

DTE



Source / Link: <https://dte.ai/>

Technology area:

- Artificial Intelligence
- Big Data
- Digital Twins
- IoT and IIoT
- Cybersecurity
- VR/AR
- Robotics
- Automation
- System Integration
- Smart Sensors
- Additive Manufacturing
- Other

Type of good practice:

- Company
- Project
- Initiative
- Programme
- Other

Target market segments:

- Discrete (smart) manufacturing
- Automotive
- Aerospace
- Metal processing
- Consumer goods
- Pharmaceuticals and chemistry
- Food and agriculture
- Health
- Textiles
- Others:

Summary:

DTE, a global company, based in Reykjavik, Iceland, is the leading innovator in the field of real-time intelligence from liquid metals by combining connected, real-time, chemical composition analysis from molten metals - based on DTE's unique technology Liquid-Phase, Laser-Induced Breakdown Spectroscopy (LP-LIBS™) - with an artificial intelligence-based cloud platform, the engine of DTE's metals production ecosystem. DTE's vision is to transform the metals industry, contributing to the 1.5-degree challenge while driving its digital transformation towards Industry 4.0 with the next generation of elemental analysis technology and metals intelligence.

Detailed description

Process control of metals manufacturing has historically been limited by the need to cast a solid sample for analysis from the melt. Samples are collected, prepared and analysed in a laboratory, delaying vital data that are necessary to actively and predictively control the process. This also introduces many sources of potential error and safety risks to human operators.

DTE's industry-leading LP-LIBS™ sensor technology is uniquely able to deliver instant, reference quality and high-frequency elemental analysis direct from both high temperature liquid, as well as solid, metals. Our solution offers the seamless IT/OT integration of this proprietary elemental analysis technology with

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a powerful AI-based analytics platform, enabling unprecedented real-time and predictive process control insights.

Our breakthrough LP-LIBS™ sensor technology is uniquely able to deliver reference grade elemental analysis direct from high temperature liquid metals in less than 60 seconds from sampling, for enhanced process control and decision support.

Beneficial Results

DTE's mission and purpose is the digital transformation of the metals industry, contributing to the 1.5-degree challenge for humanity through our next generation IIoT analysis technology. Their breakthrough “real-time intelligence from liquid metals” innovation contributes to maximizing value, sustainability, safety, and efficiency for all the metals industry stakeholders through.

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