

FROM RESOURCES TO CAPABILITY

Capturing more downstream energy value to turn WA's strategic advantage into investment, jobs and green industry leadership.

**Masoud Abshar,
Magellan Power Managing Director**

About Magellan Power

Australian Manufacturer since 1991

Power Electronics

UPS

Energy Storage

Battery Systems

Manufacturing in WA & QLD

Service throughout Australia



WA has won the geological lottery

But resources are the beginning of the opportunity, not the end.

We have:

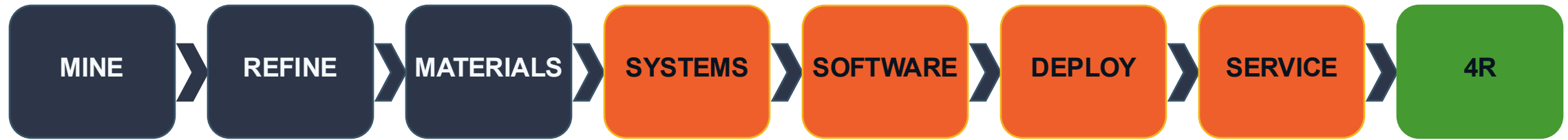
- Critical minerals
- World-class renewable resources
- Mining + engineering expertise
- Stable institutions
- Access to Asian markets



Processing the resources does not guarantee we capture the value.

Where does the value accumulate?

Every step downstream adds knowledge, skilled employment, IP and recurring revenue.



WA is strongest here

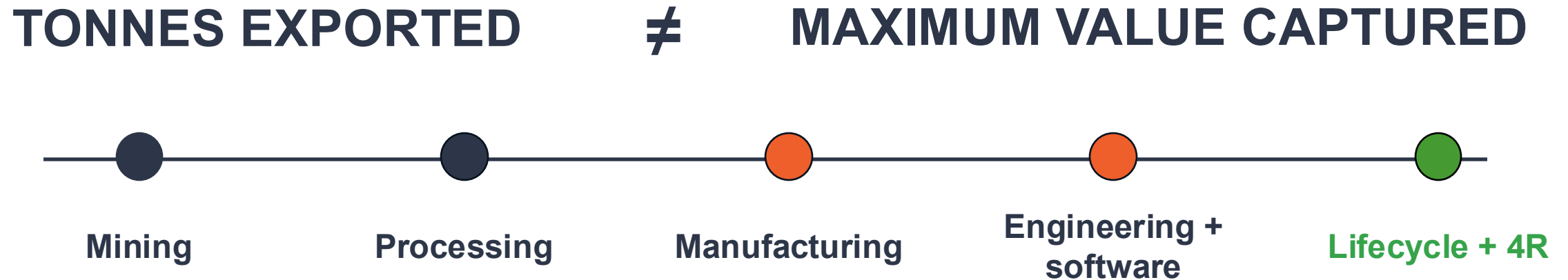
The bigger prize is here

The opportunity is not simply to move one step downstream.

It is to build an entire lifecycle economy around energy technology.

Don't measure success only in tonnes

Measure how much economic activity WA creates from every tonne we extract.



More knowledge, more skilled jobs, more IP, more recurring revenue.

Batteries illustrate the opportunity perfectly

A battery energy storage system is much more than a cell.



Cells + modules

BMS + controls

PCS / inverter

EMS + software

Switchgear +
enclosure

Thermal + fire
systems

Integration +
commissioning

Lifecycle service

We do not need to manufacture every component in WA to create a world-class WA battery industry.

WA itself can become the proving ground

Our difficult operating environment can become a competitive advantage.

