

Conference **GEOMATICS 2026**

Origin and Future of the DTM Project

DTM: Project of the Century

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Association of Entrepreneurs in Geomatics

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DTM — Project of the Century

DTM VIDEO



Digital Twin of the Territory

Technical representation of the actual landscape and infrastructure



Pillar of digitalisation

Indisputable part of digital construction permitting



Project of the century

Ambitious work with an impact on the national economy

The Road to the Czech Digital Technical Map

PROJECT HISTORY

Perceived need for a DTM

Technical view of the
territory in its true form

Modern technical
professionals –
surveyors, designers, STI
and public administration

Islands of positive deviation

IMIP, DTMM cities,
network-operator
associations, districts and
later regions

Systematisation Geoinfostrategy and DMVS

DTM of the Czech Republic Nationwide implementation

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Creation of the DTM of the Czech Republic

PROJECT GENESIS

Vision
Round tables
Regions

**DTM as a pillar of
digital construction
permitting**

The Digital Technical Map (DTM) is an indisputed pillar of digitalization and buildig process.

1

2

3

4

MIT funding

Funding from High-Speed Internet and NPO programmes

Implementation under pressure

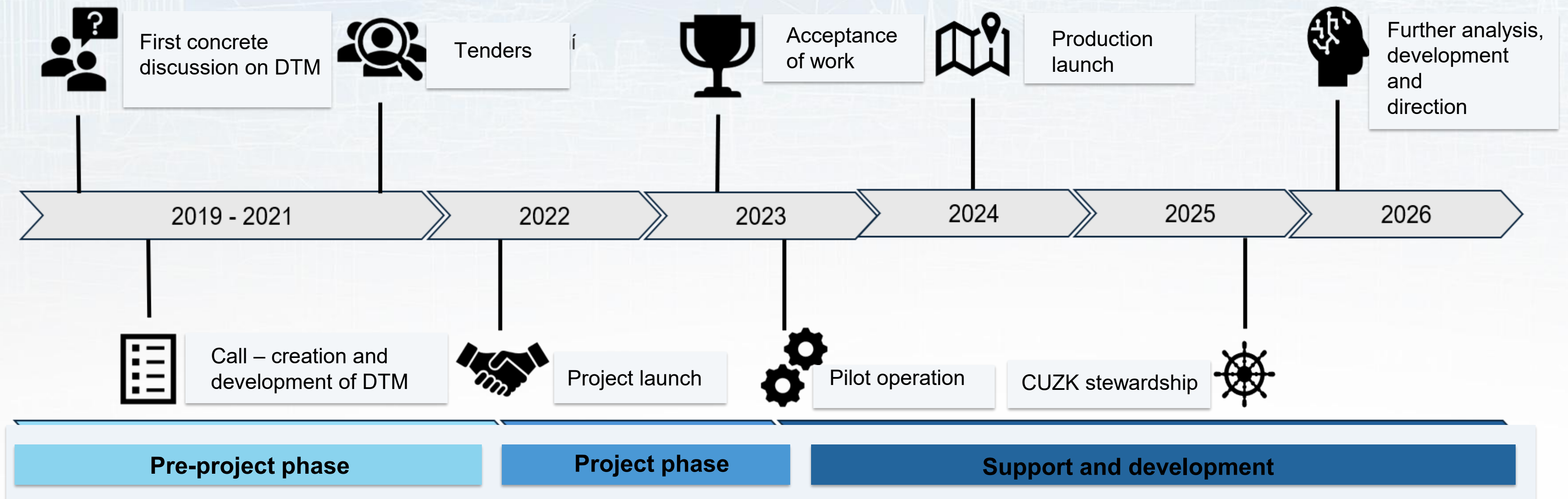
Limited time for implementation

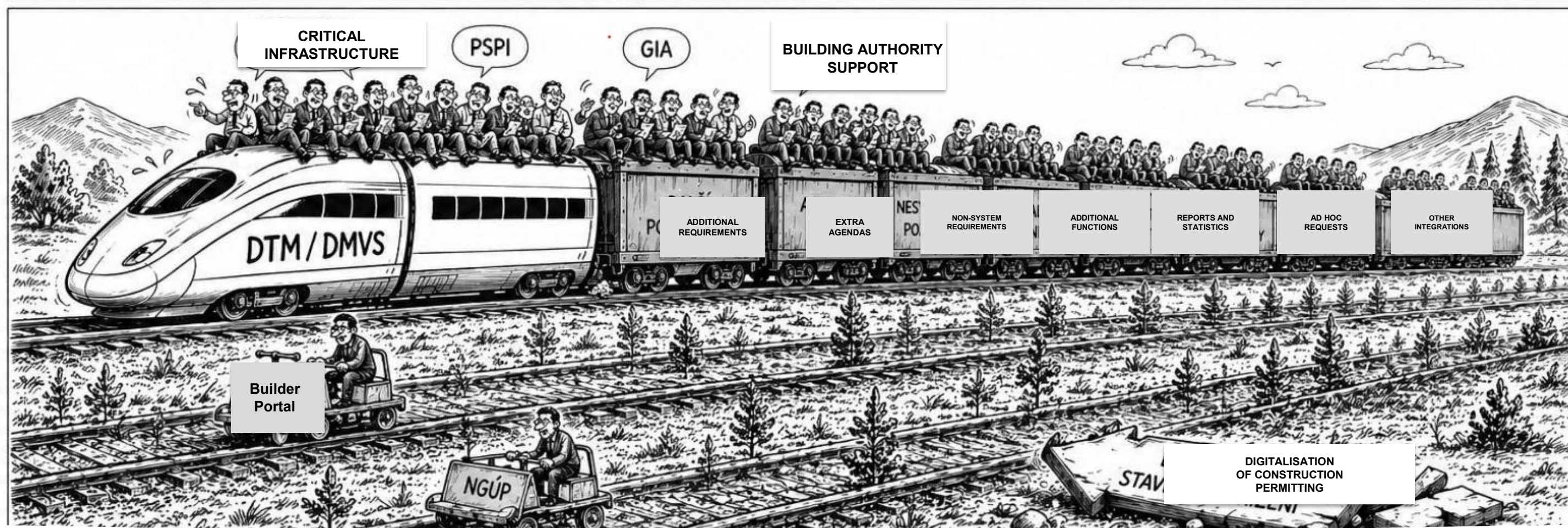
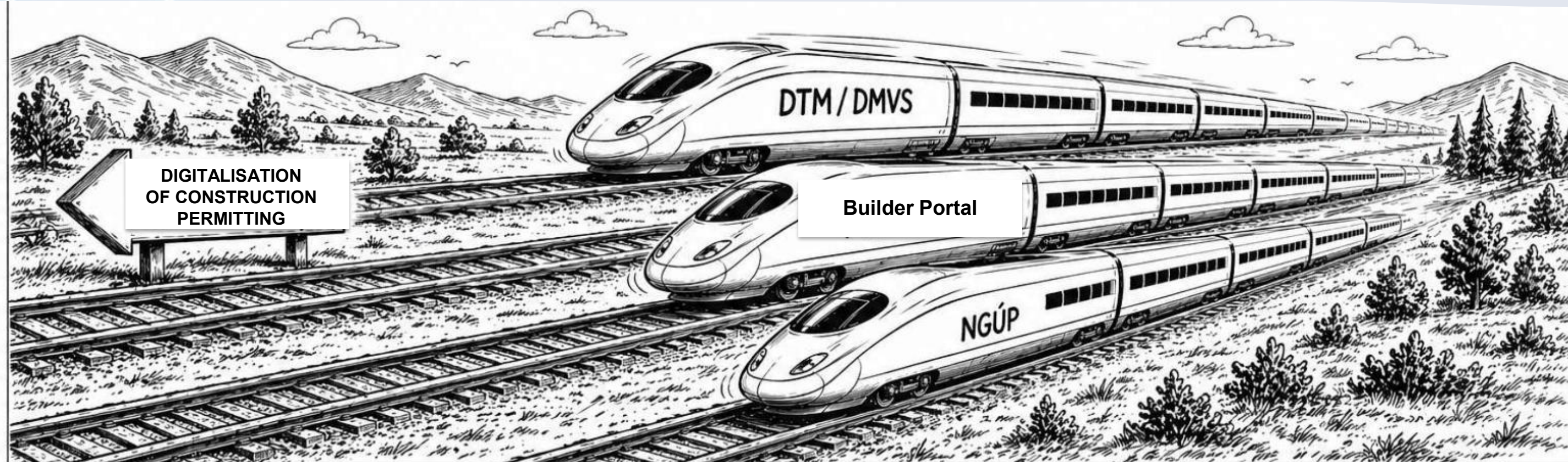
What the project is still missing

