



Invest in Penang 2015

Capitalizing on Penang's value proposition as a destination of choice for investors

By Dato' Lee Kah Choon

"Business & investment opportunities in Penang, Malaysia"



Penang in the news:

An industrial base state, heritage city and campus for technology



- **Top 10 dynamic industrial cluster** locations in the world to have demonstrated a successful manufacturing experience among developing economies (UNIDO Industrial Development Report 2009)
- **Top 31 Business Process Outsourcing (BPO)** - locations of the future (KPMG's "Exploring Global Frontiers" Report 2009)
- Georgetown – **UNESCO World Heritage Site in 2008**
- The **16th most livable cities in Asia** (ECA Intl. 2014)
- Top in **Green initiatives** in Malaysia
- **C.A.T. Governance** praised for anti-corruption efforts (Transparency International, AG Report 2010)
- **4th most charismatic city globally 2016** (Lonely Planet 2015)
- **Top 10 best city to visit** in the world (The Guardian 2014)
- **Top culinary spot** (Lonely Planet 2014)
- **Top 8 islands** in the world 'You must see before you die' (Yahoo! Travel, Feb 2011)
- **Top 15 best street art** in the world (The Guardian 2013)



PENANG, MALAYSIA



1,031 sq km area
(green zone)

1.7 mil population
(68.8% working age group)

821k workforce
(254k – manufacturing)

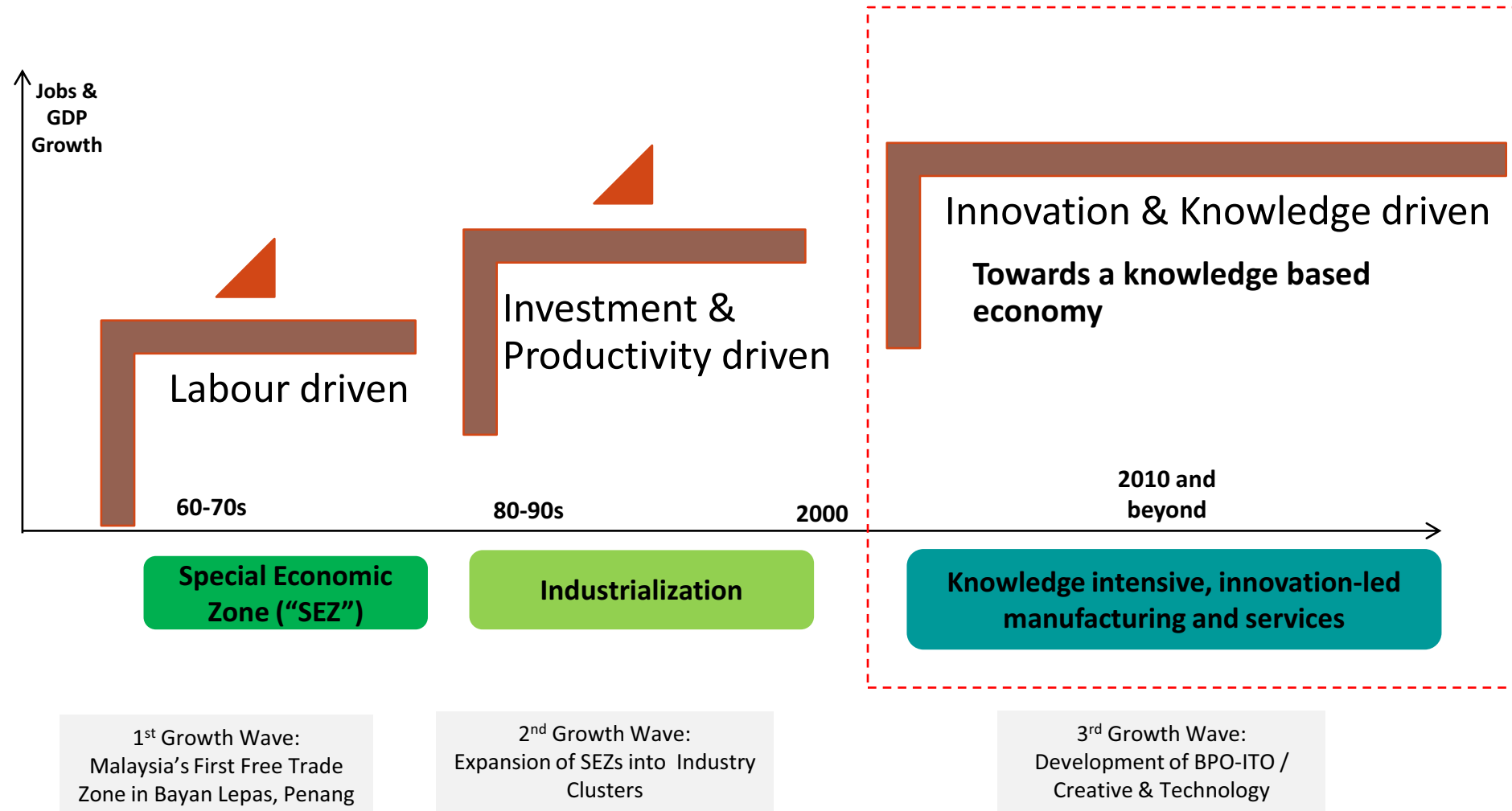
Multilingual
(English, Malay, Mandarin, Tamil etc)

