



**Lonmin Plc**  
5th Floor  
Connaught House  
1-3 Mount Street  
London W1K 3NB  
United Kingdom  
T: +44 (0)20 3908 1070  
[www.lonmin.com](http://www.lonmin.com)

## **MEDIA RELEASE**

09 November 2017

---

### **Lonmin contributes to South Africa's first 3D printing prototype using pure Platinum**

**Durban, 09 November 2017** - Lonmin Plc, ("Lonmin" or "the Company"), one of the world's largest primary platinum producers and a member of Platforum™, is pleased to reveal that it has contributed to the successful completion of a 3D printing prototype of pure platinum jewellery using Selective Laser Melting (SLM). The 3D printing project using pure Platinum is the first of its kind in South Africa.

3D printing, also referred to as Additive Manufacturing, is a layer-based process used to manufacture objects with complex designs. The launch of the prototype was revealed at the RAPDASA (Rapid Product Development Association of South Africa) conference currently underway in Durban. The process of producing functional parts using additive manufacturing required the complement of different skills, including the design for the 3D prototype, powder production, machine parameter settings and post-treatment processing. Purposively, Platforum™, a partnership consisting of the Central University of Technology, North West University, Vaal University of Technology and Lonmin, initiated the 3D printing project in June 2016.

Wilma Swarts, head of Marketing at Lonmin and director of Platforum™, explained the significance of the printing of the prototype: "3D technology has gained in popularity in recent years, and the introduction of the additive manufacturing using precious metals will contribute and add to the range of applications where the properties of PGMs are used."

Lonmin's contribution to the project involved the production of the platinum powder. Initial trials were conducted from August 2016 to produce pure platinum powder to suit the specifications for the additive manufacturing printing process. In October 2017, the platinum powder was tested, the machine parameters optimised and prototypes finally printed.

Additive manufacturing using precious metals creates new opportunities for value-added processing and mineral beneficiation using PGMs. "Today's reveal showcases the potential of 3D printing of Platinum Group Metals (PGMs). Through additive manufacturing, intricate and light weight PGM products can be manufactured at speed, presenting new opportunities for PGMs, socio-economic development, Lonmin and the platinum mining sector," concluded Swarts.

Looking ahead, the Platforum™ will explore the potential of 3D printing using precious metals to produce PGM alloys and existing but also new and novel applications for the medical, energy and the automotive industries.

For a detailed video on the additive manufacturing process of the making of pure platinum jewellery, click [here](#).

- ENDS -

## **ENQUIRIES**

### **Media:**

Wendy Tlou (Head of Communication)

+27 83 358 0049

### **Notes to editors**

Lonmin, which is listed on both the London Stock Exchange and the Johannesburg Stock Exchange, is one of the world's largest primary producers of PGMs. These metals are essential for many industrial applications, especially catalytic converters for internal combustion engine emissions, as well as their widespread use in jewellery.

Lonmin's operations are situated in the Bushveld Igneous Complex in South Africa, where more than 70% of known global PGM resources are located.

The Company creates value through mining, refining and marketing PGMs and has a vertically integrated operational structure - from mine to market. Underpinning the operations is the Shared Services function which provides high quality levels of support and infrastructure across the operations.

For further information please visit our website: <http://www.lonmin.com>