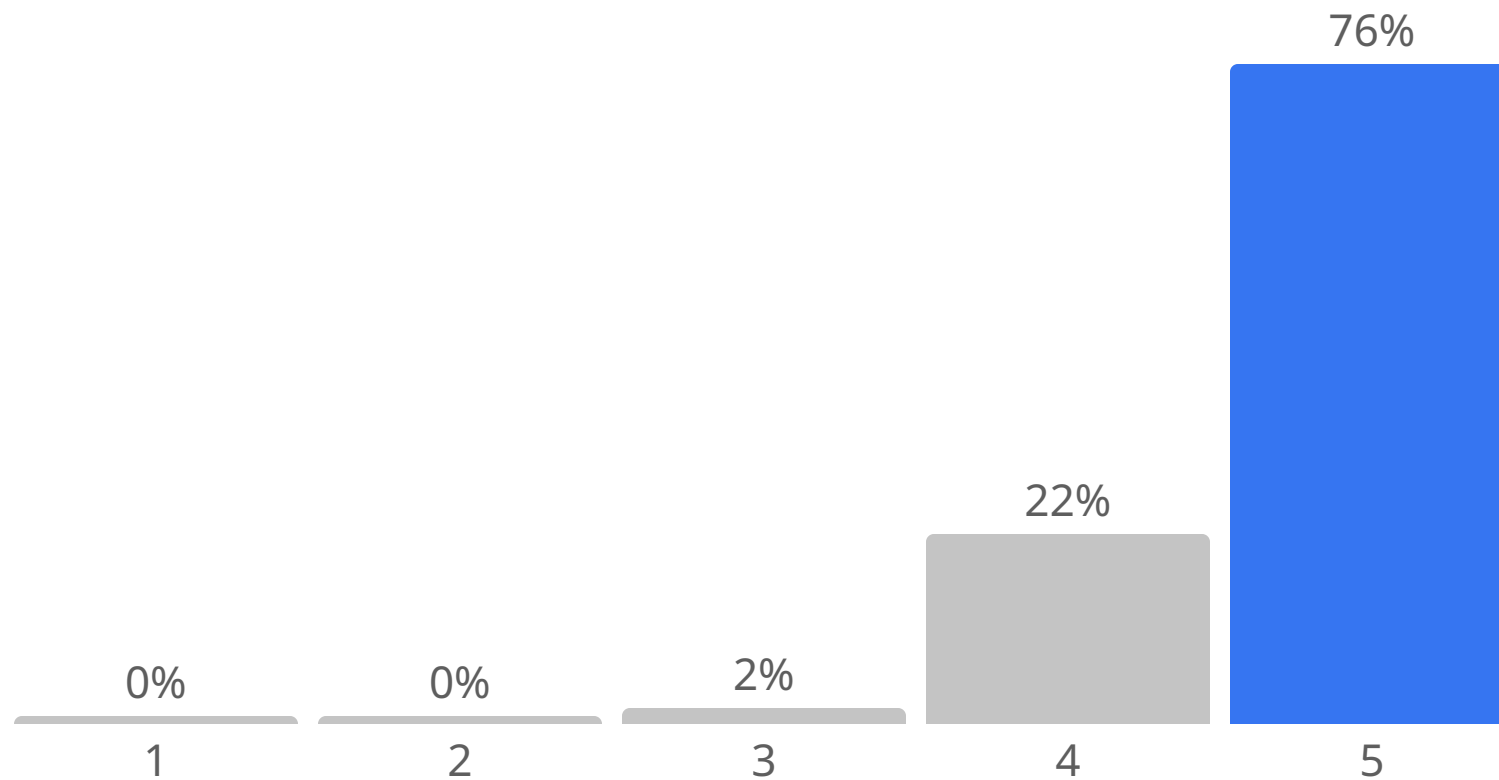


November 4th Summary Document- responses to draft statements
(1/34)

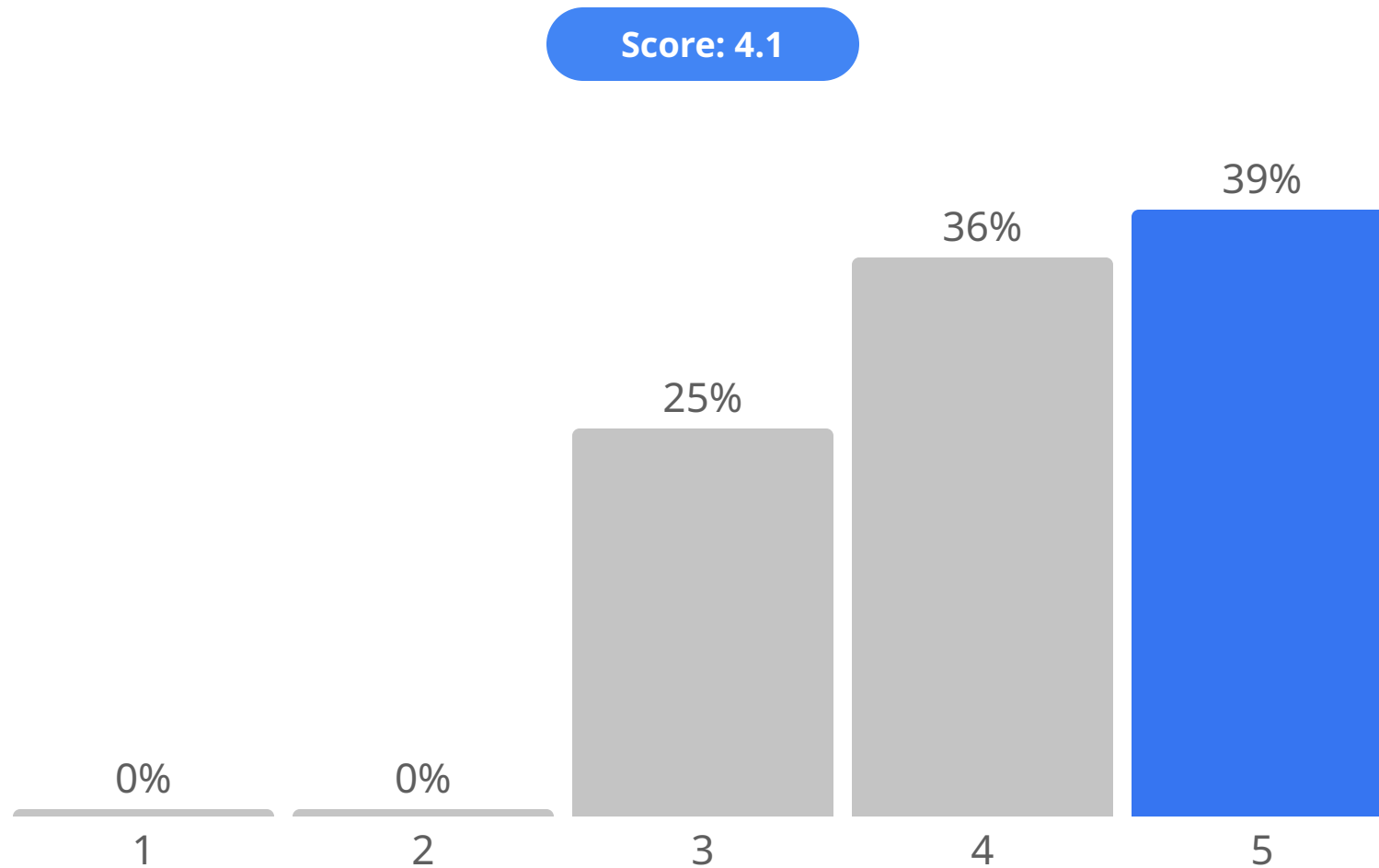
0 4 5

3a- Delivery and full exploitation of the HL-LHC remains a top priority.

Score: 4.7



3a- Current HL-LHC projections require 3000 fb-1 to meet the target physics goals.

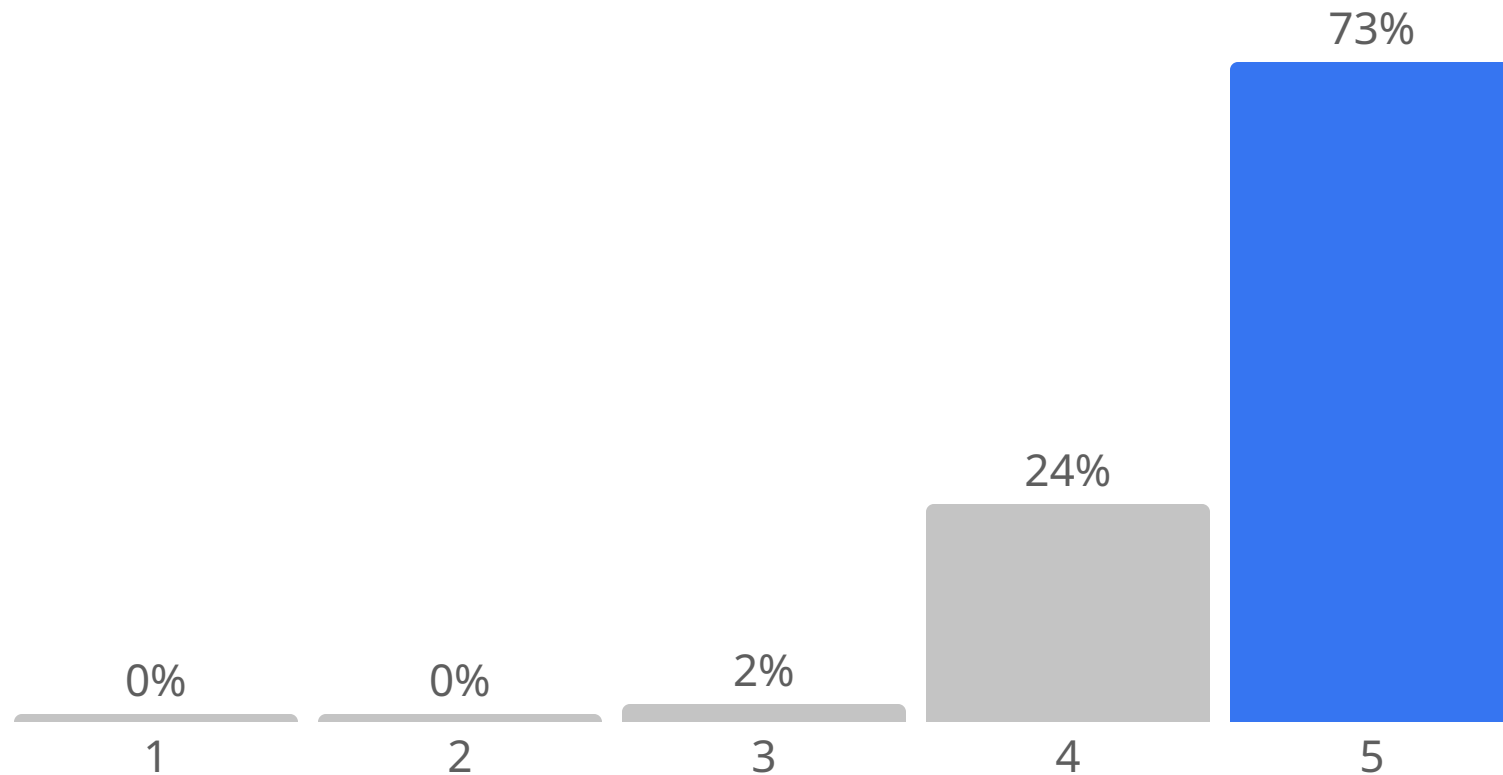


November 4th Summary Document- responses to draft statements
(3/34)

0 4 5

3a- CERN should remain a global laboratory for particle physics so it is important that a post HL-LHC collider is built.

Score: 4.7



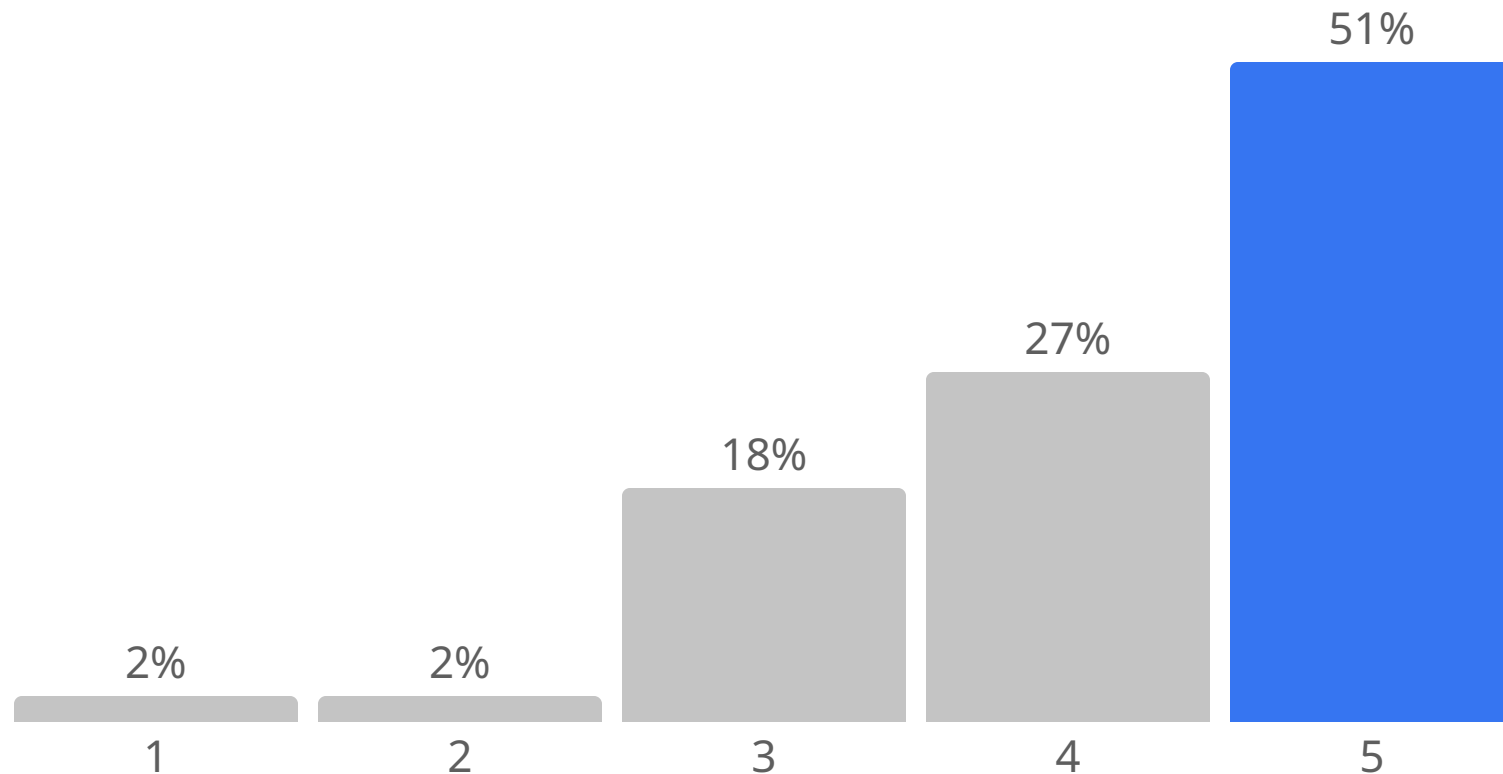
Rating poll

November 4th Summary Document- responses to draft statements
(4/34)

0 4 5

3a- To increase our understanding of the Higgs sector an e+e- accelerator should be realised somewhere in the world [Note that this statement defers judgement on whether it is the highest priority collider to discussions in January.]

