

The logo for Keppel Capital, featuring the word "Keppel" in white on a grey rectangular background and the word "Capital" in red to its right. The background of the entire image shows three business professionals in a modern office setting, with a large red diagonal graphic element overlaid.

Keppel Capital

Keppel Capital Virtual Corporate Day

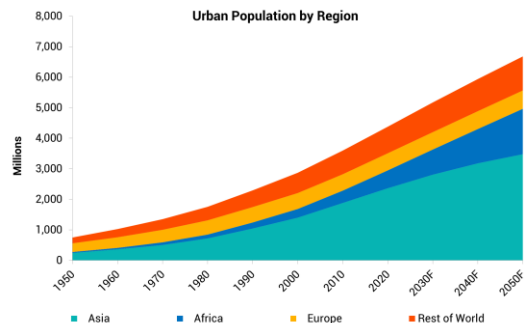
11 May 2021

Navigating the Post-COVID World

Focus on Fundamentals: Macro Trends do not Disappear with COVID-19

Trend #1: Urbanisation

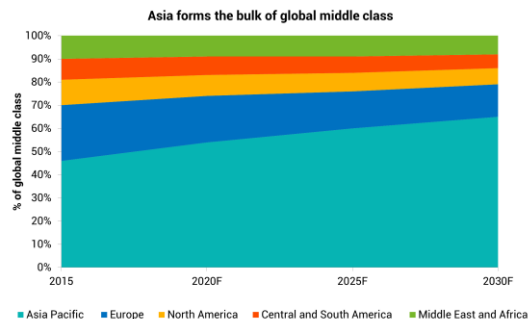
- Asia to drive global urbanisation as more move into cities
- Larger and denser cities
- More demand for housing and offices for economic activity



Source: UN World Urbanisation Prospects 2018 Revision, KepCap Research

Trend #2: Growing Middle Class

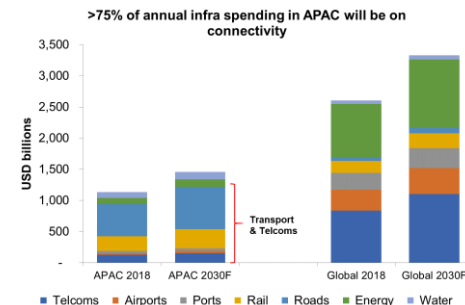
- Increased demand for goods and services
 - Higher domestic consumption
 - Larger tourist inflows
 - Silver economy: retiring better



Source: Brookings Institution, KepCap Research

Trend #3: Connected cities

- Asia's cities will be more connected
- Increased infrastructural investments to boost flows of goods, capital, people and digital information
- Business activities will intensify at key gateway cities



Source: Global Infrastructure Hub, KepCap Research

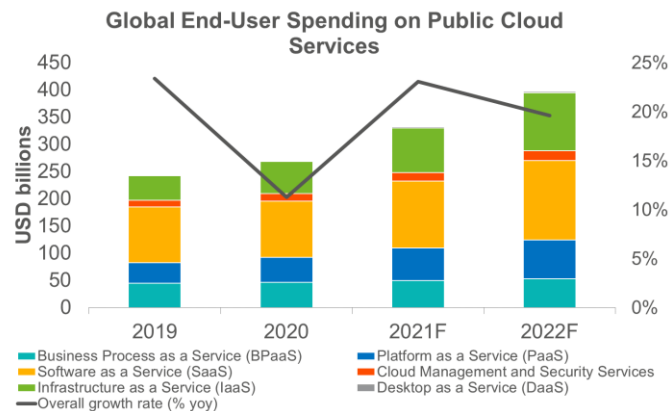
Increased economic activity in cities generate demand for housing, commercial property, data centres and infrastructure

Post-COVID: What has Changed?

COVID-19 Accelerated Digital Transformation Plans

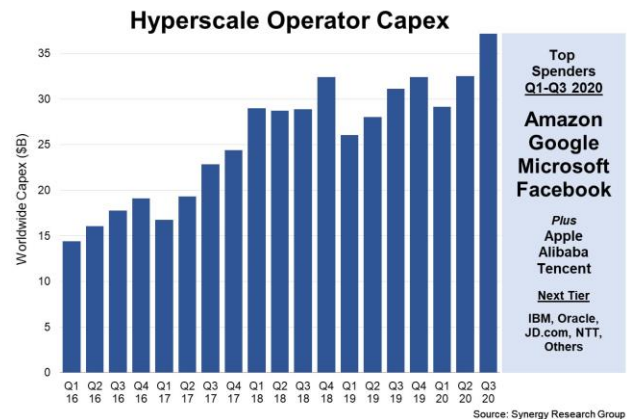
Cloud spending keeps growing

- COVID-19 spurred the digital transformation of many corporates and governments
- End-user spending on public cloud services projected to grow at 17.8% CAGR between 2019 and 2022



