



Customer  
Service

# Office of the Building Commissioner

11 June 2020

[www.customerservice.nsw.gov.au](http://www.customerservice.nsw.gov.au)

# Rebuilding Confidence in the NSW Construction Industry

- **The Problem**

Consumers have lost confidence in NSW Class 2 Apartment Buildings

- **Who else would solve the problem?**

No national regulatory consistency, so NSW is solving for this state

- **What is the scale of the problem?**

Nominally 1000 (+4 apartments) Strata Plans registered in NSW each year

Involves nominally 20,000 apartments

Nominal Value \$15 bn construction activity pa

- **What is the key strategy?**

Shifting focus to trustworthy buildings and project teams

Moving away from one size fits all regulation strategies using new risk tools

# New Legislation to change the game in NSW

- **Design and Building Practitioners Bill 2019 – D&BP Bill**

Establishes a registration scheme for designers that requires that designs for certain types of building work be certified for compliance with building regulations by registered design practitioners and

Establishes a requirement for builders to prepare and declare as-built drawings to reflect the declared designs

Requires designers and builders to lodge their plans on the NSW e-planning portal

This Bill introduces the Building Commissioner's requirements from 1/7/21

- **Residential Apartment Buildings (Compliance and Enforcement Powers) Bill 2020**

Enables the Building Commissioner to stop an occupation certificate from being issued in cases where serious defects are present, if the building bond required under the Strata Scheme Management Act 2015 has not been paid or if the developer has not given adequate notices of a proposed application for an occupancy certificate

Enables documents to be called in, work to be stopped and work to be opened up

This Bill introduces the Building Commissioner's powers from 1/9/20

# New Digital capabilities to support regulator and compliance

## **Unique situation where new legislation is adopted while concurrent business and technology capability build has occurred**

- E-Planning Portal
- E-Strata Portal
- Single View of project tool
- New Licencing platform + digital twins for accredited players
- Standardised document requirements and format with AI capability
- New public facing dashboards to give real time data
- Multi-party Risk Ratings Tool - to tender in 3 weeks ready for 1<sup>st</sup> September 2020
- Building Assurance Solution Tool – out to tender now + sandpit testing from late 2020

# Delivering the **Construct NSW** transformation strategy



- **The problem**

All the industry stakeholders have different views on the problems and the solutions

- **Who else would solve the problem?**

This is an industrial scale problem needing a collaborative, holistic and focussed approach

