



MANAGING SCHOOL INFRASTRUCTURE PROGRAMS AND PROJECTS

Learning in 21st Century Schools

8th Regional Workshop, IDB

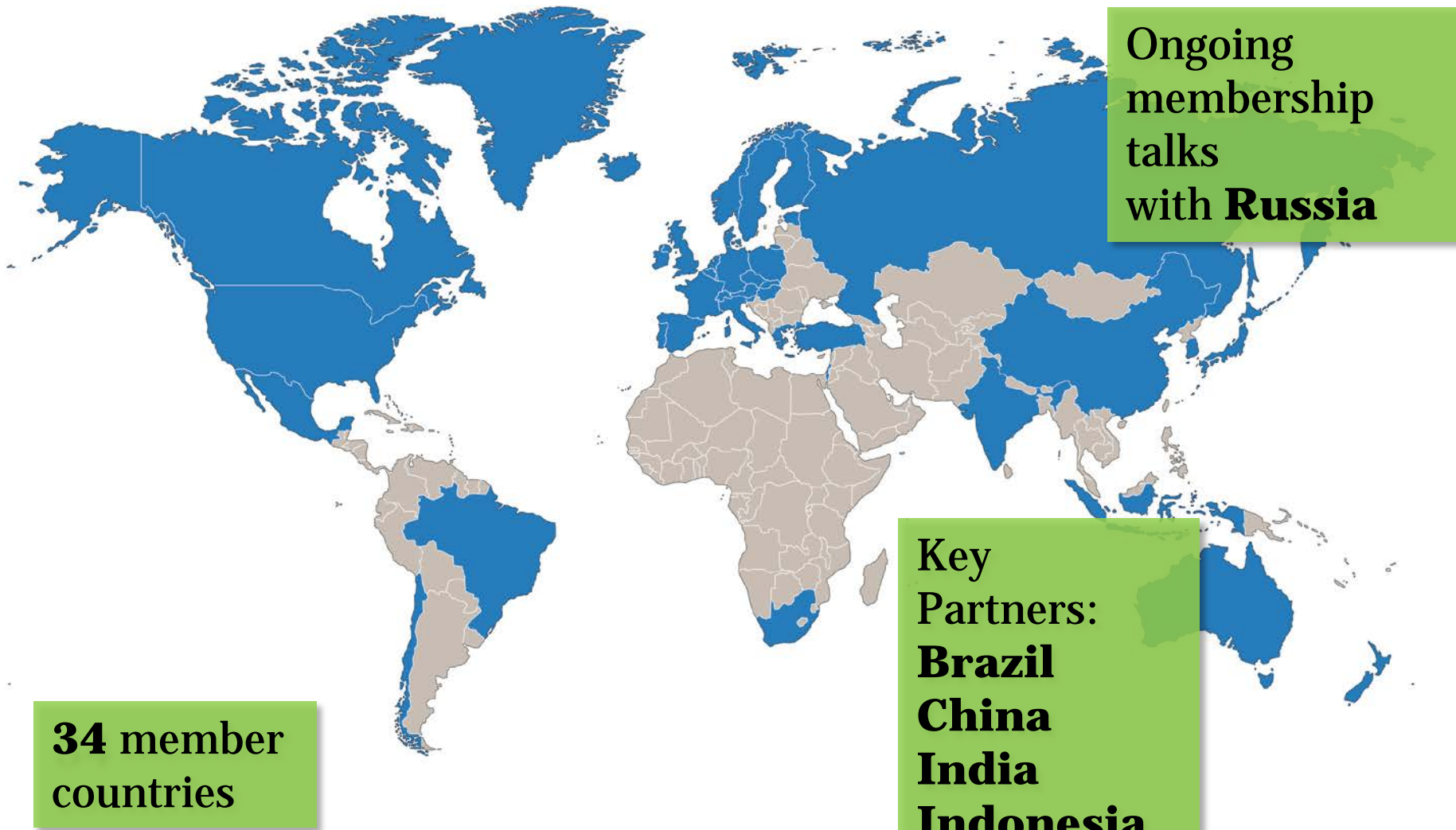
29 September to 1 October 2015, Antigua, Guatemala

Alastair Blyth

OECD Early Childhood and Schools Division

OECD

Organisation for Economic Co-operation and Development



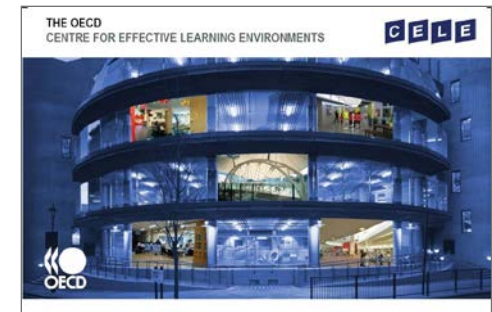


OECD Centre for Effective Learning Environments: An international network

Overseen by Group of National Experts on Effective Learning Environments

Current members of CELE: Austria; Greece; Ireland; Japan; Mexico; New Zealand; Slovenia; Italy; Luxembourg and Norway. Observers: IDB; World Bank EIB

THE OECD
LEARNING ENVIRONMENTS EVALUATION PROGRAMME
Creating Effective Learning Environments



PEB - OECD Programme on Educational Building
Maximising your country's investment in educational facilities



www.oecd.org/edu/facilities





This presentation...



