

CLP Innovation

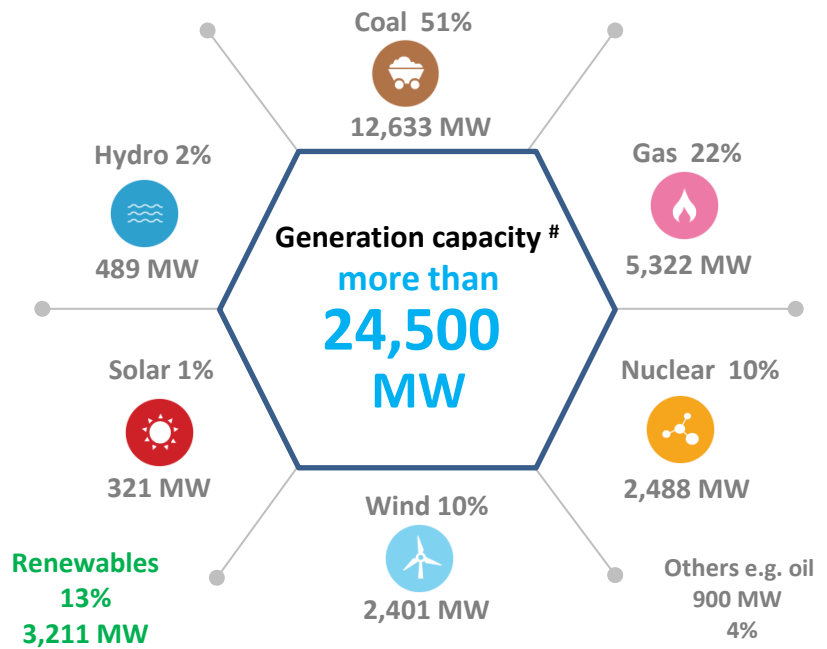
Smart Energy – Connected Cities

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Senior Director – Innovation, CLP Holdings
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CLP Group at a Glance



Over **7,500** employees  **5.2 million** customer accounts 

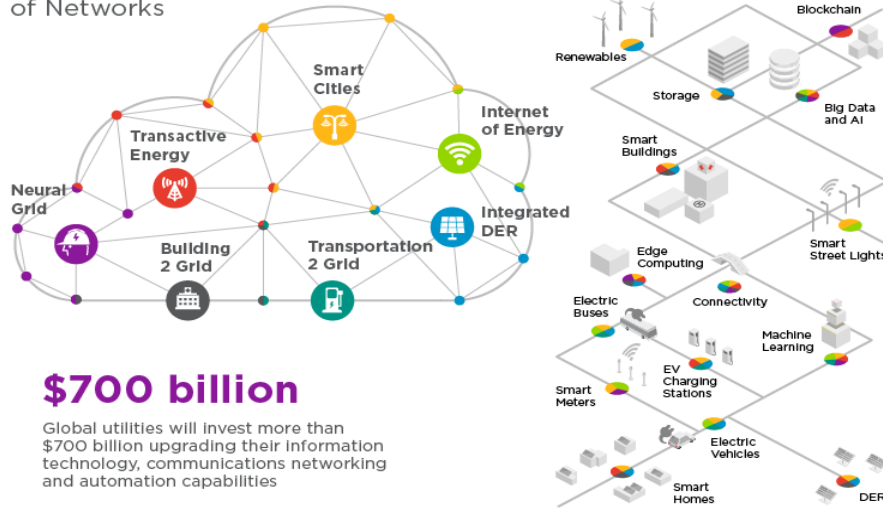


US\$700 Billion Opportunity - Energy Cloud 4.0

Moving toward a clean, decentralized, intelligent, and mobile grid.

