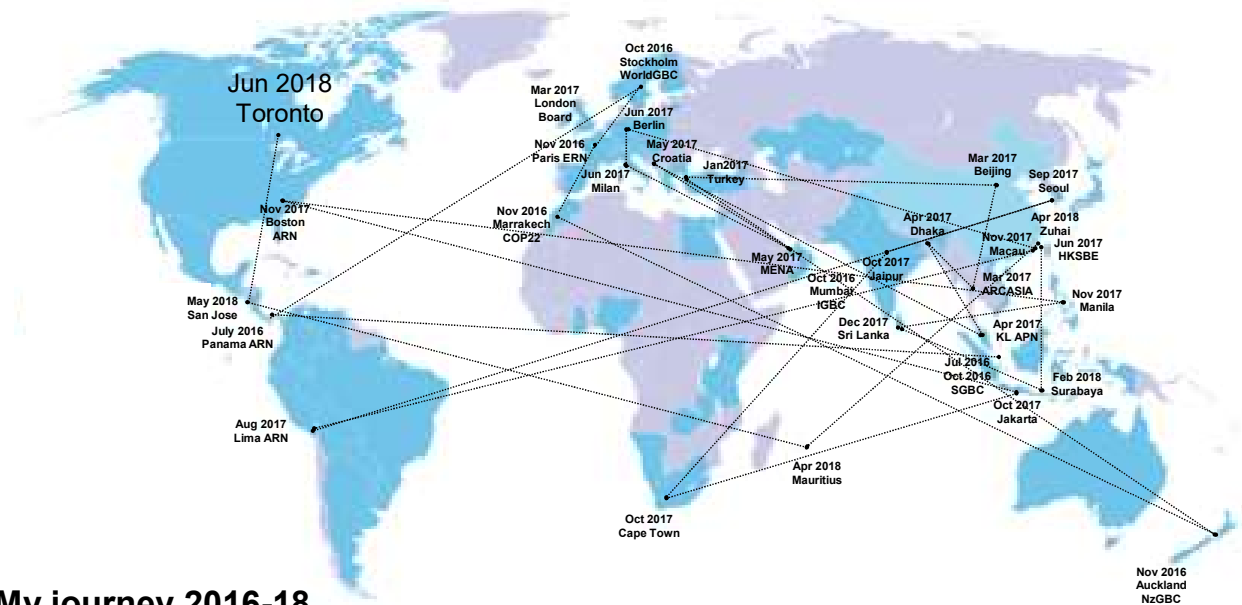




WorldGBC

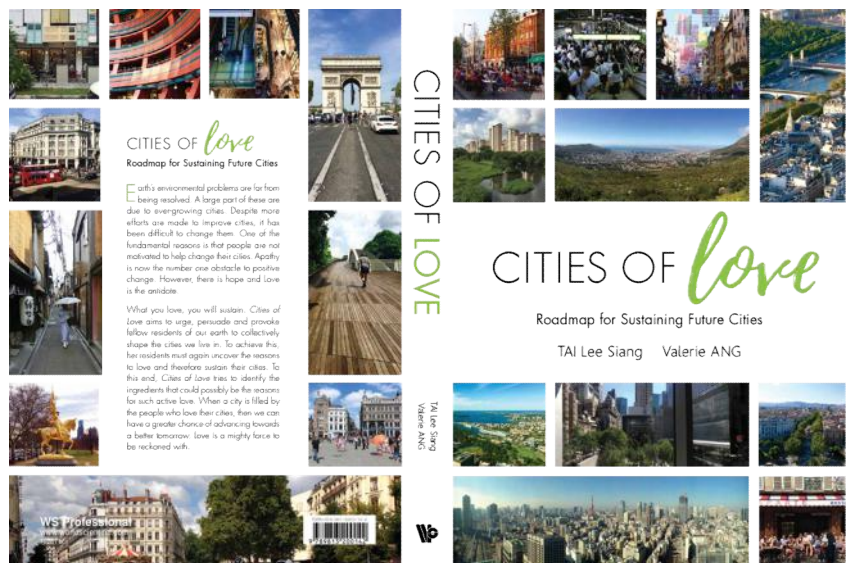


My journey 2016-18
ARN 5 AFN 2 MENA 2 ERN 7 APN 16

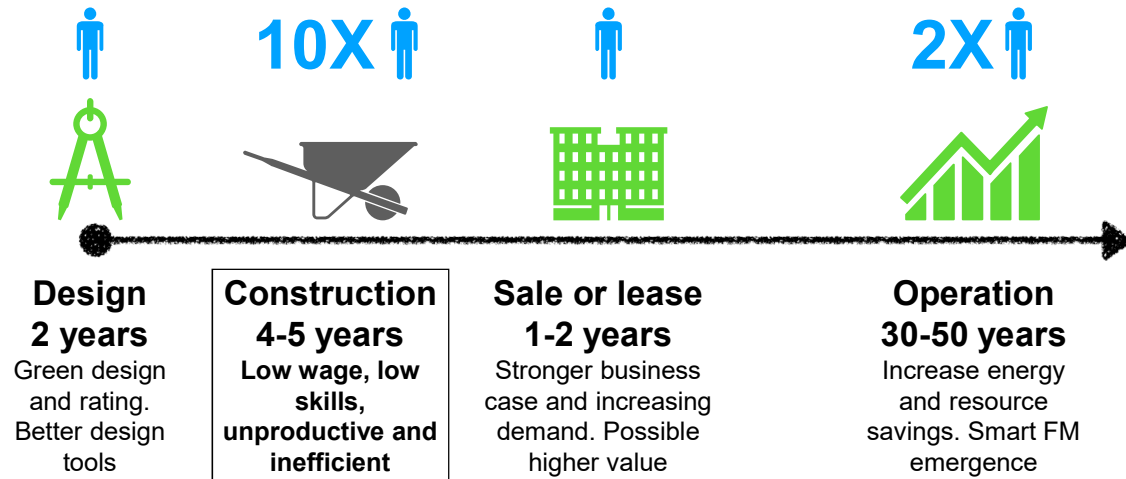