Will touch on ...

Map of process

Use of PPPs

Contractor frameworks

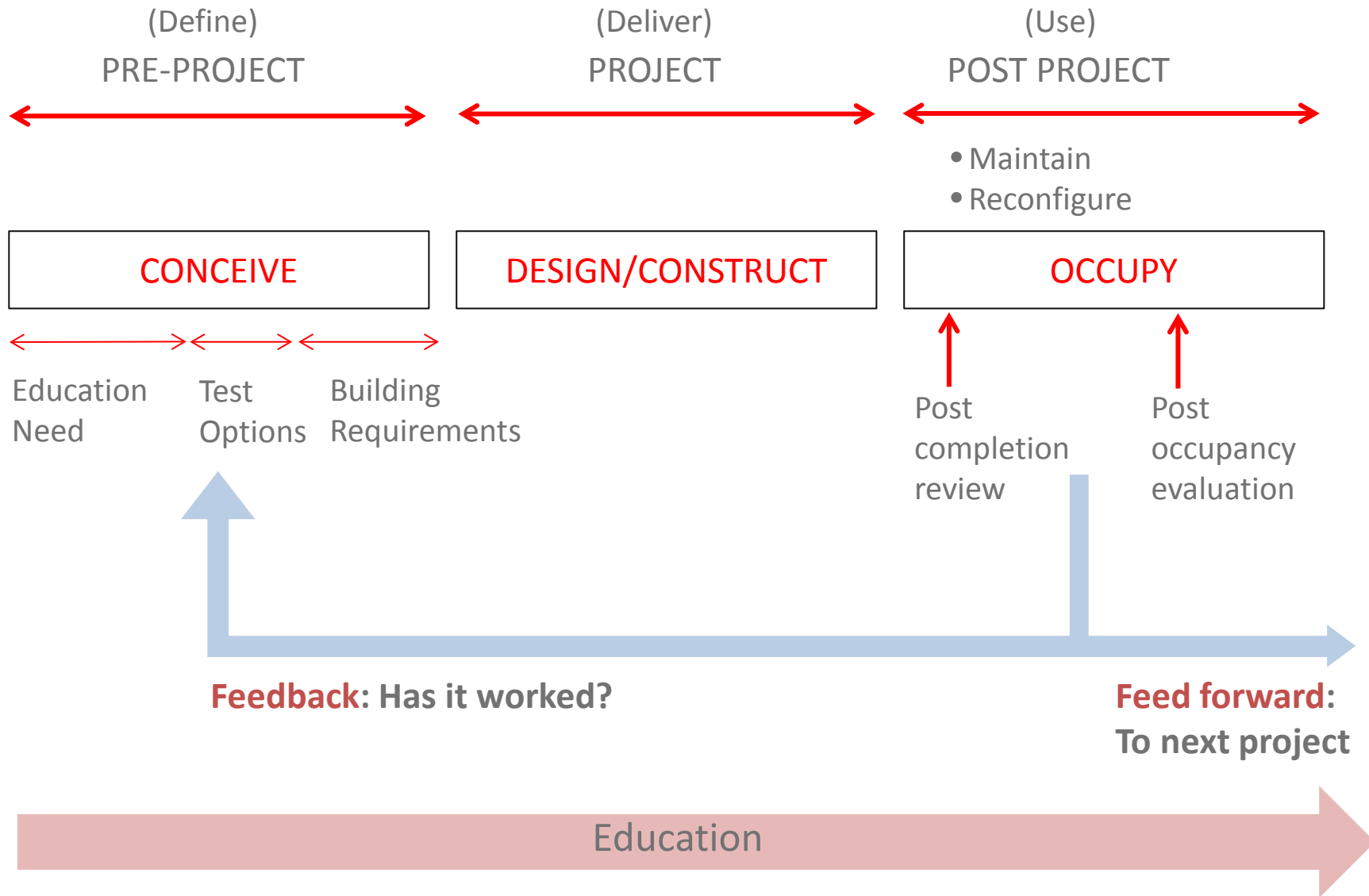
Design build

Standardization

User participation

Post occupancy evaluation





To meet the demands of 21st Century skills

Education systems are expected to help students develop:

Way of thinking: Creativity, Critical thinking, Problem-solving

Way of working: Collaboration, Teamwork, Adaptability, Leadership

Way of living together: Curiosity, Empathy, Self-esteem, Resilience

A photograph of a classroom environment. In the foreground, a student with long blonde hair in a ponytail, wearing a dark blue school uniform, is seen from behind, sitting at a desk and looking towards a computer monitor. To her left, another student is lying on their stomach on a wooden desk, also in a school uniform. In the background, another student is visible, leaning over a desk. The room has blue walls with white electrical outlets and a red chair. The overall atmosphere is one of a modern, collaborative learning space.

