

# *Mind the gap*

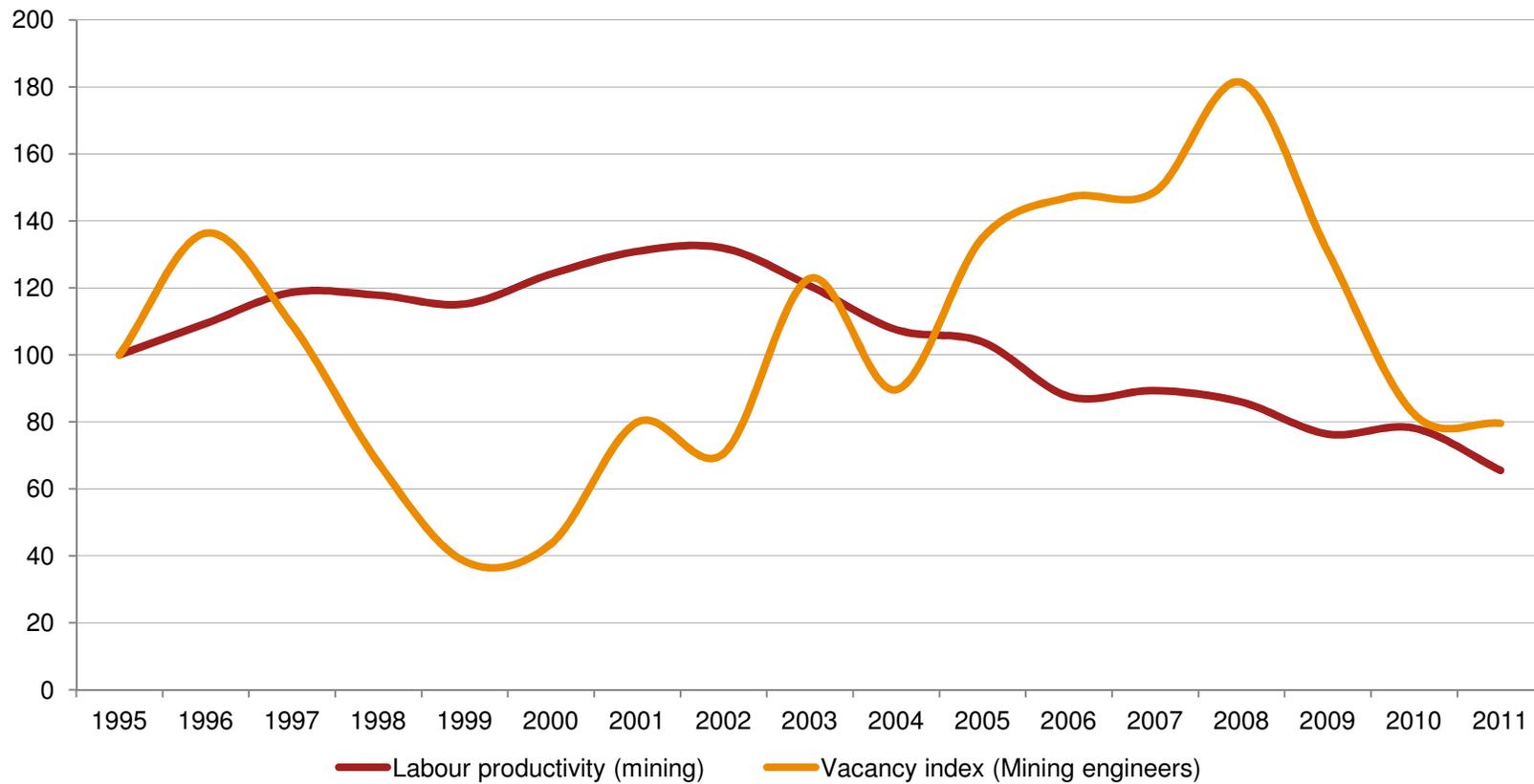
Closing the skills and gender gap in resources



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Mining, Oil & Gas Consulting Leader

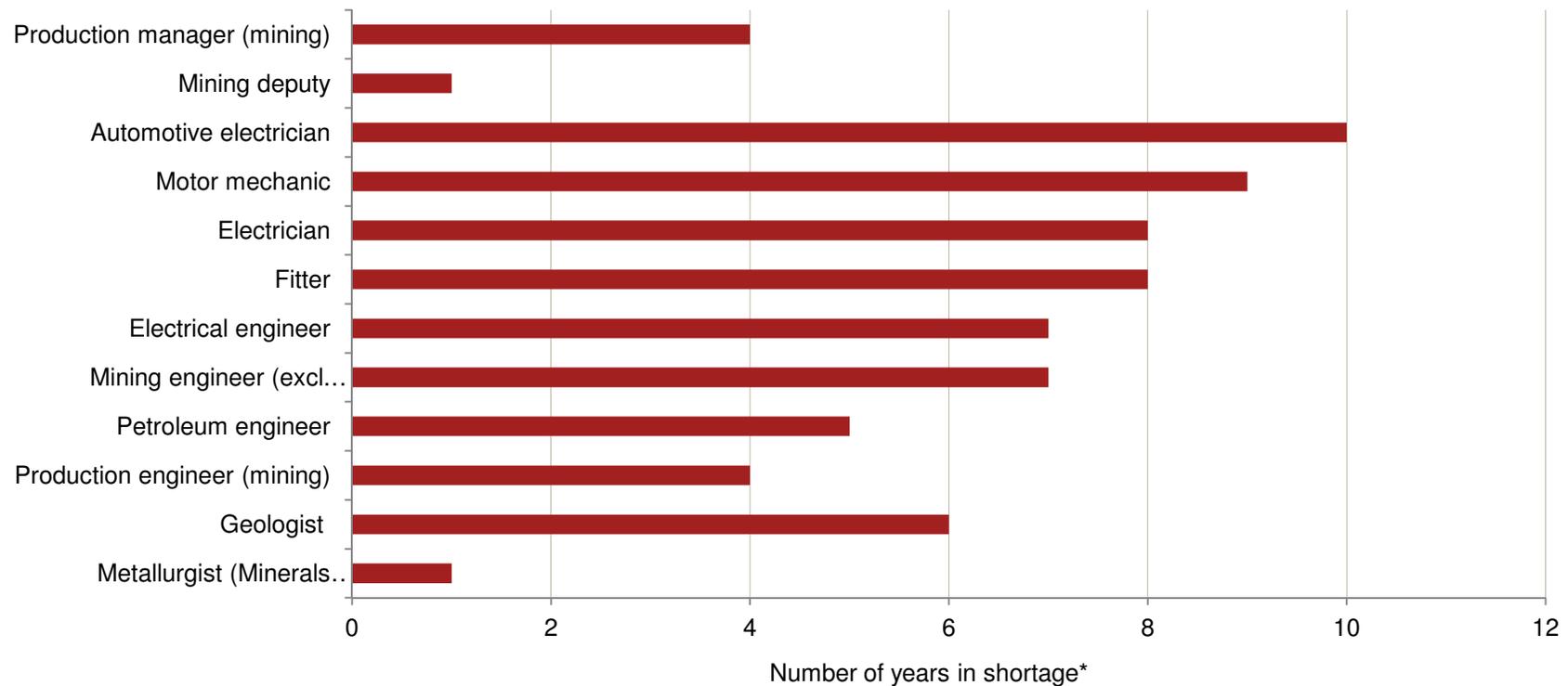
## *The resources boom is now 10 years old, as are the skills shortages that came with it*

