



利民

Benefiting the People

針對公共工程與民眾生活息息相關的部分，公共工程委員會採取多項利民措施，其中，「全民監督公共工程實施方案」於98年已解決3,434件民眾通報案件，並於政府採購提供廠商電子領標數逾106萬次。

The PCC has adopted numerous measures to benefit the public in regard to public construction that is closely related to the lives of the people. The "Oversight of Public Construction by All the People" program resulted in the resolution of 3,434 cases reported by the public in 2009 alone, and 1.06 million online retrievals of bid documents for government procurement projects were completed.



▲日月潭纜車 (BOO)
完工日期：98年10月28日

念茲在茲 以民為先

A Single-Minded Goal Putting the People First

全民監督 提升品質

一、辦理全民督工

「全民監督公共工程實施方案」於91年7月17日奉行政院核定，工程會依本方案督促各部會及縣市政府完成建置全民監督公共工程通報系統，成效良好。

98年度民眾通報案件計3,518件，其中3,434件已獲致解決，所餘84件持續辦理中。本方案透過網際網路，將有形的23個縣市政府、台北市、高雄市及30餘個中央部會，虛擬為單一組織的民眾抱怨處理中心，諸如道路不平、危害環境安寧等，可以快速解決簡單的缺失通報；而較困難的案件也均透過定期追蹤，達到一定的處理成效。通報系統圖如右。

依「全民督工方案考核作業規定」，對於績效優良的機關相關人員，最高有記大功的獎勵；對於通報人通報之熱忱，也有表揚及頒發獎勵金1~5萬元的規定，97年度優良通報人及執行績效機關，工程會已於98年5月4日公開表揚，受獎名單如下。

附表：「全民監督公共工程實施方案」97年度執行績效優良獎勵名單

Awards Presented in 2008 for Superior Performance under the Program for Oversight of Public Construction by All the People

獎勵對象 Award Category	等第 Award	機關名稱 Recipient
優良主管機關 Outstanding Agency	優等 Outstanding	經濟部、交通部、內政部、台北縣政府、台北市政府 Ministry of Economic Affairs, Ministry of Transportation and Communications, Ministry of the Interior, Taipei County Government, Taipei City Government
	甲等 Excellent	農委會、宜蘭縣政府、彰化縣政府、高雄縣政府、基隆市政府、台南市政府、高雄市政府 Council of Agriculture, Yilan County Government, Changhua County Government, Kaohsiung County Government, Keelung City Government, Tainan City Government, Kaohsiung City Government
優良主辦機關 Outstanding Agency	優等 Outstanding	臺北縣政府水利局、臺北市政府捷運工程局中區工程處 Water Resources Bureau of the Taipei County Government, Central District Project Office of the Taipei City Department of Rapid Transit Systems
	甲等 Excellent	內政部營建署北區工程處、內政部營建署下水道工程處、經濟部水利署第五河川局 Northern Engineering Office of the Ministry of the Interior's Construction and Planning Agency, Sewage System Office of the Ministry of the Interior's Construction and Planning Agency, Fifth River Bureau of the Ministry of Economic Affairs' Water Resources Agency
優良通報人 Outstanding Reporter	優等 Outstanding	洪先生等3人 Three awardees

Public Oversight Upgrading Quality

1.Oversight of public construction by All the People

The Executive Yuan approved the Program for Oversight of Public Construction by All the People on July 17, 2002, and the PCC encourages ministries, commissions, and county and city governments to install public oversight reporting systems based on this Program.

