

Transforming the built environment

FUTURESCAPE

Each built environment is a microcosm of our society, that needs to be urgently enhanced to create a better world.

But it can't only be done outside in!

The establishment, growth and transformation of the built environment are influenced greatly by people's behaviors and their lifestyles.

Energy independence

Water and Waste management

Sustainable communities

Strategic operations + Maintenance

Strategic solutions

Public health and safety

Transforming the built environment

A discussion with

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IN FOCUS
DESIGN & BUILD THE NEXT GEN SOLUTION TO
TRANSFORM THE BUILT ENVIRONMENT
POWERED BY
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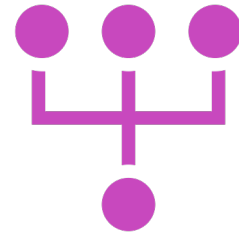
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Design and build mode of contracting needs additional impetus



Traditionally most contracts in India have been awarded using the Item rate method of contracting.



The design build model is one where the engineering is governed by the contractor.

The design build model is far more efficient from all aspects and should steadily replace the item rate method of contracting.

Item rate method of contracting

In such contracts the onus of the engineering (structural and MEP) lies with the client.

The client appoints the consultants and controls them.

The contractor merely executes the given drawings.

Such contracts are known for their budget over runs.

This is because there is no inbuilt incentive to optimise.

The contractor is always on the lookout for extra claims due to changes in drawing from the tender drawings or due to delays in drawing delivery. T

he consultants also have no incentive to monitor and control quantities.

Also pilferage (corruption) at the site level worsens the problem with an incentive to over bill.

As such the client does not have a tight grip around the cost to complete.

Cost escalations are the norm and there is no clarity to the client till the end.

The design build model

The design build model is one where the engineering is governed by the contractor.

Here the contractor underwrites the design while bidding for the job and therefore the quantity risks and the drawing delivery risks are on the side of the contractor.

The cost is frozen to the client unless the client makes major changes to the design intent at the architectural level.

The client governs the architecture and specifications and the contractor governs the engineering. The price is frozen at the time of award and the client is free of cost escalation risks.

The contractor is incentivised to design optimally to maximise his profits.

A reputed peer reviewer is decided on upfront to validate the contractor's design. The engineering consultants are appointed by the contractor and controlled by the contractor.

The designs become construction friendly too. Also since the quantity risk is with the contractor, this method eliminates all chances of site level corruption that thrive on quantity escalations.

Thus, this method is far more efficient from all aspects and should steadily replace the item rate method of contracting. Even government bodies awarding building contracts are best suited to go for this method. Some government contracts are already awarded in this mode. We hope to see many more follow this.

Some important issues need to be addressed



The Power of Integration in the Built Environment



How can we mobilize businesses to respond to the risks of price variations due to long development cycles?



Long-Term business strategies to increase ambition and concrete actions to project delay



Reality Capture: Pairing the Platform to Value Proposition ensuring full Transparency



Share the vision: Screening tool for design-build delivery



Collaborative approach to maximize the benefits: Building information modelling (BIM)

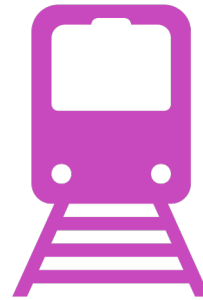


Automation from design through construction and life-cycle management

Cities can only be sustainable if we design the citizen experiences which will enable them



It includes not only buildings, but the human made spaces between buildings.



These must include parks and the infrastructure that supports human activities.

Transportation networks
Utilities networks
Flood defences
Telecommunications
Health facilities



Creating sustainable cities
should be considered as a
holistic endeavour



Densely populated urban areas
should be more sustainable than less
concentrated rural settlement

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We need a sustained commitment to clear the course of action over the short, medium and long term.

