

# Hong Kong Capital Markets Update

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## HKEX's consultation conclusion on Specialist Technology Companies

### Key Requirements

**“Specialist Technology” – Broad definition including the following industries:**

(a) Next-generation information technology	(b) Advanced hardware and software	(c) Advanced materials
(d) New energy and environmental protection	(e) New food and agriculture technology	

### Key listing requirements for Commercial and Pre-Commercial Companies

	Commercial Companies	Pre-Commercial Companies
<b>Minimum Market Capitalisation</b>	At least <b>HK\$6 billion</b> at the time of listing	At least <b>HK\$10 billion</b> at the time of listing
<b>Revenue</b>	At least <b>HK\$250 million<sup>1</sup></b> for the most recent audited financial year	No requirement
<b>Research and Development (“R&amp;D”)</b>	<p>(1) Engage in R&amp;D for at least three financial years prior to listing</p> <p>(2) <b>Minimum R&amp;D expenditure ratio</b> (as a percentage of total operating expenditure):  <b>15%</b> for Commercial Companies  <b>30%</b> for Pre-Commercial Companies with latest financial year revenue <math>\geq</math> HK\$150 million  <b>50%</b> for Pre-Commercial Companies with latest financial year revenue <math>&lt;</math> HK\$150 million</p> <p>(3) <b>Meet the applicable minimum R&amp;D expenditure ratio:</b>                      (a) on a <b>yearly basis</b> for at least two of the three financial years prior to listing; <b>AND</b>                      (b) on an <b>aggregate basis</b> over all three financial years prior to listing</p>	
<b>Track Record</b>	At least <b>three financial years</b> under substantially the same management prior to listing	
<b>Ownership Continuity</b>	At least <b>12 months</b> prior to the listing application date and up until the time immediately before the offering and/or placing becomes unconditional	
<b>Working Capital</b>	At least <b>100%</b> for next 12 months	At least <b>125%</b> for next 12 months

### Meaningful third party investment – Indicative benchmark

(1) a group of two to five “Pathfinder” Sophisticated Independent Investors (“SIIIs”):

- (a) in aggregate (i) hold  $\geq 10\%$  of applicant’s issued share capital at listing application date and throughout the pre-application 12-month period or (ii) invest  $\geq$ HK\$1.5B in applicant  $\geq 12$  months before application date; **AND**  
 (b) at least two SIIIs each (i) hold  $\geq 3\%$  of applicant’s issued share capital at listing application date and throughout the pre-application 12-month period or (ii) invest  $\geq$ HK\$450M in applicant  $\geq 12$  months before application date.

(2) the minimum total investment from all SIIIs (as a percentage of issued share capital) at listing date:

Expected Market Capitalisation	Commercial Companies	Pre-Commercial Companies
$<$ HK\$15 billion	20%	25%
HK\$15 billion to HK\$30 billion	15%	20%
$\geq$ HK\$30 billion	10%	15%

### Post-IPO lock-up period

	Commercial Companies	Pre-Commercial Companies
<b>Controlling shareholders &amp; Key Persons<sup>2</sup></b>	<b>12 months</b> from listing date	<b>24 months</b> from listing date
<b>Pathfinder SIIIs</b>	<b>6 months</b> from listing date	<b>12 months</b> from listing date

<sup>1</sup> Only revenue from Specialist Technology business segments (excluding inter-segment revenue) will be counted towards the HK\$250 million requirement

<sup>2</sup> i.e. founders, WVR beneficiaries, executive directors, senior management and key personnel for technical operations/R&D of Specialist Technology product

## Background

On 24 March 2023, the Stock Exchange of Hong Kong Limited (the “Exchange”) published the consultation [conclusions](#) (“Conclusions”) on the proposals to create a listing regime for Specialist Technology Companies<sup>3</sup> in Hong Kong.