Despite the progress achieved, the DTM project still faces challenges that must be addressed systematically in the next phases.

- Data completeness of technical infrastructure
- Legislative anchoring of obligations
- Education of construction-permitting participants
- Data links to related systems (BIM, GIA)

DTM IS -Timeline





Long-term sustainability and updating

SUSTAINABILITY

UPDATES AND DATA FLOWS

Strict requirement for GAD (GDSPS) in construction permitting and for updated DTI data. Data reliability.

UDM, STANDARDISATION

UDM and standardisation as a way to transfer all spatial data; handling minor structures without permitting and occupancy approval.



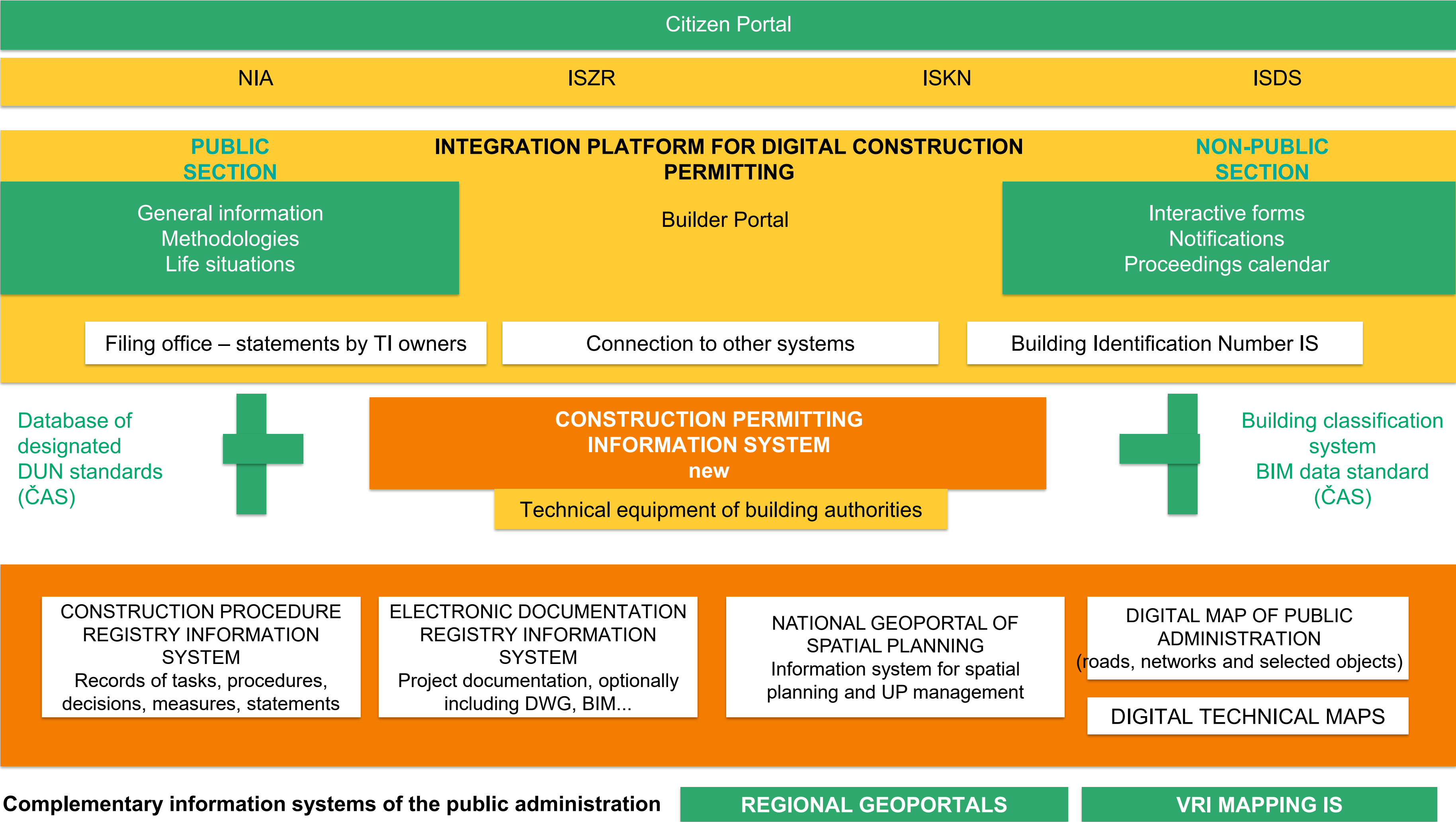
EDUCATION

Education of building authorities, ČKAIT, ČKA, investors and ČKZ AZI.



PROMOTION

Promoting DTM as an integral part of digital construction permitting. Searching for use cases — DTM must serve practical needs.



Technical and transport infrastructure

INFRASTRUCTURE

Data obligation of TI owners

Pressure on TI owners to deliver data — territorial scope (12,300 TI administrators) and own routes in JVF. Non-compliance may lead to sanctions. Deemed consent.

Legislative gap

The obligation is not stated in the new Building Act, only in the amendment to Act No. 200/1994. The new Building Act does not support data completeness. Addressed by a ČKZ amendment with ČÚZK support.

Subsidy support 2028+

Support in the 2028+ subsidy period for TI entities — municipalities and the private sector. Pressure for gradual refinement of TI data.

Critical infrastructure

Not knowing does not mean protecting.

DTM and TI data will never replace some statements on network existence during construction preparation.

What is missing must be

Undelivered TDI data
No guarantor for road-axis management
Missing connections, e.g. water
Etc.

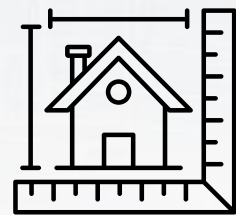
Further development of the DTM project and use cases

DEVELOPMENT



Data completeness — Phase 3 of DTM

Primarily technical infrastructure — complete data content as a prerequisite for full system functionality



Asset passporting

Follow-up asset passporting — traffic signs, greenery.

Transport-infrastructure passporting and property-rights settlement



Use in the national economy

Use of DTM as a tool for effective decision-making, planning and asset management across the national economy



