DON'T LET YOUR INNOVATIONS WAIT TO BE THE BEST: A QUALITY BENCHMARK STUDY ON THREE CITIES
LESSONS ON PREFABRICATION FROM FINLAND AND FRANCE

DISCOVER HOW PRECAGING BOOSTS PRODUCTIVITY
Dear reader,

At the Building & Construction Authority (BCA), we strive to groom talent as well as provide continuous learning opportunities to those already working in the construction sector. Apart from running courses at our training arm, the BCA Academy, we also frequently conduct workshops and seminars for working professionals. In this issue, find out about the new leadership programme jointly developed by BCA, the Singapore Management University and the Singapore Workforce Development Agency, glean insights from a workshop on construction technologies, reap the benefits from a benchmarking study on projects in Tokyo, Paris and Singapore, and "sit in" on a sharing session on Building Information Modelling.

While learning is part of life which takes place at all times and at various places, I’d like to think that facilitating an avenue for this can certainly make the process easier. Hence, we leverage learning journeys to other countries for industry players and public sector agencies to learn from counterparts overseas and bring back fresh ideas and technologies for adoption. This shortens our learning curve considerably.

As an industry, we have come a long way in understanding how productivity can be improved. It is BCA’s goal to make it as easy as possible for the industry to adopt productive methods such as precasting. The BCA Academy is also ramping up its training courses for the industry in this direction.

BCA understands the challenges that firms are facing in embarking on the productivity journey and we have been actively looking for ways to help firms get started. Bottlenecks to productivity should be removed. For this reason, the Buildings Innovation Panel was recently set up to facilitate excellent evaluation and approval of new technologies among multiple agencies. So, do approach us with your new ideas on innovative construction methods, processes and materials that will improve construction productivity.

BCA will continue to play the facilitating role, both in creating awareness and easing the learning and transformation process. Let us continue this learning journey together.

Dr John Keung
Chief Executive Officer

We would love to hear from you if you would like to share any best practices and latest technologies that could improve construction productivity. Please email us at bca_enquiry@bcagov.sg

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MECHANISATION

SAFETY AND SPEED WITH MECHC

The MechC scheme—a BCA funding programme—can defray 50% of technology adoption costs for construction businesses looking to improve their productivity through mechanisation.

For many local construction companies, the cost to mechanise can sometimes be overwhelming. But for companies that tap into BCA’s Mechanisation Credit (MechC) scheme, the cost challenge is a thing of the past. Build Smart gets in touch with two construction firms that have benefited from the enhanced MechC scheme in their bid to achieve higher productivity.

Mr Steven Yu
Director
Grouting Engineers Pte Ltd

"With financial assistance from MechC, we’re able to purchase safer, more productive and technologically-advanced equipment. The acquisition of the new equipment also helps boost our customers’ confidence in our promise to deliver quality service and products."

Grouting Engineers Pte Ltd

Mr Steven Yu, Director of Grouting Engineers Pte Ltd, has always placed safety and productivity as priorities and believes that they go hand-in-hand. Since he established his company in 2005, he has been advocating for safety to be a paramount consideration in all his construction activities. By reducing occupational risks and hazards, there would be fewer disruptions at work, resulting in a better working environment, he said.

With assistance from MechC, Grouting Engineers purchased a shotcrete pump, which allows the company to achieve higher safety levels. In the past, the company would achieve slope stabilisation through methods such as concrete casting with timber formwork or guniting with a gunite pump. The new shotcrete pump uses ready-mixed concrete instead, which offers greater ease when handling materials, better manoeuvrability on site, safer work practices and significantly higher efficiency.

Who: Grouting Engineers Pte Ltd

Business: Specialist in gunite and shotcrete

What they bought: Shotcrete pump

Benefits: Reduced manpower, Increased productivity, Increased capability, Improved work process and safety

Mr Lee Yin Mun
Assistant General Manager
Tiong Aik Construction Pte Ltd

"To keep up with the competitive industry, we have to change from conventional labour-intensive activities to productive construction methods, especially focusing on those that leverage technology. We can’t fall behind our competitors."

Tiong Aik Construction Pte Ltd

Tiong Aik Construction Pte Ltd began constructing Housing and Development Board (HDB) projects in 1978 and private property projects just 15 years ago. Mr Lee Yin Mun, Assistant General Manager, said that the switch to private projects made him realise that the company had to prepare itself for high-quality projects with tighter deadlines.