Cities of Love



Tackle Cities' Problems
Encourage ground up initiatives



Focus today



Sustainability of Construction

Tackle the final frontiers

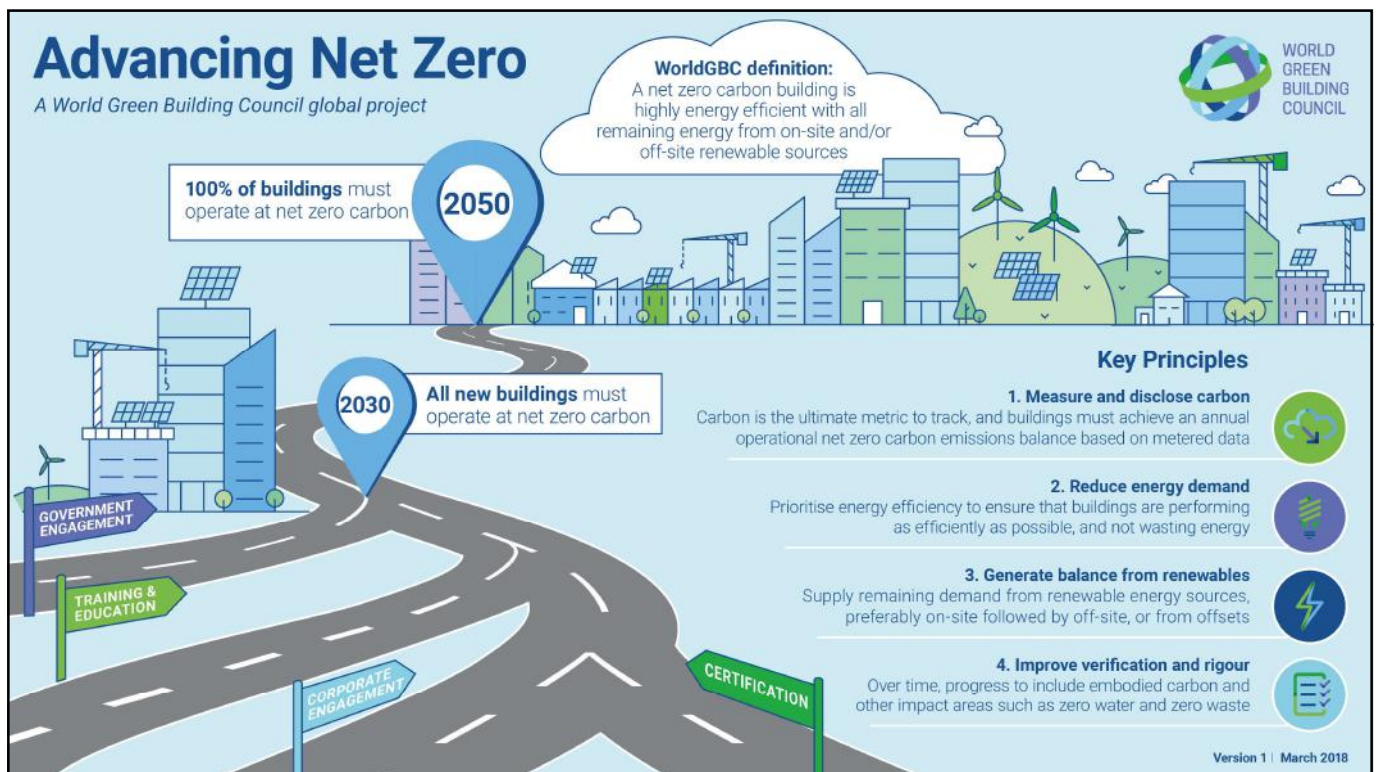
1. 2018 Trends

Set Net zero carbon building targets

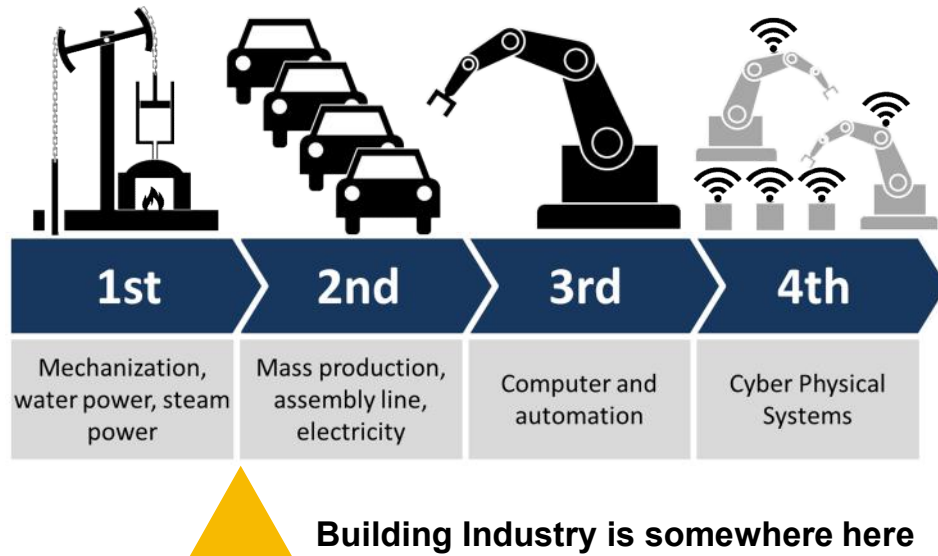
Increased demand for health and wellbeing

