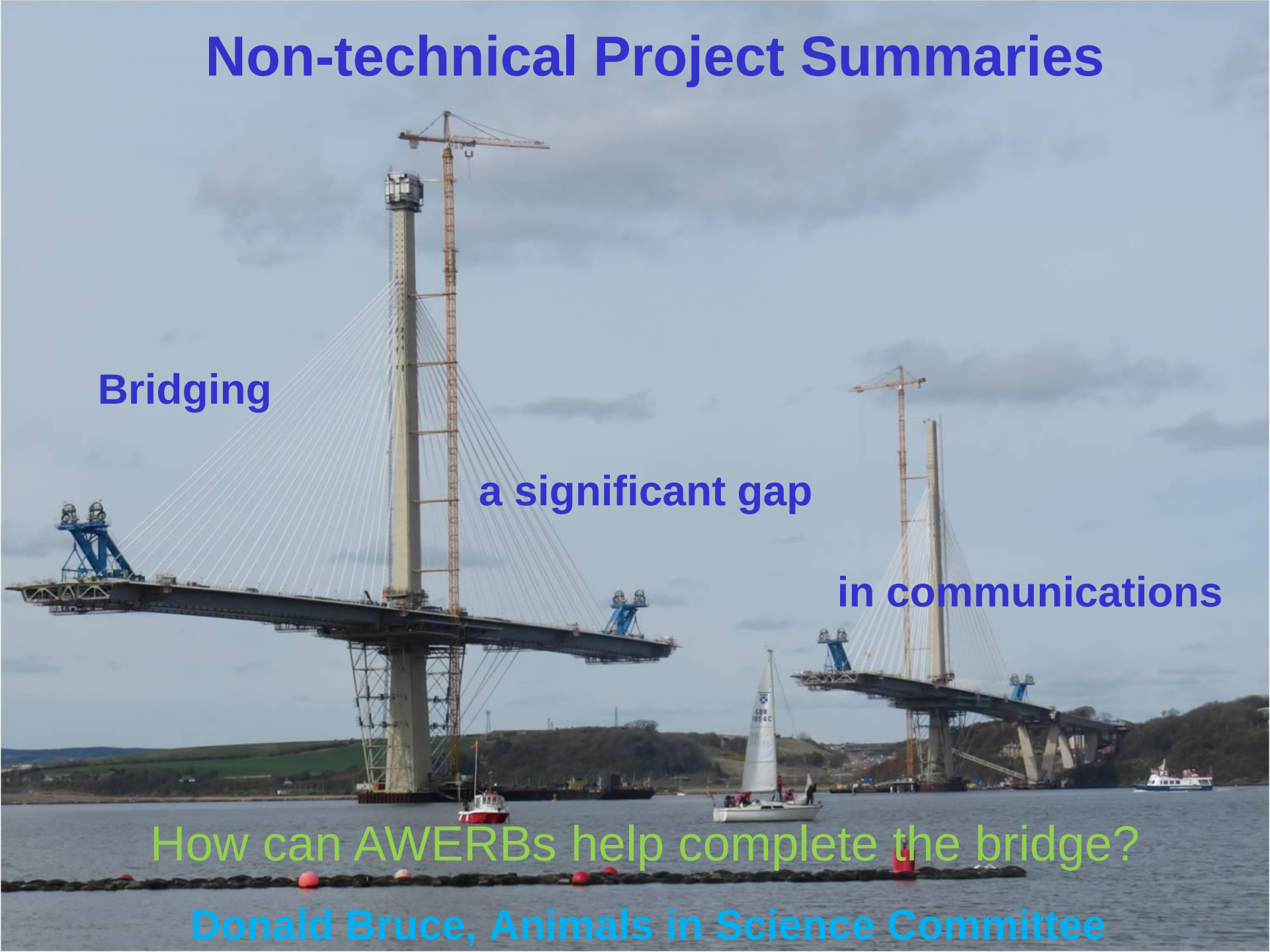
Non-technical Project Summaries



How can AWERBs help complete the bridge?