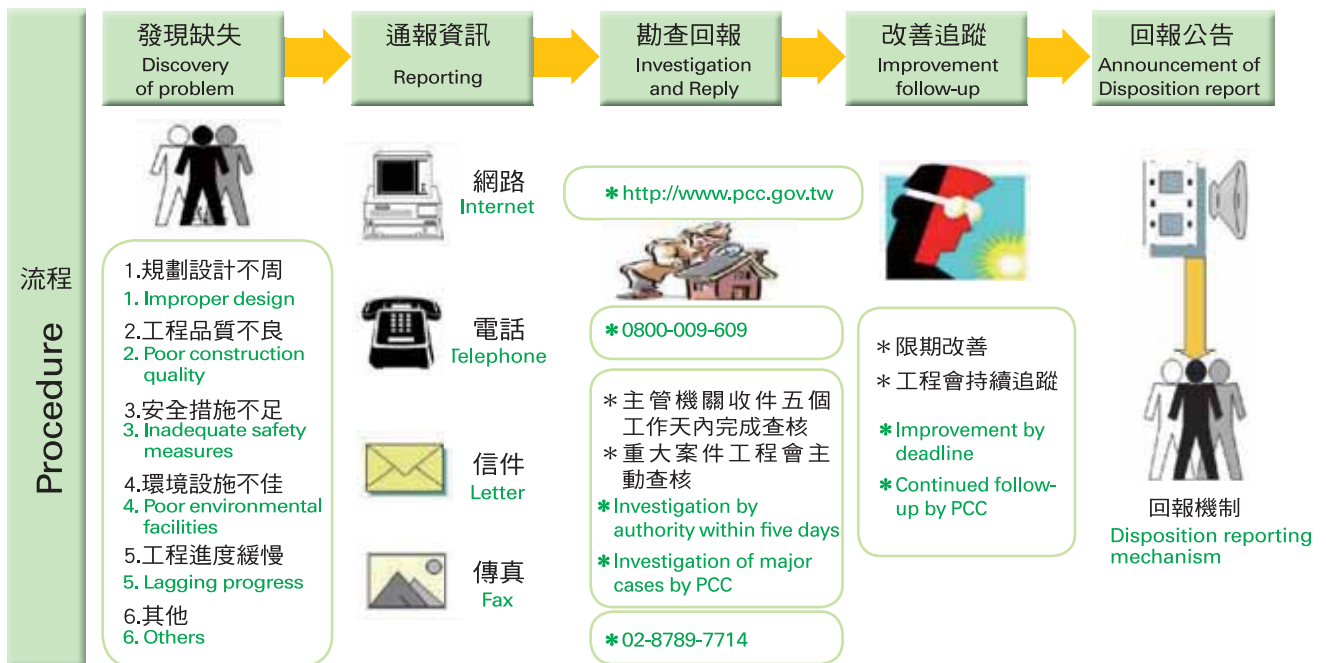
The public reported 3,518 cases in 2009; of which 3,434 were resolved, and the remaining 84 are under disposition. The Internet has been used to virtualize the 23 municipality, county, and city governments, as well as the 30-plus Cabinet-level agencies, into a single public complaint center for such issues as bad roads

and disturbances to environmental tranquility. Simple reported problems can be resolved quickly through this system, and more difficult cases can be resolved, to some extent, through regularly scheduled follow-up. The reporting system is illustrated in the following chart:



▲范主委與獲頒「全民督工」優良機關合影

PCC Minister Fan and winners of "Excellent Organizations of Public Supervision" award



Reporting System for Oversight of Public Construction by All the People

▼台北市辦理路平觀摩會

Road Flatness Project Workshop, Taipei City



二、技師輔導

（一）產業現況

截至98年底，全國領有有效之技師執業執照總人數為3,520人，按各科別執業技師人數統計分布如表1，按執業方式人數統計分布如表2。

表1：各科別執業技師人數統計

Table1 No.of Engineers by Area of Specialty

土木工程科 Civil Engineering	1064	礦業安全科 Mining safety	1
結構工程科 Structural Engineering	468	林業科 Forestry	1
電機工程科 Electrical Engineering	406	園藝科 Horticulture	1
環境工程科 Environmental Engineering	338	食品科 Food products	1
大地工程科 Geotechnical	241	工業工程科 Industrial	1
水利工程科 Hydraulic Engineering	178	電子工程科 Electronic Engineering	3
冷凍空調工程科 Freezing and air conditioning	177	都市計畫科 Urban planning	176
水土保持科 Soil/Water Conservation	122	測量科 Surveying	108
應用地質科 Applied geology	69	機械工程科 Mechanical Engineering	52
交通工程科 Transportation	47	工業安全科 Industrial safety	23
工礦衛生科 Industrial and mining health	19	化學工程科 Chemical Engineering	9
造船工程科 Shipbuilding	8	採礦工程科 Mining Engineering	7

