



Nuclear

Operational excellence by boccard
The new standard of high performance



**Together we reach optimized
total cost of ownership for CAPEX / OPEX**

**Thanks to
our end-to-end seamless nuclear fluid solutions.**



**THIS IS OUR
ALLIANCE FOR SUCCESS**



OPERATIONAL EXCELLENCE BY BOCCARD: OUR PROMISE TO OUR CLIENTS

HIGHLY SPECIFIC SKILLS

perfected
over decades



INTEGRATED IN-HOUSE EXPERTISE

to ensure full control and
impeccable quality



DIGITAL CONTINUITY

a fundamental to manage
complexity



PROPRIETARY PROJECT MANAGEMENT METHODS

systems and tools



OUR UNIQUE COMBINATION IN THE NUCLEAR ARENA

Fueled and guaranteed by operational excellence, our integrated fluid solutions combine a specific set of ingredients:

01 **A visionary
historic player**

02 **Safety first**

03 **In-House expertise on the
full nuclear lifecycle**

04 **Innovative fully digital
project management**

05 **Empowered
people**

01

**A VISIONARY AND
HISTORIC PLAYER**



50

YEARS OF NUCLEAR EXPERTISE

An asset for your future projects.

Half-a-century ago, the French nuclear sector was born. And together with it, Bocard Nuclear, its flagship partner. This singular experience is:

A DEMONSTRATION OF LONG-TERM VISION

A PROOF OF COMPREHENSION OF THE
NUCLEAR MARKET'S CHALLENGES

A CLEAR UNDERSTANDING
OF CLIENTS' NEEDS

**AN ABSOLUTE RELIABILITY
GUARANTEEING
TOTAL COST OF OWNERSHIP**

WORLDWIDE FOR MAXIMUM AGILITY

Hand-in-hand with the fourth generation of the Bocard family, our people carry out their mission on **8 MARKETS** around the globe with **LOCATIONS IN 35 COUNTRIES**.



LOCAL AGILITY FOR GLOBAL REACH

02

SAFETY FIRST



SAFETY FIRST

A pre-requisite in everything we do.



A DEEPLY ROOTED CULTURE

- Specific training programs to instill this culture
- Dedicated mentoring system



SAFETY PROCEDURES & SAFETY TOOL-BOX

- Self-check process
- Systematic near-misses reports



A NUCLEAR COMPLIANCE UNIT

driven by an independent auditor, for a totally neutral overview of every operation.

