

Achieving Sustainable Urban Brownfield Regeneration

Birmingham and Midlands Institute
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Responding to Climate Change

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Climate Change and Brownfield Remediation

- n Predicted that UK will be subjected to warmer and wetter winters, hotter and drier summers, rising air temperatures, increased storminess and heavier rainfall
- n Leading to increased risk of significant pollutant linkages
- n Climate change may require different adaptation strategies for contaminated brownfield sites

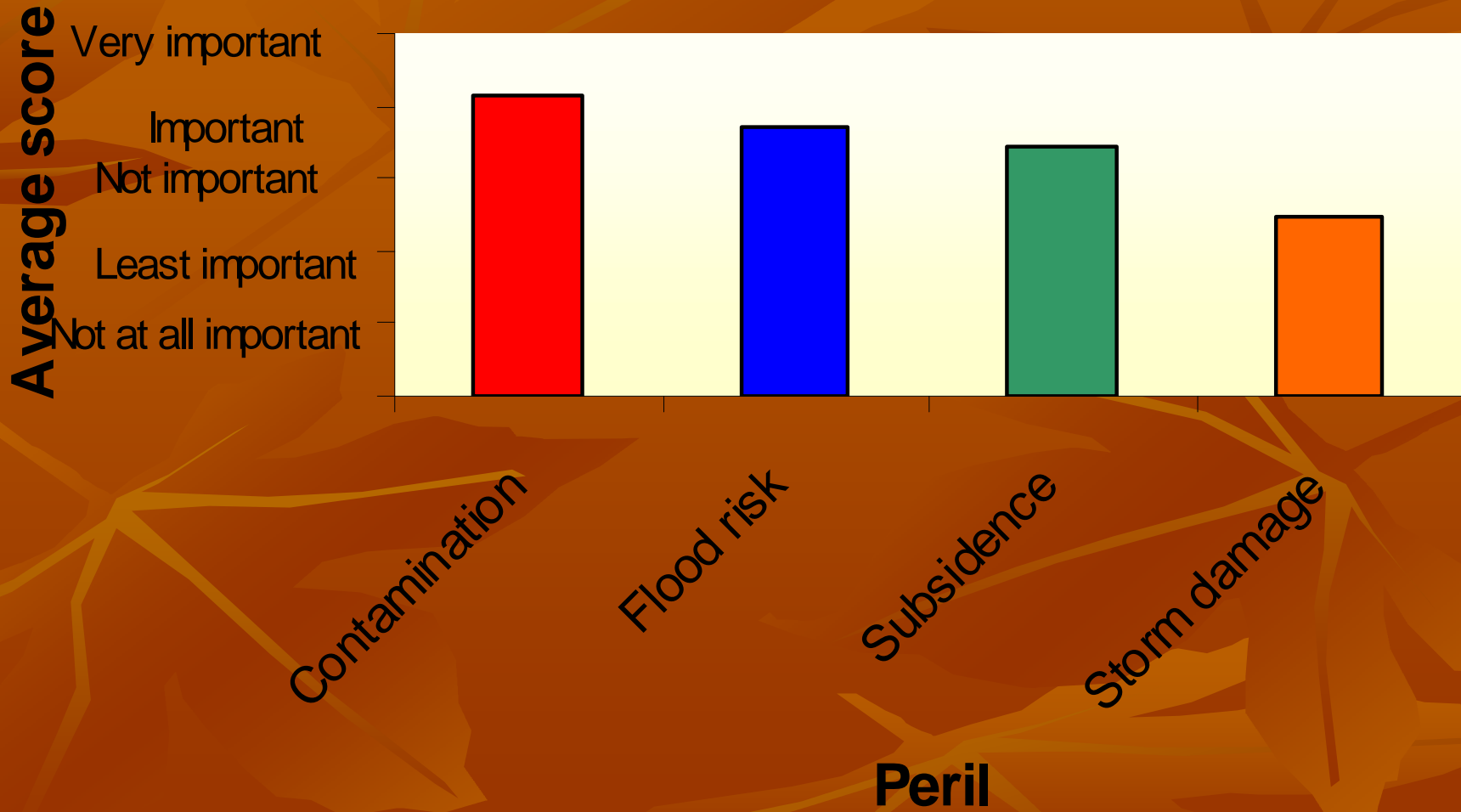
Research Aimed To....

- n Quantify the short- and long-term impacts of climate change predictions
- n Evaluate the effects of climate change on contamination linkages
- n Develop appropriate adaptation design strategies to account for climate change
- n **Examine the adaptive response of key brownfield stakeholders to climate change**
- n Provide guidance on the likely effect of climate change on brownfield remediation

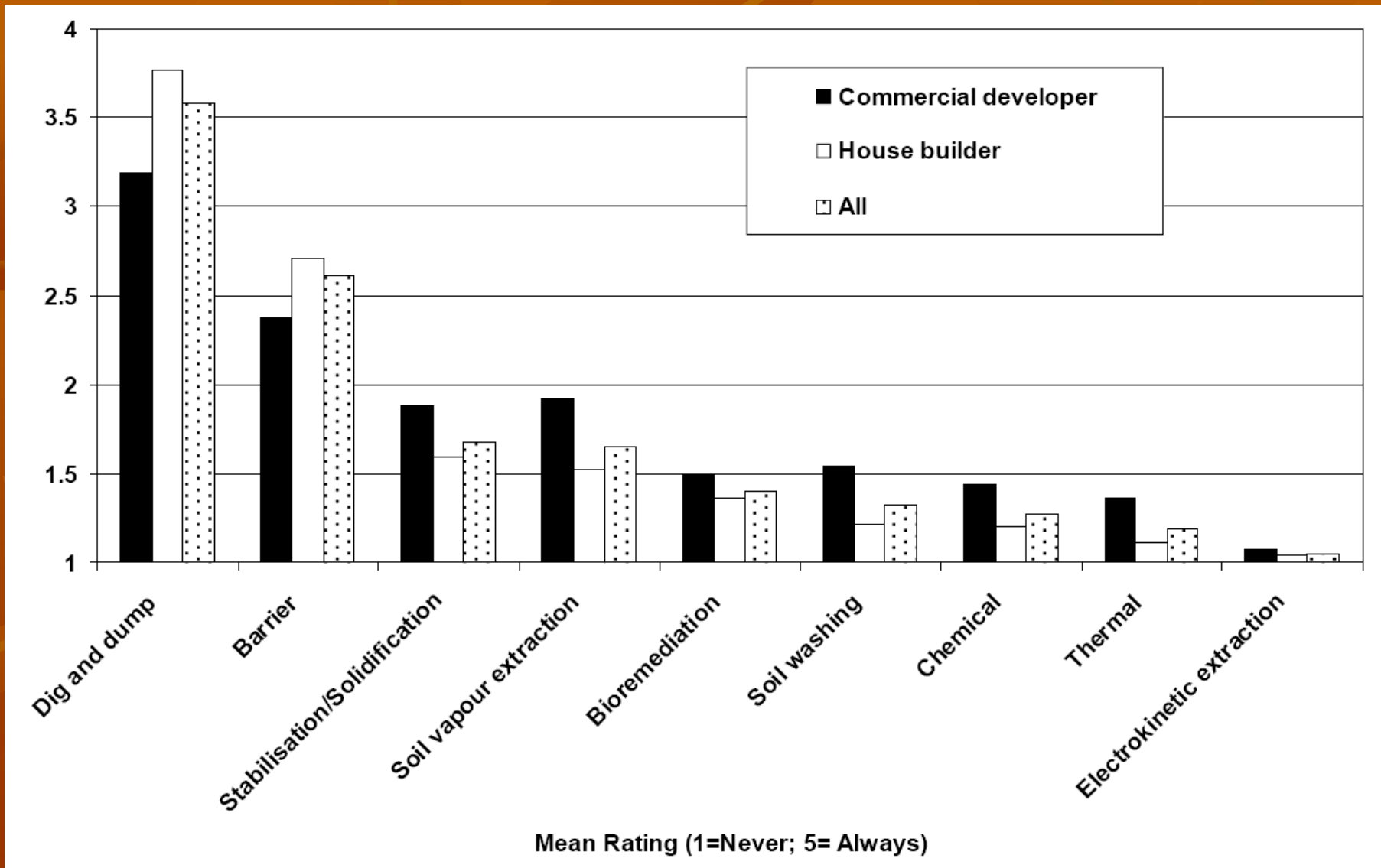
Stakeholder Research Involved....

