

PwC Mining Survey 2016

Perceptions on risks and
opportunities of investing
in Peru's mining sector

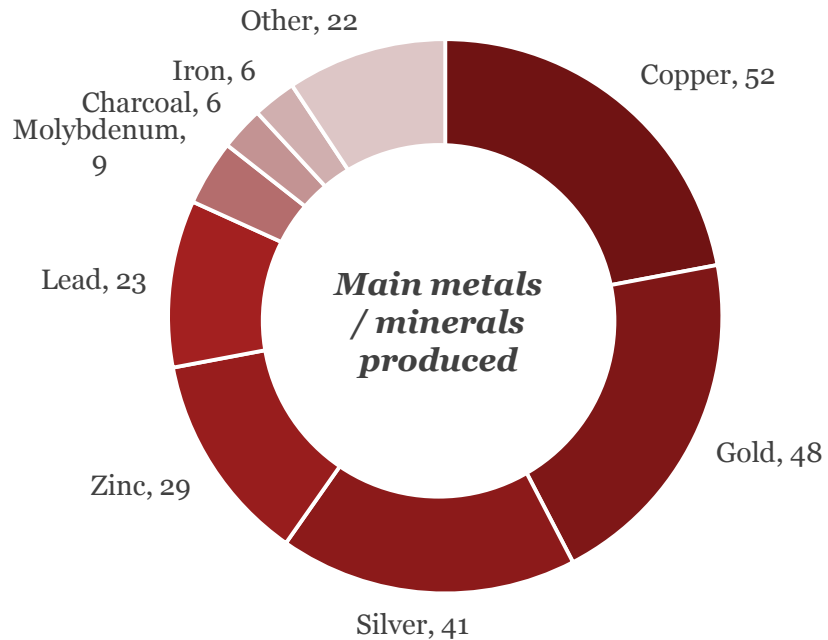
01

About the survey

Who participated in this year's survey?

108 participants

- 46 senior executives and board members
- 49 managers and superintendents
- 13 others



Type of business

Metallic and non-metallic mining (including exploration, development, mining, milling, smelting, refining)	69
Mining and Mineral Process Consulting or Construction Engineering	14
Another type of mining (including exploration, development, process, stone, sand and gravel mining)	5
Government entity or institution	2
Other	18

Main activity

Open pit mining	30
Underground mining	27
Technical / professional services	18
Exploration	9
Concentrate trade	3
Smelting / refining	2
Other	19

Country headquarters

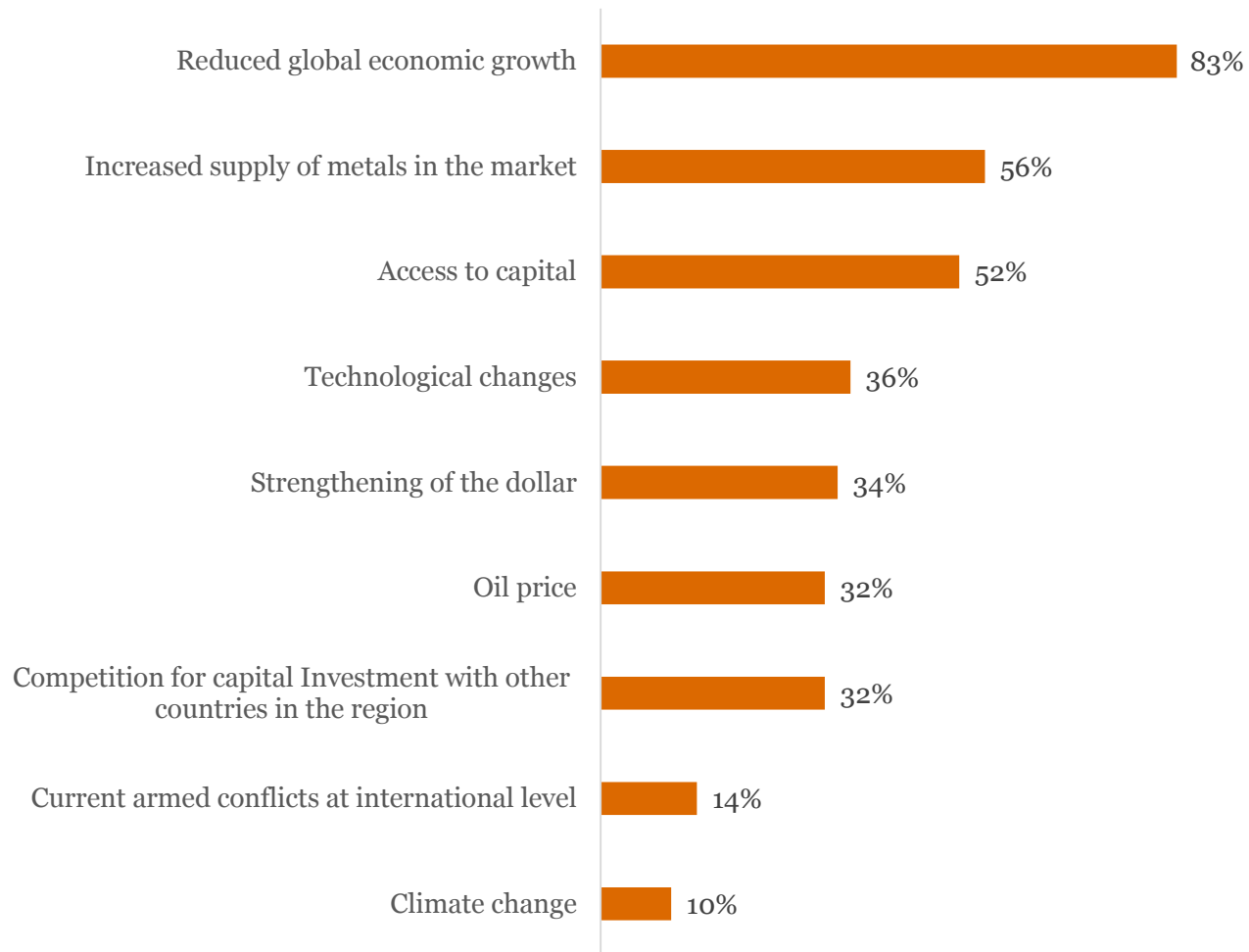
Peru	66
Canada	18
United States of America	8
Brazil	3
Mexico	3
United Kingdom	3
Chile	2
Australia	1
France	1
Japan	1
South Africa	1
Switzerland	1

Survey dates: January 20 to February 9, 2016

02

Issues affecting mining in Peru

Which external issues affect the growth and development of the mining industry in Peru?