Score: 4.2



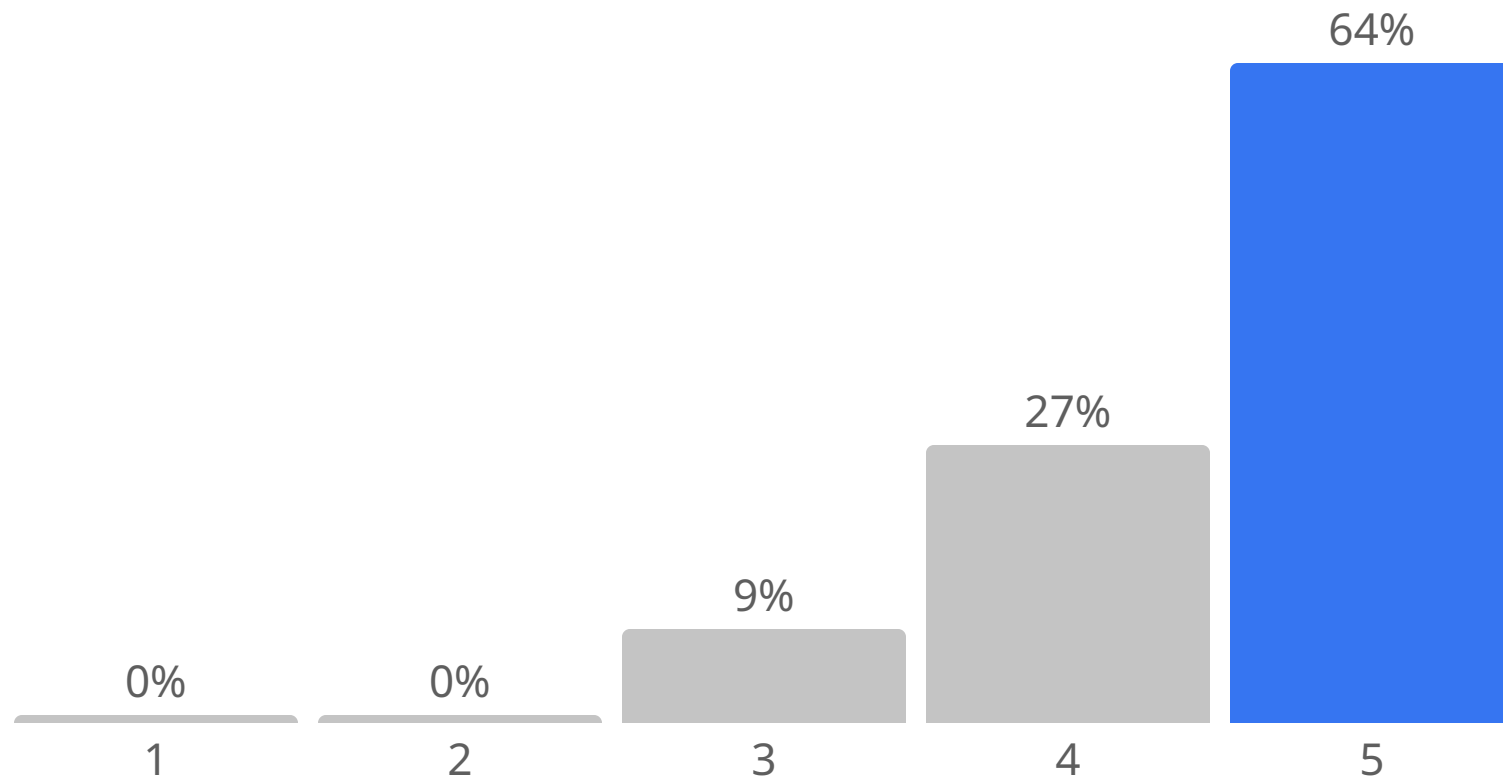
Rating poll

November 4th Summary Document- responses to draft statements
(5/34)

0 4 5

3a- CERN should strive to remain on the forefront of energy frontier exploration to address outstanding questions about the universe that require colliders at the 10 TeV pCM range (e.g. the Higgs self coupling).

Score: 4.6

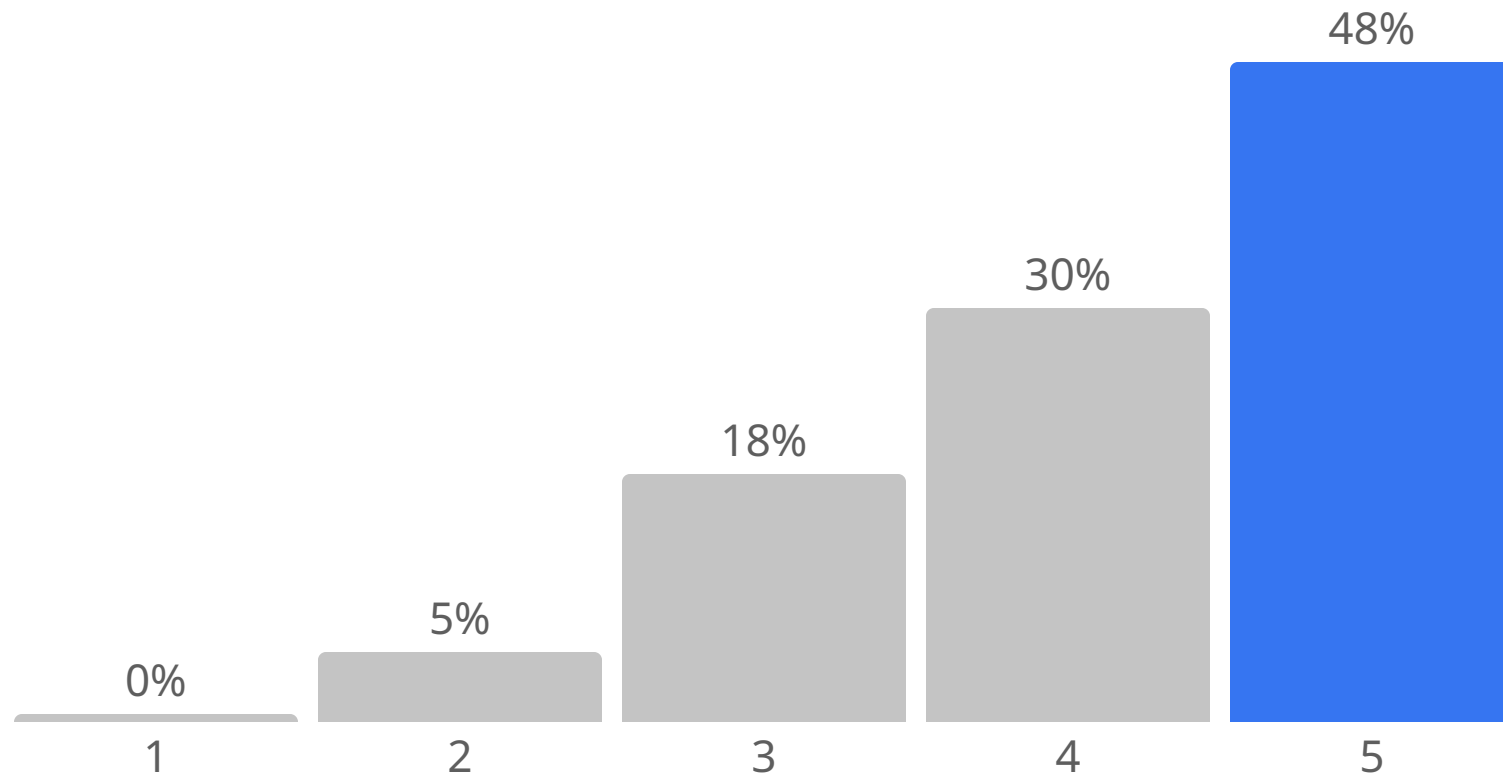


November 4th Summary Document- responses to draft statements
(6/34)

0 4 4

3a- Progress in the FCC feasibility study makes the integrated FCC programme the most advanced in terms of planned integration at CERN.

Score: 4.2



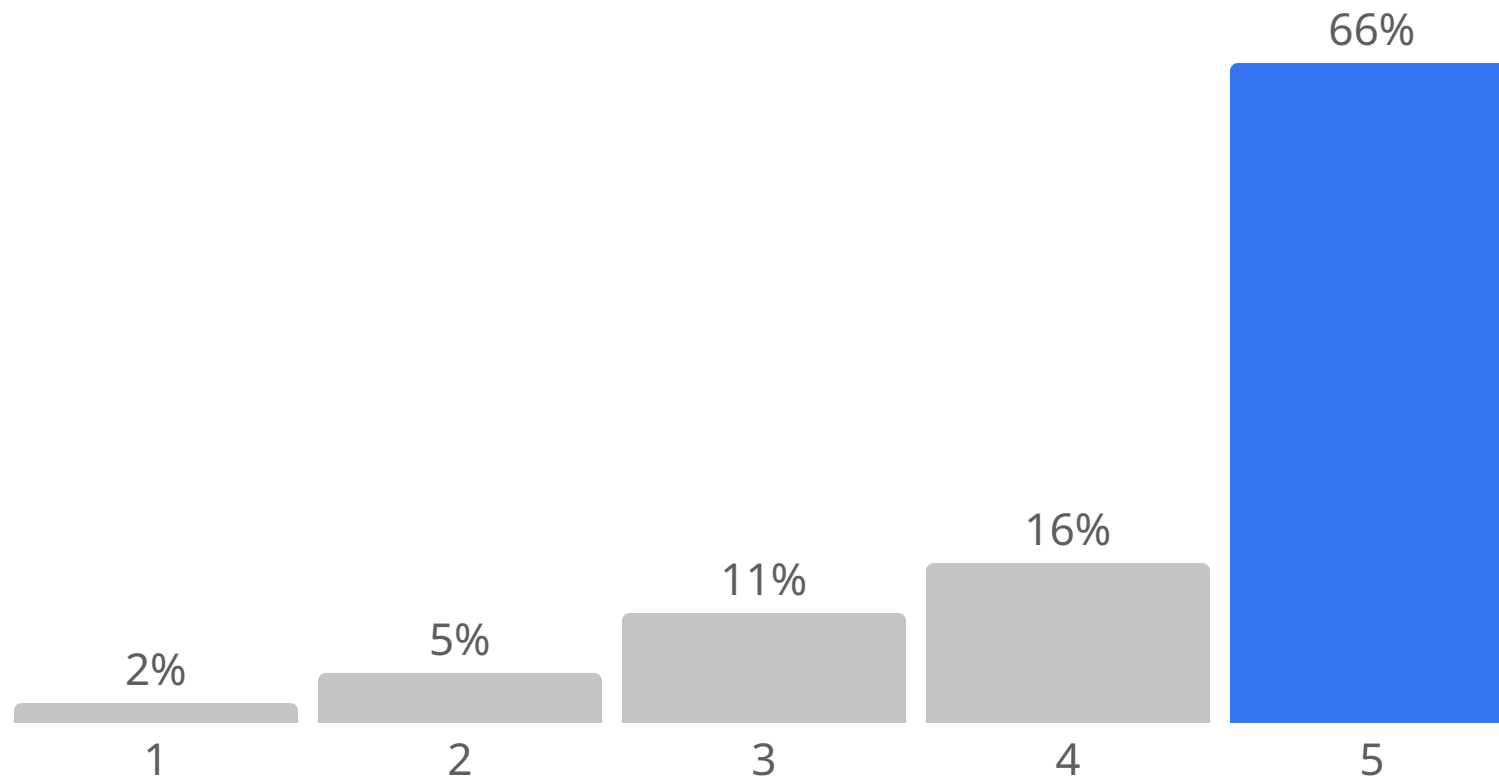
Rating poll

November 4th Summary Document- responses to draft statements
(7/34)

0 4 4

3a- In an unconstrained environment the integrated FCC programme represents a natural programme to realise Energy frontier e+e- and pp collisions.

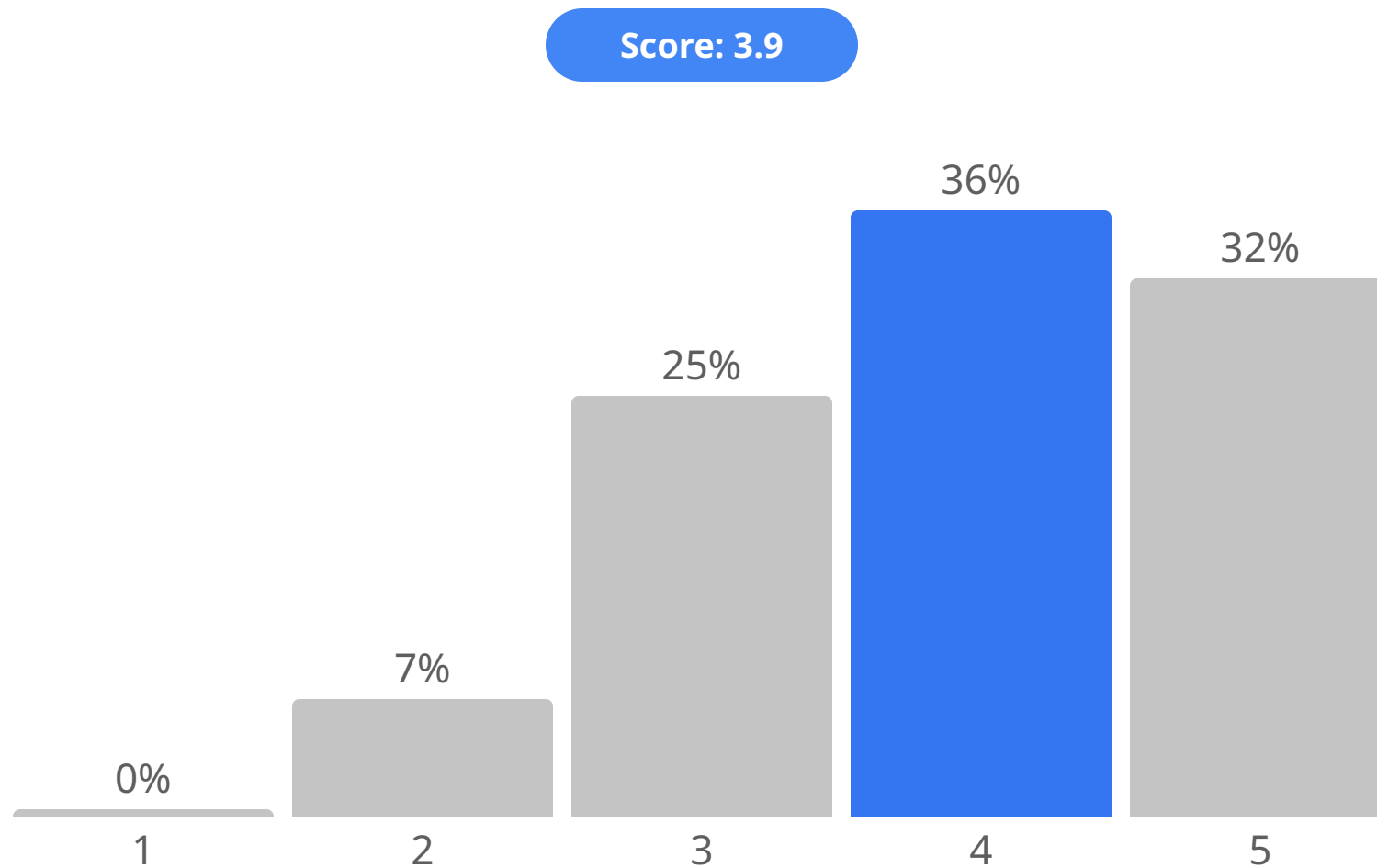
Score: 4.4



November 4th Summary Document- responses to draft statements
(8/34)

0 4 4

3b (Physics potential)- The next collider should achieve a factor of X (to be discussed) improvement across Higgs coupling measurements relative to HL-LHC projections