- Ø Literature Review
- Ø National Survey(s) of Development Industry
- Ø National Survey of Local Planning Authorities

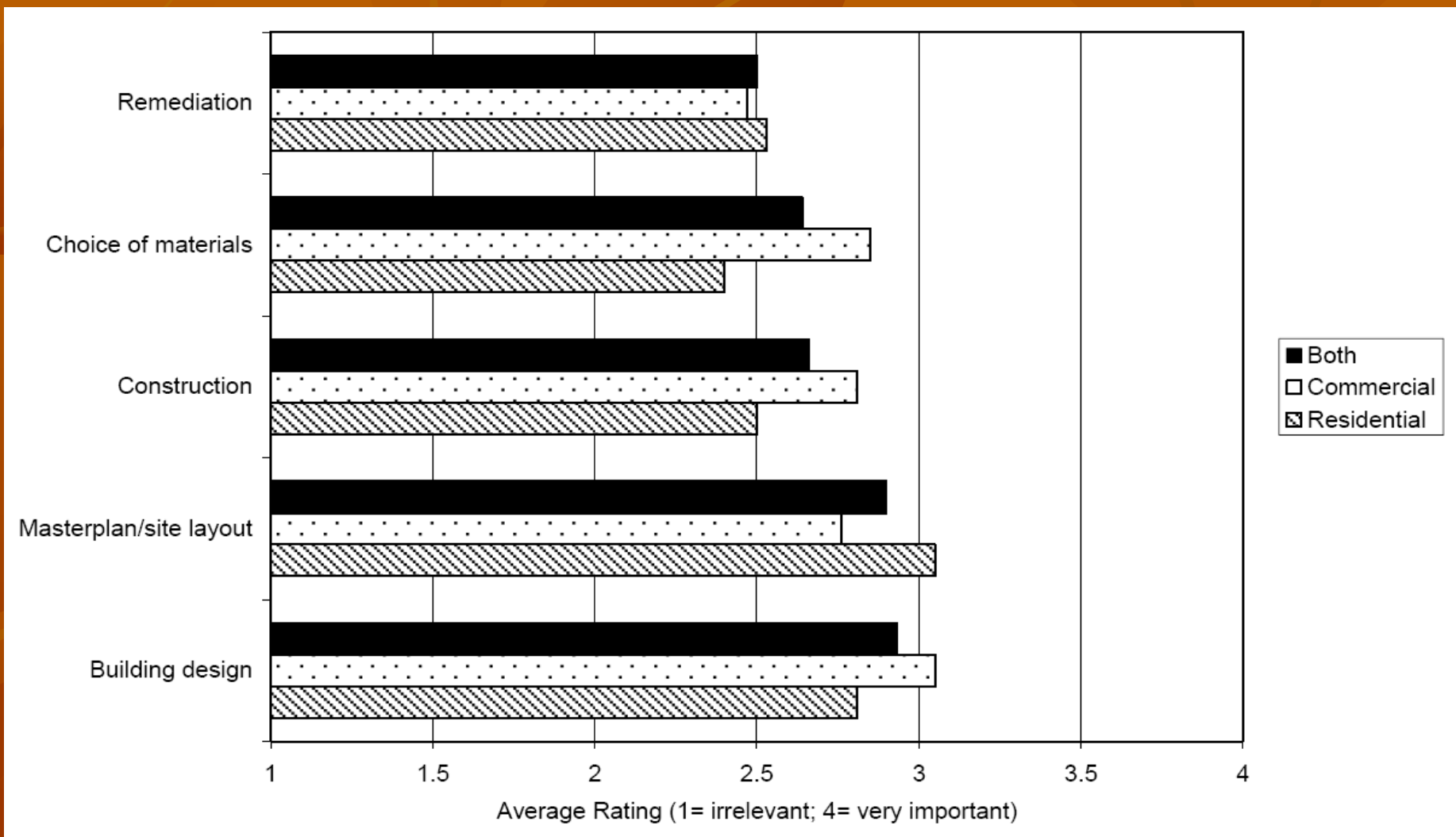
Developer Survey: Importance of Contamination as Environmental Risk



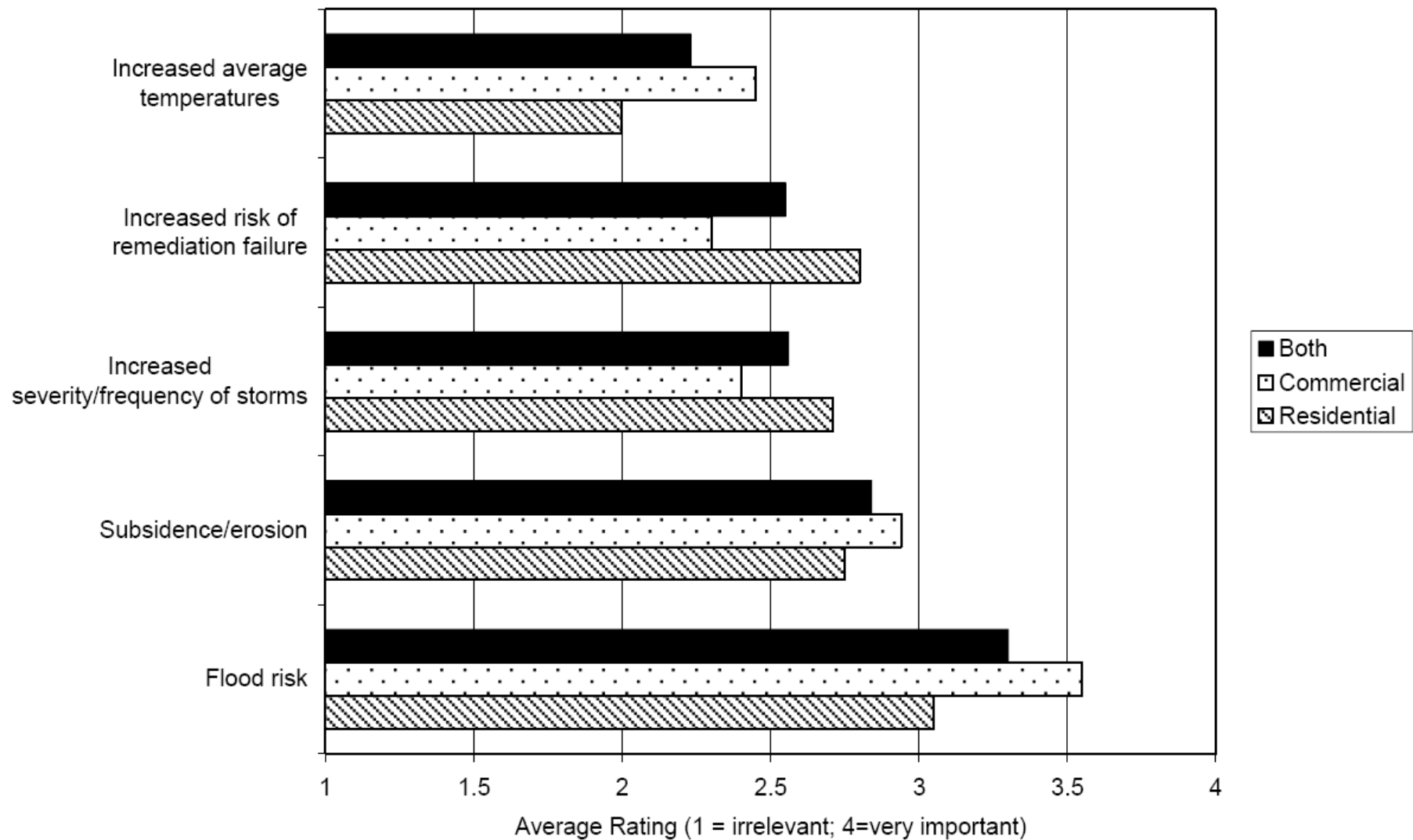
Developer Survey: Use of Different Remediation Technologies



Developer Survey: Impact of Climate Change on Different Stages of the Development Process



