# **Creating a 3D Print global research community**

# The brief:

Microbiologist David Elliott, backed by the Division of Biology and Conservation Ecology, has been experimenting with 3D printing to explore new approaches to environmental research. He believes many other scientists will be excited by the potential of 3D printing for expanding their practical possibilities in the lab and field. 3D printing enables innovations to be easily shared on the internet, facilitating a new collaborative approach to research.

# The challenge:

For researchers, recreating the exact conditions of the original experiment is often labour intensive and limited in terms of replication, slowing down scientific progress.



# The solution:

3D printing enables researchers to start out with replicas of the exact tools used by the original researcher. This is possible as the data can be downloaded from 3D files over the internet, which means that information is exchanged then expanded upon, without wasting any time.

"3D printing is an important development for open research because it allows us to share hardware more easily than ever before, simply by sharing files." - Dr David Elliott, MMU School of Science and the Environment.

### The outcome:

Dr Elliott believes 3D printing will enhance the impact of MMU's research and encourage a sharing of expertise on an unprecedented global level – something he refers to as 'Open Science'.

"3D print helps me try out new ideas and radically expands the practical range of design options" - Dr David Elliott, MMU School of Science and the Environment.

### The facts:

- Designs can be shared with other researchers in an easy way
- Enlarges impact of MMU's research
- Cost effective

### Find out more:

Check out examples 3D printed models used in Microbiology