

## Shareholder update

### Highlights

- Aurora Labs is a 3D metal printer manufacturer that aims to enable mass adoption of 3D metal printing using new technologies that can significantly reduce the price and increase the speed of machines.
- The Small Format Printer (SFP) has been fully developed and is currently undergoing Beta testing. The SFP is expected to sell for significantly less than other comparable 3D metal printers.
- The SFP is currently preparing for final CE-mark checking for the European Union and final checking for US FDA (CDRH) laser compliance.
- Upon completion of Beta testing, CE mark and laser compliance acceptance, delivery of fully approved SFP's will commence.
- 32 SFP's have been pre-sold and a database of numerous purchase enquiries will be followed up now that Aurora has production capability and cash at bank.
- A prototype of the Medium Format Printer (MFP) is currently being developed. The MFP is the precursor to the Large Format Printer (LFP).
- The LFP is being designed to print up to one tonne of metal parts in 24 hours, which is believed to be approximately 100 times faster than existing 3D metal printers currently on the market.

It gives me great pleasure to provide this first shareholder update on Aurora Labs Ltd ("Aurora" or the "Company") since the Prospectus for Initial Public Offering dated 9 June 2016 and the Supplementary Prospectus dated 27 July 2016.

We have taken the opportunity to give a brief description of the Company and its history for those investors who may not yet be familiar with the Aurora story. We have also described our innovative 3D Metal printing technology which we believe will put Aurora at the forefront of this exciting and rapidly growing industry.

### Company Background

Aurora Labs is an Australian-based industrial technology and innovation company based in Perth specialising in the development of 3D metal printers, printer software and the supply of associated consumable materials.

Aurora was established as a proprietary company in August 2014 by David Budge, Jessica Snelling and William Crisp. David has been interested in 3D printing technology for over 20 years. He sought to utilise his extensive knowledge and experience in designing, building and using industrial welding, automation equipment and robotics, including rebuilding and protection of mining and general industrial heavy equipment and then to apply that knowledge and experience to 3D printing. He looked for partners in developing the software needed to drive the relevant hardware and approached software programmers Ms. Snelling and Mr. Crisp. From the genesis of his idea, this skilled team developed a functioning prototype 3D metal printer.

Aurora has primarily focused on developing innovative 3D metal printing technology to address gaps in the current market for 3D metal printers. It is seeking to meet the market need for affordable small format 3D metal printers, as well as for fast speed larger format 3D metal printers that can be used in larger-scale industrial manufacturing on a cost effective basis.

[www.auroralabs3d.com](http://www.auroralabs3d.com)

#### AURORA LABS LTD

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**From right to left – David Budge, Jessica Snelling and William Crisp with the original S-1 prototype 3D printer**

Aurora's S-Titanium and S-Titanium Pro range of SFPs have been developed to a pre-production stage and Beta units are currently being tested. Aurora has pre-sales or orders for 32 printers and sundry consumables that are either fully paid for, or where customers have paid a deposit. Aurora has taken pre-sale orders and deposits for its SFPs since its incorporation in August 2014. The pre-sales have been recorded as a liability in Aurora's statements of financial position as described in the Independent Accountants Report in the Prospectus. Full production will commence on completion of the Beta testing.

Aurora is also developing its Europa MFP and Titan LFP which both utilise Aurora's innovative patent pending technologies. This technology is intended to enable a significantly higher rate of 3D metal printing to that of other comparable printers currently available in the market.

Aurora is intending to diversify its business by developing secondary, but complementary, business units for 3D printing related software and manufacturing of consumable materials used in 3D metal printing.

### **S-Titanium Range – Small Format Printer (SFP)**

The SFPs have been designed, among other things, for prototyping and light manufacturing. They are intended to be affordable relative to existing comparable printers currently on the market. Aurora's SFP's retail for between US\$39,999 and US\$42,999 (excluding taxes and shipping), which is affordable to most small business and research institutions. Competitor machines with similar characteristics retail for US\$100,000+.

Aurora's SFPs have a number of unique features that offer greater flexibility in printing and that differentiate them from competing products currently on the market. These features include:

- The ability to print in three modes – SLS, SLM and DED. Most competing products offer only one or two of these modes. Aurora is not currently aware of any other comparable products that offer all three modes of printing.
- To complement the three modes of printing, three independently controllable powder hoppers for delivering the consumables to the print bed. This facilitates the use of multiple powders in the same print, producing on-the-fly alloying or pseudo alloying by feeding two distinct types of powder to the print bed via the DED process.
- The print bed in the S-Titanium range is one of the biggest on the market for both volume and print weight capacity near its price point.

