



開拓海外建案市場經驗分享
Experiences on the International
Engineering Market Survey

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Outlines

- Introduction
- International Market Overview
針對國際市場特性加以介紹
- Opportunities and Threats
針對市場機會、威脅進行分析
- Trends and Future Strategies
進行市場趨勢預測
- Lessons Learned

Basic Business Resources

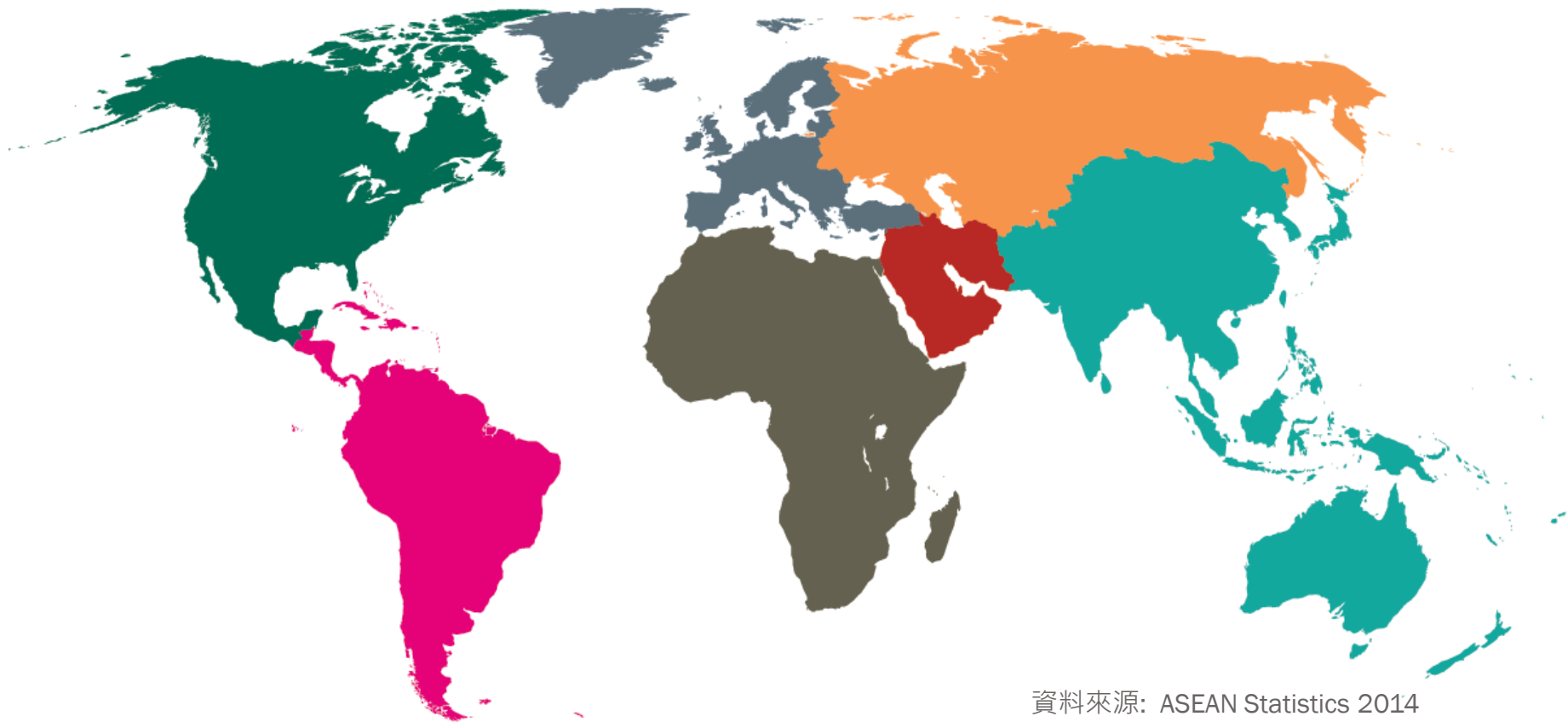
- Government Officers
 - Ministry of Foreign Affairs
 - Overseas Compatriot Affairs Commission
- Taiwan External Trade Development Council v.s. Chinese International Economic Cooperation Association
- Taiwanese Overseas Business Entity, Chamber of Commerce
- Local Agencies, brokers and Website Information
- Asian Development Bank, WB, EDRB
- NGO (Education Programs)

International Market Overview

- World Economy and Globalization
- Global Construction Industry
- Market Segments
- Market Competition
- Clients and Procurement Methods

