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# **An industry in flux: Building a mining board for the future**

## Executive summary

Since 2011, the global mining industry has experienced tremendously challenging conditions. Commodity prices have declined dramatically, and billions of dollars of market value have disappeared. In response, the industry has focused on improving cost discipline, restructuring asset portfolios, and driving productivity improvements. During this period, boards of mining companies have also seen a fair amount of change.

In an effort to better understand key trends in board composition in the main segments of the global mining industry, Russell Reynolds Associates examined the makeup of a sample group of non-executive directors. The sample includes both large-cap and mid-cap companies from “traditional/Western” countries in 2011 and 2016 (i.e., covering both the top and the presumed bottom of the current commodity cycle). A follow-on study examining mining company boards in emerging markets will be published in 2017.

Our analysis of large-cap and mid-cap mining boards revealed the following insights:

### Expertise from past commodity cycles is valued highly



We found that since 2011, both large-cap and mid-cap boards within the sample group have matured, with a higher proportion of board members now in their 70s and fewer in their 50s. This aging of the boards has occurred despite relatively high director turnover on both large-cap and mid-cap boards, likely due to a need to retain the most experienced directors to ensure steady leadership during this turbulent period. We expect this trend to reverse as commodity markets recover.

### There has been marked improvement in gender balance, but less in geographical representation



The mining industry is progressing towards greater gender balance on its boards. The share of female directors within our sample has almost doubled (14% to 27%) for large-cap companies and tripled (5% to 15%) for mid-cap companies in the past five years. However, while overall the trend towards more gender diversity is positive, it is uneven as on many of the boards sampled there is only one, or no, female director.

Geographical diversity seems to have been a lower priority for mining companies. Despite a globally diverse spread of assets, over 85% of directors of both large-cap and mid-cap companies in our sample continue to hail from the following five countries: Australia, Canada, South Africa, the United Kingdom, and the United States. Little has changed along this dimension since 2011. In the future, we expect to see a more pronounced move towards greater board representation from the markets in which many of these mining companies operate.

### Need for more directors with operational and technology expertise



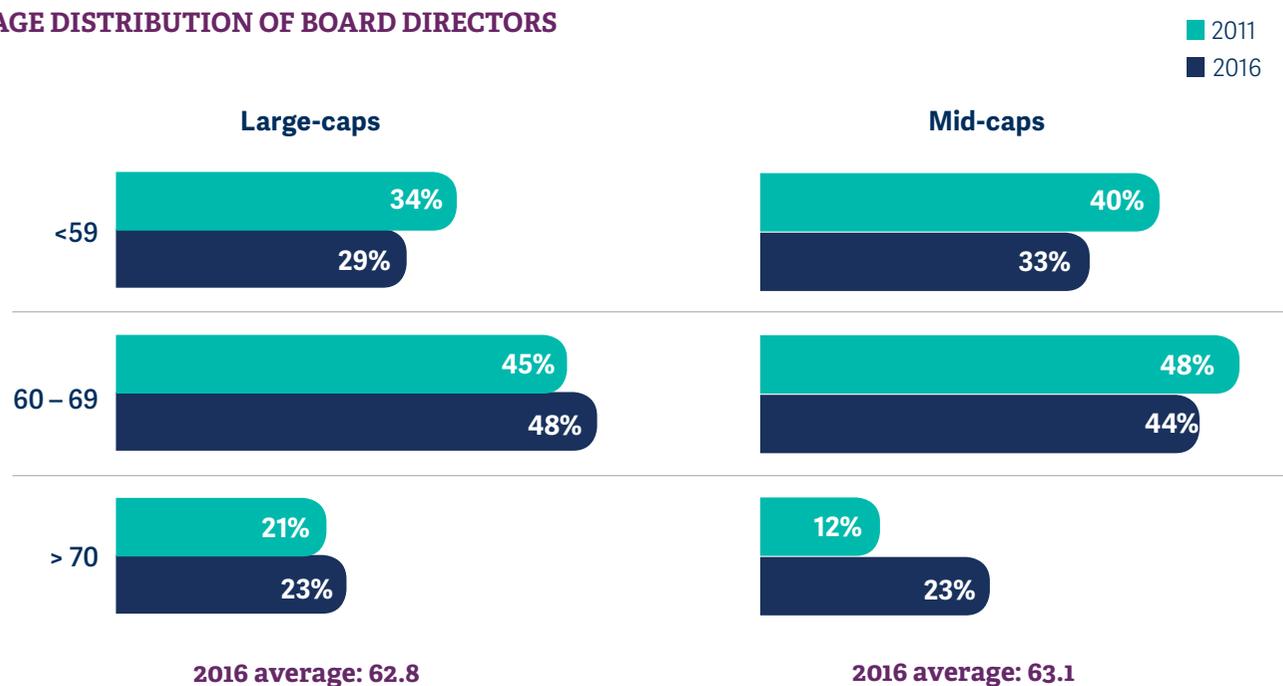
Our analysis has revealed that mining boards possess less technical and/or operational expertise than one would imagine, a surprising finding for such a technically challenging industry. Large-caps in particular are underweight in this area, with many companies in our sample lacking even one director who can be considered to have technical and/or operational expertise.

