



工程產業全球化人才實務培訓班

美國市場經營及標案實務經驗

亞太工程師&國際工程師 孫以濬



美國市場相關個人資歷

MS, Civil Engineering, University of California, Berkeley

PE, Civil Engineer, State of California

PE, Traffic Engineer, State of California

Bechtel Civil Corporation, San Francisco, California

American Transit Consultants, Inc., Delaware

Bechtel/Parsons Brinckerhoff, Inc., Massachusetts

TJKM Transportation Consultants, California

Chairman, THI Consultants Inc., Taipei, Taiwan

Chairman, THI International Consultants Inc., Delaware, USA

內容大綱

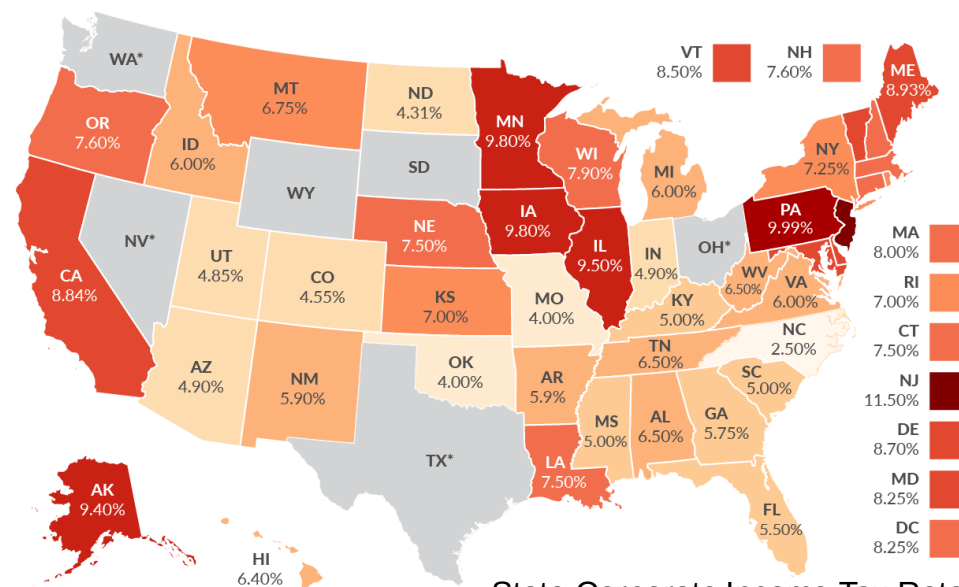
- ❖ 拓展美國市場的據點方式—如何建立據點？
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拓展美國市場的據點方式—如何建立據點？

基本認知

- ✓ 保護主義：保護在地就業、保護在地企業 → 偏好在地企業
- ✓ 法規制度：50州各有各的制度與規定 → 有同有異
- ✓ 萬萬稅：聯邦、州、地方 → 剝好幾層皮
- ✓ 經營環境：議約議價較合理、專業較受尊重
- ✓ 人際關係：一樣很重要！

