

公務出國或赴大陸地區報告（出國類別：考察）

106 年臺中市政府赴新加坡出席第 21 屆世界職業安全衛生大會暨考察 勞政業務工作計畫報告書

服務機關：臺中市政府

姓名職稱：勞工局黃荷婷局長、曾傳銘科
長、張智恒檢查員

派赴國家：新加坡

出國期間：106 年 9 月 3 日至 7 日

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壹、 摘要

近年來，職業安全與健康保護議題受到全球關注，各項職業安全與衛生策略及措施日新月異，為瞭解全球職業安全衛生趨勢，本局特規劃參加國際勞工組織(International Labor Organization, ILO)、國際社會安全協會(International Social Security Association, ISSA)、與新加坡人力部(Ministry of Manpower, MOM)，所共同辦理之 2017 年第 21 屆世界職業安全衛生大會 (The XXI World Congress on Safety and Health at Work 2017 in Singapore, 以下簡稱 WCSH)，藉由 WCSH 辦理一系列演講活動，汲取全球產業、政府機關、專家學者或相關人員推動安全衛生經驗。

另配合本國新南向政策，及更深入瞭解國際工會組織對於中小企業、國際移工及工作者之就業安全、職業安全衛生管理及降低職業災害實務運作經驗，亦規劃拜訪國際工會聯合會亞太區(The International Trade Union Confederation – Asia Pacific, ITUC-AP)、新加坡全國職業總工會(Singapore National Trades Union Congress, NTUC) 及其所屬職工總會學習中心(安全衛生訓練項目) (Learning Hub Industry Skills Centre, LHUB)、就業及職能培訓中心(Employment and Employability Institute, e2i)等單位，同時考察杜邦公司安全設備

之材料，期望透過本次考察，瞭解與學習國外推行職業安全與健康保護各項措施之經驗與趨勢，以作為本府制定相關政策與措施之參考，並連結新加坡第三方組織資源，協助本市建構更完整之就業安全與健康安全保護體制。

關鍵詞：WCSH、ITUC-AP、NTUC、LHUB、e2i

貳、 出國人員名單

本次德國考察行程時間為 106 年 9 月 3 日(日)至 9 月 7 日(四)計 5 日，出國人員名單如下表 1 所示。

表 1 出國人員名單

序號	機關	職稱	姓名
1	臺中市政府勞工局	局長	黃荷婷
2	臺中市政府勞工局	科長	曾傳銘
3	臺中市勞動檢查處	檢查員	張智恒

參、 目的

為落實本市保障勞工權益，完善職業安全與健康保護機制，並考量本市目前為全台國際移工聚集之第二大城市，鑑於新加坡與本市相仿，皆面臨國際移工權益保護之議題，及如何在多元化人力資源前提

下，兼顧國際移工之文化差異性，而能夠透過各類型教育訓練或活動等措施，促進文化交流，降低衝突，並平衡國際移工之身心發展，其作法或經驗作為參考。是以，擬藉由本次之參訪，達到下列之目的，包括：

- 一、 藉由本次實地考察國際工會聯合會亞太區、新加坡全國職工總會及參加 2017 年第 21 屆世界職業安全衛生大會，瞭解其在中小企業、國際移工及工作者之就業安全、職業安全衛生管理及降低職業災害實務運作經驗。
- 二、 連結國際工會聯合會亞太區、新加坡全國職工總會等國際組織之資源，以協助本市建構更完整之就業安全衛生防護網。

肆、 考察行程

本計畫人員自 106 年 9 月 3 日(日)至 9 月 7 日(四)計 5 日赴新加坡考察，考察行程如下表所示。

表 2 出國參訪行程

時間	考察行程	考察內容
9 月 3 日(日)	1. 臺灣至新加坡航程	● 2017 年第 21 屆世界職

	2. 參加 2017 年第 21 屆世界職業安全衛生大會開幕儀式	業安全衛生大會開幕儀式
9 月 4 日(一)	參加 2017 年第 21 屆世界職業安全衛生大會	<ul style="list-style-type: none"> ● 職災預防國際媒體節特別媒體會議 ● ILO 與 ISSA 報告 ● 主題演講
	拜訪新加坡 NTUC	國際移工保護政策與措施經驗交流
9 月 5 日(二)	參加 2017 年第 21 屆世界職業安全衛生大會	<ul style="list-style-type: none"> ● 主題演講 ● 技術會議 ● SafeYouth@Work 對話 ● 分組座談會
	拜訪 ITUC-AP	國際移工之勞動保護與第三方組織協助措施

	拜訪 NTUC Learning Hub Industry Skills Centre @ Benoi	參觀NTUC經營之事業體 (學習中心)
	拜訪 Employment and Employability Institute (e2i)	參觀 NTUC 經營之事業體 (學習中心)
9月6日(三)	參加 2017 年第 21 屆世界職業安全衛生大會	<ul style="list-style-type: none"> ● 分組座談會 ● 閉幕儀式
	技術參訪：杜邦公司 (DuPont)	參觀職業安全與健康促進措施
9月7日(四)	新加坡至臺灣航程	

伍、 考察過程與心得

一、 2017 年第 21 屆世界職業安全衛生大會

(一)大會簡介

1. 辦理單位：

本大會由國際勞工組織、國際社會安全協會與新加坡人力部

共同辦理。

2. 大會地點：

Sands Expo and Convention Centre Marina Bay Sands,
Singapore。

3. 大會網址：

<https://www.safety2017singapore.com/>。

4. 大會簡介：

本大會每三年辦理一次，並在不同的國家辦理。此次大會由國際勞工組織（ILO）、國際社會安全協會（ISSA）及新加坡人力部共同主辦，會議地點選定新加坡金沙酒店會議展覽中心召開，時間為 2017 年 9 月 3 日至 6 日，其提供產、官、學、研等各界專家與代表進行意見交流之平台，尤其是針對職業安全與衛生此一面向所涉及之議題。

本次大會主題為「預防的全球願景（A Global Vision of Prevention）」，並藉由三個主題演講：零職災－從願景到實踐（Vision Zero - From Vision to Reality）、健康工作－健康生活（Healthy Work - Healthy Life）、以人為中心的預防（People-Centred Prevention）強調建構未來整個職災預防文化的關鍵策略，並安排 3 個主題演講(Keynotes)、6 個技術論壇(Technical Sessions) 及 32 個座談會(Symposia)，藉由實務職災預防經驗分享提供與會

者之參考，相關議程參見如後。

5. 大會時間與議程：

表 3 2017 年第 21 屆世界職業安全衛生大會議程表

時間		議程
9 月 3 日(日)	16:30-18:30	開幕儀式
9 月 4 日(一)	09:00-12:30	<ul style="list-style-type: none"> ● 職災預防國際媒體節特別媒體會議 ● ILO 與 ISSA 報告 ● 主題演講
	13:30-18:00	<ul style="list-style-type: none"> ● 技術論壇 ● 分組座談會
9 月 5 日(二)	09:30-12:30	<ul style="list-style-type: none"> ● 主題演講 ● 技術論壇
	13:30-18:00	<ul style="list-style-type: none"> ● SafeYouth@Work 對話 ● 分組座談會

9月6日(三)	9:00-13:00	<ul style="list-style-type: none"> ● 分組座談會 ● 閉幕儀式
	14:00-18:00	<ul style="list-style-type: none"> ● 技術參訪

資料來源：2017 年第 21 屆世界職業安全衛生大會

(二)大會摘要

1. 9月3日下午：開幕儀式

本次大會於9月3日下午4時30分揭幕，來自100個國家約計3400人次參與本次大會。

(1) 大會代表致詞

由本大會之總理事 Er Ho Siong Hin 先生揭開序幕，針對大會之議題進行簡要說明，包括第一天由 ILO 與 ISSA 為報告，並針對零職災願景(Vision Zero)安排一系列主題演講；第二天則針對以人為中心的預防措施為主題，安排了主題演講，並針對職業安全與健康促進措施，安排了相關的技術論壇；第三天則針對在全球經濟發展趨勢之下，如何促進職業安全與健康進行相關討論，希望所有參

與本次大會代表們，藉此獲得一些靈感。

(2) 全球領袖圓桌

大會安排全球領袖圓桌(Global Leaders Round Table)討論，參與圓桌討論的有來自中國大陸、新加坡、芬蘭等國家之產、官、學代表。

主持人提及零職災願景(Vision Zero)是可達成的願景嗎？

與談人德國社會意外保險副總幹事 Dr. Walter 回應，這是一項艱鉅目標與願景，且具有價值，雖然人都會犯錯，但不得損及人們期望工作環境是安全的權利，我們更不能忍受因為人為失誤而導致失去人命。因此，不應該被妥協或讓步，而是要讓職業災害成為人類文化的一部分。

主持人提及近年來中國的經濟快速成長，中國大陸對零職災之看法與其可能面臨挑戰為何？

中國國家安全生產監督管理總局副部長 Mr. Sun Hua shan 指出「零事故、零傷害」是中國大陸政府的目標，即「安全第一，企業零事故，員工零傷害」，目前中國面臨的挑戰是企業規模不一，對於安全的追求不同，農村轉移

至城市，對於安全認識的不足。建立法規、導入科技提升安全程度以替代不安全的生產環境，建立監管制度。

主持人提及建立健康員工與健康環境及其挑戰？

與談人澳洲 Safe Work 執行長 Ms. Michelle Baxter 表示澳洲於建立此制度時，如何讓雇主將安全衛生帶入工作環境是一嚴苛挑戰，然而澳洲政府仍持續讓民眾了解健康員工與健康人生等之關聯與重要性。另外，芬蘭社會事務與衛生部部長 Ms. Pirikko Mattila 分享表示人必須包含在管理制度，重視人員，瞭解人員需求，而不是只重視工廠的流程。

主持人提及新加坡人力部如何預防職業傷害與死亡之發生？

根據受邀來自新加坡之與談人 Er Ho Siong Hin 表示，新加坡執行職業安全有三項策略：(一)於國家層次，落實推動相關制度與法令，並即時要求事業單位改善安全衛生工作環境，(二)於公司層次，公司應實施風險評估與員工教育，採取相關必要防制措施，改善工作流程，避免人力涉入危險作業或降低高危險性環境之比例，(三)於個人層

次，事業單位引進國際移工使其具有多元化人力資源時，應考量不同文化、能力、語言等因素，透過我國人員對於國際移工事前教育與反覆訓練，並間接促進來自不同國家之工作者的與我國勞工文化交流，以提升企業競爭力並增加營收。

(3) ILO 執行長 Guy Ryder 致詞

國際勞工組織（ILO）呼籲安全與健康工作及快樂生活是勞工基本人權，全球每年都有勞工於工作中受傷或死亡，這樣的結果是不能夠被接受，政府應實施立法、提供支持勞工與企業必要資源與落實勞動檢查。雇主應提供安全的工作場所是基本責任。勞工應參加教育訓練及切實執行預防措施，各角色都需知道自己的權利與義務，雇主、勞工和政府共同努力預防工作場所事故發生。

同時，提及全球面臨數個議題，包括：(一)目前國際組織正試著建立一個可信賴與包容的制度，使不同種族及文化等族群接受，(二)全球關注職業安全與健康議題，(三)工作條件的改變，對於職業安全與健康的影響，(四) 七大工業國組織(簡稱 G7)發展零職災願景，以及(五)未來工作

型態對於職業安全與健康的影響，包括科技的導入對於工作型態的影響。同時，呼籲政府不可持觀望角度，應該要積極因應未來工作型態的改變。

(4) ISSA 執行長 Joachim Breuer 致詞

ISSA 為本大會之辦理單位之一，其對於職業安全與健康的承諾，反應在對這個大會的重視與支持，並於本次大會討論職災預防之新解決方案，同時，希望與會人員不僅關注本次研討會議題內容，而要瞭解會議議題召開之目的。

其次，Joachim Breuer 致詞中指出我們應該要分析科技如何影響人類的生活、工作以及就業。數位化的生活，例如：Uber 的出現，其透過資訊科技的運用，可以直接評比司機的表現與對表現不好的司機提出抱怨，媒合司機與乘客...等。在此同時，我們必須關注到在數位轉化的過程中，對於預防職業安全與健康之影響。以前面 Uber 案例，公司員工漸轉變成獨立契約工作者（Independent Contractor），員工和公司有合作關係，卻不受公司規範，員工與雇主之關係是否存在，即衍生現行法律適用性等應

考量問題。另一方面，我們應了解並關注數位經濟與數位科技被廣泛使用後，尤其是導入人工智慧，所涉及的新型態工作或主要的工作者，例如：程式設計者(Programmer)，如何建構該類工作者之職業安全與健康預防措施，儼然成為未來面臨之重要議題。

此外，Joachim Breuer 亦提及全球企業對員工之社會保險仍有觀念落差，致使全球仍有一半員工未投保任何社會保險。又因新型經濟型態所生的關係，如何使該類工作者受到社會保險之保障等議題是應該受到關注與討論。是以，社會保險亦應被整合到未來的工作型態發展中。

(5) 新加坡總理 Lee Hsien Loong 開幕致詞

李總理於其致詞表示職業災害與死亡是可以被預防的。同時，員工安全與健康應該是經濟發展的核心之一，此次的大會讓我們有機會可以相互學習。

李總理於其演說提及數十年前，新加坡有很多的職業災害與死亡事件，於 2004 年時，職場死亡率(Workplace Fatality Rate)為每百萬工作者有 5 名死於職場，高於其他已發展國家很多，其認為此不可接受，並開始檢討其原因，

發現因企業為多元化員工組織、規模小，未能落實安全衛生措施，致易發生工傷或死亡事件。因此，新加坡政府開始著手此一議題的改革，包括成立工作小組，與各界合作，設立目標。

於 2006 年時，新加坡通過職場安全與健康法 (Workplace Safety and Health Act)，並協助中小企業採取職業安全與健康促進措施；於 2008 年，設立職場安與健康議會 (Workplace Safety and Health Council)，其由勞工、企業與政府代表所組成，並設立目標，期於 2018 年時，職場死亡率可降至每百萬個工作者只有 1.8 名死於職場；於直到去年，新加坡職場死亡率已降至每百萬個工作者只有 1.9 名死於職場。我們又設立新目標，在 2028 年時，我們希望我們的員工受到良好的訓練、建立良好的工作環境，將新加坡職場死亡率已降至每百萬個工作者只有 1 名死於職場以下的目標，逐步達成零職災之願景。

李總理提及新加坡政府仍持續維持其勞工、企業與政府之三方合作關係，以促進達成前開新設定目標。其次，政府機關除建置法規外，仍須結合其他誘因促進企業對職業安全與健康的重視並採取相關措施，因為新法規會必定

造成企業產生新成本，卻不一定會帶來顯著安全、衛生及健康等績效。另新加坡政府為有效運用資源，將優先著重在職場死亡率較高的產業的職業安全與健康，如：營造、物流業等高風險事業。

此外，新加坡政府已關注其他新興議題，如：新興疾病、人力老化，其是未來建構職業安全與健康相關政策需要考量。同時，新加坡政府希望企業大量導入新科技以取代人力，使員工可以避免危險或協助完成工作。例如：計程車業導入線上監控系統，如司機有打瞌睡之情形，可以透過該系統喚醒司機，以避免事故發生。

2. 9月4日上午：職災預防國際媒體節特別媒體會議、ILO 與 ISSA 報告與主題演講

9月4日上午之議程主要為職災預防國際媒體節特別媒體會議、ILO 與 ISSA 報告與主題演講。

(1) 職災預防國際媒體節特別媒體會議

本次大會以職業安全與健康為主題，辦理多媒體競賽，如：工作環境之攝影、歌曲創作、影片等，藉此吸引大家與更年輕一代（青年）對職業安全與健康議題的重視。同

時，於本次大會辦理職災預防國際媒體節特別媒體會議，進行頒獎活動，並分享得獎者之作品，例如：**Media can convince**（微電影）得獎影片以青年在烘焙市場就業之工作環境安全為主軸；**Media can instruct** 得獎影片，則是透過影片詮釋餐飲業之職場安全應注意事項，即其敘明餐飲業最常遇見的職安事件，並透過此影片，提醒其應注意事項與必要採取作為。

(2) ILO 與 ISSA 報告

上午 ILO 與 ISSA 的報告，分別由 Ms. Nancy Leppink 與 Mr. Hans-Horst Konkolewsky 進行說明，前者任職於 ILO，為勞工管理、檢查與職業安全及健康部門之主管(Chief of the Labour Administration, Labour Inspection and Occupational Safety and Health Branch)，後者任職於 ISSA，擔任秘書長一職(Secretary General)。同時，於報告結束後，邀請產、官、學等專家，進行簡要之與談。

Ms. Nancy Leppink 先代表新加坡人力部部長說明新加坡對於職業安全與健康制度之建立與推動，稍後方就 ILO 的一些推動工作進行說明。

首先，大會已成為全球專家與代表聚集之平台，就職

業安全與健康議題進行意見交流與形成共識，9月3日之開幕演講提到了全球未來的經濟發展與職場安全與健康發展所可能預見的挑戰或需求，新加坡持續將預防機制融入工作環境，透過法規的建立、教育與認知提升等方式，持續推動一個符合職業安全與健康需求的環境。

其次，超過 30 個國家請技術協助，包括 OSH 法規制度的建立與執行，以使勞工能夠更有效率地行使其權利或受到保護。為了協助這些國家評估其職業安全與健康保護推動現況，ILO 與其他組織正在研擬建立一套協助機制，以協助這些國家在其境內推動職業安全與健康促進措施。同時，只有 OSH 法規的建立是不足的，應要將 OSH 法規融入預防制機當中。

同時，其指出全球員工傷害與死亡所造成的經濟損失，占全球 GDP 的 3.94%，應該持續推動職業安全與健康促進活動。同時，ILO 將持續追蹤這些資料。

此外，ILO 之推動工作、研究與調查，例如：針對 63 地區進行個案研究，了解職業安全與健康促進措施之推動及其效果。肇因於國際經濟發展、全球供應鏈之變化等，

對於工作條件與工作環境造成一定影響，許多國家開始關注這些議題與風險，包括 ILO。另一方面，針對年青年 (young person) 與婦女之職業安全與健康促進，也是 ILO 所關注的議題。

Mr. Hans-Horst Konkolewsky 之報告，則是針對零職災願景進行倡議，這個概念在法蘭克福被提出，因其認為職業傷害與死亡是可以被預防的，且這個概念的實現對大家都是有益的，包括政府與產業以及員工。同時，為了促進此一願景的實現，此報告亦提出了七個黃金原則(7 Golden Rules)，包括：(1)發揮領導力--展現承諾與決心 (2)識別危險--控制風險 (3)界定目標(targets)—制定計畫與方案 (4)確保安全與衛生系統—良好的運作 (5)從機器、設備和工作場所著手確保職場安全與衛生 (6)提升資質(qualification)—發展能力(competence) (7)投資人員—透過參與調節積極性。

於 Mr. Hans-Horst Konkolewsky 報告結束後，邀請產、官、學等專家說明如何導入或推動「零職災願景」。

首先，與談人表示新加坡是第一個推動零職災願景之

國家，起初推動時很多人都認定這個目標不可行。然而，如果每個人都開始著手實踐零職災願景，則能聚集各界資源達成目標。新加坡政府先以單一產業開始推動，再逐漸推展至其他產業，使「零職災願景」逐步實現。

其次，與談人更提及在全球有很多員工因工作而發生職業傷害或死亡事件，尤其是貧窮的員工，故跨國組織WHO 提倡「零職災願景」之推動，希望幫助這些員工避免遭受職業傷害。

第三，根據來自於德國社會災害保險局(DGUV)與談人說明，DGUV 致力於降低職業災害與死亡的機率，於10年前，我們開始推動「零職災願景」，因為堅信只有建立目標才能有效執行，而「零職災願景」是一個很重要的目標，去有效預防職業災害與死亡的發生。

第四，來自於西門子(SIEMENS)與談人的說明，關心員工是西門子的承諾，也是西門子的社會責任。建立一個職業安全與健康環境符合前揭需求，同時，對於公司發展之穩定性有幫助，而且有助於業務之發展。在推動的過程，我們需要了解重點關鍵利害關係人及其需求，

同時，西門子了解到零工傷是可能的，故其推動「零職災願景」。

最後，Mr. Michael López Alegría 提及從過去的經驗，「零職災願景」是一種文化，須融入到日常作業中。當其看到「零職災願景」的推動於組織績效的提升是有幫助時，其支持這樣的理念，希望這樣的理念可以變成組織文化的一部分。

(3) 主題演講

9月4日上午之主題演講，涉及推動與落實「零職災願景」之目標。主要有二個主題，分別是由前國際太空站指揮官- Mr. Michael López Alegría 所演講之“「零職災願景」-從願景到現實”(Vision Zero – From Vision to Reality)，以及芬蘭健康與社會事務部長- Pirkko Mattila 所演講之“健康工作-健康生活”(Healthy work – Healthy life)。

曾身為前國際太空站指揮官之 Mr. Michael López Alegría，分享 NASA 如何推動與落實 VISION ZERO 以及 7 大原則，自成為正式太空員到火箭上太空，其中太

空員所接受相關教育訓練，除太空梭之結構與運作等一般課程外，更強化於緊急狀況時，應採取哪些措施。為使太空員適應無地心引力狀況、太空上生活飲食與睡眠，透過建立完整的作業程序與做法，並以水中進行訓練與模擬、抗重力加速度訓練(俗稱：抗 G 力訓練)等實務模擬。另建立安全風險評估機制，在火箭發射前，由一群各類型技術人員所組成之安全小組，進行安全性評估與檢視，確保太空梭相關系統安全，並於火箭發射之前，工程師會進行火箭發射設備等安全性檢視。