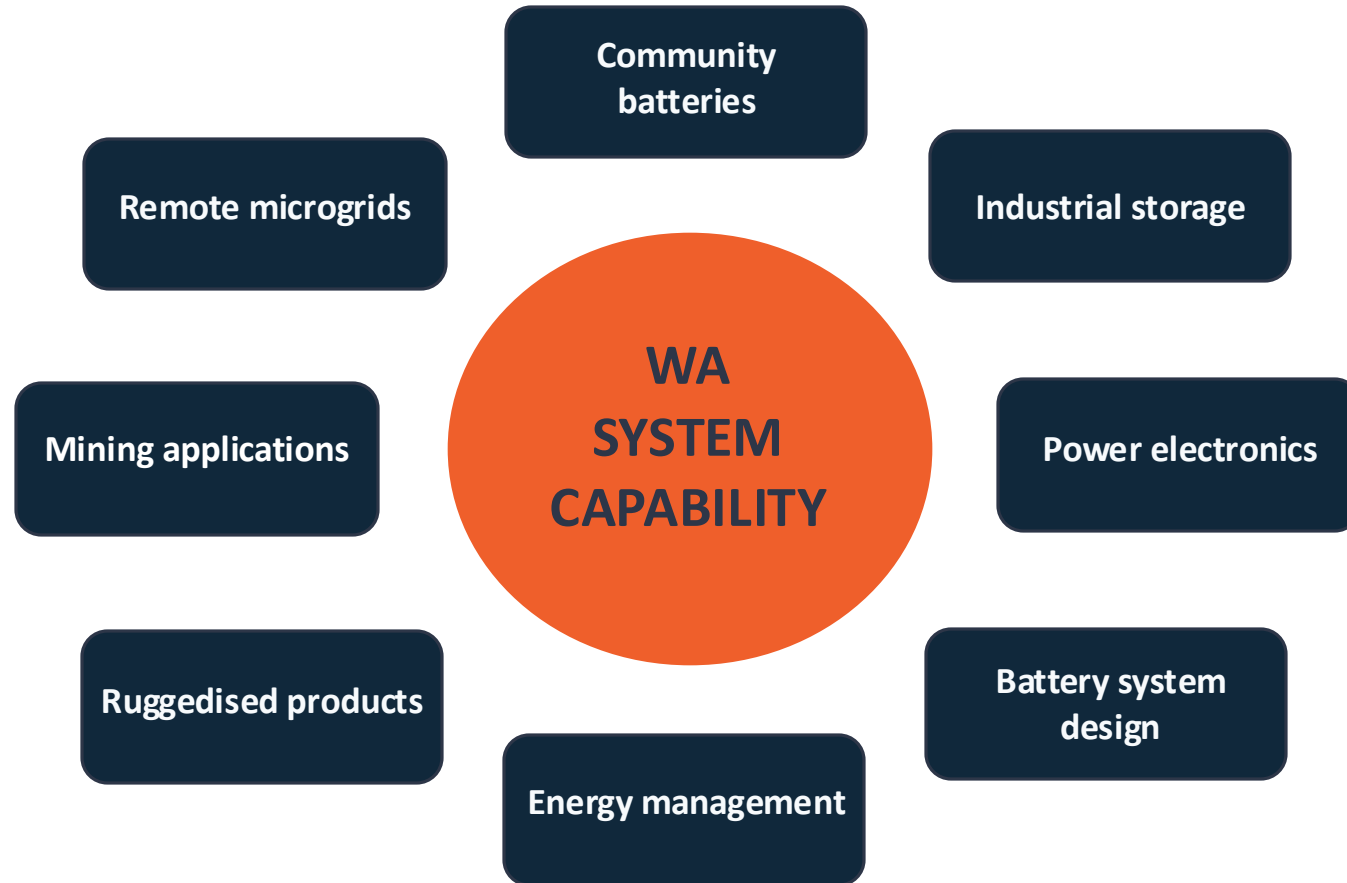
- Heat
- Dust
- Remoteness
- Weak Grids
- Mining Loads
- Isolated Networks



DEVELOP IN WA → DEPLOY IN WA → PROVE IN WA → EXPORT FROM WA

WA can own the system

Specialising in our operating environment and engineering capability gives us an edge.



The strategic question: which parts of the clean-energy value chain can WA become exceptionally good at?

Australian advanced manufacturing can work

The lesson from Magellan Power is **capability can be built here.**

35+ YEARS

building power
electronics and
energy systems in
Australia.