市場大、競爭多 → 需願意帶路的合作夥伴



State Corporate Income Tax Rate
<https://taxfoundation.org>

拓展美國市場的據點方式—如何建立據點？

先有業務  先設立據點

成立在地辦公室

獨資成立在地新公司

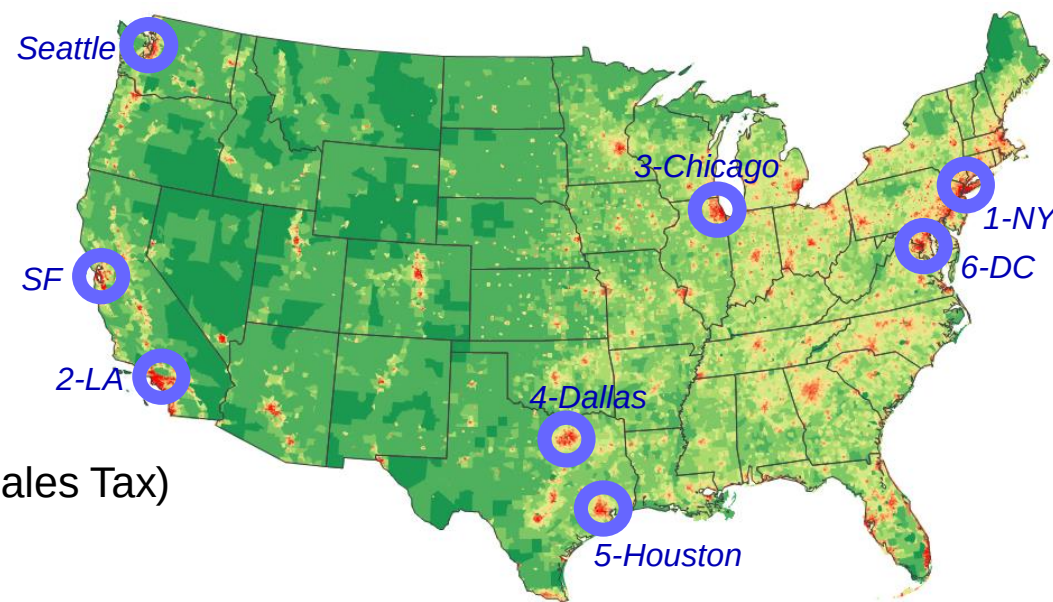
合資成立在地新公司

併購在地公司

拓展美國市場的據點方式—如何建立據點？

成立在地辦公室

- ✓ 業務開發導向、專案聯絡協調窗口
- ✓ 由台灣母公司主導、出名簽約、擔任協力廠商
- ✓ 開設銀行帳戶、承租辦公室/住房、電話門號、駕照
- ✓ 繳稅：企業營所稅(Federal & State Corporate Income Tax)
個人所得稅(Federal & State, Social Security, 401K, Sales Tax)
收入分散不同來源



<https://commons.wikimedia.org>

Location → 業主聚落、合作夥伴、大都會區、直飛台灣航班

LA, SF, Seattle
NY, Houston, Chicago

拓展美國市場的據點方式—如何建立據點？

成立在地辦公室

✓ 簽證：

- ESTA：在美國不連續超過90天，免簽證，線上申請
- 商務簽證(B-1)：在美國連續超過90天，出差與商務洽商、出席會議、洽談合約
- 非移民工作簽證(H-1B)：專業性職業工作人員，美國僱主需向美國勞工部、移民局申請
- 就業移民簽證：美國僱主需向美國勞工部、移民局提出申請

EB-1 優先工作者：跨國公司主管和經理，過去3年內有至少1年海外工作經驗

EB-2 專業人才：持有大學學位的專業人士，至少5年工作經驗

拓展美國市場的據點方式—如何建立據點？

獨資成立在地新公司

我方委派部分經理人，聘僱在地工程人員、業務人員、技術支援人員、行政人員

合資成立在地新公司

合資方各派部分經理人，聘僱在地人員

併購在地公司

美國及跨國公司常見的成長策略，需有清楚的業務發展策略

拓展美國市場的據點方式—如何建立據點？

其他外國廠商如何做

“Of the top 100 firms who have been awarded contracts with the U.S. government, 35 are headquartered in other countries, including United Kingdom, Sweden, Ukraine, South Africa, Italy, Belgium, Switzerland, Austria, Japan, Saudi Arabia, Croatia, Israel, Singapore, Norway, Brazil, France, Denmark and Australia.”

<https://www.bidnet.com/resources/business-insights>

外國得標廠商特性 → 英系、歐系

外國廠商拓展策略 → 上市、融資、併購、擁有

拓展美國市場的據點方式—如何建立據點？

Another big Florida engineering firm bought by foreign company

The Tampa-based PBSJ has an office in Sarasota

Staff Report

Published 12:01 a.m. ET Aug. 3, 2010 | Updated 8:07 p.m. ET Aug. 2, 2010

Tampa-based PBSJ Corp., known more familiarly to some as Post Buckley Schuh and Jernigan Inc., is being acquired by British-based WS Atkins for \$280 million, with employee owners of the 50-year-old company getting \$17.137 per share.

