



NATIONAL INNOVATION CHALLENGE

accelerate deployment adoption-at-scale



IN PARTNERSHIP WITH:

SG:D

OPEN INNOVATION
PLATFORM

OPEN ^{SG}
INNOVATION
NETWORK

Agenda

1.

National Innovation Challenge (NIC)

2.

Examples of Innovation Challenges

3.

Open Innovation Framework through BEAMP

4.

Next Step: How to Participate?

NATIONAL INNOVATION CHALLENGES

DPM's Fortitude Budget speech highlighted the need for partnerships to develop industry-led solutions to the challenges that all enterprises are grappling with, to emerge stronger from the crisis, pre-positioning Singapore to harvest opportunities that arise, and be more resilient to future challenges.

The Challenge, When Solved, Should:

National Innovation Challenges



Address immediate nationwide challenges of reopening & recovery of economy

Focus on medium to long-term solutions for emerging stronger

NATIONAL INNOVATION CHALLENGE CHECKLIST



Challenge Impact

- Does the challenge seek innovative solution that addresses local needs for reopening (immediate) or growth and resilience of SG's economy (mid-long term)?
- Can the solution be used by more than one entity, or impact a wide market?



Benefit for the Problem Owner & Adopter

- Does the solution create value for the PO and/or generate other economic outcome (e.g. lower cost, improved productivity)?
- Does the solution generate any positive intangible outcomes (e.g. better service delivery, safety)?



Speed-to-market

- Will the project result in a solution that is ready for deployment/adoption?
- How long will the project take to go to market?



Commitment of Problem Owner & participating members

- What are the contributions of Problem Owner to the challenge, financially or non-financially (e.g. pilot site, test-bedding resources, commitment to procure)?

- × Should not be looking for solutions that are readily available off the shelf
- × Solutions should not be used by only one corporate member
- × Research project that require long gestation period to market (e.g. 2 years)

PREPARING FOR THE “NEW NORMAL” POST-COVID

“

Against the (Covid-19) backdrop, businesses may need a new and accelerated **digital transformation** strategy.

Extracted from “Accelerate the Digital Agenda for restart post Covid-19” published in Jun 2020



“

The pandemic will catalyse unprecedented growth in digital services and technologies that enable **digitalisation**.

Extracted from in “Covid-19: Implications and Opportunities for Growth in the GCC Region” published in Apr 2020

F R O S T  S U L L I V A N

PREPARING FOR THE “NEW NORMAL” POST-COVID

9 Shifts that will fundamentally change the construction industry

“

More than 60% (of our respondents) believe that (these shifts) are likely to occur **within the next five years.**