54.8 B GDP
(7% contribution to national GDP)

40 years of cumulative industrial intelligence

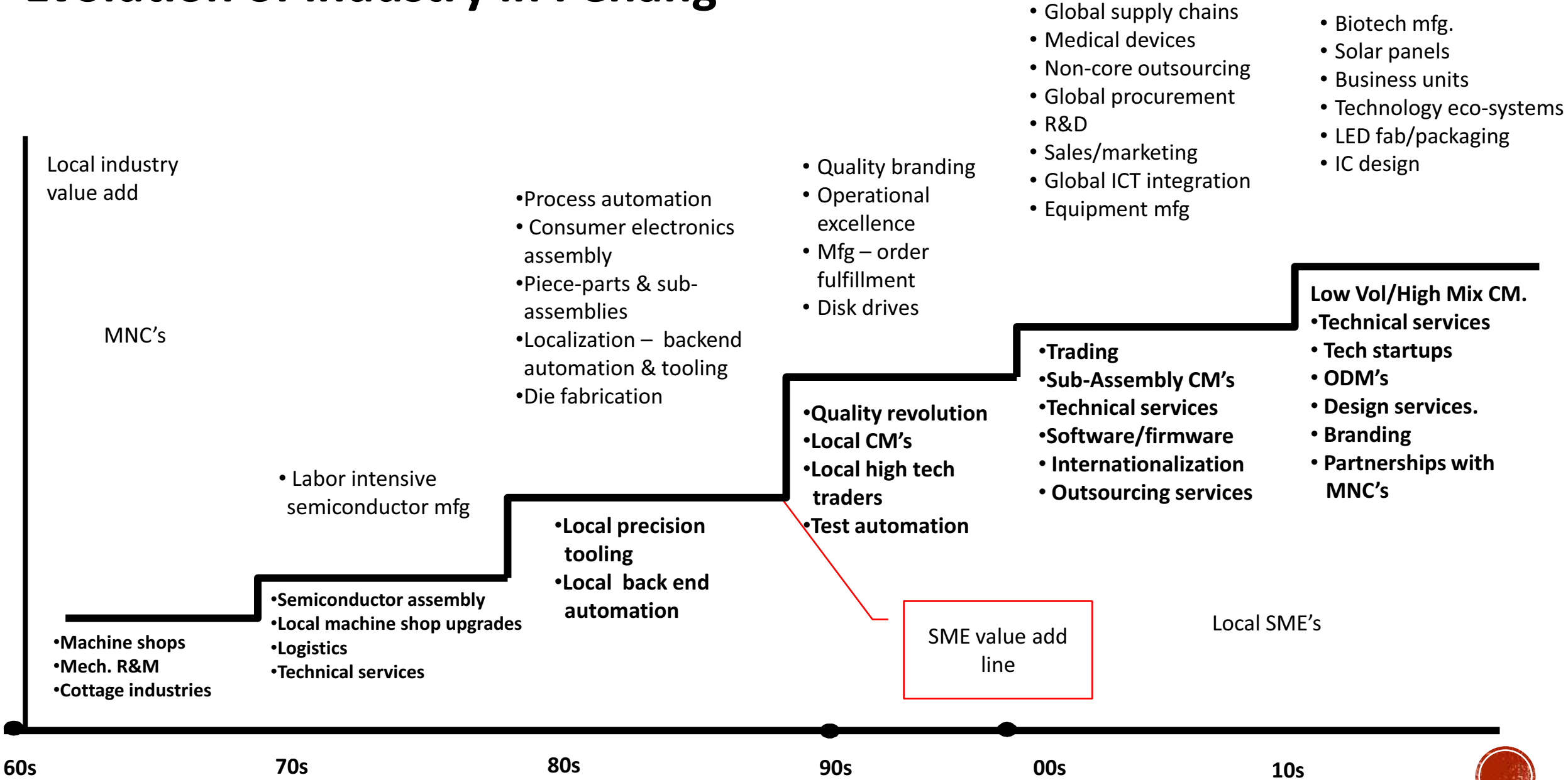


Penang has evolved and taken on a new dynamism

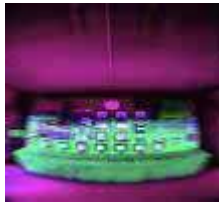


- Two growth transformations to become a successful industrialized economy
- Penang's economy targeted **to move up the value-chain** by driving the third growth wave of knowledge intensive and innovation-led growth
- **Promoting economic diversification** e.g. advanced technology, BPO-ITO, IoT, creative multimedia, engineering design, big data analytics etc

Evolution of industry in Penang



Key sectors to boost Penang economy



Industry



- Electrical & Electronics
- Electronics Manufacturing Services (EMS)
- Medical Devices
- Light Emitting Diodes (LED)
- Aerospace / Avionics
- Renewable Energy (RE)
- Halal & Food Industry



Services



- Shared Services & Outsourcing (SSO)
- IC Design & Development
- ICT / Software development & Creative Multimedia
- Operational Headquarters, International Procurement Centre and Regional Distribution Centers
- Logistics & Transportation
- Healthcare & Wellness Services
- International Education
- Meeting, Incentives, Conferences, and Exhibitions (MICE)
- High value Tourism / Hospitality