Job vacancy index (DEEWR)



## *Some professional and trade skills have been in shortage for the better part of the last decade*

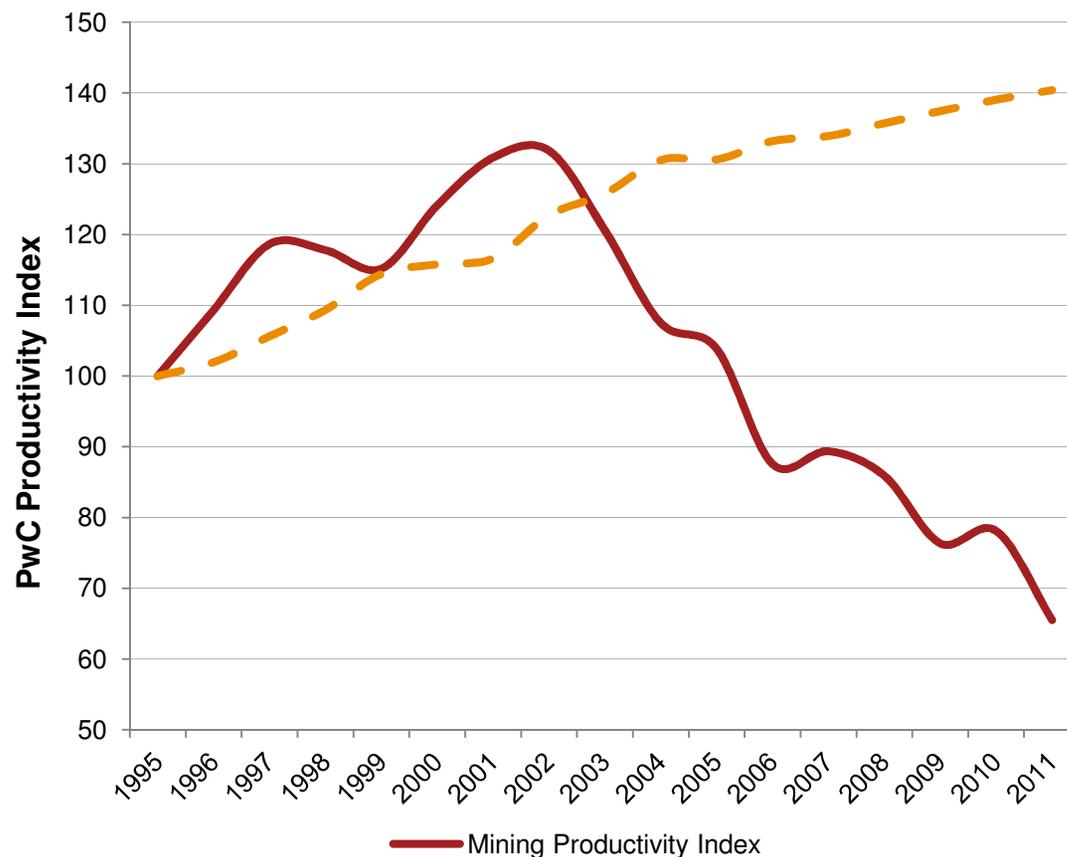
No. of years occupation assessed as being in national shortage\* (in the 10 years to 2011)



\*Skill shortages exist when employers are unable to fill or have considerable difficulty filling vacancies for an occupation, or significant specialised skill needs within that occupation, at current levels of remuneration and conditions of employment, and in reasonably accessible locations.

Source: Department of Education, Employment and Workplace Relations (DEEWR). Historical list of skill shortages, Australia, 1986-2011.

## *The skills shortage has significant consequences for Australia*



### Implications for Australia

- Australia's **productivity** has declined by 50% over the last decade
- In 2012, Australia fell 10 spots in a world ranking of **international competitiveness** in two years, driven in part by skills shortages
- Skills shortages threaten the **delivery of major capital projects**

# Skills shortages threaten the delivery of major projects in Australia

Community concerns	Capacity constraints	Efficiency problems	Timely funding and delivery of public infrastructure	Investor confidence
<ul style="list-style-type: none"> <li>• Lack of economic and social development in communities</li> <li>• Lack of informed national discussion on Australia's growth challenge</li> <li>• Lack of political leadership</li> </ul>	<ul style="list-style-type: none"> <li>• Size of projects and sequencing</li> <li>• <b>Labour/skills shortage</b></li> <li>• Equipment and materials supply</li> </ul>	<ul style="list-style-type: none"> <li>• Planning approvals (including conditions) red tape</li> <li>• Project design and project management</li> <li>• <b>Workplace productivity</b></li> </ul>	<ul style="list-style-type: none"> <li>• Shortage of infrastructure that underpins private investment (ports, etc.)</li> <li>• Shortage of infrastructure which is vital to increasing city productivity and supporting overall economic growth</li> <li>• Funding and financing barriers</li> </ul>	<ul style="list-style-type: none"> <li>• Quality and predictability of the policy environment</li> <li>• Effects on investor confidence</li> </ul>

Source: Business Council of Australia

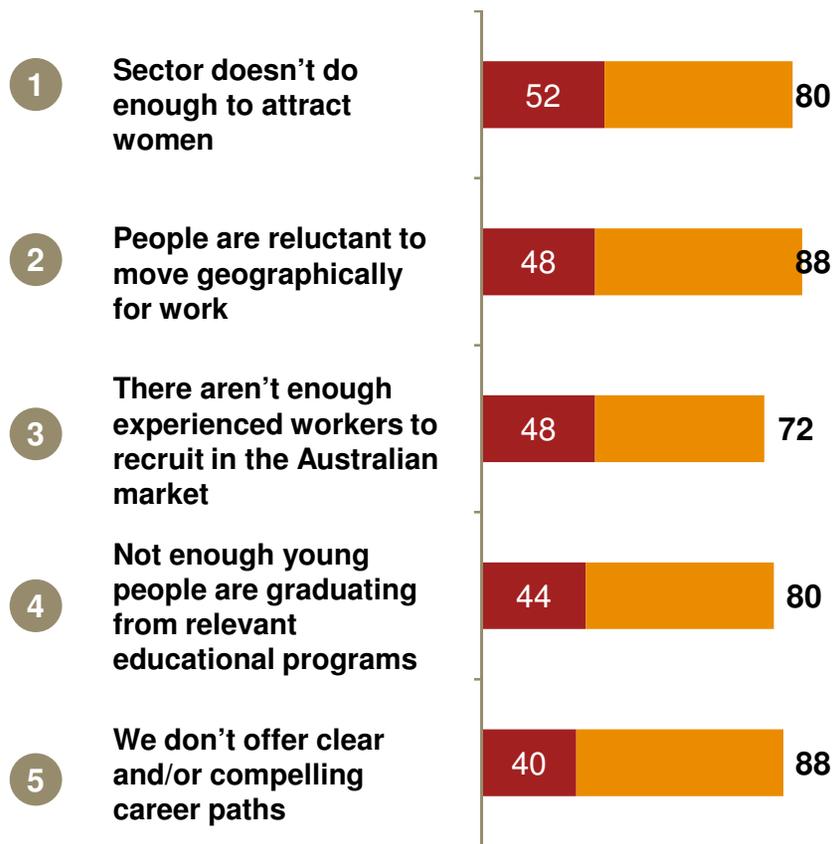
A person wearing a blue hard hat and a high-visibility orange safety suit with reflective yellow-green stripes is walking away from the camera down a dark, narrow tunnel. The tunnel walls are rough and rocky, and the floor is uneven. A light source at the end of the tunnel creates a bright glow in the distance. The overall atmosphere is dim and industrial.

