EXECUTIVE SUMMARY

☞ Note: In the DigiPLACE proposal, the mentioned deliverables for 4.4 and 4.5 were switched.

Starting from different points of view – literature, a European survey, changing business models, partner and stakeholder interviews - reports D4.1, 4.2 and 4.3 discussed the barriers for digitalization in the construction sector, while mentioning a series of possible mitigation measures and linked challenges.

The technology transfer model mentioned in D4.1 – points out to three main mechanisms through which new knowledge and new technologies reach the industry and affect day-to-day business processes – can be used to classify a set of possible mitigation strategies:

1. Standards: they are seen as necessary building blocks for facilitating interoperability and the development of more digital tools/
2. Technology: software platforms should be the tool to increase enormously the accessibility of both tools and data, in a way that connects nearly frictionless with day-to-day-activities of construction companies.
3. Education

A fourth mechanism is added – "authorities" – although linked to the other mechanisms, most WP-partners want to stress the difference between the actions themselves (e.g. drafting a standard) and the local/national/European possibilities to stimulate certain actions more (e.g. make the standard compulsory in certain situations/markets/…). This partially relates to the mentioned push and pull factors for each mechanism.

These four mechanisms can be repeatedly found back in extensive best practice advices in the 4 reports in this D 4.4. These best practice reports are not an "end product", but rather a base for discussion for following steps in a fast-evolving digital work environment:

(1) A best practice report of essential digital competences for retraining existing workforce and training students contains 17 major best practices.
(2) A best practice report on how to lift/solve the barriers identified in the willingness of sharing data and information / smart contracts, considering the following topics and corresponding solutions:
   a. Best practice on how the collaboration between the different stakeholders in a construction process can be improved and how they can agree to share data and work together.
   b. Best practice on supporting and increasing the development of standards.
   c. Best practice on the sharing of data of products and building-systems, produced in the manufacturing-industry, with the construction partners (and lifting the barriers that are still hindering this).
   d. Best practice on data certification by third parties to avoid fake data.
   e. Best practice on the sharing of data with the client and the authorities.

       f.   Best practice on the sharing of data in new business models.

       g.   Best practice on the sharing of data of construction knowledge-centres and the construction partners.

       h.   Think "big data is the new petrol" as a best practice: sharing data in user communities / cloud platforms offers major advantages, challenges, and dangers.

       i.   Best practice on the development of Platforms as best practice ("software and services"):

(3) A best practice report on the best actions for "top down efforts" of how different authorities can help to stimulate the digitalization of the sector

(4) SMEs and the digitalization path can be a difficult topic. This fourth best practice report has a look at what can be found as the 9 best practices to digitally upscale these (micro)SMEs that constitute a very important part of the construction sector.

In D 4.5. "*Development of pilot case studies for the validation of the proposed measures*" we will use the best practice reports to develop advice for the pilot case studies in WP 5.