Metalysis is a growing company, based in South Yorkshire, which owns the global rights to a disruptive technology posing proven economic and environmental benefits over traditional metal production methods.

The Company is committed to transforming the metals industry through its patented process for producing titanium, tantalum, rare earth metals, other periodic table metals and innovative alloy powders.

Metalysis’ process is a novel solid-state production method. Originating from the University of Cambridge and now proven at industrial scale, it can generate high margins from the manufacture of metal powders for markets including additive manufacturing (“AM”).

In keeping with the history of Metalysis’ process as a commercialised university innovation, the Company continues to work with corporates, research and academia to revolutionise the way that many metals and novel alloy powders are produced. This encompasses a broad range of ongoing projects with many external collaborators; some of industry’s most forward-thinking organisations.

**What is Titanium?**

Titanium is a high value metal, prized for corrosion resistance, low-density properties (for example, it is 56% of stainless steel). It also has high bio-stability; considered critical to the development of titanium applications in AM as new bio-stable blends continue to emerge – a major area of research focus for AM industries including aerospace and automotive.

**What is Titanium used for?**

There are two main uses of titanium metal:

- Commercially Pure (CP) metal used in industrial applications in the petrochemical, marine, water supply and automotive, and;
- The aerospace sector uses mostly titanium alloy Ti-6Al-4V because titanium’s chemical properties are more compatible with the high level of composite material (does not corrode titanium unlike aluminium) in the next generation of commercial aircraft e.g. A350, B787.
Metalysis provides spherical grade titanium powder for AM with a tailored particle size and high purity for the two main AM technologies: Electron Beam (“EB”) and Selective Laser Melting (“SLM”). Our technology is also capable of producing pre-alloyed titanium powder by special request.

Beyond AM, Metalysis produces high quality titanium alloy powders for the chemical and biomedical industries. Like AM, these industries require powders of a high level of purity, which meet international standards. The powders have engineered particle sizes and are available in flexible lot sizes.