

Curriculum Vitae

Main Professional Accomplishments in Project Design & Management



Ulf Walter Palme

65 years old, Brazilian and German, immigration to Paraguay.
Native in Portuguese, German & English, fluent in Spanish.

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➤ **Welcome...**

I welcome you to my timeline of the main Professional Activities and Accomplishments in Project Design & Management for the last 40 years that resulted in a rich, diverse & versatile collection of accomplishments in many different human activities, businesses and environments. For sure, these accomplishments embed technical as well as life experiences. In Project Valuation besides the technical & economical inherent issues, there is always a story with experiences to be learned and shared. During my whole life I have been open to new ventures in order to enrich my life and contribute to all have a better life.

Besides Management - in office and field operations, I dedicated time and efforts in education (also in my growing as a human being), research, congresses, technical meetings, report review & writing, auditing, feedbacks, mentoring and Project Design and Innovation.

I believe and practice Value Creation based upon People (culture, relationships and individuals) and Process (strategy, systems and resources).

Nowadays, I consider myself to be concomitantly a Digital Nomad and an Onsite Proactive Professional. My drives and objective consider living life as a human being of unlimited mindset, strong team cohesion, in unbounded culture, an inspirational leader with a remarkable sense of purpose and my inherent passion for contribution through work, and life!

During my professional activities I also experienced failures in other three Projects, that provided for valuable learning.

Certifications, examples and additional materials can be found under www.ulfwalter.com in the Portfolio Section, in www.inovohsystem.com, and in the Humanitarian Infrastructure Program www.paraguayrise.com / www.jahupiparaguay.com

2017/2021 - GENESIS FOUNDATION (www.fundaciongenesis.org) & SUSTAINABLE DEVELOPMENT UNIVERSITY (UDS) – PARAGUAY (www.uds.edu.py).

Project Design of the following Projects:

1. **Project KUERA (HEALING) – Metropolitan Area of Asunción (2.5 million beneficiaries).** Project KUERA (which in the Guarani Language means HEALING) focuses on the installation of Health Care Network, through a University Hospital, 4 First Aid Units (UPAs) for Urgency & Emergency and 12 Basic Health Units (UBSs), including a 26 Ambulances Network. Includes Education in Medical Sciences - University.
2. **Project KUERA (HEALING) – Inland of Paraguay (4.5 million beneficiaries).** Project KUERA is focused on the installation of Health Care Network, through 4 University Hospitals, 45 Regional Hospitals, 200 combined First Aid Units (UPAs)/Basic Health Units (UBSs) and a corresponding Network of around 400 Ambulances. Considers access to Health Care in every one of the Inland 232 counties of Paraguay. Includes Education in Medical Sciences - University.
3. **Project Y POTI PORÃ (BEAUTIFUL CLEAN WATER) – (4.5 million beneficiaries) - Inland of Paraguay.** Project Y POTI PORÃ (which in the Guarani Language means BEAUTIFUL CLEAN WATER) covers the following topics: high-precision 3D mapping and topography (LiDAR) for the executive projects of engineering works for the elimination of storm floods, installation of sewer systems, garbage recycling and environmental health.

Additional information to these Projects can be found under www.paraguayrise.com/ / jahupiparaguay.com

2017/2021 - NEW DAWN FOUNDATION – PARAGUAY (www.fundacionneuvoamanecer.org)

Information under www.paraguayrise.com

Project Design of the following Projects:

1. **Project Y POTY PORÃ (BEAUTIFUL CLEAN WATER) - (2.5 million beneficiaries) Metropolitan Area of Asunción – Paraguay.** Project Y POTI PORÃ (which in the Guarani Language means BEAUTIFUL CLEAN WATER) covers the following topics: high-precision 3D mapping and topography (LiDAR) for the executive projects of engineering works for the elimination of storm floods, installation of sewer systems, garbage recycling and environmental health.
2. **Project GUYRA CAMPANA (BELL BIRD) (7 million beneficiaries) - Paraguay** The GUYRA CAMPANA Project (which in the Guarani Language means BELL BIRD) is focused on the elaboration of Territorial References / Precision Cartography, for the whole of the Country including 3D LiDAR Topography, necessary to the Country (Executive Projects of Engineering Works, such as Routes, Bridges, Airports, Ports, etc.); Generation of Territorial Planning and continuous Territorial Monitoring for Territorial Management and Sustainable Development of the Country. Mapping of the Paraguayan Counties in scales of 1: 10,000 up to 1:1,000. Aerial Combat of Forest Fires, especially in the Chaco (Savannah) area and Aerial Transport of Tissues and Human Organs, and Humanitarian Operations, are also in the focus of this Project.
3. **Project KUARAHY (SUN) - (1.4 million beneficiaries) – Paraguay.** The KUARAHY project (which in the Guarani Language means SUN) is focused on the installation, reduction and elimination of the Housing Deficit, especially the Social and of the First Nation inhabitants. Installation of Sustainable Communities of typically 2,500 to 5,000 families, with varied typologies and housings of at least 75m²; includes innovative technologies and all the necessary infrastructure, up to the generation of jobs and the local production of food - agriculture. Fosters Sustainable Local Development.

Additional information to these Projects can be found under www.paraguayrise.com/ / jahupiparaguay.com

2017/2021 - MARIA FATIMA FOUNDATION – PARAGUAY.**Project Design of the following Project:**

Project MONGARU (NURTURE) - (750,000 beneficiaries) The MONGARU Project (which in the Guarani Language means NURTURE) is focused on Family Farming and Food Security of the Agribusiness Productive Chain (considering and integrating the Agrarian and Agricultural issues), initially in 25 Counties in 3 Departments. Generation of jobs and reduction of the housing deficit of peasants.

Additional information to these Projects can be found under www.paraguayrise.com/ / jahupiparaguay.com

2017/2018 - INOVOH PARAGUAY SA for MINISTRY OF PUBLIC WORKS -MOPC– PARAGUAY, through HELITACTICA SA. Senior CONSULTANT ON LIDAR 3D TOPOGRAPHY AND MAPPING.

National Bid on the Generation of 3D Topography Assessment (LiDAR) of the Pilcomayo River Area comprising 67,000 ha. Orthophotos of 5cm, DTM 50cm and Contour Lines of 25 cm (together with African Consulting Surveyors). Responsible Expert that generated the Final Technical Report to the MOPC. Results accomplished in accordance to the National Bid requirements.

2016 - INTERNATIONAL ATOMIC ENERGY AGENCY – IAEA – AUSTRIA, PARAGUAY & ECUADOR.

Expert, Lecturer - Applied Remote Sensing – Expert Mission to Ecuador on behalf of FAO/IAEA and MAGAP / Ecuador. The Expert Mission is in the context of UAV for Agriculture for the National Irrigation Plan that aims at the modernization of 60,000 hectares small-holder irrigation spread over the Coast and Andes region of Ecuador. The project is under the coordination of the MAGAP – Ministry for Agriculture & Rangeland of Ecuador, with funding of the World Bank. www.fao.org/ / www.iaea.org/ / www.agricultura.gob.ec. Pilot Program on the Use of Drones and Training for the Team of MAGAP and carried out in Ecuador. Results Accomplished in accordance to the objectives of the Expert Mission.

2016-2017 - FUNDACIÓN PARAGUAY PODEROSO-PYP & INOVOH PARAGUAY S.A.

www.programacic.com – Program for the Territorial Planning of the Counties of Paraguay - Programa CIC de Municipios del Paraguay (Capacidad, Identidad, Conocimiento). Coordination & Responsible Expert for INOVOH PARAGUAY S.A. Results accomplished.

2015 - INOVOH PARAGUAY S.A. - PARAGUAY - www.inovoh.com – Foundation and Structuring of the Company. President. Ongoing activity. Consultancy for the main Engineering Works Companies of Paraguay in Supervision of Infrastructure, Highways, Hydrology/Hydraulics Sanitation, and Environmental Projects. Delivery of quality work in time and within budget. Results Accomplished.

2015/2016 - INAR Asociados S. A. www.inarasociados.com - Consultant. Final Client: World Bank / Corporación Autónoma de Cundinamarca (CAR) – Republica de Colombia; Plan de Manejo Integral del Recurso Hídrico en la Cuenca del Rio Bogotá – Work as Agronomist & Remote Sensing Expert - Cartography and Soil Use Mapping. Establishment of a GIS (Geographic Information System) for the Project. Delivery of quality work in time and within budget. Results Accomplished.

