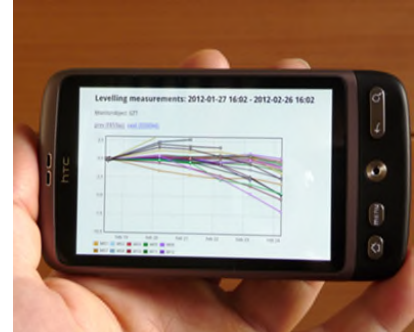


ITAttech General Meeting

Martin Knights
Design Activity Group

Tuesday afternoon 5th June 2013

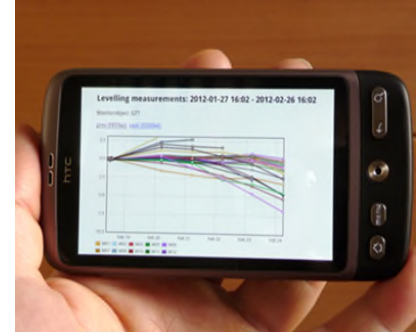


Industry Forum for tunnel designers

Working with other Activity Groups to ensure that generic design processes/issues are addressed in ITAttech Guidelines

To date Sprayed Waterproofing Membranes and Monitoring for Tunnels have been reviewed

Review and benchmark best tunnel Design processes. *Much of tunnel work is related to constructability, production and methodologies .So design has to be aligned to this influence. A task force will benchmark best practice and provide guidance.*



Industry Forum for tunnel designers

ITA did not have this previously

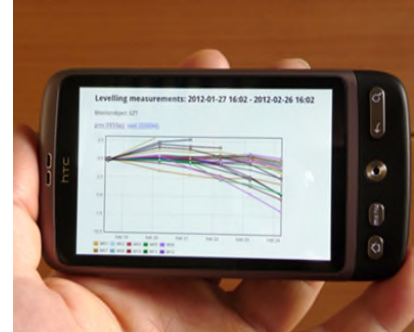
Design process has become fragmented

Design process has many overlaps

Different Procurement models

Is there need for industry best practice?

Is there a need for this to be shared across industry ?



Current role of DAG

Working with other Activity Groups

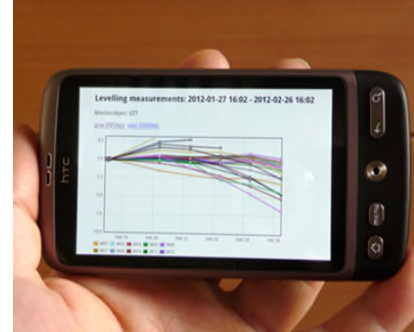
The co operation role of Design AG

Sprayed Waterproofing Membranes

Monitoring

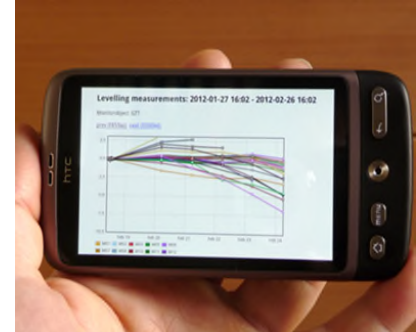
Future co operation--

- *Later this year DAG will be requested to review the proposed Fibres for precast tunnel concrete segments.*
- *Also a draft Guideline on TBM main bearing will be issued for review by DAG later this year.*



Guideline Format –proposed by Design AG for standard ITAttech Guidance

- *Introduction*
- *Concepts for design*
- *Systems that are available*
- *Materials to be used*
- *Methodology*
- *Health and Safety Issues*
- *Contractual and Procurement—use of specialist sub contractors /*
- *trials and testing/Certification/Verification/Guarantees etc*
- *Cost and time*
- *Sustainability*
- *Appendices*



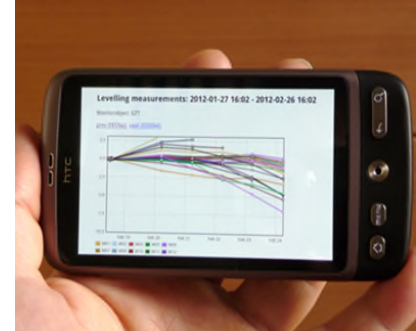
•Tunnel Design

Consider the influences of designer participation in tunnel projects such as incentives, employed by owner or Contractor stage of design.

Tunnelling is a production & fabrication influenced process —especially TBM tunnels with PCC Segment Linings. TBM technology & Innovation.

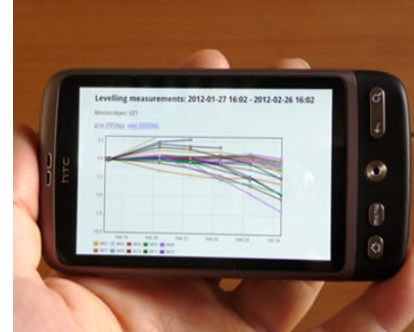
Question

•Is tunnelling different to other Civil Engineering structures and therefore the role of designer needs to be `bespoke` for the unique industry requirements?



Agreed that DAG should document the pro's and con's of the current tunnel design procurement process in order to raise awareness of some of the current deficiencies particularly regarding design interfaces with other engineering disciplines within the tunnel.

Best practices need to be documented for clients/owners in emerging countries wishing to adopted relevant design process for underground infrastructure.



Action

DAG believes that a `task `force should be set up to document relevant and best practice for tunnel design . tba

DAG will use a two step approach:

- Define tasks , planning of design input and deliverables required
- Discuss best practice for varying procurement scenarios.