McKinsey
& Company

Product-Based
Approach

Specialisation

Value chain control
and integration
with supply chains

Consolidation

Customer centricity
and branding

Investment in
technology and
facilities

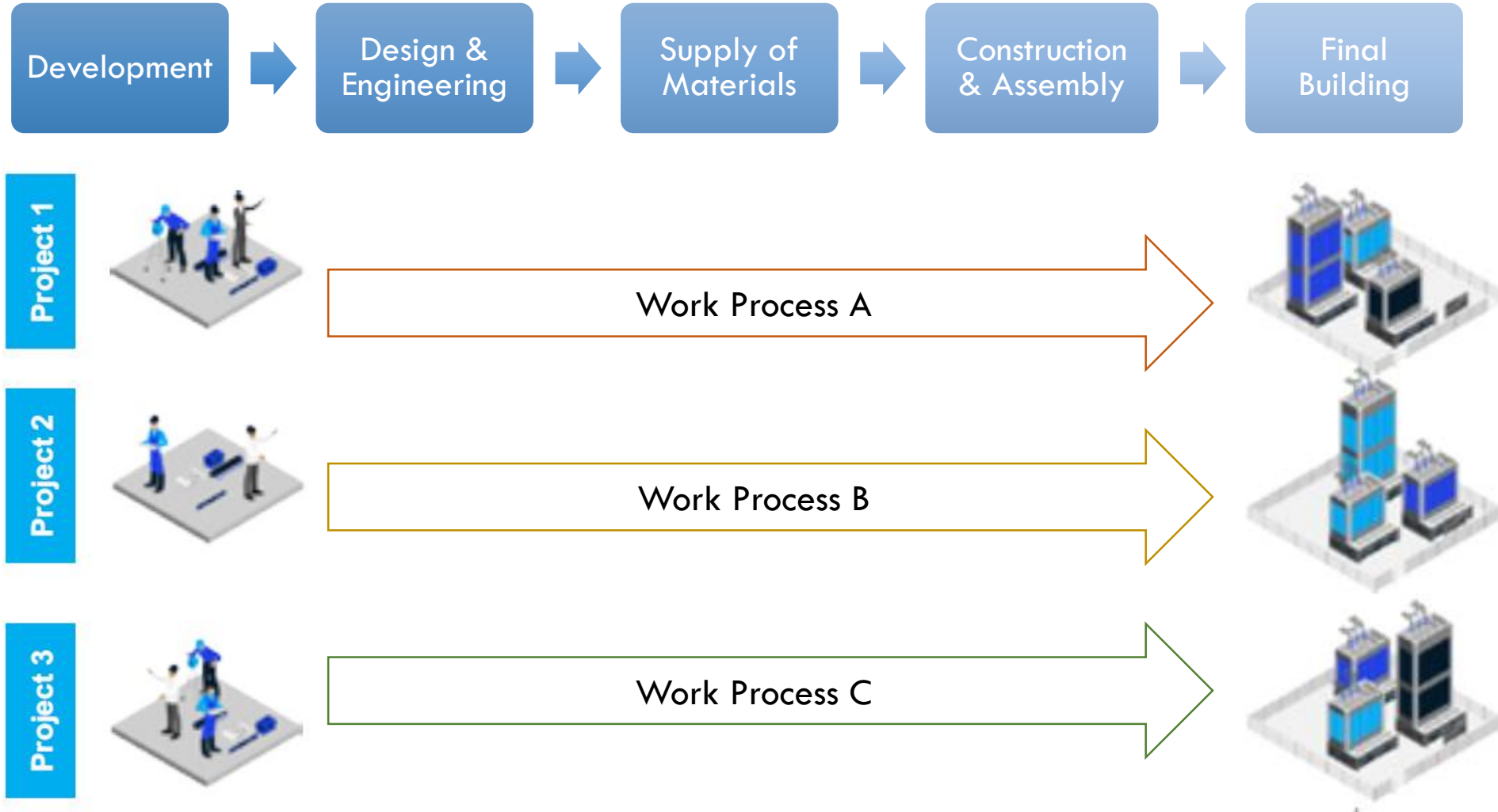
Investment in
human resources

Internationalisation

Sustainability

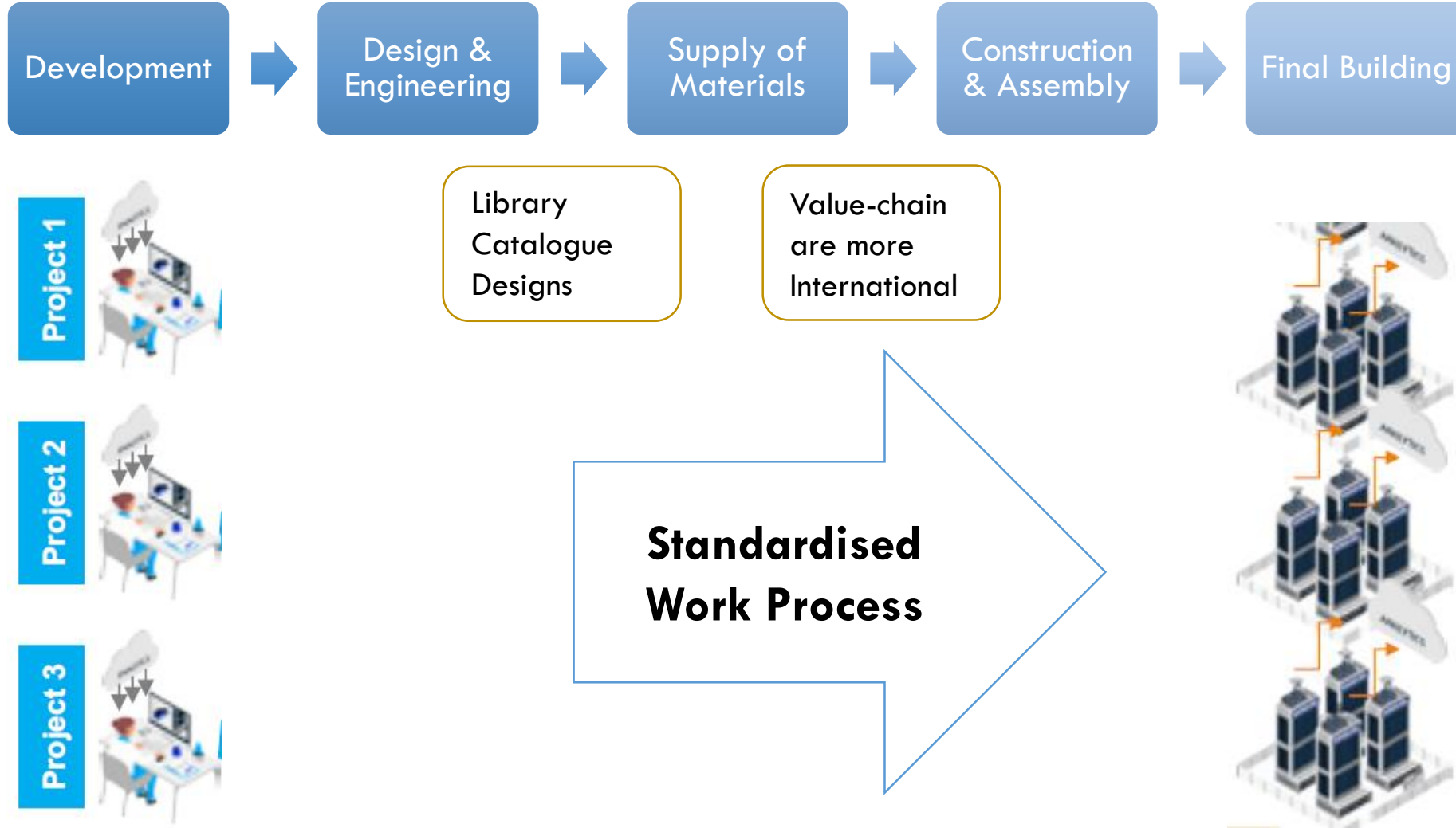
PREPARING FOR THE “NEW NORMAL” POST-COVID

