All the support you need

PwC EU Services

Creating value for the institutions, agencies and bodies of the European Union

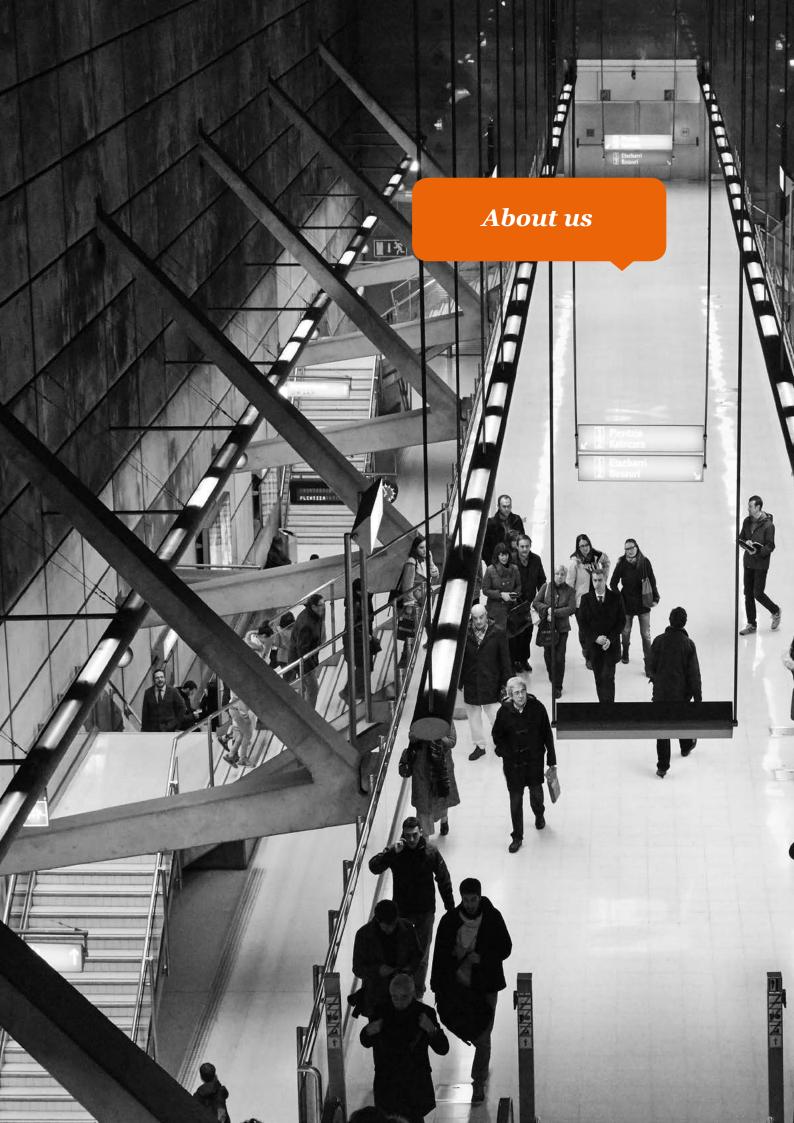






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PwC works with the Institutions, agencies and bodies of the European Union to deliver innovative solutions. We understand the delivery pressures, public accountability requirements and administrative controls unique to the EU institutional system. Our ability to draw on extensive national and international experience complemented by deep industry knowledge enables us to provide new perspectives and responses.

It is this combination of EU knowledge, industry expertise and global reach that is helping the EU develop the policies, programmes and services that meet the changing needs of the European public.

We bring independence, objectivity and a demonstrated ability to improve public sector performance to every assignment.

Our aim? To help the EU deliver on their priorities and get value for money.

A single access to the Global PwC Network

The Lead Partner responsible for our relationship with the EU Institutions (EUI) is Philippe Pierre. He is also the Managing Partner of PwC EU Services, our dedicated legal entity for contracting with and servicing our EUI clients.

Philippe is supported in his role by a dynamic team of 7 EU specialists based in Brussels. The team helps organise the PwC network approach with regard to EU-related business opportunities and acts as the relay point for external parties wishing to connect to our global firm and its expertise. At a strategy level, Philippe is advised by a team of 6 PwC Partners who, as a collective, have the necessary skills, experience and insights to support this iconic client account.

In our daily operations, we are able to reach out to a global network of more than 200 000 professionals, of which 60 000 are spread throughout the EU to deliver the value that our EUI clients expect.



Philippe Pierre, Managing Partner of PwC EU Services

What we do 2 П

Policy analysis and advice

EU policies and legislative initiatives shape the lives of 500 million EU citizens and thousands of businesses. It is therefore essential for the EU to be able to assess the desirability, feasibility and impact of their prospective actions whilst monitoring the results and the continued suitability of existing policy and legislation. These assessments rely heavily on evidence-based research at all stages of the policy cycle.

PwC has for many years been involved in providing the EU with policy-related advisory services. We can draw on a wide range of policy and economics skills as well as longstanding experience in public sector work. This allows us to deliver thorough analyses of key public policy matters.

Transport and Energy		Innovation and growth	
Digital economy	P	Tax and customs	%
Financial services	(Space	
Borders, migration and security		ESIF	

Our key strengths lie in the diversity, quality and geographical reach of our PwC experts, able to provide:

- → A robust approach based on proven, reliable and efficient implementation methods and analytical tools;
- → Expertise in impact assessment, policy monitoring and evaluation (ex-ante, mid-term, ex-post) as well as regulatory fitness checks;
- → Experience in formulating policy options, policy design and analysis, covering all aspects of economic and financial analysis and policy development; delivering policy, feasibility and pan-European studies;
- → Expertise in survey design, primary data collection and analysis, data merging and matching, benchmarking and qualitative analysis;
- → Proven capacity to apply economic growth theories, economic geography, experience in economic forecasting and sophisticated econometric analysis;
- → Knowledge and expertise in multiple industry sectors coupled with a deep understanding of the EU's policy matrix.