Site maps

Extending DTM with site maps as another spatial-information layer

GIA and the adaptation act

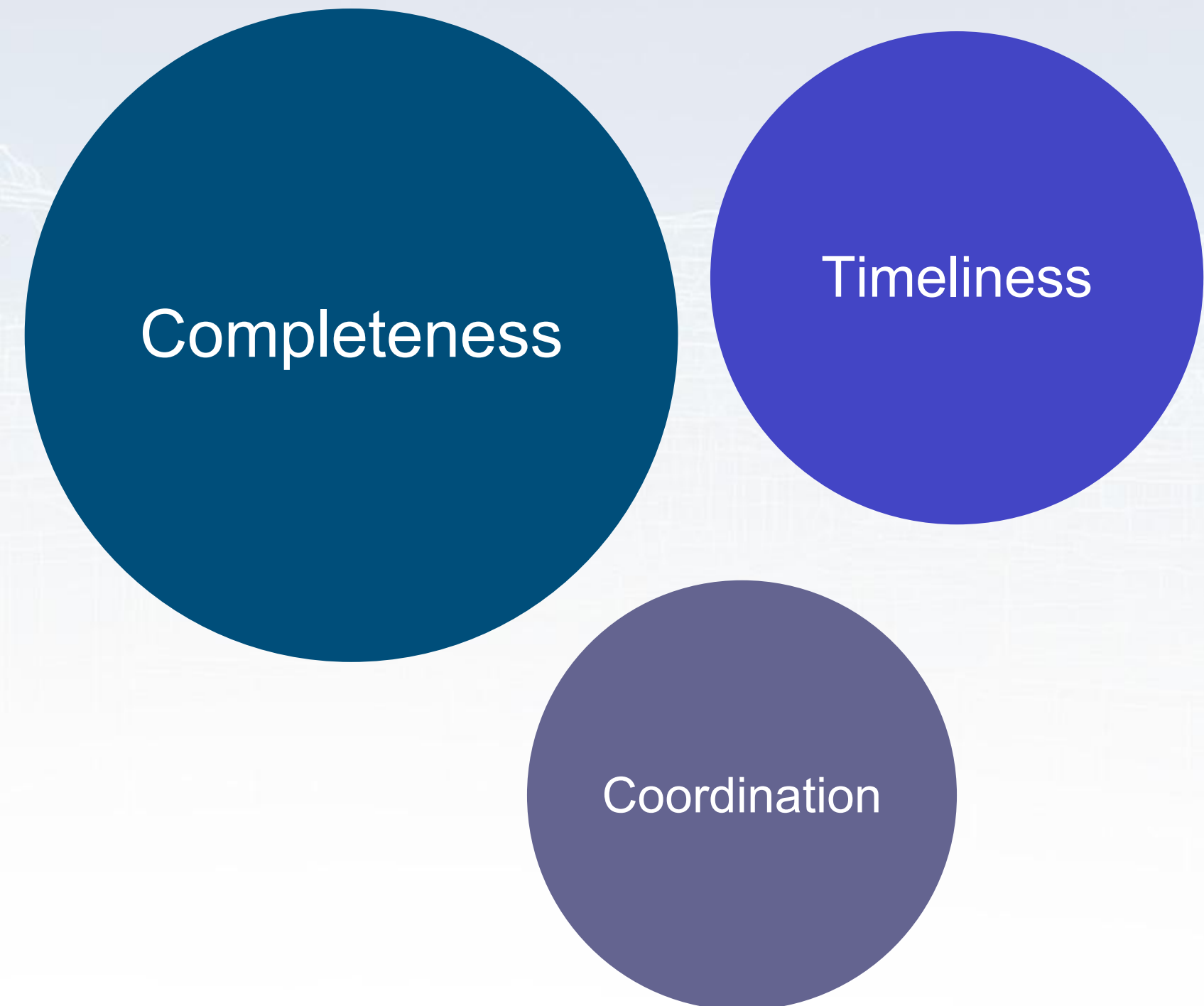
GIA

Gigabit Infrastructure Act — a major opportunity for coordinating construction works



Savings from construction coordination through GIA can pay for the entire DTM investment.

- PSPI — Planned Infrastructure Construction Works
- Completeness — investment plans must include minor works, relocations, road repairs and similar items.
- Timeliness — the system must include projects already in the preparation phase.



