



Ci3 India CONSULTANTS' ROUNDTABLE

IIT Madras, **18 October 2016**

Ci3 India – Overview, Overall Status & today's Objectives

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Overview, Status & Today's Game Plan.

Objectives & Background of Ci3 India

Outcomes from 1st Regional (Building Clients') Roundtable & 2nd Regional (Developers') Roundtable - *Identified Issues, Formulated Action Plan ...*

Action Teams & their strategies and principal outcomes
– Working Papers, Other Outputs, 'Works in Progress'

What's next?

- *Expectations from Today's Roundtable*
- *5 White Papers*
- *Consolidating into a Ci3 India White Paper*

Compare with some Overseas Initiatives:
Reform Initiatives and Change Agendas
Industry Development Bodies

Industry

GAME PLAN for next 9 years? – How best can Ci3 India do better?

... from Roundtables & Action Teams

to Pilot Projects, Systemic Improvements & Culture Change

Objectives of Ci3 India (launched in Oct. 2015)

- (1) To identify current and imminent critical issues in the Construction Industry in India ...
- (2) To compile a Roadmap with Milestones for industry improvements in strategic, high impact and far-reaching domains
- (3) To launch (a) system improvement initiatives and (b) demonstration projects, in *prioritized focus areas*.

Why kick-off with leading Building Construction Clients & Consultants?

Breakthroughs must be championed by a **united front** of **progressive clients & their consultants** with long-term vision for boosting productivity, quality and sustainability, and value-driven project delivery.

Must also drive **industry Culture Change**

Supply chains only **respond** to paymasters' **selection and performance criteria**.

- Need **'Carrots & Sticks'** to incentivise & accelerate best practices & change mind-sets

What's in it for Clients, their Supply Chains and Society?

All **stakeholders** benefit from significantly higher **overall value, financial & reputational returns**

Society benefits from an efficient & effective industry

Also, **cutting-edge clients & consultants** spearheading **Ci3** could reap more & faster rewards

BACKGROUND – 2 Precursor Roundtables -

[1a] Ci3 India Regional Roundtable of Building Construction Clients - Chennai, 14 Oct. 2016

KeyNote addresses from industry & academia set scene with pointers
– to identify currently critical industry issues/ barriers

Joint Brainstorming for Collective Breakthroughs through Ci3 India

3 parallel focus group sessions:

Procurement and Delivery

Productivity, Quality, and Sustainability

Construction Project Eco System



[1b] Ci3 India Regional Roundtable of Building Construction Clients
(CONTINUED)

Post-Focus Group Consolidation session – identified 16 critical issues

- ISSUES 1-8:

Shortfalls in standards for better project formulation and designs

Lack of client involvement and/or 'competent' management

Lack of trust between stakeholders

Acute shortage of skilled workmen

Lack of proper facilities for workers

Low productivity

Lack of productivity benchmarks and standards

Lack of innovation

[1c] Ci3 India Regional Roundtable of Building Construction Clients
(CONTINUED)

Post-Focus Group Consolidation session – identified 16 critical issues:

- ISSUES 9-16:

Barriers to off-site (pre-cast/ pre-fab) construction

Inadequate quality

Inadequate governance by owners and transparency

Sub-standard and one-sided contracts

Need for better contractor selection system

Improper supply chain management and need to shift to alternate contracting approaches

Lack of technology adoption

Reluctance to adopt new work practices such as Lean practices

[1d] Ci3 India Regional Roundtable of Building Construction Clients

(CONTINUED)

ACTION PLANS proposed for:

(1) Clients' Charter of Standards and Productivity Benchmarks & Norms

Including pilot platform to share productivity data among a 'Benchmarking Club'

....

(2) Skills Development

Including

On-site skilling;

Setting progressive targets for % of certified workers on site

Managerial skills

....