Audit and risk management

Representing the collective interest of citizens in all EU Member States, the EU's annual expenditure of approximately €145 billion requires the necessary checks and balances to ensure sound financial management. To this end, the EU Institutions rely on audit and consulting firms to verify the proper use of funds and advise them on any risks to be mitigated.

These risks do not only relate to the spending of the funds, but span the entire organisation and its value chain including processes, people, systems and governance.

PwC performs a wide range of audit and risk management-related services for the EU Institutions.

Financial audits of programmes and actions including Pillar Assessments

PwC carries out a number of ex-post financial audits for the EU Institutions. The objective of these audits is to verify whether the costs submitted for reimbursement by beneficiaries are eligible and whether they have been claimed in compliance with the financial provisions as defined in each specific grant/contract agreement subject to audit. We currently perform financial audits on behalf of the European Commission's Directorate General for Development Cooperation (DG DEVCO), Directorate General for Budget (DG BUDG) and Directorate General for Research and Innovation (R&I). The EU Financial Regulations provide for the possibility for the European Commission to entrust government bodies and international organisations to carry out budget implementation tasks on its behalf as a special form of cooperation ("indirect management"). Before the Commission entrusts tasks of budget implementation to entities or persons by signing a Delegation Agreement, it shall obtain evidence that the entity shall respect the principles of sound financial management. The entities are therefore subject to an exante assessment of key areas such as: internal control, accounting, external audit, grant award, procurement, financial instruments and sub-delegation. The assessment of these processes by an independent auditor aims to provide assurance to the Commission that an organisation has the capacity to manage EU funds on their behalf.

PwC has performed numerous Institutional Compliance Assessments (Pillar Assessments) using the ISAE3000 auditing standard. Recent examples include:

- \rightarrow The European Space Agency (ESA)
- Netherlands Development Finance Company (FMO)
- → The Southern African Development Community (SADC)
- The Tanzania Rural Energy Agency (REA)

Statutory audit of accounts of EU Institutions, Agencies and Bodies

PwC is able to perform the audit of annual accounts of EU Institutions, agencies and bodies. The objectives of these audits are:

- → Examine the truth and fairness of the annual accounts of the auditee;
- → Check whether the resources have been used for their intended purpose and in accordance with the principles of sound financial management;
- → Ensure that the control procedures put in place provide the necessary guarantees concerning the compliance of financial operations with the applicable rules and regulations.

PwC is currently the auditor of the European Court of Auditors (ECA) as well as the European Stability Mechanism (ESM).

Consulting services in relation with risk management and internal control

For entities working with or wishing to work with the EU, PwC can provide support to set up the necessary governance processes and ensure adherence to standards. As we understand the EU requirements related to risk management, internal control, financial processes and reporting requirements, etc., we can help improve processes, manuals and guidelines.

We perform gap analysis and consulting services for entities wishing to work through delegation agreements in the indirect management mode, allowing them to be fully prepared for the compliance audit (Pillar Assessment). We also assist the EU agencies themselves in the improvement of risk management and internal control and in improving their process efficiency.

For the last five years, we have been providing support to the internal audit division of the European Investment Bank (EIB). In addition, we are providing the Community Plant and Variety (CPVO) Office in Angers, France, with general audit and advice services, business processes review and audit of their examination offices and their related accreditation.

IT and system audits

With the rise of the digital age and the everincreasing reliance on technology to do business and to handle day to day operations, it is essential to perform system tests that ensure the integrity and resilience of the systems in place.

We work with the EU Institutions to perform high-level IT audits appraising the health of IT systems and processes. We also verify that IT is aligned with business strategy and needs, and recommend areas for improvement. We work with the EU Institutions to optimise the value that their IT systems can bring.

We deliver across the complete IT spectrum and help identify and tackle IT and information risks on every level, including:

- → IT governance, IT risk management and business alignment.
- → Security policies, standards and procedures, including information classification schemes and security awareness campaigns (e.g. through social engineering).
- → IT management processes such as incident and problem management, development and change management, security administration, asset and configuration management, operations, disaster recovery and business continuity planning (DRP and BCP).
- → In-house developed applications and standard software packages (for ERP, such as SAP, Oracle Financials, JD Edwards, as well as Axapta, Thaler, etc.).
- → Operating systems, databases, middleware and networks.
- → Security and administration tools (e.g. directories, identity and access management solutions, public key infrastructures PKI, intrusion detection systems and GRC solutions).

Forensic services

As the world progresses towards a technologically and socially advanced society, all actors are facing challenges in having a comprehensive view of their business environment. Its complexity makes it even more difficult to determining the best way to move towards their objectives. The EU is no exception. Not only does the EU interact with an increasing number of stakeholders, but those interactions are also growing more complex as the EU is influencing every level of societal life. Whilst striving for smart, sustainable and inclusive growth and jobs, the European Commission needs to rely on a sound understanding of all EU and Member States institutions as well as of all stakeholders affecting its objectives.

PwC Forensic Services offers assistance in navigating complexity. We are well positioned to help European Institutions address and remediate a wide range of threats, risks and complex issues. Issues such as cyber-crime, fraud, corruption, money laundering, compliance and contract management or monitoring create a range of priorities and concerns for clients that Forensics can be at the heart of.



