

# *“How Will Project Execution Change in the Next Five Years?”*



Rice Global E&C Forum  
**Engineering &  
Construction**



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Well the truth is.....

***I have no idea!***

***...but at least I'm  
honest!***



# Recent Comments.....

- **“We don’t worry about project cost because if our projects overrun, we just increase the rates to the customer.”**
- **Can we all do that?**
- **For how long?**



## Recent Comments.....

- **“We have a 45% contingency on our projects and we still overrun them.”**
- **Do they have any competition?**
- **For how long?**



## Recent Comments.....

- **“We cannot tell if changes are down to us or the client so we eat them. We don’t know if our projects come in under budget.”**
- **Have we learned nothing about Scope Definition and MoC?**



# **Project Management.....**

- **PMI is now 36 years old – the oldest Chapter is here in Houston.**
- **PM has been around longer than that and many of the tools are over 50 years old.**
- **156,895 members worldwide**
- **108,005 PMP certifications worldwide**



# Project Management.....

Recent PMI Survey of 103 Presidents, VP's and Directors:

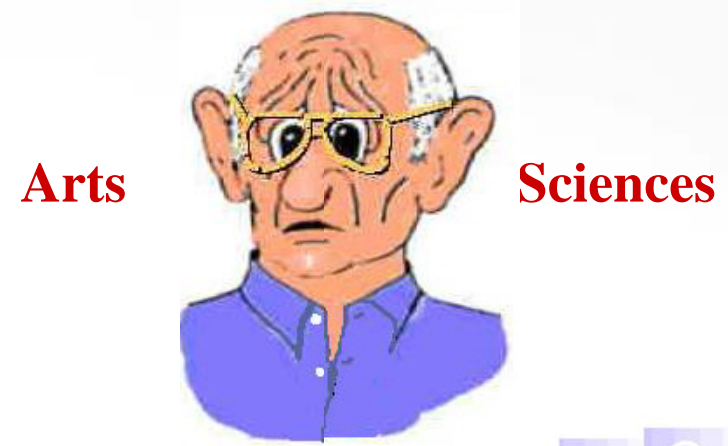
- 40% use outside PM's and consultants to manage projects because they lack the skills in-house.
- Less than 50% have a PM career path in place
- 75% of the career paths were informal



# Some Changes.....

- It is not enough to have a PM who is a Type 'A' personality
- PM's now have to employ the **Arts** and the **Sciences** using both sides of their brain!

<b>Leader</b>	<b>Manager</b>
<b>Engineer?</b>	<b>Engineer</b>
<b>Soft Skills</b>	<b>Hard Issues</b>
<b>Right Brain</b>	<b>Left Brain</b>







## **Some Changes.....**

- **PM Methodology used for consistent execution**
- **There are fewer Accidental PM's but more contract PM's**
- **PM training is more available – no follow-up**
- **PM is now a career path in some companies**
- **Encouragement and incentives for PM's to get certified**



# Some Changes.....

- **Emphasis on Portfolio/Program management – Enterprise**
- **Greater emphasis on the ‘Knowledge Areas’**
  - **Scope Management**
  - **Integration Management**
  - **Communication Management**
  - **Etc. etc.**
  - **Risk Management – threats & opportunities**
- **Standardized nomenclature**



# Some Concerns.....

- **Aging engineering society in US**
  - Average age - 47 in US
  - Internationally it is 37
- **Engineers in their 30's – good engineers but with little experience**
- **Engineers in their 50's – wide range of experience but no company longevity and motivation**
- **Owner's only want experienced engineers – 10 to 12 years minimum**
- **Who pays for training them?**



# **Some Concerns.....**

- **Employees are losing as many as 3 hours per day looking for their stuff – information they need to do their jobs.**
- **Employees bogged down with a plethora of emails.**
- **Projects are more Global with more Virtual Teams rather than the traditional Co-located Teams.**
- **Need for management systems that enable us to work smarter not harder.**



## **Some Concerns.....**

- **Senior mgmt are not experienced in PM and are not always asking the right questions.**
  - **Schedule & cost – Why not Scope?**
- **PM's are not supplying the feedback required by senior mgmt to run the enterprise.**
  - **Timely and accurate cost data**