Compete on engineering

Customisation • quality •
reliability • long life

Automate where it matters

Testing • QA • repeatability •
productivity

Keep high-value work here

R&D • integration • final
assembly • commissioning

Support the full lifecycle

Service • upgrades • repair • 4R

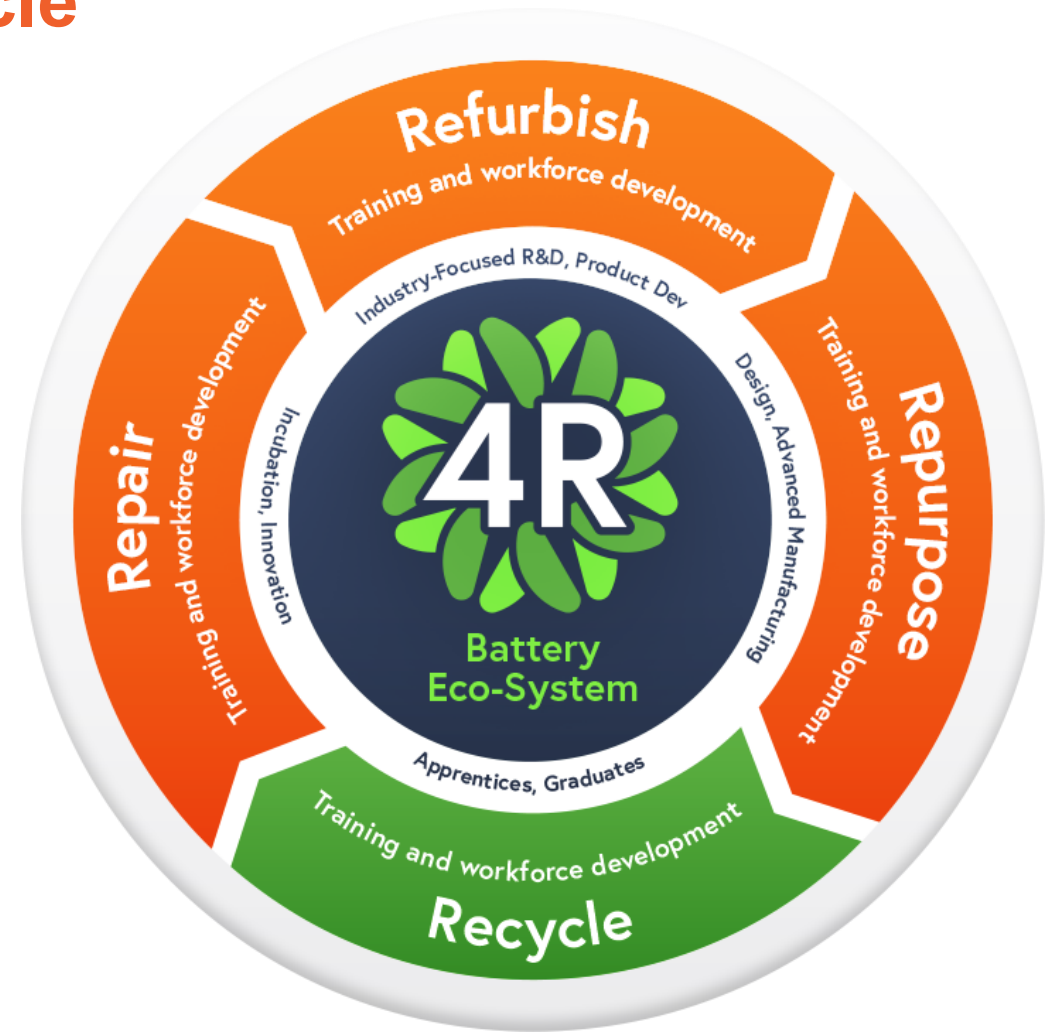
We do not need cheap labour. We need the smartest manufacturing model.

Magellan Power's 4R Ecosystem: Repair, Refurbish, Repurpose, Recycle

It takes 50-100 kWh of energy to manufacture
1 kWh of battery capacity.

