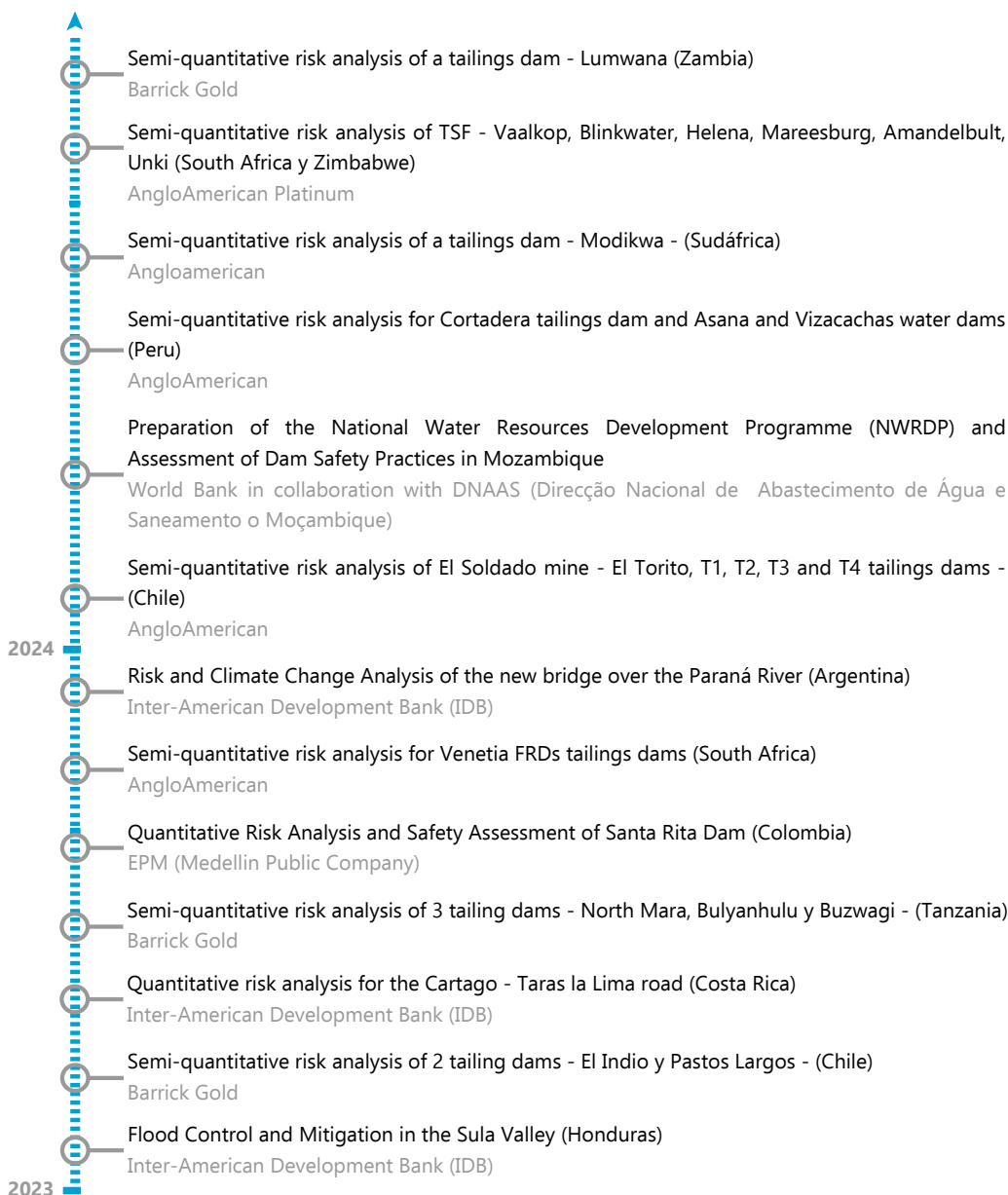


iPresas is a technology-based spin-off company of the Universitat Politècnica de València (UPV) with expertise centered on **flood risk management** and integrated safety management of **dams and other critical infrastructures**. The technical support provided by iPresas is based on its development of methodologies and tools for the application of **risk analysis techniques to critical infrastructure management and natural hazards**, as well as **software development**.