PENANG'S RECENT INVESTMENT UPDATES

	<p>B. Braun's expansion in Penang Re-invested RM300 mil in 2009 and RM1.75B in 2013</p>
	<p>Atotech, a direct subsidiary of TOTAL purchased 2.5 ac of land in Penang Science Park to set-up a chemical blending facility and currently under construction</p>
	<p>Jabil expanded operations in Batu Kawan Industrial Park, to start construction in 2016 Focus on Enterprise, industrial medical and aerospace sectors ,creating 2,500 skilled jobs</p>
	<p>HP to invest more than RM1 billion for their worldwide consumer ink supply chain management, 550k sqft facility, started construction in May 2015, to be completed in 12 months</p>
	<p>Seagate to re-invest RM1.05 billion in Penang for manufacturing of hard disk drive and storage solutions, started construction for their 1.3mil sq ft facility in March 2015</p>
	<p>SanDisk set-up RM1.2 billion plant in Batu Kawan Industrial Park, completed 344k sqft, 4-storey facility in 10 months, to replicate 3 more same buildings at the same site</p>
	<p>Bose's first overseas site for the past 17 years, 360k sq ft facility completed in 10 months. Began operations in June 2013 and employing 2,000 workers</p>
	<p>Haemonetics' new facility in Batu Kawan Industrial Park First establishment in Asia, created 700 new jobs. Collaboration with Sanmina-SCI on machineries manufacturing, distribution and after sales services</p>
	<p>Toshiba Medical established Malaysia's first diagnostic imaging systems manufacturing base in Penang. Started operations in Dec 2014, employs 200 employees</p>



B BRAUN PENANG



- B Braun supplies the global healthcare market with products for anesthesia, intensive medicine, cardiology, extra corporeal blood treatment and surgery , as well as services for hospitals, general practitioner and homecare sector.
- Penang subsidiary, B Braun Medical Industries Sdn Bhd (BMI) was established in 1972 and is one of the **group's first manufacturing site in Asia Pacific**
- BMI is the **largest manufacturing site outside Europe** and the **regional Headquarters for Asia Pacific**
- BMI recognized as the Global Center of Excellence for Intravenous Access (CoE IVA) products, R&D and production technology to develop and manufacture safety products and systems (i.e: IV Catheters (IVC), Scalp Vein Sets (SVS) and Hypodermic Needles.
- BMI employs more than 7,000 employees
- **Why Penang?**
 - Acquisition of know-how and capabilities from more than 40 years experience
 - Availability of talents specialized in medical field, quality and innovation
 - Cultural diversity, strength in language to serve Asia market
 - Engagement with local universities and institute of higher learning



OSRAM PENANG



OSRAM Manufacturing

- One of the world's leading manufacturers of optoelectronic semiconductors for the illumination, sensing and visualization sectors
- Extensive know-how in semiconductors, converter materials and packages under one roof
- Penang manufacturing site supporting worldwide LEDs for more than 20 years
- Penang has the world's most advanced LED chip factory
- Employs 6,000 workers as of April 2015

OSRAM's Global Service Center Penang

- Started : 2015
 - Employees : 56 employees today in APAC service centers
 - Services offered : Full spectrum of operational and value added services
 - Growth potential : ~260 employees by 2017; with the ability to expand
-
- **Why Penang?**
 - Malaysia is a low-cost country with good multi-language capabilities and wide access to a talented labor pool
 - GSS APAC constantly uses our 3-Pillars, utilizing our people to automate Processes, achieve synergies and lower the operating costs for our Partners!



BOSCH PENANG



- The Bosch Group operations are divided into four business sectors: Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology.
 - employs roughly 360,000 associates worldwide (as per April 1, 2015), and generated sales of 49 billion Euros in 2014
- In Malaysia, Bosch is active in the areas of Mobility Solutions, Industrial Technology, Consumer Goods, and Energy and Building Technology.
- The subsidiary in Penang was established in May 1984 and has three manufacturing arms in Penang providing car multimedia systems, power tools and automotive steering
- In 2014, Malaysia contributed sales of RM 552 million (EUR 127 million) and employed more than 2,500 associates.
- January 30, 2015 - the Bosch Group completed its acquisition of ZF Friedrichshafen AG's 50-percent share in the joint venture ZF Lenksysteme GmbH (ZFLS). Bosch now owns all shares in the formerly 50:50 joint venture. It will be incorporated into the Bosch Group as a new division with the name Robert Bosch Automotive Steering GmbH.

Why Penang?

- Highly urbanized and industrialized Penang is one of the most developed and economically important states in the country, as well as a thriving tourist destination. Penang is also known as "The Pearl of the Orient".
- Penang enjoys a year-round tropical rainforest climate which is warm and sunny.



VAT PENANG

- VAT is the world's leading supplier of high precision vacuum valves made of stainless steel and aluminum for state-of-the-art applications in the semiconductor industry, for manufacturing flat screens and solar panels, as well as for coating optical systems and tools.
- VAT Malaysia is located in the Batu Kawan Industrial Park / Penang and manufactures high precision valves, purchasing standard parts from local suppliers and assembling and testing all components in a clean room environment.
- On 6 th of February 2012, VAT had their ground-breaking ceremony. The construction was completed within 10 months and operations commenced in April 2013. Currently fully operational with 95 headcount
- **Why Penang?**
 - Availability of qualified talents and English speaking workforce
 - Matured local supply chain with world class capabilities
 - Strong IP protection
 - Good investment incentives offered by Malaysian Government



Over 300 multinational companies have chosen Penang as their location of choice to do business


































































































