ITALY – PUBLIC WORKS LEGISLATION COORDINATED TEXT BY MINISTERIAL DECREES 560/2017 AND 312/2021

(Whereas omitted)

Article 1

(Purpose)

I. This decree, in implementation of Article 23, paragraph 13, of Legislative Decree 18 April 2016, n. 50, defines the methods and timing for progressive introduction of specific mandatory digital methods and tools, such as buildings and infrastructure modelling, design, construction, management, and verifications of works by contracting authorities and economic operators.

Article 2

(Definitions)

1. Below some basic definitions listed for the purpose of this decree:

0a) information model, set of structured, semi-structured and unstructured information containers;

a) <u>Common data environment</u>, a digital environment for collecting and disseminating data relating to a project. It is managed through specific workflows and structured by information models and their related documents. It comes together with workflows to support decisions. It is based on an IT infrastructure whose sharing process is regulated by access security systems, traceability and historical recording of contents editing and related responsibilities, as well as storing over time and accessibility to the information and the protection of intellectual property;

b) P<u>ublic works contract</u>, the tenders referred to in article 3, paragraph 1, letter 11), of the Code of Public Contracts;

c) <u>Code of Public Contracts</u>, the legislative decree of 18 April 2016, n.50 and subsequent amendments;

d) <u>Concession contract</u>, concessions referred to in article 3, paragraph 1, letter uu), of the Code of Public Contracts;

e) <u>Complex works</u>, in addition to the provisions of article 3, paragraph 1, letter oo) of the Code of Public Contracts, works with high technological content or a significant interconnection of the architectural, structural and technological aspects, or rather facilities (MEP) implementation difficulties, and all those works that requires a high level of knowledge in order to mitigate the risk of exceeding the expected time and costs, and ensure the health and safety of workers, as well as guarantee the availability and reliability of useful information for the entire life cycle of the asset. Complex works

are those characterized by particular requirements of coordination and collaboration between heterogeneous disciplines.

f) <u>The contracting authority</u>, contracting authorities and the entities referred to in Article 3, paragraph
1, letter o) of the Code of Public Contracts;

g) <u>BIM Execution Plan (BEP) pre-appointment</u>, a document issued by the tenderer at the time of the tender response, which, in response to Exchange Information Requirements (EIR), temporally and systemically structures the information flows of the supply chain and the contractor decision-making processes within the common data environment, describing the organizational and instrumental configuration of operators by specifying the responsibilities of actors involved.

g-bis) <u>BIM Execution Plan BEP</u>, a document issued by the contractor (successful tenderer) on the basis of the BEP pre-appointment, to be submitted to the contracting authority after the contract enforcement and before its execution. It can be updated during the execution of the contract;

g-ter) <u>Reward score</u> the score awarded by the contracting authority for the use of the digital methods and tools referred to in Article 23, paragraph 1, letter h) of the Code of Public Contracts.

Article 3

(Preliminary fulfilment of the contracting authority

1. The use of digital methods and tools as referred to in article 23, paragraph 13, of the Code of Public Contracts is subject to the adoption, with no pecuniary interest, by contracting authorities, of:

a) a role-related staff training plan, referring to specific digital methods and tools, such buildings and infrastructure modelling, in order to acquire information management skills through the use of these methods;

b) a plan to acquire or maintain hardware and software tools for digital management and decisionmaking processes, tailored for the work, its process phase and type of procedure involved;

c) an organizational act setting out the control and management process of each procedural step, the identification of data managers and their ownership and the management of conflicts, related to the type of project and asset also in terms of the adopted technical and procedural aspects.

2. The contracting authority shall comply with the provisions of paragraph 1 in relation to the mandatory introduction of the methods and tools referred to in Article 23, paragraph 1, letter h) of the Code of Public Contracts, no later than the deadlines set out in Article 6, paragraph 1.

Article 4

(Interoperability)

1. Contracting authorities shall use interoperable platforms using open, non-proprietary formats. The data shall be connected to disciplinary aggregate multidimensional object-oriented information models following the information requirements referred to in Article 7 that shall be retrieved at any stage and by each actor during the design, construction and management processes with open, non-proprietary, standard digital formats (without prejudice to Article 68 of the Code of Public Contracts, at national or international level and monitored in their technical evolution by independent bodies). All the stakeholders shall be able to access the information regarding the project, its construction and management. The shared information shall be checked without using any specific commercial digital applications.

2. The information flows involving the contracting authority and related procedures take place within a common data environment, where the information processes are digitally managed through correlation and optimization between the digitized information flows and decision-making steps during individual processes.

3. All of this is without prejudice to Article 58 of the Code of Public Contracts.

Article 5

(Compulsory use of digital methods and tools for construction and infrastructure modelling)

I. As from the enforcement date of this Decree, contracting authorities may require for new works as well as recovery works, requalification or variants regardless of the design phase and the relative value of the project, the use of specific digital methods and tools as referred to in Article 23, paragraph 1, letter h), of the Code of Public Contracts, provided they have planned to fulfilled the obligations referred to in Article 3.