The acquisition comes two weeks after Canada's Stantec Inc. said it was buying Naples-based WilsonMiller Inc. for an undisclosed sum.

PBSJ, with 3,500 employees in the United States and abroad, has 80 offices, including one in Sarasota.

<https://www.heraldtribune.com/story/news>

拓展美國市場的據點方式—如何建立據點？

WSP Global Will Acquire Louis Berger for \$400 Million

WSP Global Inc., Montreal, has agreed to buy Berger Group Holdings Inc., parent of the group of companies operating under the umbrella name of Louis Berger, a Morristown, N.J.-based international professional services firm, for \$400 million.

The long-rumored sale of Berger, at a multiple of about 8.9 times earnings, now is set to close in the fourth quarter. It would add about 5,000 employees to the global giant's staff, with about 70% in the U.S., the firms said on July 30. WSP has 43,000 global employees, it said.

The company acquired Parsons Brinckerhoff in 2014 for about \$1.4 billion and bought Ontario engineer MMM Group Ltd. for \$320.5 million a year later. Several other acquisitions have followed, including Norwegian MEP design specialist UnionConsult in March.

July 31, 2018 www.enr.com/articles/

拓展美國市場的據點方式—如何建立據點？

STORY · Published January 13, 2015 9:46pm EST

U.S. Roads, Bridges Being Sold to Foreign Companies

WASHINGTON – Roads and bridges built by U.S. taxpayers are starting to be sold off, and so far foreign-owned companies are doing the buying.

On a single day in June, an Australian-Spanish partnership paid \$3.8 billion to lease the **Indiana Toll Road**. An Australian company bought a 99-year lease on Virginia's Pocahontas Parkway, and Texas officials decided to let a Spanish-American partnership build and run a toll road from Austin to Seguin for 50 years.

<https://www.foxnews.com/story/>

目前觀望案件及潛在商機—業務機會在哪裡？

合作夥伴訊息分享

- ✓ 美國在地合作夥伴，簽訂合作MOU/NDA
- ✓ 台灣合作夥伴(台商—高科技廠商，外商—在台團隊成員)

參加美國專業協會活動

- ✓ ASCE (American Society of Civil Engineers)
- ✓ ITE (Institute of Transportation Engineers)
- ✓ IEEE (Institute of Electrical and Electronics Engineers)
- ✓ ACEC (American Council of Engineering Companies)
- ✓ Annual Meeting, Local Chapter Events

目前觀望案件及潛在商機—業務機會在哪裡？

訂閱期刊電子報

- ✓ ENR (Engineering News-Record) – Bi-weekly Magazine, Daily eNewsletter
- ✓ ASCE – Daily eNewsletter
- ✓ SmartBrief – Daily eNewsletter; Infrastructure, Construction, Engineering, Transportation
- ✓ BidNet.com – Government bidding info, Bid Alerts

關注聯邦法案

- ✓ Inflation Reduction Act - \$369 billion to fund energy and climate projects for reducing carbon emissions by 40% in 2030; \$7,500 EV tax credit extended for 10 years
- ✓ CHIPS and Science Act - \$52.7 billion to fund semiconductor manufacturing in the US; \$170 billion for R&D initiatives

數千億美元投資→基礎建設、再生能源、電動車、半導體及研發→帶動經濟成長，就業市場緊俏

目前觀望案件及潛在商機—業務機會在哪裡？

關注聯邦法案

- ✓ Infrastructure Investment and Jobs Act, US\$1.2 trillion
 - \$110 billion to rebuild roads and bridges
 - \$89.9 billion for public transit
 - \$66 billion for passenger rail
 - \$25 billion for airports
 - \$17 billion for port infrastructure and waterways
 - \$7.5 billion for a national network of EV chargers
 - \$65 billion for clean energy
 - \$65 billion for broadband infrastructure
 - \$55 billion for access to clean drinking water
 - \$50 billion to protect against climate change
 - \$21 billion for environmental clean up