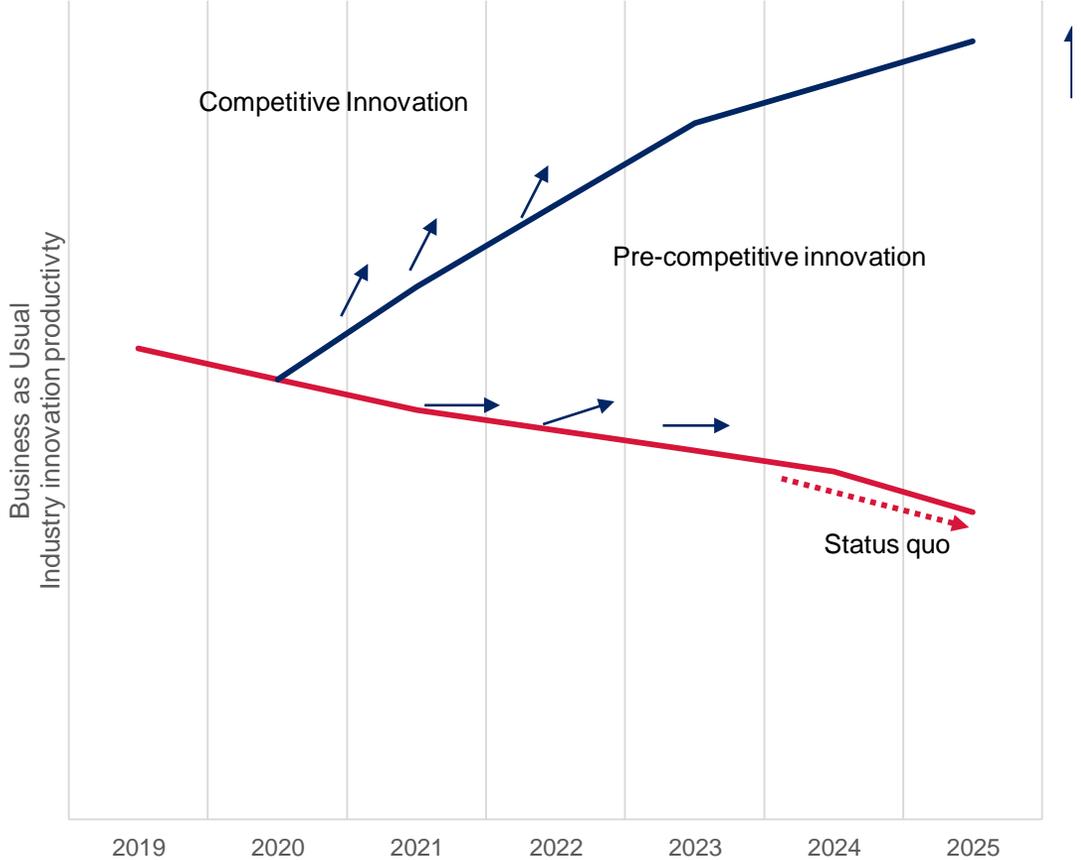
- **What is the key strategy?**

No silver bullets, system wide transformation

Measurable and sustained uplift in performance

# The outcomes of **Construct NSW** must lift base-line productivity through pre-competitive collaboration

**Figure 3: Industry Productivity and Performance, 1964-2012<sup>23</sup>**



# Delivering the **Construct NSW** transformation strategy



- **Construct NSW** will be the transformation that points all players and teams towards a common goal
- Continually uplifting the sector's performance and confidence over 3 horizons
  - By 2022, measurably re-establish consumer confidence in the construction sector
  - By 2025, identify and build responses to priority industry capability gaps
  - By 2030, lock in long-term industry capability through system change and innovation
- The detail of the strategy is in the 6 pillars – legislation, ratings, skills and capabilities, contracts and standard, digital, data and research

# Implementing system-wide uplift through the six Pillars of Construct NSW

1



## Customer-focused regulatory framework

- New buildings designed and constructed according to the Building Code of Australia
- Higher standards of certification work
- Building owners provided with documentation to be able to maintain their asset
- Additional legislation to enhance requirements around fire safety and key building elements
- Produce an industry that is customer-focussed and seeks to deliver quality outputs
- A regulator that is empowered, organised and resourced to be impactful and efficient

2



## Ratings systems to provide greater information transparency

- Facilitate the creation of regulated ratings tool information that can be purchased in the open market by insurers, financiers and other entities.
- Apply ratings information to complement existing intelligence data held by regulators.
- Facilitate market settings to allow decennial liability insurance to be offered for high-quality class 2 buildings

3



## Lifting skills and capabilities

- Open source content is delivered by NSW-based institutions.
- Measurable uplift in practitioner performance (reduction in defects, complaints, claims, etc).
- Regulator applying direct education as a compliance tool
- Enhanced consumer and market confidence in the performance capabilities of the sector

4



## Strengthening contracts and standards

- Clearly defined roles and accountabilities in template construction contracts
- Measurable uplift in practitioner performance (reduction in defects, complaints, claims, etc).
- Regulator able to use contract templates as a compliance tool to reduce consumers' exposure to risky projects.
- Insurers able to supply appropriately priced policies to practitioners and projects throughout the supply chain.
- Enhanced consumer and market confidence in the performance capabilities of the sector.

5



## Using digital platforms to drive enhanced accountability

- A public digital framework for capturing, storing and sharing building-related data.
- Digital twins established for building products, practitioners and buildings.
- A building quality assurance architecture that will be able to evolve to have global application.
- Building and safety regulators able to more efficiently monitor risks and enforce compliance.

6



## Using data and research to deliver continual improvement

- Public dashboard reporting on the outcomes of the workplan.
- Increased knowledge of pain points and drivers of poor performance.
- Establish trusted longitudinal data on the sector's performance
- Establish a customer-focussed industry culture that strives for continual improvement

# The OBC team has been established to drive **Construct NSW**



# Pillar 3 : Capability Building

- **The Problem**

There is a skills gaps in the building and construction sector with the curriculum offerings failing to reflect on modern, ever changing requirements

- **Who else would solve the problem?**

Landscape of educators (Tafe NSW, Universities, RTO's etc) all competing for market share but not aligned to fulfilling the needs of the industry

Current skill gaps are not being filled

No one taking leadership on “good for one, good for all” strategies in capability uplift

- **What is the scale of the problem?**

NSW construction industry represents around 33% of national turnover.

363,000 industry workers in NSW

The challenge is that by 2030, 1/3 of the workforce will have retired, meaning we have to attract and train 100k – rewarding, exciting, career paths. We will need to retrain the workforce to ensure it's future-facing e.g. new tech, less waste, digital work places/AI ready

# Pillar 3 – Lifting skills and capabilities

3

Education and training are a foundational pillar of any profession and a major influencer of the culture, behaviours and outcomes that it exhibits. There is a need for greater focus on education in the building and construction sector to address skills gaps and ensure that the curriculum offerings reflect modern requirements. The Building Commissioner will work with education institutions and the building industry to identify the skills and capabilities that are necessary to uplift performance across the entire supply chain (design, manufacture, build, certify, maintain).

