Sampling Standard

7th CDM roundtable

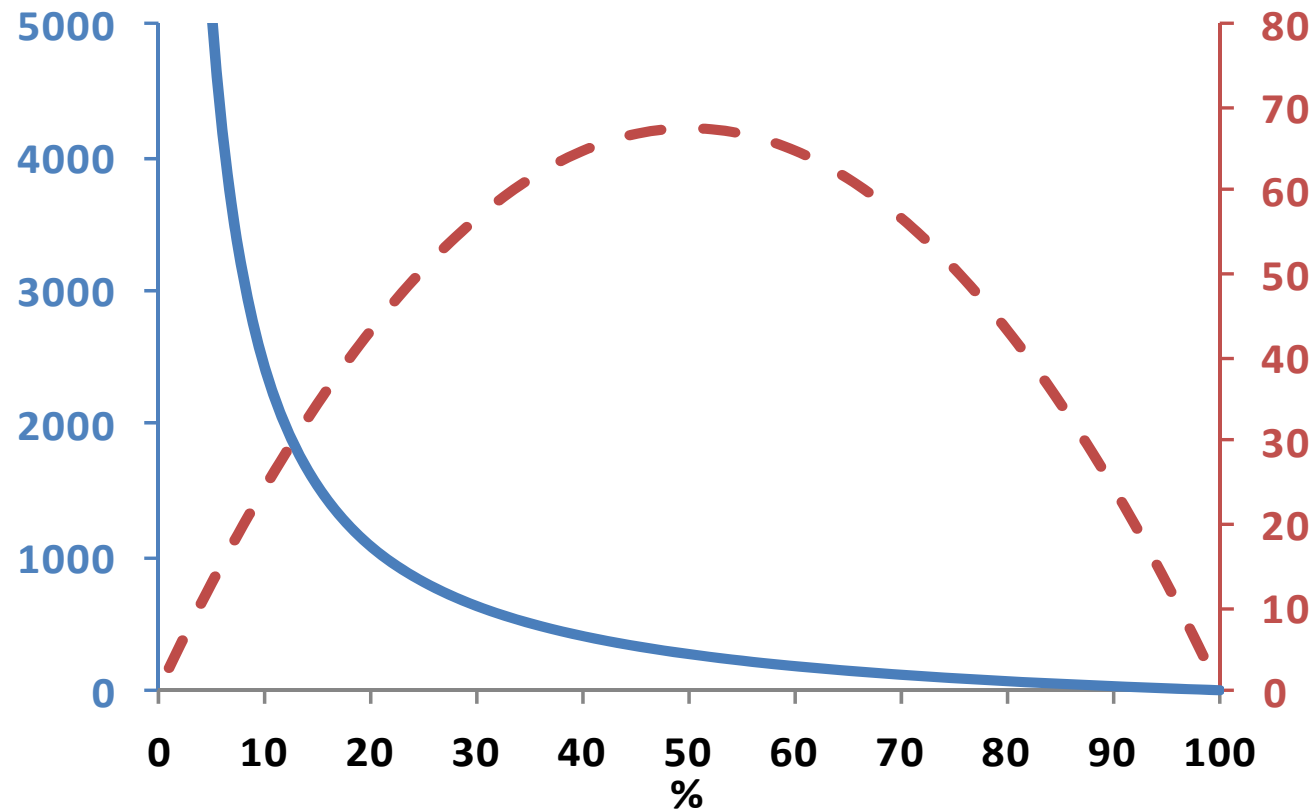20th April 2013

Bonn

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Sampling in CDM

Example: Important improvement of the new version - the problem

Calculation of the sample size for a proportion

- *Blue curve: Sample size calculated based on a relative error margin of 10%.*
- *Red dashed curve: Sample size calculated based on an absolute error margin of 10 percentage points.*