現任芬蘭健康與社會事務部長 **Pirkko Mattila** 演講表示，該國保險系統指出員工傷害與死亡事件不斷，故致力於推動職業安全與健康促進措施。相關報告所指出的職業災害與死亡造成的經濟損失，在芬蘭亦面臨同樣問題。同時，歐盟指出員工因職業災害而造成原本生活的失序，例如：職場環境所造成的癌症問題。因此，**Pirkko Mattila** 以此為例，說明該國如何防治職場環境所造成之癌症的發生。

Pirkko Mattila 表示職場環境中之致癌物質必須優先被辨識，與實施其他化學物質之暴露評估一樣，故應有

方法可評估致癌物質之暴露量。除了歐盟所為規定外，在芬蘭尚有約 450 項國家職業暴露限制值。根據芬蘭實務經驗，當所有利害關係人都同意暴露限制值時，較容易去落實這項措施，而在芬蘭是透過國家職業安全與健康諮詢委員會來進行限制值制定。

此外，Pirkko Mattila 強調勞資政三方關係與共識的形成，有助於促進推動職業安全與健康，並以禁止石棉使用為例。在芬蘭，與職業有關之癌症主要肇因於石棉的使用，所以目前芬蘭禁止使用石棉，在未來這項措施也不會改變。這項措施是在 2006 年開始於歐盟境內推動。當時，許多國家同意降低對石棉的暴露，且考量勞資雙方立場，遂對於可吸入之結晶二氧化矽(crystalline silica)與健康風險間之關聯進行評估，並驗證長期暴露於結晶型游離二氧化矽對健康影響。在芬蘭境內於 1994 年至 2013 年間，勞工暴露於可吸入結晶二氧化矽的情況逐漸呈現下降趨勢，顯見藉由凝聚勞資政三方關係與形成共識，有助於職業安全與健康之促進。

3. 9 月 5 日上午：主題演講及技術會議

(1)主題演講

9月5日主題演講是以員工為中心之預防，由新加坡職場安全與衛生委員會執行長 **Mr. Heng Chiang Gnee** 主講，新加坡相較其他歐美國家致傷率高，且職業災害員工常面臨生理、心理、職業、社會、經濟及其他等障礙，致不易返回至原本工作崗位，建議採取先期評估、醫療治療、工作場所評估及落實各項業務共4個步驟來協助員工返回職場。

藉由全面性職場安全衛生(Total WSH)之議題，探討未來工作職場在安全衛生方面可能的變化與因應，分別提出就業人口年齡結構改變(如：延長退休年齡)、引進新科技產業(如：智慧機器人)、共享經濟盛行(如：Uber)及新企業型態(如：手機行動支付、物聯網)等四大迫切面臨之問題，除持續致力於改善工作場所相關安全設備防護與管理外，**Mr. Heng** 強調企業應著重職業安全衛生管理理念及改變雇主對於推動安全衛生態度。

最後，**Mr. Heng** 強調雇主必須具備說到做到的領導特質，設定明確目標就要落實，並透過社會資源(如：NTUC 工會)，建立互助合作關係，促進建構建立一種能夠信任的關愛文化，以有效達成全面性職場安全衛生。

(2) 技術論壇

本次技術論壇探討未來預防-第四次工業革命，本次技術論壇由國際社會安全協會 Mr. Hans-Horst Konkolewsky 主持，論壇開始前簡單用一部影片介紹人類歷史上各階段之工業革命，第一次工業革命：約 1760 年開始至 1840 年，人類生產逐漸轉向新的製造過程，出現了以機器取代人力；約 1870 年後電力大規模使用造成工業飛速發展之第二次工業革命，尤其是電燈為該期間指標。第二次世界大戰後約 1960 年開始，因推廣於各行各業使用電腦和相關電子資料應用，半導體、網路等新興技術問世，第三次革命影響了人類生活方式和思維方式；隨著第三次工業革命科技快速發展，第四次工業革命已於 2016 年初悄然開始，並且正以前所未見速度席捲全球，最指標的技術為物聯網、數位化身分認證、3D 列印、人工智慧、大數據等，就其技術將各類資訊全部轉化數字相關，故數字經濟又常被稱為第四次工業革命，本次革命將再次對人類帶來另一顛覆性影響，使人類社會生活和工作推向更高境界發展。

本次技術論壇邀請法國、義大利、德國等專家說明如何因應第四次工業革命，各項主題主要探討兩個基礎技術之應用，首先為認知計算(Cognitive computing)，係指模仿人類大腦的計算系

統，讓電腦像人一樣思考，而不作為單一開發系統，可藉由專家訓練、互動、學習，促使電腦可進行推測、論證等動作，目前廣泛被應用於醫學治療上，過往藉由醫師判讀病患 X 光片是否有相關疾病，現階段以可藉由人工智慧之自我學習能力，並結合可分析快速變化的動態資料(如：雲端運算)等技術，降低判讀 X 光片之失誤率。

另一嶄新技術為大數據(Big Data)，傳統工廠建置許多監控設備(如溫度計、壓力計等)，惟對於現場作業勞工相關管理方式，僅能仰賴人工方式進行管理，然而往往造成管理者負擔，且不容易獲取現場勞工相關工作實際情況之資料，隨著科技進步，穿戴式裝置(Wearable Device)能解決此問題，藉由該裝置無時無刻收集勞工平常相關工作情況之數據，再藉由大數據分析之技術，取得有意義資訊，提供作為後續推動職場安全與衛生預防之應用，並可結合人工智慧，將大數據、傳統監控資訊整合，回饋至現場作業勞工，提供現場作業勞工更精確的資訊，避免決策錯誤。

4. 9月5日下午：青年安全工作對話及分組座談會：

(1)青年安全工作(SafeYouth@Work)對話

青年安全工作對話意旨在透過第 21 屆世界職業安全

與衛生大會發表聲明，隨著青年逐漸邁入社會工作，強調青年對工作場所安全和健康問題的認識是非常重要的，且依據國際勞工組織統計分析顯示，青年遭受職業災害之可能性較年長者高出 40(%)，故本次工作對話由來自世界各地的 18 至 24 歲的 120 多名青年參加，藉由青年間互相討論，激盪一些新想法與觀點，並與相關具備多年實務經驗之前輩對話，提供具體建議，促進兩者對於安全衛生理念趨於一致。

因此，大會為所有參與者設定一個主題，通過青年與專家於大會上交流對話，由青年擔任領導之重要角色，持續正視職業安全與衛生問題，並促進他們積極參與，以有效改善青年工人的職業安全與衛生條件。

本次對話主題為「青年職業安全與衛生」，現場約 800 名與會者共同參加，本次大會經由跨世代對話交流與經驗交流，對職場安全與衛生議題提出看法或建議，將提供世界各國職業安全與衛生專家、政策制定者、雇主和工人代表等人員之間一些新的想法。本次對話內容只要針對導入新興科技預防職業安全衛生，青年代表提出，現階段人手一機的世代，藉由開發 App 軟體，提供青年工作者自行可

以確認現場危害及了解預防措施，並可記錄個人安全工作頻率。國際社會安全協會(ISSA)研發及預防文化組組長 Dr. Walter Eichendorf 表示，這是一個好想法，國際勞工組織(ILO)於推廣預防人因工程議題時，亦開發 Ergonomic Checkpoints 之 APP 軟體，供企業或工作者使用，Dr Walter 更肯定該青年代表的創意，期望將該創意想法實現。

(2) 分組座談會

本次參與之分組座談由歐洲勞動安全與健康協會經理 Brenda O'Brien 主持，參與分享演講者包括 Dr. Malgorzata Milczarek、Dr. Siok Lin Gan、Dr. Sybele Cruz、Julio Franzani、Mohd Esa Baruji 及 Prof. David Walters 期透過經驗的分享，說明如何協助中小企業做好職業安全衛生。

首先，Mr. Brenda 解釋歐盟對於中小型企業之定義，其定義方式整理如表 4：

表 4、歐盟對於各型企業分類原則表

公司類型	營業額	公司人數
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中型企業	小於或等於 5 千萬歐 元	未滿 250 人
小型企業	小於或等於 1 千萬歐 元	未滿 50 人
微型企業	小於等於 2 百萬歐元	未滿 10 人

在歐盟國家約有 2 千 3 百萬家公司，其中微型企業佔將近 92.8(%)，其次為小型企業(6%)及中型企業(1%)，就職業安全衛生執行情形，微型企業雇主幾乎缺乏瞭解並落實相關勞動法令，政府機關礙於人力有限，不可能派員至每一微型企業實施解說，使其瞭解法令及重視，因此，透過數位化工具提供此類型企業使用，並轉介相關第三方團體及社會組織，提供企業相關客製化之安全衛生服務。

全球每年約 2.3 百萬人因工作受傷，而亞太區多達 1.1 百萬約占全球 50(%)，是以，透過各國推動中小型企業安全衛生之成功案例經驗分享，促使全球每年因工受傷人數可以逐年降低，本次實務經驗分享可整理成以下類型：

1. 政府機關強制力介入—政府機關要求事業單位依

照各項指導書落實安全衛生，並定期上傳至監控系統管制，由事業單位自行管理，若有任何異常狀況即主動通報，如未依規定期限內完成，將予以嚴懲(如：撤銷公司營業登記)，並根據執行情形訂定合適的勞動檢查方式或頻率。

2. 電子化風險危害評估工具—藉由免費提供企業相關風險危害評估工具，並宣導企業自行評估並依建議自行落實風險管理。
3. 特殊行業專案計畫—全球重大工安意外約 90(%) 為同一類型事故原因再次發生，故應針對高風險事業族群列為專案管理。
4. 多元化教育訓練—全球勞工因未於工作前接受完整之安全衛生教育訓練而導致受傷比例約 20(%)，且將近 70(%)是因工作者粗心大意造成事故，又因現代科技日新月異，青年世代邁入職場，應採用 Youtuber、Facebook 等網路教學、手機 APP 或 AR 技術等教育訓練，不僅提昇勞工學習意願，並能將安全衛生相關知識迅速提供給需要的人。

5. 善用第三方資源—藉由社會組織之資源，提供企業所需要之資訊，並減輕政府機關負擔。

5. 9月6日上午：分組座談與閉幕儀式

9月6日為本次大會之最後一天，上午之議程主要為分組座談會與閉幕儀式。

(1) 分組座談會

本次參與之分組座談為由 ITUC-AP 所組織，由 Shoya Yoshida 主持，參與分享的演講者包括 Sharan Burrow、Ahn Pong-Sul、Dr. Deborah Vallance、Aminur Repon-Chowdhury、K Karthikeyan、以及 Edward Miller，期透過經驗的分享，說明工會如何協助促進職業安全與健康。

首先，來自 ITUC 的 Sharan Burrow 以“工會與職業安全與健康：為生命戰鬥”(Trade Unions and Occupational Safety and Health: Fighting for the Living)為題，敘明在職業安全與健康促進中所扮演的角色，並表示 ITUC 將持續致力於職業安全與健康之促進，並呼籲政府應為詳盡審查(due diligence)，以確保職場環境之安全。同時，ITUC 將促進國際與區域性之合作，確保社會安全標準(social

security standards)能夠被落實，以建構一個安全的工作環境，確保勞工之權益。

來自泰國之 ILO 勞工活動辦公室(ILO Bureau for Workers' Activities)的 Ahn Pong-Sul，以“亞太地區工會針對職業健康與安全所採之途徑”(Trade union approaches to occupational health and safety in the Asia-Pacific region)為題，呼籲政府及各界應注意職業安全與健康此議題。根據其演說，全球每年都有 2.3 百萬的人口死於與職業有關之事件或疾病，亞太區卻佔約 1.1 百萬人口，亦造成龐大的經濟損失。

其次，Ahn Pong-Sul 於其演說敘明 ILO 對於職業安全與健康之全球策略，包括：(1)提升各界對職業安全與健康的意識與認識，尤其是對於新加入勞工市場的勞工，(2)推動與職業安全與健康有關之制度或法規(即職業安全與健康工具之建立與推動)，例如：於石油產業推動職業安全與健康相關制度與法規，以確保職業安全；又例如，1981 推職業安全與健康公約，以作為加入國如何進行職業安全與健康工作之推動參考依據、1985 推動職業健康服務公約、2006 年促進職業安全與健康架構公約。

其中，2006 年促進職業安全與健康架構公約特別重要，因為其主要期望是透過國家政策與機制(如：法規、檢查等)、推動計畫等，來確保職業安全與健康。數年前，在泰國，即曾發生企業未遵循職業安全與健康法規之情形，勞工有權利提出訴訟。

同時，Ahn Pong-Sul 於其演說分享 ILO 在亞太地區之職業安全與健康推動工作，包括：(1)透過教育訓練來提升各界對職業安全與健康的意識以及職業安全與健康文化、(2)強化與支持亞太地區之國家建立與推動與職業安全與健康有關之政策或制度，或是改善與職業安全與健康有關之國家政策或制度，如：檢查，(3)促進區域性的合作，如：ASEAN-OSHNET 的建立，以進行交流。

最後，Ahn Pong-Sul 於其演說中表示工會促進職業安全與健康之途徑可包括下列幾種方式，分別是：(1)促進政府強化職業安全與健康制度與機制(如：法規)，(2)宣導職場應建立重視與落實職業安全與健康之文化，(3)對於志工團體，包括國際移工在內，施予與職業安全與健康有關之訓練或教育，(4)建立公眾意識，以減少對石棉的使用，(5)持續追蹤與調查職業事故與疾病

(occupational accidents and diseases)。

來自澳洲製造業勞工聯盟(Australian Manufacturing Workers' Union)與澳洲工會委員會(Australian Council of Trade Unions)的 Dr. Deborah Vallance，以“為無石棉世界戰鬥”(The fight for an asbestos-free world)為題，分享工會如何來協助促進職業安全與健康。因石棉之使用會引發人體健康安全風險，每年有很多人死於石棉使用所引發的疾病，故其倡議應禁止石棉之使用。於推動的禁止石棉使用之過程，不少人士藉由網路傳播資訊，以倡議石棉的禁止使用，但期間不是順利，因仍有部分國家是反對的。然而，WHO 明白地敘明石棉的使用是不利於人體健康的，最佳的方法是不要使用此類材質。是以，應要禁止石棉之使用。

禁止使用石棉之倡議受到與會人士的討論，有建議對於石棉之禁止使用，現場有人倡議可以採取其他途徑，例如：透過 WHO 進行倡議、透過國際公約之簽署來推動此概念等。另，對於石棉之禁止使用的倡議，根據演講者的回應，澳洲有對此以予回應和關注並有相關的科學研究去說明石棉之使用與疾病間的關聯性。

來自孟加拉自由工會(Bangladesh Free Trade Union Congress)的 Aminur Repon Chowdhury 以“工會使職場安全與綠色：孟加拉經驗”(Unions make the workplace safe and green: Bangladesh experience)為題，分享孟加拉工會之經驗。首先，其於演說中說明孟加拉之職業安全與健康概況，表示全球每年都可以見到勞工因職業有關之事件死亡或受傷，在孟加拉亦有類似的情況，有幾個重大事件受到國際的注目，例如：於 2013 年發生的 RANA PLAZA 大樓倒塌，造成許多人員受傷或死亡，期間有四間成衣廠進駐在該大樓，有 1130 人死亡，2500 名勞工受到重傷；2012 年 Trajreen Fashions 發生大火，造成 111 勞工死亡或受傷。

Aminur Repon Chowdhury 次於其演講中指明工會是勞工權利之第一線保護者，其認為在職業安全與健康此項議題中，勞工有四項主要的權利，包括：有權拒絕從事危險的工作、有權受培訓、有權獲取資訊、以及有權發聲與參與。基此，孟加拉工會之作法為建立勞工之發聲管道，進行多方合作，採取相關的倡議活動(如：街頭抗議)，對政府形成壓力，以促進政府採取相關措施，包

括：落實法規、強化勞安檢查、建立勞資政三方機制等，以確保勞工權利。

來自新加坡之 NTUC 的 K Karthikeyan 以“工會在新加坡職業安全與健康之介入”(Trade union interventions on OHS in Singapore)為題，分享工會在職業安全與健康之促進所扮演的角色。新加坡勞工運動(Singapore labor movement)倡議行為觀察與介入(behavioral observation and intervention)，其旨在減少具風險性之工作行為的發生，並因此而減少職業安全事件(包括死亡與疾病)的發生，並因而減少損失與提升生產力，而行為觀察與介入主要仰賴二項原則，分別是集體所有(collective ownership)與注意義務(duty of care)，因為只有當勞資雙方關心彼此與共同合作，方有可能建立正向的職業安全與健康文化。

K Karthikeyan 次其演講提到介入的方式為 3C，即更有目標地引導(coaching)、更多的承諾(commitment)、以及更好的合作(coordination)，並透過相關案例之說明，敘明工會與企業之管理階層應為合作，以確保職業安全與健康。

就更有目標地引導而言，主要是提升各界對職業安全與健康的意識與了解，並採取有效率的職業安全與健康措施，例如：全國交通勞工聯盟之健康介入計畫，以巴士勞工為對象，協助其改善飲食，維持建康；就更多的承諾而言，以新加坡機場服務勞工聯盟介入機場勞工權益保護為例，其倡議”重行李”，於行李針對超過 32 公斤的行李進行標示，降低勞工因為搬運所造成的傷害；就更好的合作而言，化學產業工會與管理階層共同合作識別職場之危險因子，共同改善職場環境。

來自馬來西亞，任職於 Building & Woodworkers International(BWI)的 Edward Miller，以“BWI 對於營建產品之職業安全與健康促進之貢獻”(BWI’s contribution to OHS in the building and wood sector)為題，進行分享。首先，Edward Miller 提及營建產業是最危險的產業之一，相關風險包括：勞力密集、職業安全與健康法規與制度可能不健康、執法的問題、不效率的或不適合的 PPE、以及不適當的材質使用(例如：石棉的使用)

其次，Edward Miller 提及以零職災願景為目標，所有的風險都是可以控制或預防的，同時，強化勞工的權利

與促進職業安全與健康是不可分的，例如：工時的要求。以馬來西亞為例，工時很長，有 70%左右的勞工死於心臟疾病。針對至馬來西亞工作之尼泊爾員工之工時進行調查，發現七成以上每週工作七天，且有 69%以上的勞工未取得加班部分的報酬。不可否認的，部分研究顯示，企業經營壓力，造成低薪資、長工時，導致員工勞累，而產生更多的事故發生。

此外，Edward Miller 提及根據 BWI 的調查，工作型態正在發生改變，例如：獨立契約工作者，而其未有權利加入工會，應要關注這些情況以及人員之權利保障。最後，Edward Miller 倡議如果有勞工於職業安全事件死亡，應課予刑事責任，同時，應透過法規改革促進職業安全與健康、且未來應考量工作型態之改變對於勞工權益保護之影響。

主持人 Shoya Yoshida 於結束時，再次強調與聲明工會、政府、勞工能夠進行對話與合作，對於職業安全與健康之推動是有助益的。

(2) 閉幕儀式

大會之閉幕儀式首先邀請 Dr. William Tan 進行演講，其兒時因病而殘障，於 2008 時回到新加坡的醫院-癌症治療與研究中心工作，但在 2009 年被診斷出罹患白血症。DR. Tan 藉由其生活經驗，求學與對抗癌症，持續努力與不中斷，來激勵與會人士。例如：看見機會，當別人只看見問題；以適當的方式解釋問題，不要因此而阻礙或扼殺夢想；充足的準備等。

其次，由主辦單位 ISSA 與 ILO 以及 Youth Champion 代表，針對本次大會之討論與共識方向進行重申與倡議，包括倡議「零職災願景」，呼籲與會人士參與「零職災願景」之推動，包括勞工、企業以及政府部門應共同建構安全的工作環境；本次大會也探討到國際趨勢與挑戰，例如：獨立契約工作者的出現與普及，倡議針對國際趨勢與挑戰宜為國際合作與交流；另本大會扮演一個意見交流平台，為意見交流，並透過與會者的分享，激發更多的想法，並倡議參與者回國後，一起推動「零職災願景」與職業安全及健康。

最後，本次大會之閉幕演講由新加坡人力部部長 Lim Swee Say 為之，其於演講中提及「零職災願景」持續不

斷努力的目標。對於職業安全與健康之促進，除提升各界對此議題之意識與重視、提升能力與強化夥伴關係之外，未來仍有很多必須持續努力的。其中，將特別強調以下三個領域，分別是(1)強化各利害關係人的承諾、(2)將職業安全與健康融入組織文化，以促成全職場安全與健康(total Workplace Safety Health)，以及(3)更以人為中心(people-centered)，依職場環境之不同，而調整職場安全與健康促進措施。

同時，Lim Swee Say 部長於其演說中提及，為了打造一個成功的職業安全與健康環境，將持續推動「零職災願景」，並從下列三個層次推動之，分別是(1)國家層級，設定目標與推動相關措施；(2)在區域層級，相互合作、交流與學習，發展職業安全與健康政策、制度與法規等，以新加坡為例，說明其學習與推動歷程，同時，作為東協成員，新加坡會持續推動其承諾，以及和其他會員合作；(3)就全球層次，很多企業與國家都在追求「零職災願景」，倡議國組織與國家、企業等追求這樣的願景。

6. 9月6日下午：技術參訪

本次大會於閉幕典禮之後，有安排技術參訪之行程，以了解實務如何實踐職業安全與健康措施。本次參訪之對象為杜邦公司。參訪流程包括二個部分，第一階段為介紹該公司職業安全實務推動經驗，另一階段是介紹該單位開發之熱損傷評估儀器(Thermo-Man)。

