



Institute  
and Faculty  
of Actuaries

# The Good Actuarial Report Working Party – Interim Report

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30 September  
2014

# About The Working Party

- Part of GI ROC
  - IFA and CAS collaboration
  - Goal of practical guidance
  - What we have done
  - What is next
- Chris Smerald -Chair
  - Karen Adams
  - Simon Carne
  - Jacques Le Grange
  - Matthew Pearlman
  - Bertha Pilgrim
  - Aleksey Popelyukhin
  - Sonal Shah
  - Michael Smith

## Our Reasons For Joining The Working Party

- “I produced a really interesting analysis, but no one wanted to read it. It actually caused them pain.”
- “I review a lot of reports that could be better”
- “see tense or negative relationship (with) others, partly due to reports obscure technical jargon and length so the info does not land well.”
- “Am tired of being a reviewer of last resort. The accuracy of things submitted and their coherence can be an issue.”
- “Helping companies deliver “adequate, appropriate, accurate” results can be a struggle. I am also interested in psychology/people aspects”
- “Would love to help bring up the bottom of writing and analysis. GIGO. Good reports need sound underlying analysis like proper large loss treatment and no attempts to obfuscate.”
- “Want to see if there is anything new to learn and am interested in storytelling in a more traditional application”

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Why Is It  
Secret?

## The Secret

### to a Good Actuarial Report

How Do We  
Judge a  
Report Good?

Why Is Skilled  
Joining  
Important?

## Is a Dovetail

How Does  
One Write  
Well?

### of Good Writing & Exhibits

How Do You  
Make  
Exhibits  
Good?

### and Good End-to-End Communication

What Is  
This?