Federal



State



Metropolitan Planning Organization (MPO)



City & County

目前觀望案件及潛在商機—業務機會在哪裡？

關注各州法案與公投提案 (State Acts and Propositions)

- ✓ State Acts由該州議會通過
- ✓ Statewide Propositions由該州公民投票

關注各市郡議會決議與公投提案 (City/County Resolutions and Measures)

- ✓ City/County Resolutions由各市郡議會決議
- ✓ City/County Measures由該市郡公民投票

公投提案影響商機

- ✓ 發行公債為特定用途
- ✓ 加稅為特定用途
- ✓ 提供財源為特定用途

個案及實務經驗分享—如何爭取業務？

美國大公司、國際大標案

Mega Project (> US\$1 billion)

主動提案 → Think Big

深根關鍵人脈 → 先借將

國際政治力 → Shultz, Weinberger

Trans-Andes Crossing – Chile & Argentina Investment Councils

Hong Kong New Airport – Airport Authority

Channel Tunnel – British-French Consortium

ENR 2022 Top 20 Global Design Firms

RANK 2022	RANK 2021	FIRM	FIRM TYPE
1	1	Power Construction Corp. of China, Beijing, China	EC
2	3	China Energy Engineering Corp. Ltd., Beijing, China	EC
3	2	Jacobs, Dallas, Texas, U.S.A.	O
4	4	AECOM, Dallas, Texas, U.S.A.	EA
5	5	China Communications Construction Group Ltd., Beijing, China	EA
6	6	WSP Global Inc., Montreal, Quebec, Canada	E
7	7	Worley Ltd., North Sydney, NSW, Australia	EC
8	11	Arcadis NV/Callison RTKL, Amsterdam, Netherlands	O
9	8	SNC-Lavalin Inc., Montreal, Quebec, Canada	O
10	10	Fluor, Irving, Texas, U.S.A.	EC
11	12	Stantec Inc., Edmonton, Alberta, Canada	O
12	13	Tetra Tech Inc., Pasadena, Calif., U.S.A.	E
13	9	Wood, Aberdeen, Scotland, U.K.	EC
14	14	China Railway Construction Corp. Ltd., Beijing, China	A
15	15	China Railway Group Ltd., Beijing, China	EC
16	17	Sweco AB, Stockholm, Sweden	EA
17	16	HDR, Omaha, Neb., U.S.A.	EA
18	20	AFRY, Stockholm, Sweden	E
19	24	China National Chemical Eng'g Group Corp. Ltd., Beijing, China	EC
20	18	Mott MacDonald, Croydon, England, U.K.	E

ENR 2022 Top Professional Services Firms, USA

RANK 2022	RANK 2021	FIRM	FIRM TYPE	TOTAL 2021 REV. (\$ MIL.)
1	1	Jacobs, Dallas, Texas	O	3,401.3
2	2	Bechtel, Reston, Va.	EC	3,339.0
3	5	CBRE, Dallas, Texas	AE	2,508.1
4	3	Parsons Corp., Centreville, Va.	EC	2,421.0
5	4	JLL, Chicago, Ill.	CM	2,070.3
6	6	AECOM, Dallas, Texas	EA	1,278.8
7	19	WSP USA, New York, N.Y.	E	709.9
8	**	Cushman & Wakefield, Chicago, Ill.	CM	691.0
9	8	SNC-Lavalin Inc., Tampa, Fla.	O	394.6
10	10	Hill International Inc., Philadelphia, Pa.	CM	386.0
11	11	Arcadis N. America/Callison RTKL, Highlands Ranch, Colo.	EA	363.8
12	12	Colliers International Group Inc., Encino, Calif.	CM	344.2
13	**	Bureau Veritas, New York, N.Y.	CM	331.4
14	9	HDR, Omaha, Neb.	EA	324.8
15	16	Cumming, Seattle, Wash.	CM	290.7
16	15	Atlas Technical Consultants, Austin, Texas	E	277.0
17	13	Gardiner & Theobald Inc., New York, N.Y.	CM	276.0
18	26	Horne LLP, Washington, D.C.	CM	245.0
19	14	The LiRo Group, Syosset, N.Y.	EA	231.4
20	20	Burns & McDonnell, Kansas City, Mo.	O	183.4