Instead of relying on more workers to do the job, Tiong Aik Construction made the decision to invest in machinery to improve productivity. Using the MechC grant, the company recently purchased a concrete pump. The company’s conventional method of concreteing at high levels was to use cranes and buckets. With the new equipment, they can transfer concrete to even higher levels more productively and efficiently.

Who: Tiong Aik Construction Pte Ltd

Business: Building contractor

What they bought: Concrete pump

Benefits: Reduced manpower, Increased productivity, Increased capability, Improved work process and safety

Mr Lee praised the government’s initiative to help the construction industry in raising productivity. He said that government subsidies act as a catalyst for construction companies to adopt technology.
NOW OPEN: NOMINATIONS FOR CONSTRUCTION PRODUCTIVITY AWARDS 2012

The Building and Construction Authority (BCA) is now inviting nominations for the second Construction Productivity Awards (CPA).

This annual prize honours companies and industry practitioners for achieving outstanding productivity improvements at the company and project levels.

About the CPA

The CPA aims to:
1. Recognise built-environment professionals, consultants and builders for their achievements in improving productivity
2. Promote productivity in the industry
3. Serve as a platform to measure productivity in the industry

Award Categories

Apply to any of the following three categories under the Awards:

For project teams:
CPA – Best Practices and Innovations is awarded to organisations which have developed and introduced and implemented best practices or innovative ideas (e.g. building products, construction methods, work processes or equipment) in improving construction productivity.

For organisations:
CPA – Best Practices and Innovations is awarded to organisations which have developed and introduced and implemented best practices or innovative ideas (e.g. building products, construction methods, work processes or equipment) in improving construction productivity.

For Value-Added Productivity (VAP) builders:
CPA – Best VAP Builder and CPA – Best VAP Improvement Builder aim to encourage more builders to come on board the productivity movement in the construction sector and are awarded to progressive builders who strive towards higher productivity.

Past Winners

For CPA 2011, a total of 31 awards were given out for efforts in improving construction productivity. We recall some of the winners here:

As a developer, City Developments Limited initiated the productivity movement for its projects by specifying the use of various productivity enhancing systems—such as prefabrication and drywalls—in its projects.

Through its innovative construction of tunnel roof slabs for the underground Chinatown MRT station, Gannan Construction Limited (Singapore Branch) stood out from all the nominations. Construction took 77 days instead of the conventional 120 days.

Ten VAP awards were conferred on seven builders in 2011. Of these, three builders, Lum Chang Building Contractors Pte Ltd, Sembawang Engineers and Constructors Pte Ltd and Lim Soon Construction Pte Ltd clinched both Best VAP Builder and Best VAP Improvement Builder.

To find out more on the application and eligibility criteria of CPA 2012, please visit http://bca.gov.sg/Awards/CPA/cpa.html or contact:

> CPA – Projects
  Mr Lu Ming Xuan 6325 5091
  lu_ming_xuan@bca.gov.sg

> CPA – Best Practices and Innovations
  Ms Valerie Quek 6325 5106
  valerie_quek@bca.gov.sg

> CPA – Value-Added Productivity (VAP)
  Ms Siti Aloyah 6325 5195
  siti_aloyah_ishak@bca.gov.sg
DON'T LET YOUR INNOVATIONS WAIT

A new integrated panel wants to work hand in hand with you to ensure your new construction methods get agencies’ approval—fast

Do you feel discouraged by the maze of regulations that confront you whenever you introduce new construction products or methods? The recently established Buildings Innovation Panel (BIP) can guide you every step of the way. BIP is an inter-agency initiative that aims to put you on an accelerated route towards approval for your new products or processes.

What is BIP?

We understand new products or processes often take a longer time to obtain clearances from various regulatory agencies. Such an arduous journey might deter potential innovative products or processes to be introduced in Singapore.

The role of the inter-agency Buildings Innovation Panel (BIP) is to facilitate expedient evaluation and approval of such new technologies among multiple agencies. It is our hope that through this Panel, more innovative products or processes that could enhance construction productivity will appear in the Singapore market.

What is the scope of BIP?

BIP will assist firms that require multi-agency regulatory assistance in the following areas that can improve project productivity by at least 20%:

- Innovative design
- New construction materials not used in Singapore
- New construction methods or processes

What is the evaluation process?

The BIP secretariat will evaluate the submission based on:

- Level of innovation
- Impact on construction productivity

Once the submission has been accepted, the BIP secretariat will facilitate early resolution of outstanding issues between the applicant and respective regulatory authorities.