To bridge the gap with other capital markets such as the United States and the Chinese Mainland in terms of listing of Specialist Technology Companies and further promote the market diversification, the Exchange published a [consultation paper](#) (“Consultation Paper”) on 19 October 2022 seeking market feedback on proposals to enable the listing of Specialist Technology Companies on the Exchange (please refer to our [Capital Markets Update Issue 2022-02](#) for a summary). The consultation period ended on 18 December 2022.

The Exchange concluded that the proposals outlined in the Consultation Paper should be adopted with amendments made in response to comments from the market. The key amendments from the original proposals in the Consultation Paper are summarised below.

## Key amendments

### **1) Lower the minimum market capitalisation at listing**

The Exchange has noted the strong view from most respondents that the proposed minimum market capitalisation requirement for both Commercial Companies (HK\$8 billion) and Pre-Commercials Companies (HK\$15 billion) was too high.

Considering the Listing Rules should be fit for purpose in the long term and across the majority of each macro-economic cycle, the Exchange has decided, after taking into consideration the feedback from respondents, to lower the minimum expected market capitalisation requirement at the time of listing to HK\$6 billion for Commercial Companies and HK\$10 billion for Pre-Commercial Companies.

### **2) Relax the minimum R&D expenditure requirement**

The Exchange acknowledged (i) the need for flexibility to cater for fluctuations in the overall expenditure and the ratio attributable to R&D and (ii) the possibility that some Pre-Commercial Companies may already be in an early commercialisation phase in which they may incur more operating expenditure relative to their R&D expenditure towards the end of their track record periods based on the respondents’ feedbacks. Accordingly, the Exchange has modified the proposed minimum R&D expenditure requirement as follows:

#### (i) Period of the application of R&D expenditure ratio test

The applicants should meet the applicable minimum R&D expenditure ratio:

- (a) on a yearly basis for at least two of the three financial years prior to listing; and
- (b) on an aggregate basis over all three financial years prior to listing.

#### (ii) R&D expenditure ratio threshold

A new 30% threshold has been set for Pre-Commercial Companies that have generated revenue for more than HK\$150 million in the most recent audited financial year. Commercial Companies and Pre-Commercial Companies with revenue of less than HK\$150 million in the most recent audited financial year will continue to be subject to the 15% and 50% threshold, respectively.

In addition, the Exchange has provided further clarifications and guidelines on the calculation and the components of the R&D expenditure ratio, such as the clarification of cost of sales being excluded from the calculation of the total operating expenditure (i.e. the denominator in the R&D expenditure ratio). Therefore, the amounts of R&D expenditure and total operating expenditure for the purpose of R&D expenditure ratio calculation would normally be:

#### **R&D expenditure (i.e. costs that are directly attributable to company’s R&D activities)**

- include R&D costs that have been recognised as expenses in the financial statements during the period;
- include development costs for the period that have been capitalised as intangible assets for accounting purposes;
- exclude general, administrative and other costs that are not clearly related to R&D activities;
- exclude initial recognition of fixed assets for R&D (e.g. capital expenditures for acquiring a R&D centre); and
- exclude any expenses of a finance nature.

<sup>3</sup> Specialist Technology Company is a company primarily engaged (directly or through its subsidiaries) in the R&D of, and the commercialisation and/or sales of, a product and/or service that applies science and/or technology within an acceptable sector of a Specialist Technology Industry. The list of Specialist Technology Industries and the acceptable sectors that the Exchange considers to fall within each of these industries are set out in Appendix 1.

### Total operating expenditure

- include the company's total expenses as reflected in the financial statements during the period;
- include costs that have not been recognised as expenses but qualified as R&D expenditure during the period;
- exclude cost of sales; and
- exclude any expenses of a finance nature.

