Curriculum Vitae

Franco Coren
Born in Trieste - Italy – April 21st 1962
Citizenship: Italian

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OGS (Istituto Nazionale di Oceanografia e di Geofisica Sperimentale) Dirigente Tecnologo – Senior Technical Officer, Director of Research Infrastructure Section

ACTIVITIES

2013 September - today Direttore della Sezione di Infrastrutture di Ricerca (Director of Research Infrastructure Section). In this charge, I act as manager of a complex research infrastructure that includes, on the naval side, the research icebreaker R/V Laura Bassi (80 m long, 5455 t displacement) and the ice class research vessel R/V OGS-Explora (74 m long, 1845 t displacement) plus two small boats; the section is also comprehensive of one land seismic acquisition team with heavy equipment (one IVI 16 t truck Vibroseis and one truck-mounted Minivib) and one airborne acquisition team that operates one twin engine research aircraft (Piper PA34 Seneca III reg. I-LACA). A mean of 47 employers compose the Section of which more than 2/3 are researchers or technical researchers with a high prevalence of these latter, and 1/3 technicians plus 2-3 administrative employees. During this mandate I have managed the research vessel R/V OGS Explora carrying out many research and service missions, including one in Antarctica and two in arctic waters (2013, 2015), one major refitting of the unit in 2016 to obtain SPS class notation (Special Purpose Ship) and many private and research activities. I was in charge as responsible for the acquisition of the new icebreaker class research vessel R/V Laura Bassi, and manage her first Antarctic mission under Italian flag in arctic summer 2019/2020. I am responsible for the contract between CNR/OGS/PNRA/ENEA (7.200.000 € per year) and also the President of the DTO Technical Operation Directorate that manage the joint ship operation. I am responsible for the scientific improvements of the vessel with and assigned budget of 5 M€. I am also responsible for the task funds (11.000.000 € in six years) assigned by the Italian Ministry of Research to manage and increase the scientific capability of the vessel. I participate in the working group for the implementation of the Polar Code of the N/R Laura Bassi I am also scientific leader of the project PON Ipanema addressed to establish and enhance the natural laboratory of Panarea with a comprehensive budget of 8.787 M€ of which 7.238 M€ for OGS. As researcher, my interests are focused on LIDAR

applications and airborne geophysical data integration as well as geophysics I am also scientific responsible and proposer of the project EarthCruiser (2015) a research project financed for 1.273.000 € of which 726.059 € for OGS. My technical activity now focuses mostly on research vessel management.

2012 July – 2013 September Direttore Generale (General Director) of the National Institute of Oceanography and Experimental Geophysics with Interim from October 2012 to January 2013 also as Director of Human Resources. During my tenure as General Manager, I faced complex operational choices aimed at the partial reorganization of the Institute composed of more than 300 employees. I introduced innovative IT procedures to streaming and speeding up the document and administrative processes, always in compliance with public regulations. I implemented a web management system for "off office activities" authorization allowing a more flexible approach with the possibility. I introduced for the first time an integrated project inventory bank in order to be able to evaluate the project success rate. I dealt with many legal disputes that my processors left unresolved; one for all a year lasting dispute with the PNRA (National Italian Antarctic Program) that I solved in favour of OGS. I kept the interim of the human resources direction for four months. I have always collaborated closely with the Board of Directors and in particular with the Presidency in order to carry out an agreed and careful management of the structure. During my mandate the Institute was subjected to a periodic inspection by the Ministry of Finance which had nothing to complain about the management adopted. Although in an extremely reduced way, I always continued a scientific activity as evidenced by the publications made.