Others – EU co























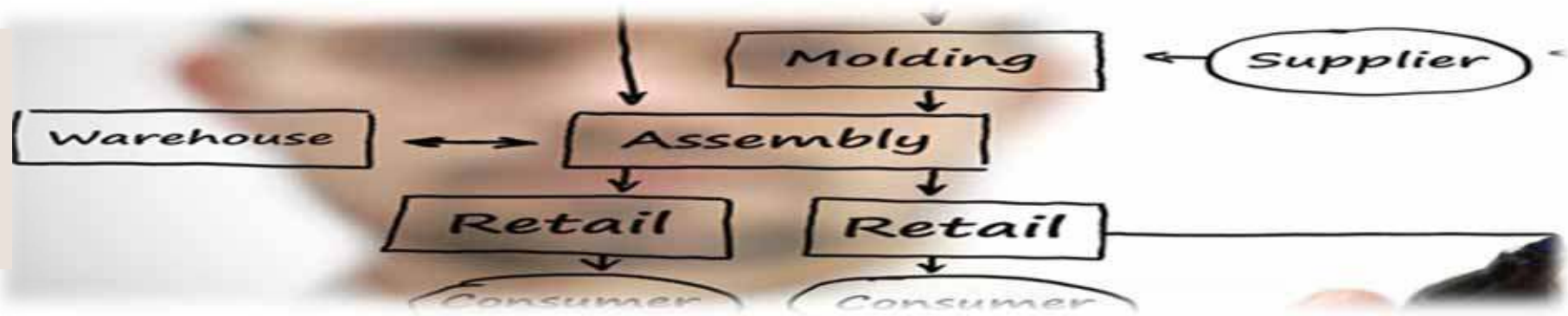


No of companies Japan: > 85 Taiwan: >70 US : > 50 Singapore: >30 Germany: > 10 Others : >50

and many more...



WORLD CLASS SUPPLY CHAIN



- World class capabilities, robust supply chain, proven track record and critical support services
- Provides shorter development cycles, steeper learning curves and reduced cost and time to market
- Vibrant E&E ecosystem with over 3,000 well diversified and competent local suppliers
- Local and international EMS companies

- Vision inspection system
- Test handlers and material handling systems

Automation



- Products, components and services – flex circuits, plating, assembly etc

Electronics



- Paper and boards, polystyrene, sponge and hard rubber, antistatic

Packaging



- Precision machining, precision tooling, stamping and fabrication

Precision engineering & metal work



- Manufacturing, telecommunication, ERP, HRM

Software development



PENANG E&E CLUSTERS

E&E Sector

Companies that are engaged primarily in the design and manufacturing of the following components and products

E&E Sub-sector

Electronic Components

Consumer Electronics

Industrial Electronics

Electrical Components

Electrical Appliances

Industrial Electrical

E&E Micro Sub-sector

					
--	---	--	--	--	--

MALAYSIAN SEMICONDUCTOR ECOSYSTEM

Global or Reg HQ

R&D, Design

Mfg (core components, device)

Assembly, packaging, testing





Sales, Distribution, Service

Semi-conductor players operating in Malaysia



Electronic Manufacturing Services (EMS) Industry in Penang

- Top 10 EMS providers / ODM in Penang (ranked by 2014 full year financial results)

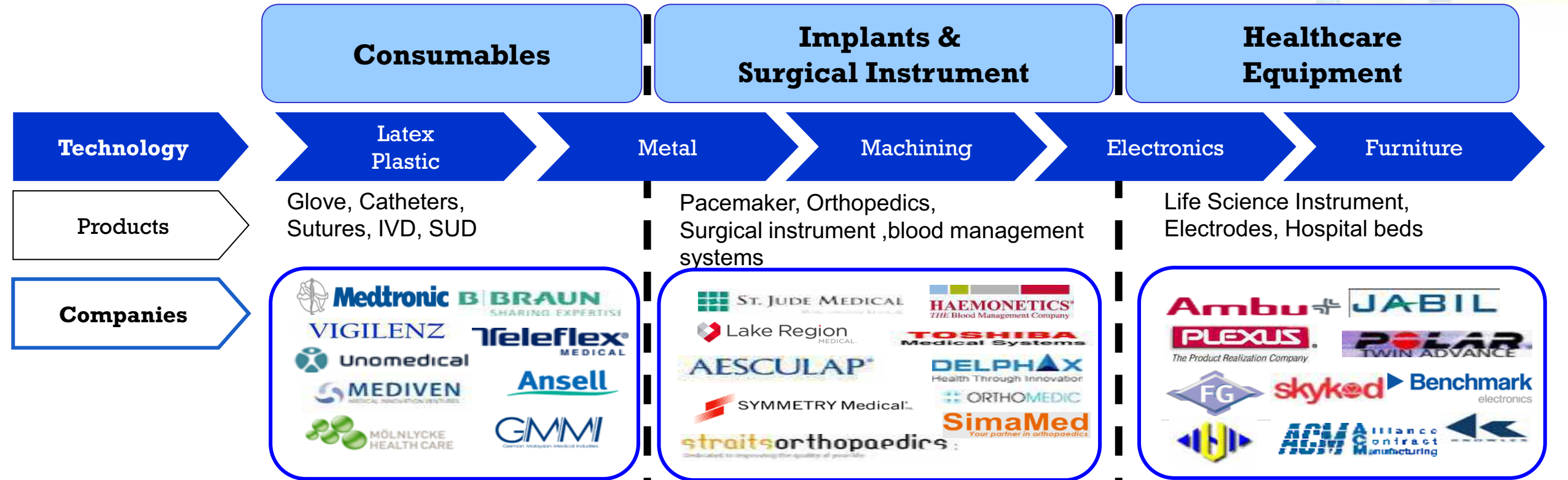
Company	Ranking
	2
	3
	5
	6
	7
	9

- > 50 companies operating as CMS / EMS in Malaysia
- Other EMS providers in Penang

