

## How to meet the challenge of population growth and the need for buildings?



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We live in an increasingly populated world. The United Nations announced in November 2022 that the threshold of 8 billion people on Earth has been reached. There is a clear need to build efficiently and quickly.

Responding to the rapid growth of the population, which leads to rapid urbanisation and the need to build faster and faster is an urgent necessity. We can mention 2 aspects that are becoming more and more popular in the construction world to respond to this need: construction solutions and digitisation.

Experts say that today's construction solutions must follow the principle of Design for Manufacture and Assembly - DfMA.

But what is meant by DfMA?

We heard from Mauro Burgio, Architectural Director, Bryden Wood, Milan, who clarifies:

"DfMA is a fundamentally different approach to building and the built environment from the traditional one, based on manufacture and assembly; and it starts with design. You cannot design a building in a traditional way and then try to apply DfMA. That doesn't work. Either the asset is designed for manufacture and assembly, or it is not, and the choice has to be made at an early stage.

## DfMA is a fundamentally different approach to the building and the built environment

Designing for manufacture and assembly means finding a way to use less material and fewer parts in the construction of a building, because this makes it easier to assemble, improves quality, reduces labour and potentially automates the building process. We start with the client's brief and work together to make it as concrete as possible. Then we look at the design. The D in DfMA is very important. If the design is not executed well, the desired result will never be achieved."

Digitisation is a mandatory step to design in an integrated and efficient way. In a single model, there is useful information at every stage of design, from architectural to structural, from plant engineering to energy and management. BIM - Building information modelling - represents a key element in the application of digitisation in the construction world. BIM and digitisation are two key factors in making the construction sector better, leaner, safer and faster.