Boards should also consider having a qualified technology executive (QTE) join them, as mining operations will be growing more automated and data will become a key asset in driving forward innovation and competitive advantage in the years ahead.

## Mining boards have aged during this challenging period

- Both large-cap and mid-cap boards now have more directors in their 70s and fewer in their 50s than they did in 2011.
- The aging of the board has occurred during a period where boards have added a number of new, younger directors. This suggests that the collapse in commodity prices over the past several years has required boards to retain their most experienced directors to help guide them through this challenging period.
- We predict that this aging of the board will reverse itself as commodity prices bottom out and markets recover.

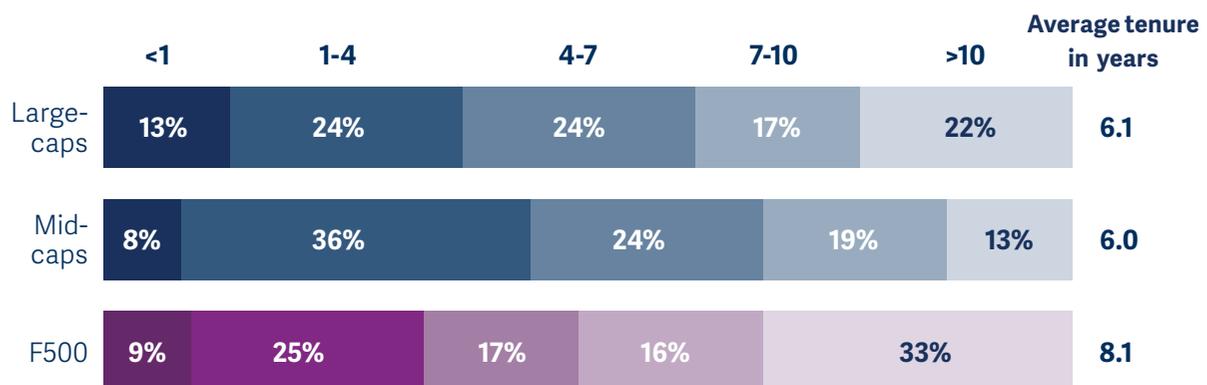
### AGE DISTRIBUTION OF BOARD DIRECTORS



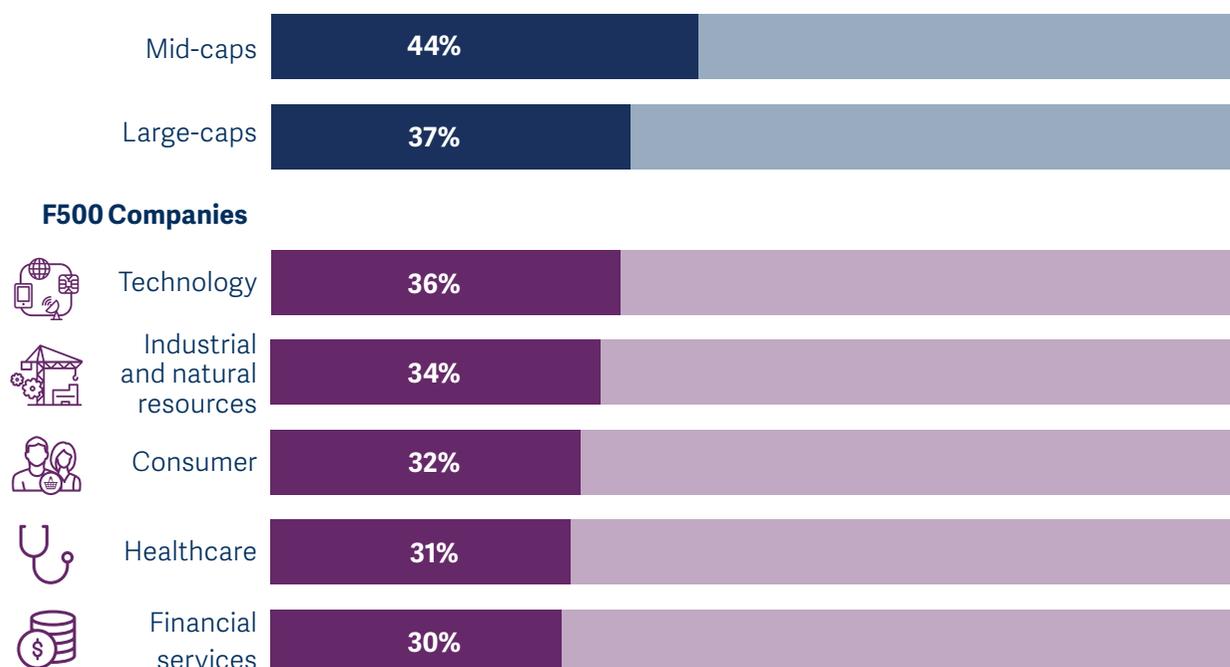
## Director turnover has been relatively high recently

- 44% of mid-cap and 37% of large-cap directors in our study joined their boards in the last four years—higher percentages than in other sectors in the F500, including industrial and natural resources more broadly.
- As a result, board directors of both large-cap and mid-cap mining companies sampled have lower average tenures than F500 company board members overall. The average tenure of F500 company board members overall is 8.2 years, approximately two years longer than that of large-cap and mid-cap directors in our study.

