

Analytical Solutions for Microplastics

Malaysia-Japan Environment Week

Business Pitch Presentation

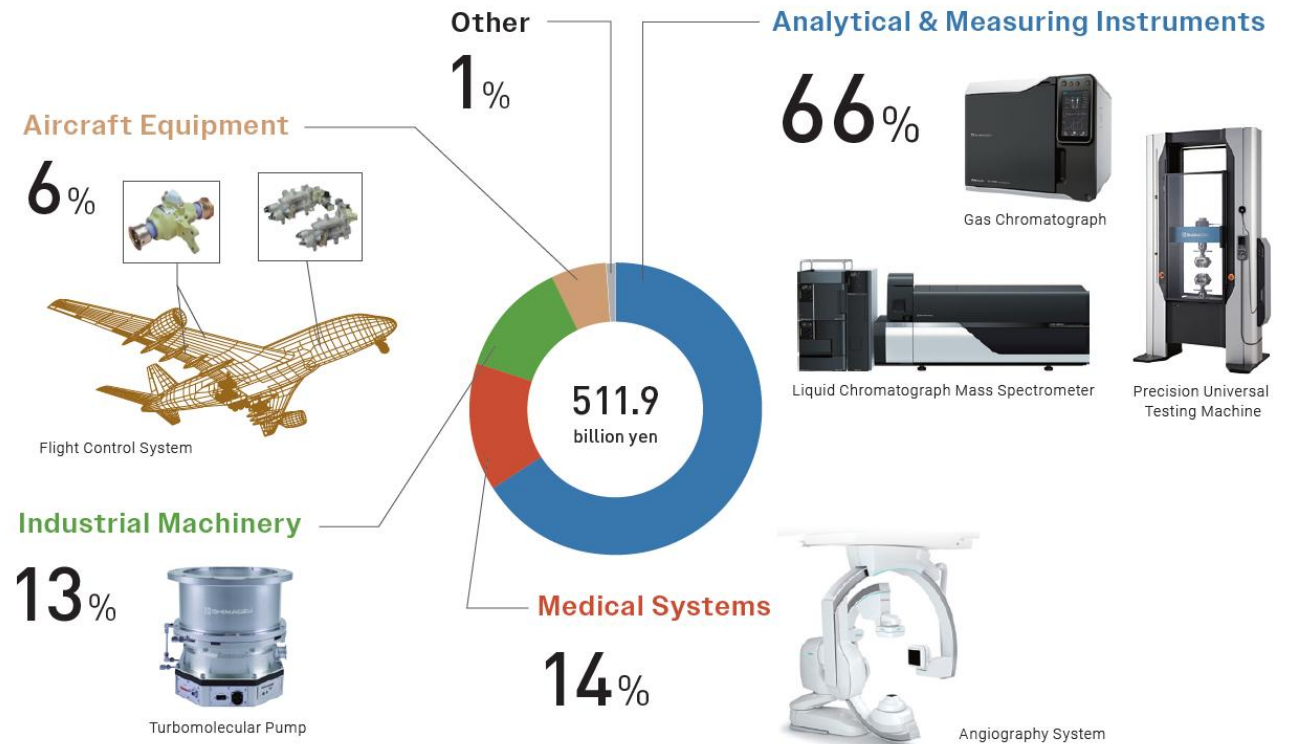
16 Oct 2025

Jau Mei Hui

Shimadzu Malaysia

Introduction of Shimadzu Business

150
YEARS
ANNIVERSARY



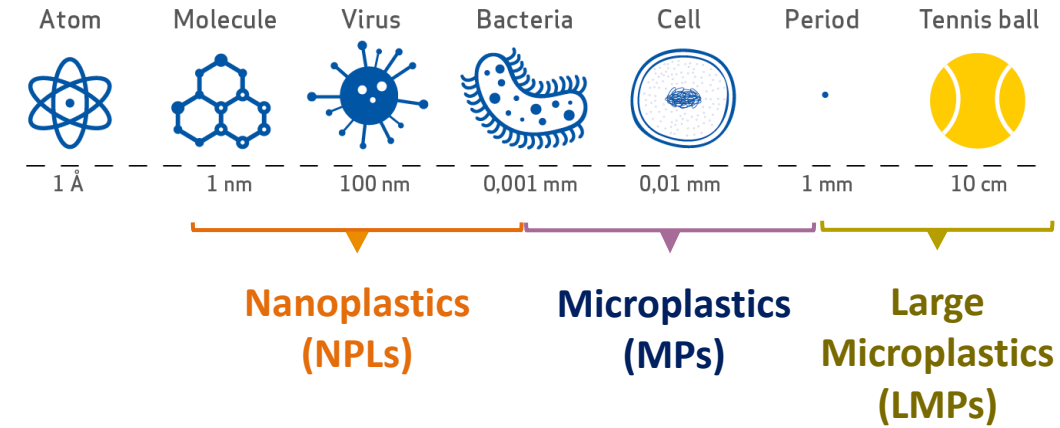
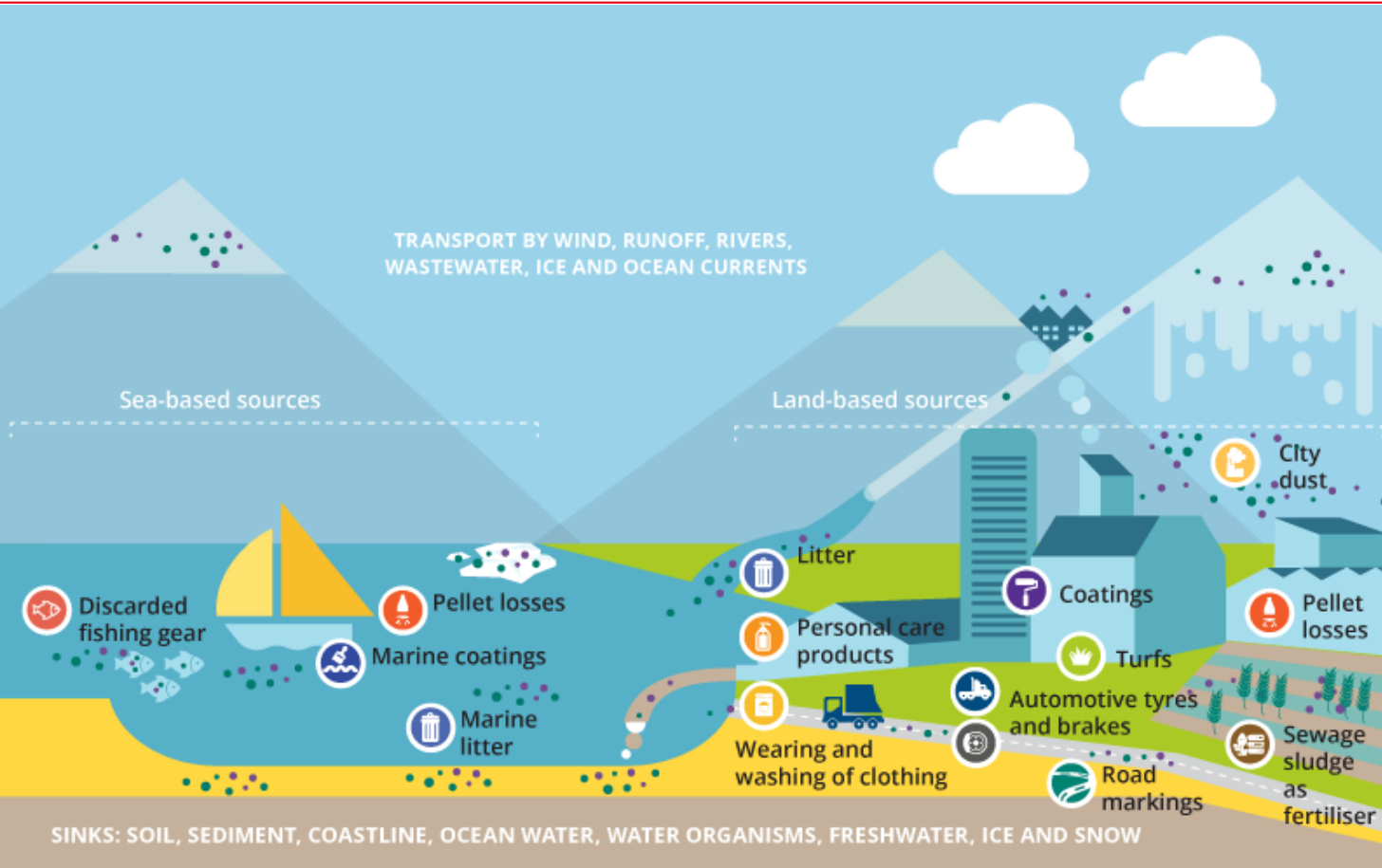
Global Gateway

- Japan & Asia
- Europe
- Middle East & Africa
- Oceania
- North America
- South & Central America

150
YEARS
ANNIVERSARY

- Japanese public KK company, manufacturing precision instruments, measuring instruments and medical equipment
- Established since 1875
- Head quarter in Kyoto, Japan
- Longest Serving Analytical Manufacturer In The World
- Corporate Philosophy - **Contributing to Society through Science and Technology**
- Management Principle - **Realizing Our Wishes for the Well-being of Mankind and the Earth**

Issue of Microplastics - Highest Ocean Plastic Waste Polluters



Challenges in Microplastics Analysis

- **Small size, diverse composition** and **complex environmental background**
- Requires **careful selection of methodologies** for sample pretreatment, preconcentration, separation, detection, identification and quantification



