

Lund, 8 October 2019

Press release

Luma Metall wins substantial order from CERN

Luma Metall AB in Kalmar, a Swedish high-tech producer of Ultra Fine Wire, has won a large order for more than 400 km wire. The company's wire will be used for the upgrade of the ATLAS detector at CERN.

The material that Luma will supply for the ATLAS detector consists of 50 micron (= 0.05 mm) base tungsten wire to which a gold plating is added (about 0.35 micron pure gold). Gold has very good conductive qualities and provides excellent protection against corrosion. The basic tungsten wire has a very high specific weight (the same as gold) and high tensile strength.

Luma has developed into a plating specialist, especially the plating of Fine and Ultra Fine Wire in tungsten and molybdenum, two materials traditionally used for filaments in light bulbs.

The company has been working with CERN since 1985. The collaboration began with the Opal Project, and the company is constantly in contact with researchers working for CERN worldwide, often at local research institutes or universities.

From 2020, Luma will also be involved in the ESS project in Lund, Sweden, again supplying wires for detectors.

Ulrich Stöhr, Sales & Marketing at Luma Metall:

– As a supplier, we've consciously tried to establish close contacts with researchers all over the world, not least those in CERN's global network. We engage in both small and large procurements – even small contracts that don't generate much money are important for establishing relationships. By delivering a high-quality product, we've built up a good reputation, and we're now CERN's go-to supplier/single source of thin special wire.

Sven-Christian Ebenhag, Business Development at Big Science Sweden:

– We're impressed by the cutting-edge technology that Luma Metall has developed, technology that's made them unique in the world. The company won orders to supply wire to CERN from an early stage, and soon they'll also be supplying to ESS. As a member company of Big Science Sweden, we can help Luma Metall broaden its market and establish contacts with other types of research facilities, such as ITER.

Big Science Sweden
Info@bigsciencesweden.se
www.bigsciencesweden.se



Big Science Sweden is funded by:



Lund
Big Science Sweden
Ideon Science Park
Scheelevägen 15
SE-223 70 Lund

Göteborg
Big Science Sweden
Chalmers Industriteknik
Chalmers Teknikpark
Sven Hultins gata 9D
SE-412 58 Göteborg

Uppsala
Big Science Sweden
UU Innovation,
Uppsala University
Uppsala Science Park
SE-751 83, Uppsala

Kiruna
Big Science Sweden
Rymdcampus 1
SE-981 28 Kiruna

Luleå
Big Science Sweden
LTU Business
Aurorum 1A
SE-975 55 Luleå



For more information, please contact:

- **Ulrich Stöhr**, Sales & Marketing, Luma Metall, ulrich.stohr@luma-metall.se, +46 76 669 62 44
- **Sven-Christian Ebenhag**, Business Development & Project Management, Big Science Sweden/RISE Research Institutes, sven-christian.ebenhag@ri.se, +46 702 95 95 82

Big Science Sweden

Big Science Sweden helps Swedish companies win orders from Big Science facilities for sophisticated equipment and specialist engineering services, and serves as the link between Swedish industry and Big Science. Big Science Sweden is funded by Vinnova, the Swedish Research Council and the Swedish Agency for Economic and Regional Growth, to increase Swedish companies' sales of components and equipment for European facilities, and to promote high-tech development in Sweden. www.bigsciencesweden.se

Detector principle and Luma Metall wires

The detector comprises two cathode boards, between which a mesh of tungsten wires is installed. This is called a thin gap chamber (TGC). The cathode boards are grounded, and high voltage is applied to the wires. This causes a field between the cathode boards, enabling the particles passing through the detector to be seen. Luma Metall wires are installed in the ATLAS detector at CERN, partly in connection with TGC Big Wheels and partly with TGC Small Wheels.

Big Science Sweden
Info@bigsciencesweden.se
www.bigsciencesweden.se



Lund
Big Science Sweden
Ideon Science Park
Scheelevägen 15
SE-223 70 Lund

Göteborg
Big Science Sweden
Chalmers Industriteknik
Chalmers Teknikpark
Sven Hultins gata 9D
SE-412 58 Göteborg

Uppsala
Big Science Sweden
UU Innovation,
Uppsala University
Uppsala Science Park
SE-751 83, Uppsala

Kiruna
Big Science Sweden
Rymdcampus 1
SE-981 28 Kiruna

Luleå
Big Science Sweden
LTU Business
Aurorum 1A
SE-975 55 Luleå