杜邦公司先就職業安全措施為說明，包括：杜邦之職場安全維護措施(例如：1m and 3m rules，作業人員見到堆高機應保持 1 公尺，已有裝置物品之堆高機應保持 3 公尺距離，考量物品墜落呈拋物線動線而增加保護距離)、為確保勞工生命安全所實施之計畫(例如：工作流程確認與分析、高風險類型活動之管理等)，惟該單位為維護公司營業秘密與職場安全，進入廠區之後，並不允許拍照或攝影，故本次出訪並未能就其廠區內對於職業安全之落實措施，例如：安全注意事項之標示、每週前三項優先工作之檢視與追蹤表的建立與確認等，進行拍照。

有關 Thermo-Man 系統部分，該測試系統採用真人大小之人體模型，其全身各處設置總計 122 個熱偵測儀器，並藉由各類型火災模擬實驗，測試使用杜邦所開發之 Nomex 和 Kevlar 等高性能纖維材料製成的產品，並提供較佳的耐熱防護性和良好的便捷性。根據杜邦公司說明，該類高性能纖維材料，常應

用於消防員之消防衣隔熱層中，在遇到高熱環境下，會自動膨脹進而吸收更多空氣，達到更佳隔熱效果，故超過 70(%)隔熱衣保護來自於內裏材質。另外，杜邦公司更破除迷思，強調市面上標榜常見衣料材質較厚，其耐熱效果較好。然而，通常該類材質普遍使用含化學性成分之塗層，不僅造成重量增加，且易造成該材質較易燃。

綜上，杜邦公司對於安全衛生管理方式，採用安全衛生查核表單逐一公告於廠區內進行管理，其中杜邦生產作業主管更表示，設計這些安全衛生查核表，不是為了別人而是為了自己，強調各項查核事項不使其流於形式，顯見建立安全文化極為重要一項工作。另外藉由「隱惡揚善」之概念，表揚安全衛生績效良好之勞工，而績效欠佳之勞工則要求設定目標，循序漸進地自我肯定並成長。

(三)考察照片



圖 1 出席 2017 年第 21 屆世界職業安全衛生大會合影



圖 2 第 21 屆世界職業安全衛生大會 9 月 3 日開幕儀式-大會總理事

Er Ho Siong Hin 致詞



圖 3 第 21 屆世界職業安全衛生大會 9 月 3 日開幕儀式-全球領袖圓
桌與談



圖 4 第 21 屆世界職業安全衛生大會 9 月 3 日開幕儀式- ILO 執行長
-Guy Ryder 致詞



圖 5 第 21 屆世界職業安全衛生大會 9 月 3 日開幕儀式-新加坡總理 Lee Hsien Loong 開幕致詞



圖 6 第 21 屆世界職業安全衛生大會 9 月 4 日職災預防國際媒體節 特別媒體會議頒獎現況



圖 7 第 21 屆世界職業安全衛生大會 9 月 4 日 ILO 與 ISSA 報告



圖 8 第 21 屆世界職業安全衛生大會 9 月 4 日主題演講- Mr Michael López Alegria 分享 NASA 如何導入「零職災願景」之目標與相關作

法



圖 9 第 21 屆世界職業安全衛生大會 9 月 5 日主題演講實況



圖 10 第 21 屆世界職業安全衛生大會 9 月 5 日技術會議實況



圖 11 第 21 屆世界職業安全衛生大會 9 月 5 日青年安全工作對話實況



圖 12 第 21 屆世界職業安全衛生大會 9 月 5 日分組座談實況



圖 13 第 21 屆世界職業安全衛生大會 9 月 6 日分組座談實況

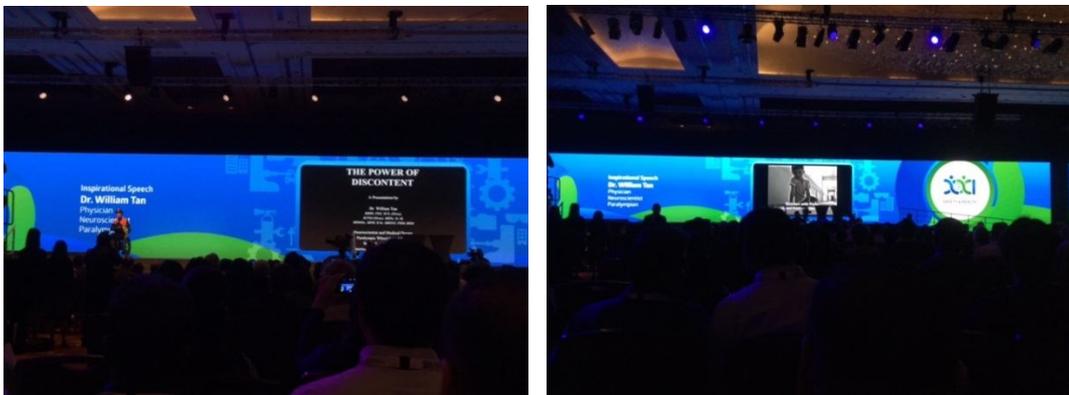


圖 13 第 21 屆世界職業安全衛生大會 9 月 6 日閉幕儀式- Dr.

William Tan 演講

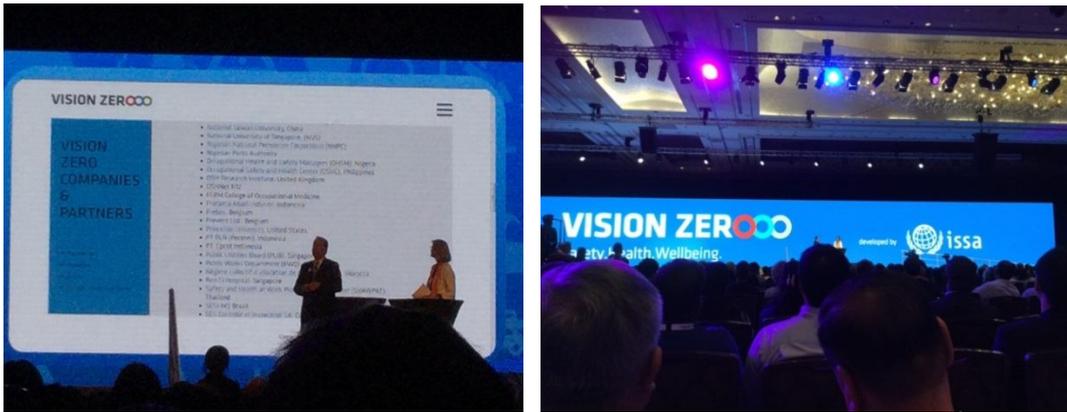


圖 14 第 21 屆世界職業安全衛生大會 9 月 6 日閉幕儀式-閉幕討論
實況



圖 15 第 21 屆世界職業安全衛生大會 9 月 6 日閉幕儀式-新加坡人
力部部長之閉幕演講



圖 16 第 21 屆世界職業安全衛生大會 9 月 6 日-技術參訪實況-職業安全與健康促進措施



圖 17 第 21 屆世界職業安全衛生大會 9 月 6 日-技術參訪實況-職業安全產品測試



圖 18 第 21 屆世界職業安全衛生大會 9 月 6 日-技術參訪人員合影

(四)參訪心得

1. 「零職災願景 (Vision Zero)」已成為世界各國所一致追求目標，此等願景亦是本市安全衛生政策方向，透過與會人士實務經驗分享，藉以作為本市推動相關職業安全衛生之參考，同時，可以減少社會經濟之損失，且助於企業運作之穩定。
2. 「零職災願景」之七個黃金原則可以供企業參考，包括：(1)發揮領導力--展現承諾與決心 (2)識別危險--控制風險 (3)界定目標—制定計畫與方案 (4)確保安全與衛生系統—良好的運作 (5)從機器、設備和工作場所著手確保職場安全與衛生 (6)提升資質—發展能力 (7)投資人員—透過參與調節積極性。
3. 隨著經濟發展型態之改變與科技之應用，未來之工作型態可能會有所改變，同時，對於職業安全與健康政策或機制之推動亦會有所影響，政府部門應關注此議題，並注意現行政策或規定適用性並配合調整，並善用工會及其會員等資源，以利於維護未來勞工工作環境及保障相關權利。
4. 為了推動職業安全衛生業務，除了建置完善法規或制度外，宜有其他輔助措施及吸引企業配合之誘因，並鼓勵企業透過科技的導入、改善工作流程等方式，有效降低職場環境中勞

工暴露於不安全環境之機率。

5. 政府機關對於提升民眾或青年勞工之職業安全衛生意識日漸重視，除透過常見安全衛生教育訓練與宣導加強外，如何建置管制機制或措施來掌握成效亦是重點項目。另本次大會注重於青年勞工議題，辦理多媒體競賽及青年安全工作對話，藉由較新穎做法吸引大眾對於職業安全與健康議題之重視。
6. 根據多數國家或與會人士之經驗分享，勞資政三方合作並凝聚共識，有助於推動及落實職業安全衛生政策，且工會在於職業安全衛生及健康促進扮演一定重要角色，促進各界對職業安全與健康之意識與重視。

二、 新加坡全國職業總工會

(一) 受訪機構簡介

1. 接待人：

(1) Ang Hin Kee, Assistant Director General, NTUC

(2) Florence Tee Li Fong, Principal Special Representative,
International Affairs, NTUC

(3) Sylvia Choo, Director, International Affairs, NTUC

2. 機構地址：

1 Marina Boulevard, Level 10, Singapore

3. 機構電話：

+65 6213 8000

4. 機構網址：

<https://www.ntuc.org.sg/wps/portal/up2/home/>

5. 機構簡介：

新加坡全國職工總會(Singapore National Trades Union Congress，以下簡稱 NTUC)於 1961 年成立，NTUC 是一個全國總工會，串聯新加坡各產業專業協會以及各部門夥伴。NTUC 的目標為幫助新加坡維持競爭力，以及促進勞工就業滿足生活所需；提升會員及勞動者的社會地位與福祉；並推動強健、負責任且關懷之勞工運動。NTUC 的願景希望成為所有勞工階層、年齡及國籍之包容性勞工運動。

NTUC 是新加坡勞工運動的核心，目前有 58 家附屬工會、2 個附屬協會、10 個社會企業、6 個相關機構以及不斷增加的協會及企業夥伴。附屬工會例如航空運輸執行人員工會(AESU)、景點、度假村及娛樂聯盟(AREU)、公職人員合併聯盟(AUPE)、化學工業職工會(CIEU)、醫療保健服務員工會(HSEU)、金屬工業工會(MIWU)等。社會企業如 NTUC 俱樂部、NTUC 平價合作社、NTUC 食品展、NTUC 保險(INCOME)等。相關機構如國內僱員中心(CDE)、新加坡消費者協會、就業和就業能力研究所、移民工人中心(MWC)、王鼎昌(Ong Teng Cheong)勞工領袖學院及新加坡勞工基金會(SLF)。

NTUC 的任務係為不同階層、年齡與國籍之勞工營造一個向上提升的就業環境，透過更好的工作與生活環境，提高勞工的收入並改善勞工生活品質。除了保障勞工權益及促進勞工利益之外，NTUC 亦扮演支持勞工家庭的角色，包括協助各階段生活所需及減輕生活費用。

NTUC 於 2009 年成立 U 關懷基金，初期推動金額約 2 千 3 百萬新幣，用以執行勞工關懷計畫以協助低收入成員及其家庭的生活、支持追求卓越的貧困兒童及青少年、援助老年人，以及培育志願精神讓使生活更有意義。

(二)參訪過程

本次之訪問旨在與 NTUC 建立關係，就國際移工保護與中高齡者之就業議題進行意見交流。首先由 NTUC 國際事務署之 Florence Tee Li Fong 小姐，針對 NTUC 進行介紹，其特別提到 NTUC 未來不只針對藍領階段提供服務，將來也將納入白領階級，而與其他國家相仿，新加坡建立勞資政三方合作關係，惟較特別的是 NTUC 在國會、內閣等國家機構都有代表。另 NTUC 預計於 2019 年辦理全國大會，未來其將秉持三大目標推動相關工作：(1)關懷勞工與公平對待勞工，(2)因應未來經濟發展趨勢、創造良好的工作環境及(3)強化勞資政三方合作機制。

於 NTUC 介紹完畢後，出訪團隊亦以短片之形式介紹臺中市及國際移工服務中心。為了更進一步優化服務中心之服務，本市 2017 年 11 月辦理國際論壇分享執行成果，與邀請各界給予相關建議，爰藉由本次訪問邀請 NTUC 副理事長 Ang Hin Kee 出席本市 11 月辦理之國際論壇，以為更進一步之意見與經驗交流。

雙方並就國際移工保護與中高齡者之就業議題進行意見交流，相關交流內容，摘要如下：

(1) 問：作為新加坡全國唯一的總工會，約有 25% 加入工會，有 75% 未加入，未加入工會者，其權利之保護是如何為之的？

答：在新加坡，有 70% 的勞工受僱於中小企業，他們要組織成工會是有困難，所以目前政府透過工會來辦理活動與各類活動，來協助他們。如果不是工會會員，也是可以透過立法機構之代表或是政府部門來發聲或解決問題。

另不同行業(如：幼托兒所之教師等白領或專業人士)對於參與工會的概念是較陌生的，因此 NTUC 於推廣上，除了藍領階級外，亦嘗試透過其他管道，組織白領工作者，照顧其權益，雖然其仍可能不會加入工會。

最後自由工作者在新加坡也越來越多，值得一提的是，這些自由工作者並不是找不到就業機會，而是不願意受到傳

統的勞資政關係所束縛，所以，在工作型態有所調整或變化，因此，如前所提及的，NTUC 也將嘗試擴大服務網絡至自由業人士與自僱人士。

(2) 問：臺中是全臺灣擁有第二多國際移工的城市，因此，是否方便讓我們有機會更進一步了解新加坡的政策或措施？

答：新加坡目前有 130 萬國際移工。當向全世界開放時，有機會吸引國家所需要之人口，包括：高科技人才、營造業人員、醫療人員等，但也會吸引到不符合需求的人才。新加坡對於不是政策上鼓勵吸引之國際移工會透過一些手段進行抑制，例如：透過租稅措施進行控制，如果是高科技外國人之聘用，則對於企業主所課予的稅較輕(人頭稅)，另是實施比例限制，即外籍勞工與本國勞工有一定的比例。

另一方面，政府補助企業改造工作流程，以降低對國際移工需求，例如：機械化或智慧化。當然，對於機械化或智慧化，新加坡也有遇到一些反對的聲音，但是，在面臨國際趨勢演進之下，這還是必須要如此做。

又，國際移工至新加坡工作可能會發生水土不服的情況，因此，如果能代表為其發聲是較好。然而，新加坡是由多元種族所組成，故在新加坡本地找到同國籍之代表相較容易。

另外，目前新加坡政府意識到一個很困難解決的問題，例如：相同種族的人很容易聚集，當相同種族在同一個企業或產業內聚集起來，會造成本國居民不舒服感之困擾。

(3) 問：國際移工在新加坡是否有勞基法規之適用？其受到的對遇是否都相同？

答：國際移工在新加坡工作有勞基法之適用，所受到的對待與本國公民大部分都相同(新加坡沒有基本工資規定)，較大的不同的是，職業教育或訓練之補貼只針對本國勞工，不針對國際移工。另非法勞工或滯留勞工會被遣送回國(有時會被鞭刑)。如果把房子出租給非法勞工或滯留勞工，屋主會被罰款，之前曾有課予刑事責任(坐牢)。

(4) 問：新加坡對於中高齡勞工之協助有那些？

答：在新加坡，中高齡勞工面臨三大問題，第一個問題是經濟轉型，故培育中高齡勞工，使其有機會轉職是重點，但這樣的培訓需要很久的時間，有可能長達一年。所以，新加坡政府做了一項決策，針對在職員工，補貼中高齡勞工之培育費用與未工作時之企業損失。針對未工作者，政府支付 80%-100%的培育費用，以協助其能夠轉職至其他企業。第二個問題是新加坡延長退休年齡，從 62 歲延長至 65 至 67 歲。於達退休年

齡後，如願意工作，則可以延長至 65 歲至 67 歲方退休，原因是因為新加坡人於退休之後的生活要求仍很高，尤其醫療成本很高，故有必要延長退休年齡。

第三個問題是每月住在政府所建置之組屋的租金約 50 新幣，所以，有些人會去從事較低薪的工作(如：洗碗)，作為生活補貼。不可否認地，對於低收入的過度照顧，導致其不一定有意願學習，故未能夠轉入薪資較高的行業或工作。

除上列之議題之外，洪副理事長提及人力的招募是工會目前遇到較大的問題，例如：人員因薪資議題至政府部門或私人企業工作，其與出訪人員就此一議題進行交流。針對此一議題，我國與新加坡較大不同的是，人員並不容易向政府部門流動，因為在我國的政府部門工作必須要具有公務員身份。然而，臺灣工會在人才招募也有面臨相仿的問題。因此，臺中市政府希望工會可以擔負較多的責任或服務，例如：將移工服務中心交由其經營，或是經營一些事業或業務，而能夠增加收入。當然，至工會工作的人，通常我們會希望其具有熱忱，才能夠在工會服務較久。關於此部分，洪副理事長亦提及新加坡政府確實也有將一些輔導或課程交由工會辦理，雖然，政府的會計較僵固。然而，臺灣的工會如果能夠有這樣的機會，或許可行的。

(三)參訪照片



圖 19 出訪人員參訪 NTUC 實況



圖 20 出訪人員與 NTUC 副理事長等人合影

(四)參訪心得

1. 透過 2017 年第 21 屆世界職業安全衛生大會多數國家或與會人士之經驗分享相仿，勞資政三方架構與共識之形成有助於職業安全與健康議題之促進以及勞工權益之保障。於新加坡亦同，而且 NTUC 於其說明中，未來將持續強化勞資政三方之合作關係，此未來或許可以為本市施政所參考。
2. 經濟轉型對於勞工工作型態之影響與中高齡者就業之衝擊，應受到重視。除了給予培訓，協助其轉職之外，尚有其他面向須考量，包括雇主聘用中高齡者之誘因以及對青年人工作機會之擠壓。
3. 國際移工權益之保護，如有代表能為其發聲或許較好。此部分，未來是否要鼓勵新移民加入工會作為國際移工之代表，為其權益發聲，或許可以考量。
4. 國際移工因其種族、文化或背景等因素，容易聚集，並為訊息之交換。此等情況或有助於國際移工身心之平衡，但可能因其群聚而引發本國在地居民之不舒服感。是故，或許宜有相關機制促進國際移工與當地居民之交流或是使當地居民對於國際移工有較多的認識，以降低本國居民之不舒服感。
5. 根據 NTUC 之經驗與新加坡政府作法，如工會能夠擔負較多

的責任或服務，例如：辦理職業訓練或輔導業務，或是經營一些事業或業務，而能夠增加收入，對於人才的招募或留任是較好的。

三、 ITUC-Asia Pacific

(一)受訪機構簡介

1. 接待人：

- Shoya Yoshida, General Secretary, ITUC-Asia Pacific
- Kathleen Koa, Division Director, External Relations and Coordination, ITUC-Asia Pacific

2. 機構地址：

One Marina Boulevard, 9th Floor, NTUC Center, Singapore 018989

3. 機構電話：

+65 6327 3590

4. 機構網址：

<http://www.ituc-ap.org/wps/portal/ituc-ap/home>

5. 機構簡介：

ITUC-AP 於 2007 年在印度成立，為國際工會聯合會 (International Trade Union Confederation, ITUC) 之分支機構，擁有 18.6 百萬名會員，並有來自 30 個亞洲及太平洋地區國家的 50 家全國工會加入該組織。

ITUC 係世界最大的工會聯合組織，並有悠久的歷史溯源。一般而言，國際工會聯合會概念及其前身可被推至西元 1901 年在哥本哈根的第一次自由公會會議上被提出；西元 2007 年，由國際自由工會聯盟(International Confederation of Trade Unions, ICFTU) 與世界勞工聯盟(World Confederation of Labor, WCL)兩大國際性公會所合併而成(ICFTU 與 WCL 於 2016 年 10 月解散)；ITUC 由來自 161 個國家，總計有 325 個會員組織所共同組成，約有 1 億 7 千萬名會員。

為了確保亞太地區勞工之人權與為其發聲，ITUC-AP 與 Global Union Federations (GUFs)共同合作，推動經濟正義、民主與和平；另，ITUC-AP 遵循工會民主與獨立原則，並於其區域憲章(Regional Constitution)敘明此原則；末，ITUC-AP 透過四年一次的區域會議進行商討(3RD ITUC - ASIA PACIFIC REGIONAL CONFERENCE 於 2015 年在印度舉辦¹)，與區域理事會(Regional General Council)和區域執行局(Regional Executive Bureau)負責管理。

¹ <http://www.ituc-ap.org/wps/wcm/connect/0ae216d9-eae5-461e-b7be-217ad5c1d75b/3RC+-Decisions.pdf?MOD=AJPERES>。

(二)參訪過程

本次參訪的重點主要有二個議題，一是針對國際移工之保護進行意見交流，一是針對中高齡者之就業議題進行討論。同時，因應臺中市政府擬於 2017 年 11 月辦理與勞工保護政策有關之國際論壇以及於 2018 年辦理世界花卉博覽會，於本次拜訪中亦向秘書長提出邀請，期望能夠請秘書長參與 2017 年之國際論壇並分享 ITUC-AP 對於國際移工之照顧，以及於 2018 年時，能夠至臺中市辦理 ITUC-AP 大會。

除國際移工之保護與中高齡者之就業議題外，本次之訪問亦談及職業安全與健康促進措施，相關交流內容摘要如下：

1. 國際移工之保護

就有關於國際移工之保護部分，ITUC-AP 秘書長表示在前一次會議時，會議參與者對於國際移工之保護有以下點共識，包括：

(1)對於國際移工應給予平等的對待與服務，(2)落實三方機制，以保護勞工權益，(3)勞工輸出國與輸入國宜就國際勞工之保護進行合作與交流。其間，ITUC-AP 促進勞工輸出國與輸入國之間合作與交流，同時，會促進當地之工會、國際組織或政府部門共同合作，保護國際移工權益，或促成國際移工服務中心的設立。