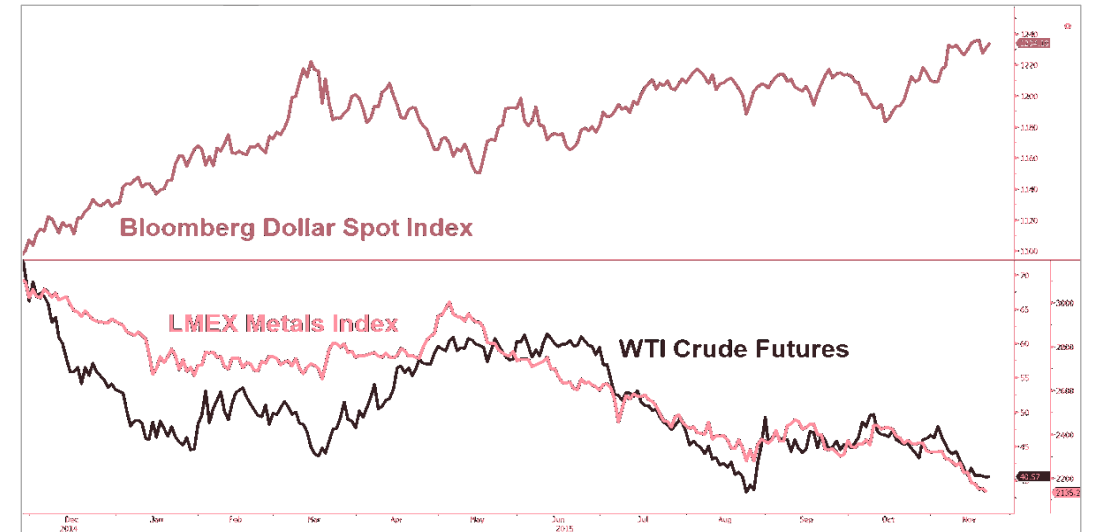
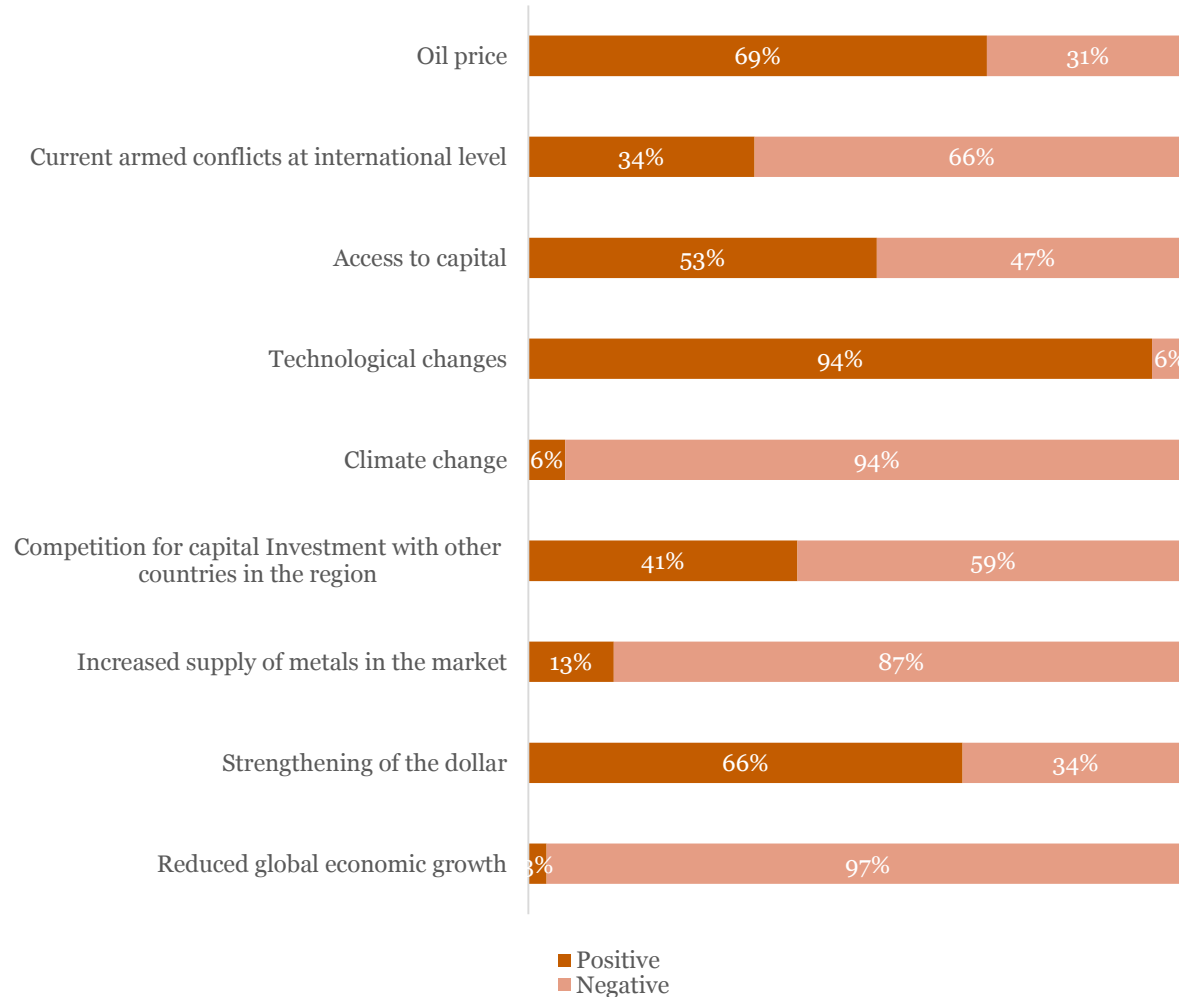


Production and consumption of copper in the world (thousands of tons)

	2012	2013	2014	2015*
Global production	19,990	20,685	21,775	22,312
Global consumption	19,799	20,641	21,498	21,964
Market balance	191	44	278	349

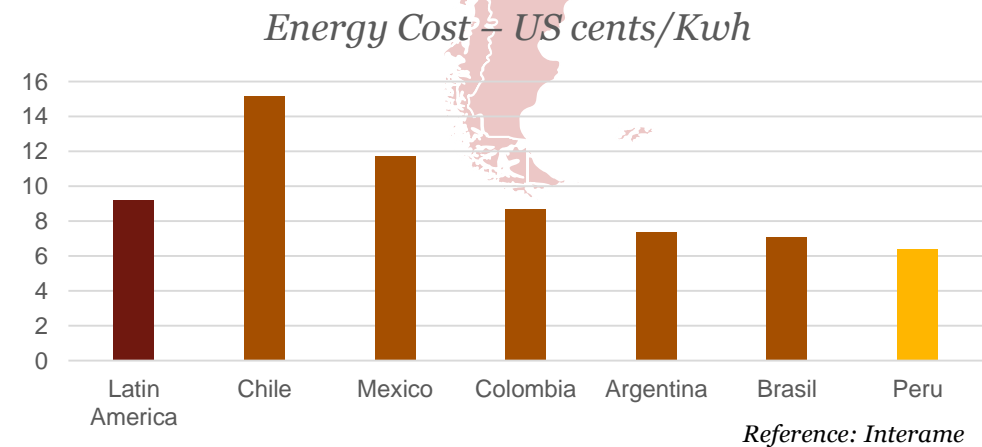
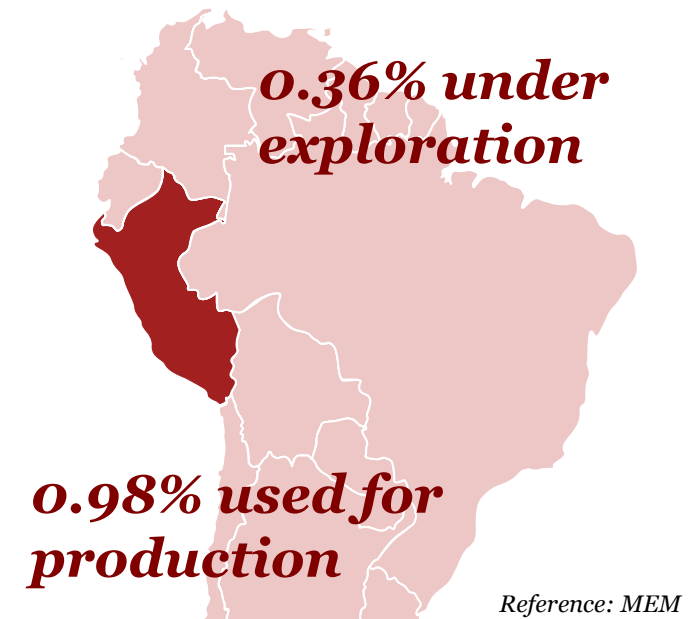
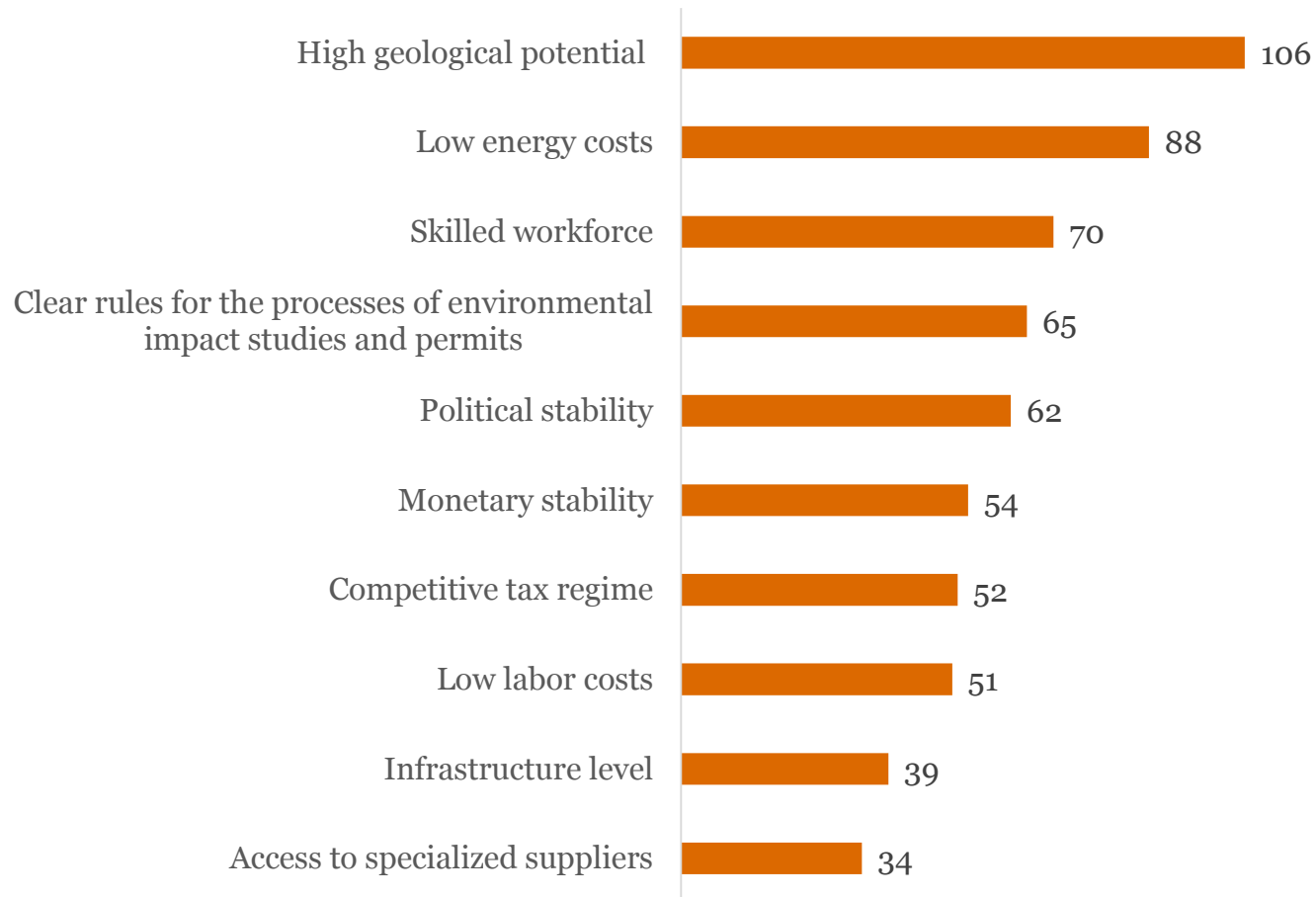
Reference: GFMS Base Metals Review and Outlook, Thomson Reuters