(3) Innovations & Technology adoption in IT & Construction Technologies

Including

Clients to create awareness of technology upgrade needs;

Precast & other technologies

ICT including BIM



Ci3 Launch & Regional Roundtable participants, IIT Madras, Oct. 2015

[2] Ci3 India Developers' Roundtable - Mumbai, 23 Feb. 2016

To verify, complement and firm up a set of current and imminent critical issues in the Construction Industry in India

To suggest strategies for adding to, fine-tuning & moving forward with proposed - at the Oct. 2015 1st Regional Roundtable - Action Plans on:

- (1) Clients' Charter of Standards and Productivity Benchmarks & Norms
- (2) Skills Development
- (3) Innovations & Technology adoption in IT & Construction Technologies

Overview of the issues identified at 1st Regional Roundtable

One combined Focus group session - outcomes from the first Regional Roundtable were endorsed, in general. Degree of emphasis varied on their criticality

In addition, a few other critical issues were identified:

Inefficient design process management

Uneconomical design codes and operational standards

Outdated operational design codes

**Ci3 *India* Developers' Roundtable,
Mumbai, Feb. 2016**



Moving forward after the Chennai and Mumbai Roundtable

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- **19 current and imminent critical issues** were identified.
Note - Some identified issues are comparable to findings of previous reported studies too eg. Sawhney et al. (2014)
- **To address** the above **identified 19 critical issues** were rationalized, consolidated & 'translated' into **Action Items**
- **Action Teams** were assembled to work on each Action Item
- The **Action Teams** include academics, industry participants from the Chennai and Mumbai Roundtables and other invited experts

Ci3 *India* Action Teams

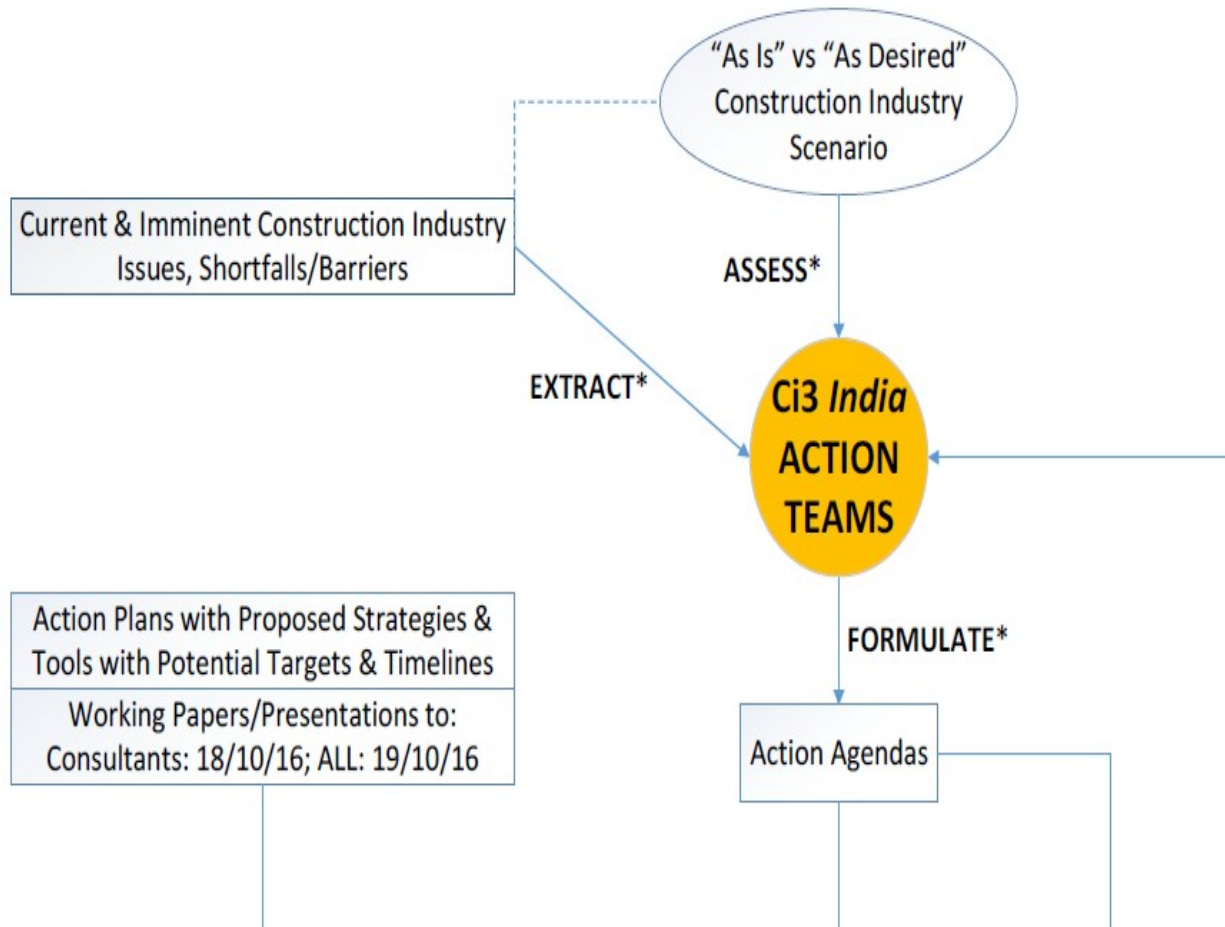
- Action Team - 1: Identification and formulation of Key Performance Indicators (KPIs)
- Action Team - 2: Strategies for significantly reducing & Costs and Time-frames
- Action Team - 3: Design Processes and Technology adoption
- Action Team - 4: Design Codes and Standards
- Action Team - 5: Human Capital (including Labour, Technical & Managerial and their Skills Development) and Productivity
- Action Team - 6: Construction Clients' Charter
- Action Team - 7: Ci3 *India* Institutional Platform