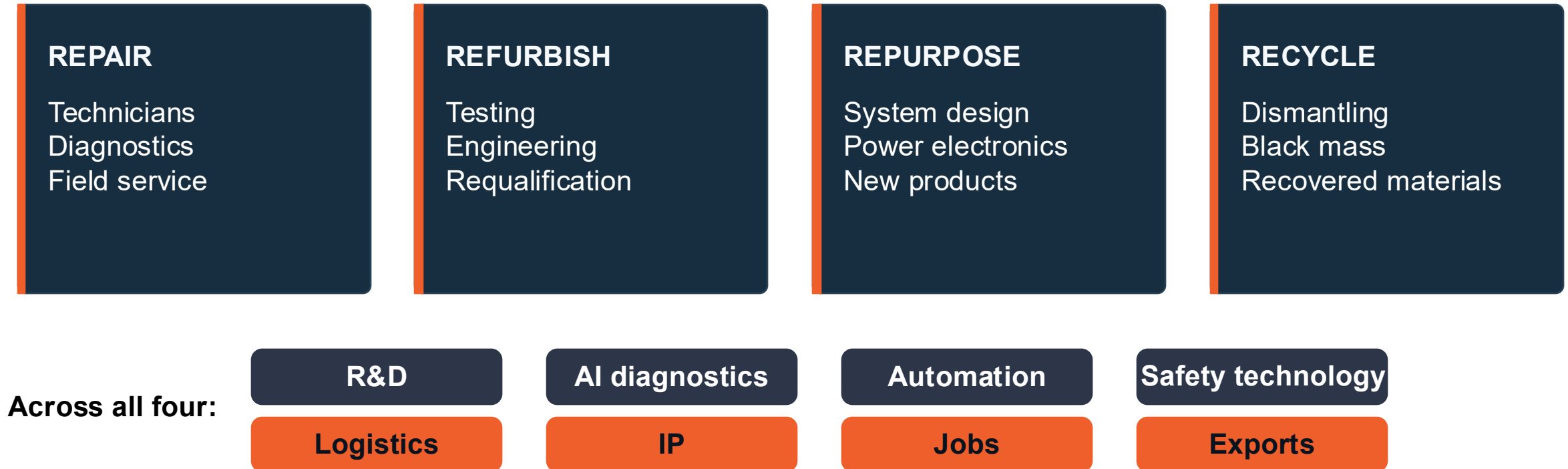
Keep the battery working before we crush it.

A used battery should be viewed
as an **economic asset** before it is viewed
as waste.



4R is not waste management. It is industrial policy.

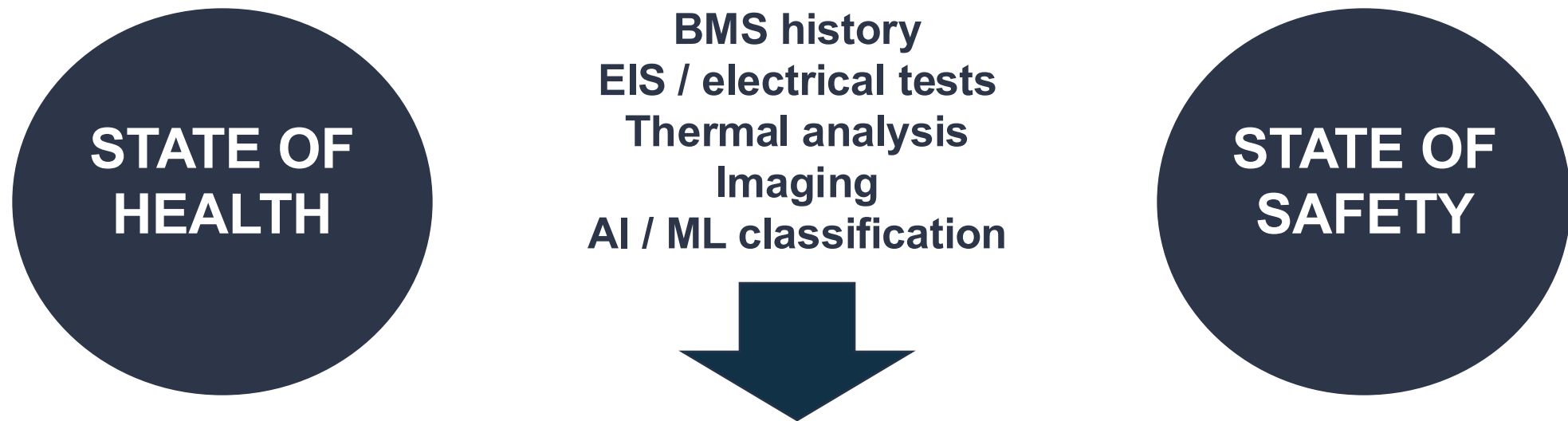
Each R creates a different layer of capability and employment.