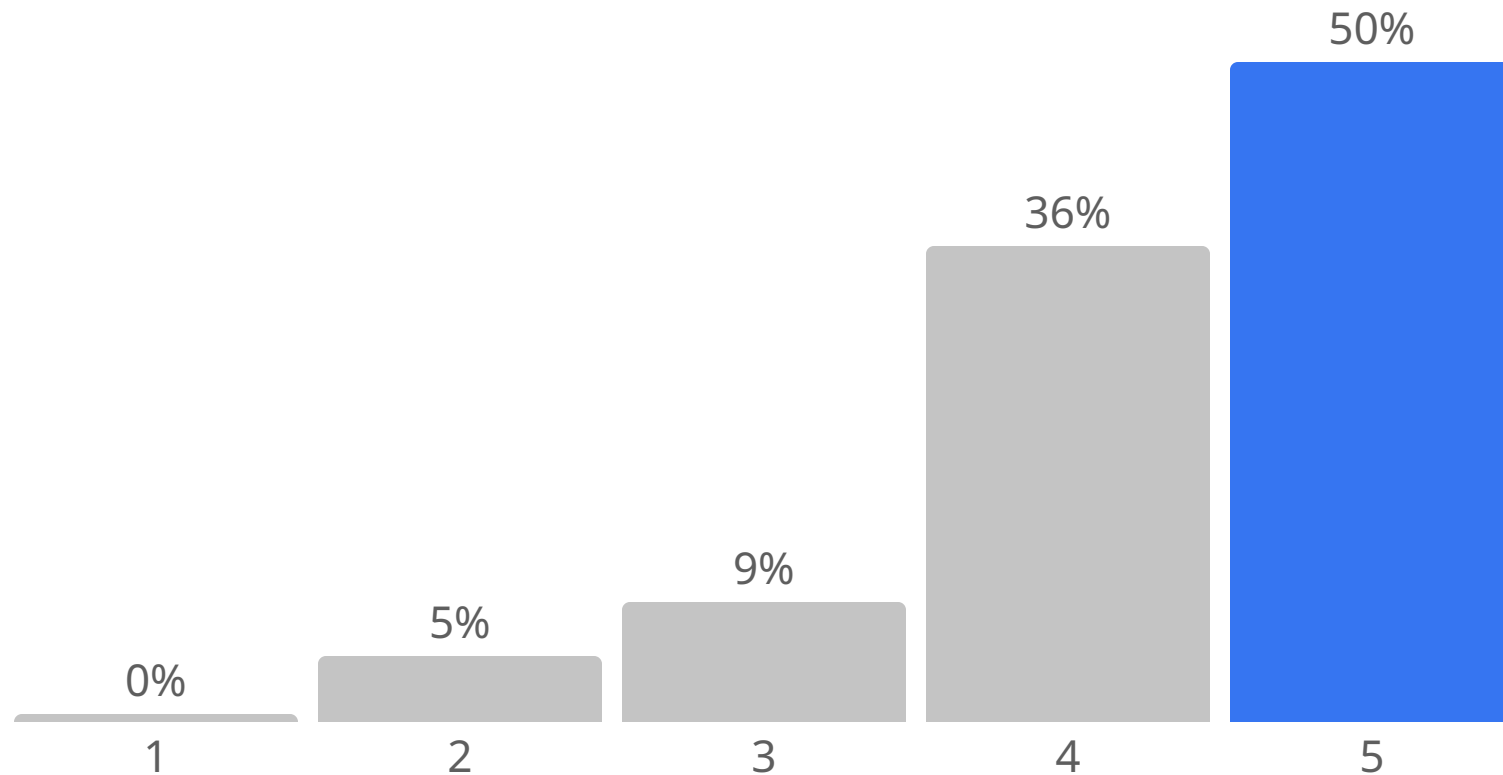


November 4th Summary Document- responses to draft statements (9/34)

0 4 4

3b (Physics potential) - Accessing the Higgs self coupling must remain a priority for the Energy Frontier exploration.

Score: 4.3

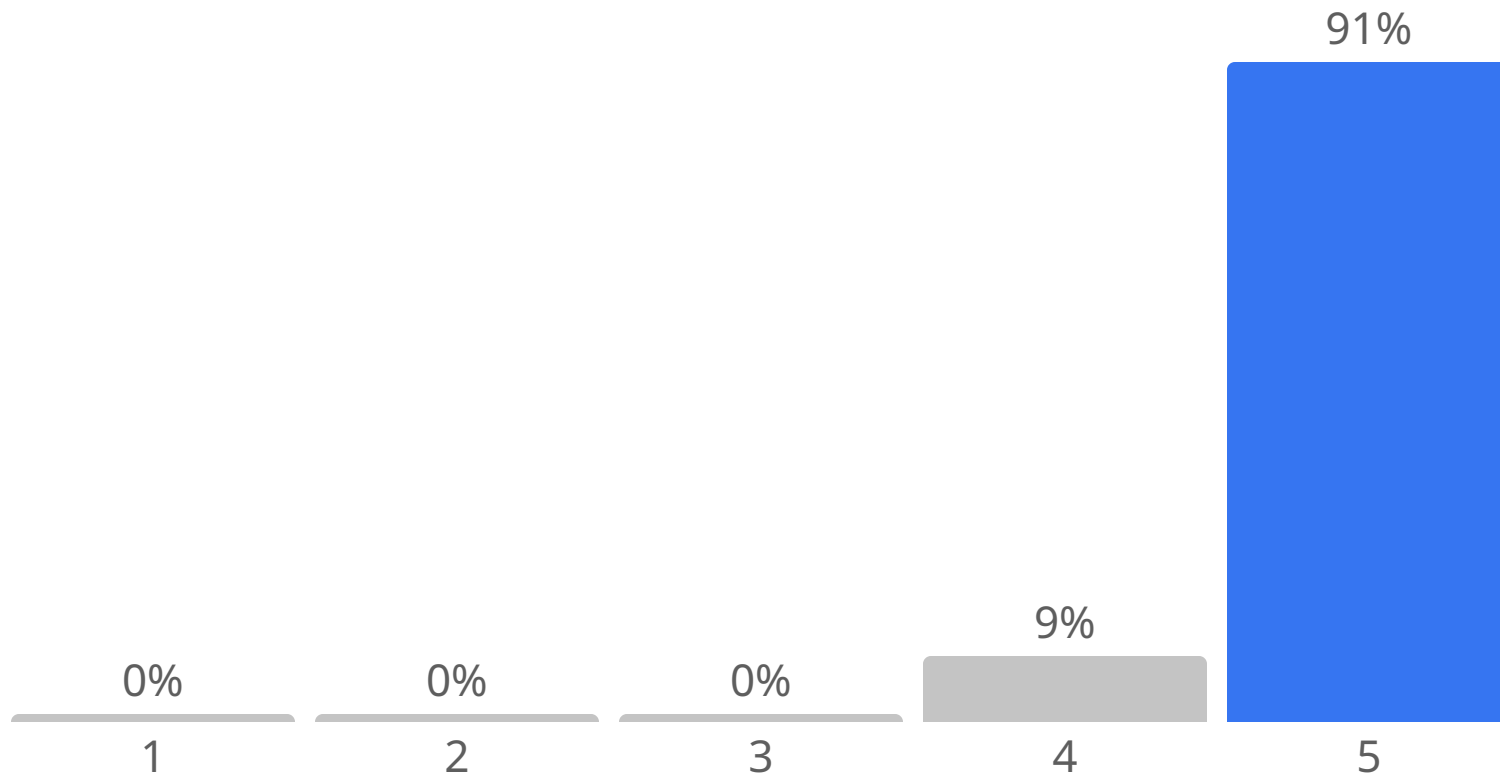


November 4th Summary Document- responses to draft statements
(10/34)

0 4 4

3b (Physics potential) - Particle physics should be explorative and push the envelope of our current knowledge.

Score: 4.9

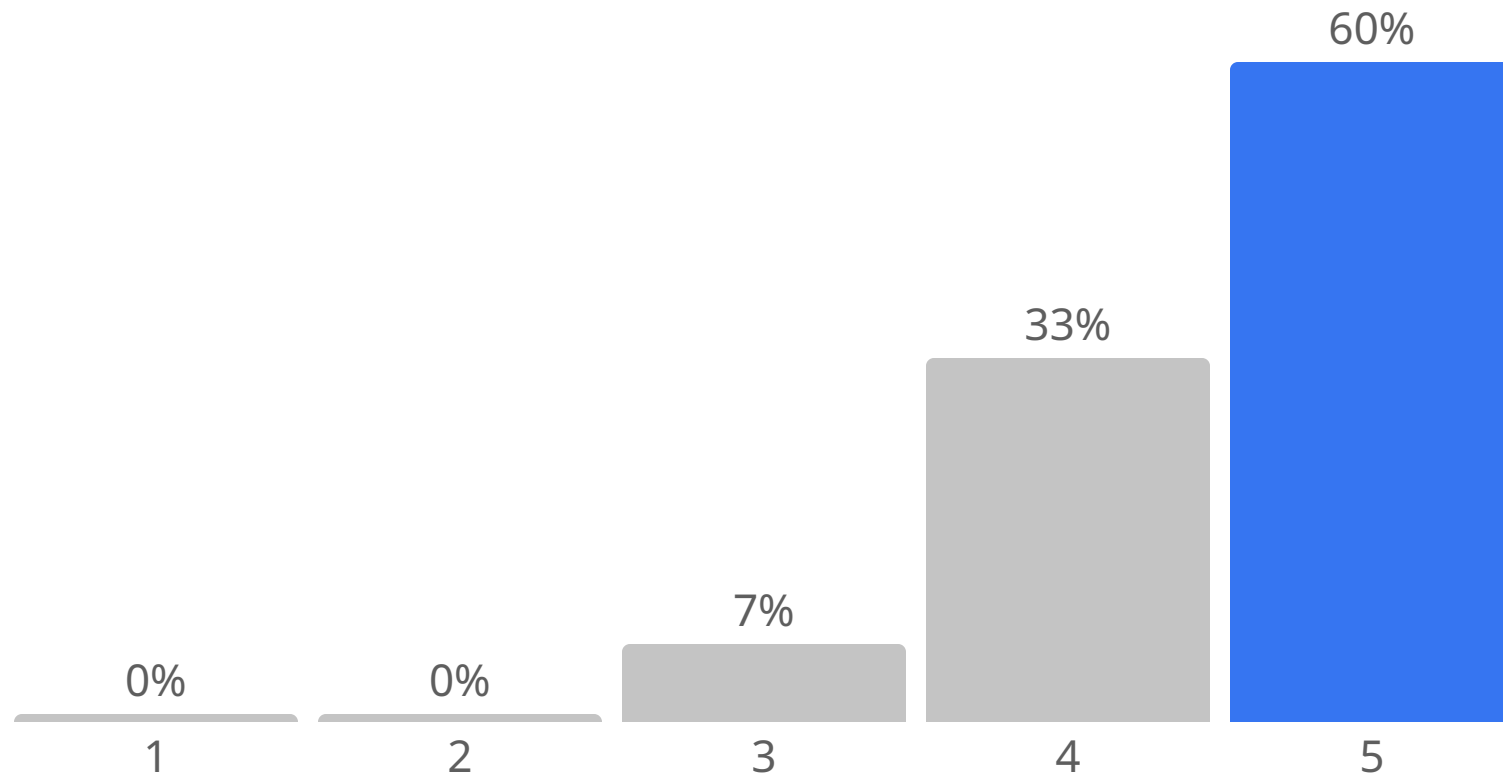


November 4th Summary Document- responses to draft statements (11/34)

0 4 5

3b (Financial and Human Resources) - Preparations for the next collider at CERN need to be balanced with ongoing commitments to the HL-LHC.

Score: 4.5



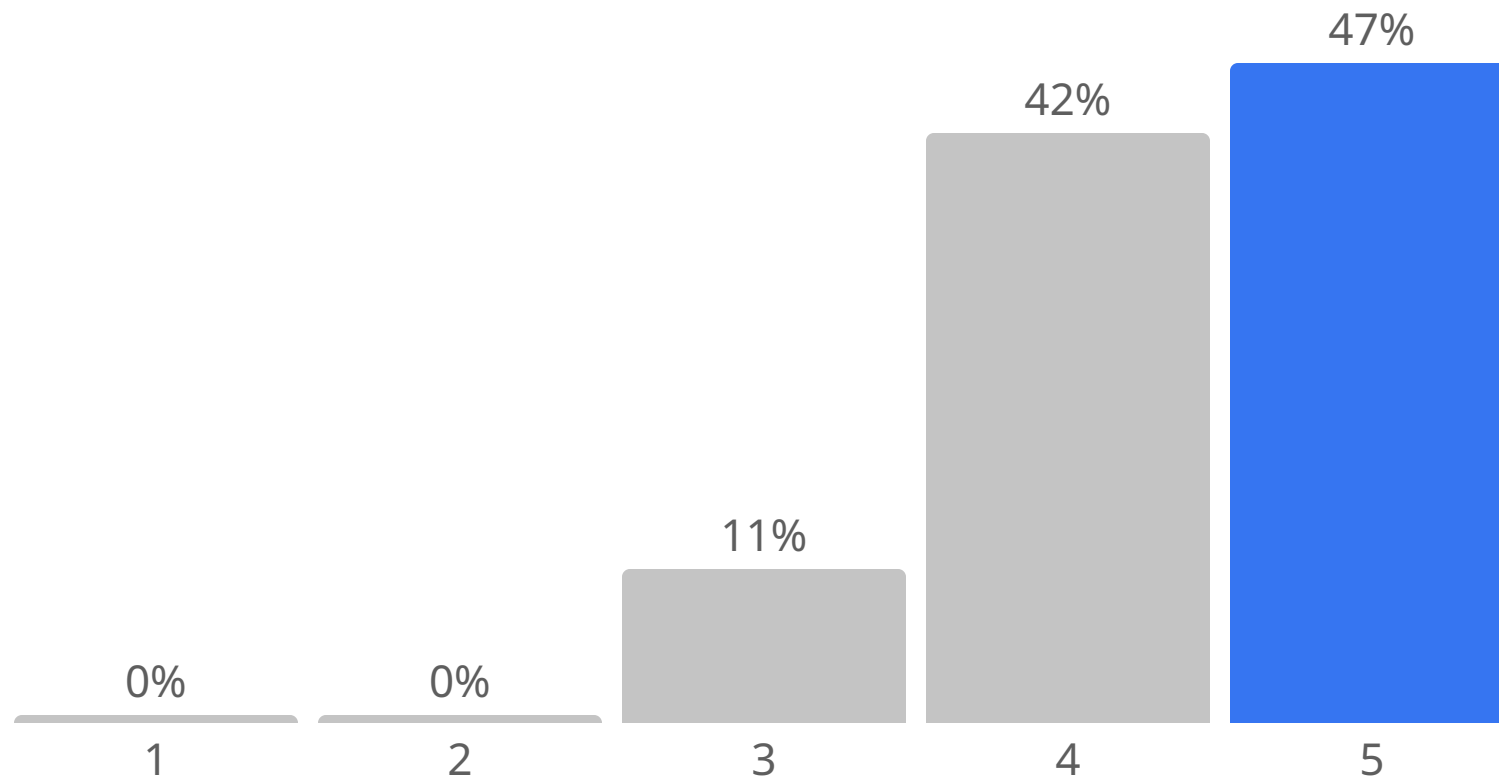
Rating poll

November 4th Summary Document- responses to draft statements
(12/34)

0 4 5

3b (Timing)- Long gaps (> decade) in CERNs accelerator programme could put retention of skills in accelerator and particle detector R+D at risk, so should be avoided.