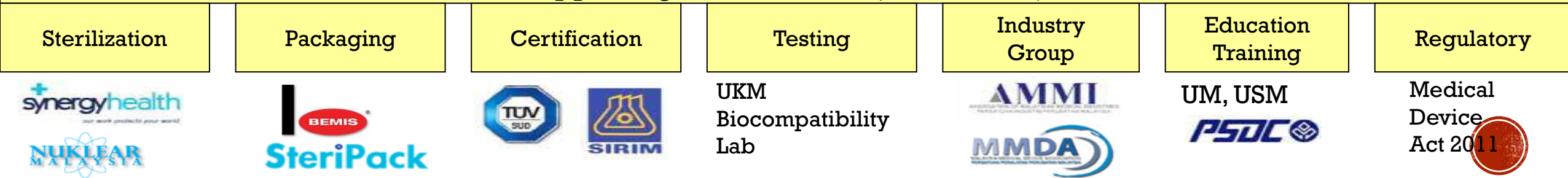


Medical Devices Cluster in Penang & Northern Region

Materials: Rubber, Plastics, Steel, Electronics, etc.



Supporting Infrastructure (Nationwide)



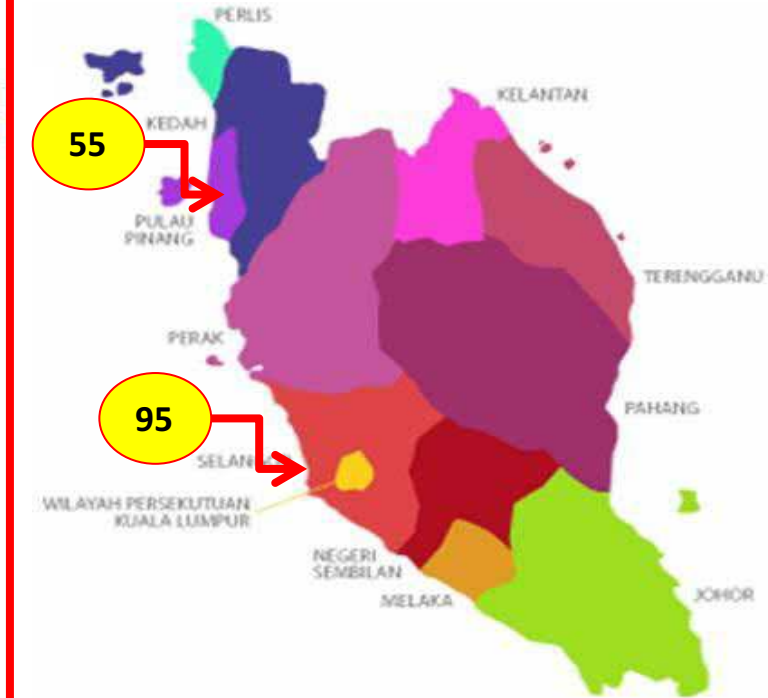
Strong Medical Devices Ecosystem in Penang

Penang - Major medical devices cluster in Malaysia

- Home for 1/3 of medical devices companies in Malaysia (55 out of total 190)
- In 2013, the total value of medical devices export from Malaysia is RM15.35B, 1/3 of it: RM5B is from Penang.

Strong presence of established supporting industries and supply chain

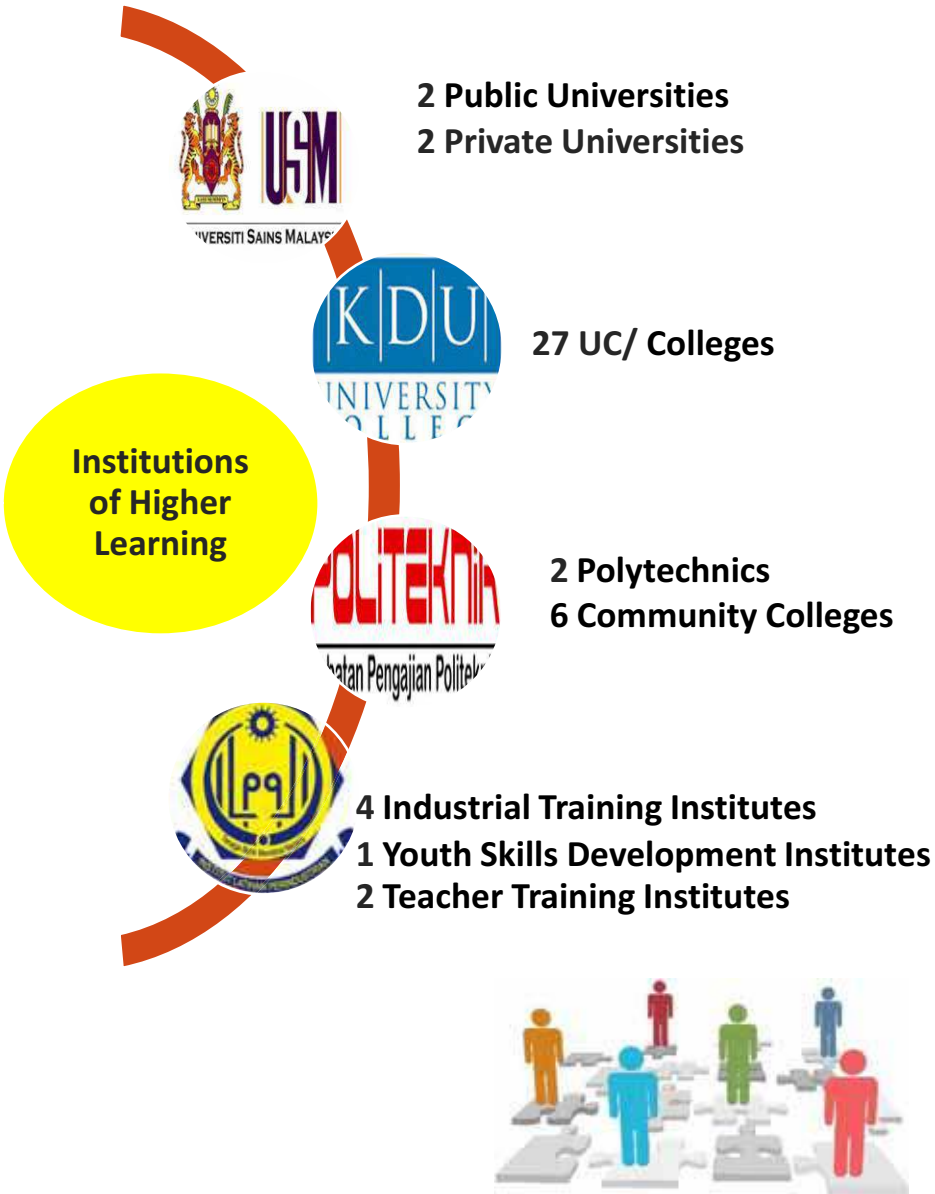
- Many local suppliers are certified with ISO 9001, ISO 13485, ISO 14000, ISO/TS 16949 and FDA certified for Medical Devices