Content will be future-facing and account for the new operating conditions created by the workplan including changes to legislative requirements (pillar 1), ratings information (pillar 2), contracting (pillar 4) and digitisation (pillar 5). The identification and development of content will be informed by stakeholder consultation involving the education sector, industry and regulators (complaints, non-compliance, insurance claims).

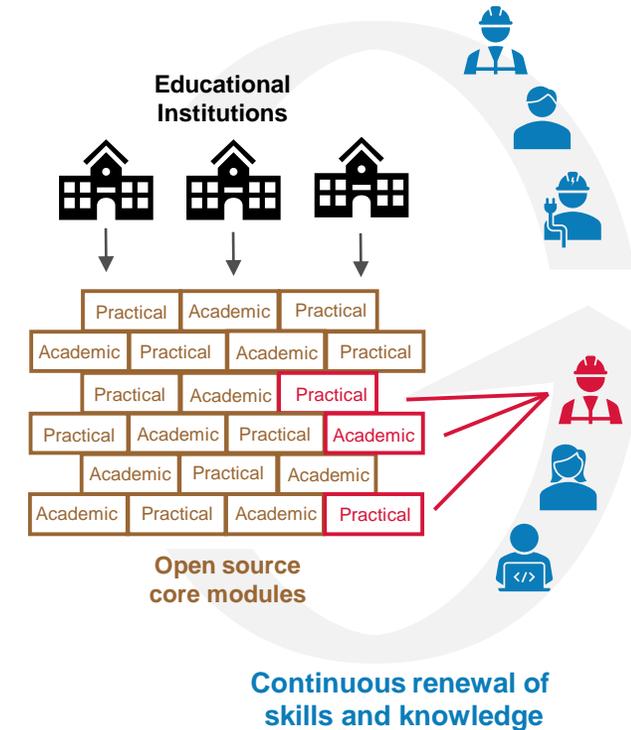
Content will be provided as a suite of open-source core units that can be consumed through mechanisms such as the modification of existing core modules (e.g. certificates), licensing requirements, mandatory continuing professional development and corrective compliance.

## Approach

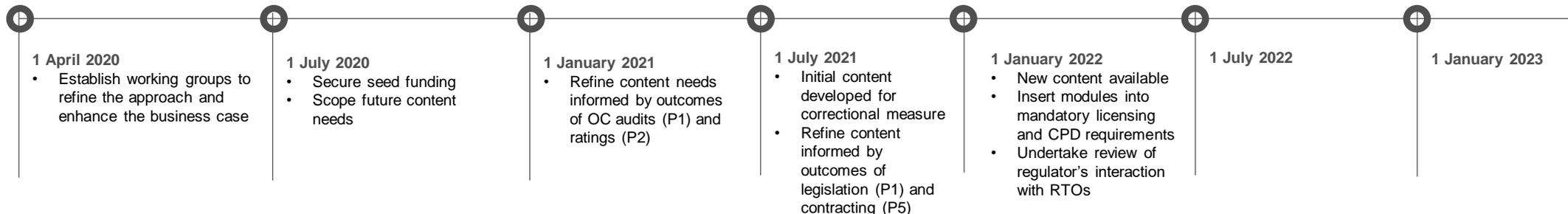
- Lead stakeholder engagement with educational institutions and the building sector, and develop a business plan to secure Treasury seed-funding
- Ensure that content aligns with the wider transformation being facilitated by the workplan
- Facilitate necessary legislative reforms to support the consumption of content (licensing, CPD, etc).