Example: Important improvement of the new version - the solution

As a *relative* unit *when the parameter of interest is a proportion (or a percentage).* For instance, ±10% in relative units means that the interval around a proportion value of 70% is 63% to 77%. A proportion can describe either of the two possible scenarios of the success rate or the failure rate – for example (i) cook stove still operational or (ii) cook stove no longer operational. Project proponents may use the larger of the two proportions in the sample size calculation, that is p or (1-p), in any of the monitoring periods during the crediting period without having to revise the monitoring plan;[9]

✋ Easy to apply

✋ Clearly described

✋ Low administrative effort

(no revision/deviation required)

The new version

👍 Improvement of the previous version

😐 Not easy to apply

😐 No sufficient practical guidance

(e.g. When to use which approach)

😐 High administrative effort

(revision/deviation might be required))

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Scientific correctness vs. practical application

- Appendix B: Best practice examples for reliability calculations:
  - 71 paragraphs
- Appendix C: Best practice examples - acceptance sampling:
  - 23 paragraphs

$$\frac{(n-1)s^2}{\sigma^2} \sim \chi^2_{(n-1)}$$
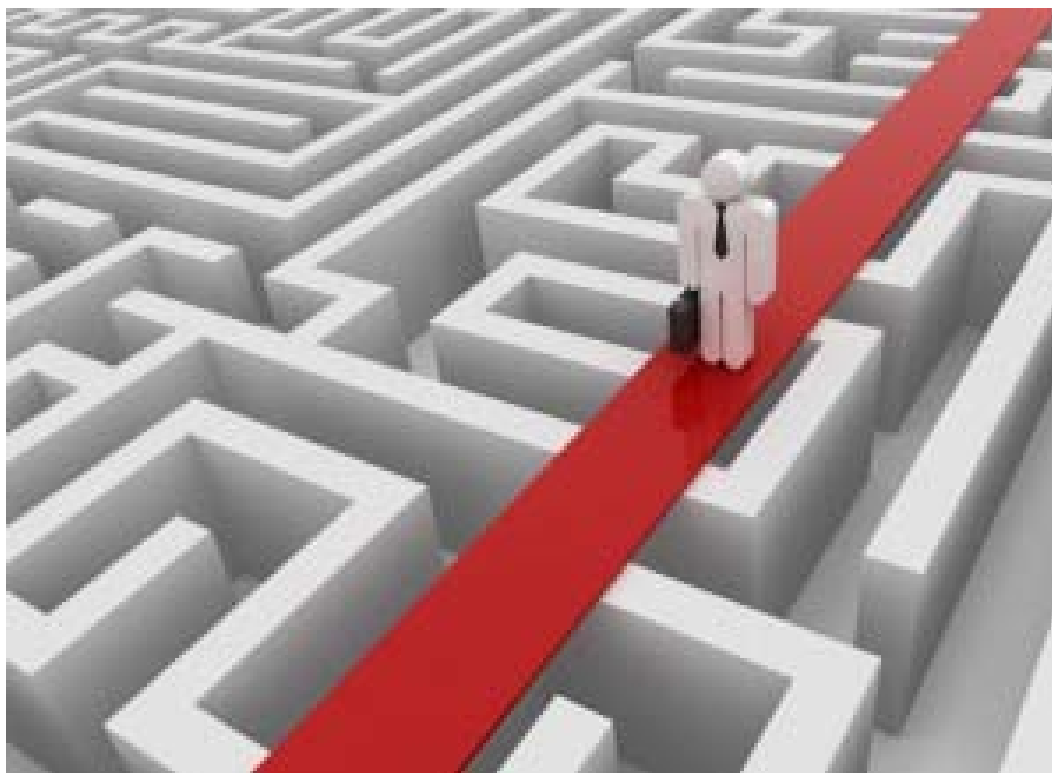
$$se = \sqrt{\sum_{h=1}^{L}\left(\frac{N_h}{N}\right)^2\left(\frac{N_h - n_h}{N_h}\right)\frac{s_h^2}{n_h}}$$

