MobiliTraIN: Unlocking the Full Potential of Ion Mobility High-Resolution Mass Spectrometry

MobiliTraIN, an EU-funded Marie Skłodowska-Curie Actions Doctoral Network, successfully started in February 2024. Over four years, the project wants to harness the full potential of ion mobility-high resolution mass spectrometry (IM-HRMS), the next-generation analytical platform, in research and industry.

Why do we need IM-HRMS?

This technology aids in characterising complex mixtures and identifying individual components with greater precision. As a result, IM-HRMS facilitates advancements in various fields such as biology, environmental science and material research

"MobiliTraIN brings together an amazing group of researchers and stakeholders that will allow us to make big steps forward in what we can achieve and understand with IM-HRMS."

Assoc.Prof. Tim Causon (BOKU University)
MobiliTraIN project coordinator

What challenges is MobiliTraIN addressing?

The lack of standardisation in data collection, analysis, and reporting across different IM-HRMS instrument types, laboratories and disciplines hinders meeting strict regulatory demands. MobiliTraIN aims to change this by creating standardised reference materials and protocols, elevating the reliability of IM-HRMS and making it the preferred choice for routine compound identification and characterisation.

From innovation to impact

Through the first doctoral training programme dedicated to IM-HRMS, MobiliTraIN fosters innovation and collaboration to overcome fragmentation in the uptake of the IM-HRMS technology. The standardised reference measurement procedures developed by MobiliTraIN will help ensure the quality and safety of medications, improve assurance of food and water safety, and contribute to the emergence of new applications of IM-HRMS across Europe's key industries, e.g. in pharmaceuticals, biotechnology, clinical applications, industrial chemistry, environmental, as well as security and forensics.

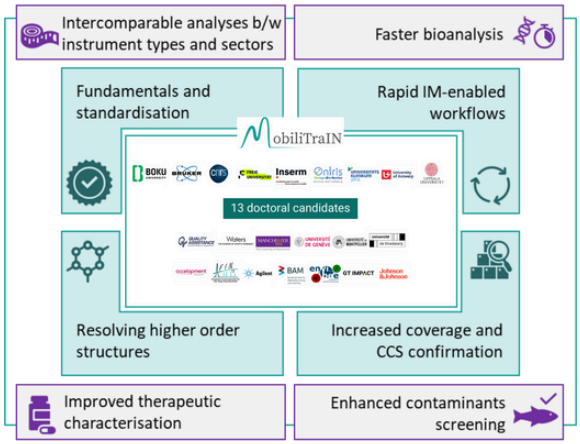

Figure 1 Overview of the MobiliTraIN consortium, its key innovations (green) and wider impact in selected areas (purple)

A multidisciplinary consortium

MobiliTraIN brings together 9 Beneficiaries and 13 Associated Partners from 8 countries including IM-HRMS experts from industry and academia. This multidisciplinary consortium, coordinated by Assoc.Prof. Tim Causon from BOKU, the Vienna-based University of Natural Resources and Life Sciences, is well-equipped to drive IM-HRMS innovation and advance its adoption across sectors.

Follow MobiliTraIN's progress on our website and LinkedIn.

Funded by the European Union

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Engineering and Physical Sciences Research Council

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Project facts

MobiliTraIN - Ion Mobility Mass Spectrometry Training Network
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Consortium

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