

2500

STUDIES
IN 90 YEARS

- 1917** Creation of the Laboratoire Dauphinois d'Hydraulique (hydraulics laboratory)
- 1923** 1st fixed bed physical model of a river
- 1934** 1st movable bed physical model of a river
- 1940** 1st maritime model (wave disturbance and stability studies)
- 1951** 1st movable bed maritime model
- 1987** Construction of a new laboratory
- 1987** Construction of a torrent modelling area
- 1991** New building with a multidirectional wave generator
- Since then** Development of control and measurement instrumentation

THE ARTELIA GROUP

40

OFFICES IN
35 COUNTRIES

35

OFFICES
IN FRANCE

CERTIFICATIONS*

ISO 9001-2008

ISO 14001

OHSAS 18001

QUALIFICATION

OPQIBI

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Coteba & Sogreah, same team, enhanced expertise

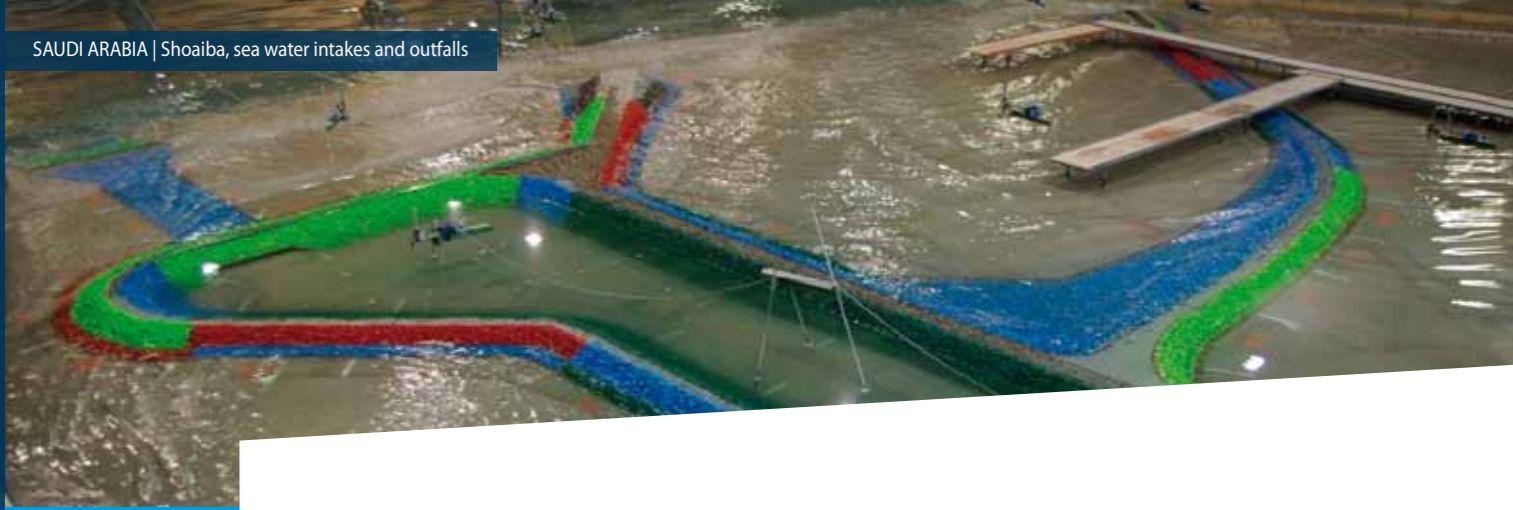
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SAUDI ARABIA | Shoaiba, sea water intakes and outfalls



BRAZIL | Jirau dam on rio Madeira



CANADA | Halifax pumping station



FRANCE | Cordemais thermal power plant

Artelia operates a **WORLD-RENOWNED LABORATORY** where hydraulic and hydrosedimentary physical scale models are tested.

AN IRREPLACEABLE TOOL

A UNIQUE RESOURCE

Physical scale models remain an incomparable resource when it comes to **analysing, communicating** and **discussing** the most complex development projects. Their experimental and practical nature provide guidance for engineers to understand various phenomena and help them determine **high-performance solutions** to manage projects in full **compliance with commitments**. They provide project owners with a complete, three-dimensional overview of the project and of its integration into the site. They make it easier to explain phenomena by presenting the existing situation and how it will change once the project has been implemented.

TECHNICAL GUARANTEE

The creation of a hydraulic structure always represents a major technical challenge to **meet the objectives** that have been set, whilst guaranteeing **safety** of assets and staff. Physical scale models provide technicians, decision-makers and local populations with a **guarantee of minimum human risk** by testing and validating the design proposed.

COST OPTIMISATION

Scale models are used to develop dimensional designs that fit projects as closely as possible, thereby achieving **significant savings** during the construction. They ensure that **costly oversized designs are avoided**, something that traditional studies cannot provide because of safety-first aspects.

MAIN APPLICATIONS

- Complex urban hydraulic structures
- Industrial hydraulic structures (pumping stations, water intakes and outfalls)
- Maritime port structures
- Coastal and estuary development and protection structures
- Rivers, canals, dams, flood spillways

UNDENIABLE STRENGTHS

- More than 11,000 m² of testing halls and 3,200 m² of outdoor facilities
- 5 wave tanks (including one with a rotating platform and one that is multidirectional)
- 3 wave flumes
- 1,600 m² available for specific models
- 800 m² of workshops (models, electronic equipment, etc.)
- A **dedicated** and **experienced** team (construction, instrumentation, measurements and calibration, assistance with operation)
- Top level **hydraulic** and **hydro-sedimentary expertise**
- **Experience** and **innovation** in the design of model prototypes

FROM MODELS TO REALITY



FRANCE | Artificial islet Seine estuary



MOROCCO | Tanger-Med port



AUSTRALIA | Quipolly dam

