

- ENGINEERING & PROJECT MANAGEMENT
- ENERGY
- TRANSPORT INFRASTRUCTURE
- ENVIRONMENT
- INFORMATION DISSEMINATION
- SOCIOECONOMIC DEVELOPMENT





CEO's Message

Our job is all about excellent human resources and fine-tuned implementing methods. We have created a company culture which blends the entrepreneurial spirit of its founders with a human-centric engineering approach for societal change.

With over 50 years of experience in development and engineering consulting, the LDK Group has reached an unprecedented achievement: Zero client complaints and evaluation scores 5 out of 5 for the majority of the implemented projects. What better proof that our policy is indeed client-centered and that the competitive market conditions can be overcome with a positive spirit.

Our new subsidiary companies in Jordan and Ethiopia are the core development centers for providing engineering services in the water, environment, energy and building sectors in the Middle East and East Africa. Our strong competence in energy regulation and energy efficiency has established us as leaders in transitional economies of Southeastern Europe and the Caucasus Region.

Our transport engineering focus in the gulf countries renders us experts in our practice. We complement the above services with a strong socioeconomic flair, focusing on stakeholders and civil society engagement.

Our policy of employing our own engineers and policy experts "on site", has been proven to be a differentiating factor in our field of business where most of the expertise is outsourced.

Meanwhile, our strict screening of the companies and organisations we collaborate with, aims at building long-term relationships based on trust and long hours of work.

Our clients are demanding and so are we.

Stavros Damianidis

CEO

Athens, March 2019

CLIENTS

Organisations, Institutions & Donors

- European Commission and its Directorates General (DGs)
- European Bank for Reconstruction and Development (EBRD)
- European Investment Bank (EIB)
- World Bank
- United Nations Development Programme (UNDP)
- German international Aid (GIZ)
- French Development Agency (Afd)
- European Agency for Reconstruction (Balkans)
- European Centre for the Development of Vocational Training (CEDEFOP)
- Black Sea Trade and Development Bank
- Plan Bleu
- Union for Mediterranean Secretariat (UfMS)
- European Union Agency for Fundamental Rights (FRA)
- European Environment Agency (EEA)
- European Institute for Gender Equality (EIGE)
- Regulatory Authorities, Transmission System Operators, Utilities

Private Sector & Foundations

- Aegean Motorway
- Aktor
- Alexander S. Onassis Foundation
- Antenna TV
- Athens International Airport
- Basile and Elise Goulandris Foundation
- Cosmote S.A.
- Delhaize Group
- Dimand S.A.
- Dubai Municipality
- Energean Oil & Gas
- Four Seasons Hotels & Astir Palace Vouliagmeni S.A.
- Fraport AG
- Grivalia Properties
- Hill International
- Intrakat
- Lamda Development S.A.
- Lamda Hellix
- Lampsas Hellenic Hotels S.A. - Starwood S.A.
- Media Markt
- Nokia
- Olympia Odos
- Piraeus Bank
- Star TV
- Stavros Niarchos Foundation
- TERNA S.A.
- Viohalco S.A.
- Vodafone

STRUCTURE AND VISION

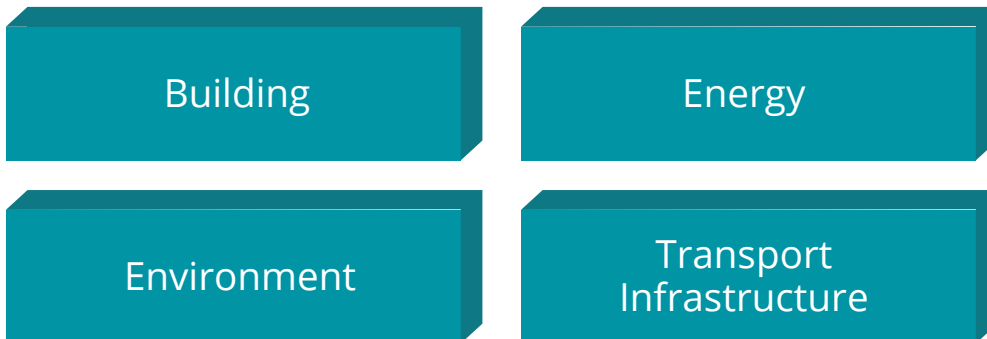
The LDK Group comprises 13 companies based throughout Europe, Africa and Asia. The Group operates worldwide in a multitude of developing and developed countries. All companies are privately owned, and all members of the Boards of Directors are executive managers.