### TENURE SPLIT OF BOARD DIRECTORS (YEARS ON THE BOARD)



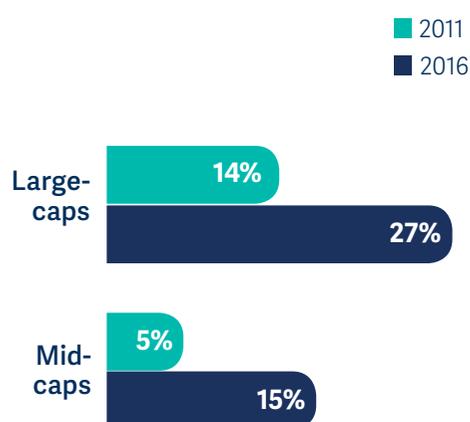
### SHARE (%) OF BOARD DIRECTORS WHO HAVE A TENURE OF LESS THAN FOUR YEARS



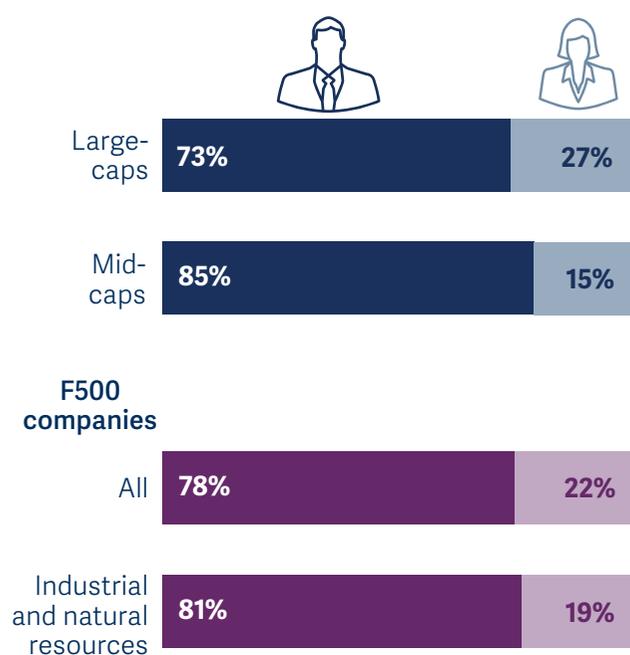
## Gender balance is improving, but the bar is low

- While gender balance has improved on both large-cap and mid-cap boards in our study—moving from 14% to 27% and 5% to 15%, respectively—it starts from an admittedly low baseline.
- Overall the progress is positive regarding female representation, but there is great variation between boards: on many of the boards sampled there is only one, or no, female directors.
- Large-cap mining boards sampled, however, compare favorably with F500 industrial companies (19%) and with the F500 average overall (22%).
- We expect to see the trend towards greater female representation on mining boards continue to accelerate, with the gap between large-cap and mid-cap gender balance narrowing.

Share of female board directors,  
2011 and 2016



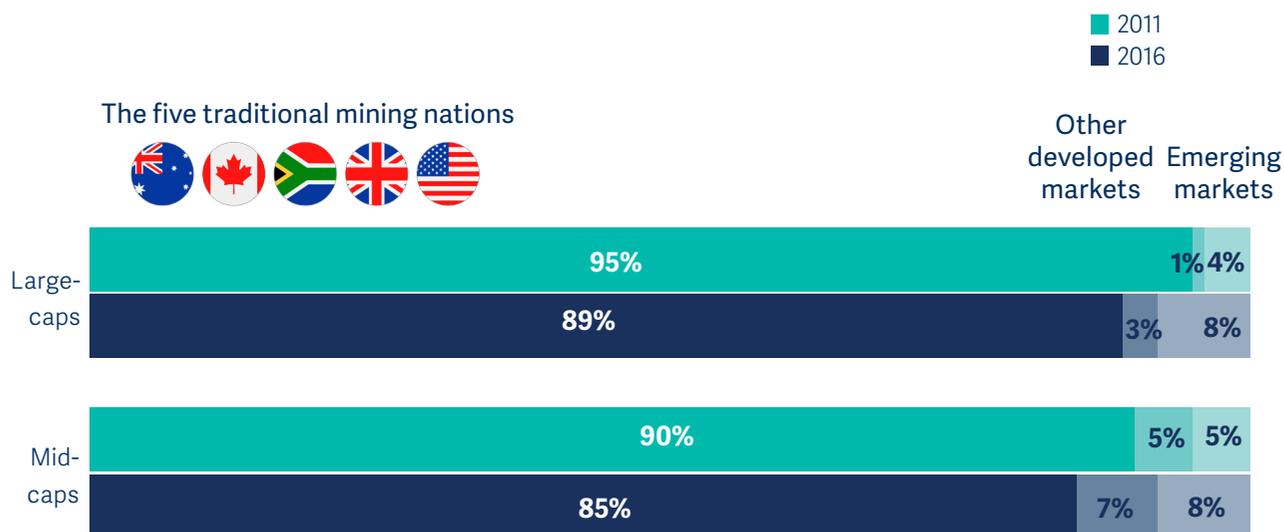
Gender distribution in 2016



## Concentration of geographic representation remains a defining characteristic...

- Board representation remains skewed towards the five "traditional" mining nations where the sample companies' head offices are located: Australia, Canada, South Africa, the United Kingdom, and the United States.
- While there has been a modest increase in geographic diversity over the past five years, many of the boards sampled—both large-cap and mid-cap—still do not have a single director from outside these five countries.
- At one level that may not be so surprising, given the history of the industry and its traditional shareholder base, as well as the fact that our sample does not include larger mining companies based in emerging markets (to be examined in a follow-on report).
- At another level, however, it is still surprising, given the geographic diversity of most companies' mining operations and the increasing role that host communities play in the development, operation, regulation, and oversight of those assets.
- We predict that the relative homogeneity of mining boards along this dimension will diminish over time.

