

# Users' perceptions of building performance – an analysis of the occupants' comments

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Organisers:



International Co-owners:



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Promoting Policies and Practices for Sustainability



# Introduction and Aims

- The PROBE Studies (CIBSE Journal and BRI, 2001/2)
  - The BUS Methodology.
  - A 45 factor questionnaire (scored on 7 point scales)
  - Comments invited on 10 factors.
- 
- Main Aims
  - Investigate the nature of the comments
  - Compare the comments to the scores



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# Occupant Survey and Analysis

- 55 buildings and 4,500 occupants
  - - 40 commercial; 15 institutional
  - - 39 sustainable; 16 conventional
- The ten factors where comments were invited
  - - design; needs; meeting rooms; storage; desk space;
  - - noise; lighting; comfort; health; productivity.
- Scoring response rate - 91.6%
- Commenting response rate - 30%
- Positive, Negative, Balanced, No comment



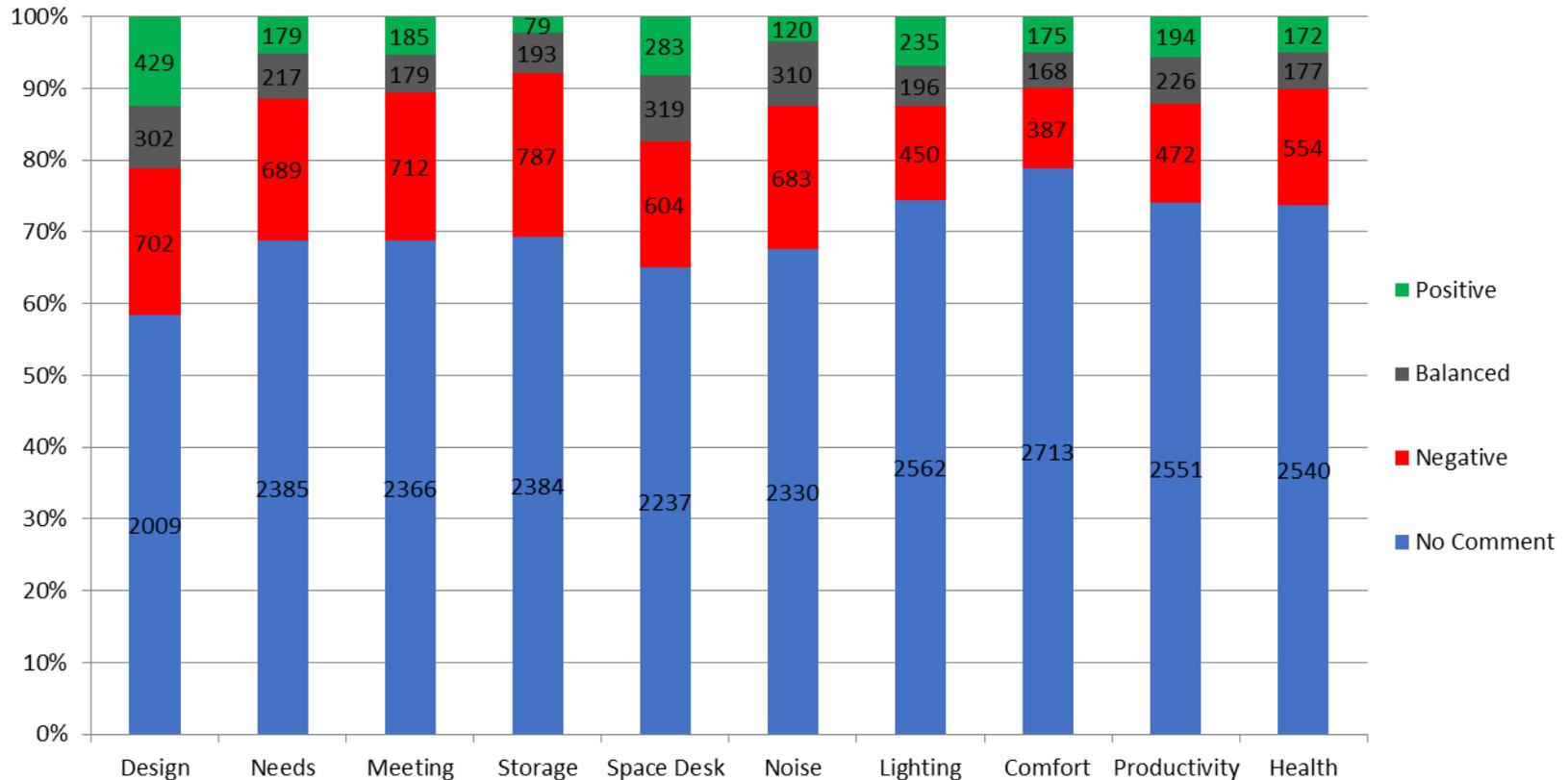
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# Numbers and percentages of comments on each factor