International Market Overview

Composition of geographical regions



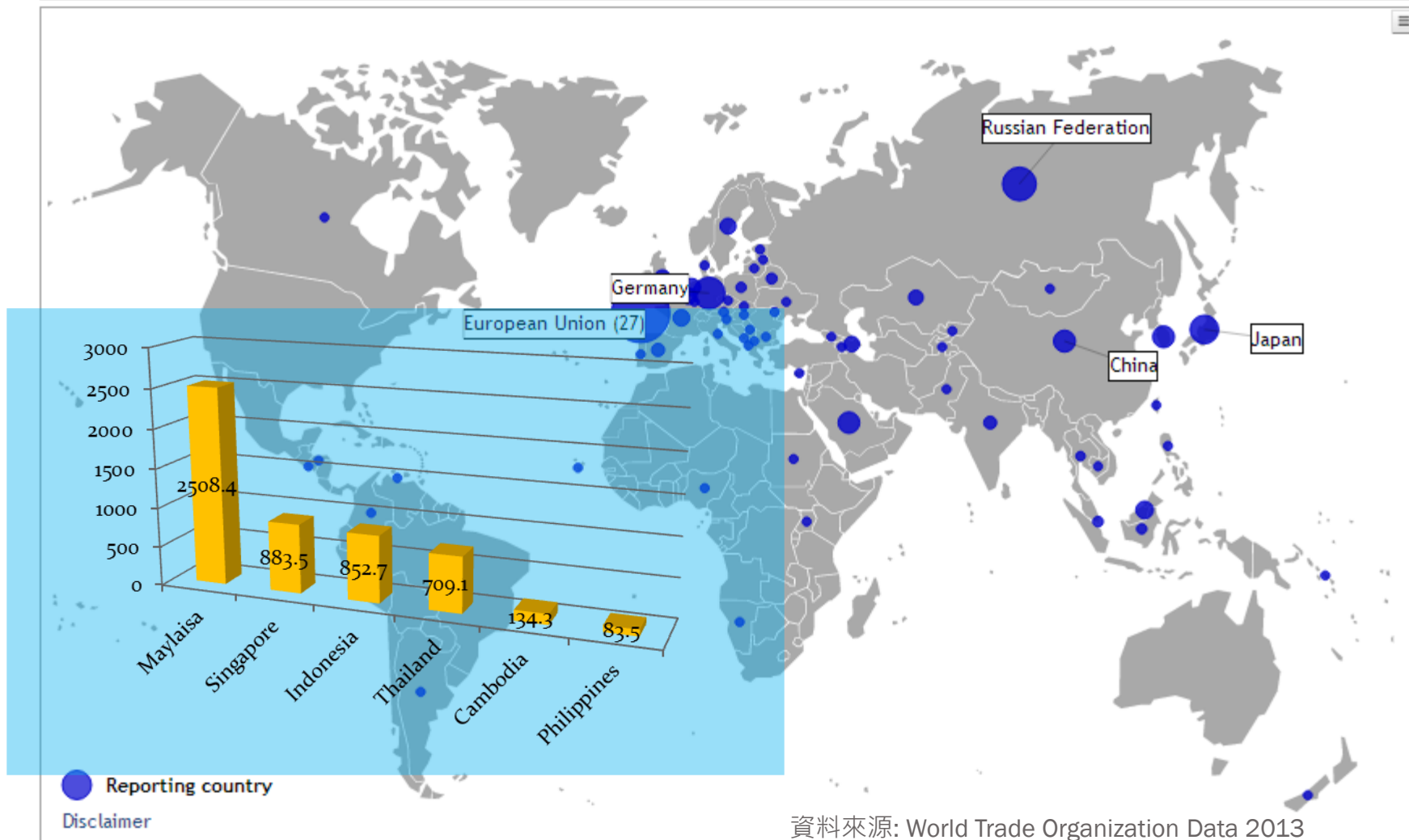
資料來源: ASEAN Statistics 2014

● North America ● South/Central America ● Europe

● Commonwealth of Independent States ● Africa ● Middle East ● Asia

Market Size Estimate

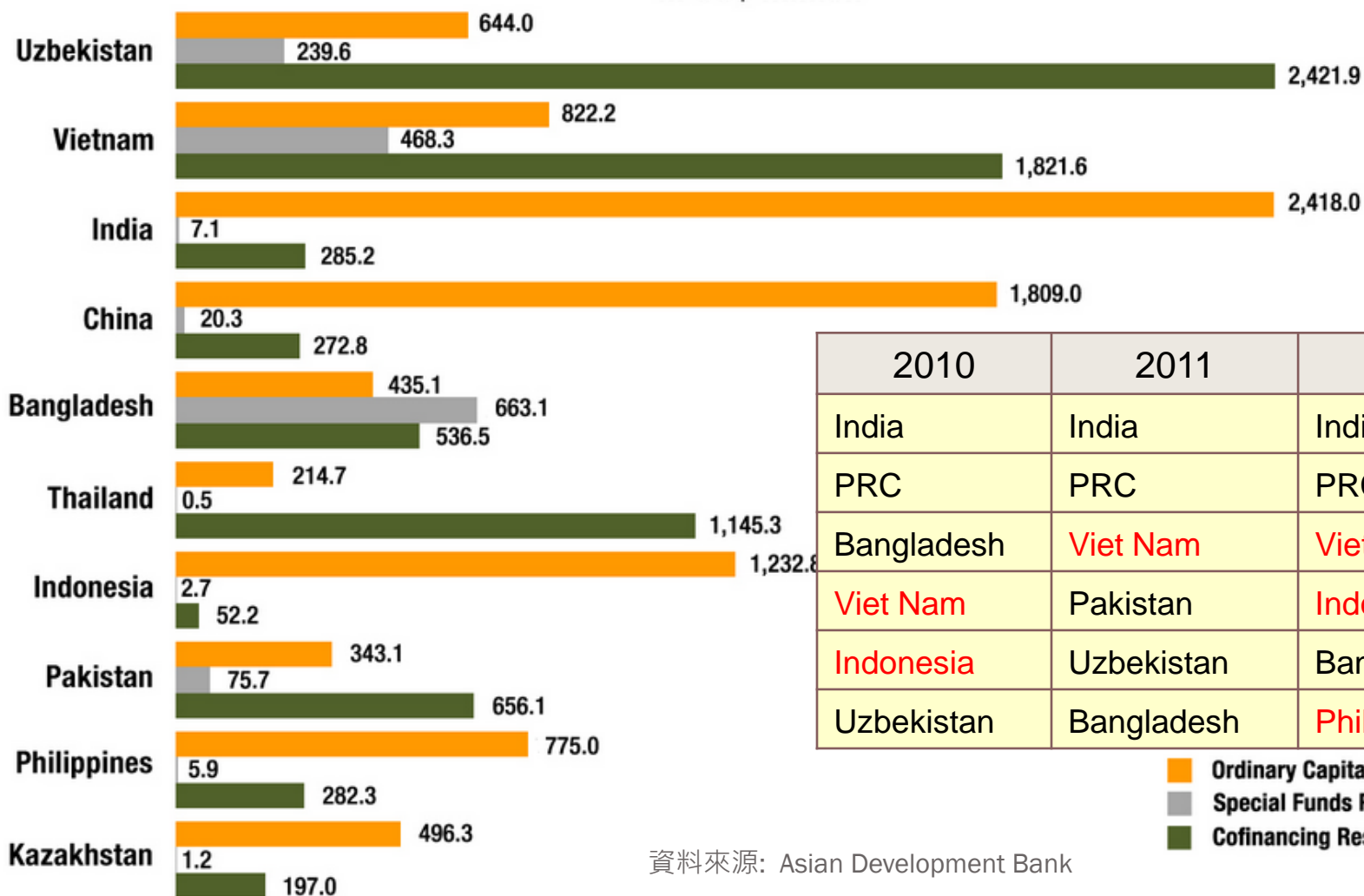
Type of trade	Commodity/Sector	Trade flow	Year
Trade in Commercial Services ▼	Construction ▼	Imports ▼	2013 ▼



資料來源: World Trade Organization Data 2013

Funding Resources

Top Asian Development Bank Aid Recipients (2012)
in US\$ million



	2010	2011	2012
	India	India	India
	PRC	PRC	PRC
	Bangladesh	Viet Nam	Viet Nam
	Viet Nam	Pakistan	Indonesia
	Indonesia	Uzbekistan	Bangladesh
	Uzbekistan	Bangladesh	Philippines

■ Ordinary Capital Resources
■ Special Funds Resources
■ Cofinancing Resources

資料來源: Asian Development Bank

Opportunities and Threats (1/2)

- Infrastructural Development Experience
- Taiwan Higher Education System (Manpower)
- Past Experience on Multi-hazard Disasters
- Advantageous Location and Raising China
- Soft Skills
- World Perspective (after Japanese Disaster)
- Tolerance and Acceptance of Cultural Differences
- Ethics and Diligent Working Attitude
- Freedom and Democracies

Opportunities and **Threats** (2/2)

- Lack of Diplomatic Angle
- Weak Communication Skill
- Engineering Tradition and Mentality
- Lack of Track Records
- Conservatism
- Severe Local Competition