# Good Actuarial Report Agenda

## 1) A Poorly Hidden Secret

2) What Makes A Report Good

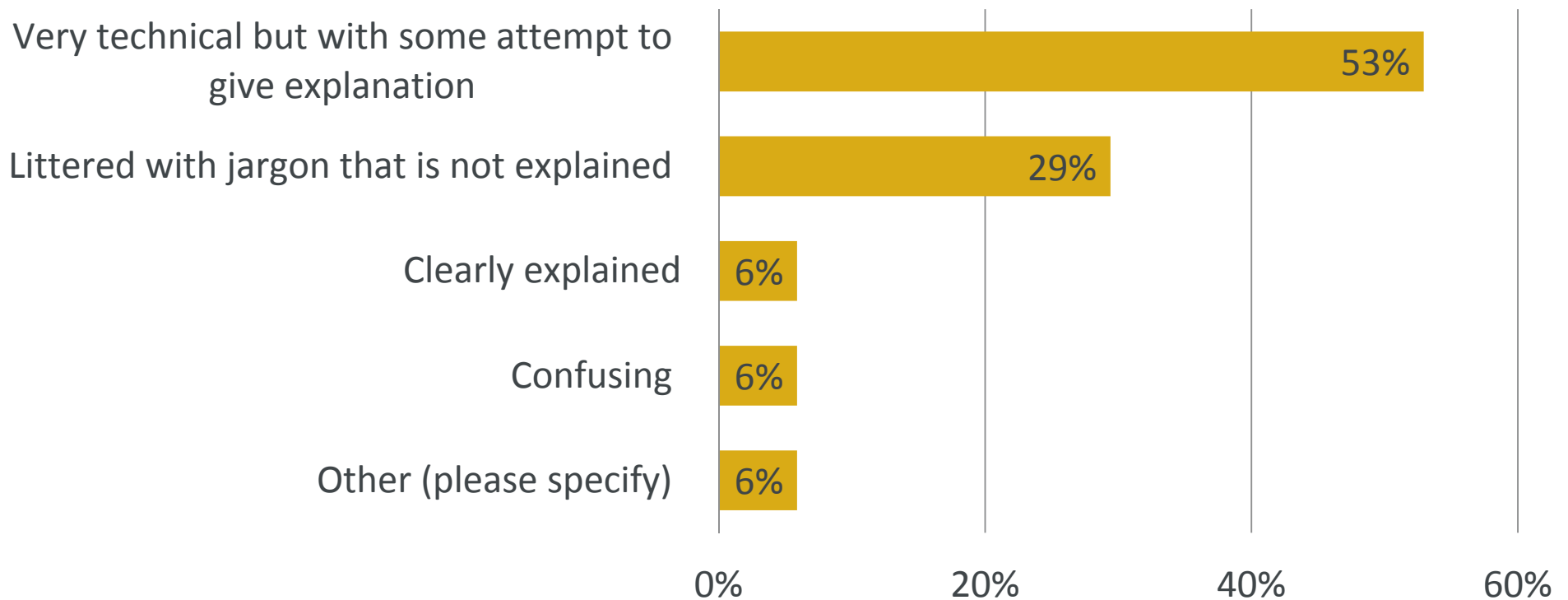
3) Good Basic Writing

4) Good Practical Illustrations

5) Good End-to-End Communication

6) Joining Up All The Elements

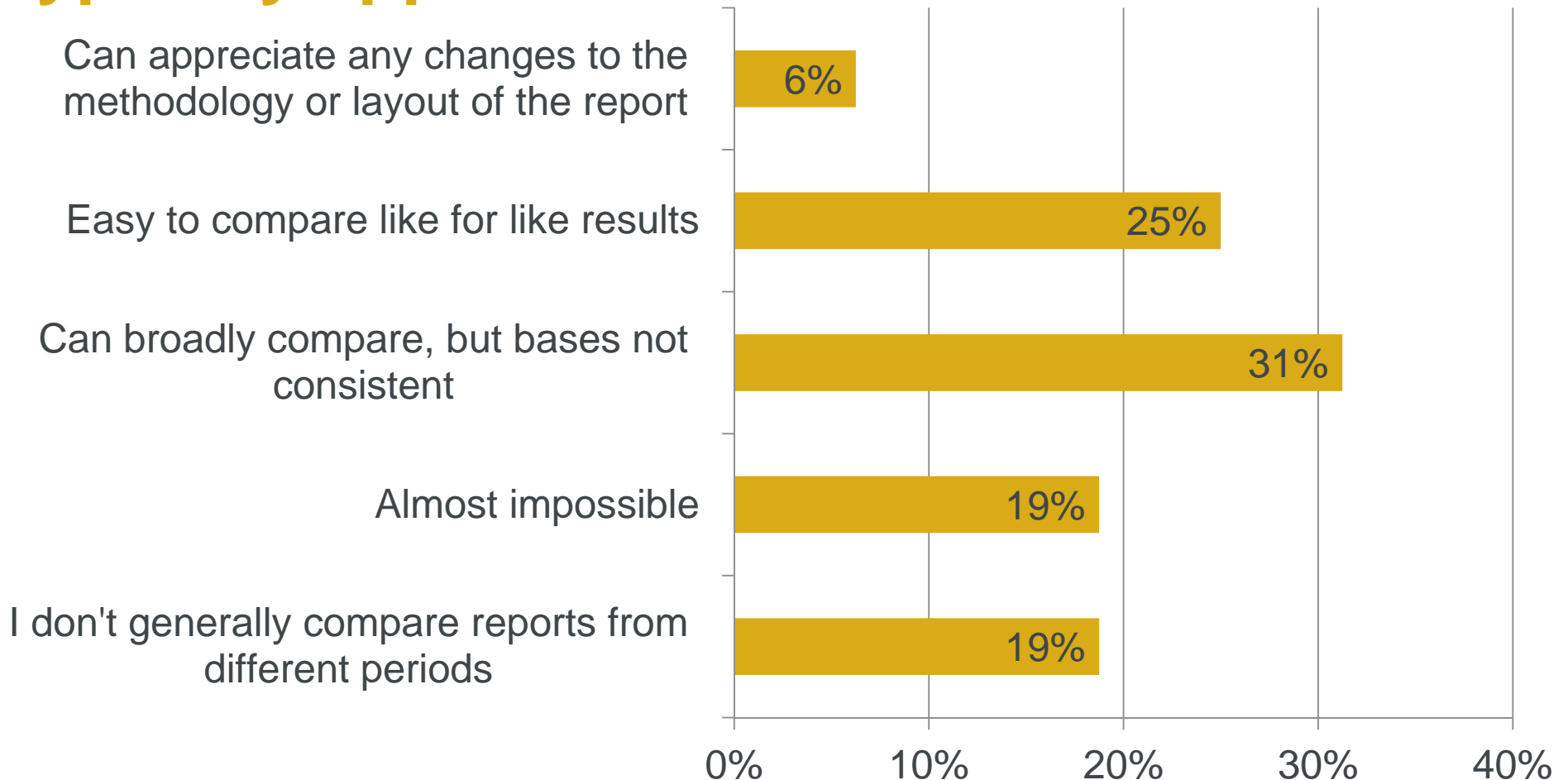
# Which of the following describes the tone and language you typically encounter in actuarial reports:



**“Actuaries use certain procedures and methods and refer to them a lot, but not many readers can understand them well.”**