Developer Survey: Type of Climate Change Impact



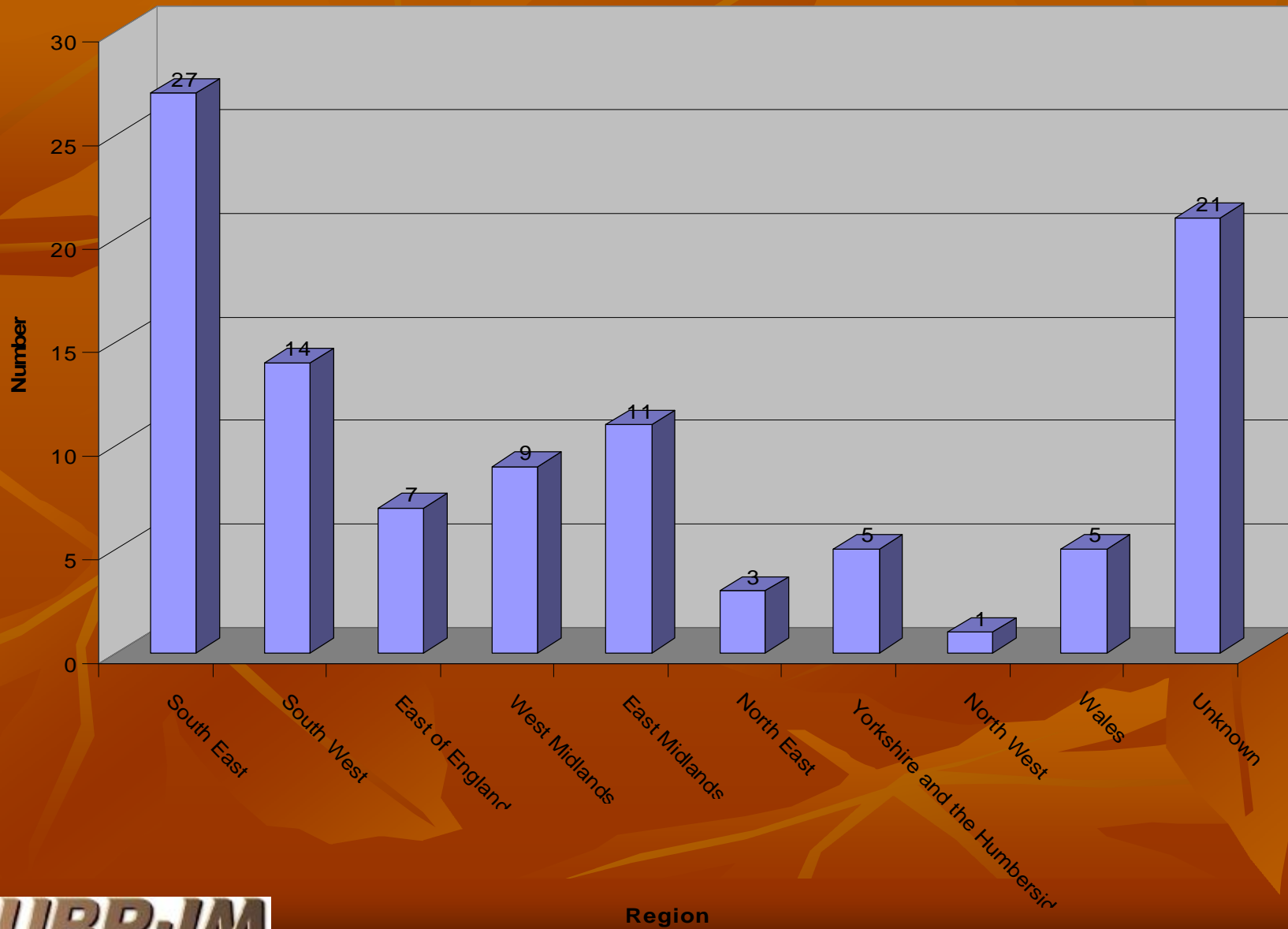
Some Typical Developer Responses

- ∅ Summary: from interviews conducted in Thames Gateway there is a lack of understanding of the relationship between cover systems and climate change. Climate change is still not high on practitioners'/developers' agendas and most interviewees were more concerned over flood risk and its impact on systems.
- ∅ “I'll be honest I don't think climate change is particularly on people's radars yet” (Consultant)
- ∅ “For instance you know most of the issues to do with climate change are obviously to do with flood risk and flood risk assessments” (Developer)
- ∅ “My own personal view is that there are still a lot of question marks about the use of cover systems and the retention of contaminated materials on site and I suspect that in a number of cases not adequate consideration is given to the real cost of ensuring long term durability of those systems” (Consultant)

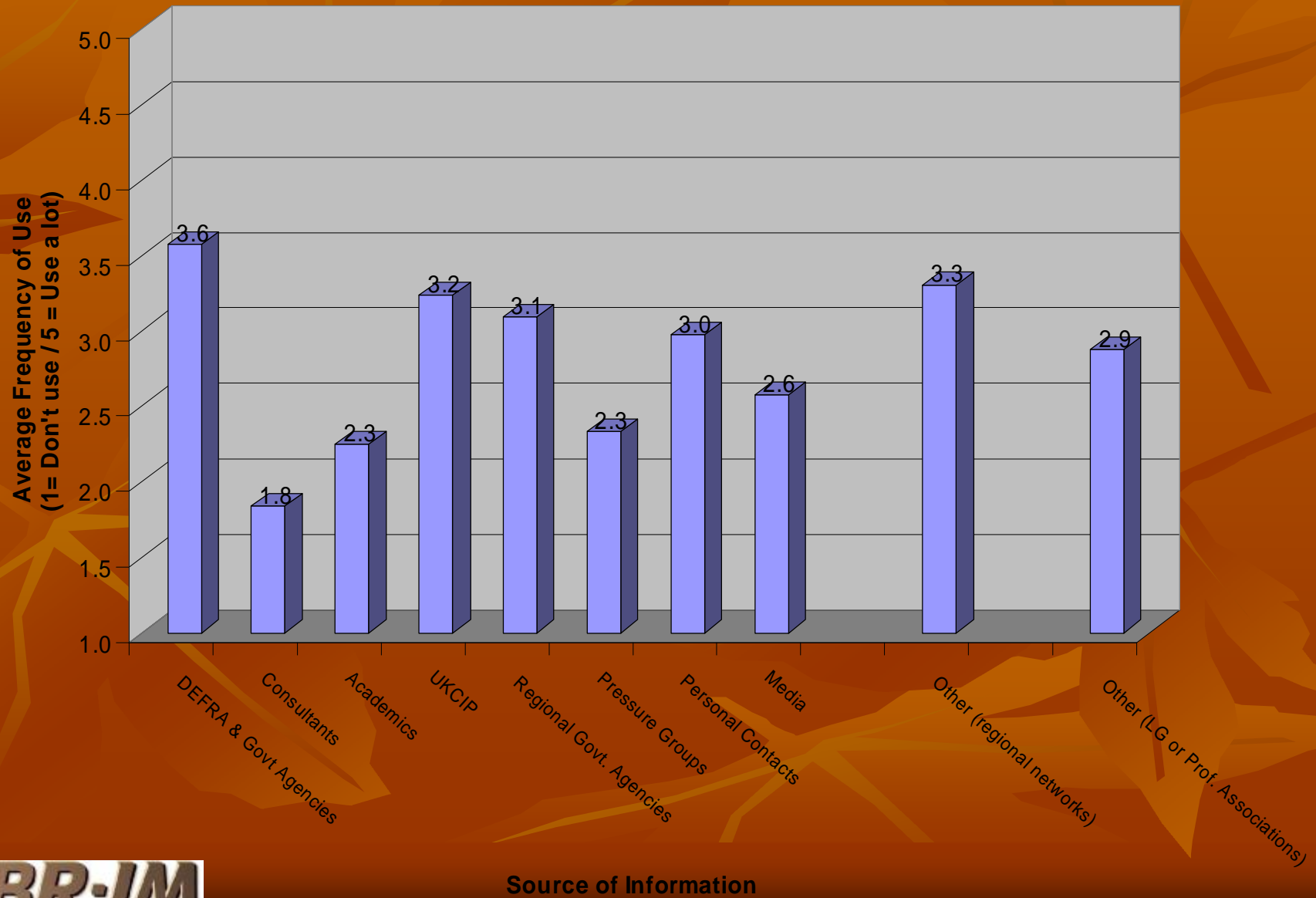
Findings: LPA Survey

- n Sent to LAs in England & Wales (x410)
- n Sent to Chief Executive (or Person With Climate Change Responsibilities), with Suggestion to Liaise
- n 21 questions (some with sub-questions)
- n Response = 103 (25.6%)

