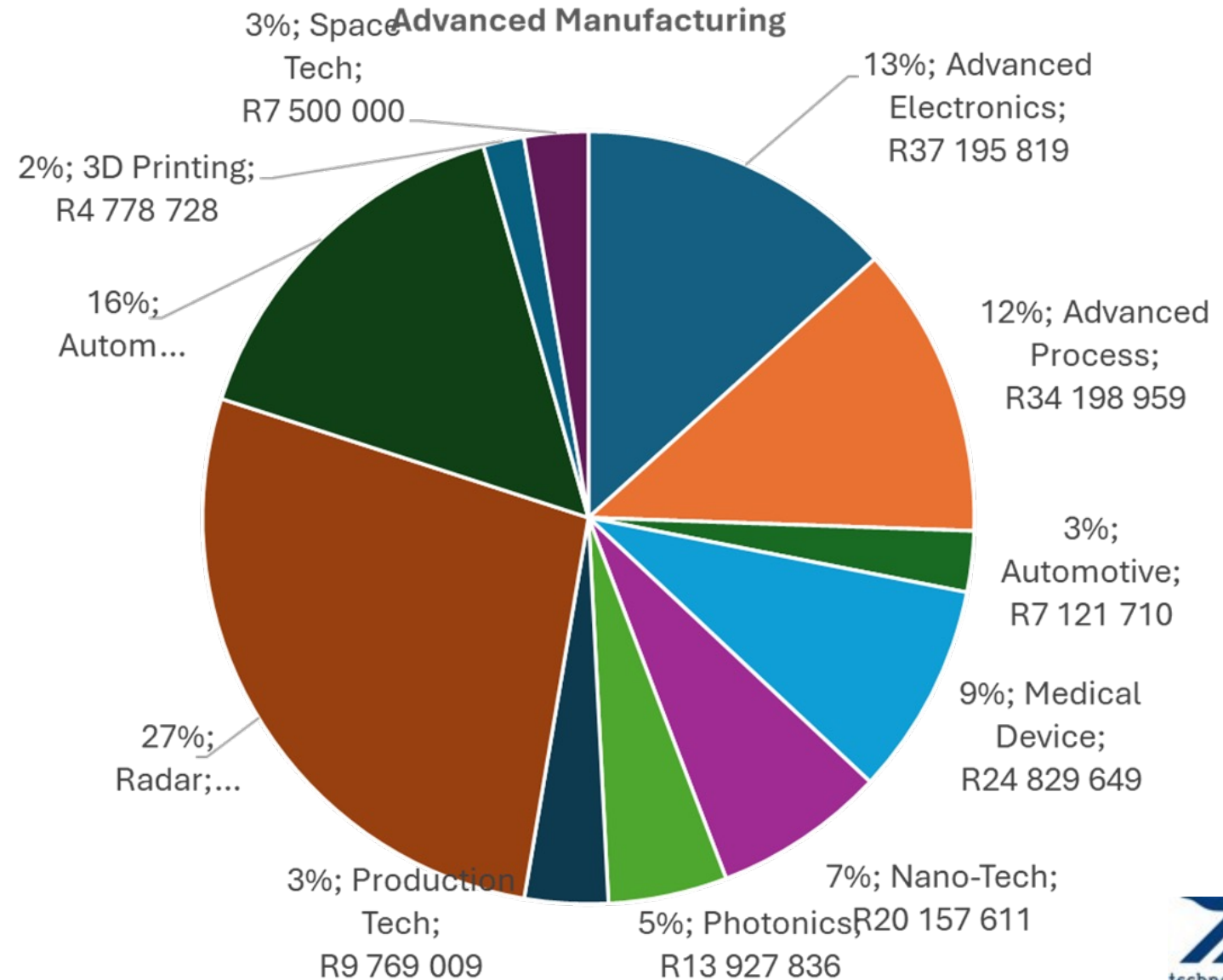
INDUSTRIAL BIOTECH



Advanced Manufacturing

FOCUS AREAS

- Advanced Electronics
- Radar
- Production Tech
- Photonics
- Nano-Tech
- Medical Device
- Heavy Machinery
- Automotive
- Advanced Process



Industry 4.0

- We have a strong focus on Industry 4.0 - with specific emphasis on:
 - Smart Factories,
 - Smart Materials and Nano Materials
 - Advanced Robotics,
 - Automation,
 - Chemicals.
- Collaborate (where the opportunity exist) on cross-cutters:
 - Digital Inclusion,
 - Digitalization,
 - Convergence of Technologies,
 - Internet of Things (IoT),
 - Artificial Intelligence (AI),
 - Machine Learning,
 - Drones and Blockchain