### SHARE OF BOARD MEMBERS (%) FROM THE FOLLOWING NATIONALITIES



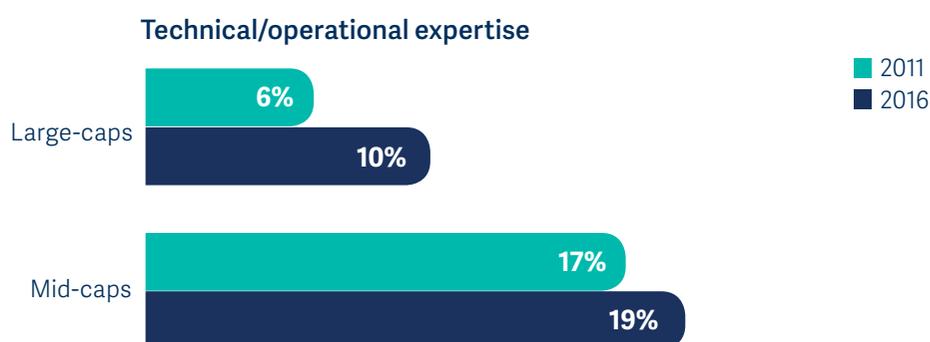
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## ... as does a lack of technical/operational expertise

- Our analysis has revealed that mining boards possess less technical and/or operational expertise than anticipated\*, a surprising finding for such a technically challenging industry.
- Large-caps in particular are underweight in this area, with a number of companies in our sample not having even one director who meets the criteria.
- As we enter the next phase of the commodity cycle, companies are beginning to contemplate the investment required to expand operations or build completely new supply capacity. We expect that in the months ahead, boards will seek out directors who can contribute to capital allocation and risk decisions from more of a technical/operating perspective.
- Supporting that expectation is the fact that of the seven directors in our sample appointed in the first half of 2016, five had technical/operational backgrounds.

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### SHARE (%) OF BOARD DIRECTORS OF MINING COMPANIES WITH SIGNIFICANT TECHNICAL/ OPERATIONAL EXPERTISE\*



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\*Board directors were considered to have technical/operational expertise if they had a technical degree/training in the field and had held a senior operating/technical role in the mining industry in the last 10–20 years.

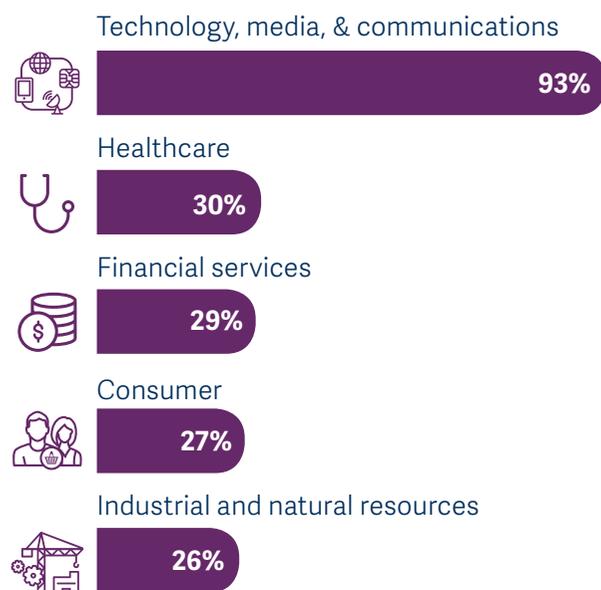
## The vast majority of mining boards do not have a qualified technology executive (QTE) on their board

- QTEs\* have the technology expertise to provide an informed perspective and to ensure the board and management are effectively managing technology risk (such as cyber threats) and profiting from disruptive innovation.
- Boards in our sample are on par with other industries (apart from technology, media, and communications) in terms of QTE presence. However, most still lack a QTE.
- The “mine of the future” will increasingly be managed by automated technology. Data analytics will be a critical component of mining companies’ innovation agendas. Given this outlook, mining boards should consider having at least one director with expertise in this important area.