Donald Bruce, Animals in Science Committee

What is the Non-Technical Summary for?

Animal (Scientific Procedures) Act Article 5A, 1 and 2 :

An application for a licence must be accompanied by a project summary in non-technical language which describes the project of work

- States the objectives of the programme
- States the predicted harms and benefits of the programme
- States the numbers and types of animals to be used
- Demonstrates that the programme of work complies with the 3Rs

- Accompanies the licence but not part of it
- It is the only knowledge of UK animal research projects to which the general public (including MPs, NGOs) normally has access
- For an NTS Lay Members of AWERBs are in effect ‘competent persons’ and should expect to understand it as of right

Problems with Non-Technical Summaries

- Widespread problems identified in quality from many sources
- Sometimes NTS's are done well; but often problems continue :
  - not being understandable to a lay person and/or
  - not summarising the project of work well enough
- Good NTS's have not fallen naturally out of revised ASPeL system
- ASC Licence Analysis Report 2020 commented on poor NTS quality
- ASRU Guidance Note on Project Applications Sept.2022
  - but its NTS section illustrates some of the problems

A really bad example from a licence granted in 2019

Reduction *: Explain how you will assure the use of minimum numbers of animals*

Power calculations performed based on an important component of fibrosis (collagen deposition) indicate 6 animals per group are required to analyse the fibrotic processes. For example our experience of biological variability shows fibrotic livers of 6 weeks CCl4 treated rats have a mean collagen (hydroxyproline) content of 1.45 ± 0.25 (SD) mmol/g liver. Based on these data, accepting an 80% chance of detecting this difference at the level of p≥0.05, gives a sample size of 16/(1.74)2= 5.3 animals per group.