Article 6

(milestones for the implementation of mandatory digital methods and tools for construction and infrastructure modelling)

1. Contracting authorities shall require the use of the digital methods and tools referred to in Article 23, paragraph 1, letter h), of the Code of Public Contracts according to the following timetable:

a) for complex works based on tenders equal to or greater than EUR 100 million from 1 January 2019;

b) for complex works based on tenders equal to or greater than EUR 50 million from 1 January 2020;

c) for complex works based on tenders equal to or greater than EUR 15 million from 1 January 2021;

d) for new construction works and interventions on existing buildings, except for ordinary maintenance works, based on tenders equal to or greater than EUR 15 million from 1 January 2022;

e) for new construction works and interventions on existing buildings, except for ordinary and extraordinary maintenance works based on tenders equal to or greater than the threshold referred to in Article 35 of the Code of Public Contracts from 1 January 2023;

f) for new construction works, and interventions on existing buildings, except for ordinary and extraordinary maintenance works based on tenders equal to or greater than EUR 1 million from 1 January 2025.

Article 7

(EIR and technical specifications)

I. For the purpose of introducing the digital methods and tools referred to in Article 23, paragraph 1, letter h) of the Code of Public Contracts the EIR annexed to the tender documentation for the performance of design services or for the execution of works or the management of works, shall contain:

a) general and specific strategic information requirements, including the level of definition of contents, taking into account the type of work, the process phase and the type of procurement;

b) all the elements useful for identifying production, management, transmission, and archiving requirements of information content, closely related to decision-making and management goals. It may include the information model relating to the site and any pre-existing asset.

2. The EIR shall be communicated to subcontractors who shall compete with the contractor, referring to the stages of the project implementation or management, presenting the operating methods of production, management and transmission of information content through the BEP.

3. The tender documentation shall be available to all parties, on digital support through digital formats consistent with the type of content and with the information requirements of the EIR as referred to in paragraph 1.

4. As a transitional measure, until the mandatory introduction of the methods and tools referred to in Article 23, paragraph 1, letter h), the Code of Public Contracts, as provided for in Article 6, by law the contract provides that paper documentation prevails over the digital information model in strict coherence, as far as possible, with regard to the geometric dimensional and alphanumeric contents. The tender documentation may be digitally available, provided that in case of a lack of consistency between the information model and the paper documentation, the paper documentation will prevail;

5. Starting from the mandatory introduction as referred to the Article 6, by law the contract provides that the information model prevails, when technology is applicable. Informative contents shall, however, be linked to the information model within the common data environment.

5-bis. To ensure a standard use of digital methods and tools, the technical specifications within the tender documentation and the EIR, refer to the technical standards of EU Regulation 1025/2012 according to the following order:

a) European technical standards for mandatory transposition in all countries of the European Union, published in Italy as UNI EN or UNI EN ISO;

b) international technical standards with voluntary adoption published in Italy as UNI ISO;

c) national technical standards of fields that are not covered by UNI EN and UNI ISO, published in Italy as UNI.

5-ter. In case of absence of technical standards referred to in paragraph 5-bis, letters a), b) and c), reference is made to other national or international technical specifications of proven validity.

Article 7-bis

<mark>(Reward Score)</mark>

I. Contracting authorities may introduce reward scores for the use of specific digital methods and tools, within the tender award criteria and in compliance with the provisions of Article 95 of the same code. Under these criteria it may be included, by way of example:

a) methodological proposals to integrate the project management with the information modeling;

b) methodological proposals for the implementation of the BEP pre-contract and the BEP relating to construction site needs, also with augmented reality tools and interconnection between the stakeholders that operate in the construction site;

c) methodological proposals that allow an effective analysis of the study for improvements and risk mitigation;

d) proposals which allow the contracting authority to be provided with data and useful information to implement its functions of interoperability maintenance of information models;

e) provision of digital methods for the traceability of materials and supplies and for the traceability of production and assembly processes, to control costs of the asset life cycle;

f) proposals which aim to use digital methods and tools to achieve environmental sustainability goals also through the principles of green public procurement;

g) provision of digital tools to increase the monitoring of the health and safety of works and personnel involved in the execution;

h) provision of digital models that allow to verify the progress of the design and construction and/or that allow the constant control of the performance of the asset, including monitoring and sensor systems;
2. Further reward criteria may include the assignment of an additional score to the tenderer who uses digital methods and tools that allow the contracting authority to monitor the progress of the time schedule and costs of the project in real time.

Article 8

(Monitoring Commission)

I. By decree of the Ministry of Infrastructure and Transport is established a Commission, without additional charges to be borne by public finance, that monitors the outcomes, the difficulties encountered by contracting authorities in the application of this decree, and to identify preventive or corrective measures to overcome them, in order to improve the provisions of this decree.

Article 9

(Implementation)

1. This decree enters into force the same date of its publication on the website of the Ministry of Infrastructure and Transport.

2. The provisions of this decree apply to works whose tenders has been published after its enforcement date or, in case of public contracts without tender publication, to procedures for which tenders or quotations are sent after the same date.