Since its establishment in 1968, the Group's vision was that of Sustainable Development. We continue to support our vision and goals for growth and development and apply the same philosophy for the benefit of our clients.

Being certified by international organisations for quality and expertise, LDK Consultants implements its clients' contracts to achieve optimal solutions and results for their programmes and projects.

SECTORS

ENGINEERING DIVISION



CONSULTING DIVISION



LDK CONSULTANTS AND DATA CENTERS



In 2018, the internet was the third largest consumer of electricity in the world behind China and the United States (1500 TWH per year), the equivalent of the production of 100 nuclear reactors.

12 billion emails are sent every hour in the world, the energy equivalent of the production of 18 nuclear power plants for 1 hour.

140 million Google queries take place every hour worldwide (the equivalent CO₂ production of 1,000 Paris-New York roundtrips by plane).

It is more than obvious why there is an increasing demand for Data Security Management and the design and development of new Data Centers are imperative for the implementation of an energy efficient management.

Geographical clusters are increasingly important, with new space being created in them to provide dense connectivity in city areas for cloud, connectivity and digital services.

The consolidated total area of all Data Centers is estimated at 12 million m², which must have increased to 16 million m² by 2018.

In terms of cumulative Data Center area, the Asia-Pacific region leads with 40% ahead of North America with 34% and EMEA (Europe Middle East Africa) with 22%. Five cities are home to 27% of global capacity: New York, London, Washington, Tokyo and Silicon Valley.

LDK Consultants has designed, managed, and supervised the construction of Mechanical, Electrical and Plumbing (MEP) installations of numerous Data Centers in Europe and Africa. Our main Clients are telecommunication providers, banks and collocation providers.

The MEP infrastructure design aims to achieve the best possible power usage effectiveness (PUE) given the 24h/day, 365day/year non-stop operation of the Information Technology (IT) equipment.

Numerous of the MEP installations that have been designed by LDK have been certified by the Uptime Institute as Tier III or Tier IV ensuring almost 100% MEP installations availability.

NICHE MARKETS AND TECHNOLOGIES

The energy system is in the process of a radical transformation due to technological and market changes that will revolutionize the traditional business models ranging from the generation segment to beyond-the-meter.

New technologies and concepts have been developed by technology and industry leaders that will penetrate the market much earlier than projected.

Electric vehicles are penetrating the market faster than expected, smart grids are constantly evolving, improving systems operation and stability. Large scale hybrid systems based on RES and storage are a feasible reality, phasing out large plants, blockchain tech-

nologies will soon alter the centralized power systems approach, data analysis and mining will offer valuable information to market actors.

The integration of these solutions and concepts into the existing systems remains a challenge for all actors in the energy value chain.

LDK Consultants, being at the forefront of market and technological development, is closely following these changes and has developed a customized set of services for public and private clients.

Such services include the development of new and innovative business models, integration of novel concepts into existing systems, knowledge transfer, design of incentives, business advisory, development of regulatory frameworks, feasibility studies, projections and development of technical solutions.



ENGINEERING & PROJECT MANAGEMENT



Onassis National Transplant Center

LDK Consultants is recognised as a prominent engineering and project management firm in the building and infrastructure sector in Greece, Eastern Africa, the Balkans and Middle East.

We have been working hand-in-hand with leading real estate developers, hotel operators, cultural centres, contractors and other stakeholders with a focus on offering value-for-money services, incorporating the latest sustainability concepts and integrating quality control in all of our operations.

We provide integrated services in design, supervision and commissioning along with facility handling design and management with the goal of ensuring both the proper operation and prolonged life cycle of the project. We also provide technical due diligence to major private and institutional clients for building and infrastructure projects.

Areas of Expertise

- ✓ Hotels & Resorts
- ✓ Commercial and Office Buildings
- ✓ Culture, Exhibition & Conference Centres
- ✓ Housing & Residential Facilities
- ✓ Commercial Complexes
- ✓ Industrial Buildings
- ✓ Educational Buildings
- ✓ Sports Facilities
- ✓ Logistics Centres
- ✓ Data Centres
- ✓ Hospitals & Health Facilities
- ✓ Museums & Memorials
- ✓ Solar Power Applications
- ✓ Fish Hatcheries

ENGINEERING & PROJECT MANAGEMENT

New Projects

“Onassis National Transplant Center Building in Athens, Greece”

