

# Building Information Modelling (BIM)

13 July 2023



# OVERVIEW



cidb Legislative Mandate

cidb Register of Projects (RoP)

cidb Project Assessment Scheme (B.U.I.L.D)  
–Establishment  
–Commencement

Construction Works Requirements for Digital 2D/3D  
Collaboration

Regulation & Gazette Drafting Process

BIM Framework

# cidb Mandate





# cidb Legislative Mandate

## DEVELOPMENT

- Provide strategic leadership to construction industry stakeholders to stimulate sustainable growth, reform and improvement of the construction sector
- Promote sustainable growth of the construction industry and the participation of the emerging sector in the industry
- Determine, establish and promote improved performance and best practice of public and private sector clients, contractors and other participants in the construction delivery process

## REGULATION

- Promote uniform application of policy throughout all spheres of government and promote uniform and ethical standards, construction procurement reform, and improved procurement and delivery management – including the Construction Code of Conduct
- Develop systematic methods for monitoring and regulating the performance of the industry and its stakeholders, including the Registration of Projects and Contractors

# cidb Register of Projects





# cidb Register of Projects

- The Board **must** ... establish a register of projects to gather information on the nature, value and distribution of projects
  - for the public sector, on projects of which the value exceeds R200 000; or
  - for a public entity and private sector project, on projects of which the value exceeds R10 million
- ... and provide the basis for the **best practice project assessment scheme** to **promote the performance of public and private sector clients** in the development of the construction industry

# cidb Project Assessment Scheme (B.U.I.L.D)



# cidb Project Assessment Scheme (B.U.I.L.D)

## Establishment







# cidb Project Assessment Scheme (i)

- 23(1) The Board **must** .... establish a best practice project assessment scheme, based on the best practices identified by the Board in terms of section 5



# cidb Project Assessment Scheme (ii)

- Board has established the cidb Best Practice Project Assessment Scheme in terms of the following best practices with effect of 25 July 2019:
  - cidb Best Practice: Green Building Certification: published in Gazette 34158 of 1 April 2011;
  - cidb Standard for Developing Skills through Infrastructure Contracts: published in Gazette 36760 of 23 August 2013;
  - cidb Standard for Indirect Targeting for Enterprise Development through Construction Works Contracts: published in Gazette 36190 of 25 February 2013;
  - cidb Standard for Contract Participation Goals for Targeting Enterprises and Labour through Construction Works Contracts: published in Gazette 41237 of 10 November 2017;
  - cidb Standard for Minimum Requirements for Engaging Contractors and Sub-Contractors on Construction Works Contracts: published in Gazette 41237 of 10 November 2017.
- **In future:** cidb Best Practice: Construction Works Requirements for Digital 2D/3D Collaboration will be added here **after Regulation & Gazette Drafting Process**

# Best Practice Assessment Scheme (B.U.I.L.D) Commencement





# Commencement date

- 23(2) **After a date determined by the Minister ...** all construction contracts **above a prescribed tender value** are subject to an assessment .... of compliance with best practice standards and guidelines published by the Board .....
- **The amended Regulations were published on 18 September 2020**



# cidb Best Practice: Construction Works Requirements for Digital 2D/3D Collaboration



# Objective

- The objective is to introduce **minimum requirements for Building Information Modelling (BIM) digital 2D/3D collaboration** as a best practice on public sector construction works contracts of a tender value equivalent to **Grades 7** and above (currently above R20m)
- mandating Digital 2D/3D compliance on public sector contracts



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# Digital 2D/3D Requirements (i)

- ISO 19650 Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling, has been produced:
- Part 1: Concepts and principles
- Part 2: Delivery phase of the assets
- **Part 3 - Operational Phase of asset life cycle????**

