Keyhole – Latest improvements in Europe

Spring Keyhole meeting
Objectives:
- Cost savings regarding new installation in Europe for gas utilities

Solutions tested:
- Coring unit from Utilicor and Vac truck from Mac Laughlin 2009 -2012
  - Lack of power of aspiration
  - Needs tools to lay services lines
- Tests of tools from Tracto Technik in a Gerg project, in cooperation with Eon New build and Technology (Germany) – 2012 -2014
  - technical success – more than 50 sites sin Germany and France –
  - Further cooperation with water utilities

Pre industrialization for GDF SUEZ with 18 months trials and 300 connection (launched April 2014)

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Keyhole: the way we do it (1/2)
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Keyhole : Next step

- **For GDF SUEZ**
  - 18 months trial for Gas utilities in France
  - 6 months trial for water Companies in France

- **For Gerg project**
  - Expert meeting planed in June 2014 :
    - Definition of the roadmap 2014 - 2015
    - New utilization like cathodique protection, reparation
    - Huge interest of majors utilities : Gas Natural (Spain), Italgas (Italy), Kiwa (representative of Dutch DSO)
  - Follow up of tests carried in Germany
  - Communications planned in next IGRC (Copenhagen – September 2014)

- **Key point is to improve accuracy of localization**
  - Test and development of methods to improve localization of buried Pipe
    - Test of RFID solution in an industrial way