### 3) Relax the requirement for meaningful investment from Pathfinder SII

In response to the strong views from respondents about the requirements at least two Pathfinder SIIs, with each of them holding at least 5% of the issued share capital of the applicant, the Exchange has amended the indicative benchmark on meaningful investment from Pathfinder SIIs to provide more flexibility and address concerns regarding the percentage threshold, which may be too onerous for applicants with a very high market capitalisation. The revised benchmark requires investment from a group of two to five Pathfinder SIIs (each having invested in the applicant at least 12 months before the listing application date):

- (a) in aggregate (i) hold  $\geq 10\%$  of the applicant's issued share capital at the listing application date and throughout the pre-application 12-month period or (ii) invest  $\geq$  HK\$1.5B in the applicant  $\geq 12$  months before the listing application date (excluding any subsequent divestments made on or before the listing application date); and
- (b) at least two Pathfinder SIIs each (i) hold  $\geq 3\%$  of the applicant's issued share capital at the listing application date and throughout the pre-application 12-month period or (ii) invest  $\geq$  HK\$450M in the applicant  $\geq 12$  months before the listing application date (excluding any subsequent divestments made on or before the listing application date).

### 4) Define "Independent Price Setting Investors" for IPO price discovery process

The Exchange has revisited the types of independent investors that will be taken into account for the requirement of minimum allocation of the shares offered in an IPO to help ensure a robust IPO price discovery process for Specialist Technology Companies. Such investors are defined as "Independent Price Setting Investors" comprising (i) independent Institutional Professional Investors (as set out in the Consultation Paper); and (ii) other types of independent investors with AUM, fund size or investment portfolio size of at least HK\$1 billion.

### Effective date

The amendments to Listing Rules and the Guidance Letter in relation to the listing regime for Specialist Technology Companies will come into effect on 31 March 2023. A Specialist Technology Company and its sponsor(s) may now submit formal pre-IPO enquiries regarding the interpretation of the Listing Rules set out in the Conclusions and their application to the prospective listing applicant's circumstances. A formal application for listing under this new regime may be submitted on or after 31 March 2023.

If you have any questions about the matters discussed in this publication, please feel free to contact the following capital markets partners and directors.

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## Appendix 1: List of Specialist Technology Industries (As of March 2023)

The list of Specialist Technology Industries and the acceptable sectors which fall within each of these industries are set out as follows:

Acceptable sector	Description
<b>(a) Next-generation information technology</b>	
<i>Software, platform and infrastructure solutions powered by cloud computing and big data analytics</i>	
<b>Cloud-based services</b>	<p>The application of cloud computing in as-a-service business models through the access and use of servers, networks, storage capacity, development tools and applications via the internet, including:</p> <ul style="list-style-type: none"> <li>• <u>Software as a service (SaaS)</u>: the delivery of software applications over cloud infrastructure enabling companies to conduct their operations using the application</li> <li>• <u>Platform as a service (PaaS)</u>: the delivery of a platform for the creation of software in the form of virtualisation, middleware, and/or operating systems, which is then delivered over cloud infrastructure</li> <li>• <u>Infrastructure as a service (IaaS)</u>: the delivery of cloud computing infrastructure (i.e. servers, storage, and networks) as an on-demand service</li> </ul>
<b>Artificial intelligence (“AI”)</b>	<p>The development of AI technology, including:</p> <ul style="list-style-type: none"> <li>• <u>Technology and infrastructure enabling AI</u>: the development of open-source development platforms, computing, and data services</li> <li>• <u>AI-empowered algorithm programming</u>: image recognition, audio-visual learning, natural language processing (NLP), machine learning, and deep learning</li> <li>• <u>AI solutions</u>: the design and provision of AI solutions used in different industry verticals</li> </ul>
<b>(b) Advanced hardware and software</b>	
<i>The development of new hardware and software using advanced technology</i>	
<b>Robotics and automation</b>	<p>The development of robots, automated systems, and enabling technologies, including:</p> <ul style="list-style-type: none"> <li>• <u>Robot technology</u>: the engineering of robots, computer software and machines for the improved performance of tasks and/or automation processes</li> <li>• <u>Internet of Things (IoT) technology</u>: machine-to-machine communications designed to monitor events, process data and determine actions</li> <li>• <u>Smart home applications</u>: home automation designs involving human-robot interaction and/or human-appliance interaction</li> <li>• <u>Smart product designs</u>: design and manufacturing of sensor-driven, WiFi-enabled, self-learning, or programmable products</li> </ul>
<b>Semiconductors</b>	<p>The development of technology for applications along the semiconductor value chain, including:</p> <ul style="list-style-type: none"> <li>• <u>Production inputs</u>: materials, manufacturing equipment, electronic design automation (EDA), and core intellectual property (IP)</li> <li>• <u>Design</u>: logic and physical design, and validation and verification</li> <li>• <u>Fabrication</u>: conversion of designs into chips and semiconductor devices</li> <li>• <u>Advanced packaging</u>: flip-chip packaging, 3D packaging, and wafer-level packaging</li> </ul>