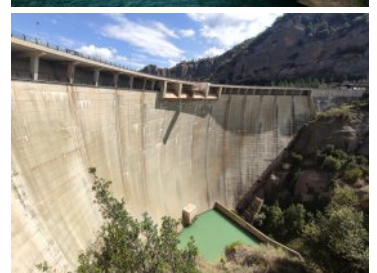
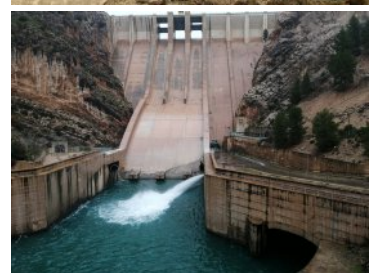
iPresas' team, with more than **25 years** of experience in **dam safety**, has developed an innovative methodology for calculating and modelling risks in dam-reservoir systems and **flood risks**. Use of this methodology offers great added value for **decision making** in risk reduction measures. In addition to this innovative tool, iPresas offers an **extensive know-how** in the field of dam safety and natural hazards risk analysis. This know-how has been acquired, used and extended through a large number of professional applications all around the world.

Over the years, iPresas has applied risk analysis to **hundreds of dams** and has been leader in many relevant projects, for example, since 2021, iPresas is the technical leader for the implementation of risk governance and climate change adaptation of state-owned dams in Spain for the General Water Directorate of the Ministry for Ecological Transition and Demographic Challenge (MITERD). Moreover, since 2023 iPresas is promoting the implementation of risk procedures for the mining industry in compliance with the Global Industry Standard on Tailings Management (GISTM).

MAIN PROJECTS



- Support for risk management in the Yuna river basin
Inter-American Development Bank (IDB)
- Technical assistance to Puentes Viejas dam (Spain)
Canal de Isabel II
- Quantitative Risk Analysis and Safety Assessment of Playas Dam (Colombia)
EPM (Medellin Public Company)
- Update of the operation rules of the Salvajina dam (Colombia)
Celsia
- Technical inspection and analysis of the performance of the Bodorna Dam (Georgia)
Bodorna HPP
- Comprehensive Safety Review of ISAGEN's dams using Maturity Matrices (Colombia)
ISAGEN
- Methodological guidelines for incorporating disaster risk assessment into IDB projects
Inter-American Development Bank (IDB)
- Qualitative risk analysis of the Reventazon Hydroelectric Dam (Costa Rica)
Inter-American Development Bank (IDB) and Instituto Costarricense de Electricidad (ICE)
- Numerical modelling of time dependent behaviour of El Atazar Dam (Spain)
Canal de Isabel II
- Re-evaluation of the flood study for the installation of a photovoltaic solar plant in Biar (Alicante)
Hive Energy Ltd (Beneixama)
- 2023
- Consulting Service for Basin wide Reference Dam Safety Regulatory Framework and implementation Strategy to Support Member States to develop own National Framework
Eastern Nile Technical Regional Office (ENTRO)
- Risk-informed Dam Safety Governance, Climate Change adaptation and investment prioritisation of Spanish state-owned dams, DGA (Spain)
Dirección General del Agua (DGA)
- Risk analysis of the 55 dams of the Guadalquivir River Basin Authority (Spain)
Guadalquivir River Basin Authority
- Stress-strain model of La Llosa del Cavall dam (Spain)
HCC
- Development of a Methodological Guide for Failure Mode Identification Workshops
Inter-American Development Bank (IDB)
- Risk analysis of the Alcalá del Río and Puente Porto dams (Spain)
Grupo ENEL - Endesa
- Development of a Screening Tool for assessing disaster and climate change risks in dams
Inter-American Development Bank (IDB)
- Intermediate safety review of San Francisco and Cameduadua dams (Colombia)
CHEC (Central Hidroeléctrica de Caldas) - EPM (Empresas Públicas de Medellín)
- Development of criticality and sectorial vulnerability cubes for the IDB
Inter-American Development Bank (IDB)
- 2022
- Development of a risk management platform for TNB dams (Malaysia)
Tenaga Nasional Berhad (TNB) in a contract to Universiti Tenaga Nasional (UNITEN)

