

STRENGTH IN UNITY THE CHALLENGE OF BUILDING THE GPNK IN RECORD TIME



TECHINT
Engineering & Construction

sacde

PRESIDENT NÉSTOR KIRCHNER GAS PIPELINE

EMPLOYMENT

Construction involved hiring over 4,000 people.

TECHNOLOGY USED FOR THE FIRST TIME IN ARGENTINA

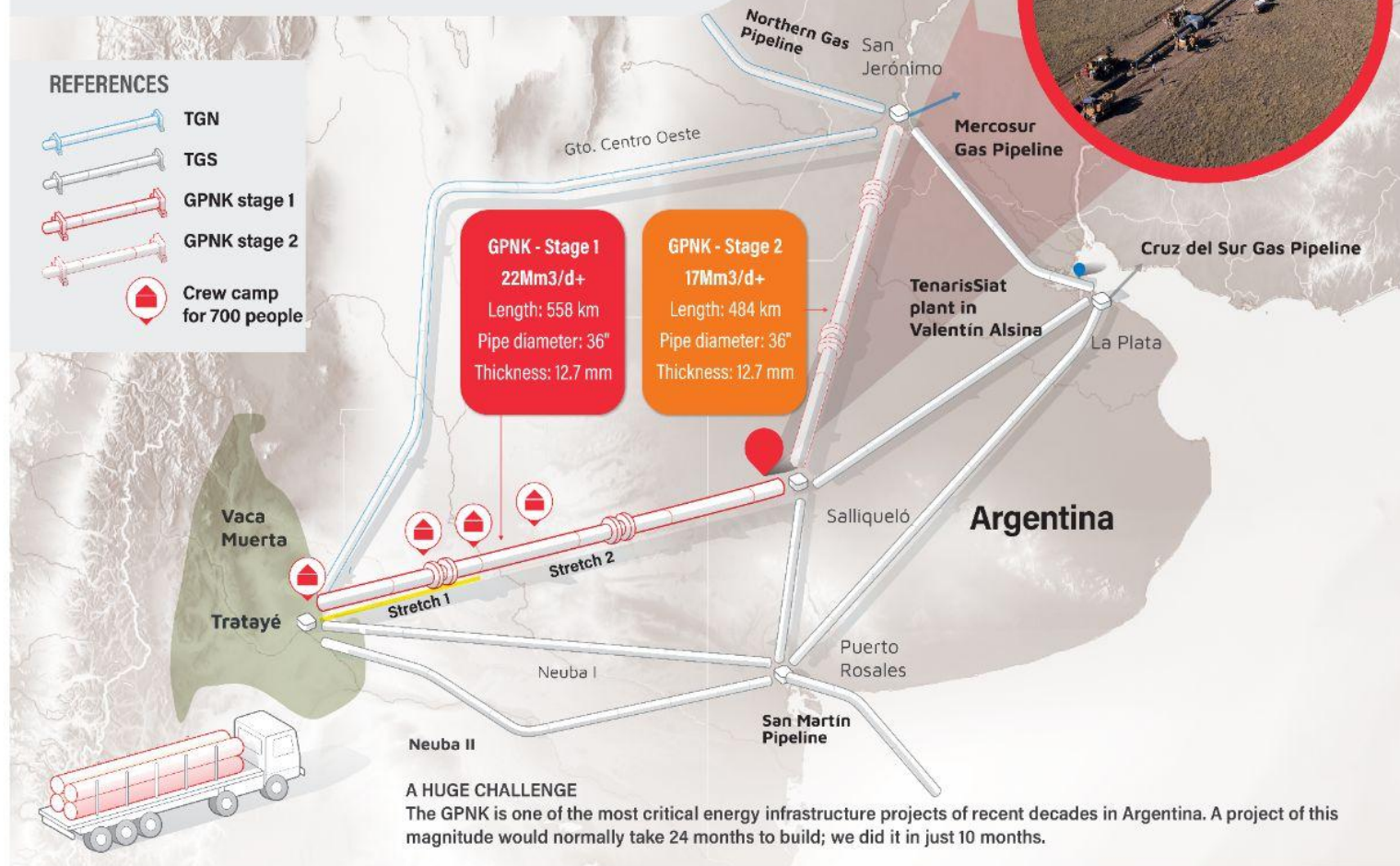
The project incorporated some of the most advanced technologies in pipeline construction: automatic welding, two double-joint plants, and horizontal directional drilling (HDD).

8,619,799 km were covered to transport the pipes, equivalent to 161 trucks per day.

STRETCHES 1 AND 2

| | |
|--------------------|---------------------------------|
| Length | 446 km |
| Line valves | 13 |
| Stations Measuring | 2 |
| Traps | 4 pig launchers and 3 receptors |

We laid the GPNK in just 10 months, an energy infrastructure project connecting Vaca Muerta with the rest of the country, expanding natural gas transport capacity by 30%



CONSTRUCTION IN RECORD TIME IN A COMPLEX CONTEXT



This is the story of a project that was built in record time: just 10 months.

➔ A **446-km gas pipeline running across four provinces in Argentina**: Neuquén, Río Negro, La Pampa and Buenos Aires.

➔ A pipeline of these dimensions hadn't been built since 1988 in Argentina: construction machinery was scarce, there was low availability of human resources, and suppliers were stretched to the limit.

➔ A pipeline which the customer, the state-owned Energía Argentina, needed as soon as possible:

The war between Russia and Ukraine had sent the price of LNG skyrocketing, a key fuel imported by Argentina.

Vaca Muerta, the world's 2nd largest unconventional gas reserves, could no longer be fully exploited because of lack of transport capacity.

The gas pipeline had to be up and running by mid-2023.

➔ **Developed in a highly complex macroeconomic context**: shifting regulatory framework, high economic volatility, credit risk in the value chain, price fluctuations, very high inflation rate.

HOW DID WE DO THIS IN JUST 10 MONTHS?

1.

Planning

In 2020, the joint venture began an in-depth study of the project: construction work started just two months after the contract signing, and the team was set up even before the contract award.

2.

A joint vision

The joint venture was able to set up a cohesive team that worked closely with the customer, provincial governments and suppliers.

3.

Logistics

Some 900 pieces of equipment were sourced internationally, and another 1,500 were mobilized at national level.

4.

Training and workhands

4,000 people onsite at the peak of work
50,000+ training hours
Pipelayers' school
Specialized international personnel.

5.

Technology

Automatic welding for the first time in Argentina.
Two double-joint plants working in parallel
Longest ever 36" directed crossing in the country.

6.

Execution

Progress averaged a rate of 4.5 km per day on both work fronts.

Our **Integrated Management System** enabled us to manage matters related to quality, safety, the environment, health and energy efficiency, resulting in zero major accidents.

RESULTS:

MULTIPLE BENEFITS FOR ARGENTINA

Job creation

48,800 jobs created, both direct and indirect. Improvement in employability profiles and the creation of a better-qualified labor market.

Leap forward in construction capabilities

Thanks to the incorporation of cutting-edge technology, used for the first time in Argentina, and over 50,000 hours of training.

Reduce imports

So far, the GPNK has enabled savings of USD 1.4billion in energy imports.