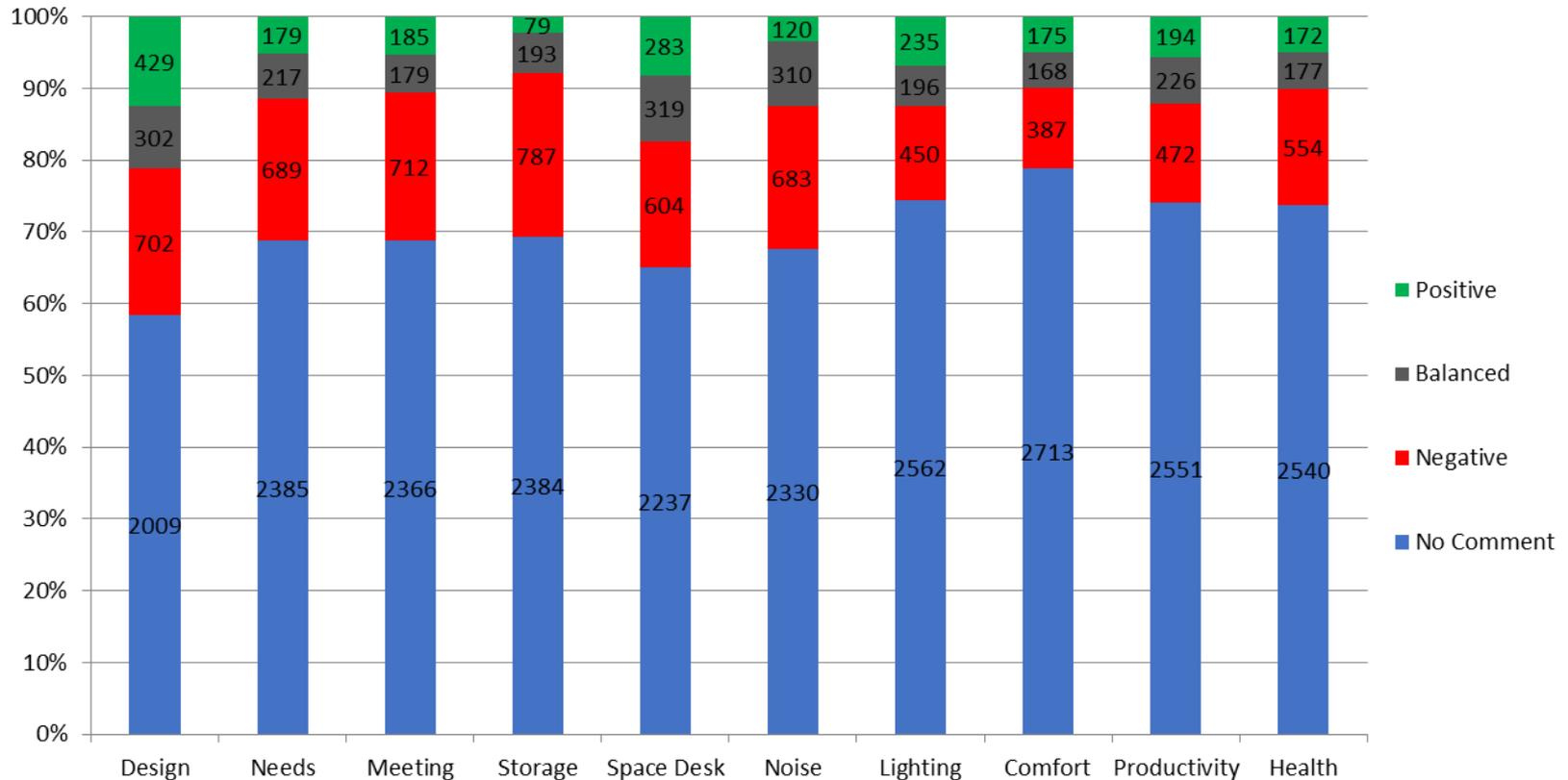


# Number and Nature of Comments

- “No Comment”
- Range – from Design at 58% to Comfort at 79%
  
- Averages: No Comment – 70%
- Negative -17.4%
- Positive – 6.0%
- Balanced – 6.6%
  