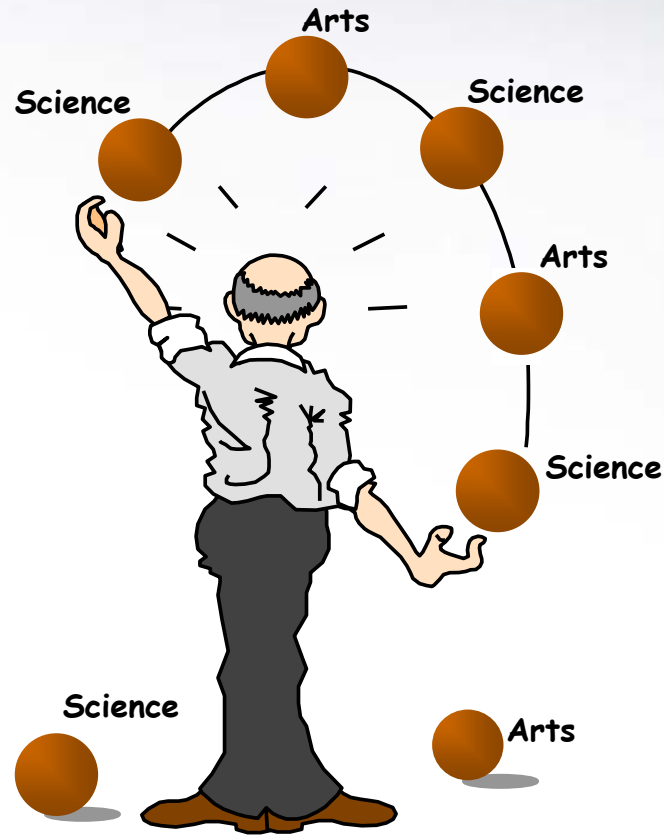


## **Some Concerns.....**

- **As more EP&C projects are overseas, it is becoming more difficult to offer meaningful careers to US citizens graduating.**
- **Government tax on expatriates. working overseas is making it more costly to position project execs. on foreign projects**



.....and the Industry experts say.....





## Last Ten Years

- Decade of ‘solidly unprofitable growth’ for many companies
- Return on capital (ROC) has not been great despite many efforts
- Poor performance on asset development
- New reservoirs are less profitable than before
- Oil prices are higher than ever - \$58 to \$105?
- Wide range of results indicates a certain volatility and volatility erodes rationality of deciding what projects to approve





## **Self Inflicted?**

- **Somebody somewhere – usually very high in the company – gives promises to the financial analysts on what is going to happen, and when.**
- **Sometimes a career building opportunity for a ‘high flyer’**
- **Failure to harmonize the many disciplines and functions that populate the asset development process**



## **World Class Poor Practices**

- ✦ **Projects are schedule driven rather than data driven**
- ✦ **Aggressive appraisal strategy (reducing appraisal cost/time while ‘managing the risk’)**
- ✦ **Poor average level of front end loading for facilities and drilling**
- ✦ **Minimum owner involvement**