2. 中高齡者之就業

就有關於中高齡者之就業的部分，ITUC-AP 秘書長表示在部分老人化國家這是一個很重要的議題，其致力於創造一個適合中高齡就業的環境以鼓勵中高齡者就業。另，針對中高齡者就業而發生的薪資落差，有政府會給予補貼。然而，在亞太地區，除了韓國、香港、日本與臺灣以外的國家，很少經歷到老人化與少子化之議題，因此，ITUC-AP 秘書長表示，或許未來此些面臨老人化議題之國家可以針對中高齡者就業此議題，進行意見交流與合作，以尋求解決方案。針對此部分，出訪人員表示如有機會在 2018 年邀請 ITUC-AP 至臺中市辦理大會，屆時可安排將中高齡者之就業議題納入國際交流的範疇。

3. 職業安全與健康之促進

除前揭之議題外，本次之訪問亦談及職業安全與健康促進措施，ITUC-AP 本身並未辦理相關的訓練或教育課程，但如果會員於辦理課程或訓練時，有需要 ITUC-AP 之協助，ITUC-AP 會應會員之請求而給予協助。另，秘書長提及在部分地區 ITUC-AP 有協助職業安全與健康之促進，例如：針對

2013 年孟加拉發生大型建物倒塌乙案，ITUC-AP 以國際影響力，協助組織基金，以協助受難者，同時，與孟加拉政府、企業與工會等共同發展建物之標準。

(三)參訪照片



圖 21 出國人員參訪 ITUC-AP 實況



圖 22 出國人員與 ITUC-AP 秘書長等人合影

(四)參訪心得

1. 根據本次之參訪，有關於國際移工之保護，給予其和本國勞工相同之待遇或許是國際趨勢。同時，勞工輸出國與輸入國之合作與交流亦同，而此部分於本市亦已著手為之，例如：2017年11月擬規劃辦理之國際論壇，即擬邀請亞太地區國家之工會組織或國際組織進行意見交流與經驗分享。
2. 根據本次之參訪，可以發現中高齡者就業議題在北亞地區受到關注，依 ITUC-AP 秘書長之建議，未來可以針對此議題進行國際交流與合作，以尋求解決方案。為此，如有機會在2018年邀請 ITUC-AP 至臺中市辦理大會，屆時可安排將中高齡者之就業議題納入國際交流的範疇。

四、 NTUC Learning Hub Industry Skills Centre @ Benoi

(一)受訪機構簡介

1. 接待人：
 - Bryan Quek, Senior Director, NTUC Learning Hub
 - John Choong, Senior Operations Manager, NTUC Learning Hub
2. 機構地址：

60 Benoi Road, #01-08, Singapore 629906

3. 機構電話：

+65 6867 8743

4. 機構網址：

<https://www.ntuclearninghub.com/about/overview/>

5. 機構簡介：

NTUC Learning Hub (LHUB™)成立於 2004 年 1 月，是一家社會企業(Social Enterprise)，其前身為 NTUC 電腦訓練中心，該中心隸屬於 NTUC 管理與研究事業單位下之技能發展部。

NTUC Learning Hub 的願景是建立民眾終身的就業能力，其目標是透過建構民眾就業能力與創造更好的工作生活，以成為終身教育與訓練之領導者。

NTUC Learning Hub 有數個不同類型的訓練或教育中心，包括：提供就業媒合之 e2i (Devan Nair Institute of Employment and Employability)、提供技能訓練之 LHUB Industry Skills Centre @ Benoi 等。

(二)參訪過程

本次參訪之 NTUC Learning Hub Industry Skills Centre @ Benoi 是全新加坡最大的訓練中心，佔地 5 萬平方公尺（地是租的，向政府租地，但是長期契約，上面的建物由 NTUC 自行建置，設備亦自行購置），目前有 15 間教室，以及有訓練中心，可謂是一個職業訓練中心。

NTUC Learning Hub Industry Skills Centre @ Benoi 以社會企業型態經營，對受訓者收費，以堆高機為例，3-5 天的課程，250-300 元新幣，公民政府補助 80%。上完課，可在此考試，取得操作資格（含職安在內）。值得一提的是，職業安全與技術訓練是併行。

另，於 NTUC Learning Hub Industry Skills Centre @ Benoi 擔任教練必須具一定資格。一般來說，十年的實務經驗，二年的教練課程，五年的教學經驗，才可參與考試，取得資格。

(三)參訪照片

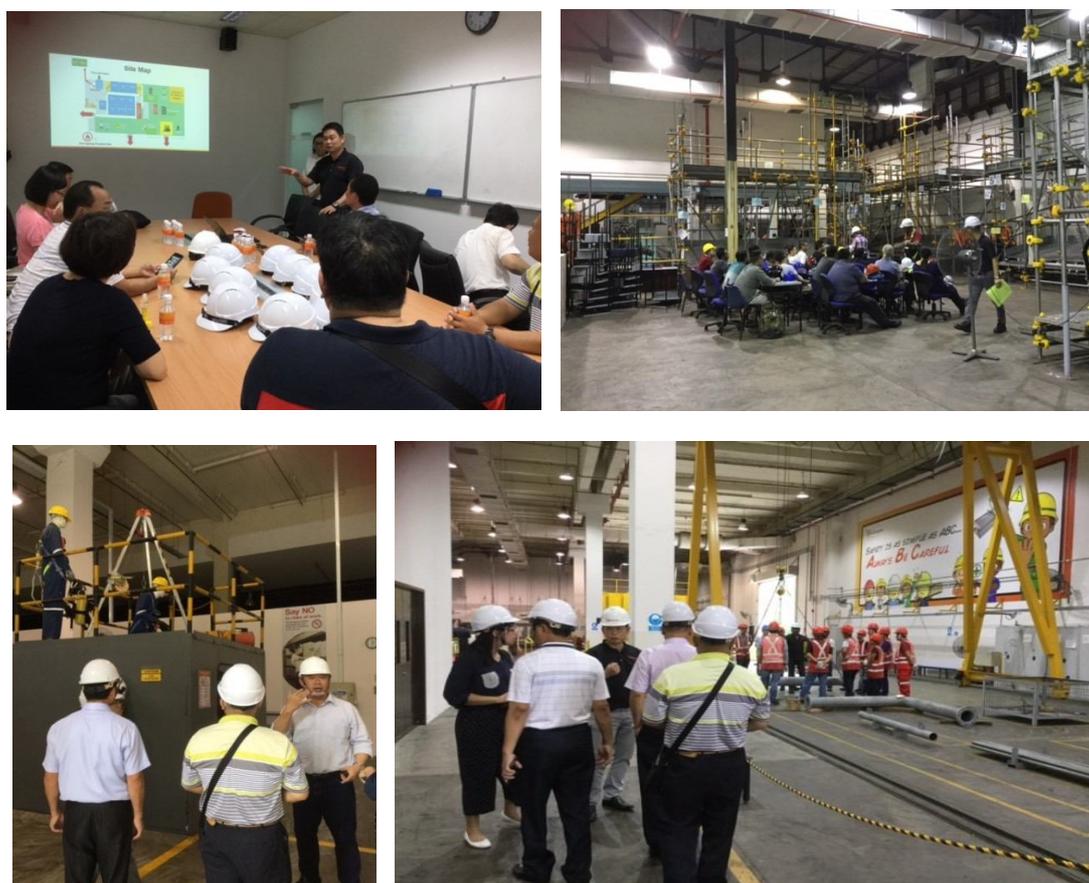


圖 23 NTUC Learning Hub Industry Skills Centre @ Benoi 參訪實況



圖 24 出訪人員與 Bryan Quek 等人合影

(四)參訪心得

1. 職業訓練對於進入職場前之勞工具有一定意義，因其可以協助勞工快速進入工作狀況。同時，在技術操作過程中，納入職業安全注意事項，或可以強化印象與建立良好的工作習慣。
2. 對於具有高危險性之工作施以教育訓練雖然重要，但是，施予教育訓練之教練的培訓與資格的認定亦是相當重要的，尤其是透過資深且具有實務經驗之教練的教導，除了技術本身之外，對於職業安全應注意之事項應可以為一定程度之提醒與教導，以降低勞工進入職場發生意外之機會。

五、 Employment and Employability Institute (e2i)

(一) 受訪機構簡介

1. 接待人：

- Gary Goh Choon Siah, Deputy CEO, Professional Services
- Kristin Loh, Assistant Director, e2i west
- Tan Cheong Ling, Head, Hospitality & Business Services
- Tracy Tan Hwee Suan, Senior Employability Coach, Career Guidance

2. 機構地址：

80 Jurong East St 21, Level 2 Singapore 609607

3. 機構電話：

+65 6471 5839

4. 機構網址：

<https://e2i.com.sg/>

5. 機構簡介：

提供就業媒合之 e2i (Devan Nair Institute of Employment and Employability) 是 NTUC Learning Hub 下的一個機構，以提供就業媒合為主。除此之外，e2i 也執行相關政府計畫，協助提升就業者之權益。

(二) 參訪過程

本次參訪 Institute of Employment and Employability 之行程，包括二個部分，一部分是一站式服務點的參訪，一部分是訪問此一機構之

營運者。

於一站式服務點參訪時，根據 Kristin Loh 與 Tracy Tan Hwee Suan 之說明，e2i 為就業培訓中心，協助新加坡人（在職者與失業者）參與就業。該中心提供現場的職業諮詢，會安排求職者職業導師，職業導師會安排他們參加培訓課程，訓練結束後，安排參與職業媒合活動。另，導師是兼職和全職，須受培訓。

於訪問此一機構之營運者，根據 Tan Cheong Ling 之說明，e2i 以成為一個創造就業良機與職能技術的領先機構，並期望能夠縮減求職者與雇主的落差，其服務項目包括二個部分，一是就業服務，另一是職能培訓服務，並透過以下三類計畫之執行，來促成相關願景的實現，包括：(1)作為勞工者的家(Home for worker-centric)，相關計畫包括優化職場計畫、增長與同惠計畫...等，(2)人力與生產力服務(manpower & productivity services)，相關計畫包括轉換職業跑道服務、專業發展課程、就業展覽、分享人力資源之最作實務作法，(3)群體服務(house for cluster initiatives)，相關計畫包括技能培訓、就業媒合等。

針對就業媒合服務而言，根據 Tan Cheong Ling 之說明，e2i 針對求職者會評估其就業條件是否符合工作要求，如符合，則安排參加招募會或是工作面試；如不符合，分為二種情況處理，如是輕度不符合者，則安排其接受密集訓練，之後，才會安排安排參加招募會或是工

作面試；如是就業條件嚴重欠佳者，則安排其參與培訓課程、職能提升營、或執行人員工作坊等，之後，才會安排安排參加招募會或是工作面試。

另，於此次訪問中，較值得一提的，e2i 所執行的增長與同惠計畫，該計畫運用政府補助，改善勞工低薪之情況。根據 Tan Cheong Ling 以 McDonald 為例之說明，其補助為計畫實施範圍，補助（對象是資方）每項目金額的 50%（最高），但每項目不可超過 300,000 新幣，一旦成效出現，如：員工薪資增加，才會發補助，本計畫之重點在於企業須能夠改善工作流程，提高員工生產力。

(三) 考訪照片



圖 25 Employment and Employability Institute 參訪實況



圖 26 出訪人員與 Gary Goh Choon Siah 等人合影

(四) 參訪心得

1. e2i 所執行的增長與同惠計畫，運用政府補助，改善勞工低薪之情況，其作法或許可以為我們所參考，故企業能夠改善工作流程，提高員工生產力，同時，能夠將利益回饋至勞工身

上，可以創造一個雙贏的局勢。

2. e2i 之就業協助服務或可參考其結合了求職者就業條件評估、培訓安排、以及就業媒合活動，如：就業條件嚴重欠佳者，安排其參與培訓課程、職能提升營、或執行人員工作坊等，後續方安排參加工作面試。同時，安排職業導師，協助求職者。

陸、 建議事項

本次世界職業安全衛生大會主要以零職災願景為主題，探討內容從預防致死、致殘職業災害，漸漸轉變為勞工健康照護及建構職場安全文化等較新穎之議題，且邀集全球產官學界人員分享於推動安全衛生相關經驗，除提及相關安全設備防護與管理外，更強調未來對於提升企業雇主和勞工之職業衛生基礎觀念及態度是一項重要工作。另藉由本市轄內工會與本局同仁實際參訪 NTUC 及 ITUC-AP 等組織實際運作及雙邊意見交流，故歸納出以下 4 點來強化本市勞工權益及職業安全衛生之防護網，並期望企業逐步邁向職場安全、衛生及健康，以達到職場零災害之目標：

一、就國際關注的勞動議題邀請 ITUC-AP 或新加坡等

**ITUC 成員國相關工會組織或團體來台進行經驗交流與
共同合作，期望為臺中的勞工追求更多福祉：**

- (一) 本市產業國際移工數 6 都排名第二，鑑於國際移工人數與日俱增，於 2017 年率先整合資源成立國際移工生活照顧服務中心。
- (二) 本次世界職業安全衛生大會，提及就業人口高齡化及少子化之議題，且為解決少子化所衍生之勞動力缺口及退休人員造成社會成本增加等問題，新加坡政府業已有相關推動實務經驗。
- (三) 另本次參訪新加坡對於國際移工保護策略，其係給予國際移工與本國勞工相同待遇，且國際趨勢亦提倡勞工輸入、出國，彼此間合作與交流。
- (四) 為使本市對於國際移工保護相關政策或作法與國際趨勢接軌，建議本市可辦理國際論壇或會議，就國際移工保護、中高齡者就業等勞動力議題，邀請相關工會組織或團體參與並進行經驗交流，據以為本市後續相關政策或作法研擬之參考，並期望共同研提合作計畫。

二、勞工安全衛生教育訓練列為勞動檢查、輔導重點事項，

以有效提昇本市勞工安全衛生意識：

- (一) 本次世界職業安全衛生大會強調以人為本之概念，藉由有效的教育訓練，逐步建立安全文化。查本市歷年重大職業災害之未接受安全衛生教育訓練平均比例達 78(%)，顯見本市雇主尚未全面重視勞工安全衛生教育，為造成職災案件居高不下為主要原因之一。
- (二) 又本市自 105 年開始推動臺中市高風險事業工作者職業安全衛生教育訓練實施計畫及臺中市職場安全衛生促進暨減災計畫，105 年推動成效職災保險給付千人率降至 4.137 及死亡人數降至 38 人，逐步邁向國際組織所推廣零職災願景之目標。
- (三) 是以，建議未來規劃將職業安全衛生教育訓練列為本市勞動檢查重點，第一次檢查時，如未依規定實施安全衛生教育訓練者，將輔導其參加本市工安卡計畫，使事業單位所僱勞工均接受完整之安全衛生教育訓練。於第二次檢查時，事業單位仍未依規定期限改善者，則依法處理。

三、配合本府補助及獎勵企業投資相關辦法，向企業宣傳職

訓、薪資補助及勞工大學專班獎勵等措施：

- (一) 經了解新加坡政府補助企業相關經費，以改善工作流程及提升勞工生產力，與本府經濟發展局所訂「臺中市政府補助及獎勵企業營運總部投資實施辦法」，如勞工職訓費用補助、勞工薪資補助及勞工大學專班課程獎勵等立意相符。
- (二) 為協助本市企業有效改善整體工作流程，提升勞工生產力，並促進本市產業轉型及升級，勞工局將與本府經發局共同向企業宣傳有關勞工職訓費用補助、勞工薪資補助及勞工大學專班課程獎勵等措施。

四、以「讓失業者返職場」、「留在職者續崗位」、「替退休者造機會」為目標，協助中高齡者勞動力再運用：

- (一) 建置中高齡分級制資料庫：
 1. 白金職人資料庫：依中高齡者求職需求(如偏好部分工時、特定產業)或已具備之相關證照等資格，建置職人專區。
 2. 不老高手資料庫：招募具豐富經驗或技術熟

練的退休者，提供事業單位有相關專業人力需求時運用，並透過青銀交流達成傳承。

(二) 透過專業團隊訪視事業單位以建構友善中高齡就業環境：

1. 辦理事業單位及中高齡勞工訪視，了解留用及回聘中高齡勞工所面臨問題，結合中高齡者在職訓練、職務再設計等方案，輔導企業建立有效人力運用且強化競爭力。
2. 運用個案管理模式，追蹤及輔導本市轄內擬 5 年內退休之中高齡在職勞工，並將服務情形記錄於個案管理資料庫，輔導續留職場。
3. 開發本市具指標性友善廠商，並協助申請辦理各項選拔表揚活動，樹立本市模範友善中高齡廠商典範。

柒、 附件

- 一、 世界職業安全衛生大會手冊
- 二、 NTUC 業務簡報
- 三、 e2i 資料彙整

A Global Vision of Prevention

2nd Announcement

Global Forum for Prevention
3-6 September 2017, Singapore



XXI WORLD CONGRESS ON
SAFETY & HEALTH
AT WORK 2017



International
Labour
Organization



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MINISTRY OF
MANPOWER

A Global Vision of Prevention

Global Forum for Prevention

3–6 September 2017

Sands Expo and Convention Centre
Marina Bay Sands, Singapore

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Minister for Manpower, Singapore (MOM)



Vision Zero—A Journey together with Tripartite Partners

Singapore is honoured to host the XXI World Congress on Safety and Health at Work in 2017, together with the International Labour Organization (ILO) and the International Social Security Association (ISSA).

This is the first time that the World Congress is held in Southeast Asia. We hope this will help advance the global agenda on occupational safety and health (OSH) in the region.

Striving for a world with fewer serious or fatal work-related accidents or illness is one of the great challenges that confronts us all. To respond to these challenges, we need to keep ourselves up to date with the latest OSH developments and constantly review existing OSH practices and standards so that they remain relevant. Government must work towards providing a stable business environment supported by strong OSH standards. At the company level, employers and workers should work together to cultivate a safe and

healthy working environment as it forms the basis for a more productive and engaged workforce. We can only progress on our journey towards "Vision Zero" through the shared commitment of companies, governments and workers across the globe.

Singapore embraces "Vision Zero". We launched our "Vision Zero" Movement in 2015 to cultivate the mindset that all injuries and ill health due to work are preventable. Our tripartite partners are focusing on building capabilities and raising awareness at all levels—leaders, supervisors and workers. There is much we can do to make "Vision Zero" pervasive across all sectors of our economy and at all levels of our workforce.

On this challenging journey towards "Vision Zero", we can and should learn from each other. The World Congress provides a valuable platform for policymakers, employers, unions and OSH experts and practitioners, from across the globe, to discuss, brainstorm, and implement meaningful initiatives in our respective home countries.

I look forward to welcoming the global OSH community to the World Congress in Singapore in 2017. Let us make our workplaces safer and healthier so that every worker everywhere can go home safely and healthily every day.

Lim Swee Say
Minister for Manpower
Ministry of Manpower, Singapore



Director-General of International Labour Organization (ILO)



Moving towards Vision Zero, preventing all work-related injuries and ill health

The XXI World Congress on Safety and Health at Work 2017 will serve as an excellent opportunity to exchange knowledge and experience and set the course for further concrete progress in making workplaces safer and healthier, notably through building a global prevention culture.

Globally, an estimated 2.3 million workers die every year from occupational accidents and work-related diseases. In addition, many millions of workers suffer non-fatal injuries and illnesses. These estimates imply that every day approximately 6,400 people die from occupational accidents or diseases and that 860,000 people are injured on the job.

This represents a colossal social and economic burden for enterprises, communities and countries, not to mention an appalling human and financial problem for workers and their families. The inevitable conclusion is that we have to do better and more, and we can.

The great majority of workplace accidents and diseases is preventable and realizing our vision of zero workplace injuries and sicknesses is possible.

But good intentions have not always been implemented or sustained. While some may be tempted to cut back on occupational safety and health (OSH), especially during an economic downturn, protecting workers is not a luxury to be sacrificed in hard times. OSH is, in fact, an engagement and a responsibility which could add value and give new impetus to the process of economic recovery generating sustainable development and at the same time successful businesses.

Moreover, OSH is a basic human right as well as a labor right. It is our duty to reaffirm the right to a safe working environment for all working people.

The ILO's standards and development cooperation are part of the important capital that we bring to 186 ILO member States to increase capacity to realize these rights.

The 2017 Congress will discuss and debate how to further instill a culture of preventing work-related ill health, accidents and death. The focus will be on finding solutions, rather than finding fault. It will draw upon milestones such as the Seoul Declaration (XVIII World Congress for Safety and Health at Work, 2008), Istanbul Declaration (XIX World Congress, 2011) and work.

Guy Ryder
Director-General
International Labour Organization (ILO)



President of International Social Security Association (ISSA)



Building a global culture of prevention and making Vision Zero a reality

The world of prevention is changing. The good news is that fatalities, caused by occupational accidents, are on the decline in many countries. However, amongst the main challenges that we are facing today are the far too many diseases which are caused by work. The International Labour Organization (ILO) confirms this trend as it estimates that out of the 2.3 million annual work-related fatalities, over 1.9 million are caused by occupational diseases.

The XXI World Congress on Safety and Health at Work 2017 presents itself as a great opportunity for the international occupational safety and health (OSH) community to tackle these challenges and to advocate a holistic approach to prevention, which addresses occupational accidents and work-related diseases from various angles, one of the key strategies being Vision Zero.