Anti-corruption

The <u>EU Anti-Corruption Report</u> is the main tool to provide a clear picture of the corruption situation in each Member State. The report is issued by the European Commission every two years with our technical support. In PwC, we coordinate a network of local research correspondents on corruption covering all EU Member States that collects and processes relevant information on the state of play of anti-corruption-related matters and provides analysis and input for the EU Anti-Corruption Report. The report allows for periodical assessment of Member States' anti-corruption efforts and achievements, identifies failures and vulnerabilities and proposes measures on how to step up anti-corruption efforts.



Technology consulting

Technology is a basic requirement for the functioning of all modern public sector organisations not least the EU Institutions. It is a fundamental building block on which administrations rely to create, store, analyse, exchange, monitor and report businessrelated data. It forms the very backbone of all internal corporate processes. Within the EU, technology goes a step further in that it is required to link a number of stakeholders through interoperable solutions, be they public or private, to allow for seamless cooperation across borders, facilitating business operations as well as administrative partnerships.

From a policy perspective, the need to understand, predict and produce technology innovations has never been more important. In an ever more digitally connected world, technology has become the single most powerful driver of societal advancement and economic change and growth. The EU acts as a major agent for technology prowess – looking at existing or new technologies and studying the applications which will drive change for tomorrow. It is through this prism that the EU seeks to create a connected Digital Single Market which is one of the ten priorities of the Juncker Commission.

By combining policy know-how and technology expertise, PwC has supported the implementation of EU legislation and policies through designing and building supporting ICT solutions.

PwC has played an instrumental role in laying the foundation of e-Procurement and e-Invoicing directives and is supporting the flanking measures initiated to help Member States comply with it. We have delivered numerous studies on technology-related policy in the context of e.g. Internet of Things, Digital by Default and e-Participation.

The picture below provides a non-exhaustistive list of technology consulting services we are able to provide:

ICT governance and management

- IT strategy
- Enterprise architecture
- Legal, organisational, semantic and technical aspects of interoperability
- ICT governance and management in the public sector
- Frameworks and methodologies
- Sourcing strategies
- IT skills
- Organisational change management
- Studies on the infrastructure for spatial information as defined in the INSPIRE Directive 2007/2/ EC and related legal acts and guidelines

ICT security

Infrastructure and information systems strategic issues

Spatial data management

design, development,

IT systems/components

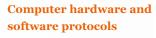
Studies on the requirements,

maintenance, and evolution of

- **Risk management**
- ICT security governance
- **Business continuity**

ICT Infrastructure

- Data centre organisation and management
- Product management
- Telecommunication centre organisation and management
- Network management
- Network protocols
- Provisioning of infrastructure services
- ICT infrastructure services (email, telephony, videoconference, multimedia)



- Servers, desktop, laptops, peripheral devices, tablets, smart phones
- Operating systems and device drivers needed to put the above in a basic operation mode
- Commercial and opensource software products supporting ICT in various areas

Information systems

- Service-oriented architecture semantics
- IT development methodologies \rightarrow
- \rightarrow Studies/analysis of business
- Requirements for strategic \rightarrow projects
- Interoperability aspects
- User experience \rightarrow
- \rightarrow Big data
- Data analysis \rightarrow
- Pilots/prototypes

- Business process modelling

Special Data ICT Trans ICT European Security ICT solutions Technology Consulting іст ICT Infra-structure quality Information Hardwear And software

Trans-European ICT solutions

- ICT supporting the implementation of EU legislation and policies
- Assessment of ICT implications of Community legislations
- Legal, organisational, semantic and technical interoperability of the Trans-European solutions
- Particular aspects of the public sector

ICT quality management

- Quality management
- Assurance and control \rightarrow
 - Monitoring and evaluation of programmes' activities

Process monitoring

- Conformity with standards
- Test management
- Performance management
- Product acceptance
- Maturity level

People and change

In order to be agile, effective and efficient, the EU Institutions spend a considerable amount of time focussing on ensuring that they recruit, train, utilise and retain their resources in the most effective way possible.

Considering the ongoing reductions in financial and human resources within the EU, managing the internal organisational set up in the best possible way is a real challenge. The EU Institutions need to become more knowledgeable, skilled, flexible and networked in order to better serve Europe. This requires new capacities and practices, starting with collaborative management and leadership at all levels. Leaders, teams and individual staff need support to find these more efficient ways of working now and for the future.

PwC is leveraging on its People and Organisation practice of more than 10,000 specialists in 138 countries, to provide HR-related services to the EU Institutions. We bring together an unmatched combination of industry, business, strategy, talent, HR, analytics and technology expertise. We have established a talent and leadership practice across multiple territories, which allows us to align best practices and share expertise on a pan-European level.

Our approach ensures that EU clients get the right team with the right skills and experience to help them deliver the value they're looking for: from people strategy through to organisational execution. We can advise on performance management, recruitment and selection, organisation and change, HR technology restructuring, workforce analytics, leadership and talent management and executive training.

PwC is currently working on a number of projects in this area, including:

- → Supporting the ECB in assessing management and leadership skills and designing related talent development programmes.
- → Providing customised training and workshops to EIB staff as regards communication, project management, job skills, managing performance and EIB core competencies.
- → Supporting EASA to develop a tailored competency framework, taking into consideration the specificity of the Agency's expertise and the EU/public sector administrative setting.
- Supporting ETF with a functional analysis of the organisation in view of performance improvement.
- → Supporting EIOPA in training staff on personal and interpersonal skills.
- → Training courses at ESMA and EBA for senior management related to technical fields in the area of finance.
- → Providing team building seminars for EASA.