# Digital 2D/3D Requirements (iii)

- The Standard notes that **several standards, methods and procedures are required for the successful implementation** of the Standard, relating to a **specific regions or countries** that are not suitable for inclusion within an international standard
- ISO 19650 then notes that **national standards bodies** are encouraged to compile and document the standards, methods and procedures, relevant to the region or country they represent, **within a national annex**
- **Should the annex include both SANS 19650 Part 2 and Part 3 or should separate annexes be developed?**



# apdb Best Practice Project Assessment Scheme: Construction Works Requirements for Digital 2D/3D Collaboration



# Digital 2D/3D Requirements (i)

- In terms of sections 5(2) of the Construction Industry Development Board Act, 2000 (Act no. 38 of 2000), the Construction Industry Development Board is empowered to promote best practice Standards
- The Board has identified **Digital 2D/3D Collaboration** as a best practice on construction works contracts with an expected **tender value of Grade 7 and above**, using **non-proprietary, open-standard format** for the exchange of information



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# Digital 2D/3D Requirements (ii)

- Digital 2D/3D requires compliance to SANS 19650-2 Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - Information management using building information modelling - **Part 2: Delivery phase of the assets**
- **Part 3 - Operational Phase of asset life cycle????**



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# Regulation & Gazette Drafting Process

Step	Regulation Amendments & Prescripts	Gazette Notices (that will be Regulated)
1	Development of concept document by cidb.	
2	Stakeholder consultation on concept document, culminating in a cidb position.	
3	Development of Socio-Economic Impact Assessment System (SEIAS) if necessary.	
4	Submission to cidb Exco for approval to submit to the Regulations and Regulatory Compliance (RRC) Committee.	
5	Submission to Regulations and Regulatory Compliance (RRC) Committee for approval to submit to the Board.	
6	Submission to cidb legal services for development of draft regulation amendments or draft prescripts	
9	Submission to Board for approval to submit to Minister (via DPW Policy Unit) for publication for public comment (30 to 60 days)	Submission to Board to publish in the government Gazette for public comment (30 days)
10	Incorporation of comments and updating if necessary.	
11	For substantive changes, submission to cidb legal services for development of draft regulation amendments or draft prescripts	
12	For substantive changes, submission to Regulations and Regulatory Compliance (RRC) Committee for approval to submit to Board	
13	Submission to Board for approval to submit to Minister (via DPW Policy Unit) for publication	Submission to Board to publish in the government Gazette

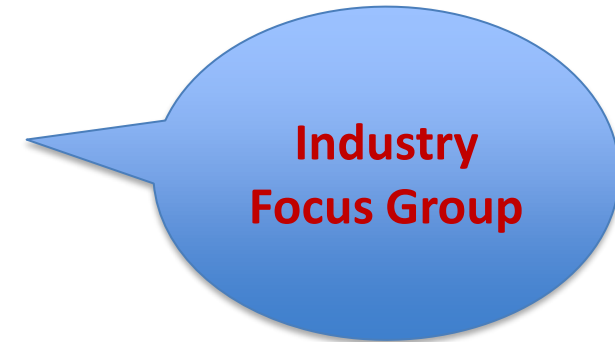
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# BIM Framework