Together with our host, the Ministry of Manpower (MOM) of Singapore, the ILO and other ISSA partners, we believe that a world without a single work-related fatal accident or serious injury is possible. To reach this

goal, Vision Zero requires a clear, coherent, concise, cohesive and comprehensive strategy as well as joint efforts at every level. Prevention must become a part of our common culture and be embraced by everyone. A cornerstone of the Vision Zero strategy must be that all work has health and safety boundaries that should not be crossed. The ISSA calls upon social security institutions to support these processes through prevention measures, incentive programmes, along with other tools that can lead to zero fatalities at the workplace.

A holistic approach to prevention also puts more emphasis on the health of workers. It takes into account that both work-related and non-work related factors are impacting the health and productivity of workers and that the workplace provides excellent opportunities to promote health and prevent diseases. That is why many companies already have workplace health promotion programmes in place. Occupational health services are to play a key role in health promotion. Not only do regular health screenings contribute to reducing the prevalence of chronic diseases, but they allow for early intervention, thus helping to avoid temporary or long term work incapacities.

The ISSA hopes that this Congress will generate a paradigm shift so that one day, a worldwide culture of prevention and Vision Zero becomes a reality. With its Centre for Excellence, the ISSA possesses a powerful instrument to promote the values of prevention to a large community. Furthermore, the ISSA's Prevention Guidelines, workshops and tools for social security administrations provide support and easy-to-implement solutions that can lead to significant improvements in the area of OSH, workplace health promotion and return to work.

The ISSA and its unique network of Prevention Sections are immensely proud of being the co-organisers of the World Congress. We look forward to welcoming you in Singapore.

Errol Frank Stoové
President

International Social Security Association (ISSA)



President of XXI World Congress on Safety and Health at Work 2017



Embracing Vision Zero— Where every accident is preventable

Singapore is proud to host the XXI World Congress on Safety and Health at Work 2017 from 3 to 6 September 2017. As Chairperson of the International Organising Committee, I invite you to join us in Singapore to exchange ideas, experiences and solutions to advance occupational safety and health (OSH).

At the Singapore Ministry of Manpower, we believe that attention to OSH not only makes good business sense, but is also the socially responsible thing to do. Singapore has made significant progress in workplace safety and health since we revamped our national framework in 2006. A key enabler is a strong culture of safety and health. This starts with a mindset shift—from one of fault-finding to one that focuses on finding solutions to prevent injuries and ill health.

Vision Zero advocates a long-term perspective of OSH. That is why we believe that every company should embrace Vision Zero—where every accident is preventable. We

can only achieve this vision with the commitment of every stakeholder—employers, workers, unions and the government.

Together with the International Labour Organization (ILO) and the International Social Security Association (ISSA), we are committed to organising a Congress that will enlighten, enrich, and enhance the learning opportunities for all. It is important that we continue to keep ourselves updated as the working environment is ever-changing. We need to keep ourselves ahead of the curve. The Congress will cover a whole spectrum of topics from changing mindsets and paradigm shifts, to ensuring how we can meet challenges in the future World of Work through the integration of safety and health in an efficient manner. Lastly, protecting workers is at the heart of what OSH is about and hence a people-centred approach is required.

These important topics will be discussed through a wide-ranging programme, such as keynote, technical sessions and symposia complemented by technical and social tours, a International Safety and Health Exhibition as well as many side events. Participants will be updated on the latest global trends and developments, as well as best practices in OSH throughout the Congress. The International Media Festival for Prevention will also showcase various OSH films and multimedia products from all over the world.

We will be creating networking opportunities to help participants meet others from across the world. Do remember to also take some time to explore our beautiful city and take in the sights, sounds and various food and cultural activities that Singapore has to offer.

Join us in Singapore and I look forward to welcoming you as we work together to create a safe and healthy workplace for all.

Ho Siong Hin
Commissioner for Workplace Safety and Health
Ministry of Manpower, Singapore

Congress Information





Overview

Objectives

- Provides a forum for the exchange of knowledge, practices and experience between participants with the aim of promoting safety and health at work.
- Reinforces and builds networks and alliances while laying the groundwork for cooperation and strengthening relationships among all concerned.
- Provides a platform for the development of knowledge and strategic and practical ideas that can be immediately put into use.

When and Where Do We Meet?

Date 3 to 6 September 2017

Venue Sands Expo and Convention Centre,
Marina Bay Sands, Singapore

Who should Attend?

Everyone who is interested and handles workplace safety and health issues at work.

- High-level government officials, high-level decision-makers in the public and private sectors;
- Chief Executive Officers (CEOs) and labour leaders;
- Occupational Safety and Health (OSH) professionals such as safety engineers, safety technicians, occupational hygienists, scientists, and so on;
- Occupational physicians and others dealing with occupational medicine;
- Labour inspectors and safety and health inspectors;
- Instructors, trainers and teachers in the field of OSH education;
- Trade unions, workers and their representatives;
- Employers and their organisations, including human resource (HR) managers;
- Social security institutions;
- Public and private OSH organisations;
- International and regional organisations;
- Manufacturers and importers of safety materials and safety equipment;

- Experts in communication and public relations; and
- Media representatives and journalists.

Other Information

Congress Languages

The official World Congress 2017 languages are English, French, German and Spanish. Simultaneous interpretation will be provided for all keynote and technical sessions. The language of the symposia will be English. Interpretation into other World Congress 2017 languages may be provided.

Website

For more information on World Congress 2017, visit www.safety2017singapore.com

Follow us

Search for "World Congress 2017" on



Organisers

International Labour Organization (ILO)
International Social Security Association (ISSA)
Ministry of Manpower, Singapore (MOM)





Motto and Main Topics

A Global Vision of Prevention



Topic 1: Vision Zero—From vision to reality

Vision Zero aims to inculcate a mindset that all injuries and ill health arising from work are preventable. It calls for a paradigm shift at every level of an organisation, from one of fault-finding, to one that focuses on finding solutions to prevent injuries and ill health. To achieve this would require commitment from all stakeholders across all levels in the workforce.

Topic 2: Healthy work—Healthy life

Our future World of Work is becoming more challenging, complex and fast-paced. Correspondingly, the link between work environment and employees' health is getting stronger. To improve employees' health and ensure that they can work longer and live

healthier, the interconnected issues of occupational safety and employees' health are best managed in a comprehensive and integrated manner. The integrated approach is one where employees and employers work together continuously to sustain, protect and promote each other's safety and health in the workplace.

Topic 3: People-centred prevention

Protecting employees is the heart of what occupational safety and health (OSH) is about. To build inclusive workplaces for OSH to thrive, components such as demographic changes, ageing, gender, culture and education are important. To support these efforts, sustainable strategies for the promotion, protection and education of our people are critical.



Congress Programme

	SUN 3 September	MON 4 September	TUE 5 September	WED 6 September
Morning	<ul style="list-style-type: none"> Group Meetings 	<ul style="list-style-type: none"> Special Media Session ILO + ISSA Reports Keynotes 	<ul style="list-style-type: none"> Keynotes Technical Sessions 	<ul style="list-style-type: none"> Symposia Closing Ceremony
Afternoon	<ul style="list-style-type: none"> Tripartite Forum Opening Ceremony 	<ul style="list-style-type: none"> Technical Sessions Symposia 	<ul style="list-style-type: none"> Youth Forum for Prevention Symposia 	<ul style="list-style-type: none"> Technical Tours Group Meetings
Evening	<ul style="list-style-type: none"> Welcome Reception 		<ul style="list-style-type: none"> Singapore Night 	
Concurrent		<ul style="list-style-type: none"> International Media Festival for Prevention Youth and OSH Forum International Safety and Health Exhibition Poster Exhibition 		

* Programme is subject to change.



Keynotes

Renowned international speakers will introduce and highlight the urgency of the three main topics of World Congress 2017 before delegates are invited to attend technical sessions and symposia which will explore these important topics.

Technical Sessions

Technical Sessions

Organiser

Topic 1: Vision Zero—From vision to reality

T1: Vision Zero

T2: Leading strategies for a systems approach to OSH

ISSA

International Social Security Association

ILO

International Labour Organization

Topic 2: Healthy work—Healthy life

T3: Compliance strategies and good practices on OSH

T4: Total workplace safety and health

ILO

International Labour Organization

MOM, Singapore

Ministry of Manpower, Singapore

Topic 3: People-centred prevention

T5: The future of prevention—"The fourth industrial revolution"

T6: Regional networks and approaches to a safe and healthy workplace

ISSA

International Social Security Association

MOM, Singapore

Ministry of Manpower, Singapore



Symposia Topics⁺

Symposia	Main Organiser
Benchmarking successful prevention strategies on OSH	DGUV German Social Accident Insurance (Deutsche Gesetzliche Unfallversicherung)
Good practices on OSH in SMEs	INRS Institut National de Recherche et de Sécurité, France and EU-OSHA European Agency for Safety and Health at Work
Management of OSH in the mining sector: Seven golden rules in mining	ISSA Mining Section ISSA International Section on Prevention in the Mining Industry
OSH in agriculture: Traditional and emerging risks	OSH Bureau, Thailand Bureau of Occupational Safety and Health, Department of Labour Protection and Welfare, Ministry of Labour Department of Labour Protection and Welfare, Thailand and ISSA Agriculture Section ISSA International Section on Prevention of Occupational Risks in Agriculture
OSH in the new digital world	ISSA Machine and System Safety Section ISSA International Section on Machine and System Safety
OSH in the application of nanotechnologies	IOM, Singapore Institute of Occupational Medicine, Singapore
Improving OSH in global supply chains	ILO International Labour Organization
Climate change and green jobs	UNITAR United Nations Institute for Training and Research and ILO International Labour Organization
Sustainable and effective OSH practices in construction	ISSA Construction Section ISSA International Section on Prevention in the Construction Industry
How can Vision Zero be a success in the transport industry?	ISSA Transport Section ISSA International Section on Prevention in Transportation and ISSA Chemistry Section ISSA International Section on Prevention in the Chemical Industry
Prevention pays! The role of accident insurance and the return to work reintegration	ISSA Technical Commission on Insurance against Employment Accidents and Occupational Diseases



Symposia Topics

Symposia	Main Organiser
A culture of prevention on OSH	ILO International Labour Organization and MOM, Singapore Ministry of Manpower, Singapore and ISSA International Social Security Association
OSH in the informal economy	ASEAN-OSHNET Association of South-east Asian Nations Occupational Safety and Health Network
The workplace diversity dimension of OSH	SafeWork Australia
People-centred prevention strategies on OSH	ENETOSH European Network on Education and Training on OSH
What is required for effective OSH training?	ISSA Education Section ISSA International Section on Education and Training for Prevention
Adapting work to people	IEA International Ergonomics Association
Good communication on OSH	ISSA Information Section ISSA International Section on Information for Prevention
Behavioural science contribution to OSH strategies	HSE Health and Safety Executive
International Trade Union Confederation (ITUC) symposium	ITUC International Trade Union Confederation
International Organisation of Employers (IOE) symposium	IOE International Organisation of Employers
Global OSH knowledge: Information and networks	ILO International Labour Organization
Rehabilitation, disability and return to work	IDMSC International Disability Management Standards Council
Prevention of occupational cancer	ICOH International Commission on Occupational Health
Well-being through work	NSC, US National Safety Council, United States



Symposia Topics

Symposia	Main Organiser
Healthy work: Trends on occupational health	ILO International Labour Organization and WHO World Health Organization
Psychosocial risks: Mental health and well-being at work	COMPTRASEC Centre de droit comparé du travail et de la sécurité sociale
Future forms of work and OSH	ICOH International Commission on Occupational Health and MOM, Singapore Ministry of Manpower, Singapore
Workplace practices for a safe, healthy and productive work life	SISO Singapore Institution of Safety Officers and NSCS National Safety Council Singapore and INSHPO International Network of Safety & Health Practitioner Organization
Modern OSH inspection practices	SAWS State Administration of Work Safety, China and IALI International Association of Labour Inspection

* Information is accurate at time of printing. Please check the Congress website for updates.



Submission of Abstracts

Call for Abstracts

The Organisers invite interested participants from all relevant fields of applications and backgrounds to submit their abstracts for symposia (oral) or poster presentation at the XXI World Congress on Safety and Health at Work 2017 in Singapore.

Please submit your abstracts online via www.safety2017singapore.com

**DEADLINE for abstract submission:
5 December 2016, 12 noon (GMT +8)**

You are allowed to submit and amend your submission any time before the deadline. However, abstracts received after the deadline will not be accepted and will therefore not be considered for the programme or publication.

Specific Rules and Guidelines

Abstract Submission

- Submit your abstract in English.
- Avoid initials and abbreviations which are not in common use unless they are essential.
- Remember to check spelling and grammar carefully. If accepted, your submitted abstract text will be reproduced as submitted.
- Refer to the list of symposia topics on page 10 of this publication and indicate your preferred

Symposium during submission. However, the decision on whether the abstract is accepted for your preferred Symposium or another, will be at the sole discretion of the Scientific Committee.

- Submission of an abstract implies the commitment that you will attend the Congress.
- Submission of an abstract does not constitute registration for the Congress.
- Register online and make full payment upon the acceptance of your submission.
- Any abstract submitted will be considered for either
 - A) Symposia (oral) presentation OR
 - B) Poster presentation.
- Indicate your preference for an oral or poster presentation when you submit your abstract through the online system. However the decision on whether the abstract, if accepted, should be presented as oral or poster presentation, will be at the sole discretion of the Scientific Committee.

Notification

Authors will be informed about the selection by **end April 2017**. All selected authors will receive technical details and presentation instructions prior to the Congress.



Poster Exhibition

Poster Session

The Poster session of the Congress is organised in line with various topics of discussion in the Symposia to provide an opportunity for more papers to be presented. The Poster session will run throughout the Congress and will be co-located with the Congress proceedings.

Outstanding posters will be shortlisted for the "Best Poster Award of the Congress". Shortlisted presenters will have an opportunity to share and impress Congress delegates with the winning points of their projects.

Interested participants may refer to page 13 of this publication for more information about the call for abstracts and submission procedures. Presenters are responsible for the printing of their accepted poster, laid out according to the Organisers' template and instructions which will be provided in due course.



International Media Festival for Prevention (IMFP)

Films and multimedia applications are important communication instruments to reach a wide audience. Applied in the field of occupational safety and health, they can help to raise hazard awareness and explain complex safety issues; thereby improving safety and health outcomes at work.

Since 1990, the International Media Festival for Prevention (IMFP) has been taking place alongside the World Congress for Safety and Health at Work. The Festival offers an overview of films and multimedia productions on safety and health at work from all over the world and an opportunity for participants to present projects to influential international safety and health professionals. Selected productions will be presented at dedicated locations throughout the Congress.

Awards are given to media productions presented in the "Film" and "Multimedia" categories that contribute to the improvement of safety and health at the workplace.

Prizes will be awarded during the Special Media Session in the morning on **4 September 2017**.

Submission Procedure and Material Specifications

All films and multimedia productions, for example, films, websites, apps, web-based training, social

media and software are accepted. Submissions can be made by national and international organisations, enterprises, institutions, agencies or filmmakers. All media on safety and health at work produced from 1 January 2013 will be accepted.

There is no time limit to the presentation of your productions or number of entries you may submit. All entries must be submitted using the entry form at <http://imfp.online> or under www.safety2017singapore.com/imfp. Films and multimedia products in all languages will be accepted, but please use the official languages of World Congress (i.e., English, French, Spanish and German) to fill up your entry form.

The deadline for submission is **31 January 2017**.

The Organisers

The Festival is organised by:

- the International Section of the ISSA for Electricity, Gas and Water; and
- the International Section of the ISSA on Information for Prevention.

**For queries about the Festival,
email imfp2017@bgetem.de or
call +49 (0) 221-3778 5005.**



Youth Forum for Prevention

Young workers today are the future leaders of our economies, and will be shaping the occupational safety and health (OSH) culture of tomorrow. However, they are unfortunately 40% more likely than older workers to suffer occupational injuries. This could be attributed to lack of skills, experience and training; inadequate supervision; limited knowledge of OSH hazards and risks; and/or a lack of engagement and understanding of their rights.

This is why a dedicated Youth Forum for Prevention has been organised as part of the XXI World Congress on Safety and Health at Work 2017. The forum focuses on the plight of our young workers, and identifies opportunities to shape the future of OSH with our youth.

Delegates can learn from ILO's "Safeyouth@work Project", and bring home lessons from past case studies and life experiences from young workers in the region.



International Safety and Health Exhibition

About the Exhibition

The organisers welcomes your participation at the International Safety and Health Exhibition, held in conjunction with the XXI World Congress from 3 to 6 September at Sands Expo and Convention Centre, Marina Bay Sands, Singapore. To promote safety and health at work, the exhibition will showcase the latest technologies, product innovation, and best practices. Visitors to the Exhibition can look forward to top solution providers and industry partners' stands and presentations from all over the world.

Why Exhibit with Us

Showcase your products and services to more than **3,500 international occupational safety and health professionals**

Capitalise on the media coverage for the **XXI World Congress on Safety and Health at Work 2017**

Position your company's products and services as **industry's best practices**

Meet prospective and existing industry partners in one venue

Raise awareness of your company's products and services

Join MOM's, ILO's and ISSA's efforts to promote occupational safety and health

Discover new partnerships and alliances with industry members

Safety at Work

- Behavioural Safety
- Drug Testing
- Electrical Safety
- Facilities, Equipment
- Fire Protection/ Safety Products and Systems
- Installations and Security Accessories
- Insurance/ Legal/ Financial Services
- Maintenance, Service and Repair
- Measurement and Control Technology
- Personal Protective Equipment (PPE)
- Protection against Explosions and Toxic Products
- Protection of Items
- Protective Workwear
- Quality Assurance Management and Services
- Safety Accessories and Work Gears
- Safety Devices for Machines
- Safety Equipment and Facilities
- Safety Equipment and Systems
- Safety Handling of Dangerous Substances
- Safety Services and Consultancies
- Safety Software
- Security Services and Consultancies
- Security Software
- Standing Areas
- Technical Training
- Transport and Vehicle Safety
- Waste Management
- Work at Height

Emergency Management

- CBRN Protection
- Crisis and Emergency Management
- Decontamination
- Early Warning Detection Management
- Emergency Communication and Information
- Emergency Medicine
- Emergency Training
- Technical Aids
- Health at Work

Health at Work

- Catering in the Workplace/ Healthy Eating
- First Aid, Rescue
- Hygiene and Sanitary Supplies
- Occupational Health Management/ Prevention
- Work Doctors and Practice
- Workstation Architecture, Ergonomics
- Air Pollution Control
- Biological Detection
- Protection against Radiation
- Noise Reduction/ Silencers/ Vibration Protection

Others

- Publishers
- Media
- Books, Literature, Posters, Trade Journals
- Certification and Standards
- Non-government Organisations
- Non-profit Organisations



Official Events

Opening Ceremony

3 September 2017 (Sunday)

The Opening Ceremony of the Congress will kick off in the afternoon on 3 September 2017 at Marina Bay Sands, Sands Grand Ballroom on Level 5. The Guest-of-Honour, Singapore's Prime Minister Mr Lee Hsien Loong, will deliver a welcome speech at the ceremony to set the stage for the XXI World Congress for Safety and Health at Work 2017. All Congress delegates and registered accompanying persons are invited to attend the Opening Ceremony and Welcome Reception that follows. This is an excellent networking opportunity for Congress delegates to further relationships amongst the safety and health community.

Singapore Night

5 September 2017 (Tuesday)

All delegates and registered accompanying persons (except delegates who registered as Students) are invited to attend our Singapore Night, on the evening of 5 September 2017 at the Sands Grand Ballroom. Cultural performances have been lined up to give delegates a chance to experience Singapore's multicultural heritage while savouring a delicious dinner.

Closing Ceremony

6 September 2017 (Wednesday)

The Closing Ceremony will take place in the morning on 6 September 2017 at the Sands Grand Ballroom. The Ceremony will summarise key highlights and outcomes from the XXI World Congress, and close with a handover ceremony to the next World Congress organiser. In addition, a youth ambassador from the Youth and OSH Forum will present outcomes from their youth OSH programme that will run alongside the XXI World Congress.



Technical Tours

The Organisers have lined up 18 local and 2 overseas technical tours as part of the Congress programme to enrich delegates' appreciation of the key industries and occupational safety and health developments in this region.

Note that overseas technical tours are tentatively scheduled on 7 September 2017 (Thursday), while local technical tours will be held in the afternoon on 6 September 2017 (Wednesday). Spaces for the tours are limited and will be reserved on a first-come-first-served basis. Delegates can choose their preferred technical tour on the Congress registration portal. A fee may be charged for overseas technical tours.

Details on other technical tours will be provided in subsequent announcements and on the Congress website once they are confirmed.

Here are some confirmed highlights.

Local Technical Tours

Changi Airport Group



Changi Airport Group (Singapore) Pte Ltd (CAG) was formed on 16 June 2009 and the corporatisation of Singapore Changi Airport followed on 1 July 2009. As the company managing Changi Airport, CAG undertakes key functions focusing on airport operations and management, air hub development, commercial activities and airport emergency services.

CAG also manages Seletar Airport and through its subsidiary Changi Airports International, invests in and manages foreign airports.

Over the past three decades, CAG has successfully established Changi Airport as the world's most awarded airport, with more than 500 accolades under its belt. Today, Changi Airport is the world's sixth busiest airport for international traffic. It served a record 55.4 million passengers from around the globe in 2015. As air traffic continues to grow, the safety of its passengers and airport community will remain CAG's top priority. CAG has consistently achieved the International Federation of Air Line Pilots' Association's deficiency-free rating, a standard it has maintained for 34 consecutive years since Terminal 1's opening in 1981.

Through this technical tour, delegates will be given the opportunity to get a glimpse into the efforts put in by the staff of CAG in ensuring high standards of safety and efficiency at Changi Airport.