Ci3 India Roadmap - Phase 1

Oct 2015:
Building
Clients' Round
Table,
Chennai

Feb 2016:
Developers
Round Table,
Mumbai

Oct 2016:
Consultants' &
Consolidation
Round Table



REFINING & CONSOLIDATING Action Teams OUTPUTS

Interim OUTPUTS – Action Team **Working** Papers

+ Summary Presentations (Coming soon!)

Verifying, Refining & Consolidating Outputs ? – Today & Tomorrow
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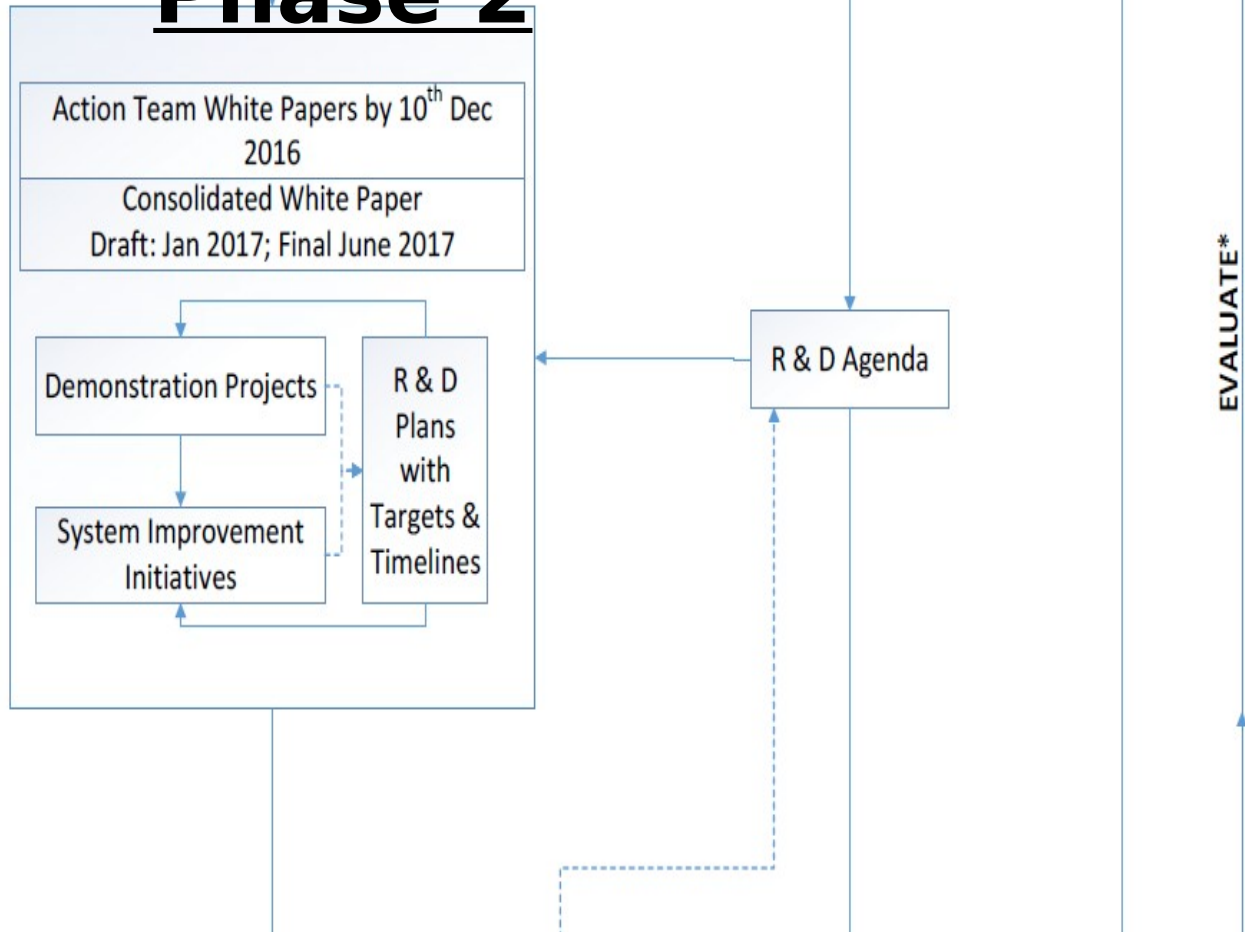
Today – Obtain **YOUR** Feedback + significant Inputs

