

A Crude Oil Pipeline: Yesterday, Today and Tomorrow?

Copex 2022



Yesterday: hunger for energy

Europe needs to be quickly re-powered; Western Europe needs to be protected from the “risk of Socialism”; USA needs partners and markets.

Oil IS the blood of the rebuilding of the industries of Central Europe; refineries and petrochemical plants are leading the industrial progresses.

Managers and Workers on the **oil industry** are **proud** about the role they are playing for a better and more prosperous future.

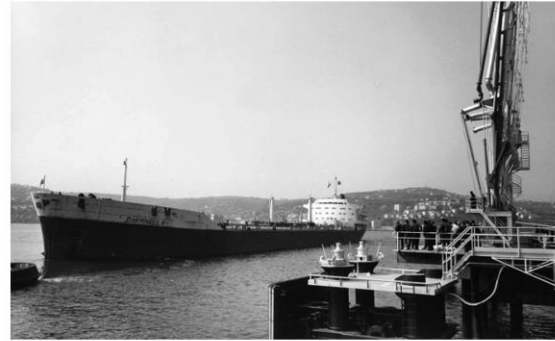
Transalpine Pipeline (TAL) History

The **Transalpine Pipeline** was realized in just 1000 days.

Its construction was considered one of the largest private investments of the period.

On **13 April 1967**, the first tanker ***Daphnella***, berthed in the port of Trieste, and in October of the same year the first batch of oil was received in Ingolstadt in Bavaria.

The foresight of the visionary and pioneer men, together with the ability of engineers and constructors coming from different nations, allowed us to have today, 55 years later, an environmentally friendly and sustainable means of transport.



TAL History – Construction



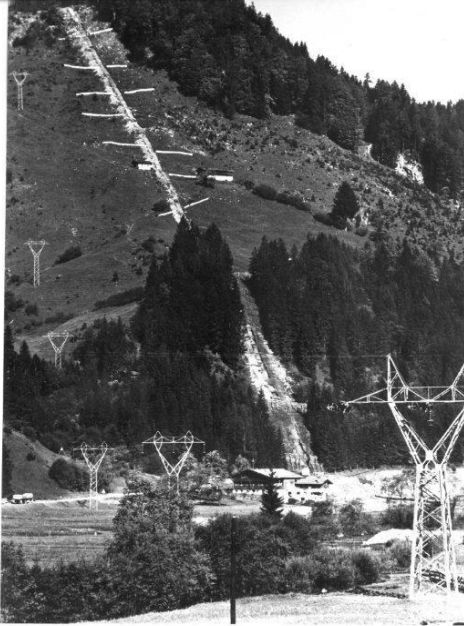
TAL History – Construction



TAL History - Construction



TAL History - Construction



TAL History - Construction



TAL History



TAL History – Arrival of the first tanker Daphnella



Today: a role in between

Climate change is a topic of everyday's talks; it is an issue on the institutions' agendas; it is a battlefield where enormous powers are highly engaged.

Our **industry** is perceived as **mature** (if not old) and, in general, unpleasant: definitely, not attractive.

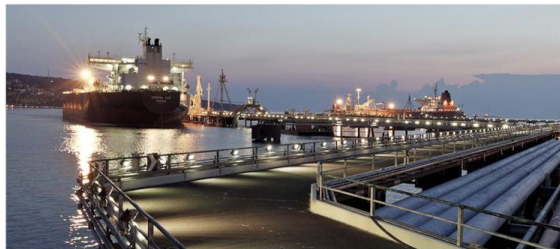
BUT

Without oil industry the world will simply stop (for a while..).

TAL Companies

Italy

Società Italiana per l'Oleodotto Transalpino S.p.a.



Germany

Deutsche Transalpine Oelleitung GmbH



Austria

Transalpine Ölleitung in Österreich Ges.m.b.H.