Today's Construction Ecosystem



PREPARING FOR THE “NEW NORMAL” POST-COVID

The construction ecosystem of the future



PREPARING FOR THE “NEW NORMAL” POST-COVID

**Readjust
Recalibrate**

Embracing Technology



Embracing Innovations

**Reinvent
Reimagine**

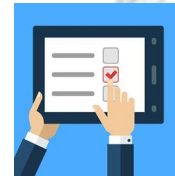
EXAMPLES OF INNOVATION CHALLENGES 1

How can we expand the use of digital solutions to **manage the health, safety and productivity with minimal workforce on site?**



Challenge Impact

- ✓ BE industry members can do more and better with less workforce and, in longer term, limit onsite activities as much as possible.



Benefit for the Problem Owner & Adopter

- ✓ When solved, it can reduce reliance on manpower and drive economic growth in BE sector



Speed-to-market

- ✓ Solutions will be accelerated to deployment.



Commitment of Problem Owner & participating members

- ✓ TACs' members as the first reference customer

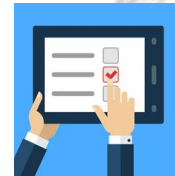
EXAMPLES OF INNOVATION CHALLENGES 2

How can we enable **better planning of worksite/workplace activities so as to minimise mixing of workers from different work groups?**



Challenge Impact

- ✓ BE industry members can segregate workers of different work groups so that they can operate effectively with safe management measures.



Benefit for the Problem Owner & Adopter

- ✓ When solved, it can reduce the likelihood of a cluster outbreak which may cause negative impact to the economy.



Speed-to-market

- ✓ Solutions will be accelerated to deployment.



Commitment of Problem Owner & participating members

- ✓ TACs' members as the first reference customer

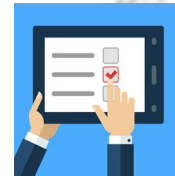
EXAMPLES OF INNOVATION CHALLENGES 3

How can we create a “**BE Carousell**” for construction assets (e.g. equipment, vehicles, materials, etc) to help us better manage resources and materials?



Challenge Impact

- ✓ BE industry members can leverage on the marketplace to connect to interested buyers.



Benefit for the Problem Owner & Adopter

- ✓ When solved, it can improve the cashflow of the organisation through optimising the use of their idle assets.



Speed-to-market

- ✓ Solutions will be accelerated to deployment.