Financial management and accounting

The finance function lies at the very heart of the EU Institutions, and acts as the daily enabler of their core mission, which is to diligently plan and execute the policy mandates entrusted to them by European citizens. This function underpins and structures the entire organisational process and has to serve and connect multiple actors across Europe. The finance function also has to be as transparent as possible, giving stakeholders the ability to scrutinise the way the EU budget is spent, both from a compliance perspective and also in terms of performance. The key here is value for money, and a lot of effort goes into making sure that EU actions meet stated objectives and create the leverage that is expected. Recent events have put renewed pressure on the EU to do more with less and seek further efficiencies in spending and operations.

PwC assists the EU's finance function in meeting these various challenges and implementing an effective service-delivery strategy. We provide the following types of services, supporting current and future business requirements.

1.

Facilitate the implementation of the strategy

- → Develop and implement a management and performance measurement framework to manage your needs.
- \rightarrow Improve your planning and forecasting.
- \rightarrow Optimise and streamline the reporting.
- → Assist in the selection and implementation of your reporting tools and decision support.
- → Define an organisation's management control operating, m a structured manner and as close as possible to operations.

2.

Contribute to operational efficiency and cost control

- → Design, based on industry best practices, methods and tools to improve the profitability of products and activities (management rules, cost accounting models).
- → Leverage the available data in your systems, assist in the definition and management of your cost reduction plans.
- → Improve the management of your investments and external acquisitions decisions.

3.

Optimise funding and cash flow management

- → Improve cash flows forecasts, enhance reporting and optimise financing strategies.
- Improve the organisation of the treasury function.
- Establish "cash pooling" and "payment factory".
- Develop or improve your information cash management systems.
- Identify and implement improvement levers for WCR.Secure exposure to market risks and align risk management on corporate strategy.

Ensure consistency, quality and compliance of financial information

- Develop and implement a unified management framework based on an integrated information system.
- Align your accountant and financial framework with regulatory changes.
- Adapt the system to changes in reporting your organisation (mergers, acquisitions, divestitures ..).
- Reduce delays in closing and financial publication while ensuring the reliability of information produced.
- → Provide assistance to the governance and the production of your financial statements.

5.

Increase the performance of the Finance Function

- → Adapt the Finance function's organisation and governance model given its new role and with respect to best practices.
- → Improve the efficiency of accounting and financial processes.
- Design and implement shared service centres, provide assistance to outsourcing projects.
- Unify and simplify your accounting and financial information systems.
- Offer innovative management models skills Finance sector.

Accounting and reporting

Since 2003, PwC has been assisting the EU Institutions in the transition from a cash-based to an accrual-based accounting framework. This project ended in 2005 with the issuance of consolidated financial statements prepared using EU Accounting Rules based on IPSAS (International Public Sector Accounting Standards). Since then PwC has been providing continuous support and advice to the EU Institutions, helping them to modernise their accounting system and align them with IPSAS.

PwC's assistance to the EU in this field encompasses any advice, assistance and consultancy work in the accounting space. It may for example relate to the following areas:

- → Updating of the EU Accounting rules, and analysis of the practical implications for the Commission of the newly issued IPSAS accounting standards or exposure drafts, so as to anticipate the impact of those accounting developments on the Commission's systems and processes, and provide recommendations in accordance with the best reporting practices;
- → Advise on the most appropriate accounting treatment of complex transactions in areas such as financial instruments or consolidation, as new vehicles and programmes (trust funds, etc.) are expected to be created in the framework of the new Financial Regulation;
- → Hands-on assistance with the year-end accounting closing process, assistance to the management on all accounting and budgetary matters, support in the migration to new budgetary and accounting systems, practical assistance for those newly created agencies and joint undertakings for the preparation of their opening balance sheets and year-end financial statements;

- → Temporary staffing to assist DGs and agencies with temporary resources issues in the accounting team;
- → Consultancy for the audit of local accounting systems, reflecting in this the increasing importance of IT controls and security at the Commission;
- → Assist in the selection and implementation of your reporting tools and decision support;

The EPSAS project in Europe

The European Commission plans to develop European Public Sector Accounting Standards (EPSAS), with IPSAS serving as a reference point, to strengthen budget surveillance and fiscal monitoring. In this context, PwC conducted a study on behalf of the European Commission to offer an in-depth analysis of the future implementation of EPSAS by EU Member States. The study:

- → Analyses the accounting and reporting practices in the 28 EU Member States,
- → Analyses the costs and benefits of adopting EPSAS in the EU,
- → Analyses the adequacy of the IPSAS standards as a basis for developing EPSAS,
- → Provides recommendations for implementation.

The study was led by PwC's global centre of excellence in public sector accounting. It provides unique insight into the Member States accounting and reporting challenges as well as best implementation practices and positions PwC as the partner of choice for any accrual accounting/IPSAS/EPSAS assistance you would need.

Click <u>here</u> to download PwC's EPSAS study repor.



Tax and customs

Taxation and customs policies play a key role in ensuring the smooth functioning of the EU Single Market, for the benefit of citizens and businesses.

Taxation

In the aftermath of the economic and financial crisis, tax policy both in the Member States and at EU level need to be harmonised in order to limit the distortions arising from the interaction of different tax systems. It is also essential that tax systems in Europe can integrate in the broad international context, learning from good practices and keeping up with global trends in tax and customs.