- Insufficient on Legal and Financial Training
- Long Term Investment
- Lack of teamwork experience

Critical Issues Entering Market(1/3)

Corporate Perspective

- Understanding local procurement methods, legal systems, and corruption – risk management
- Visas, Work Permits, Professional Licensure and Corporate Registration
- Firm Business models – Consortium, J.V., Sub-contract, outsourcing, etc.
- Company policies, incentives, relocation packages, IT support, knowledge management, training, and logistics.
- Profitability and Promising Future

Critical Issues Entering Market(2/3)

Individual Perspective

- Proper level of skill sets, effective communication
- Projects duration and compensation
- “individuals mobility” taking into account interpersonal skills, age, emotional deprivation, location, and family concerns
- Motivation

Critical Issues Entering Market(3/3)

System Perspective

- Continue Training on management-related subjects
- social sciences and liberal arts
- Mentor and Mentees
- methods of learning, and life long learning
- Legal and Culture
- Progress monitoring and Quality Control
- ERP

Trends and Future Strategies (1/2)

- Alliance
- Multi-disciplinary integration
- Flexibility and Mobility
- Sustainability and Environmental Concerns
- Green Energy
- Design/Build
- Capital Investment, BOT
- Public - Private – Partnership, PPP

Trends and Future Strategies (2/2)