# *1 The big issues*

# We asked energy and resources leaders to identify and prioritise the root causes of the skills shortages

## Top 5 root causes

■ Priority issue to solve ■ Agree this is an issue



Source: PwC; Interviews with 30 senior executives in the energy and resources sector

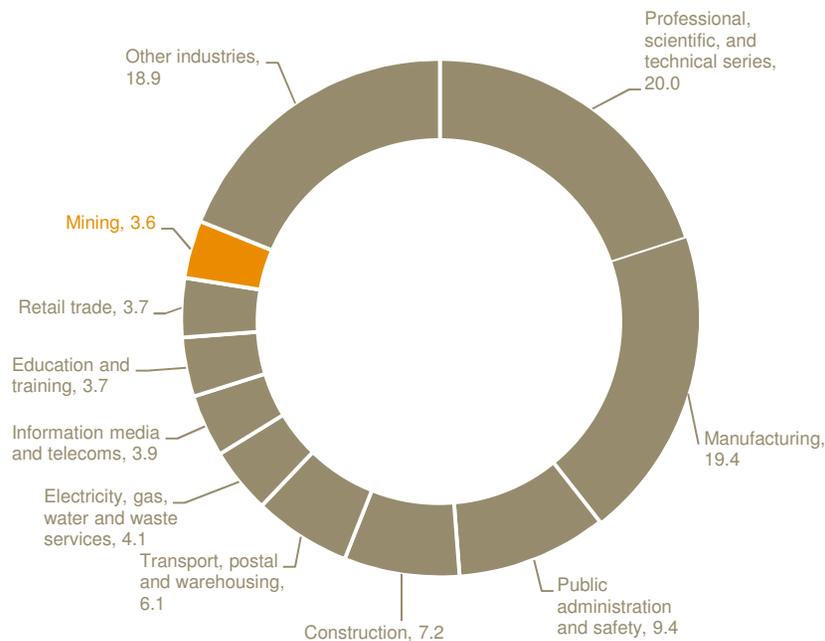
## Participating organisations



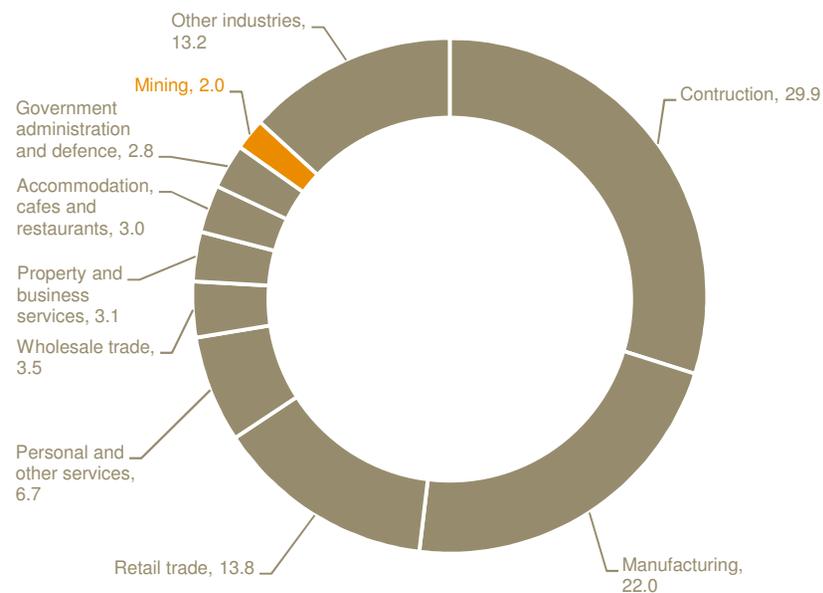
# Resources employs a relatively small share of skilled people in Australia

## Comparison of industry share of skilled workers

Distribution of engineers by industry (2006)\*



Distribution of tradespersons by industry (2006)\*\*



\*Total employed persons = 242,426

\*\*Total employed persons = 1,102,530

Source: ABS Census of Population and Housing (2006)

## The industry employs too few women

**36,400**

women work in resources in Australia (compared to 206,000 men)

**18%**

of mining roles are occupied by women, contrasted with 45 % of roles in the overall Australian workforce

**34**

is the median age of women working in the industry (compared with 39 years for men)

**1,500**

female engineers are produced each year by Australian educational institutions (16% of all graduates)

**6.3%**

of key management positions in top 50 Mining and Minerals companies are occupied by women

**10.6%**

of women working full time in WA mining industry stayed with their employer for 10 + years (compared to 21.8% of males )

### Reasons

- Image and reputation of the industry
- Less encouragement of women to work in the sector
- Few successful role models
- Limited scope for flexibility in jobs
- Inadequate childcare facilities

*“It’s a male-dominated industry and not ‘women friendly’ due to hard physical conditions.”*

*“You can employ women from school to the age of 30 or so... but then the women leave and bringing them back is difficult.”*