- Simple guidelines should include
 - Unified leadership and vision
 - A set of well defined strategies and objectives, clear communication
 - People centric design and technology implementation
 - The creation of an appropriate and acceptable governance model
 - The development of a business case and economic as well as environmental appraisals to assess the impacts of development
 - A clear understanding of urban development, transport and infrastructure strategies and regeneration models



Sustainable city experiences

Seamless, Clean
Transport



Sustainable
Buildings

Clean, Local
Energy

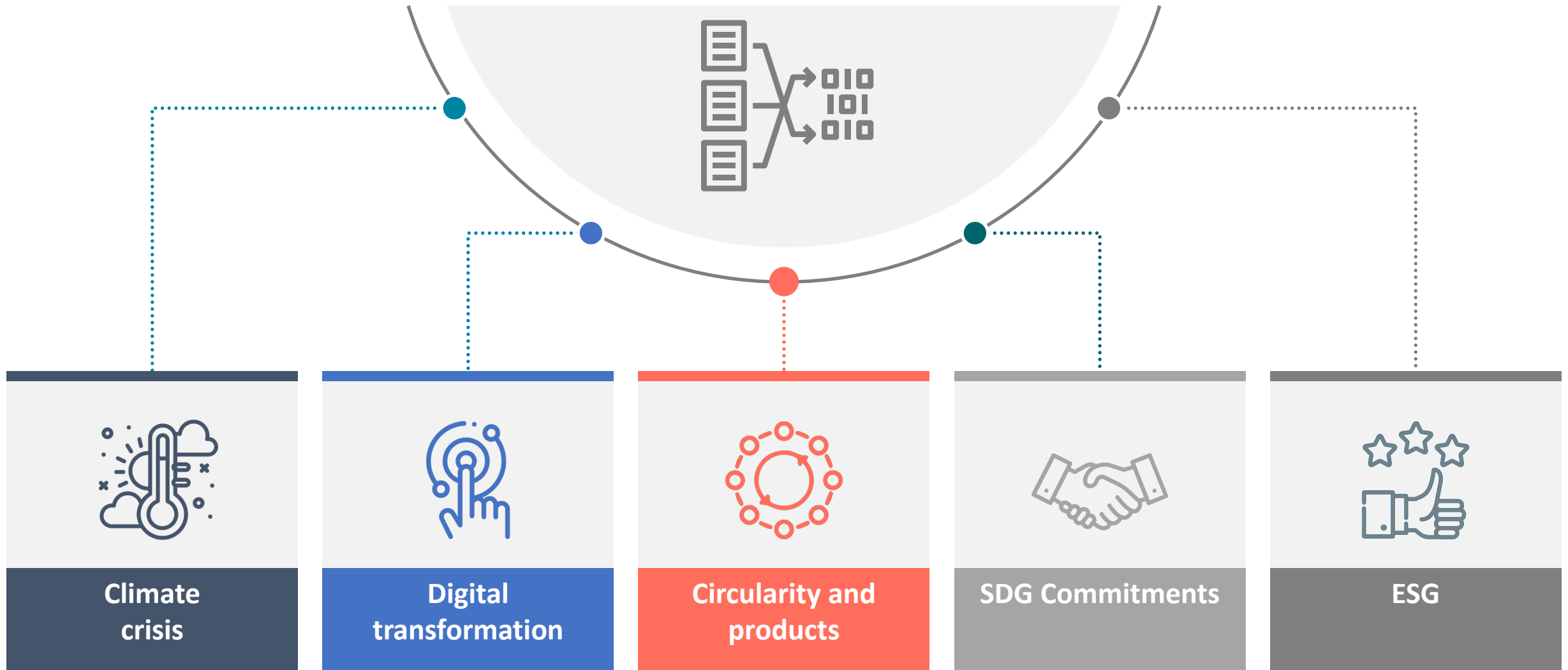


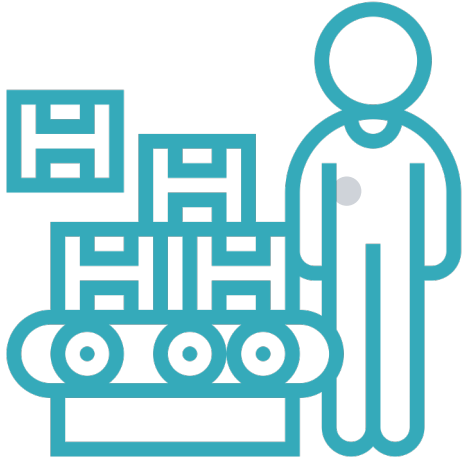
Urban Food
Sufficiency

Smart management of
water and waste



The Imperatives for Reimagining Business





KNOWLEDGE PARTNER

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