FOCUS AREAS

- Alternative Energy (Fuel Cells)
- Energy Management (Efficiency & Storage)
- Renewables

- eMobility
- Hydrogen Fuel Cells
- Climate Change Resilience
- Energy Efficiency using digitization
- Distributed energy generation / Renewable Energy Technologies
- Energy storage
- Micro-grid



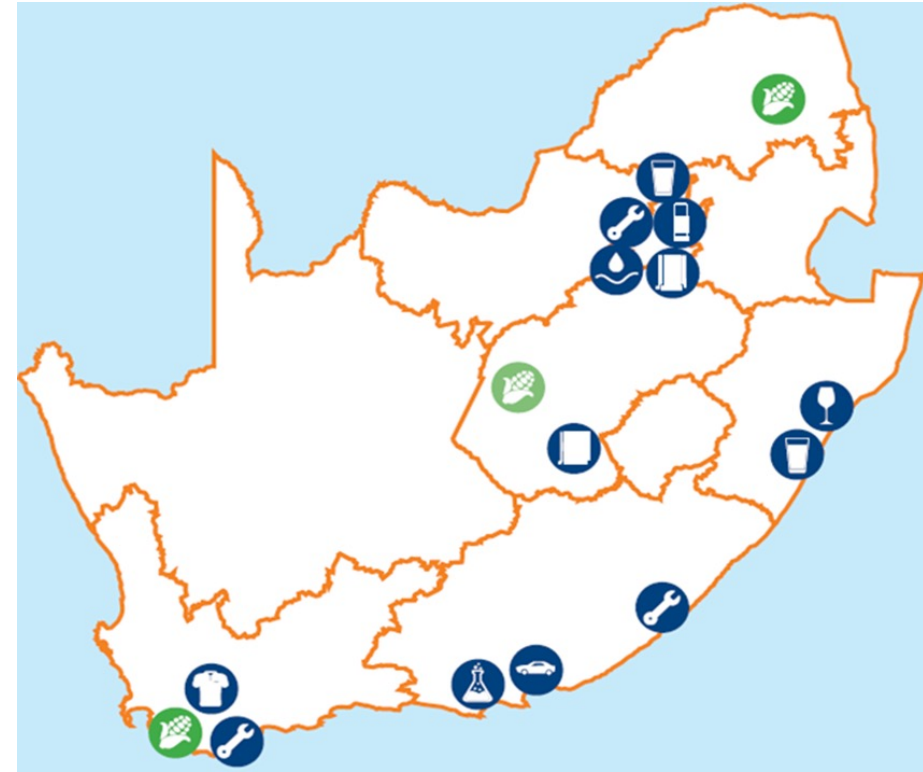
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Technology Stations

- Agri-food Processing
- Chemicals, Chemistry and Downstream
- Clothing , Textile and Material
- Electronics and Electrical Engineering
- Product Development, Tooling and Manufacturing
- Foundries and Materials Processing Technologies
- Engineering and Automotive Components
- Composites & Moulded Plastics
- Energy & Environmental