A certificate of In-Principle Acceptance (IPA) will be granted to the innovative design, products, materials or processes if acceptances are obtained from the relevant participating authorities or agencies. The IPA certificate will accord fast track status to subsequent regulatory submissions.

Which are the participating agencies in BIP?

The participating agencies are:

- Building and Construction Authority
- Housing and Development Board
- JTC Corporation
- Land Transport Authority
- Ministry of Manpower
- National Environment Agency
- PUB, the national water agency
- Singapore Civil Defence Force
- Urban Redevelopment Authority

APPLY NOW!

Submit your applications to BCA by logging on to https://www.bca.gov.sg/epcr/BIP.htm

Do have the following ready:

- b) Documentary evidence of compliance with current codes of practice (Singapore or overseas)
- c) Track record of implementation overseas
- d) Material or product specifications
- e) Quality certifications or test reports
- f) Any other relevant information

For more details on BIP, please contact:

Mr Havesh Nagajaran
Medical device	0325 5099	 havesh_nagajaran@bca.gov.sg

Mr Ng Man Hon
Medical device	0325 5020	 ng_man_hon@bca.gov.sg

RISE TO YOUR CALL:
THE SMU-BCA-WDA PRODUCTIVITY AND LEADERSHIP DEVELOPMENT PROGRAMME

Performance excellence, business transformation and organisational growth are the three aims of a leadership programme for trailblazers in the building and construction industry.

Are you a manager or senior executive looking to boost productivity initiatives in your organisation? Do you want to be a more dynamic and forward-looking leader?

A leadership programme developed by the Singapore Management University (SMU), the Building and Construction Authority (BCA) and the Singapore Workforce Development Agency (WDA) may just be the training ground that you are looking for.

The SMU-BCA-WDA Productivity and Leadership Development Programme keeps industry professionals like you abreast of the latest strategies in the construction business environment at a time when the industry is experiencing growing complexities and increased competitiveness. Industry professionals who are also looking for a platform to exchange ideas will be able to leverage this programme to understand complex market and process-oriented issues.

More than 100 participants have benefited and have rated the course highly especially in terms of programme content, objectives and facilitators’ performance. It is now open for its fourth intake. For more details, visit http://www.smu.edu.sg/executive_education/programmes/2011/bcad1/

CORE MODULES

Module 1: Strategic Planning: Growth & Internationalisation
Module 2: Successful Business Management & Key Account Management
Module 3: Managing Professional Work Relationships & Cross Cultural Management
Module 4: Legal Issues
Module 5: Opportunities in Building Innovations & Productivity
Module 6: Finance for Decision Making & Control
Module 7: Risk Management & Crisis Management

Elective 1: Negotiation Skills
Elective 2: Leadership, Succession & Talent Retention

QUICK FACTS

Duration: 12 days, 9 a.m. — 5 p.m.
Venue: SMU, Administration Building, 81 Victoria Street
Course Fees:
S$12,000 (excluding GST)
WDA's training subsidy: 50% course fee grant, or capped at S$8,000 per trainee.
Applicable to Singapore Citizens or Singapore Permanent Residents.
An overall certificate of completion will be presented to participants who have completed the entire programme.
Tea breaks and lunch will be provided during the training.

“Success of any organisation depends not only on an efficient and capable management but also on good leadership. There are innumerable management programmes in the market, but I consider the SMU-BCA-WDA Productivity and Leadership Development Programme to be especially relevant to professionals in the building industry. Participating in this programme has been imperative for me. It commands recognition from participants both locally and worldwide.”

Mr Seah Choo Meng
Director
Cranes Langston & Seah Pte Ltd
DISCOVER HOW PRECAGING BOOSTS PRODUCTIVITY

At a workshop on construction technologies, NatSteel Holdings Pte Ltd revealed how precaging is one of the solutions for long-term productivity.

Did you know that the skeletons of Marina Bay Financial Centre’s (MBFC) Tower 1 and 2—which stand at 33 and 50 storeys respectively—were structured entirely with prefabricated cages (precages)?

This and more were revealed at Cost-Estimating for Productive Construction Technology, a workshop held in September.

The two-day event, organised by the BCA Academy (BCAA) in collaboration with six leading trade contractors in Singapore, gave a lowdown on various products in the construction market and allowed participants to tap into the expertise of the specialist contractors.