- Ratios – Negative to Positive: Design – 1.6:1
- Average – 2.9:1
- Noise – 5.7:1
- Storage – 10:1



# Numbers and percentages of comments on each factor



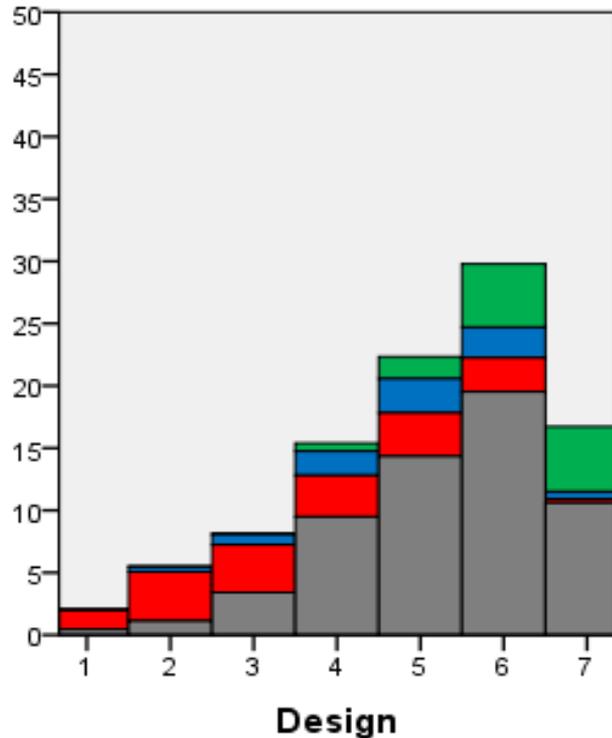
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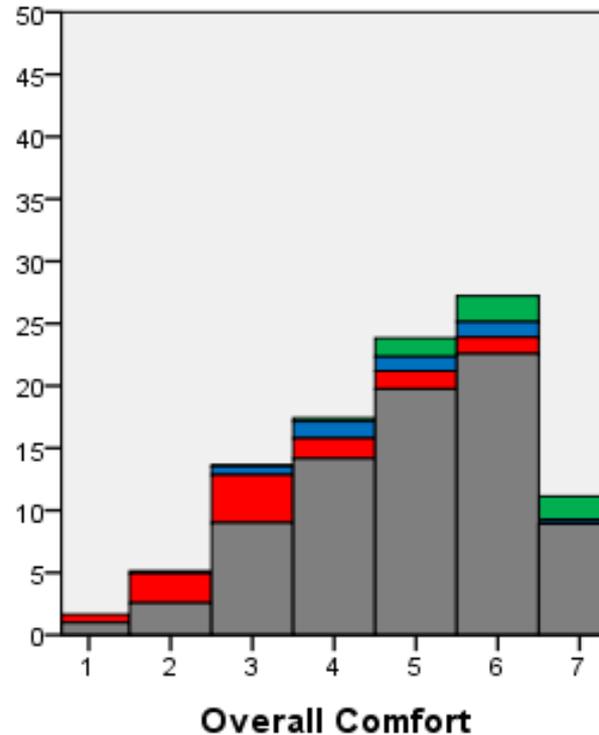
# Comments cf. Scores

No Comment
  Negative
  Balanced
  Positive

## Design



## Overall Comfort



# Comments cf. Scores

- **Good Scores >>>>> Positive Comments**
- **Poor Scores >>>>> Negative Comments**
  
- **However, good scores do not preclude negative (perhaps helpfully intentioned) comments**
  