- Creativity
- Technology Transfer, IT and services
- added value in culture, education, and humanity
- Planning and one-stop solution (upstream and downstream integration)
- Branding
- Long term Partnering with locals and developers, investors
- Quality and culture

Key Items - Political Stability

Political Risk 2013 Risk and opportunity hotspots in key growth markets



The Political Risk (Dynamic) Index assesses risks that have the potential to undergo change, and in particular to deteriorate, rapidly due to direct government action, business activities or due to action by sub-state or other politically-motivated groups. It is comprised of 29 political risk indices under the four themes of governance framework, political violence, business and macroeconomic risk and societal forced regime change risk. The Political Risk (Dynamic) Index is part of Maplecroft's Political Risk Atlas (PRA) 2013.

In addition to assessing short term, dynamic risks, the PRA 2013 also incorporates the Political Risk (Structural) Index, which assesses long term political risks, such as infrastructure readiness and societal resilience, which contribute to a country's long term growth environment. By analysing both dynamic and structural risks, the PRA 2013 thus enables businesses and investors to make an assessment of their exposure to a comprehensive range of political risks and take steps to mitigate them.

For more information see www.maplecroft.com or contact info@maplecroft.com

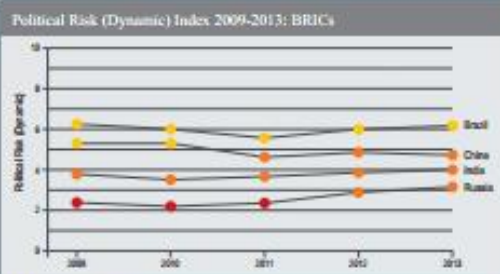
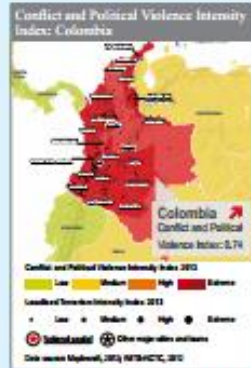


Principal Political Risk Insurance Coverages

Coverage Type	Protects Against:
Expropriation	Host Government acts interfering with fundamental ownership rights of the investor's interest in a Foreign Enterprise, including confiscation, nationalisation, selective discrimination and 'looting expropriation'.
Political Violence	Physical damage loss to assets located overseas caused by political violence (war, civil war, revolution, insurrection, strike, riots, sabotage and terrorism).
Forced Abandonment	Abandonment of a Foreign Enterprise as a result of advice by the direct investor's home government to evacuate key local personnel from the Host Country because of Political Violence.
Business Interruption	Loss of business income by the insured resulting as a consequence from business operations in the Host Country having been interrupted by Political Violence or Expropriation.
Currency Restrictions	Delay or inability of a Foreign Enterprise to exchange local currency into hard currency (convertibility) or to repatriate hard currency funds outside the Host Country (non-transfer).

Political Risk Legend

Extremes Risk	High Risk
Extremes Risk +0.00 - 1.25	+1.25 - 3.75
+1.25 - 3.75	+3.75 - 5.00
Medium Risk	Low Risk
+5.00 - 6.25	+7.50 - 8.75
+6.25 - 7.50	+8.75 - 10.00
No data	Increasing Risk
	No Improvement
	Decreasing Risk



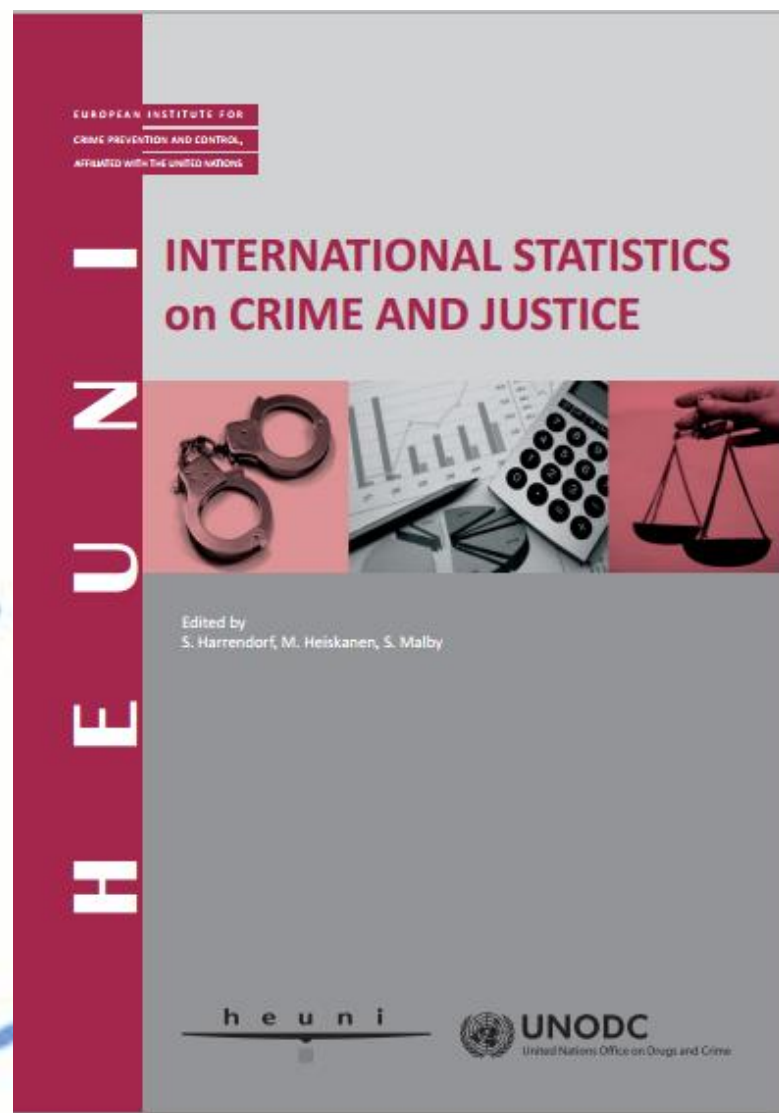
Political Risk (Dynamic) Index: Top 20 highest risk