Score: 4.4



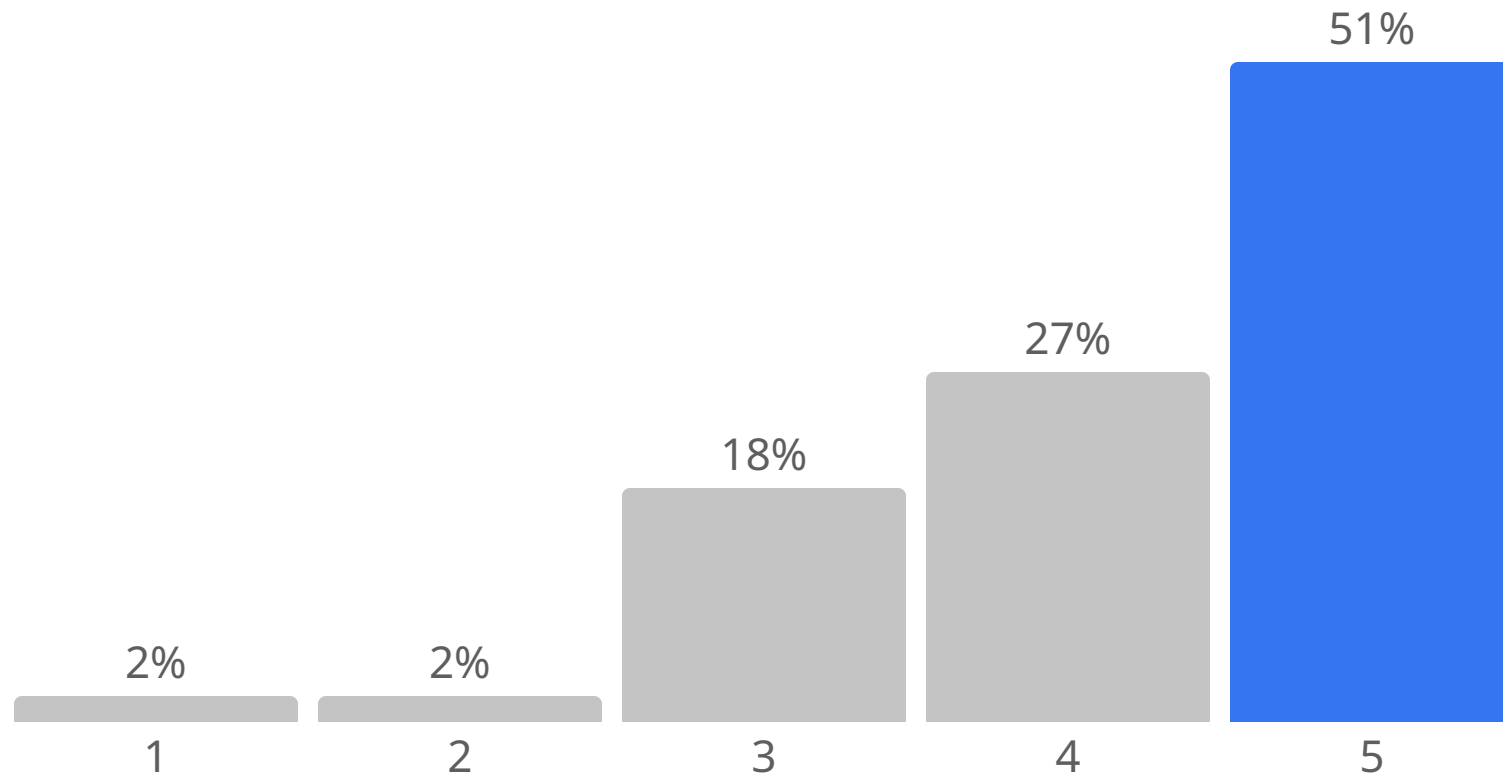
Rating poll

November 4th Summary Document- responses to draft statements (13/34)

0 4 5

3b (Timing)- A sufficient range of medium-term “bridging” projects will be required to ensure continued recruitment and retention of talent, particularly those in non-permanent positions, during any major gap between the end of HL-LHC and the next flagship project.

Score: 4.2



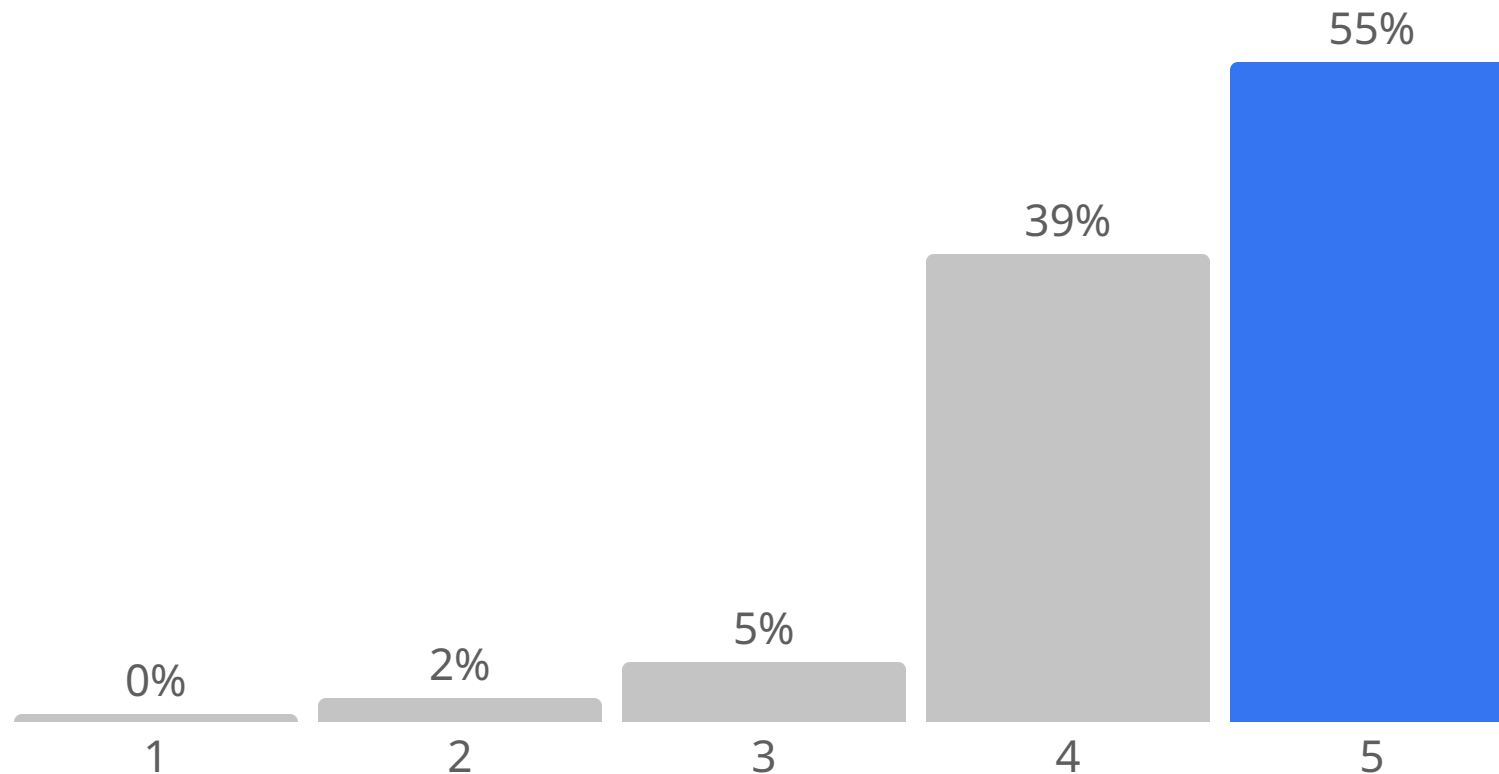
Rating poll

November 4th Summary Document- responses to draft statements
(14/34)

0 4 4

3b (Careers and training)- Europe must ensure that the gap between operation of colliders has minimal effect on recruitment of new talent and retention of expertise in the enabling fields of accelerator, detector, and computational science.

Score: 4.5



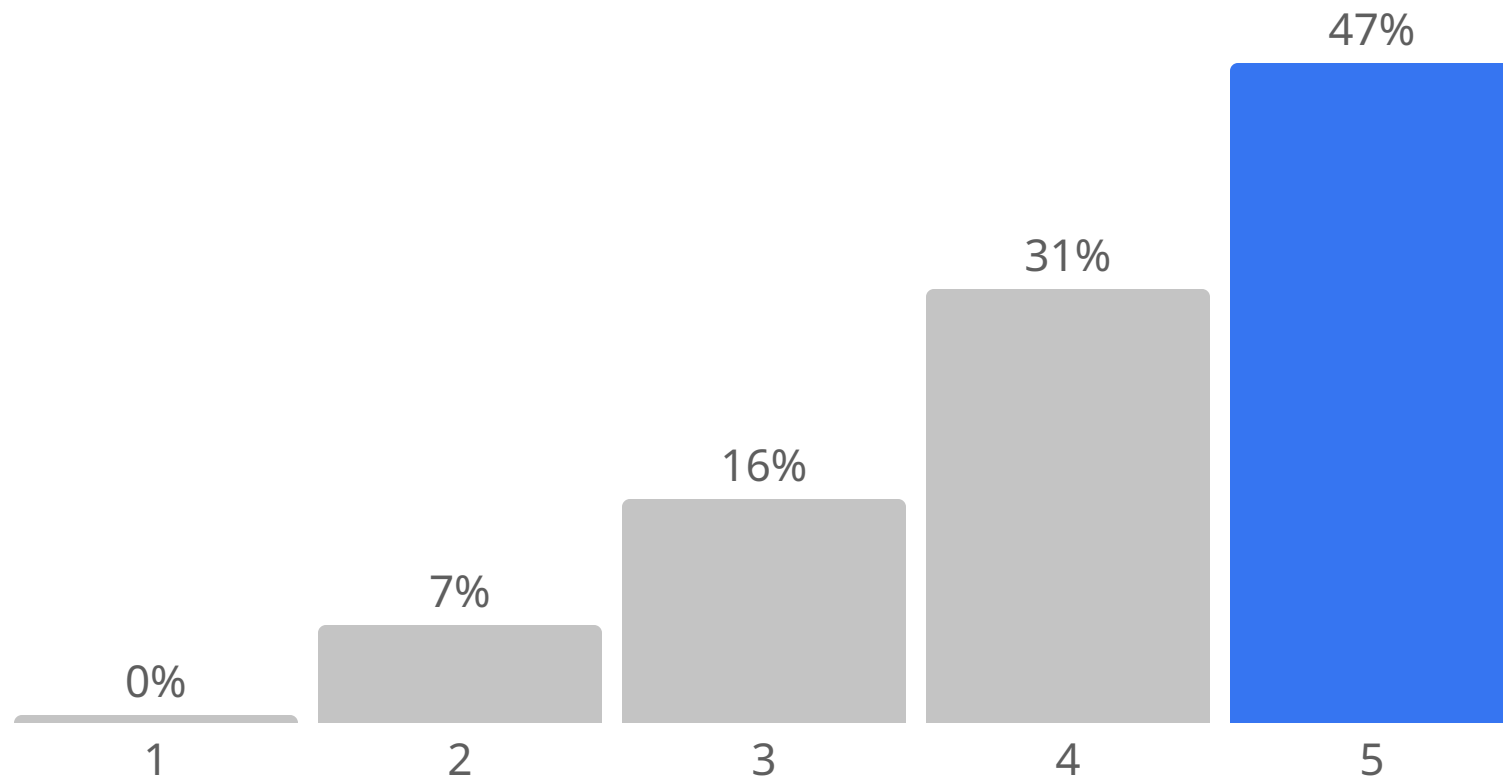
Rating poll

November 4th Summary Document- responses to draft statements
(15/34)

0 4 5

3b (Sustainability)- The operation and construction of the next collider must take careful consideration of sustainability and the impact to the climate.

Score: 4.2



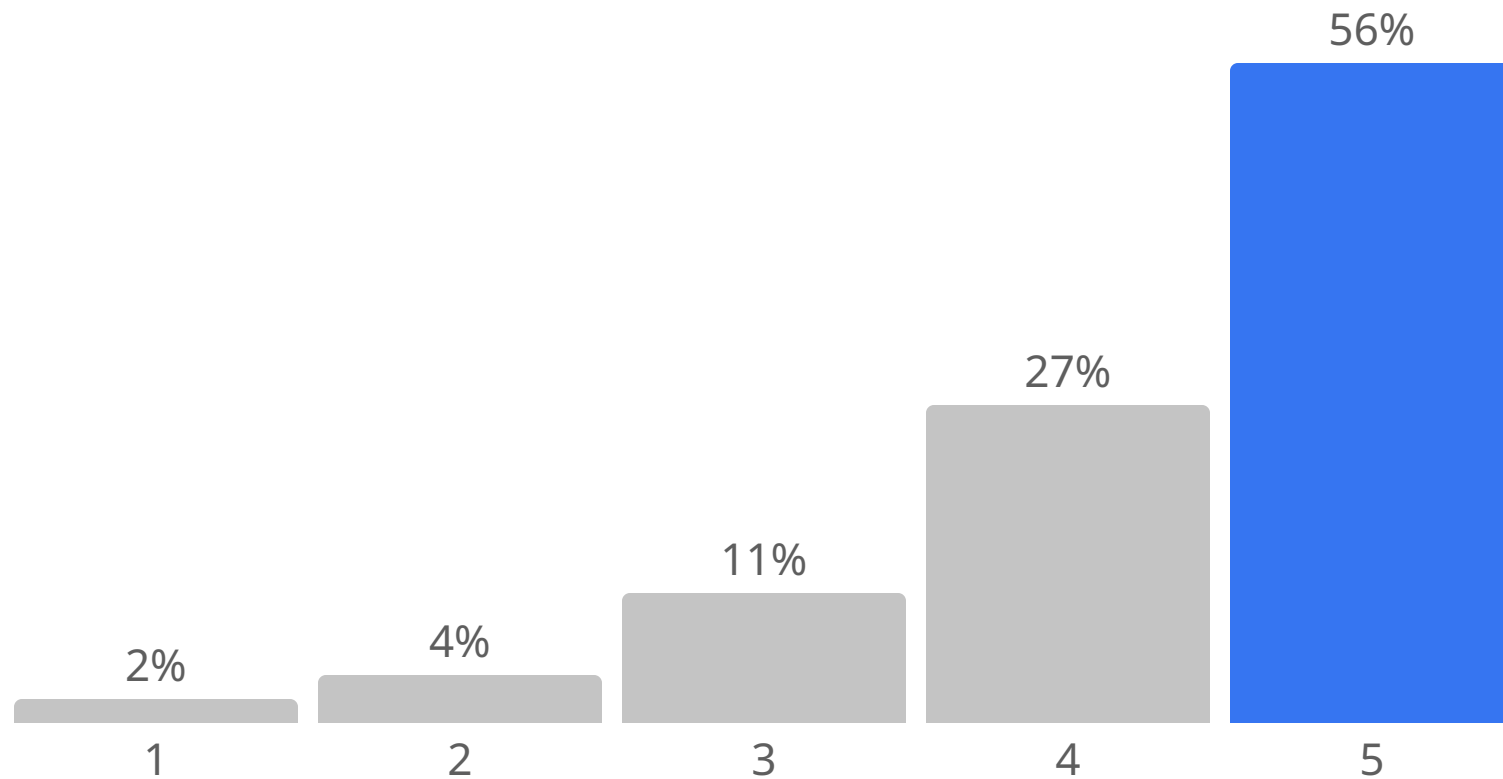
Rating poll

November 4th Summary Document- responses to draft statements
(16/34)

0 4 5

3c- Europe should take measures to maintain its global lead in collider physics regardless of decisions in other regions and without waiting for the final results from the HL-LHC.

Score: 4.3



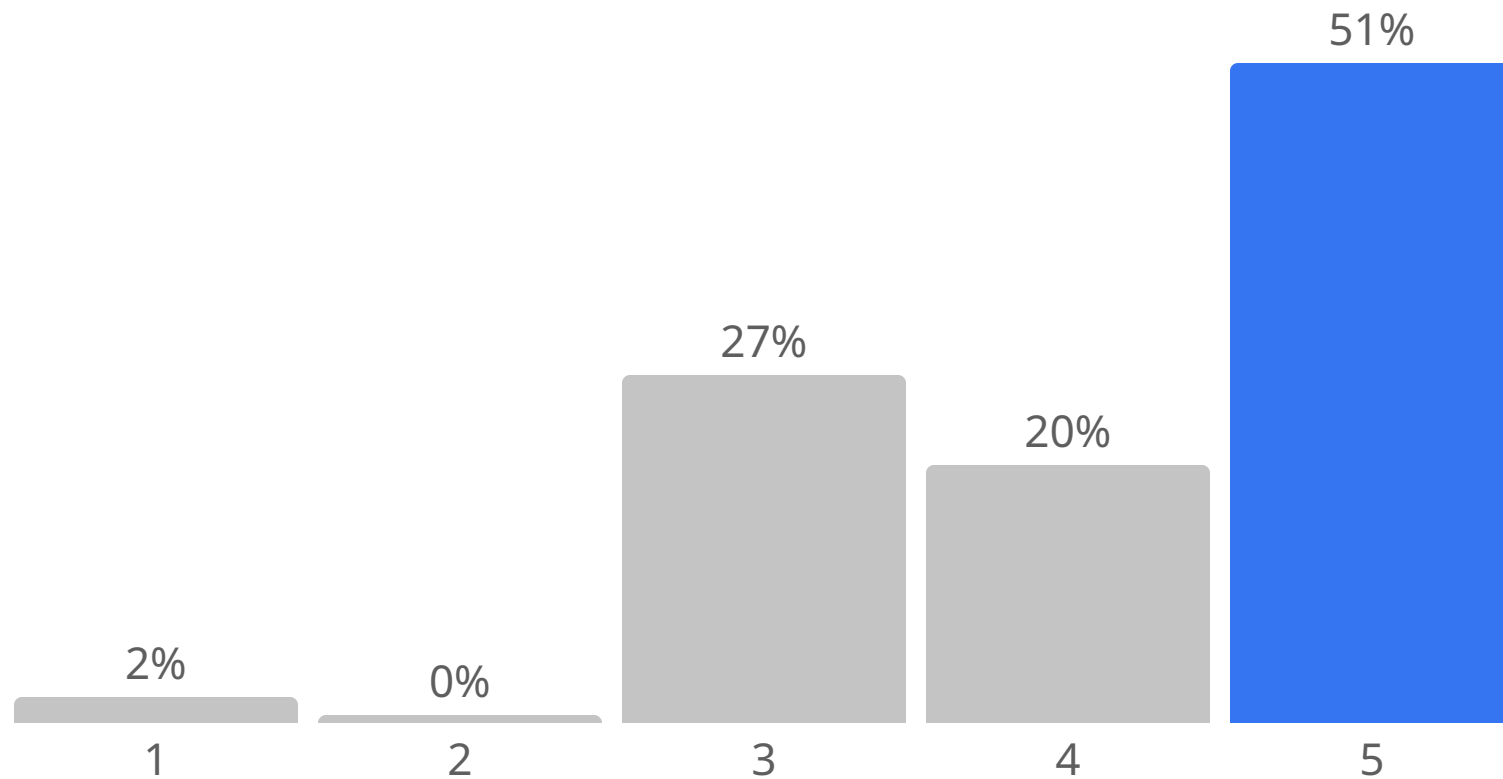
Rating poll

November 4th Summary Document- responses to draft statements
(17/34)

0 4 5

3c- The next flagship CERN collider should be complementary to major physics efforts elsewhere, but should not be an identical type of project.