PwC works with the EU Institutions to meet these objectives through studies, impact assessments and economic analyses in various tax areas. Our multi-disciplinary approach allows us to monitor and combine detailed legal, economic, social and environmental expertise to assess national tax practices in the EU Member States for existing or planned European tax legislation or other related initiatives.

PwC has provided services to the EU Institutions on a variety of tax-related matters. Examples of studies recently delivered by PwC in this area:

- → Study on the feasibility of a common EU standard VAT return with the objective to assess its potential economic impact with respect to businesses and tax authorities.
- → Evaluation of the Customs Union based on desk research, stakeholder surveys and in-depth interviews with businesses, customs authorities and different European Commission's DGs.
- → Study on the effectiveness of tax incentives for venture capital and business angels to foster the investment of SMEs and start-ups.

Customs

Establishing common rules on direct and indirect taxation, tariff strategy, e-Customs, the future Modernised Customs Code, safety and security and the fight against counterfeited goods is crucial to the good functioning of the EU Single Market.

The European Commission modernises and reinforces EU customs procedures and control methods through: definition and implementation of the Union Customs Code, financing through programmes like Fiscalis 2020 and Customs 2020 and assistance to Member States in the implementation of the EU customs legislation.

PwC is proud to be associated with the Customs 2020 programme. We assist the EU in improving the interoperability of Member States' automated customs systems and offer IT capacity building services, working specifically on operations integration and control, advice for IT architecture, service management and service control, service improvement and change management.

We have also recently delivered an <u>analysis</u> of the effects of the different Member States' customs sanctioning systems for the European Parliament.

Borders, migration and security

In an international context increasingly characterised by shifting economic power, political instability and migration flows, the EU faces the challenge of maintaining border security while encouraging movement of goods, people, services and capital.

Thanks to our broad working relationships with customs and border control agencies, immigration services, law enforcement and security agencies in many different countries, PwC supports the EU in finding a balance between the need for security and greater global mobility, helping the establishment of effective border management systems and processes.

Policy analysis and advice

Delivering services through several framework contracts, PwC offers insights to support policy making activities in areas such as integration of third country nationals, legal and irregular migration, anti-corruption and fight against fraud, anti-drug policy, smuggling and trafficking in human beings as well as organised crime and fight against terrorism.

Border management

In the context of the European Commission's Smart Borders package, we delivered a <u>technical study</u> and a pilot project for Smart Borders. We analysed the feasibility of several envisaged options for the implementation of two systems: the Entry/Exit System (EES) and the Registered Traveller Programme (RTP). We tested the feasibility of each system of using different biometrics characteristics; the design of the border control processes and their duration and variations between air, land and sea borders; the process accelerators such as self-service kiosks and the use of Automated Border Control gates; the minimum dataset per passenger and its compliance with the data protection legislation; IT architecture options and the possible synergies with existing systems (Visa Information System); and the related costs of establishing the two systems.

We also delivered a feasibility study for a <u>European Travel Information and</u> <u>Authorisation System (ETIAS)</u>, which aims at strengthening security of travel to the Schengen area under visa-free agreements.

Managing the refugee crisis

Since 2015 there is an increased number of refugees arriving at the European borders and European Governments are under pressure to deal with the logistical and human impacts of the crisis. If managed and co-ordinated effectively at both in-transit and destination countries, leaders, governments, businesses and NGOs/agencies will be better placed to deal with the inevitable challenges.

PwC developed a <u>refugee management</u> framework which takes into account the immediate needs of the refugees and the necessary processes to transition them into long term resettlement programmes. Click <u>here</u> to learn more.

Space

The EU Institutions, in close collaboration with the European Space Agency and their respective Member States, promote improved coordination of space activities through programmes such as GALILEO, EGNOS and Copernicus.

In addition to keeping up the competitiveness of the EU space industry and ensuring the development of innovation, research and space exploration, EU Space Policy has a clear impact on the daily life of citizens: telecommunication services, crisis response, monitoring climate change, improve health through remote medical support, optimise transport solutions; in short, it simplifies citizens' lives through the development of space-based applications. PwC supports the EU Institutions as well as the European Space Agency in developing their space-related policies. We answer questions related to the economic viability of programmes, providing for cost-benefit analyses; we analyse the socio-economic impact of key actions and initiatives to determine their desirability, sustainability and effect. We provide key technical expertise in all space-related policy domains and specifically help look at cross-sectoral and cross-policy related issues.

To learn more about our space-related services visit our <u>dedicated website</u>.

A non-exhaustive list of space-related assignments completed and on-going:

- → PwC delivered a study to assess the socio-economic impacts of the Copernicus Programme focusing on eight downstream sectors (Agriculture, Forestry, Urban monitoring, Insurance related to natural disasters, Ocean monitoring, Oil & Gas, Renewable energies, Air quality).
- → PwC is currently performing the mid-term reviews of the key European Programmes Copernicus and EGNOS, in order to assess whether the initial goals set in the programmes are on track and whether corrective measures need to be taken.
- → PwC advised on the socio-economic impacts of space activities in the EU. Beyond retrieving and analysing a complete and comprehensive set of socio-economic impact data from a variety of sources, this study also developed a whole and varied set of impact assessment methodologies and assumptions.

Innovation and growth

The EU Institutions design and implement policies and programmes fostering investments in research and innovation to support European innovation and competitiveness in the global economy. PwC delivers creative solutions to the EU Institutions in a number of areas: SME development, digital entrepreneurship, innovative business solutions, key enabling technologies, sharing economy and many others, addressing all the issues at stake in the field of innovation. We conduct in-depth research on innovation trends, drivers, obstacles and challenges; we draw lessons from market studies; and we develop action plans and roadmaps. Our access to a global network of high-tech companies, academia, governments and other key stakeholders, enables us to deliver top-quality services.