Which external issues affect the growth and development of the mining industry in Peru?



Reference: Bloomberg

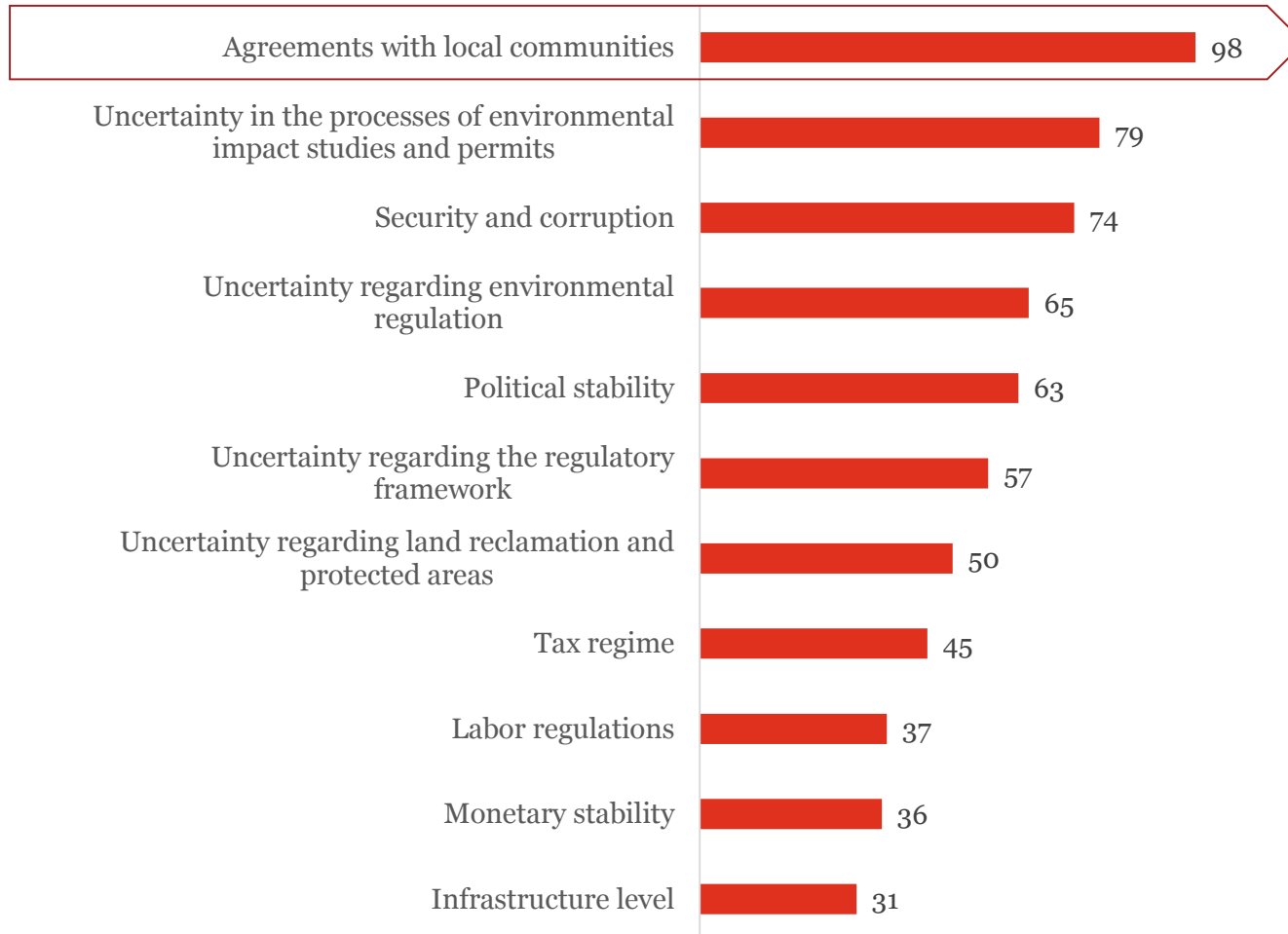
To what extent do the following contribute to improve the competitiveness of the mining industry in Peru?



03

Challenges for the industry in Peru

What are the main challenges for the growth and development of the mining industry in Peru?

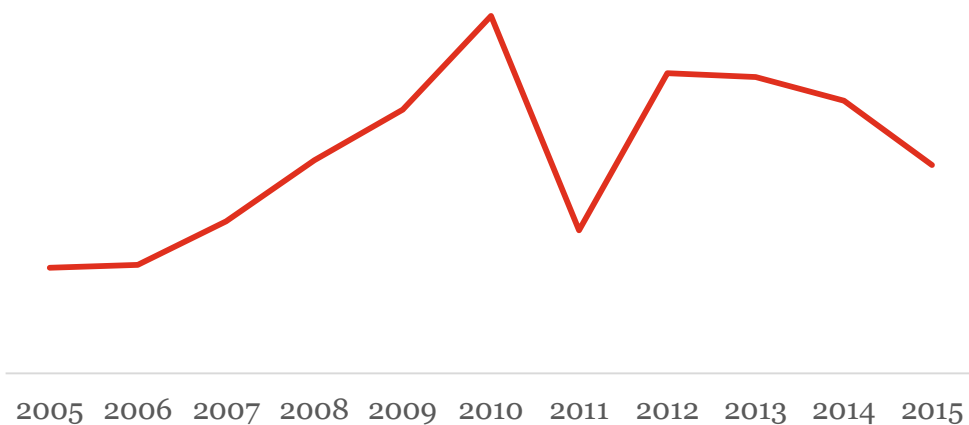


Strategy to manage and reduce social conflicts	57
Clarity and speed in the processes of environmental impact studies and permits	51
Communication strategy in the sector, communication of social programs	30
Improve the level of infrastructure	22
Review and arrange the mining legislation	16
Security and corruption	16
Environmental regulation	11
Labor regulation	9
Review the tax regime and incentives	8
Develop an entity to pre-qualify and approve suppliers and contractors in the sector	5
Other	1

In what issues there is still work to do to significantly improve the competitiveness in the mining sector?

