# From real sample to digital 3D model: photogrammetry to disseminate collections and experiments

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Nowadays, many research projects and fellowship programs require the communication of the results to the public. Their dissemination can be done through different channels, such as traditional media (radio, television, press), digital platforms (e.g., YouTube videos and podcasts), social media (e.g., Twitter), or by giving direct talks in schools, museums, and even pubs (as shown in the successful example of Pint of Science). In this type of activities, it is common to use supporting elements to engage the attention of the audience, often by performing small in situ experiments, or by giving the attendants the opportunity to interact with real samples. However, moving out the samples from the laboratories is not always feasible due to their size, weight, fragility or value. To overcome these problems, we have used photogrammetry techniques to generate 3D models of our samples (Figure 1), with the aim of using them in our dissemination activities. During the presentations, these 3D models can be animated to give a general overview of the different samples or to describe in more detail the parts we intend to focus on. These 3D models have further applications, including illustrations in scientific papers or their use during training courses, since they can be distributed online and, therefore, promoting further studying outside the framework of the courses. The next step in this work will be the 3D printing of these models, which, afterwards, will be manipulated by the attendees to these dissemination activities. However, this will require further effort in order to simplify the 3D model.