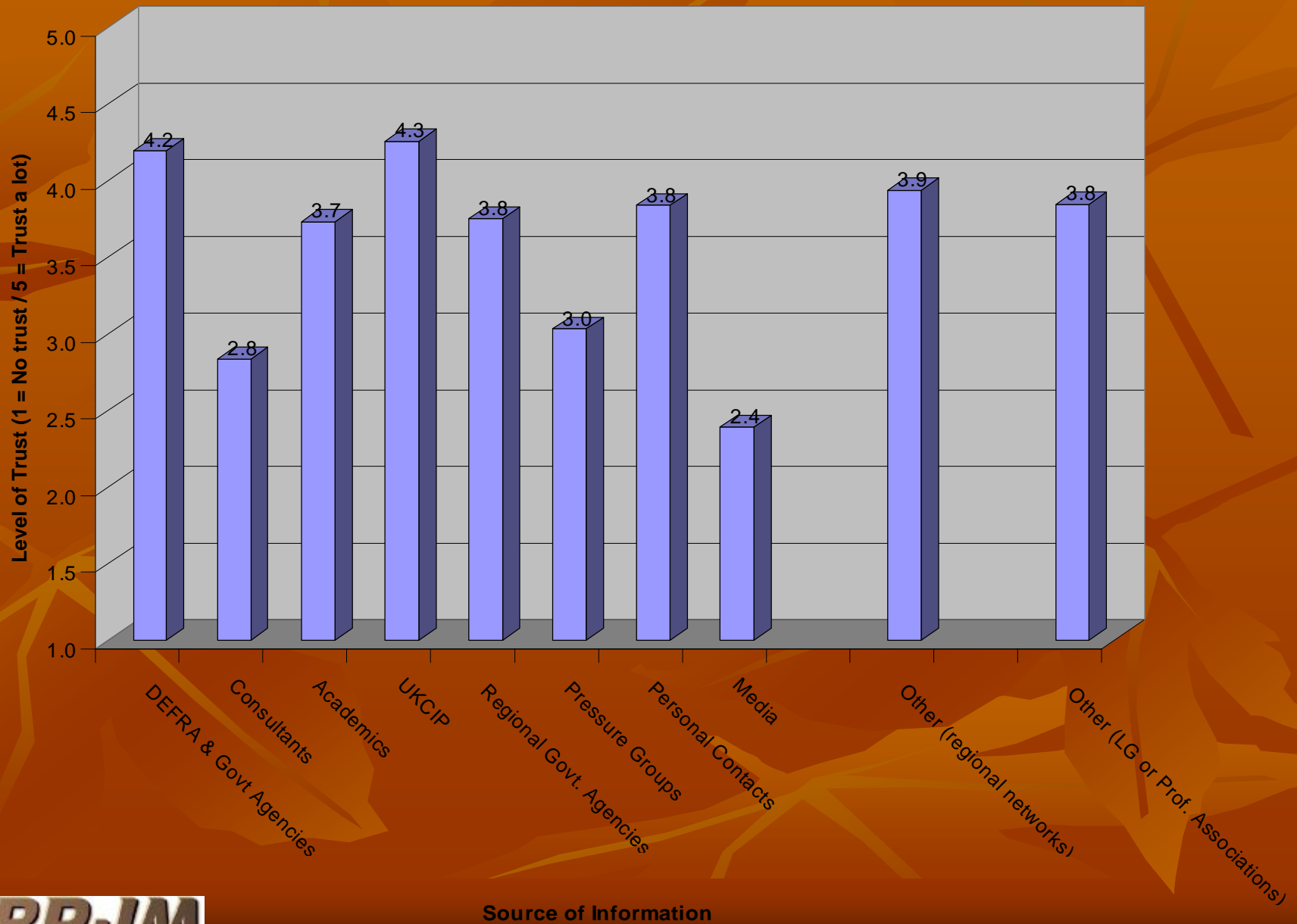
LA Survey: Regional Distribution of LA Respondents



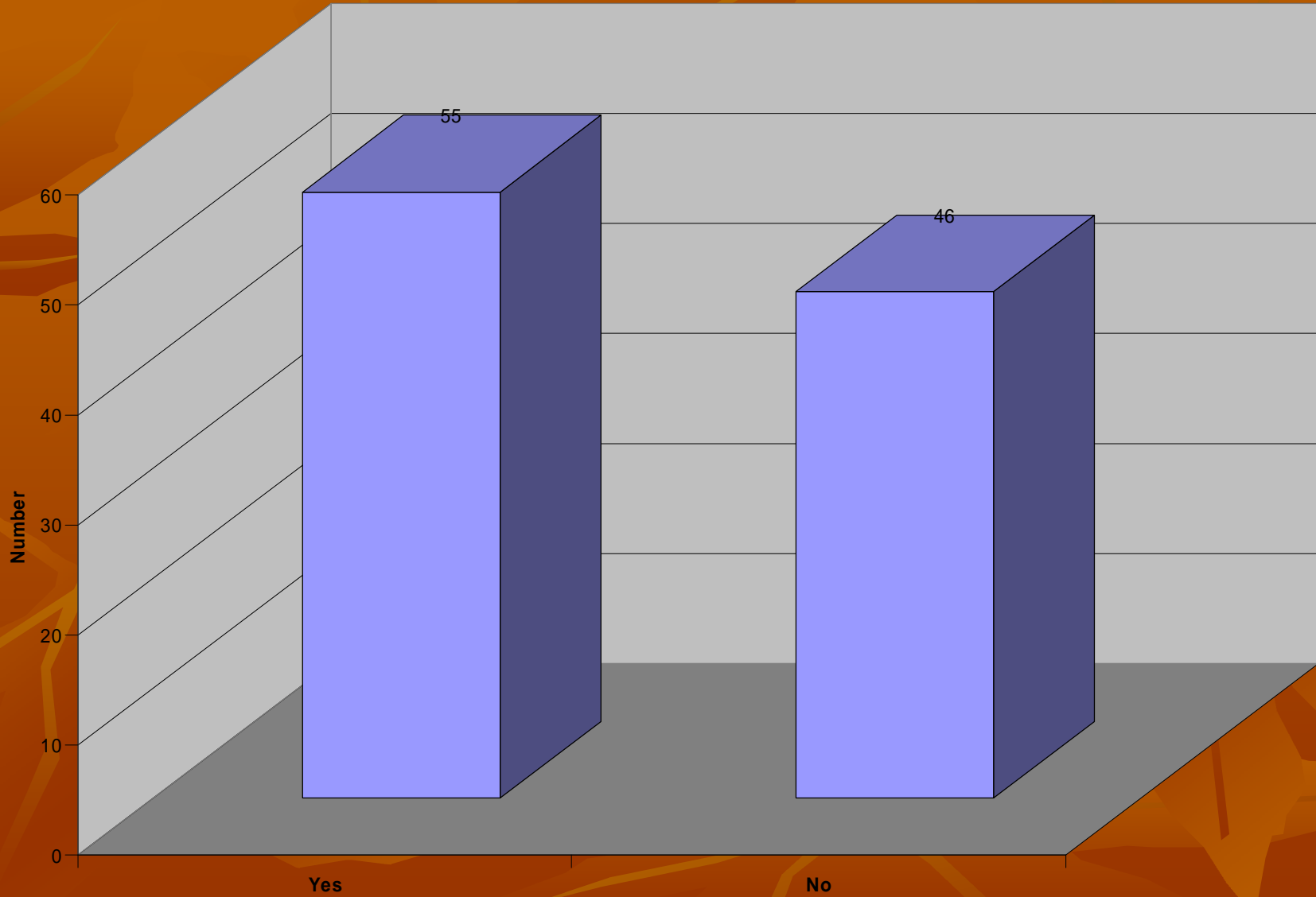
LA Survey: Use of Information Sources on Climate Change