## Outcomes

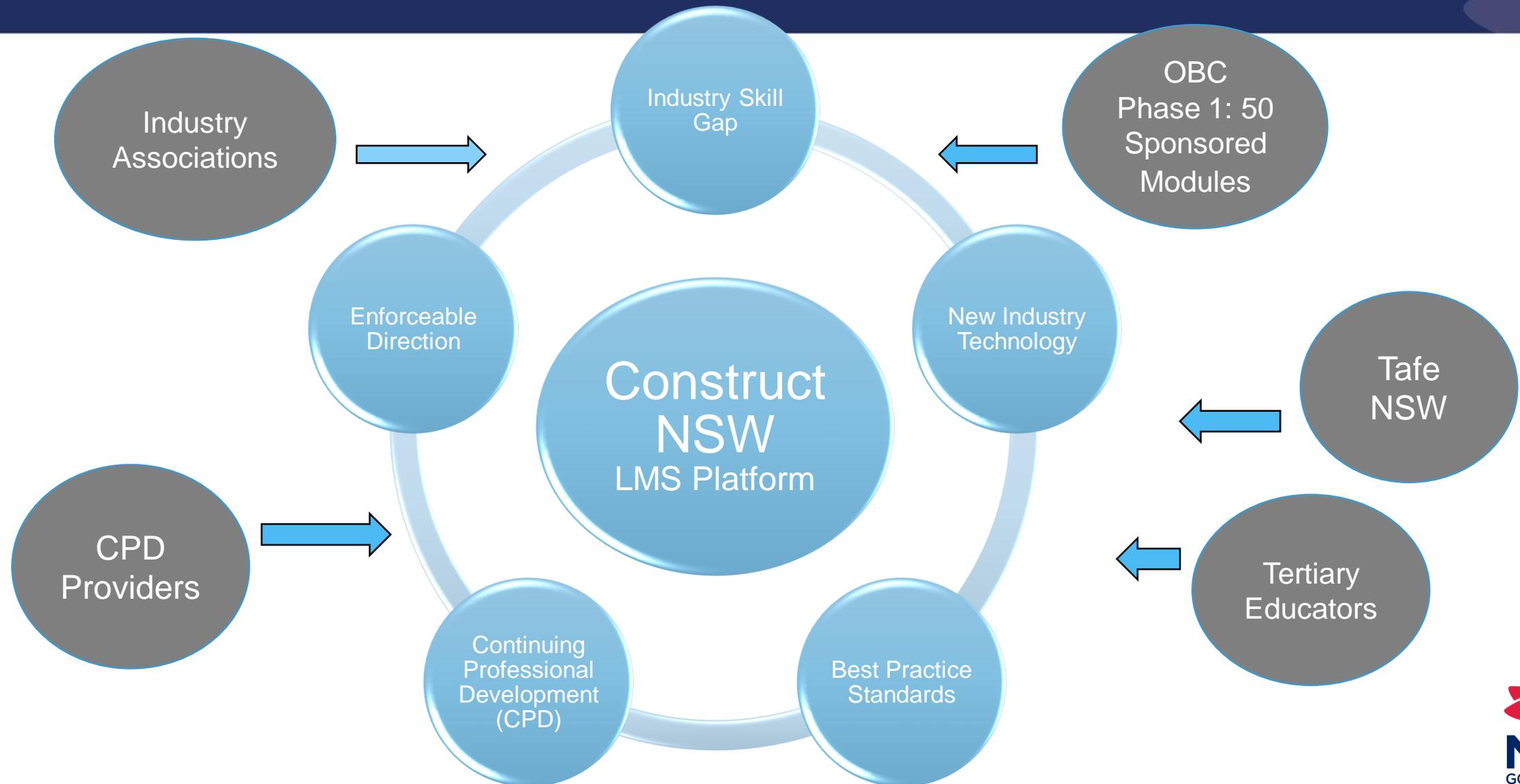
- Open source content is delivered by NSW-based institutions.
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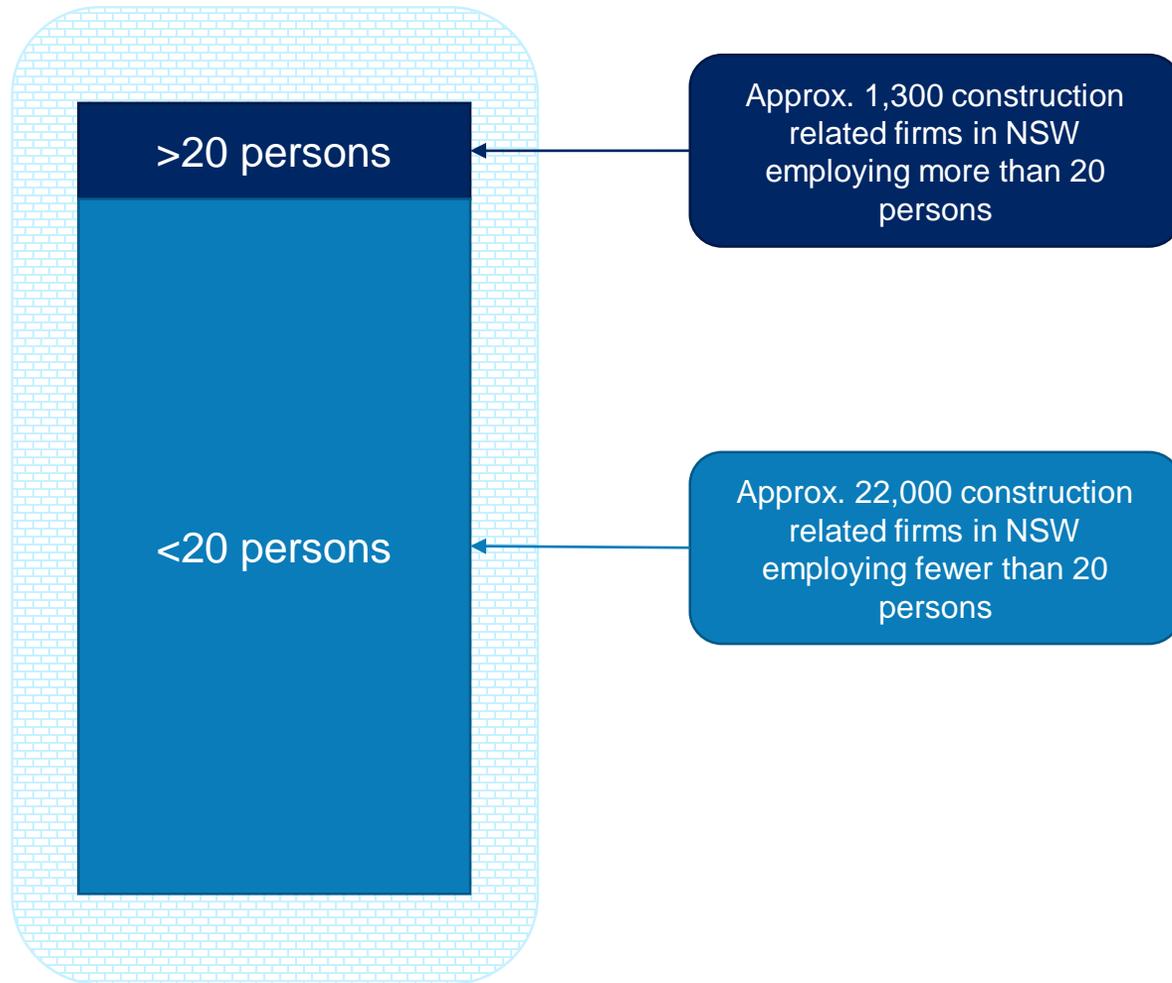
## Indicative milestones