Rank	Country	Rating
1	Somalia	Extremes
2	DR Congo	Extremes
3	Sudan	Extremes
4	Afghanistan	Extremes
5	Myanmar	Extremes
6	Libya	Extremes
7	Iraq	Extremes
8	C.A.R	Extremes
9	Syria	Extremes
10	Yemen	Extremes
11	South Sudan	Extremes
12	Pakistan	Extremes
13	North Korea	High
14	Côte d'Ivoire	High
15	Zimbabwe	High
16	Nigeria	High
17	Russia	High
18	Chad	High
19	Burundi	High
20	Iran	High

Political Risk (Dynamic) Index: Top 20 Growth Markets

Rank	Country	Rating
1	China	61 High
2	India	35 High
3	Indonesia	60 High
4	Viet Nam	70 Medium
5	Bangladesh	33 High
6	Brazil	109 Medium
7	Philippines	29 High
8	Nigeria	16 High
9	South Korea	161 Low
10	Malaysia	123 Medium
11	Russia	17 High
12	Tanzania	63 Medium
13	Singapore	180 Low
14	Hong Kong (China)	177 Low
15	Peter	97 Medium
16	Thailand	63 High
17	Egypt	27 High
18	Colombia	49 High
19	Turkey	71 Medium
20	Uzbekistan	43 High

Key Items - Social Safety



資料來源: UNODC 2013

Key Items - Globalization

國際化指標

ETS TOEFL Quality Beyond Measure.

Test and Score Data Summary for
TOEFL iBT® Tests

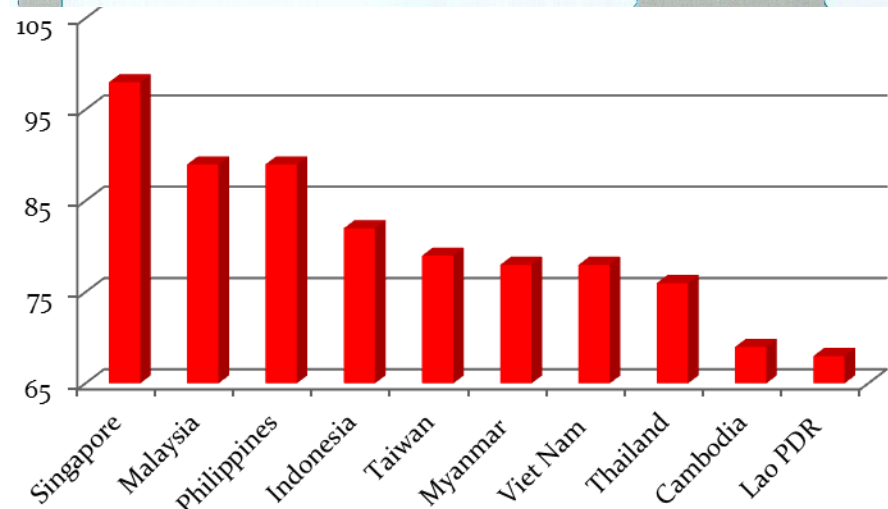
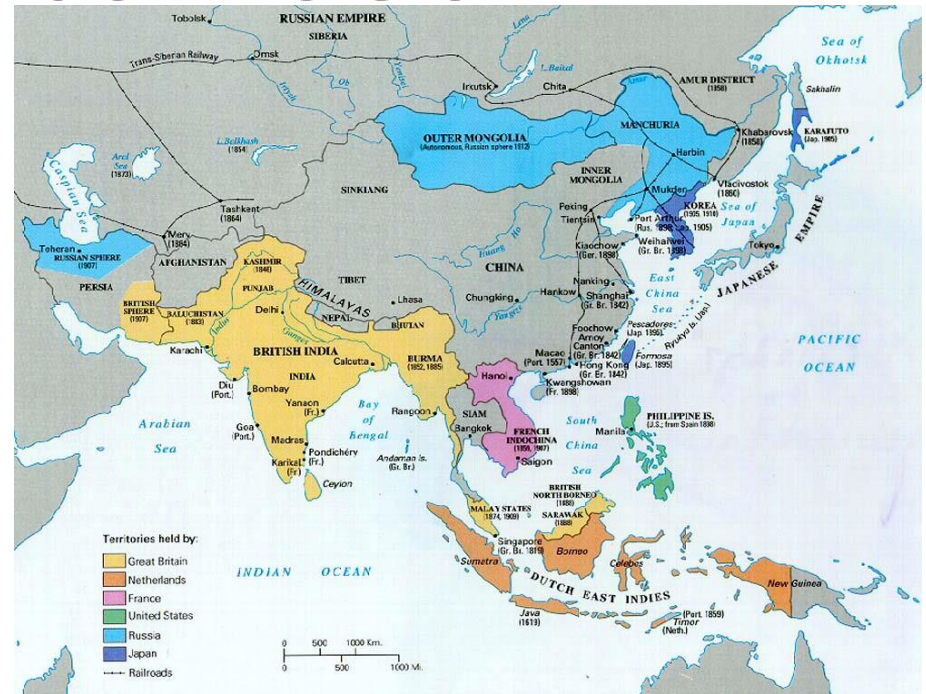
January 2013–December 2013 Test Data