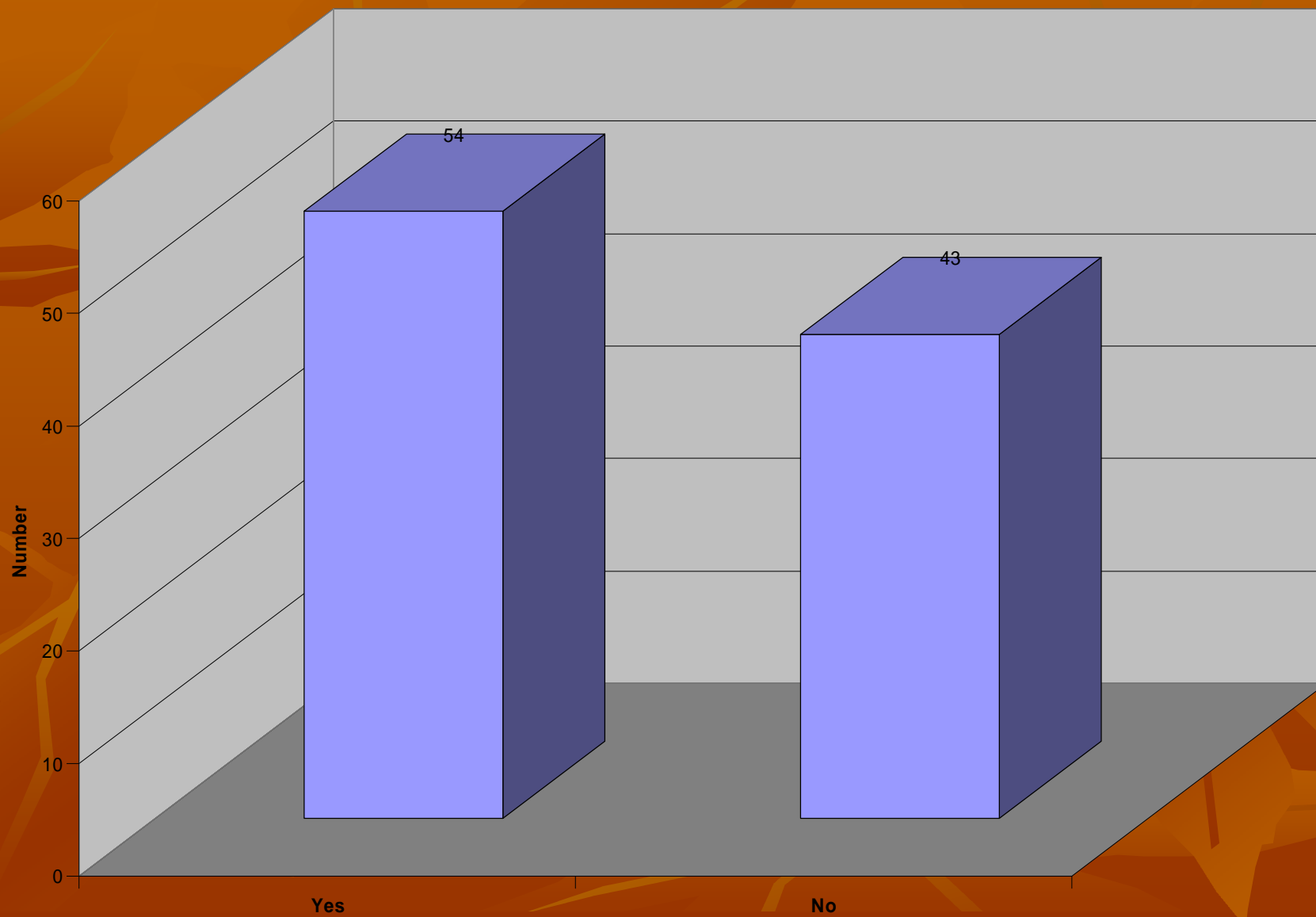
LA Survey: Level of Trust in Information Sources on Climate Change



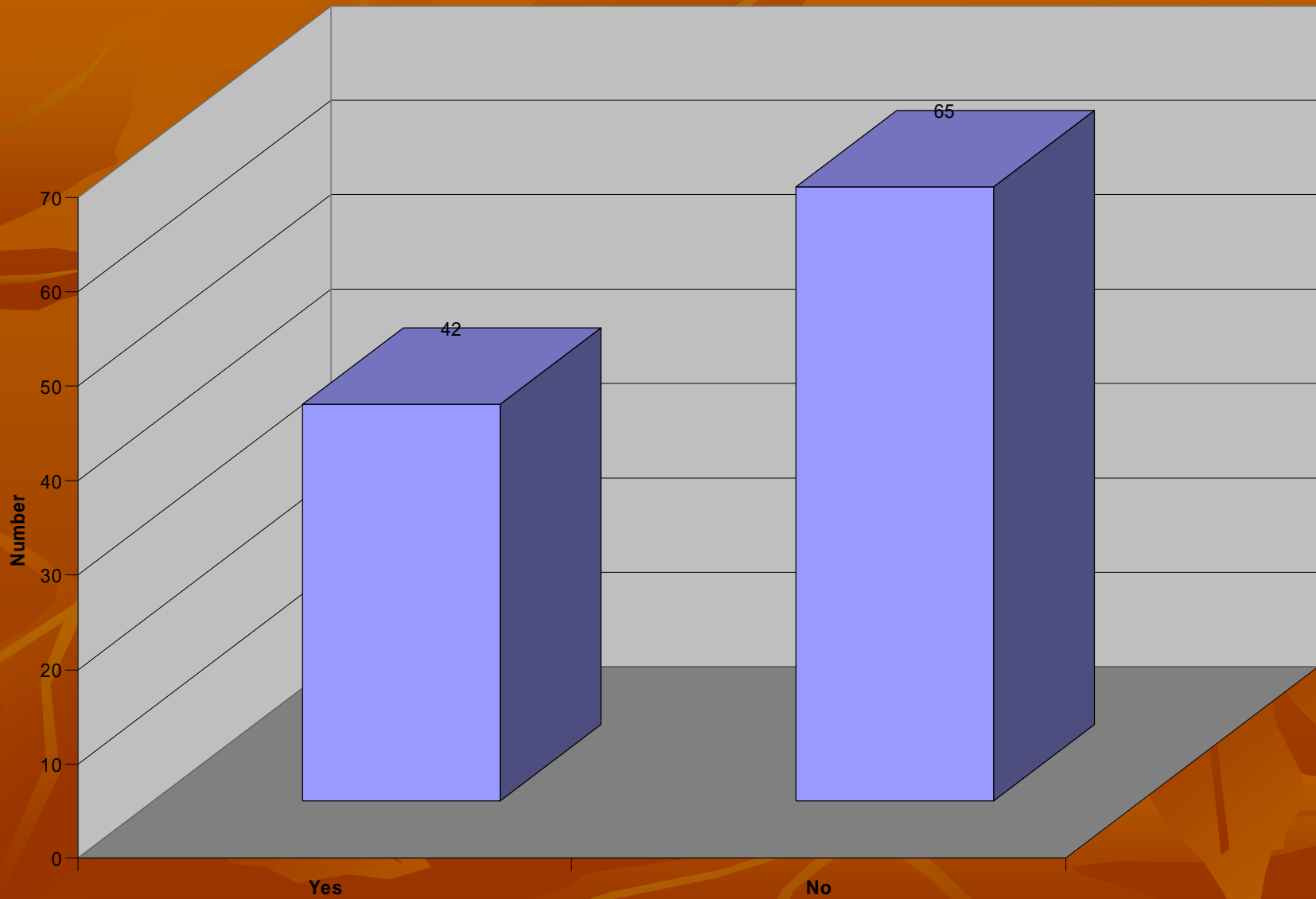
LA Survey: LA has Dedicated Climate Change Officer?



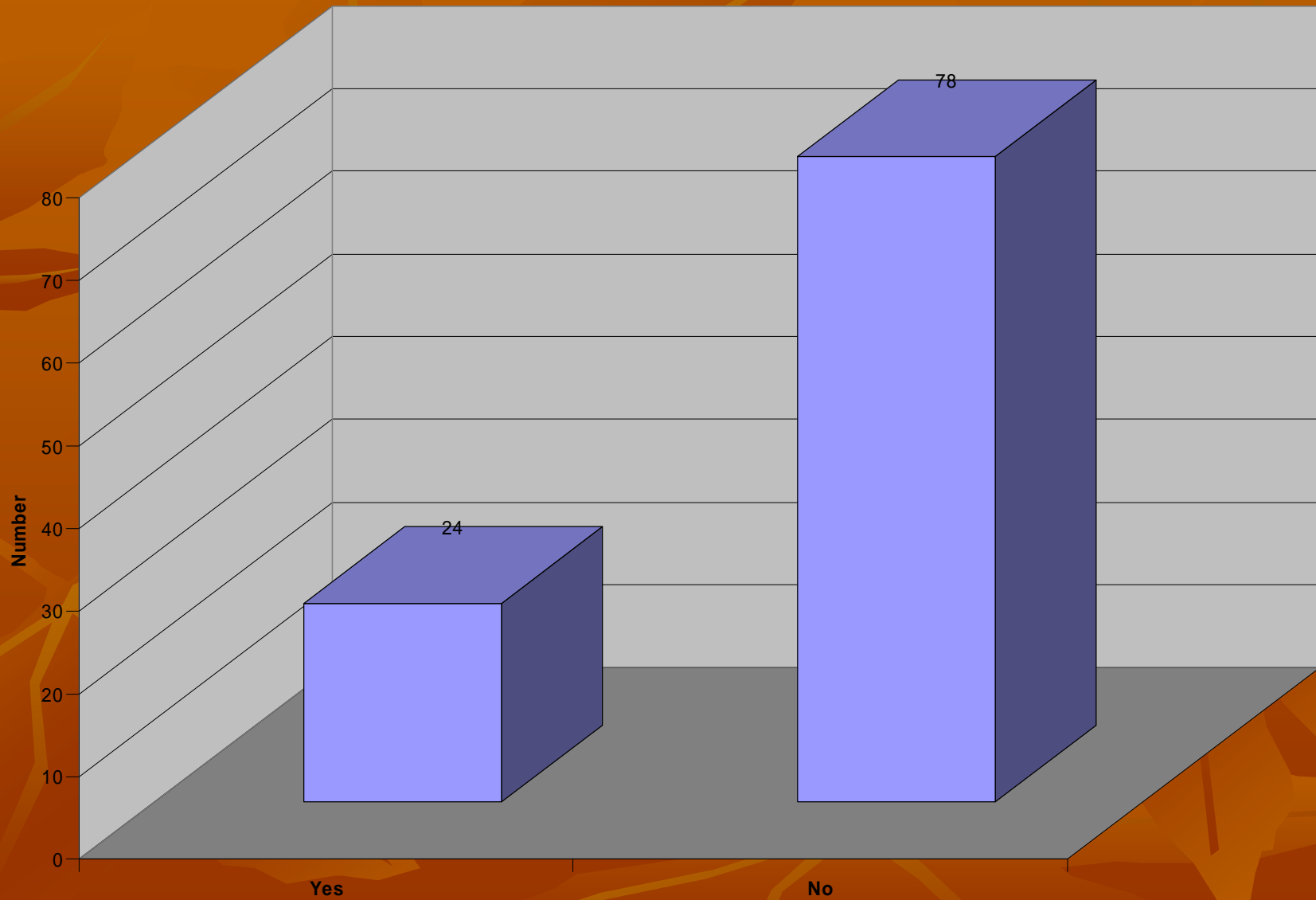
LA Survey: Respondents Feel Adequately Informed About Climate Change Impacts?