2 Class 3 Medical Devices Manufacturer in Penang



Penang Education Ecosystem- Nurturing Talents



resource centre and point of contact for employers and job seekers

Penang Future Foundation Scholarship Award – Scholars bond to serve organizations in Penang

foster innovation & research, mentor your scientific entrepreneurs

promote R&D, talent development + collaboration research

Science Discovery Centre & a Planetarium @ Komtar Geodesic Dome

Offers diploma & degree engineering, customized courses. Runs EMC, RF & embedded lab and 3D prototyping services



COMPETITIVE COST OF LIVING & DOING BUSINESS

- Relatively lower attrition rate (Penang: abt 5%)
- Stable wage inflation (Malaysia : 6%)
- Lower average of prime office rent
- Lower median salary of US\$ 338/mth
KL/Selangor US\$444/mth
Johor US\$350/mth
- Among cheapest water rates in Malaysia RM0.32/m3
- Among cheapest electricity rate in region

Country	Tariff (USD/KWh)
MAL	0.11
THA	0.11
IND	0.12
CHI	0.13
SIN	0.23
PHI	0.27

Availability of TALENTS.

- Home to talent pool
 - >220k annual local graduates
 - > 70k studying overseas
 - 141,153 (64%) are from Engineering, Sciences & Computer and Business related
- Multilingual (English, Malay, Mandarin, Tamil, Japanese etc)
- Critical mass of multi-lingual, multi-cultural & experienced talents.

CONDUCTIVE BUSINESS ENVIRONMENT

- Quality lifestyle & vibrant cultures - *“Work-Live-Play”*
- Good connectivity & fully developed physical infrastructures with disasters free
- Stable economic profile
- >4 decades of cumulative industrial experience to support business eco-system (Penang: >300 MNCs & thousands SMEs)

**Penang-
Tranquil Island Resort in a Vibrant City...**



STRONG IP PROTECTION

- **Malaysia is a party of the following treaties:**
 - World Intellectual Property Organisation (WIPO), 1967;
 - Paris Convention for the Protection of Industrial Property 1883;
 - Berne Convention for the Protection of Literary and Artistic Works, 1886;
 - Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement
 - Patent Cooperation Treaty (PCT) 1970
- In April 30, 2012, the **US Trade Representative** announced via its Special 301 Report that Malaysia has been removed from the Watch List after making significant improvements in its intellectual property rights

Source:

<http://iipdigital.usembassy.gov/st/english/article/2012/05/201205024914.html#axzz3b7FPHYMN>



- **IP in Malaysia comprises:**
 - **Patents**
 - **Trademarks**
 - **Industrial Designs**
 - **Copyrights**
 - **Geographical Indications**
 - **Layout Designs of Integrated Circuits**





8th most livable cities in Asia

- “habitat of choice” for local and global talents
- Quality of life is key to attract & retain talents



UNESCO world cultural heritage site

- Vibrant showcase for art and creativity
- Best street food and beach resorts in the region



10 international schools

- American, British, Japanese, Taiwanese curricula



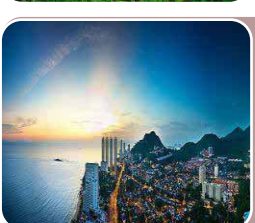
7 private hospitals with international accreditation

- 55% medical tourism revenue contribution by Penang



Pioneering Green State

- Promotion of recycling community , Green Building Index compliance & Sustainable water supply



Safe City

- Largest drop in crime index in Malaysia - 15% drop in Q1 2014
- Installation of closed circuit televisions and police patrolling over hotspot areas



Home to global citizens

- 2000 expatriates in enjoy quality lifestyle with lower cost of living
- International associations (e.g.: International Women’s Association)

Penang Quality Lifestyle



conducive for growth of businesses



BB BIDS

BAYAN BARU
BUSINESS IMPROVEMENT DISTRICT



Penang Cyber City (PCC) 1

- BPO PRIME
- HOTELS
 - ① EQUATORIAL HOTEL ★★★★★
 - ② VISTANA HOTEL ★★★★★
 - ③ ALORA HOTEL ★★★★★
 - ④ OLIVE TREE HOTEL ★★★★★
 - ⑤ HOTEL SERI MALAYSIA ★★★★★
- FUTURE DEVELOPMENT
- SUBTERRANEAN PENANG INTERNATIONAL CONVENTION AND EXHIBITION CENTRE (SPICE)
HOTELS, F&B, RETAIL, OUTLETS, AQUATIC CLUB, MINI CHILDREN PARK, BADMINTON COURTS, SQUASH COURTS AND STUDIOS
- INDUSTRIAL PARK
- RESIDENTIAL
- COMMERCIAL BLOCKS WITH OFFICE BLOCKS