Test and Score Data

This edition of the TOEFL® Test and Score Data Summary contains data on the performance of test takers who took the TOEFL iBT® test between January and December 2013.

www.ets.org/toefl

資料來源: TOEFL Test and Score Data 2013



Key Items - Manpower

產業人力

Tertiary graduates by level of education

Country	2007	2008	2009	2010	2011	2012
Brunei Darussalam	1,613	1,544	1,683	1,675	1,813	1,939
Cambodia	16,187	16,708	..	..	32,177	..
Indonesia	..	..	799,368	811,455	..	..
Lao PDR	..	..	18,988	..	34,673	31,496
Malaysia	181,404	206,588	226,808	226,303	204,782	..
Myanmar	104,590	..	..	..	134,624	..
Philippines	..	..	469,654	..	..	..
Singapore	..	..	..	..	..	..
Thailand	500,731	541,886	540,522	534,736	..	..
Viet Nam	242,026	243,517	224,762	273,301	..	417,436

Key Items – Labor Market

產業人力

Global Employment Trends 2014 International Labor Organization



	2005	2006	2007	2008	2009	2010	2011	2012	2013
Cambodia	1.3	0.8	0.5	0.2	0	0.4	0.3	0.2	0.3
Thailand	1.3	1.2	1.2	1.2	1.5	1	0.7	0.7	0.8
Laos	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
Viet Nam	2.1	2.3	2.3	2.4	2.3	2.3	2	1.8	1.9
Singapore	4.1	3.6	3	3.2	4.3	3.1	2.9	2.8	3.1
Malaysia	3.5	3.3	3.2	3.3	3.7	3.4	3.1	3	3.2
Myanmar	3.4	3.4	3.4	3.6	3.6	3.5	3.5	3.4	3.5
Brunei	3.2	3.2	3.2	3.2	3.5	3.7	3.7	3.8	3.7
Indonesia	11.2	10.3	9.1	8.4	7.9	7.1	6.6	6.1	6
Philippines	7.7	8	7.4	7.3	7.5	7.3	7	7	7.3

Source: International Labor Organization
Infographics by: Matikas Santos/INQUIRER.net

