



The skill-set requirements

As perceived by ICE Graduates & Students

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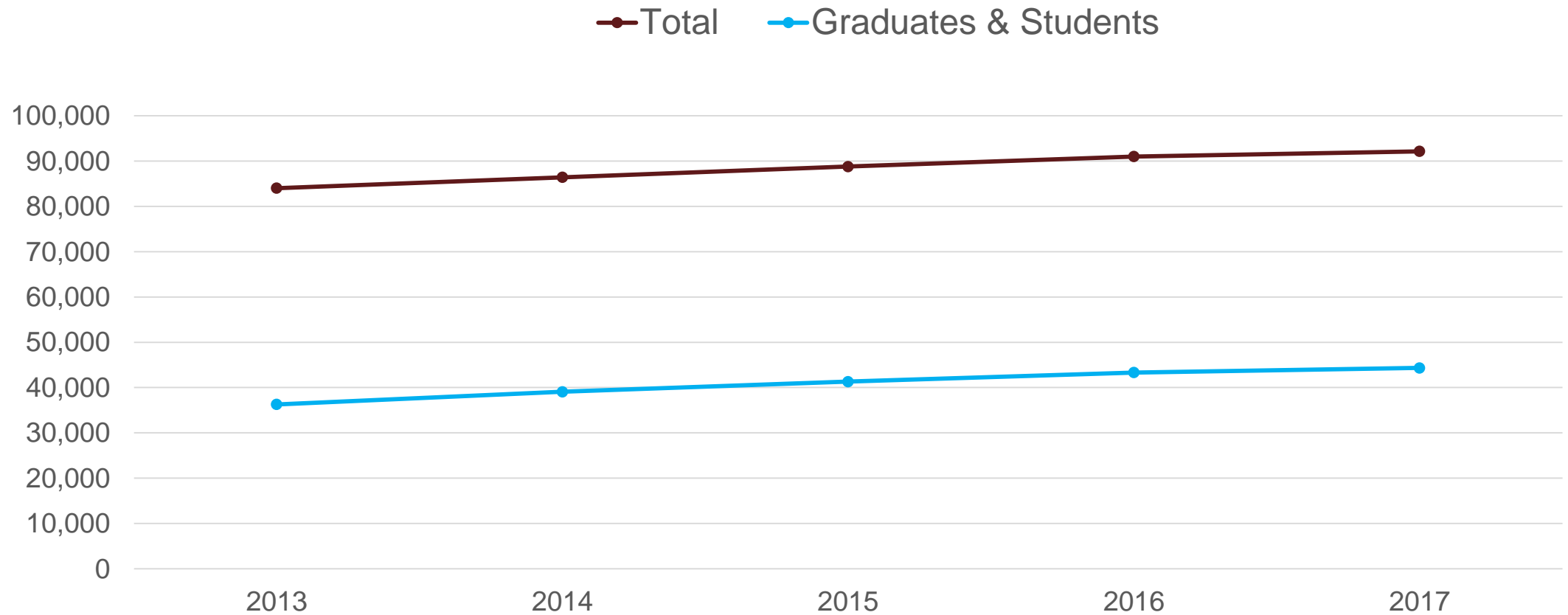
Introduction

- **Graduates and Students**
- **Skills and Survey Results**
- **Skills Transfer**
- **Questions & Discussion**



ICE G&S

ICE Membership Numbers



Skills Survey

Effective personal and social skills
Theoretical engineering knowledge
Practical engineering knowledge
Management and leadership
Planning

Commercial awareness

Awareness of relevant legislation, standards and specifications

Multi-disciplinary awareness

Knowledge and application of latest technology in engineering practice

Proficiency with AutoCAD, Revit, Navisworks, etc.

