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**PlasticUnderground  
Advanced Training Courses 1 & 2  
Leads: University of Birmingham & PolyMateria  
January 29<sup>th</sup> to February 2<sup>nd</sup>  
Birmingham & London, UK**

***ATC 1: Microplastic sampling and extraction techniques (Host UoB)***

*This course will focus on training in different microplastic sampling techniques in aquatic and terrestrial environments, including soil and sediment extraction and microplastic identification. This course will address the need for standardised methodologies, while providing hands-on training in novel analytical techniques such as the use of Nile Red and TGA-FTIR-GCMS. It will also focus on critical aspects of contamination, repeatability and reproducibility in microplastic quantification, as well as protocol versioning and integration into SciNote.*

***ATC 2: Entrepreneurship and Innovation – The Innovation Pipeline (Host: PolyM)***

*This will address how scientists can utilize scientific innovations as a basis for successful business ideas, through organizing resources and translating research results into practical tools and services. The ATC will focus on improving innovation capabilities, team-based innovation, and innovation management and will build upon ideas provided by the DCs. The leading role of non-academic partners and decision makers in delivering this ATC will ensure that the impact of the DN will be of highest practical relevance, including use of communication plans to increase visibility of research findings among non-academic stakeholders.*

## PROGRAM:

### DAY 1 – Monday – Meet at 9am, activities start at 9:30am

Introductions to microplastic analysis pipeline, daphnia project intro/feeding, afternoon tours (columns, flumes), discussion of the group experiment. **\*Lunch will be provided at 12:30pm.**

### DAY 2 & 3 – Tuesday & Wednesday – Meet at 9am, activities start at 9:30am

Start of the training activities for MP sample collection, processing, and analysis. Groups of 5-6, with 2 instructors per activity. **\*Lunch will be provided at 12:30pm.**

Specific activities: sampling methods, extraction/density separation, digestion, fluorescence microscopy, Raman and FTIR spectroscopy, particle size characterisation (linked to Daphnia study).



### Day 4 – Thursday – arrive by 1pm

Transport to PolyMateria Birmingham to London in the morning and join Polymateria in the afternoon to learn more about Entrepreneurship and Innovation and how it can contribute to a greener world!

You will visit Polymateria laboratories and meet the team of scientists leading the R&D followed by a session by Niall Dunne, CEO of Polymateria who will share the captivating journey of bringing a ground-breaking innovation to market, unveiling the challenges and pivotal moments that led to the development of solutions addressing the global plastic pollution crisis. Explore

the start-up landscape and funding dynamics as well as discuss on the role of policy in supporting and accelerating innovations.

\*After the workshop there will be an optional social event (to be confirmed)

## Day 5 – Friday

On this fifth day in the UK, embark upon the “Seeing is believing” experience to uncover how marketing can help you introduce groundbreaking innovations to the world. The session will run from 9am - 5pm with lunch provided and is split into 3 sections:

### Section #1: Explain Me Like I Am 5

Immerse in the interactive science display, join our science team in creating "jaw-drop moments" through science experiments and learn how to bring complex research to life.

Click [HERE](#) to see Polymateria’s lab in a box !

### Section #2: Polymateria Case Study

Hear from marketing experts at Polymateria about their integrated B2B and B2C marketing approach and learn how to engaging storytelling can open doors with investors, clients, policymakers and what it takes to harness support from the masses.

### Section #3: Marketing Workshop

Get creative! Take part in a design-thinking workshop and solve a real-life marketing challenge by working collaboratively with fellow PhD students.