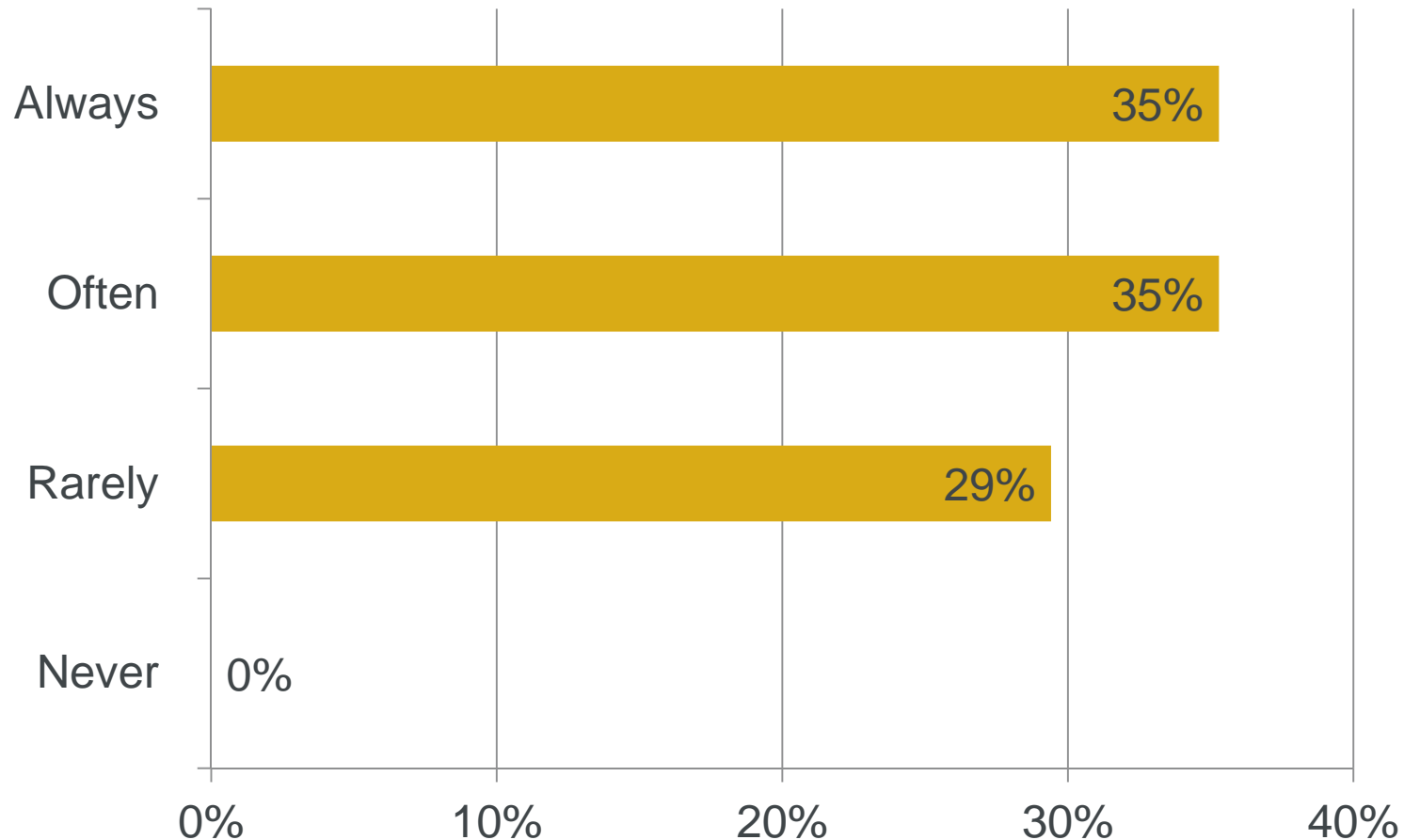


# When comparing actuarial reports over different periods, which of the following typically applies

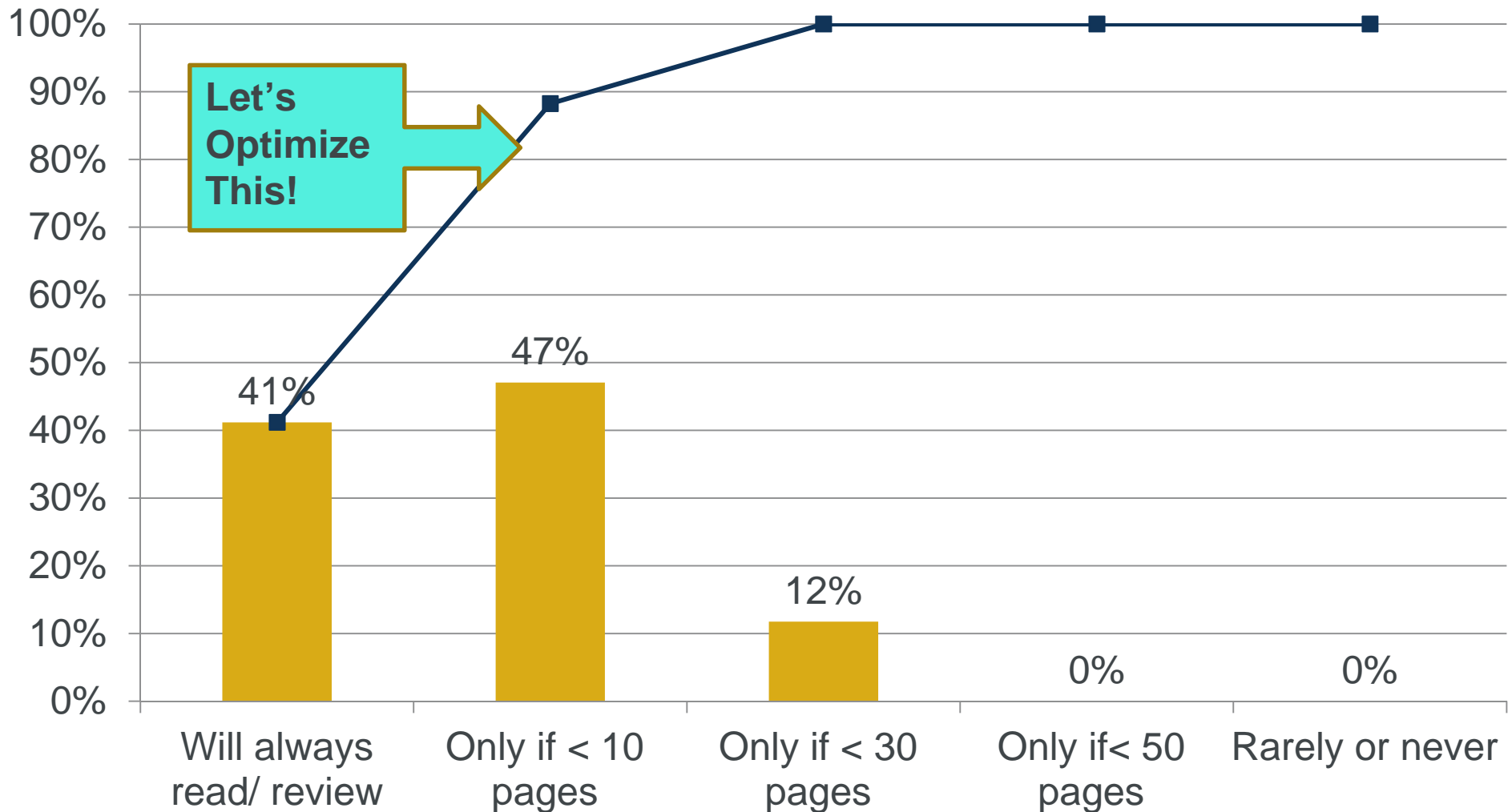




# How often will you read more than the Executive Summary of an actuarial report?

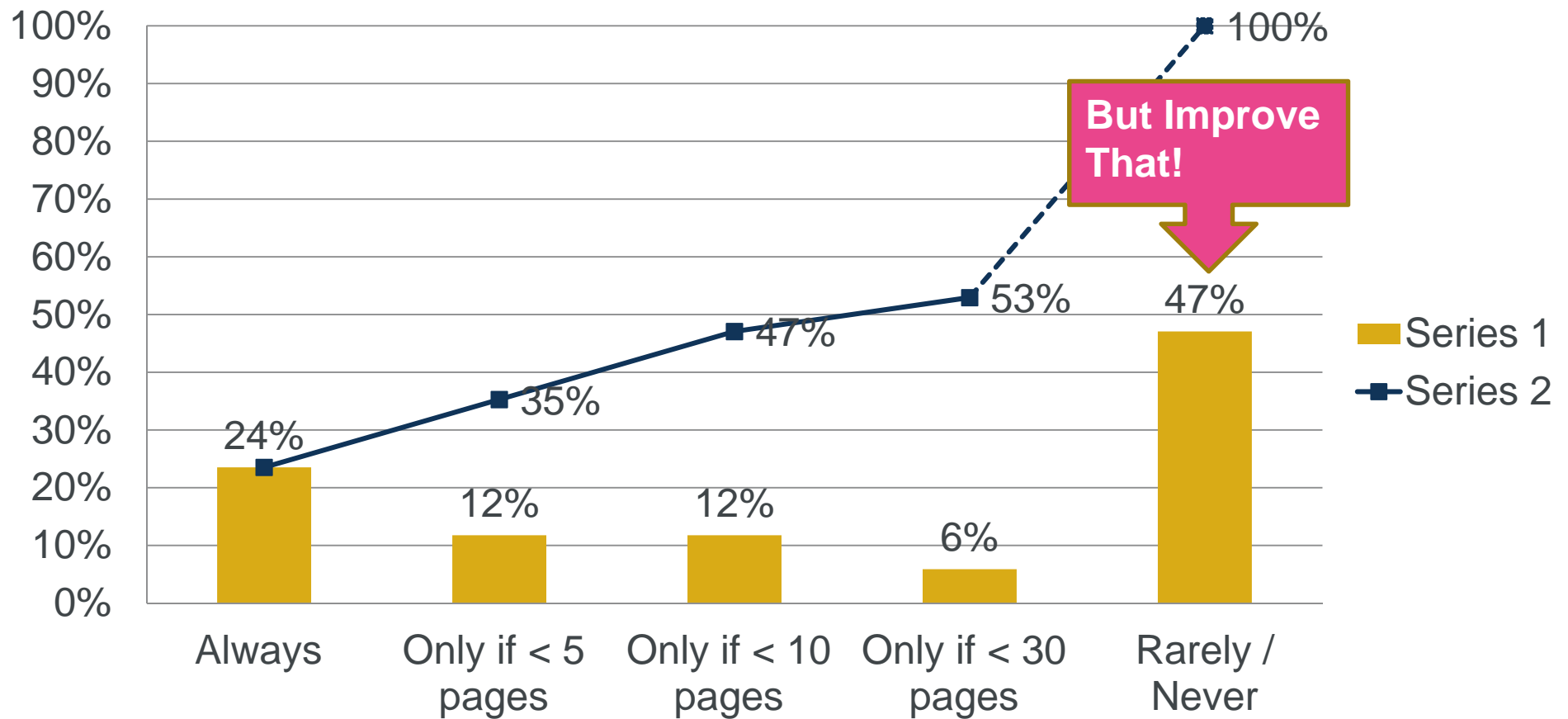


# Will you read/ review the main body of the report in full?



# Will You Read/ Review Information Provided As An Annex Or Appendices?

Chart Title



# Regulatory Concerns Sometimes Overshadow Management Needs

“In many cases, because the focus of the actuarial report is related to the completion of the audit and the strict timelines attached thereto.

The actuarial report will initially get read with a focus on those matters that relate to the opinion.