- The project comprises a ground floor and 4 floors of 7,000 m² and 3 underground levels of 5,900 m²
- The ground floor includes outpatient clinics and laboratories, the first floor includes three operation theatres, intensive care unit (ICU) for transplantations, intensive care unit (ICU) for children, and catheterization rooms, the second floor includes a paediatric clinic and the third and fourth floors include increased care units and rehabilitation centre
- The roof includes a helipad
- The underground levels include parking spaces for 70 vehicles and MEP spaces (plant rooms, central air conditioning units, gas station, substation, etc.)
- The hospital will be built and donated to the public by the A. S. Onassis Public Benefit Foundation

“Grand View”

4 Buildings for office and residential use of a total area around 44.000 m² in Addis Ababa, Ethiopia.

The project comprises:

- Tower 1 (Apartments): 3,500 m²
- Tower 2 (Apartments): 7,800 m²
- Tower 3 (Apartments): 9,000 m²
- Tower 4 (Offices): 5,200 m²
- Basements & Communal Areas: 18,500 m²

“The Orbit Athens”

Office Building of 9 floors with 6 underground levels located in Kifissias Avenue, Athens, Greece.

- The project comprises mainly office spaces. There are also retail spaces and a gym with swimming pool
- The over ground spaces are 17,000 m² and the underground spaces are 20,000 m² giving a total built area of around 37,000 m²
- The underground levels offer around 450 parking spaces



The Orbit Athens

ENGINEERING & PROJECT MANAGEMENT

New Projects

Former “Papastratos” Buildings

Mixed use Development in Piraeus, Athens, Greece

- The project comprises 3 building blocks formerly owned by “Papastratos” tobacco company
- The three building blocks include 8 buildings that have a total built up area of 72,000 m²
- The mixed use includes call centres, offices, museum, retail uses, food & beverage spaces, and parking spaces

Riverside Square

Mixed use Complex of a total area around 70,000 m² in Nairobi, Kenya

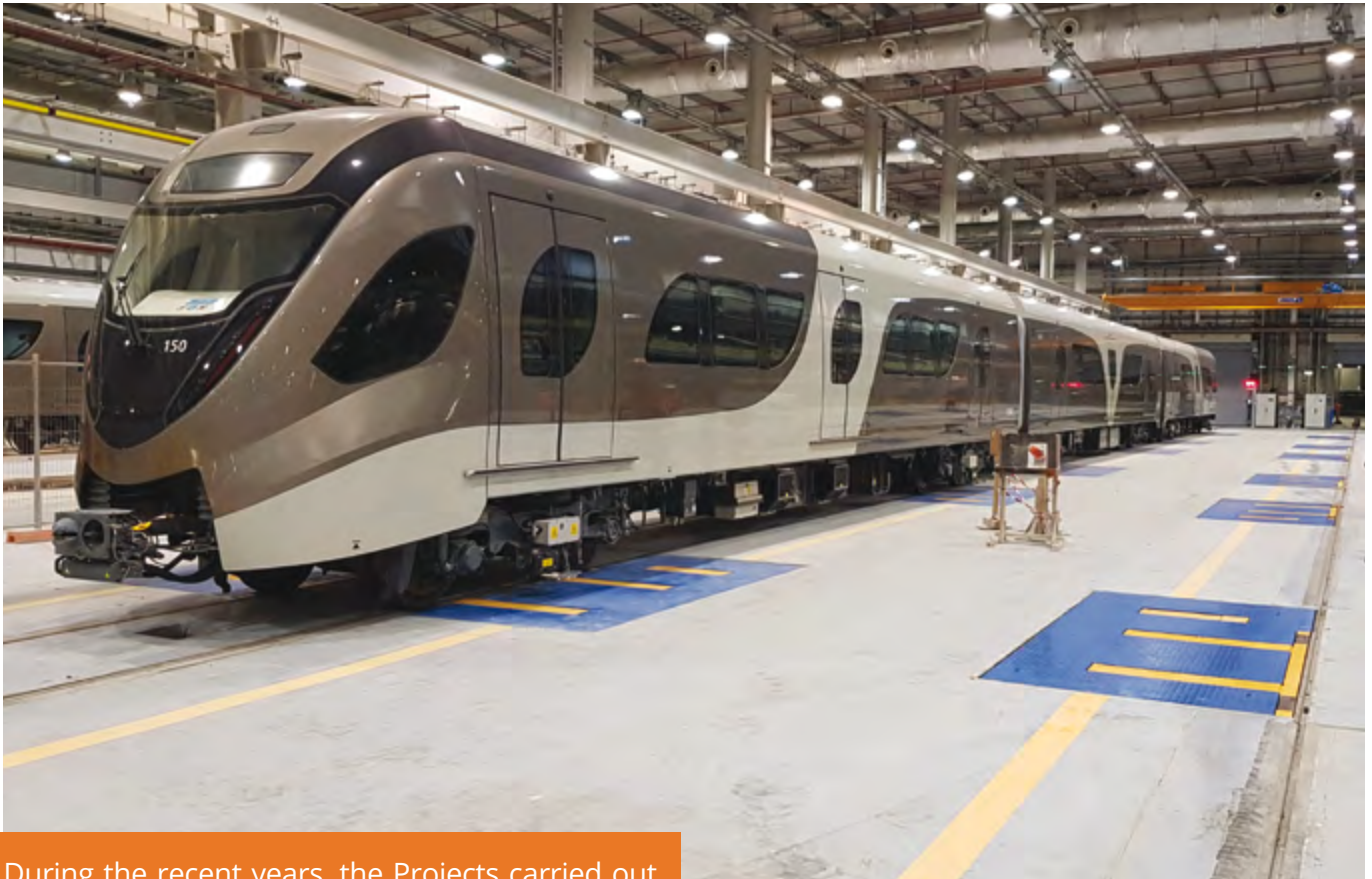
The project comprises:

- Plot A (2 Towers of Retail Podium & Offices): 15,000 m²
- Plot B (2 Towers of Serviced Apartments): 15,000 m²
- Plot C (2 Towers of High End Residential): 16,000 m²
- Basements & Communal Areas: 24,000 m²



Former “Papastratos” Buildings

TRANSPORT INFRASTRUCTURE



During the recent years, the Projects carried out by LDK Group in the Balkan Region and the Middle East have expanded our capabilities and our experience in feasibility studies, design and design verification of airports and urban transport systems.

The specialized experts of the LDK Group provide Engineering Consultancy services for:

Urban Transport: Traction Power Systems (TPS) for Metro, Light Rail, Trolley Bus; Overhead Contact Line (OCL); Third Rail; Operation; Control and Communication; Stations Mechanical Electrical and Plumbing (MEP) Installations; Depot and Workshop Design and Operation; Bus Intelligent Transportation Systems (ITS); Signaling; Traffic Lights; Energy Management; Sustainability and Safety Assurance; Environmental Impact; RAM.

High Speed Rail (HSR): Signaling; Traction Power Supply (TPS); Overhead Contact Line (OCL); Intelligent Transportation Systems (ITS); Environmental Impact.

Motorways: MEP; Signaling; Environmental Impacts; Road Safety

Airports: MEP Design; Controlling Systems; Energy and Environmental Management

Harbours: MEP; Environmental & Safety Measures

Marinas: Facilities for small and large ships; Environmental Management

Services Provided

Feasibility Studies; Financial Assessments; Project Budgeting; Studies MEP, EMC, RAM; Tender Documentation; Construction Supervision - Commissioning Operation & Maintenance Planning; Auditing & Due Diligence; Training for Maintenance and Driving; Project Management; MEP Design Verification (DVE); Engineering Services

New Projects

- ▶ DOHA Metro Red Line South Depot 1 and Green Line Stabling Yard, Qatar MEP Engineering Consulting Services
- ▶ KOSOVO Design of new Railway Sections Border with Serbia - Fushe Kosove and Fushe Kosove - Mitrovica, as part of Axis 10
- ▶ ATHENS Tram Extension to Piraeus and line relocation at Faliron Front, Greece

ENERGY



LDK Consultants has been one of the pioneer energy consulting companies in the region offering integrated services on energy markets and technologies, rational use of energy, renewable energy sources (RES), energy policy.

On energy markets we support a range of public sector clients (Energy Regulators, Transmission and Distribution Operators, Ministries), development and private banks and private sector clients (mostly electricity and gas utilities) on the full scope of services including the development of market models and rules, policies and regulations, market design, grid codes, licenses, tariffs, economic analysis, monitoring instruments, trainings. On energy efficiency we provide comprehensive services for industries and buildings, related to policy and regulation, strategic planning, design of financing mechanisms and projects development involving the entire project cycle, from project appraisal, short and detailed energy audits, feasibility studies, design, assistance in projects implementation and targeted capacity building.