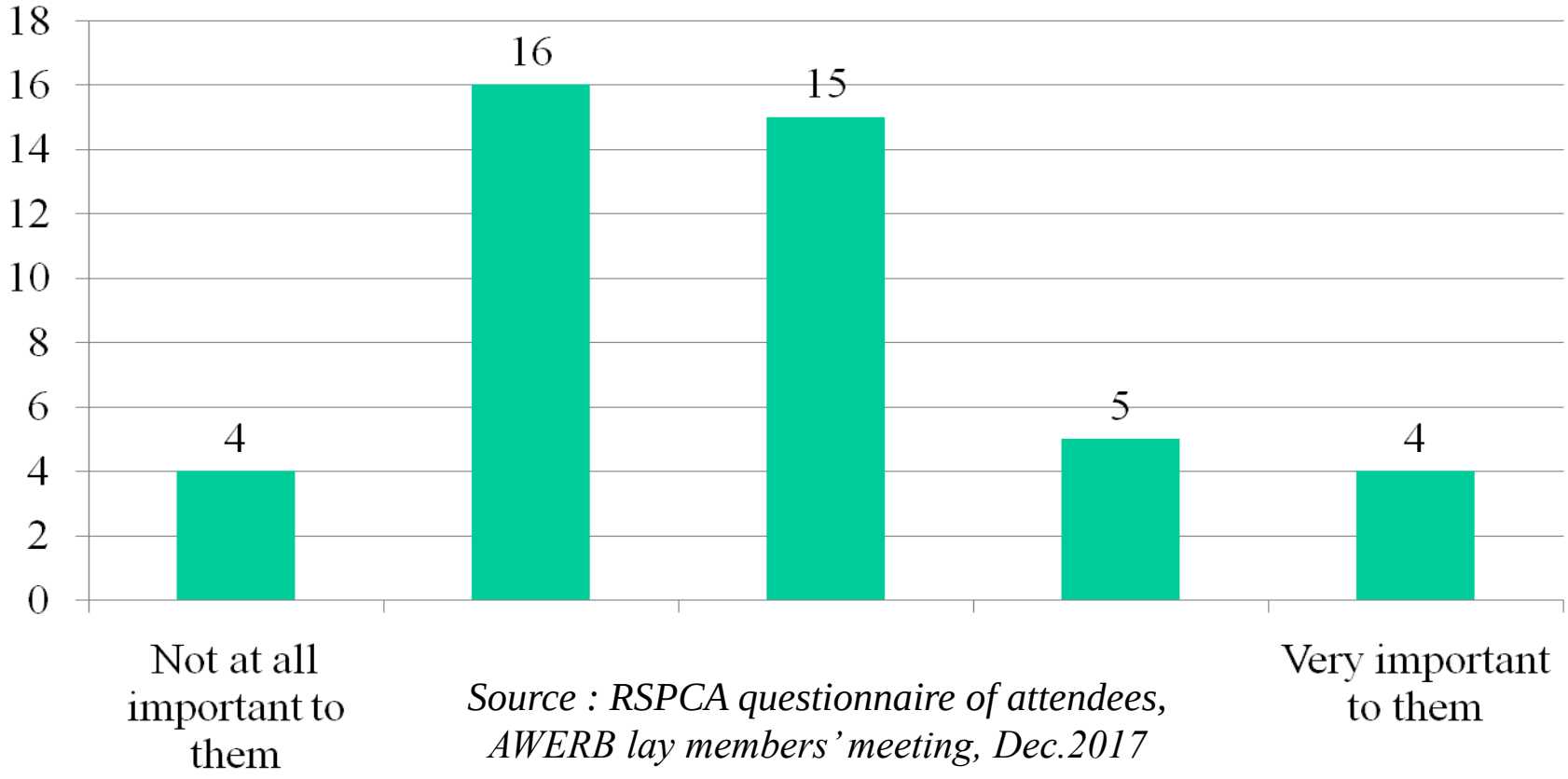
Improving the English

- NTS should be something your next door neighbour could understand

  or an MP with no science background but an activitist constituent
- ASRU guidance note NTS Aims example ii). :
- "Example: To determine whether combinations of inhibitors of vascular endothelial growth factor (VEGF) and chemotherapy are more effective than monotherapy in preventing tumour vascularisation and tumour growth."
- Clearly this is NOT non-technical language! (other examples also)
- If analysed with "readibility" software, many found to require

  high educational levels and/or technical knowledge
- Not simply not using technical jargon and terminology
- It's a different *style* of writing from professional scientific writing
- Relatively few scientists are naturally good at it
- Science communication is an art to be learned

What level of importance do you think licence applicants place on the NTS? (n=44)



Source : RSPCA questionnaire of attendees, AWERB lay members' meeting, Dec.2017

Making writing a good NTS an incentive?

- Applicants write NTS's because they have to

  ... but are not given much incentive to do it well

- How can applicants be given incentive/ recognition to write *good* NTS's?

Wider issues :

- Training post-graduates to communicate science well
- Putting science communication as an expected skill for a new post-doc?
- Giving them acknowledgement of this in their career progression
- Making a project's NTS recognised as part of the project's 'Impact'

  and the Establishment's outreach?

- Having a good NTS *process* in the Establishment / AWERB

ASC Licence Analysis Report Recommendations: excerpt on Non-technical Project Summary

9.1 Establishments should be urged not to submit licence applications to ASRU, until the AWERB lay member or another non-technical person has agreed that the NTS has adequately summarised the programme of work in non-technical language.

Process to address NTS quality before coming to an AWERB meeting

- An AWERB lay member or another non-technical person should engage with the licence applicant early in writing the application
- Various practices reported at past Hub and AWERB roadshows
  - Pre-meeting with applicant, Vet and Lay member to review NTS
  - Lay member getting applicant to describe the project to them
  - Involving junior animal technicians
  - Using tool like SharePoint for comments
- Aim : by the time application is circulated to AWERB members, the NTS is in good shape and to be passed by the AWERB
- Result : saves time in AWERB meeting and ASRU assessment (e.g. inspector doesn’t need to send the NTS back for rewriting)

Making an NTS a good Summary of the Project -1

Title : project title will also be the NTS title in published database

make it clear and as non-technical as reasonably possible

Aims : ASC Recommendation 9.2: The new e-licensing system should ask a question that will prompt the applicant to describe the proposed programme of *animal* experimentation

