



精進標竿 創新服務

Continuing Improvement for Benchmarking

六化施政主軸 邁向高品質百年公共建設

台灣人擁有拓荒精神的基因，不斷引發新思維、新創意，並引進新技術及新工法，已成為國內工程界的軟實力，工程會將致力於建構優質的公共工程環境，以提升工程產業之國際競爭力，期許建國百年，工程產業能登上國際發光發熱。

Optimizing Six Administrative Goals and Advancing Toward High-Quality, Lasting Infrastructure

The people in Taiwan possess the genes of a pioneering spirit, constantly come up with new ways of thinking and new creativity, and bring in new technology and new construction methods. These properties have become a source of soft power for the domestic construction industry, and the PCC will use this power to build an outstanding infrastructure environment and enhance the international competitiveness of the construction industry. It is committed to making Taiwan's construction industry stand out in the international arena.





工程會未來將強化民間參與公共建設投資誘因，並以「品質優質化、法令明確化、費率合理化、制度健全化、價格市場化、程序標準化」為施政精進的主軸，以邁向建設高品質百年公共建設為目標。

為達成施政精進主軸，工程會已頒定「100年度公共工程品質及效率方案」，包括「加強前置作業里程碑管控」、「調整工程計畫審議機制」、「加強公共工程節能減碳」、「強化預定發包工程管控」、「善用發包策略」、「強化採購作業品質避免採購缺失發生」等具體措施，將督促各部會及各縣市政府加速推動各項重大建設計畫，進一步提升公共工程品質及效率。



台灣高速鐵路
Taiwan High-speed Railroad

The PCC will strengthen incentives for private investment in infrastructure projects, and will build its administrative achievements on the principles "quality optimization, legal clarity, cost rationalization, system strengthening, price marketization, and procedural standardization" as it advances toward the goal of building a high-quality infrastructure that will last for centuries.

To achieve the goal of administrative improvement, the PCC has inaugurated a "Centennial Program for Public Construction Quality and Efficiency," that includes such concrete measures as "Strengthening of Milestone Control for Preliminary Work," "Readjustment of the Construction Project Review Mechanism," "Strengthening of Energy Conservation and Carbon Reduction in Public Construction," "Making the Best Use of Contract Awarding Strategy," and "Reinforcement of Procurement Quality and Avoidance of Procurement Defects." The PCC will supervise the ministries, commissions, and county and city governments in speeding up the implementation of major construction projects so as to further upgrade the quality and efficiency of public construction.

百年大業~預定100年度完工計畫

Centennial Endeavors – Projects to Be Completed in the ROC's Centennial Year

主辦機關 Agency in Charge	計畫名稱 Project
交通部觀光局 Tourism Bureau, Ministry of Transportation and Communications	大鵬灣國家風景區環灣景觀道路工程 Dapeng Bay National Scenic Area Round-the-Lake Scenic Highway
交通部台灣區國道新建工程局 Taiwan Area National Expressway Engineering Bureau, Ministry of Transportation and Communications (TANEEB)	臺中生活圈4號線工程 Taichung Living Circle, Route 4
交通部公路總局 Directorate General of Highways, Ministry of Transportation and Communications (DGH)	台北縣特二號城林橋至土城交流道新建工程 Construction of Special Highway 2 from Chenglin Bridge to the Tucheng Interchange in Taipei County
台北市政府捷運工程局 Department of Rapid Transit System, Taipei City Government (DORTS)	台北都會捷運南港站 Nangang Station, Taipei MRT
水利署 Water Resources Agency, Ministry of Economic Affairs (WRA)	1. 深層海水資源利用及產業發展實施計畫(台東) Deep-sea Water Resource Utilization and Industrial Development Implementation (Taitung) 2. 石門水庫集水區整治計畫 Shimen Reservoir Catchment Rectification 3. 集集共同引水工程後續計畫 Follow-up Plan of Jiji Water Resources Common Engineering 4. 鯉魚潭水庫發電取水口設置備援出水工程計畫 Liyu Lake Reservoir Power Generator Intake Equipment and Outlet Works
台電公司 Taiwan Power Company	1. 和平溪碧海水力工程 Heping River Bihai Hydropower Project 2. 澎湖湖西暨風力發電第二、三期計畫 Second and Third Stage Huxi Wind Generator Project in Penghu 3. 太陽光電第一期計畫 First-stage Solar Power Project
台灣中油公司 CPC Corporation, Taiwan(CPC)	高雄廠第二煤裂工場環保汽油品質提昇計畫 Environmental Protection Gasoline Quality Enhancement Plan for Fluid Catalytic Cracking Unit at the Kaohsiung Refinery
台灣自來水公司 Taiwan Water Corporation	1. 后豐大橋水管橋工程計畫 Houfeng Water Line Bridge Project 2. 集集淨水場二期擴建工程計畫 Volume of Water Purification Factory Two Phase of Expansion Project
國立台灣歷史博物館 National Museum of Taiwan History (NMTH)	國立台灣歷史博物館計畫 National Museum of Taiwan History Project
國防部空軍總司令部 Air Force Command Headquarters, Ministry of National Defense	忠勇分案 Chung Yung Construction Project