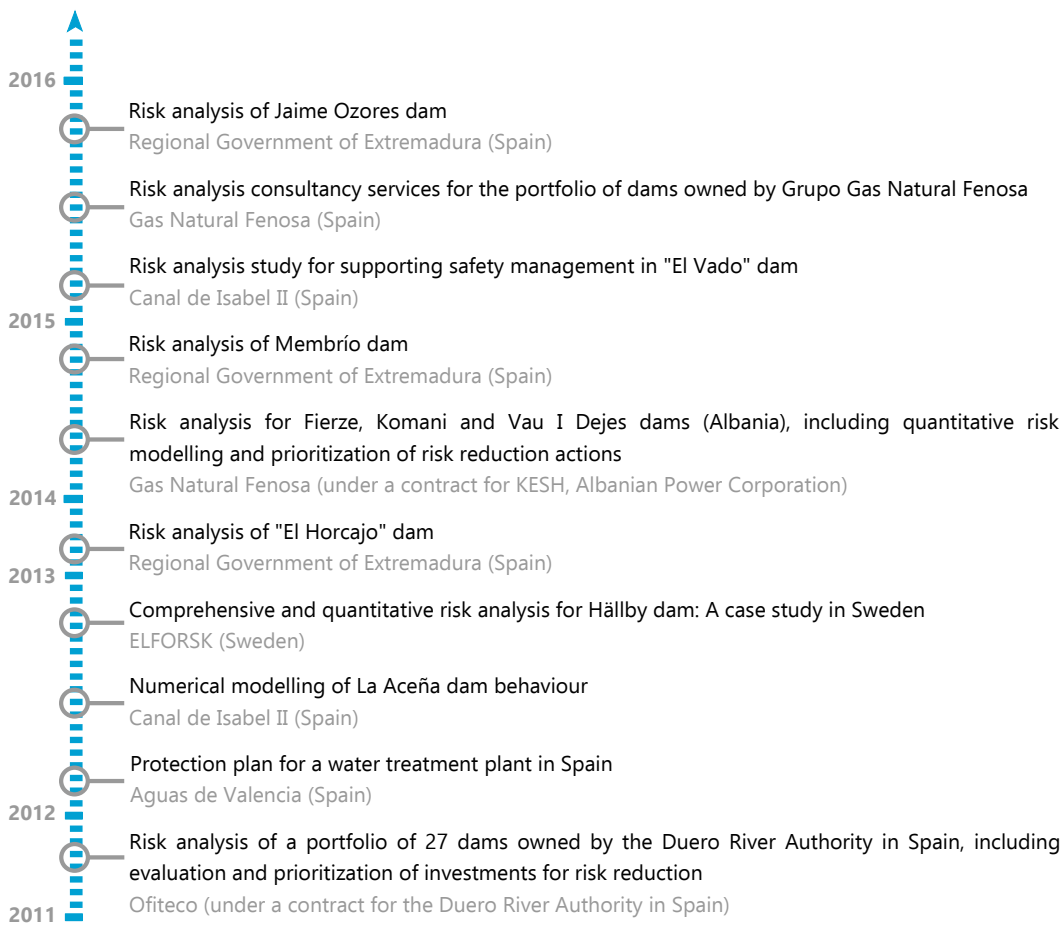


- Comprehensive safety review and quantitative risk analysis of Playas dam (Colombia)
 Empresas Públicas de Medellín (EPM)
- Qualitative risk analysis of 5 MiRiego dams (Bolivia)
 Inter-American Development Bank (IDB)
- Update of Porce II and Porce III hydrological-hydraulic studies (Colombia)
 EPM (Empresas Públicas de Medellín)
- Potential risk classification of Soria and Lumbreras dams (Spain)
 Consejo Insular de Aguas de Gran Canarias
- Study of the hydraulic capacity of the Playas, Riogrande II and Quebradona spillways using CFD models (Colombia).
 EPM (Empresas Públicas de Medellín)
- Safety Review of Pedrezuela, La Aceña and Manzanares Dams (Spain)
 Canal de Isabel II
- Qualitative risk analysis of Khotia Khota and Taypichaca dams (Bolivia)
 Inter-American Development Bank (IDB)
- Guidelines for Dam Monitoring of Corani dam (Bolivia)
 ENDE Corani
- 2022** Hydrological and hydraulic assessment of the spillway of Río grande II and Playas dams (Colombia)
 Empresas Públicas de Medellín (EPM)
- Dam Safety Review of Calima dam (Colombia)
 Celsia
- Dam Safety Review of La Fe dam and update of flood maps (Colombia)
 Empresas Públicas de Medellín (EPM)
- Qualitative Disaster and Climate Change Risk Analysis for roads (Peru)
 Inter-American Development Bank (IDB)
- Risk-informed Dam Safety Program (Malaysia)
 Tenaga Nasional Berhad (TNB) in a contract to Universiti Tenaga Nasional (UNITEN)
- Update of the Operation Rules of Salvajina dam (Colombia)
 Celsia
- Numerical Modelling of Béznar and Rules dams (Spain)
 Agencia Andaluza del Agua (in a contract to SANDO y HCC)
- Qualitative Disaster and Climate Change Risk Analysis of a bridge (Argentina)
 Inter-American Development Bank (IDB)
- Independent External Expert for reviewing US Army Corps of Engineers Dam Safety Program
 US Army Corps of Engineers (USACE)
- Study to enhance the resilience of the energy system in The Bahamas after Hurrigan Dorian
 Inter-American Development Bank (IDB)
- 2021** Numerical modelling of six dams of the Insular Water
 Council of Gran Canaria Insular Water Council of Gran Canaria (Spain)
- Review and definition of flood control works at Ulua and Chamelecón rivers (Honduras) after Hurrigan IOTA
 Inter-American Development Bank (IDB)
- Comprehensive safety review and Risk Analysis of dams of Salvajina, Alto Anchicayá and Prado (Colombia)
 Celsia Colombia
- Technical report on recommendations to integrate Disaster Risk Management and Climate Change Adaptation into the Public Investment
 Inter-American Development Bank (IDB)
- Intermediate safety review of dams of Quebradona and El Buey (Colombia)
 EPM (Empresas Públicas de Medellín)



