

No.: 2500/QĐ-TTg

Hanoi, December 22nd 2016

DECISION

**Approving the scheme on Applying Building Information Modeling (BIM)
in construction and facility management activities**

THE PRIME MINISTER

Pursuant to the Law of Organizing the Government dated June 19th 2015;

Pursuant to the Law of Construction dated June 18th 2014;

Pursuant to the Prime Minister's Decision No. 134/QĐ-TTg dated January 26th 2015 approving the project on re-structuring of construction sector in association with conversion of growth model toward enhancement of quality, efficiency and competitiveness in 2014 – 2020;

At the request of the Minister of Construction,

HEREBY DECIDES:

Article 1. Approve the scheme on Applying Building Information Modeling in construction and facility management activities (herein after referred to as the Scheme) as follows:

I. POINT OF VIEW, OBJECTIVES

1. Point of view

a) Government encourages, and enables related stakeholders to apply BIM, to implement any solution to increase productivity, quality, to save resources in construction, facility management activities;

b) Applying BIM according to an appropriate roadmap, with piloting period and evaluation before extensive implementation

c) Organizations, individuals applying BIM are entitled to incentives according to Law of Science and Technology and other related Laws;

d) Study international science, advanced technology and experiences and adapt to Vietnamese specific conditions.

2. Objectives

a) Through applying BIM, enables at least 30% saving in term of holistic cost from related stakeholders, transparency and quality management, quality control improvement in construction, facility management activities. Including:

- 10% saving of construction cost (includes 20% saving of wasted construction materials);

- 10% reduction of total project execution time;

- 10% reduction of design time and design adjustment time;

- 40% reduction of RFI.

b) Create a legal framework and social consensus for extensive BIM implementation.

II. WORK CONTENT AND SCHEDULE

1. From 2017 to 2019:

Prepare necessary conditions and skills training for applying BIM, including tasks as follows:

a) Raise awareness and encourage organizations, companies to apply BIM;

b) Create legal framework to apply BIM, system of related technical and economic norms and standards;

c) Create BIM Guidelines;

d) Create curriculum framework for BIM training and implementing BIM training courses to improve capability for construction organizations at each level, project management units, project owners and consulting companies for BIM application.

2. From 2018 to 2020:

Implement BIM in pilot projects, including tasks as follows:

a) Apply BIM in the stages of: design, construction and project management for at least 20 class I and above construction works of different types from state funding projects or other funding sources (voluntary);

b) Apply BIM in the stage of facility management for at least 10 important construction works with complicated technical requirements from state funding projects;

c) Evaluate BIM implementation status through pilot period mentioned above and complete the preparation phase to apply BIM widely in construction and facility management activities from 2021.

3. From 2021:

Based on BIM implementation summary, assessment, Ministry of Construction issues circular, detailed guidelines to apply BIM widely in construction and facility management activities.

Plan to implement the Scheme is detailed in the Appendix attached to this decision.

III. KEY SOLUTIONS

1. Related to mechanism, policy and standard

a) Review, adjust and complete mechanism, policy and standard of construction investment, quality management and maintenance activities to enable project owners to apply BIM in design, construction, project management, facility management;

b) Review, adjust and complete the system of related technical and economic norms and standards for BIM implementation; create BIM guidelines;

c) Create standard contract samples relating to BIM application; propose contents and deliverable criteria for BIM projects.

2. Related to human resource training

a) Create BIM training curriculum and job requirements for related BIM positions: Create training curriculum framework for related stakeholders; propose job requirements for BIM capable position;

b) Implement BIM training widely in qualified BIM Training Units.

3. Develop cooperation with foreign countries and organizations in researching BIM management technologies in construction and facility management activities.

4. Related to financial solutions

a) The State prioritize funding from its budget according to regulations to raise awareness; to review, adjust and complete the system of technical, economic norms, standards for BIM application; to create BIM Guidelines; to implement pilot projects; to provide training, build capability and awareness for state organizations, project management units, project owners, consultanting, state-owned enterprise, companies to apply BIM in construction projects; to purchase equipments to study, follow and pilot BIM implementation status, pilot BIM training;

b) Project owners of BIM-applied projects in stages of: planning, design, construction or facility management, cost of BIM application can be included in the total project budget or maintenance cost.

5. Communication and promotion

a) Communicate and promote BIM through mass media;

b) Organize BIM-related seminars, meetings, conferences, symposiums, to raise awareness and responsibility of related stakeholders in construction sector.

IV. FUNDING AND FUNDING SOURCE

1. Funding from state budget is allocated according to tasks and works at each stage of the Scheme implementation at the request of Ministry of Construction.

2. Cost of BIM application for projects within pilot period and afterward are included in total project budget according to Law of Construction.

Article 2. Implementation:

1. Responsibilities of Ministry of Construction

a) Preside over and cooperate with Ministries, sectors and localities in the implementation of the Scheme;

b) Summarize, assess and report to The Prime Minister the result of the implementation of the Scheme at each stage to adjust the roadmap according to implementation situation;

c) Preside over and cooperate with related Ministries, sectors to study, adjust and complete mechanism, policy in construction investment, quality management, maintenance of construction works, technical and economics norms and standards for BIM application; to create and issue regulations within the jurisdiction relating to guide BIM application in construction and facility management activities;

d) Preside over and cooperate with related Ministries, sectors, organizations to create BIM guidelines for different types of construction works;

đ) Communicate and promote BIM to raise awareness;

e) Guide on selecting, choosing and summarize the list of BIM-applied projects from proposals from related Ministries, sectors and localities; to provide BIM training and capability building in BIM application for project owners, project management units;

g) Guide, supervise, speed up project owners in state funding BIM projects according to regulations;

h) Create BIM training curriculum framework according to each BIM use, job requirement in construction investment and operation, maintenance of construction works. Implement pilot training program for related stakeholders in construction and facility management activities;

i) Estimate, approve budget for the implementation of the Scheme each year, add into overall estimated budget of Ministry of Construction.