TOTAL NUCLEAR SAFETY

03

**IN-HOUSE EXPERTISE
ON THE FULL
NUCLEAR LIFECYCLE**

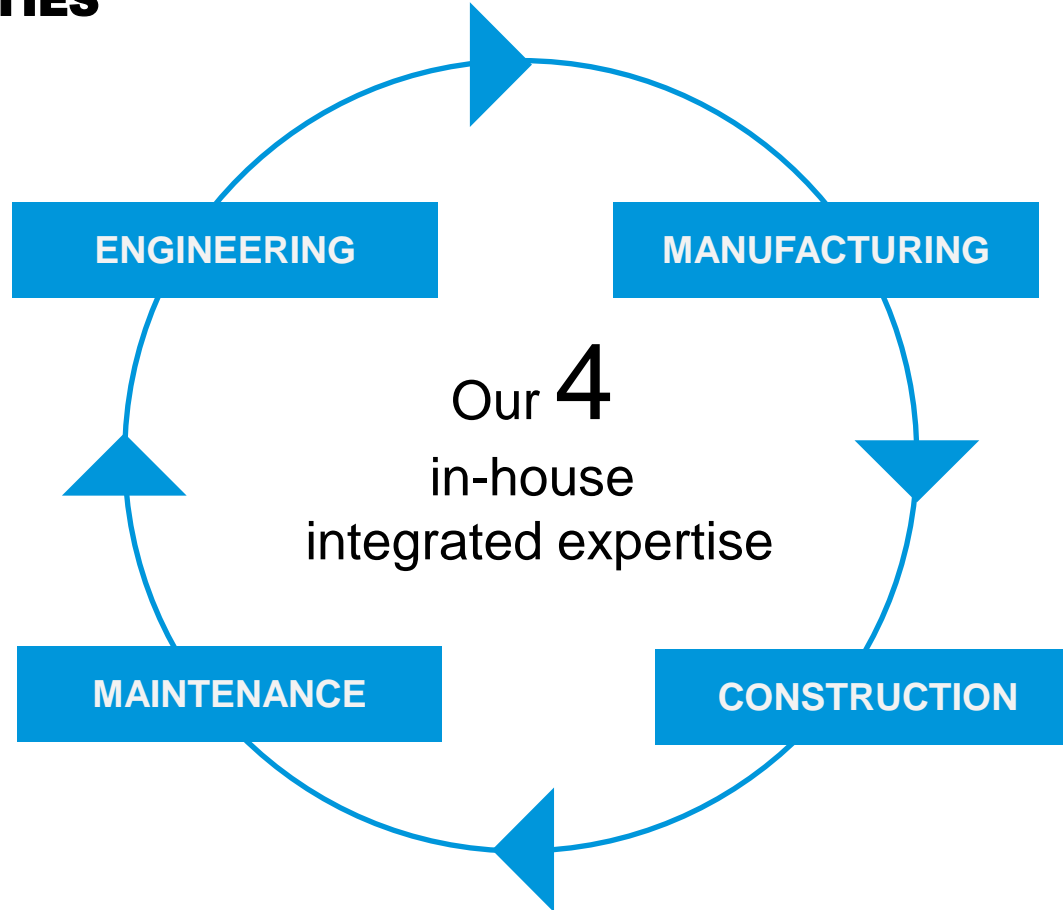


OUR SIGNATURE EXPERTISE

We are expert on **4 ACTIVITIES**

Construction Management, build optimisation, resource management, planning, site installation, subcontract management, testing and commissioning

Integrated maintenance engineering, maintenance policy developed upstream, assistance, anomaly analysis, inspection & periodic piping requalification, piping maintenance, supply of technical part.



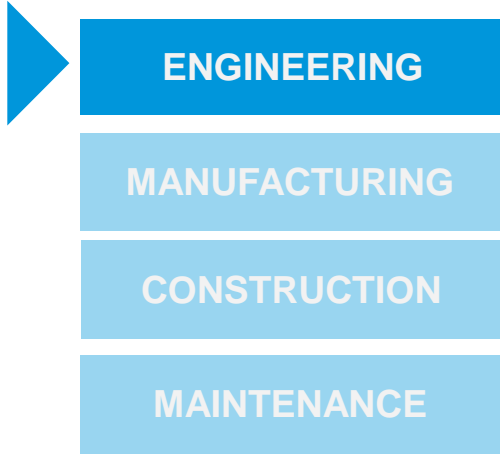
Pre-fabrication & fabrication for standards and customs solutions, permanent manufacturing workshops in 6 countries + mobile project specific workshops
= up to 80% of pre-fab of piping systems.

On-site mechanical installation, painting and commissioning supervision of the fluid systems



OUR SIGNATURE EXPERTISE

We are expert on **4 ACTIVITIES**



BOCCARD SOLUTION

- ▶ Process Service (hydraulic calculation in permanent and transient regime) and regulatory (in addition to Calculation and General Installations service)
- ▶ APS, APD, Execution study
- ▶ Integrate radiation protection constraints into the design
- ▶ HAZOP realization
- ▶ Technical assistance: - Definition of the project (Expression of the client's needs, Feasibility study, Drafting of specifications, Impact and risk assessment) - Technical and financial management of the project (Documentation, Customer and company interface, Securing of milestones) - General Installation Studies - Process design - Mechanical calculations
- ▶ ESPN: dedicated unit to intervene on maintenance in CNPE.
- ▶ Management of interventions in controlled areas: Guarantee system for interventions with high dosimeter to minimize the doses of our teams (Management of radiation protection constraints)