For more information on Changi Airport Group (Singapore), visit www.changiairportgroup.com

Galmon



Established in 1982, Galmon is the pioneer of mobile elevating work platform (MEWP) use in Singapore. With a fleet of more than 3,000 MEWPs, Galmon caters to the needs of different industries including



construction, marine and aviation sectors. The Galmon Academy is an accredited training provider for MEWPs and the only PASMA-approved training centre outside Europe. This technical tour will introduce delegates to Galmon's latest range of work-at-heights equipment and training solutions.

For more information on Galmon, visit www.galmon.com

Keppel FELS



Keppel Offshore & Marine (Keppel O&M) is a global leader in offshore rig design, construction and repair, ship repair and conversion, and specialised shipbuilding. Headquartered in Singapore, it has 20 yards and offices worldwide to be near its customers and markets.

The yard tour will be an opportunity for you to have a glimpse of Keppel O&M's Offshore Division, helmed by Keppel FELS, a leading designer, builder and repairer of mobile offshore rigs. The yard and its network of offshore yards have successfully delivered almost half of the world's newbuild jackup rigs and semisubmersibles in the past decade. In 2013, it set a Guinness World Record in delivering 21 rigs in a year, safely and on schedule.

The yard has rigorous safety processes, initiatives and training programmes to create a strong safety environment. It won 12 SHARP awards at the WSH Awards 2016 and works closely with customers, vendors and regulators to ensure the highest safety standards at its yards.

Marina Bay Sands



Marina Bay Sands is Asia's leading destination for business, leisure and entertainment located in the heart of Singapore's Central Business District. Boasting a luxury hotel, state of the art convention and exhibition facilities, theatres, dining, entertainment and retail, it has transformed Singapore's tourism landscape since 2010. A recipient of over 320 awards since its opening, it is committed to providing a safe and healthy workplace for guests and employees through its adoption of best practices, technologies and methodologies in the areas of workplace safety and health. Through the tour, you will see how Marina Bay Sands—with 9,500 employees working in a gross floor area of 581,400 square metres—provides world-class service while ensuring a safe workplace for everyone.

PSA



PSA Corporation, a fully-owned subsidiary of PSA International, operates the world's largest container transshipment hub in Singapore, linking shippers to



an excellent network of major shipping lines with connections to 600 ports globally. Shippers have access to daily sailings to every major port in the world at this mega hub. The technical tour will showcase the most advanced terminals at Pasir Panjang with the latest port innovations, and underscore PSA's commitment to providing a safe and healthy work environment for its staff, customers and contractors.

Sembcorp Marine



Sembcorp Marine is a leading global offshore and marine engineering player, with an international network of strategically-located yards in Singapore, Indonesia, India, the United Kingdom and Brazil. The Group partners with major owners, contractors, operators and oil companies in some of the industry's most complex and demanding rig, floater, repair, upgrade, offshore platform and specialised shipbuilding projects. The technical tour will give delegates insights into how Sembcorp Marine's Tuas Boulevard Yard maximises its operational synergy and production efficiency whilst managing health, safety and environment responsibilities as a top priority. The Tuas Boulevard yard boasts optimised docking and berthing facilities, an improved dock and quay ratio, a centralised work efficient layout as well as integrated facilities.

For more information on Sembcorp Marine, visit www.sembmarine.com

Overseas Technical Tours

SOCISO Rehabilitation Centre Malacca, Malaysia



Social Security Organisation's (SOCISO) Rehabilitation Centre in Malacca, Malaysia began operations on 1 October 2014. The Centre demonstrates Malaysia's national commitment towards improved rehabilitation and return to work outcomes for workers with injuries or illnesses. The Centre provides comprehensive physical and vocational rehabilitation services, together with disability management system, to injured workers so that they may recover and return to work. This technical tour will introduce delegates to the medical rehabilitation services available in the Centre as well as "robotic therapy" and "industrial rehab technology".

For more information on Social Security Organisation, visit www.perkeso.gov.my/en



Social Tours

What you can do in Singapore?

Singapore is not only a bustling island metropolis, but also a melting pot of diverse cultures and religions that offers a plethora of delectable culinary delights and numerous attractions that would satisfy your yearning for adventure.

Night Safari

The park is the world's first wildlife park built for visits at night. The Night Safari is a modern version of nocturnal houses found in many zoos around the globe. Nestled in 40 hectares of lush secondary forest, the Night Safari offers guests the unique experience of exploring wildlife in a tropical jungle at night.



S.E.A Aquarium

This is your chance to marvel at the awe-inspiring marine life at the S.E.A. Aquarium, one of the largest aquariums in the world with more than 100,000 marine animals of over 800 species living in 10 different zones with 49 habitats. Take a stroll among sharks and explore the forgotten corridors of a shipwreck, from the air-conditioned comfort of the aquarium.

Singapore Flyer

The Singapore Flyer, a giant observation wheel, is Asia's most visible iconic visitor attraction. It features brilliant engineering breakthroughs that sets it worlds apart from traditional ferries wheel. As the wheel

turns, visitors will be treated to a visual 360° feast of Singapore's many iconic and historical landmarks and views.

Singapore Zoo

For 40 years, animals have roamed freely in one of the world's most beautiful zoos. Covering 26 hectares, the Singapore Zoo is home to over 2,800 animals representing over 300 species.

The Singapore Zoo was named Best Leisure Attraction Experience in the 22nd Singapore Tourism Awards in 2008. This accolade is its ninth win since the award category was introduced in 1985.

Universal Studios Singapore

Southeast Asia's first Hollywood movie theme park, Universal Studios Singapore, features an enticing selection of attractions, rides and entertainment for families and thrill-seekers. 18 out of the 24 movie-themed rides here were designed just for the Singapore park.

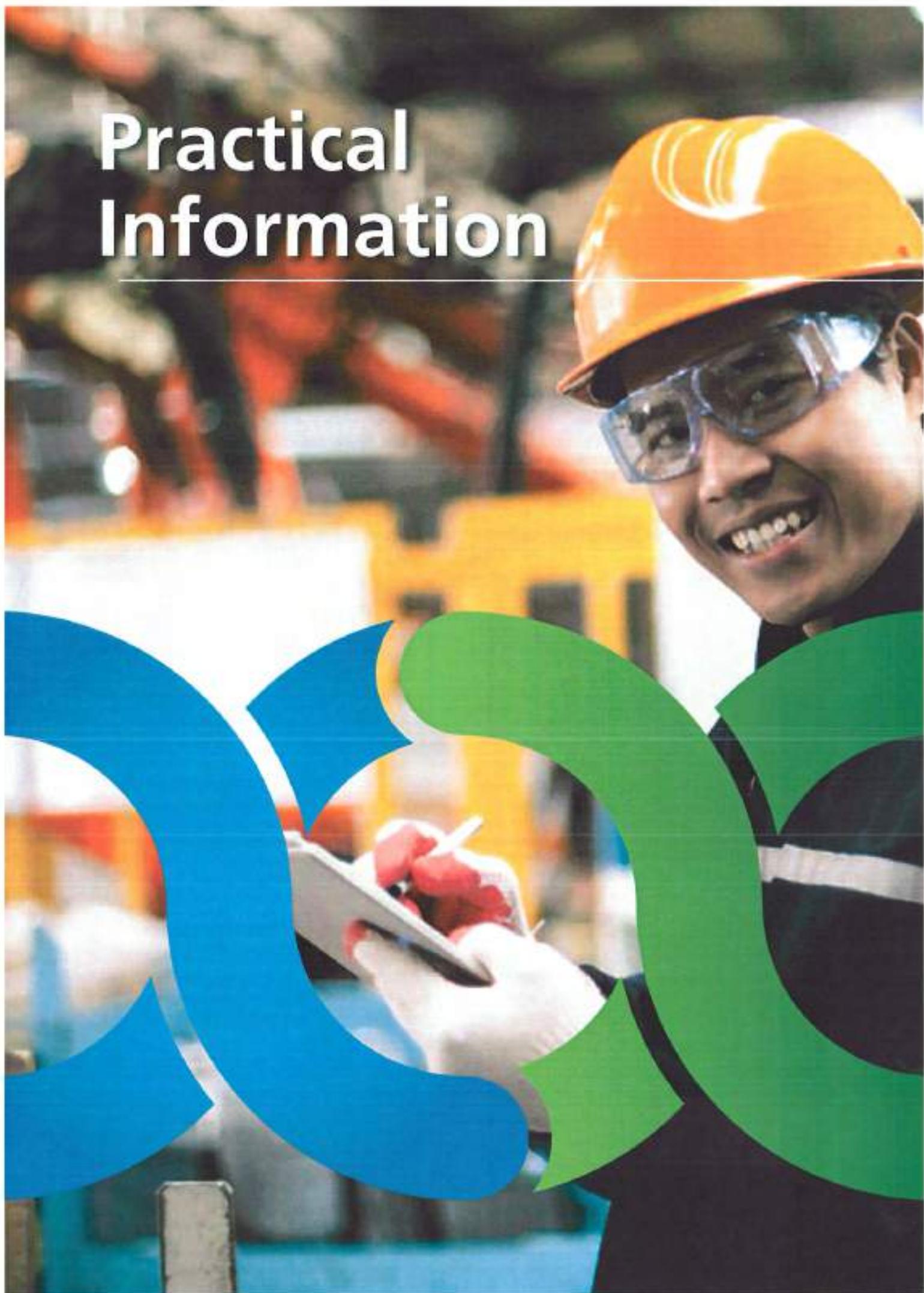
There are seven movie-themed zones, and each is uniquely designed. Visitors will find the renowned Hollywood Walk of Fame at the Hollywood zone, and as visitors venture into New York, the landscape evolves into impressive New York city skylines. Here, visitors can also step onto a movie set and experience the destructive force of a hurricane with special effects produced by Steven Spielberg.

Booking

The costs of the above tour options or attractions are not included in the Congress fee.

Other tour options and attractions not listed here may also be available. Please visit the congress website at www.safety2017singapore.com for more information and booking details.

Practical Information





Registration Fees

(Early Bird, Normal and Onsite Fees)

Congress Registration Fees*	Early Bird Register by 31 May 2017	Normal 1 Jun 2017 to 27 Aug 2017	On-site 3 Sep 2017 to 6 Sep 2017
Professionals	\$800	\$850	\$1,000
Developing Countries	\$300	\$350	\$450
Students	\$75	\$100	\$125
Accompanying Persons	\$200	\$250	\$350
Speakers	\$350	\$350	\$350

* Fees are quoted in Singapore Dollars.

Terms and Conditions

- Registration fee is inclusive of prevailing tax.
- **Registrants** are entitled to attend all sessions [i.e., Welcome Reception, Singapore Night, International Media Festival for Prevention (IMFP), International Safety and Health Exhibition, Poster Exhibition and Local Technical Tours]. A fee may be charged for Overseas Technical Tours.
- Please consult the list of **developing countries** at Congress website www.safety2017singapore.com.
- **Students** registering are required to submit a scanned copy of valid student ID reflecting their names and name of institutions (in one of the four congress languages) to enjoy the preferential rate. Students are also required to obtain confirmation from their institutions that they are full-time students. All this information must be sent to secretariat@safety2017singapore.com. The Organiser reserves the right to refuse any entry if the required information is not submitted or produced at the point of registration. Student discounted rate excludes attendance to the Singapore Night. There will be an additional charge of \$250 for Students who wish to attend Singapore Night.
- **Accompanying persons** are entitled to attend the Welcome Reception, Singapore Night, International Media Festival for Prevention (IMFP), International Safety and Health Exhibition, Poster Exhibition and Local Technical Tours.
- **Method of payment:** The following methods of payment are available: Bank transfer, credit card (Visa, MasterCard), cheque (group registration only) and cash (for on-site registration only). Do note that online payment will only be accepted before **27 August 2017 @2359hrs (GMT+8)**, cheque payment will not be accepted after **6 August 2017** and only credit card and cash payments are accepted for on-site registration.
- **Cancellation policy:** All cancellations must be made in writing to secretariat@safety2017singapore.com. **50% of registration fee will be refunded for cancellations made by 30 June 2017.** No refunds will be made for cancellations made after **30 June 2017**.
 - All bank charges for remittance must be paid by registrants.
 - Refunds will be made after the Congress.
- Full registration fees must be fully paid prior to or on-site at the event before attending any part of the Congress.



Accommodation

The official Congress hotel is Marina Bay Sands, Singapore (MBS), which is linked to the Congress venue at Sands Expo and Convention Centre. Preferential accommodation pricing had been arranged at MBS for delegates attending the Congress. The rates will be made available on the Congress website and delegates can make their reservations via the online booking system.

Deadlines for reservations at the preferential rates will be announced on the Congress website. After these deadlines, neither reservations nor prices will be guaranteed. Delegates will need to use a valid credit card to complete their reservations.

Delegates can also consider non-official hotels, and make their hotel reservations directly with the hotels. For delegates' convenience, some hotels in the vicinity of the Congress venue have been identified. They are:

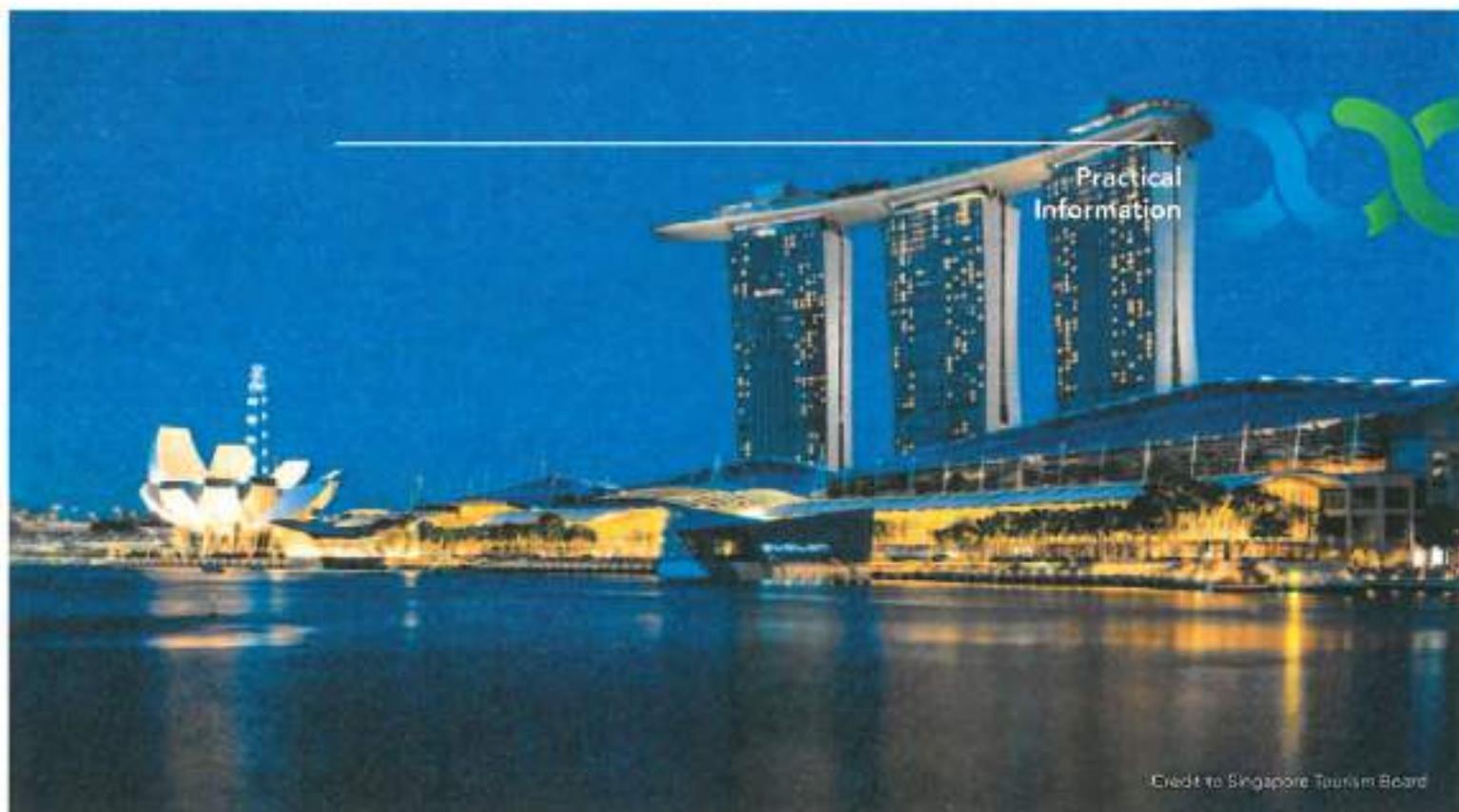
- Days Hotel
- Grand Park City Hall
- Ibis on Bencoolen Singapore
- Pan Pacific Singapore
- Ramada Singapore at Zhongshan Park

* Should you choose to stay at any of the above hotels, please quote "WCSH2017" upon reservation.

Types of hotel/ Price range*	Minimum	Maximum
Five stars	\$240++	\$363++
Four stars	\$165++	\$205++
Three stars	\$135++	\$180++

* Prices are quoted in Singapore Dollars.

For more information on accommodation during the World Congress, visit www.safety2017singapore.com



Congress Venue

About Marina Bay Sands

Marina Bay Sands is the premier entertainment destination with vibrant diversity of attractions and facilities and a distinct landmark that distinguishes Singapore from other cities.

Located along the Marina Bay waterfront, Marina Bay Sands features three cascading hotel towers topped by an extraordinary sky park, "floating" crystal pavilions, a lotus-inspired museum, retail stores featuring cutting-edge labels and international luxury brands, trendy celebrity chef restaurants, hottest night clubs and a Las Vegas-style casino. Business visitors will enjoy the extensive meetings, incentive travel, conventions and exhibitions (MICE) facilities featuring state-of-the-art technology and a convention hall that can host over 45,000 delegates.

Marina Bay Sands seamlessly combines business and leisure into a singular destination unlike any other.

Marina Bay Sands

Address: 10 Bayfront Avenue, Singapore 018956

Website: www.marinabaysands.com

Getting to Marina Bay Sands

By Train (MRT)

Marina Bay Sands is linked directly to:

Bayfront MRT station (CE1, Exit B, C, D, E) along the Circle Line Extension.

By Bus

There are many bus routes linking Marina Bay Sands to many centrally located MRT stations. The following bus routes serve Marina Bay Sands Hotel and the Congress venue—Marina Bay Sands MICE:

97/97E, 106, 133, 502/502A, 518/518A



By Water Taxi

Marina Bay Sands is accessible via water taxi:

Singapore River Cruise

- Fare: \$3

Operating hours

- 10am to 10pm daily (last boat departs at 9pm)
- Frequency: 10 to 20 minutes

Ticket kiosks or boarding locations

- Bayfront South (MBS South)
- Merlion
- Esplanade
- Promenade (Singapore Flyer)
- Clarke Quay (Beside G-Max Reverse Bungy)
- Boat Quay (No. 59 Boat Quay)
- Fullerton

Contact number

- +65 6336 6111



By Car

General Information

Public Car Park:

- Accessible to cars only.
- Entrance via South car park or North car park on Bayfront Link/ Avenue and Hotel Tower 3 Porte Cochere.

Car Park Rates*:

- Monday to Friday (7am to 7pm): \$7 for first hour and \$1 for every subsequent half hour.
- Monday to Thursday (7pm to 7am): \$7 flat rate.
- Saturday and Sunday (7am to 7pm), eve of public holiday and public holiday: \$8 for first hour and \$1 for every subsequent half hour.
- Friday to Sunday (7pm to 7am), eve of public holiday and public holiday: \$8 flat rate.
- Max charge: \$26 per 24 hours.
- For in-house hotel guests: \$8 for every 24 hours.

Valet Parking:

- Accessible to cars only.
- Available at Hotel Tower 1 and Casino entrance.

Valet Rates*:

- 7am to 7pm: \$12 for first hour and \$1 for every half hour.
- 7pm to 7am: \$12 per entry.
- Maximum charge at \$26 for every 24 hours.
- For in-house guests: \$12 for multiple entry every 24 hours.

* Rates are quoted in Singapore Dollars.



Travel information

Time Zone: Singapore's time zone is GMT +8.

Official languages: English is the main working language in Singapore. Other official languages used are Mandarin Chinese, Malay or Tamil.

Water: You can drink water straight from the tap as the water in Singapore passes World Health Organisation standards. You can also buy bottled water easily.

Electricity: The standard electrical current used in Singapore is 220–240 volts AC (50 cycles) and the British BS1363 three-pin rectangular socket is commonly used.

Smoking: Smoking is not allowed in all air-conditioned places, such as malls and eateries although designated smoking areas may be available in some entertainment outlets and open-air eateries. Many public places including hawker centres, bus stops, parks, and playgrounds have restrictions on smoking, and it is prohibited on public transport as well.

Weather: Singapore is hot and humid all year-round, with temperatures usually reaching over 30°C. You should be prepared for rain at any time, which can be torrential but usually brief.

Currency: The Singapore dollar (SGD) is used here and notes come in denominations of \$2, \$5, \$10, \$50, \$100, \$1,000 and \$10,000. Coins come in 5, 10, 20 and 50

cents and \$1. Money changers can be found at Changi Airport, shopping centres and hotels around the island.

ATM: There is an abundance of automated teller machines (ATMs) that accept most major credit cards, such as Visa, MasterCard and American Express.

Tipping: Tipping is encouraged when you experience good service, and this would be above the standard 10% gratuity to your bill added by most restaurants and hotels.

Tax Refund: To enjoy the refund on the 7% Goods and Services Tax (GST) paid on your purchases, you need to make a purchase of more than S\$100 at participating shops. To know whether a shop is participating in the Tourist Refund Scheme, look for a "Tax Free" shopping logo or sign displayed at the shop. You can also check with the retailer whether your purchases are eligible for GST refund or visit www.yoursingapore.com/travel-guide-tips/tourist-information/gst-tax-refund.html for more information.

