

PODS™



TIGF

Pipeline Open Data Standard
2011 USER CONFERENCE

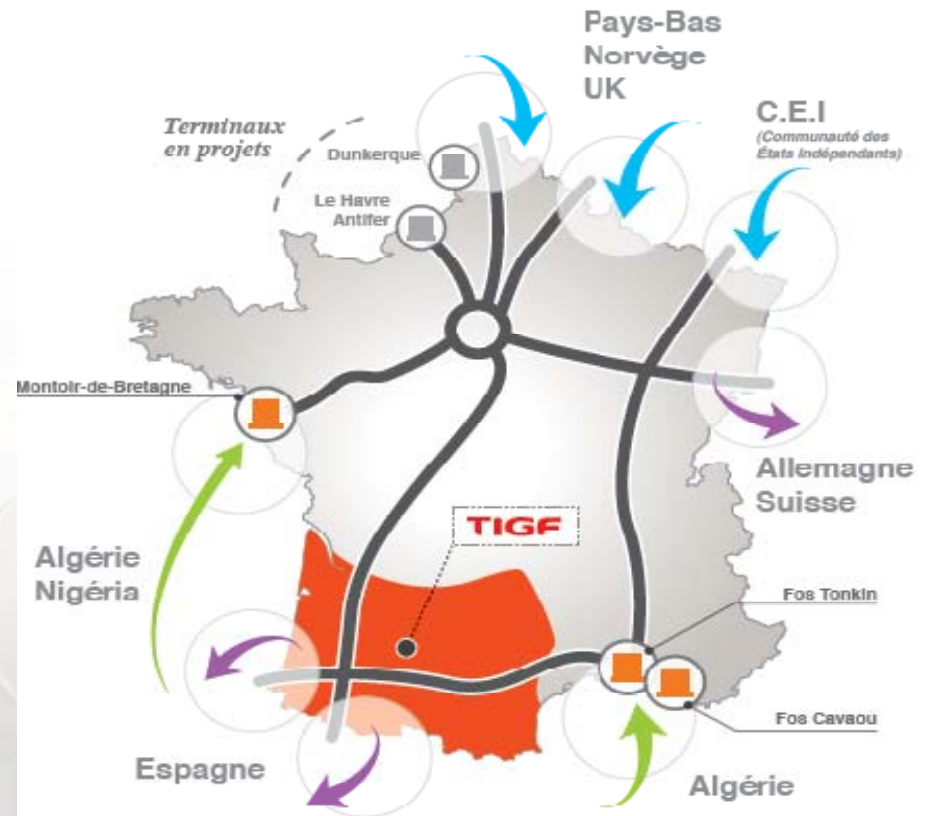
Leveraging PODS at TIGF

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➤ **TIGF manages :**

- 5 000 km of natural gas transmission pipelines (13% national network)
- About 600 valve stations
- About 550 delivery stations
- 6 recompression units (100 MW)
- 2 storages with 5.5 Gm3 underground facilities (22% national capacity)



- Entrées par gazoducs
- Sorties par gazoducs
- Entrées par terminaux GNL
- Terminaux GNL

Pipeline assets managed



- **TIGF started to work with PODS in 2006**
- **PODS Version 4.0 is used**
- **Relational implementation on Oracle 10g**
 - ➔ 1 year for tools development in order to feed the database from Bentley Microstation V8
 - ➔ 3 years of work with 20 persons, more than 65 000 hours
- **But a special schema was added to create the geometry of the events**
 - ➔ Intergraph tools : Geomedia Pro and Geomedia Transportation
- **3D Spatial modelling**
- **Centralized and regionally deployed >> more than 250 users**
- **Built and managed by the Integrity Management**