Score: 4.2

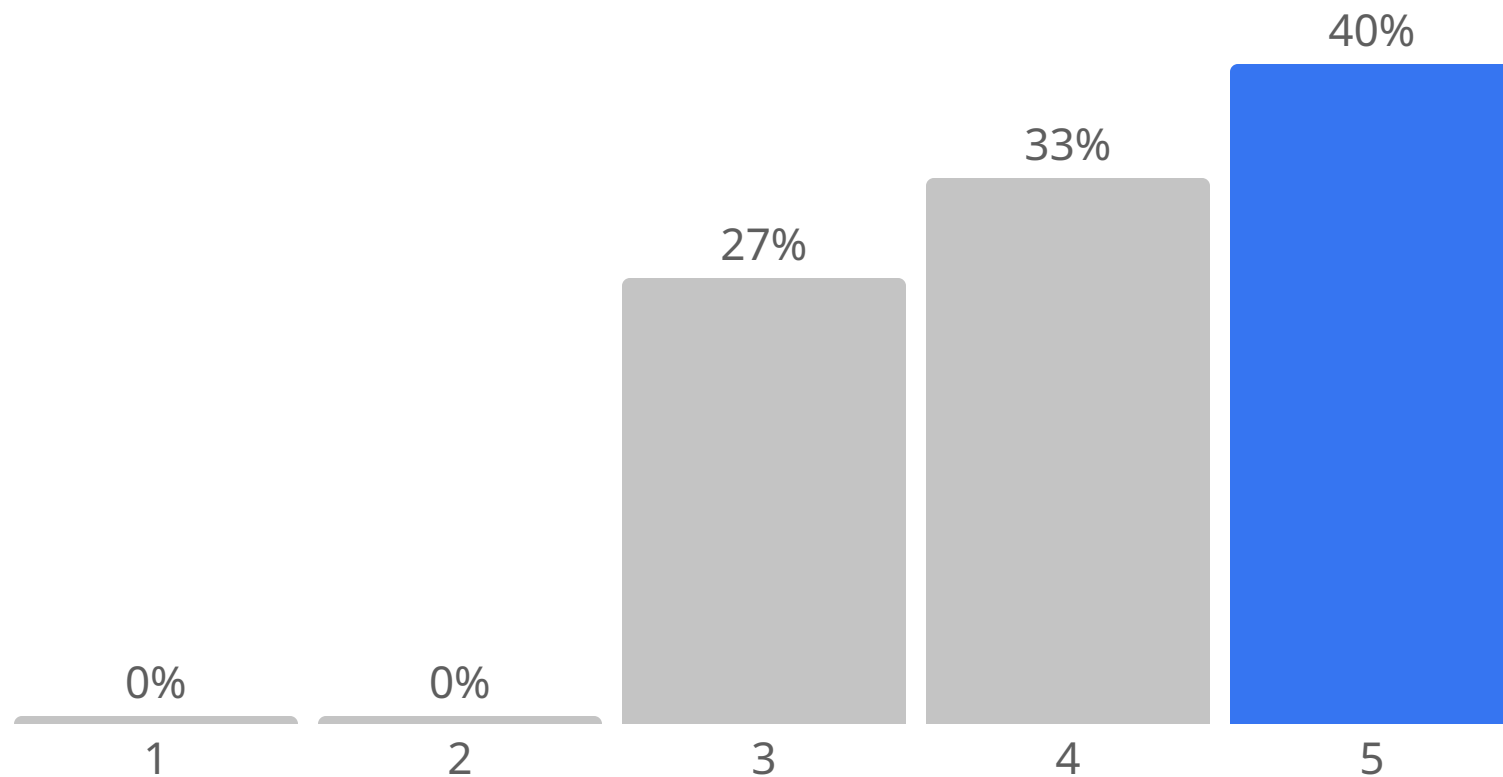


November 4th Summary Document- responses to draft statements
(18/34)

0 4 5

3c- Active efforts must be made to collaborate in any major non-European collider projects that proceed.

Score: 4.1



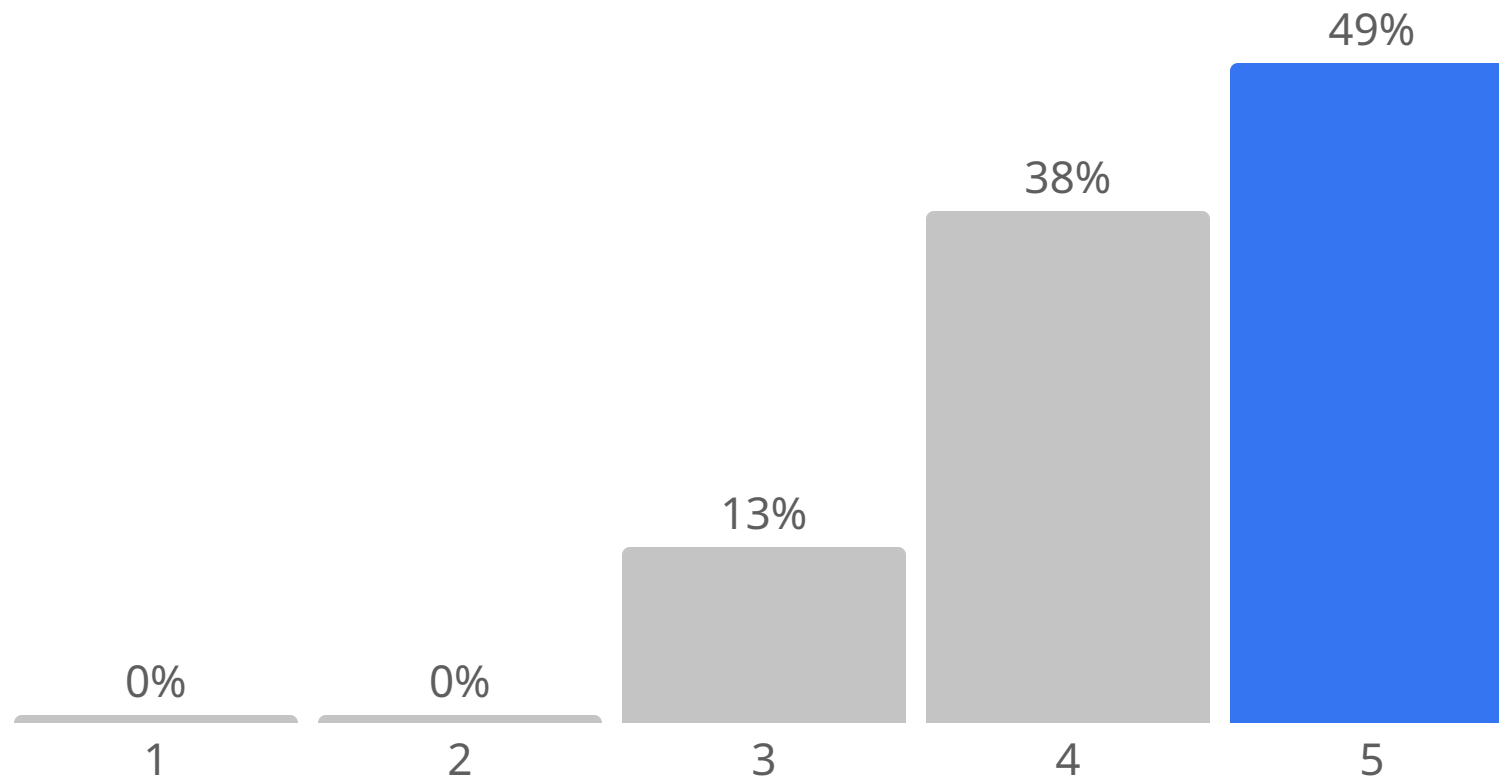
Rating poll

November 4th Summary Document- responses to draft statements
(19/34)

0 4 5

3d- R&D in disruptive accelerator technologies must be pursued, including but not limited to; muon acceleration, plasma based acceleration, terahertz acceleration.

Score: 4.4



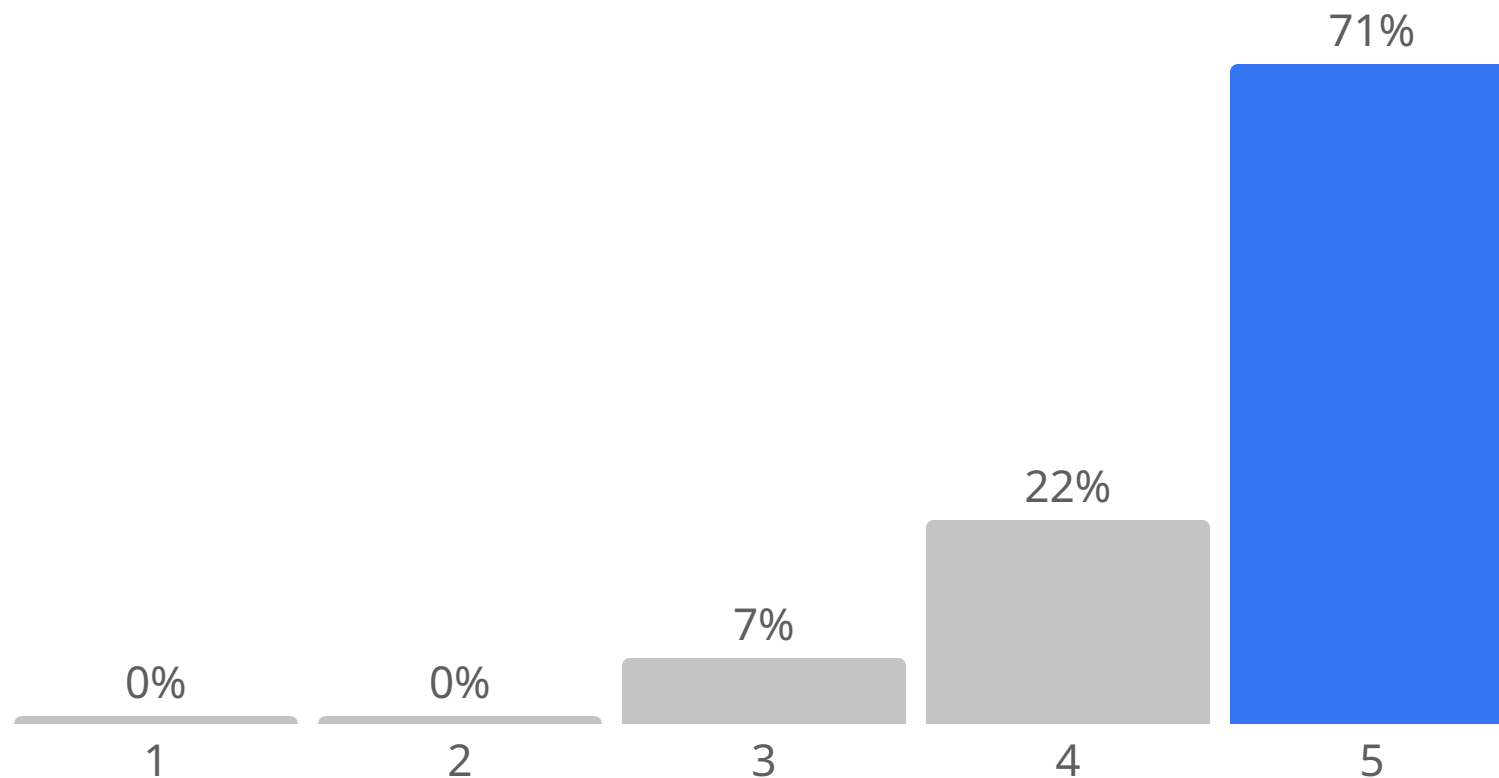
Rating poll

November 4th Summary Document- responses to draft statements
(20/34)

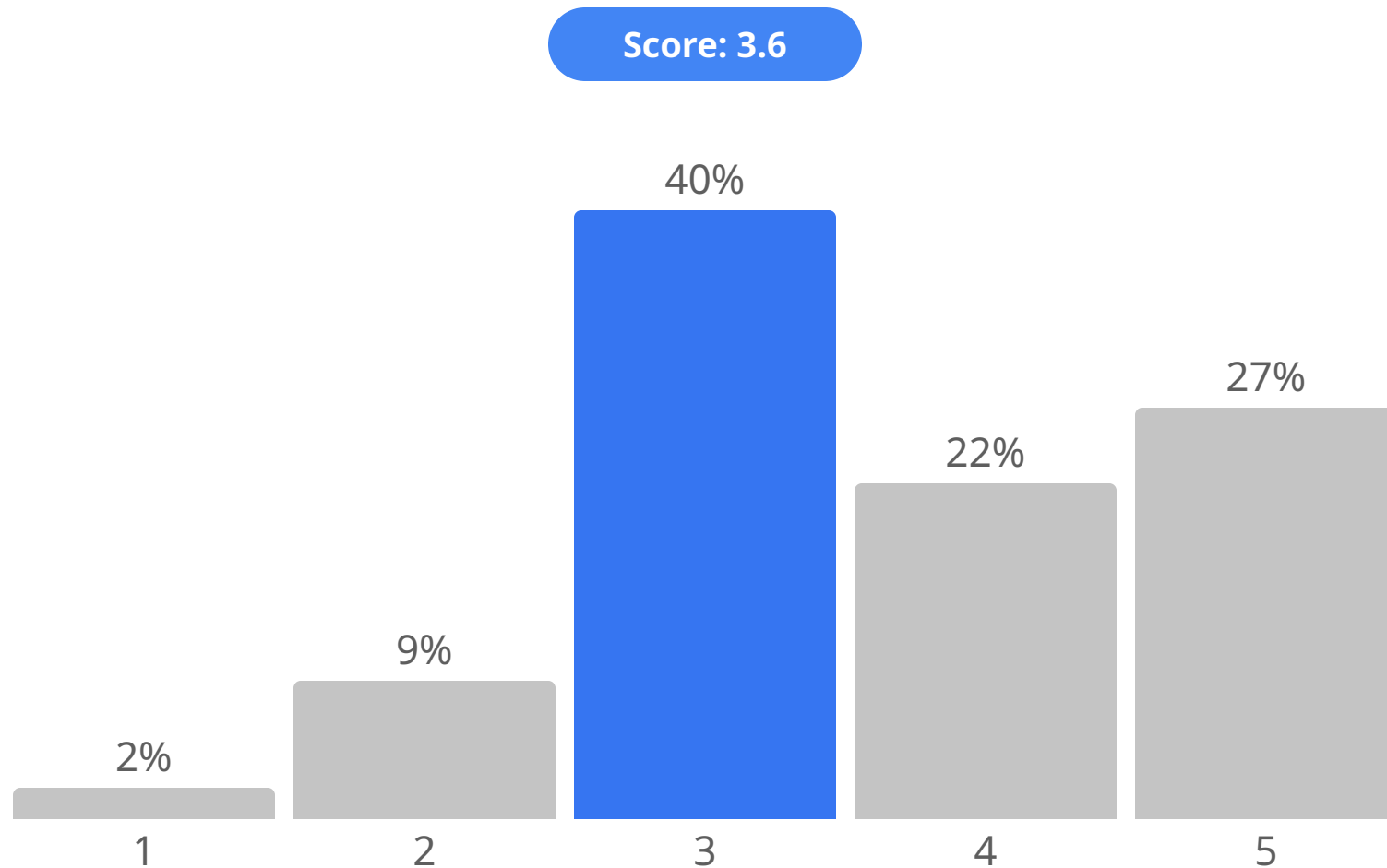
0 4 5

3d- R&D in enabling technologies must be pursued, including but not limited to; high temperature superconductors (for magnets), more efficient radio frequency systems.