Ability to read technical drawings (e.g. steel drawings)

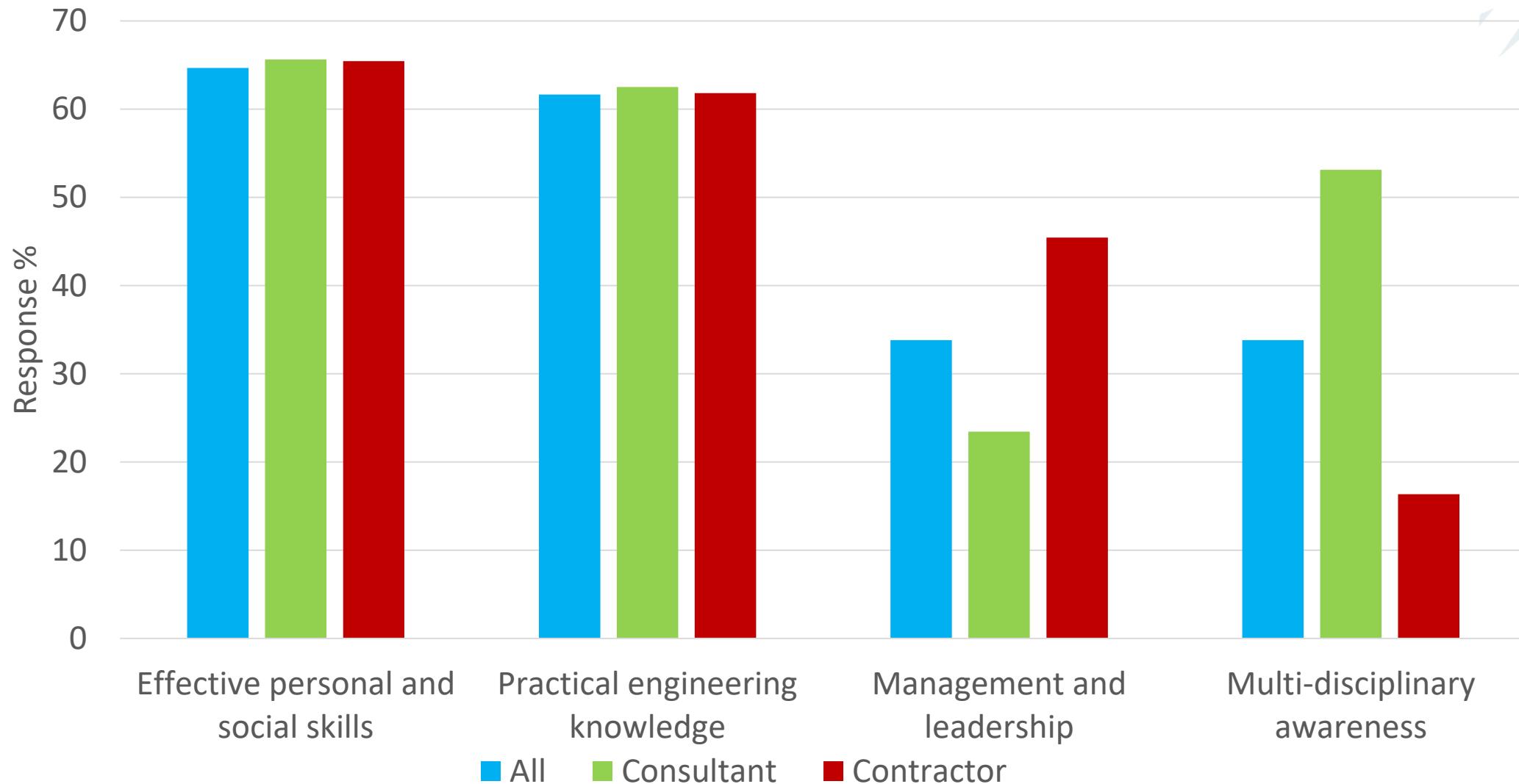
Coding

**133 responses
including contractors,
consultants, clients and
students, academia and
manufacturing**

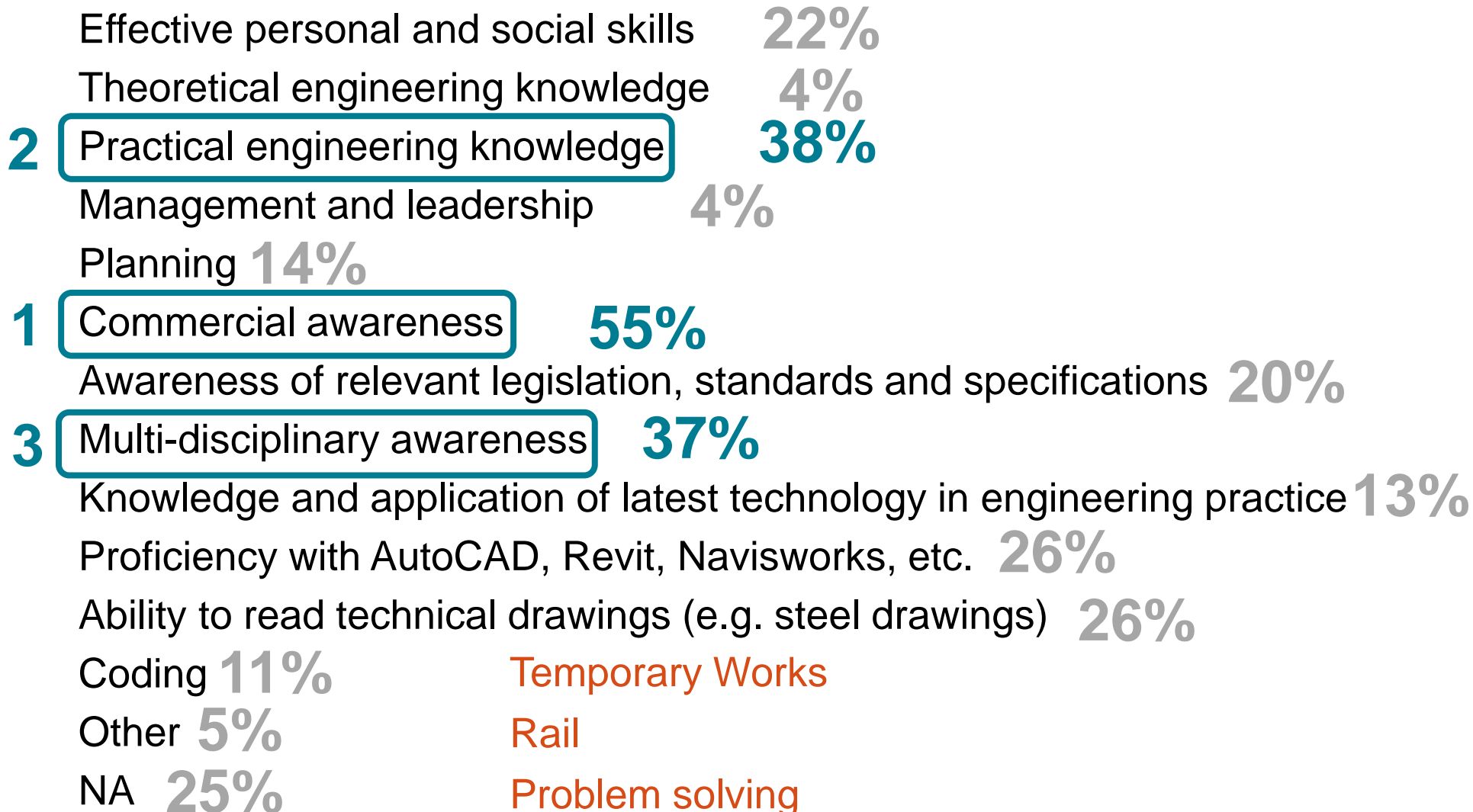
Skills which are most important at work

- 1 **Effective personal and social skills** **65%**
Theoretical engineering knowledge 20%
- 2 **Practical engineering knowledge** **62%**
- 3 **Management and leadership** **34%**
Planning 12%
Commercial awareness 13%
Awareness of relevant legislation, standards and specifications 25%
- 3 **Multi-disciplinary awareness** **34%**
Knowledge and application of latest technology in engineering practice 3%
Proficiency with AutoCAD, Revit, Navisworks, etc. 16%
Ability to read technical drawings (e.g. steel drawings) 17%
Coding 0%