TAL Shareholders

TAL shareholders are some of the majors in the oil industry

9 SHAREHOLDERS

OMV

Shell

Rosneft

ENI

ExxonMobil

C-Blue B.V. (Gunvor)

MERO

Phillips 66/Jet Tankstellen

Total

Transalpine Pipeline

The TransAlpine PipeLine (TAL) transports crude oil from the port of Trieste in Italy to Austria, Germany and Czech Republic

Countries crossed

3 Italia, Austria, Germany

Pipeline length

753 km

Maximum height

1.572 m



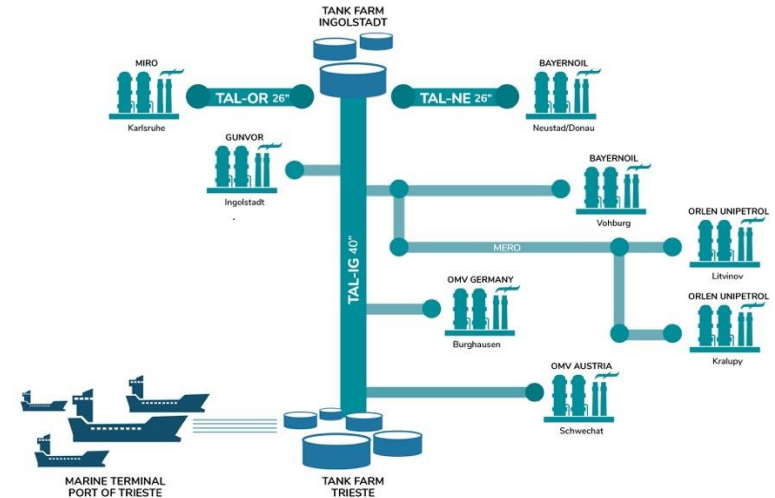
TAL System

The **Transalpine Pipeline** route is divided into three sections:

TAL – IG: a 465 km long line (40") connecting the Tank Farm in San Dorligo della Valle with the Tank Farm in Lenting

TAL – NE: a 22 km long line (26") connecting the Lenting Tank Farm with the Bayernoil refinery in Neustadt (Bavaria)

TAL – OR: a 266 km long line (26") connecting the Lenting Tank Farm with the MIRO refinery in Karlsruhe (Baden-Württemberg)



Supplied Refineries

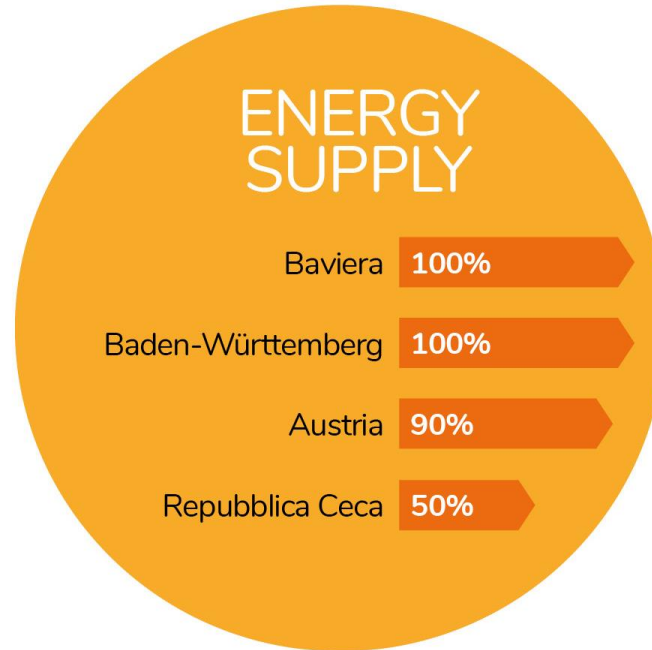
TAL supplies safely and efficiently 8 connected refineries

- **Schwechat** (Austria)
- **Burghausen** (Germany)
- **Kralupy e Litvinov** (Czech Republic)
- **Vohburg** (Germany)
- **Ingolstadt** (Germany)
- **Neustadt a.d. Donau** (Germany)
- **Karlsruhe** (Germany)



Strategic Role

TAL plays a strategic role for the central european economy, ensuring the availability of its refinery feedstocks