Score: 4.6



3d- Europe should support global efforts towards developing a muon cooling demonstrator.

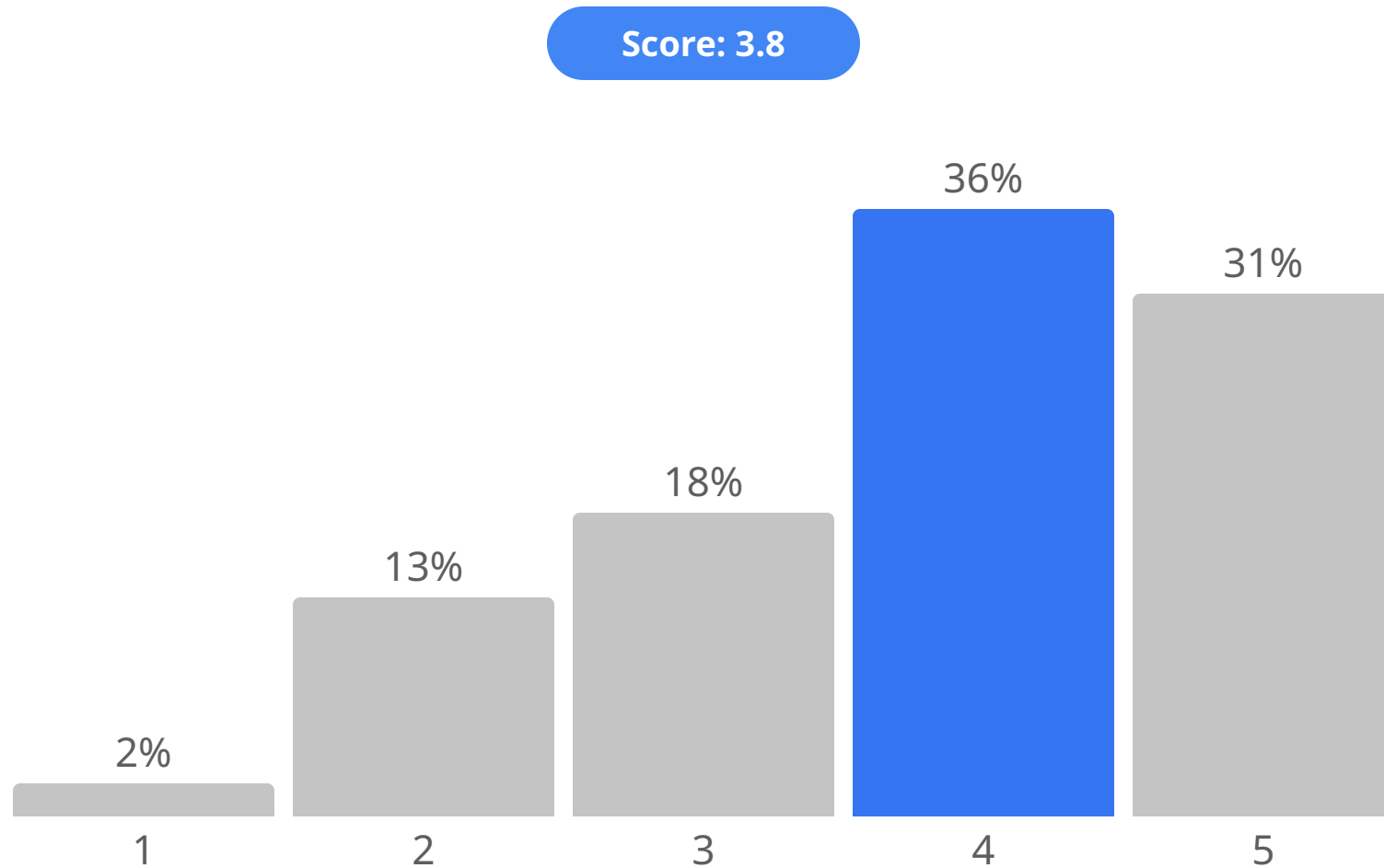


Rating poll

November 4th Summary Document- responses to draft statements
(22/34)

0 4 5

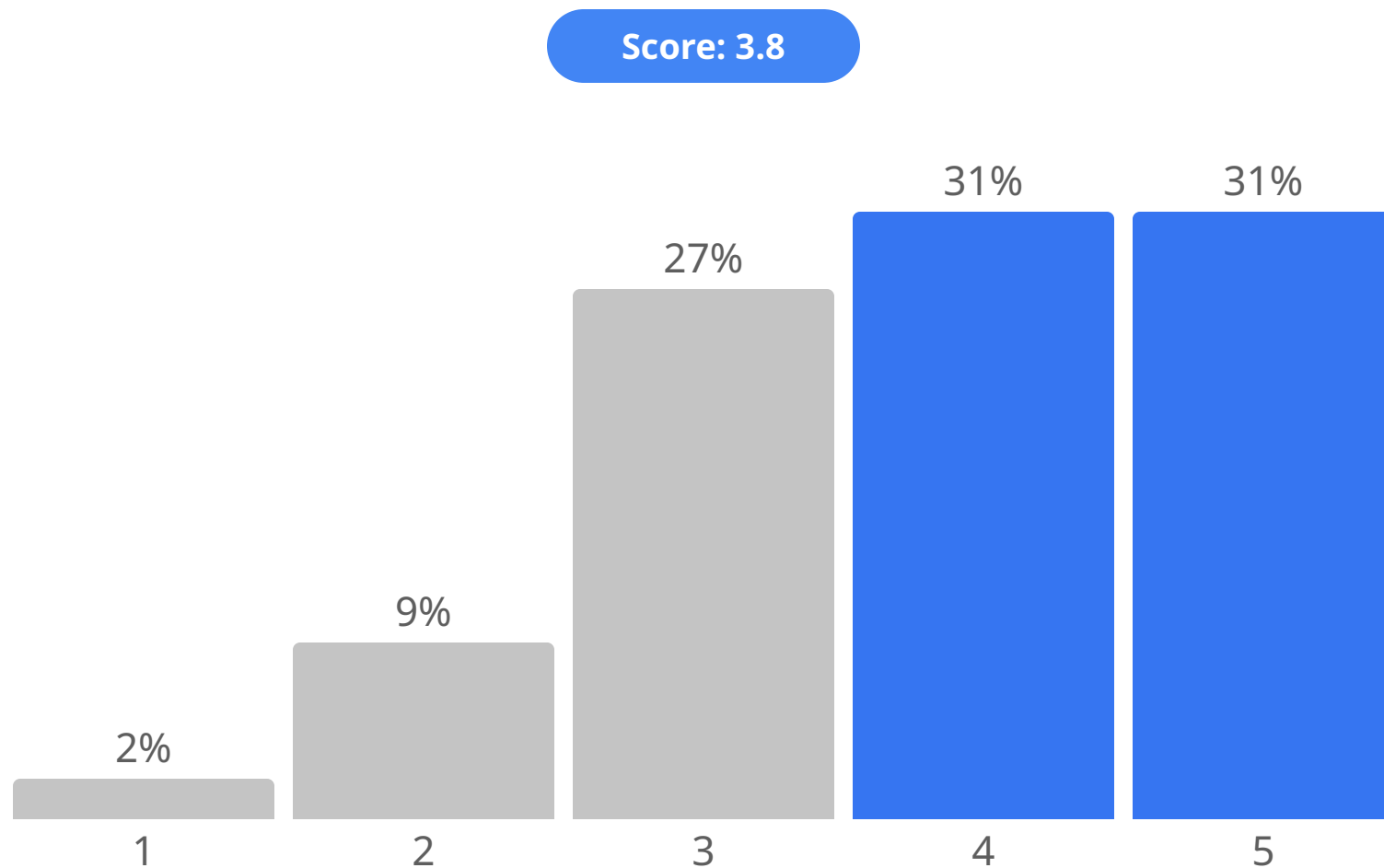
3d- Projects that extend the capabilities of the HL-LHC (e.g. FPF or LHeC) provide mechanisms to sustain physics exploitation if the next major project is delayed.



November 4th Summary Document- responses to draft statements
(23/34)

0 4 5

4a- CERN should continue its support for accelerator-based neutrino science through the continued operation of the Neutrino Platform.



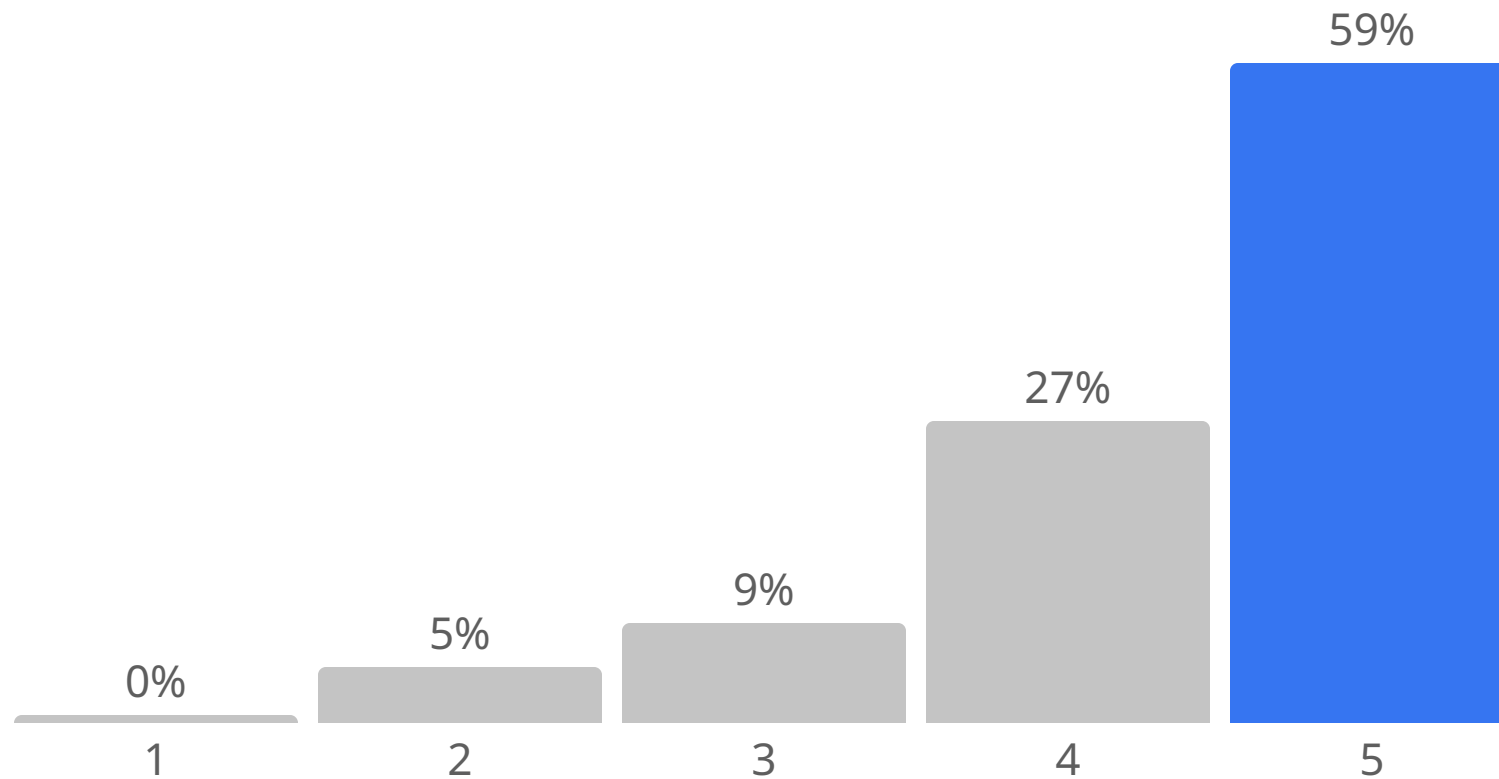
Rating poll

November 4th Summary Document- responses to draft statements
(24/34)

0 4 4

4a- There is clear interest in the UK to host a large dark matter facility (XLZD) at Boulby with interest also from other European countries and the US.

Score: 4.4



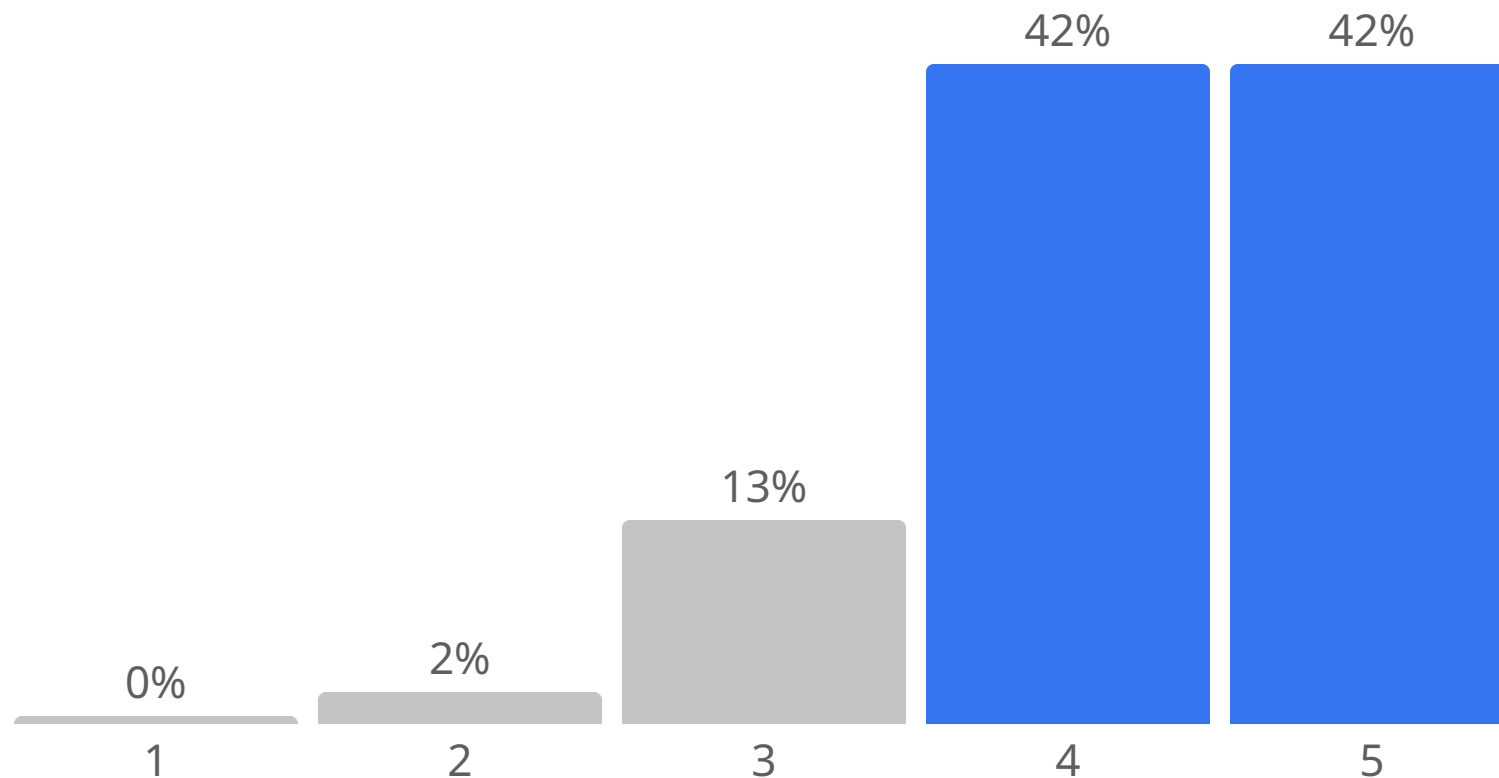
Rating poll

November 4th Summary Document- responses to draft statements
(25/34)

0 4 5

4a- There are many non-collider experimental opportunities that should be pursued in the next 25 years that complement and extend those at energy-frontier colliders.