Social conflicts

Year	Conflicts
2005	107
2006	110
2007	154
2008	216
2009	267
2010	362
2011	145
2012	304
2013	300
2014	276
2015	211



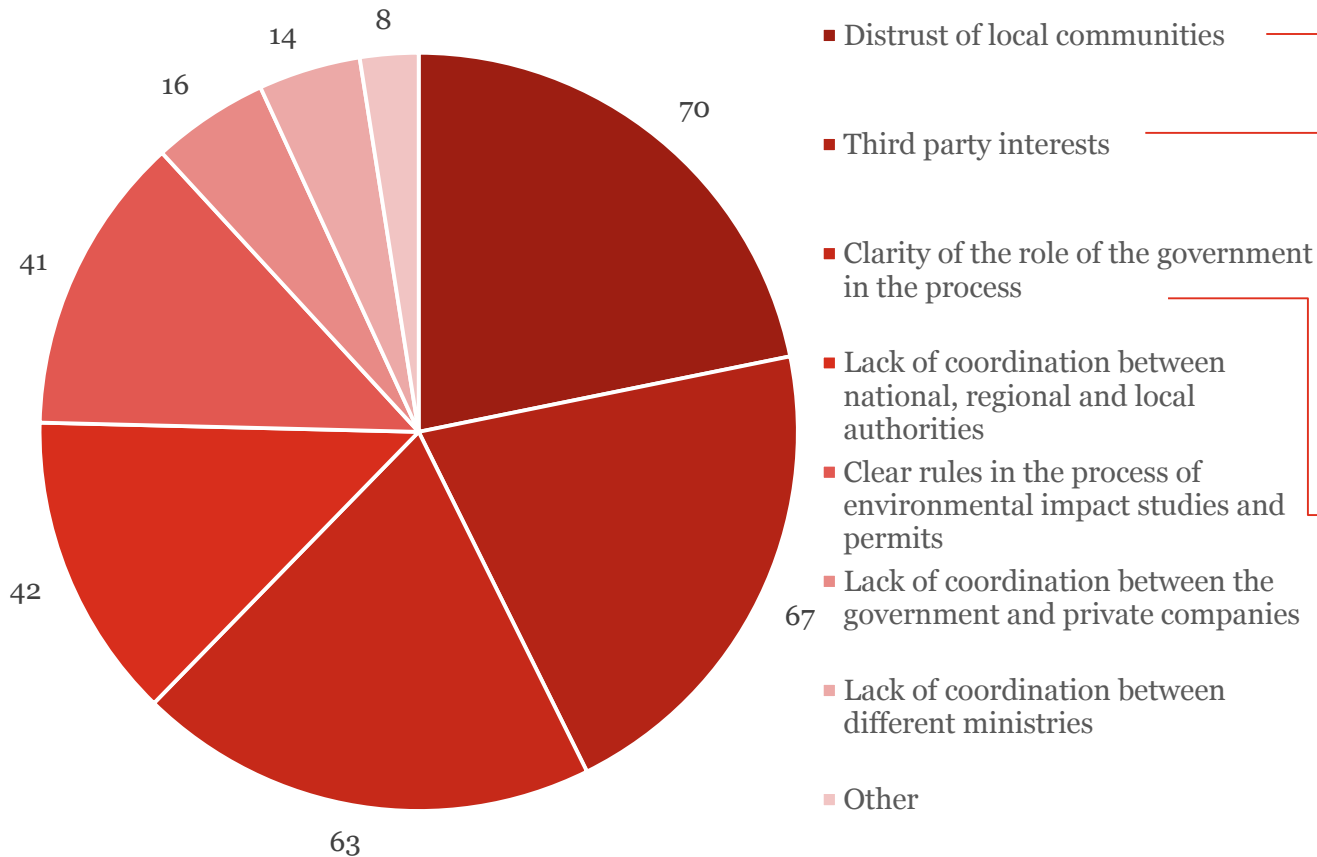
In January 2016, there were 211 social conflicts: 143 active and 68 dormant.

Most of the social conflicts are located in the regions of Apurimac (23 cases), Ancash (22) and Puno (19)

Cases in a dialogue phase:
77 cases
Collective protest actions:
73 cases
Reported injured people:
17 cases



What are the main obstacles to obtaining social licenses in Peru?



"Proactive work with the communities, even before the start of construction."

"Higher level of participation of the government in promoting communication with communities".

"Develop and train communities so they can provide services for the mining companies".

"Implement basic infrastructure projects for the local communities".

"Work on reducing corruption levels of local authorities in mining areas of influence."

"Establish clear responsibilities of officials in local and regional governments that promote conflict".

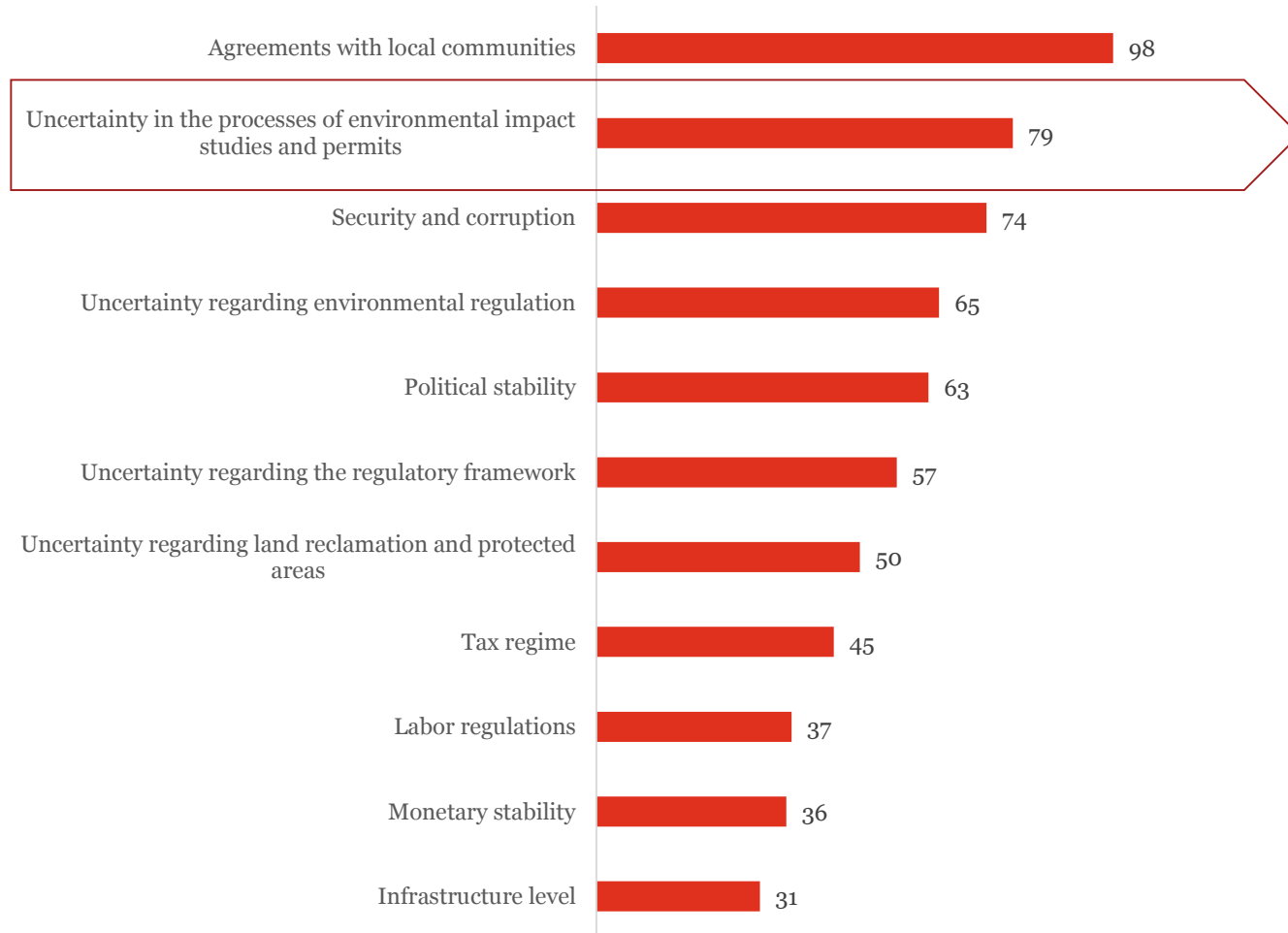
"Consistent implementation of the law. New laws are needed, but we also need to better apply the existing ones"