## *Low representation of women in each of the common mining occupations*

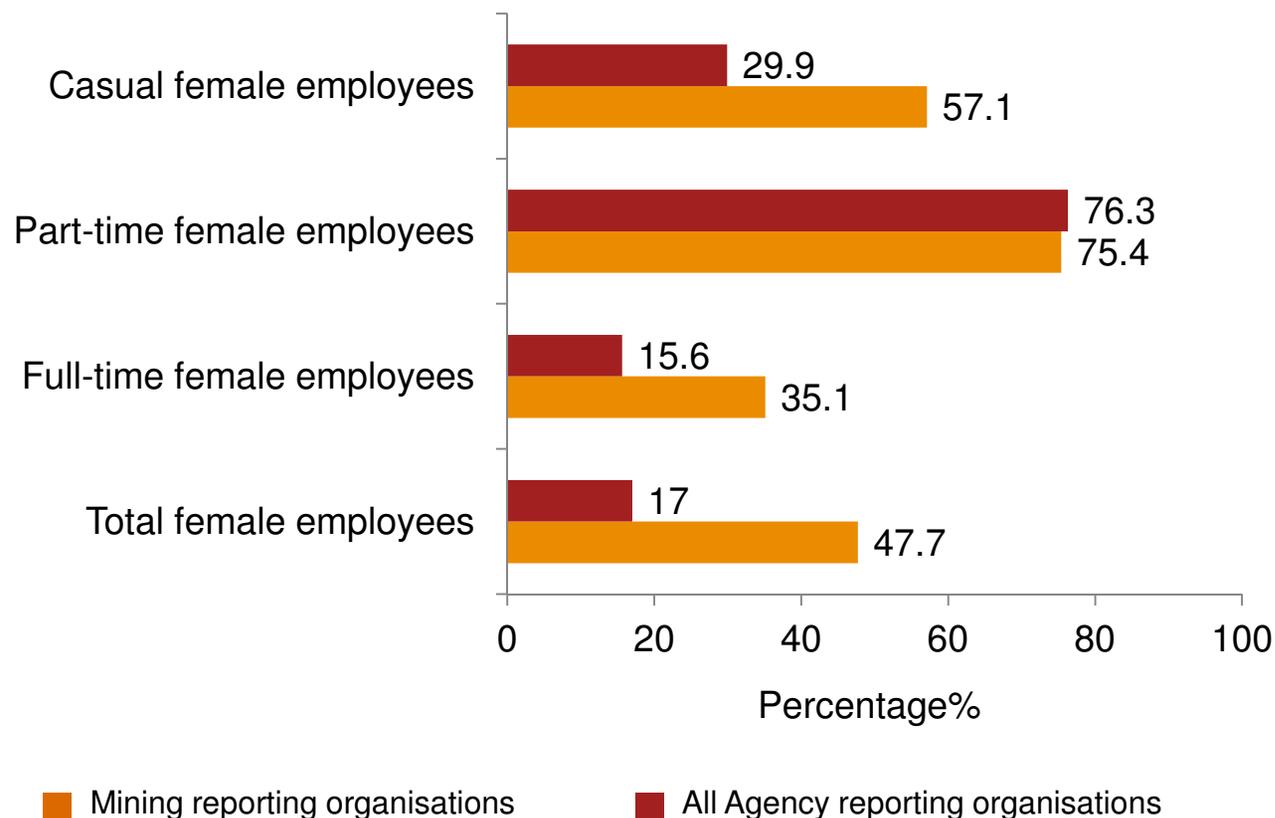
### Top five occupations in the mining industry

<b>Occupation</b>	<b>Total number</b>	<b>Number of females</b>	<b>Number of Males</b>	<b>Female %</b>	<b>Male %</b>
Drillers, miners and shot firers	39,283	2,299	36,984	5.9	94.1
Metal fitters and machinists	14,575	90	14,485	0.6	99.4
Other building and engineering technicians	8,369	766	7,603	9.2	90.8
Truck drivers	7,305	1,488	5,817	20.4	79.6
Electricians	5,503	102	5,401	1.9	98.1

Source: Table is based on ABS Census 2011, 'Australia (Statistical Local Area), Occupation by Sex and Industry of Employment', and is not directly comparable with the Agency reporting organisations.

## *Women working in the mining industry show a strong preference for part-time employment*

### Female workforce participation by employment type



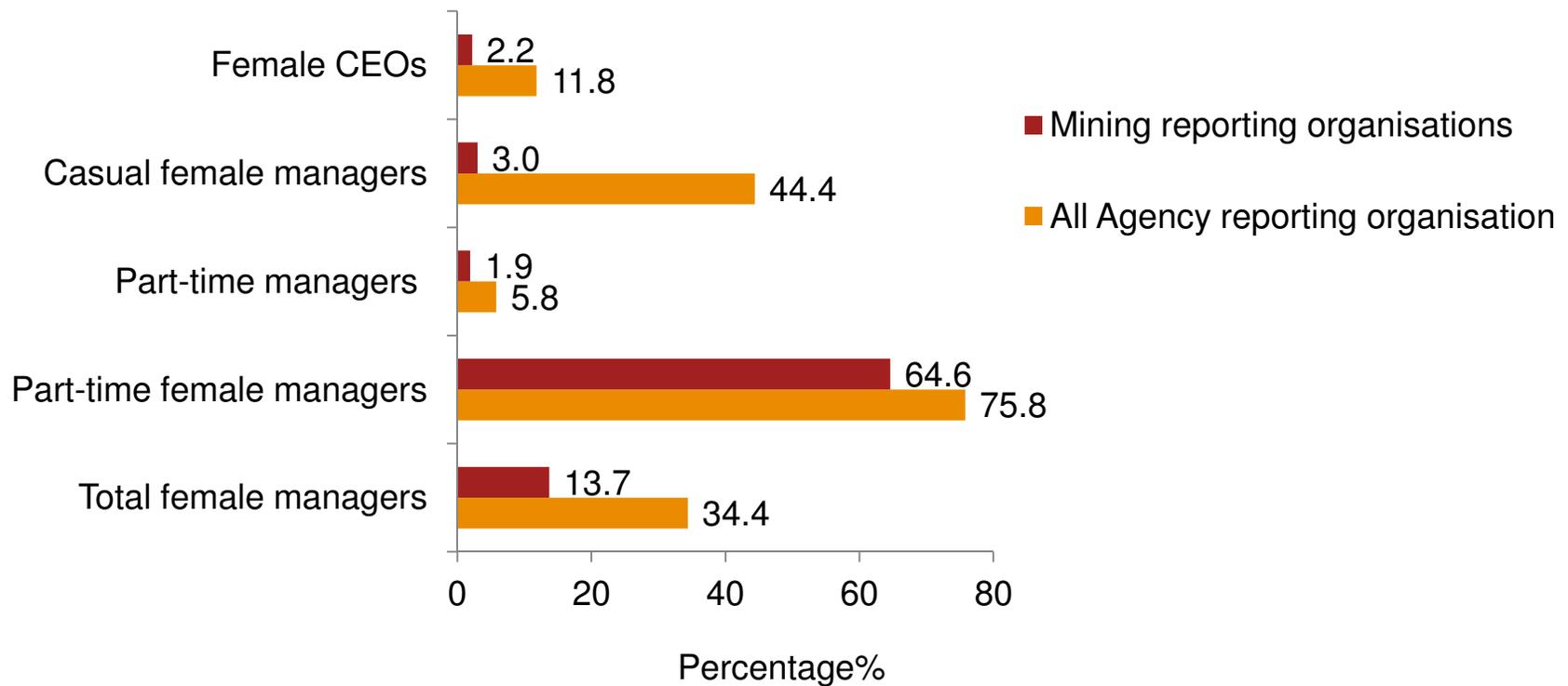
### Mining needs to adapt

- Part time workers made up only 3.1% of mining workforce in 2009, compared with 29.6% of all industries
- Mining has lowest incidence of part time employment of any of the industries in Australia

Source: Workforce Gender Equality Agency - Agency reporting data from compliant organisations, 2012