2014/2015 - NIPPON KOEI LATIN AMERICA & CARIBBEAN – NKLAC - PARAGUAY.

www.nklac.com . Consultant. Final Client: República del Paraguay, Ministerio de Obras Públicas y Comunicaciones. Cooperación Técnica no Reembolsable A TN/JF-1242, BID – Programa de Apoyo a la Planificación Estratégica y Desarrollo Institucional del Sector de Drenaje Pluvial en Paraguay. Delivery of quality work in Cartography and GIS (Geographic Information System), in time and within budget. Results Accomplished, according to International Bid.

2013 - NOTTINGHAM UNIVERSITY BUSINESS SCHOOL - NUBS – CHINA. www.nottingham.edu.cn

Mentor. Volunteer on the Global Mentoring Program of the University. Global Mentorship Program aims to support students' personal and professional development by providing direct access to experienced working professionals in a profession/industry. Experienced international mentors provide career-related advice, guidance, resources and support for student mentees during their university years, assisting them to prepare their personal career profile as well as develop professional competences needed for a successful and fulfilling career. Results accomplished. Ongoing activity.

2013 - METHODIST UNIVERSITY OF PIRACICABA - UNIMEP - BRAZIL - www.unimep.br . Volunteer Lecturer in Innovation Management. Results accomplished.

2012 - INNOVATIVE COIN WALLET JYRATROKA - BRAZIL. www.jyratroka.com.br. Inventor & Business Manager. Business Plan and production of the Innovative Coin Wallet for Brazilian Coins. The Innovative Coin Wallet fosters the circulation of coins and the right change money. Brazil has a serious issue regarding coin circulation, since around 50% of all coins are out of circulation in the house / cars of citizens. This causes prejudices for the local economy and Macro Economy in the orders of hundreds of millions of R\$ (Reais). The Innovative Coin Wallet is a 100% sustainable product since it is environmentally correct (uses an additive branded d₂w that turns the product oxi-biodegradable), is economically sustainable since its affordable by any citizen and is socially sustainable since it has the same importance in all social classes. Ongoing activity.

2012/2013 - SANASA - WATER & SEWAGE COLLECTION & TREATMENT SERVICES FOR THE COUNTY OF CAMPINAS - BRAZIL. www.sanasa.com.br . Coordinator for Territorial Management. Development of a GIS based Territorial Monitoring System. Development of new products for studies that incorporated environmental sustainability, assertive planning. Innovative ideas implemented and benefits generated. Delivery of quality work in time. Successful team leading. Results Accomplished.

2008/2011 - SINDICATO RURAL DE MOGI DAS CRUZES /SEBRAE - BRAZIL. www.sindicatroruralmc.com.br / www.sebrae.com.br. CTO at GEOVISO & Responsible Expert. Pilot Program: Strengthening of the Productive Chain of Khaki, Nespera, Mushrooms and Vegetables in the Alto Tietê and São Paulo Metropolitan Areas, São Paulo, Brazil. Design, implementation and technical documentation of an innovative GIS System in 3D high resolution satellite images with the geocadaster and land use map of 150 leading Rural Producers (in 1,600 ha) and 300 commercial establishments (Restaurants, Supermarkets, Industrial Cooking, Fast Food, etc.). Main objective of the system is bringing transparency and reliable trading opportunities between producers and the final destination of the perishable ag products, in an area around Metropolitan São Paulo with almost 20,000 rural producers and over 50,000 commercial points for the ag products. The Program is looking for funding to set up a complete management system in the 3D GIS over the area with Sustainable Territorial Monitoring. Main Institutions that participate in this Program, besides the Rural Union are: SEBRAE (Brazilian Service of Support for Micro and Small Enterprises - Development Agent), APAS (Supermarket Association of the State of São Paulo), ABRASEL (Brazilian Bar & Restaurant Association), APHORTESP (Vegetables and Fruits Association of the State of São Paulo) and the Associations for Fruits, AFRUT and for Mushrooms, AFAT. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading. Accomplishments exceeded client's expectation.