"Government needs to define its position over mining, with clear rules and focused on increasing mining investment".

"Create a Mining Development Committee, autonomous and accountable for defining the route map".

What solution do you propose to reduce these conflicts?

Which are the main challenges for the growth and development of the mining industry in Peru?



Number of entities, organizations and institutions involved in the process	29
Number of procedures (approvals, authorizations) required to obtain licenses	25
Transparency in the process	8
Standardized administrative procedures	7
Clarity in the requirements	2
Other	7

Which is the main cause of delays in the approval of permits and regulations in Peru?

What solution would you propose to reduce such delays?

“Reduce the amount of procedures. Train and empower staff to make decisions within the regulatory framework”

“Channel the regulations and permits through a single private entity, that is responsible and qualified”

“Centralize all procedures in just one entity of the government”

“Have clear rules of corporate governance processes that prevent quick development or disagree with other interests”

“Develop a single legal framework that includes all previous aspects of operation and closure, as well as labor, environmental and security tax issues”

“Set standardized timeframes for reviewing and approving documents submitted by mining companies”

What aspects of the mining industry in Peru have greatly improved over the last 5 years?



“Safety and environmental standards”

“Health and safety issues for employees. Environmental care”

“Safety as part of all high-risk processes”



“Processes for more advanced technologies”

“Better technology in equipment, computer systems and communications”

“Increasingly skilled workforce”



“Increasingly skilled workforce”

“Quality of professional skills and technical expertise”



“Companies for different services that support the mining industry”

“Increased number of formal vs. informal companies”



“Social and economic development proposals”

“Companies are more social and environmentally conscious”

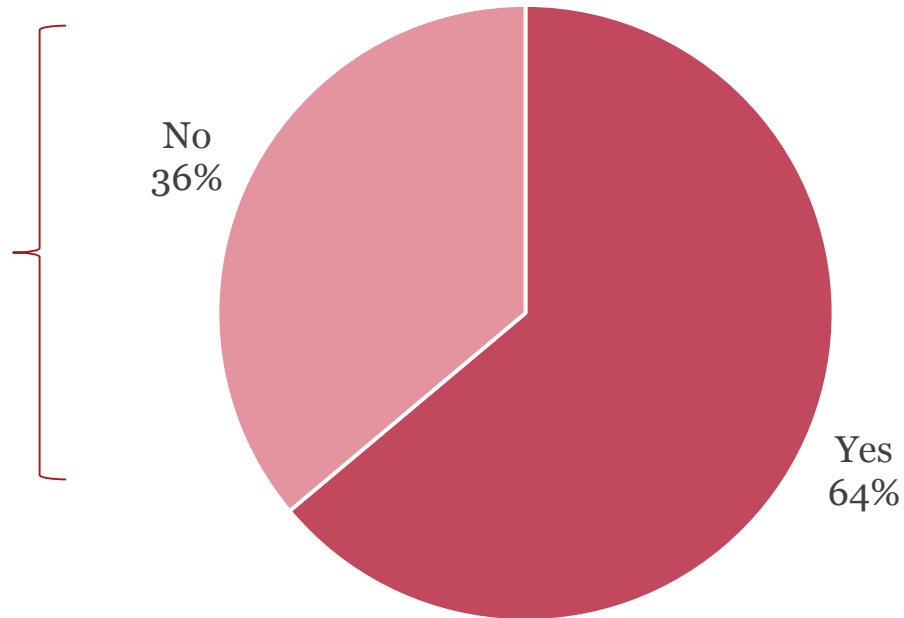
“The importance that companies are giving to social responsibility and environmental care”

04

Mining investment in Peru

Does your company plan to invest in new capital projects in Peru over the next 3 years?

- “Focused on our current operation”
- “Uncertainty of stock markets”
- “Lack of funding”
- “Low metal prices”

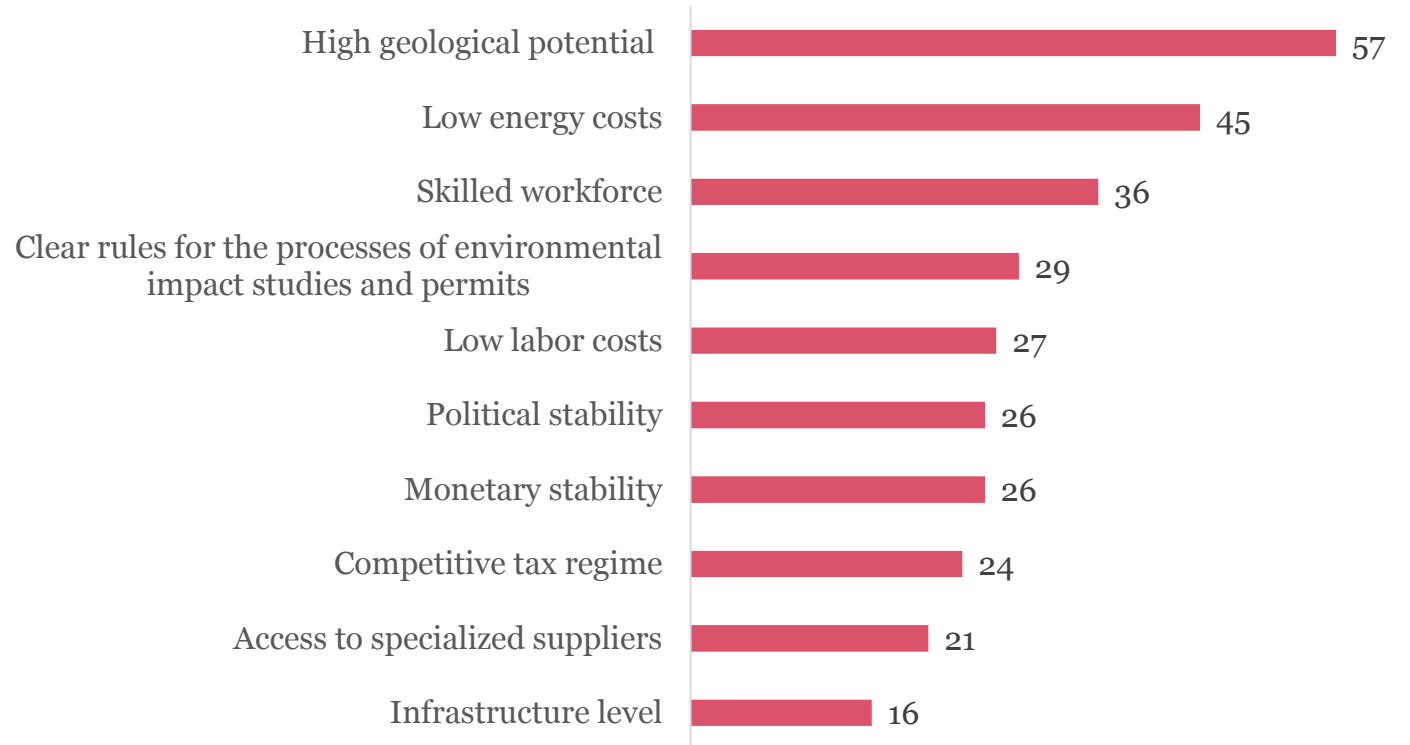
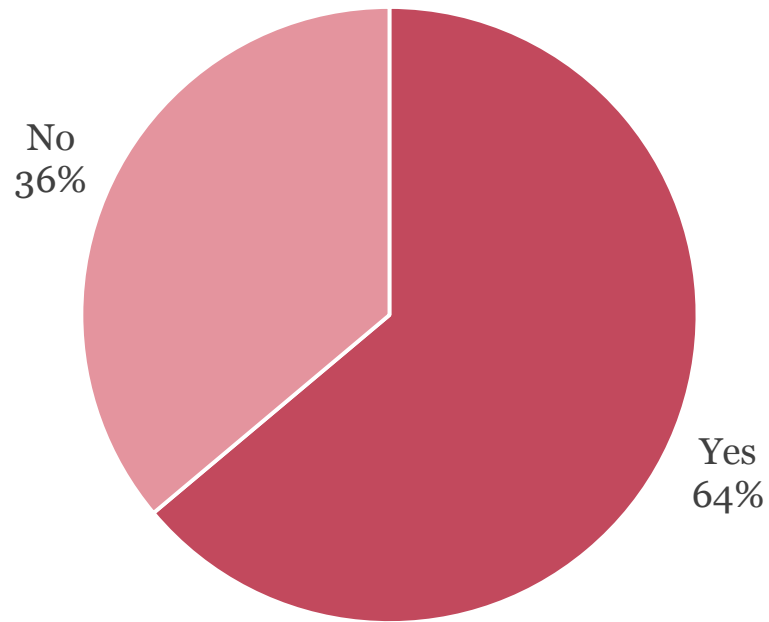