- **But NOT vice versa**



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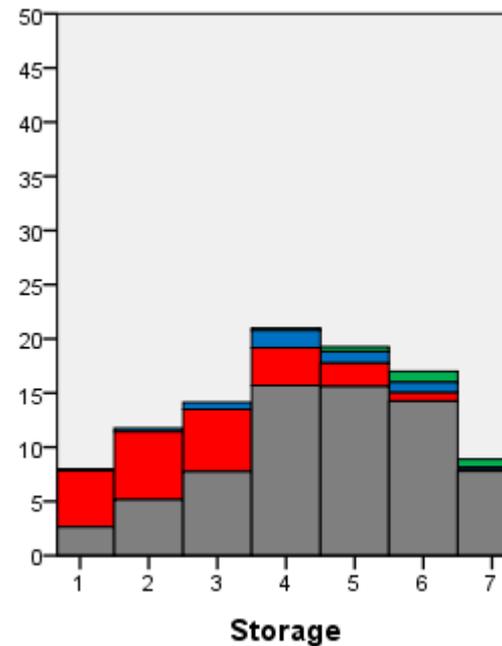
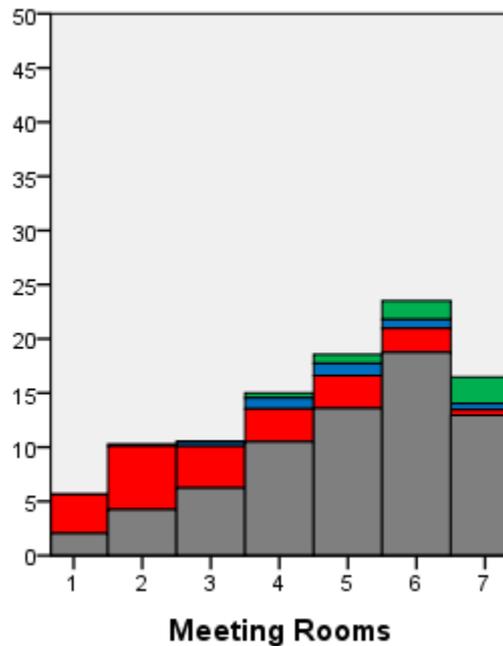


