

# ARRIA

NATURAL LANGUAGE GENERATION

25 February 2016

**Arria NLG plc**  
("Arria NLG" or the "Company")

## **Grant of 7<sup>th</sup> US Patent**

**Arria NLG plc (AIM:NLG)**, a technology leader in Natural Language Generation ("NLG"), is to be granted a patent on its *Method And Apparatus For Referring Expression Generation* from the US Patent and Trademark Office, its seventh to date. The Company's Chief Scientist, Prof. Ehud Reiter, created this important new feature of the Arria NLG Platform.

The new patent covers an essential component of Arria NLG's products for information analysis and delivery. The Company's products automate the real-time analysis and delivery of reports, whilst also generating language that follows intuitive rules for how humans communicate and comprehend information.

The innovations embodied in the new patent allow a report's second or subsequent mention of a complex machine, device or process to be expressed in a word or two, rather than by its full name. For example, the operator of an electrical power plant, who receives the actionable intelligence contained in an Arria NLG report, is not required to read in full repeated references to the same components of a particular machine after the report establishes that this component of this machine is being discussed.

In addition, when using referring expression generation, the patented system can flexibly describe details such as a high temperature warning on a rotor shaft to an engineer. For example, the system is able to recite: "temperature is high," when a previous sentence has provided the reader with the necessary context to understand that the text is referring to a rotor shaft on a specific machine. The system likewise intelligently adapts the expression to recite: "rotor shaft temperature is high," when a previous sentence lacked sufficient context. In each instance, the system can adapt sentences as the report is generated so as to eloquently describe components and subcomponents of a complex machine.

This seventh Arria NLG patent covers the generation of referring expressions not only within the Company's advanced NLG systems but also in more rudimentary systems relying on the infilling of templates (akin to mail-merge) that are in common use.

Arria NLG's patents and patent applications cover critical NLG processes that the Company currently applies to innovative applications delivered to its growing list of global clients, as well as to a range of SaaS-delivered packaged applications that are in development for a number of markets. The patents also apply to the Company's proprietary Software Development

Toolkit ("SDK"). Arria NLG's expanding patent portfolio strengthens its plan to become the global leader in automating data analysis and information delivery in any industrial or consumer setting.

**Stuart Rogers, Chairman and Chief Executive of Arria NLG, stated:** "We believe that there are two key areas where this patent raises the bar in the quality of 'humanized' text generated from NLG technology. Firstly, anyone who wants to build an NLG system that communicates with users in a human manner is likely to need to implement the technology that this patent covers into their systems. Secondly, anyone wanting the Internet of Things to successfully talk naturally to users will likely need this technology.

This is our seventh patent in the US and a core element for advanced NLG technology and one which Arria NLG are very proud to own. This patent is linked to our previous patents, the technology for which can all be found in our NLG Platform. This technology is already available to our customers and will also be provided in a dynamic natural language toolkit when our Software Development Kit 4.5 is product released this year."

**For further information, please visit [www.arria.com](http://www.arria.com) or contact:**

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## **Arria NLG**

Arria NLG's core product is known as the Arria NLG Platform, a form of artificial intelligence software, specialised in extracting information from complex data sources and communicating that information in natural language (i.e. as if written by a human). The scientific foundation for the Arria NLG Platform is based on more than 30 years of research and development by the Data2Text Founders at the University of Aberdeen. For additional information, visit [www.arria.com](http://www.arria.com). Follow Arria NLG on [Twitter](#), [LinkedIn](#), [Google+](#) and [YouTube](#).