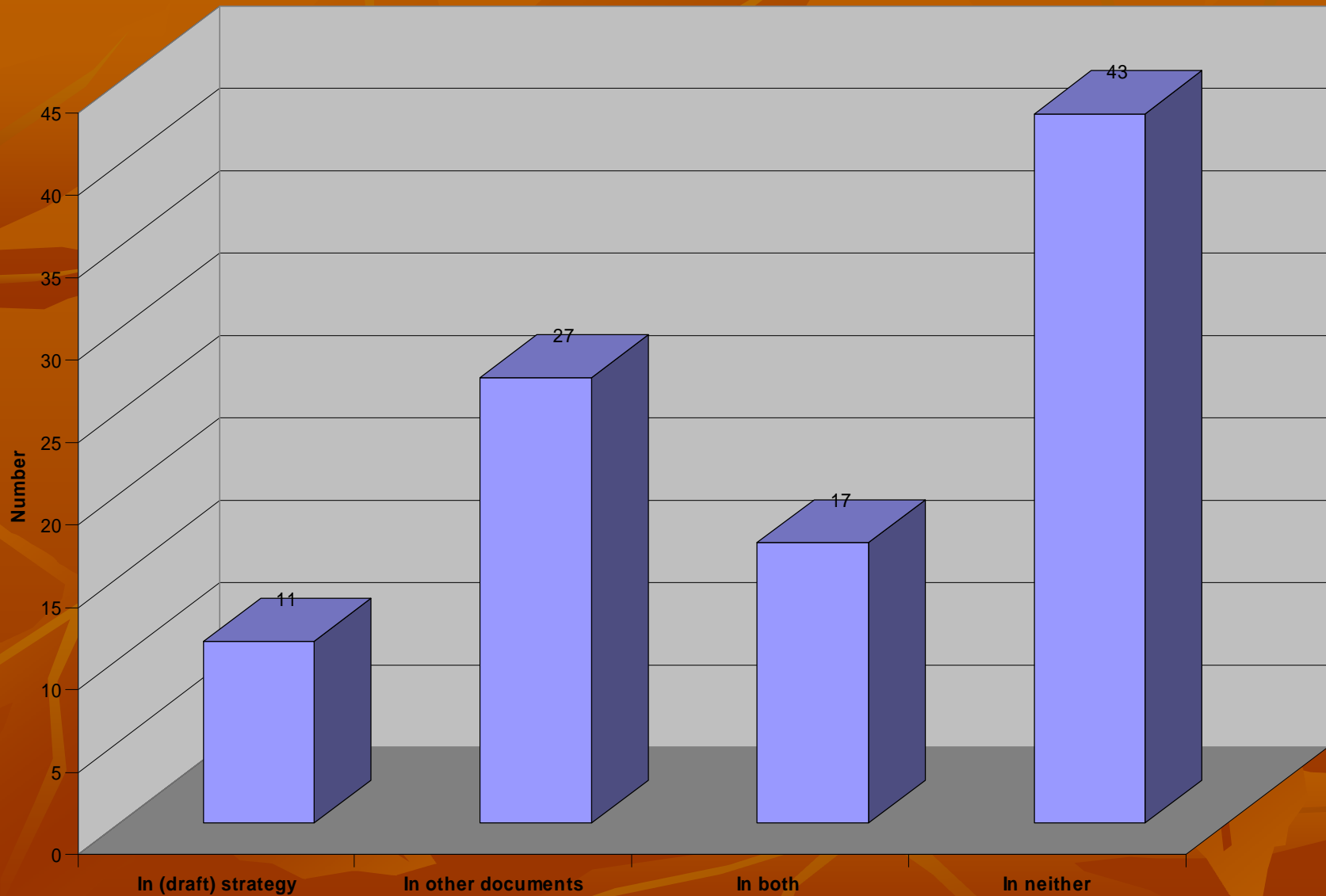
LA Survey: Respondents Feel Adequately Informed About Climate Change Practices?



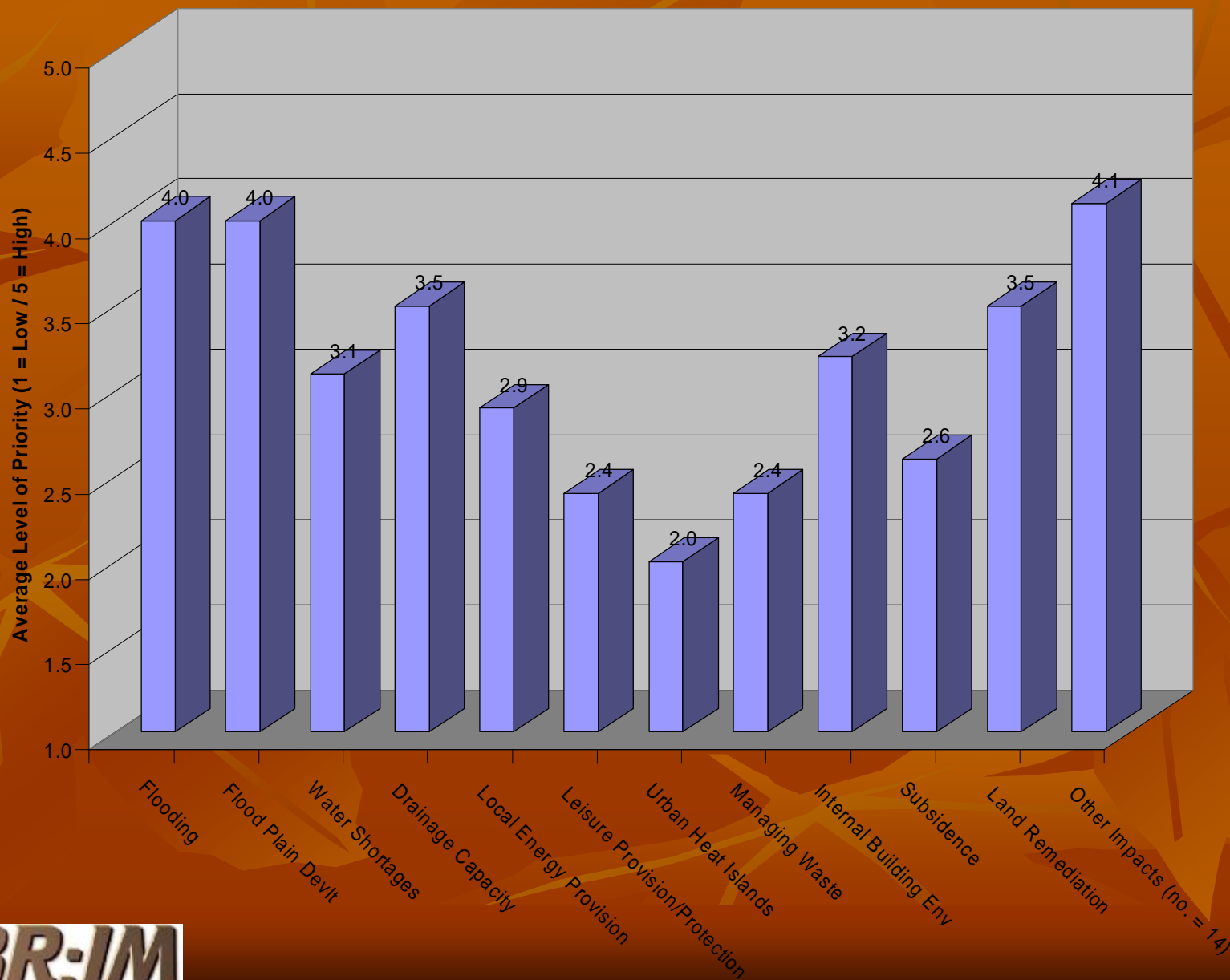
LA Survey: LA has Climate Change Strategy?