Source: OECD Centre for Educational Research and Innovation (2011)
“The Nature of Learning: Using Research to Inspire Practice”



Create physical settings to support:

- Collaboration
- Individual work
- Responsive to different needs
- Structured and unstructured learning





Public Private Partnerships

PPP increasingly used but...
Some concerns expressed

Consequences of change
Management of contract by the client



NEW ZEALAND EXPERIENCE

Population: 4.5 million

About 20% schools are rural

50% schools have 200 students or less

25% have fewer students than 90



Looking at how to create Innovative Learning Environments...

Kim Shannon, NZ Ministry of Education at Form Follows Learning, Athens 2015



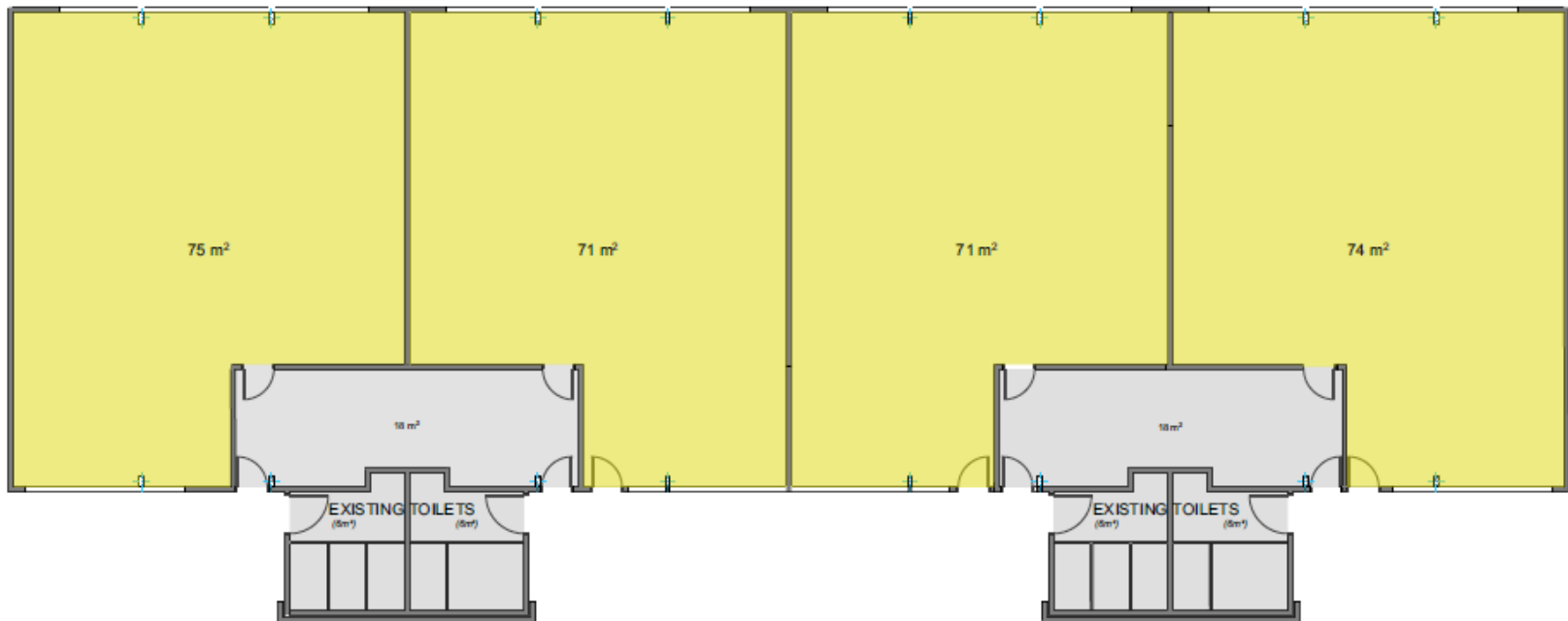
Designing new schools with flexibility in mind

Kim Shannon, NZ Ministry of Education at Form Follows Learning, Athens, OECD 2015