Acceptable sector	Description
<b>Advanced communication technology</b>	<p>The development of connectivity technologies used in the transfer of information and/or connection of devices, including:</p> <ul style="list-style-type: none"> <li>• <u>Next-generation wireless communication systems</u>: fifth-generation (5G) and beyond technology enabling high-speed and high-volume data transfers over wireless technology infrastructure and applications</li> <li>• <u>Satellite communication</u>: satellite-enabled telecommunications, broadcasting, and data communications</li> </ul>
<b>Electric and autonomous vehicles</b>	<p>The manufacturing and/or deployment of autonomous vehicles and electric vehicles, and development of enabling technologies, including:</p> <ul style="list-style-type: none"> <li>• <u>Electric vehicles</u>: the use of new energy solutions in all-electric or battery electric vehicles (BEVs)</li> <li>• <u>Autonomous vehicles</u>: vehicles and trucks equipped with self-driving solutions</li> <li>• <u>Location technology</u>: sensors and technology enabling the detection or calculation of the geographical position of a person, mobile device or vehicle</li> </ul>
<b>Advanced transportation technology</b>	<p>The development of transportation technology (excluding electric and autonomous vehicles), and deployment of smart mobility systems, including:</p> <ul style="list-style-type: none"> <li>• <u>Transportation technology</u>: new modes of transport (including electric aircraft), and drone technology</li> <li>• <u>Intelligent transportation systems</u>: the application of information and communication technology in road transport, traffic management and safety, and mobility systems (including ridesharing)</li> </ul>
<b>Aerospace technology</b>	<p>The development of technology used in the research, exploration and utilisation of space, including:</p> <ul style="list-style-type: none"> <li>• <u>Spacecraft development</u>: the development of space launch vehicles, satellites, space stations and related components</li> <li>• <u>Space exploration</u>: space imaging, earth imaging, robotic spacecraft</li> <li>• <u>Utilisation of space in defence capabilities</u>: space-based services and assets for security and defence purposes</li> </ul>
<b>Advanced manufacturing</b>	<p>The development of technology in production activities that depend on automation, computation, software, sensing, and/or networking, including:</p> <ul style="list-style-type: none"> <li>• <u>Additive manufacturing</u>: 3D printing, and mass-scale customisation for industrial and manufacturing processes</li> <li>• <u>Digitalised manufacturing</u>: applications of sensors and 3D vision technology in manufacturing processes</li> </ul>
<b>Quantum information technology and computing</b>	<p>Software, hardware and services developed based on the principles of quantum information science and technology, including:</p> <ul style="list-style-type: none"> <li>• <u>Quantum computing</u>: quantum computing software and/or hardware, and the provision of access to quantum computers via commercial cloud-based platforms</li> <li>• <u>Quantum communication</u>: science and technology applied to quantum-secured communication networks</li> <li>• <u>Quantum precision measurement</u>: the application of quantum mechanics and quantum electrodynamics to precision measurement physics</li> </ul>