Hyperscalers ramping up capex

- Global hyperscalers continue to increase capex to meet growing demand
- Total hyperscale capex grew by 16% yoy in 9M2020 despite COVID-19 disruptions

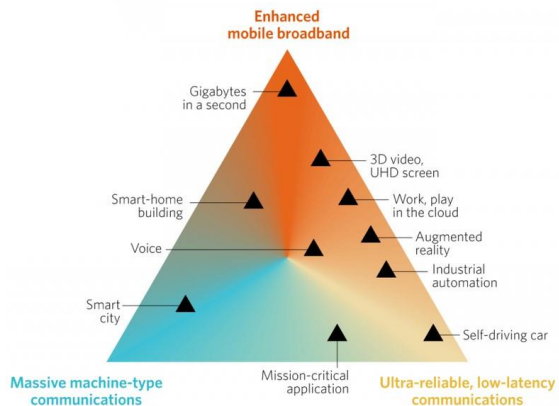


Continued growth in cloud computing underpins demand for hyperscale and colocation data centres

New Opportunities from 5G and Edge Computing

5G spawns new opportunities

- 5G adoption spurs growth in new industries, e.g. autonomous vehicles, smart cities and telemedicine
- 5G value chain to drive USD3.8 trillion of economic output and support 22.8m jobs by 2035¹



Copyright Stratfor 2018

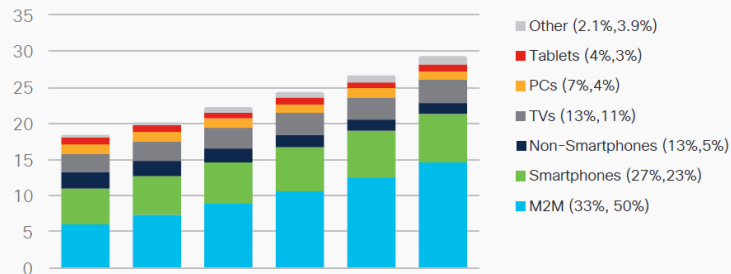
Edge expands with more uses

- 5G is an enabler for the expansion of edge computing
- Growing number of connected devices, driven by Machine-to-Machine (M2M) connections

Global device and connection growth

10% CAGR
2018-2023

Billions of
Devices


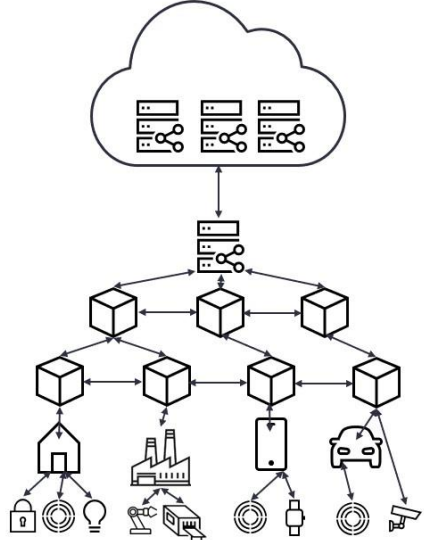










* Figures (n) refer to 2018, 2023 device share

Source: CISCO Annual Internet Report (2018-2023)

Expanding edge computing facilitated by 5G use cases presents opportunities for new connectivity solutions

The Edge is Part of the Cloud Continuum

Category	Types of compute resources	Sample architecture	Typical compute characteristics	
			Distance from data sources (km)	Latency (ms)
Cloud	 National data centers		10+	10+
	 Regional data centers (Core)			
	 Local data centers (Aggregation)			
Edge 3 types of edge	A  Cell tower data centers (Access)		1 to 10	1 to 10
	B  On-premise data centers			
	C  Computers		.001 to 1	.1 to 1
	4  Networking equipment			
	5  Controllers			
	6  Sensors / devices	<.001		

Edge | Cloud

Note: Access, aggregation and core are terms used by open source group LF Edge to describe each edge layer
 Source: IoT Analytics Research 2020

Sustainability at the Core of Keppel Group's Strategy

Sustainability as our business

- Seize opportunities in green developments, renewables, new energy and circular economy solutions



High-impact sustainability goals

- Business targets for deployment of sustainable solutions
- Operational targets including carbon emissions, waste and water



Focused portfolio

Guide our portfolio towards sustainable solutions through:

- Climate risk assessments
- Internal carbon pricing



Governance & incentives

- Strengthen board oversight
- Include environmental sustainability in executive remuneration