Some examples on how PwC supports the EU Institutions in the domain of innovation:

- → The <u>Business Innovation Observatory</u>, which provides regular evidence on the latest innovative trends in business and industry, including how innovative solutions and innovation ecosystems are developed and brought to market, as well as their impact on the economy.
- → The <u>Digital Entrepreneurship Monitor</u>, which provides regular reports and case studies with the main objective of stimulating Digital Entrepreneurship and competitiveness in Europe, as well as improving the efficiency of European businesses through the smart use of advanced digital technologies.
- → PwC is one of the key service providers of the European Institutions in the development of policies supporting the uptake of Key Enabling Technologies (KETs). In addition, PwC offers targeted policy support to the EU Institutions in defining leadership and skills required in the digital economy to fully exploit new technologies (e-skills). We have delivered a number of studies supporting EU initiatives in this area, such as:
 - Vision and Sectoral Pilot on Skills for KETs aims to develop an international multilevel vision across various sectors and technologies on how to address the skills requirements for KETs.
 - <u>Study on skills related to KETs</u> aims at exploring some of the ways the skills are made available in the Key Enabling Technologies area.

- KETs Observatory Phase II, the objective of which is to update, expand, develop and run the KETs Observatory activities for the time period 2016-2018 in order to provide business stakeholders as well as European and national/regional policy makers with reliable, regularly updated and comprehensive data and analysis on the deployment of KETs.
- Study on leadership skills for the high-tech economy, which implies collecting and reviewing initiatives and policy development in the EU Member States concerning leadership skills related to KETs and advancedmanufacturing technologies; and providing contributions to the new Skills Agenda of the European Commission.
- Skills for Key Enabling Technologies in Europe (state-of-play, supply and demand, strategy, recommendations and sectoral pilot).
- → PwC delivered a research paper on '<u>Assessing the size and presence of the</u> <u>collaborative economy in Europe</u>' which focussed on five key sectors of the sharing economy: peer-to-peer accommodation and transportation, on-demand household and professional services as well as collaborative finance.
- → PwC was involved in drafting the <u>Annual Report on European SMEs</u> for 2014 and subsequent years.

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European Structural and Investment Funds (ESIF)

The Investment Plan for Europe is the main investment framework of the EU with a total budget of €454 billion foreseen for European Structural and Investment Funds (ESIF) in the programming period 2014-2020. Through ESIF, Member States and project promoters support businesses, infrastructure and people, boosting growth and jobs in Europe.

PwC has long-standing experience in supporting the European Commission and the European Investment Bank Group with different types of services, including policy development, technical assistance and support to the setup and implementation of all the European Structural and Investment Funds (ERDF/CF, ESF, EAFRD and EMFF).

By way of example, during the past programming period we extensively supported the implementation and evaluation of JESSICA and JEREMIE instruments (check our study on <u>Sardinia</u> and the <u>Holding</u> <u>Fund Handbook and recommendations</u> for Urban Development Fund). We also performed the evaluation of instruments such as the European Energy Efficiency Fund (EEEF), Marguerite Fund, the Risk Sharing Finance Facility (RSFF), and the European Fund for Strategic Investments (EFSI).

In addition to providing dedicated training sessions to the European Commission on

the use of financial instruments and the development of strategies to maximise the effectiveness and efficiency of ESIF delivery, PwC developed the <u>ex-ante assessment</u> <u>methodologies</u> and the scoping study for the technical assistance needs of ESIF in the Member States. We also helped the EIB with a stocktaking exercise on evaluations of the EIF's microfinance activities.

Based on the knowledge developed through these assignments, we actively assist Member States and Managing Authorities to undertake the necessary ex-ante assessments of financial instruments in a range of sectors. We also support Managing Authorities across Europe in the Access to Finance Market Assessments (AFMA) set up by the European Investment Fund (EIF).

Furthermore, PwC works with Managing Authorities to design and implement programmes and to set up financial instruments focused on energy efficiency, urban and territorial development and social inclusion across all Member States. These experiences have allowed us to develop invaluable in-house knowledge based on the lessons learnt from the challenges encountered and successes achieved during the continuing shift away from a grant culture towards revolving finance under ESIF policy.

Financial services

The European Institutions want financial services policies to be enablers of stable, secure and efficient financial markets. With a view to establish a safe, responsible and growth-enhancing financial sector in Europe as well as to create an effective Banking Union, the EU works on solutions in different areas such as banking, insurance, securities and investment funds, financial markets infrastructure, retail financial services and payment systems.

PwC delivers effective solutions to support the EU Institutions in their mission by deploying highly-proficient and experienced professionals who bring the insights and experience of working with both banks and regulators. Our long-established relationships with leading industry bodies and firms and our work as insolvency administrators enables us to bring useful insights to the challenges faced by Europe's bank supervisors.

In particular, since the start of their activities in 2014 and 2016 respectively, PwC supported the Single Supervisory Mechanism (SSM) of the European Central Bank (ECB) and the Single Resolution Board (SRB) with independent professional services focused on the supervision of banks as well as the set-up of tools and processes for their tasks. In this context, we also performed the external review of EIOPA risk free rate.

In addition to this, PwC established a pan-European network called '<u>European</u> <u>Financial Services Advisory</u>' to align and combine its capabilities, knowledge, methodologies and staff. As the overall organisation of PwC in this domain mirrors the SSM's and SRB's work streams, the PwC ECB office based in Frankfurt and our SRB coordination team in Brussels are perfectly suited to provide bespoke services to those authorities which are established for operational banking supervision and potential resolution of banks.