2006 - 2012 Direttore del Dipartimento di Geofisica della Litosfera - Director of Geophysics of Lithosphere Department of Istituto Nazionale di Oceanografia e di Geofisica Sperimentale. In this charge I acted as manager of a complex research team of more than 75 employees of which more than 2/3 are researchers or technical researchers, and 1/3 technicians plus 3 administrative. The department maintained during the years a healthy trend in research, technological activities and also economical setting; the activities of the department focused on geophysics (mainly seismic), airborne geophysics, swath bathymetry, and marine geophysics. My specific activities focused on LIDAR (airborne laser scanner) hyperspectral data, airborne TDEM (Time Domain Electro Magnetic) and swath bathymetry; I also developed a small helicopter borne bathymetric system. The overall budgets as well as the human resources level during these years have always been maintained at constant or slightly increasing level. Among the various initiatives and actions I have taken during my direction I have acquired a research aircraft and managed it. The aircraft has been inserted into the EUFAR European Union Fleet for Airborne Research and it is the ONLY aircraft belonging to a national research institute. The aircraft a PIPER SENECA II PA-34 is a six seat twin piston turbocharged engine aircraft with IFR capability. I also found the necessary financial support to install on-board panoply of research instruments as: particle counters and CO2 concentration measurement system for air quality measurements and research; airborne laser scanner, airborne camera, thermal camera. My activity also focussed on administrative and management task, as for instance the elevation of the safety levels within the department that despite the large

quantity of activities that have been carried out in these years recorded zero accidents. I also acted to simplify all the bureaucratic procedures to speed up our activities and decision making processes, always acting within the limits that the public administration imposes. In general, I encouraged all the department activities with proactive actions and I have always supported new initiatives. Least but not last I have always operated in and supported collaboration with all the other OGS bodies as like different OGS's departments and structures.

2012 - 2004 Presidente e Direttore Tecnico (President and Technical Director) of ARS – Airborne Remote Sensing s.c.a.r.l. formerly HELIOGS s.c.a.r.l. . ARS was an OGS controlled private company (51% of the shares OGS and 49% of Helica s.r.l.) of the shares. The company, located in Area di Ricerca Science Park was addressed at airborne remote sensing in both fields of research and application, especially LIDAR. As president and technical director I pursued along two main development lines one related to the application of the technology and knowledge already present in both company members (OGS and Helica) and a second projected into research fields to develop specific innovative competences in the field of airborne remote sensing. I have gained four major research projects for the company that financially supported the research activities. The company has been closed in 2010 having reached his social target. After the closure of the company I acted as the company liquidator.

2006 – 2000 coordinator of CARS – Cartography and Remote Sensing Research group in OGS (Gruppo di Cartografia e Telerilevamento). The research group consisted in a mean of 12 researches and technicians; within this assignment I developed from scratch a team dedicated to remote sensing research and application, I attracted a consistent quantity of research and service contracts that enabled a sufficient cash flow to maintain constantly 4 researches based on soft money. I carried out researches in the field of systems integrations (laser scan and inertial system) developing the concept design of an innovative laser scan system mounted on-board a mobile terrestrial vehicle (commercial name of the product in LINX and it is commercialized by Optech inc. Canada). I also developed "in house" capability in handling SAR (synthetic aperture radar) satellite data; this skill has been addressed to numerous research and application projects especially in the field of SAR interferometry. My interests were also focused on geophysics and seismic and potential methods.

1999 - 1991 Technical officer at Osservatorio Geofisico Sperimentale (OGS) (Collaboratore Enti di Ricerca III livello). During this period, my activity focussed mainly on multichannel seismic data processing acquired in geophysical campaigns carried out in the Antarctic Ross Sea Antarctica and contemporary data processing and interpretation on behalf of oil companies. This latter activity was mostly addressed to underground gas hazards spotting (WSS well site surveys) and identification of injection well sites. Within this context, I also acted as processing supervisor and geophysical data interpreter. In **1996**, I begun to deal with studies in radar interferometry as member of the Working Group on passive synthetic aperture radar (PASSAR) of which Politecnico of Milano was group

