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Upscaling – Laser excited spectral sensors for real time Chemical Analysis in the Raw Materials Extraction Industry

- **Technology** : Development & construction of a combined LIBS/Raman real time analyser for use in underground and surface mine applications. To be used in combination with optical and infra red spectral analyses. Analyser permits real time grade control, prediction ahead of face and assist mine planning.
- **Expected synergies and complementarities:**
 - Aligned with current and emerging trends in the industry for real time optimised process control and proactive decision making.
 - Builds on research from projects H2020 Real Time Mining and FP7 Stoicism. Will facilitate the transition of the analyser from TRL 6 towards TRL 9.
- **Outcomes:** a sensor comprising two parts:
 1. Hardware, including innovative spectrometer for data acquisition and analysis.
 2. Interpretative software comprising library spectra and case specific customised data.
- Sensor is integrated directly with drilling/sampling equipment and customised for harsh operational conditions.
- **Market & Business opportunities:** Effective mining, saving cost and time
- **Partners** already identified: Spectral industries
- **Wanted** additional partners : Mining companies

