

## The Big Crew Change is sapping the industry's corps of experienced engineers

### Demographic Gap

An estimated



of the energy workforce is 50 years old or older.

Source: American Petroleum Institute

### Experience Gap

50%



workers may retire in the next five to seven years leaving a void of senior management and experienced engineers.

Source: American Petroleum Institute

### Job Gap

1.2 million jobs

will be created in the oil & gas sector by 2030, bringing tens of thousands of new engineers into the workforce.

Source: American Petroleum Institute



### Knowledge Gap

On average, it takes a new engineer to gain sufficient experience to make nonstandard, original technical decisions.



Source: SBC's 2012 human resources benchmark study for the oil and gas industry

## As Big Crew Change looms, industry faces soaring costs, elevated risk

Up to

50-75%



of off-shore drilling costs are due to engineering productivity constraints, such as frequent and last minute project change orders and 'broken learning curves'.

Source: McKinsey

Mistakes such as perforated wells with reduced production, increased nonproductive time in drilling operations and less success with exploratory wells can each cost up to

\$500k

Source: PetroSkills, 'The Value of Competent People'

\$35B

cost, per year, in wasted exploration and production expenditures due to the Big Crew Change.

Source: PetroSkills, 'The Value of Competent People'



Energy sector companies must put in place today effective strategies to mitigate the impacts of knowledge loss and skills gaps