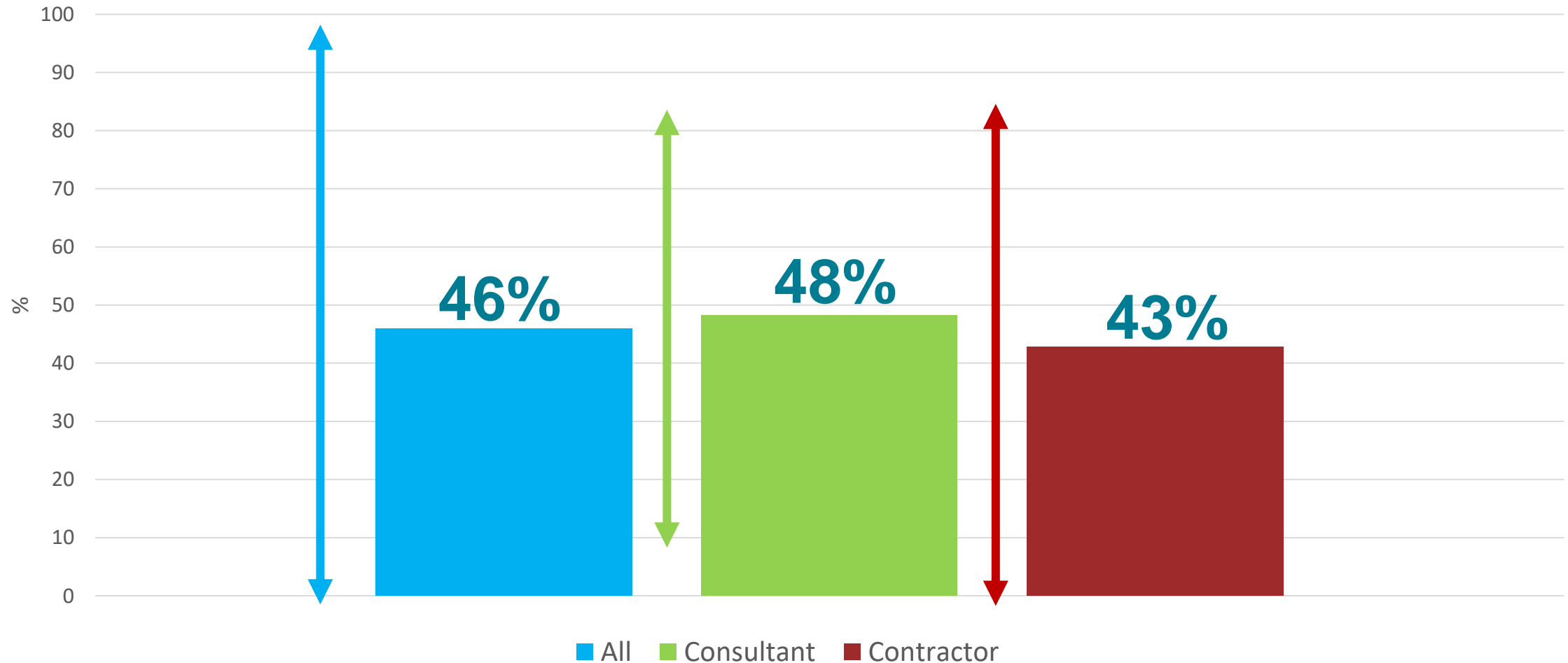
Skills which are most important at work



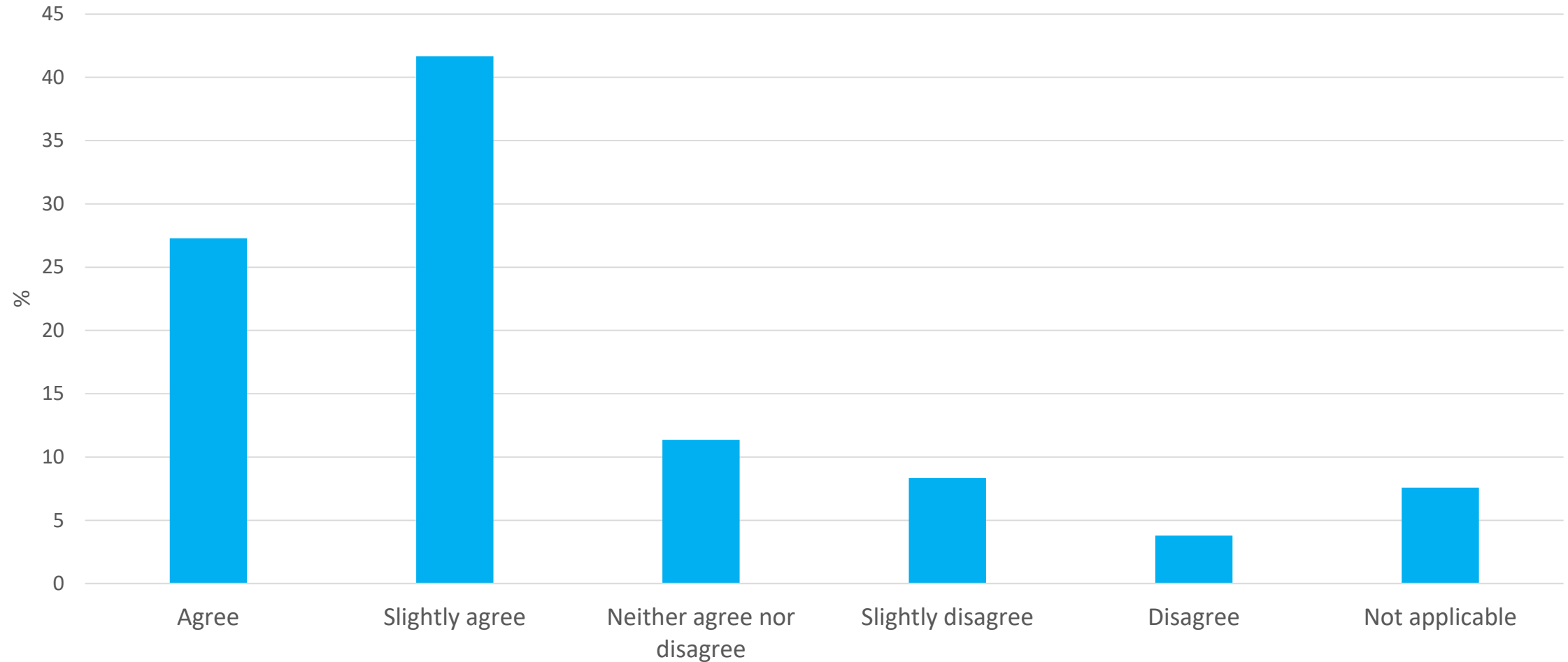
Skills which would be greatly beneficial at work, but have not been addressed sufficiently in university



How much skills/knowledge gained at university is applicable at work?



Do you agree that your university education has prepared you well for a career in civil engineering industry?



Summary

- Practical Application of Engineering – important skill, but not addressed sufficiently
- Top 3 skills are not technology based
- Do they align with our aspirations of digital transformation?

Q&A