## *Part-time work is also more common for female managers in mining companies*

### Female CEO and managerial representation

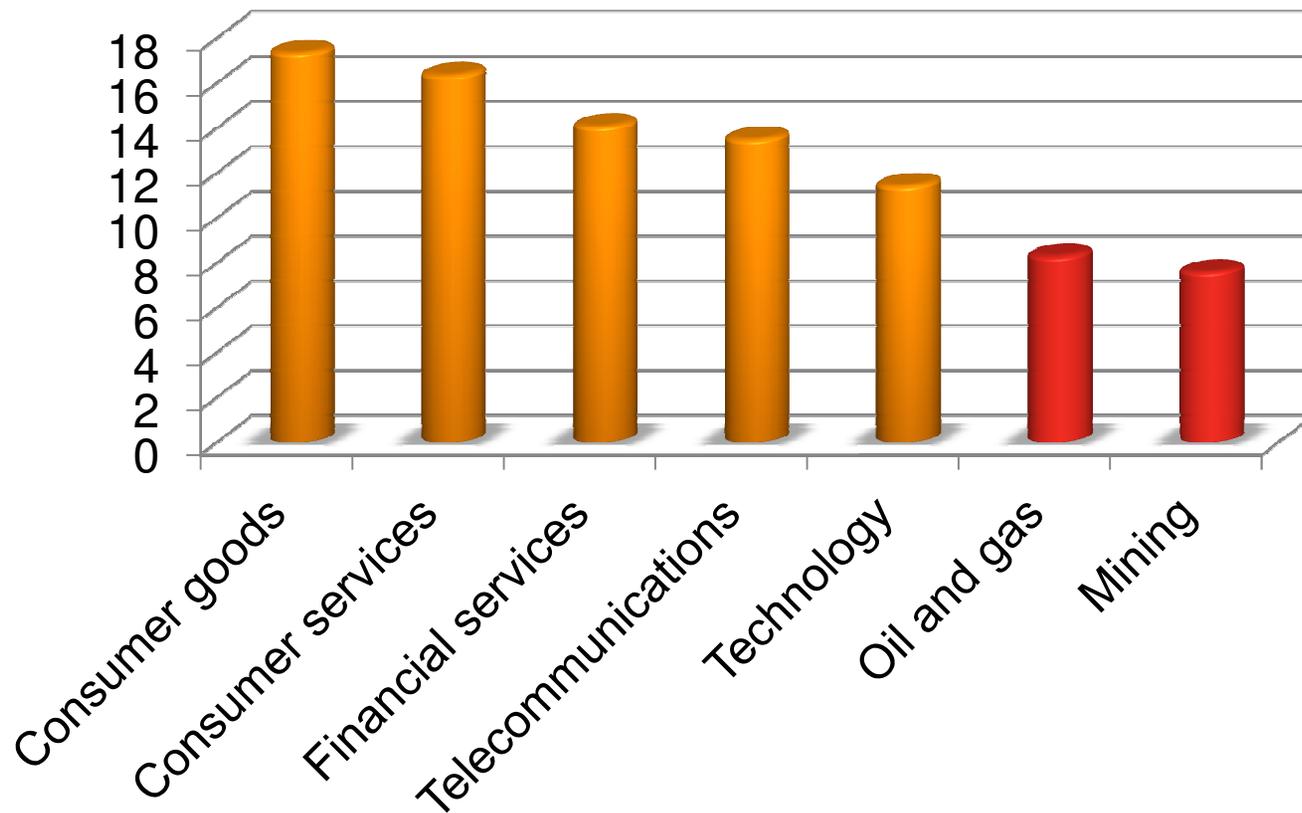


Source: Workforce Gender Equality Agency - Agency reporting data from compliant organisation, 2012

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## *At Board level, the resources sector compares poorly to other industries in terms of female representation*

Average percentage of women on boards of top 100 companies



Source: Mining for Talent, 2013

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## ***Representation of women on Boards in Australia, Canada, UK and US is below average for Top 100 companies***

Are there differences between territories?

<b>Exchange</b>	<b>Average % women on board for all industries top 100 companies</b>	<b>Average % women on board of top 100 mining companies</b>	<b>Difference between industry average and mining average</b>
<b>Australia</b>	13.84	11.97	1.87
<b>Canada</b>	9.81	5.24	4.57
<b>Hong Kong</b>	5.79	6.02	-0.23
<b>South Africa</b>	11.50	21.05	-9.55
<b>UK</b>	12.19	4.27	7.92
<b>US</b>	17.89	7.34	10.55

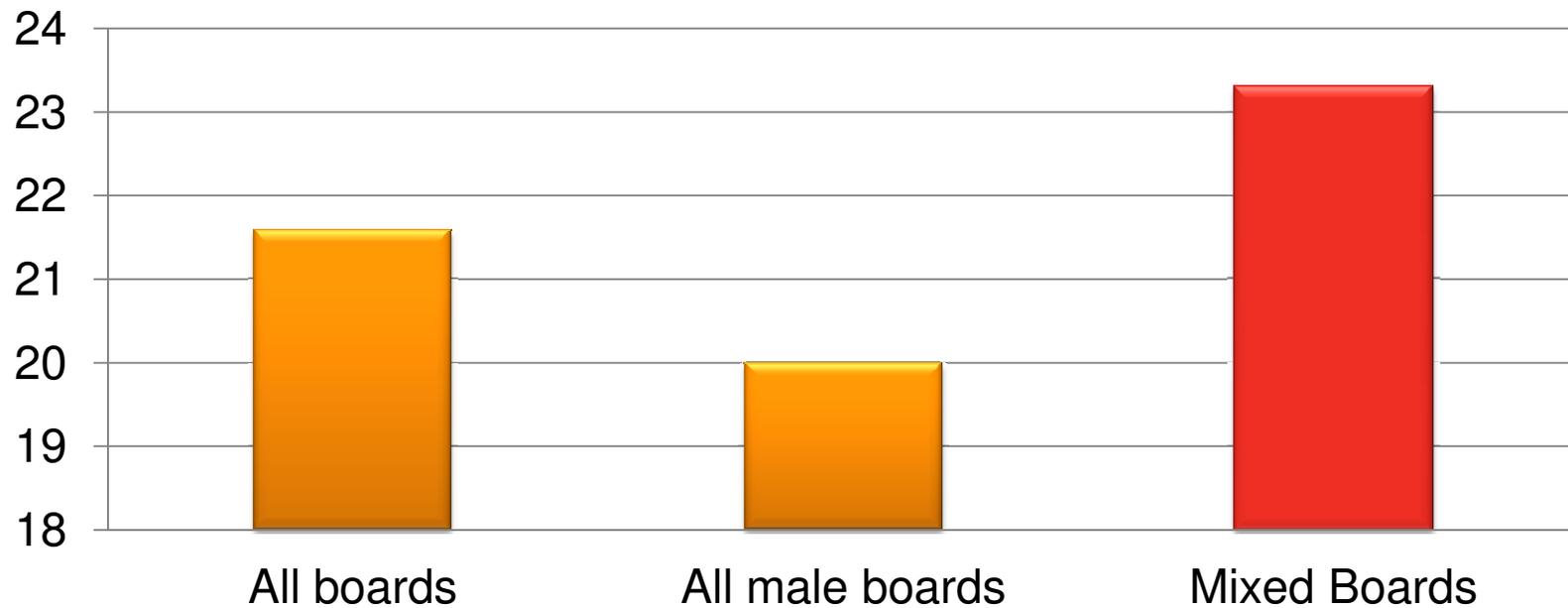
Source: Mining for Talent, 2013

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***Growing evidence that mining companies with female Board representation perform better than their peers***

Average profit margin for top 100 companies



Source: Mining for Talent, 2013

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*What types of entrenched attitudes and practices have you encountered in the sector?*

The background of the slide is a photograph of an offshore oil rig at sunset. The rig is silhouetted against a sky that transitions from a deep blue at the top to a warm orange and yellow near the horizon. The rig's structure is complex, featuring a tall derrick in the center and several cranes extending outwards. The overall scene is industrial and atmospheric.