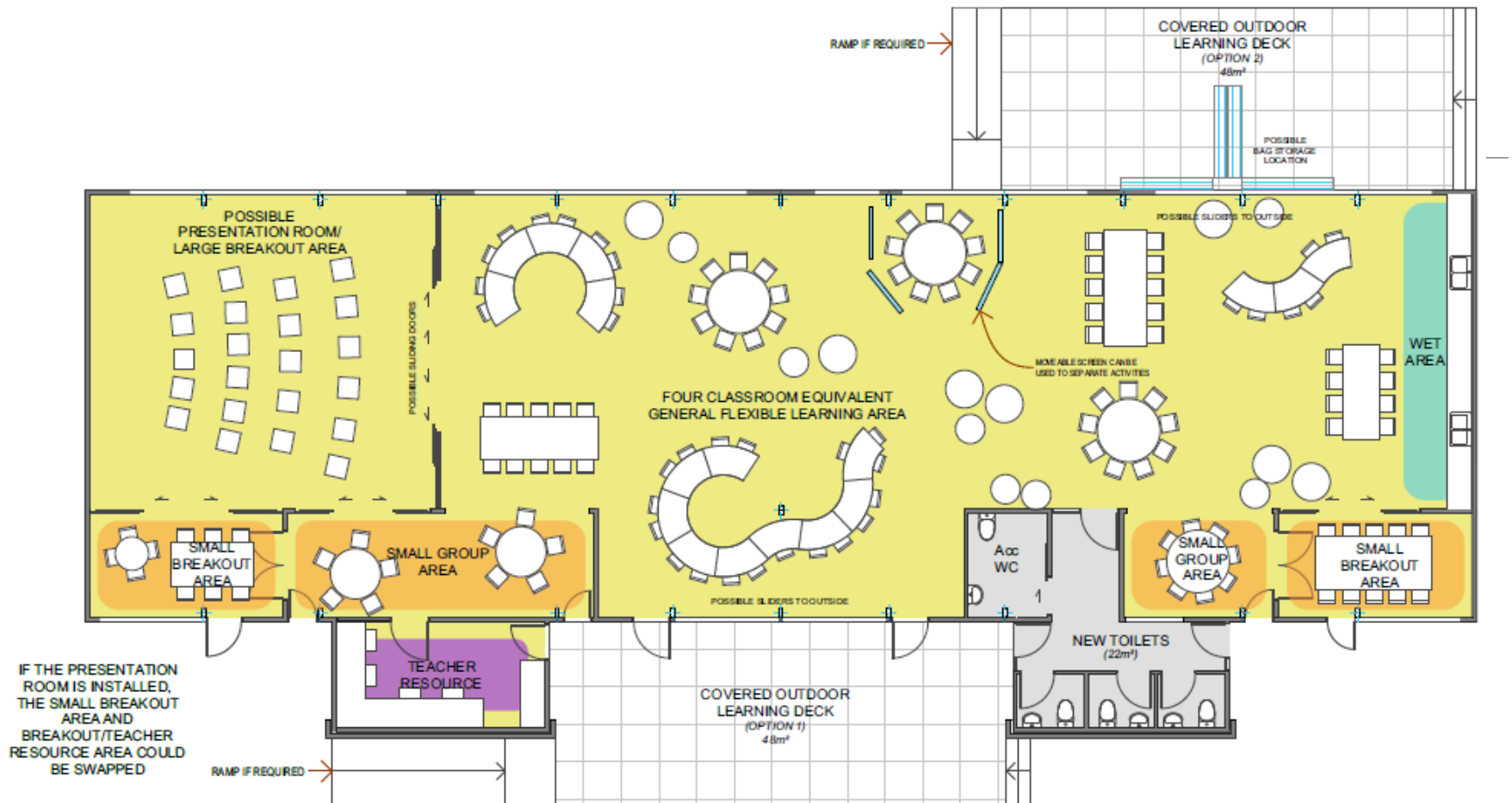
... and meeting the challenge of modifying existing buildings...

