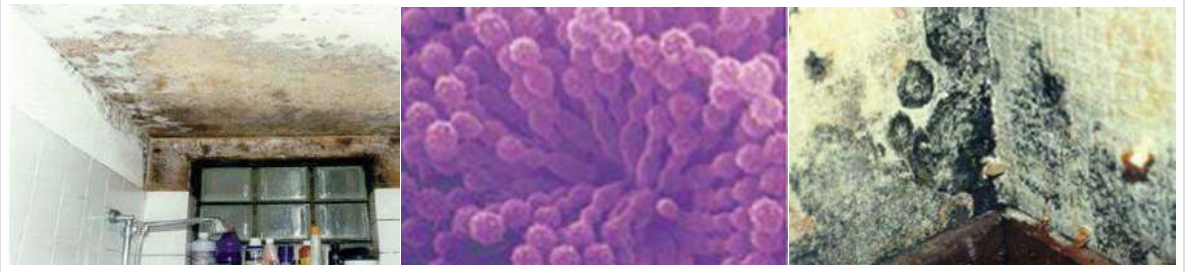
Axioma

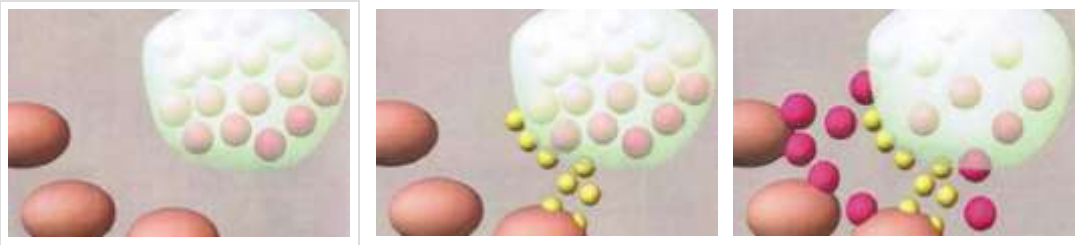
Traditionally, the action of biocides (substances which prevent growth of micro-organisms like fungi and algae) in construction materials, (e.g. coatings, plasters) is based on a passive and uncontrooed relese principle, i. e. molecular dispersion oft he actve ingredients in the material matrix.

As a consequence these bio-active agents have a high and inherent mobility in the matrix, which causes an initial boost in biocide activity and a steep decrease when time proceeds.

In short:

- Short bio-resistance of matreials leads to early replacement
- Enviromental legilation restricts use of biocides and chemicals





- Our answer zo the above chellenges ist o develop adapt and apply smart release concepts of eco-acceptable biocides to extend service life of finishing materials substantially.
- The ultimate solution ist o develop a bioswitch technology in which the micro-organism eats itself to death

OBJECTIVES

The scientific and technological objectives of the AXIOMA project are:

- To extend the service-life of finishing materials by implementing a “smart“ release mechanism consisting of an induced response on external stimuli in finishing materials
- To reduce the amount of biocides required considerably (at least a factor of 5 compared to ordinary materials)
- T deliver a proof-of-principle oft he smart release concepts in finishinh materails
- To develop new measurements techniques to assess the „smart release“ of different products
- To define and obtain the technicals requirements of a production process that is needed to up-scale the new smart release concept