建置「台灣基礎建設網路博物館」

一、見證台灣基礎建設發展，迎接中華民國百年新紀元

台灣經濟發展被喻為世界奇蹟，公共建設扮演關鍵性角色之一，不容忽視。行政院公共工程委員會為慶祝中華民國的百歲生日，特別籌劃成立「台灣基礎建設網路博物館」，一方面為歷史做見證並促進觀光，另一方面也希望藉由網路世界的無遠弗屆，讓台灣走出去，更讓世界看見台灣。

3個月內共完成蒐集文件812篇、照片3,330張、影音248則，於99年12月底建置完成，100年1月1日正式啟用。



圖1 網站架構圖
Fig.1 Website Composition



入口網：具典藏、創新、互動、經濟特色，分3大類9大分館，以「時光走廊」呈現農業、工業、資訊3時期之基礎建設發展，並以「每日一展」、「台灣建設縮影」、「工程之美」介紹各館特色，另結合觀光旅遊地圖，及活動纜車、跑馬燈等介紹相關訊息。
Portal Site: The website uses collection, innovation, interaction, and stimulation economy to organize nine zones in three major categories, and utilizes the "time tunnel" concept to present the development of infrastructure during Taiwan's agricultural, industrial, and information periods. The features of each zone are introduced through "An Exhibit a Day," "Taiwan's Construction in Microcosm," and "The Beauty of Engineering." The portal also presents information by using a tourist map as well as a moving gondola and news tickers.



水電民生館：「建設首要在民生」，台灣目前以進入服務業為主的經濟結構，因此，整體的頁面設計內容以民衆生活相關為主。
Water and Electricity Zone: "The foremost purpose of construction is the people's livelihood." Taiwan's economic structure is entering a service-intensive stage of development, so this entire page is related to the people's livelihood.

交通電信館：交通建設所到達的地方，就是文明足跡的處所，記錄著台灣陸、海、空交通建設之發展史及相關知識。
Transportation and Communication Zone: Wherever transportation system reaches, there will be the traces of civilization. This zone records the development of land, sea, and air transportation in Taiwan, along with related information.

Establishment of the Virtual Museum of Taiwan Infrastructure

1. A Witness to Taiwan's Infrastructure Development Welcomes the Centennial of R.O.C.

Taiwan's economic development has been likened to a miracle—in which the key role of public construction cannot be ignored. To celebrate the Centennial of the Republic of China, the Public Construction Commission mapped out plans for the establishment of the Virtual Museum of Taiwan Infrastructure to serve as a witness to history and a booster of tourism on the one hand, while reaching out to the world through the Internet and helping the world see Taiwan more clearly.

A total of 812 documents, 3,330 photographs, and 248 recordings was collected within three months. Preparations were completed by the end of December 2010, and the museum opened its doors on Jan. 1, 2011.



模型影像館：模型是工程的縮影，蒐集了交通建設、水電民生及文化建築等重大工程模型之影音及圖片介紹。整體設計以台灣為底圖，從美國及世界的角度看台灣，表達讓台灣走進世界，讓世界看見台灣的意念。

Zone of Major Engineering Project Models: Models represent infrastructure engineering in miniature. This zone museum contains a collections of videos and photos that introduce models of major transportation, water, electricity, and cultural projects. The overall design background is Taiwan as seen from the United States and the world, expressing the idea of taking Taiwan into the world and letting the world see Taiwan.



文化建築館：建築與人的生活息息相關，也反映出人類生活的歷史。因此，在設計上以故宮與媽祖及小孩一起構成，並以時間軸的概念呈現。

Cultural Architecture Zone: Building is intimately related to life, and it also reflects the history of human life. The design of this zone makes use of the National Palace Museum together with the goddess Mazu and children, as an emblem of humanities which was expressed via the time tunnel concept.