Therefore, it is possible that management and other recommendations coming out of the report, though important, are not given the priority they deserve.”

# Readers Want A Voice But Are Blocked By Unfamiliar Language and Too Many Technical Details

“When an actuary discusses things with an underwriter in a report, the language they are reading should be in language that leads them to have a clear voice in having input. As the level of information increases, most are loath to put their hands up (and make comments).“

# There is More To a Report Than How You Write It

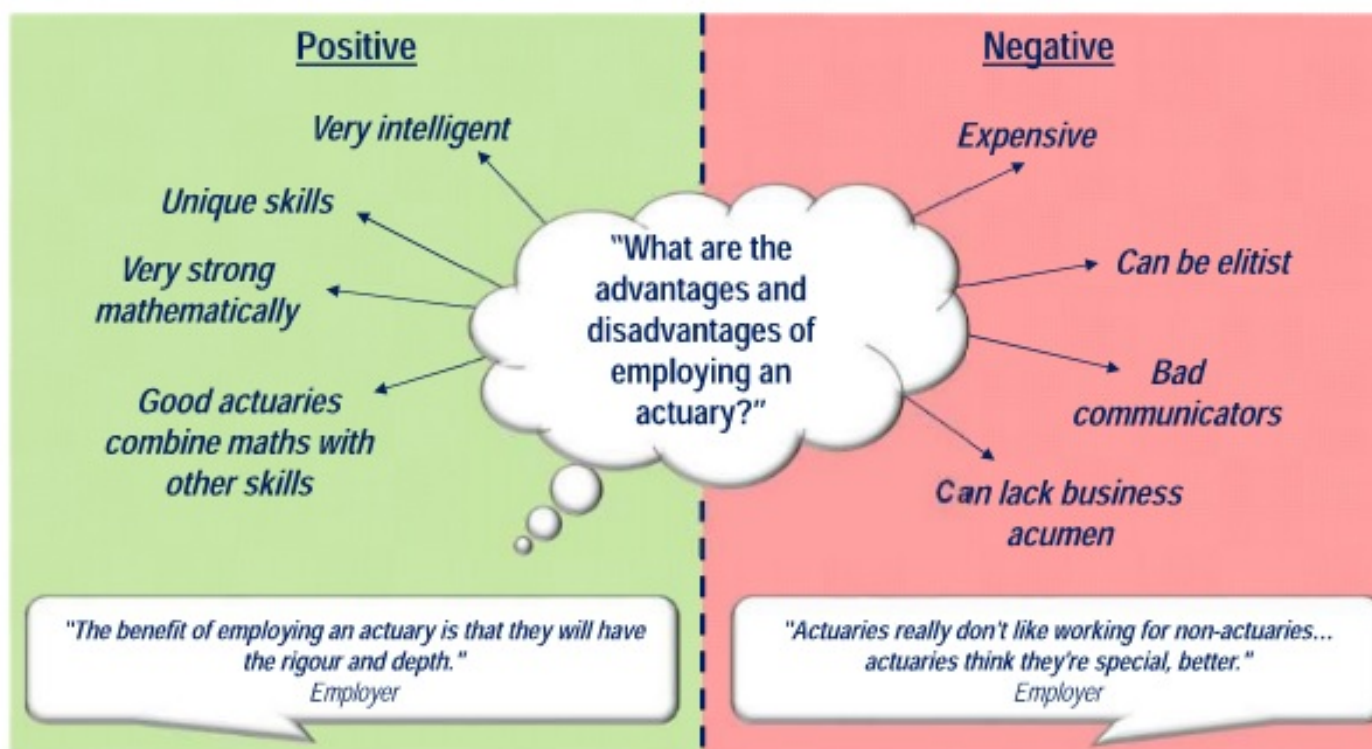
“It is not always clear that actuaries understand what **outside factors** could change the situation.”