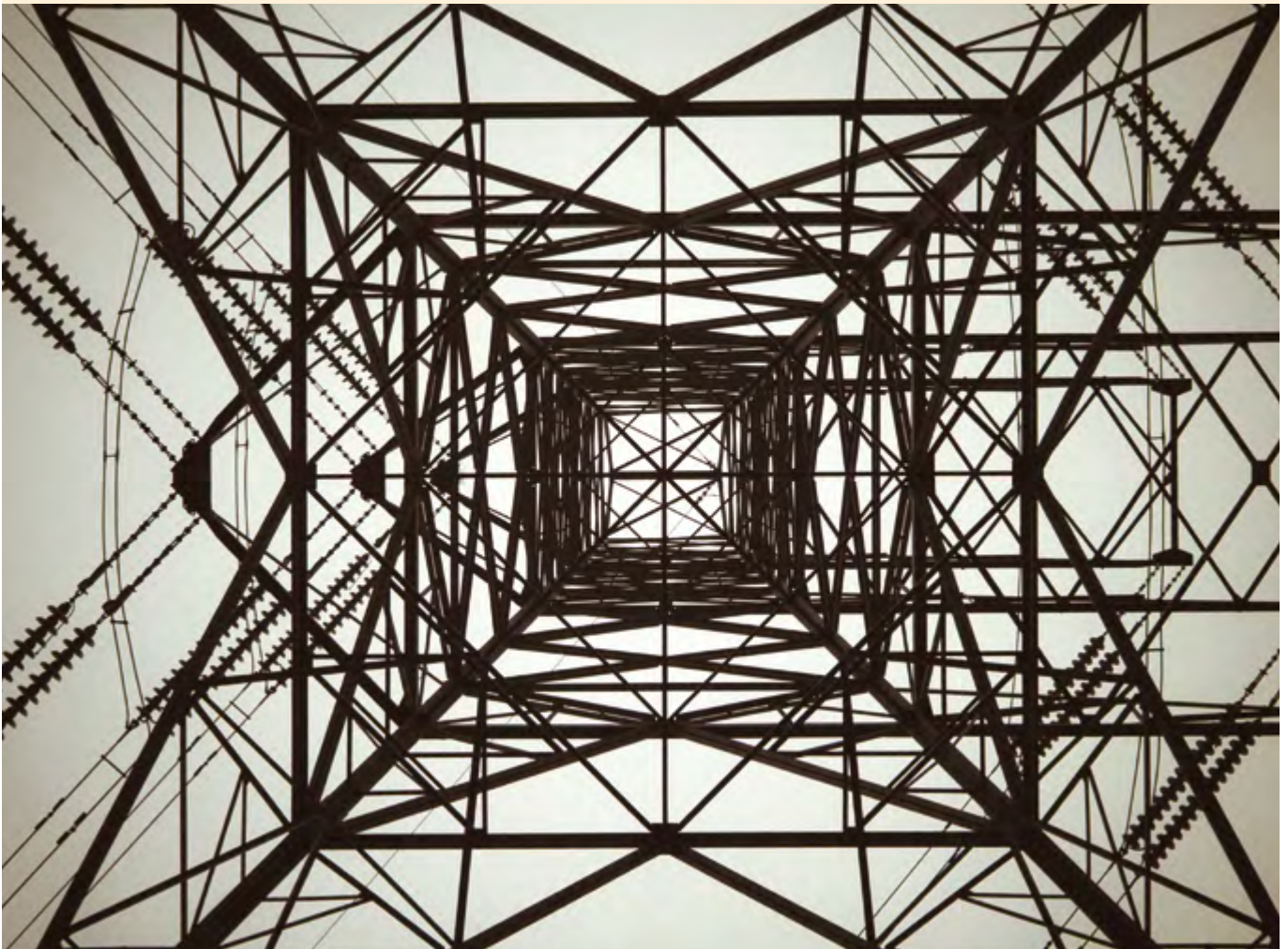
We offer integrated consultancy services to all stages of RES project development, namely market analysis, technical and financial due diligence, estimation of RES potential, licensing, financial analysis, project financing, engineering, construction supervision, project management and commissioning. In addition, we provide services to authorities and organisations with regards to the strategic development of RES.

Finally, we offer a new package of services relevant to Electric Vehicles, smart grids, hybrid and storage systems focusing on the development of new and innovative business models, integration of novel concepts into existing systems, knowledge transfer, design of incentives, business advisory, development of regulatory frameworks, feasibility studies, projections and development of technical solutions.