表2：按技師執業方式人數統計

Table2 No.of Engineers by Type of Practice

單獨設立或與其他技師組織聯合技師事務所 Single or joint engineer's office	1123
受聘或組織工程技術顧問公司 Hired or organized engineering consulting company	2372
受聘依法令規定必需聘用技師之營利事業或機構 Hired by profit-seeking enterprise or organization required by law to hire	25

截至98年底，領有工程技術顧問公司登記證之公司總計有819家。

98年辦理統計97年工程技術顧問公司總產值為693億元，平均每公司生產總額為9,035萬元，較前一年度8,747萬元增加3.3%，員工就業人數為20,168人，較前一年度19,543人增加約3.2%。

（二）健全法規及法規鬆綁

1. 98年6月15日會銜交通部公告「交通運輸纜車工程」實施技師簽證，並訂定簽證實施範圍與項目，提高纜車相關工程之品質及安全。
2. 98年8月5日行政院函頒「公共工程或公有建築物設置再生能源發電設備規劃設計參考原則」，供辦理公共工程或公有建築物規劃設計參考。
3. 98年11月26日及30日分別發布「工程技術顧問公司許可及登記收費標準」及「技師證書及執業執照收費標準」，配合政府調降證照費政策，減輕技師申請費用負擔。
4. 98年11月30日通函「機關自辦應實施技師簽證之公共工程設計、監造作業適用公共工程專業技師簽證規則相關疑義說明」，使機關自辦技師簽證明確化。
5. 98年12月2日發布「技師法第16條規定技師應簽署並加蓋執業圖記之執行原則」行政規則之解釋令，以正面表列明定技師應依法簽署之方式及內容。



▲道路管線挖掘工程觀摩會

The good performance of government agency personnel is recognized by the recording of up to one major merit, and people who make reports can be given commendations and awards of NT\$10,000 to NT\$50,000. The following reporters and implementing agencies were awarded in 2008. Recipients are listed in the left table.

2. Professional Engineer Guidance

a. Status of the Professional Engineer

At the end of 2009, Taiwan has a total of 3,520 licensed professional engineers. Table 1 gives their numbers of specialty, Table 2 gives statistics by type of practice.

At the end of 2009, there was a total of 819 registered professional engineering consulting firms in Taiwan. Their total production value in 2008 was NT\$69.3 billion, for an average of NT\$90.35 million per firm. It increased 3.3% compare with NT\$87.47 million per firm the previous year. Total employment of the firms numbered 20,168, an increase of 3.2% over the previous year's 19,543 employees.

b. Refined Regulation and Deregulation

- (1) Implementation of "Transportation Cable Car Engineering" professional engineer certification program announced jointly with the Ministry of Transportation and Communications on June 15, 2009, and the scope and items of certification were also formulated so as to improve the quality and safety of cable car engineering.
- (2) "Reference Principles for the Planning and Design for the Installation of Renewable Energy Power Equipment on Public Constructions and Public Buildings" promulgated by the Executive Yuan on Aug. 5, 2009.
- (3) In line with the government's policy of reducing certification fees to lighten the cost burden on engineers, the "Permit and Registration Fee Standards for Engineering Consulting Companies" and "Fee Standards for Professional Engineer Certificates and Professional Engineer Licenses" announced on Nov. 26 and 30, 2009, respectively.
- (4) The "Explanation of the Rules for Public works requiring the Professional Engineering Certification of the Design and Monitoring Being Implemented Directly by Agencies" was issued on Nov. 30, 2009.
- (5) An interpretation of the "Implementation Principles for the Signing and Affixing of the Professional Engineer's Practice Seal as Required by Article 16 of the Professional Engineers Act" was issued on Dec. 2, 2009, listing the methods and content of the legally required signing by engineers.

c. Statistics for all Violation Cases through Inspection and Auditing

- (1) By using the "Professional Engineer and Engineering Consulting Firm Management Information System" to investigate legal compliance by consulting firms.
- (2) Eight engineering consulting firms were fined a total of NT\$1.38 million.



