



# **Development System And Program Review System in Europe**

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# 規劃，執行，評鑑的一般原則

- 要達到的目標？
- 該做什麼？
- 誰做？
- 如何做？
- 審查評鑑制度
- 何處需要改進、如何改進？



# 成功的關鍵因素

- 規劃之初即要考量計畫執行時可能發生的困難
- 計畫執行中要適時檢討偏離目標多遠
- 成果評鑑時要貫徹知錯能改
- 確保規劃、執行、評鑑的連貫性與一致性



# 吸取歐盟的優點

- 比較台灣與歐盟的個案
- 經濟部的**A+** 計畫
- 教育部的頂尖大學計畫
- 國科會與工研院的奈米科技計畫



# 歐盟 (European Union) 簡介

- A political & economic community
- 27 member states
- European Parliament
- European Council
- European Commission (EC)
- Executive Branch
- Commission President, 27 Commissioners



# EC 簡介

## 18 Directorates-General (DG)

- Agriculture & Rural Development
- Competition
- Economic & Financial Affairs
- Education and Culture
- Employment, Social Affairs & Equal Opportunities
- Energy and Transport
- Enterprise & Industry
- Environment
- Executive Agencies
- Fisheries & Maritime Affairs
- Health & Consumer Protection
- Information Society & Media
- Internal Market & Services
- Joint Research Center
- Justice, Freedom & Security
- Regional Policy
- **Research**
- Taxation and Customs Union



# DG for Research 簡介(1/2)

## 15 Directorates (A – L, R, S, T)

- A - Inter-institutional & Legal Matters – Framework Programme
- B - European Research Area: Research Programmes & Capacity
- C - European Research Area: Knowledge-based Economy
- D - International Cooperation
- E - Biotechnologies, Agriculture, Food
- F - Health
- G - Industrial Technologies
- H - Transport
- I – Environment
- J - Energy (EURATOM)
- K – Energy
- L - Science, Economy & Society
- R - Resources
- S - Implementation of the ‘Ideas’ Programme
- T - Implementation of Activities to Outsource



# DG for Research 簡介(2/2)

## Work closely with

- *DG - Joint Research Centre*
- *DG – Information Society & Media*
- *DG - Energy & Transport*
- *DG - Environment*
- *DG - Enterprise & Industry*



# DG-Research Mission

- To develop EU's policy in Research & Technological Development (RTD)
- To coordinate European research activities in member states
- To support EU's policies in other DGs
- To promote a better understanding of the role of science in modern societies
- To stimulate a public debate about research related issues at European level



# **Implementation of Policy**


## **Framework Programme (FP) for RTD**

- Organize & Financially Support
- Cooperation between
- Schools/Universities
- Research Centers
- Industries (including SME)



# 規劃簡介

- 資源共用，利益共享
- 提高整體優質生活
- 改變思維方式，發揮研發潛力
- 照顧弱勢地區
- 化惡性競爭為良性合作
- 汰劣存優，培養歐盟最強研發團隊




# 執行簡介(一)

- FP1(1984-1987)
- FP2(1987-1991)
- FP3(1991-1994)

## 推動科技發展的前期奠基工作:

- 全歐統一制度化
- 交通，通訊系統
- 財稅，金融，銀行系統
- 法律，醫療保險系統
- 失業補助，退休系統
- 教育，科技人才培養系統



## 執行簡介(二)

### **4th FP (FP4 1994-1998) Objectives:**


- Research and Technological Development (RTD) Programmes
- Demonstration Programmes
  - Focusing on subjects selected for their specific added value
  - Encouraging the integration of European research activities
- **Priority subjects:**
  - Information and communications technologies:
  - Industrial technologies
  - Environment
  - Life sciences and technologies
  - Non-nuclear energy
  - Transport
  - Targeted socio-economic research



# 執行簡介(二)

## **5th FP (FP5 1998-2002) Objectives:**

- Solve problems of combining technological, industrial, economic, social & cultural aspects.
- Respond to the major socio-economic challenges facing Europe
- **Priority subjects:**
  - Quality of life and management of living resources
  - User-friendly information society
  - Competitive and sustainable growth
  - Energy, environment and sustainable development
  - Improving human research potential and the socio-economic knowledge base



# 執行簡介(二)

## **6th FP (FP6 2002-2006) Objectives:**

- **Focusing and Integrating Research**
- **Priority subjects:**
  - Life sciences, genomics and biotechnology for health
  - Information Society Technologies (IST)
  - Nanotechnologies & nanosciences, knowledge-based multifunctional materials, new production processes & devices
  - Aeronautics and space
  - Food quality and safety
  - Sustainable development, global change, and ecosystems
  - Citizens and governance in a knowledge-based society



# 執行簡介(二)

## **6th FP (FP6 2002-2006) Objectives:**


- Structuring the European Research Area
- **Priority subjects:**
  - Research and innovation
  - Human resources and mobility (Marie Curie actions)
  - Research infrastructures
  - Science and society
- -Strengthening the European Research Area
- **Priority subjects:**
  - Coordination of existing activities
  - Development of research and innovation policies



# 執行簡介(二)

## **7th FP (FP7 2006-2013) Objectives:**

- Carry the achievements of FP6 towards the development of a knowledge-based economy and society in Europe.
  - Support transnational cooperation on every scale across the EU
  - Enhance investigator-driven basic research based on excellence
  - Strengthen human potential in research & technology in Europe, both quantitatively and qualitatively
  - Develop and enhance the excellence of European research institutions and universities



# 執行簡介(二)

## 7th FP (FP7 2006-2013) Objectives

### ■ Priority subjects:

- Cooperation Programme (mission oriented):  
Knowledge and Technology which address European social, economic, environmental, public health and industrial challenges, serve the public and support developing countries.
- Ideas Programme:  
To develop very high-level frontier research at European level, building on excellence in Europe and raising its profile at international level.
- People Programme:  
To make Europe most attractive to the best researchers
- Capacities Programme:  
Optimize the use and development of research infrastructures



# 執行簡介(二)

## 7th FP (FP7 2006-2013) Objectives

- **FP7 DOES NOT support/finance research activities**
  - aiming to clone humans for reproductive purposes
  - intended to modify the genetic heritage of human beings which could make such changes heritable
  - intended to create human embryos solely for the purpose of research or for the purpose of stem cell procurement, including those created by means of somatic cell nuclear transfer



## 執行簡介(三)

- 教育與科技人才培養
- 消除國界區分，達到人才全歐化
- Bologna 制度大學及研究生教育
- Training & Mobility of Researchers 計畫  
(Individual)
- Marie Curie Mobility 計畫 (Individual and  
Network)



## 執行簡介(四)

- 單一領域科技研發 (自由型)
- 整合跨國團隊
- 大型計畫以學界為主
- 追求學術卓越
- 跨領域科技研發 (主導型)
- 單一目標的產、官、學大型研發計畫
- 追求技術突破，開發與擴大產業市場



# 審查評鑑簡介

- 一位歐盟科學官，一位或兩位科技專家
- 審查計畫申請，督導計畫執行，評鑑計畫成果
- 每半年可建議計畫修改
- 期中審查時可中止計畫執行
- 審查評鑑費用約為計畫總經費千分之五



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# EU Promoting Innovation

- **Innovation** is the **key** to converting **cutting-edge** research into **high-quality** products, **effective** services, and **new** business models that can **compete** in today's **global** marketplace, which includes **emerging** competitors.