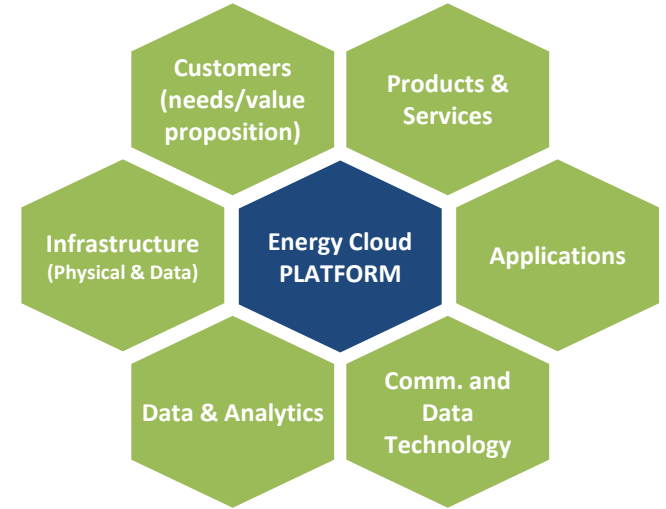
Energy Cloud 4.0

Network
of Networks



\$700 billion

Global utilities will invest more than \$700 billion upgrading their information technology, communications networking and automation capabilities



Energy Cloud transactions are increasingly initiated within and delivered through one or more customer-centric platforms.

(Source: Energy Cloud 4.0: Capturing Business Value through Disruptive Energy Platforms, WP, Q1 2018)



Energy Cloud platforms Unlock New Value

The Urban Energy Cloud



Energy cloud platforms - value created



Enable **scalable** disruptive energy technologies



Unlock multiple new energy services and growth opportunities



IT/OT convergence, data-analytics on steroids



Customers will determine how value is created, quantified, and distributed



Hong Kong Smart City Blueprint

The vision of the HK Smart City Blueprint is to *“Embrace I&T to build a world-famous Smart Hong Kong characterized by a strong economy and high quality of living.”*

Key Blueprint Updates

Short-, medium- and long-term recommendations in six major areas:

- **Smart Mobility:** Intelligent transport system and traffic management (integrated transport app by 2018, 1,000+ traffic detectors by 2020); public transport interchanges / bus stops and parking (real-time bus info on mobile devices by 2018, displays on 1,000+ bus stops by 2020); environmental friendliness in transport; smart airport;
- **Smart Living:** Wi-Fi connected city; digital payment; eID (free electronic identity for all residents by 2020); support for the elderly and persons with disabilities; support for healthcare;
- **Smart Environment:** Climate Action Plan 2030+; green and intelligent buildings, and energy efficiency (install LED lamps in public lighting systems starting 2017-18); waste management; pollution monitoring;
- **Smart People:** Nurturing young talent; innovation and entrepreneurial culture;
- **Smart Government:** Open data; smart city infrastructure; adoption of technology (explore smart city facilities, such as smart lampposts and trash collection);
- **Smart Economy:** Strengthen the current pillars by leveraging I&T; promoting sharing economy; develop new economic pillars

(Source: [Smart City Hong Kong](#))



Opportunities in the Emerging Digital Energy Economy

- Electrons & data begin to flow 2-ways
- Smart energy 'data analytics' & AI platform
- Smart energy management – tailored services & solutions for customers, optimisation of the grid
- Bundled products that offer flexibility & convenience
- Cheaper, greener, sustainable energy
- Seamless digital experience
- Partnership with innovative technology companies

The Energy Landscape



CLP Innovation Vision



Thought leadership and bold
action for the smart energy
economy

The CLP Approach

1 Trusted utility with strong reputation and powerful brand
Significant industry pedigree and domain knowledge
Asia Pacific reach