Cuisine: Singapore is a cosmopolitan place where people from all over the world enjoy each other's cooking. Each culture has brought with it unique cooking styles including Malay, Chinese, Indonesian, Peranakan, Indian, Thai, Japanese and Korean; as well as cuisines from Europe, the Middle East, and America,



and so on. There is a vast array of hawker stalls and restaurants, ranging from global franchises to gourmet delicacies to fancy six-star settings.

Wifi and Connectivity: You can register for a free public Wi-Fi account with your foreign mobile numbers at any Wireless@SG hotspot. Overseas charges may apply. You may also choose to purchase a Singapore prepaid SIM card from either M1, Singtel or Starhub which offer a variety of packages. Prepaid SIM cards are easily purchased at the telcos' retail counters and convenience stores like 7-Eleven and Cheers through the island, as well as at Singapore Changi Airport at Changi Recommends, currency exchange and telcos' retail counters. You will have to produce your passport for registration when purchasing a prepaid SIM card.

Visa: Most foreigners coming into Singapore do not require visas for entry and may be given social visit passes for up to 30 days upon their arrival in Singapore. However, it is best to consult your local consular office for the latest information. If you would like to stay in Singapore for a longer period, you may apply to the Immigration & Checkpoints Authority (ICA) upon your arrival. You should have a valid passport with at least 6 months validity, onward or return tickets, onward facilities (such as visas or entry permits) to your next destination, and of course, sufficient funds for your stay in Singapore.

Useful telephone numbers:

Emergency or medical police
999 (toll-free)

Ambulance
995 (toll-free) or 1777 (non-emergency)

Flight information
1800 542 4422

Singapore Immigration Department
(65) 6391 6100

Singapore Tourism Board
1800 736 2000 (toll-free)

Global Refund Singapore (GST Refund)
(65) 6225 6238

Getting to Singapore

Most people arrive in Singapore by air. Its status as a major airline hub in Asia makes Singapore a natural starting or ending point for a multi-country tour of Southeast Asia. Most large international airlines have routes to Singapore, in addition to the island's own highly regarded airline, Singapore Airlines.



Singapore's Changi Airport is one of the busiest and best connected in the world, handling over 100 airlines flying to some 300 cities. There are four local carriers, including the world-renowned Singapore Airlines and budget airlines, Tiger Airways and Scoot.

The award-winning airport itself is jam-packed with activities and amenities, making it a world-class attraction in its own right.

Singapore Changi Airport

Address: Singapore Changi Airport
Website: www.changiairport.com



As a leading homeport in the heart of Asia, Singapore has two of the world's busiest cruise centres. A host of cruise operators, covering luxury, premium, and contemporary offerings, is ready to whisk you from around the region to one of the city's terminals at either Marina Bay Cruise Centre, or Singapore Cruise Centre. The newest Marina Bay Cruise Centre Singapore can accommodate the largest cruise liners around today.

Marina Bay Cruise Centre

Address: 61 Marina Coastal Drive, Singapore 018947
Website: mbccs.com.sg

Singapore Cruise Centre

Address: 1 Maritime Square, Singapore 099253
Website: www.singaporecruise.com.sg



By Land

Driving into Singapore from West Malaysia is a relaxing and scenic way of getting here. Singapore has two land checkpoints, at Tuas in the West and Woodlands in the North. Both checkpoints operate 24 hours a day.

Tuas Checkpoint

Address: 601 Jalan Ahmad Ibrahim, Singapore 018956

Woodlands Checkpoint

Address: 21 Woodlands Crossing, Singapore 018956

Getting around Singapore

Getting around Singapore is fairly easy. Singapore has a transport network that offers access to every corner of the island, either by bus, MRT (the island's underground rail network) or taxi.

By Train (MRT)

Singapore's Mass Rapid Transit (MRT) system is probably the fastest way to zip around the city. The extensive rail network means that most of Singapore's key attractions are within walking distance from an MRT station.

You can buy tickets for single trips, but if you intend to use the MRT and bus services frequently during your visit, you can buy a Singapore Tourist Pass, a special EZ-Link stored-value card which will allow you unlimited travel for one day (S\$10), two days (S\$16) or three days (S\$20). The cards can be bought at the TransitLink Ticket Office at the following MRT stations: Changi Airport, Orchard, Chinatown, City Hall, Raffles Place, Ang Mo Kio, HarbourFront, Bugis, Lavender and Bayfront.

Visit www.thesingaporetouristpass.com.sg for more information.

Singapore's trains and stations are accessible to wheelchair users, the visually impaired and families with strollers.

By Bus

Singapore's bus system has an extensive network of routes covering most places in Singapore and is the most economical way to get around, as well as being one of the most scenic.

You can pay your bus fare using an EZ-Link stored-value card or the Singapore Tourist Pass, which you tap on the card reader located next to the driver as you board. Do remember to tap your card again, on the reader located at the rear exit, when you alight. You can also pay in cash but you will need exact change to do so. Buses in Singapore have air-conditioning—a welcome comfort in a tropical city.

Public bus services are operated by four main bus operators in Singapore: SBS Transit Ltd, SMRT Buses Ltd, Tower Transit Singapore, and Go-Ahead Singapore.

By Taxi

Taxis are comfortable and especially handy if you want to go to places not easily accessible by the bus or MRT. Taxis here are metered, but there may be surcharges depending on when, where and which company's taxi you board.

To get a rough idea of the final fare, check with the driver on the surcharges and ask for a receipt at the end of the trip. You can hail a taxi by the roadside at most places, or by queuing for one at taxi stands found at most shopping malls, hotels and tourist attractions. If you wish to book a cab, you can call a common taxi booking number, (65) 6342 5222, and your call will be routed to an available taxi company's call centre.

You may also use dedicated mobile applications to book a cab from the major taxi companies in Singapore, such as via SMRT Book a Taxi, ComfortDelGro Taxi Booking App, or Trans-Cab Services Pte Ltd. Alternatively, you may also download third-party mobile applications such as Grab or Uber for private-car hires.



Information about Organisers



International
Labour
Organization

International Labour Organization

The International Labour Organization (ILO) is the UN agency that specialises in the world of work. It was founded in 1919 as part of the Treaty of Versailles that ended World War I to reflect the principle that universal and lasting peace can only be achieved if it is built on social justice.

The ILO is the only “tripartite” United Nations agency that brings together representatives of governments, employers and workers to shape policies and programmes for social justice and decent working and living conditions for all women and men. For this it was awarded the Nobel Peace Prize in 1969.

The protection of workers against sickness, diseases and injury is a primary task of the Organization, which is also responsible for drawing up and overseeing international labour standards (Conventions and Recommendations)—many of which address occupational safety and health. This unique arrangement gives the ILO an edge in incorporating “real world” knowledge about employment and work.

In 2008, the ILO constituents adopted the ILO Declaration on Social Justice for a Fair Globalization, which articulates the contemporary vision of the ILO’s mandate in an era of globalisation. In 2009, the ILO adopted the Global Jobs Pact, which serves as a policy framework for measures centred on investment, employment and social protection to accelerate jobs recovery in a time of crisis. In 2012, the ILO adopted a Recommendation concerning national floors of social protection (No. 202), which advocates for the establishment of social protection floors as a fundamental element of social security systems and the progressive extension of social security to as many women and men as possible.

The ILO works towards ensuring a shift from the global challenge of decent work deficits towards the achievement of sustainable development. Today, there are 185 ILO member States, and the ILO convenes a yearly general assembly—the International Labour Conference, an executive council—the Governing Body, and comprises a permanent secretariat—the International Labour Office, based in Geneva, Switzerland.

To learn more about the ILO, visit www.ilo.org.



issa

International Social Security Association

The International Social Security Association (ISSA) is the principal international institution bringing together social security agencies and organisations. The ISSA’s aim is to promote dynamic social security as the social dimension in a globalising world by supporting excellence in social security administration. Prevention has been on the ISSA’s agenda since its creation in 1927. Bringing together social security and prevention experts from over 340 social security institutions in more than 140 countries, the ISSA offers a global platform and a unique network for all those in social security that are concerned with the health of workers.



The ISSA has its headquarters at the International Labour Office, in Geneva. Beyond the traditional focus on occupational safety and health, the ISSA supports social security policies that foster preventive approaches to protect and promote workers' health and employment in all branches of social security. The ISSA provides access to information, expert advice, business standards, practical guidelines and platforms for members to build and promote dynamic social security systems worldwide.

The vision of dynamic social security provides a framework for the ISSA's action. It refers to social security systems that are accessible, sustainable, adequate, socially inclusive and economically productive, and that are based on performing, well governed, proactive and innovative social security institutions. The ISSA promotes investments in workers' health, by providing good practice information, research, expert advice and platforms for members and other stakeholders to exchange on innovation in workplace health promotion, active employment policies, rehabilitation and reintegration. To implement a range of projects and activities, the ISSA Secretariat works closely with its Technical Commissions, and the Special Commission on Prevention and its unique network of International Prevention Sections.

To learn more about the Special Commission and its Sections, visit www.issa.int/prevention



MINISTRY OF
MANPOWER

Ministry of Manpower, Singapore

Guided by our Vision of "A Great Workforce A Great Workplace", the Singapore Ministry of Manpower (MOM) works to achieve a globally competitive workforce and great workplace for a cohesive society and a secure economic future for all Singaporeans.

The Ministry seeks to enable Singaporeans to meet the challenges of the global economy in the 21st century, to have the skills and opportunity to realise their potential, have rewarding careers in quality work environments, and enjoy economic security. A great workplace goes beyond a safe, healthy and harmonious organisational work environment, to include a strong tripartite framework and relationship between the government, employer organisations and worker organisations.

The Occupational Safety and Health Division (OSHD) is the division under MOM that regulates workplace safety and health (WSH) in Singapore. Its vision is a safe and healthy workplace for everyone; and a country renowned for best practices in WSH. OSHD works with employers, employees and other stakeholders to identify, assess, and manage WSH risks to eliminate death, injury and ill-health.

OSHD is also the World Health Organization's Collaborating Centre for Occupational Health, the International Labour Organization (ILO) CIS National Centre for Singapore, the current Secretariat for the ASEAN Occupational Safety and Health Network (ASEAN-OSHNET). MOM's Commissioner for WSH also serves as the current Secretary-General of the International Association of Labour Inspection (IALI).

To learn more about MOM's initiatives in WSH, visit www.mom.gov.sg/workplace-safety-and-health



List of Abbreviations

Abbreviations	Full Name
ASEAN-OSHNET	Association of Southeast Asian Nations Occupational Safety and Health Network
COMPTRASEC	Centre de droit comparé du travail et de la sécurité sociale
DGUV	German Social Accident Insurance (Deutsche Gesetzliche Unfallversicherung)
DLPW (Thailand)	Department of Labour Protection and Welfare, Ministry of Labour, Thailand
ENETOSH	European Network Education and Training in Occupational Safety and Health
EU-OSHA	European Agency for Safety and Health at Work
HSE	Health and Safety Executive
IALI	International Association of Labour Inspection
ICOH	International Commission on Occupational Health
IDMSC	International Disability Management Standards Council
IEA	International Ergonomics Association
ILO	International Labour Organization
INRS	Institut National de Recherche et de Sécurité (France)
INSHPO	International Network of Safety and Health Practitioner Organisations
IOE	International Organisation of Employers
IOM Singapore	Institute of Occupational Medicine, Singapore
ISSA	International Social Security Association
ISSA Chemistry	ISSA International Section on Prevention in the Chemical Industry
ISSA Construction	ISSA International Section on Prevention in the Construction Industry
ISSA Education and Training	ISSA International Section on Education and Training for Prevention
ISSA Information	ISSA International Section on Information for Prevention
ISSA Machine and System Safety	ISSA International Section on Machine and System Safety
ISSA Mining	ISSA International Section on Prevention in the Mining Industry
ISSA Prevention Culture	ISSA International Section for a Culture of Prevention
ISSA Transportation	ISSA International Section on Prevention in Transportation



List of Abbreviations

Abbreviations	Full Name
ITUC	International Trade Union Confederation
MOM	Ministry of Manpower (Singapore)
MSAH Finland	Ministry of Social Affairs and Health (Finland)
NSC (US)	National Safety Council (United States of America)
NSCS	National Safety Council of Singapore
SafeWork Australia	SafeWork Australia
SISO	Singapore Institution of Safety Officers
UNITAR	United Nations Institute for Training and Research
WHO	World Health Organization
SAWS	State Administration of Work Safety (China)



Congress Secretariat

Contact

Congress Secretariat

Occupational Safety and Health Division
Ministry of Manpower, Singapore
"XXI World Congress on Safety and Health at Work 2017"
1500 Bendemeer Road,
#03-02, Ministry of Manpower Services Centre
Singapore 339 946

Tel: +65 6411 6690

Email: secretariat@safety2017singapore.com

Sponsorship and Exhibition

For sponsorship and exhibition opportunities, contact

Mr Lionel Choo

Tel: +65 6411 6639

Email: sponsorship@mci-group.com

For more information on the Congress, visit www.safety2017singapore.com

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XXI WORLD CONGRESS ON
SAFETY & HEALTH
AT WORK 2017

新加坡全國職工總會

歡迎

中華民國全國總工會

臺中市政府勞工局

臺中市議會

財團法人資訊工業策進會

代表團一行

ntuc
National Trades Union Congress

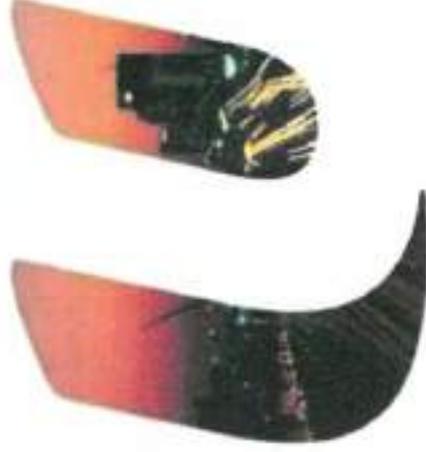
“U” 願景

改善工友的生活素質，創建一個
適合所有領域、所有年齡層和所
有國籍工友一起工作、生活和玩
樂的環境！



工會使命

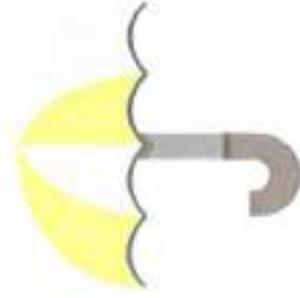
提高工友的收入和改善他們的生活



職總簡報

- 成立於1961年
- 唯一全國總工會
 - 約90萬會員
 - 組織密度約25%（總勞動力）
- 每四年舉辦全國代表大會，通過秘密投票制度選出21名中央委員會成員





PROTECTION

職場保護

保護職工在職場的權益，
並為增進他們的利益提出建議



PROGRESSION

個人發展

透過培訓和技能提升，並提高生產力。
主要提倡：漸進式工資制度模式



PLACEMENT

職能就業

協助求職者找到合適的工作
使他們能够享受更好的工作條件



PRIVILEGES

特惠優待

幫助工友和他們的家庭
在新加坡過更好的日子

unusual

our labour movement

非一般的工運

不斷變化的需求

為了滿足日益分化的
的工友群體的各種需
求，工運必須跟上發展
的節奏步伐，與時俱
進。

工友也希望把自己的
潛能發揮到最大因
此，尋求職業發展，培
訓機會和探索新領域
自然成為了工友們新
的需求。



非一般的工運

UNUSUAL
our labour movement

擴充服務項目



上游:

有較多的工作機會。工運採用一群富有經驗的兼職輔導員，參與培訓工作



中游:

注入2億新元擴充職總教育與培訓基金規模，用以協助會員參加相關的培訓課程



合作伙伴:

與高等學府合作開辦課程，協助工作人士做好應對未來的準備，從而能够更快地投入勞動市場



下游:

協助在職的國人在應對職業發生變遷方面提早做好準備



職總社會企業為國人提供各年齡及生活階段所需的服務

非一般的工運

unusual
our labour movement

不斷擴大的網絡



58 工會
2 協會

60 U
聯合計畫



>13,000
U 中小型
企業協作
平台

10 社會
企業



U 自由
職業者
與自僱
人士



在線平台
與各數位平協作
擴大接觸面



新加坡
勞資政
三方架構

ntuc
National Trades Union Congress



强而有效的社會伙伴關係

勞工

ntuc
National Trades Union Congress

全國職工總會



勞資政三方合作機制

政府



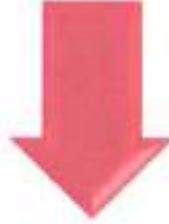
MINISTRY OF
MANPOWER

人力部

雇主

SNEF

全國雇主聯合會



關係建立瑜

信任，相互尊重和共同理念的基礎上

有效的職工之聲

職工運動的代表：

- 內閣和國會（一位部長、八位議員）
- 國家機構
(例如經濟發展局，中央公積金局，建屋發展局，人力資源諮詢委員會，全國工資理事會，等)
- 設立三方委員會探討關鍵課題
(例如經濟評論，工資改革，延長退休年齡，平衡工作與生活，重新僱傭年長工人，公平就業的做法，等)

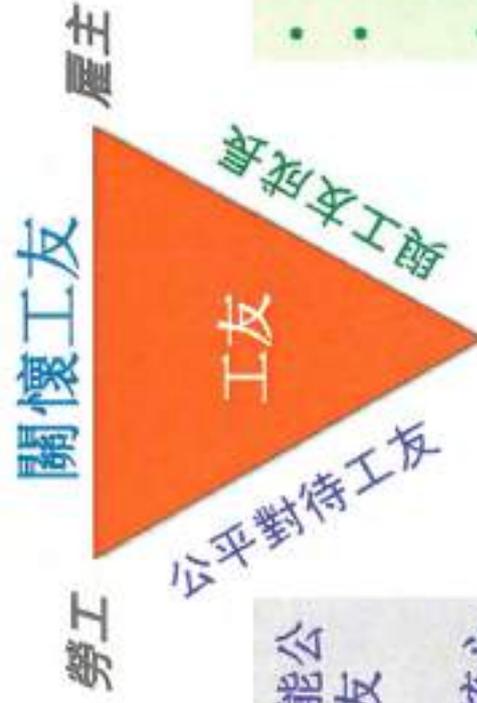
工運
2019

ntuc
National Trades Union Congress



工運2019三大目標

- 通過職總社會企業關懷工友與家庭
- 創造一個有利於制造良好工作的優良環境
- 加強勞資政三方架構



- 確保新的就業模式能公平對待新一代的工友
- 提高工友技能
- 壯大以新加坡人為核心的工作隊伍

- 推動未來技能
- 吸引更多白領職員加入工運行列
- 面對會員的增長和多樣化，將透過更多管道和溝通方式，向工會會員傳達工運的使命

謝謝



ntuc for

National Trades Union Congress

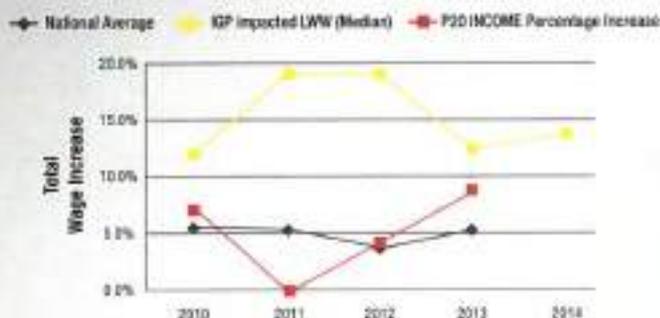
Things you didn't know about the Inclusive Growth Programme (IGP)...

IGP is...

- \$100 million fund
- Started by the Labour Movement in 2010
- Help industries re-design, and improve operational productivity
- Sharing of gains with workers through higher wages

Total wages of impacted LWW outperformed national averages

Total Wage Increase of IGP Impacted LWW vs National Average



IGP recipients were

Above national average by:

10.7%

Above national P20 by:

10.6%

Respondents praise the flexibility & hassle-free process of IGP

Application Process



Fast and efficient



Help and guidance were offered throughout the process

Programme Objectives



Clear and easily understood



Not difficult to achieve

IGP Companies were more inclusive in sharing gains with LWWs, even for non-IGP Projects

Beyond the IGP scheme, IGP companies were **twice as likely** to increase the pay of LWW (as a result of other productivity initiatives)

Inputs from executive interviews suggested that IGP companies had a gain-sharing mindset



90% of survey respondents would re-apply for IGP



* Figures reflected were derived from the IGP survey

What does it mean?