“Too much emphasis by actuaries on predicting. Not all risk factors have really been considered.”

# Paying Attention to Marketing Research

While vital to employers' businesses, there is a sense that actuaries can be insular, and some do not relate their work to the broader needs of the business.

## BENEFITS AND DISADVANTAGES





## But it is Improving

GI ROC 2014 Survey (Sarah MacDonnell, LCP)

**Improvements in the last 7 years? Yes!!**

... Better data drives better estimate

... Better modelling in some sectors

... >>> Better communication but still not perfect <<<

BUT: “being forward looking and improving communication could be the next step according to nearly all participants!”

**WE THINK THAT BETTER COMMUNICATION AND LISTENING DURING OUR ANALYSES WILL HELP US WRITE BETTER REPORTS**

# Secret From Ourselves: The Curse of Knowledge

Making Ideas Stick –Chip and Dan Heath:

“The Curse Of Knowledge”

Once you know something, you can no longer imagine what it is like not to know it and thus are unable to explain it well.

Just read the book!

# Good Actuarial Report Agenda

- 1) A Poorly Hidden Secret
- 2) What Makes A Report Good**
- 3) Good Basic Writing
- 4) Good Practical Illustrations
- 5) Good End-to-End Communication
- 6) Joining Up All The Elements

## Desired Outcome For Readers:

1. Believe A Fair And Reasonable Assessment
2. Understand All The Conclusions And Their Context
3. Actionable
4. Empowered To Compare And Challenge Results
5. Complements World View
6. After Reading Can Explain Report To Someone Else
7. Professional Feel

## **Desired Outcome For Writers:**

1. Clear And Useful Report for Readers
  2. Staged For Improvement
  3. Satisfied But Aware Of Limitations
  4. Knowledge Gain
  5. Cleanly Updatable Process
  6. Meets Professional And Regulatory Requirements
  7. Report Builds Perceived Value And Trust By Stakeholders
-

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# Good Basic Writing

- A. Know What You Plan To Conclude (And How You Arrived At It)
- B. Decide On A Structure
- C. Make Your Explanation User Friendly
- D. Write A Summary That Can Be Read On Its Own
- E. Write An Effective Cover Letter, “Next Steps”, And Appendix
- F. Get Feedback



# A) Know What You Plan To Conclude (+Organize)

**Know in advance what is most relevant via considering:**

1. Your “commission” (Instructions)
2. Important extra findings found along the way
3. Stakeholder expectations

## **Organize your support logic**

1. Main analytic steps and enabling assumptions (things needing to be true)
2. Alternative methods/assumptions (what else might you have done?)
3. Your reasoning given the above (e.g., “I checked the alternative and it had a worse fit”)

## B: Decide On A Structure

Top down for most circumstances (a.k.a. Hypothesis Approach)

1. Start with the essential message - don't leave it to the end
2. Follow that with the material that supports the main message
3. Then the facts that support those statements
4. Explain and define things where needed

See Better Business Writing by Simon Carne (free download from <http://www.simoncarne.com/wp-content/uploads/bbw.pdf>);

or for a journalistic perspective: UNESCO's Story-Based Inquiry A Manual for Investigative Journalists (free download from: <http://unesdoc.unesco.org/images/0019/001930/193078e.pdf> )

## B: Decide On A Structure (Continued)

- Something else
  - Odyssey (Picaresque) “The sequence of events in time is less important than the ... movement through successive places each of which decisively influences actions” (see: UNESCO)
  - Others, like storytelling which is best for very complex situations ( a work in progress)
- But not bottom up (unless your audience proscribed it that way or you are dealing with actuaries)

Finally: Are we going PowerPoint and IPAD?

# C: Make Your Explanation User Friendly

## Style

1. Use your own voice
2. Do not overload sentences “(...)”; “71 words long”; “which”; “,...,”
3. Don't be bossy with: Compare, Consider, Note that, or Remember
4. Vary the length of sentences to avoid monotony
5. Avoid, but explain abbreviations

# C: Make Your Explanation User Friendly

## Substance

1. Don't simply make assertions Spell out the reasoning
2. Don't simply state outcomes: explain the implications of the outcomes,
3. Explain your exhibits before you present them

# D: Write a summary that can be read on its own

A **good** summary is “free-standing”

- It can be read without having just read the full report

The **most effective** summaries are written as a foretaste not a recap

Does your summary pass the CEO test?

Imagine someone senior reads the summary and nothing else

- Will your summary give them a fair reflection of the content (amount, quality of analysis, quality of reporting)?
- If the report is about selecting from a range of options, does the summary mention only the recommendation or indicate the options discussed?

## E: Cover Letter, “Next Steps”, And Appendix

1. Cover letter: caveats and “business” belong, but no summary or analysis please.
2. “Next Steps:” make it easy for them to use the report findings after the body of the report
3. Appendices: don’t overuse reference to appendices. Is this where regulatory overflow goes?
4. For file: It could go here if it does not need to e in the report?



## F: Get Feedback

1. What should we do more of?
2. What needs better explanation?
3. Do you want less detail or more?
4. Were there any parts of the analysis you want to be more involved in?
5. What actions did you take and why?
6. Etc.

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# A picture worth a thousand words?



There are consequences:

It takes the space of several paragraphs  
-so it better be worth it.