促參建設館：促進民間參與公共建設（簡稱促參）是世界各國施政的潮流，也就是引進民間的資金及活力來提供公共服務，而BOT就是最主要的方式之一。政府不是為了BOT而BOT，是為人民、廠商及政府營造三贏的局面。而許多國家在金融海嘯的衝擊下，也增加促參案於經濟復甦方案的比重，以紓解政府財政壓力，並刺激經濟發展。促參建設館囊括了從未曝光過的興建中促參案件3D模擬照片及影片，讓民眾能看見未來各項促參公共建設的藍圖。

PPP Zone: Using Public-Private Partnerships (PPP) has become a global trend for providing public services in recent years. PPP strategy provides new sources of private capital and energy for public service. Actually, BOT is the most common model among PPP. The government doesn't use BOT for the sake of BOT, but for the benefit of the people, the corporate sector, and the government alike. Further, several countries increased the use of PPP in their infrastructure investment plans in order to minimize deficits and to enhance its stimulating effect on the economy. The PPP Zone uses displays of never-before-seen 3D simulation photos and videos to show the blueprints of future private-participation projects to the public.

工程新知館：共蒐集57個工程新知項目，含87個實際案例，12個影音檔及639張圖片，資料豐富是了解工程新知的最佳場所。

New Engineering Information Zone: This zone contains 57 items of new engineering information, including 87 cases, 12 audiovisual clips, and 639 illustrations. The abundance of material makes this zone the perfect place for learning new engineering information.



工程防災館：台灣每年都有颱風、豪雨、土石流...等災害，如何從相關數據中了解災害並學習如何防災，為建置的重點。設計上運用防護罩的概念，象徵保護民眾生命財產安全。

Protection Against Natural Disaster Zone: Taiwan suffers disasters from typhoons, torrential rains, and mudslides every year, and this zone was set up with the key objective of using the relevant data to understand those disasters and learn how to prevent them. The design of the zone uses the concept of the protective shield to symbolize the protection of lives and property.

永續工程館：永續工程以「演進」、「展望」、及「百科」等三大單元為內涵，以永續發展的角度出發，從生態工程、永續工程、節能減碳、低碳工程等介紹，讓民眾了解台灣對永續發展的努力。

Sustainable Infrastructure Zone: This zone consists of three elements: "Development," "Vision," and "Knowledge." It introduces eco-engineering, sustainable engineering, energy conservation and carbon reduction, and low-carbon engineering to let the public know the efforts for sustainable development in Taiwan.

活動館：分為粉絲遊戲館、故事館及攝影館，並舉辦百大建設網路票選、工程之美攝影比賽等活動。

Activity and Event Zone: This zone is divided into a Games and Facebook Gallery, Touching Stories Gallery, and Precious Pictures Gallery and conducts 100 Greatest Infrastructure Constructions in Taiwan online poll, project activities and so on the Beauty of Infrastructure photography competition.

二、百大建設網路票選有獎活動

工程會於100年1月1日至31日舉辦「百大建設網路票選有獎活動」，希藉由網路無遠弗屆之力量，讓網友票選心目中最具經濟效益、最傑出或最有價值的基礎建設，藉此票選活動，引發民眾興趣，進而瞭解公共工程建設艱鉅的興建過程，予以肯定政府施政的苦心及對工程人員辛勞的推崇，並促進觀光，帶動商機。

民眾踴躍上網參與投票，總投票數達313,190票，為網路博物館帶來第一波高潮。票選結果，顯示網友心目中的前十大建設分別為：高速鐵路、台北101、雪山隧道、日月潭至九族文化村纜車、中部橫貫公路、總統

府、台中火力發電廠、澎湖跨海大橋、國立故宮博物院及石門水庫。

三、工程之美攝影比賽

基礎建設除帶來經濟的發展外，工程本身更賦有令人驚艷的人文素養，並具國際水準以上。為使公共建設能更貼近民眾生活，期藉由攝影比賽來捕捉其美感，引領民眾產生興趣而有更深入的認識。因此，工程會於100年1月17日至2月14日舉辦「工程之美攝影比賽」，共219人報名參賽，投稿件數計1,340件，其中符合參賽資格為1,227件，評審結果為金獎1名、銀獎2名、銅獎3名、優選10名及佳作10名。



2. Vote for the 100 Greatest Infrastructure Projects

The PCC held a "Vote for the 100 Greatest Infrastructure Projects" during Jan. 1-31, 2011 with the aim of using the infinite range of the Internet and allowing net browsers to vote on the infrastructure projects they considered as having the greatest economic effect, being the most outstanding, or having the greatest value. This activity aroused the interest of the public, helping it to understand the difficulty of construction and recognize the achievements of construction personnel. It also helped to enhance tourism and business opportunities.

The public joined enthusiastically in the activity, casting a total of 313,190 votes and arousing a tide of interest in the online museum. The top 10 construction projects, as chosen by the web users, turned out to be the Taiwan High Speed Rail, Taipei 101, Xueshan Tunnel, Sun Moon Lake – Formosan Aboriginal Culture Village Ropeway, Central Cross-Island Highway, Presidential Office Building, Taichung Thermal Power Plant, Penghu Cross-Sea Bridge, National Palace Museum, and Shimen Reservoir.