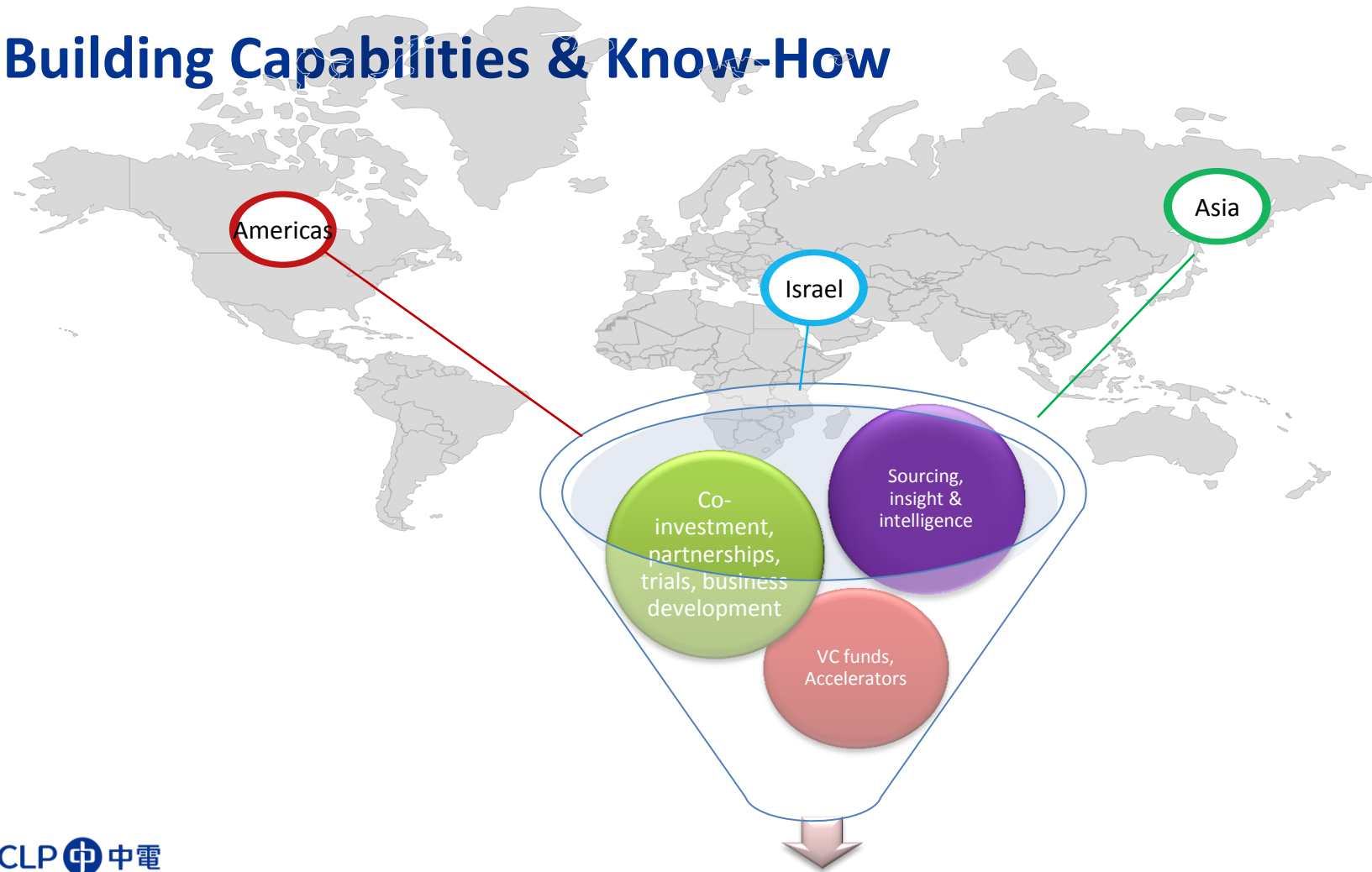
2 Build enterprise capabilities and know-how
Optimise operations
Deliver digital energy economy
Become smart city architect



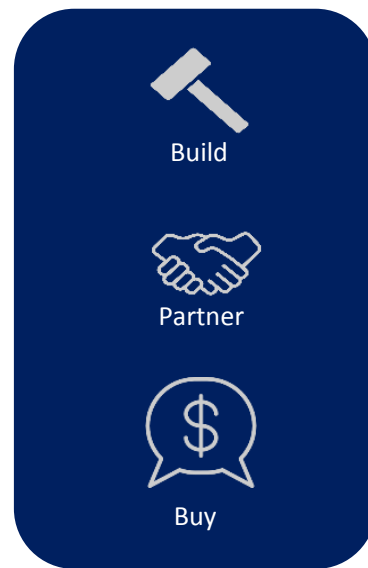
3 Scout/scout & VC program
Strategic investments
POCs, trials, joint developments
Strategic partnerships

New energy products and services
New business models
Business development opportunities
Data science insights

