



SUBMISSION OF A TENDER TO

“DEVELOP GUIDELINES FOR CRUISE TERMINALS INVESTMENT, PLANNING AND DESIGN”

TECHNICAL PROPOSAL



ROGAN ASSOCIATES S.A.

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1. PREAMBLE

Cruise industry has witnessed uninterrupted growth over the last thirty years to reach close to 22,1 million passengers in 2014. The main reasons behind this trend are:

- The construction of bigger cruise ships that allows the achievement of economies of scale by the cruise lines.
- The cost reduction in the cruise product which made it more attractive to the passengers
- The development of new specialised cruise products (mainly onboard cruise ships with the provision of added value and specialised services), aiming at covering a wider part of potential cruise passengers.
- The capture of new cruise passengers via the exploitation of niche markets with the development of specialised and thematic cruises
- The increased penetration of the cruise product to the existing source markets and the exploitation of new ones (for example China).

The facilities and service attributes of cruise ports are thus crucial to the cruise experience of a growing number of passengers. With the growth in the cruise business, cruise ports are gaining in importance for assuring schedule reliability and for allowing a continuous passenger transfer to onward air journeys and or day excursions. Moreover, cruise lines have developed a keen interest in cruise ports given growing berth availability and capacity issues in quite a number of ports of call. Cruise ports have also become attractive investment opportunities from a co-location perspective, e.g. in relations to hotels, marinas, condominiums, resorts and shopping malls.

1.1. Characteristics of the cruise market

1.1.1. Major cruising areas

Cruise is a global business as it operates on a global scale and also the source markets are spotted around the world. As regards the cruising areas, the Caribbean continues to be the major area for cruise lines operation. Based on 2013 data from Cruise Lines International Association, the Caribbean holds the 34,4% of the global cruise ships fleet in terms of capacity. The second most important area is the Mediterranean where the 21,7% of the cruise fleet is deployed. Europe (excluding Mediterranean) stands at the third place with 10,9% followed by Australasia with 5%, Alaska with 4,8%, South America with 3,9% and Asia with 3,4%.

1.1.2. Major source markets

In nowadays cruise is not considered to be a luxury product, as the reduction in the costs and the achievement of economies of scale made the product more affordable to a wider part of potential passengers. The major source markets for cruise passengers are U.S.A. which provided more than half (51,7%) of the cruise passengers. The second most important source market is far beyond USA and it's the UK and Ireland with 8,1% of the annual supply of cruise passengers. In the third place is Germany (7,7%), followed by Italy (4%), Australia and New Zealand (3,6%), Brazil (3,4%), Canada (3,4%), Spain (2,8%) and France (2,4%).

1.1.3. The cruise market structure

Cruise market is dominated by few cruise companies which hold a large part of the supply by means of cruise ship capacity. As of June 2014, five groups of cruise companies operated 175 cruise ships with a total capacity of 424.014 berths. For the same period, the global cruise fleet was comprised by 347 cruise ships with a total capacity of 471.377 berths¹. Based on

¹Maritime & Cruise Business Review (2014). Global Ocean Cruise Market Analysis and Forecast 2014

these data, the top five group of cruise companies are controlling the 50,43% of the global fleet and the 89,95% of the capacity (berths). The cruise industry is an oligopoly as it is dominated by few groups of cruise companies. This concentration increased in recent times as a result of the withdrawal of many small companies from the cruise market and due to the strategies of the big companies towards horizontal integration through mergers and acquisitions. The combination of the oligopolistic cruise market and the satisfaction of the cruise passenger as the way to increase market shares has intensified the competition among cruise companies.

Contemporary cruising is completely different than it was three decades ago. The “nearly-dead luxury product of the past has become a touristic trend that attracts more and more cruise passengers every year. Modern cruise ships are not just places where passengers can accommodate while travelling from one destination to another, but are considered as floating resorts with all kind of amenities. The safe and luxury stay of passengers is a priority for the cruise companies, thus the cruise product has become more complex and advanced in terms of on-board facilities and activities. A passenger can choose from a range of alternatives, from a cruise around the world to a cruise to nowhere, confirming the significance of cruise ships, which has become part of the experience and not just a transport mean.

1.2. Contemporary changes and challenges

The cruise industry is under an ongoing change process which in turns creates significant challenges for the destinations. Among the major changes in the cruise industry are:

1. Changes in the demographic characteristics of cruise passengers
2. Size of cruise ships and the provision of additional facilities and activities on board
3. The length of cruise which is a equation of several factors (fuel prices, company's target market, diversification of cruise product etc).
4. Shift of embarkation ports

These changes affecting the cruise destinations and especially ports, creating additional challenges with the major ones being:

1. The need for new or the upgrade of the existent port infrastructures and superstructures in order for ports to be able to facilitate the new bigger cruise ships.
2. The increasing negotiating power of cruise companies due to the oligopolistic nature of the cruise market.
3. Lack of regional cruise policies
4. Lack of coordination actions between cruise ports and among cruise ports and port cities.
5. Congestion in specific cruise ports and destinations
6. Social and environmental awareness

1.2.1. The cruise ports

As mentioned above, cruise ports are facing significant challenges in the contemporary cruise industry environment. Apart from the social and environmental awareness issues, a major challenge is the adaptation of their infrastructures in the needs of the cruise companies and of the cruise ships. The development of new port infrastructures or the upgrade of the existing ones is for many ports a strategic decision that must be taken in

order to maintain or increase their competitiveness and for increasing their market share, trying to be better positioned in a highly competitive port environment.

Having in mind that each cruise port has different needs based on its peculiar characteristics, such as the ownership and organizational model of the port authority or the port operator, the cruise market that the port serves, the natural characteristics of the port, if it is a home-port or a port of call and financing schemes, the issue of developing or upgrading port infrastructures is far more complicated than it really looks.

2. SCOPE OF THE TENDER

The tender aims at developing a report and the relevant guidelines for the Medcruise port members, dealing with the cruise terminals investment, planning and decision process. The project team will apply an integrated approach in order to examine the issue under the prism of predetermined factors and characteristics that affecting the relevant decisions. As already mentioned, each cruise port is unique based on a number of characteristics operational aspects. The proposed project will take into account these characteristics aiming at developing a booklet that can be adopted by all cruise ports, as a roadmap towards a decision process on investment and planning of a new or the expansion of an existing cruise terminal. This approach will particularize and at the same time generalize the whole process, so it can be applied by any cruise port.

3. METHODOLOGICAL APPROACH

The proposed methodological framework for developing the roadmap and the guidelines are based on the “what-if” approach. In order to develop a customized and at the same time generalized approach able to be applied by any cruise port the project must provide general guidelines according to specific characteristics of each cruise port.

The first step of this approach is to identify the key pressures on a cruise port based on specific attributes of a cruise ports external environment. The analysis of external environment’s attributes will provide the key pressures on a cruise port which affects the decision of proceeding in a related investment. The size of the new cruise ships, the cruise market that the port facilitates or aims at facilitating, the geographic area in which the port is located (according to Medcruise regions), as well as environmental and social awareness issues among others affects a cruise port’s decision in proceeding with an investment decision.

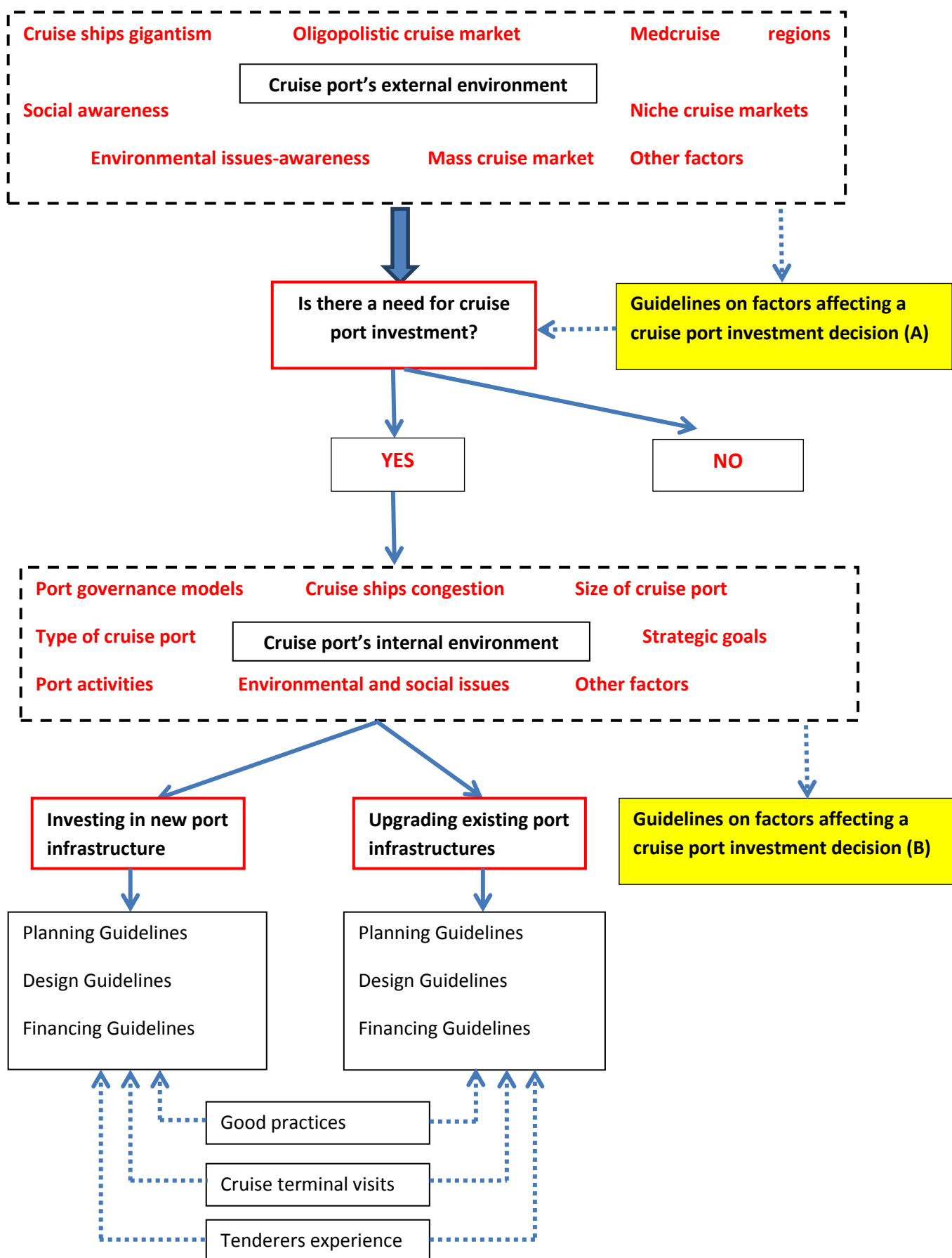
The second step, following the decision on proceeding or not with an investment, includes the analysis of the port’s internal environment aiming at identifying the most suitable solution for the cruise port. The port’s governance model, possible congestion problems, the type of cruise port (i.e. homeport, port of call, or hybrid cruise port) and the size of the cruise port, among others, are factors that affects the decisions regarding the most suitable solution for investments in a cruise port.

The third step consists of a review of the existing planning, design and financing tools aiming at concluding on general guidelines that can provide a standardized approach to cruise ports. The proposed planning and design tools will take in consideration all the existing guidelines and technical specifications issued by International Bodies and Institutions ie PIANC, ROM, BS. The aim is to have some general rules of thumb that can be applied by each Medcruise port member. The financial tools will be based on general practices that are applying by International Financial Institutions (ie EBRD, EIB) as well as private Financial institutions concerning port development. Schemes of development and Financing SUCH AS Private Public Partneship either as BoT scheme either as Concession Contract will be examined and presented.

Finally, the fourth step provides a review of best practices applied worldwide by cruise ports as regards the cruise terminals investment, planning and design. This task will be based on a literature review as well as on on-site cruise terminals visits and on the exploitation of the tenderer's extensive global network which can provide valuable input from several cruise ports worldwide.

The following figure present the methodological framework of the project.

Figure 1. Methodological framework



4. WORKPLAN

The project's duration will be six (6) months starting from the contracting day. The first phase of the project includes the analysis of the cruise port's external environment, concluding on a deliverable regarding the guidelines assisting cruise ports to identify the need for investments in cruise related port infrastructures. The deliverable is going to be submitted 7 weeks after the project's starting date.

The second phase of the project concerns the analysis of the cruise ports internal environment attributes affecting their decision on the most suitable investment in port infrastructure, i.e. the development of new infrastructures or the upgrade of existing ones. This phase will result on deliverable 2 including general guidelines that ports should take into account when deciding for an investment in cruise related port infrastructures. The deliverable will be submitted in 9 weeks following the contracting date.

The third phase of the project includes the review of existing planning, investment and design guidelines on cruise ports investment decisions based on:

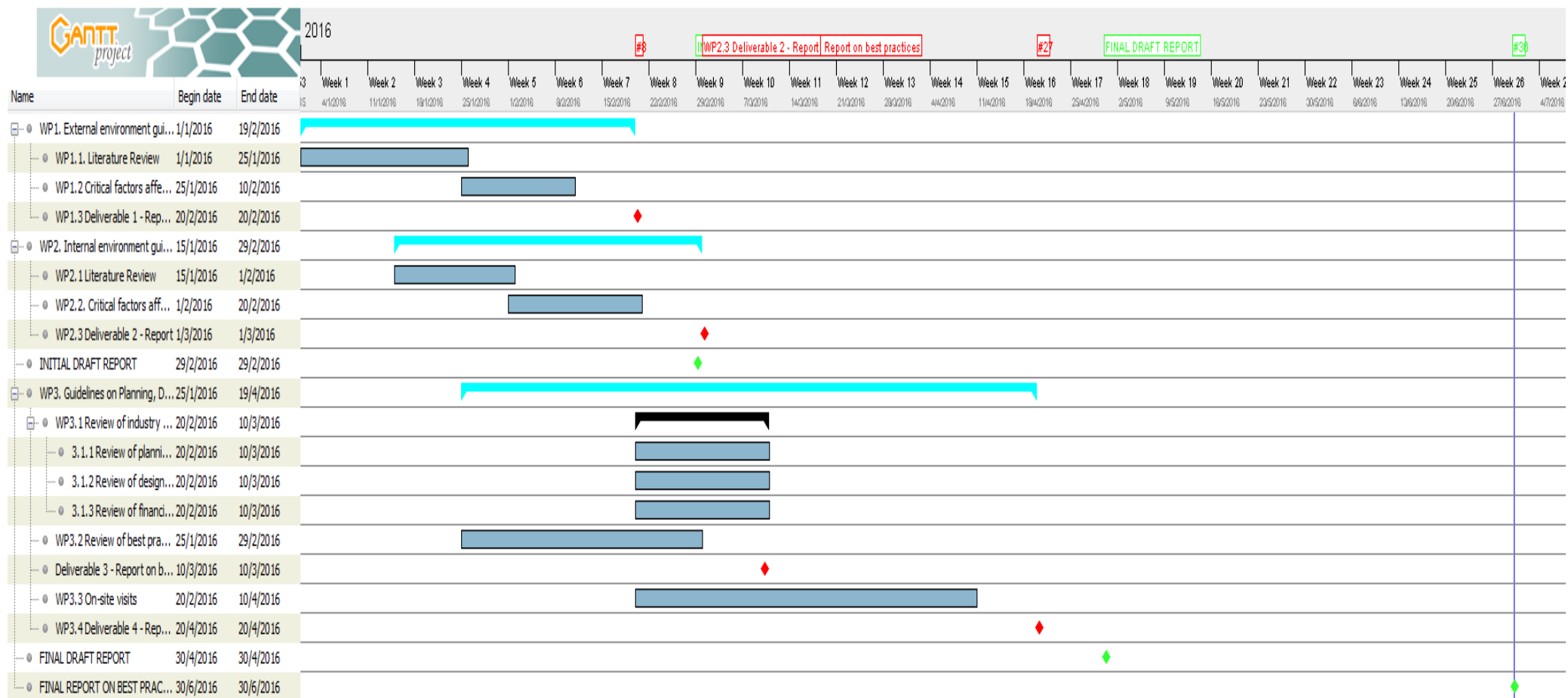
- a) The related literature review
- b) The experience from related projects around the world
- c) The review of existing good practices in cruise ports based on selected criteria (i.e. size of the port, governance structure, type of cruise traffic facilitated)
- d) The input from on-site visits to Medcruise member ports.

The deliverable will be a report including the guidelines that a cruise port should take into account when deciding on investing, planning and designing on a cruise related port infrastructure.

On week 16th, a draft final report is going to be submitted to Medcruise Board of Directors in order to receive their feedback and comments. The input that is going to be received will be incorporated in the final report that is going to be submitted 24 weeks after the contracting date.

The following figure shows a GANTT chart of the analytical timetable of the project. According to it, four deliverables are foreseen – red dots in the GANTT chart - (on week 7, 9, 10 and 16) as well as two draft reports and a final report – green dots in the GANTT chart – on the 2nd, 4th and 6th months of the project duration.

DEVELOP GUIDELINES FOR CRUISE TERMINALS INVESTMENT, PLANNING AND DESIGN



The project's tasks are shown below.

Tasks

Name

WP1. External environment guidelines

WP1.1. Literature Review

WP1.2 Critical factors affecting investment decisions

WP1.3 Deliverable 1 - Report on guidelines on attractiveness of cruise investments

WP2. Internal environment guidelines

WP2.1 Literature Review

WP2.2. Critical factors affecting investment decisions

WP2.3 Deliverable 2 - Report

INITIAL DRAFT REPORT

WP3. Guidelines on Planning, Design and Financing

WP3.1 Review of industry reports and related literature

3.1.1 Review of planning tools and guidelines

3.1.2 Review of design tools and guidelines

3.1.3 Review of financing tools and guidelines

WP3.2 Review of best practices from cruise ports

Deliverable 3 - Report on best practices

WP3.3 On-site visits

WP3.4 Deliverable 4 - Report on Planning, Design and Financing guidelines

FINAL DRAFT REPORT

FINAL REPORT ON BEST PRACTICES & GUIDELINES FOR CRUISE TERMINAL INVESTMENT, PLANNING & DESIGN

5. ON-SITE TERMINAL VISITS

The project foresees a number of on-site visits to cruise ports as well as meetings with Medcruise member port executives and cruise lines executives. Due to budget restrictions, on-site visits are going to be limited and will include five major cruise ports and Medcruise members in Turkey, Greece, Italy and Spain (i.e. Istanbul, Piraeus, Heraklion, Venice and Barcelona). To overcome this barrier the project team will pursue to organize teleconference meetings with port executives from the most important Medcruise member ports (based on their cruise traffic according to the annual statistic report of Medcruise) as well as from Medcruise member ports that have recently proceeded or are planning to proceed on an investment in cruise port related infrastructures. In addition, the project team will organize teleconference meetings with selected cruise lines executives with a focus into cruise companies that completed or planning investments in cruise ports.