## *2 A blueprint to close the gender and skills gap*

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***Gender and skills gaps in the resources sector can be addressed by focusing on four areas***

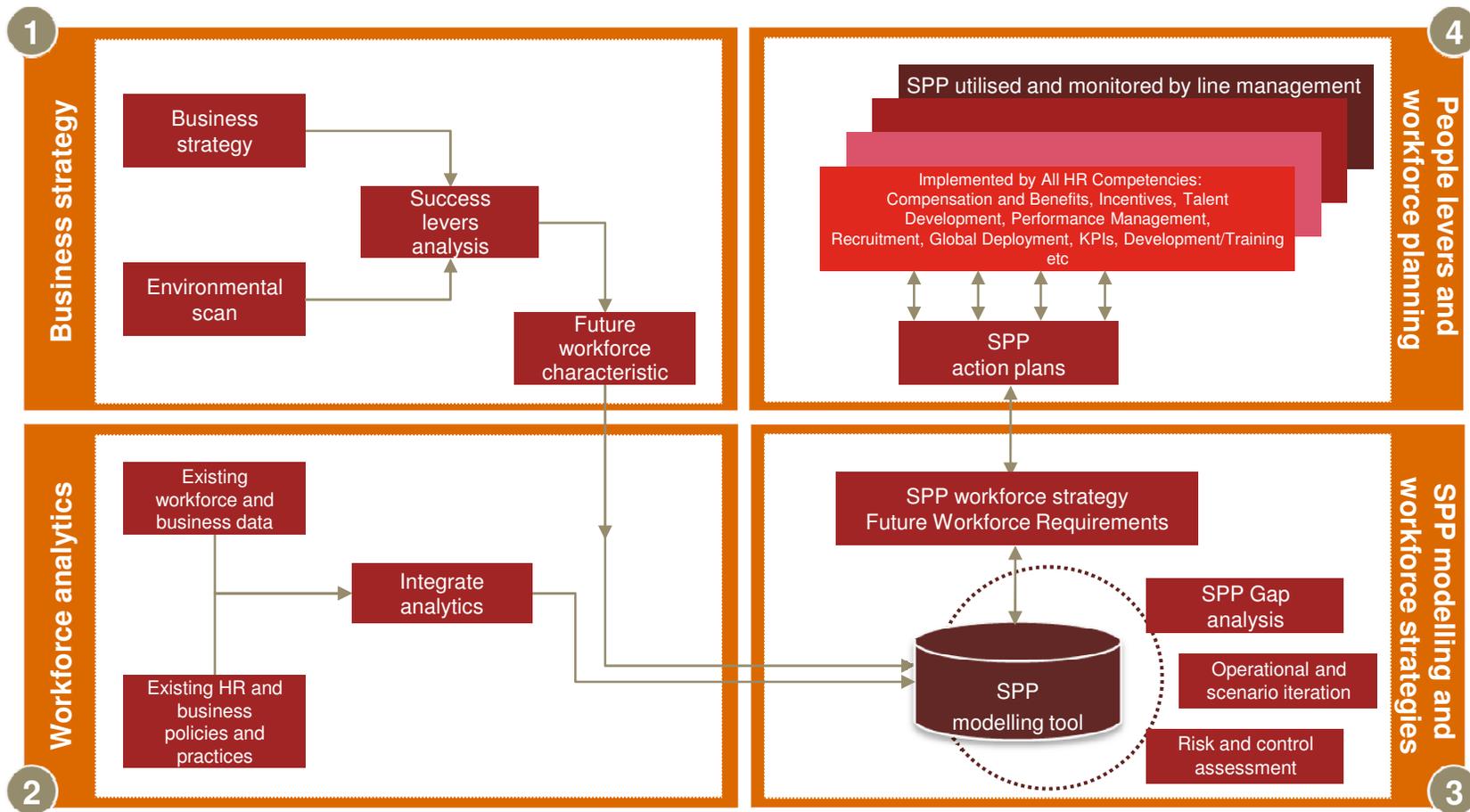
Be disciplined  
about  
workforce  
planning

Tap a  
diversity of  
skills

Strengthen  
the 'brand'

Look beyond  
the money

# Be disciplined about workforce planning



Source: PwC

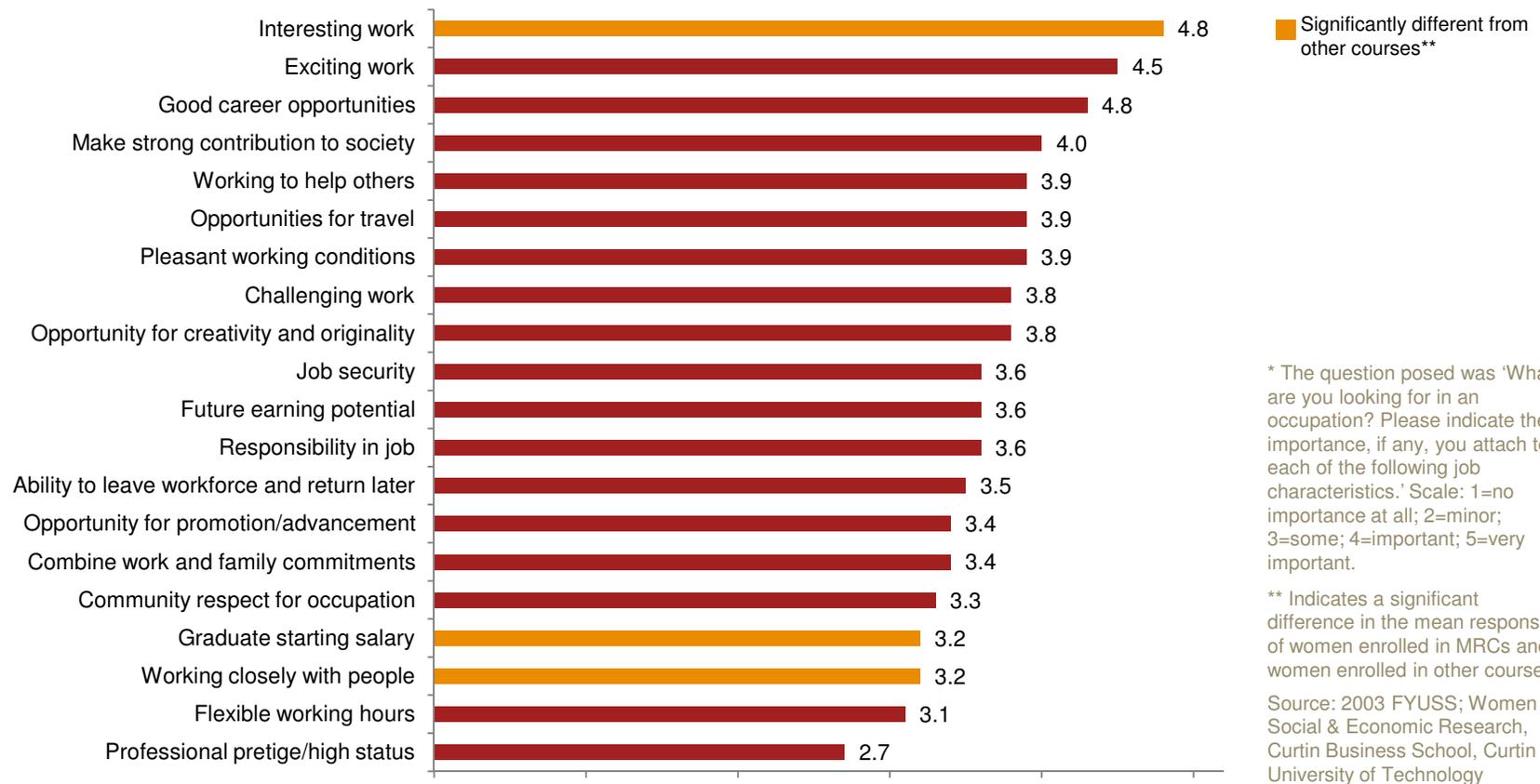
## Case example: Diversity mapping at two coal mines

