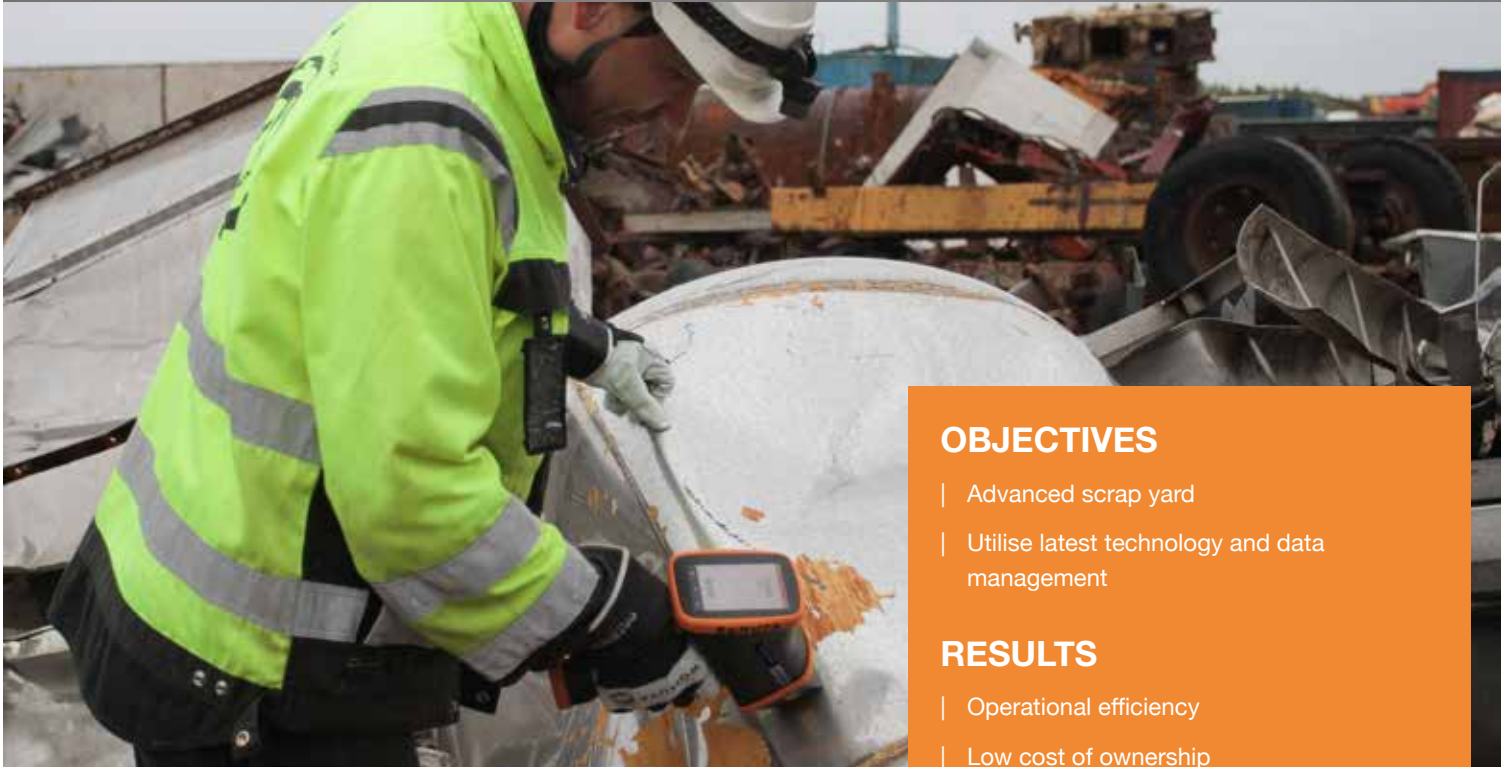


Vulcan Expert



OBJECTIVES

- | Advanced scrap yard
- | Utilise latest technology and data management

RESULTS

- | Operational efficiency
- | Low cost of ownership

Future proofing a scrap yard: speed and advanced data management are essential

As a start-up scrap yard, Romuta wanted to build an advanced, digitalised scrap yard of the future. They met with Hitachi High-Tech Analytical Science team to test the Vulcan laser induced breakdown (LIBS) analyser, being impressed with its speed in accurately identifying alloys and data management. Now with a Vulcan, the team has been able to start to achieve their vision.

Founded in 2017 near Oulu in Finland, Romuta deals with mixed general metal scrap. This includes iron-base, stainless steel, coppers, brasses and aluminium alloys. Alloys are sorted and sold again to metals producers or larger scrapyards. As alloys are commonly sorted into groups rather than based on individual grade, speed is essential. The team also wanted to use the latest data management technology that would enable the storing of results, including photos, in the cloud.

A team from Hitachi High-Tech and local distributor Finfocus visited Romuta to demo Vulcan, a handheld laser analyser. According to Jyrki Mutanen, Managing Director of Romuta, Vulcan felt like a quality second generation analyser that is well built and robust. As one of the fastest analysers on the market, in one second Vulcan was able to reliably identify scrap metals around the yard one piece after another.

“ **Quality second generation analyser that is well built, robust and fast. Perfect for what we need in the scrap yard.** ”

MAKING IT SIMPLE

Compared to traditional handheld XRF analysers, Vulcan's speed is its biggest asset. It helps Romuta to ensure maximum operational efficiency for metal sorting. As a laser analyser, there is no requirement for X-ray license or training classes. For Romuta, which has a small team, it would have been costly to send staff out to training days.

Simple routine is very important at the scrap yard because it eliminates user-related errors and ensures consistency of results. Vulcan is able to provide an accurate alloy ID, which is often typically sufficient for Romuta's requirement.

Data management is important to Romuta, logging both results and pictures. Vulcan's data management features will provide Romuta with the necessary tools for the future.

TYPICAL ALLOY GROUPS ARE:

- | High alloyed steels (incl. 316 stainless and alloys with high nickel and molybdenum content)
- | Mixed steels, typically 304 and equivalent (Ni, Cr content mostly)
- | "Low" alloyed steels with 4-6% Ni, such as duplex steels (Ni, Cr content mostly)
- | Cr steels (Cr content)
- | Pure aluminium (Almost pure aluminium with very little alloying elements such as 1000 and 6000 series aluminium, aluminium profiles)
- | Alloyed aluminium (more alloyed aluminiums such as 2000, 4000 and 7000 series)
- | Brasses (copper, tin, zinc and lead content)



If you'd like to see the Vulcan analyser in action visit www.hitachi-hightech.com/hha or book a demo.

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VULCAN EXPERT FOR FASTEST ALUMINIUM SORTING

Vulcan Expert is one of the world's the fastest handheld tools available to analyse and identify aluminium alloys. It provides full chemistry and grade identification in just one second, including the traditionally challenging close grades such as 6061/6063, 3003/3004 and 7050/7075 – a task that can easily take 5–10 seconds or even more with handheld XRF.

When Wi-Fi is available, Vulcan Expert connects to Hitachi High-Technology's cloud based data storage and management service making analysis results available in real time from any computer, anywhere.