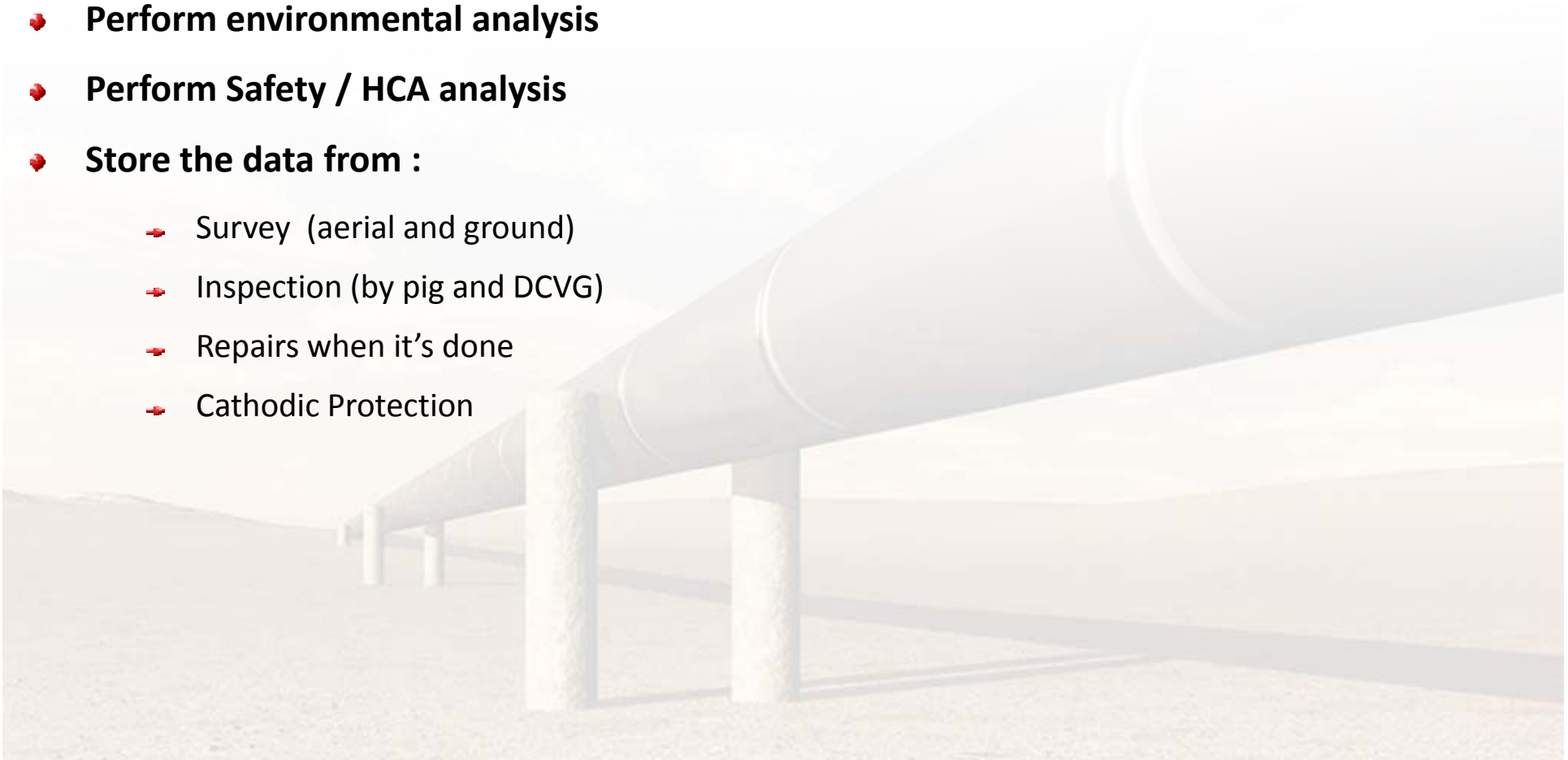


Business needs supported

- All pipeline data are collected from “paper” to “digital” format and georeferenced
- All pipeline data are stored (or will be, for others) in a single one database
- Perform technical analysis : kilometers per Nominal Diameter, Dot Class, ...
- Connected to a PIMS tool, named OGIC, which carries out a complete pipeline integrity analysis to plan survey and inspection, and set up mitigations
- Share the same data with people on the field through a mobility tool, named TACTIC
- Share the same data through with other business in order to help :
 - ➔ Survey (aerial and ground)
 - ➔ Inspection (by pig and DCVG)
 - ➔ Repairs when it’s necessary
 - ➔ Cathodic Protection
 - ➔ Safety
 - ➔ Sustainable development

