

LSMSF Mission Statement

The LSMSF will be managed with a philosophy of Total Quality Management and achieve its objective of providing the highest quality of scientific support to UK based life scientists by:

- maintaining a sample analysis facility compatible with the community requirements, and make this facility available to Life Scientists in support of their research.
- disseminating information to the wider scientific community *via* publication, conference presentations and workshops.
- maintaining an awareness of the changing requirements of users.
- monitoring the users' satisfaction of the service provided.
- maintaining a serviceable sample preparation and analysis Facility compatible with the user requirements and make this Facility available to terrestrial and freshwater scientists in support of their research;
- disseminating information to the wider scientific community via publication, conference presentation and workshops;
- maintaining an awareness of developments in the field of mass spectrometric analysis and on the requirements of future demand;
- maintaining an awareness of the users real requirements;
- monitoring the users satisfaction with the service provided;
- seeking commissioned work to supplement income to provide the required service;
- providing specialist support for those user communities identified in the NERC mission whose needs can be served by the Facility. This community includes industries based on forestry and agro-forestry, on agriculture and fisheries, and on health, and also those government departments and other regulatory agencies concerned with nature conservation and amenity planning.

The East Kilbride node:

Provides $^{18}\text{O}/^{16}\text{O}$, D/H, $^{13}\text{C}/^{12}\text{C}$ and $^{15}\text{N}/^{14}\text{N}$ analysis facilities for life scientists in support of their research, which in turn seeks to enhance the quality of life, may create wealth, and will contribute to the Environmental and Natural Resource Issues (ENRI's) identified by NERC to be scientifically important, by:

- undertaking research and development, covering relevant aspects of $^{18}\text{O}/^{16}\text{O}$, D/H, $^{13}\text{C}/^{12}\text{C}$ and $^{15}\text{N}/^{14}\text{N}$ analysis technology and applications, which is of direct benefit to, or will meet the future needs of, life sciences research.
- promoting the awareness, application and technology of $^{18}\text{O}/^{16}\text{O}$, D/H, $^{13}\text{C}/^{12}\text{C}$ and $^{15}\text{N}/^{14}\text{N}$ analysis techniques and applications to the life sciences community.
- providing user support to the Life Sciences Community, to a quality commensurate with their needs.
- operating a peer review assessment process, such that scientific research carried out within the Facility is of the highest possible quality

The Lancaster node:

Provides isotopic/mass spectrometric analyses to the terrestrial and freshwater life scientists in support of their research, seeking:

- to undertake research and development, covering all aspects of ^{15}N and ^{13}C analysis technology and applications, which is of direct benefit to, or to meet the future needs of terrestrial and freshwater life sciences research.
- to promote the awareness, application and technology of ^{15}N and ^{13}C analysis techniques and to disseminate to the wider scientific community.
- to provide training and promote good practice in the use of ^{15}N and ^{13}C analysis techniques to the user community.
- to provide the required user support to the community.
- to operate appropriate procedures to enable access to the Facility to ensure that only the best science is supported e.g. via peer review of the quality and relevance of the applications.

The Bristol node:

Provides analyses of organic compounds ranging from atmospheric gases to high molecular weight biological and geological polymers through the provision of specialist facilities for the analysis of complex mixtures, *via* combined chromatographic/mass spectrometric techniques. In realizing this the node will:

- maintain start-of-the-art organic mass spectrometers capable of providing structural elucidation of compounds in complex environmental and biological matrices.
- maintain start-of-the-art organic mass spectrometers capable of detection and quantification of target compounds at trace and ultra-trace concentrations in complex environmental and biological matrices.
- maintain start-of-the-art isotope ratio mass spectrometers capable of light stable isotopic (C, H, N, O) characterization of compounds in complex environmental and biological matrices.
- undertake original research and development into all pertinent aspects of compound specific stable isotope ratio mass spectrometry to ensure provision of new technological advances in the field for the use of the UK life sciences community at the earliest opportunity.
- provide support and training concerning the use and application of organic mass spectrometry and compound specific stable isotope ratio mass spectrometry for the UK life sciences community.

promote the application of organic mass spectrometry and compound specific stable isotope ratio mass spectrometry to the interests of the UK (and wider) life sciences community through publications, conference presentations and workshops.