The 4R economy can create value for decades after the original battery sale.

The gatekeeper is diagnosis: SoH + SoS

We must know not only how much life remains, but whether the battery is safe enough for its next life.



REPAIR | REFURBISH | REPURPOSE | RECYCLE

Diagnostic capability itself can become valuable WA intellectual property.

Turning Used Batteries into Energy Resilience

- Residential ESS
- Commercial ESS
- Community Batteries
- UPS
- Telecommunications
- Mining
- Remote Communities



Why not make WA Australia's 4R hub?

Build the capability **before the battery waste stream arrives.**

We have:

- Mining & industrial users
- Rapid battery deployment
- Remote energy systems
- Engineering capability
- Universities & TAFE



We're going to deploy enormous quantities of batteries that will eventually need assessment, service, repurposing or recycling. **Do we build that capability now, or wait until the waste stream arrives?**

Government has started moving in the right direction

The challenge now is to turn programs into a self-sustaining industrial ecosystem.

WA Battery & Critical Minerals Strategy

- Vision: internationally competitive, ethical and value-adding industry.
- Explicit aim: capture more value onshore through processing and manufacturing.

Policy can lower the barrier to entry.

\$50m Local Battery Manufacturing Program

- Supports local battery manufacturing and components, including residential, C&I applications and battery recycling.

But factories do not survive on grants alone.

The missing ingredient: demand

Factories cannot scale on grants alone. They need customers, reference projects and repeat orders.