2010/2011 - SYNGENTA - BRAZIL. www.syngenta.com. Consultant & Responsible Expert. CTO at GEOVISO. Development of an innovative Pilot Project using Applied Remote Sensing Techniques, for a Feasibility Study in crop monitoring. Confidential Results. The result of this Pilot Project allowed Syngenta to make an assertive decision regarding the different possibilities for the issues under investigation. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Results Accomplished.

2008/2011 - FUNDAÇÃO DE CIÊNCIA, APLICAÇÕES E TECNOLOGIA ESPACIAIS - FUNCATE - BRAZIL. www.funcate.org.br. Consultant and Responsible Expert. Final Client - SANASA / Local Gov.

County of Campinas. 1. Generation of an Orthomosaic (cartographic database) for the county of Campinas (800 km²) derived from IKONOS 2008 high resolution satellite imagery and compatible with the 1:2.000 scales, a DTM (Digital Terrain Model) derived from a World View I stereo pair imagery with final accuracy of 1.6 m and contour lines of 2.0 m, and an implemented geodetic network of 19 points inside the county mosaic database and over 30 points for the area of the DTM. 2. Adjustment of the distorted parcel (over 200,000 parcels) vector database to the new Orthomosaic. 3. Extraction of edification. 4. Generation of a 3D of the whole area of the DTM (1,300 km²). 5. Inserting all information in a GIS. 6. Generation of all the Technical documentation. 7. Generation of a new Orthomosaic with GEOEYE imagery from 2010 and updating of the vector database. 8. Comparison of 2008 and 2010 data focusing on the urban growth and environmental analysis. Innovative work over large area being much faster and cheaper than aero photogrammetric procedures and with comparable quality and accuracy. A good quality database for monitoring urban dynamics. Article on the quality of the 2008 Orthomosaic published in Geoinformatics – A High Resolution Orthomosaic in Brazil, July/Aug 2009 Volume 12. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Accomplishments exceeded client's expectation.

2007/2011 - NIPPON KOEI LATIN AMERICA & CARIBBEAN – NKLAC - PERU. www.nklac.com. Consultant and Lecturer. 1. Consultant to Mapping Projects in the State of Tocantins, Brazil. 2. Lecturer in Remote Sensing and GIS at PRONAMACHCS (Programa Nacional de Manejo de Cuencas Hidrográficas y Conservación de Suelos) / Ministério de Agricultura, Lima- Peru. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Results Accomplished.

2006/2008 - INTELIGEO - BRAZIL. www.inteligeo.com.br Director Business Development & Responsible Expert. Mapping of land use of the 30 business units of the COCAMAR Cooperative in the State of Paraná, Brazil, www.cocamar.com.br . Area of investigation for mapping of about 3 million hectares. Image classification for sugarcane, pasture, soybean, corn, others. Generation of a 3D GIS Application. An estimate for soybeans in the area was undertaken and compared to the estimates currently done by COCAMAR experts. The difference found in the assessments was about 3.1%. Method used is much faster, cheaper and can be used in a territorial monitoring system. Results are confidential. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Accomplishments exceeded expectation.

2002/2006 - IME – MILITARY INSTITUTE OF ENGINEERING - BRAZIL. www.ime.br. Consultant & Lecturer. Implement the Operational use of Applied Remote Sensing Techniques to the Monitoring of Transport Engineering Projects, allowing for transparency, lower risk and assertive planning. 2. Implement the Operational use of Situational Analysis through Applied Remote Sensing for Highway Constructions especially works of art, through 3D satellite databases, especially for the Highway BR-163 in the Amazon Region; 3. Remote Sensing and GIS for environmental studies of highways. Mission planning and execution of mapping of the highway corridor / strip BR-101 Northeast (~400 km) from the city of Natal to the city of Palmares with a specialized helicopter – only alternative - due to almost constant cloud cover in the area. Operation under the cloud cover and even with rain. The flight was fundamental to plan the duplication of the carriageway of the highway and derived expropriations. Images were also used for the required environmental studies. In this way it was possible to map the highway in record time, lower the budget and still offer a quality product to solve the urgent requirements of the Brazilian Army. **Certified as Lecturer Emeritus – Ministry of Defense – Brazilian Army/** Engineering & Construction Department. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading.