- ① EQUATORIAL HOTEL **AMD** **JobStreet.com**
- ② THE ONE
- ③ ARENA
- ④ D'PIAZZA MALL
- ⑤ MAYANG MALL
- ⑥ ONE PRECINCT **citi** **AirAsia** **wilmar** **PMC**
- ⑦ QUARTERMILE
- ⑧ PROMENADE
- ⑨ ELIT AVENUE
- ⑩ SUNTECH TOWER **Seagate** **Atmel** **exabyte** **Pikocharl**
(TO S&B SQ)
- ⑪ KRISTAL POINT

- RESIDENTIAL
- PENANG GOLF COURSE
- SHOPPING - HYPERMARKET/MARKET
- BUS STOPS
- POLICE STATION
- CLINICS
- TAXI STANDS
- PETROL STATIONS
- BANKS
- FIRE STATION
- HOSPITALS
- SCHOOL

10 MINUTES DRIVE TO:

- BAYAN LEPAS INDUSTRIAL FREE ZONE
- PENANG INTERNATIONAL AIRPORT
- SUNGAI NIBONG BUS TERMINAL
- UNIVERSITI SAINS MALAYSIA
- SULTAN ABDUL HALIM MUJAZAM SHAH BRIDGE (SECOND BRIDGE)



PENANG

Strategic and Attractive Location for GBS companies

Semiconductor/ Manufacturing based (MNCs) with Global SSC in Penang



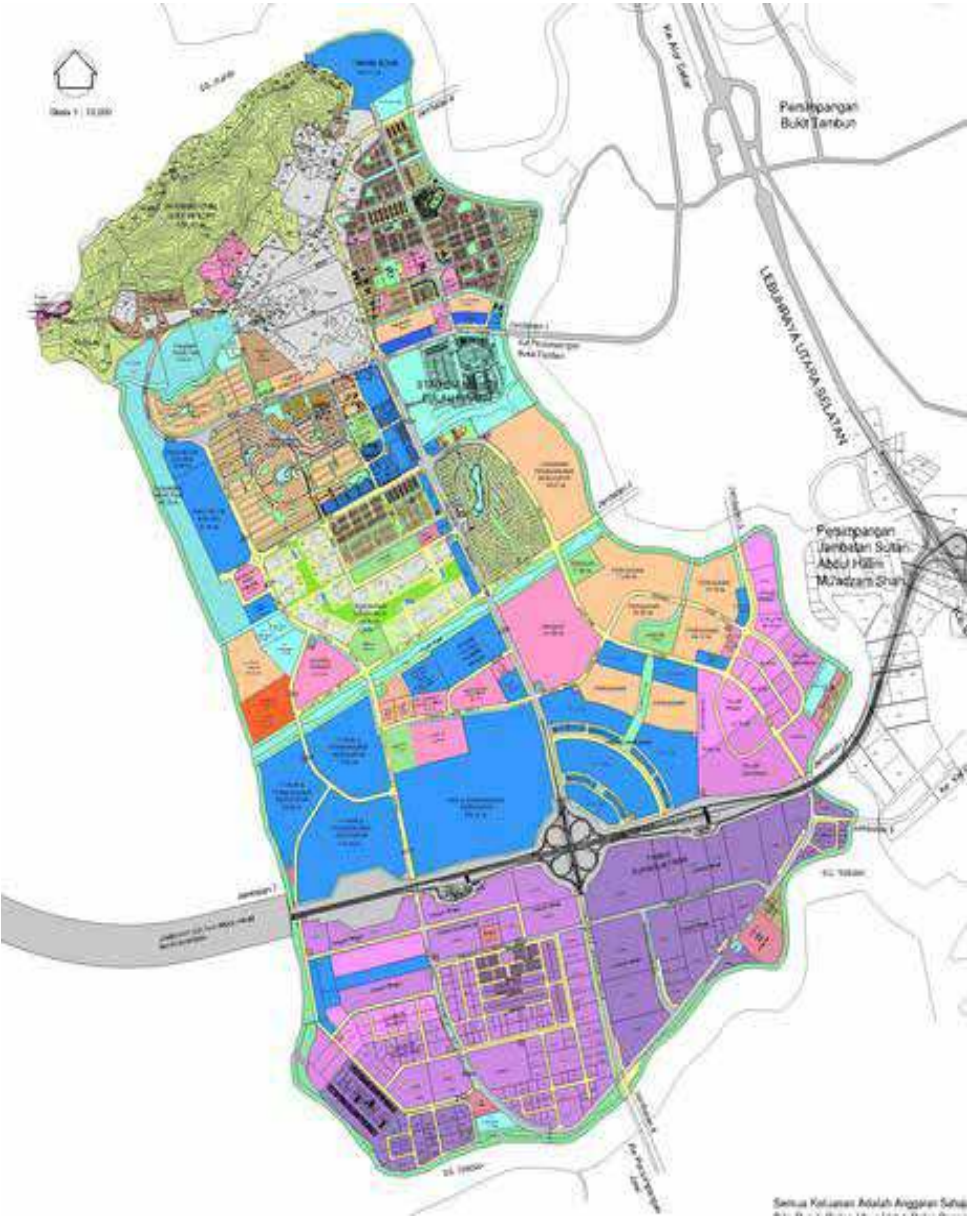
Global Shared Services & Design Centre/ 3rd party outsourcing companies in Penang



