

From zero to 42 million: how face masks reignited Hong Kong's manufacturing heritage

In the global pandemic economy, face masks have become a hot commodity – in great demand, and short supply, worldwide. Just a few months ago, Hong Kong was among many economies clamouring for a steady supply of surgical masks to fight the daunting challenges of the COVID-19 epidemic. Today, however, this city of international trade, finance and innovation is making its mark in local mask production.

From toys and textiles to world-beating services

From the manufacture of toys and textiles in the 1950s to the rise of a world-beating services economy in the 1980s, Hong Kong has long been renowned for its resourcefulness, knack for reinvention and innate ability to turn adversity into opportunity. Hong Kong's mask-manufacturing initiative is yet another example of the speed and effectiveness at which this economy can make things happen.

In mid-June, 20 production lines run by 15 Hong Kong companies began supplying about 42 million made-in-Hong Kong masks a month, including some 34 million masks to the Government and nearly eight million masks to the local consumer market. On June 30, the Government began distributing the first lot, some 30 million masks, each Hong Kong household getting a free pack of 10 disposable adult masks.

Creative co-operation

From scarcity to growing self-sufficiency in masks, Hong Kong's unprecedented turnaround is due, in part, to the timely, creative co-operation among the Hong Kong SAR Government, the Hong Kong Productivity Council and the local business community.

The tripartite alliance came together in mid-February, when Chief Executive Carrie Lam announced that the Government would subsidise local companies to set up mask production lines in Hong Kong, while encouraging the research, development and production of reusable masks (see "Innovation unmasked," p.4). These measures are financed through the Government's US\$21.5 billion Anti-epidemic Fund.

On February 21, a week after the Chief Executive's announcement, a "Local Mask Production Subsidy Scheme" kick-started mask-making under the Anti-epidemic Fund.

"Given a global shortage and panic buying locally and elsewhere, it was imperative to move as fast as possible," said Secretary for Commerce and Economic Development Edward Yau. "The response to our scheme, I'm pleased to say, was so

overwhelming that we closed applications in less than a month," Mr Yau said.

"The Hong Kong Productivity Council, brought in to co-ordinate mask-production facilities, has been a great help," added Mr Yau. The Council, he said, has long championed manufacturing, innovation and technology in Hong Kong industry.

"We set up an in-house team of over 70 technology experts and other professionals," says Mohamed Butt, Executive Director, Hong Kong Productivity Council. "We also established a clear set of qualifications for interested companies."

Applicants needed a valid Hong Kong Business Registration Certificate and Certificate of Incorporation. In addition, their raw materials, production equipment and factories, including clean-room facilities, needed to be in place in Hong Kong. Each production line was required to produce no less than 500,000 masks a month, and do so with the F2100 Level I standard certification from the American Society for Testing and Materials.



■ Mohamed Butt, Executive Director
Hong Kong Productivity Council



Hong Kong's mask-making initiatives are supported by the Government's US\$21.5 billion Anti-epidemic Fund

“ The Scheme shines a bright spotlight on reindustrialisation ”

Mohamed Butt, Executive Director,
Hong Kong Productivity Council

The Council's Mr Butt has been impressed with the response of the companies involved. "They have demonstrated Hong Kong flexibility and capability at every level, from sourcing land and factory space to purchasing materials and buying the necessary equipment," he said. "Even when the machines arrived, they often required technical adaptation. And here, the Council offered its considerable expertise and services at no fee, thanks to the Government's funding support."

Hong Kong's decades-old industrial experience and know-how were equally critical to the smooth implementation. "The Scheme shines a bright spotlight on reindustrialisation, a policy priority of the Hong Kong Government," said Mr Butt.

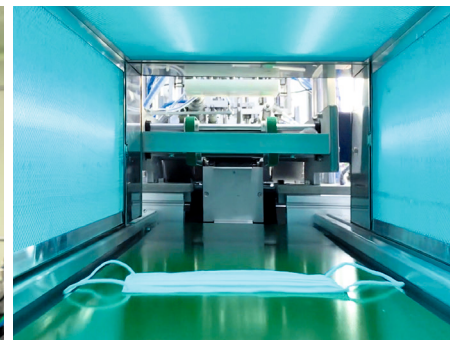
Made-in-Hong Kong solution

In short, the Hong Kong SAR Government and the Council, working with Hong Kong companies, came up with a made-in-Hong Kong solution stamped with internationally recognised quality.

In return, each approved company received a Government subsidy of up to HK\$3 million (US\$385,000) for a first production line, and up to HK\$2 million for each additional line established.

The mask-making Scheme opened for applications on March 2, little more than two weeks after the Chief Executive's announcement. By the time applications closed on March 26, the Scheme had attracted more than 2,000 enquiries, all painstakingly reviewed by the Council before making its recommendations to the Commerce and Economic Development Bureau for final approval.

Since then, the Council's technical specialists have been working closely with the selected companies, helping them gear up for production.



Masks produced by the 20 production lines were required to meet the American Society for Testing and Materials' F2100 Level I standard certification, an internationally recognised quality standard

The Local Mask Production Subsidy Scheme has attracted interest from companies, governments and the media worldwide, burnishing Hong Kong's status as among the earliest world cities to subdue the coronavirus.

"In a time of global crisis, a time when many of the world's leading nations are still struggling to produce or procure personal protective equipment, Hong Kong is showing the way, thanks to leadership, talent and wide-ranging co-operation on an extraordinary level," said Mr Yau.

"We are making Hong Kong safe," added Mr Yau. "We are also making Hong Kong proud."



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*Edward Yau,
Secretary for Commerce and
Economic Development*



Innovation unmasked

As well as ramping up production of disposable masks, Hong Kong is distributing a reusable face mask free to every Hong Kong resident.

The prototype of the CuMask+, developed and patented by the Hong Kong Research Institute of Textiles and Apparel (HKRITA), won a Gold Medal at the 2018 International Exhibition of Inventions of Geneva for its groundbreaking technology and ergonomic design. Hong Kong is getting an improved version of the smart, six-layer reusable mask, which can be washed up to 60 times.

"It's an outstanding example of the use of local research and technology to safeguard the lives of Hong Kong people," said Carrie Lam, Chief Executive of the Hong Kong SAR Government.

Equally important, she said, was the all-embracing co-operation that supported the innovative mask from concept to mass production in little over two months. It helped that the mask complies with the American Society for Testing and Materials F2100 Level I standard.

With funding from the Government's Anti-epidemic Fund, the Hong Kong

Innovation and Technology Bureau commissioned the HKRITA to co-ordinate the reusable mask project. A non-profit R&D centre fully subsidised by the Government, HKRITA was responsible for sourcing raw materials as well as co-ordinating production, sterilisation, packaging processes and other elements.

Hong Kong Identity Card holders need only register online for the CuMask+, which is delivered to their door by Hongkong Post within two weeks.



During the one-month online registration period, more than 3.93 million residents registered. The Government is also giving away over 1,540,000 additional CuMask+ to schools, residential homes and social welfare institutions. Since June 15, members of the public who did not register online may collect the masks at designated collection points. To date, more than 280,000 masks have been distributed via this means.