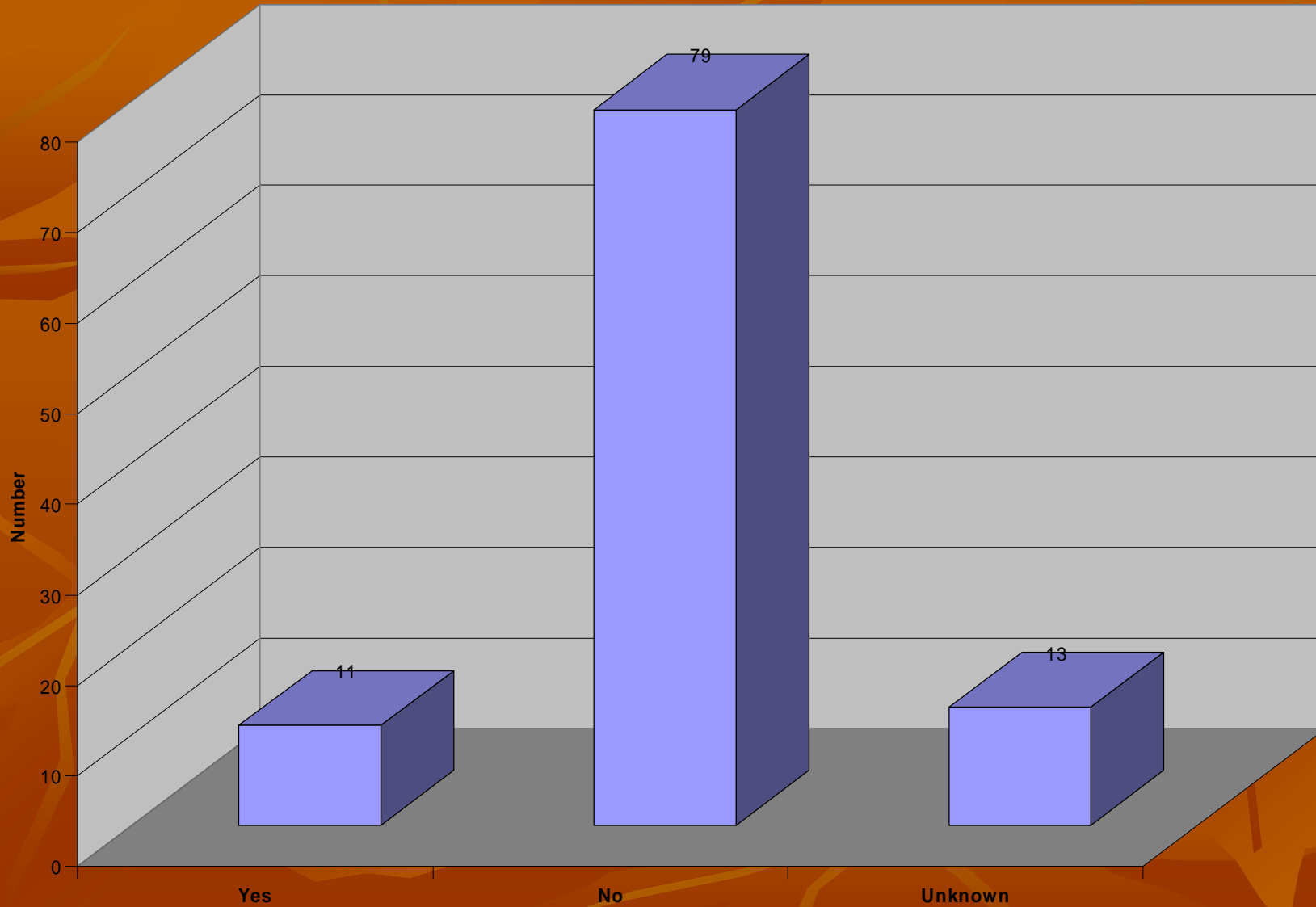
LA Survey: Specific Adaptation Measures in CC Strategies or Other Documents



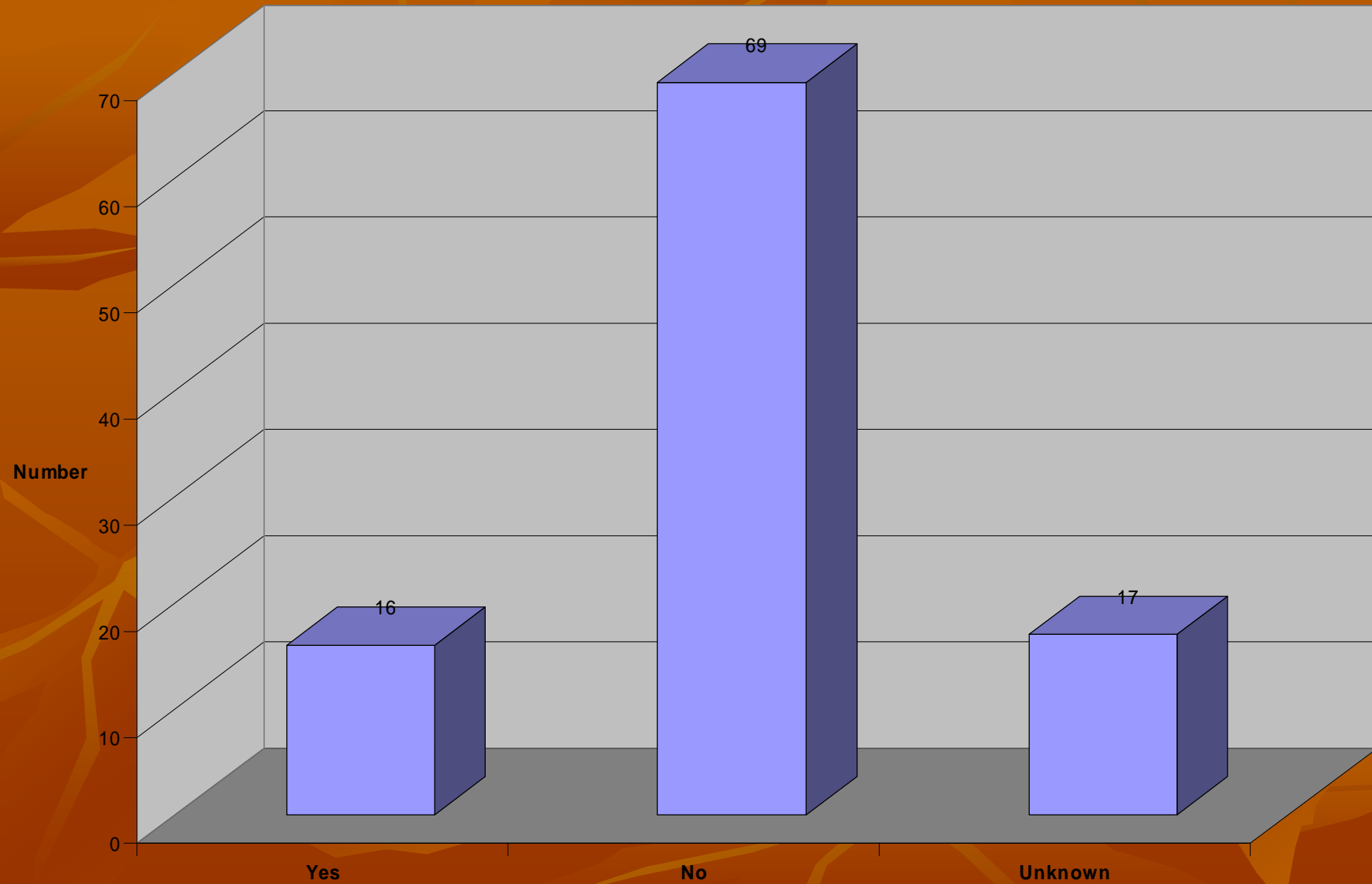
LPA Survey: Priority Given to Different Climate Change Impacts



