SMART@UNSW - GREEN METALS TECHNOLOGIES

UNSW RESEARCH

SMaRT@UNSW's emerging Green Metals Technologies can derive from waste many of the essential and critical resources required for the electrification of society, and to achieve greater recycling, clean tech and advanced manufacturing capability.

The Green Metals processes involve extracting metals and alloys, including rare earth metals - like aluminium, copper, cobalt, gold and many others - from electronic and other wastes, such as computers, phones, batteries and PV.

In addition, SMaRT@UNSW's Thermal Disengagement Technology offers an innovative, efficient, and sustainable micro-recycling technique to separate the materials in complex, polymer-laminated, metal packaging waste called Green Aluminium.

These technologies will enable a more sustainable manufacturing of the hardware and infrastructure needed for the transition to electrification, while reducing waste, cost and the heavy environmental impact of using virgin and other resources.

The technologies are either already transitioning, or ready to transition, to pilot scale or industrial scale.

- SMaRT has expertise and commercial-ready tech innovations and industrial partners for recycling and clean energy.
- SMaRT's innovations can extract metals, alloys and rare earth metals (such as aluminium, copper, cobalt, gold and many others) from electronic and other wastes (such as computers, phones, batteries, etc.)
- Technologies will enable truly sustainable electrification infrastructure, while also reducing waste, cost and the heavy environmental impact of using virgin and other resources.
- The technologies are either already transitioning, or ready to transition, to pilot scale or industrial scale.