# The ecosystem for delivering education through the Construct NSW Learning Management System (LMS)



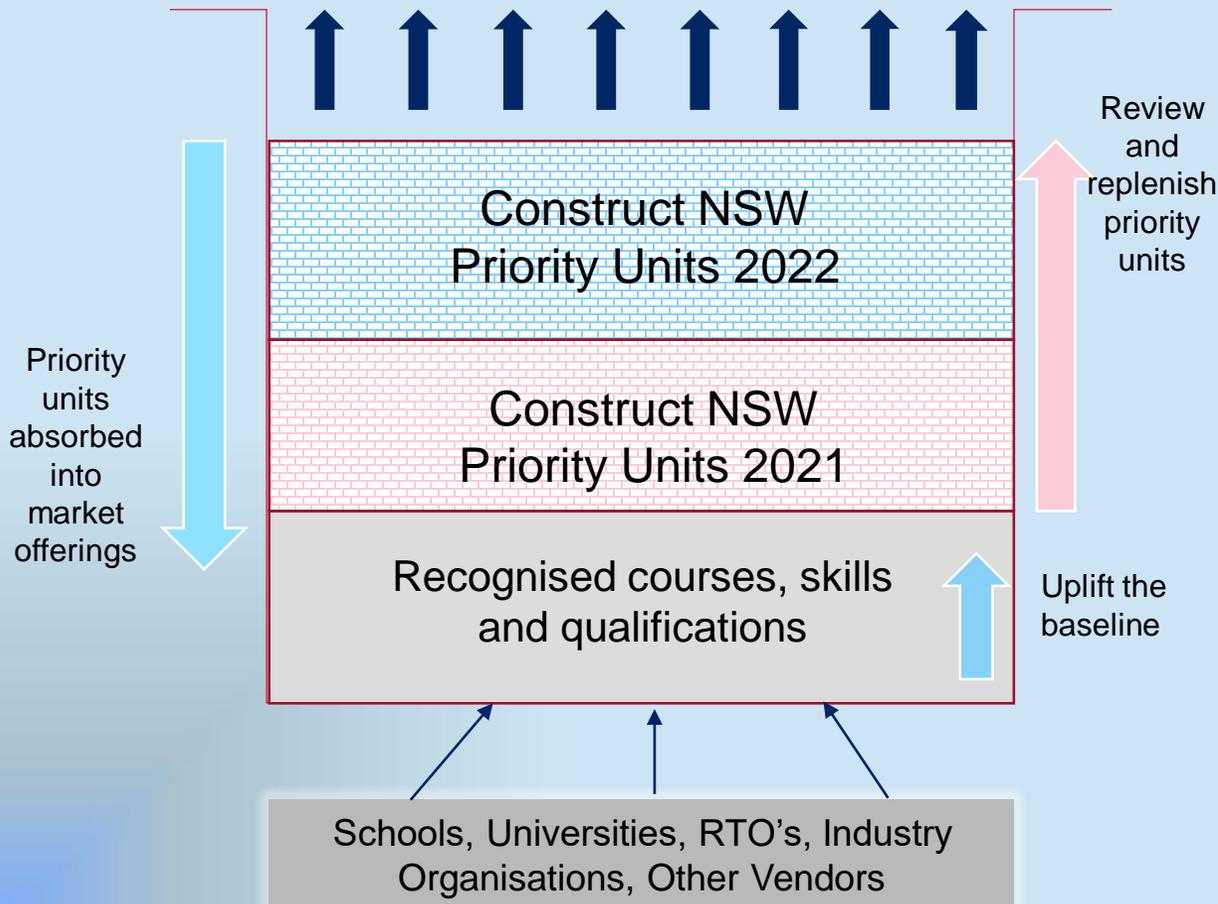
# Construct NSW will prioritise 'good for one and good for all' innovation strategies