6. TENDERER'S EXPERIENCE

Short description of Similar Projects carried out by Rogan Associates S.A.

1	Hellenic Republic Asset Development Fund (HRADF) Study period:	Project NEREIDS: Technical Advisor for the Privatization of Small Ports and Marinas, Greece	October 2011 – Pending	The project's objective is to establish an extensive network of groups/clusters of ports and marinas, which will be subsequently monetized, primarily on the basis of concession agreements, through a series of transactions.
2	Athens 2004 S.A. (Athens Olympic Games Organizational Committee)	Study of the aesthetic restructuring, planning of functions and general organization of the berthing area of cruise ships at the Central Port of PIRAEUS, during the OLYMPIC GAMES 2004, Country :Greece Project location :Piraeus Client :Athens 2004 S.A.	Dec. 2001- June 2002	Proposition of a number of measures such as construction of temporary Passenger terminal, car-bus parking areas, facilities, as well as their function in order to achieve the highest level of servicing to the passengers who were to be hosted in these cruise vessels. Additionally, the new Fire Brigade Station and Pilot Service Building have been designed.
3	Cyprus Port Authority	Strategic Plan of Cyprus Port Authority Cyprus	2015 – to date	The project's objective is to execute the Strategic Plan of Cyprus Port Authority for the next 50 years. One of the main focus of the Plan is the master planning of all Cypriots Ports.
4	Ministry of Public Works, Transport and Telecommunication, Project Coordination Unit (PCU), Republic of Albania: Funded by WORLD BANK.	Detailed design and supervision of Saranda Gateway Cruise Liner Terminal, Integr. Coastal Zone Management and Clean Up Project Saranda, South-west Albania	April 2008 – Nov. 2012	Preliminary, Final Construction Design and Tender Dossiers for the transformation of Saranda's Port into a dedicated Ferryboat , Cruise and Passenger Terminal – Construction Supervision of the works: 1. 180m new berth front with 9m water depth (MSL) with the necessary demolition and excavation. End walls

				along the northern and southern front were included 2. Fenders, bollards and navigational aid 3. About 7.000m³ dredging to 9m water depth in front of the berth 4. About 10.000m² front area, complete with asphalt paving and stone water drainage and road signs 5. Utilities: Water supply sewer, power 6. Perimeter wall and lighting.
5	Ministry of Environment, regional Planning, Environment and Public Works	Master Plan of the Port of Lavrio Greece	Febr. 2001-October 2004	The objective of this study was the establishment of the Lavrio Port Master Plan, in the light of the investigation of the then projected uses of the harbour facilities, until the year 2035. Different scenarios of the final development of the harbour and land installations, have been examined, and evaluated by SWOT analysis. The winning Scenario was studied in depth in order to finalize the then proposed infrastructures and facilities.
6	Ministry of Mercantile Marine of Greece	National Strategic Plan for Greek Ports 2013	July 2013-December 2013	The Project included the following tasks: • Analysis of the perspectives of the Hellenic Port system within the framework of the European and International Transport Networks. • Analysis of the Trans - European Transport Network and the role of the Greek Ports as nodes in this Network. • Review of the Status of the Hellenic Port System. Analysis of the infrastructure and the uses of the major Greek Ports. • Review and analysis of the main problems of the Greek Ports in conjunction with the

				particularities of the maritime transport in the Greek seas. • Multi-criteria Analysis for the formation of proposals for interventions with the aim of upgrading / expansion of the major Greek Ports. • Classification of the requirements for interventions • Analysis of the possibilities for Private and/ or Public funding of these proposals. • Strategic Planning for the National Port Development, based on the findings of the previous analysis.
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An indicative list of Projects is given on Appendix I.

7. PROJECT TEAM

The tenderer will allocate the following employees into the project. All the project team members have significant knowledge and experience on port planning and port investment issues.

Dr Christos D. SOLOMONIDIS , Civil-Harbour Engineer

EDUCATION

- *Diploma in Civil Engineering (1981)*

National Technical University of Athens, Greece

- *Ph.D in Civil Engineering (1991)*

University of London, University College London (UCL)

- *Continuing Education in Mathematical Modelling and Morphological Modelling (1999 & 2007).*

Danish Hydraulic Institute. Water & Environment, Denmark

- *Training in the organization and operation of a Physical Modeling Wave*



Basin at N.T.U.A (1996).

HR Wallengford Laboratory, U.K.

QUALIFICATIONS & EXPERIENCE

- Managing Director of ROGAN ASSOCIATES S.A. since 2013
- Technical Director of ROGAN ASSOCIATES S.A. from 2001 to 2013
- MARTEDEC S.A. Scientific Responsible for E.U. funded Applied Research Projects in Coastal Engineering (1992-1996)
- Over 25 years experience in Harbour and Coastal Engineering. Projects include Master Planning of Ports and Marinas , Design and construction supervision, Technical advisory services
- Over 25 years experience in the development of algorithmic tools for random wave simulation, process simulation and for the design of structures.
- Over 20 years experience in mathematical modelling of wave transformation-wave disturbance, littoral circulation and sediment transport, morphological modelling.
- Over 20 years experience in development and management of EU research programs in Harbour Coastal and Structural Engineering.
- Over 5 years experience in field measurements of waves and currents.
- Experience in Earthquake Engineering.
- Experience in the design and optimisation of digital filters.
- Operating systems: MS-DOS, WINDOWS, UNIX
- Extensive Computer Literacy.

MEMBER OF PROFESSIONAL BODIES

Technical Chamber of Greece (TCG)

Hellenic Hydrotechnic Association (HHA)

Scientific Board for the Technology of Maritime Works at TCG (Coordinator)

Mr Antonios M. BOUTATIS, Harbour-Environmental Engineer, M.Sc.

EDUCATION

- *Diploma in Civil Engineering (1997)*

National Technical University of Athens , Greece

- *Master in Civil and Environmental Engineering (2001)*

Massachusetts Institute of Technology (MIT), USA

QUALIFICATIONS & EXPERIENCE

- Partner and Technical Director of ROGAN ASSOCIATES S.A. since 2013
- Over 15 years experience in Environmental modeling (Water, Ground, Air, Noise) - Environmental Impact Assessment Studies



- Experience in Port Master Planning and Ports Strategy (Harbour and Hydraulic Works)
- Experience in Transaction Advisory Services for Infrastructure Projects
- Experience in Due Diligence of Port Infrastructure
- Certified Diver

MEMBER OF PROFESSIONAL BODIES

Technical Chamber of Greece (TCG)

Mr Ioannis A.ROGAN, Surveying Engineer, MBA

EDUCATION

- *Diploma in Rural and Surveying Engineering (2007)*

National Technical University of Athens , Greece

- *Master in Business Administration (2011)*

Boston University – School of Management, USA

QUALIFICATIONS & EXPERIENCE

- Experience in Transaction Advisory Services for Infrastructure Projects
- Experience in Feasibility Studies and Business Plans
- Experience in Strategy Studies and Master Plans
- Experience in Project Management
- Market research/ Sounding

MEMBER OF PROFESSIONAL BODIES

Technical Chamber of Greece (TCG)

The full CV's of the project team members are included in APENDIX II.

8. RESOURCES

Full details of all resources to be utilized.

Equipment and software of Rogan Associates S.A.

The Firm owns offices of 350 m² total surface. Moreover, the Firm owns modern and high level equipment, including the following:



1. Seven (7) PC Pentium IV 3.2GH, 1 GB RAM, DVD
2. Five (5) PCs Pentium IV 2.4GH, 512 MB RAM, DVD
3. One (1) Server Pentium III 800 MHz, 256 MB RAM, CD-ROM 52X, CD-RW
4. One (1) Server Pentium IV 3.2 GHz, HP
5. One (1) MS-Windows NT - 4 network system equipment: Server, Workstation Interface and Communication System, Switch/Hub 10/100
6. One (1) Scanner Hewlett Packard ScanJet cx
7. One (1) Colour Printer HEWLETT PACKARD Officejet 7000, A3 paper
8. One (1) Colour Plotter HEWLETT PACKARD 750C, A0-A4 paper
9. One (1) Colour Plotter HEWLETT PACKARD 1050C Plus, A0-A4 paper
10. One (1) Photocopy machine RANK XEROX 5225
11. One (1) Digital High Speed Facsimile BROTHER 2820
12. One (1) Electric Typewriter TRIUMPH-ADLER
13. One (1) Book Binder LEITZ
14. One (1) Bruel & Kjaer Precision Integrating Sound Level Meter Type 2236 (MaxL, MinL, Peak, SPL, L_{eq} , L_N (π . χ . L1, L10, L90), SEL, IEL, L_{EPd})
15. One (1) Electromagnetic field tester (EMF Tester) Lutron EMF-822
16. One (1) GPS (Global Positioning System). GARMIN GPS 38
17. Scanners (Cannon, Hewlett Packard)
18. One (1) Printer EPSON Laserjet 6200L A4 paper.
19. One (1) Colour Printer HEWLETT PACKARD Laserjet CP2025, A4 paper
20. One (1) Printer OKI Microline 3320

In addition to the above, the Firm owns a software library, including the following:

1. General Use Standard Software

The firm owns and uses a complete series of word processing software, databases, spreadsheets and programming languages [i.e. *MSOFFICE for WINDOWS 2000 Millenium and WINDOWS XP Professional (MicrosoftWORD, MicrosoftEXCEL, MicrosoftPOWERPOINT, MicrosoftACCESS+), DG-FAST, CA-REALIZER* etc.].

2. CAD Software

- AUTOCAD REVIT SERIES-BUILDING 9 (Autodesk, Network)
- AUTOCAD 2007 (Autodesk, Network)
- AUTODESK CIVIL 3D 2007 (Network)
- ARCHITECTURAL DESKTOP V.3.3

3. Project Management Software

Computer Associates' *CA-SUPERPROJECT*



Primavera Project Planner, "version 5.0"

4. Harbour and Coastal Engineering Projects' Software

MIKE21 NSW A program for the study of the generation, growth, propagation and decay of short crested waves in nearshore areas. Developed by the Danish Hydraulic Institute.

MIKE21 EMS A program for the study of wave dynamics and wave disturbance in harbours and small coastal areas, developed by the Danish Hydraulic Institute.

MIKE21 21HD A program for the study of Hydrodynamics in coastal areas and estuaries. It simulates water level variations and flows in response to a variety of forcing functions. Developed by the Danish Hydraulic Institute.

MIKE21 ST A program for the determination of sediment transport rates due to currents or currents and waves, in areas with sandy bottom. Developed by the Danish Hydraulic Institute.

LITPACK. A software package for the modelling of non-cohesive sediment transport in waves and currents, littoral drift, coastline evolution and profile development along quasi-uniform beaches. Developed by the Danish Hydraulic Institute.

Automated Coastal Engineering System A suite of numerical tools for various coastal and harbour engineering applications, developed by the U.S. Department of the Army.

The Firm has also developed and uses a number of specialised computer programmes for the design of quaywalls consisting of precast concrete blocks, outer harbour works, fendering systems etc.

MIKE21 PMS : A liner refraction – diffraction model based on a parabolic approximation to the elliptic mild slope equation.

The model takes into account the effects of refraction and shoaling due to varying depth, diffraction along the perpendicular to the predominant wave direction and energy dissipation due to bottom friction and wave breaking. The model also takes into account the effect of frequency and directional spreading using linear superposition.

MIKE21 CAMS: It is used for investigating the morphological evolution of the nearshore bathymetry due to the impact of engineering works (coastal structures, dredging works etc.). The engineering works may include breakwaters (surface-piercing and submerged), groins, shoreface nourishment, harbours etc. MIKE21 CAMS can also be used to study the morphological evolution of tidal inlets.

5. Static and Dynamic Analysis Software

SAP 90 (A static and dynamic analysis computer programme for spatial structures of any type with the help of the finite elements method), Computer and Structures Inc.

LPILE Plus 4.0 (A computer programme for single piles calculations, under lateral force, in several layers soils), Ensoft Inc.

APILE Plus 3.0 (A computer programme for single piles calculations, under axial force, in several layers soils), Ensoft Inc.

DYNAPILE (A computer programme for the analysis of piles and Drilled Shafts Under Dynamic Loads), Ensoft Inc.

GROUP 6 PILE (A computer programme for the analysis of a group of piles subjected to Axial and Lateral Loading), Ensoft Inc.

6. Soil Mechanics Software

LARIX2-S (A slope stability analysis computer programme), Cubus Software Ltd.

7. G.I.S. Software

ArcView by ESRI.

8. Traffic Models

SATURN - Traffic simulation and traffic prediction model, University of Leeds, U.K.

9. Environmental Models

“ODOS-EMOS” – A computer programme for Environmental modelling (Noise, Air Pollution) emphasized on transportation Projects.

9. SUBCONTRACTING

The tenderer intends to cooperate for the successful completion of the project with “Ports & Shipping Advisory” (P&SA), a consulting company located in Greece, dealing with consulting services provision to port companies as well as to organizations and public entities, on issues related to port administration and organization, port policy and port strategy. On behalf of P&SA, Dr George Vaggelas is going to be engaged in the project especially in phases I and II (analysis of the cruise ports external and internal environment).

9.1. Partner’s qualifications

Dr. George Vaggelas is a Partner and CEO at “Ports and Shipping Advisory” and a Research Fellow at Research in Shipping and Ports Laboratory at the Department of Shipping, Trade and Transport of the University of the Aegean(Greece). He is also a member of the Greek Regulatory Authority for Ports as well as an Editorial Advisor at “NaftikaChronika” the leading shipping magazine in Greece. He has previously been an advisor to the President and CEO of Thessaloniki Port Authority S.A. (Greece) and an Adjunct Lecturer at the University of the Aegean.

He has more than 10 years of experience in consulting and research on port and shipping issues and he has been involved also in European and national projects examining the port and maritime industries. A specialist in passenger ports, port management, port economics and port policy issues, Dr Vaggelas has authored several papers published in international scientific journals and international conferences examining seaport economics and politics of seaports.

Dr Vaggelas holds a BSc (Shipping & Entrepreneurship), an MSc in Shipping Trade and Transport (STT), and a PhD (2008), from the School of Business, University of the Aegean, Greece. His PhD thesis examines the interface of the public and private sectors involvement in the port sector. The research has been financed by the Greek Ministry of Development, the Port of Piraeus SA, and the Organization for Public Transport in Athens (OASA).

He is active in the Port Performance Research Network (PPRN) a member of the International Association of Maritime Economists (IAME), and of the 'Hellenic Association of Maritime Economists' (ENOE)².

10. MEDCRUISE SOURCES

During the project, the consulting company is expecting to have access to the Medcruise statistic data as well as to Medcruise members' information with a focus on completed and/or planned investments in cruise related port infrastructures. Also the consulting company will request contact details information on Medcruise port members' executives as well as contact details of cruise companies' executives. Also access to previous studies of Medcruise on cruise ports is expected.

Finally the consulting company might request two meetings with the Medcruise Secretariat for exchange of information and updates aiming at increasing the overall quality of the Report and Guidelines for Cruise Terminals Investment, Planning and Design.

11. THE CONSULTING COMPANY

ROGAN ASSOCIATES Consulting Engineers-Architects was founded in 1977, as an open partnership, by Dr.Ing. Adels J.ROGAN. Since then, and under the various legal entities described below, the Firm has been offering, for more than thirty years, its services in Greece and abroad. Apart from Europe, it has worked in Africa, Middle East, Caribbean, South America, Indian Ocean, South East Asia G.I.S. and PHARE Countries. The Firm covers all the fields of sea transportation, port operation and management, maritime, harbour and coastal works, transport planning. It is covering all phases of project realization: conceptual design, environmental assessment study, preliminary design, environmental impact study, final construction design, technical and socio-economic feasibility studies, preparation of tender dossiers, evaluation of bids, project monitoring or supervision.

In 1984, Dr. Ing. A.J.Rogan founded A.ROGAN AND ASSOCIATES Ltd.Partn.Co.* , which was registered in the European Commission (DG VIII, DG VII, DG I) and the World Bank. For a period of seven (7) years (1989-96) the registration with the E.C. and the World Bank was made under the umbrella of "ELLCONSULT Ltd., Group of Consulting Firms" in which A.ROGAN AND ASSOCIATES Ltd.Partn.Co. covered the sector of the "Port and Sea Transportation Division". After the dissolution of ELLCONSULT, A.ROGAN AND ASSOCIATES

²Dr Vaggelas full CV is included in APPENDIX III

* with the distinctive title ROGAN ASSOCIATES Consulting Engineers – Architects

Ltd.Partn.Co.re-registered, in its own right, in the above two organisms and remained so until 2010.

For the projects in Greece, and in order to be compatible with the Greek Legislation, Dr.Ing. A.J.Rogan created, in 1986, the legal entity “A.ROGAN AND ASSOCIATES Ltd. Design and Supervision Consultants” registered with the “Ministry of Environment, Regional Planning and Public Works” of Greece and obtained the Official Design Licenses for: Port Studies, Environmental Studies, Regional Planning Studies and Structural Analysis and Design Studies. In 1993 the firm was transformed into a Société Anonyme “ROGAN ASSOCIATES S.A., Design and Supervision Consultants” which is accredited to TÜV AUSTRIA Quality Management System Standards – EN – ISO 9001:2008 (Certificate Registration No 01012577).

Finally, on July 2010, A.ROGAN ASSOCIATES Ltd. Partn. Co. has been absorbed by ROGAN ASSOCIATES S.A., thus a sole entity is covering now all activities in Greece and abroad.