Kim Shannon, NZ Ministry of Education at Form Follows Learning, OECD 2015



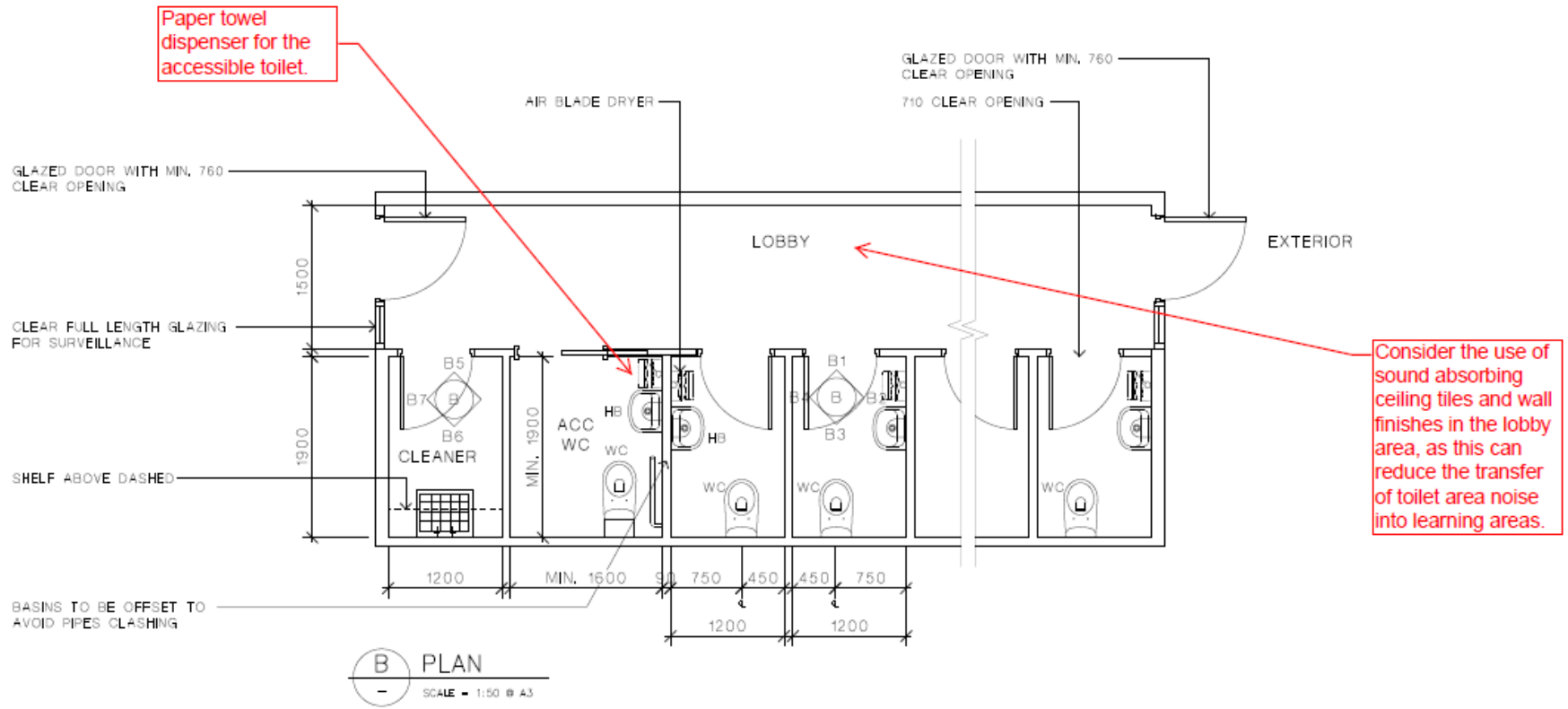
Formula classroom block constructed in 1950s, 60s, 70s

Challenge is to move from this...



Draft design for modernisation of Formula classroom block

...to this, with greater standardisation of designs...



...and creating reference designs for schools to use.



Using Modular Transportable Buildings



Vogeltown School in New Plymouth,

Meeting needs of school expansion and contraction

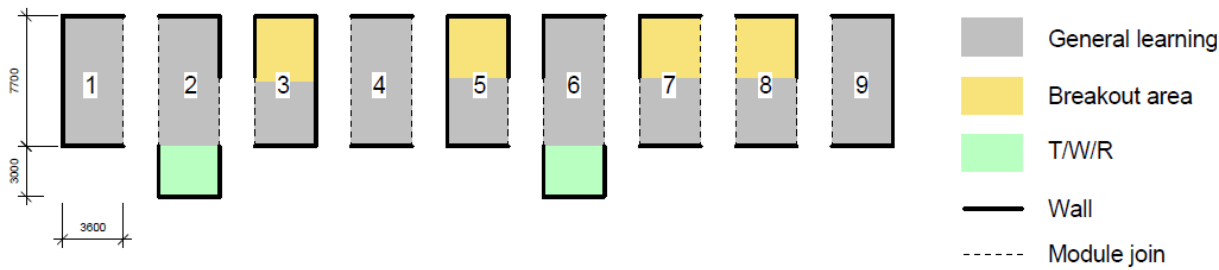
About 20% of portfolio is relocatable buildings – **need replacing**

Contract with a single supplier to produce, deliver and install
Modular Transportable Buildings