Main TAL Installations

- MARINE TERMINAL IN THE PORT OF TRIESTE (ITALY)
- TANK FARM SAN DORLIGO DELLA VALLE (ITALY)
- 10 PUMPING STATIONS (ITALY, AUSTRIA and GERMANY)
- CRUDE OIL POWER PLANT TAIMERALM (AUSTRIA)
- TANK FARM LENTING (GERMANY)
- DELIVERY STATIONS KARLSRUHE and NEUSTADT A.D. (GERMANY)

Marine Terminal *Trieste (Italy)*

Starting point of TAL
infrastructure



2 piers

4 moorings

32 hours average

single ship

berthing time

Tank Farm *San Dorligo della Valle (Italy)*



Tank

32

Capacity (Mc)

2.030.000

Crude Oil Power Plant *Taimeralm (Austria)*

First power plant that uses crude oil flow to generate electric energy, taking advantage of a 237 metres drop at the Felbertauern Tunnel activating a turbine without any emission of CO₂



Tank Farm *Lenting (Germany)*



Tank

7

Capacity (Mc)

318.000

Statistics *Marine Terminal*



DISCHARGED
SINCE 1967

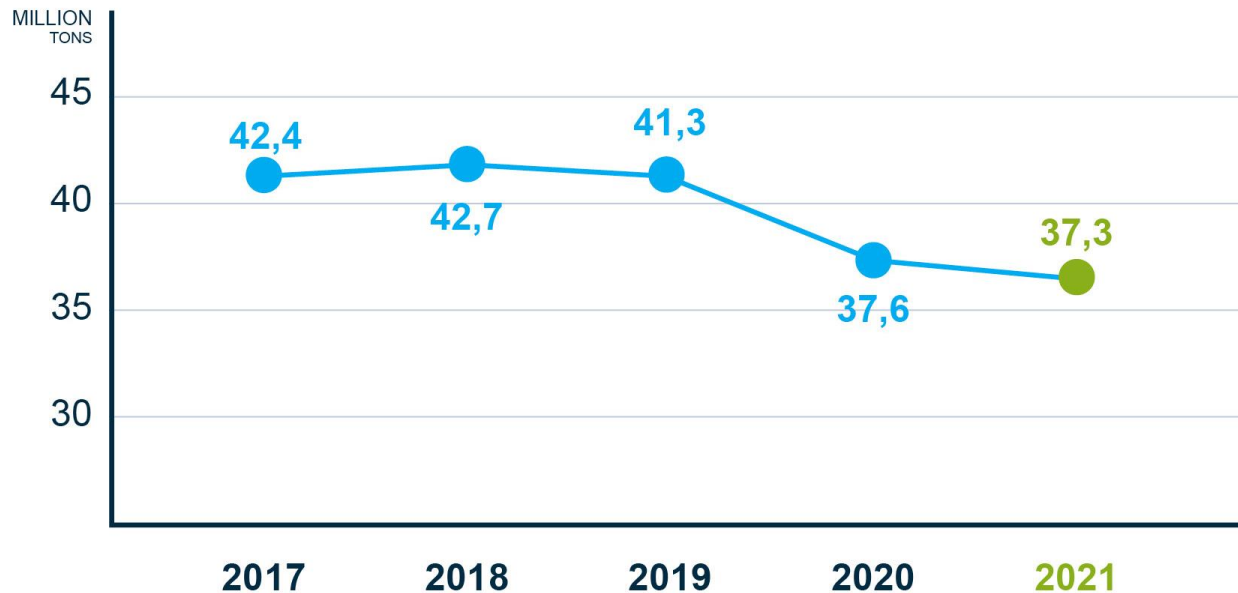
Billion tons of crude oil

> 1.6 

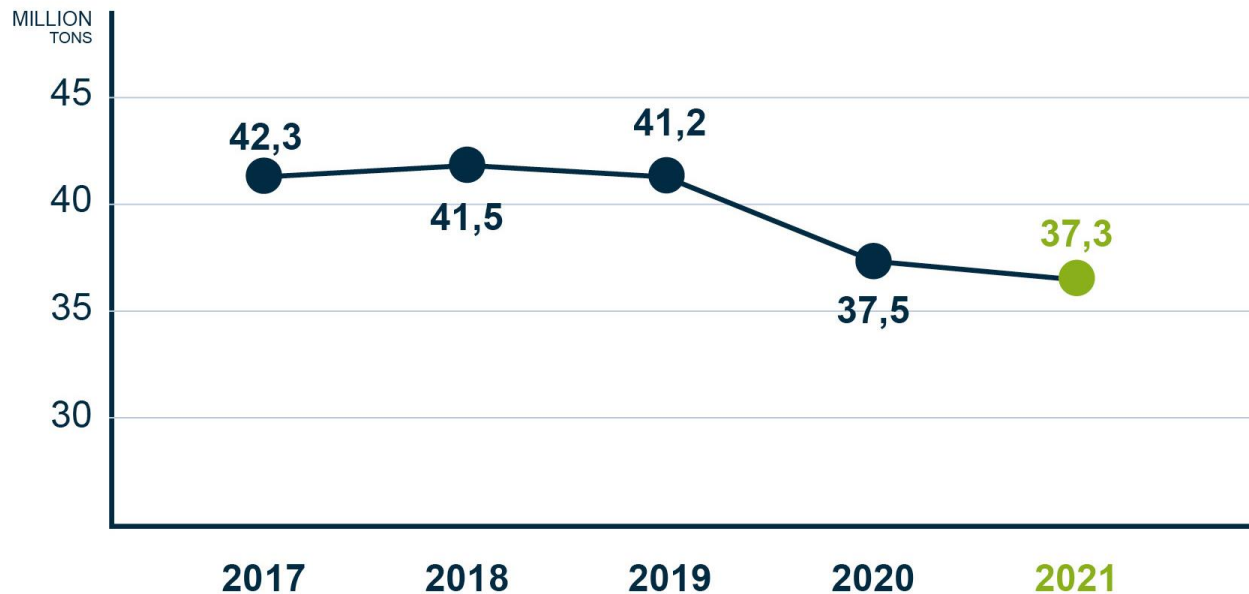
> 21,000

Ships 

Discharged oil at Marine Terminal 2017-2021



TAL Throughput 2017-2021



Tomorrow: hundreds of opportunities - open your eyes!

Oil industry is one of the most **complex**, hence has many knowledges and is active in several markets and environments.

Each pipeline tells a different story but the storyboard is based on some pillars:

1. Rights of Way
2. Equipment (lines, motors, pumps)
3. Marine Terminals and Tank Farms
4. Knowledge, know-how, competence and organization

1. Rights of Way tomorrow

The rights of way of the pipeline are, *de facto*, peculiar roads connecting locations.

Today, these roads are utilized for the delivery of crude oils or products, often only in one direction.

Tomorrow: the RoW are utilized for the movement of goods different than oil, power, data; often in two directions.

2. Equipment tomorrow

The equipment here mentioned are mainly the lines and motors for the pumps.

Today, these equipment are dedicated to the movement of the oil.

- Tomorrow:**
- movement of new products (i.e.: synthetic fuels, liquid components, LOHC, ...);
 - energy recovery;
 - power generation (like Taimeralm).

3. Marine Terminals and Tank Farms tomorrow

Marine Terminals and Tank Farms are often part of the assets of a pipeline.