### SHARE (%) OF BOARDS WITH AT LEAST ONE QTE



### SHARE (%) OF F500 BOARDS WITH AT LEAST ONE QTE



\*A QTE is an individual possessing a high degree of recent technology-relevant domain experience. She or he has experience overseeing and providing guidance on technology matters of crucial importance to the company in the context of the broader business, from the board perspective. To learn more, please see Russell Reynolds Associates' study *The Rise of the Qualified Technology Executive in the Boardroom* (2016).

## Looking ahead

In the next few years, the mining industry is expected to move out of the low-commodity price cycle, and mining boards can start preparing their companies for an anticipated period of growth. We have listed five questions to reflect upon in order to ensure an effective and capable board for the future.

1. As we bring new members onto the board, are we balancing a need to for institutional memory and experience with a need for younger members with innovative ideas and fresh perspectives?
2. Does our board represent and foster diversity of thought – be it in the form of gender, ethnicity, experience, or other?
3. Does our board reflect the geographic diversity of our operations so we can respond knowledgeably to geopolitical changes?
4. Do we have directors with deep operational/technical background who can help to evaluate mine expansions and acquisition opportunities from a hands-on perspective?
5. Does our board include directors with the technological credentials to address the threats and opportunities that digitization will bring to our business?



## Sample and methodology

### Large-cap companies

- Barrick Gold Corporation
- BHP Billiton
- Freeport-McMoRan Inc.
- Glencore plc
- Goldcorp
- The Mosaic Company
- Newmont Mining Corporation
- PotashCorp
- Newcrest Mining Ltd
- RioTinto

10 largest “traditional/Western” mining companies by market capitalization as of December 31, 2015

### Mid-cap companies

- Detour Gold
- Evolution Mining
- Iluka Resources
- Lundin Mining Corporation
- New Gold
- Northern Star Resources Limited
- NOVAGOLD Resources Inc.
- Sibanye Gold Limited
- Tahoe Resources
- Yamana Gold

10 largest “traditional/Western” mining companies with a market capitalization under US\$2 billion as of December 31, 2015

Board director status as at June 2016 and June 2011.

Board members excluding executive directors and executive chairmen.

Note: Glencore and Sibanye Gold are not part of the 2011 sample as the Glencore-Xstrata merger and Sibanye Gold's spin-off into an independent company took place following 2011.



## Global Mining & Metals Practice

### Jon Martin

Toronto  
Jon.Martin@russellreynolds.com

### Natalie Macauley

Calgary  
Natalie.Macauley@russellreynolds.com

### Keith Anderson

San Francisco  
Keith.Anderson@russellreynolds.com

### J. Hewins

San Francisco  
JHewins@russellreynolds.com

### Greg Cowling

London  
Greg.Cowling@russellreynolds.com

### Antony Beaumont

Melbourne  
Antony.Beaumont@russellreynolds.com

### Joe Saliba

Melbourne  
Joe.Saliba@russellreynolds.com

### Euan Kenworthy

Singapore  
Euan.Kenworthy@russellreynolds.com

### Jacques Sarfatti

São Paulo  
Jacques.Sarfatti@russellreynolds.com

### Edgar Medinaceli

Buenos Aires  
Edgar.Medinaceli@russellreynolds.com

## Knowledge Team

### Susanne Suhonen

London  
Susanne.Suhonen@russellreynolds.com

### Natasha Treschow

London  
Natasha.Treschow@russellreynolds.com

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