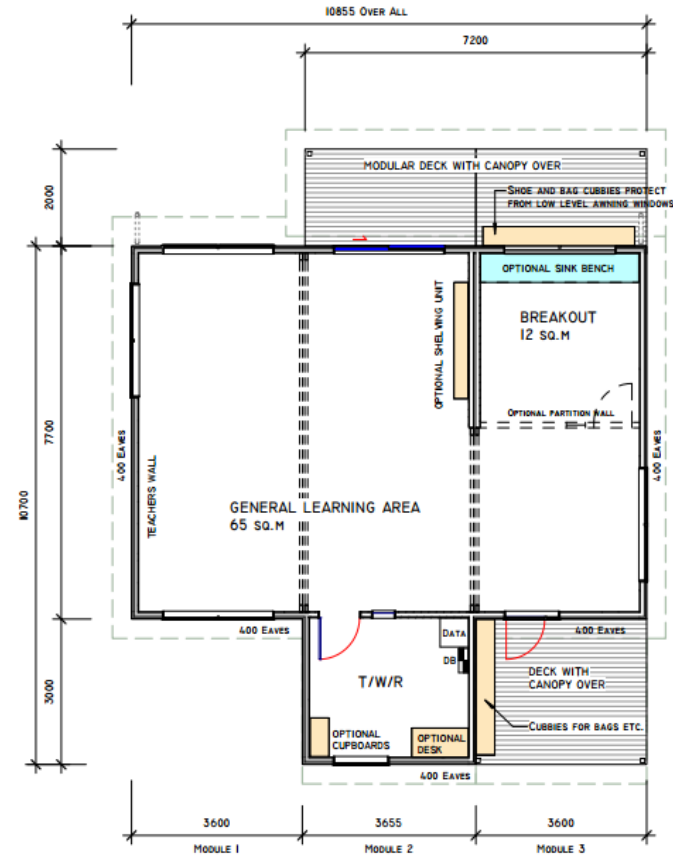
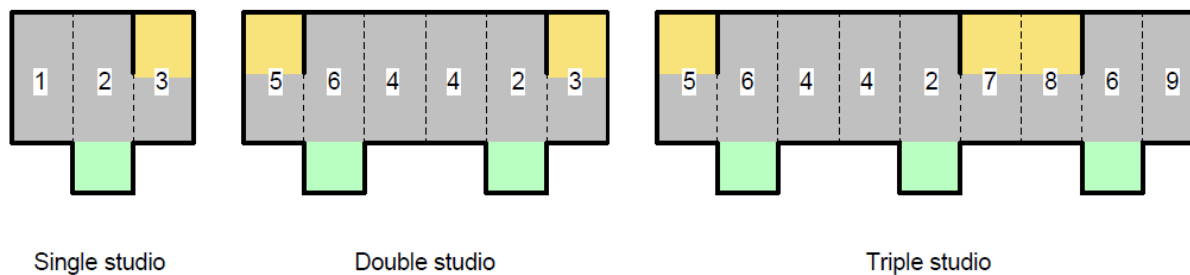
Looking for versatile solutions



Module options:



Base Studio Configurations:



Can be configured and grouped in different ways



Priority Schools Building Programme UK (England)

Education Funding Agency

260 Schools:

Schools in need of urgent repair were invited to bid

46 schools to be delivered in 5 batches

Using PPP model (Design Build Finance Operate 25 yrs)

214 schools: through capital grant funding

Frameworks for contractors

Baseline designs





Baseline designs UK (England)



Single storey
Access of classrooms to
outdoors
Roof lights: daylight /
ventilation

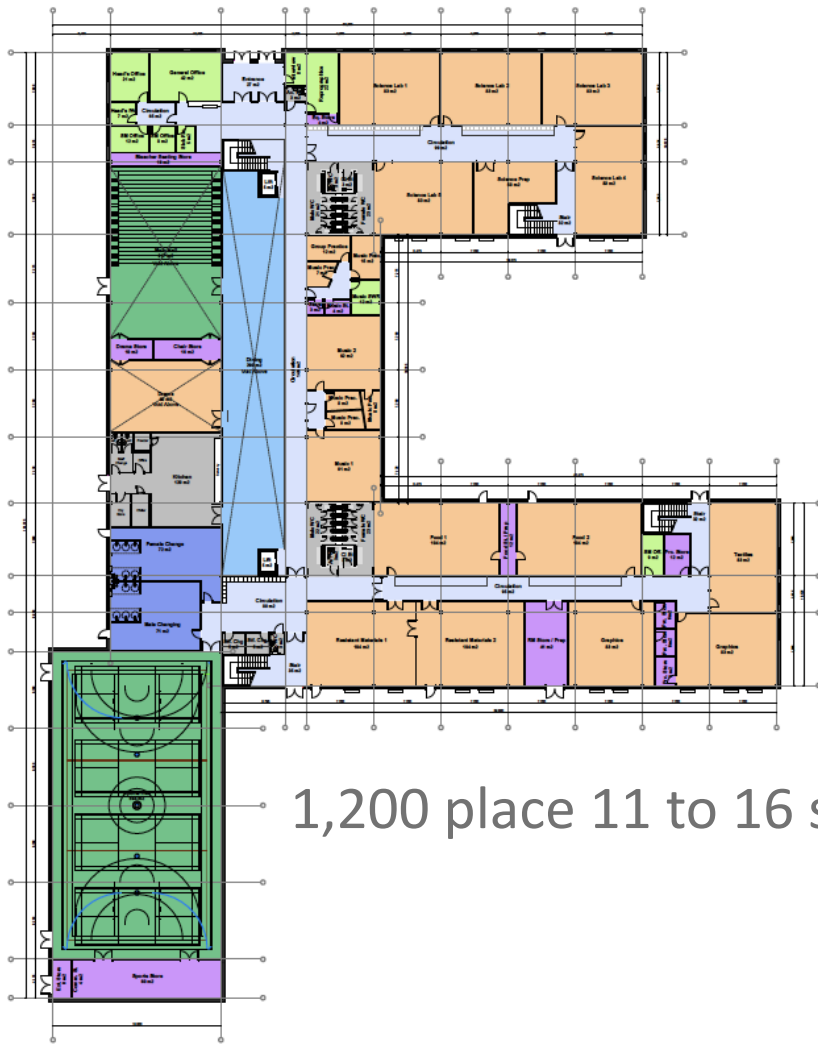
210 place primary school and a 26 place nursery

