# INTELLIGENT PIPE FACTORY OF THE FUTURE

## PACE PROJECT

The aim of the PACE project was to propose changes to an existing pipe manufacturing process, by working on building blocks concerning automation, simulation and intelligent supervision.

#### **TECHNICAL AND ECONOMIC IMPACTS**

 Introduction of new technologies in the case of an existing pipe manufacturing plant

• Evaluation of the savings resulting from implementation of these new technologies

#### PARTNERS

IRT JULES VERNE, NAVAL GROUP, NANTES UNIVERSITY, IMT ATLANTIQUE, CNRS/LS2N

**BUDGET** €I,625k

#### KEYWORDS

Intelligent Systems - Robotics - Simulation - Supervision

	JANUARY 2020 1st factory simulation model		OCTOBER 2020 Start of works on assistance with covering		DECEMBER 2021 Robustness study on the RPC solution		MAY 2022 End of the project
	i -	1		1		1	
JANUARY 2019 Kick-Off meeting		MARCH 2020 Demonstration of ro solutions for the kitt	botic ting	MARCH 202	of schedulings	MAY 2022 Assisted pipe cl	adding demonstrator

## **INDUSTRIAL CONTEXT**

In the production plant concerned, unexpected events and changes in demand frequently lead on deviations from the production schedule. Management of these changes is sometimes done informally, with production continuing on the deviations and subsequent readjustment of the organization.

station

## **PROJECT ACHIEVMENTS**

management

• Two proposals for the automation of assembly kit preparation, followed by an analysis project to integrate a Parallel Cable Robot (PCR).

demonstrator

• A demonstrator including a cobot arm offering a 1st building block for assistance in the pipe cladding stage.

• A digital demonstrator for the virtual factory and the development of a production supervision system

## **APPLICATIONS & INDUSTRIAL PERSPECTIVES**

The technological building blocks developed in the PACE project have demonstrated the support that cobot assistance and supervisory technology would provide on the factory.

Discussions are continuing with NAVAL GROUP to evaluate, firstly, the possibilities of application to other factories within the group and, secondly, possible roll-out.

JULES VERNE INSTITUTE

1 Mail des 20 000 Lieues 44 340 Bouguenais Commercial contact business@irt-jules-verne.fr

Press contact communication@irt-jules-verne.fr WWW.IRT-JULES-VERNE.FR

in 🎔 🖸 🛗

Join us on :