i.e. from **DESIGN** and/or **CONSTRUCTION PROJECT MANAGEMENT**
CONSULTANTS

with Brainstorming to **Refine**, then **Consolidate** **TOMORROW**

Ci3 India Roadmap - Phase 2

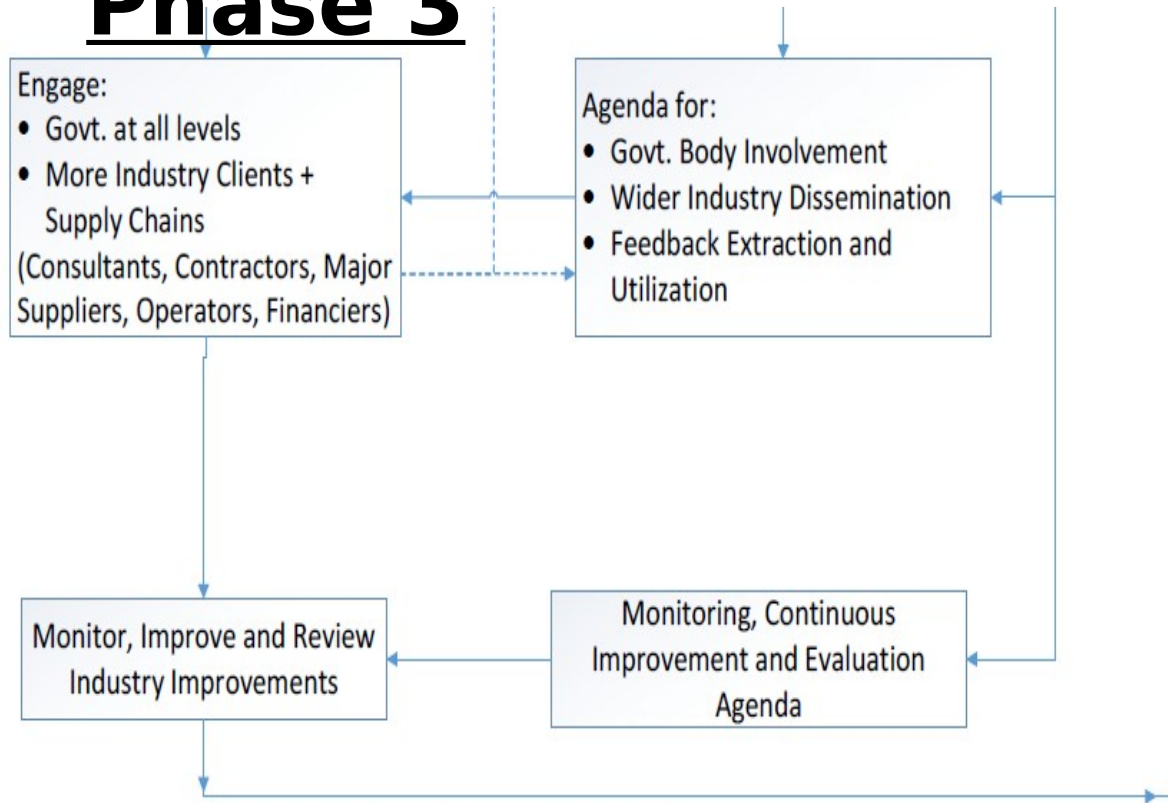
2017 – 2018
+ Contractors
+ Govt
+ Facility
Managers



Ci3 India Roadmap - Phase 3

2017-2018
+ Suppliers
+ Built Asset
Managers

2018- 2019



***EVERY 3 YEARS FROM 2019 ONWARDS**

Construction Industry Reform Reports with Change Agendas in some other countries

- examples only:

USA, 1983 – Business Roundtable (Construction Committee) – **‘More Construction for the Money’**, Summary Report of the Construction Industry Cost Effectiveness Project

UK, 1998 - **‘Rethinking Construction’** – ‘Egan Report’

NOTE: This follows a series of periodic Reports on the UK Construction Industry from 1944 (Simon Committee) to 1994 (Latham)

Australia, 1999 - **‘Building for Growth’**

Singapore, 1999 - **‘Re-inventing Construction’** – C21 Report

Hong Kong, 2001 - **‘Construct for Excellence’** - Construction Industry Review Committee (CIRC) Report

NOTE: Some Highlights & Outcomes of above initiatives are accessible from PPT presented at Oct. 2015 Roundtable in Chennai

Construction Industry Development bodies in some other countries - examples only:

Construction Industry Institute (CII), **USA**

European Construction Institute (based in UK), Construction Industry Institute **Australia** (CIIA)

Constructing Excellence (CE), **UK**

Construction Industry Council (CIC), **UK**

Construction Industry Council (CIC), **Hong Kong**

Building and Construction Authority (BCA), **Singapore**

Construction Industry Development Board, **Malaysia**

Construction Industry Development Board, **South Africa**

Construction Industry Development Authority, **Sri Lanka**

Note 1: We may also compare with **Construction Industry Development Council, India**

Note 2: Above does not include examples of professional and trade bodies and lobby groups
e.g. European Construction Industry Federation (**FIEC**) -

Highways, Bridges,
Railways & Metros,
Airports, Ports &
Harbours

Building
Clients

Power, Industry, Water,
Sewerage & Drainage,
Irrigation & Dams ...

Consultant
s

Contractor
s

Sub-
contractor
s

Suppliers

Ci3

**Construction Industry
Improvement Initiative -
India**

from **REGIONAL** - Chennai, Bengaluru ... and Mumbai, Delhi
to **NATIONAL** -

From **Top Tier CITIES** ... to **Next Tier CITIES** ...?