

BRIDGE OWNERS FORUM

16th January 2018

Grand Challenges

- The Grand Challenges paper published by AASHTO Highway Subcommittee on Bridges and Structures. This lists six high level challenges, each supported by about three pages of elaboration.
<http://sp.bridges.transportation.org/Documents/2005strategicplan-websiteversion.pdf>
- Here's another example:
<http://www.engineeringchallenges.org/challenges.aspx>. 14 Grand Challenges each supported by a 500 word paper

Grand Challenges

- From Wikipedia:
- *Grand Challenges are lists of important problems developed to energise and encourage the community (research, commercial organisations, professional bodies) to understand the issues and accelerate solutions. They are beyond ordinary research questions, may be global in scale, difficult but possible to solve, but involving numerous projects. They must capture the popular imagination to gain support.*

Grand Challenges

- Six grand challenges have been identified as follows:
 - Preventing bridge failures
 - Extending the life of existing structures
 - Building bridges that will perform better
 - Embracing innovation and embedding technology
 - Securing a competent, diverse workforce
 - Sharing knowledge and best practice

Grand Challenges – Way Forward

- **Review** the six grand challenges – are they sufficiently detailed, or too high level?
- **Elaborate** each to one page
 - What is the challenge
 - What would be the benefit of solving it
 - Broadly, where do we see the barriers to success and where we see solutions coming from
- **Publish**
- Complete and review detailed studies
- Propose projects to achieve progress towards the challenges