PwC has over the years also advised the EU on other FS related matters, the latest example being the 2014 study on the potential economic consequences of country-by-country reporting under Capital Requirements Directive IV.

Energy and transport

Energy and transport policies directly affect the daily lives of European citizens, who want efficient, safe, secure and environmentally friendly policies.

Energy

The EU's energy policies aim to set up a unified market providing citizens and businesses with affordable energy supply, competitive prices and technologically advanced services. One of the priorities of the European Commission is to promote sustainable energy production and consumption, in line with the EU 2020 targets and keeping an eye on the global 2050 decarbonisation objective. The Commission focuses in particular on renewable energy and energy efficiency practices, for which it seeks specialised advice in the form of sector studies and policy recommendations based on sound data analyses.

PwC is recognised as one of the world's leading advisors on energy, sustainability, infrastructure development and project finance across all industry sectors. We cover the full range of policy, regulatory, transactions execution and privatisation services. For the European Commission, we provide policy evaluation services (ex-ante, mid-term and ex-post) and impact assessments, with a specific expertise on economic modelling and stakeholder consultations.

Examples of recent studies PwC delivered for the EU Institutions in the field of energy include:

- → Study on the effective integration of Distributed Energy Resources for providing flexibility to the electricity system
- → Study evaluating the current energy efficiency policy framework in the EU (ex-post) and providing orientation on policy options for realising the cost-effective energy efficiency/saving potential until 2020 and beyond (ex-ante)
- → <u>Study on the benefits of a meshed offshore grid in Northern Seas region</u>

Transport

Transport and mobility play a pivotal role in today's world. In order to tackle the challenges related to a well-integrated transport system in Europe, actions are required not only on a European but also on a global scale.

Although a lot of progress has been made towards achieving a true internal market for transport, the transport system in Europe remains fragmented. With the launch of the "Connecting Europe Facility", the EU supports trans- European networks and infrastructures in the sectors of transport, energy and telecommunications to unite the European networks of the future. Over the past 15 years, PwC has supported the EU Institutions with independent professional services in the transport sector, mainly focusing on policy evaluation (ex-ante, mid-term and ex-post) and impact assessment, with deep expertise on economic modelling and stakeholder consultations.

We regularly advise the EU Institutions on policy and regulation across all transport sectors (rail, road, air, inland waterways and ports...), TEN-T corridors, urban nodes development as well as urban transport policies. Our portfolio of topics includes also non-motorised transport (including safety), public transport and intermodality, urban access, travel and traffic information and payment systems, freight logistics, social and economic aspects of transport (ageing, accessibility, etc.).

Examples of recent studies PwC delivered for the EU Institutions in the field of transport include:

- → <u>Study on the North Sea Mediterranean</u> <u>TEN-T corridor</u>
- → Ex-post evaluation of Directive 2000/59/EC on Port Reception facilities for Ship Generated Waste & Cargo Residues
- → <u>Study on single wagonload traffic in Europe</u>
- → Study on the impact of the revision of the UNECE 1958 Agreement on the global competitiveness of the EU automotive industry





Smart cities

With its "Smart Cities initiative" the European Commission has set ambitious targets for improving urban and community life. The initiative aims at spreading good practices in energy efficiency, low carbon technologies, innovation, urban planning, integrated infrastructure solutions and smarter use of technology. Concrete measures to achieve the set targets include building renovation, heating and cooling systems based on renewable energies, smart grids and smart metering systems as well as smarter transportation systems (i.e. reducing traffic congestion, better and real time information, etc).

PwC has been playing a major role in the global shift towards smart cities and is a trusted government adviser for the analysis, design and management activities related to smart cities' projects. PwC brings together city leaders to facilitate exchanges of experience, knowledge and insights and supports them in the development of their strategies for the future, leading to added value for citizens, organisations and companies. This experience has allowed PwC to develop its own methodologies and a holistic, flexible and structured approach that guarantees the success of smart initiatives.

Over the past couple of years, PwC has been assisting the EU in gaining a better understanding of how to enhance urban wellbeing, leading to a comprehensive mapping of the European smart cities landscape. In particular, PwC analysed best practice examples in Europe and worldwide, as well as the potential of replicating solutions for smart cities.

We have recently been selected to strengthen the <u>marketplace of the European</u> <u>Innovation Partnership on Smart Cities and</u> <u>Communities</u>. This initiative aims to integrate and implement smart city solutions, support networking and partnering with knowledge sharing, with a focus on the intersection of energy, technology and transport.



Digital economy – innovation for the public sector

In a connected world, the way citizens interact with governments is more and more influenced by the possibilities opened up by new technology. Using technology in the public sector sphere is not only related to a more efficient service delivery, but is also a way to reduce public costs. This is particularly important at a time of budgetary constraint.

PwC helps the EU Institutions to maximise the potential of new technologies in order to deliver better and faster public services in the Member States and in the EU Institutions themselves.

Our experts deliver detailed studies, analyses, evaluation surveys, reviews and monitoring of project performance, coaching sessions and workshops. We work on a variety of topics, including: the use of ICT to support the implementation of EU legislation and policies, ICT governance (e.g. on IT strategy, enterprise architecture, methodologies, business process modelling, sourcing strategies, IT skills, IT performance measurement, metadata management, quality and risk management, semantics and semantics interoperability, etc.); Trans-European Interoperability and e-government services; information systems (e.g. on Service Oriented Architecture) and studies for strategic projects.

E-government

At PwC, we have a thorough understanding of e-government strategies and strong expertise in topics ranging from policy definition, policy analysis and systems implementation, to performance measurement and evaluation.