coordinator, in between continued to deal with seismic processing and interpretation. This firs approach led to a series of research activities in the field of remote sensing in Antarctica. In **1996**, I was proponent, then project manager for OGS, of the European Union project Inco Copernuicus PL-962052 addressed to the application of seismic attribute analysis for reservoir characterization "ATTRCAR". This was (for the time) an innovative method for seismic data analysis that found his application in gas and gas hydrates mapping reservoir characterization. In **1995**, I was proposer of high energy nuclear physics experiment to measure flow and attenuation of cosmic particles (muons) for study their potential application in geophysics and I held a position as Associated Researcher to the Istituto Nazionale di Fisica Nucleare INFN. In **1995** I processed and interpreted the **3D seismic survey** of the Timpa del Salto and Celestrino salt mine aimed at an analysis of the exploitability of the two salt mines. Always in that year I conducted research studies that lead to the computation of the firs gravimetric quasi-geoid of the Ross Sea Antarctica. In **1994** I was in charge for processing potential data acquired in campaigns conducted from 1989 to 1993 by the vessel OGS Explora. In **1993** I participated to the Antarctic Research Project **ACRUP-1** aimed to define the lithosphere thickness underneath the Transantactic Mountains – North Victoria Land.

1990 – Technical Officer, company Società General Scavi S.p.A. site manager for highway tunnel construction Monti Berici (Vicenza).

1989 – Technical Officer – Società Ranni S.r.L. technical manager for high velocity railway tunnel construction di Ponte Gardena (Bolzano).

1988 - Technical officer company Lavori Speciali S.p.A: site manager for railway tunnel construction Lisert (Gorizia).

1988 – 1983 Founder and Employee of SISMOTER s.n.c.; the company operated in the field of mining consulting and geophysics; major project were: NATO ASW construction of a high power exploder interfaced with a seismic acquisition system reference norms were STANAG. Vibration assessment generated by traffic in Trieste Harbour. Seismic survey to detect the disturbance zone around a hydraulic by pass tunnel of Sant'Antonio Morignone. Construction of a digital 12 channel seismic recorder. Photomap (technical services Hunting group) Ltd. based in Nairobi Kenya, geophysical survey Tana River (Kenia) with airborne EM system. G & G S.p.A. Roma seismic diffraction surveys for construction of Kimwarer and Cabarnet dams for Kerio Valley Development Authority. SAC S.p.A project and sizing of explosives for the excavation of the foundations of ro-ro wharf in Trieste harbor. Fontana Construction S.p.A. technical advisory for the construction of Servola (Trieste Italy) tunnel.

1981-1983 – Military service army corps combat engineers; present rank first lieutenant.

1979 – 1980 - Summer Worker at metal mechanical workshop Transdok – Trieste Italy.

EDUCATION

2014 - Politecnico di Milano Graduate School of Business – Master in management dell'Università e della Ricerca. Percorso di Management per i Direttori di Strutture Scientifiche degli Enti Pubblici di Ricerca. Tesi in Progettazione di un sistema di controllo gestionale indirizzato ad infrastrutture di ricerca. Master in "University and Research Management. Management Path for the Directors of Scientific Structures of Public Research Bodies". Thesis in Design of a management control system addressed to research infrastructures.

1993 - PhD in Marine Geophysics – University of Trieste: Title of the dissertation: Sequenze sedimentarie cenozoiche ed aspetti paleoambientali del Bacino Drygalski – Mare di Ross Antartide. (Sedimentary cenozoic sequences and paleoenvironmental aspects of Drygalski Basin – Ross Sea Antarctica.

1989 - MSc Degree in Geology – University of Trieste. Title of the dissertation: Valutazione del fattore geologico nella progettazione e dimensionamento di mine nell'esecuzione di scavi in roccia". (Geological factor evaluation in planning and sizing of explosive mines in rock excavation).

1981 – Dipl. Secondary Technical high school – degree in metalmechanics.