## **World Class Poor Practices (cont.)**

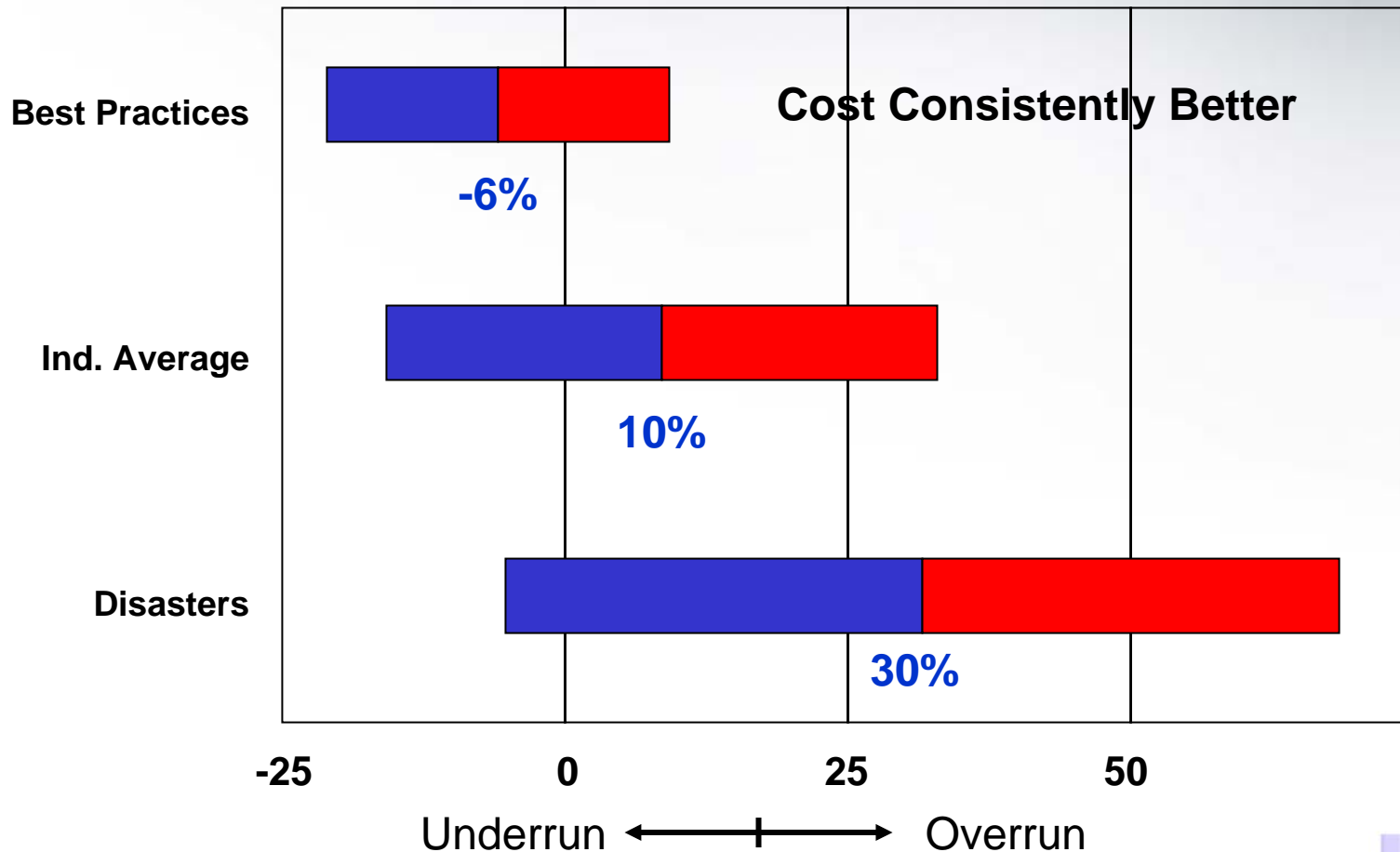
- ✦ **Often have wholly inappropriate contracting strategies**
- ✦ **Everyone caught up in company politics**
- ✦ **All ignored what the company knew were best practices. (Only 6% followed them.)**



# World Class Best Practices

Ref: Ed Morrow – IPA (Upstream 5/23/03 by Adrian Cottrill)