Main metals / minerals produced	
Copper	34
Gold	34
Silver	25
Zinc	18
Lead	15
Molybdenum	7
Charcoal	6
Iron	4
Nickel	4
Other	11

Country headquarters	
Peru	38
Canada	10
United States of America	6
Brazil	3
Mexico	3
United Kingdom	3
Chile	2
France	1
Japan	1

Main activity	
Underground mining	19
Open pit mining	17
Technical / professional services	8
Exploration	8
Concentrate trade	2
Smelting / refining	2
Other	11

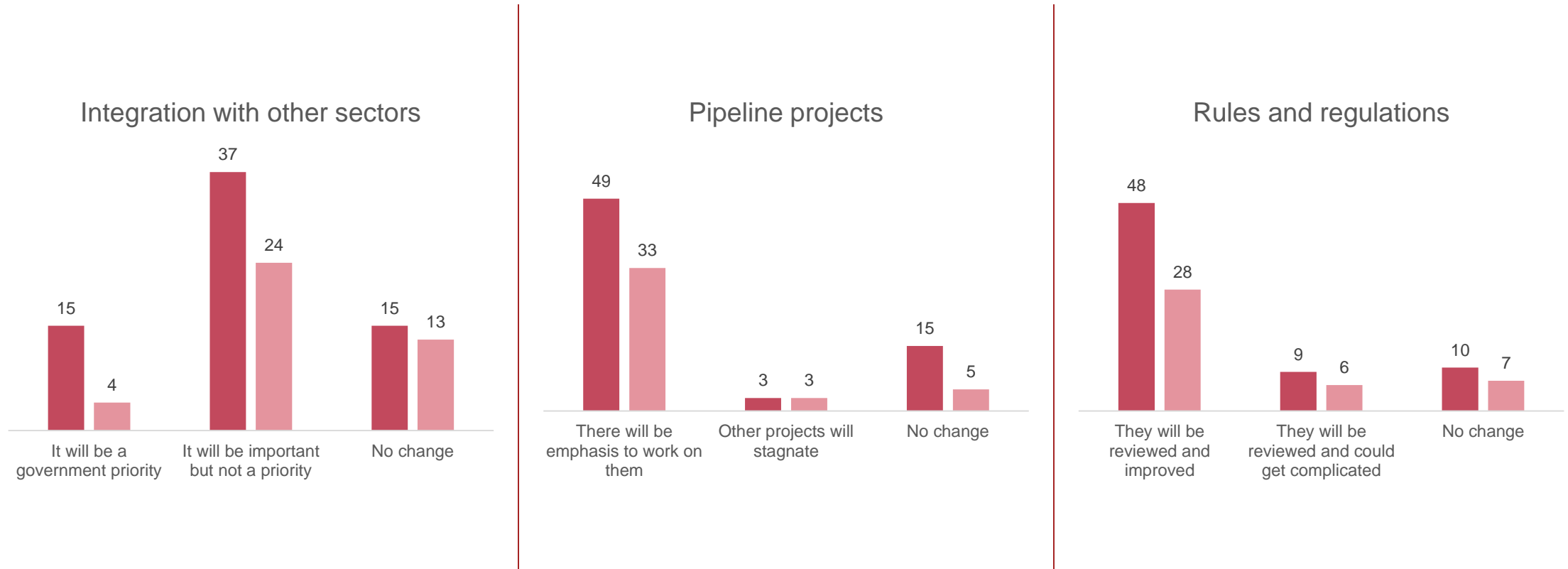
Does your company plan to invest in new capital projects in Peru over the next 3 years?



Companies that responded “yes” consider that the most important advantage Peru has is the geological potential and low energy costs

Does your company plan to invest in new capital projects in Peru over the next 3 years?

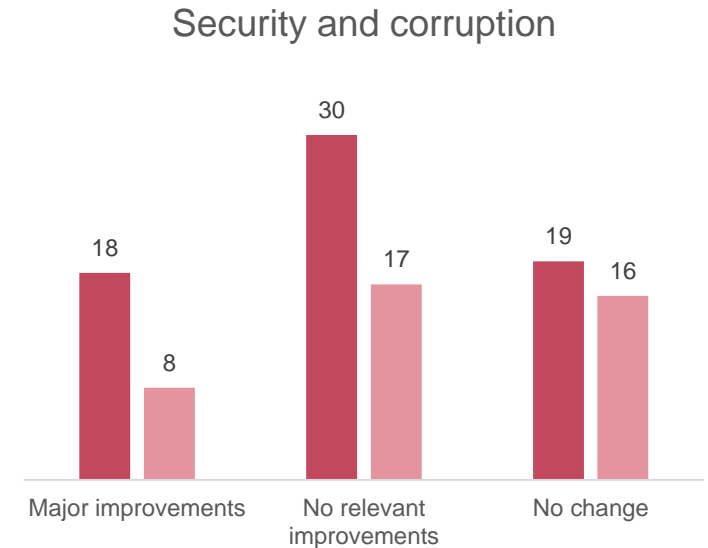
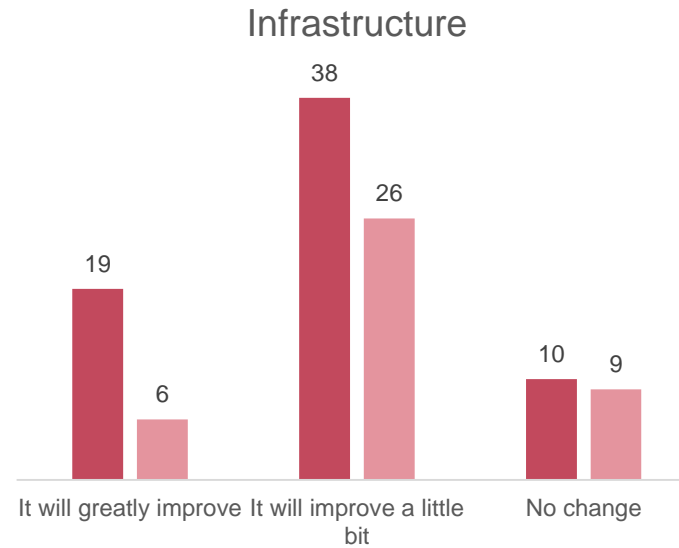
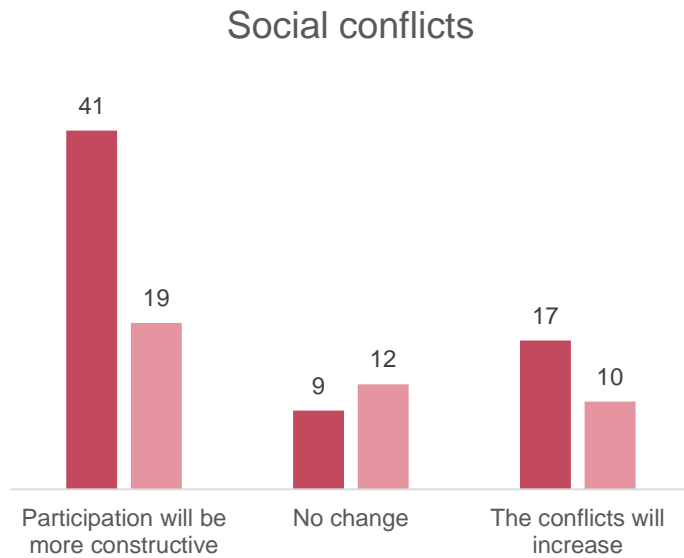
Yes  No 