ROGAN ASSOCIATES S.A. is established in 350 m² Offices owned by the Partners in the center of Athens, equipped with modern and high level equipment and having licenses for a complete series of specialized state of the art software for mathematical modelling, as well as general use of office software for word processing, databases, spreadsheets and compilers for programming languages.

Therefore, from 2010 the distinctive title ROGAN ASSOCIATES covers all activities offering a continuous expert advice, in Greece and Internationally.

ROGAN ASSOCIATES totals 20 full and part-time experts of University Level: Engineers, Architects of all specializations, Economists, Managers, Urban Planners, EDP Specialists, etc. Moreover, ROGAN ASSOCIATES are in close cooperation with Universities, Research Institutes and International Organizations, thus acquiring access to contemporary research and development and ensuring that applications proposed are of the most up-to-date technology and know-how. Finally, ROGAN ASSOCIATES own state of the Art equipment and software in order to meet its clients highest expectations.

ROGAN ASSOCIATES has signed, since 1999, a Software License and maintenance agreement with the Danish Hydraulic Institute (No GRE-M21-99001 and No GRC-LIT-2004-01), using its various Software Packages, as for instance MIKE21 NSW/EMS/HD/ST, LITPACK etc. ROGAN ASSOCIATES also has close cooperation with the Harbour Works Laboratory of the National Technical University of Athens (N.T.U.A.) - Faculty of Civil Engineering (Dr.Ing.A.J.Rogan founded and was the first Director of the Laboratory during his tenure of the NTUA. The Laboratory is presently directed by Prof.K.J.Moutzouris).

ACTIVITIES

Economics and Business



Macroeconomic Analysis and Planning, Economic Development Strategies and Measures, Investment opportunities, portfolio management and investment evaluation, regional and urban analysis and planning.

Harbour and Coastal Engineering

Maritime and harbour works, shore protection works, leisure harbours and marinas, shipyards and scrapyards, industrial maritime terminals and under water pipelines.

Port and sea transportation

Feasibility studies for ports, specialized terminals and leisure developments, port operation and management studies, studies for nautical tourism and shipping systems, traffic studies.

Transportation and urban development

Transport planning, highway and intersection design, road safety studies, railroad and railways stations design, transport generated environmental Impact Studies.

Architectural design

Design of private houses and housing complexes, multi-use complexes, tourist installations, administration and office buildings, educational buildings, industrial buildings, port passenger terminals and warehouses, navigation service stations and harbour fire brigade stations.

Urban design

Exterior spaces design, urban renewals, central business districts (C.B.D.) renewals.

Consolidation and rehabilitation of traditional buildings

Rehabilitation of traditional buildings, incorporation of new uses into traditional buildings, modern extensions of traditional buildings.

Environmental engineering

Environmental impact assessment for harbours, marinas, coasts, rivers, roads, railways and airports as well as for disposal of solid-liquid waste. Environmental modelling, waste management and noise measurements, monitoring.

Information systems

Databases, expert systems, decision support systems (DSS), management information systems (MIS), Computer-aided design (CAD) systems, geographic information systems (GIS), real-time systems, civil engineering applications, specialized business applications and computer networks.

Project Management and Supervision



Construction-site Management, contract management, coordination - scheduling of the construction phases and activities, cost evaluation and management of the project, quality control of the construction phase, check- review and evaluation of Contractor's request and claims on behalf of the Project's Owner.

CERTIFICATE | ΠΙΣΤΟΠΟΙΗΤΙΚΟ | CERTIFICAT | 証明書 | CERTIFICAT



CERTIFICATE

**Management System as per
EN ISO 9001 : 2008**

In accordance with TÜV AUSTRIA HELLAS procedures, it is hereby certified that



ROGAN & ASSOCIATES S.A.
9, Valetta str.
GR-157 71 ZOGRAFOU, ATHENS, GREECE

Applies a Quality Management System in line with the above Standard for the following Scope

**DESIGN OF INFRASTRUCTURE WORKS, ENVIRONMENTAL IMPACT STUDIES
-CONSULTANTS FOR SUPERVISION OF WORKS & PROJECT MANAGEMENT.**

Certificate Registration No.: **01012577**

Valid until: 2016-01-23
Initial certification: 2007-01-24



Certification Body
at TÜV AUSTRIA HELLAS

Athens, 2013-01-24

This certification was conducted in accordance with TÜV AUSTRIA HELLAS auditing and certification procedures and is subject to regular surveillance audits.

TÜV AUSTRIA HELLAS
429, Mesogeion Ave.
GR-153 43 Athens, Greece
www.tuvaustriahellas.gr



Ms Certification
No of Certificate 236

CaPRK41E_A2e



TÜV AUSTRIA
GROUP

The registration of this document is subject to the approval by TÜV AUSTRIA HELLAS

12.STATEMENT



STATEMENT ABOUT THE LEGAL SITUATION

I the undersigned Christos D. Solomonidis in the quality of Managing Director, Legal Representative of ROGAN ASSOCIATES S.A. declare that we are not be in any of the following exclusion grounds:

- i. we are bankrupt or being wound up, are having our affairs administered by the courts, have entered into an arrangement with creditors, have suspended business activities, are the subject of proceedings concerning those matters, or are in any analogous situation arising from a similar procedure provided for in national legislation or regulations;
- ii. we have been convicted of an offence concerning our professional conduct by a judgement which has the force of *res judicata*;
- iii. we have been guilty of grave professional misconduct proven by any means which the contracting authority can justify;
- iv. we have not fulfilled obligations relating to the payment of social security contributions or the payment of taxes in accordance with the legal provisions of the country in which we are established or with those of the country of the contracting authority or those of the country where the contract is to be performed;
- v. we have been the subject of a judgement which has the force of *res judicata* for fraud, corruption, involvement in a criminal organisation or any other illegal activity;
- vi. following another tender procedure, we have been declared to be in serious breach of contract for failure to comply with our contractual obligations.

Dr. Christos Solomonidis
Managing Director
Legal Representative

ROGAN ASSOCIATES S.A.
DESIGN & SUPERVISION
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APPENDIX I

INDICATIVE LIST OF PROJECTS EXECUTED BY ROGAN ASSOCIATES S.A.

Assignment Name: Master Plan of the New Industrial Port of Vassilikos - Cyprus		Approx. Value of the contract (in current US\$): 215,000
Country: Cyprus Location within Country: Vassilikos Port		Professional Staff Provided by firm (profiles): Civil (Port), Environmental, Financial, Technical Support
Name of Client: Cyprus Port Authority (CPA)		N^o of Staff months; Duration of Assignment: 30 staff months, 6 months
Address: 1062 Nicosia, Cyprus		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 215,000
Start Date (Month/Year): 03/2009	Completion Date (Month/Year): 09/2009	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader George Papageorgiou – Coordinator of the socio-economic study Antonis Boutatis – Coordinator of E.I.S. Foteini Tsafou – Team Member Yiannis Rogan – Team Member
Narrative Description of Project: Preparation of the study of Master Plan for the development and reforming of Vassilikos Port so as to render it as the main industrial port of Cyprus, servicing also hazardous, dirty and dangerous goods, as well as intrusive port activities. The Master Plan study also aims to constitute the base for possible financing from the European Union or/and International Granting Organisations for some of the proposed works and included the economic and financial viability and the Environmental Impact Study and conditions of protection of the environment.		
• Total surface of the Port Basin: 1.252.606 m² • Entrance width: 250m • Total length of New Vassilikos Port outer harbour works: 3.495m • Total length of outer harbour works of the Fishing Port: 578m • Lengths of quays total 5.055m with depths varying from -6m to -16m (under CD) • Totals of reclaimed areas: 690.000m² • Buildings in m²:37.825m • Preliminary estimation of the volume, of reclaimed areas: 4.011.000m³ • Preliminary estimation of the volume of dredging: 3.959.000m³		
Description of Actual Services Provided by Your Staff: Rogan Associates' duties included:		
• Analysis of the existing situation in terms of: existing infrastructure, existing studies, traffic flows, economic analysis • SWOT Analysis		

• Forecasting of cargo flows (3 Scenaria) • Design of Alternative Scenaria of infrastructure for allocation of the different port uses • Preliminary design of infrastructure works and supply networks • Multicriteria Analysis for the selection of the optimum scenario • Master Planning of the Selected Scenario • Investment Plan • Action Plan • Environmental Impact Assessment Study
--

Assignment Name: Study of the aesthetic restructuring, planning of functions and general organization of the berthing area of cruise ships at the CENTRAL PORT OF PIRAEUS, during the OLYMPIC GAMES 2004		Approx. Value of the contract (in current US\$): 180,000
Country: Greece Location within Country: Port of Piraeus		Professional Staff Provided by firm (profiles): Civil (Port), Architectural
Name of Client: Athens 2004 S.A. (Athens Olympic Games Organizational Committee)		Nº of Staff months; Duration of Assignment: 12 staff months, 6 months
Address: Athens		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 180,000
Start Date (Month/Year): 03/2001	Completion Date (Month/Year): 09/2002	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adels J. Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Prof. Spyros Rogan – Chief Architect Antonios Boutatis - Port Engineer
Narrative Description of Project: During the Olympic Games of 2004, thirteen (13) Cruise Vessels will berth in the south wharves of Piraeus Port – Athens 2004 Zone and will be used as floating hotels. The study proposes a number of measures such as construction of temporary Passenger terminal, car-bus parking areas, facilities, as well as their function in order to achieve the highest level of servicing to the passengers who will be hosted in these cruise vessels.		
Description of Actual Services Provided by Your Staff: In terms of Strategic Planning, Rogan Associates harmonized its suggestions with the Central Port's Reformation Proposals deriving from the Piraeus Port Authority's Strategic Development Plan. In terms of Master Planning, Rogan Associates redesigned the layout of functions, with the goal to better accommodate the 15,000 visitors that will be leaving on the berthed cruise vessels, during the Olympic Games. Thus, Rogan Associates performed the conceptual design of 3 alternative layouts, and redesigned the three cruising terminals. In more details, Rogan Associates performed: • Design of the parking areas • Optimization of the berthing places for the cruise vessels • Traffic forecast		

- Analysis of traffic flows
- Planning of functions
- Design of the Fire Brigade Station
- Design of the Pilot Service Building

Architectural:

The architectural – urban planning object of the design was:

(a) A draft design for a master plan of the area for the docking of cruise ships during the Olympic Games 2004 in the Central Harbor of Piraeus.

More specifically, in the master plan there was a proposal with:

1. Construction of a temporary traffic ring to serve vessels with special shuttle-buses.
 2. Construction of a central pavement to run through the area and to form the 'unifying feature' of the whole lay-out of open-air and building premises, together with the traffic ring.
 3. Siting of five positions for temporary passenger stations (reception stations) for cruise ships with flow diagrams and building programmes with specifications for areas.
 4. Siting of small-size light constructions such as exhibition premises, sponsors' offices, traffic control offices, etc.
 5. Siting of light constructions / signs at gates and nodal points.
 6. Design of an organisational framework for open-air spaces.
- (b) Preliminary design for five temporary passenger stations for cruise ships to be provided by new light constructions or a combination of light constructions or the re-designing of existing buildings and enhancement of existing buildings.
- (c) Preliminary design for all the small-size light constructions proposed by the master plan.
- (d) Preliminary design for all the light constructions / signs at gates, nodal points, etc. proposed by the master plan.
- (e) Outline design for the organisation and equipment of public areas.

The temporary designing of open-air spaces, open-air furnishings and open-air equipment is proposed.

Assignment Name: Master Plan of a new port in the area of Amaliapolis, Magnesia, Greece		Approx. Value of the contract (in current US\$): 221,000
Country: Greece Location within Country: Magnesia, Central Greece		Professional Staff Provided by firm (profiles): Civil (Port), Environmental, Technical Support
Name of Client: MEDITERRANEAN TERMINAL S.A.		Nº of Staff months; Duration of Assignment: 22 staff months, 5 months
Address: 13341 Athens, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 221,000
Start Date (Month/Year): 11/2011	Completion Date (Month/Year): 03/2012	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Christos Solomonidis – Project Director/Coordinator Antonis Boutatis – Team Leader Yiannis Rogan – Team Member Foteini Tsafou - Team member
Narrative Description of Project: The aim of this project was the completion of a Master Plan of a		



private harbor installation that would serve the import/ export of agricultural products.
Description of Actual Services Provided by Your Staff: Rogan Associates' main duties were: • Topographic-Bathymetric Survey of the project area in Pagasitikos Gulf. • Underwater inspection in order to prepare an inventory of the flora and fauna in front of the quaywalls • Wave propagation study with mathematical models • Preparation of the Master Plan • Preliminary design of the works (Harbour works, Electromechanical works) • Preliminary design of the access and internal roads • Preliminary design of water supply and sewer networks, as well as the parking area within the harbour zone • Feasibility study • Preliminary environmental impact study (EIS)

Assignment Name: Master Plan of the Port of Lavrio		Approx. Value of the contract (in current US\$): 240,000
Country: Greece Location within Country: Lavrio, Attica, Eastern Greece		Professional Staff Provided by firm (profiles): Civil (Port), Transport, Environmental, Technical Support
Name of Client: Ministry of Environment, regional Planning, Environment and Public Works		N° of Staff months; Duration of Assignment: 180 staff months, 44 months
Address: 115 26 Athens, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 240,000
Start Date (Month/Year): 02/2001	Completion Date (Month/Year): 10/2004	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adels J. Rogan – Project Director Christos Solomonidis – Team Leader/ Coordinator George Papageorgiou – Coordinator of the socio-economic study Antonis Boutatis – Team Member
Narrative Description of Project: The objective of this study was the establishment of the Lavrio Port Master Plan, in the light of the investigation of the then projected uses of the harbour facilities, until the year 2035. Different scenarios of the final development of the harbour and land installations, have been examined, and evaluated by SWOT analysis. The winning Scenario was studied in depth in order to finalize the then proposed infrastructures and facilities. Key figures: • New 680 m long quay for cruising vessels and construction of a new passenger terminal • Leisure harbours		

• Mathematical Modeling of wave disturbance • Two Finger Piers 150 m and 180 m long on steel pipe piles with reinforced concrete core • Five new berthing places for Catamaran and Monohull • Two Leisure Harbour Basins • One Fishing Harbour Basin • South eastern commercial port extension
Description of Actual Services Provided by Your Staff: Rogan Associates was the Coordinator & Legal Representative of an Association of seven Companies, and responsible for: • Conceptual design of three (3) alternative layouts of the port. • Traffic forecasts • Mathematical model of wave disturbance in the harbour basin for each alternative • Cost Benefit – SWOT Analysis • Environmental impact study • Design of the southern quays • Design of the two finger piers on steel pipe piles • Design of three berths for new technology vessels (catamaran) • Design of the leisure harbour (Marina) section • Design of the south-eastern extension of the Port

Assignment Name: Revision of the Master Plan of the Port of Herakleion in the Linoperamata Port Zone		Approx. Value of the contract (in current US\$): 68,000
Country: Greece Location within Country: Herakleion, Island of Crete		Professional Staff Provided by firm (profiles): Civil (Port), Topographic, Transport, Technical Support
Name of Client: Herakleion Port Authority S.A.		N^o of Staff months; Duration of Assignment: 45 staff months, 10 months
Address: Herakleio Crete, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 68,000
Start Date (Month/Year): 2008	Completion Date (Month/Year): 2010	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adels J. Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Antonis Boutatis – Coordinator of the P.E.I.S. Yiannis Rogan – Team Member Foteini Tsafou – Team Member
Narrative Description of Project: The objective of the project is the revision of the approved Master Plan for the Port of Herakleion in order to include the port uses of loading/unloading of oil products, as the area is already operating as the main oil and cement terminal in Crete. This will include the upgrading of the basic harbour infrastructure and superstructure.		