FOREIGN LANGUAGES

English Aeronautical Level EASA "Language Proficiency Requirements" amendment 7 of JAR FCL 1 and amendment 6 JAR FCL 2.– Level 5.6 Expert certified last examination August 2018.
Certified R/T operator in English language ref. FL0002785 last examinations July 2008.
C1 level certified.

German medium level spoken, written and read.

Hungarian basic level spoken, written and read.

CITATIONAL INDEX

Citation indexes derived by Google Scholar updated June 2020:

Citations: 1378;

i10-index 22;

H-index 16;

ABILITATIONS

1984 – Civil professional explosive technician ref. Number 7E/84/3^.

1990 – Esame di stato per l'abilitazione alla professione di geologo. National certificate for professional geologist.

2006 – **2018** Private Aircraft Pilot Licence - SEP (Land) Flight License PPL(A) 0002785/SLO issued in accordance with ICAO and JAR-FCL.

RESEARCH ASSOCIATION

2000 - 2003 associated Researcher at INFN National Institute for Nuclear Physics group V high energies. I worked on a research project aimed to the design and construction of a borehole muon detector (solid state) for geophysical applications.

PATENTS

2005 – Italian Patent TS 2005 A 000017 – **F. Coren**, P. Sterzai, Determinazione della rugosità stradale mediante misure laser aeree. Brevetto di Invenzione Industriale. Road roughness determination by means of airborne laser measurements. Industrial patent.

RESEARCH AWARDS

2008 - EUREKA "Σ!" prize, for innovation obtained for innovation project 4147 presented by myself as president and technical director of Airborne Remote Sensing (formerly HeliOGS). The award has been assigned because of the high innovative content of the project, developed together with Tiltan System Engineering Ltd. (Israel) aimed to develop and introducing into the market a new automatic Lidar processing software package that will enable the fast creation of accurate GIS information from Lidar data.

ASSIGNMENTS

2019 – present President of DTO Direzione Tecnica Operativa (Technical and Operational Direction), this Direction is in charge for manage, plan the joint programs of the N/R Laura Bassi activities in coordination with the four financial contributors (CNR, OGS, ENEA and PNRA).

2017 – Present - Scientific Council member for Research Infrastructure in Technological Cluster BiG – Blue Italian Growth www.clusterbig.it

2013 – Presents – IRSO international Research Vessel Organization OGS representative.

2003 – 2014 member in IGES, International Geoid Service, which is an international association addressed to the development of high accuracy elevation references and geoids.

2010 – 2014: Vice Director of Central Bureau of the International Gravity Field Service which role is to provide link between the IGFS entities, IAG (International Association of Geodesy) and external projects, networks or organizations (oceanic, atmospheric, hydrologic,). Implement standards and recommendations related to gravity field observations.

2005 - 2012: Member of Editorial board of Geo-Marine Letters.

NATIONAL AND INTERNATIONAL COMMISSIONS

2009 - Ministry of Foreign Affairs: Member of commission for cooperation and research agreement between Italy and Israel.

2009 - Ministry of Foreign Affairs: Member of commission for cooperation and research agreement between Italy and United States of America.

2010 - Ministry of Foreign Affairs: Member of commission for cooperation and research agreement between Italy and Israel.

2011 - Member of National Commission for Identification of National Radioactive Waste Repository Site and Technological Park (DNPT). The Commission was managed by SOGIN, Società Gestione Impianti Nucleari that was identified as actor by the law 31/2010.

2014 – 2016 Member of Scientific Council the National Radioactive Waste Repository Site and Technological Park (DNPT).

NATIONAL AND INTERNATIONAL ADVISOR ACTIVITIES

2018 – Advisor for Ministry of Works of the Government of Belize (MOW Belize) for airborne LIDAR data management.

2011 – 2018, advisor for the following projects: Ruta del Sol (road airborne survey); El Salvator Project MARN (LIDAR project), Rio Parù (dam construction preliminary survey), Rodoanel road mapping project (San Paolo), Belomonte, Suriname STATSOLIE large area airborne mapping.