Testing and Analytical Services



Consultation, Technology Audit and Feasibility Study



Process or Product Improvement



Rapid Prototyping and Manufacturing



Research and Development



Applied Development, Engineering and Design

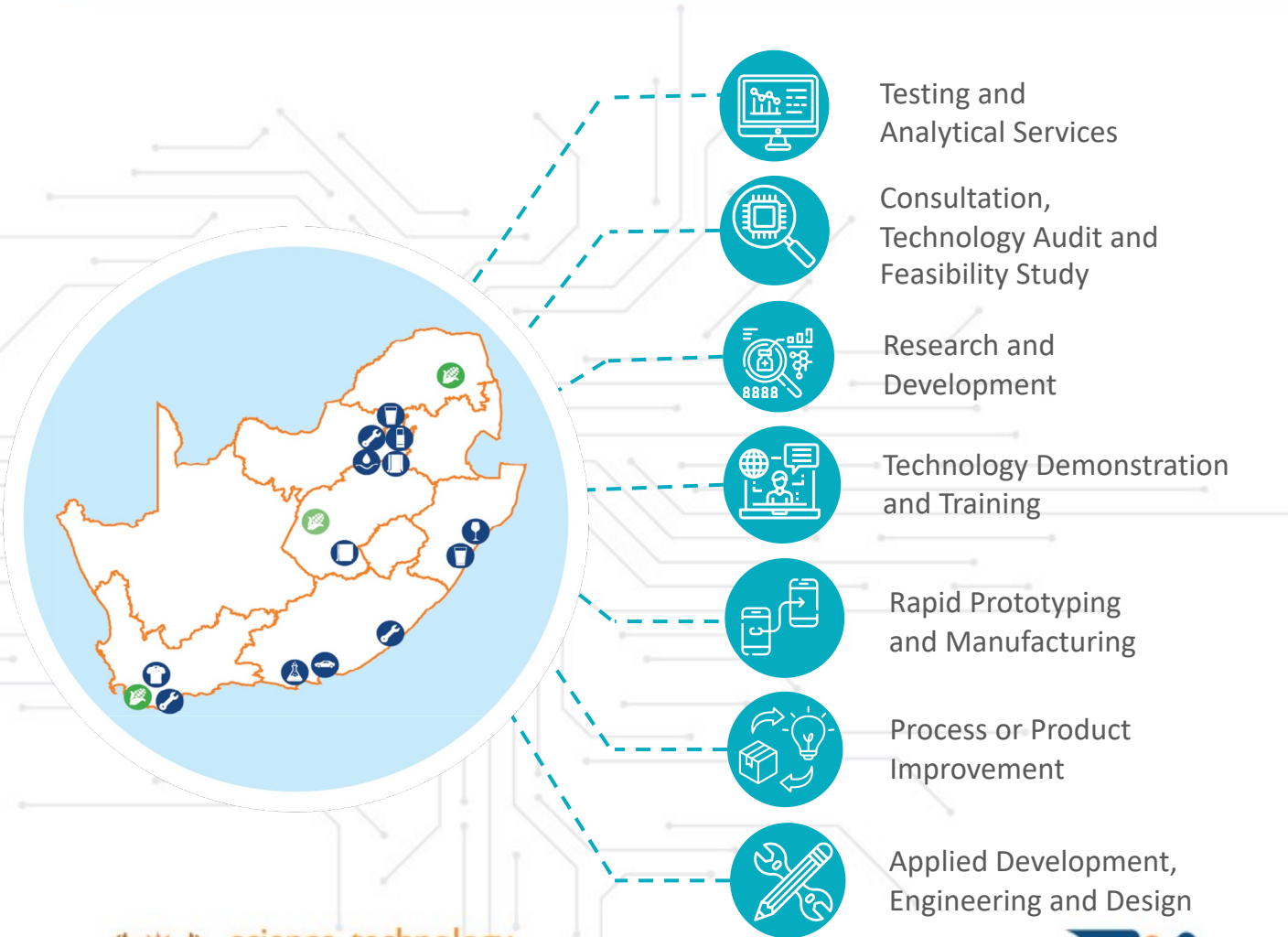


Technology Demonstration and Training



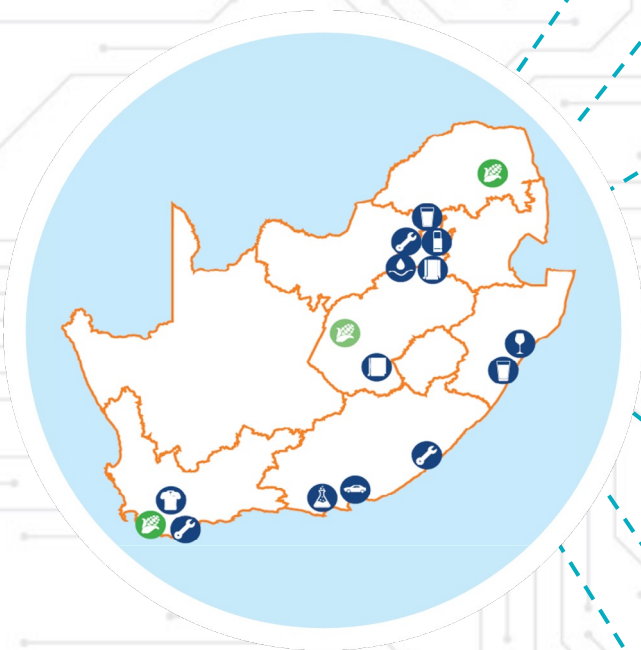
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Green hydrogen

eNtsa Technology Station



Testing and Analytical Services



Consultation, Technology Audit & Feasibility Study



Research and Development



Technology Demon and Training



Rapid Prototyping and Manufacturing



Process or Product Improvement



Applied Development, Engineering and Design



uYilo Smart Grid area based at North campus

The Vehicle-to-grid bidirectional charger is the first in the country to be installed at the uYilo facilities and development on its integration has been taking place with an aggregator (external controller) to assess and adapt to local energy conditions for optimal grid impact.