Provide examples

How the requirements of PSBP requirements can be met within cost and area allowances

Help finalize briefs for projects

Contractors can develop them into detailed schemes, or propose alternatives



1,200 place 11 to 16 secondary school with a typical curriculum

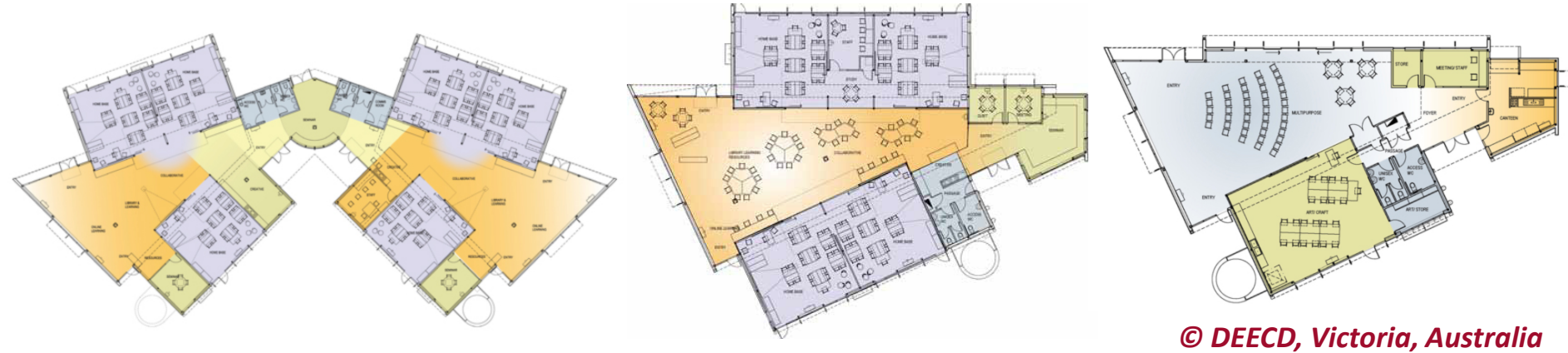
‘kit of parts’

Different combination

Future adaptability



Template designs (Victoria, Australia)



© DEECD, Victoria, Australia

Template designs: for Victoria response to Building the Education Revolution

Department of Education and Early Childhood Development, Victoria, Australia

www.education.vic.gov.au/about/programs/infrastructure/Pages/berbuildingview.aspx



DESIGN REVIEW PANELS



Design Review Panels



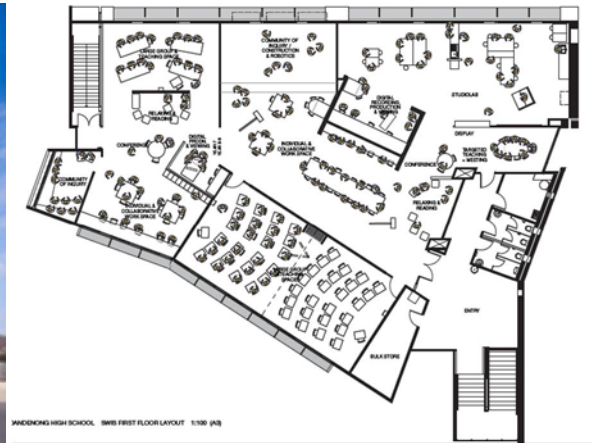
Independent review by design review panels
Masterplanning; preliminary design; developed design
Reduce cost (New Zealand)



ENGAGING USERS



Teaching and learning driven strategies



© Peter Clarke / Hayball

DANDENONG HIGH SHOOOL – inclusive, collaborative, iterative design, development, construction

Educational – Leadership team, education consultant, development teams, all staff

Developing Vision

Engaging Hearts & Minds

Re-designing

Transforming Pedagogy

Implementation

Critical Reflection

Design of learning spaces

Listening, questioning–engaging–prototype–evaluating–designing - evaluating - refining