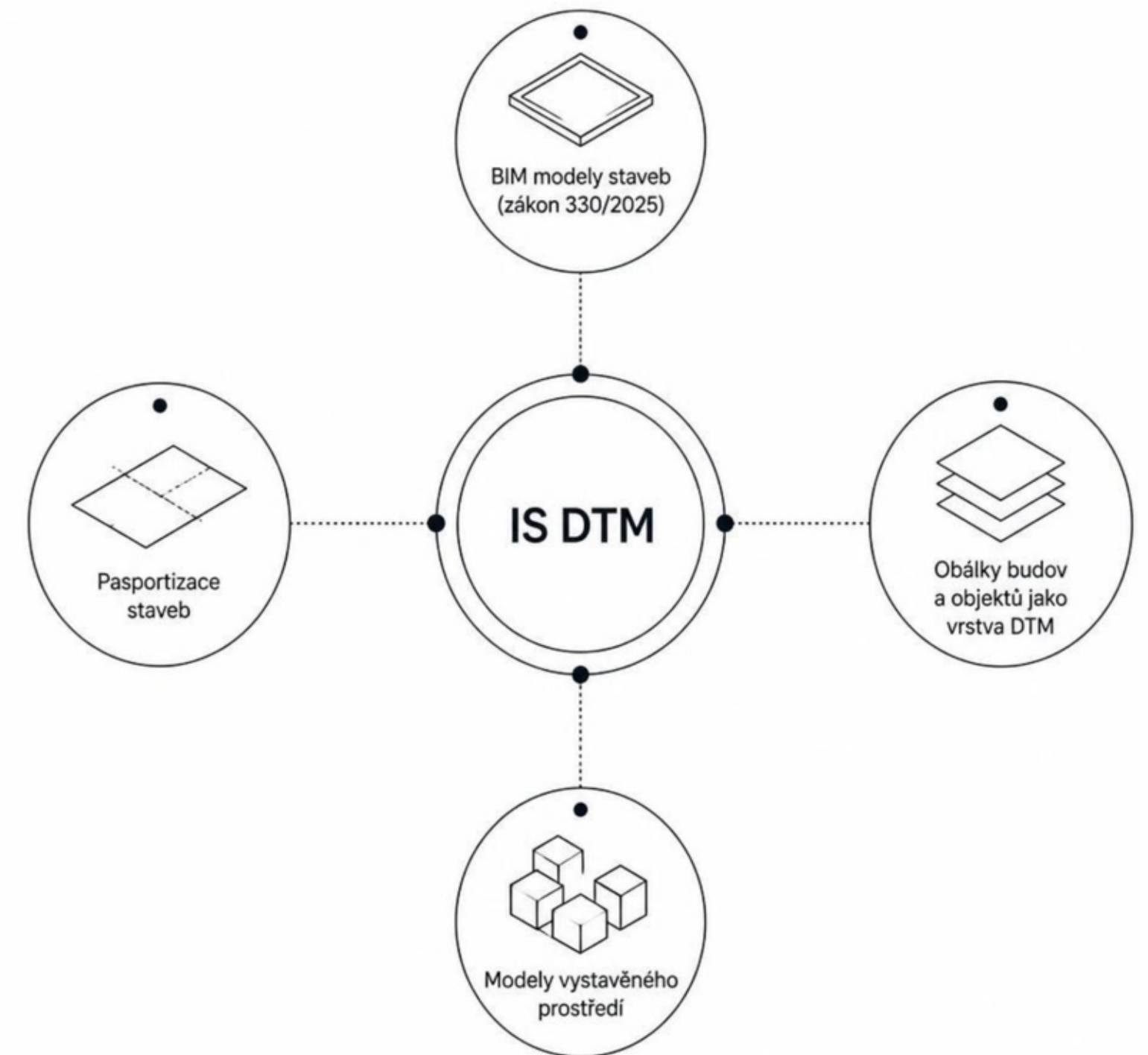
BIM and the built environment

BIM

Act No. 330/2025 Coll.

Act on the Management of Information on Construction and the Built Environment (the “BIM Act”)

- Impact analysis of Act No. 330/2025 on DTM — ČAS methodology
- Need to connect built-environment models and DTM
- Building passporting
- Adding building/object “envelopes” as another IS DTM layer



Finance — subsidy period 2028+

FINANCE



Additional TI data collection and refinement

Support for additional data collection and refinement for TI entities — municipalities and the private sector



BIM 3D passporting of objects

Support for BIM 3D passporting of transport and building structures
Linking ZPS and the built environment



Thank you for your attention

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