Criteria for resource allocation	Mine 1	Mine 2
1. Capacity to train	<b>70%</b> New to coal industry within operational workforce	<b>62%</b> New to coal industry within operational workforce
2. Capacity to manage		
3. Team configuration	<b>29%</b> Females within operational workforce	<b>25%</b> Females within operational workforce
4. Productivity		
5. Complexity		

## Tap a diversity of skills

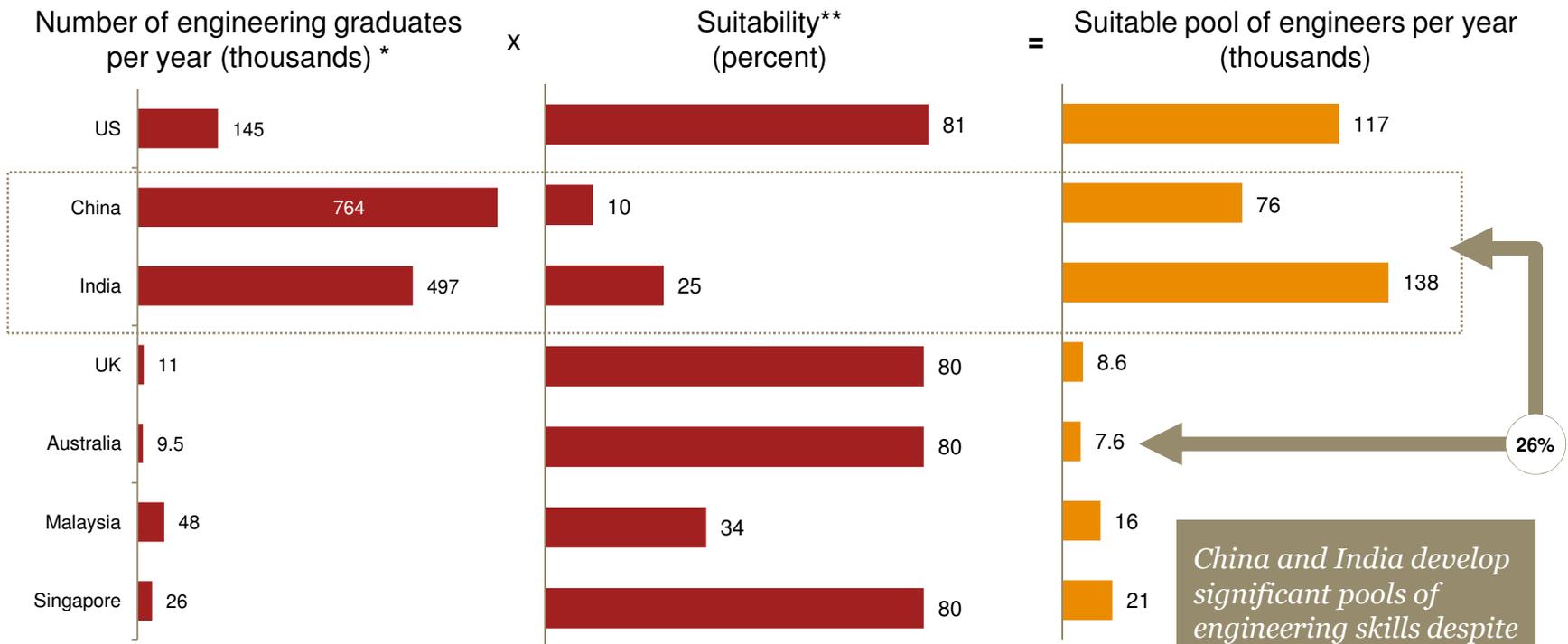
### What attributes do female students look for in an employer?

Mean ratings of females enrolled in minerals-related courses\*



# Look overseas for skills

## Country comparison of total number of suitable engineers



\*Number of graduating engineers each year across all disciplines

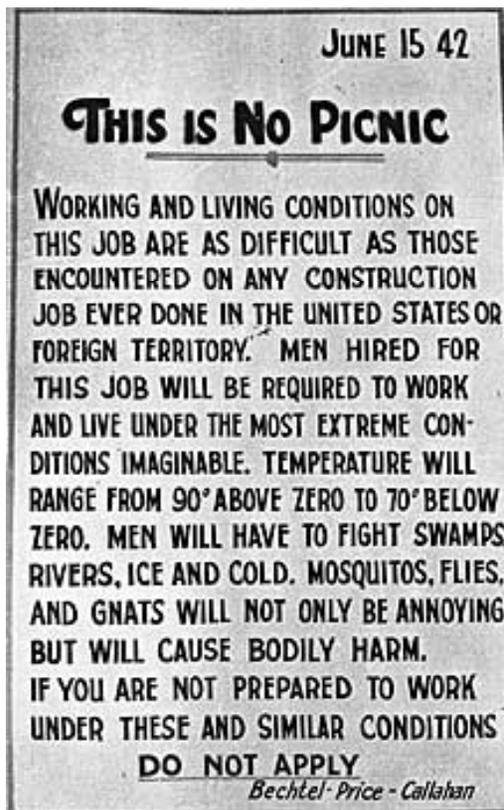
\*\*Suitable pool estimated based on assumptions on number of engineers and suitability derived from comparable countries

Source: National Science Foundation/National Center for Science and Engineering Statistics; Chinese Statistical Yearbook (2010); Ministry of Human Resource Development, Government of India; Engineers Australia; UNESCO (2010). Engineering: issues, challenges and opportunities for development; Department of Statistics, Singapore; McKinsey Global Institute; Team analysis