# Comments cf. Scores

No Comment
  Negative
  Balanced
  Positive

## Meeting Rooms

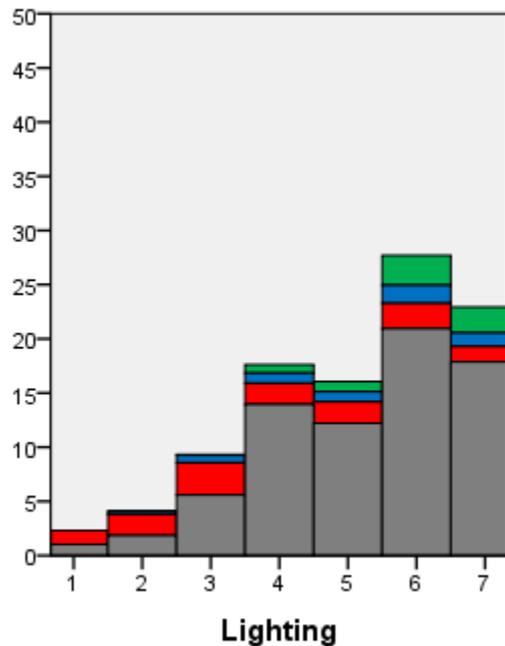
## Storage



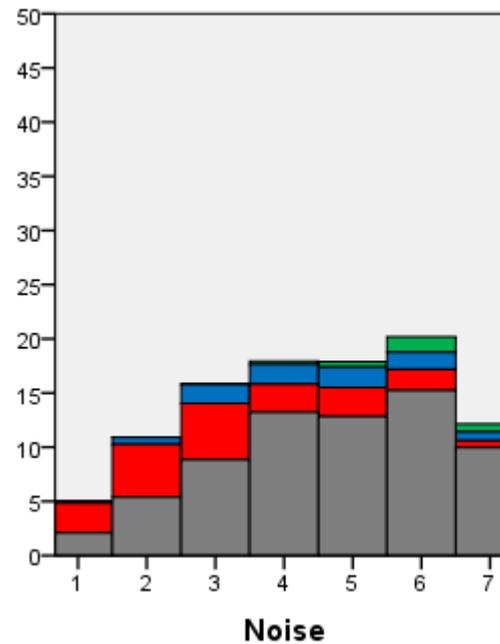
# Comments cf. Scores

No Comment
  Negative
  Balanced
  Positive

## Lighting



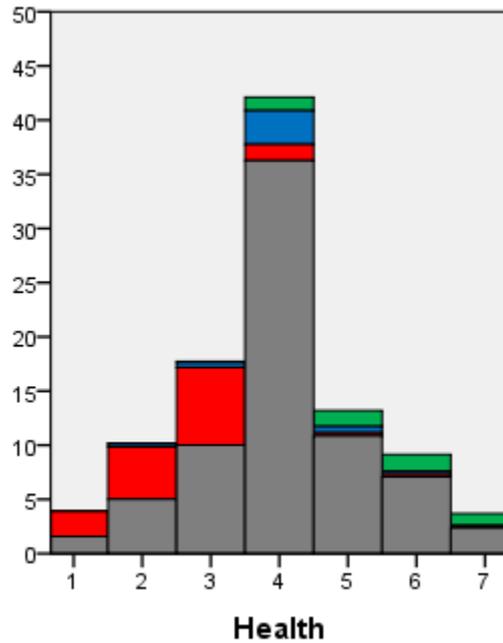
## Noise



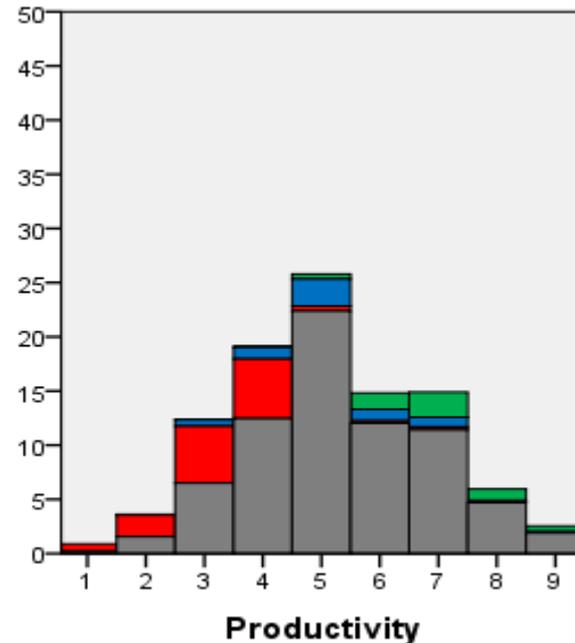
# Comments cf. Scores

No Comment
  Negative
  Balanced
  Positive

## Health



## Productivity



# Building Type comparisons

- Sustainable cf. Conventional
- No Comment and Balanced very similar
- Sustainable building occupants had higher proportion of positive and lower proportion of negative comments
  
- Sustainable Commercial cf. Conventional Commercial
- Sustainable buildings had a negative to positive comments ratio of 2:1 cf. 4:1 for the conventional.
  
- Commercial cf. Institutional
- Commercial buildings had negative to positive comments ratio of 3:1 cf. 4:1 for the Institutional.