INNOVATION

CAPITAL

SKILLS

INFRASTRUCTURE

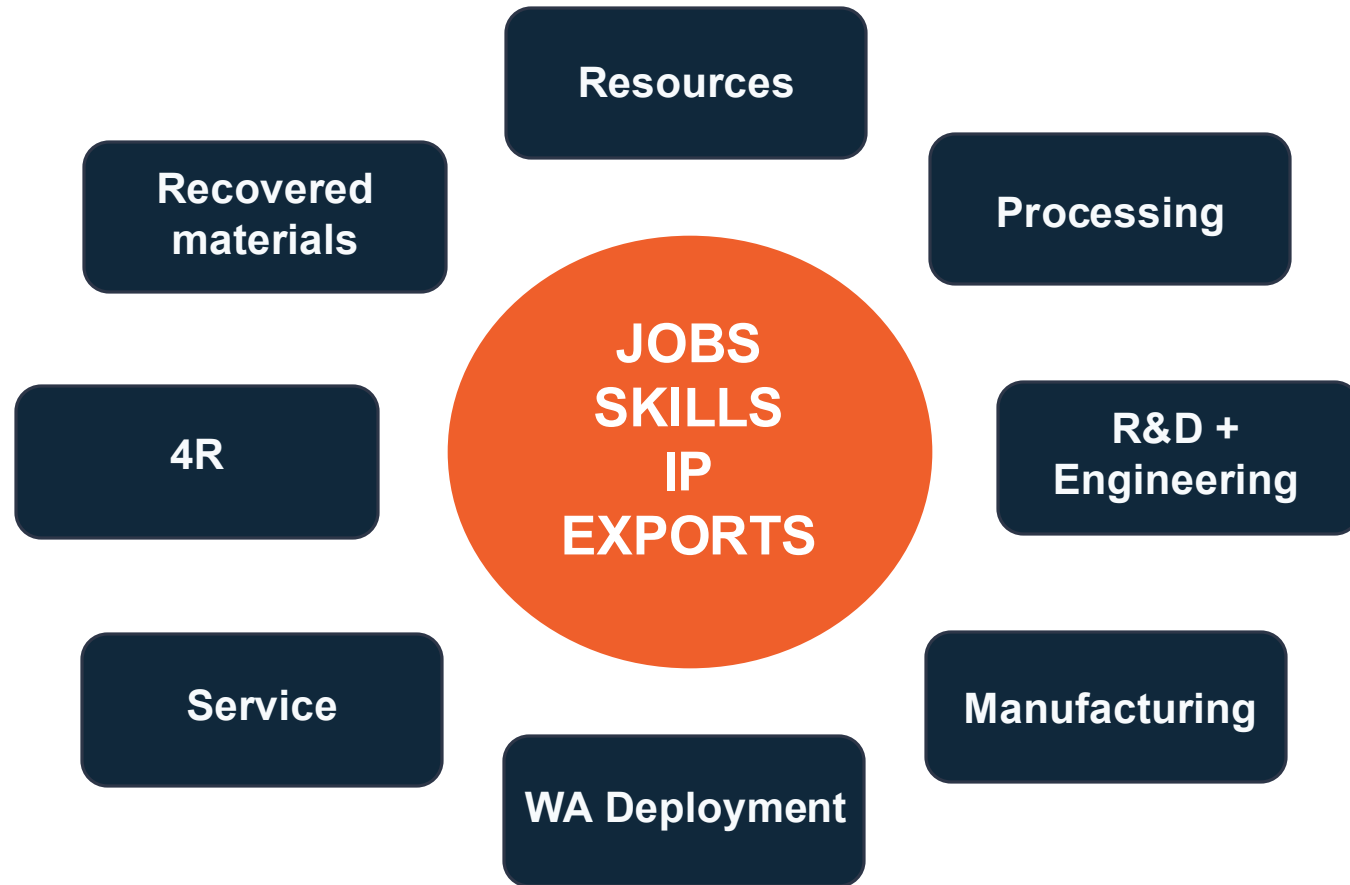
DEMAND

Use WA's energy transition investment as a market-creation mechanism for competitive WA capability.

- What can be engineered here?
- What can be manufactured/assembled here?
- What IP and skills remain here?
- What lifecycle & 4R capability is created?
- Can this project become an export reference?

The WA clean-energy industrial flywheel

A circular industry can compound capability instead of leaking value.



Government starts the flywheel. Industry, customers, universities, TAFE and investors make it self-sustaining.

The proposition: build a WA Battery Lifecycle Industry

Not one factory. An ecosystem.

1. **MAKE** – Battery systems • power electronics • controls • enclosures
2. **DEPLOY** – Utilities • mining • industry • communities • homes
3. **SUPPORT** – Commissioning • monitoring • service • upgrades
4. **4R** – Repair • Refurbish • Repurpose • Recycle
5. **EXPORT** – Products • engineering • IP • lifecycle know-how

The objective: keep more value, knowledge and capability circulating in WA.

WA can be a leader in the global energy transition.

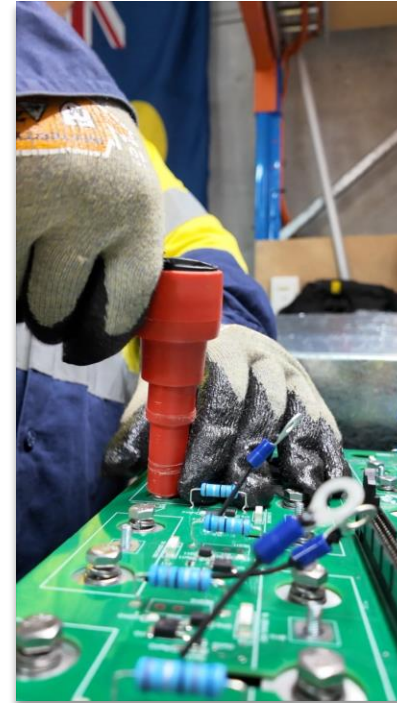
The question is how much of its value we keep here.

MINE → TECHNOLOGY → 4R → BACK TO VALUE

Keep the value. Keep the knowledge. Keep the jobs in WA.

***“Let’s not just supply the materials for the global energy transition.
Let’s build the capability that powers it.”***

Thank you



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