1994 – 2017 - Consulente Tecnico d'Ufficio per la Procura della Repubblica presso il Tribunale di Trieste. Technical Advisor for the Italian National Prosecutor's Office of Trieste.

COURSES/ADVANCED EDUCATION

2020 – Administrative formation: Gli incentivi per funzioni tecniche. Evoluzione normativa ed orientamenti giurisprudenziali. Incentives for technical functions. Regulatory evolution and jurisprudential guidelines.

2020 – Administrative formation; La gara con il criterio dell'offerta economicamente più vantaggiosa. The tender with the criterion of the most economically advantageous offer.

2016 – Politecnico di Milano - La valutazione della performance negli enti pubblici di ricerca: un approccio strategico ed operative. Performance evaluation in public research institutions: a strategic and operational approach**.**

2004 – Optech Inc. – Toronto Canada, Advanced course for airborne laser scan bathymetric system operator.

2003 - Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO), First OSI-EAC4 Experimental advance course for VO (visual observation) for nuclear test ban inspector – Compagnie Generale d'Armament – Armee de Terre – Paris/Orlean France.

2002 – Comprehensive Nuclear-Test-Ban Treaty Organization (CTBTO) Sixth Introductory Course – ONU – Wien – Austria.

2002 – Optech Inc. – Toronto Canada.Advance course for airborne laser scan processing and management.

1999 - Humpson Russel Company - Multivariate analysis of seismic data.

1999 - Humpson Russel Company - Inversion of seismic data.

1997 - European Space Agency ESA-ESRIN – Synthetic Aperture Radar interferometry and Digital Elevation Model generation.

CIVIL/MILITARY HONOURS

2011 – **Croce alla memoria** for the relief operations during the Abruzzo Earthquake 2009.

2017 – Croce di anzianità di servizio ruolo Ufficiali CMCRI.

TEACHING ACTIVITIES

2004- 2015 Assistant Professor of Environmental Geophysics at University of Trieste Engineering Faculty.

2000 – 2002 Contracted Professor in Remote Sensing at UNIDO United Nation Industrial Development Organisation.

1999 – Teacher in Marine Geophysics at International Maritime Organization.

DOCTORATE TUTORSHIP

Universite' Paris Est: Ecole Doctorale "Information, Communication, Simulation, Modelisation - Student Gerardo Fortunato: Doctorate thesis in: procédures etalonnage et d'analyse synoptique, par reseaux de radar d'interferometrie satellite appliquee a de l'infrastructure et urbain e de transport – (calibration procedure and sinoptic analisys of satellite radar interferometry applied to urban and transport infrastructure). Reference teacher : Prof. Deffontaines Benoit – 2009

University Of Trieste: Faculty of Engeneering - Scuola di Dottorato in Geofisica Applicata - Student: Michela Vellico, Doctorate thesis "Metodologia iperspettrale e laser-scanning per l'individuazione di fuoriuscite naturali di CO2: la caldera di Latera" – (hyperspectral and laser scanning methods addressed to identify CO2 natural leaks: tha Latera caldera). Reference teacher: Prof. Nicolich Rinaldo 2008

University Of Trieste: Faculty of Engeneering - Scuola di Dottorato in Ingegneria Civile ed Ambientale. Student: Nahid Khodayari, Doctorate thesis "Implentation in hydrological model "TOPMODEL" for predicting flood Monticano river case. Reference teacher: Prof. Iginio Marson 2012

University Of Ferrara: Facoulty of Earth Science – Scuola di Dottorato in Scienze della Terra. Student: Telloli Chiara "geochemical methods in aerosol particle matted analysis and evaluation of the natural and anthrop contributions" Reference Teacher: Prof.ssa Carmela Vaccaro 2011

MASTER FELLOWSHIP

I have been tutor of nine master fellowships.