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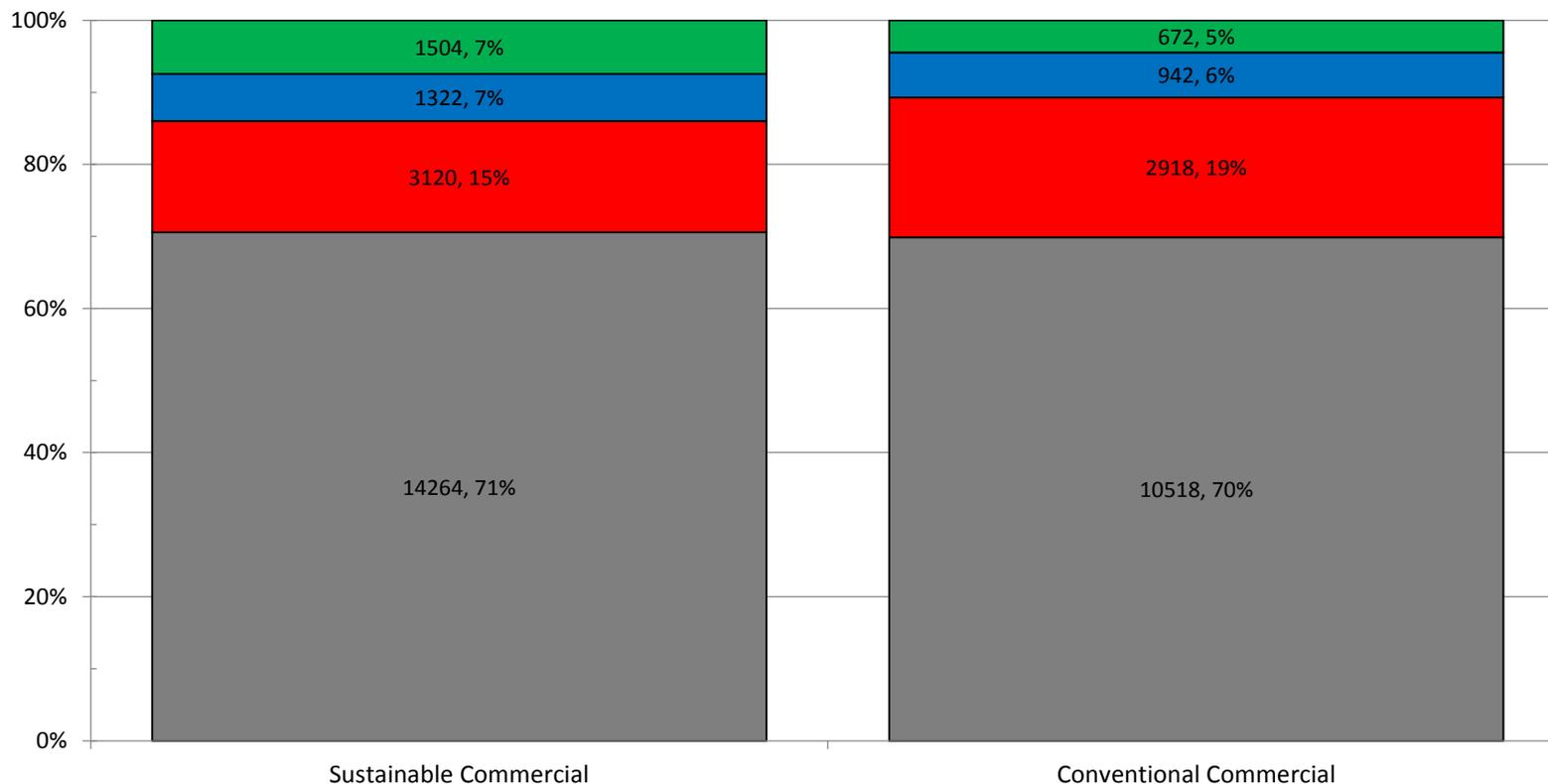


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# Commercial Buildings Sustainable vs Conventional

No Comment
  Negative
  Balanced
  Positive



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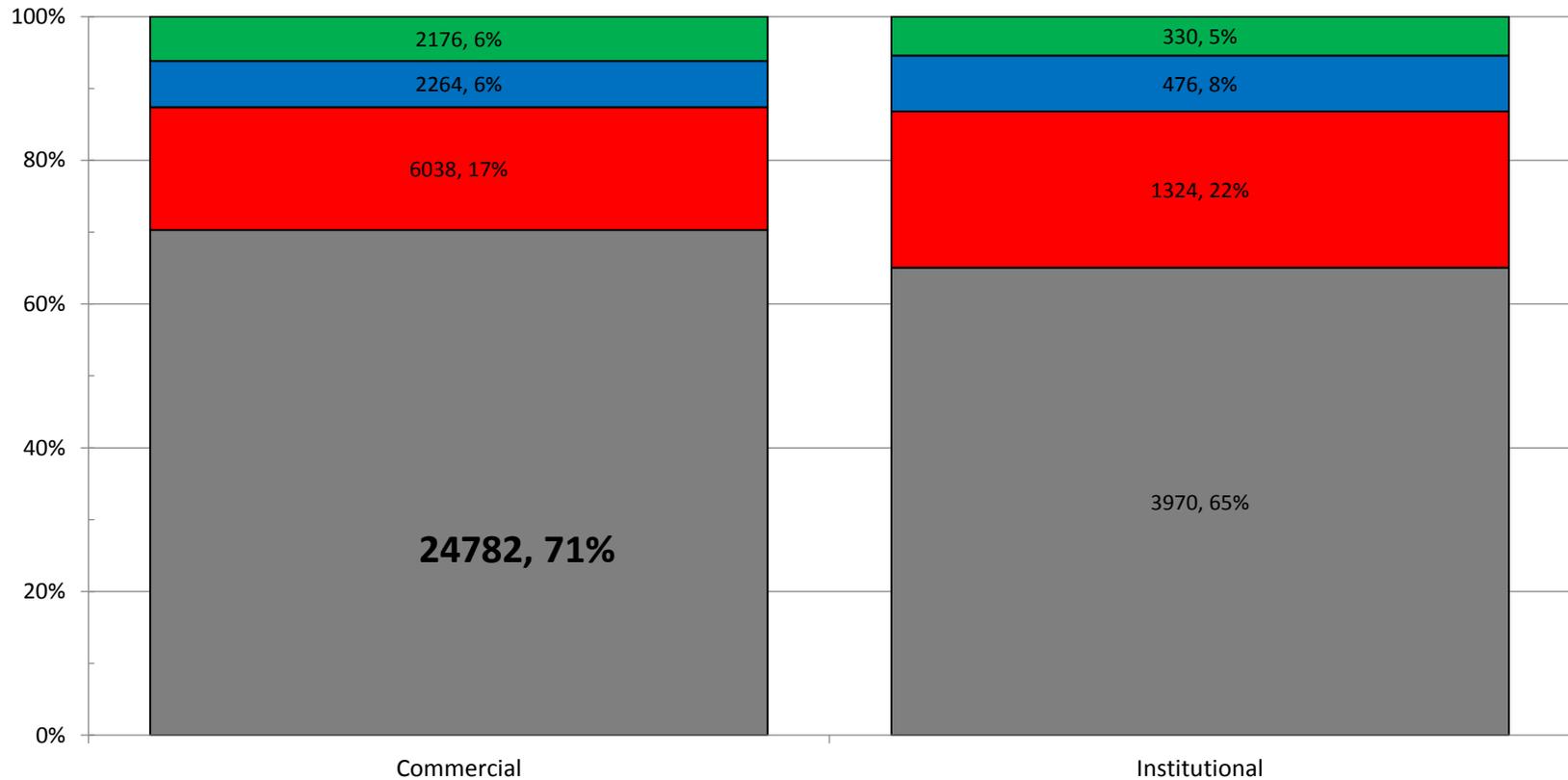