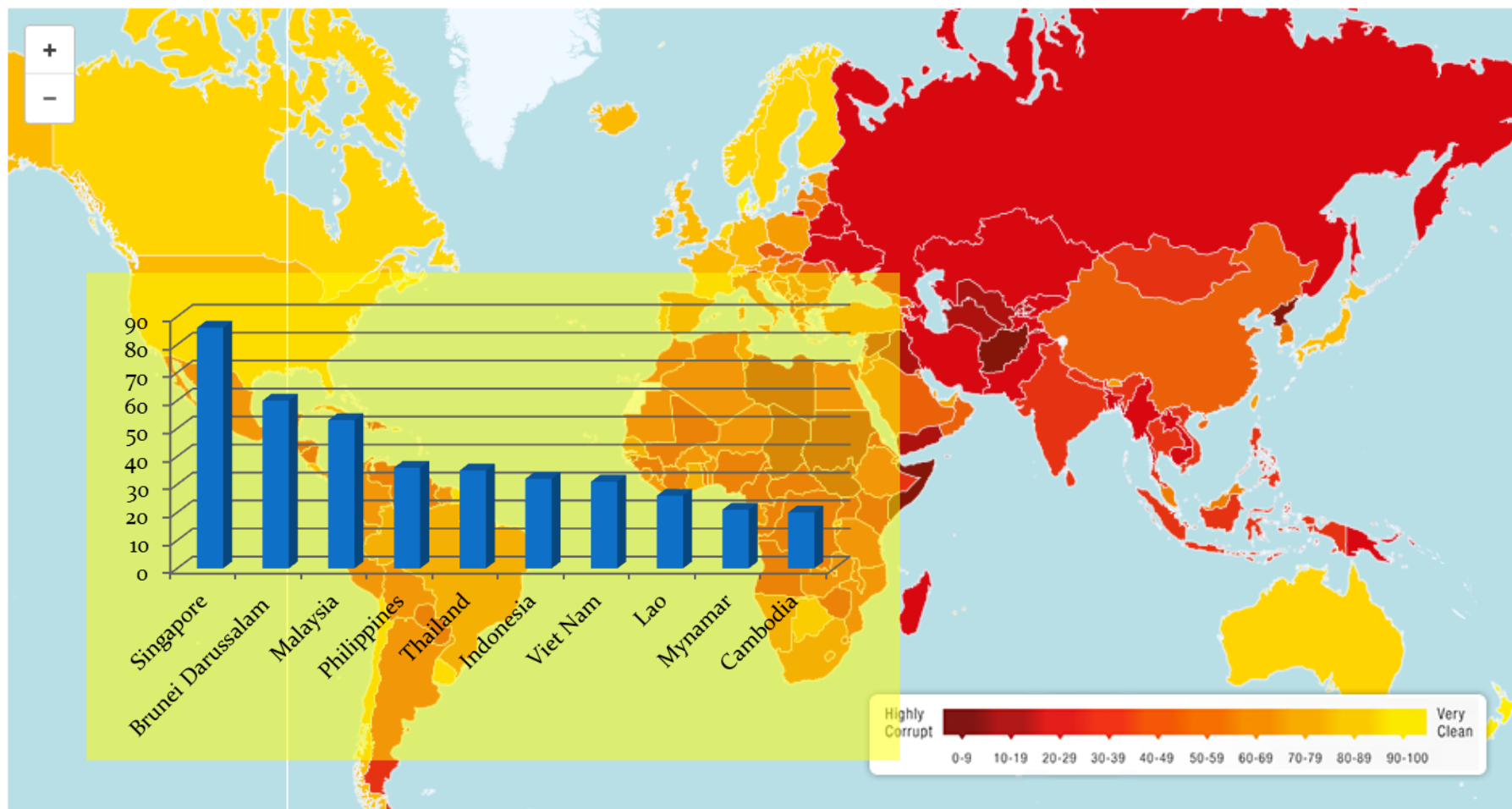
Key Items - Transparency

貪腐特性

CORRUPTION PERCEPTIONS INDEX 2013

[VIEW BROCHURE](#)

[VIEW RESULTS TABLE](#)



資料來源: Transparent International 2013

Singapore Market Analysis - Sample

Company Strength

Open and Transparent Market

MRT Projects lined up next 20 years

Cost of living (room for profit)

Similarity in Culture

Shortage of Manpower

Access to ASEAN Countries

Direct World Class Competition

Who are Clients

Land Transport Authority (LTA)

Building & Construction Authority (BCA)

Maritime and Port Authority of Singapore (MPA)

Public Utilities Board (PUB) Singapore Power

National Environment Agency (NEA)

Major Developers

A1 Contractors (44 Class A1)

A1 Architects (43 AR01)

Private Sector

Taiwan Business Entities (Chunghwa Telecom...)

Who are major Competitors

Name	Prequalified as	Notes
AECOM Singapore Pte. Ltd.	CS01, ME01	Former Operating Company: ENSR, Maunsell
Arup Singapore Pte. Ltd.	CS01, ME03	
Parsons Brinkerhoff Pte. Ltd.	CS01, ME01	
SKM Singapore Pte. Ltd.	AR03, CS01, ME02, PM02 QS03	Team up with BECA
BECA Carter Hollings & Ferner (S. E. Asia) Pte. Ltd.	CS01, ME01	Team up with SKM
T. Y. Lin Internationals	CS01, ME01	

(Class CS01)

Market Approaches (1/4)

Full Commitment (initial stage) Sending a pioneer team with sufficient number of employees. The critical mass would demonstrate TECA's commitment to the Singapore market.

While residing in Singapore, the team can help local partners or become sub-consultants to other project team members such as contractors. (mid stage)

Build up relationships in the government and private sectors, gradually establishing trust and word of mouth recognition. (long term)

Market Approaches (2/4)

Through a **joint venture** with major local companies working on joint contracting projects. (initial stage)

As time goes on, continue to draw on local expertise and manpower to perform work in Singapore. (mid Stage)

After this foundation is laid, gradually seek to play a major role on these teams as more experience is gained. (long term)

Market Approaches (3/4)

Strategic hiring of senior engineers (or a team of professionals) from local competitors. (initial stage)

Provide business expansion incentive/bonuses to this cadre of engineers to grow the local office as a "profit center". (mid stage)

A team of management experts and a skilled administrative staff can foster the local operation. (long term)

Market Approaches (4/4)

Through **mergers and acquisitions** of local companies or enterprises with high growth potential. (initial stage)

Take advantage of the existing company's name brand, technical capability, management and marketing experience. Ideally only a minimum capital injection will be required. However, the controlling factors are incidental, depending on timing.