$$\bar{y}_{post-st} = \frac{1}{N}\sum_{h=1}^{L}N_h\bar{y}_h$$

$$r(c) = \frac{x^2_{1-\beta}}{x^2_\alpha}$$

$$\frac{x^2_{1-\beta}}{2\times UQL} \leq n \leq \frac{x^2_\alpha}{2\times AQL}$$

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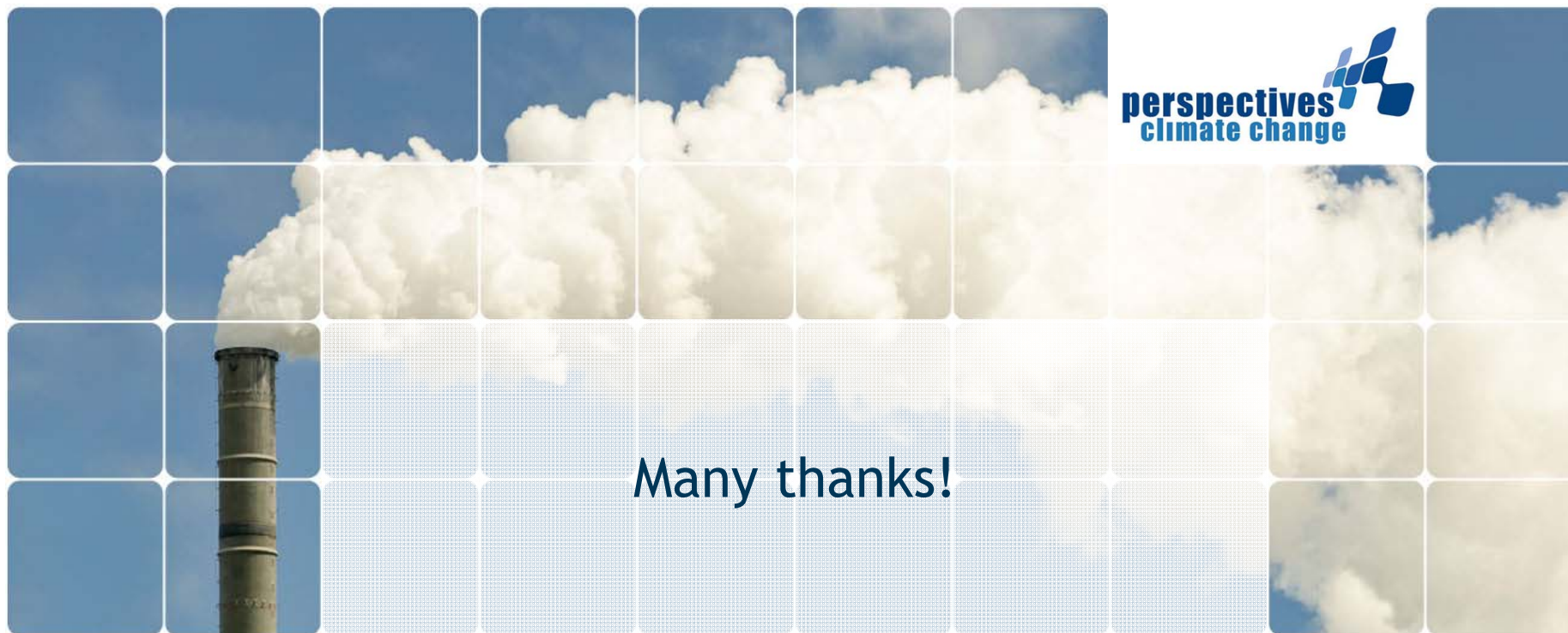# Guidance & practical examples required to promote projects

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The Sampling Manual

🙂 Simplification by allowing for conservative options

🙂 Low administrative effort
(No revision / deviation required)

🙂 More practical guidance

SAMPLING MANUAL
A GUIDE TO SAMPLING UNDER THE CDM WITH SPECIAL FOCUS TO PoAs
FIRST EDITION

KFW   perspectives
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Many thanks!

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