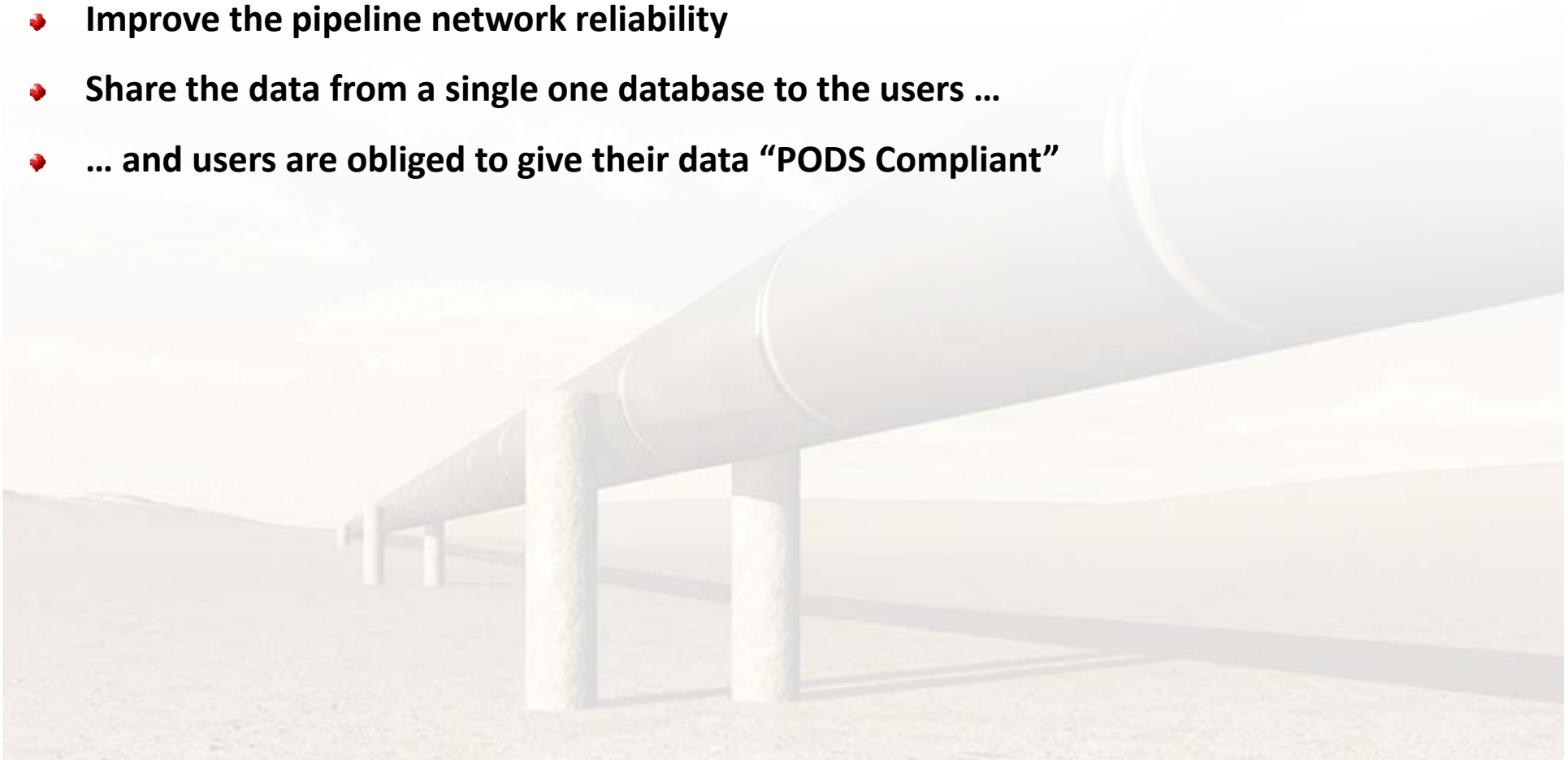
Future Business needs

- **Update from works on the network**
- **Improve the accuracy by collecting new data**
- **Perform environmental analysis**
- **Perform Safety / HCA analysis**
- **Store the data from :**
 - Survey (aerial and ground)
 - Inspection (by pig and DCVG)
 - Repairs when it's done
 - Cathodic Protection