Winning Strategies

Project Name: Eastern Region Line

Background Information:

Basic Requirements:

1. Qualified Team and Member
2. A Strong P.M.
3. Selling Points: BIM, creativity in technology, added value in culture, superior manpower
4. Commitment
5. Coordination (TECA position)

Learnt from the Past experience

Winning Strategies

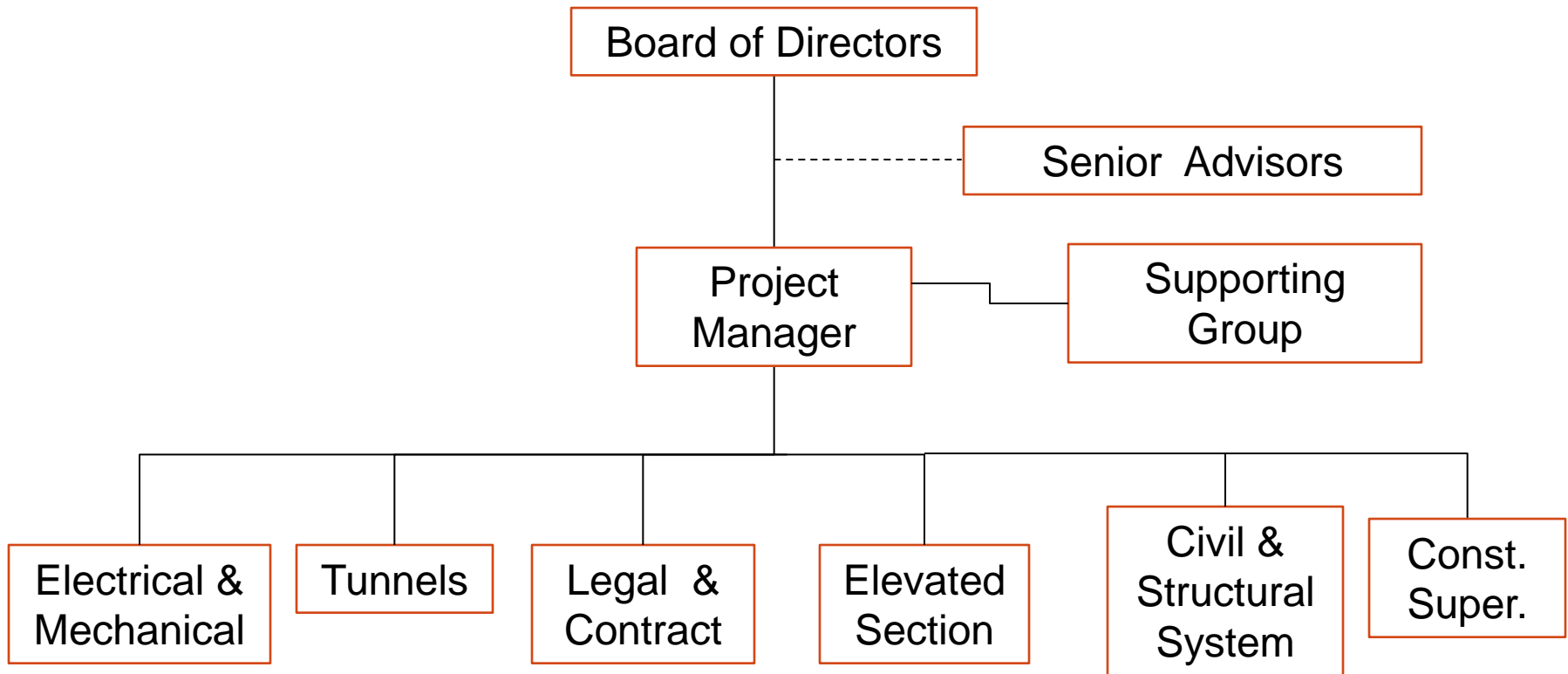
- Resources :MAA Singapore Office (geotechnical investigation data bank) and CTCl current project Office (20s staff)
- Existing Network and Connections
- Taiwan External Trade Development Council's staff and resources
- Seeking Singapore P.E. examinees
- Presence in training (LTA Academy)
- Familiarity in British Standard
- Scheduled visits (at least three times before FRP)

Who may Team up with

No.	Name	Qualified as	Previous
1	Meinhardt Infrastructure Pte. Ltd.	CS01, ME01	Nicoll Highway, Singapore Circle Line, Singapore
2	Tritech Consultants Pte. Ltd.	CS01	Downtown Line, NATM Excavation MRT C856, MRT Circle Line
3	Worley Parsons Pte. Ltd.	CS01, ME01, PM01	No MRT
4	Jurong Consultants Pte. Ltd.	CS01, ME01	No MRT
5	Mott MacDonald Singapore Pte. Ltd.	CS01, ME01	No MRT
6	CPG Corporation Pte. Ltd.	AR01, CS01, ME01, PM01	Changyi MRT

Winning Strategies

Proposed Organizational Chart – **project specific (MRT)**



Closing Remarks

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