Score: 4.2

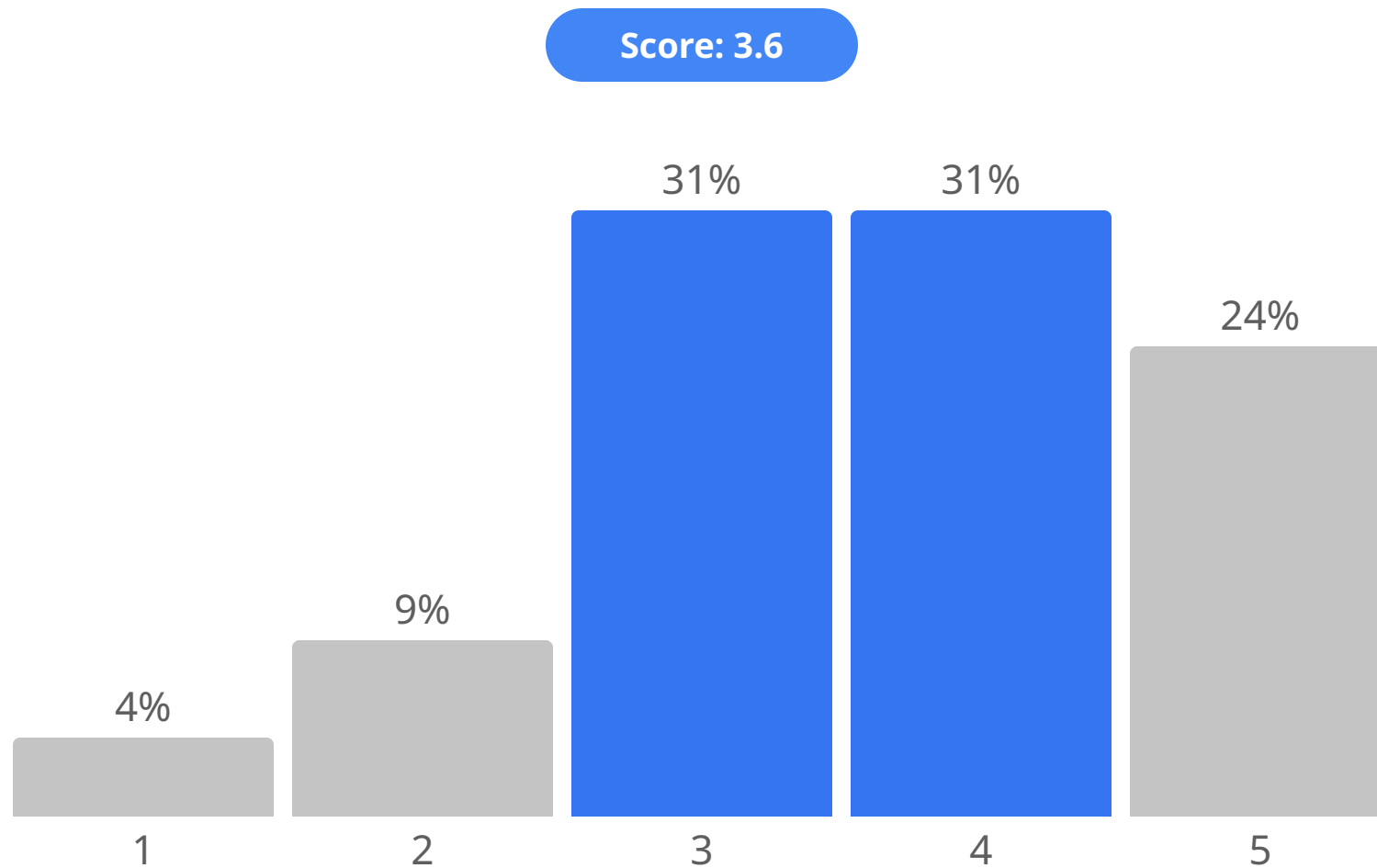


Rating poll

November 4th Summary Document- responses to draft statements
(26/34)

0 4 5

4a- Integrating quantum technologies into the European Strategy for Particle Physics offers a unique opportunity to leverage the existing expertise in the UK, at CERN and other European labs.



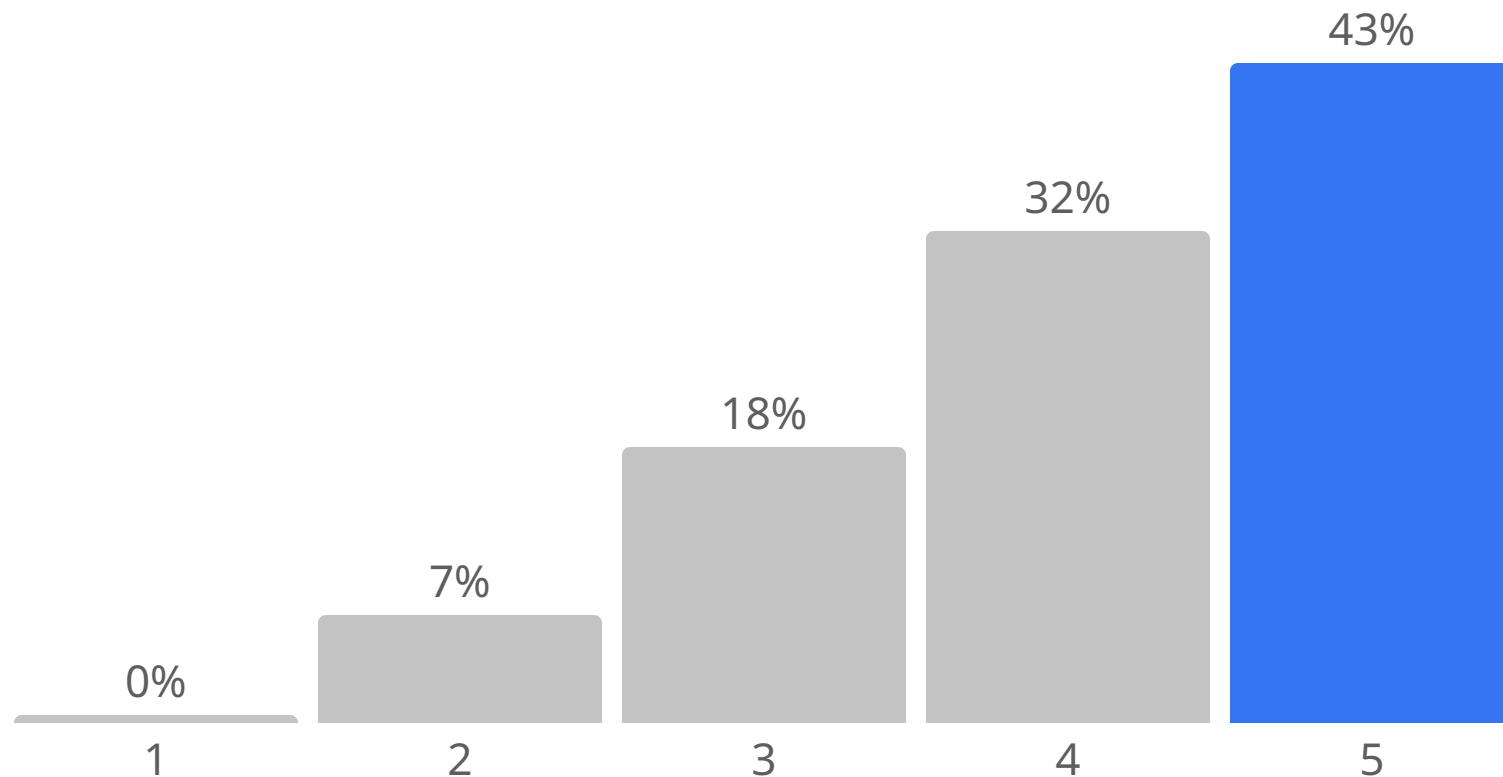
Rating poll

November 4th Summary Document- responses to draft statements
(27/34)

0 4 4

4b [Timing] - These experiments provide continuity in the particle physics programme, avoiding long gaps without running experiments, which is important for attracting students and providing training opportunities.

Score: 4.1

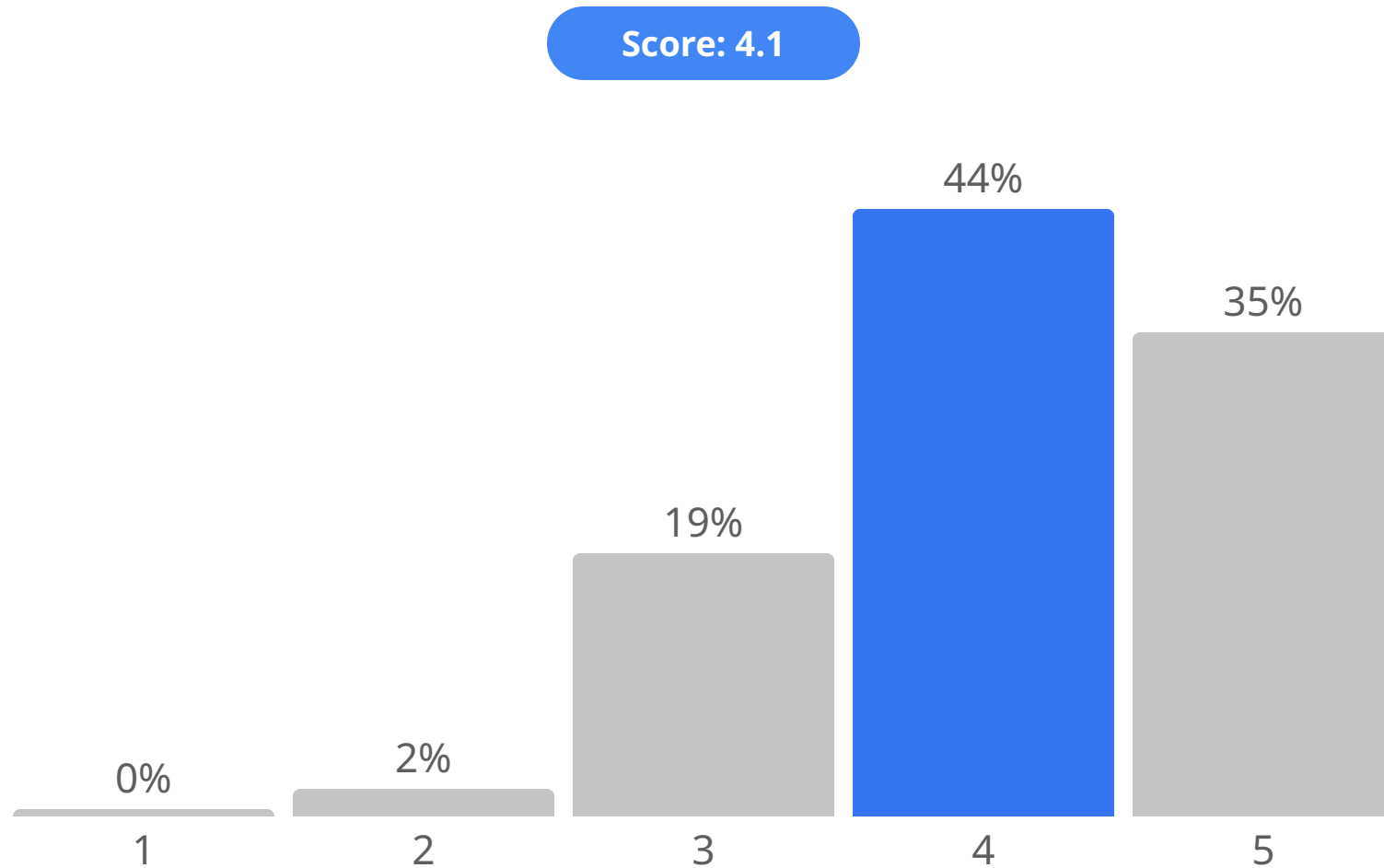


Rating poll

November 4th Summary Document- responses to draft statements
(28/34)

0 4 3

4b [Sustainability]- Experiments that mostly use existing large-scale resources and infrastructure are cost-effective and the environmental impact is reduced.

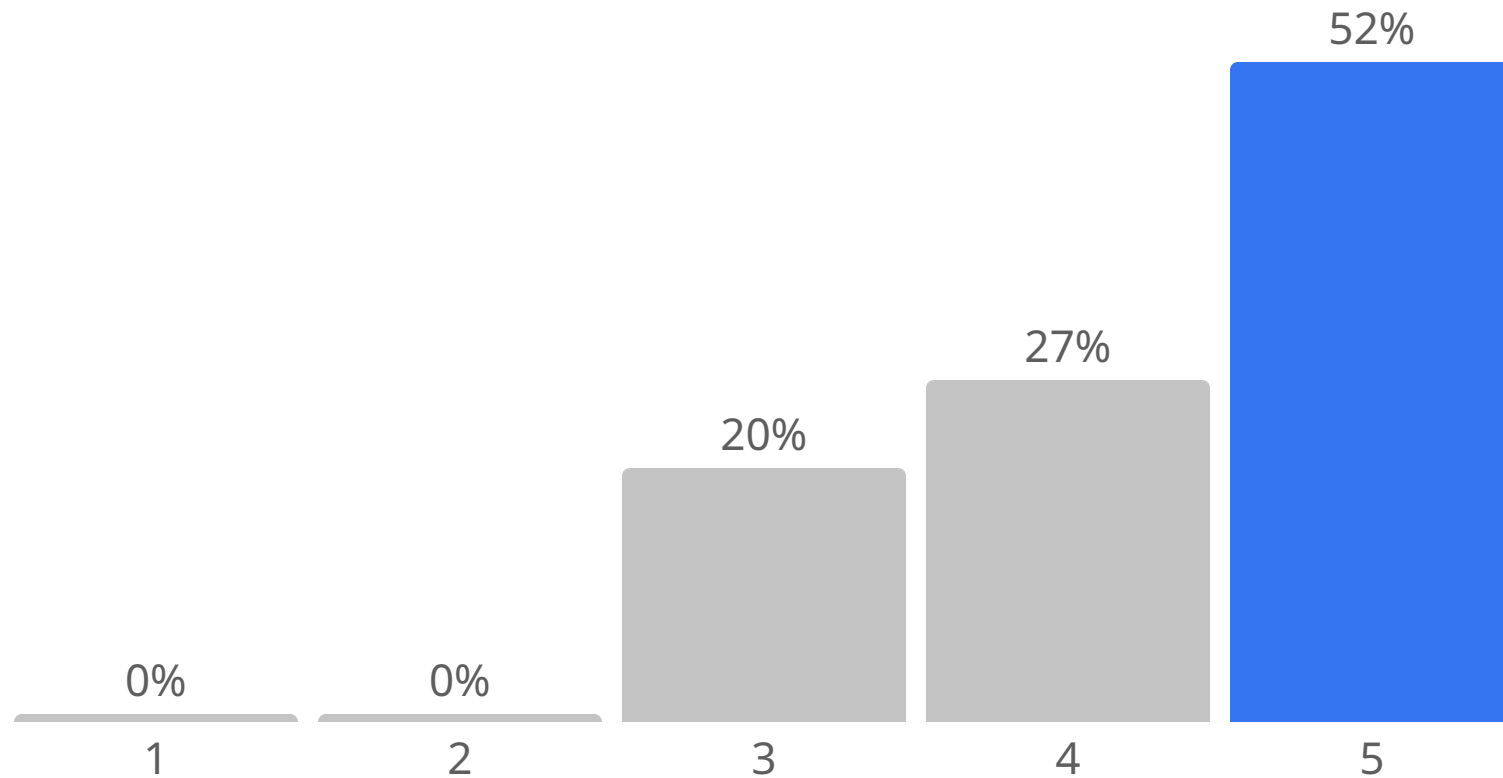


November 4th Summary Document- responses to draft statements
(29/34)

0 4 4

4c- CERN's accelerator complex is well suited to cater to both nuclear and particle physics.