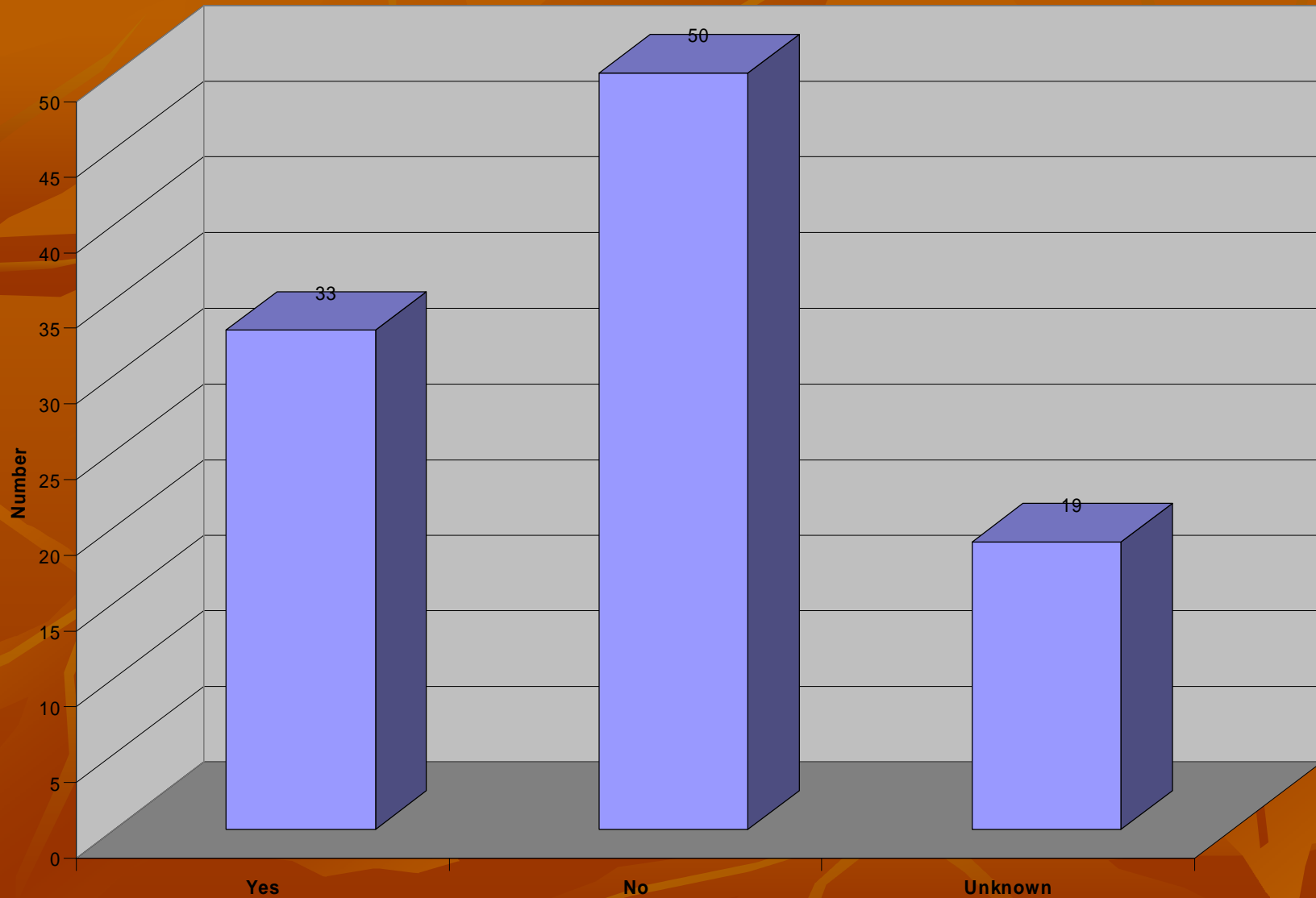
LA Survey: Local Authorities Who Have Undertaken Appraisal of the Robustness of Contaminated Land Remediation Measures



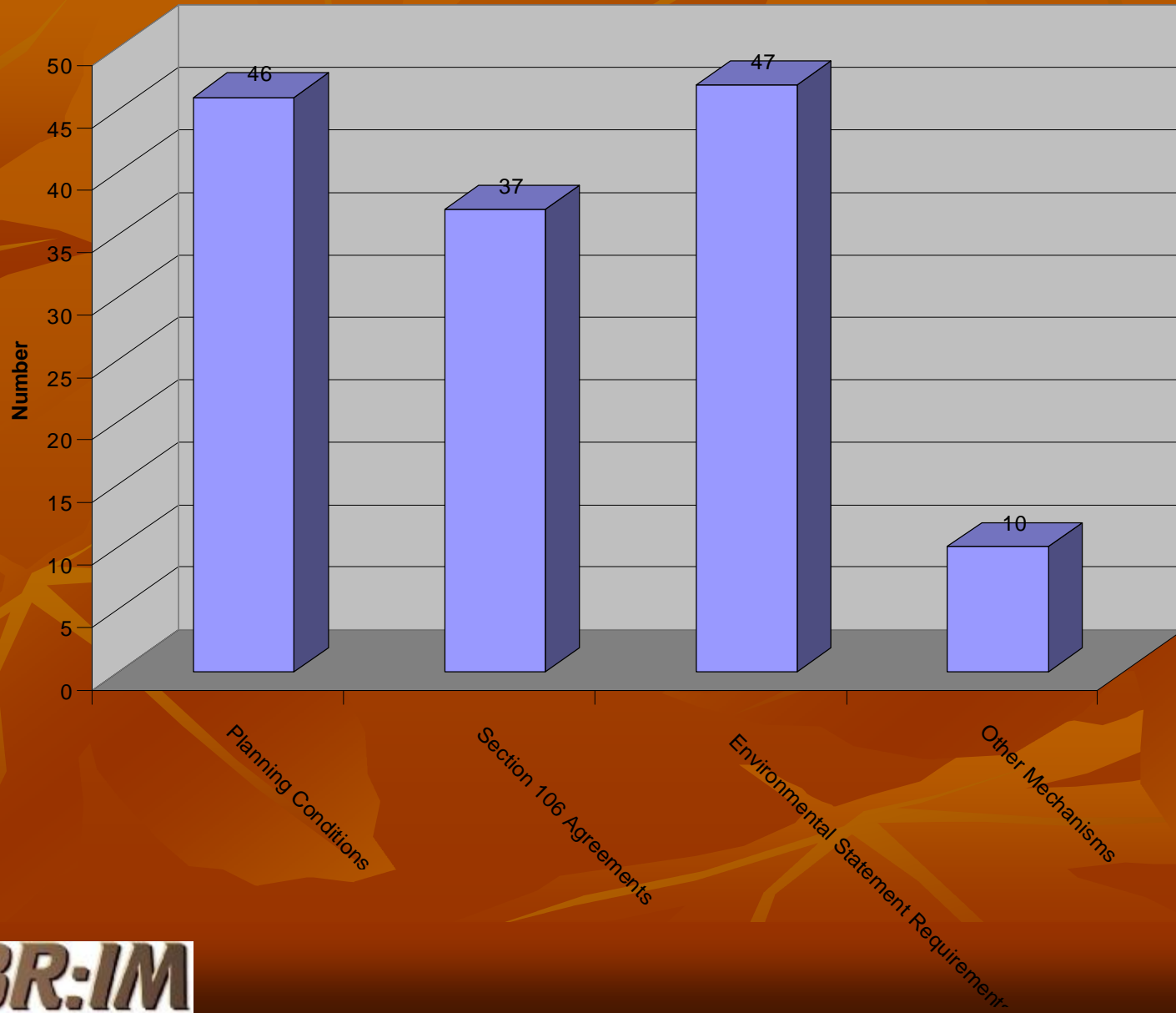
LA Survey: Local Authorities Who Have Adopted Measures to Improve the Robustness of Past Remediation



LA Survey: Local Authorities Who are **Considering** Measures to Improve the Robustness of Past Remediation



LA Survey: Local Authorities Who Have Considered Changing Specific Mechanisms in Relation to Land Remediation



Conclusions

- n Growing priority given to climate change issues
- n But from low base, with many developers and LAs still relatively ignorant and inactive
- n Some priority given to remediation/containment issues, but many operating 'business as usual'
- n Regional (and national) agencies and networks could be important for improving on this situation

Thank you for listening!

Further information:

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