OUR SIGNATURE EXPERTISE

We are expert on **4 ACTIVITIES**

ENGINEERING

MANUFACTURING

CONSTRUCTION

MAINTENANCE

BOCCARD SOLUTION

- ▶ Competent and experienced international teams as well as processes to optimize on-site interventions based on 50 years of experience in the nuclear industry
- ▶ Manufacturing of nuclear pipes and vessels
- ▶ Subcontracting experienced and recognized nuclear activity in CND and surface treatment
- ▶ Technical Assistance: - Technical and financial management (Documentation, Interfaces, Securing milestones) - Supervision and coordination (Monitoring progress, Compliance with requirements)
- ▶ Global purchasing capacity
- ▶ Flexible to meet the customers needs factory expansion
- ▶ Logistics solutions from Portugal / France to the world
- ▶ Project management including quality management

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION

OUR SIGNATURE EXPERTISE

We are expert on **4 ACTIVITIES**

ENGINEERING

MANUFACTURING

CONSTRUCTION

MAINTENANCE

BOCCARD SOLUTION

- ▶ Competent and experienced international teams as well as processes to optimize on-site interventions based on 50 years of experience in the nuclear industry
Manufacturing of nuclear pipes and vessels
- ▶ Technical Assistance: - Supervision and coordination of work (Monitoring of progress, Management of business interfaces, Compliance with specifications, Safety management)
- ▶ Responsibility ESPN assembly manufacturer
- ▶ Global purchasing capacity
- ▶ Project management including quality management

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION

OUR SIGNATURE EXPERTISE

We are expert on **4 ACTIVITIES**

ENGINEERING

MANUFACTURING

CONSTRUCTION

MAINTENANCE

BOCCARD SOLUTION

- ▶ Competent teams who participated in the construction of the power plants
- ▶ Management of interventions in controlled areas: Guarantee system for interventions with high dosimeter to minimize the doses of our teams (Management of radiation protection constraints)
- ▶ Project management including quality management
- ▶ 40 years of experience in modification work
- ▶ Technical Assistance: - Update of operational documentation and information systems
- ▶ Management of interventions, including preparation, plant in operation and / or shutdown

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION

WE ARE A TURNKEY CONSTRUCTOR

We provide a seamless solution on **THE FULL NUCLEAR LIFE-CYCLE:**

YOUR NEED

- On-time delivery** of a facility on time and on budget
- Safety** in terms of nuclear risk control during the performance of operations
- Technical & regulatory compliance** for the timely restart of an installation

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

BOCCARD SOLUTION

**A GLOBAL OFFER WITH A
PERFORMANCE
COMMITMENT**

WE ARE A TURNKEY CONSTRUCTOR

We provide seamless solutions on **THE FULL NUCLEAR LIFE-CYCLE:**

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

YOUR NEED On-time delivery of a facility on time and on budget

BOCCARD SOLUTION

A global offer with a performance commitment:

- ▶ Mastery of 'Engineering' skills integrating the notion of constructability, manufacturing, and construction.
- ▶ Optimized management of interfaces, coactivity and subcontractors.
- ▶ Project management reinforced by digital tools developed in-house: BocTrack®, offering transparency on progress and cross-functional integration in all project phases.
- ▶ International sourcing capacity.
- ▶ More than 50 years of experience in nuclear construction.
- ▶ Adaptability of our delivery model integrating localisation issues and specific local market requirements
- ▶ Capability to manage & optimize support to operations services: scaffolding, insulation.

REFERENCES



FA3, AGATE (effluent management facility), RJH

WE ARE A TURNKEY CONSTRUCTOR

We provide seamless solutions on **THE FULL NUCLEAR LIFE-CYCLE:**

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

YOUR NEED Technical & regulatory compliance for the timely restart of an installation

BOCCARD SOLUTION

A global offer with a performance commitment:

- ▶ Project management capacity
- ▶ Engineering support
- ▶ Optimization of lead time
- ▶ Qualified teams
- ▶ Integrated preparation teams, and for other functions if necessary, to those of the client
- ▶ Optimized management of interfaces, coactivity and subcontractors
- ▶ Reactivity : A specific organization for hazard management
- ▶ Capability to manage & optimize support to operations services: scaffolding, insulation.