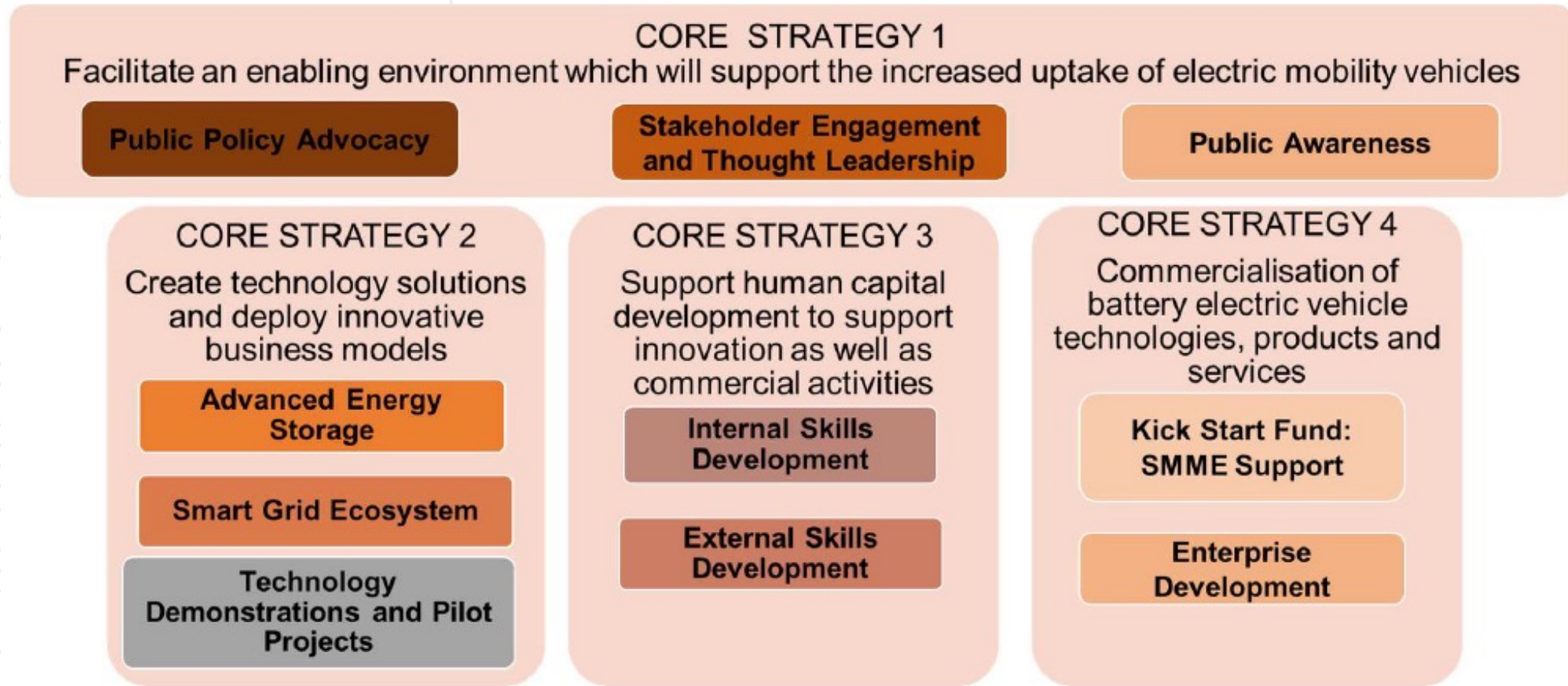
E-Mobility Programme



- After the “Joule”
 - uYilo (“create”) is South Africa’s national electric mobility programme, which was established by the TIA
- The mandate of the programme is to create an enabling environment for South Africa’s electric mobility ecosystem and its technologies to ensure competitive participation in the local and global supply chain.
- uYilo Kick-Start Fund

| | |
|--------------------------------|--|
| OEMs | BYD, GWM, VW, BMW, Mercedes Benz, Nissan, Toyota |
| Government (National) | DSTI, TIA, DoT, dtic, SANEDI, DFFE, DMRE |
| Government (Provincial) | <i>Eastern Cape:</i> AIDC-EC & Coega SEZ; <i>Gauteng:</i> AIDC-GP; <i>Western Cape:</i> Atlantis SEZ; <i>Limpopo:</i> LEDA; <i>KZN:</i> EDTEA; <i>Mpumalanga:</i> MEGA |
| Academia | NMU, UWC, UCT, SUN, UJ |
| Others | Naamsa, NAACAM, CSIR, GreenCape, SAPVIA, Mafikeng Digital Innovation Hub, SA Start-Up Culture, Propella Incubator, SEDFA Secunda |

E-Mobility Programme



E-Mobility Programme



Accredited Battery Testing and Materials Characterisation



Electric Vehicle Systems



Smart Grid Ecosystem - Testing, Development and Demonstration



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A G E N C Y
Taking technology innovation further



THANK YOU



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