ENR 2022 Top 20 Design-Build Firms, USA

RANK 2022	RANK 2021	FIRM	TOTAL REV. (\$ MIL.)	INT'L REVENUE
1	2	Bechtel, Reston, Va.	8,105.0	1,222.0
2	1	Kiewit Corp., Omaha, Neb.	7,484.2	1,312.8
3	4	Clayco, Chicago, Ill.	4,485.0	0.0
4	3	Fluor, Irving, Texas	3,876.8	3,254.8
5	7	ARCO Construction Cos., St Louis, Mo.	3,743.4	8.3
6	6	Burns & Mcdonnell, Kansas City, Mo.	2,966.6	150.7
7	5	Hensel Phelps, Greeley, Colo.	2,640.2	0.0
8	13	Infrastructure & Energy Alternatives Inc., Indianapolis, Ind.	2,078.4	0.0
9	15	Black & Veatch, Overland Park, Kan.	2,002.3	386.2
10	11	Ryan Cos. US Inc., Minneapolis, Minn.	1,908.0	0.0
11	9	The Walsh Group, Chicago, Ill.	5,272.7	89.6
12	**	Hoffman Construction, Portland, Ore.	1,854.0	371.0
13	8	Mortenson, Minneapolis, Minn.	1,827.7	1.2
14	16	Dragados, New York, N.Y.	1,786.0	625.0
15	12	Mccarthy Holdings Inc., St. Louis, Mo.	1,765.2	0.0
16	10	Swinerton, Concord, Calif.	1,759.9	0.0
17	24	Alston Construction, Atlanta, Ga.	1,635.0	0.0
18	21	Ferrovial US Construction Corp., Austin, Texas	1,541.7	0.0
19	17	Tutor Perini Corp., Sylmar, Calif.	1,489.9	96.3
20	14	Skanska USA, New York, N.Y.	1,366.7	0.0

個案及實務經驗分享—如何爭取業務？

美國大公司、美國大標案

目標：PM、CM、DB

團隊組成：強強聯手、長期耕耘

在地企業：搭配、政商關係

競標：先競標，後議約、議價

Boston Central Artery – Bechtel/Parsons Brickerhoff, funded by Mass DOT

BART - Parsons Brinckerhoff/Tudor/Bechtel, funded by BART District

Automated Highway System - General Motors, Bechtel, Parsons Brinckerhoff, Martin Marietta, Delco, Hughes, Caltrans, UC-Berkeley's PATH and Carnegie Mellon University, funded by the U.S. DOT

個案及實務經驗分享—如何爭取業務？

區域性中小型公司、中小型計畫

招標公告： 官網公開招標、其他電子報訊息、事先註冊

團隊組成： 聲譽、主要人員

在地企業： DBE (Disadvantaged Business Enterprise)
MBE (Minority Business Enterprise)

← **Affirmative Action** 平權法案

E.g. MBE: (1) at least 51% owned and controlled by one or more minority persons
(2) the controlling owners must have the required expertise, manage daily operations, and be a U.S. citizen or permanent resident

Federal, state, and local government; 每個標案規定都可能不同

競標評選： 公開招標為主/邀標為輔，Proposal/Cover Letter、Interview/Presentation
聯邦及州政府 → Qualifications-Based Selection (QBS)評選為主
評選委員以機關內部為主，合作機關為輔，沒有外部學者專家；不同一天