2003 - INOVOH – ENGINEERING & REMOTE SENSING - BRAZIL. www.palme.net.br Principal & Owner. Company founded with the objective of offering Consultancy in Remote Sensing and Engineering and being the knowledge background. Owner of the Geocadaster trademark in Brazil (GeoCadastr®). Creator of the AGROMONITORA Program – Agribusiness Operational Territorial Monitoring. Ongoing activity.

2003 - INTERNATIONAL PAPER - BRAZIL. www.internationalpaper.com.br. Consultant. Pilot Project to demonstrate the possibility of IP searching new areas for Eucalyptus plantations (site selection) without terrestrial support, in order to avoid land pricing speculations. Successful generation of DEM – Digital Elevation Model over an area of 200 km² from IKONOS satellite image stereo pairs. Generation of contour lines with spacing of 7m without ground control and 3m with 9 ground control points. Method proved to be reliable and functional, being also fast and cheap. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Accomplishments exceeded client's expectation.

2002/2005 - APM – COUNTY ASSOCIATION OF THE STATE OF SÃO PAULO - BRAZIL. www.apaulista.org.br. Consultant and Invited Lecturer. Consultant to the members of the Board in Urban Planning and Territorial Monitoring through satellite imaging. Lecturer to APM Events and Congresses, especially focusing Municipal Master Plan, highlighting the importance of Territorial Monitoring in order to foster assertive planning for Local Gov. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Results accomplished.

2002/2003 - LOCKHEED MARTIN CORPORATION – USA & BRAZIL. www.lockheedmartin.com. Consultant. Lockheed Martin Astronautics – International Program Development & Systems Analysis – Denver, Colorado – on New Satellites & Remote Sensing Programs (especially Synthetic Aperture Radars) at the Brazilian Space Agency – AEB and National Institute for Space Research / Ministry for Science, technology and Innovation. Provided LMC a better scenario and inputs to strategic business decisions. Results accomplished.

2001/2004 - SENSOR SYSTEMS – OVERWATCH - BRAZIL. www.overwatch.com. Representative. Translation into the Portuguese language of the Remote View Family software. Evaluations and suggestions of software functionalities for applications in Agriculture, Forestry, Urban Planning and Cartography & Defense. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Results accomplished.

2001 - FEDERAL PUBLIC MINISTRY IN THE STATE OF SÃO PAULO - BRAZIL. www.mpf.mp.br. Nominated expert to the Rhodia's Case, of Organochlorine Polluted Areas. Volunteer to help the Federal Prosecution in environmental issues that can take advantage of Applied Remote Sensing Techniques. Confidential work.

2000/2001 - SPACE IMAGING / DIGITALGLOBE – USA & BRAZIL. www.spaceimaging.com. Sales Manager / Business Manager. Mission was to market the pioneering era of the new high-resolution satellite images of the IKONOS Satellite (the first private high-resolution imagery satellite) and its benefits. Actions taken in parallel: 1. Set up the marketing material in Portuguese; 2. Presentations (education in Portuguese) of the new satellite and products to Governmental Agencies & Private Sector in different segments, like, Defense, Cartography, Agribusiness, Urban Planning, Environment, etc.; 3. Lectures and presentations in events, fairs, Technical meetings; 4. Carry out pilot projects in different markets; 4. Establish the reseller channel in Brazil. Over 80 presentations were delivered in this period in all possible audiences. A targeted action was undertaken with TV GLOBO (second largest TV network in the world) regarding the use of the imagery in the media. According to TV GLOBO staff the images deliver benefits to the audience in better understanding the phenomena that affect citizens in daily life. This was a very successful initiative that started the era of enhanced media with satellite imagery in Brazil, and followed by all TV networks. An interview of myself in the daily program “Programa do Jô” on the 27th of September 2001, of about 20 minutes, focusing the new Technology and Applications and the recent registered World Trade Center attacks, was broadcasted to over 40 million Brazilian citizens. Target revenue of 3 million USD defined for the territory was accomplished. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading Results accomplished.

1999 - IICA / INCRA / WORLD BANK - INTER AMERICAN INSTITUTE FOR COOPERATION IN AGRICULTURE. BRAZIL - www.iica.int. Consultant Term of Reference of the World Bank. Project "Integration" (Projeto Integração) of the Brazilian Land Reform Agency, consisting of: 1. Identification and recovery of the passive of the Land Reform Agency (INCRA) Settlement Projects in Brazil, including a Pilot Project with a new methodology ; 2. Diagnostics of the current situation of all of the Settlement / Rural Development Projects (around 3,200); 3. Establishment of an Education / Training Program of INCRA's personnel in the new methodology that includes Remote Sensing and Geoprocessing techniques. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Results accomplished.