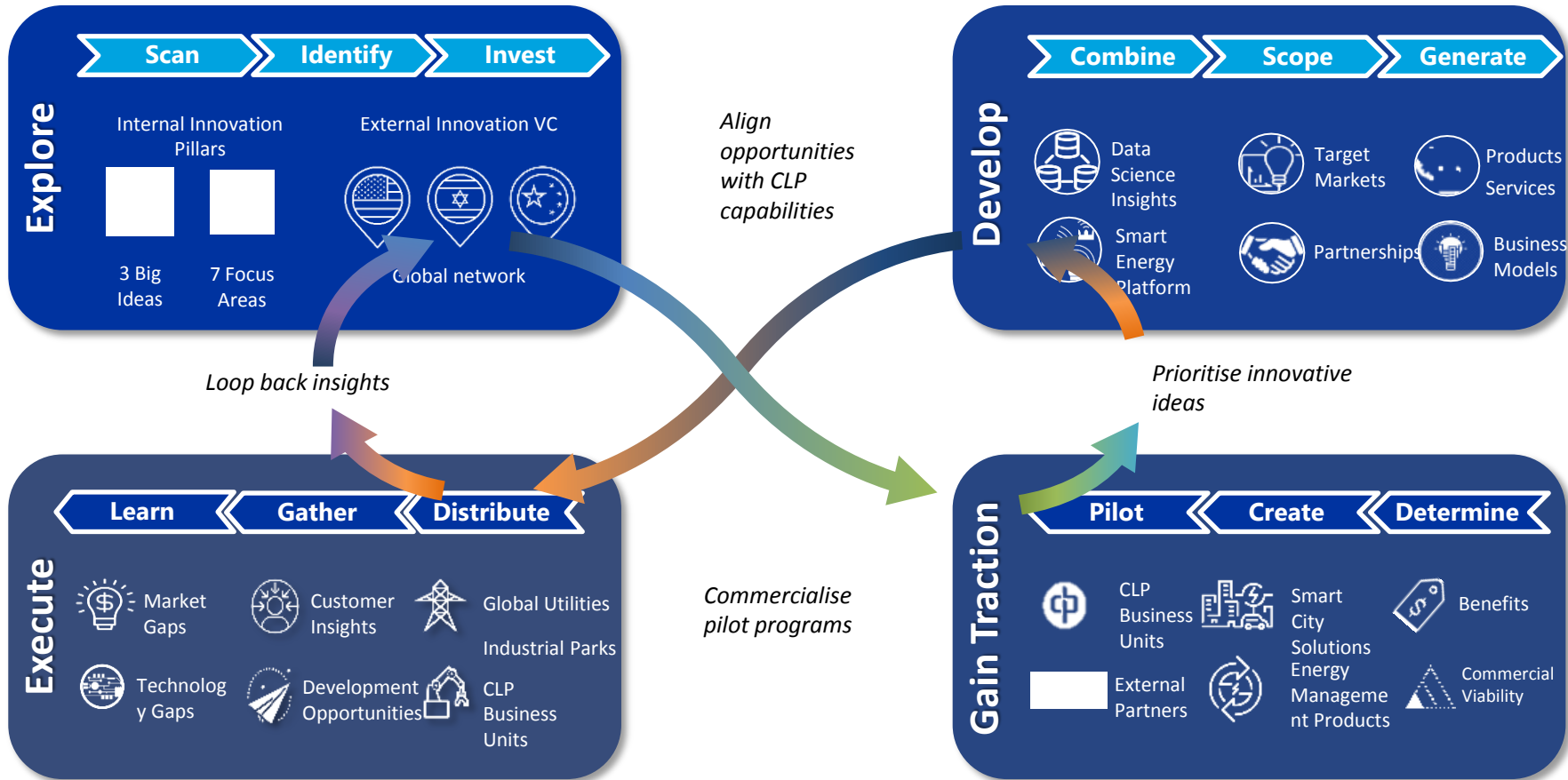
Building Capabilities & Know-How



Systematising Innovation



The journey so far



A Call to Action

- We seek partners for exploration
- Partners for growth
- Transforming Hong Kong into one of the world's Top 5 Cities for Quality of Living
- Supporting Hong Kong's drive to become a world-leading innovation hub

Our Team



Thank you!