## Cost Asset Growth

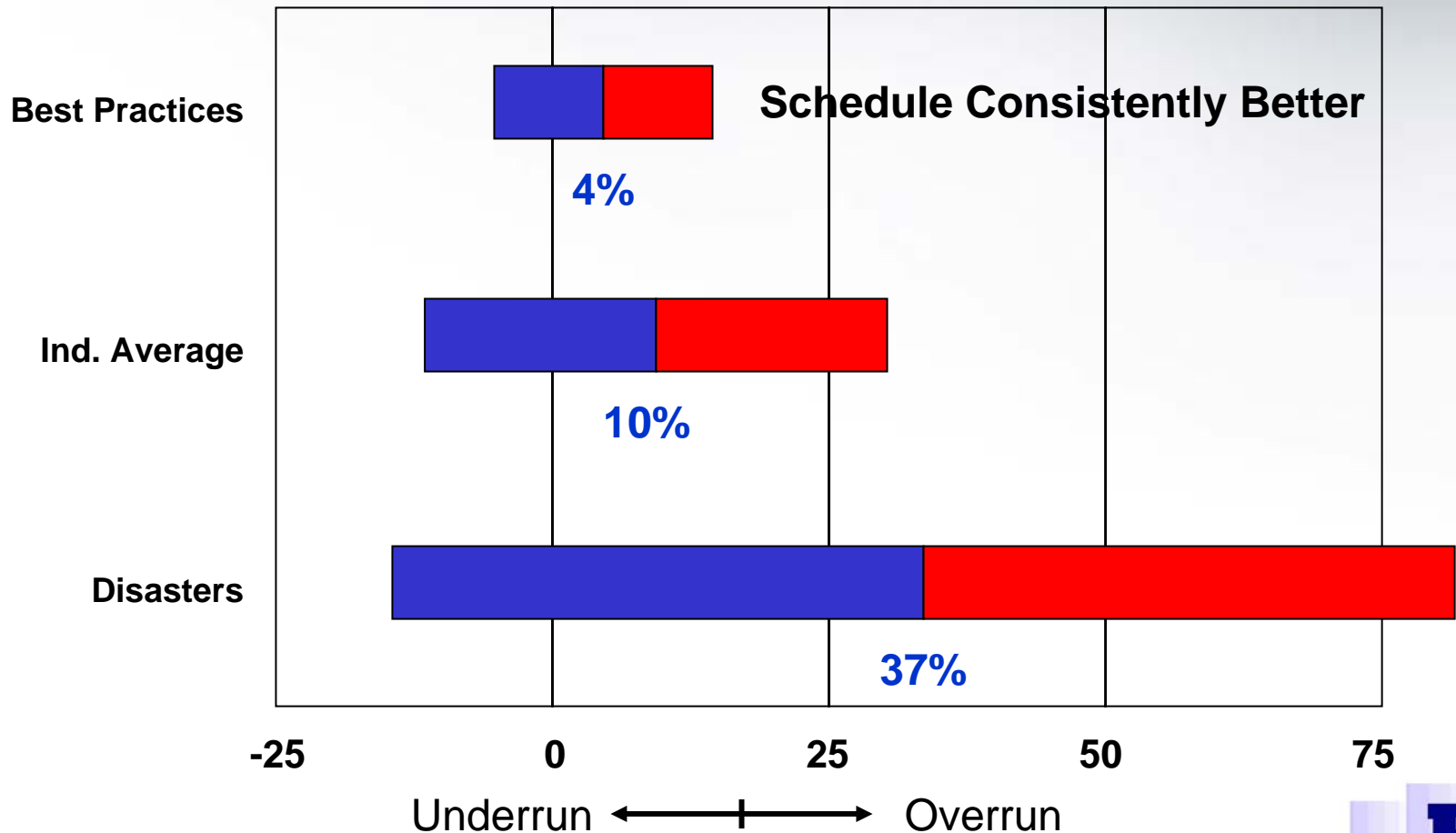




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## Schedule Slip

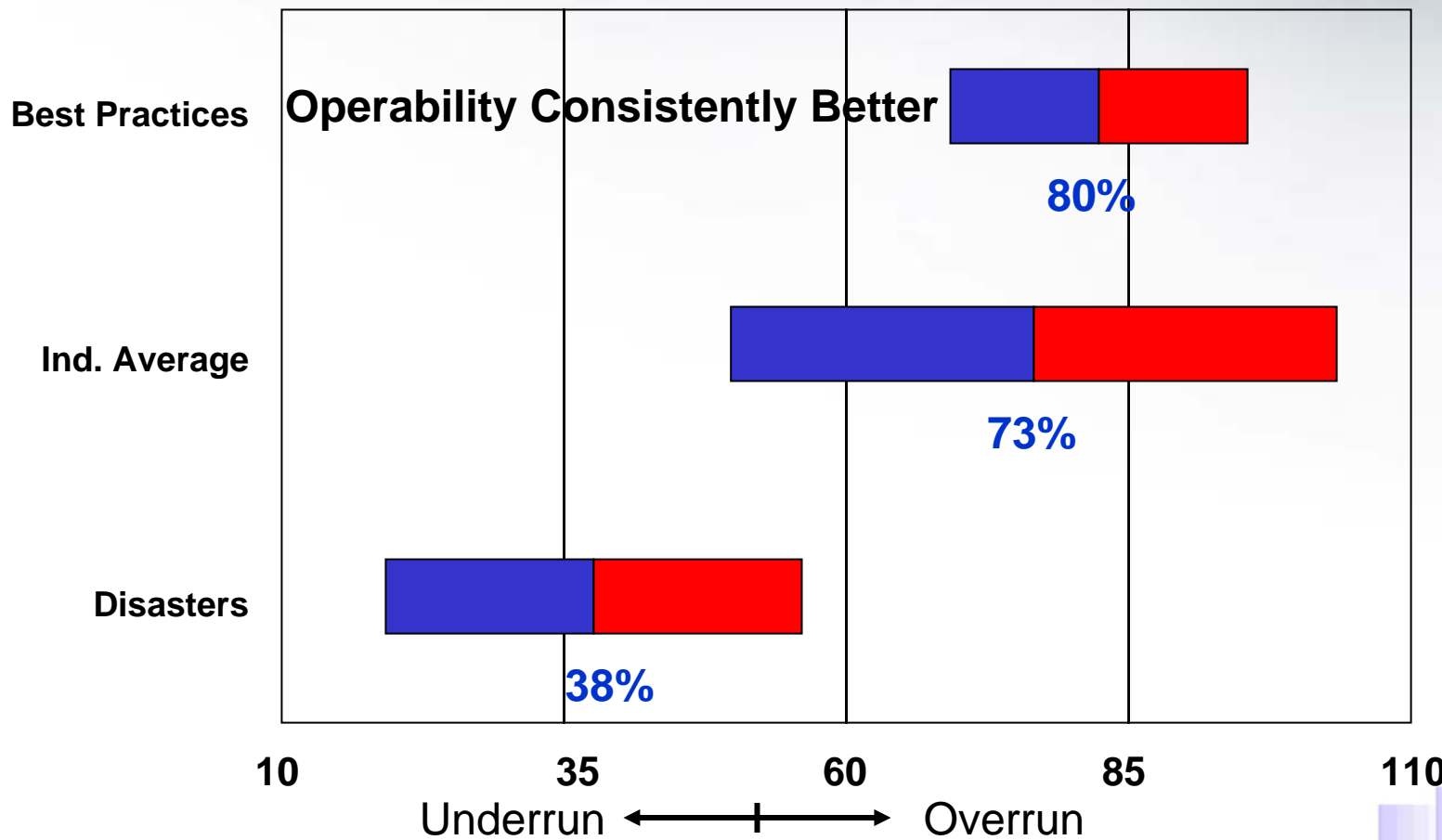


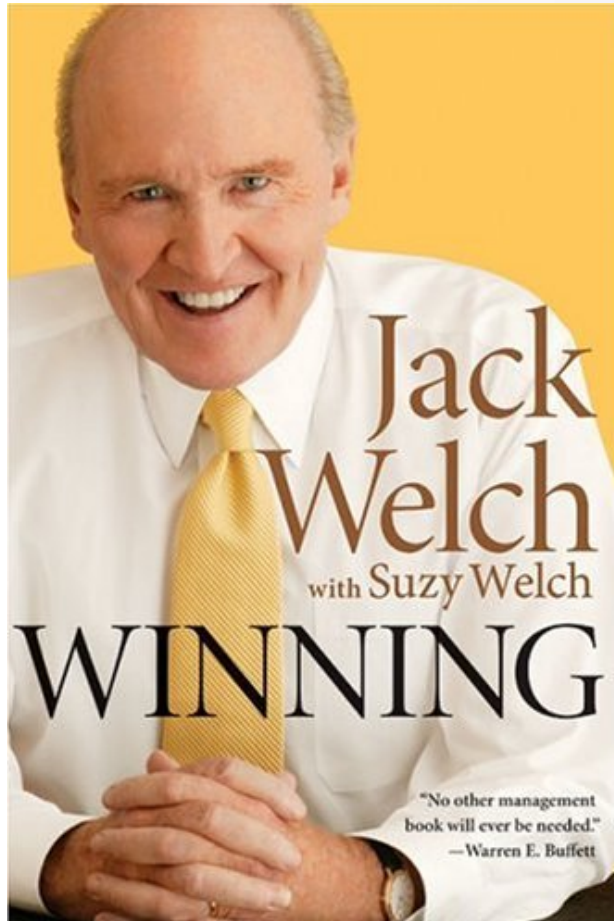


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## Five Year Operation as a % of Plan





**20% - Encourage  
nurture and  
compensate - Winners**

**70% - Encourage to  
them be in the 20%**

**10% - Be honest with  
them and give them the  
news**



## **Considering Management of Projects;**

- **What are the three key issues facing E&C companies domestically?**
- **What are the three key issues facing E&C companies internationally?**





## Considering the three issues;

- **What is your company doing now to deal with these issues today?**
- **What are you doing now to be successful in 2010?**



**Thank you for your participation.**



**Feedback will be posted  
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