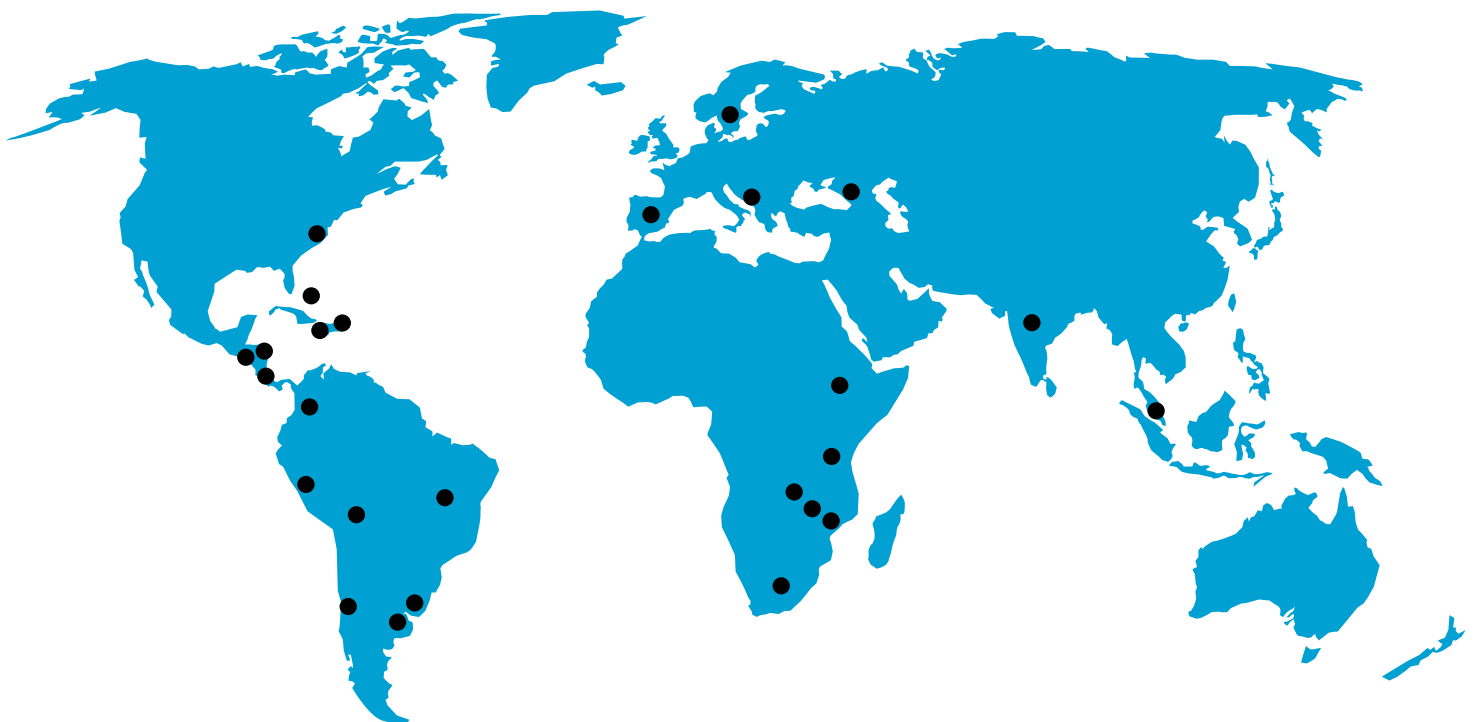
- 2020
 - Risk analysis of Rio Hondo, Escaba and Batiruana Dams (Argentina)
Dam Safety Regulatory Agency of Argentina (ORSEP)
 - Review and update of the designs for flood control at Walter Thilo Deininger park (El Salvador)
Inter-American Development Bank (IDB)
 - Technical inspection and development of risk-based screening tool for dams in Bolivia
Inter-American Development Bank (IDB)
 - Panel of experts for the review of the works of hydroelectric project of Condor Cliff (Argentina)
China Gezhouba Group Company Limited - Electroingenieria S.A. – Hidrocuyo S.A.
 - Intermediate safety review of dams of Porce II, Porce III, Santa Rita and Playas (Colombia)
EPM (Medellin Public Company)
 - Analysis of risk reduction measures for Valencian ports against climate change
AVI (Valencian Agency for Innovation) in collaboration with UPV
 - Support to develop a dam safety program for EPSAS (Bolivia)
EPSAS (urban water supply company for La Paz)
 - Technical support to implement risk analysis in Salto Grande dam (Uruguay – Argentina)
Inter-American Development Bank (IDB) in collaboration with ORSEP and CHSG
- 2019
 - Dam break analysis and monitoring system review for Mtkvari HPP (Georgia)
Mtkvari HPP
 - Risk-informed quality control of flood protection measures under the programme "Argentina: resilient to natural risks"
Inter-American Development Bank (IDB)
 - Development on Guidelines for Assessing and Managing Risks Associated with Dams
EGIS EAU (under a contract for CWC, Ministry of Water Resources of India)
 - Failure mode identification and risk analysis of road RN5 (Haiti) considering climate change