The operating software for the SFP is open-source. This allows customers to modify many of the print characteristics and parameters of the machine. Customers can use this to implement required or desired customisation for research and development purposes or for production printing. Aurora believes that this degree of customisation flexibility is not available on any other competing 3D metal printer currently on the market.

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## CE-mark

Aurora is undertaking the CE-mark process for the S-Titanium range of SFPs. We have now completed the pre-check and are working towards the final check.

The CE-mark denotes that the product to which it is affixed has been manufactured to comply with the essential requirements of relevant health, safety and environmental protection legislation in the European Union.

## US FDA (CDRH)

Aurora is undertaking the process of the Centre for Devices and Radiological Health (CDRH), a branch of the United States Food and Drug Administration (FDA), to have the S-Titanium range of SFPs included on the CDRH accession number database. It is in the process of compiling an 'Initial Product Report, Laser' (IPR) for submissions to the CDRH and will then await the issue of an accession number which is required to import laser based equipment into the United States of America. Aurora is now completing the final section of the submission process.

## Beta testing and commencement of full scale production

As stated in the Prospectus, the Company intends to use part of the funds raised to complete Beta testing of the SFPs and bring the SFP range into full production. The parts required for building several of these machines are in stock and Aurora has commenced building the initial machines to be released to pre-sold buyers. Some of these printers are expected to be released to Australian buyers shortly. As soon as the CE-mark and US FDA (CDHR) clearances have been received and Beta testing is complete we expect to start shipping machines to overseas buyers.

Aurora has a database of numerous purchase enquiries for the small format printer. These were unable to be satisfied previously because Aurora did not have production capability due to a lack of cash. Aurora is now confident of converting a number of these purchase enquiries into sales orders. Aurora will also be re-initiating discussions with potential sales distributors and strategic partners.

## Europa (MFP) and Titan (LFP) Printers

The core technologies for Aurora's Europa – Medium Format Printer (MFP) and Titan – Large Format Printer (LFP) are currently in the proof-of-concept phase. Aurora is targeting the development of a working prototype MFP before the end of calendar year 2016 and a working prototype LFP is intended to follow 6 to 12 months later.

The MFP is being developed out of the proof-of-concept process for the LFP with the aim to have similar speed increase to the LFP but on a smaller scale.

The LFP in particular is intended to offer a possible solution to the production of larger-scale metal parts and components in a reasonable time. The LFP's proposed design results in theoretical print speeds that may allow production of metal components at a cost that is, in many cases, competitive with traditional methods of manufacture that are currently available.

The LFP is intended to be capable of pushing utilisation of 3D metal printing into more moderately value-added components. As a printer could potentially be located almost anywhere in the world where there is access to the internet, power, powder and a small building, the LFP has disruptive potential to many aspects of the traditional manufacturing and distribution model. Aurora considers that the LFP may not only have a major impact on industries that use large parts (e.g. mining and other resource companies), but it also represents an important step closer to cost-effective, mass production of parts.

The LFP is being designed to print up to one tonne of metal parts in 24 hours, which is believed to be



**S-Titanium Pro (SFP)**

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approximately 100 times faster than existing 3D metal printers currently on the market. The potential speed increase could reduce the cost of 3D printed parts by increasing the number of parts that can be produced to a competitive level with conventional subtractive manufacturing techniques such as casting, machining and fabrication.



**Robert Buys  
assembling a SFP**

The MFP and LFP are intended to have powder delivery hardware that will be integrated with the printer control software to aid in quality control and certification of the end product.

The print control software for both the MFP and the LFP is designed to be closed-source which will require a live connection to the internet and Aurora's servers in order to function. This is intended to enable Aurora (and through Aurora, Original Equipment Manufacturers - OEMs) to effect additional control over what is printed with these models which in turn would allow certification of printed parts, subject to licences or authorisation from OEMs. The software is also intended to capture and record print and powder information as part of the printing process being recorded and stored as part of the certification documentation.

### **Listing on ASX**

Aurora listed on the ASX on 12 August 2016. There was a very high level of interest from investors and the offer was oversubscribed.

As noted in this update, Aurora is moving rapidly towards commercial production and sales of its SFP. Other than the SFP commercialisation costs, the purchase of parts for the SFP machines, MFP/LFP R&D activities and working capital, Aurora has no large expenditure requirements. Please refer to the 'Pre-listing Documentation' announcement released to the ASX on 16 August 2016 for an updated statement of commitments and detailed use of funds schedule.

As such, the Board decided that the minimum subscription of \$2.8 million for ordinary shares was sufficient to meet the Company's needs and decided against accepting any over subscriptions.

To learn more about Aurora Labs please visit: [www.auroralabs3d.com](http://www.auroralabs3d.com).

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Chairman

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