ENERGY

New Projects

- Technical assistance to Energy Agency of the Republic of Serbia (AERS) - Approximation of National Regulatory Authority tasks to the Third Energy Package
- Electricity Sector Diagnostic Review and development of a sector recovery plan, Sudan
- International Financing Institutions Initiative on Energy Efficiency, Armenia
- Support for Competitive Procurement of Renewables, Moldova
- Energy audit at supermarkets, Lebanon
- European Bank for Reconstruction and Development (EBRD) Green Cities Action Plan & Policy Dialogue Gyumri-Armenia, Banja Luka and Sarajevo-Bosnia and Herzegovina
- Final Evaluation of the Renewable Energy and Energy Efficiency Programme, Jordan
- Support to the Georgian State Electrosystem in implementation of new energy sector regulations, Georgia



ENVIRONMENT



LDK Consultants is positioned uniquely to address the resolution of main complex environmental challenges.

Through our involvement in numerous projects, we are using our expertise to help to identify readily applicable and viable solutions to today's sustainability challenges facing our clients' changing needs, underlying important investments in environmental infrastructure.

We have implemented a number of projects in Greece and abroad covering the wide geographic region of South-Eastern Europe (SEE), MENA region, the Gulf countries (GCC) and Equatorial and Sub-Saharan Africa. In 2018, we managed to secure new contracts in both Jordan and Lebanon for EU, UNDP and EBRD, while we strengthened our presence in Africa and particularly in Ethiopia and Kenya through the respective operational offices.

Our sectors of interest span throughout the environmental sector, including inter alia Impact Assessment

(strategic – SEA) and project scale (ESIA); Industrial Pollution (assessment, prevention & control); Water Resources; Solid Waste Management; Wastewater and Sanitation; Climate Change; Environmental Policy & Institution.

The range of services involved, include the full cycle of project preparation and maturation in the fields of water resources, wastewater and sanitation and solid waste management including: technical assistance (TA); project preparation; master planning; feasibility studies; ESIA's; preliminary/final design; environmental and H&S audit / due diligence and compliance; project's appraisal; tender documentation – FIDIC; contract management; project's appraisal, financial and economic analysis, capacity building and PPP arrangements.

We regularly integrate our services with complementary specialist areas of LDK Group, such as Energy and Engineering in terms of sustainability appraisal and design as well as resources efficiency.

ENVIRONMENT

New Projects

- Solid Waste Management Portfolio: Support and Evaluation Mission for solid waste management in Lebanon
- Mechanisms Development for Operation of the Community Based Recyclables Receiving Stations, North Shouneh, Jordan
- Comprehensive feasibility study for the closure of the informal dumpsite and construction of an integrated sustainable waste management facility in Ngong Town, Kenya
- Environmental Impact Study for Issuing Environmental Terms for the new Katakolo Oil Exploration Project, Greece
- EHS Due diligence Assessment for Hellenic Petroleum group of Companies (HELPE), of which a controlling stake is being sold by the Greek State through Hellenic Republic Asset Development Fund (HRADF), Greece
- Solid Waste Management Plan for the largest urban redevelopment in Europe "Hellinikon", old Athens Airport, Greece
- Feasibility study and design for structuring a public-private partnership transaction for the Zarqa Industrial Wastewater treatment plant, Jordan
- Lender's technical advisor (LTA), for NUR Energy – MINOS Concentrated Solar Tower Project 52 MW in Atherinolagos Crete, Greece



INFORMATION DISSEMINATION



Apart from the implementation of large-scale Technical Assistance projects in the fields of communication and public relations, the LDK Group is currently leading consortia that have been awarded framework contracts in event organisation with cutting-edge themes such as energy transition, nuclear safety, e-commerce, civil society, gender equality, etc.

Services Provided

Design and implementation of public awareness and communication campaigns:

LDK Consultants offers a complete range of services from the assessment of the needs of the campaign, its conception and implementation including design and production of campaign materials.

New Projects

Our track record of more than 300 events organised worldwide in the last five years secures success for any event undertaken by LDK Consultants, irrespective of its scale.