Photo Credit: ST Press

Keppel Bay Tower

- Singapore's first commercial development to be fully powered by renewable energy
- First commercial development to be certified BCA Green Mark Platinum (Zero Energy)
- High-tech green building:



Facial recognition for contactless entry



Water-efficient cooling tower water management



Intelligent building control



Demand control fresh air intake



Energy-efficient air distribution



Smart lighting

Physical Offices are still Relevant

Form and function of offices to evolve

- Increased focus on providing a safe work environment and physical and mental wellness of employees
- Smart office buildings with flexible and green designs could be more sought-after

Office is not just a physical space

- Important for building corporate culture
- Create opportunities for bonding, ideation, innovation through physical meetings and interactions



Closing the Gap in Social Infrastructure

Chronic underinvestment in social infrastructure

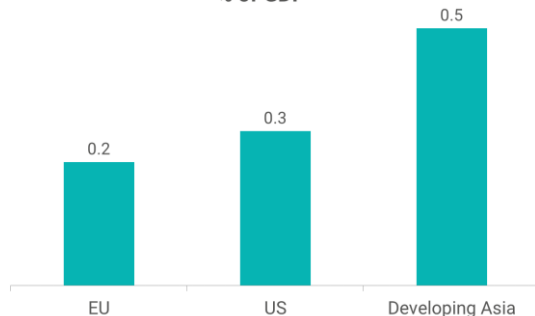
- COVID-19 highlighted the lack of adequate social infrastructure to combat health threats effectively
- Public investments have fallen over last decade due to austerity policies / limited tax revenue
- Developing Asia has a social infrastructure investment gap equivalent to 0.5% of GDP¹



Closing the gap through private investments

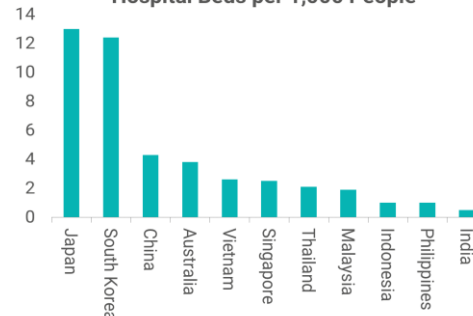
- Pandemic puts further stress on the healthcare capacity in developing Asian markets
- Private investors well-placed to fill the widening gap
- 90% of impact investors expect to maintain or increase allocation to education and healthcare sectors²
- Near-term priority will be on improving access to proper water and sanitation services

Social Infrastructure Investment Gap,
% of GDP



Source: Global Infrastructure Hub

Hospital Beds per 1,000 People



Source: World Bank



Increased Need for Quality and Sustainable Infrastructure

Urban cities of the future



Sustainable clean water sources



Smart and green offices



Accelerating digital transformation



Retiring gracefully



Quality education facilities



Keppel Capital: 2021 & Beyond

Harnessing Capabilities of the Keppel Group

Strengths & Differentiators

1

Engineering track record

2

Project management

3

Efficiency in capital allocation

4

Focus on sustainability

5

End-to-end business model

Focus Areas

ENERGY & ENVIRONMENT



Keppel O&M •
Keppel Infrastructure •
Keppel Renewable Energy

URBAN DEVELOPMENT



Keppel Land • Keppel Urban
Solutions • Sino-Singapore
Tianjin Eco-City

CONNECTIVITY



Keppel Data Centres • M1 •
Keppel Logistics



ASSET MANAGEMENT

Keppel Capital • Eco-system of private funds and listed REITs & Trust



An Integrated Fund Management Platform

Listed REITs & Trust¹

Keppel REIT



One of the largest Pan-Asian commercial REITs with premium Grade A assets in prime business and financial districts

Keppel DC REIT



First pure-play data centre REIT listed in Asia on the Singapore Exchange

KIT KEPPEL INFRASTRUCTURE TRUST



The largest diversified Business Trust with a portfolio of strategic infrastructure assets

Keppel Pacific Oak US REIT



US REIT with offices and business campuses in key growth markets driven by innovation and technology

PRIME US REIT



US REIT with Grade A office assets in key primary markets

Established fund manager offering investors quality investment products

Private Funds

Keppel Capital Alternative Asset



Private equity manager focusing on alternative asset classes, including senior living, education, infrastructure, and private credit funds

alpha



Private equity fund manager with investments across key global gateway cities

Keppel Capital

1. Keppel Capital owns 50% of Keppel DC REIT Management Pte. Ltd. (Manager of Keppel DC REIT), 50% of Keppel Pacific Oak US REIT Management Pte. Ltd. (Manager of Keppel Pacific Oak US REIT), and 30% interest in KBS US Prime Property Management Pte. Ltd. (Manager of Prime US REIT).

Thank You

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