Give a lay person an idea what the project is about: what animals are used, what is to be done to them, to achieve what goal in *this* project

This needs a proper paragraph - more than just (in the Guidance) “one or two short sentences”

Making an NTS a good Summary of the Project - 2

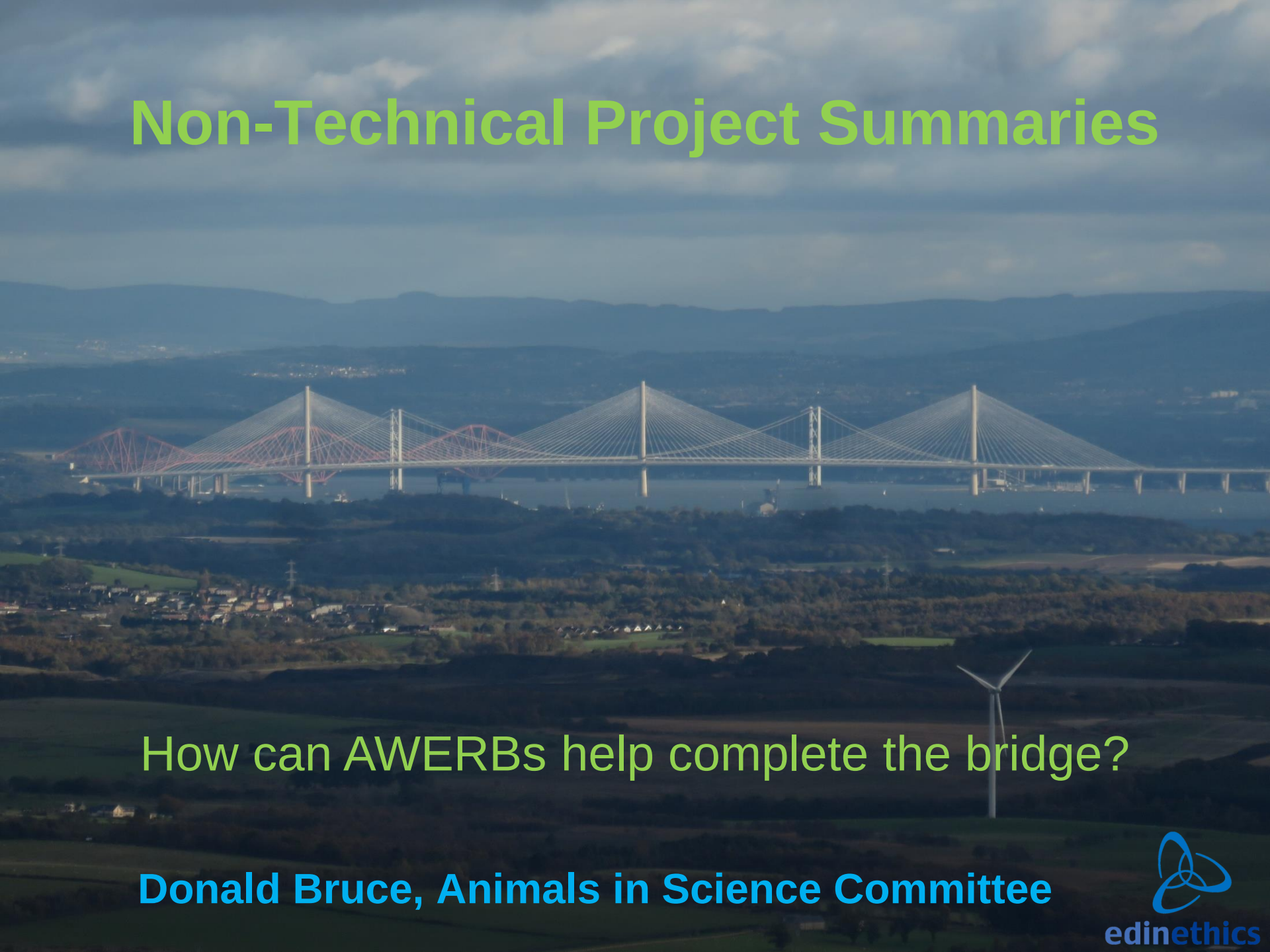
Problem : Benefits, Harms and 3Rs sections of the Guidance Note
try to write the licence and the NTS at the same time – not working
excessively long NTS's (~ 30 pages), repetition of information

