



ISO/TC 197
Addressing H₂ Fueling Infrastructure
Andrei V. Tchouvelev, Chair

"We can't solve problems by using the same kind of thinking we used when we created them." Albert Einstein

ISO/TC 197 Program Structure and Approach for 2013-2015

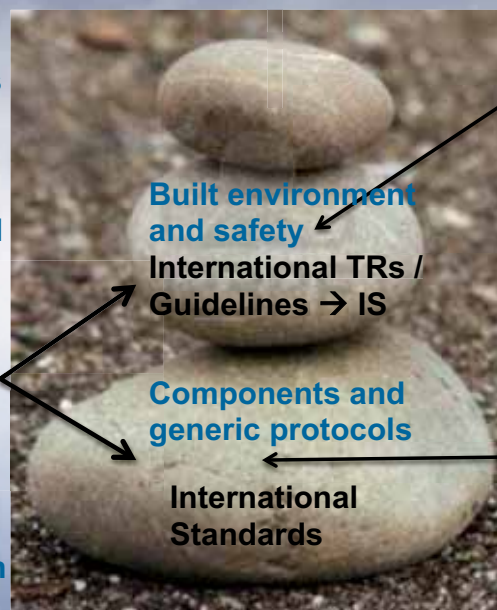
Approach to BE&S:

- Map knowledge and best practices
- Identify knowledge gaps
- Trigger PNR
- Build international collaboration
- Time: 12 – 24 mo

ISO/TC 197 focus

Approach to Comp:

- Well developed seed documents
- Industry validation and strong need
- Time: 12 – 36 mo



Built environment and safety
International TRs / Guidelines → IS

Components and generic protocols

International Standards

Built Environment and Safety:

- WG16 Safety TR
- WG24 HFS
- WGxx (FP-TBD)

Components and Vehicular Applications:

- WG 18 On-board St
- WGs 19-20, 22-23

Production, Storage and Handling:

- WG15 Ground St
- WG17 PSA
- WG21 Compressors

Stationary and Fuel Cell Applications:

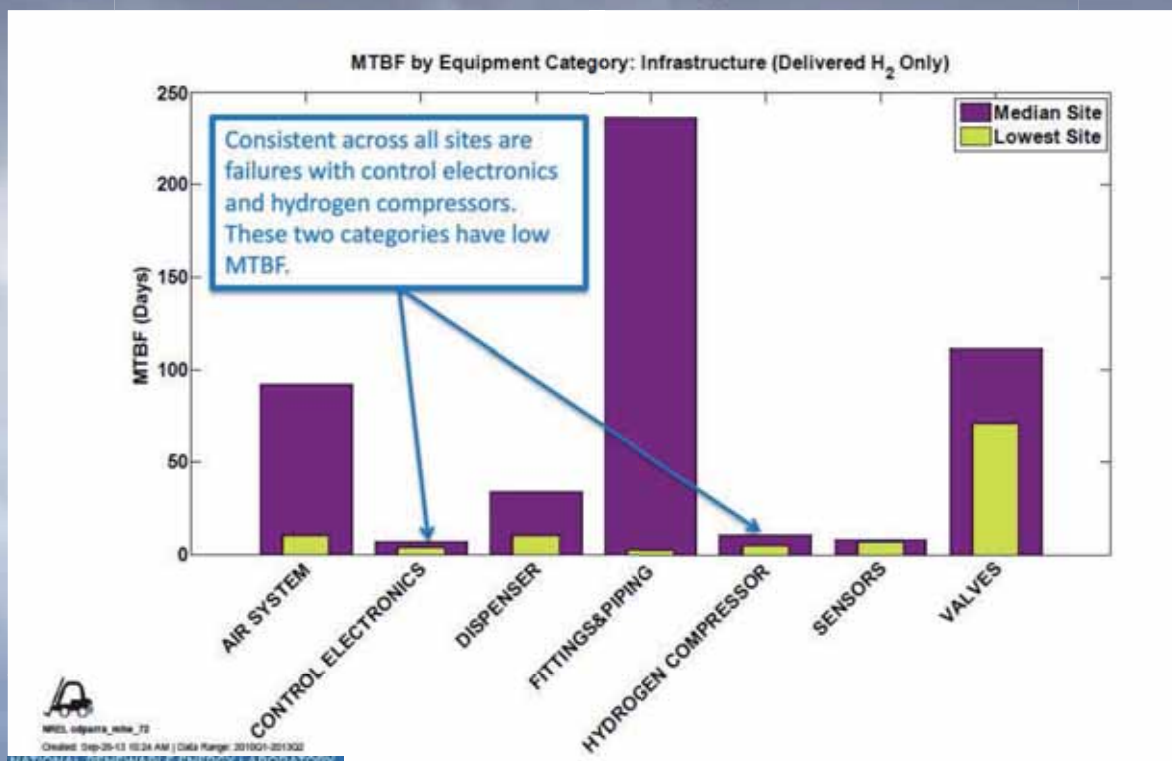
- WG12/14 (H₂ quality)
- WGxx (FQV-TBD)

19880 Fueling Family

- ❑ ISO 19880-1 Gaseous hydrogen – Fueling stations – General requirements (WG24)
- ❑ ISO 19880-2 Gaseous hydrogen – Fueling stations – Dispensers (WG19)
- ❑ ISO 19880-3 Gaseous hydrogen – Fueling stations – Valves (WG20)
- ❑ ISO 19880-4 Gaseous hydrogen – Fueling stations – Compressors (WG21)
- ❑ ISO 19880-5 Gaseous hydrogen – Fueling stations – Hoses (WG22)
- ❑ ISO 19880-6 Gaseous hydrogen – Fueling stations – Fittings (WG23)
- ❑ ISO 19880-7 Gaseous hydrogen – Fueling stations – Fueling protocols (Proposed TBD)
- ❑ ISO 19880-8 Gaseous hydrogen – Fueling stations – Fuel quality verification methods (Proposed TBD)

3

MTBF Breakdown for H₂ Infrastructure



4



**THANK YOU FOR YOUR
ATTENTION!**

**Questions / comments
welcome!**