We work on online public services, modernisation and innovation in public administrations, impact assessment of ICT on administrations and citizens, information society indicators, cost-benefit analysis, as well as benchmarking.

Examples of studies PwC delivered in this area:

- → Best practices for ICT procurement based on standards in order to promote efficiency and reduce lock-in.
- → Analysis of the value of new generation of e-government services.

Interoperability of Solutions for Public Administrations (ISA and ISA²)

PwC supports the EU Institutions in administering the ISA2 programme. These initiatives, organised by the European Commission, aim to develop digital solutions for public administrations, businesses and citizens in Europe and promote interoperable cross-border and cross-sector public services. ISA and ISA² have been running since 2010 and will be operational at least until 2020. The solutions developed within these frameworks are available open source for all public administrations in the EU and aim to establish common approaches that will boost collaboration across Europe. Sharing and reusing tools such as common platforms and components as well as sharing infrastructures will also contribute to keep costs down and speed up the implementation of solutions.

Open data

Through their open data policies, the EU Institutions encourage European public administrations to re-use and share their data. The use of open data allows for wider possibilities in research, data-based policy and decision making as well as increase efficiencies in the communication of public administrations across Europe. PwC works with the European Commission to establish the European <u>portal of open data</u>, which gathers the metadata of public sector information available on public data portals across European countries.

e-ID and trust services

In the digital era, public services and crossborder online transactions are only one click away. PwC works with the European Commission to set the foundations and create a legal framework to ensure that these transactions are secure. PwC has a long standing experience in building solutions for electronic identification (eID) and electronic Trust Services (eTS), which are essential features of the Digital Single Market.



Public procurement

The EU institutions define rules aimed at harmonising public procurement practices across the Member States. These rules have the ultimate objective of creating fair and transparent market conditions for access to public funds. This helps create a level playing field for all economic operators wishing to engage with the public sector.

PwC is a trusted adviser of the EU institutions and Member States' public administrations in the field of procurement. We help simplify public procurement procedures, rethink approaches to purchasing and spending and advise on pan-European public procurement matters, analysing trends and proposing innovative solutions.

Our portfolio of services includes actions to facilitate SME access to public procurement opportunities, benchmarking and sharing public procurement best practices, fraud proofing aimed at identifying and protecting procurement against corruption and digitalising the procurement process.

On digitalisation, we are market leaders on developing e-procurement solutions. These solutions significantly ease the process of procurement, thus delivering better procurement outcomes and saving costs.

Additionally, e-procurement improves the transparency and accessibility of business opportunities and increases the participation of SMEs in public procurement procedures.

Some examples of studies delivered by PwC on public procurement:

- → <u>A study on SMEs access to public</u> procurement markets and aggregation of demand in the EU
- → Best practices for ICT procurement based on standards in order to promote efficiency and reduce lock-in
- → Public procurement in Europe: cost and effectiveness
- → <u>Stock-taking of administrative</u> capacity, systems and practices across the EU to ensure the compliance and quality of public procurement involving European Structural and Investment (ESI) Funds
- → <u>Identifying and reducing corruption in</u> <u>public procurement in the EU</u>
- → <u>Study on strategic use of public</u> procurement in promoting green, social and innovation policies
- → European Single Procurement Document
- → e-procurement golden book of good practices
- → End to end procurement (e-procurement uptake study)

The EU as a global actor

The EU's external policies and actions aim at having a positive impact on the world by delivering security, prosperity and democracy.

Thanks to our global network of skills and capabilities we can offer the resources and know-how of a worldwide organisation combined with detailed knowledge of local issues. We have a strong track-record both in delivering complex, multi-stakeholder regional programmes, as well as in providing specialist services in remote locations.

Tapping into our breadth of experience in different topic areas, we have delivered EU-funded projects around the world in fields including public finance and accounting; sustainability and climate change; transport and infrastructure; energy and utilities; trade, economic development and innovation; tax and customs; borders, security and safety.

Recent examples of EU external technical assistance and capacity building assignments in which we have been involved include:

- → Technical assistance for fight against informal economy and improvement of administrative capacity of the Turkish Revenue Administration.
- → Increasing the institutional capacity of the Ministry of Family and Social Policies in the field of social inclusion policies in Turkey.
- → Technical Assistance for the implementation of the regional programme
 "Renewable Energy Development and Energy Efficiency Improvements in Indian Ocean Commission Member States".
- → EU–India cooperation on ICT-related standardisation, policy and legislation.

In addition, PwC provides assurance to the EU on the legality and regularity of EU external aid actions, and verifications and compliance assessments, mainly through large framework contracts.

On behalf of the European Commission, we also manage the company interaction for the <u>EU's Gateway Business Avenues programme</u> in Korea, Japan, China and South East Asia, including Singapore, Vietnam, Malaysia, Philippines, Thailand and Indonesia. The Gateway Business Avenues programme is a flagship initiative funded by the EU to promote international development and trade, market access and business opportunities for EU companies.

The programme also complements the EU's trade agenda and assists in promoting international development and trade, facilitating the attainment of EU objectives at regulatory dialogue level and further ongoing FTA negotiations with partner countries in Asia.

Target sectors for cooperation include:

- \rightarrow Construction and Building.
- \rightarrow Environment and Water.
- \rightarrow Green Energy.
- → Contemporary European Design.
- → Information and Communications Technologies.
- \rightarrow Healthcare and Medical.
- \rightarrow Food and Beverage and Services.



Below a selection of EU-funded external assistance contracts PwC is working on:





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