Inter-American Development Bank (IDB)
 - Consultancy for the review and strengthening of the methodology of disaster risk analysis and climate change in IDB projects
Inter-American Development Bank (IDB)
- 2018
 - Technical assistance for numerical modelling of Chira and Soria dams
Insular Water Council of Gran Canaria (Spain)
 - Risk-informed dam safety management of Pretura del Molino, Carrascalejo and las Majadillas dams
Regional Government of Extremadura (Spain)
 - Project DAMSAFE: Enhancing Dam Safety and Water Management in Karnataka (India)
Funding by Netherlands Enterprise Agency (project led by Deltares)
 - Support to dam safety and risk management in Brasil. Development of a tool to prioritize risk reduction actions in 163 dams. Dam technical inspection of 31 dams
Gas Natural Fenosa (under a contract for the Brazilian Ministry of National Integration)
 - Technical assistance to introduce risk analysis techniques as a tool to support dam safety management in Argentina. Risk Analysis of Cerros Colorados dams system
Dam Safety Regulatory Agency of Argentina (ORSEP)
- 2017
 - Risk analysis of San Marcos dam
Regional Government of Extremadura (Spain)
 - Independent External Expert for reviewing US Army Corps of Engineers Dam safety Program
US Army Corps of Engineers
 - Quality control from a risk analysis perspective of the flood risk control measures at the Choluteca river in Tegucigalpa (Honduras)
Inter-American Development Bank (IDB)
 - Pilot project to define procedures for quantitative estimation of spillway gate functionality and evaluate its impact on dam safety risk management
Gas Natural Fenosa (Spain)
- 2016