REFERENCES



EDF

WE ARE A TURNKEY CONSTRUCTOR

We provide seamless solutions on **THE FULL NUCLEAR LIFE-CYCLE:**

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

YOUR NEED Technical & regulatory compliance for the timely restart of an installation

BOCCARD SOLUTION

A global offer with a performance commitment:

- ▶ Responsiveness of the local teams
- ▶ Integrated preparation teams, and for other functions if necessary, to those of the client
- ▶ Qualified teams
- ▶ Engineering capabilities
- ▶ Optimized management of interfaces, coactivity and subcontractors
- ▶ Capability to manage & optimize support to operations services: scaffolding, insulation...

REFERENCES



EDF

WE ARE A TURNKEY CONSTRUCTOR

We provide seamless solutions on **THE FULL NUCLEAR LIFE-CYCLE:**

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

YOUR NEED Meeting deadlines, technical & regulatory compliance and budget for the restart of an installation

BOCCARD SOLUTION

A global offer with a performance commitment:

- ▶ Mastery of 'Engineering' skills integrating the notion of constructability, Manufacturing, and construction.
- ▶ Competence in the maintenance of these installations
- ▶ Integrated preparation teams, and for other functions if necessary, to those of the client
- ▶ Optimized management of interfaces, coactivity and subcontractors
- ▶ Project management reinforced by internally developed digital tools: BocTrack® providing transparency on progress and cross-functional integration in all project phases.
- ▶ A specific project management organization for the management of complex projects
- ▶ Capability to manage & optimize support to operations services: scaffolding, insulation...

REFERENCES



C600 : PTRBis

WE ARE A TURNKEY CONSTRUCTOR

We provide seamless solutions on **THE FULL NUCLEAR LIFE-CYCLE:**

NEW BUILD ▶

SHUT DOWN ▶

MAINTENANCE ▶

PLANT UPGRADE ▶

DECONSTRUCTION ▶

YOUR NEED Safety in terms of nuclear risk control during the performance of operations

BOCCARD SOLUTION

A global offer with a performance commitment:

- ▶ Complex project management skills
- ▶ In-house mastery of skills Engineering, development & manufacturing of special machines adapted to the specific needs of the project (submersible, remotely operated,...), work area containment, work execution, dose management and radiation control
- ▶ Complete management of interfaces, coactivity and subcontractors
- ▶ Waste & equipment traceability & safety risk management

REFERENCES



Super-Phénix NNS (AREVA NP)
Creys-Malville (Isère, France)

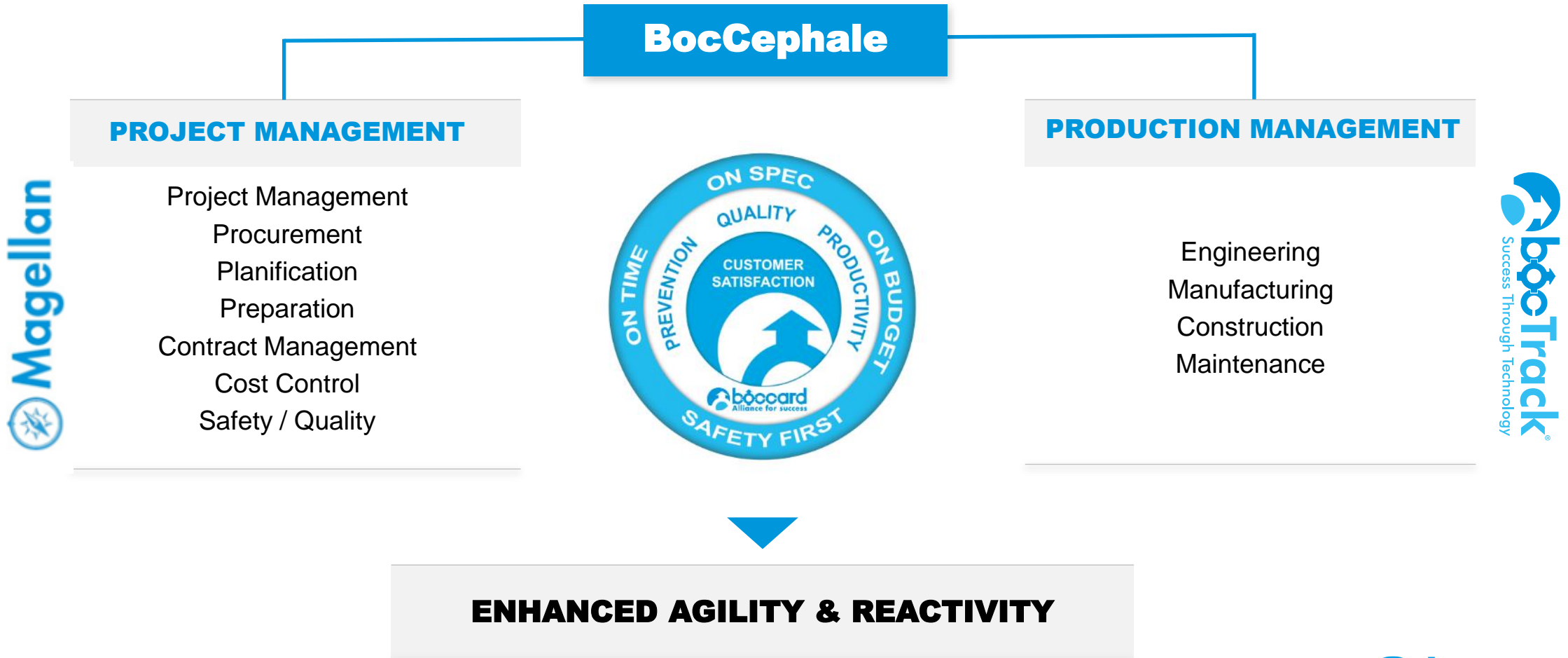
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04