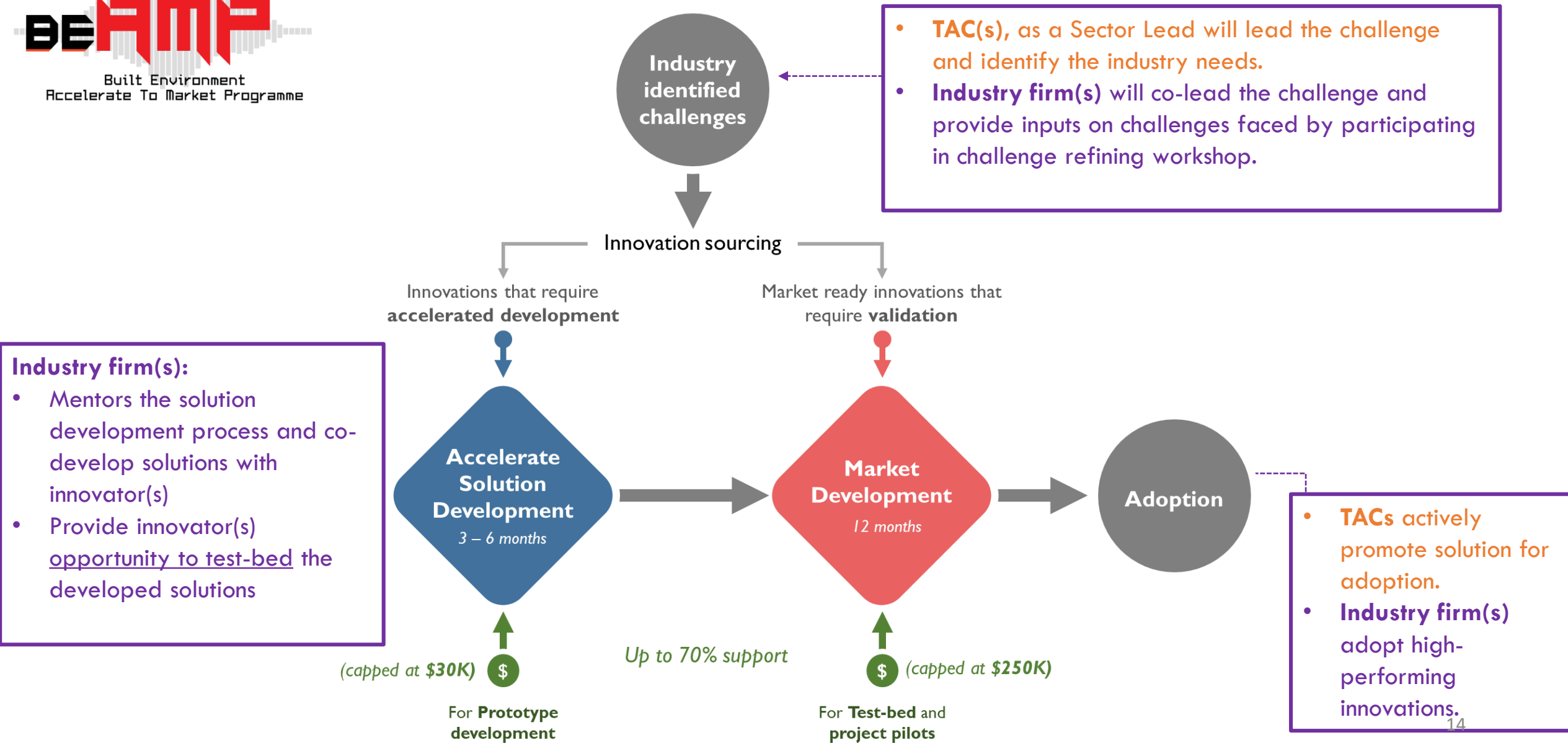
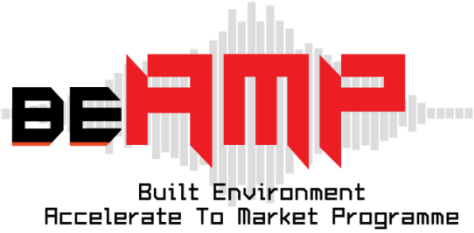
Commitment of Problem Owner & participating members

- ✓ TACs' members as the first reference customer

OPEN INNOVATION THROUGH BEAMP



OPEN INNOVATION THROUGH BEAMP



SUPPORTED THEMATICS UNDER BEAMP

1

**Green
Buildings**



2

**Design for
Manufacturing
and Assembly
(DfMA)**



3

**Integrated
Digital
Delivery (IDD)**



4

[NEW] National Innovation Challenge

NEXT STEP: HOW TO PARTICIPATE?