- **Top 31 Business Process Outsourcing (BPO) - locations of the future** (KPMG's "Exploring Global Frontiers" Report 2009)
- Specialization- Engineering R&D and Product Design, Market Research & Analysis, Finance & Accountancy, IT Services & Support, Human Resources, Management, Supply Chain Management, Procurement, Payroll Processing and Customer Contact Centre
- Serving **regional and global markets**
- To-date **created >8000 jobs**



Batu Kawan Industrial Park: Positioned for Growth



Strong Industrial Base

Manufacturing base in automotive, engineering, medical devices, electronics



Emerging Supporting Clusters in Education and Logistics



One Auto Hub – University of Hull Campus, PKT automotive logistics facilities, warehouses, jetty (by 2017)

Degree courses in engineering, business, design, information systems (by 2017)

New Retail and Recreational Facilities

IKEA – integrated shopping mall development with offices and residences (over 5-10 years)



Planned theme park and golf resort



Creating more innovation-driven entrepreneur & develop **Accelerator for Creative, Analytics, Technology (@CAT)** ecosystem

- **Wisma Yeap Chor Ee (WYCE)** - one of the elegant historic building within the George Town's heritage enclave,
- 100 years old of office space buildings retro-fitted to **state of the art modern infra and deco; whilst maintaining old world charm**
- To **house creative & tech companies** - animation, games, interactive content, mobile content / applications, IOT, software/hardware
- Offers **accelerator, incubation & co-working space**



www.acatpenang.com



ACCELERATING
emerging tech
Startups &
Entrepreneurs

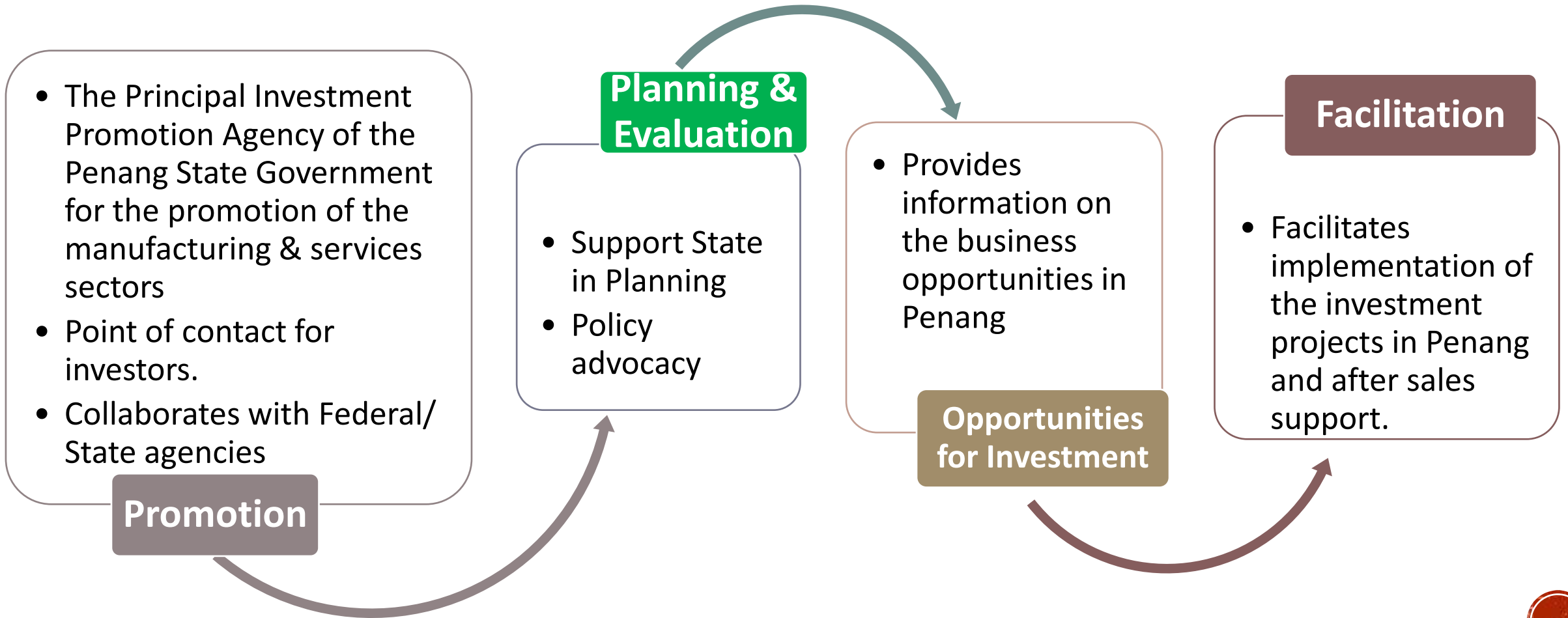
NURTURING
new talents in the new
growth area - cloud
computing,
applications
technology, BDA, IoT

DEVELOPING
Penang's startup
ecosystem

Raising More Local Stars!



About investPenang



Penang offers the right balance

“invest, work, live and play”



Thank you!

www.investpenang.gov.my



Invest-in-Penang Berhad

PSDC Building, 1, Jalan Sultan Azlan Shah, Bayan Lepas, 11900 Penang, Malaysia

Tel: 604-646 8833 Fax: 604-646 8811