What does the future hold for the Peruvian mining industry after July 28th?

Does your company plan to invest in new capital projects in Peru over the next 3 years?

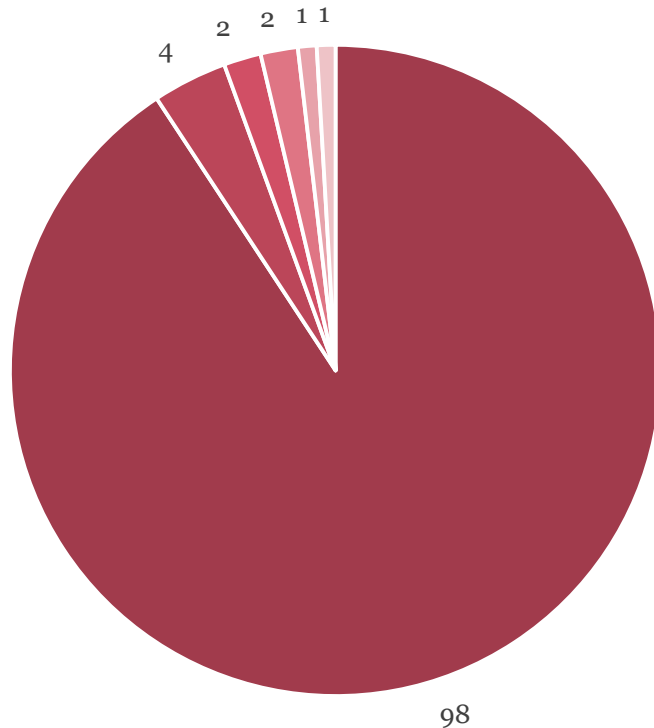
Yes  No 



What does the future hold for the Peruvian mining industry after July 28th?

Junior Mining

What are the advantages offered by Peru regarding investment in exploration?



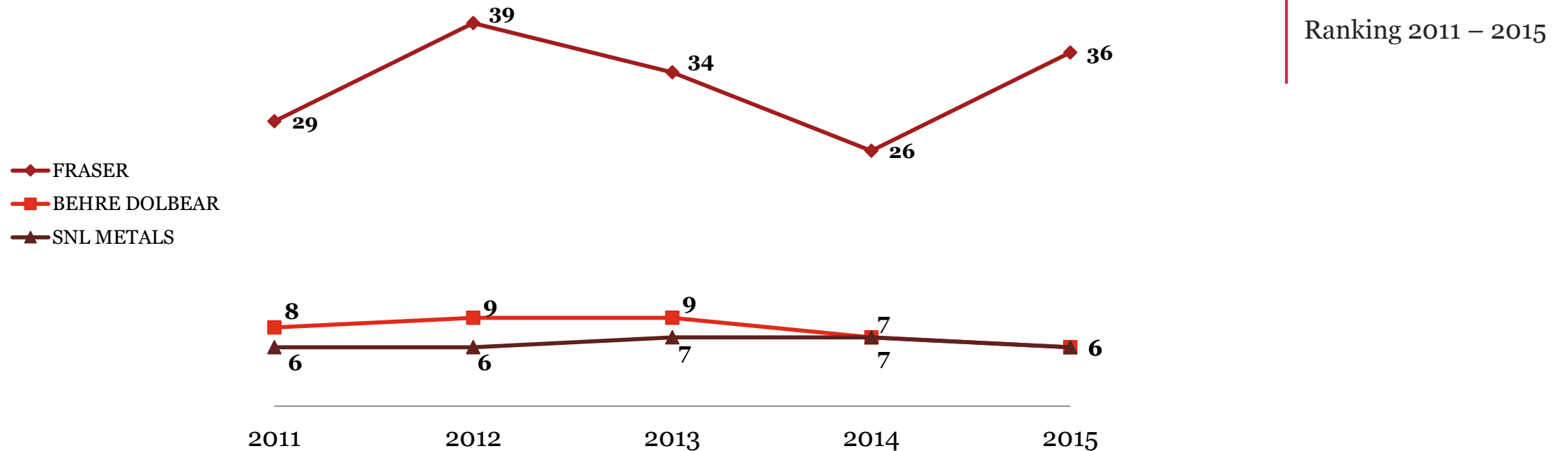
- Geological potential (considering that only 1.34 % of the national territory registers mining activity)
- Low costs of drilling
- Clarity in the processes of environmental impact studies and permits
- Other
- Access to specialized suppliers
- The Lima Stock Exchange has a Risk Capital Segment

How competitive is Peru for mining investment?

Fraser Institute: Investment Attractiveness Index (regulatory environment, competitive taxation, political risk, stable mining regime)

Behre Dolbear: Mining Investment Ranking (political system, monetary stability, permissibility, economic system, social license, tax, corruption)