Benefits : often reads like a funding application not an lay NTS :
questions not tailored to what general public would like to know

- What particular things do you expect *this project* will this tell you
  that you didn't know before and …
- Why is that increment of knowledge important
  that could justify experimenting on these animals?
- To what ultimate uses might this be put
  (medicine, animal welfare, agriculture, ecology ..)

Harms : generally better (earlier criticism not describing harms sufficiently)

3Rs : far too much detail being asked for the NTS
but the Guidance examples for each section are well pitched



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edinethics

Questions for breakout groups

All Groups : AWERB Process

1. Does your AWERB/establishment ask the applicant to work on the NTS with the lay member or other non-technical staff member before submitting it to the AWERB? If so, what do you do?
2. Do you check the final version of the NTS with a lay member before submitting it?

Specific groups : Guidance Note

3. (Group 1) Is the ASPeI process and Guidance Note asking for the right amount of detail, particularly in the Benefits, Harms and 3Rs sections?
4. (Group 2) Should the questions for the NTS be separated from the main licence?
5. (Group 3) Could the questions in the ASPeI form and Guidance Note be improved, and if so which one(s) and how?
6. (Group 4) In your view, are the examples given in the 'Aims' section of the guidance note written in non-technical language. If not, how could the question and examples be revised?

Crib sheet of NTS Questions

- Has the applicant checked the NTS for readability with a non-technical person in the establishment or the AWERB lay member?
- Does the NTS describe what will be done to the animals and why?
- What particular things does the applicant expect *this project* will this tell them that they didn't know before and ...
- Why is that incremental knowledge so important that they need to experiment on these animals?
- Are all procedures and harms described, and their severity (including cumulative severity) explained?
- Replacement: does the applicant explain well why animals are used and that non-animal alternatives have been seriously considered?
- Refinement: how is the applicant seeking to improve procedures?
- Reduction: what statistics has the applicant done?

ASC Licence Analysis Report excerpt: Recommendations on Non-technical Summaries

9.1 Establishments should be urged not to submit licence applications to ASRU until the AWERB lay member or another non-technical person has agreed that the NTS has adequately summarised the programme of work in non-technical language.

9.2 The new e-licensing system should ask a question that will prompt the applicant to describe the proposed programme of *animal* experimentation.

9.3 The benefits section of the NTS should focus on the benefits of the specific knowledge to be gained by the project and show restraint in presenting wider and future aspirations.

9.4 The new licence application system needs to state that all NTSs should clearly and accurately express whether the experimental protocols are mild, moderate or severe under Directive 2010/63, clearly stating the harms likely to be experienced by the animals involved, and the expected number of animals to be used in each protocol.

ASC Licence Analysis Report excerpt: Recommendations on Non-technical Summaries

9.5 The **3Rs section** of the NTS needs to explain the various steps taken to replace, refine and reduce in terms understandable by a lay audience. The refinement sections of some licences showed especial need to be made comprehensible. All three sections should demonstrate the continuous pursuit of progress and improvement, and in the case of replacement, explain why it is necessary to use animals in this project.

9.6 Consideration might be given to sharing good examples of NTSs to provide help to applicants.

Further reading (personal recommendations) :

- Understanding Animal Research : Guide to writing non-technical summaries https://www.understandinganimalresearch.org.uk/news/communications-media/guidance-for-writing-a-nts/
- European Animal Research Association : Guidance document to improve the language and understanding of NTS for the general public https://static.wixstatic.com/ugd/e7d918_df60c32bacc94513a9d30ea827673243.pdf
- Katy Taylor, Laura Reo, Tilo Weber, *Recommendations to improve the EU non-technical summaries of animal experiments*, ALTEX Online, first published Nov.29 2017 doi:10.14573/altex.1708111