個案及實務經驗分享—如何爭取業務？

QBS評選方法

TABLE 1 Use of QBS at State and Local Levels

	All State Agencies	Agency Most Committed to QBS	County	Municipal
Group Average	4.5	4.9	3.3	3.2
Number of States with 81-100% Use	34	42	13	11
Number of States with 40% or Less in Use	2	0	12	16

Survey Options: 1:0-20%, 2:21-40%, 3:41-60%, 4:61-80%, 5: 81-100%

個案及實務經驗分享—如何爭取業務？

非QBS評選方法

TABLE 2 Types of Procurement Systems Being Utilized Within the States

Procurement Type	Number of State Respondents
Low Bid	30
Best-Value	28
Low-Bid Design-Build	20
Best-Value Design-Build	29
Quality and Cost-Based Selection	19
QBS with salary caps	7
QBS with mandated restrictions	6
Two Envelope system	21

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可提供當地的解決方案—能提供什麼優勢？

經驗

- ❖ 國內重大實績：
 - 公路 → 雪隧、蘇花改、南迴改、淡江大橋
 - 軌道 → 北捷/高捷/桃捷/中捷、高鐵
 - 特殊 → 桃機第三航廈、離岸風電、高科技工廠、ETC
- ❖ 工程專業經驗：地震設計、BIM、模擬軟體(Vissim)、BOT

效率

- ❖ 人員效率：配合度較高、平日加班、假日加班、時差效率 (Offshore)
 - 台籍vs.美籍、台規vs.美規、台灣技師vs.美國PE

業務優勢 → 別人沒經驗，你有；別人沒人員，你有；別人沒關係，你有

可提供當地的解決方案—能提供什麼優勢？

價格

- ❖ 人員待遇：美國人員外派海外待遇高 (Relocation/Housing/Education/Allowance)
美國人員在美國工作待遇則沒那麼高，反而台灣人員外派美國需加誘因
Offshore在台執行成本較低
- ❖ 風險加價：對環境及業主不熟悉則會提高風險加價 → 人員數、工時數、人月數高估
→ Contingency 高估

常見遭遇的問題及解決方案—如何降低風險？

標案公告看到已太晚

- ❖ 主動蒐集資訊，掌握可能標案
- ❖ 提早徵詢組隊，取得Email合作承諾

標案是否公告有未知風險

- ❖ 民主體制有不同意見 → 公聽會程序、環保抗爭、提告訴訟 → 阻擾延遲、招標延後
- ❖ 招標得標後仍可能有執行面風險 → 環境衝擊、交通衝擊、徵收拆遷抗拒
→ 隨時可能被告 → 工期延宕、成本增加
- ❖ 深入了解在地狀況、慎選標案、有預期心理準備 → 合約條件有利於因應工期成本變化

其他相關經驗—如何適應美國環境？

人際關係

- ✓ 校友、親友
- ✓ 種族背景
- ✓ 推薦(Reference)：主管、老師、同事
- ✓ 參加社交活動、夫人外交
- ✓ 台商、跨界：玉山科技協會、台商協會、國際華人交通運輸協會(ICTPA)

語言

- ✓ 文化背景、工程專業術語
- ✓ 敢講、實際多說多寫
- ✓ 善用網路工具：Google、Grammarly、翻譯軟體/App

其他相關經驗—如何適應美國環境？

融入美國專業人士

- ✓ 喜歡用縮寫(Acronym)，不懂就是外行
- ✓ 球賽：棒球、美式足球(Football)、籃球；職業、大學(NCAA)
 球星、球隊、近況、數據；不支持同隊就不是自己人
- ✓ 運動：高爾夫、網球
- ✓ 休閒：啤酒、烤肉、看球賽 (Beer/Bar/Baseball)
- ✓ 伴手禮：餐敘活動必備，東方文藝(國畫)、精緻甜點(鳳梨酥)
- ✓ 禁忌話題：政治、宗教、性傾向等敏感議題

歡迎交流指教

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