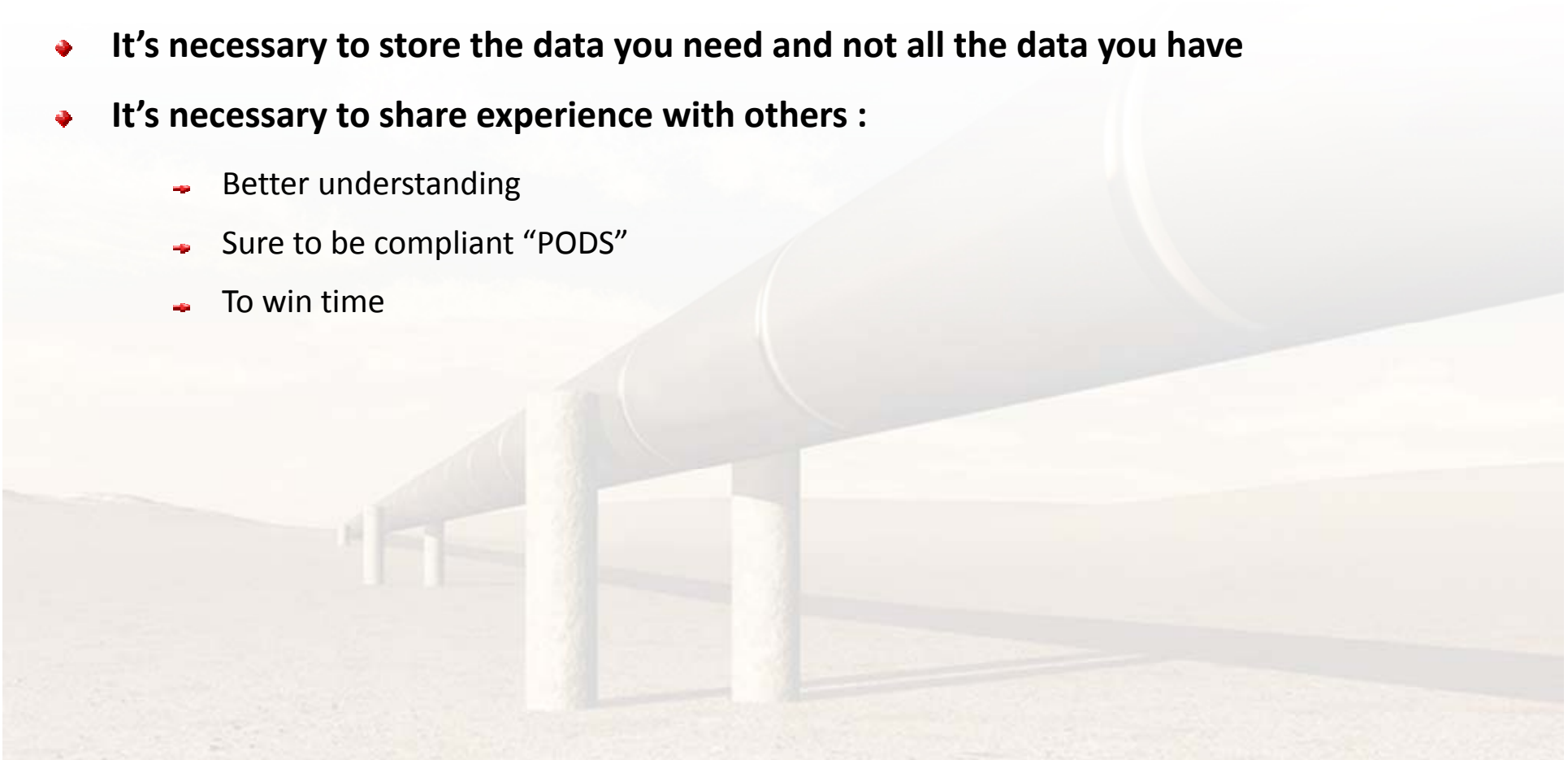
Value provided

- **Most of the business needs are supported**
- **Allow to be compliant with French Regulatory**
- **Improve the pipeline network reliability**
- **Share the data from a single one database to the users ...**
- **... and users are obliged to give their data “PODS Compliant”**



Lessons learned

- ◆ **PODS is very powerful but quite complex to implement**
- ◆ **It needs significant efforts (time, people and money)**
- ◆ **It's necessary to store the data you need and not all the data you have**
- ◆ **It's necessary to share experience with others :**
 - ➔ Better understanding
 - ➔ Sure to be compliant "PODS"
 - ➔ To win time



TIGF



Thank you for your kind attention