MAIN PROJECT LEADERSHIP

2019 ENEA – XXXV Italian Antarctic mission scientific and logistic operation of R/V Laura Bassi for the Italian National Antarctic Program value of the contract 4.500.000 €.

2019 Ministry of Research – IPANEMA PON project (National Operative Research and Innovation Program) implementation of the ECCSEL Natural Laboratory of Panarea (Sicily); the budget of comprehensive € 8.786.920 € of which 7.238.000 € for OGS, with the aim to purchase leading edge scientific equipment such as and AUV, ROV, drone, chemical and physical sea water monitoring systems.

2019 ELETTRA TLC ORANGE GROUP – cable survey across Atlantic Ocean, value of the contract more than 900.000 €

2018 GEOTeam – projects METSISS, IOX, FLYLION, cable surveys south Indian Ocean, value of the contract more than 2 million euro.

2017 Ministry of Research – EARTHCRUISERS "Earth's crust imagery for investigating seismicity, volcanism and marine natural Resources in the Sicilian offshore". A dedicated budget of 720.000 €.

2015 - BGR Bundesanstalt für Geowissenschaften und Rohstoffe Panorama 2 contract for an arctic geophysical mission of OGS Explora, value of more than 1.5 milion euro.

2015 - University of Malta scientific cruise CUMSEC, operation area Mediterranean Sea vessel OGS Explora contract value 60.000 €.

2014 – EXXON / FUGRO vessel OGS Explora oceanographic study for pipeline, operation area Black Sea.

2014 – OMV / FUGRO vessel OGS Explora oceanographic study, operation area Black Sea.

2014 – GEOTeam contract SMWS cable survey, operation area Mediterranean Sea, vessel OGS Explora.

2013 - BGR Bundesanstalt für Geowissenschaften und Rohstoffe **-** Panorama 2 contract for an arctic geophysical mission of OGS Explora, value of more than 1.5 milion euro.

2013 – TERNA S.p.A. OCEANIX S.r.L. vessel OGS Explora cable survey operation area Tyrrhenian Sea.

2013 – FUGRO contract TPAO vessel OGS Explora oceanographic study for pipeline, operation area Black Sea.

2010 ASI – Agenzia Spaziale Italiana. Project Cosmo. "On the Exploitation and Validation of COSMO-SkyMed Interferometric SAR data for Digital Terrain Modelling and Surface Deformation Analysis in Extensive Urban Areas (ID: 1441), n. I/044/09/0. This project is dedicated to the exploitation of the interferometric capability of the COSMO-SkyMed (CSM) SAR sensors. OGS 20.440 €.

2009 Ministero dello Sviluppo Economico. Project DigiTile – research project for implementation of high tech. systems for quality control in tile produciont chain, 560.000 €

2010 Università della Calabria. Project CAL1. Research project addressed to the prevention of flooding geo-hazards on three rivers located in Calabria Region (Italy). This project aims to study news integrated approach in geohazars assessment and mitigation by means of ALS. Contract value for OGS 70.000 €.

2008 Provincia di Treviso Project Geo7. Generation of an integrated dataset of airborne laser scan, orthoimages, hyperspectral images of the entire Provincia di Treviso; this is mostly a service project addressed to the acquisition of a large airborne remote sensing dataset; is it up to now the largest integrated dataset acquired in Italy- Contract value for OGS: 648.000 €.

2008 MIUR PRIN Project "Wiseland - Integrated Airborne and Wireless Sensor Network systems for landslide monitoring". The main was to study and control slow-moving landslides by means of integrated monitoring innovative tools (wireless sensor network, airborne laser-scanning and hyperspectral survey). The proposed project intends to test, develop, validate and integrate the two families of monitoring tools on two large earth flows representative of widespread slope instability of the Apennine mountain range (Silla landslide, BO and Valoria landslide, MO). Contract value for OGS 28.000 €.