Key figures: • One jetty, based on caissons, total length 480m • Seven (7) caissons 10,4mx10,4m • Four (4) breasting-mooring dolphins each consisting of a caisson 17,6mx10,4m • Seven (7) steel truss bridges, 42mx5m • Two (2) steel truss bridges, 24mx11m • RC duct for the oil hoses, length 970m, 5mx2m • Four (4) marine loading arms for white oil & L.N.G. • Two (2) hydraulic control stations.
Description of Actual Services Provided by Your Staff: Rogan Associates was responsible for: • Recording of the existing situation • Bathymetric & Topographic Survey • Statistical Analysis of flows (oil products & cement) • Preliminary design of infrastructure works & supply networks • Preliminary Environmental Impact Assessment Study

Assignment Name: Master Plan of the Port of Herakleion		Approx. Value of the contract (in current US\$): 1,200,000
Country: Greece Location within Country: Crete, Southern Greece		Professional Staff Provided by firm (profiles): Civil (Port), Topographic, Transport, Technical Support
Name of Client: Ministry of Regional Planning, Environment and Public Works		N° of Staff months; Duration of Assignment: 900 staff months, 30 months
Address: 115 26 Athens, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 240,000
Start Date (Month/Year): 03/2004	Completion Date (Month/Year): 01/2007	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelskis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader George Papageorgiou – Coordinator of the socio-economic study Antonis Boutatis – Team Member
Narrative Description of Project: The objective of this study was the establishment of the		

Herakleion Port Master Plan, in the light of the investigation, of the present and the projected uses of the harbour facilities, until the year 2035. The selected Scenario was studied in depth in order to finalize the proposed infrastructures and facilities. Special emphasis was given to the preservation of the medieval Venetian Port and Historical Building to the optimum operation of the passenger section of the port and the creation of an updated container terminal. It was decided to organize nine (9) Port Sections: • Section A: for leisure • Section B: for national short sea shipping (Inland F/B services) • Section C: for cruising vessels (international – extra Schengen) • Section D: for general and bulk cargoes • Section E: for Free Zone/Container Terminal (Panamax berths) • Section F: for Container Terminal future extension (Port Panamax Berths) • Section G: for fishing boats and relevant repair yard for small craft • Section H: Port Authority and Public Administrations • Section J: Linoperamata area	
Description of Actual Services Provided by Your Staff: Rogan Associates was the Coordinator & Legal Representative of an Association of seven Companies, and responsible for: • Conceptual Design of alternative Layouts of the Port • Traffic Forecasts • Cost Benefit Analysis • Design of 3 alternative layouts & organization of the Container Terminal • Prioritization of the proposal investments	

Assignment Name: Actualisation of the Master Plan of the Harbour of Souda		Approx. Value of the contract (in current US\$): 97,500
Country: Greece Location within Country: Souda, Crete		Professional Staff Provided by firm (profiles): Civil (Port), Structural, Technical
Name of Client: Port Treasury of Chania		Nº of Staff months; Duration of Assignment: 9 staff months, 17 months
Address: Chania		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 97,500
Start Date (Month/Year): 02/2006	Completion Date (Month/Year): 07/2007	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader – Port Engineer
Narrative Description of Project: The objective of this study was a 2nd re-establishment (after 10 years) of the Master Plan of the harbour of Souda in the light of the increase of the passenger traffic, the introduction of Cruise Vessel Traffic, the necessity of developing a dangerous goods section and taking the necessary measures according to the ISPS Code.		
Description of Actual Services Provided by Your Staff:		

Master Planning, Calculation of Capacity and Performance Indices, Preliminary Design of Harbour Works, Mathematical Modelling of Wave Agitation, Traffic Studies, Environmental Impact Study
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Assignment Name: Strategic Plan of Cyprus Port Authority regarding the investments, operations, and privatization practice that need to be implemented at the Cypriote Ports		Approx. Value of the contract (in current US\$): 140,000
Country: Cyprus Location within Country: All over Cyprus		Professional Staff Provided by firm (profiles): Civil (Port), Technical, Strategy
Name of Client: Cyprus Port Authority		Nº of Staff months; Duration of Assignment: Pending
Address: 2112 Nicosia, Cyprus		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 140,000
Start Date (Month/Year): 02/2015	Completion Date (Month/Year): Pending	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Dr. Christos Solomonidis – Project Director/ Coordinator Antwnis Boutatis – Team Leader
Narrative Description of Project: The project's objective is to execute the Strategic Plan of Cyprus Port Authority for the next 50 years.		
Description of Actual Services Provided by Your Staff: Rogan Associates will focus on the: • Privatization of the Cyprus Port Authority according to the Cypriote's Government Fiscal Adjustment for stability and growth; • Identification of the need for creating new Ports; • Identification of the need for extending the Harbour Infrastructure of the existing Ports;		

Assignment Name: Piraeus Port Business Market Due Diligence		Approx. Value of the contract (in current US\$): n/a
Country: Greece Location within Country: Piraeus		Professional Staff Provided by firm (profiles): Civil (Port), Technical, Strategy
Name of Client: COSCO Group Ltd		Nº of Staff months; Duration of Assignment: 22
Address: Hong Kong		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) n/a

Start Date (Month/Year): 07/2014	Completion Date (Month/Year): Pending	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Dr. Christos Solomonidis – Project Director/ Coordinator Antwnis Boutatis – Team Leader
Narrative Description of Project: The project's objective is to identify the current operational, design and technical characteristics of the Port of Piraeus in order to provide the Client with a clear picture of the asset.		
Description of Actual Services Provided by Your Staff: Rogan Associates will focus on the identification and assessment of the: • <i>operating costs;</i> • <i>capacity;</i> • <i>productivity;</i> • <i>Terminal characteristics</i> (Physical dimensions, State Description of the infrastructure (age, maintenance, capex), Layout plan, Equipment (type, age, maintenance, state); • Required refurbishment and replacement capex; • Future development of the port (costs for the required civil works, phasing and timing of the investments, costs for the required equipment, additional costs for operations)		

Assignment Name: Technical Advisor for the Privatization of Small Ports and Marinas in Greece		Approx. Value of the contract (in current US\$): n/a
Country: Greece Location within Country: All over Greece		Professional Staff Provided by firm (profiles): Civil (Port), Technical
Name of Client: Hellenic Republic Asset Development Fund (HRADF)		N° of Staff months; Duration of Assignment: Pending
Address: 105 62 Athens, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 10,000/month
Start Date (Month/Year): 10/2011	Completion Date (Month/Year): Pending	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Antwnis Boutatis – Team Leader
Narrative Description of Project: The project's objective is to establish an extensive network of groups/clusters of ports and marinas, which will be subsequently monetized, primarily on the basis of concession agreements, through a series of transactions.		
Description of Actual Services Provided by Your Staff: Rogan Associates is the Technical Advisor; main duties are: • Data Collection		

- Determination of Criteria for Priority Asset Clustering
- Priority Asset Clustering
- Support the other Advisors in the Valuation and Structuring
- Technical Report for each Asset Cluster under privatization
- Assist to set up the Data Room
- Assist to the evaluation of technical proposals/ Concessionaire
- Assist to the final negotiations with the potential investors.

Assignment Name: Technical Department (Consultant) for the development of the Maritime Industrial Area at ASTAKOS-PLATIYALI		Approx. Value of the contract (in current US\$): 170,000,000
Country: Greece Location within Country: Astakos, Western Greece		Professional Staff Provided by firm (profiles): Civil (Port), Supervision & Technical Support
Name of Client: ASTAKOS TERMINAL S.A.		Nº of Staff months; Duration of Assignment: 200 staff months, 48 months
Address: 300 06 Astakos – Platiyali, Western Greece, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 2.360,000
Start Date (Month/Year): 05/2002	Completion Date (Month/Year): 06/2006	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader
Narrative Description of Project: Creation of a Maritime Industrial Area, including also a Free Zone, as well as Development of the Port of Astakos – PLATIYALI in order to meet all respective requirements of a modern Port: • Site area: 1.830.000 m² • Port – land area : 711.000 m² • Industrial area: 623.000 m² • Total length of quays: 2.300 m • Draft alongside quays : from –8 m up to – 15 m • Turning basin: 650 m • Largest vessel to accommodate : 4th Generation Containerships 75.000 dwt Bulk Carrier • Warehouses : 20.000 m² • Container Freight Station: 8.000 m² • Security Control Tower and 5.000m length security illuminated fences. • Various administration buildings : 3.240 m² • Maintenance and repair base : 1.100 m² • Three STS Gantry Cranes • Two mobile Tower Cranes • Various yard electromechanical equipment • Gate access control system • Daily Traffic of the Ro-Ro Terminal within 2007: 300 Trucks as well as 200 Passenger Cars • Moreover, the corresponding annual traffic of new motor vehicles, within 2008, will be		

165,000
Annual throughput capacity: 850.000 TEUs/3137 ground slots/144 reefer points
Description of Actual Services Provided by Your Staff: ROGAN ASSOCIATES was appointed, by Contract, as the Technical Department (Consultant) of “ASTAKOS TERMINAL S.A.”, responsible for the management/monitoring/supervision of the studies elaborated as well as for the monitoring/supervision of the works executed by the Joint-Venture appointed to construct the whole Project.

Assignment Name: Preliminary Design of a Marina and Cruising Vessel Berth, Punta del Chileno		Approx. Value of the contract (in current US\$): 62,000,000
Country: Uruguay Location within Country: Punta del Chileno, South Uruguay		Professional Staff Provided by firm (profiles): Civil (Port), Technical Support
Name of Client: BANDELUZ S.A.		Nº of Staff months; Duration of Assignment: 24 staff months, 8 months
Address: Montevideo, Uruguay		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 95,000
Start Date (Month/Year): 11/2006	Completion Date (Month/Year): 06/2007	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelskis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader
Narrative Description of Project: The aim of this project was the preliminary design of a harbour installation, at Punta Del Chileno, in Uruguay, which would accommodate a Marina and a Cruising vessel Berth.		
Description of Actual Services Provided by Your Staff: Rogan Associates’ main duties were: - Collection of Baseline data - Optimization of the layout of the main structures of the harbour (quaywalls and moles) with the use of mathematical modeling of wave disturbance - Optimization of the layout, taking into account the minimization of the required dredging and the unobstructed navigation of the design vessels. (The above have already been reported in a separate report) - Preliminary design of the typical cross sections of the resulting harbour works, which will include: - Windward, leeward moles - Inner quaywalls - Cruising vessel berth and ferry-boat ramp - Haul-out piers for a straddle hoist (travelift type) for a range of approx.20m long boats - Preliminary design of the piers in the Marina area, which will include: - Layout of the piers optimizing the Marina’s capacity - Technology for construction - Preliminary estimation of the bill of quantities - Preliminary cost estimate		

In addition, the layout of the Marina was optimized with the use of Mathematical Modeling of Wave Disturbance

Assignment Name: Detailed Construction Design of an LNG Regasification Terminal, Malta		Approx. Value of the contract (in current US\$): 114,000
Country: Malta Location within Country: Delimara, Marsaxlokk Bay, Malta		Professional Staff Provided by firm (profiles): Civil (Port), Environmental, Technical Support
Name of Client: J & P AVAX- URS,NDA		Nº of Staff months; Duration of Assignment: pending, 3months
Address: 16 Amarousiou Halandriou St., 151 25 Maroussi		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 114,000
Start Date (Month/Year): 09/2014	Completion Date (Month/Year): pending	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Christos Solomonidis – Project Director/ Coordinator Antonis Boutatis – Team Leader Yiannis Rogan- Team Member Dr. Christos Antoniadis – Team Member
Narrative Description of Project: The aim of this project is the optimal technical/ financial detailed construction design of the offshore civil works for an LNG bunkering facility for the supply with LNG of the Power Plant in Delimara, Malta.		
Description of Actual Services Provided by Your Staff: Rogan Associates' main duties are: Detailed Construction Design of: - the Main Access Pier, - the Central/Loading Platform, - the Breasting Dolphins, - the Mooring Dolphins, - the Walkway which is connecting the Breasting & Mooring Dolphins with the Central/Loading Platform and generally any part of construction, which is required for the fully construction of the Jetty. The design should include all the necessary calculations (full static & dynamic analysis), drawings, and method statements for the fully construction of any part of the Jetty. - Detailed construction design of the Erosion Protection System and the Retaining wall, which will be constructed in front of the Regasification Facility Plant to ensure the maximum		

protection of the Facility from wave-run, overtopping and scouring.

Assignment Name: Strategic operational and organizational plan for the redevelopment of the Central Port of Piraeus		Approx. Value of the contract (in current US\$): 668,000
Country: Greece Location within Country: Piraeus		Professional Staff Provided by firm (profiles): Civil (Port), Structural, Technical
Name of Client: Piraeus Port Authority S.A.		Nº of Staff months; Duration of Assignment: 6.25 staff months, 10 months
Address: Port of Piraeus		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 126,000
Start Date (Month/Year): 03/1999	Completion Date (Month/Year): 01/2001	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader – Port Engineer
Narrative Description of Project: The aim of the project was the design of a strategic, operational and organizational plan for the Port of Piraeus Authority S.A., including a Master Plan for the redevelopment of the central Port of Piraeus. Three scenarios for redevelopment were examined, one which required minimum interventions in terms of infrastructure, a second which involved major interventions to achieve complete development, and a third which involved additional changes in the legal and ownership status of parts of the port to achieve complete servicing.		
Description of Actual Services Provided by Your Staff: Design of the Master Plan for the redevelopment of the Central Port of Piraeus into a purely passenger port (coastal and cruising). Three scenarios were prepared, one of the minimum, one of the major interventions, and one involving additional changes in the legal and ownership status.		

Assignment Name: Investigation's Study For The Seafront Development - Port Uses Of The Port-Industrial Zone of Drapetsona – Keratsini		Approx. Value of the contract (in current US\$): 290,000
Country: Greece Location within Country: Piraeus - Drapetsona		Professional Staff Provided by firm (profiles): Civil (Port), Architect, Economist
Name of Client: Piraeus Port Authority S.A.		Nº of Staff months; Duration of Assignment: 32 staff months, 18 months

Address: Port of Piraeus		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 290,000
Start Date (Month/Year): 2003	Completion Date (Month/Year): 2005	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelskis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader – Port Engineer
Narrative Description of Project: The study referred to: (a) The examination of the uses for the development of the seafront as well as of the port uses of the area and the submission of alternative proposals. (b) The spatial unification of the whole area taking into account the existing uses of the adjacent port areas, as well as the renewal and redevelopment programs of the broader area outside the port zone limits. (c) Environmental measurement and monitoring of the sea and land area of the project (d) Preliminary design of the proposed Harbour works (e) Preliminary design of the land infrastructure works. (f) Cost Benefit analysis – time schedule and Investigation schemes for the project (g) Preliminary Environmental Impact study of the proposed works		
Description of Actual Services Provided by Your Staff: Rogan Associates provided the planning input for this project, the site preliminary design and associated costing of harbour works, and the Architectural input as well as the financial viability assessment of the project.		

Assignment Name: National Strategic Plan for Greek Ports 2013		Approx. Value of the contract (in current US\$): 60,000
Country: Greece Location within Country: All over Greece		Professional Staff Provided by firm (profiles): Civil (Port), Strategic Planning, Transportation Planning
Name of Client: Ministry of Mercantile Marine of Greece		Nº of Staff months; Duration of Assignment: 8
Address: Vasiliadi Coast, E1-E2 Entrance, Piraeus Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 60,000
Start Date (Month/Year): 07/2013	Completion Date (Month/Year):	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed:

	12/2013	Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Antonios Boutatis – Project Engineer
Narrative Description of Project: The Project included the following tasks: • Analysis of the perspectives of the Hellenic Port system within the framework of the European and International Transport Networks. • Analysis of the Trans - European Transport Network and the role of the Greek Ports as nodes in this Network. • Review of the Status of the Hellenic Port System. Analysis of the infrastructure and the uses of the major Greek Ports. • Review and analysis of the main problems of the Greek Ports in conjunction with the particularities of the maritime transport in the Greek seas. • Multi-criteria Analysis for the formation of proposals for interventions with the aim of upgrading / expansion of the major Greek Ports. • Classification of the requirements for interventions • Analysis of the possibilities for Private and/ or Public funding of these proposals. • Strategic Planning for the National Port Development, based on the findings of the previous analysis.		
Description of Actual Services Provided by Your Staff: Rogan Associates carried out all the above described tasks, with particular emphasis in the review and examination of the status of the infrastructure of the major Ports, and the formation of proposals for interventions. It is notable that the main findings of this study was incorporated in the Law for the development of Greek Ports, recently published		

Assignment Name: Technical Advisor for the Strategic Analysis of the Port Construction Business Globally		Approx. Value of the contract (in current US\$): 95,000
Country: All over the world Location within Country: -		Professional Staff Provided by firm (profiles): Civil (Port), Strategic Planner
Name of Client: HERACLES GENERAL CEMENT COMPANY SA (LAGARGE S.A.)		Nº of Staff months; Duration of Assignment: 4
Address: 19,3 km Markopoulou Avenue, Paiania Attica,		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 37,500
Start Date (Month/Year):	Completion Date	Name of Senior Staff (Project



03/2014	(Month/Year): 06/2014	Director/Coordinator, Team Leader) Involved and Functions Performed: Christos Solomonidis – Project Director/ Coordinator Antonios Boutatis – Team Leader
Narrative Description of Project: The objective of this assignment was to provide the Client with a Strategic Analysis for the global Port Construction Business. The assignment approached the Port Construction Business from a Technical, Financial, and Marketing – Strategic point of view, with an ultimate goal to identify the opportunities and challenges for the cement business in the Port Construction industry worldwide for the coming decade.		

Assignment Name: Technical Advisor for the Privatization Bidding Process for the Marinas of Flisvos and Zea		Approx. Value of the contract (in current US\$): 324,000
Country: Greece Location within Country: Marina Flisvos and Zea		Professional Staff Provided by firm (profiles): Civil (Port), Transportation Planner, Architect
Name of Client: Group of Companies ALPHA ASTIKA AKINITA S.A.-ALPHA FINANCE S.A.- ATALANTA MARINE S.A.-K.I. SARANTOPOULOS S.A.-F.C.C. CONSTRUCTION S.A.-MARINA PORT VELL S.A.		Nº of Staff months; Duration of Assignment: 20
Address: 43, Panepistimiou Str. 10564 Athens		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 180,000
Start Date (Month/Year): 04/2002	Completion Date (Month/Year): 05/2002	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader
Narrative Description of Project: Preliminary design of the necessary infrastructure interventions in order to rehabilitate and improve the above state owned marinas in Attica for their privatization, using the BOT system. Technical offers ranked first in both marinas. Call for Tenders launched by Hellenic Tourist Properties S.A. (former NTOG).		