INTERNATIONAL EXPERIENCE

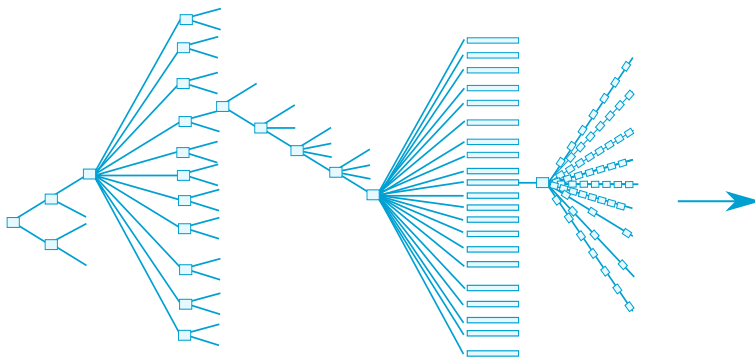
iPresas has a wide international experience leading projects in **more than 25 countries**.



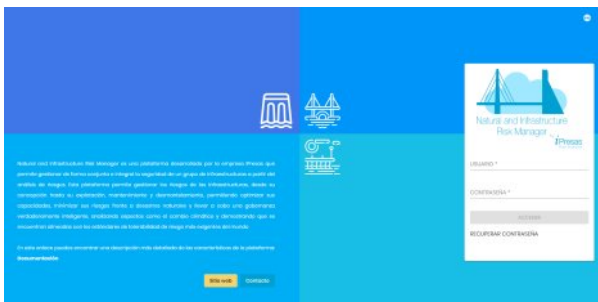
SOFTWARE

iPresas develops software for **risk informed management of critical infrastructure portfolios**. iPresas software includes detailed documentation and examples (in English and Spanish). Specifically, two main software tools have been developed:

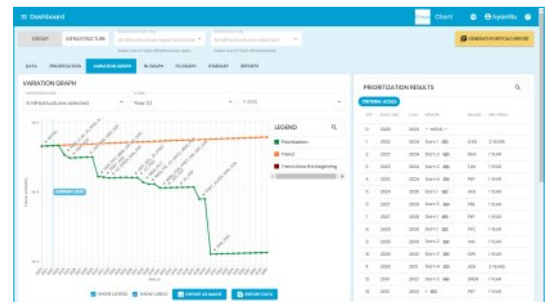
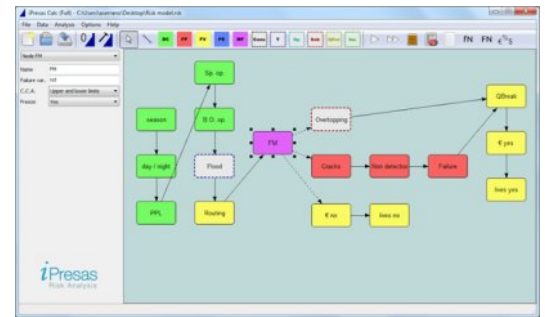
- **iPresas Calc:** For risk calculation using event trees and influence diagrams.
- **iPresas NIRMAN:** Natural and Infrastructure Risk Manager which is an online software to support safety management of a portfolio of infrastructures based on the results of their risk models, which considers the effect of climate change along time.



Free demo software can be found at:
www.ipresas.com



www.riskmanager.cloud



TRAINING

iPresas provides training services on **analysis and safety management** through **practical examples, real cases** and examples using software iPresas. iPresas has conducted several education and training courses related with Risk Analysis applied to Dam Safety Management and organized by the Spanish National Committee on Large Dams (SPANCOLD), with more than 100 participants from different countries. iPresas team has also organized courses for public and private entites like the Inter-American Development Bank (IABD) and in countries like **Argentina and Colombia**.

ISO CERTIFICATES

- **ISO 9001:** Quality Management System.
- **ISO 14001:** Environmental Management System.