SNL Metals & Mining: Exploration Investment Ranking

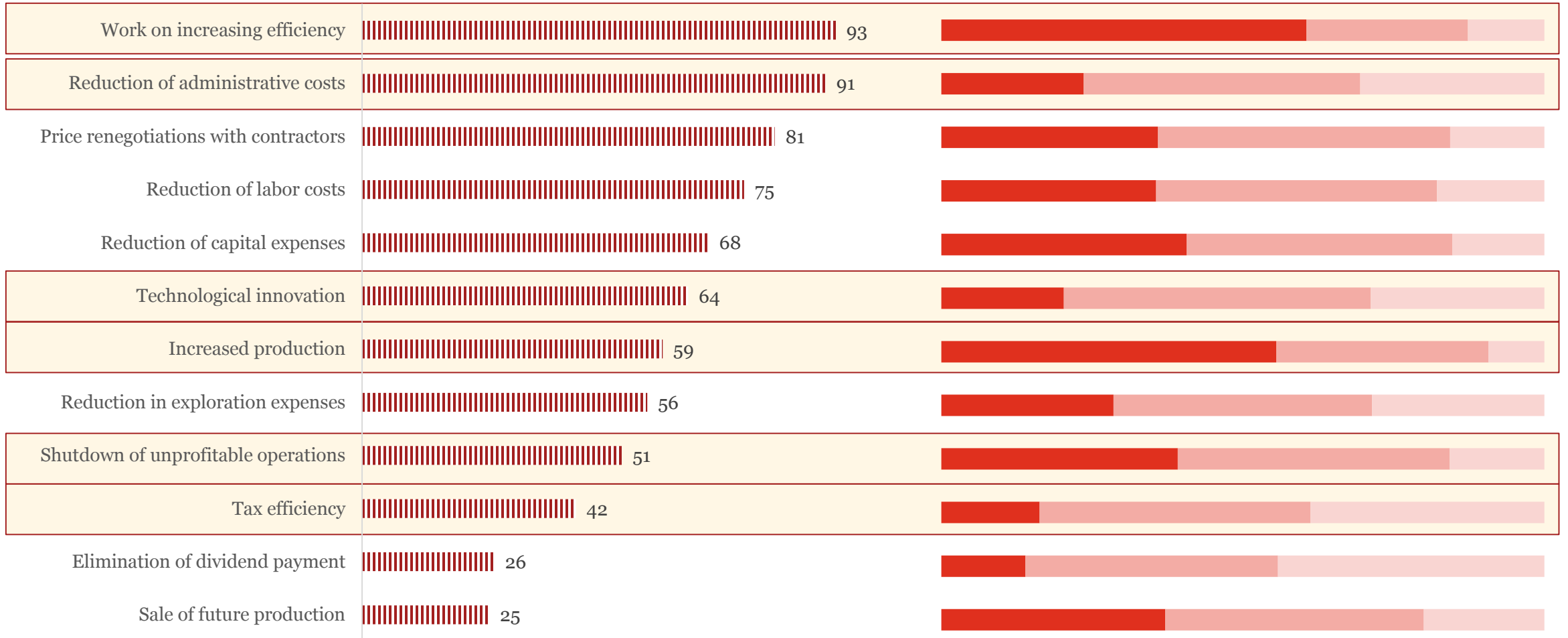


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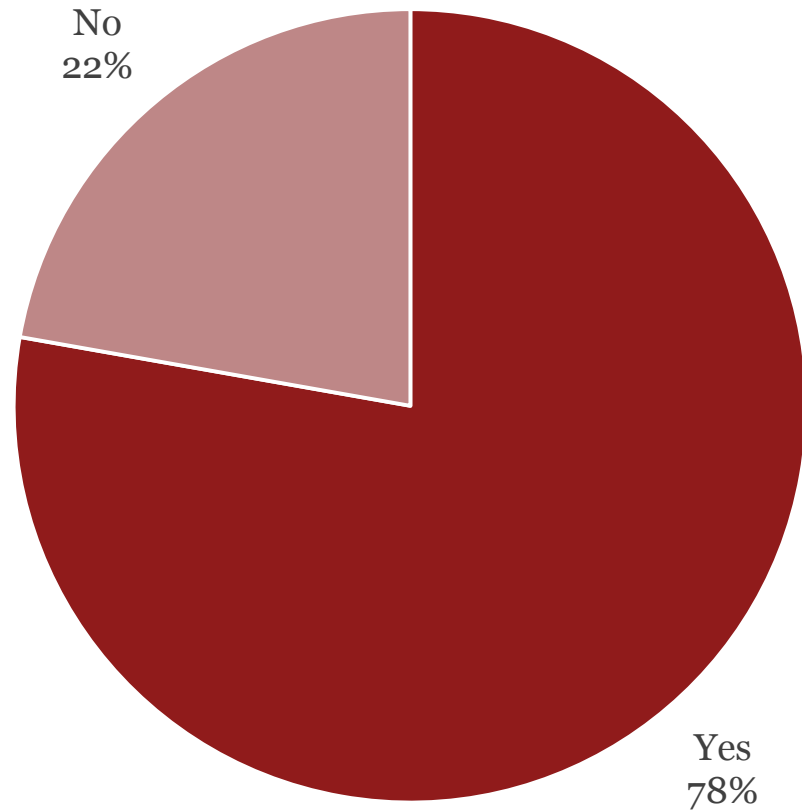
Productivity in the sector

Considering the current situation of low prices and lower margins, what measures / initiatives has your company successfully implemented?

■ High impact ■ Medium impact ■ Low impact



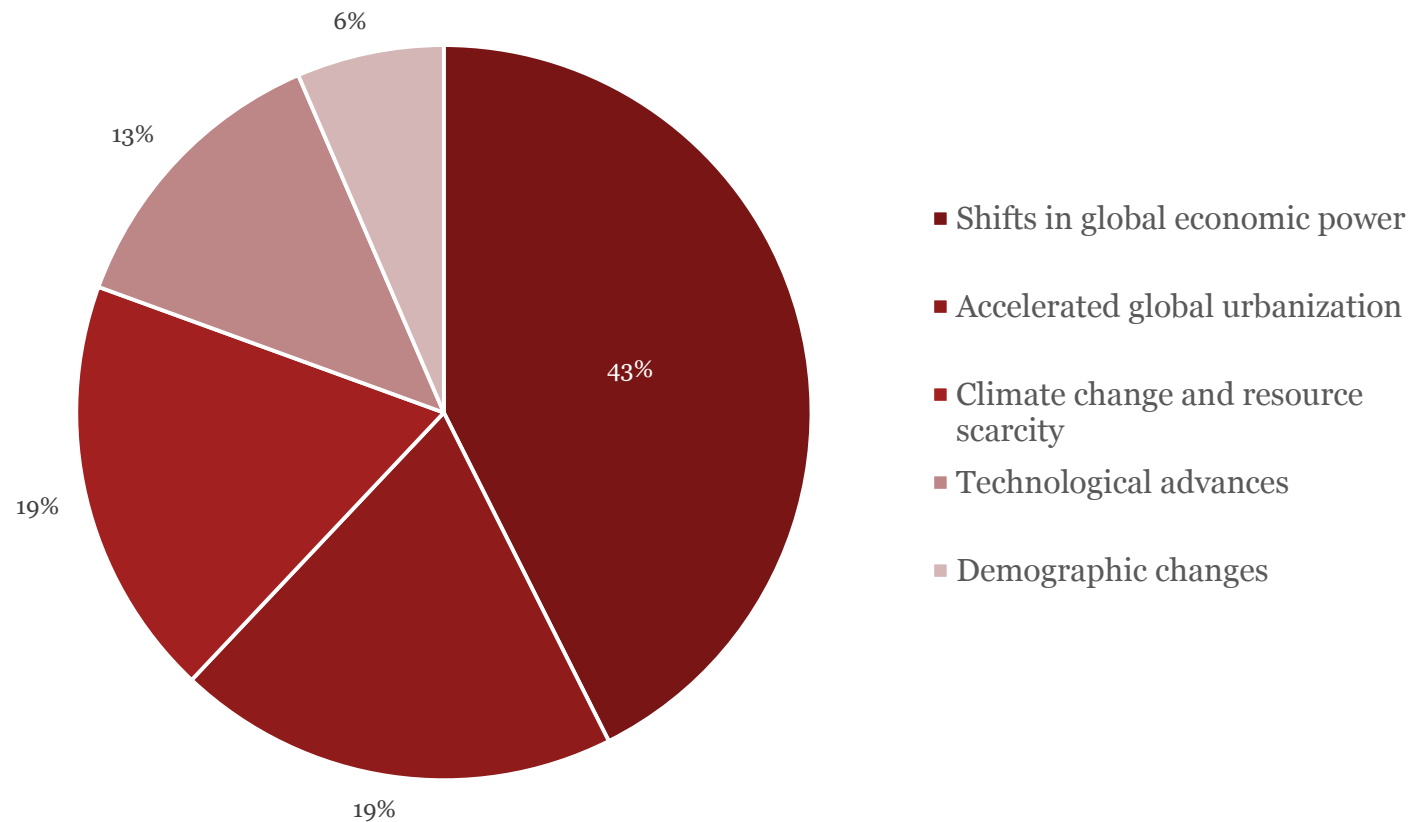
Does Peru have a robust business network of local suppliers for the mining industry?



Lower operating costs	23
Trained and experienced local workforce	22
Development of specialized offers for local needs	13
Increased responsiveness to unexpected events	13
Allow greater inclusion of the benefits that mining generates to the areas of influence	6
Knowledge of local culture for business development	4
Other	1

What is the main benefit that a specialized local supplier brings to the industry?

Which of the following megatrends could have a significant impact on your business in the next 5 years?



Shifts in global economic power

The huge economic shifts between countries, and within groupings, are resulting in momentous changes in consumption patterns – which in turn are creating and amplifying key challenges for businesses worldwide.

They have to chase a moving target, as consumers evolve differently in various markets faster than ever before. They have to address the needs of ever more diverse – and more demanding – customer segments. And they have to fight off increasingly intense and new competition.

It's no wonder that more than half of the business leaders interviewed in our latest Global CEO Survey are concerned about changes in consumer spending and behaviors, and nearly half of all CEOs are worried about new market entrants.

Find more at www.pwc.com

Thank you.

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