Assignment Name: Strategic operational and organizational plan of Thessaloniki Port Authority, including the exploitation of the whole	Approx. Value of the contract (in current US\$): 460,000
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port area		
Country: Greece Location within Country: Thessaloniki		Professional Staff Provided by firm (profiles): Civil (Port), Structural, Technical & Architectural
Name of Client: Thessaloniki Port Authority S.A.		Nº of Staff months; Duration of Assignment: 10 staff months, 4 months
Address: Thessaloniki		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 80,000
Start Date (Month/Year): 05/1999	Completion Date (Month/Year): 09/2001	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader – Port Engineer Prof. Spyros Rogan – Coordinator for the Construction Supervision of the Buildings
Narrative Description of Project: The project was divided into distinct phases which included strategic planning, operational planning, the development of a new organizational planning and the design of a plan for the exploitation of the various Areas and Sectors of the Port. Alternative scenaria for development were formulated, one that provided for minimum interventions, a second that foresaw the development or extension of the existing infrastructure within the boundaries of the Port, and a third which exploited the possibilities and chances for extension outside the existing boundaries.		
Description of Actual Services Provided by Your Staff: Exploitation plan of the whole port area. Six alternative exploitation plans were prepared. The one approved was further elaborated. Special attention was given in crafting a smooth interface between urban and port activities, mainly through the development of a free and easily accessible area for nautical, leisure, and cultural activities in Pier I (renovated warehouses for exhibitions cultural and conference events, leisure harbour etc.). <u>Architectural:</u> The urban planning / architectural object of the design was: (a) The recognition, recording and assessment of the existing state of the building premises and the open-air areas of the harbour. (b) The delineation of the development potentialities of the harbour in collaboration with designers of other specialisations for the determination of the building needs and the needs in terms of open-air spaces. (c) Design in the urban planning – architectural part in alternative proposals for the utilisation of the harbour. (d) Assessment of the alternative proposals / scenarios as to the urban planning / architectural part and selection of the strongest. (e) Improvements and amendments to the strongest alternative proposal and formulation of the final urban planning / architectural proposal for the Master Plan of the Thessaloniki harbour. (f) Recording of proposed surfaces of buildings and open-air spaces		

Assignment Name: Protection and Improvement of the coast of the north western sea front of Pafos. Integrated Coastal Zone Management, numerical modelling, design of protection works		Approx. Value of the contract (in current US\$): 360,000
Country: Cyprus Location within Country: Pafos		Professional Staff Provided by firm (profiles): Civil (Port), Environmental, Financial, Technical Support
Name of Client: Ministry of Transport and Works		Nº of Staff months; Duration of Assignment: 120 staff months; pending
Address: 1062 Nicosia, Cyprus		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent): 360,000
Start Date (Month/Year): 11/ 2010	Completion Date (Month/Year): Pending	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Antonis Boutatis – Environmental Team Leader Foteini Tsafou - Team Member Dr. Christos K. Antoniadis - Team Member
Narrative Description of Project: The project concerns the determination of a strategy for the development of the coastal zone, through the protection of the coast from erosion and the improvement of its quality, so that it can be attractive and safe for swimmers. Furthermore the scope of the project is the achievement of an Integrated Coastal Zone management over the whole length of the coastline, i.e. approx. 25km, through the evaluation of alternative management schemes, in order to promote the sustainable development of the coastal zone. • The rehabilitation of existing coastal protection works and the proposal of new coastal protection works • Finally, preventive measures will be proposed, in order to discourage access to the beaches during hazardous conditions.		
Description of Actual Services Provided by Your Staff:Rogan Associates' duties included: • Inception Report • Preliminary design of harbour works • Coastal Study • Physical Model Study • Final Design of Harbour Works • Environmental Impact Assessment • Strategic Environmental Impact Assessment		

Assignment Name: Detailed design and supervision of Saranda Gateway Cruise Liner Terminal, Integr. Coastal Zone Management and Clean Up Project		Approx. Value of the contract (in current US\$): 460,000
Country: Albania Location within Country: Saranda, South-west Albania		Professional Staff Provided by firm (profiles): Civil (Port), Structural, Technical & Supervision Support
Name of Client: Ministry of Public Works, Transport and Telecommunication, Project Coordination Unit (PCU), Republic of Albania: Funded by WORLD BANK.		N° of Staff months; Duration of Assignment: 228 staff months, 55 months
Address: Saranda Port, Albania		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) 460,000
Start Date (Month/Year): 04/2008	Completion Date (Month/Year): 11/2012	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Antonis Boutatis – Member of the Design Team Yiannis Rogan – Member of the Design Team
Narrative Description of Project: Preliminary, Final Construction Design and Tender Dossiers for the transformation of Saranda's Port into a dedicated Ferryboat and Passenger Terminal – Construction Supervision of the works: 7. 180m new berth front with 9m water depth (MSL) with the necessary demolition and excavation. End walls along the northern and southern front were included 8. Fenders, bollards and navigational aid 9. About 7.000m³ dredging to 9m water depth in front of the berth 10. About 10.000m² front area, complete with asphalt paving and stone water drainage and road signs 11. Utilities: Water supply sewer, power 12. Perimeter wall and lighting.		
Description of Actual Services Provided by Your Staff: Rogan Associates assisted in obtaining all permits required, prepared and updated throughout of the project a Design Basis. Design Basis comprising all design parameters applied (for instance: design eurocodes site conditions incl. hydrographic soil and other design parameters). In addition, Rogan Associates assisted in the selection of qualified bidders, submitted draft design and detailed design, provided the Client with technical assistance in the tendering phase, prepared the Tender Evaluation report, and assessed the responsiveness of Tenders with regard to technical requirements. During Construction Supervision, Rogan Associates' duties included but were not limited to: the conduct of weekly site meetings, preparation of monthly progress reports together with the monthly statements etc.		

Assignment Name: Coastal Study and Environmental Impact Study in the “Integrated Tourist Development Area” (I.T.D.A.) in Pylos - South West Messinia, Peloponese		Approx. Value of the contract (in current US\$): 9,700
Country: Greece Location within Country: South Western Peloponese, Greece		Professional Staff Provided by firm (profiles): Civil (Port), Environmental, Structural, Technical & Supervision Support
Name of Client: Tourist Enterprises of Messinia (T.E.M.E.S. S.A.).		N° of Staff months; Duration of Assignment: 2 weeks
Address: 5 Pentelis str,175 64		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) : 9,700
Start Date (Month/Year): 2006	Completion Date (Month/Year): 2007	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader Antonis Boutatis - Team Member
Narrative Description of Project: The objective of this work was the study and interpretation of beach erosion and the evaluation of shore protection and beach nourishment schemes with the use of numerical modeling. This includes numerical modeling of the predominant wave field, the wave generated littoral currents, and the resulting sediment transport, using well-established operational 2-D models. A series of alternative shore protection schemes were evaluated with the use of numerical modeling Particular attention was given to the morphology and design of the structures, in order not to aesthetically undermine the area which is of established natural beauty. Key figures • 11 submerged detached breakwaters • 1,5 km of the protection of steep slopes seawall • 450m of beach nourishment		
Description of Actual Services Provided by Your Staff: • Numerical modelling of waves, currents and sediment transport • Evaluation of alternative shore protection schemes • Preliminary design of works • Preliminary Environmental Impact Assessment study		

Assignment Name: Coastal Study and Basic design study of underwater pipeline (for water intake) for thalassotherapy center "Integrated Tourist Development Area" (I.T.D.A.) in Romanos, Pylos - South West Messinia, Peloponese		Approx. Value of the contract (in current US\$): 30,615
Country: Greece Location within Country: South Western Peloponese, Greece		Professional Staff Provided by firm (profiles): Civil (Port), Technical Support
Name of Client: Tourist Enterprises of Messinia (T.E.M.E.S. S.A.).		N° of Staff months; Duration of Assignment: 14 staff months; 8 months
Address: 5 pentelis str,175 64, Faliro		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) : 30,615
Start Date (Month/Year): 2007	Completion Date (Month/Year): 2008	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director/ Coordinator Christos Solomonidis – Team Leader
Narrative Description of Project: The objective of this work was the coastal study and the Preliminary design study of underwater pipeline (for water intake) for thalassotherapy center of I.T.D.A. Romanos. The coastal study includes the study and interpretation, using a series of mathematical models, of the natural coastal phenomena governing the sediment transport on the coast of I.T.D.A. Romanos. Upon completion of the consideration stage will determine the overall rate of sediment transport and accretion/ erosion at each point of the region of interest. In mathematics models will include a reasonable length of coast on either side of the boundaries of the front of I.T.D.A. Romanos. From the results of the mathematical simulation will determine the optimal position of the underwater pipeline of which a preliminary design study will be conducted.		
Description of Actual Services Provided by Your Staff: - Numerical modelling of waves, currents and sediment transport - Evaluation of alternative locations of the underwater pipeline - Preliminary design of harbour works		

Assignment Name: Study for the erosion protection of the coasts of western Achaia, of a total coastline length approx. 11km, west words of PATRA.		Approx. Value of the contract (in current US\$): 468,000
Country: Greece Location within Country: Western Achaia, Peloponnisos, Greece		Professional Staff Provided by firm (profiles): Civil (Port), Transport, Environmental, Technical Support
Name of Client: Region of Western Greece, Directorate of Public Works		N° of Staff months; Duration of Assignment: 180 staff months, 44 months

Address: Akti dimeon & D. Ipsilanti 1-26110		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) : 468,000
Start Date (Month/Year): 07/2007	Completion Date (Month/Year): 12/2012	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director Christos Solomonidis – Team Leader/ Coordinator Antonis Boutatis – Team Member
Narrative Description of Project: Study for the design of coastal protection works of the Municipality of Patra (areas of Monodendri, Vrachneika and Tsoukaleika) and of the Municipality of Western Achaia(areas of Niforeika, Kalamaki and Alissos). The relevant Environmental Impact Studies have been approved on 26.08.2011 and 31.05.2011. The completion of the study is expected, after the execution of the relevant-geotechnical Investigations which are till now (01.2012) not financed. Key Figures: 14 km of eroding coasts		
Description of Actual Services Provided by Your Staff: • Preliminary Designs of harbour works • Numerical/Mathematical Modelling of waves, currents, sediment transport • Morphological Modelling • Final design of harbour works • Preliminary Environmental Impact Study • Environmental Impact Study		

Assignment Name: Strategic Planning of Nationwide Transport Infrastructure Development - GREECE 2020, including all modes of transport		Approx. Value of the contract (in current US\$): 341,000
Country: Greece Location within Country: The whole country		Professional Staff Provided by firm (profiles): Civil (Port), Transport, Environmental, Technical Support
Name of Client: Hellenic Ministry of Environment Regional Planning and Public Works		N° of Staff months; Duration of Assignment: 52 staff months; 22 months
Address: 115 26 Athens, Greece		Approx. Value of the services provided by your firm under the contract (in US\$ currency equivalent) : 341,000
Start Date (Month/Year): 08/2005	Completion Date (Month/Year): 05/2007	Name of Senior Staff (Project Director/Coordinator, Team Leader) Involved and Functions Performed: Adelkis J.Rogan – Project Director Christos Solomonidis – Team Leader George Papageorgiou – Coordinator of the socio-economic study

Narrative Description of Project:

The objective of the study was the development of a strategic plan for the nationwide transport infrastructure networks, including all modes of transport. Specific proposals for projects and design of the combined transport system in the year 2010.

Key figures: Infrastructure and traffic analysis for 13 ports

- Detailed traffic forecasts (passengers/ cargo)
- Cost estimates of proposed harbour works for 28 ports

Description of Actual Services Provided by Your Staff: Development, of a strategic Plan for the nationwide transport infrastructure networks (Harbour, railways, roads, Airports). Specific proposal for projects and design of the combined transport system in order to be funded by the National Strategic Reference Framework (NSRF).

- Present situation of the port infrastructure system, inventory of main greek ports, problems, constraints
- Detailed analysis of present and past traffic flows and trends, for the main ports, with distinction to passenger cargo traffic, domestic/foreign traffic
- Strategic development plan for the greek ports, classification of ports, proposed harbour works, cost estimates
- Traffic forecasts for the years 1999 and 2010 for the 8 majors ports
- Reference to transit and transshipment in the area
- Reference and proposals for the faster linkage of Greece and Italy
- Analysis of the existing legal frame in Greece and EEC, concerning sea routes, sea transportation, port organization, coastal shipping, shipping companies etc.
- Future trends in shipbuilding and new technologies

APPENDIX II

CVs of Consulting Company personnel that will be engaged in the project

Name Dr Christos D. Solomonidis

Position Managing Director, Partner in Rogan Associates S.A.

Careersummary

Dr Solomonidis has over 25 years of experience in Port Master Planning / Harbour and Coastal Engineering, in Greece and abroad. He has specialized in site planning and designing LNG Bunkering Facilities, and has developed algorithmic tools for random wave simulation, littoral process simulation and for the design of structures. He also has management skills of EU research programs in Harbour, Coastal, and Structural Engineering.

Current position and responsibilities

Managing Director - Coordinator in various Master Planning, Strategic Planning, and Harbour & Coastal Engineering Projects. Preparation of many EU/DG VII & DG XIII research projects.

Qualifications

Academic	Diploma in Civil Engineering (1981), National Technical University of Athens, Greece Ph.D in Civil Engineering (1991), University of London, University College London (UCL)
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Professional	Over 25 years experience in Harbour, Coastal, and Structural Engineering Over 25 years experience in the development of algorithmic tools for random wave simulation, process simulation and for the design of structures. Over 18 years experience in mathematical modelling of wave transformation-wave disturbance, littoral circulation and sediment transport, morphological modelling. Over 20 years experience in development and management of EU research programs in Harbour Coastal and Structural Engineering. Over 5 years experience in field measurements of waves and currents. Experience in Earthquake Engineering. Experience in the design and optimisation of digital filters. Operating systems: MS-DOS, WINDOWS, UNIX Extensive Computer Literacy.
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Professional experience

1996 – to date	Rogan Associates S.A. , Valetta 9 Zografou – Athens GR Partner/member of the B.D. & Technical Director
1992 – 1996	Marine Technology Development Company (MARTEDEC S.A) Senior Research Engineer
1990 – 1992	University of London, University College London, Dept. of Civil Eng.



	Research Associate
1984 – 1989	University of London, University College London, Dept. of Civil Eng.
	Research Associate
1982 – 1984	Hellenic Air Forces (Military Service)
	Programmer in the Computer Centre
1981-1982	National Tech. University of Athens (NTUA), Lab. Earthquake. Eng
	Research Assistant

Professional Experience

Private Individual Platamonas, Greece 2015-to date	Team Leader Coastal engineering study for the coast of Platamonas
Municipality of Viannos Keratokampos, Greece 2014-to date	Team Leader Coastal engineering study (with numerical modelling) for the coastal protection of the area of Keratokampos, Island of Crete
Heraklion Port Authority S.A. Greece 2014- to date	Team Leader Technical Advisor for the restoration of damages and scourings In the Port of Heraklion
DP World Greece 2014- to date	Team Leader Technical Advisor for the acquisition of the Port of Thessaloniki's 67% stake
COSCO Group Greece 2014-to date	Coordinator, Port Consultant Technical, Market and an Operational Analysis for all the Port uses, including the ship repair area of the Port
Corfu Farm S.A. Corfu, Greece 2014-to date	Team Leader Coastal engineering study (with numerical modelling) for the coastal protection of the area of Krevatsoula, Island of Corfu.
J&P AVAX S.A. Delimara, Malta 2014-to date	Team Leader Detailed Construction Design of an LNG Regasification Terminal, Malta
OAKTREE Capital Management LLP Corfu/Skorponeri, Greece 2014-to date	Member of the Consultant's Team Coastal engineering study (with mathematical modelling) for the coastal protection of areas of Island of Corfu and of Skorponeri
Ministry of Environment, regional Planning, Environment and Public Works, Special Authority of airports, Northern Greece Thessaloniki, Greece	Project Director Technical Advisor for the extension into the sea of Runway 10-28 with parallel taxi way of the "MAKEDONIA" airport in Thessaloniki (Phase B)

2014 – to date

DEPA S.A. Greece 2013-to date	Project Director Environmental and Social Impact Assessment, Permitting Support and Evaluation of the construction and operation of the floating terminal station of unloading, storing and gasification of LNG and the connection with the onshore facility.
Hellenic Republic Asset Development Fund (HRADF) Greece 2011-to date	Port Consultant Technical Advisor for the Privatization of Small Ports and Marinas, Greece
MONOTEZ S.A. Lavrio, Greece 2013-to date	Project Director Preliminary Investigation for the extension of the existing Harbour Installation of MONOTEZ S.A. at Thorikon Bay
Ministry of Mercantile Marine Greece 2012	Project Manager National Strategic Plan for Ports-Participation in a team of experts for the drafting of the strategic plan
MEDITERRANEAN TERMINAL S.A. Magnesia, Central Greece 2011-2012	Project Manager Master Plan of a new port in the area of Amaliapolis, Magnesia, Greece
Government of Albania, Ministry of Public Works and Transport. Saranda, Albania 2011 - to date	Project Manager Construction Supervision of Saranda Gateway Cruise Liner Terminal. Project Management & Construction Supervision Services, for a cruise liner terminal
Special Purpose Entity No 24 S.A. Kea, Greece 2011	Design Team Leader Preliminary and final design of an access mole, a sea water intake, underwater pipe, as well as a brine disposal underwater pipe, for a Hotel Complex at Vroskopos – Kea, Greece
Ministry of Transport and Works of Cyprus Pafos, Cyprus 2010-to date	Design Team Leader Protection and Improvement of the coast of the north western sea front of Pafos. Integrated Coastal Zone Management, numerical modelling, design of protection works
AZURNA UVALA d.o.o. Island of Solta, Croatia 2010	Design Team Leader Marina and sheltered swimming basins development in front of the Touristic Development on the Island Sölta
Hellenic Ministry of Environment-Regional Planning and Public Works Greece 2009 – to date	Design Team Leader Preliminary and Final Design for the completion of the works of New Moudania Port. Upgrade & Rehabilitation of an existing fishing port. Extension of the outer Works

Special Purpose Entity No 24 S.A. Greece 2009-2010	Design Team Leader Benchmark report for the location of the Pier, preliminary design study of harbour works.
Cyprus Ports Authority Cyprus 2009 – 2010	Team Leader Master Plan of the New Industrial Port of Vassilikos - Cyprus
Hellenic Ministry for the Environment , Physical Planning, and Public Works Crete, Greece 2009 – to date	Design Team Leader “Study for the completion of Pier V (ex VI) of the Port of Heraklion” Harbour Works, Rehabilitation of existing Quaywall: Preliminary and Final Design of Harbour Works.
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2008 – to date	Design Team Leader “Study for the repair of damages at the breakwater of Korrisias’ Port (Island of Kea), and Technical Assistance for the Supervision of the works”
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Design Team Leader “Updating of the Strategic and Operational Plan of the Heraklion Port Authority”.
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Design Team Leader “Revision of the Master Plan of the Port of Herakleion in the Linoperamata Port Zone”.
Government of Albania, Ministry of Public Work, Transport And Telecommunication-Project Coordination Unit (PCU) Albania 2008 – 20012	Team Leader Detailed design and supervision of Saranda Gateway Cruise Liner Terminal, Integr. Coastal Zone Management and Clean Up Project
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2007-2013	Management Team Leader - Coordinator “Project Manager for the Port of Lavrion works” Construction Supervision and Project Management of Harbour Works and Terminal Building
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2007-2013	Design Team Leader “Study for the completion of the outer harbour works and the additional quaywalls of the Port of Lavrio”
Region of Western Greece Western Greece 2007-2012	Design Team Leader Study for the erosion protection of the coasts of western Achaia, of a total coastline length approx. 11km, west words of PATRA.
Tourist Enterprises of Messinia (T.E.M.E.S. S.A.)	Team Leader Coastal Study and Preliminary design study of underwater