Architectural

12 months

16 months

2004

Pre-design

2005

2006

Master planning

2007

Schematic Design

2008

Detailed Design

2009

Construction

Occupancy

Julia Atkin in OECD (2011) Designing for Education, OECD Publishing



Prototyping: (i.e. Testing ideas)

Campbeltown Grammar, Scotland: to be replaced



Space identified in school to test innovative design ideas

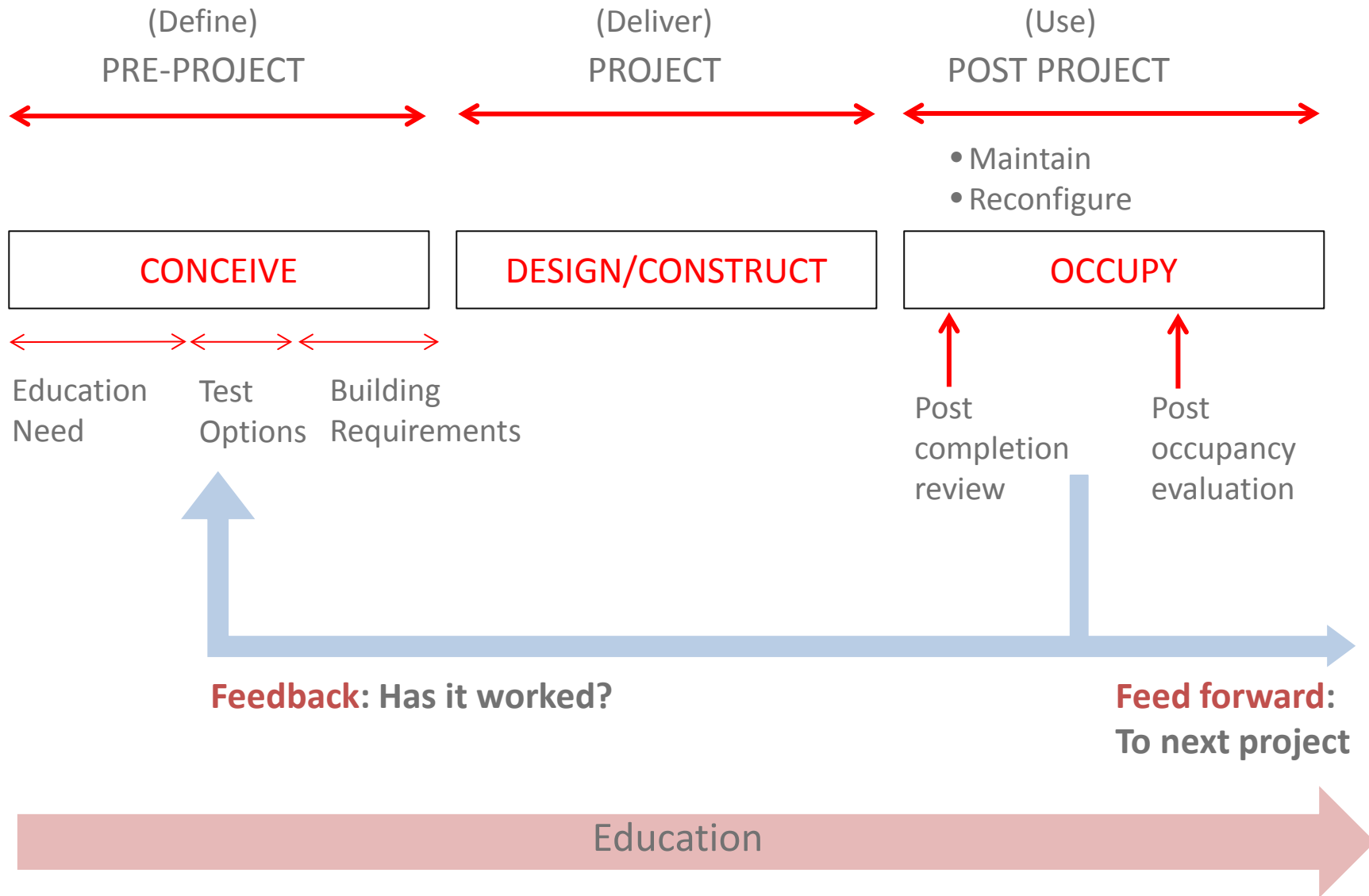
Ideas generated by students and staff



Prototyping: (i.e. Testing ideas)



Experimentation to meet emerging teaching/learning approaches
Lessons to inform new schools and **OTHER** school projects





Thank You!

Find out more about our work at www.oecd.org/edu/facilities

Email: alastair.blyth@oecd.org

CELE Database of Educational Facilities
<http://edfacilitiesinvestment-db.org>