2. Ministry of Planning and Investment cooperates with Ministry of Construction to allocate budget plan for carrying out tasks in accordance with the Scheme schedule; cooperates with Ministry of Finance to allocate budget for carrying out each task in accordance with each stage following the content and plan of the Scheme's tasks listed in the Appendix;

3. Ministry of Finance allocates budget for carrying out each task in accordance with each stage following the content and plan of the Scheme's tasks listed in the Appendix;

4. Ministry of Science and Technology reviews and publishes national standards, reviews technical regulations; support science and technology research activities at national level for the development of BIM application;

5. Ministry of Public Security, Ministry of National Defense preconize project types related to security or defense sector to be required BIM application.

6. Responsibilities of other ministries and ministry-level bodies

a) Cooperates closely with Ministry of Construction to carry out Scheme tasks within its sectorial, industrial management scope; publishes within its jurisdiction related policies encouraging the implementation of BIM in construction investment within its management scope;

b) Cooperates with Ministry of Construction to study, review, adjust and complete mechanism, policy in construction investment, quality management, maintenance of construction works in accordance with BIM application;

c) Propose the list of projects to apply BIM to Ministry of Construction according to the roadmap;

d) Command related project owners, project management units and subordinate units to prepare necessary resources for applying BIM according to the roadmap;

d) Cooperates with Ministry of Construction to create BIM guidelines for each specialized construction category;

7. Responsibilities of People's Committee of provinces, municipalities

a) Organize, communicate to raise awareness, role of BIM toward construction investment stakeholders in localities;

b) Propose and submit the list of projects to apply BIM to Ministry of Construction according to the roadmap;

c) Command related subordinate units to prepare necessary resources for applying BIM according to the roadmap;

d) Command Department of Construction of provinces, municipalities to summarize, evaluate BIM application status and provide report for Ministry of Construction summary to report to The Prime Minister;

d) Allocate budget to carry out the Scheme tasks within its jurisdiction according to Law on State Budget.

8. Responsibilities for Project Owners of projects applying BIM according to the Scheme roadmap

a) Prepare accordant human resources to receive BIM guidelines and training to implement BIM in projects;

b) Determine BIM application cost in total project budget according to regulations;

c) Organize, select experienced consulting companies and contractors to implement BIM in related project activities;

d) Periodically report BIM application status of the project to Ministry of Construction for supervision and summary.

Article 3. Implementary provisions

1. This Decision takes effect since the signing date.

2. Ministers, heads of ministerial-level agencies, heads of governmental agencies, the Presidents of People's Committees of central-affiliated cities and provinces and relevant organizations and individuals shall be responsible for executing this decision./.

**PP. THE PRIME MINISTER
DEPUTY PRIME MINISTER**

Trịnh Đình Dũng

Appendix

PLAN AND ASSIGNMENT TO IMPLEMENT THE SCHEME CONTENTS AND TASKS

*(Attached with the Decision no. 2500/QĐ-TTg
dated December 22nd 2016 of The Prime Minister)*

| No. | Content, task | Implementing agencies | Schedule |
|-----|---|--|--|
| I | Raise awareness and encourage organizations, companies to apply BIM through mass media, seminars, conferences,... | - Chair: Ministry of Construction - Cooperation: Related ministries, sectors, People's Committee of of provinces, municipalities | Quarter I/2017 to Quarter IV/2020 |
| II | Create a legal framework to apply BIM, system of related technical and economic norms and standards | - Chair: Ministry of Construction - Cooperation: Related ministries, sectors | Quarter I/2017 to Quarter IV/2019 |
| III | Create BIM guidelines | | Quarter I/2017 to Quarter II/2019 |
| 1 | Draft BIM guidelines | - Chair: Ministry of Construction - Cooperation: Related ministries, sectors, project owners, research facilities | Quarter I/2017 to Quarter II/2019 |
| 2 | Purchase equipments to study, follow and pilot BIM implementation status, pilot BIM training | - Chair: Ministry of Construction - Cooperation: Ministry of Planning and Investment, Ministry of Finance | Quarter I/2017 to Quarter IV/2018 |
| IV | Create curriculum framework for BIM training and implementing BIM training courses to improve capability for construction organizations at each level, project management units, project owners and consulting companies for BIM application | - Chair: Ministry of Construction - Cooperation: Ministries, sectors, research and training facilities, People's committee of provinces and municipalities, project owners, consulting companies | Quarter I/2017 to Quarter I/2019 |
| V | Apply BIM in the stages of: design, construction and project management for at least 20 class I and above new construction works and in the stage of facility management for at least 10 important construction works with complicated technical requirements | - Chair: Ministry of Construction - Cooperation: Ministries, sectors, research and training facilities, People's committee of provinces and municipalities, project owners, consulting companies, contractors | Quarter III/2017 to Quarter IV/2020 |
| VI | Evaluate BIM implementation status and report to The Prime Minister | - Chair: Ministry of Construction - Cooperation: Related ministries, sectors, localities | Quarter I/2018 to Quarter IV/2020 |