Pylos, Greece 2007	pipeline (for water intake) for thalassotherapy center of WCO Romanos
TITAN S.A. Elefsina, Greece 2007	Design Team Leader Repair of damaged quaywalls of the harbour installations of the Cement Factory in, Final Design & Construction Supervision
Bandeluz S.A. Uruguay 2006-2008	Design Team Leader Punta del Chileno, Marina and Cruising Vessel Berth. Preliminary design of marine works including optimization of the layout of the main structures of the harbour with the use of mathematical modeling of wave disturbance and preliminary design of an alternative without cruise terminal
Port Treasury of Chania Crete, Greece 2006-2007	Design Team Leader Revision of the Master Plan at the Harbour of Souda Port Development, Port Capacity Assessment
Tourist Enterprises of Messinia (T.E.M.E.S. S.A.) Pylos, Greece 2006-2007.	Team Leader Coastal Study and Environmental Impact Study in the “Area of Organised Tourist Development” (P.O.T.A) of PYLOS.
Hellenic Ministry of Environment, Physical Planning and Public Works, Greece 2005 - 2007	Team Leader Strategic Planning of Nationwide Transport Infrastructure Development - GREECE 2020, including all modes of transport
Hellenic Ministry of Environment, Physical Planning and Public Works, Greece 2005-2006	Technical Advisor Evaluation of the existing infrastructure and potential of Greek Ports, identification of problems and preliminary proposals for works in the period 2007-2013. Multimodal Transport Study, Regional Planning & Master Planning
EYDAP S.A. Salamina, Greece 2005-2006	Team Leader Final Design of the New Water Supply Pipe Serving the Island of Salamina through Attica via a sub-marine Pipeline connecting Nea Peramos with Faneromeni Area in Salamina
TITAN S.A. Patra, Greece 2005-2006	Design Team Leader Extension of the harbour installations of the Cement Factory TITAN S.A. in Patras, Greece. Preliminary and Final Design and Environmental Impact Studies,
National Technical University of Athens for the Government of Cyprus Cyprus 2005	Design Team Leader Coastal Study for the coast of Geroskipou, Greece. Mathematical modeling of wave transformation, littoral current and sediment transport for the coast of Geroskipou, Cyprus
Lavrio Port Authority S.A. Greece	Design Team Leader Marinas A and B in the Port of Lavrio: Final Construction

2005	Design of two Leisure Harbours, of 100 and 250 berths respectively, within the Port of Lavrio. The marinas feature floating pontoons and wave absorbing moles.
Lavrio Port Authority S.A. Greece 2005	Design Team Leader Final Design of the 3rd ramp for High-speed ferries in the Port of Lavrio,
CHYMA S.A. Greece 2005	Design Team Leader Extension of the harbour installations for loading/unloading chemicals of CHYMA S.A. in Thoriko, Lavrion,
Ministry of Finance of the Cooperative Republic of Guyana Guyana 2003-2005	Key expert Quality Control during the Implementation of a Shorezone Management System under the 8th EDF
Port Treasury of the Prefecture of Chania Crete, Greece 2004-2005	Design Team Port of Kasteli, Kissamos – New Master Plan,
Heraklio Port Authority S.A. Crete Greece 2004-2005	Design Team Design for the improvement of the Port of Heraklion – Master Plan. In cooperation with other design offices.
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2004-2005	Technical Advisor Design for the rehabilitation of the Port of Kea Island. Technical Advisor to YAS of the Hellenic Ministry of Environment, Physical Planning and Public Works
Thermaikos tunnel” Joint Venture Thessaloniki, Greece Greece 2004	Design Team Leader Design for the technical offer of the “Thermaikos tunnel” Joint Venture, for the project “Design, Construction, Financing, Operation, Maintenance and Exploitation of the Submerged Road Tunnel of Thessaloniki”,
Hellenic Ministry of Environment, Physical Planning and Public Works Directorate for Port and Airport Works (D4) Crete Greece 2004-2007	Team Leader Master Plan of the Port of Herakleion. The objective of this study was the establishment of the Herakleion Port Master Plan in the lights of the investigation of the present and the projected uses of the harbour facilities, until the year 2035.
Hellenic Railway Organization (O.S.E.) S.A. Greece 2003-2004.	Technical Advisor Identification of the potential for railway connection of Greek Ports – Case study for the connection of the Commercial Port of Piraeus with the Trans European Transport Networks.
Design Offices, ERA London & SASAKI ASSOCIATES, Piraeus Port Authority S.A.	Design Team Study for the “Sea Front Development and Port Uses of the Port Industrial Zone of Drapetsona – Keratsini”

Greece
2003-2004

Municipal Enterprise of Loutraki
(A.T.E.K.L. S.A.)

Greece
2003

Design Team Leader

Coastal Study in Ag. Sotira Loutraki, Greece: Mathematical modeling of the beach erosion problems in the coved beach of Ag. Sotira in Loutraki. Modeling included wave transformation, wave induced without current and sediment transport.

Hellenic Ministry of Environment,
Physical Planning and Public Works

Crete Greece
2002-2004

Design Team Leader

Design of Harbour Works and Installation of the Port of Souda. In cooperation with other offices, ,

MARINA SANI S.A.

Greece
2002 – 2003

Project Management Team Leader

“Project Manager for the development of SANI (HALKIDIKH) Leisure Harbour”

ASTAKOS TERMINAL S.A.

Greece
2002 – 2005

Project Management Back-up team

“Project Manager for the development of NAVIPE ASTAKOS – PLATIYALI”

ATHENS 2004 S.A.

Greece
2002

Design Team Leader

Study for planning and general organization of the berthing area of Cruise Ships at the Central Port of Piraeus, during the Olympic Games of 2004

“Alpha Bank Civic Properties”

Greece
2002

Design Team

Design for the Technical Offers for the privatization – exploitation of the Marinas of Flisvos and Zea in Attica. for the call for Tenders launched by the Hellenic Tourist Properties (ex G.N.T.O.),

Dodekanese Harbour’s Master’s
Office

Greece
2001 – 2003

Project Management Team

“Project Manager for the “Construction of outer harbour works of Port of Kalymnos”, Dodekanese Harbour’s Master’s Office.

Western Greece Region

Greece
2001 - 2003

Project Management Team Leader

“Project Manager for the supervision of the construction of the Port of Aigio”.

Hellenic Ministry of Environment,
Physical Planning and Public Works

Greece
2001-2006

Design Team Leader

Design of quaywalls in the southern part of the Port of Lavrion, including the necessary buildings and installations: design of the armor of the lee mole, the design of a quaywall 680m long, at –10m, for cruise vessels, the design of two finger piers on steel pipe piles, for Ferry-boats and the design of three berthing places for Monohull and Catamaran High Speed Ferry-boats.

Prefecture of Larissa

Design Team



Larissa, Greece 2002-2003	Improvement and Rehabilitation of four Fishing Harbours of the Prefecture of Larissa, Preliminary and Final Design
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2001-2006	Design Team Registry of Hellenic Ports of National and Regional importance - Proposals for necessary works and designs, Greece: The project aims at updating the existing registry by including the developments of the last ten years in 21 major Hellenic Ports, at creating a data base which includes the layouts and various details and particulars of the ports, including financial data of the Port Treasuries. Finally a critique of the existing master plans for the redevelopment of ports is performed, including proposals for new works, where necessary.
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2001-2004	Design Team Leader “Master Plan of the Port of Lavrio” Design for the construction of quaywalls in the south part of the Port of Lavrion, including the necessary buildings and installations. The project includes Master Plan for the whole Port of Lavrion, mathematical modelling of wave disturbance and navigation, final design and tender documents for high speed berths, final design and tender documents for all the necessary harbour works in the south part of the port, final and detailed design for all buildings and installations.
Port of Thessaloniki Authority S.A. Greece 2001	Design Team Strategic operational and organizational plan for the Port of Thessaloniki Design Team Strategic operational and organizational plan for the redevelopment of the Central Port of Piraeus
Piraeus Port Authority S.A. Greece 2001	
EYDAP S.A. Greece 2000-2002	Design Team Design of water supply of the Islands of Aigina and Angistri
Ministry of Finance of the Cooperation Republic of Guyana Guyana 2000-2001	Key Expert Preparation of Tender Documents for Institutional Capacity Building Activities on Guyana’s Sea Defences, financed by E.C., 8th EDF Programme. The objective of the study was the definition of set of interventions for Institutional Capacity Building Activities on Guyana’s Sea Defences and the preparation of the Tender Documents for these activities, with the aim of promoting the sustainable use of the Coastal Environment. This objective includes the enhancement of public awareness and public participation, on the one hand and strengthening of the administration, on the other, for the eventual application of an integrated Coastal Zone Management system

	Key figures: The pilot area for the project included 130 km of coastline, 130 km of riverbank, 6,300 km² land area. Services provided by ROGAN ASSOCIATES: Coordination of the study. Site visit of three experts and consultations with involved parties. Definition of ICB activities. Preparation of tender documents for: ICB activities, Socioeconomic survey and public awareness programme, Quality control during the implementation of ICB activities.
On behalf of the joint venture GEK S.A. – AEGEK Greece 2000	Design Team Leader Marina Loutraki: Final Construction Design of a 700 berth marina. Wave disturbance study using mathematical model.
Ministry of Environment, Public Work and Physical Planning Greece 1999	Design Team Complementarity of Port and Airport Infrastructure in the Aegean Insular Region. Regional Planning Study, Multi Modal Transport, Hub & Spoke arrangement
Port Treasury of Dodecanese Greece 1999	Design Team Leader Supportive studies for the harbour of Kardamena, KOS. Mathematical models for wave disturbance, littoral current and sediment transport.
Ministry of Environment, Public Works and Physical Planning Greece 1999	Design Team Hellenic Registry of Harbours of National and Regional Importance – Proposals for necessary works and studies
Kalymnos, Greece 1998	Design Team Leader Protection from the sea of the waterfront road of Vouvali-Lafasi in Kalymnos, Greece. Mathematical model of wave disturbance, preliminary and final design, Municipality of Kalymnos,
On behalf of the Joint Venture AEGEK-METON-AKTOR-SYMET PlatygiAli-Astakos 1998	Design Team Participation in the preparation of a Business and Operation Plan for the exploitation of the Maritime Industrial Area in PlatygiAli-Astakos. Preliminary Design of Harbour Works
Hellenic Ministry of Environment, Physical Planning and Public Works Rhodes, Greece 1998	Design Team Extension of the leeward breakwater of the Port of Akandia, Rhodes, Greece. Final design & Supervision
Port Treasury of Dodecanese Rhodes, Greece 1998	Design Team Leader Expertise for the damages caused by the tempest of 26-27/3/98 to harbour works of NE coast of Rhodes
“Energiaki Techniki S.A.” Dnepropetrovsk, Ukraine March 1998	Key Expert Technical inspection of a bridge over the river Dniepr, ,

A.J.Rogan Consultant to the Port Treasury of Dodecanese, Greece Kalymnos, Greece 1997-1998	Design Team Leader Protection Works for the Port of Kalymnos. Mathematical Model, preliminary and final design
SANI S.A. Chalkidiki, Greece 1997 and 2002	Design Team Leader Marina Sani beach, Design of a 215 berth Marina with floating piers, Coastal Impact and Hydrodynamic Circulation Study.
Hefaistos Greece Shipyards S.A Greece 1997	Design Team Leader Feasibility Study concerning the future development of the Shiprepairing yard "Hefaistos
ODON & OOSTROMATON S.A. Al Fintas, Kuwait 1997	Design Team Coast Guard Headquarters and Facilities, Al Fintas, Kuwait: Preliminary design for an international bidding of a contractor for the installation of Floating Piers and Boat/Ship Lifting Equipment at the Coast Guard Headquarters.
Joint Venture ATEKL - CLUB HOTEL LOUTRAKI S.A Greece 1997	Design Team Leader Loutraiki Marina: modification of a 1990 preliminary design for a 700 boats Marina with floating piers.
ROGAN ASSOCIATES S.A. Rio de Janeiro, Brazil 1997	Design Team Marina Yacht Club of Rio de Janeiro, Preliminary design of a 1,000 berths marina with floating piers (pontoons)
ROGAN ASSOCIATES S.A. Korinth, Greece 1997	Design Team Leader Creation of the harbour installations of the Korinth Pipeworks factory (preliminary design).
A.J.Rogan Consultant to the Port Treasury of Chania Crete, Greece 1997	Design Team Leader Master Planning for the Port and Bay of Souda, Participation in the preliminary design of Harbour Works
MARTEDEC Greece 1996-1998	Scientific Responsible EKBAN-P114 "Optimisation of the Processes of Planning and Design of Harbour Works -Application to the harbours of Kavala, Lagos & Alexandroupolis, Greece.", General Secretariat of Research and Technology (GGET)
Greece 1996 - 1997	Design Team Leader Extension of the 6th pier of the Port of Thessaloniki, Thessaloniki Port Authority, Thessaloniki , Greece (preliminary and final design)
ROGAN ASSOCIATES S.A. Port Victoria, Mahe, Seychelles 1994-1995	Design Team "Study on the preparation of a Master Plan for the development of the Port of Victoria Republic of Seychelles"

MARTEDEC Crete, Crete 1993-1996	Scientific Responsible MAST II: "Probabilistic methodology for Coastal Site Investigation based on Stochastic Modelling of Waves and Currents (WAVEMOD)": Participation in field measurements of Waves and Currents in Rethymno, Crete. Analysis of the records and participation in the development of a Database for the handling, storage and presentation of the measurements data.
MARTEDEC 10/1996	Scientific Responsible Preparation and submission of many research proposals in various Calls for Proposals, either EU-funded or National: MAST III -PROBCOAST: "Coastal Site Probabilistic Description Using Remote Sensed Data". General Secretariat of Research and Technology (GGET) EPET II: "Analysis and Aseismic Design of Port, Harbour and Offshore Structures based on Pile Foundations" (as project co-ordinator), PENED-94: "An Integrated Approach to the Optimisation of the Design of Harbour Works with the use of Computers".
Commissioned to NTUA by the Piraeus Port Authority (OLP). MARTEDEC, Piraeus Greece 07/1995	Scientific Responsible STUDY OF THE IMPACT OF THE DRAPETSONA BREAKWATER ON THE WAVE CONDITIONS IN THE ENTRANCE OF PIRAEUS HARBOUR. Commissioned by NTUA, Laboratory of Harbour Works, in conjunction with physical modelling of the same area
Crete, Greece 1993-1996	Scientific Responsible MAST II: "Probabilistic methodology for Coastal Site Investigation based on Stochastic Modelling of Waves and Currents (WAVEMOD)" - Participation in field measurements of Waves and Currents in Rethymno, Crete. Analysis of the records and participation in the development of a Data Base for the handling, storage and presentation of the measurements data. -Study of the Nearshore Wave field using various numerical models in conjunction with simultaneous wave measurements.
1993	Scientific Responsible Participation in a SPRINT research program: "Rationalisation of the Design Process of Shoreline Stabilisation Systems using AI and Knowledge Induction Techniques".
Marine Technology Development Company (MARTEDEC S.A) Applied Research & Development 1992 - 1996	Senior Research Engineer Scientific Responsible for the execution of many EU Funded Applied Research Projects – Consultancy Services in Coastal Engineering and Field Campaigns (Wave & Current Measurements).
1991-1993	Design Team Leader Participation in the research program: 'Computer Aided Engineering for Planning and Design of Harbour Works' (in SPA).
University of London,	Research Associate

Dept. of Civil Eng. University 1990 – 1992	Project: “Data Flow Management and Concurrent Code Design Study for the Simulation of Dynamical Processes in Engineering”. Studies on the performance of computational pipelines with multi-stranded flow of data.
1987-1989	Design Team Leader Random Vibrations of a Multi Degree of Freedom Structure due to non-Gaussian Wave Loading'. Development of algorithmic tools for the synthesis of the directional wave kinematics field. Design of recursive digital filters using optimisation techniques.
University of London, Dept. of Civil Eng. University 1984 - 1989	Research Associate Participation in Research Projects (Simulation of Dynamic Response of Structures).
National Tech. University of Athens (NTUA), Lab. Earthquake. Eng. 1981 - 1982	Research Assistant Consultancy for the Aseismic Design of Multi-storey buildings in Greece.

Training

Danish Hydraulic Institute. Water & Environment, Denmark(DHI) 1999 and 2007	Continuing Education in Mathematical Modelling and Morphological Modelling
N.T.U.A HR Wallingford Laboratory, U.K.	Training in the organization and operation of a Physical Modeling Wave Basin

Publications

- C. Solomonidis, "Parallel computation in the synthesis of random waves by digital filtering.» Ph.D. Thesis, University College London, October 1991.
- E. Yarimer, C. Solomonidis, "*Random Wave Simulation by Digital Filtering Using and Industry-Standard Parallel Computing Facility*", Proceedings ISOPE-91 International Offshore and Polar Engineering Conference, Vol. III, Pp. 15-29, Edinburgh, 11-16 August 1991.
- E. Yarimer, C. Solomonidis, "*Random field simulation by the digital filtering method*", Proceedings Transputer Applications 91, pp. 347-356, Glasgow, 28-30 August 1991.
- C. Solomonidis, E. Yarimer, "*Design of Recursive Filters for Random Wave Simulation*", Applied Mathematical Modelling and Simulation, Vol. 16, pp. 357-373, 1992.
- C. Solomonidis, M. Spiridakis, "*Directional Wave Simulation in the Hellenic Seas Using Digital Filters*", Proceedings of the 12th International Conference on Offshore Mechanics and Arctic Engineering OMAE-93, Vol. II, pp. 153-160, Glasgow 1993.
- A. Debonos, C. Solomonidis, "*A PC - Based Relational Data Base for the Organisation and Presentation of Sea Wave Data*", (in Greek), Proceedings, Information Society Conference, Technical Chamber of Greece, October 1995.
- S. Christopoulos, C. Solomonidis, "*Wave Climate Assessment in the South Aegean Shelf*", Proceedings, 25th International Conference on Coastal Engineering, Orlando Florida, September 1996.