- ▶ Organisational support to the meetings of the Instrument for Nuclear Safety 2017-2019, Worldwide

- ▶ Organisation of Visibility Events for the EU-EGYPT Water Talks high visibility series of events, 2018-2020, Cairo and Alexandria
- ▶ Civil Society Seminars, 2019 and 2020, Bishkek and Kyrgystan
- ▶ Provision of services related to the organisation of the training on child protection, 2018, Greece
- ▶ EU- Tajikistan Civil Society Seminar on Human Rights "Practical implementation of the gender equality principles in Tajikistan", 2018, Tajikistan
- ▶ Event support services for the 2nd Union for Mediterranean (UfM) Peer-to-Peer Dialogue for Local Authorities Efforts in Energy Transition and Union for Mediterranean (UfM), Capacity Building Program for Local Authorities Efforts in Energy Transition, 2018, Turkey
- ▶ Support to the Organisation of the 2018 Africa E-Commerce Week, 2018, Kenya

SOCIOECONOMIC DEVELOPMENT CONSULTANCY



The LDK Group is involved in planning and implementing regional and local development policy, mostly through the provision of technical assistance, capacity building and programme management services.

LDK Consultants is also engaged in the ex-ante, ongoing and ex-post evaluation of projects, policies and programmes by using a variety of methodologies and tools.

It provides support for the strengthening, modernization and organizational reform of public administrations from central governments, to regional and local self-government units.

In addition, the LDK Group undertakes projects that reinforce participatory democracy by strengthening the capacity of Civil Society Organizations (CSOs) and their active participation and by stimulating the development of an enabling legal and financial environment for civil society and pluralistic media development.

New Projects

- ▶ "Mid-term evaluation of the Administrative Reform Technical assistance in Greece", 2019
- ▶ "Instrument for Pre-Accession Assistance (IPA)-Technical Assistance to Civil Society Organisations (TACSO 3) in the Western Balkans and Turkey", 2018-2021

A BIRD'S EYE VIEW ON 2018 FINANCIAL RESULTS

Times demand a focus on all project sizes. A plethora of small projects draw significantly more resources proportionally, while the fewer large projects always provide the platform for investing in new skills and methods. Our largest ongoing contract has a budget of 8.5 million euros while the smallest does not exceed the budget of 3,000 euros.

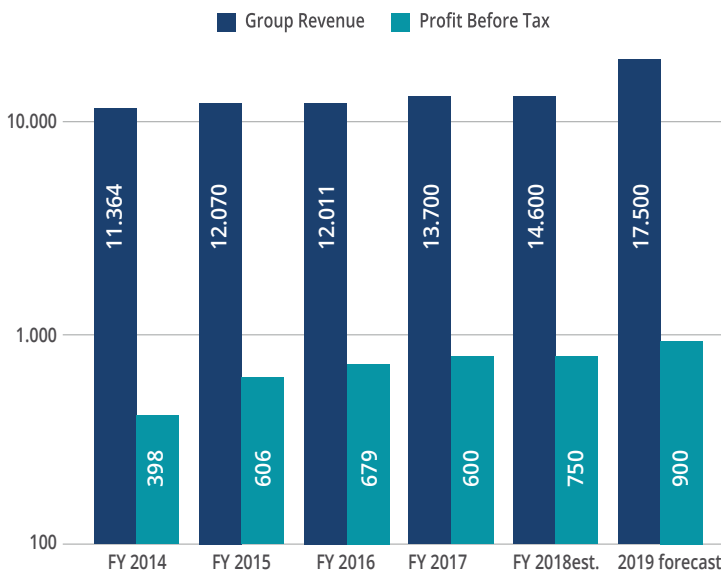
The LDK Group's aim is to satisfy repeat clientele in the whole spectrum of services and projects sizes, while achieving new select assignments and penetrating new markets with its high-standard credentials.

Following are the first estimations of 2018 financial performance and facts that support our aims:

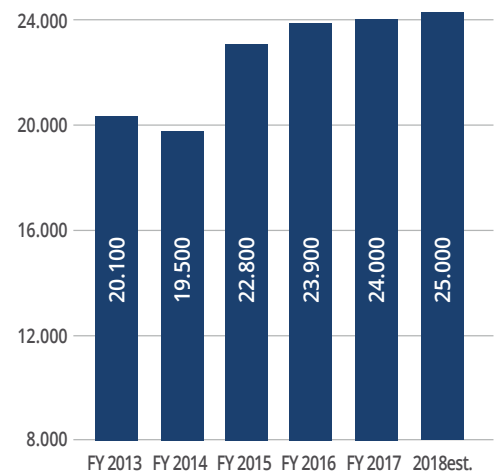
- Annual revenue approximately reached 14 million euros.
- Operating results increased in the past 2 years by more than 30%.
- Several high-caliber project contracts were recently signed, which will increase overall backlog as well as profits.
- A significant increase of the signed contracts' backlog was achieved by our international subsidiaries.
- A gradual comeback of the local construction sector is increasing demand for our engineering services and will boost the overall profits in 2019 onwards.
- Employees' count is due to further increase with the award of more contracts to be signed in our main markets.
- The biggest market growth drivers are the regions of East Africa, Middle East and the Balkans with important projects in the energy, environment and engineering sectors.
- The financial credibility of the Group is also improving, having achieved an approximate 30% increase in Groups' credit line.
- 2019 will be a year of focus on modernizing our financial monitoring and operational systems, streamlining the way we monitor all the Group's companies.