*It takes time to read and comprehend*

*It may be there to hide the fact that  
you have nothing to say*

## IT NEEDS A HYPOTHESIS

Charts can distort things while trying to make your point

# Graph And Chart Logic

1. Precede with an explanation
2. Most poor graphs and charts have no clear hypothesis
3. Stick to relationships, trends or convenient lookups
4. Make clear what is the variable and what are the primary and subsidiary outcomes against the variable
5. Area comparisons are difficult so avoid thing like pie charts and stacked bar charts
6. As a rule, include the origin

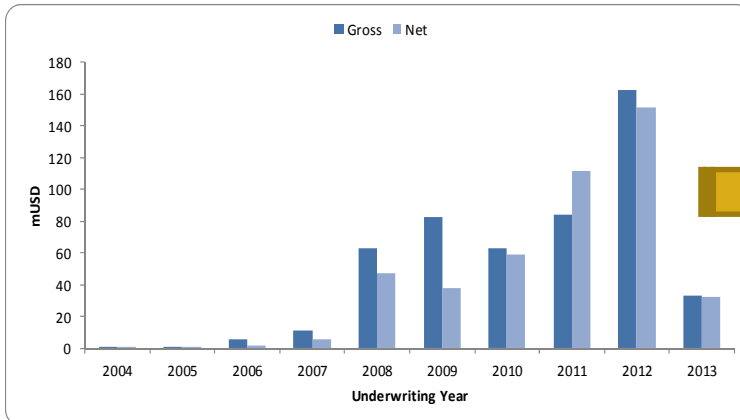
# Graphs and Charts: Extra Edge

1. Provide visual cues to decipher and show them how (circle)
2. Use visual language to emphasize (line weights, colours, arrows)
3. Explain encodings: legends, axis names, colour keys
4. Don't forget aesthetics. Visually pleasing illustrations grab attention and make memorable images

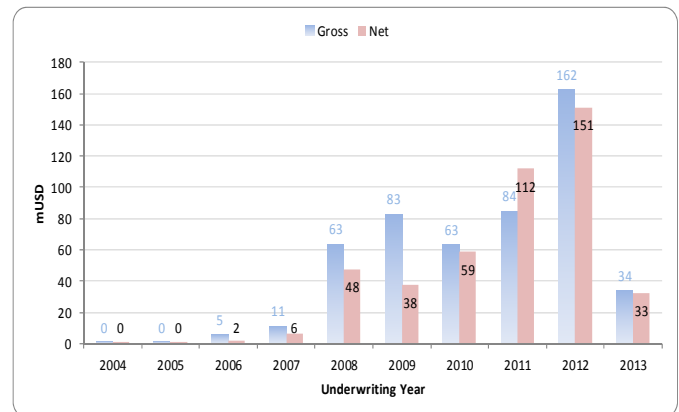
# Telling a story with numbers - Emphasis

## IBNR Breakdown 2013 Q2

Total AUAL and AICE Cat and non-Cat Short tail and Long tail All currencies in cnv mUSD		
	Gross	Net
2004	0.0	0.0
2005	0.1	0.1
2006	5.5	2.0
2007	10.9	6.0
2008	63.2	47.6
2009	82.8	37.6
2010	63.1	58.9
2011	84.5	111.9
2012	162.3	151.3
2013	33.5	32.6
All	821.6	449.6



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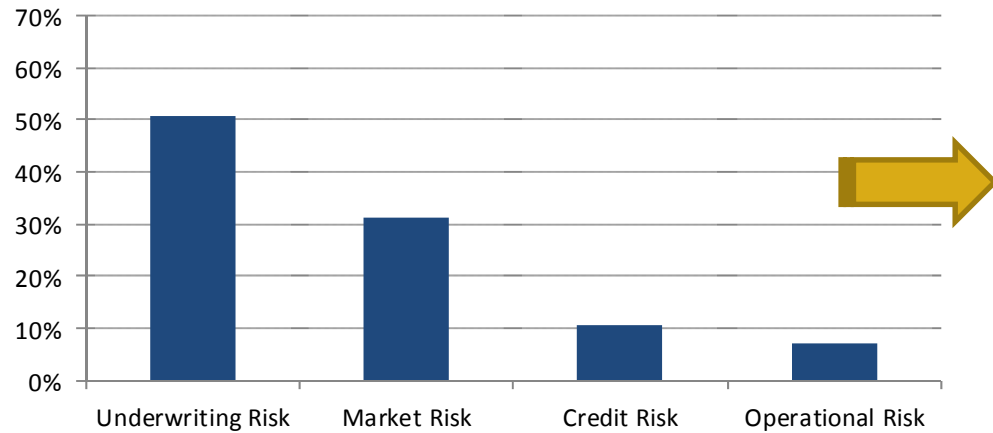


## Focus Audiences attention:

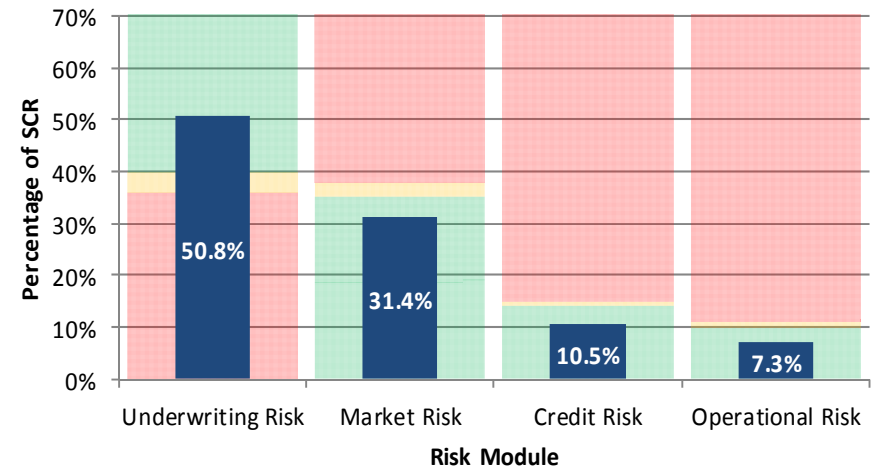
- Data is the king
  - ruthlessly remove the rest (unnecessary labels, formatting, other visual clutter): try to achieve eloquence through simplicity.
- Use Visual layers
  - dashed line, normal line, double line: Bring most important data series on top
- Storytelling techniques
  - series of zoom-in charts, minor animation, workflows