▲范主委出席台北市冷凍空調技師公會會員大會

PCC Minister Fan attends conference of Air-conditioning and Refrigeration Professional Engineer Association

（三）查察或訪查、稽核違規案件輔導統計

1. 應用「技師及工程技術顧問公司管理資訊系統」查核顧問公司是否依法執業。
2. 裁罰8家工程技術顧問公司，罰鍰金額共計新臺幣138萬元。
3. 加強稽核營業狀況案量異常及低價搶標案件之技服廠商，於98年度共辦理17件專案稽核，計1件移送技師懲戒，1件公司申請註銷登記，餘大部分已檢討改善。
4. 於97年風災復建工程地方政府執行成果審議時，至嘉義縣等7縣計11次現地訪查，98年度發函督正工程技術顧問公司或技師事務所業務計11家。

（四）教育訓練及流程改善

1. 98年度舉辦14場工程倫理講習會，參加技師計701人，培養技師之敬業與專業精神。
2. 98年度舉辦2場原住民地區工程規劃設計講習，參加之機關人員計75人，技服廠商計98人，促進原住民機關及廠商技術及經驗之交流，俾提升原住民地區工程規劃設計品質。
3. 推動技師訓練積分審查及登記作業科學化管理，未來自技師訓練活動認可、訓練單位發給訓練證明至技師訓練積分審查及登記作業皆以線上進行申請、審查及核發作業，減少人為作業時程，落實無紙化減碳政策。

三、公共工程施工綱要規範

98年度「公共工程技術資料庫整合、維護與推廣」專案計畫，特別針對「公共工程施工綱要規範」第13~16篇機電、空調及消防控制等三類，規劃四年期發展計畫。特別邀請產業界公會組織等參與研商提出包含機電類20章、冷凍空調類9章、消防控制類6章等新增篇章，並召開35場施工綱要規範審查會議，預計於99年4月底完成新增35章施工綱要規範，提供各界查詢參考。

辦理採購 稽核調解

一、採購如何進行

（一）政府採購流程：政府採購一般流程包含：編列預算→訂定招標文件→公告招標→廠商投標→開標→審標→決標→履約管理→驗收結算→保固結案。

（二）採購需求規劃：先確認採購標的特性、完成採購之時效性及預算來源及金額，再簽報機關首長或其授權人員，並注意有無共同供應契約可供使用，及其他需配合辦理之法規，例如原住民族工作權保障法第11條、身心障礙者權益保障法第69條、資源回收再利用法第22條。

- (3) To increase the investigation of technical service companies for abnormal business volume and excessively low bidding cases, total 17 cases were investigated in 2009. One case was sent for engineer discipline and there was one request for cancellation of registration. Most of the other cases have been reviewed and made necessary corrections.
- (4) PCC carried out 11 inspections of post-typhoon reconstruction work of local governments in 2008, and correctional letters were sent to 11 engineering consulting firms or engineer's offices in 2009.

d. Training and Process Improvement

- (1) Fourteen engineering ethics lectures were held in 2009, with 701 engineers attending.
- (2) In 2009, the PCC held two lectures on construction planning and design in indigenous tribal areas, with 75 agency personnel and 98 personnel from technical service firms participating. The lectures enhanced the quality of construction planning and design in tribal areas.
- (3) The PCC promoted engineer training points examination and systematic registration operations, along with online application for engineer training activity permits, issuance of training certification, training points examination, registration, and issuance operations, through these paperless online services carrying out the policy of carbon reduction.