**INNOVATIVE
FULLY DIGITAL
PROJECT MANAGEMENT**



BOCCARD MANAGEMENT SYSTEM: A SET OF COMPLEMENTARY TOOLS





BOCTRACK: OUR PROPRIETARY OPERATIONAL TOOL

Our unmatched innovative tool for better planning, better traceability and better production management.



Right first time approach

Real-time management (will run / will not run)

Real-time production reports

Immediate ability to react to priority changes

Real-time monitoring data for clients and Boccard alike



OPTIMAL PRODUCTIVITY

05

**EMPOWERED
PEOPLE**





FOSTERING AUTONOMY

Empowered and autonomous people are at the heart of what we do.

Making our team's skills grow is anchored in our business ethos; this is the purpose of the Boccard Academy.



THEY TRUST US





ALLIANCE FOR SUCCESS

nuclear@boccard.com



Operational excellence by boccard
The new standard of high performance





Together we ... arial black, 36 pts, noir

Thanks to ... arial black, 36 pts, noir



CLAIM AVEC EXERGUE

01



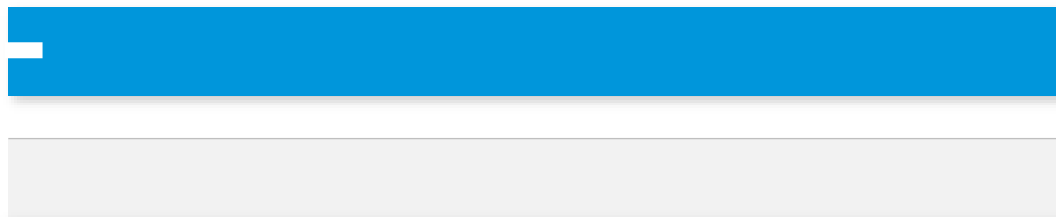


TITRE SCHEMA, ARIAL BLACK, 16 PTS, BLEU OU BLANC

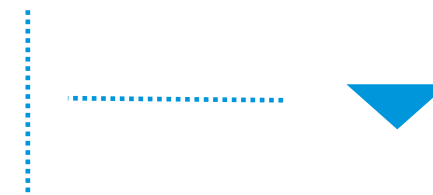
Sous-titre schema ou niveau 2 informations

RAPPEL TITRE SCHEMA

*Principe
graphique
schéma*



*Cartouche niveau 1, bleu avec curseur blanc
Cartouche niveau 2 ouverte, fond gris ombré*



Séparateurs et hiérarchie