Precaging was one of the major initiatives discussed. As pre-assembled reinforcement cages are ready for in situ placement upon on-site arrival, precages are lauded to greatly improve on-site productivity.

Take, for instance, the swifter construction work cycle for MBFC’s Tower 2. With the use of precages, construction time was cut from an average of nine days per floor to just six days. This equated to construction cost savings of about 0.9% of the tender sum. Workers’ presence required on-site was also reduced by 80,000 man-hours.

Other benefits reaped during the construction of MBFC’s Tower 2 included reduced material wastage and improved on-site safety. And, contrary to popular belief, precages are not costly. A cost-benefit analysis performed on MBFC’s Tower 2 revealed that the eventual benefits gained from precages were double the cost of installing them.

Precages can take the form of bored piles, pile caps, columns, beams, walls, diaphragm walls and more. The possibilities are endless. Is your project reaping the benefits of precaging yet?

Benefits of Using Precages

- Reduced construction cycle time
- Reduced on-site manpower
- Reduced material wastage
- Reduced on-site congestion
- Reduced impact of unpredictable elements such as weather conditions
- Reduced inventory-holding costs
- Improved on-site safety
- Improved site management

Precaging Process Flow

1. Precasting (outside boundary)
2. Pre-assembly
3. Assembly
4. Precaging

Diaphragm wall precages waiting for inspection.
TO BE THE BEST:
A QUALITY BENCHMARK STUDY ON THREE CITIES

Which city—Singapore, Tokyo or Paris—fared best in a study of residential building standards? Build Smart finds out.

The Building and Construction Authority (BCA) constantly strives to ensure Singapore’s construction infrastructure is on par with the world’s top global cities. We asked ourselves: Is the workmanship level of residential buildings in Singapore comparable to that of Tokyo and Paris? A benchmarking study was carried out early in 2010 to determine that.

A total of four residential projects from Tokyo and Paris and two residential projects from Singapore were selected for the study. The six selected projects are all properties in the high-end market and are located in prime residential areas. They have freehold tenure with full-scale condominium facilities, premium finishing and involve construction costs no less than S$300 psf.

BCA’s Construction Quality Assessment System (CONQUAS) standards were used as the basis of measurements in the study. However, CONQUAS assessments on the selected projects were restricted to architectural internal finishes, external walls, external works and roofs.

BCA aims to continue carrying out benchmarking studies to achieve global standards in building and construction.

"Based on the benchmarked projects, the workmanship level of residential buildings in Singapore emerged a marginal 0.3 points below that of Tokyo."

The Results
Based on the benchmarked projects, the workmanship level of residential buildings in Singapore emerged a marginal 0.3 points below that of Tokyo. The city of Japan also came up tops in the study.

CONQUAS Score

<table>
<thead>
<tr>
<th></th>
<th>Singapore Year 2009 Average</th>
<th>Singapore Selected Project</th>
<th>Tokyo</th>
<th>Paris</th>
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<td>Score</td>
<td>85.0</td>
<td>88.0</td>
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</tbody>
</table>

What Made Tokyo Emerge Tops?
The benchmarking study revealed Tokyo’s workmanship quality on internal finishes to be better than Singapore’s and significantly ahead of Paris.

Apart from subscribing to more stringent workmanship standards, another main reason for Tokyo’s excellent workmanship quality achievement is the city’s adoption of specific design and materials. This greatly facilitates construction and productivity.

Tokyo’s Design Adoptions

Pre-assembled dry walls are widely adopted in Japan’s building industry because of their lightweight construction and speed of installation.

Lift-off hinge systems allow the door, together with the hinges, to be fabricated off-site and slotted easily into place at the final stage of construction. This method greatly minimises damages usually caused by other activities happening during construction.

Engineered wood floors save time and cost in construction. They are dimensionally stable, pre-finished and can be installed quickly. They are often used in living rooms, dining rooms and bedrooms.

Fibre-reinforced polymer panels are used in all bathrooms in the Tokyo projects. These factory-manufactured lightweight panels are completely water-resistant, which eradicate the need for waterproofing application when assembling bathrooms.
LESSONS ON PREFABRICATION FROM FINLAND AND FRANCE

With Europe leading the way in prefabrication technologies, BCA led a delegation to the continent to discover the hows and whys.

To understand the advancements of prefabrication and precast technologies in Europe, the Building and Construction Authority (BCA) took a special learning journey to Finland and France from late August to early September.