- The NSW building industry is dominated by a few large players who typically deploy 'winner take all' strategies
- To achieve measurable performance uplift innovation needs to be relevant to the small business base and their capabilities
- **Construct NSW** be the strategy that delivers benefits that could not to be created by any of the players alone
- Examples are the multi-party-learning tool, building assurance solution and learning management system

# Creating an ongoing cycle of capability and innovation through Pillar 3

Injecting innovative learning, filtering to constructors and educators



- The **Construct NSW** learning management system will be the hub for multi-skilled, futuristic and innovative learning
- Deliver short-term uplift that is resilient and absorbed into BAU education
- The LMS framework will be replicable for other sectors and agencies in DCS and across Government
- Discipline agnostic to have broad application- designers, constructors, installers, manufacturers, tech companies, educators, regulators, etc
- Using education to establish an early intervention strategy to correct behaviour (yellow and red cards)

# Tomorrow's constructors supporting the NSW Building Commissioner

## Steering Committee



**Jessica Deeks**

I'm in my final year studying a Bachelor of Property Economics. I have been working for Lendlease for 4 years as an Undergraduate Engineer and I look forward to being a part of the Construct NSW Steer Co. Within the next 5 years I hope to see greater diversity, innovation and sustainable practices in the building and construction industry.

## Procurement



**Mathew Mikic**

I'm a current student of the University of Newcastle undertaking a Bachelor of Construction Management. I have been employed as a Cadet at Grindley Construction working on Aged Care & Schools Infrastructure projects for just under 3 years. I would like to see earlier contractor involvement & consultation during design development for improved stakeholder collaboration and rationalization of design and construction methods for the delivery of time/quality/cost effective projects throughout the NSW Construction Industry.

## Research



**Keanu Andrews**

I'm currently studying a Bachelors of Civil Engineering (Hons) and a Bachelors of Commerce at the University of New South Wales. I am currently working for Think Brick Australia as an Undergraduate Civil Engineer. I look forward to seeing improvement in building design and construction standards in NSW through an increased use and focus on evidence based research. Tangible evidence provides deeper insight into industry, acting as a key resource in identifying and improving the building construction industry.

## Legislative Reform



**Michael Parker**

I am currently in my final semester of my undergraduate degree, Bachelors of Construction Management with a sub-major in Construction Economics. I am looking forward to participating in this opportunity and displaying skills I have developed at university as well as in the workplace. One area of the construction industry I would like to improve is viability of companies. Construction has one of the highest levels of insolvency across all industries and it is affecting projects and contractors on all levels.

## Education



**Harry Joe Kealy**

I've completed a Bachelor and Master of Architecture at the University of New South Wales. I am currently working as a Sessional Academic for UNSW and Architectural Designer for Cox Architecture. I am looking forward to leading the emphasis of Education, fostering the connection between theory and practice. Emerging technology and real-time information can give us the opportunity to learn.

## Digital



**Jacob Heckenberg**

I'm a University graduate (Bachelor of Business) and a trade qualified carpenter. I am currently employed as a Leading Hand Carpenter with a high end residential builder based in Sydney - Cadence and Co. I want to be a custodian for a more sustainable Australian building sector. Homes are an individuals biggest asset and one where we spend most of our time. I want to be part of making these spaces better for the planet, our communities and us as individuals.

## Risk Ratings



**Alex Kapruziak**

I have completed a Bachelor of Construction Management (Hons). I am currently working as a Graduate for Richard Crookes Constructions. By 2025 I would like to see the construction sector to be a more innovative industry. It is through this that the industry can be safer, more reputable and sustainable.

# Pillar 6: Using data to deliver continual improvement



- **The problems**

Opinions are leading conversations instead of hard evidence and quantitative data.