Primary MP

- Intentionally manufactured



Microbeads



Pellets

Secondary MP










- Fragmentation of plastic debris



PE Polyethylene
PP Polypropylene
PS Polystyrene
PVC Polyvinyl Chloride
PC Polycarbonate
PA Polyamide
PU Polyurethane
PET Polyethylene terephthalate
PMMA Poly (methyl methacrylate)
ABS Acrylonitrile Butadiene Styrene
TWR Tire Wear Particles

EEA, Ocean Maid

Solutions for Microplastics Analysis

Sample Prep	Chemical Analysis				Physical Analysis	
Sample Pre-treatment	Identification/ particle imaging		Organic compound analysis	Elemental analysis	MPs images concentration	Identification of plastic & component ratio
MAP-100	MALDI	FTIR, Raman	Py-GCMS	EDXRF, ICP-OES	Particle sizer	DSC
<div></div> <div>MAP-100</div>	<div></div> <div>MALDI-8030</div>	<div></div> <div>FTIR with Plastic Analyzer Method Package</div> <div></div> <div>AIRsight</div>	<div></div> <div>GCMS-QP2020 + EGA/PY-3030D</div>	<div></div> <div>EDX-7200</div> <div></div> <div>ICPE-9820</div>	<div></div> <div>iSpect DIA-10</div>	<div></div> <div>DSC-60 Plus</div>

Shimadzu provides an End-to-End solutions for total characterization of Microplastics



Thank You!