Score: 4.3



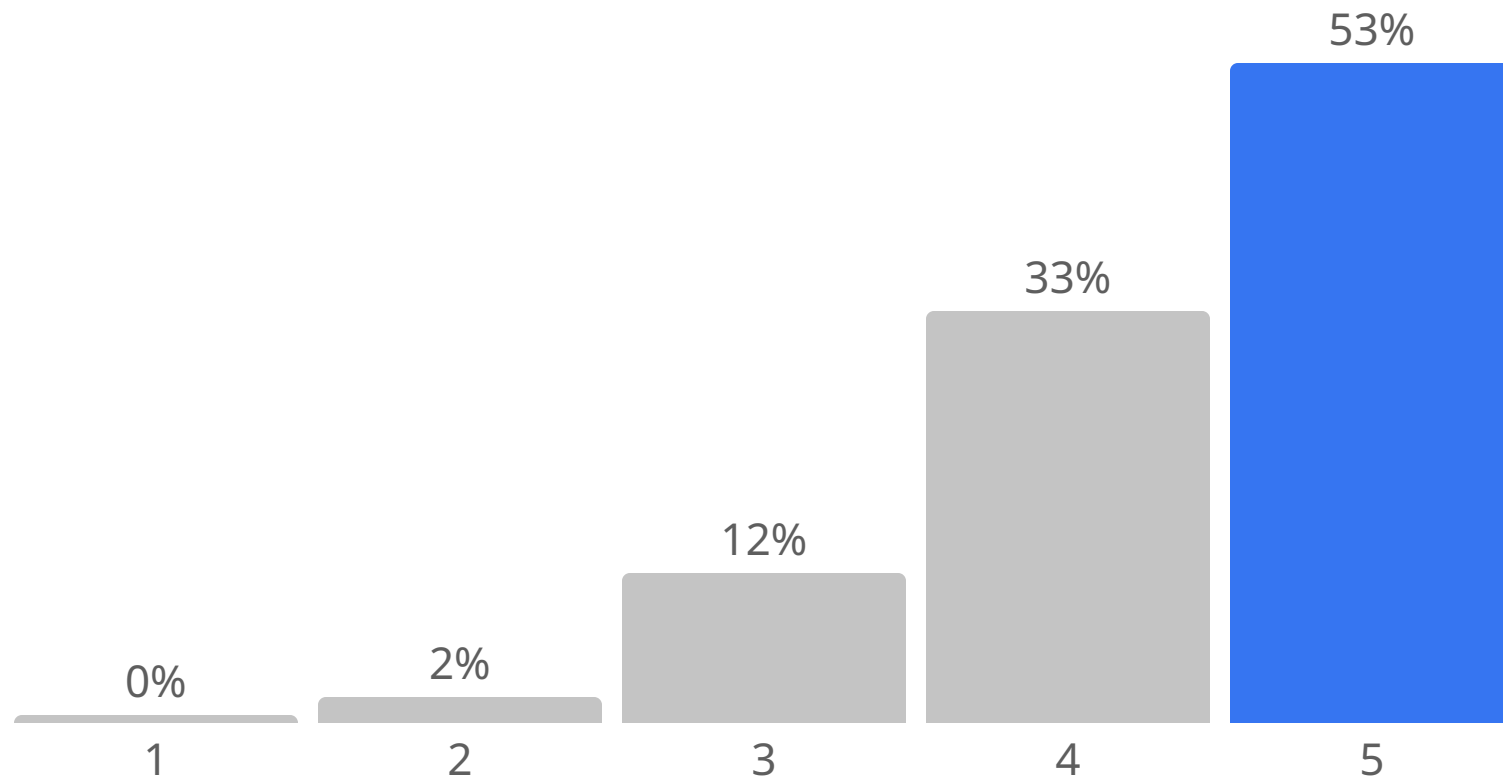
Rating poll

November 4th Summary Document- responses to draft statements
(30/34)

0 4 3

[Additional topics] - Development, maintenance, and support of theoretical tools, upon which the analysis and thus exploitation of many experiments depend, requires greater priority.

Score: 4.4



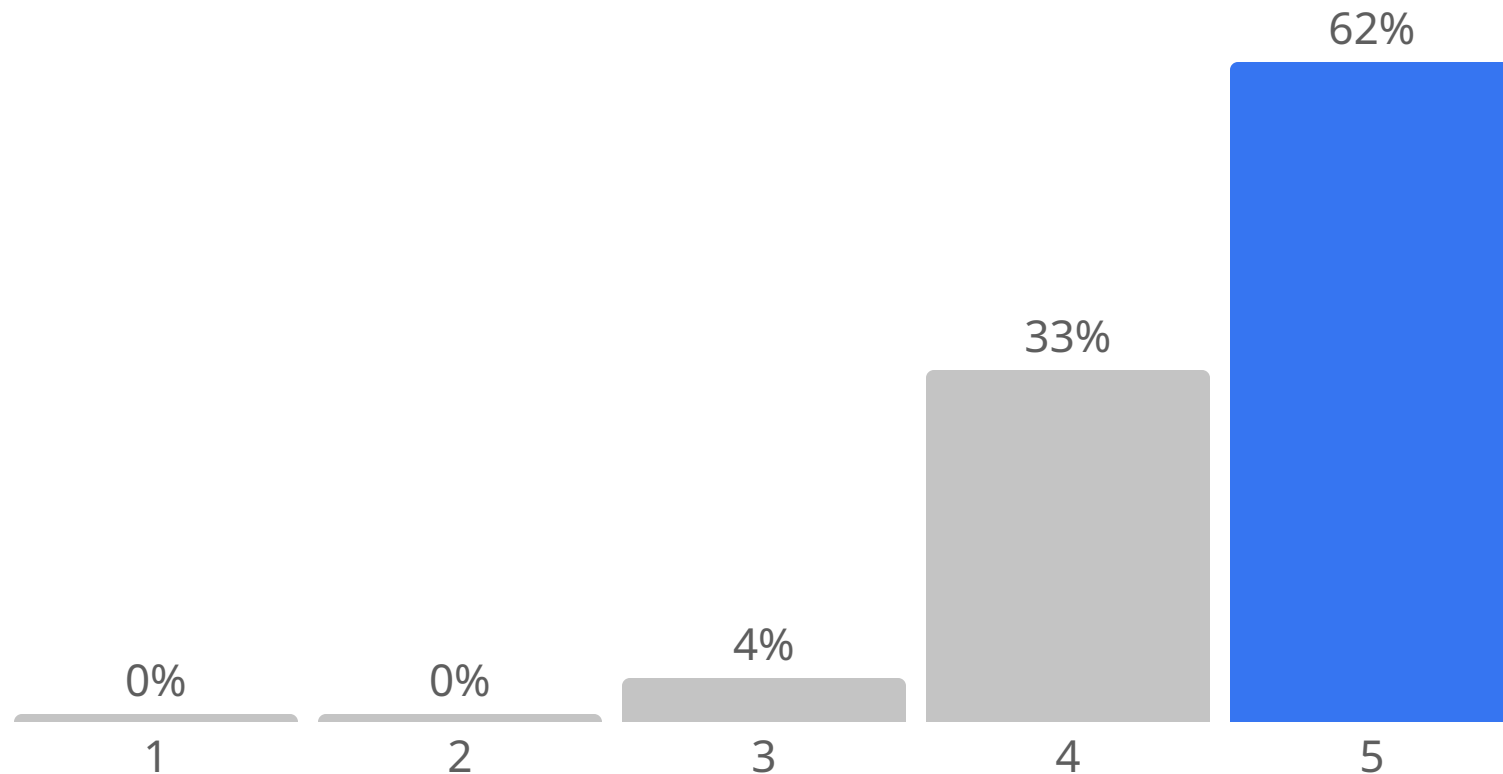
Rating poll

November 4th Summary Document- responses to draft statements
(31/34)

0 4 5

[Additional topics]- Europe must invest in public engagement of all forms in order to improve public opinions of science, share impact to justify the funding of large scale experiments, and inspire the next generation of scientists.

Score: 4.6



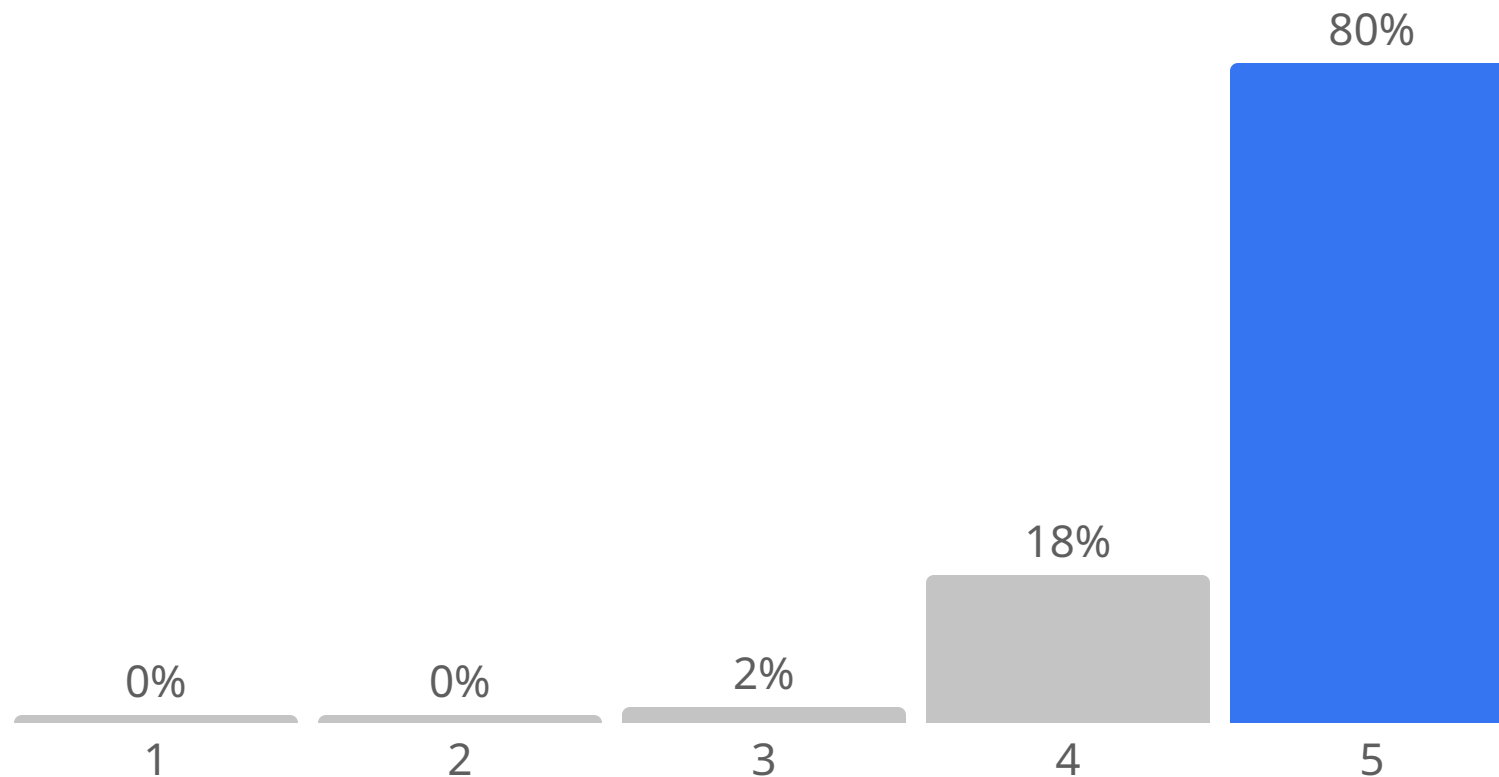
Rating poll

November 4th Summary Document- responses to draft statements
(32/34)

0 4 5

[Additional topics]- High Energy physics within Europe must remain a desirable and viable career path for aspiring scientists, providing adequate employment opportunities at all career stages.

Score: 4.8

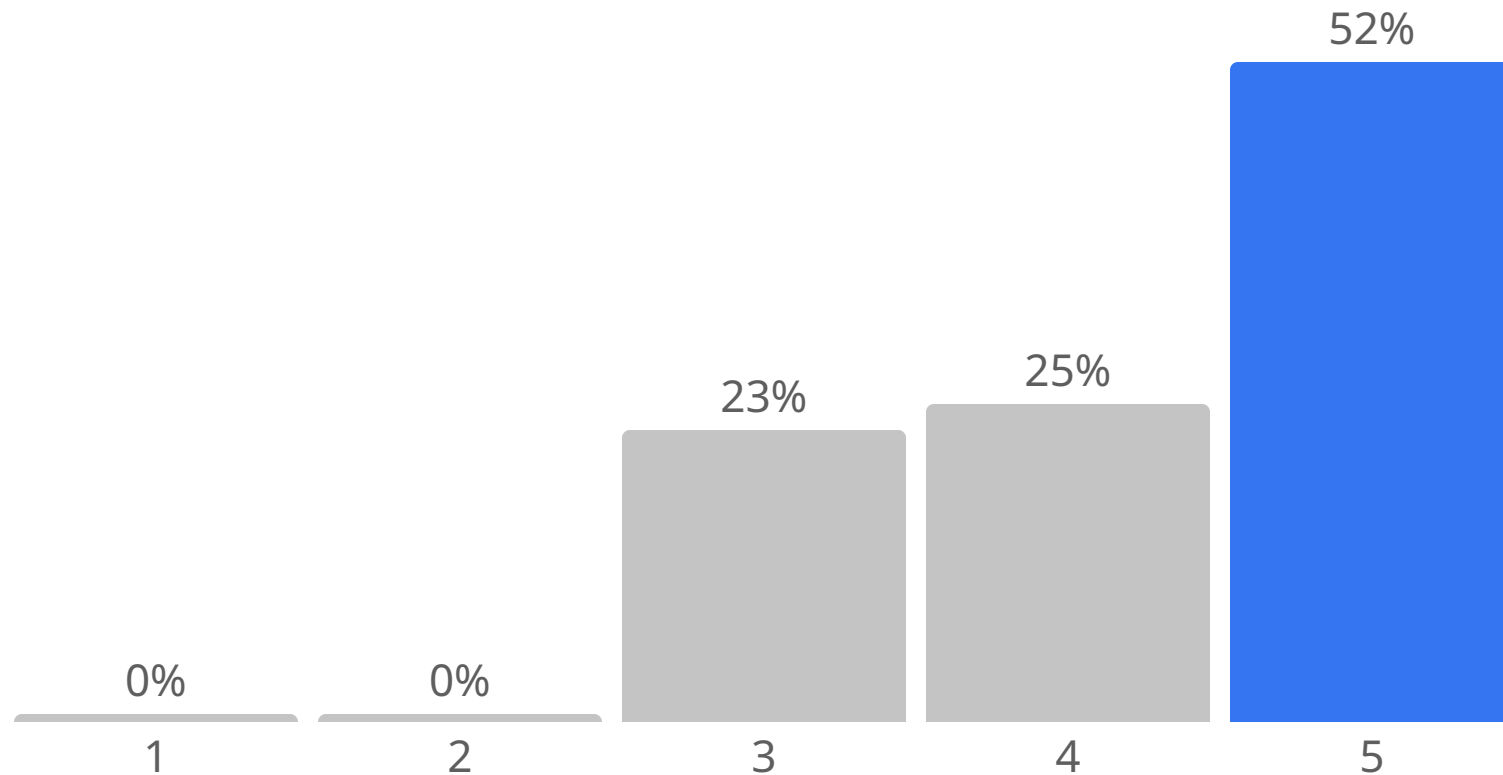


November 4th Summary Document- responses to draft statements
(33/34)

0 4 4

[Additional topics]- To protect R&D in detectors, software, and computing, funding should be safeguarded and ideally ring-fenced.

Score: 4.3



Rating poll

November 4th Summary Document- responses to draft statements
(34/34)

0 4 3

[Additional topics]- Detector R+D is essential for the success of collider and non-collider programmes, so additional support for the DRD collaborations emerging from the 2021 ECFA detector R+D roadmap is key for the field.

Score: 4.4

