

Proposals for NORMAN Joint Programme of Activities 2026

Title	MassBank.EU
Type of activity	Database development
Leader	Emma Schymanski & Anjana Elapavalore (LCSB Luxembourg) in co-operation with Tobias Schulze (UBA Berlin), Steffen Neumann (IPB Halle), Juliane Hollender (Eawag), Werner Brack (UFZ, host), Nikiforos Alygizakis (NKUA – DSFP) and Jaroslav Slobodnik (EI – NDS system)
Topic / activities	<p>Background / Justification for the proposed activity:</p> <p>MassBank.EU is one of the key components underpinning the NORMAN Database System (NDS) via collection of mass spectra in an open library that is integrated in many software systems and resources. MassBank is also a core resource in NFDI4Chem and ELIXIR and receives some development funds through these initiatives; this JPA describes the continuous development and upgrade of MassBank.EU and related activities that are relevant for the NORMAN Network following the release of MassBank3 in 2025 (and pending publication in the next Database issue of Nucleic Acids Research). Given instability of current US systems, solidifying our open data in Europe is paramount and MassBank.EU is key here.</p> <p>Description of the proposed activity and expected outcomes for 2026:</p> <ul style="list-style-type: none"> - Upload of mass spectra to MassBank. All NORMAN members are welcome to contribute! - Further maintenance / development of MassBank server platform (e.g. database and applications programming interface, record curation, import/export of records, standardisation of curation rules) - Improved cross-integration of MassBank and NORMAN-DSFP (also see DSFP JPA) - Fostering the collaboration with MassBank.JP members, reinitiated in the past years - Fostering the integration of MassBank with other mass spectral and metadata platforms (e.g. MoNA, PubChem, GNPS, NDS, MS-DIAL, RforMassSpectrometry, etc. – where possible!) - Fostering the discussion with vendors for better integration of vendors' software with MassBank - Further maintenance / development of RMassBank - Prioritising compounds missing in MassBank for measurement (matches to SLE, priority mixtures). - MassBank.EU contributor publication on top of the update paper with key developers. <p>Added value / Link with other NORMAN activities and / or other projects</p> <ul style="list-style-type: none"> - Enhancement of non-target identification tools and workflows - Integration with NORMAN-SusDat, DSFP, SLE, PubChem and CompTox Dashboard, - Better cross-integration with NORMAN Digital Sample Freezing Platform - Cross-Action Working Group NTS - Integration into PubChem - Interaction with NFDI4chem – regularly harvested for https://search.nfdi4chem.de/ - Bridging to WG1 Prioritisation - Supporting new activity on mass spectral quality
Participants	LCSB, EI, UFZ, UBA, NKUA, IPB Halle, Eawag, all other interested parties and contributors MassBank Consortium: https://github.com/MassBank/
Proposed in-kind contribution	<p>LCSB: Main NORMAN contact point for MassBank; compilation and contribution of MS records; issue input to MassBank platform development; integration into PubChem, contact to MassBank consortium, MoNA, PubChem, CompTox, RMassBank maintenance etc.</p> <p>UFZ: Hosting and maintenance of MassBank Europe server.</p> <p>IPB: Consulting of whole project, MassBank platform development, making MassBank more FAIR, integration of MassBank in NFDI4Chem</p> <p>NKUA/EI: Cross-integration of MassBank and NORMAN-DSFP</p> <p>UBA: Inputs into developments, spectra submission via BfG (NTS Portal Collective Spectral Library)</p> <p>MassBank consortium: Further development of MassBank server platform</p> <p>NFDI4chem: Further development of MassBank server platform, contact to vendors</p>
Contribution needed from NORMAN Association¹	<p>Community:</p> <ul style="list-style-type: none"> - Contribution of new mass spectra - Issues/ideas/feedback for MassBank development <p>LCSB:</p> <ul style="list-style-type: none"> - €7500 (5 months student / 1 month technical support) to implement desired changes <p>Funding for DSFP changes to be requested under the DSFP JPA</p>

¹ Please, provide here a transparent justification of the requested resources and of the in-kind contribution, thereby distinguishing between the costs associated with “person-months” for the organisation, the “travelling costs” for invited speakers and the costs for the logistics (e.g. meals, room rental etc.)