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# Commercial vs. Institutional

No Comment
  Negative
  Balanced
  Positive



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# Conclusions

- **Users' comments are an excellent and reliable indicator of building performance**
- **Occupants evaluations of their buildings are very discerning – good scores can be accompanied by negative comments, though rarely vice versa.**
- **The ratio of negative to positive comments averaged 3:1 - a possible benchmark?**
- **Sustainable buildings received more positive comments and fewer negative comments than the conventional.**



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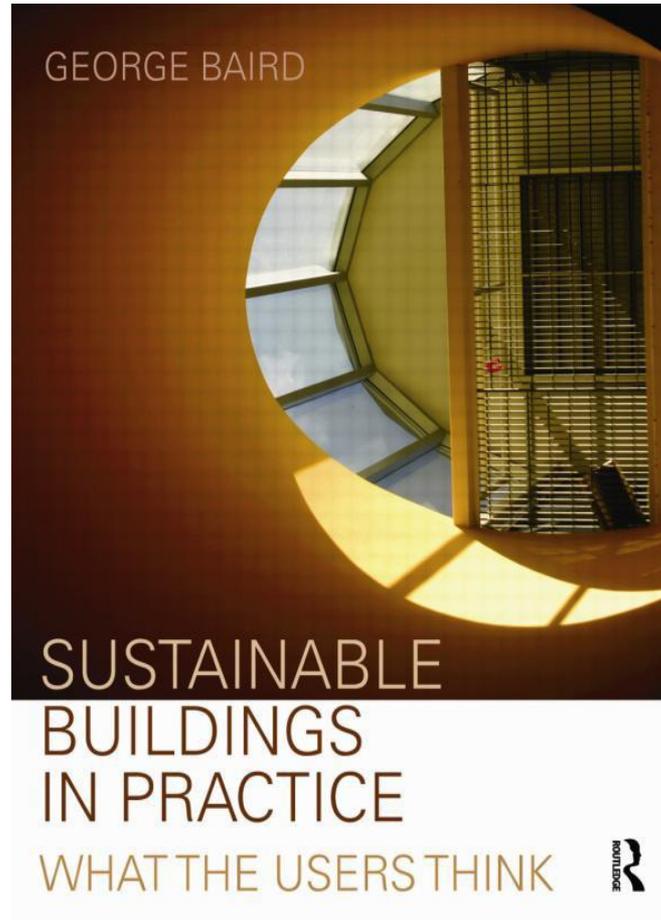
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# Want to know more about user surveys?



- [George.Baird@vuw.ac.nz](mailto:George.Baird@vuw.ac.nz)
- Published by Routledge, UK, 2010, in English
- and by China Architecture and Building Press, 2013 in Chinese



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# Thank you



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