Aurora Labs produces first powder from prototype Powder Production Unit (PPU)

Highlights:

- Significant achievement in the process to commercial powder production.
- Development of PPU has potential to open considerable new markets for Aurora and be a source of ongoing revenue for the Company.
- A step closer to producing commercial quantities of high quality, narrow range powders.

Aurora Labs Limited ("Aurora" or "the Company") (ASX: A3D), is pleased to announce that its prototype Powder Production Unit ("PPU") has successfully produced laboratory test scale powder which shows the expected spherical shape suitable for most powdered metal applications. This comes after the prototype was completed in March 2018.

The prototype PPU is intended to test and demonstrate the technology for producing very high-quality powders for use with 3D metal printers at substantially lower cost than existing processes.

Reaching this next milestone along the Company’s PPU development timeline is an important achievement for Aurora. The ultimate development of successful powder production technology has the potential to unlock a material ongoing revenue stream for the Company while expanding into substantial global markets. Aurora is currently in discussion with a number of global powder manufacturers, exploring possible synergies and business opportunities.

The powder produced from the test samples has demonstrated a very tight size distribution. This is a positive indication that the very high yields that the Aurora process is targeting are capable of being achieved.

Traditional processes of manufacturing spherical metal powder suitable for 3D printing applications produce a very wide size distribution (from very small to very large powder particles) of powder. Typically, only a fraction of the powder that is produced is in the correct size range for use in printing. The balance has to be recycled or allocated to other markets.

By having a very tight size distribution (i.e. where all the powder particles are close to each other in size), Aurora’s process potentially will result in much higher yields when compared to traditional processes.
The primary advantages that the Company is aiming to achieve in the development of its powder production process, relative to existing processes currently employed, include the following:

1. produce a higher quality product (very tight size range, solid spherical powder);
2. produce a high yield;
3. have lower capital cost to build a PPU; and
4. lower cost of powder production; hence powder may be able to be produced by Aurora’s PPUs at a very competitive price.

The next phase of proving high volume production will be important to confirm these yields and quality parameters. The production method employed in the prototype PPU is still in early development. Whilst the initial results from testing are significant and positive, they are early stage results and further testing and refinement of the process is required.

**Estimated Powder Production Unit Development Timeline**

- Build Powder Production Unit (PPU)
- Produce First Powder
- Source Industry Partner to assist commercialization of technology
- Complete Powder Production Parameter Development
- Prove high volume production capability
- Scale process to meet demand from MIM/LDF sales
- Complete PPU
- Prove scalability of process
- Scale process to meet international demand
- Begin Sales of powders into international markets
- 1-2 years

**Note:** The above timetable is an estimate only and is not drawn to exact time scale. The timing of events in the timetable is subject to change.

It is intended that the powders produced will support part of the projected high utilisation of consumables from the Company’s Large Format Printer which is currently under development. The Company is developing the powder manufacturing parameters for the production of a full range of metal consumable powders as the process is refined. Aurora’s ultimate aim is to build an assembly line for full-sized PPUs, each capable of producing up to 5 tonnes of powder per day.

Currently, the international powdered metals market, e.g. metal injection moulding (MIM) powders, is valued in the billions of dollars. Advancing Aurora’s PPU technology is intended to develop significant synergies between metal powder production and the anticipated demand created by additive manufacturing.

Aurora will continue to explore business models and commercial opportunities in international markets where there is already a large, existing demand for metal powders by industries that are not related to 3D printing.

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David Budge, Managing Director, reported:

“The result for producing our first powder is an outstanding achievement for the Company. The process of going from concept through to patenting and production of a product is at times an arduous one, but the team has worked extremely hard, determined to achieve this outcome.

Seeing a result where we have produced high-quality spherical powder where almost all of the powder produced is within a very narrow size range is a remarkable result and one that the Company and its staff can be proud of.

This development opens up significant new opportunities for the Company. We hope that this result will pave the way for Aurora Labs to become a global player in a highly compelling industry.”

ABOUT AURORA LABS
Aurora Labs Limited (“the Company”) (ASX: A3D), an industrial technology and innovation company that specialises in the development of 3D metal printers, powders, digital parts and their associated intellectual property.

Aurora Labs is listed on the Australian Securities Exchange (ASX: A3D)

To learn more about Aurora Labs, please visit: www.auroralabs3d.com

FORWARD LOOKING STATEMENTS
This announcement contains forward-looking statements which incorporate an element of uncertainty or risk, such as ‘intends’, ‘may’, ‘could’, ‘believes’, ‘estimates’, ‘targets’ or ‘expects’. These statements are based on an evaluation of current economic and operating conditions, as well as assumptions regarding future events. These events are, as at the date of this announcement, expected to take place, but there cannot be any guarantee that such events will occur as anticipated or at all given that many of the events are outside Aurora’s control.

Accordingly, Aurora and the directors cannot and do not give any assurance that the results, performance or achievements expressed or implied by the forward-looking statements contained in this announcement will actually occur.

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