- S. Christopoulos, C. Solomonidis, *"Wave Parameter Estimation with the use of Wave Models and Field Measurements"* (in Greek), submitted to the 5th Panhellenic Symposium of Oceanography and fishing, 15-18 April 1997, Kavala, Greece.
- C. Solomonidis, É. Thanos "Field Measurements in Ag. Kosmas, Attica, using the Directional Wave Rider "Medusa". (in Greek), submitted to the 5th Panhellenic Symposium of Oceanography and fishing, 15-18 April 1997, Kavala, Greece.
- C. Solomonidis, E. Yarimer, *"Wave Kinematics by Digital Filtering"*, SERC Final Report, University College London, April 1990.
- E. Yarimer, C. Solomonidis, *"Data Flow Management and Concurrent Code Design for the Simulation of Dynamical Processes in Civil Engineering"*, SERC Final Report, GR/F/90462, University College London, November 1991.
- C. Solomonidis, A. Koukouvou, *"MAST2 Wavemod Project - Site Selection for measurements"*, Technical report TEC-1.1-02, MARTEDEC, Piraeus 1993.
- C. Solomonidis *"Directional Wave Simulation for Deep and Intermediate Depth's waters in the Hellenic Seas"*, MARTEDEC, Piraeus, March 1993.
- A. Debonos, C. Solomonidis, *"MAST2 Wavemod Project - A complete PC-based package for the Storage, handling and presentation of the Field measurements in Crete and Portugal"*, Technical document TEC-1.3-01 (0), MARTEDEC, 1994.
- C. Solomonidis, *"MAST2 Wavemod Project - Calibration of Numerical Wave Transformation and Wave Hindcast Models - (Application to the site of Rethymno, Crete, Greece)"*, Technical Report TEC-1.4-04 (0), MARTEDEC, 1995.
- C. Solomonidis, *"MAST2 Wavemod Project - Random Wave Simulation in Areas of Arbitrary (constant) Depths, using Digital Filtering Methods"* ", Technical document TEC-4.4-03 (0), MARTEDEC, 1996.
- C. Solomonidis, S. Christopoulos, "Field verification of spectral transformation methods", Proceedings of the 1st International Conference "Port-Coast-Environment", Varna, BULGARIA, 1997.
- A.A. Debonos, C. Solomonidis, "Pc-based novel relational database for storing and organizing sea wave data", Proceedings of the 1st International Conference "Port-Coast-Environment", Varna, BULGARIA, 1997. Scientific Advisory Committee, 1st.
- C. Solomonidis, A. Rogan, D. Georgas, C. Perissoratis, A. Boutatis « beach Erosion in the Corinthian Gulf, Resulting from Coastal Processes and Tectonic Activity, The Ag. Sotira Case", 6th MEDCOAST Conference, Ravenna, Italy 2003.
- C. Solomonidis, A.J. Rogan, A. Boutatis «Optimization of the design of Quaywalls in the Port of Lavrio with the use of Mathematical Modelling of wave Disturbance», 3rd Panhellenic Conference of Harbour Engineering, Athens 2003.
- C. Solomonidis, A.J. Rogan, A. Boutatis «Design of two (2) arrays of pile supported breasting/mooring dolphins (finger piers) in the Port of Lavrio for the berthing of high speed ferries», 4th Panhellenic Conference of Harbour Engineering, Athens 2006.
- C. Solomonidis, A. Boutatis «Investigation of Coastal Procession and evaluation of Coastal Protection Schemes using mathematical modelling: The case of Kalamaki-Niforeika Beach», 4th Panhellenic Conference for Coastal Zone Management, Mytilini 2008.
- A.J. Rogan, C. Solomonidis, A. Boutatis, E. Coumoulou, «Study of the repair of the Outer Mole of the Port of Kea. An Extremely Instructive Case of the repair of a Harbor Work», 5th Panhellenic Conference of Harbour Engineering, Athens November 2010.
- C. Solomonidis, Ch. Psaraftis, G. Papageorgiou, A.J. Rogan, A. Toumazis, A. Boutatis, «Master Plan of the Port of Vassiliko-Cyprus», 5th Panhellenic Conference of Harbour Engineering, Athens November 2010.

C.Solomonidis, A.Boutatis, M.Marinou, «Investigation of the Coastal Impact of Small Harbours in the South Coast of Herakleion Prefecture, with the use of Numerical Simulation: Interpretation & Proposals», 5th Panhellenic Conference for Coastal Zone Management, Athens November 2011.

Name Mr Antonios M. Boutatis

Position Technical Director, Partner in Rogan Associates S.A.

Career summary

Mr. Boutatis has 17 years experience in engineering design of port and marine projects in Greece and abroad, with main objectives:

- Master Planning of Ports' Activities
- Environmental Impact Studies
- Design and supervision of port and maritime projects
- Strategic plans of ports
- Management of EU research programs in port and maritime projects.
- Underwater inspections and valuations of ports and sea structures

Finally, A. Boutatis has significant research experience through participation in research programs, publications, and by participating in national and international conferences in the field of port and marine projects.

Current position and responsibilities

Technical Director – Project Manager in various Harbour Engineering Projects, and in Environmental Impact Assessment studies. Development of computer programs for the design of breakwaters, quay walls, calculations, organization of ports, preparation of technical reports for the customers, Coastal and Wave Modelling, regional planning in ports and port facilities. ISPS code in ports, Supervision of Harbor Works.

Qualifications

Academic	Masters Degree from Massachusetts Institute of Technology (MIT) School of Engineering, Cambridge, MA, U.S.A (2001) Workshop on Open Design Methodology, Faculty of Architecture, T.U. Delft (Netherlands), M.I.T.- T.U. DELFT (January 2001) Diploma in Civil Engineering (Five year Program degree Equivalent to M.Sc.) from National Technical University of Athens (N.T.U.A.), Athens, GR., Faculty of Civil Engineering (1997)
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Professional	Over 17 years experience in Environmental modelling (Water, Ground, Air, Noise) - Environmental Impact Assessment Experience in Port Master Planning Experience in Transaction Advisory Services for Infrastructure Projects Experience in Design of Structures (Harbour and Hydraulic Works) Experience in Coastal Modelling Experience in Project Management Certified Diver Experience in PFSA & PFSP
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Professional experience

2008 – up to 2010	Greek Corp of engineers, School of Technical Training, Papadiamandopoulou 190 Goudi - Athens GR
	Assistant Professor of Harbour Works
2001 – up to date	Rogan Associates S.A. , Valetta 9 Zografou – Athens GR
	Project Engineer (until 2002) – Project Manager (until 2004) - Partner
1999 – 2000	EPSILON International SA , Monemvasias 27 -15125 MAROUSI, GR
	Assistant Designer Engineer
1997 – 1999	Greek Army, Special Forces
	Sergeant – Chief Sergeant

Professional Experience

Private Individual, Platamonas, Greece, 2015-todate	Team Leader. Coastal engineering study for the coast of Platamonas
Heraklion Port Authority S.A., Linoperamata, Crete, Greece, 2014- to date	Team Leader. Environmental Impact Assessment of the port zone of Linoperamata.
Municipality of Viannos, Keratokampos, Greece, 2014-to date	Member of the Consultant's Team. Coastal engineering study (with numerical modelling) for the coastal protection of the area of Keratokampos, Island of Crete
Heraklion Port Authority S.A., Greece, 2014- to date	Coordinator. Technical Advisor for the restoration of damages and scourings In the Port of Heraklion
DP World, Greece, 2014-to date	Project Director. Technical Advisor for the acquisition of the Port of Thessaloniki's 67% stake
COSCO Group, Greece, 2014-to date	Coordinator, Port Consultant. Technical, Market and an Operational Analysis for all the Port uses, including the ship repair area of the Port.
Corfu Farm S.A., Corfu, Greece, 2014-to date	Team Leader. Coastal engineering study (with numerical modelling) for the coastal protection of the area of Krevatsoula, Island of Corfu.
J&P AVAX S.A., Delimara, Malta, 2014-to date	Member of the Consultant's Team. Detailed Construction Design of an LNG Regasification Terminal, Malta.
OAKTREE Capital Management	Member of the Consultant's Team.

LLP, Corfu/Skorponeri, Greece 2014-to date	Coastal engineering study (with mathematical modelling) for the coastal protection of areas of Island of Corfu and of Skorponeri
Ministry of Environment, regional Planning, Environment and Public Works, Special Authority of airports, Northern Greece, Thessaloniki, Greece, 2014-to date	Team Leader. Technical Advisor for the extension into the sea of Runway 10-28 with parallel taxi way of the “MAKEDONIA” airport in Thessaloniki (Phase B).
DEPA S.A. Greece 2013-to date	Environmental Engineer-Certified Diver Environmental and Social Impact Assessment, Permitting Support and Evaluation of the construction and operation of the floating terminal station of unloading, storing and gasification of LNG and the connection with the onshore facility.
Hellenic Republic Asset Development Fund (HRADF) Greece 2011-to date	Member of the Steering Committee/Team Leader Technical Advisor for the Privatization of Small Ports and Marinas, Greece
MONOTEZ S.A. Lavrio, Greece 2013-to date	Member of the Design Team Preliminary Investigation for the extension of the existing Harbour Installation of MONOTEZ S.A. at Thorikon Bay
Ministry of Mercantile Marine Greece 2012	Member of the Consultant’s Team National Strategic Plan for Ports-Participation in a team of experts for the drafting of the strategic plan
MEDITERRANEAN TERMINAL S.A. Magnesia, Central Greece 2011-2012	Responsible for the EIS/Member of the Design Team Master Plan of a new port in the area of Amaliapolis, Magnesia, Greece
Government of Albania, Ministry of Public Works and Transport. Saranda, Albania 2011 - to date	Project Planning Expert Construction Supervision of Saranda Gateway Cruise Liner Terminal. Project Management & Construction Supervision Services, for a cruise liner terminal
Special Purpose Entity No 24 S.A. Kea, Greece 2011	Project Manager Preliminary and final design of an access mole, a sea water intake, underwater pipe, as well as a brine disposal underwater pipe, for a Hotel Complex at Vroskopos – Kea, Greece
Ministry of Transport and Works of Cyprus Pafos, Cyprus 2010-to date	Member of Design Team Protection and Improvement of the coast of the north western sea front of Pafos. Integrated Coastal Zone Management, numerical modelling, design of protection works

AZURNA UVALA d.o.o. Island of Solta, Croatia 2010	Member of Design Team Marina and sheltered swimming basins development in front of the Touristic Development on the Island Sölta
Hellenic Ministry of Environment- Regional Planning and Public Works Greece 2009 – to date	Member of Design Team Preliminary and Final Design for the completion of the works of New Moudania Port. Upgrade & Rehabilitation of an existing fishing port. Extension of the outer Works
Hellenic Ministry of Environment- Regional Planning and Public Works Greece 2009 – 2012	Coordinator of E.I.S. Preliminary Environmental Impact Study-Coastal Engineering Study, Consideration of Traffic flows, and Environmental Impact Study of the Port of Rafina.
Special Purpose Entity No 24 S.A. Greece 2009-2010	Design Team Leader Benchmark report for the location of the Pier, preliminary design study of harbour works.
Cyprus Ports Authority Cyprus 2009 – 2010	Member of Design Team “Master Plan of the Port of Vassiliko”-Industrial Port Development and Master Planning, SWAT analysis, Port Logistics
Cyprus Ports Authority Cyprus 2009 – 2010	Coordinator of E.I.S. Master Plan of the New Industrial Port of Vassilikos - Cyprus
Hellenic Ministry for the Environment , Physical Planning, and Public Works Crete, Greece 2009 – to date	Member of Design Team “Study for the completion of Pier V (ex VI) of the Port of Heraklion” Harbour Works, Rehabilitation of existing Quaywall: Preliminary and Final Design of Harbour Works.
Ministry of Regional Planning, Environment and Public Works, General Secretariat of Public Works, Special Administration of Public Works / Patra- Athens- Thessaloniki- Euzonoi Greece 2009 – to date	Coordinator of E.I.S. Study for the Improvement of the road axis Lamia- Itsea- Antirrio. Studies of the various sections of the road axis Lamia- Itsea- Antirrio, contributed to the Environmental Studies.
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2008 – to date	Member of Design Team “Study for the repair of damages at the breakwater of Korrisias’ Port (Island of Kea), and Technical Assistance for the Supervision of the works”
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Member of Design Team “Updating of the Strategic and Operational Plan of the Heraklion Port Authority”.

Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Member of Design Team “Modification of the Port of Heraklion Master Plan, at the Linoperamata Port Area” . Modification of the Master Plan in the industrial area of Linoperamata.
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Coordinator of P.E.I.S. “Modification of the Port of Heraklion Master Plan, at the Linoperamata Port Area”.
Government of Albania, Ministry of Public Work, Transport And Telecommunication-Project Coordination Unit (PCU) Albania 2008 – 2009	Member of Design Team Detailed design and supervision of Saranda Gateway Cruise Liner Terminal, Integr. Coastal Zone Management and Clean Up Project
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2008 – to date	Member of the Management Team “Project Manager for the Port of Lavrion works” Construction Supervision and Project Management of Harbour Works and Terminal Building
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2007 – to date	Member of Design Team “Study for the completion of the outer harbour works and the additional quaywalls of the Port of Lavrio”
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2007 – to date	Coordinator of E.I.S. “Study for the completion of the outer harbour works and the additional quaywalls of the Port of Lavrio”. Environmental Impact Study.
Region of Western Greece Western Greece 2007-2009	Member of Design Team Study for the erosion protection of the coasts of western Achaia, of a total coastline length approx. 11km, west words of PATRA. Bathymetric and topographic surveys. Sampling and laboratoring testing of sediments. Mathematical modeling of coastal erosion, preliminary and final design of coastal protection works, Tender Documents, for the Region of Western Greece
Region of Western Greece Western Greece 2007-2012	Coordinator of E.I.S. Study for the erosion protection of the coasts of western Achaia, of a total coastline length approx. 11km, west words of PATRA.
TITAN S.A. Elefsina, Greece 2007	Member of Design Team Repair of damaged quaywalls of the harbour installations of the Cement Factory in, Final Design & Construction Supervision
Bandeluz S.A. Uruguay	Member of Design Team Punta del Chileno, Marina and Cruising Vessel Berth. Preliminary design of marine works including optimization of

2006-2008	the layout of the main structures of the harbour with the use of mathematical modeling of wave disturbance and preliminary design of an alternative without cruise terminal
Tourist Enterprises of Messinia (T.E.M.E.S. S.A.) Pylos, Greece 2006-2007.	Member of Design Team Coastal Study and Environmental Impact Study in the “Area of Organised Tourist Development” (P.O.T.A) of PYLOS
TITAN S.A. Patra, Greece 2005-2006	Member of Design Team Extension of the harbour installations of the Cement Factory TITAN S.A. in Patras, Greece. Preliminary and Final Design and Environmental Impact Studies,
Lavrio Port Authority S.A. Greece 2005	Member of Design Team Marinas A and B in the Port of Lavrio: Final Construction Design of two Leisure Harbours, of 100 and 250 berths respectively, within the Port of Lavrio. The marinas feature floating pontoons and wave absorbing moles.
Lavrio Port Authority S.A. Greece 2005	Member of Design Team Final Design of the 3rd ramp for High-speed ferries in the Port of Lavrio,
CHYMA S.A. Greece 2005	Member of Design Team Extension of the harbour installations for loading/unloading chemicals of CHYMA S.A. in Thoriko, Lavrion,
ERGAOSE S.A. Greece 2005-	Coordinator of E.I.S. Environmental Impact Studies for different projects of the Greek Rail Roads. The project refers to the Environmental Impact assessment of the Construction and Operation of the R.R. for different areas of the Greece as well as some roads and roundabouts to close areas. Special attention is given to the impact of the noise to the adjacent cities and villages. The study includes field measurements and mathematical modeling
Port Treasury of the Prefecture of Chania Crete, Greece 2004-2005	Design Team Port of Kasteli, Kissamos – New Master Plan,
Heraklio Port Authority S.A. Crete Greece 2004-2005	Member of Design Team Design for the improvement of the Port of Heraklion – Master Plan. In cooperation with other design offices.
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2004-2005	Member of the Technical Advisor Team Design for the rehabilitation of the Port of Kea Island. Technical Advisor to YAS of the Hellenic Ministry of Environment, Physical Planning and Public Works

Hellenic Ministry of Environment, Physical Planning and Public Works Directorate for Port and Airport Works (D4) Crete Greece 2004-2007	Member of Design Team Master Plan of the Port of Herakleion. The objective of this study was the establishment of the Herakleion Port Master Plan in the lights of the investigation of the present and the projected uses of the harbour facilities, until the year 2035.
Design Offices, ERA London & SASAKI ASSOCIATES, Piraeus Port Authority S.A. Greece 2003-2004	Member of Design Team Study for the “Sea Front Development and Port Uses of the Port Industrial Zone of Drapetsona – Keratsini”
Hellenic Ministry of Environment, Physical Planning and Public Works Crete Greece 2002-2004	Member of Design Team Design of Harbour Works and Installation of the Port of Souda. In cooperation with other offices.
ATHENS 2004 S.A. Greece 2002	Member of Design Team Study for planning and general organization of the berthing area of Cruise Ships at the Central Port of Piraeus, during the Olympic Games of 2004
“Alpha Bank Civic Properties” Greece 2002	Member of Design Team Design for the Technical Offers for the privatization – exploitation of the Marinas of Flisvos and Zea in Attica. for the call for Tenders launched by the Hellenic Tourist Properties (ex G.N.T.O.),
Dodekanese Harbour’s Master’s Office Greece 2001 – 2003	Member of the Management Team “Project Manager for the “Construction of outer harbour works of Port of Kalymnos”, Dodekanese Harbour’s Master’s Office.
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2001-2006	Member of Design Team Design of quaywalls in the southern part of the Port of Lavrion, including the necessary buildings and installations: design of the armor of the lee mole, the design of a quaywall 680m long, at –10m, for cruise vessels, the design of two finger piers on steel pipe piles, for Ferry-boats and the design of three berthing places for Monohull and Catamaran High Speed Ferry-boats.
Prefecture of Larissa Larissa, Greece 2002-2003	Member of Design Team Improvement and Rehabilitation of four Fishing Harbours of the Prefecture of Larissa, Preliminary and Final Design
Hellenic Ministry of Environment, Physical Planning and Public Works Greece 2001-2004	Member of Design Team “Master Plan of the Port of Lavrio” Design for the construction of quaywalls in the south part of the Port of Lavrion, including the necessary buildings and installations. The project includes Master Plan for the whole Port of Lavrion, mathematical modelling of wave disturbance

and navigation, final design and tender documents for high speed berths, final design and tender documents for all the necessary harbour works in the south part of the port, final and detailed design for all buildings and installations.