3. "Beauty of Infrastructure" Photo Contest

To bring public construction closer to the daily lives of the people, the PCC held the "Beauty of Infrastructure" Photo Contest from Jan. 17 to Feb. 14, 2011 to capture the esthetic beauty of infrastructure, arouse the public interest, and give the people a deeper understanding of the infrastructure. A total of 219 contestants entered 1,340 photos, of which 1,227 were found to be qualified for participation; the judges chose one gold-award winner, two silver-award winners, three bronze-award winners, 10 awards for excellence, and 10 special mention awards.



政府採購公開透明

工程會為政府採購法主管機關，依法落實公平、公開、公正、效率及品質之政府採購制度。99年全國各機關逾10萬元採購總決標件數計198,880件，總決標金額為1兆3,657億元，其中以公開方式辦理招標之採購件數計175,281件，占全年總採購件數88.13%，以公開方式辦理之採購決標金額為9,819億元，占全年總決標金額比率71.90%，如表1，顯示政府採購在公開化、透明化之作業機制，頗具成效。

健全公共工程管理資訊體系

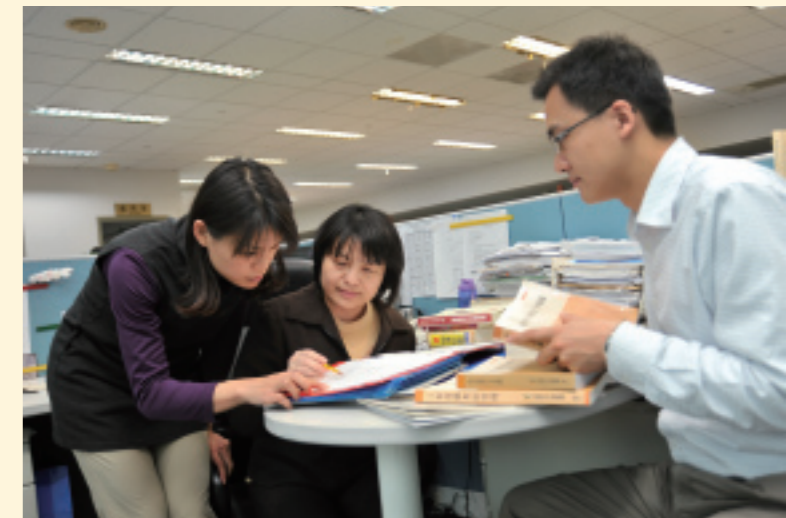
- 一、建置完成99年度「重大公共建設計畫管理系統」、「四年五千億計畫管理系統」、「公共建設預算調查系統」及「莫拉克颱風災後重建工程管理系統」。
- 二、建置完成「99年度重大公共建設執行情形」及「莫拉克颱風災後重建工程執行情形」公開網頁，並於每月11日及26日上網公布，以同儕評比及外界監督方式，促使各機關提升執行效率。



台北捷運蘆洲站
Luzhou Station, Taipei MRT

Openess and Transparency of Government Procurement

The PCC is the responsible agency for the Government Procurement Act, and as such, PCC implements a fair, open, just, efficient, and high-quality government procurement system. The number of procurement awarded cases in 2010 worth more than NT\$100,000 each was 198,880, with a total contract value of NT\$1,365.7 billion. Of this total, 175,281 cases, or 88.13% of the total, were handled by open tender. These had an overall contract value of NT\$981.9 billion, or 71.90% of the total amount. Table 1 shows that in terms of openness and transparency, the government's operating mechanism is performing admirably well.



Strengthening of the Public Construction Management Information System

1. PCC established the "Major Construction Project Management System," "Four-year NT\$500 Billion Plan Management System," "Public Construction Budget Investigation System," and "Post Typhoon Morakot Reconstruction Management System."
2. The "Implementation of Major Infrastructure Projects in 2010" and "Implementation of Post Typhoon Morakot Reconstruction" open web pages were installed, with information posted online on the 11th and 26th of each month. This enables the agencies involved to enhance their operating efficiency through peer comparison and outside oversight.

表1 97至99年度機關辦理採購公開辦理決標件數及金額比率一覽表
Table 1 Numbers and Values of Open Competition Projects by Government Agencies, 2008-2010

年度 Year	決標件數 No. of Cases	公開辦理Open Competition		決標金額 (億元) Value of Projects (NT\$100 million)	公開辦理Open Competition	
		決標件數 No. of Projects	比率 (%) Ratio (%)		決標金額 (億元) Total Value (NT\$100 million)	比率 (%) Ratio (%)
97	191,591	166,348	86.82	12,942	10,240	79.13
98	204,484	175,235	85.70	12,844	10,268	79.95
99	198,880	175,281	88.13	13,657	9,819	71.90