3. Master Specifications for Public Construction Work

A four-year development plan was mapped out in 2009 for three categories—electromechanical, air conditioning, and fire control—under sections 13-16 of “Master Specifications for Public Construction Work”

of the “Integration, Maintenance, and Promotion of the Public Construction Technology Databanks” project. Industry associations were invited to participate in compiling 20 new chapters on electromechanical equipment, nine on air conditioning, and six on fire control, and 35 sessions were convened to review the construction work specifications. The 35 new chapters of construction work specifications are expected to be completed by the end of April 2010 and made available for reference.

Dealing with Procurement, Auditing and Mediation

1. How to Handle Procurement

a. The government procurement process

The government procurement process generally includes these steps: Budget compilation→Formulation of tender documents→Announcement of tenders→Bidding by enterprises→Opening of bids→Examination of bids→Contracts awarding→Contract performance management→Acceptance and settlement→Warranty and case closure.

b. Procurement needs planning

The characteristics, timing of completion, and source of funding of the procurement are first determined, and then reported to the head of the agency or authorized personnel; note is taken as to whether there are inter-entity supply contracts that can be used and to other laws and regulations that must be complied with, such as Article 11 of the Indigenous Peoples Employment Rights Protection Act, Article 69 of the People with Disabilities Rights Protection Act, and Article 22 of the Resource Recycling Act.



▲全民督工實地查證「台北縣特2號道路工程」
Civil supervisors attend No.2 Special Expressway construction in Taipei County



▲吳院長、范主委及黃昭順立委訪查「高雄港洲際貨櫃中心工程」
Premier Wu, PCC Minister Fan, and legislator Huang, Chao-shun inspect Kaohsiung International Container Terminal project

（三）招標及決標方式

招標方式包含公開招標、選擇性招標、限制性招標（比價或議價）、公開取得書面報價或企劃書。機關辦理公告金額（100萬元）以上之採購，除得採選擇性招標或限制性招標辦理者外，應公開招標。未達公告金額之採購，其金額超過公告金額十分之一者，除得採限制性招標者外，仍應公開取得3家以上廠商之書面報價或企劃書。小額採購招標，得不經公告程序逕洽廠商採購。

決標方式包含最低(高)標決標、最有利標決標、複數決標。機關辦理採購採最有利標決標者，以異質之工程、財物或勞務採購，不宜以最低標方式辦理決標者為限。

（四）招標公告及廠商投標

廠商可以瀏覽政府電子採購網，檢視是否有符合自身資格條件或履約能力的案件。對於提供電子領標或電子投標的標案，並可透過電腦網路進行領標或投標作業。

（五）開標審標及決標程序

機關應依招標文件標示之時間及地點開啟廠商投標文件之標封，開標後依招標文件規定進行審查，符合招標文件規定者，依招標文件所定決標原則辦理決標。如該採購案有得標廠商，公告決標並與得標廠商簽訂採購契約。

（六）履約管理及驗收保固程序

廠商履約所供應或完成之標的，須符合契約規定，機關得於履約過程辦理分段查驗，其結果並得供驗收之用；如廠商履約結果經機關驗收有瑕疵者，得限期改善或採取減價收受、解除或終止契約並請求損害賠償之措施。契約如訂有保固條款者，廠商依約執行保固責任。

（七）就機關與廠商間因採購契約所生之履約爭議，如兩者協議未成者，得依法申請調解，調解流程圖詳圖2。

（八）就機關上述採購作業，如有異常情形者，得依法進行稽核監督，稽核流程詳圖3。





▲蓮潭國際會議館
整建工程（ROT；完工日期97年3月）

c. Tendering and Contract awarding procedures

The tendering procedures for procurement include open tendering, selective tendering, limited tendering (price competition or negotiation), and open solicitation of written quotation or project proposal. An agency shall publish open tendering procedures to all procurement of a value set of NT\$ 1 million, except otherwise provided for selective tendering or limited tendering. For a procurement that does not reach the threshold, but no less than one-tenth of the threshold may choose limited tendering; otherwise, they must receive price quotations or proposals from at least three companies. Procurements involving small amounts need not go through the public

tendering process and negotiate with supplier directly.