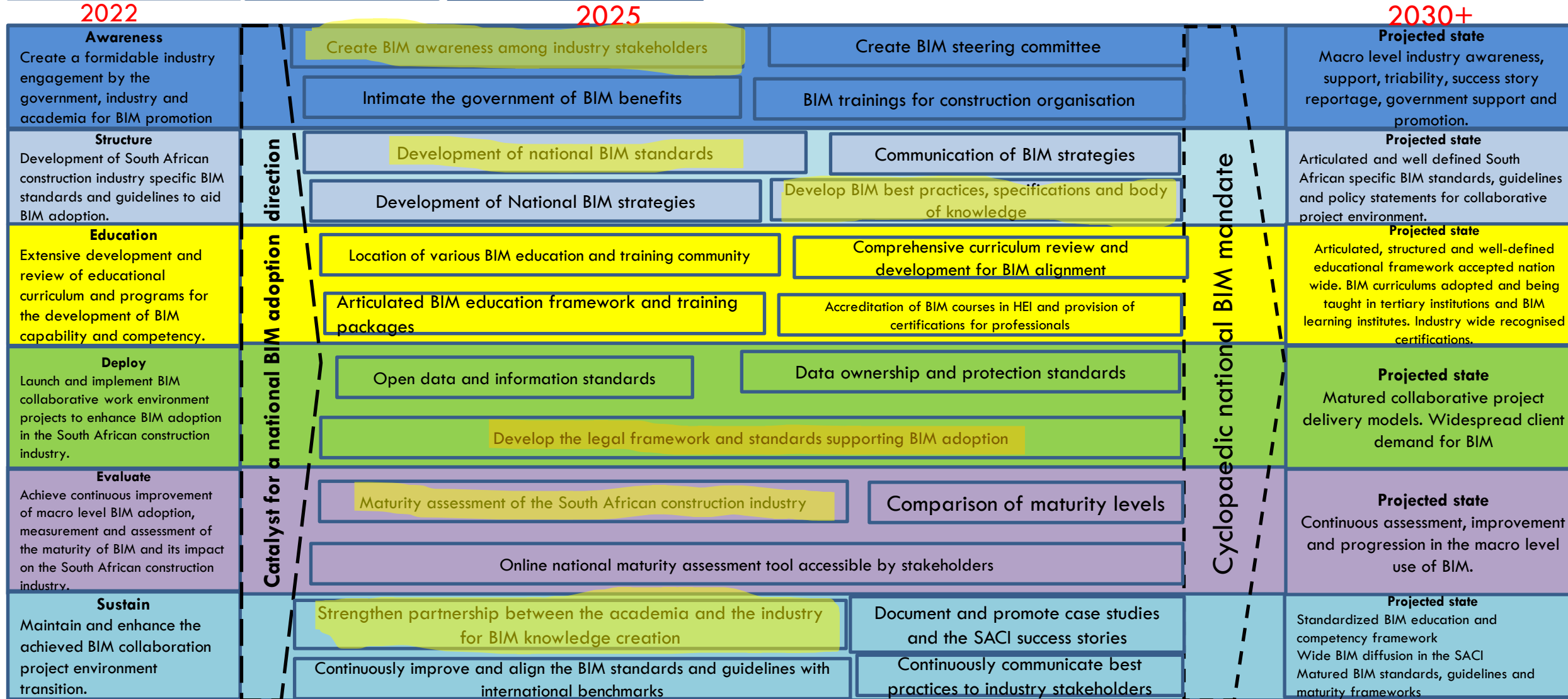
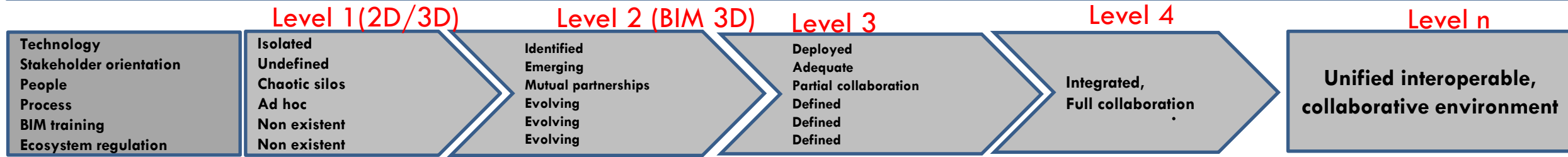


# BIM Framework

- cidb to develop BIM Implementation Guides
  - South Africa Specific Annex/es / standards / guides
- cidb to consult on Draft BIM Best Practice Standard
  - Concept document
- Establish a BIM Workgroup (Industry Focus Group)
- BIM Framework (Policy)



# Roadmap to Building information modelling adoption in the South African Construction industry



**THANK YOU**