## Graphs – Emphasise range of possibilities

Risk Mix as %age of SCR



Risk Mix as %age of SCR



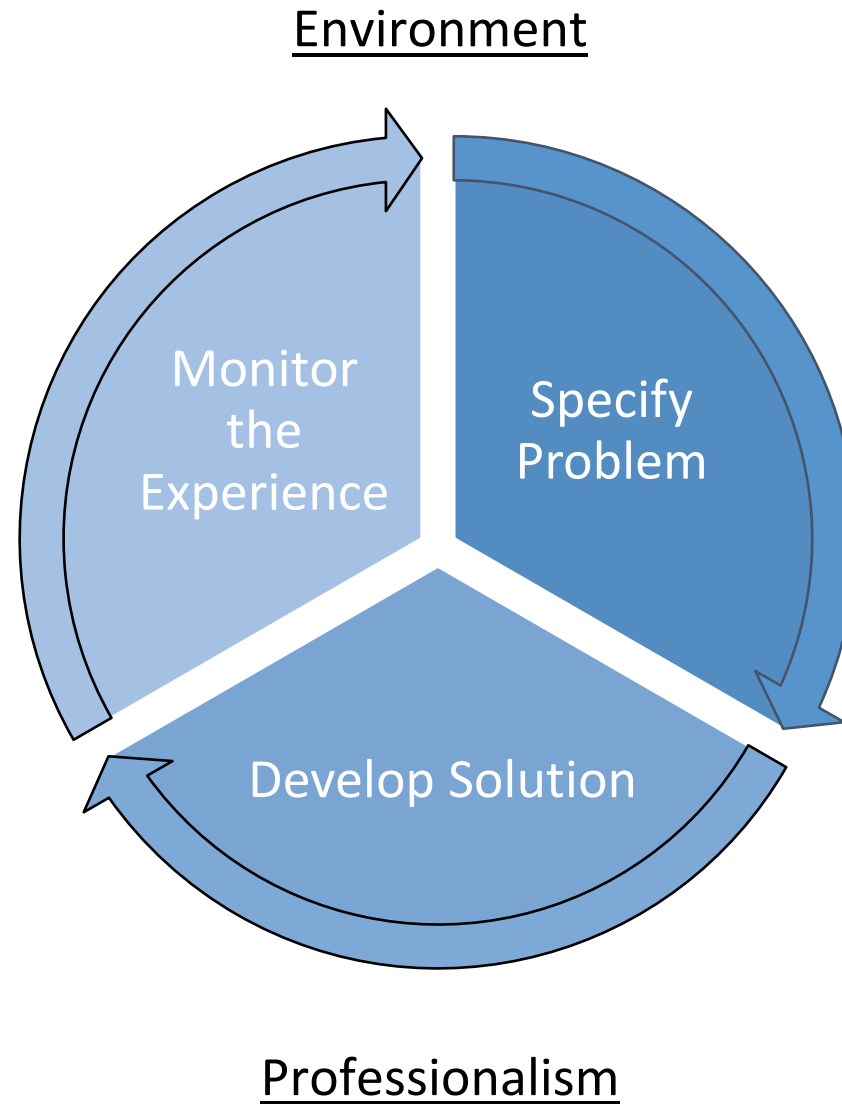
- Eye while reading moves from left to right and from top to bottom
  - It affects how you sort years axis (first year on the left) and where you display legend relative to chart area
- Luminance is a primary info source for the eye. Hue and Chroma are secondary
  - You should get contrasts and line weights right before applying colours – always check how your chart looks in grey scale.
  - Shades of the same colour accentuate similarity while different colours infer belonging to a different group or value
  - Change in shade or hue will be noticed and can be used to display values rather than groupings