Bid awarding methods include lowest tender, most advantageous tender, and multiple awards. The most advantageous tender shall only be applied to cases where tenderers are allowed to submit tenders for construction, property, and services with special qualities and therefore the lowest tender is not suitable for application.

d. Tender announcement and tendering by suppliers

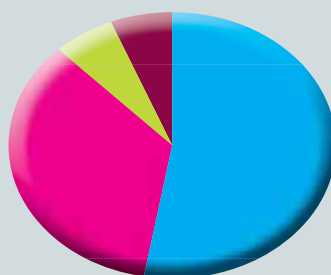
Suppliers can browse the Government Procurement network for tenders conforming to their conditions and competence. For cases that provide electronic acquirement of tender documentation or electronic submission of tender, suppliers can perform those actions online.

辦理中計9件，53%
In process: 9 cases

已檢討改善計6件，35%
Reviewed and improved: 6 cases

公司註銷計1件，6%
Cancellation of company registration: 1 case

移送技師懲戒計1件，6%
Sent for engineer sanction: 1 case



98年度稽核技服案件辦理情形統計圖

Audit and Technical Service Cases in 2009

違反營造業法計1件，9%
Violation of the Construction Industry Act: 1 case

公司註銷計2件，18%
Cancellation of company registration: 2 cases

移送技師懲戒計2件，18%
Sent for engineer sanction: 2 cases

已檢討改善計6件，55%
Reviewed and improved: 6 cases



98年度訪查技服案件辦理情形統計圖

Inspection Visits and Technical Service Cases in 2009

圖I：98年度稽核與訪查辦理情形統計圖
Chart 1 Audits and Inspection Visits in 2009

說明：

- 一、按採購履約爭議調解規則第20條第1項規定，調解事件應自收受調解申請書之次日起4個月內完成調解程序。但經雙方同意延長者，得延長之。
- 二、其調解時間之起算情形有三：
 - 1、申請人書面申請且繳調解費，不須再補正文件者，自申請次日起算
 - 2、申請人未繳費或申請書尚未補正者，自補繳及補正之次日起算
 - 3、調解期間，當事人續以書面補具理由或擴張請求並補繳調解費者，自最後收受理由書之次日起算

Explanation:

1. Under the provisions of Article 20, Paragraph 1 of the "Regulations Governing the Mediation of Disputes Regarding the Performance of Contracts for Government Procurement, the mediation procured should be completed within four months from the day following the date on which an application for mediation is received. The period of mediation may be extended upon agreement by both parties to the dispute.
2. There are three situations for calculating the mediation starting date:
 - (1) When the applicant submits a written application and pays the mediation fee, and no supplementary documentation is required, the mediation period begins on the day following the date when the application is received.
 - (2) When the applicant has not yet paid the mediation fee and/or submitted required supplementary documentation, the mediation period begins on the day following the date on which the mediation fee is paid and/or required supplementary documentation is submitted.
 - (3) When during the period of mediation a party submits written supplementary grounds or expansion of request, and pays the additional mediation fee, the mediation period will begin on the day following the final date on which the documentation was received.

申請人書面申請並繳調解費不須再補正文件者，自次日起4個月內完成調解程序

Application is submitted and mediation fee paid, and no supplementary documentation is required; mediation is completed within four months after date following receipt of application.