Submit a Problem Statement Template to gain an understanding of the pain point(s) you are seeking to solve. We will follow up to discuss on the project and work towards admitting the challenge onto NIC.



Once approved, we **will assist to refine** your **problem statement** to be **contextual to your needs** and **easily understood** by potential problem solvers



Mutually agree on **refined problem statement, evaluation criteria, contribution** and **final challenge brief** to published



Obtain supporting documents, if any, and internal clearance for publication materials

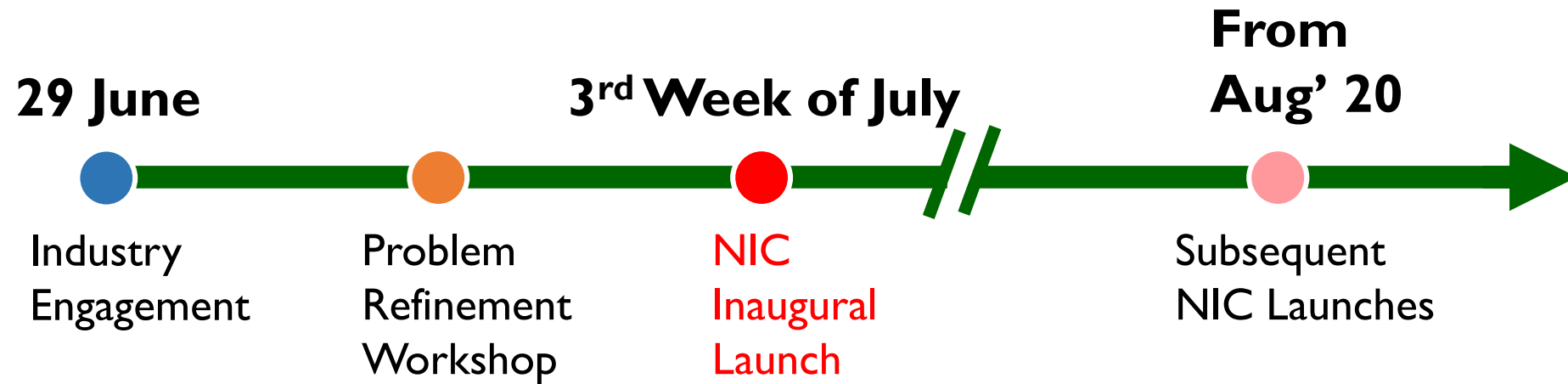


Update on **challenge timeline, engagement process** and level of **required involvement**

SAMPLE PROBLEM STATEMENT TEMPLATE

- **Description of problem statement**
 - State desired outcomes instead of prescriptive solution(s)
- **Background of problem**
 - Challenges faced and inadequacies of current solution(s)
- **Expected Value/Benefits of the solution**
 - Potential market/business opportunities? Other benefits?
- **Requirements for desired solution/outcome (e.g. to integrate with existing system, standards)**
- **Impact of the challenge**
 - How does the solution benefit the wider sector market in terms of re-opening/recovery from COVID-19?
- **Timeline for deployment**
- **Commitment Plan for commercialisation/adoption** (e.g. pilot procurement budget)
- **Resources** that can be offered (e.g. test-sites, datasets, mentorship)

INAUGURAL LAUNCH IN JULY 2020



IN PARTNERSHIP WITH:



Submit your interest now !



IN PARTNERSHIP WITH:



FAQs

1. How frequent will the National Innovation Challenges be called?

The National Innovation Challenges will be launched over a series of Innovation Calls, starting from 22 July 2020.

2. Who owns the solution IP?

The Problem Owner should state their preferred IP arrangement upfront for their challenge statement. Generally, IP ownership resides with the innovators, but can be negotiated between the Problem Owner and innovator.

3. Is there any limit to the number of problem statements we can submit?

There are no limits to the number of challenge statements. We will prioritise challenge statements for the July launch based on challenge impact.

FAQs

4. What happens if two or more participating firms have a common interest in a challenge statement?

Where there is overlapping interest, we will engage participating firms on the feasibility of putting out a joint challenge statement with multiple demand drivers, to generate greater interest and nationwide deployment opportunities.

5. What is the difference between this NIC and the existing Open Innovation platforms?

The NIC seeks to address immediate challenges of safe reopening, and medium-to-long term recovery and resilience. Compared to the existing open innovation platforms, the NIC will be targeting challenge statement with economy-wide impact and support the adoption of solutions.

Thank you