- **Who else would solve the problem?**

Many people could deliver quality research if given the right mandate – university researchers, subject matter experts, management consultants, etc

- **What is the key strategy?**

Tactical research delivered quickly so that it can have an immediate and direct impact to inform decisions

Research outcomes that will provide broad benefits across the strategy

# Pillar 6: Using data to deliver continual improvement

- Construct NSW will build up a deep lake of data for researchers to analyse, enhancing the existing regulatory dataset through a strong field presence
- The data will continue to be held by OBC but the outcomes shared with all
- First piece of research commissioned from UWS to understand the digital capability of designers and builders - application across legislative reform (1), skills and capability (3), contracts (4) and digital (5)
- Upcoming research on consumer confidence and decennial liability insurance
- Further opportunities will be scoped through the Pillar 6 working group

# Contact Office of the Building Commissioner



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[www.nsw.gov.au/building-commissioner](http://www.nsw.gov.au/building-commissioner)



# Community of Practice Roundtable Sessions

Quantity Surveying & Project Management

**Professor Srinath Perera**

Director, Centre for Smart Modern Construction

School of Built Environment



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# c4SMC Community of Practice Roundtable



Changes due to the Design and Building Practitioners Bill 2020

Changes due to digitalisation and globalisation

Changes due to industrialisation of construction

Changes due to need for sustainability

Need for regulation of certification



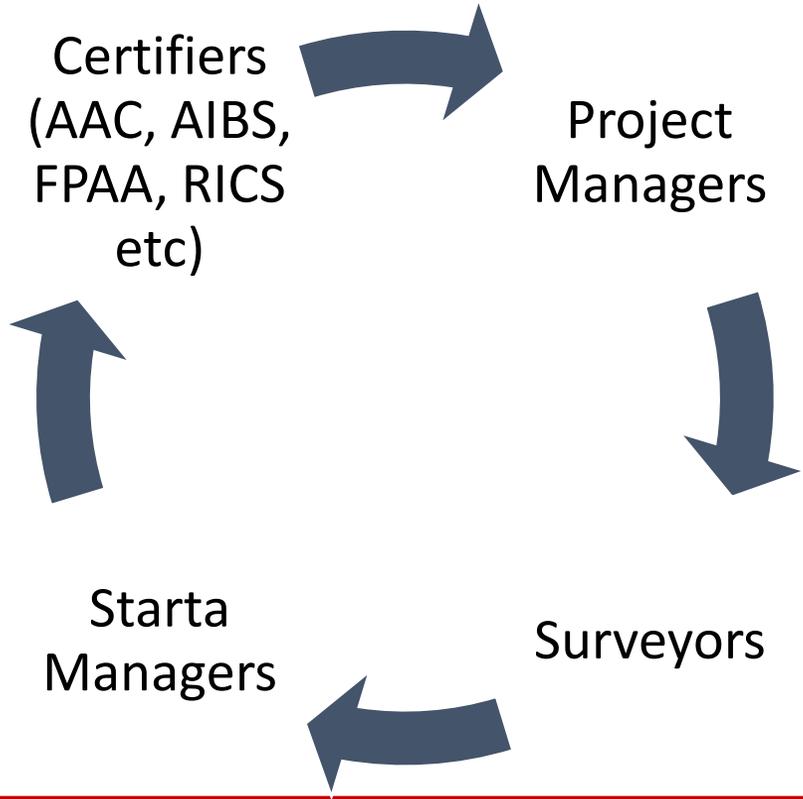
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# c4SMC Community of Practice Roundtable

## Key Parties in Certification



Association of Accredited Certifiers (AAC),  
Australian Institute of Building Surveyors (AIBS),  
Fire Protection Association Australia (FPAA),  
Royal Institution of Chartered Surveyors (RICS)



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# c4SMC Community of Practice Roundtable



Stream 1: Describe the current and future landscape

Stream 2: Careers in the New Landscape

Stream 3: Micro learning required for the New Landscape



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Main room

Key presentations (OBC, WSU, RICS, AIQS, AIPM)

Breakout rooms (Group discussion)

Group 1  
(RICS + Academics)  
Approx. 10

Group 2  
(RICS + Academics)  
Approx. 10

Group 3  
(AIQS + Academics)  
Approx. 10

Group 4  
(AIQS + Academics)  
Approx. 10

Group 5  
(AIPM + Academics)  
Approx. 10

Group 6  
(AIPM + Academics)  
Approx. 10



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# Breakout Sessions

What is the type and state of services offered by QS and PM professions in NSW?

What are the problems and deficiencies in QS/PM services?

How and which QS/PM services can be improved through digitalisation?

How can QS and PM services be enhanced to have a greater input in certification?