前置作業
Initial operation

程序審查
原則時間：
3星期

Procedural review
Period:
Three months, in principle

實體審查
原則時間：
8星期

Substantial review
Period:
Eight months in principle

建議及雙方函復
原則時間：
4星期

Suggestion and reply by both sides
Time: Four weeks in principle

原則時間：
1星期
Time, in principle:

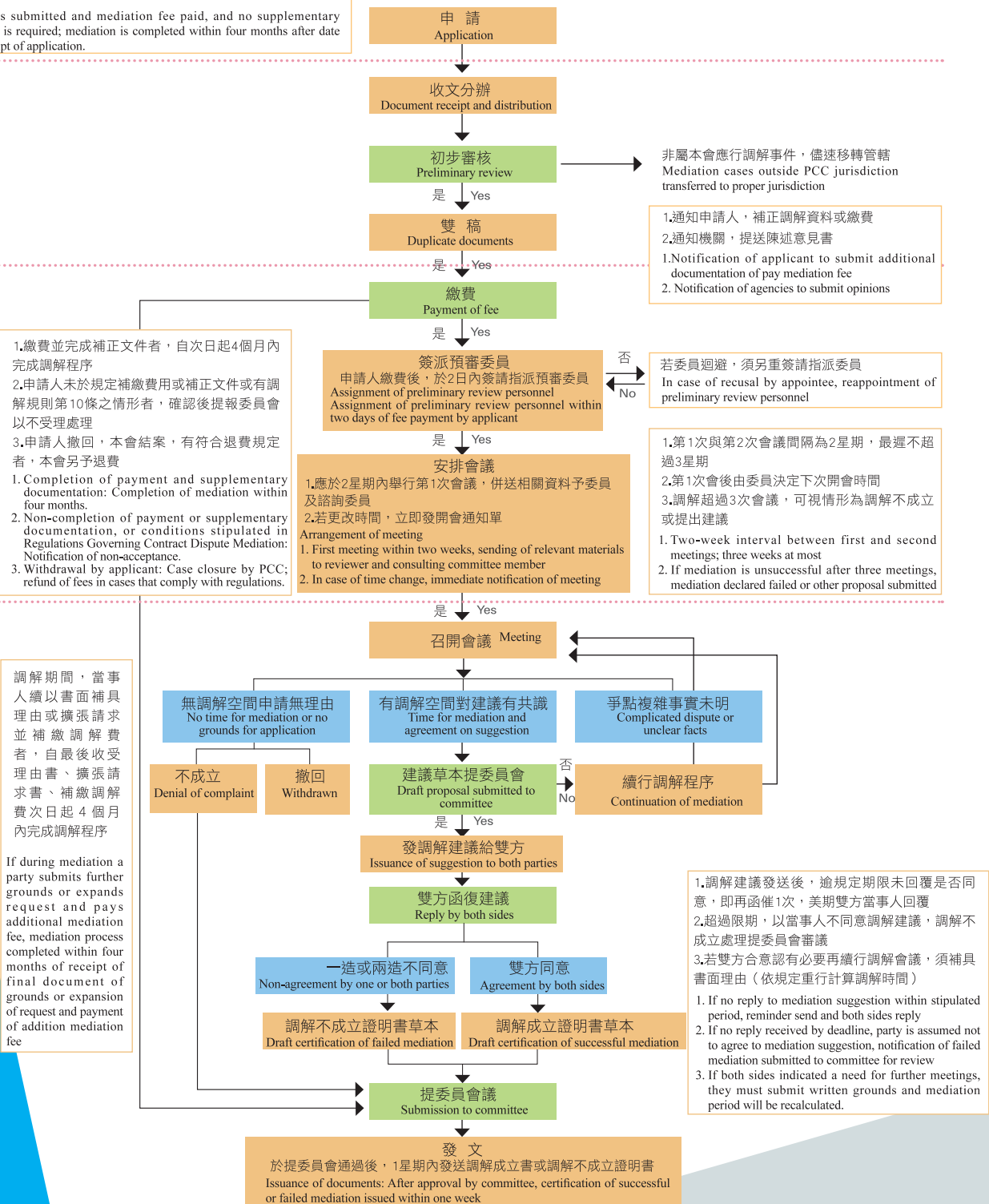