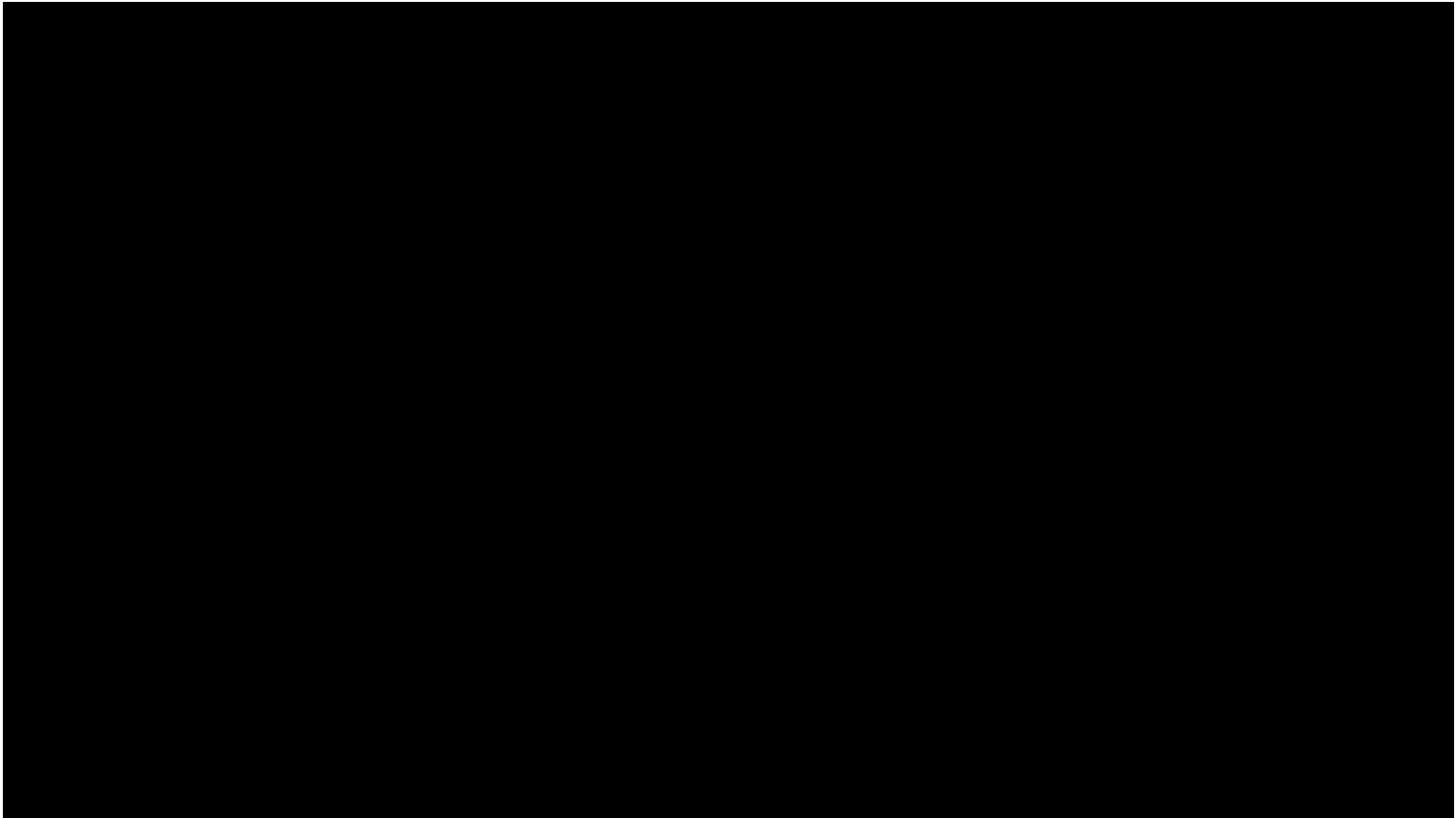
- Tomorrow:**
- receive and storage other liquids (i.e.: synthetic fuels, liquid components, LOHC, ...);
 - power generation (photovoltaic parks).

4. Knowledge, know-how, competence and organization tomorrow

Our People are carrying knowledge, know-how, competences.

We are organizing them within evolving structures and governing the processes through procedures and formalized instructions.

- Tomorrow:**
- the best pipelines are professional competence centers and develop cultures (i.e.: HSSE culture);
 - pipeline companies develop and enhance knowledge and competence related to their missions.



Thank you for your kind attention

OUR PEOPLE | OUR ENVIRONMENT | OUR ENERGY

TAL
transalpine pipeline