1998/1999 - IRIS - INNOVATIVE RESEARCH, IDEAS & SERVICES - USA & BRAZIL. Representative. Confidential. Presentation of the operational imaging radar technology (SAR) used by the Open Skies to Brazilian authorities. Results accomplished.

1998 - LOUIS DREYFUS COMMODITIES / COINBRA SA - USA & BRAZIL www.ldcom.com. Consultant - Manager & Responsible Expert. Results are confidential. Innovative Coffee Plantation Assessment in Brazil over an area of 470.000 km² (States of Paraná, São Paulo, Minas Gerais, Espírito Santo and Bahia). Definition of the methodology. Implementation of 22 DGPS Stations for DGPS measurements of coffee areas. Machine hours: 3,800. Man hours (interpretation): 1,200. Team of 53 people: fieldwork of 178,000 km in 109 days. Results consolidated in a GIS. Budget of 1,070,000 USD. Innovative results allowed Dreyfus to have a clear and singular coffee database knowledge for coffee trading purposes. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading. Results accomplished.

1996/1997 - FUNCATE - FUNDAÇÃO DE CIÊNCIA, APLICAÇÕES E TECNOLOGIA ESPACIAIS - BRAZIL. www.funcate.org.br.

Manager Remote Sensing.

Manager of the PRODES (Assessment of the Gross Deforestation and Rate of the Legal Brazilian Amazon - 5 million km²). Assessments for 95, 96 and estimates for 97, in continuation to the activities as INPE's Manager. First annual synthesis maps (95,96) for the deforestation over the 5,000,000 km². Set up of the marketing of the Project, presentations of the project including results to the ministers. Results confidential until released by the Ministers. As a consequence of these new assessments several beneficial actions were taken by the Brazilian Government regarding new environmental criteria, regulations, laws including forestry concessions, etc. Accomplishments exceeded client's expectation.

Besides the PRODES Project, my main mission at FUNCATE was to restore the credibility of the Foundation associated to INPE, regarding several large mapping projects and also foster new projects and revenue, and the visibility of the new FUNCATE with the scientific community & Remote Sensing companies. A hard task that was fulfilled within 19 months of a fantastic teamwork of around 30 people I had the opportunity to lead. Complete Vegetation Mapping and GIS for the State Secretary for the Environment of the State of São Paulo - Project "Green Eye" (247.898 km²) and the Forest Institute of the State of Minas Gerais (587.172 km²) and the Macro Zoning of the "Ribeira Valley" GIS (30.000 km²) were delivered in the new timeframe. Official certifications of conclusion and acceptance were granted to FUNCATE. Several other new projects were initiated with new clients including a Diagnosis & Definition of a Unified Technical Rural Cadaster for Brazil (~ 4,500,000 rural properties), together with the 27 State Land Agencies. And other 12 Projects. Successful courses were offered to the Brazilian Army; FUNCATE participated in several Congresses and Events. Development of GIS systems. Credibility restored and revenue in the order of 15 million USD generated in this period. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading. Accomplishments exceeded client's expectation.

1993/1999 - PUBLIC MINISTRY OF THE STATE OF SÃO PAULO, BRAZIL. www.mpsp.mp.br.

Designated Technical Assistant to the Center for Environment. 1. Establishment of an Innovative Methodology for the mapping and derived recovery procedures of the degraded (mainly air pollution) forest along the “Serra do Mar” Mountains in the County of Cubatão, São Paulo, Brazil. Negotiation with the 26 Companies of the local Industrial District. Accomplishment of the Conduct Adjustment Declaration. 2. Rhodia’s Case Definition of an Innovative Applied Remote Sensing methodology to establish a historical GIS database to assess the contaminated areas with Hexachlorobenzene and Penta chlorobenzene over an investigated area of about 1,500 km² in the area known as “Baixada Santista” along the coast of the State of São Paulo, Brazil. Results accomplished. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading

1991/1993 - FUNDAÇÃO DE CIÊNCIA, APLICAÇÕES E TECNOLOGIA ESPACIAIS - FUNCATE - BRAZIL. www.funcate.org.br. Consultant / Responsible Expert: FISATE Project. Final client: Bank of Brazil Foundation. Developed & executed methodology for image analysis using applied satellite remote sensing techniques (crop monitoring), aiming early identification of fraud in rural credit operations. Target 2,370 farms – 432,700 ha – soybeans, corn, rice, wheat and beans for 45 branches of Bank in 8 States in Brazil. Early Identification of 17% fraud (17 million USD) in the amount of 100 million USD in credit operations. Project costs of 1.5 million USD. Delivery in time and within budget. Set up of the marketing of the Project, presentations of the project including results. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading. Accomplishments exceeded client’s expectation.

1988/1991 - GERMAN AEROSPACE CENTER - DLR - GERMANY. Bilateral Cooperation Agreement between Brazil & Germany. www.dlr.de. Guest Scientist at the Institute for High Frequency Technology in Oberpfaffenhofen. Microwave Imaging Systems & Applications for monitoring in Marine Pollution & Agriculture and generating Cartography. Successful transfer of the Synthetic Aperture Radar (SAR) processing and Real Aperture Radar technologies to INPE in Brazil. Enhancement of applied microwave radiometry methodologies for the Institute. Results accomplished.

1983/1996 - INPE – NATIONAL INSTITUTE FOR SPACE RESEARCH / Ministry for Science, Technology & Innovation – Brazil. www.inpe.br.

Activities in Brazil, USA, Peru, Colombia, Venezuela, Germany, Scotland.

Senior Technology Engineer, Manager, Member of the Board / Directory for Earth Observation.

Member of the team assigned for structuring the Directory for Earth Observation (OBT) - that exists until today – and that broadened INPEs activities internationally, fostering INPEs visibility and national / international cooperation. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading Results accomplished.

Manager / Responsible Expert of the PRODES Project – Assessment of the Deforestation of the Brazilian Amazon (the largest environmental territorial monitoring project: 5,000,000 km²); innovative structuring and definition of the satellite image analysis methodology for generating fast, reliable and transparent figures with new requirements and boundary conditions – stratification of the Amazon in several complexity level areas - for the assessments of 1991, 92 and 94 and future assessments, turning territorial monitoring of the Amazon viable reality. Management of a team of 11 INPE experts, 30 professionals from FUNCATE and about 12 outsourced companies in a total of about 300 technicians. PRODES required over 15,000 machine hours and 30,000-man hours with a budget of 2 million USD. Successful generation in record time (1.5 years) of new official reliable world recognized figures for the Deforestation of the Amazon in Brazil in a dedicated GIS. Establishment of the new PRODES reliable database and products. Results confidential until released by the Ministers. Because of this accomplishment having as final clients the Ministry for Science, Technology and Innovation, the Ministry of the Environment and the Ministry of Foreign Affairs, INPE received from the Federal Government initial funding in the order of 13 million USD to continue the Project and gradually move to the 100% digital database that exists updated until nowadays. Set up of the marketing of the Project and results. Set up of

the marketing of the Project, presentations of the project including results. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading Accomplishments exceeded client's expectation.

Manager of the MONTEC Program – Microwave Remote Sensing and New Technologies. Successful implementation of the Radar Technologies from DLR (software and hardware) allowing Brazil to enter the selected group of countries that dominates imaging RADAR technologies. Economy in time and money. Founding of a group of specialists that exists until today. Innovative ideas implemented and benefits generated. Delivery of quality work in time and within budget. Successful team leading Accomplishments exceeded client's expectation.

Successful Education of Professionals from Brazil, Latin America and Africa as Lecturer in the International Course in Remote Sensing INPE / United Nations University – UNU (post-graduation level) over seven editions of the Course, INPE post-graduation, Universities. Lecturer at Congresses / Events. Results accomplished.

1982 - UNIVERSIDADE FEDERAL DE LAVRAS - UFLA - BRAZIL (former Escola Superior de Agricultura de Lavras - ESAL). www.ufla.br. Graduation in July 1982 and in the sequence Trainee in the Regional Center for Photogrammetry and Photointerpretation, of the Department of Rural Engineering. Results accomplished.