Dr. John Keung, Chief Executive Officer of BCA, led a delegation of 21 participants from the industry as well as public agencies.

In Helsinki, Finland, the delegates met representatives from various government groups, industry associations, architectural firms and building companies. At the Parmarine Fonsa Factory—a subsidiary of Eastern Pretech Pte. Ltd.—delegates observed the systematic production process of prefabricated components and bathroom units. Visits were also made to three construction sites near Helsinki which utilised prefabricated and precast components such as hollow core slabs, façade wall panels and prefabricated service risers.

During the second leg of the learning journey in Paris, France, delegates spent their days at two construction sites. There, they observed the usage of advanced system formwork and precast components. They concluded the trip by travelling to the headquarters of Bouygues Construction for a briefing on the new developments in construction techniques and innovations being undertaken by the firm.

Learning Points from the Trip

France

- Robotic technology—such as the multi-drill, concrete grinder and formwork oiling machine—are used at construction sites to replace workers involved in repetitive and hazardous work.

- Ceiling joints between precast slab panels have been left exposed—a more productive practice as no joint concealment is necessary.

- Prefabricated service risers are used for easier installation on site.

- Services for prefabricated bathroom units are placed at accessible locations to ease future maintenance.

- Modular construction was carried out for a hostel project. All units were factory-produced and delivered to the site for installation. The London YMCA model was studied for this.

- High levels of standardisation are achieved in precast construction through the use of tried-and-tested designs, layouts and connecting details. There is also an extensive use of precast hollow core slabs and concrete façades.

- Large precast concrete façade panels are used to minimise joints on site.

- Productivity was enhanced with the Building Information Modelling software, which included applications such as visualisations, quantity take-off as well as costing and safety planning. In the future, supply chain management, procurement and facilities management applications will be added as well.
SMART BUILDERS LEADERSHIP SERIES:
INNOVATIVE CONCRETE SOLUTIONS FOR PRODUCTIVITY

In the latest Leadership Series seminar, directors shared tips on their use of various concrete-related technologies that offer their companies a competitive edge.

Benefits of Using Self-compacting Concrete

1. It reduces noise generated on site, since vibrators are not utilised in the casting process.
2. It streamlines the concrete casting process.
3. It reduces the number of workers needed on site, freeing up space for operations.
4. It is a more eco-friendly method that is able to construct buildings with a longer service life.

Are new construction materials and methods the answers to more productive engineering business? This was the question on everyone’s mind at the Smart Builders Leadership Series held in September by the Building and Construction Authority (BCA).

In his opening address, Er. Oh Lock Soon, President of Singapore Concrete Institute, gave an affirmative. With globalisation, builders in Singapore are increasingly facing more challenges, he said. Conventional construction methods can no longer provide a competitive edge.

Er. Oh encouraged the use of less labour by switching to technology and building up the skills of existing workers.

The September session of the Smart Builders Leadership Series focused on the use of innovative concrete solutions to improve productivity. Industry practitioners, construction equipment suppliers and solution providers for concrete technologies were invited to share on the latest innovations and how companies can improve on-site productivity.

One of the topics presented was the usage of self-compacting concrete. Mr. Richard Cheng, Director of Environ Construction Co Pte Ltd, shared his company’s experience in using such a technology funded by the Productivity Improvement Project (PIP) scheme under the Construction Productivity and Capability Fund (CCPF).

Through the use of self-compacting concrete, Mr Cheng managed to overcome constraints in one of his major projects, The Alba at Cairnhill Rise.

The session also saw speakers from Doka Formwork Pte Ltd, Davion Marketing Pte Ltd, Hilti Far East Pte Ltd and Sunway Pte Ltd presenting various concrete-related technologies such as system formworks, travelling machines, cutting tools, surveying equipment and prefabricated bathroom units.

At the end of the session, contractors were convinced that the adoption of newer construction materials and methods is the way forward to achieving a competitive edge.

OVERSEAS TRADE TESTS ENSURE SKILLED MANPOWER

BCA acquires skilled workers through Overseas Testing Centres in five countries.

Since 1995, the Building and Construction Authority (BCA) has been meeting the industry’s needs for skilled manpower by branching out our Overseas Testing Centres (OTCs) into five countries.

We hold up to 27 different trade tests in these OTCs to connect with and certify employable construction workers.

All new construction workers from overseas need to pass a BCA trade test and be awarded with the Skills Evaluation Certificate (Knowledge) — or SE CK — before they can be employed on the Construction Work Permit.