## Look beyond the money

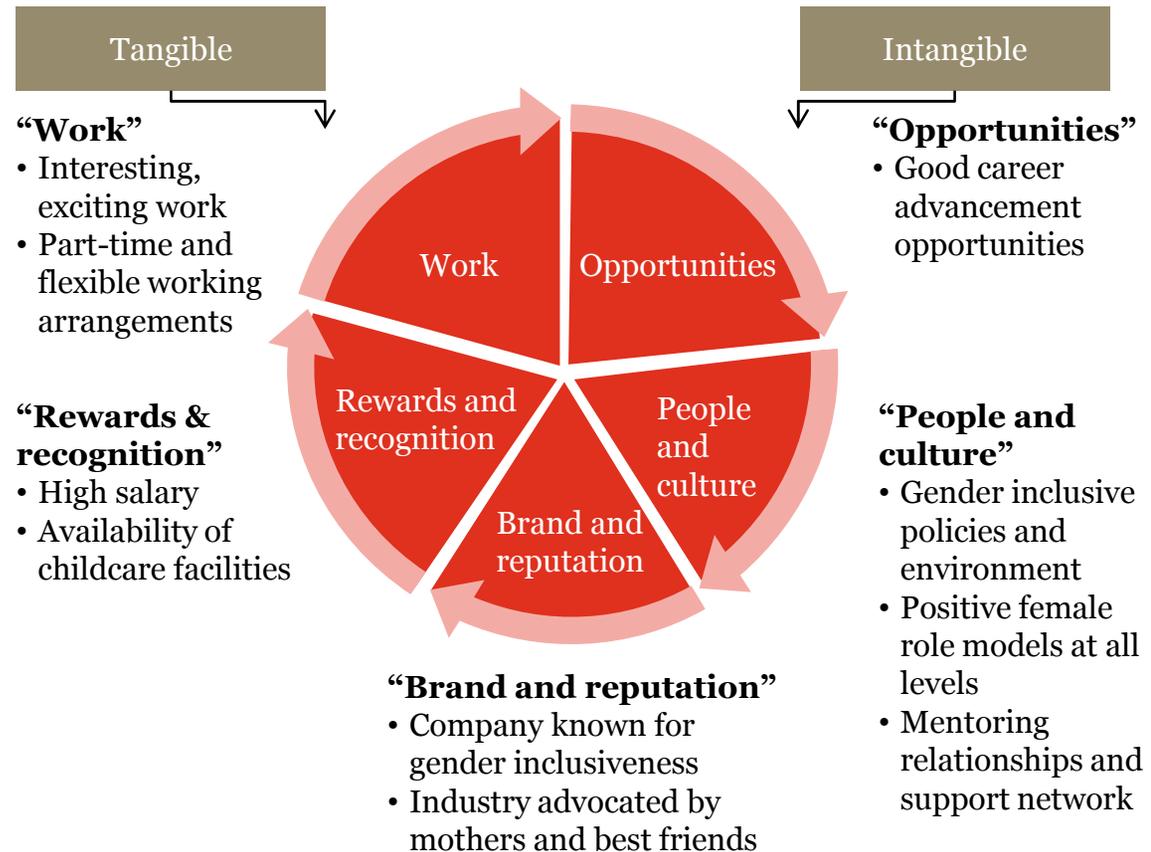
One of these EVPs can attract and retain talented women

### EVP circa 1942



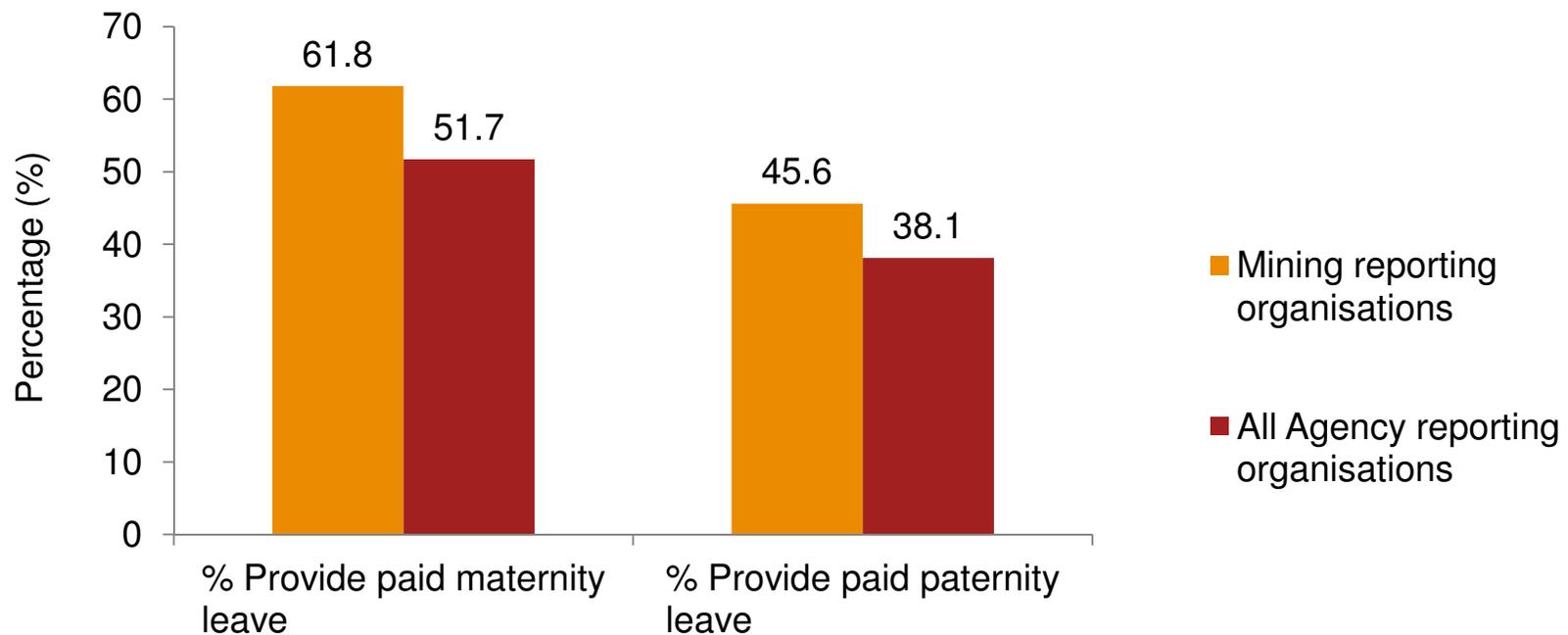
\* Bechtel-Price-Callahan employment offices c. 1942

### EVP circa 2013



## *The industry is progressing ...*

### Provision of paid parental leave in Agency reporting organisations, 2012



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## *Who can change entrenched attitudes and practices?*

Accountability for making change happen

*Me*

*“My organisation can successfully make these changes on our own”*

*Us*

*“Industry leaders, governments and universities must collaborate to achieve sustainable changes”*

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*Who can change entrenched attitudes and practices in each of these areas?*

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about  
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Thank you.

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