NanoCommons - Opportunities for accessing nanoinformatics and predictive models for environmental fate.

Here we present the three services that CEH offers through NanoCommons transnational access that include (i) Ecotoxicological Laboratory Workflows, (ii) Data processing & analysis (EcoToxicology), and (iii) Predictive Eco-NanoToxicology.
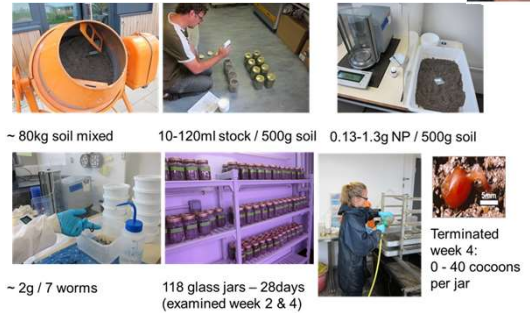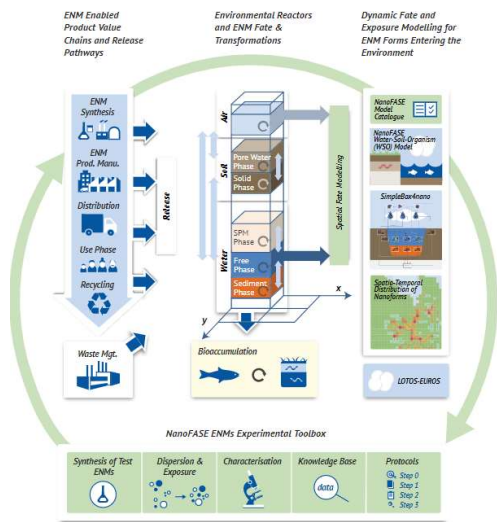
Laboratory Workflows (EcoToxicology)

Users: organisations wishing to establish nano-ecotox labs or large-scale data generation experiments

~ 80kg soil mixed   10-120ml stock / 500g soil   0.13-1.3g NP / 500g soil

~ 2g / 7 worms   118 glass jars – 28days (examined week 2 & 4)   Terminated week 4: 0 - 40 cocoons per jar

Delivering: new/improved nano-ecotox facilties; robust & valuable datasets on nano-ecotoxicology

Predictive Eco-NanoToxicology

Users: Existing large data-set holders (inc. projects)

Delivering: Supported access for NanoFASE environmental fate model catalogue & framework Predictions of environmental fate of nanomaterials

Processing & Analysis (EcoToxicology)

Users: Projects/Researchers with large datasets or plans to generate them

Delivering: Data processing to ensure FAIR principal: **F**indable, **A**ccessible, **I**nteroperable, **R**e-usable

Templates and data basing facilities specifically designed for nano-ecotoxicological studies.

Lee A. Walker, Marianne Matzke, Stephen Lofts, Claus Svendsen
NERC Centre for Ecology & Hydrology; leew@ceh.ac.uk,