Digital disruption in building industry

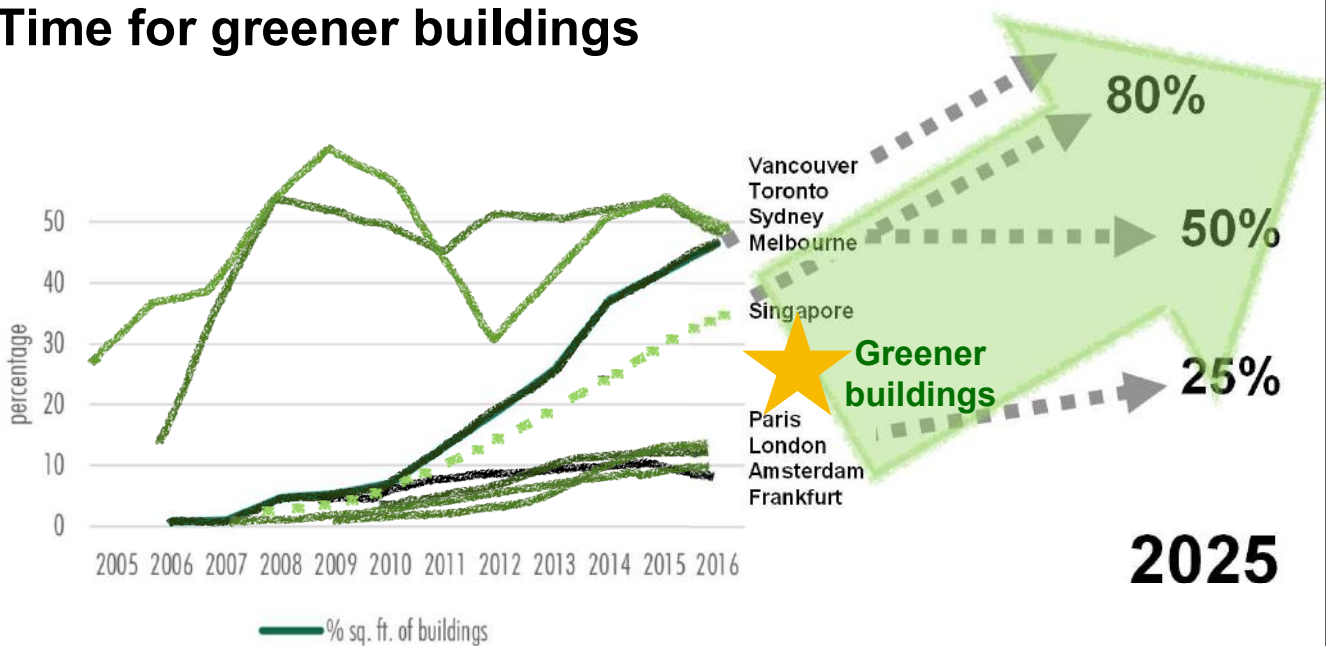




Digital Disruption



Time for greener buildings



2018 International Green Building Adoption Index
By CBRE & Maastricht University

2. Greener Buildings