2008 Ministero degli Affari Esteri. ARS s.c.a.r.l. Subcontract of a bigger contract held by ARS (company controlled by OGS) Research project dedicated to the development of an innovative software

for laser scan data handling. The project has been shared with TILTAN Defence sector. This project has been awarded by EUROPEAN UNION EUREKA LABEL PRIZE FOR INNOVATION. Contract value for OGS 133.929 €.

2008 HELICA S.r.L. Project name: LASERVEHICLE - Research industrial project which aimed to plan and design a laser scan terrestrial vehicle addressed to dimensional road mapping. I realised the concept design of the system and followed the plan and construction phase that has been held on Optech Inc (Toronto CND), up to the delivery of the system to the final customer (Helica s.r.l.). Contract value for OGS 144.000 €.

2006 Regione F.V.G. – Protezione Civile – Project ProCitTel. A large contract addressed to acquire and process airborne laser scan data and high resolution orthoimages of the Friulil Venezia Giulia region to define a "Time Zero" high resolution digital elevation model for civil protection activities. Contract value for OGS 180.000 €.

2006 Autorita' Di Bacino Fiumi Isonzo,Tagliamento Project: Geoide-Adbve. Computation of a high resolution quasi-geoid of the north-eastern Italy; the main aim was to define a high accuracy equipotential surface to convert WGS84 ellipsoidal into equipotential elevation (quasi-orthometric); the model was required to correct laser scan digital elevation model to be used for accurate hydraulic modelling. Contract value for 69.690 €.

2006 – 2009 Heliogs - ARS HELIOGS Soc. Cons. Project. Within this contract a series of services have been developed for our (OGS) controlled company ARS (formerly Heliogs S.c.a.r.l.); most of the activities have been developed on remote sensing themes. Contract value for OGS more than 260.000 €.

2006 - 2011 Politecnico di Milano – IGES - International Geoid Service. This is an umbrella contract addressed to support research activity in gravity. With this contract we have developed research in the field of gravity measurements and inversion from satellite missions (GOCE) and exploitation of gravity data to compute enhanced high resolution geoid models. Contract value for OGS 256.400 €.

2006 SINECO S.p.A. Project GencCARS Industrial research project which aims was to develop a mobile laser scanner mounted on a vehicle. Main task was the generation on a concept design, then follow the construction of a prototype and final making the acceptance of the final system. Contract value for OGS 36.000 €.

2006 CESI RICERCA S.p.A – Project CESI-CO2. Research project for application of geophysics in evaluation of CO2 potential reservoirs. Contract value for 48.000 €.

2005 Autorità di Bacino del Friuli Venezia Giulia. Project CORMOR. A service contract comprehensive of airborne laserscan, orthoimages, ground GPS control addressed to the survey one of the main rivers in Friuli Venezia Giulia region. Contract value for OGS 96.072 €.

2005 Ministero degli Affari Esteri – Project HyperDEM. After the tsunami that hit Sri Lanka coastal region, we performed and integrated survey (airborne laser scan, air photo, hyperspectral images, to map the damage and contemporary generate high resolution elevation model); the dataset provide a base for both simulation of future events and as geospatial base for reconstruction of the country. Contract value for OGS 245.000 €.

2005 CNR – Project SisLidar. Service project for laser scan data processing. Contract value for OGS 27.204 €.

2005 Comune di Trieste. Project LIDO VECCHIO – Application project aimed to the reconstruction of a high accuracy digital elevation model of the infrastructures of Trieste Port (Italy), for flooding analysis application. Contract value for OGS 41.040 €.

2005 Autorita' Di Bacino Fiumi Isonzo,Tagliamento (ADBVE). Project Lidar. A service project characterised by a high level of complexity that foresaw a high level of integration of different survey techniques. Five of the most important rivers managed by ADBVE have been surveyed by means airborne laser scanning, orthoimages, in integration with multibeam for the submersed parts. Contract value for OGS 343.650 €.