Acceptable sector	Description
<b>Metaverse technology</b>	<p>The development of technology (including hardware, software and infrastructure) that enables the following applications:</p> <ul style="list-style-type: none"> <li>• <u>Virtual reality (VR)</u>: technology providing a lifelike simulation of reality synthetically or virtually</li> <li>• <u>Augmented reality (AR)</u>: technology enhancing human experience through the combination of the physical and digital worlds</li> <li>• <u>Brain-computer interfaces (BCIs)</u>: computer-based systems translating brain signals into commands that are relayed to an output device to carry out a desired action</li> </ul>
<b>(c) Advanced materials</b>	
<i>The production or integration of new or significantly improved materials to enhance the performance of traditional materials</i>	
<b>Synthetic biological materials</b>	The development of new materials that are genetically encoded and generated through the integration of synthetic biology and materials science. Examples include biopolymers, fibres, optical materials, adhesives, and other materials for specialist applications
<b>Advanced inorganic materials</b>	<p>The development of advanced functional inorganic materials science and technology for the following applications:</p> <ul style="list-style-type: none"> <li>• <u>Special glass</u>: smart switchable glass technology such as smart windows and display</li> <li>• <u>Special metals and alloys</u>: metals and alloys for specialist applications or with special properties</li> <li>• <u>Special ceramics</u>: advanced ceramics made from inorganic non-metallic compounds</li> </ul>
<b>Advanced composite materials</b>	The development of high-performance composite materials and advanced processing techniques for composite materials. Examples include carbon matrix composite materials and advanced polymers
<b>Nanomaterials</b>	<p>The development and application of technology to enable the manipulation of materials conducted at a nanoscale, including:</p> <ul style="list-style-type: none"> <li>• <u>Manufacturing of end products using nanotechnology</u>: nanostructured filters, coatings and additives</li> <li>• <u>Development of nanotechnology</u>: the manufacturing and testing of equipment for nanoscale measurement and/or manipulation of materials</li> </ul>
<b>(d) New energy and environmental protection</b>	
<i>The production of energy from natural sources and the development of networks and infrastructure to support such production and other processes for improving environmental sustainability and resource use and/or energy efficiency.</i>	
<b>New energy generation</b>	The development of technology enabling new, clean or renewable energy generation, including solar and wind power, hydropower, hydrogen energy, wave powered electricity generation, and biofuel

Acceptable sector	Description
<b>New energy storage and transmission technology</b>	<p>The development of energy transmission and distribution technology, and deployment of infrastructure dedicated to the generation and storage of new energy (including clean or renewable energy and hydrogen energy) including:</p> <ul style="list-style-type: none"> <li>• <u>New energy storage systems</u>: battery technologies and long duration energy storage</li> <li>• <u>New energy transmission and distribution networks</u>: power grid management and development, and smart grid developments</li> </ul>
<b>New green technology</b>	<p>The development of technology-driven solutions for environmental conservation or remediation, or technologies that enhance resource- and/or energy-efficiency including:</p> <ul style="list-style-type: none"> <li>• <u>Environmental remediation</u>: soil washing, soil vapour extraction and thermal desorption</li> <li>• <u>Emissions reduction</u>: hydrogen and carbon capture and storage</li> </ul>
<b>(e) New food and agriculture technologies</b>	
<i>Food and agriculture technologies applied to agriculture, farming and food processing activities</i>	
<b>New food technology</b>	<p>The development of technology for food production and processing, including:</p> <ul style="list-style-type: none"> <li>• <u>Artificial meat, sustainable protein technology, and synthetic biology in food technology</u>: production of novel ingredients including cultured meat, plant-based meat and egg substitution, sustainable protein, genome engineering, livestock genetics and macronutrient products</li> <li>• <u>Food waste reduction</u>: new technology enabling food waste reduction, shelf-life enhancement and monitoring</li> </ul>
<b>New agriculture technology</b>	<p>The application of technology in the production of agricultural machinery, equipment and supplies, including:</p> <ul style="list-style-type: none"> <li>• <u>Agricultural biotechnology and crop efficiency technology</u>: genetic engineering of crops and crop nutrition diagnostics</li> <li>• <u>Agricultural synthetic biology</u>: the application of synthetic biology in crop production, fertilisers and pesticides and animal feedstock</li> <li>• <u>Farming technology</u>: hydroponic crop farming, vertical farming, insect farming, and microbe growing systems</li> </ul>