Companies can choose to test workers in the relevant trades that these workers will be deployed in on site. The tests have both written and practical components and workers must pass both to ensure that they possess good and basic construction capabilities.

Companies who wish to register workers for SECK tests can contact the local offices of OTCs. More details can be found online at https://www.bca.gov.sg/academy/cop_Testcenters.aspx
A new programme moulds BCA's overseas trainers into better teachers of construction safety

Safety remains paramount in Singapore's construction industry. To ensure this, the new Train-The-Trainers (TTT) framework by the BCA Academy (BCAA) was set up in September to better equip overseas trainers with best practices in construction safety.

The Training Framework ensures that all foreign construction workers undergo safety courses conducted by overseas trainers and pass safety tests before their arrival to Singapore.

Overseas trainers can now look forward to better teaching skills and support when they deliver their safety courses to foreign construction workers at BCA's various Overseas Testing Centres. A recently conducted six-day programme included the Building Construction Safety Supervisor Course (BCSS) and lessons on safety equipment as well as site visit familiarisation.

TTT is an initiative by the Centre for Construction Skills Training (CCST)—which is part of BCAA. The centre offers more than 40 different types of trade skills and safety courses to serve the needs of Singapore's construction industry. CCST seeks to be at the forefront of delivering training courses. It promotes higher construction productivity and safety at work sites through these courses.

For more information on the Train-The-Trainers framework, email bca_academy@bcas.gov.sg.

CONSTRUCTION PRODUCTIVITY AND CAPABILITY FUND (CPCF) COURSES

- Certificate in Interior Finishing Coordination
- Certificate in Pavement Construction and Maintenance
- Certificate in Precast Concrete Construction Supervision
- Certificate in Waterproofing Supervision
- Certificate in Building Measurement
- Certificate in Geotechnical Instrumentation for Supervisors
- Certificate in Levelling and Setting Out
- Certificate Course for Structural Steel Supervisors
- NBQ in Project Supervision
- Higher NBQ in Project Supervision
- Advanced NBQ in Project Supervision
- NBQ in Supervision and Coordination of M&E Works
- Higher NBQ in Supervision and Coordination of M&E Works
- Advanced NBQ in Supervision and Coordination of M&E Works
- NBQ in Operation & Maintenance
- Higher NBQ in Operation & Maintenance
- Advanced NBQ in Operation & Maintenance

16 NEW COURSES ARE NOW AVAILABLE. UP TO 50% TO 80% OF THE TRAINING COST CAN BE SUBSIDISED UNDER THE CPCF SCHEME.

The additional courses are:

Certificate courses (PMETs)
- Certificate course in BIM Modelling
- Certificate course in BIM Management
- Project Management for Professionals in the Building and Construction Industry (in collaboration with SPK)
- Construction Productivity Management (in collaboration with SCL)
- Design of Precast Concrete Structures for Engineers
- Workshop on Site Management of Precast Concrete Construction

Trade Diplomas (Foremen / Supervisors)
- Structural Steel Supervision
- Reinforced Concrete Supervision
- Plumbing Technology
- Electrical Technology

Certificate courses (Tradesmen / Foremen)
- Builders Cert in Plumbing and Piping
- SECO in Precast Concrete Components Erection
- SECO in Structural Steel Fitting
- SECO in Interior Drywall Installation
- System Formwork, Training
- Mechanical Elevated Work Platform

FOR ENQUIRIES, PLs CONTACT:

BCA ACADEMY
TEL 6248 9999 EMAIL: bca_academy@bcas.gov.sg
CONSTRUCTION PRODUCTIVITY AND CAPABILITY FUND (CPCF)

TECHNOLOGY ADOPTION

MECHANISATION CREDIT (MECHC) SCHEME
Provides assistance to companies to defray up to 50% (S$100,000) of machinery cost

PRODUCTIVITY IMPROVEMENT PROJECT (PIP) SCHEME
Provides assistance to companies to defray up to 70% (S$1 million) of the cost for adopting more productive work processes

BUILDING INFORMATION MODELLING (BIM) FUND
Provides assistance to companies to incorporate BIM into their work processes to offer new value-added services with up to 50% co-funding (S$20,000 to S$210,000)

For more information, please call the CPCF toll-free hotline at 1800-325 5050

Building and Construction Authority

We shape a safe, high quality, sustainable and friendly built environment.