2005 Helica S.r.l. Project Laser-scan II. A general service project addressed to laser scan data processing. Contract value for OGS 13.756 €.

2005 Helica S.r.l. - Project RED EAGLE. Research project aimed to define an innovative airborne laser scan system with full waveform recording capability. This project consisted in planning and realising effectively the airborne laser scan system which has been built by Optech inc. (Toronto CND). In addition a specific software package has been developed to analyse and process the dataset that the system acquired. The software package contained specific modules devoted to waveform analysis, range correction, direct geocoding. Contract value for OGS 1.380.000 €.

2005 AUTOSTRADE PER L'ITALIA - Project AISCAT. Service project for generation of a comprehensive dimensional database derived from airborne laser scan data of part of the highway Trieste-Venezia. Contract value for OGS 40.000 €.

European Union Research Project INTERREG III A - RECON. The project aimed to "Ricomposizione della cartografia catastale e integrazione della cartografia regionale numerica per i sistemi informativi territoriali degli enti locali mediante sperimentazione di nuove tecniche di rilevamento". Regional numerical cadastral cartography re-composition and integration by means of new survey techniques to integrate the local stakeholder GIS" , Contract value for OGS 285.000 €.

2004 - EU Research Project CADSES - EU Project Enhygma. A EU research contract aimed to the application of airborne integrated survey methods (laser scan, orthoimages, hyperspectral data) to mitigate flooding problem of Tisza river (Szeged Hungary). Contract value for OGS 265.000 €.

2003 – ANAS S.p.A. Project Traiano – This was a research project addressed to application of laser scan remote sensing to archaeological mapping, in the specific the project aimed d to the reconstruction of the whole archaeological site of Porto di Traiano near Rome (Italy). Contract value for OGS 50.400 €.

2003 Regione Lombardia – ISEO Lake Project - Service project aimed to survey with airborne laser scan the shores of the Iseo Lake to integrate the derived DTM with swath bathymetry acquired with a former OGS project. Contract value for OGS: 87.000 €.

2003 Comune di Trieste. Project TS_SAR. Research project aimed to identify slow motion landslide in the urban area of Trieste by means of SAR satellite interferometry and controlled by gravity measurements on the ground. Contract value for OGS: 24.000 €.

2002 – 2003 Helica S.r.L. Project laser Scan I. A general service project addressed to laser scan data processing. Contract value for OGS 70.000 €.

2002 ANAS S.p.A. – Service project aimed to survey 50 km of mountain roads with airborne laser scan to generate a basemap for design safety infrastructures. Contract value for OGS 40.000,00 €.

2001 – Regione Lombardia – Applied research project aimed to map with multibeam, high resolution seismic and multichannel seismic the Sebino Lake basin. Contract valued for OGS 147.000,00 €.

1999 - European Space Agency - Principal Investigator for project AO3.108 Vectra. Research project financed by ESA addressed to large scale mapping of ice dynamic on the Antarctic ice cup my means of satellite synthetic aperture radar interferometry (ERS1 – ERS 2) satellites.

I authorize the processing of my personal data present in the CV pursuant to art. 13 of the Legislative Decree 30 June 2003, n. 196 "Code regarding the protection of personal data" and art. 13 of the GDPR (EU Regulation 2016/679).

Autorizzo il trattamento dei miei dati personali presenti nel cv ai sensi dell'art. 13 del Decreto Legislativo 30 giugno 2003, n. 196 "Codice in materia di protezione dei dati personali" e dell'art. 13 del GDPR (Regolamento UE 2016/679).

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Date of the signature

Firmato digitalmente da

FRANCO COREN

CN = COREN FRANCO
SerialNumber = TINIT-CRNFNC62D21L424W
e-mail = fcoren@inogs.it
C = SI
Signature date and time: 2020/08/16 13:25:53