If you would like to tap on the IGP fund to improve your business processes, do visit www.e2i.com.sg/IGP for more information

e2i

SkillsFuture Part Line
Employment and Employability Institute

增長
受惠
分享

讓“增長與受惠計畫”
助您的公司擴展業務

1990
The Growth
Share Plan

GROW
GAIN
SHARE

GROW YOUR BUSINESS WITH

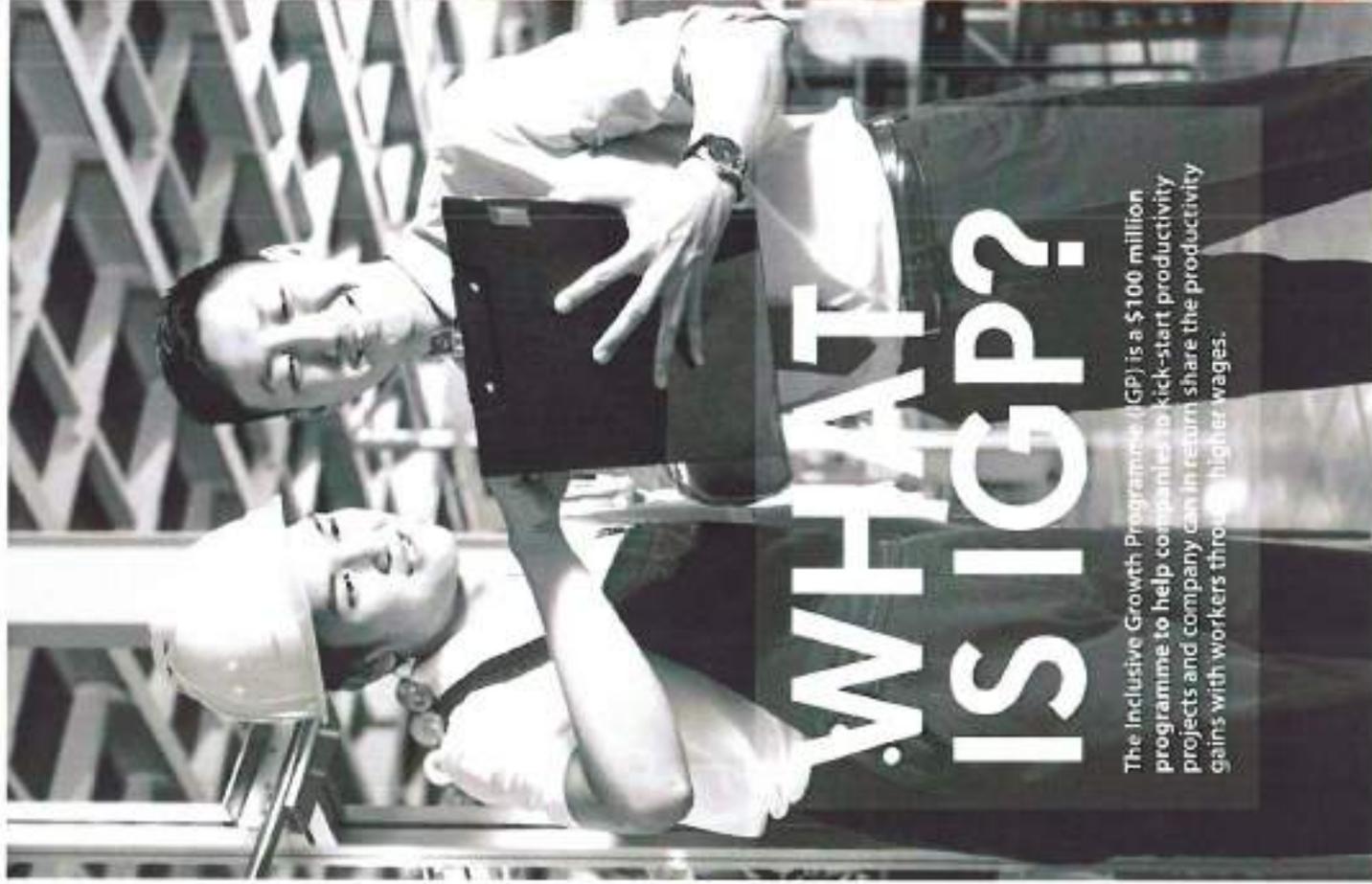
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The Growth
Share Plan

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1990 Limited, 1990, 1990 Limited, 1990 Limited

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WHAT IS IGP?

The Inclusive Growth Programme (IGP) is a \$100 million programme to help companies to kick-start productivity projects and company can in return share the productivity gains with workers through higher wages.

e2i CAN HELP
YOU IDENTIFY
POTENTIAL
AREAS FOR
IMPROVEMENTS
TO BENEFIT
BOTH YOUR
BUSINESS
OPERATIONS
AND WORKERS

Grant support is available to help your company get started and defray part of your productivity project cost.

Fundable components include:

- Automation
- New technology
- Software
- Training for local workers

**RECEIVE UP TO
50% FUNDING
FOR TECHNOLOGY
AND EQUIPMENT*
IMPROVEMENT***

**RECEIVE UP TO
90% FUNDING
FOR TRAINING
AND SKILLS
UPGRADING**

*Up to \$150,000 per project. Capped at \$500,000 a year.

**EARLY
ADOPTERS
AND THEIR
PRODUCTIVITY
JOURNEY**

Many companies have lapped on the Inclusive Growth Programme since the programme was launched in 2010.

Find out how some of these companies have grown their businesses through raising productivity and sharing gains with workers.



ABOUT e2i

As [H] leading organisation to create solutions for better employment and employability, e2i exists to create better jobs and better lives for workers. Since 2008, we have helped more than 300,000 workers through providing better jobs, developing better skills through professional development, and improving productivity for companies.

Visit www.e2i.com.sg/IGP or email IGP@e2i.com.sg for more information on the Inclusive Growth Programme.

欲知有关“增长与回惠计划”的详情，请浏览www.e2i.com.sg/IGP。

模範企業的 生產力之旅

“增長與回惠計畫” (IGP) 自2010年推出以來已經有許多企業從中受惠。

了解這些企業是如何透過提高生產力讓業務增長，並與員工分享成果。

科技與設備改
進可獲得高達
50%撥款*

培訓和技能提
升可獲得高達
90%撥款

*每個項目津貼上限為15萬元，每年上限為50萬元。

就業與職能培訓 中心(e2i)能幫助 您評估公司讓工 業都能 進之作與 運受益

您可以申請津貼以支付公司推薦提高生產力項目時所需的部份成本。

可享有津貼的項目組成部份包括：

- 自動化
- 新技術
- 教練
- 本地員工培訓

什麼是IGP?

“增長與產能計劃”(IGP)是一個由僑領基金贊助的項目。

目的是協助企業提高生產力，企業的生產力提升後，除提高盈利外，透過加薪與員工分享成果。



e2i supports healthcare institutions by providing solutions for better healthcare staff and enhanced productivity.

More healthcare partners each year from both public and private sectors are discovering the benefits of leveraging on e2i's capabilities and development schemes to enable them to deliver the best quality care services to their patients.



In e2i's efforts to create better jobs and better lives for workers, we partner various Hospitals, Step Down Care Institutes, Ambulance Services, Medical Clinics, and Traditional Chinese Medicine Clinics on job productivity enhancements, recruitment of healthcare professionals, and in staff training and upskilling.



e2i
YOUR **Partner in**
Healthcare.



HIRE.



TRAIN.



GROW.

e2i
Empowering People
Enriching Lives

READ OUR STORIES

HOSPITAL

STEP-DOWN
CARE INSTITUTES

AMBULANCE
SERVICES

MEDICAL
CLINICS

TCM

HIRE

HOSPITAL



Hiring Initiatives

Employment outlook: To cater to an ageing population, rising affluence and medical tourism, the healthcare industry in Singapore is set to witness a growing need for manpower to meet the needs of the public.

As the preferred partner for recruitment, e2i also works closely with all 8 public healthcare clusters and private hospitals to effectively place Singaporeans into healthcare jobs.



Did You KNOW?

.....
Khoo Teck Puat Hospital, Mount Elizabeth Novena Hospital, Ng Teng Fong General Hospital and Farrer Park Hospital collaborated with e2i during their set up stages to fill their manpower needs.



GROW

NATIONAL UNIVERSITY HOSPITAL (NUH)

HOSPITAL



CHALLENGE

- » **Efficiency Compromised:** Initially, soiled bedpans had to be manually emptied and then placed one by one into a sanitiser machine for other patients to use. The staff at NUH then had to spend time checking whether the bedpans had been fully sterilised, or if it was their turn to wash the soiled ones. This greatly reduced efficiency and caused a hindrance to the time needed in providing patient care.



SOLUTION

- » **Macerator to the Rescue:** Instead of reusable bedpans, disposable bedpans are now used and disposed into a machine called the macerator that contains blades which shred the disposable bedpans together with the human waste. NUH tapped on e2i's Inclusive Growth Programme (IGP) to aid in the high cost of attaining the macerators.



RESULT

- » **Save Time and Resources:** Previously with reusable bedpans, the entire process took 20 minutes. It now takes just 2 minutes, and staff no longer needed to return to check on their bedpans as the waste would be flushed directly into the sewage system. The new process helped in the reduction of water usage and electricity consumption, as well as the waiting time in cleaning waste. With patients no longer needing to share bedpans, cross-contamination could also be solved.



GROW

KK WOMEN'S & CHILDREN'S HOSPITAL (KKH)

HOSPITAL



CHALLENGE

- » **Walking the Extra Mile:** As the Central Sterile Supply Unit (CSSU) of KKH was situated in a remote location in the hospital, staff had to manually deliver and collect items using a small trolley. The need for multiple trips caused physical strain and resultant fatigue for mature staff, reducing efficiency.



SOLUTION

- » **Beep, beep!:** To reduce staff's walking distance and fatigue, KKH proposed the implementation of Electric Mobility Scooters fitted with a storage basket for quick and easy transportation of items. The scooters were equipped with a beacon light and beeper to alert surrounding people while vehicle is on the move, and travelled in areas that were accessible only by staff. Through e2i's Inclusive Growth Programme (IGP), KKH saved 50% of the purchase costs of the scooters.



RESULT

- » **A More Comfortable Working Environment:** The average walking distance between CSSU and Major Operating Theatre was greatly reduced for each staff, allowing them to work more efficiently thus enhancing timeliness of deliveries and job satisfaction, and enables mature staff to continue to be effective and efficient.



GROW

KHOO TECK PUAT HOSPITAL (KTPH)

HOSPITAL



CHALLENGE

» **An Uphill Task:** There are over 480 Hill-Rom hospital beds at KTPH and each bed weighs 190kg. These beds are typically handled by a two-person team consisting of a nurse and a porter. In the process of manoeuvring from place to place, the healthcare staff are put at risk of hurting their backs.

SOLUTION

» **An Intelligent Solution:** To overcome the weight challenge, KTPH installed an Intelligent Drive system under the Hill-Rom beds. The system is driven by a closed-loop, high-speed Digital Signal Processor system and controlled by two buttons attached to the bed. **With the help of e2i's IGR, KTPH benefitted from savings on the installation costs required for the beds.**



RESULT

» **As Light As A Feather:** With this system, the 190kg bed feels lightweight and can now be easily manoeuvred by a single staff with greater ease.

Did You Know

.....
Winner won the NHG Healthcare Supplier Awards - 1st Prize Innovation



TRAIN

TAN TOCK SENG HOSPITAL (TTSH)

HOSPITAL



CHALLENGE

» **Taking on a New Role:** TTSH saw the need to re-design the career pathways of their Patient Service Associates (PSAs) so that more opportunities will be available for them to develop professionally.

While PSAs have always played a vital role in ensuring the smooth running of operations in the clinics, they focused mainly on frontline administrative duties such as assisting doctors with case notes, appointment bookings, patient registration and billing.

The initiative, co-designed with the PSAs, would incorporate patient-oriented value-added services in their daily work through professional structured training and learning modules. One such example was for PSAs to do blood-taking in addition to their existing duties, wherewith the role was traditionally performed by nurses and phlebotomists.

SOLUTION

» **Expanded Job Scopes:** TTSH partnered e2i to enable the PSAs to be trained through a professional development scheme. This initiative was the first of its kind, piloted by TTSH and funded by e2i, to equip PSAs with phlebotomy skills and thus increasing work efficiency – setting an example for the other healthcare institutions.

RESULT

» **Improved Competency, Better Services:** PSAs at TTSH had the opportunity to broaden their skill sets to take on a more patient-centric role, resulting in work efficiency and enhanced patient experience.





HIRE

STEP DOWN CARE INSTITUTES



Hiring Initiatives

With the rise in Singapore's aging population, employers in the Intermediate and Long-Term Care sector faced an increasing need to hire more candidates to fill the positions.

Exploring Career Opportunities: e2i supported the manpower needs of the companies by organising job fairs and driving public awareness to this sector. Each job fair attracted close to 200 applicants for various positions, ranging from clinical, administrative and operations.

The Right Candidate: At each job fair, employers conducted their interviews on-site to assess the suitability of the candidates. Many opportunities were provided at these job fairs for interviews and shortlisting of a wide pool of potential candidates.



TRAIN

TRAINING FOR ALLIED HEALTH PROFESSIONALS



STEP DOWN CARE INSTITUTES

CHALLENGE

Training Our Occupational Therapists: The Occupational Therapists (OT) community saw the increasing need of enhancing their professional skills and knowledge. However, they faced the challenge of coordinating training for such diverse fields of specialization within the sector.

SOLUTION

Greater Training Opportunities: e2i collaborated with the Singapore Association of Occupational Therapists (SAOT), which represents the professional interests of the OT community, and supported them with training grants to provide greater training opportunities to OTs in their respective fields of specialisation.

RESULT

Enhanced Competencies and Knowledge: More than 100 OTs attended the National Occupational Therapists Conference 2015, where their competencies and knowledge in occupational therapy concepts were enhanced.

“We would like to thank e2i for their support at the National Occupational Therapists Conference 2015.”

Ms. Florence Cheong, President of SAOT

The National Occupational Therapists Conference coincided with SCSO and SAOT's 40th anniversary. e2i's CEO, Mr Gilbert Tan, was the Guest-of-Honour, along with distinguished pioneers and leaders from the field.

AMBULANCE MEDICAL SERVICES PTE LTD (AMS)

CHALLENGE

► **Developing Efficient Mature Workers:** Providing medical support and casualty evacuation services can be physically demanding on any individual, let alone mature workers. This was the predicament that AMS found themselves in, as most of their crew were mature workers. The company was highly concerned about the risk injuries faced by their workers due to laborious nature of their jobs.

SOLUTION

► **A "Litter" Help Goes A Long Way: e2i supported AMS in their efforts to purchase the Litter Carrier, a mobile stretcher capable of operating on even the most rugged terrains, thus lightening the crew's physical burden and improving their operations.**

RESULT

► **Safer Jobs, Increased Productivity:** With this new device, the company's productivity increased significantly, in terms of the time, manpower and physical effort used during field operations.



Did You KNOW?

AMS used these litter carriers during the 2015 SEA Games in Singapore in the event of medical-evacuation operations.

OOI BABY & CHILD CLINIC

CHALLENGE

► **Assistance in Training:** Clinic Assistants working in GP clinics face limited opportunities to receive formal training and upskilling due to a lack of suitable courses. The small manpower pool in clinics makes it difficult for doctors to release their staff for prolonged periods of training.



SOLUTION

► **Honing Key Skills:** To bridge this training gap, e2i partnered HMI - a CET healthcare-skills training institute, to customise a 40-hour programme that caters to the tight schedules and learning needs of the Clinic Assistants. Through the training sessions, Clinic Assistants from Ooi Baby & Child Clinic honed their skills in clinical, operational and administrative matters.

RESULT

► **Ready to Assist:** Clinic Assistants from Ooi Baby & Child Clinic had their knowledge and competencies sharpened which improved their daily job productivity.

“The course was very helpful. It taught us how to better handle emergency cases, such as how to give first-aid treatments and keep patients calm.”

Tina, Clinic Assistant at Ooi Baby & Child Clinic

“I'm grateful for e2i's role in linking us to the right training solutions. My nurses are now more confident in dispensing medicine and handling patients.”

Dr. Rosee Foo, Ooi Baby & Child Clinic



GROW

LC MEDICAL AESTHETICS



CHALLENGE

» **Labourious Administration:** LC Medical Aesthetics faced challenges in managing their daily clinical operations, which include medical claims submissions, medicine dispensing and queue management.



SOLUTION

» **Hardware and Software Support:** e2 supported the clinic in by helping them with the purchase of essential software and hardware components that smoothen processes in their clinical and patient management systems.



RESULT

» **Achieving Increased Productivity:** Time required for important administrative tasks and claims submission was reduced, along with errors in processes. Both staff and clinic benefitted from higher wages and improved overall productivity.



GROW

KIN TECK TONG



CHALLENGE

» **Personal Attention:** Tui Na uses the same principles as acupuncture, except that the hands and fingers are used instead of needles. Therefore, Tui Na treatments need to be manually performed by Kin Teck Tong's therapists on their patients. Such treatments can be physically straining on the therapists, with each treatment taking at least an hour to be completed.



SOLUTION

» **Extra helping hands:** Kin Teck Tong tapped on e2's IGP for the purchase of several machines to improve operational productivity. These machines are able to provide quality treatments to the patients. Non-TCM trained staff can assist to monitor the treatments. As a result, more patients can be cared for and attended to at Kin Teck Tong (Equipment purchased: Interferential Low Frequency Therapy Machine, Microwave Diathermy Unit, Cervical Vertebra Traction Machine and Herbal Fumigation Bed)



RESULT

» **Quality Treatments, Greater Efficiency:** With the assistance of the devices for Tui Na, a full treatment is completed in 30 minutes instead of the usual 1 hour. Through the Herbal Fumigation Bed, the amount of time spent preparing herbs for treatment is reduced tremendously.



慶德堂



挑戰

• 經歷認為：推拿的套路和針灸一樣，只不過推拿不用針，而是靠推拿師的手技。慶德堂的推拿師為了為有需要的顧客進行推拿治療，這需要花大量的時間和精力。

解決方案

• 分擔工作：慶德堂透過就緒與功能感知中心的增長與發展計劃購買了幾台儀器，這些儀器不但能僅給予顧客有效的療程，也降為推拿師節省時間，讓推拿師能為更多顧客提供服務。（所購儀器：干涉波治療儀器、三種療法治療儀器、智能溫熱牽引系統以及復康醫療治療床）

效益

• 更有效率的療程：有了儀器的協助，推拿時間從一小時減少至30分鐘，準備熱水浴的床的溫度則從以往的10分鐘減少至僅10分鐘。

TCM MASTERCLASSES



CHALLENGE

• **Constant Skills Deepening & Upskilling Needs:** The TCM landscape is continuously changing. To keep abreast with the changes, TCM Practitioners need to consistently strengthen their professional knowledge and practice standards.

SOLUTION

• **Education Never Ends:** In 2013, TCM Practitioners Board introduced the Continuing Professional Education (CPE) Programme to the TCM Practitioners in Singapore. e21 worked with partners such as **Eu Yan Sang Academy, Singapore Chinese Medical Union, Singapore College of TCM and Science Arts TCM College** to conduct workshops and masterclasses to **enrich and enhance the professional knowledge of TCM practitioners.**

Courses include:

- Masterclass in TCM Education – Dermatology
- International TCM Classical Prescription Lecture Series
- Masterclass for TCM Paediatric Massage Therapy

RESULT

• **Benefits from Training:** Over 200 TCM practitioners have benefited through these courses. Local practitioners in Singapore gained more industry knowledge and deeper skills from overseas speakers, who have garnered vast experience through their many years of practice.



中醫高級講習班



挑戰

• 語言溝通，學習新知識。為了掌握中醫藥的不斷變化，中醫師必須不斷加強專業知識和技能。

解決方案

• 學術正氣：中醫藥委員會在2013年推出了中醫繼續教育計畫。就是與國際培訓中心與徐仁生學院，新加坡中醫中藥聯合會，新加坡中醫學院和利基中醫藥學院合作聯合主辦工作坊和高級講習班，讓中醫師加強專業知識與技能。

課程包括：

- 國際經方講習班系列
- 《傅家大講堂》之原料專題
- 小吃推廣

效益

• 從培訓中獲益，超過兩位中醫師通過這些高級講習班取得許多新知識，此外，演講者經驗豐富，前來新加坡與本地中醫藥師分享他們的最新知識，讓中醫藥發展不絕。

WORK WITH US TO:



TRAIN

Partner e2i For Your Recruitment Needs

We organize regular community-based, industry and company-specific recruitment events; and outreach to different groups of job-seekers.

Companies are welcome to leverage on e2i's capabilities to customize hiring solutions and reach out to a greater pool of talents.

Work With e2i To Train Your Workforce

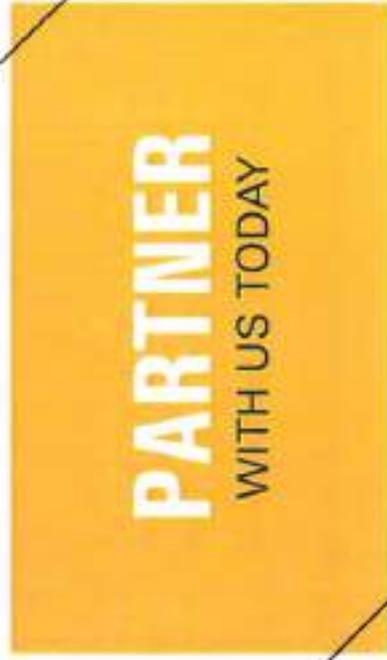
The key to sustainable business success is ensuring that organizations have the right people with the right skills to get the job done and meet organizational objectives. As such, there is continuous need to deep-skill, re-skill and multi-skill workers. Work with e2i to improve the competencies of your workers through customized training for broad-based and industry-specific skills.



GROW

Bring Your Productivity Ideas To e2i

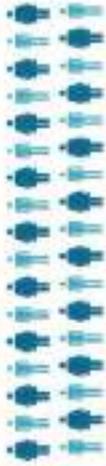
The Inclusive Growth Programme (IGP) is an initiative to support companies in automation and process re-design so as to raise productivity and share gains with workers. Learn how companies from various industries have tapped onto e2i's IGP grant and benefitted, at www.e2i.com.sg/IGP



e2i AT A GLANCE

2008

400,000 workers in Singapore impacted



2015

998 events
200,000 visitors



more than 100 job fairs
9,488 workers placed in jobs



2220 productivity projects
Over 21,500 workers benefited



Professional Development Benefitted over 50,300 workers

ABOUT e2i

As THE leading organisation to create solutions for better employment and employability, e2i exists to create better jobs and better lives for workers. Since 2008, we have helped more than 400,000 workers through providing better jobs, developing better skills through professional development, and improving productivity for companies.

e2i works closely with the Ministry of Health (MOH) and the Healthcare Staff Employees Union (HSEU) to drive higher efficiency in the healthcare sector.

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