High performance green building



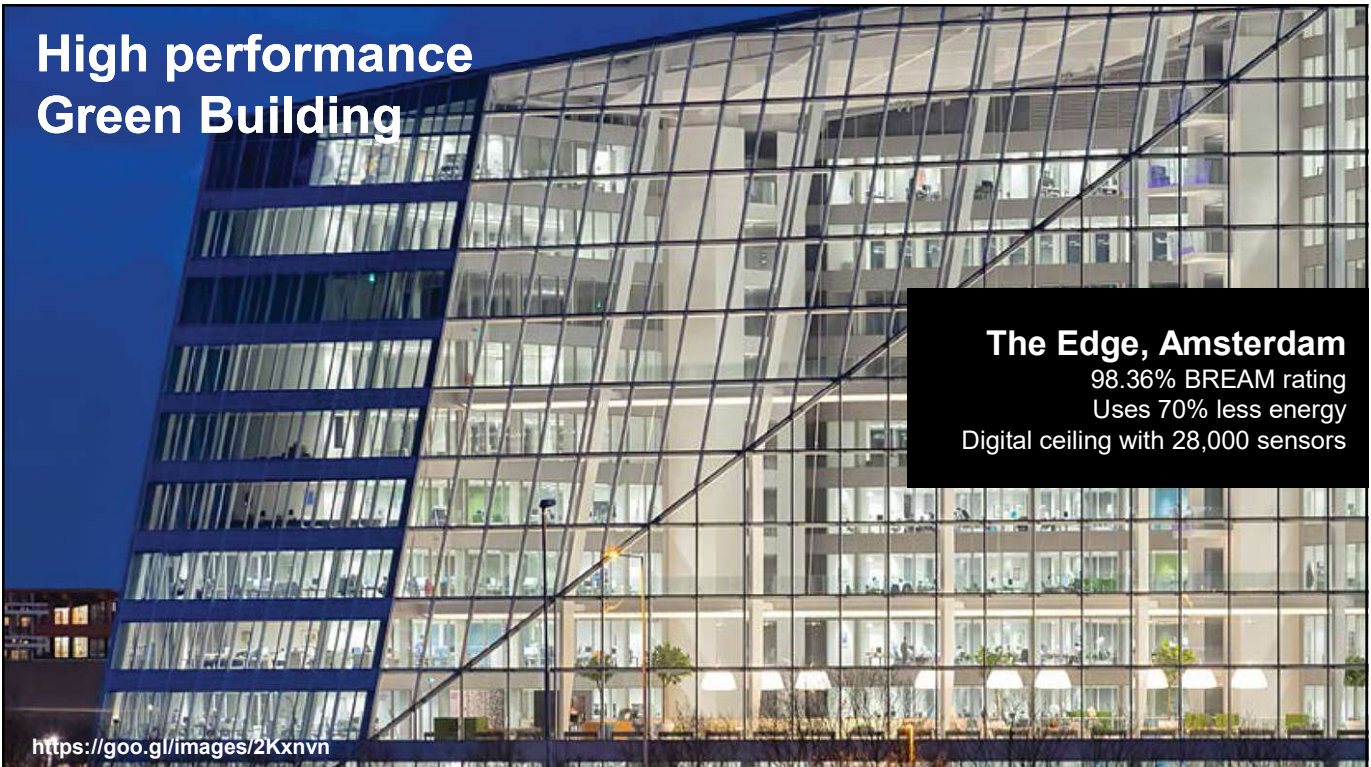
Net Zero Energy Building



Super Low Energy Building



High performance Green Building



The Edge, Amsterdam
98.36% BREAM rating
Uses 70% less energy
Digital ceiling with 28,000 sensors