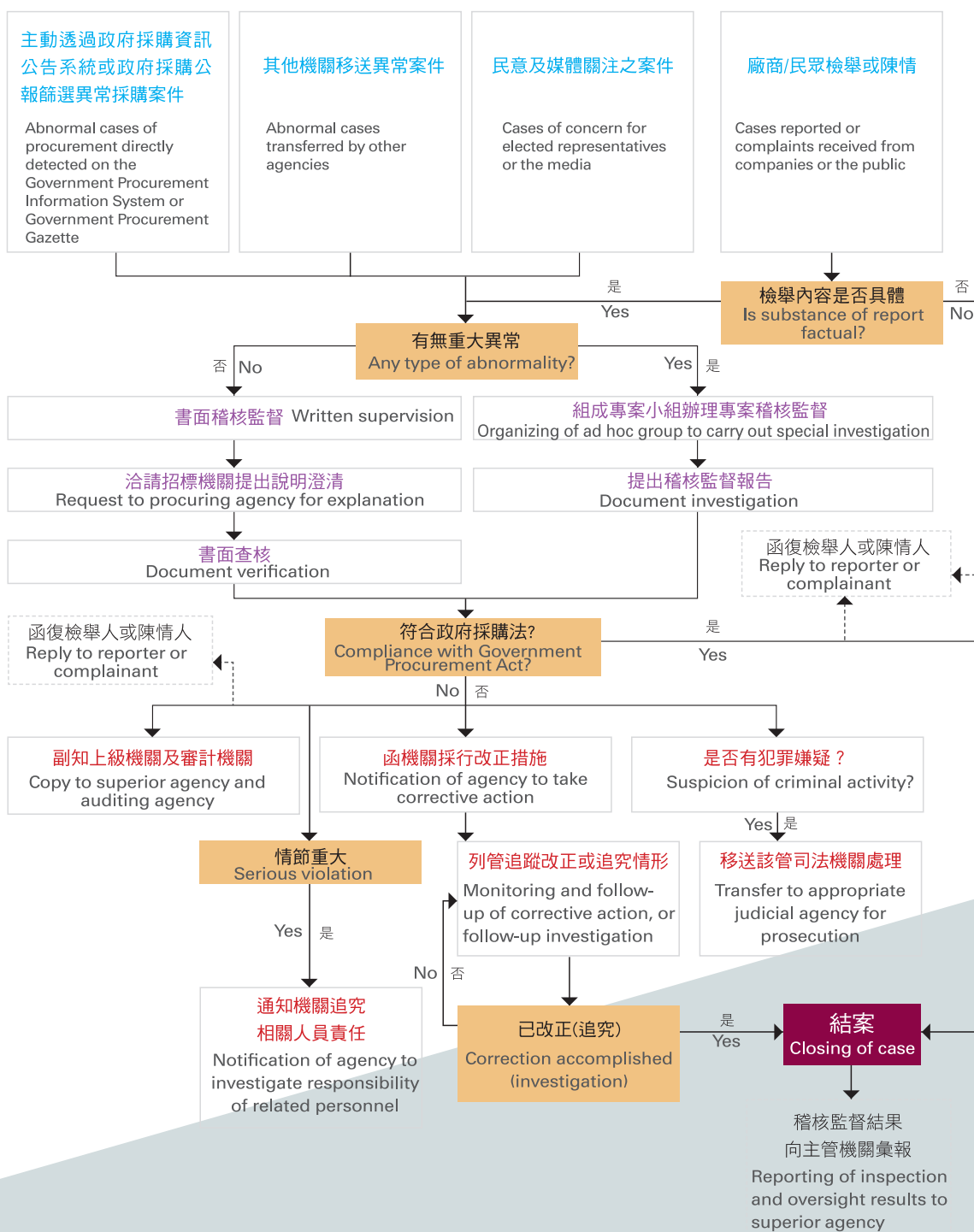


圖2：辦理調解案件管控流程圖

Chart 2 Control Procedure for the Handling of Mediation Cases by the PCC Complaint Review Board for Government Procurement



案件來源

稽核查察

缺失導正及追蹤管制

圖3：稽核作業流程圖

Chart3 Monitoring Operations Process for Procurement Supervision Units