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# Breakout Sessions

Consider the current status of services offered

- Survey provide context

Consider opportunities to improve

What aspects and how to improve

Express your views: verbal and chat

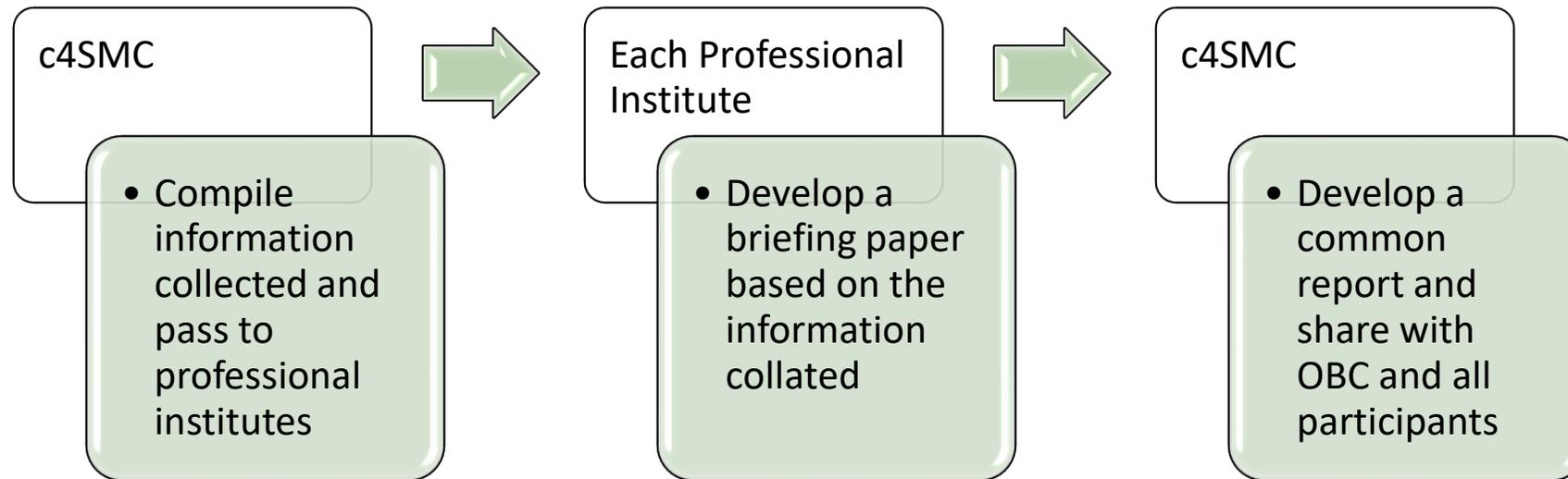
Brainstorming to find opportunities the PM/QS service profile



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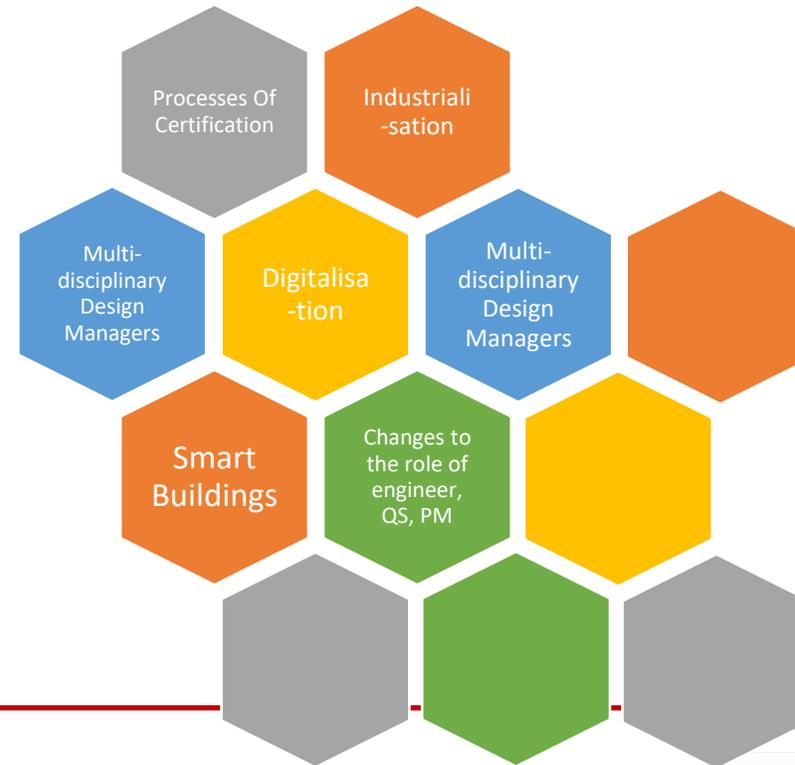


## Moving Forward ...



## What's happening in the next Roundtable ...

### Careers in the New Landscape





# c4SMC Community of Practice Roundtable

WESTERN SYDNEY  
UNIVERSITY



Centre for  
Smart Modern Construction

**Thank You for Participating**  
**Community of Practice Roundtable**  
**See You in the Next Round**



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