<https://goo.gl/images/2KxnvN>

Net Zero Energy Building

National University of Singapore

Cool air at 26 deg C and higher humidity levels augmented with ceiling fans

<https://goo.gl/images/drgf8P>

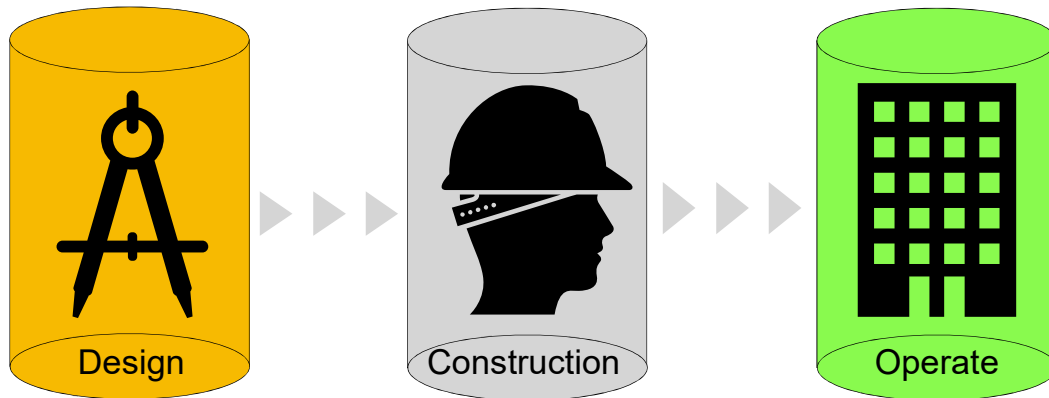
Super Low Energy Building

Keppel Bay Tower

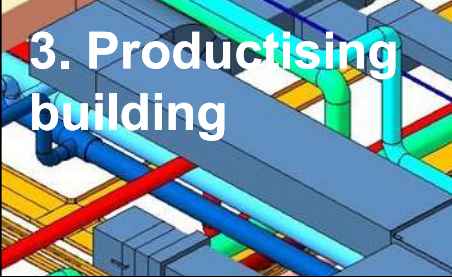


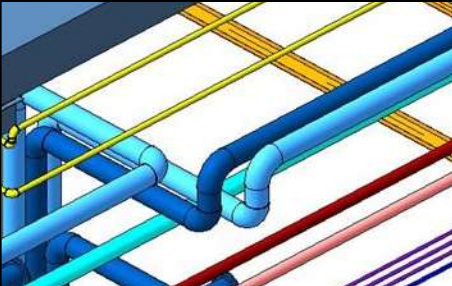


Reduce annual energy consumption from 145 to 115 kWh/m²/yr
Annual water savings of 7,000m³ = 3 Olympic-size swimming pools

<https://goo.gl/images/yDWSWr>

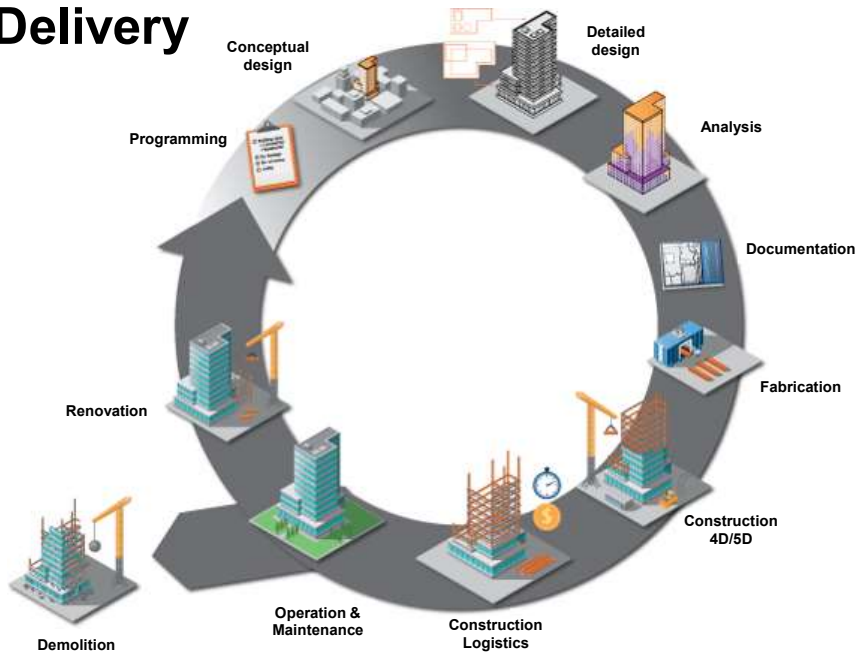
The fundamental issue



Building industry has operated in silos for centuries. Insufficient attempts have been made to bridge the gaps resulting in loss of productivity and sustainability

3. Productising building		
 <p>Integrated Digital Delivery</p>	 <p>Design for Manufacture & Assembly</p>	 <p>Precast Pre-finished Volumetric Construction</p>
		

Integrated Digital Delivery



IDD reduces

Errors and omissions by 61%
Construction cost by 30%
Project duration by 22%

Design for Manufacturing & Assembly



DfMA

Works offsite reduces manpower and time, while ensuring work sites are safe, conducive and have minimal impact on the environment.



Conclusion

There is an urgent need to transform the built environment industry. BCA established a front office named, "BuildSG" to spearhead the transformation process. It focuses on 3 areas:

1. Capacity building and talent attraction
2. Industry engagement and transformation
3. Internationalisation