FINANCIAL FIGURES

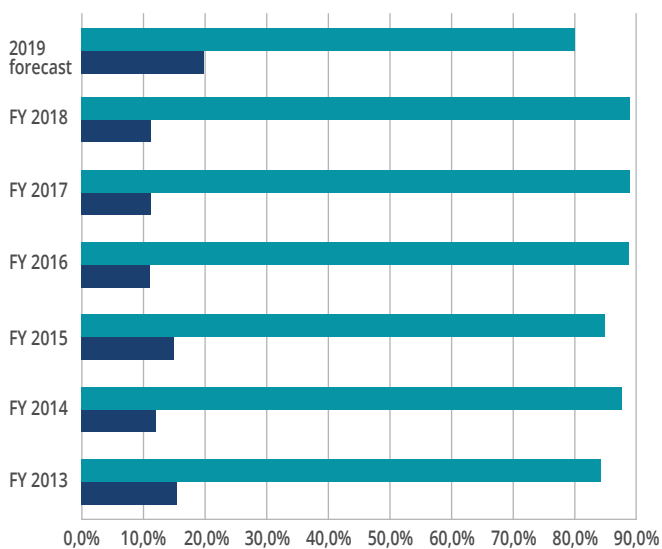
REVENUE & PROFIT BEFORE TAX (in ,000 €)



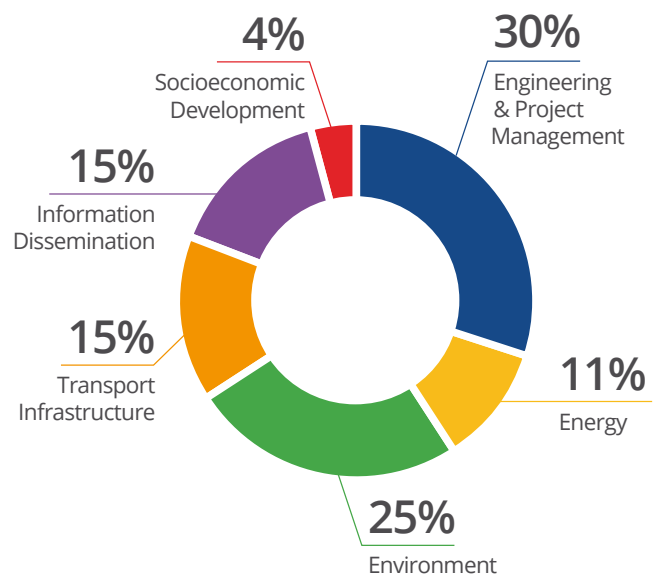
AWARDED CONTRACTS AT YEAR END (in ,000 €)



INTERNATIONAL TO DOMESTIC SALES



REVENUE BY OPERATING SEGMENT



THE BOARD OF DIRECTORS



from left to right:

Stavros Kirimlidis, Engineering Department

Dimitris Kirimlidis, Engineering Director

Stavros Damianidis, CEO

Leonidas Damianidis, President

Greg Damianidis, CFO

Christos Zacharias, Consulting Director

Stelios Zacharias, Consulting Department

MEMBER OF SOCIETIES & ASSOCIATIONS



The LDK Group is an active member of:

- American Society of Heating Refrigerating and Air-Conditioning Engineers Inc. (ASHRAE)
- Athens Chamber of Commerce & Industry (ACCI)
- Deutsch-Griechische Industrie und Handelskammer (AHK-GR)
- Hellenic Association of Consulting Firms (HELLASCO)
- Hellenic Association of Management Consulting Firms (SESMA) which is a member of FEACO & ICMCI
- Hellenic Association of Mechanical & Electrical Engineers (HAMEE)
- National Fire Protection Association (NFPA)
- Technical Chamber of Greece (TCG)

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