Training

Danish Hydraulic Institute (DHI)
February 2004 and November 2007

Coastal Engineering Modeling including Hydrodynamic and Morphological Simulations

Publications

Thesis title: Noise Aviation Pollution in Airports: The case of Boston Logan International Airport. M.I.T. Press-2001

Antonios Boutatis , Nishrine Al Khadi, Romeo Capuno, Shon You Shin Research Project Report “Towards the Zero Emission Airport”. M.I.T. Press-2001

Master Thesis: Simulation of the river system Sperhios with the application of the Hydrodynamic Model Mike-11”

C. Solomonidis, A.J. Rogan, A. Boutatis ‘Optimisation of the design of New Quay walls as well as the future extension of the port of Lavrion, with the use of Numerical modelling of wave disturbance”, 3rd National Conference for Harbour Works, Athens, Greece 2004.

C. Solomonidis, A. Rogan, D. Georgas, C. Perissoratis, A. Boutatis ‘Beach Erosion In The Corinthian Gulf, Resulting From Coastal Processes And Tectonic Activity – The Ag. Sotira Case’, 6th MEDCOAST Conference, Ravenna, Italy 2003

C.Solomonidis, A.J.Rogan, A.Boutatis «Optimization of the design of Quaywalls in the Port of Lavrio with the use of Mathematical Modelling of wave Disturbance», 3rd Panhellenic Conference of Harbour Engineering, Athens 2003.

C.Solomonidis, A.J.Rogan, A.Boutatis «Design of two (2) arrays of pile supported breasting/mooring dolphins (finger piers) in the Port of Lavrio for the berthing of high speed ferries», 4th Panhellenic Conference of Harbour Engineering, Athens 2006.

A.Rogan, A.Boutatis, G.Yannis, J.Golias, "Traffic parameters for the re-organisation of Port operations in Attiki for the Athens 2004 Olympic Games", A Compendium of Best Transportation Practices in the Athens 2004 Summer Olympics, Hellenic Institute of Transportation Engineers, January 2007

C.Solomonidis, A.Boutatis «Investigation of Coastal Procession and evaluation of Coastal Protection Schemes using mathematical modelling: The case of Kalamaki-Niforeika Beach», 4th Panhellenic Conference for Coastal Zone Management, Mytilini 2008.

A.J.Rogan, C.Solomonidis, A.Boutatis, E.Coumoulou, «Study of the repair of the Outer Mole of the Port of Kea. An Extremely Instructive Case of the repair of a Harbor Work», 5th Panhellenic Conference of Harbour Engineering, Athens November 2010.

C.Solomonidis, Ch.Psaraftis, G.Papageorgiou, A.J.Rogan, A.Toumazis, A.Boutatis, «Master Plan of the Port of Vassiliko-Cyprus», 5th Panhellenic Conference of Harbour Engineering, Athens November 2010.

C.Solomonidis, A.Boutatis, M.Marinou, «Investigation of the Coastal Impact of Small Harbours in the South Coast of Herakleion Prefecture, with the use of Numerical Simulation: Interpretation & Proposals», 5th Panhellenic Conference for Coastal Zone Management, Athens November 2011.

Name Mr Ioannis A. Rogan

Position Project Engineer, Partner in Rogan Associates S.A.

Career summary

Mr. Rogan has 7 years of experience in Transaction Advisory Services for Infrastructure Projects, in Master Planning, in Environmental Impact Assessments, and in Feasibility Studies and Business Plans.

Current position and responsibilities

Project Engineer in Privatization Projects, in Harbour and Coastal Engineering Projects, and in Environmental Impact Assessment studies.

Qualifications

Academic	Master's in Business Administration (MBA), Boston University, School of Management, Boston MA, USA (2010-2011) Diploma in Rural and Surveying Engineering (Five year Program degree Equivalent to M.Sc.), Technical University of Athens (NTUA), Athens, Greece, Rural and Surveying Engineering Department (2001-2007)
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Professional	Experience in Harbour Engineering, and in Environmental Impact Assessment Studies Experience in Transaction Advisory Services for Infrastructure Projects Experience in Feasibility Studies and Business Plans Experience in Strategy Studies and Master Plans Experience in Project Management Strong analytical and statistical modelling skills: Forecasting and regression analysis with MS Excel. Discrete Choice Models calculation with Biogeme. Analysis of ACNielsen and Mergent data. Profiling and segmentation analysis with SPSS. Experience with demand forecasting and conjoint analysis' design.
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Professional experience

2008 – to date	Rogan Associates S.A. , Valetta 9 Zografou – Athens GR Partner/ Project Engineer
06/2005-09/2005	AKTI ENGINEERING S.A., 79-81 Botasi Str., Piraeus, GR Assistant Engineer
2003-2004	National Technical University of Athens (NTUA), Athens, Greece Assistant Engineer

Professional Experience

Private Individual	Member of the Consultant's Team
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Platamonas, Greece 2015- to date	Coastal engineering study for the coast of Platamonas
Municipality of Viannos Keratokampos, Greece 2014- to date	Member of the Consultant's Team Coastal engineering study (with numerical modelling) for the coastal protection of the area of Keratokampos, Island of Crete
DP World Greece 2014- to date	Member of the Consultant's Team Technical Advisor for the acquisition of the Port of Thessaloniki's 67% stake
COSCO Group Greece 2014-to date	Member of the Consultant's Team Technical, Market and an Operational Analysis for all the Port uses, including the ship repair area of the Port.
Corfu Farm S.A. Corfu, Greece 2014-to date	Member of the Consultant's Team Coastal engineering study (with numerical modelling) for the coastal protection of the area of Krevatsoula, Island of Corfu.
J&P AVAX S.A. Delimara, Malta 2014-to date	Member of the Consultant's Team Detailed Construction Design of an LNG Regasification Terminal, Malta
OAKTREE Capital Management LLP Corfu/ Skorponeri, Greece 2014-to date	Member of the Consultant's Team Coastal engineering study (with mathematical modelling) for the coastal protection of areas of Island of Corfu and of Skorponeri
Ministry of Environment, regional Planning, Environment and Public Works, Special Authority of airports, Northern Greece Thessaloniki, Greece 2014 – to date	Project Director Technical Advisor for the extension into the sea of Runway 10-28 with parallel taxi way of the "MAKEDONIA" airport in Thessaloniki (Phase B)
DEPA S.A. Greece 2013-to date	Member of the Consultant's Team Environmental and Social Impact Assessment, Permitting Support and Evaluation of the construction and operation of the floating terminal station of unloading, storing and gasification of LNG and the connection with the onshore facility.
Hellenic Republic Asset Development Fund (HRADF) Greece 2011-to date	Member of the Technical Advisor Technical Advisor for the Privatization of Small Ports and Marinas, Greece
MONOTEZ S.A. Lavrio, Greece 2013-to date	Member of the Design Team Preliminary Investigation for the extension of the existing Harbour Installation of MONOTEZ S.A. at Thorikon Bay

United American Real Estate Services Company Rhodes, Greece 2013	Member of the Consultant's Team "Marina of Rhodes at Sfageia"- Technical Due Diligence
Mr. Nikos Dimitrakopoulos, Civil Engineer Crete, Greece 2013	Member of the Consultant's Team "Coastal Impact Study for the Beaches Kastriou-Keratokambou», Municipality of Viannos, Southern coast of Herakleion Prefecture
Ministry of Mercantile Marine Greece 2012	Member of the Consultant's Team National Strategic Plan for Ports-Participation in a team of experts for the drafting of the strategic plan
MEDITERRANEAN TERMINAL S.A. Magnesia, Central Greece 2011-2012	Member of the Design Team Master Plan of a new port in the area of Amaliapolis, Magnesia, Greece
Government of Albania, Ministry of Public Works and Transport. Saranda, Albania 2011 - to date	Member of the Project Planning Team Construction Supervision of Saranda Gateway Cruise Liner Terminal. Project Management & Construction Supervision Services, for a cruise liner terminal
Ministry of Transport and Works of Cyprus Pafos, Cyprus 2010-2012	Member of Design Team Protection and Improvement of the coast of the north western sea front of Pafos. Integrated Coastal Zone Management, numerical modelling, design of protection works
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2009-2013	Member of the Technical Advisor's Team "Technical Assistance for the Project: "Extension of Runway 10-28 of Thessaloniki Airport 'MAKEDONIA'"
Hellenic Ministry of Environment-Regional Planning and Public Works Greece 2009 – to date	Member of Design Team Preliminary and Final Design for the completion of the works of New Moudania Port. Upgrade & Rehabilitation of an existing fishing port. Extension of the outer Works
Cyprus Ports Authority Cyprus 2009 – 2010	Member of the Consultant's Team Master Plan of the New Industrial Port of Vassilikos - Cyprus
Hellenic Ministry for the Environment , Physical Planning, and Public Works Crete, Greece 2009 – to date	Member of Design Team "Study for the completion of Pier V (ex VI) of the Port of Heraklion" Harbour Works, Rehabilitation of existing Quaywall: Preliminary and Final Design of Harbour Works.
Heraklion Port Authority S.A.	Member of Design Team

Crete, Greece 2008 – 2009	“Updating of the Strategic and Operational Plan of the Heraklion Port Authority”.
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Member of Design Team “Modification of the Port of Heraklion Master Plan, at the Linoperamata Port Area” . Modification of the Master Plan in the industrial area of Linoperamata.
Heraklion Port Authority S.A. Crete, Greece 2008 – 2009	Team Member “Revision of the Master Plan of the Port of Heraklion in the Linoperamata Port Zone”. Member of Design Team Detailed design and supervision of Saranda Gateway Cruise Liner Terminal, Integr. Coastal Zone Management and Clean Up Project
Government of Albania, Ministry of Public Work, Transport And Telecommunication-Project Coordination Unit (PCU) Albania 2008 – 2009	
Hellenic Ministry for the Environment , Physical Planning, and Public Works Greece 2008 – to date	Member of the Management Team “Project Manager for the Port of Lavrion works” Construction Supervision and Project Management of Harbour Works and Terminal Building
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APPENDIX III

Dr. George Vaggelas (Ports & Shipping Advisory)

CURRICULUM VITAE



FullName Georgios K. Vaggelas
 Dateofbirth 9 October 1980
 Address 96, Eptalofoustr, Nikaia, Piraeus. Greece PC 18450
 Phone +(30)-211-2104314 – Mob: +(30)-6947832910
 E-mail g.vaggelas@stt.aegean.gr
 Website www.porteconomics.eu/members/george-vaggelas

ProfessionalExperience

2014-	External advisor to Thessaloniki Port Authority S.A. administration
2013 –	Freelancer - Business Consultant and Researcher
2013 -	Editorial Advisor at “NaftikaChronika” magazine
2011-2013	General manager of the Training Institute for Shipping and Ports “EXANTAS”.
2010 –2013	Advisor to the President and C.E.O. of Thessaloniki Port Authority S.A.
2012 -2013	Adjunct Lecturer at the Department of Shipping, Trade and Transport, University of the Aegean
2009 – 2010	Special advisor to the Mayor of Mastichochoria Municipality (Chios island-Greece).
2009 –2010	Collaborator of the Hellenic Open University. Evaluator of MSc Thesis in the Master Program “Tourism Business Administration”
2009 –2010	Educator at the Public Institute of Vocational Training.
2008 –2009	Adjunct lecturer at the Department of Shipping, Trade and Transport, University of the Aegean.
2004 –2009	Freelancer - Researcher and Business Consultant
2003	Assistant in strategic analysis studies for various companies in Greece
2002 – 2007	Support and Guidance of small and very small companies in the application of new technologies. “Go – Online” program of General Secretariat for Research and Technology.
2001	Maritime Company “Harbor Shipping And Trading”. Employee of Crew Department. Participating in ISM company’s Certification.

2000 Maritime Company “Harbor Shipping And Trading”. Employee of Crew Department. Participating in the company’s ISM Certification.

AcademicQualifications

2004-2008	PhD , Department of Shipping, Trade and Transport,University of the Aegean,
2002–2003	MSc in ‘Shipping, Trade, Transport’. University of the Aegean, Department of Shipping, Trade and Transport
1998–2002	BSc in Shipping, Trade, University of the Aegean, Department of Shipping, Trade and Transport

Academic Prizes and Distinctions

2004-2008:	Research Fellow Scholarship, co-funded by the Ministry of Development, (General Secretariat for Research and Technology), Piraeus Port Authority and the Athens Urban Transport Organization. Programme: Organization of Port Services Production and Efficient Administration – Management of Passenger Terminals”
2001:	Study Scholarship, by Greek Scholarship Foundation.
2001:	Prize (Study distinction) from Hellenic Association of Passenger Ship Owners.
2000:	Prize (Study distinction) from Municipality of Chios.
2000:	Study Scholarship, by Greek Scholarship Foundation.

ParticipationinResearchProjects
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September 2013 -	Researcher at the project “Ports Observatory for Performance Indicators Analysis” (PORTOPIA). The project is financed by the Seventh Framework Programme (FP7) – SST.2013.6-2
June 2012 – January 2014	Researcher at the project “Freight and Passengers Supporting Infomobility Systems for a Sustainable Improvement of the Competitiveness of Port-hinterland systems of the MED are – FUTUREMED”. Financed by the ERDF MED Programme (2007-2013) under the Targeted Projects 2012 (3.1 Transport).
April 2012 – January 2014	Researcher at the project “Adriatic-Danube-Black Sea Multimodal Platform – ADB Multiplatform”. FinancedbytheSouthEastEuropeTransnationalCooperationProgramme (2007-2013)
2008 - 2013	Jean Monnet Grant in European Port Policy (08/141236)



	(Teaching Assistant). Financedby: EuropeanCommission.
5/7/2011-5/10/2011	Study for the estimation of the economic impact of the Port of Patra. Scientific consultant of the project. Financed by Patras Port Authority S.A.
2010 - 2011	COST ACTION "P3T3 – Public Private Partnerships in Transport: Trends and Theory". Memberoftheexperts group. Financedby: EuropeanCommission.
01/2010 – 12/2011	Researcher at the project PortPerformanceIndicators: SelectionandMeasurement. Awarding body: European Commission – General Secretariat of Mobility and Transport.
2/2/2009 – 16/6/2010	Researcher at the project "European Insular Observatory, Insular Development and Cohesion policies" of the "OBS-EURISLES/THE DEVELOPMENT OF THE ISLANDS-EUROPEAN ISLANDS AND COHESION POLICY -EUROISLANDS ESPON 2013 Programme". FinancedbyEuropeanCommission
6/2008 – 2/2009	Researcher at the project "Specification of the essential clauses for the provision of maritime transport services in insular areas: Guidelines and application of agreed essential tasks" Project financed by the Institute of Local Government (ITA)-Greece.
9/2008	Researcher at the project "Analysis and preparation of a publication of the results available aiming a description of the costal and sea area by country". Research contractor: Sogeti Luxembourg S.A.
11/2006 – 3/2007	Project member in the elaboration of a research on: "Studying the operational environment of intelligent ports (i-Ports)". Program INTERREG IIIB. 'ARCHIMED – ARCHIPELAGO MEDITERANEO". CodeA.1.128. Research contractor: University of the Aegean. (2006-2007).
7/2006	Projectmemberintheelaborationofaresearchon: "Financingcorporationsforapplicationdevelopmentandservice sprovisionontrafficmanagementandinformation in the sea transports". Research contractor: UniversityoftheAegean- PROODOS S.A. (2006).

Publications

RefereedJournals

- J.1** Marianos, N.,S., Lambrou, M., A., Nikitakos, N., V. andVaggelas, G., K., (2011). "Managingporte-servicesinasocio-technicalcontext". **International Journal of Shipping and Transport Logistics**, 3 (1), pp. 27-56.



- J.2** Vaggelas, G., K., Pallis, A., A., (2010). "Passenger ports: Services provision and their benefits". **Maritime Policy and Management**, 37 (1), 73-89.
- J.3** Grosso, M., Lynce, A-R., Silla, A., Vaggelas, G., K., (2010). "Short Sea Shipping, intermodality and parameters influencing pricing policies: The Mediterranean case". **Netnomics**, 11 (1), 47-67.
- J.4** Lekakou, M., B., Pallis, A., A. and Vaggelas, G., K., (2009). "Which homeport in Europe: The cruise industry's selection criteria". **TOURISMOS: An international multidisciplinary journal of tourism**, 4 (4), pp 215 - 240.
- J.5** Pallis, A., A., and Vaggelas, G., K., (2005). "Port competitiveness and the EU 'Port Services' Directive: The case of Greek ports". **Maritime Economics and Logistics**, 7 (2), 116-140.

Book Chapters

- BC.1** Ng, K., Y., A. and Vaggelas, G., V., (2012). "Port Security: The ISPS Code". In: Talley, W., K., (Ed.), (2012), **The Blackwell companion to Maritime Economics**, pp. 674-700. London: Wiley-Blackwell.
- BC.2** Grosso, M., Lynce, A-R., Silla, A. and Vaggelas, G.K., (2010). "Intermodality and short sea shipping: Diversification, market segmentation, barriers and parameters influencing pricing policies". In: Marletto, G. and Musso, E., (Eds.) **Transporti, Ambiente e territorio. La ricerca di un nuovo equilibrio**. Milano : FrancoAngeli.
- BC.3** Pallis, A., A. and Vaggelas, G., K., (2008). "EU port and shipping security". In: Talley, W., K., (Ed.), **Maritime Safety, Security and Piracy**. The Grammenos Library, London: Informa.
- BC.4** Pallis, A., A., and Vaggelas, G., K., (2007). "Enhancing Port security via the enactment of EU policies: Operational and economic implications". In: Bell, M., Bichou, K. and Evans, A., (Eds). **Risk Management in Port Operations Logistics and Supply Chain Security**. London: Lloyd's of London Press.

Languages

Greek: Mother tongue;

English: Fluently,