# Good Actuarial Report Agenda

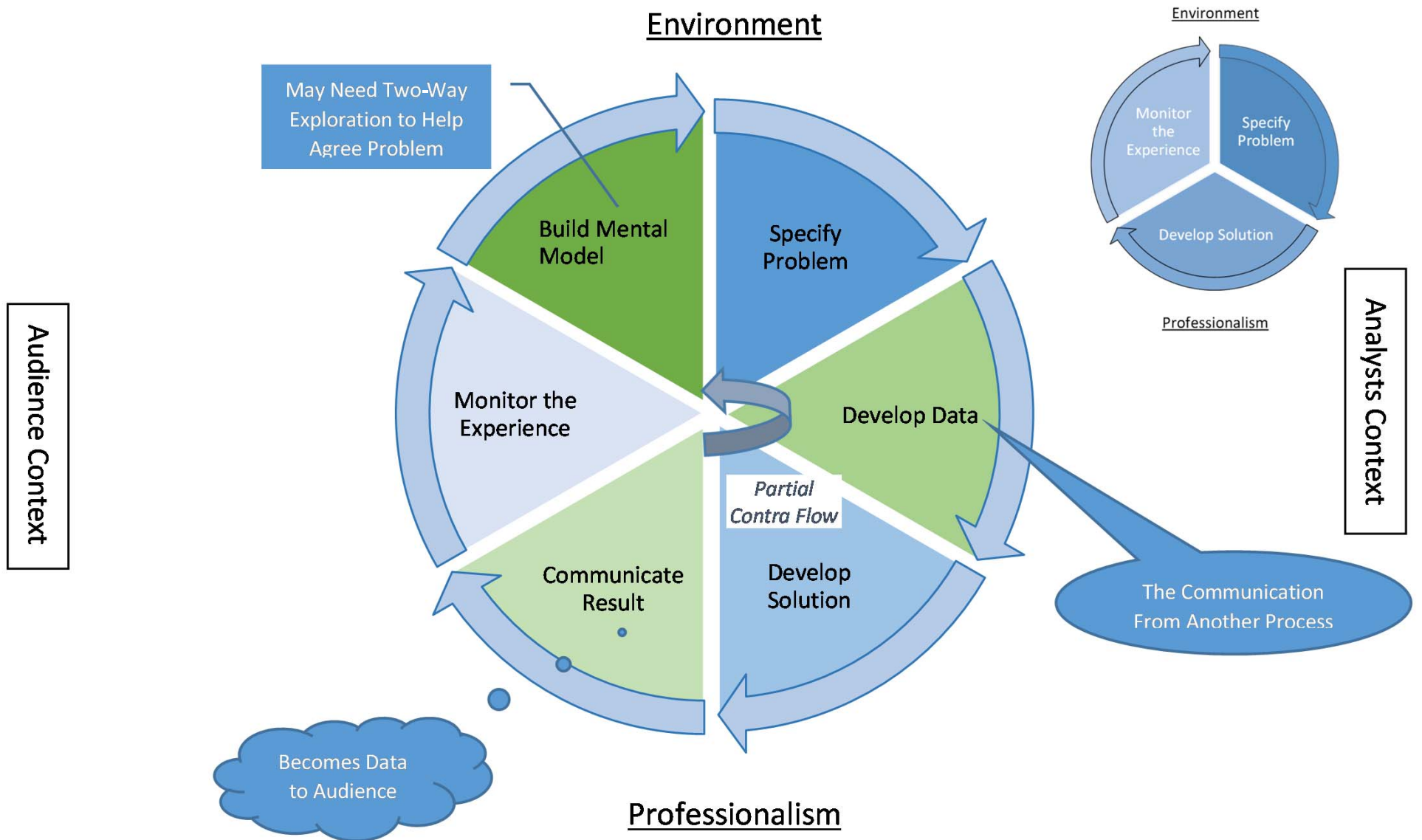
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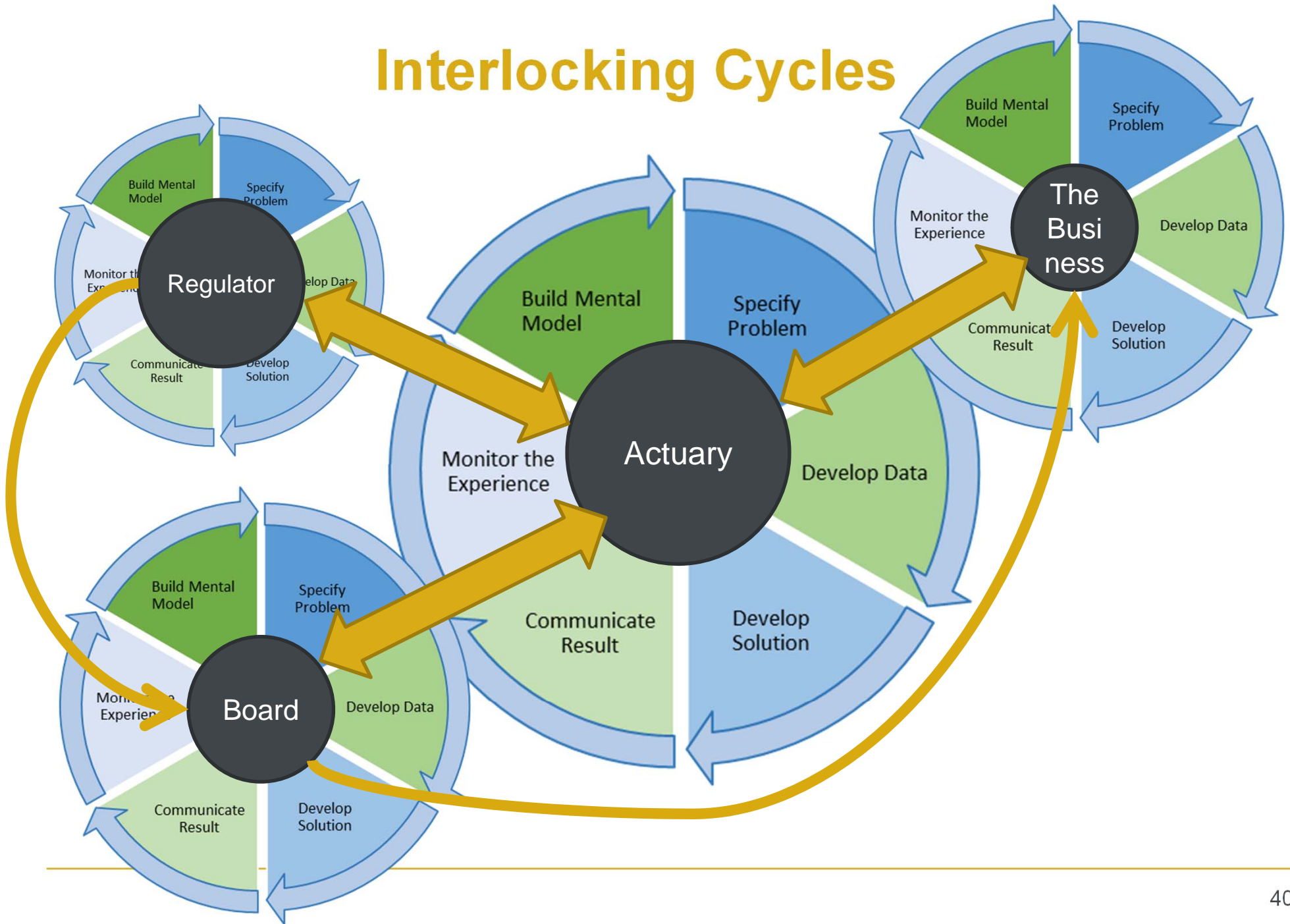
# Actuarial Control Cycle



# Actuarial Communication Cycle



# Interlocking Cycles



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# Joining It Up: A Dovetail of Good Writing & Exhibits and Good End-to-End Communication

## Philosophical Challenge:

GI ROC member: “I’d observe that the emerging challenge, to better communicate, is a lot deeper than a good piece of text or chart, but is about developing an effective process of engagement and influence.”

## Practical Challenge:

By expanding communication and analytic steps to better consider multiple viewpoints on the same issue, the complexity of doing an analysis and writing a report is increased, but the extra work is necessary if the goal is a **Good Actuarial Report**

For Great analogous discussion see *Improving the structure and content of psychiatric reports for sentencing* Rosie McLeod, Anna Sweeting, Roger Evans  
<http://www.ohrn.nhs.uk/resource/policy/ImprovingPsychiatricReports.pdf>

# Practical Challenge: Joining It All Up

There are several observations here.

1. Craftsmanship is needed. There is no recipe to follow, but there are principles, realities, goals and constraints to navigate.
2. We build value by our skill in achieving a good balance in how the disparate elements are effected joined.
3. There may be opportunity for a “house” or personal style.

Does thinking about it the below way help?

1. Begin simply and with subsets (not the whole)
2. Build in each dimension part way
3. Prioritise and figure out how to marry them
4. Extend and embellish the structure as you gain momentum



**Questions**



**Comments**

Expressions of individual views by members of the Institute and Faculty of Actuaries and its staff are encouraged.

The views expressed in this presentation are those of the presenter.