



# GETTING THE RIGHT PEOPLE ON THE BUS

FINDING, TRAINING, AND RETAINING THE BEST  
DATACENTER PEOPLE AROUND THE GLOBE

Nuremberg, October 2012

# Abstract



- Human error is still the biggest cause of downtime in datacenters. Errors in design, build and operation. So the recruitment of top talent is essential. But how do we find these people, how do we train them and keep them at peak performance, and how do we retain them

# Datacenterpeople



- Launched in September 2010 to help businesses find and recruit the very best data center people on the planet.
- The only global recruitment company exclusively serving the datacenter industry
- Run by experienced datacenter professionals for datacenter professionals



Global recruitment and consulting specialists to the datacenter industry.

DatacenterDynamics Recruitment Partner

# Getting the right people on the bus



# Good to Great

Jim Collins 2001



- **Getting the right people on the bus**
  - ▣ If people get on your bus because of where they think it's going, you'll be in trouble when you get 10 miles down the road and discover that you need to change direction because the world has changed. But if people board the bus principally because of all the other great people on the bus, you'll be much faster and smarter in responding to changing conditions.
  - ▣ Secondly, if you have the right people on your bus, you don't need to worry about motivating them. The right people are self-motivated: nothing beats being part of a team that is expected to produce great results.
  - ▣ Thirdly, if you have the wrong people on the bus, nothing else matters. You may be headed in the right direction, but you still won't achieve greatness. Great vision with mediocre people still produces mediocre results. This couldn't be truer than in the ever-evolving datacenter industry.

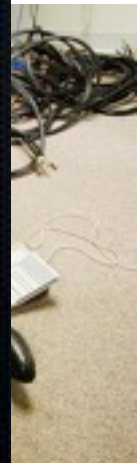
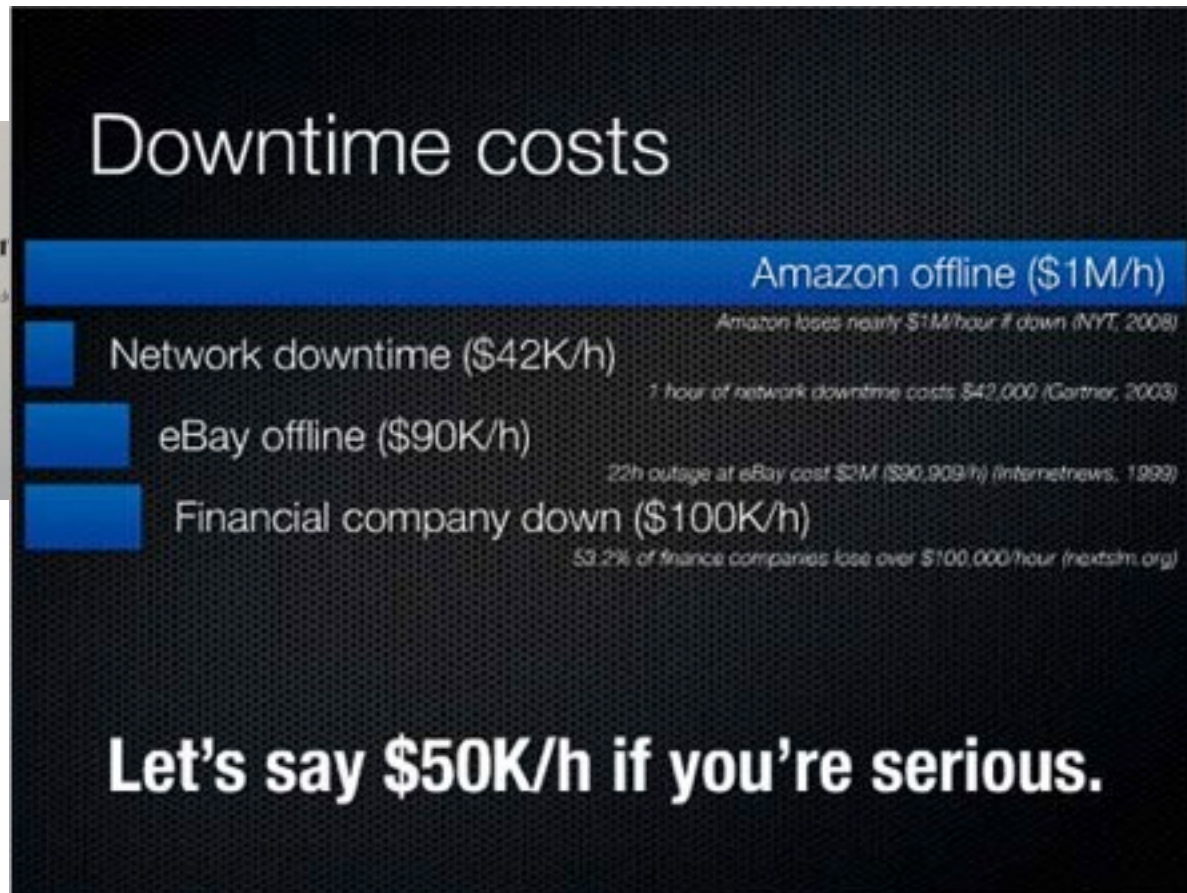
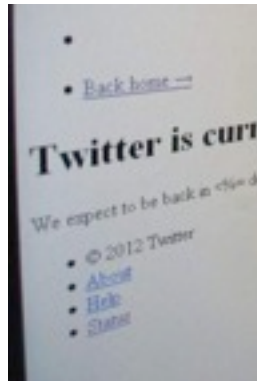
# Who is in the datacenter business?



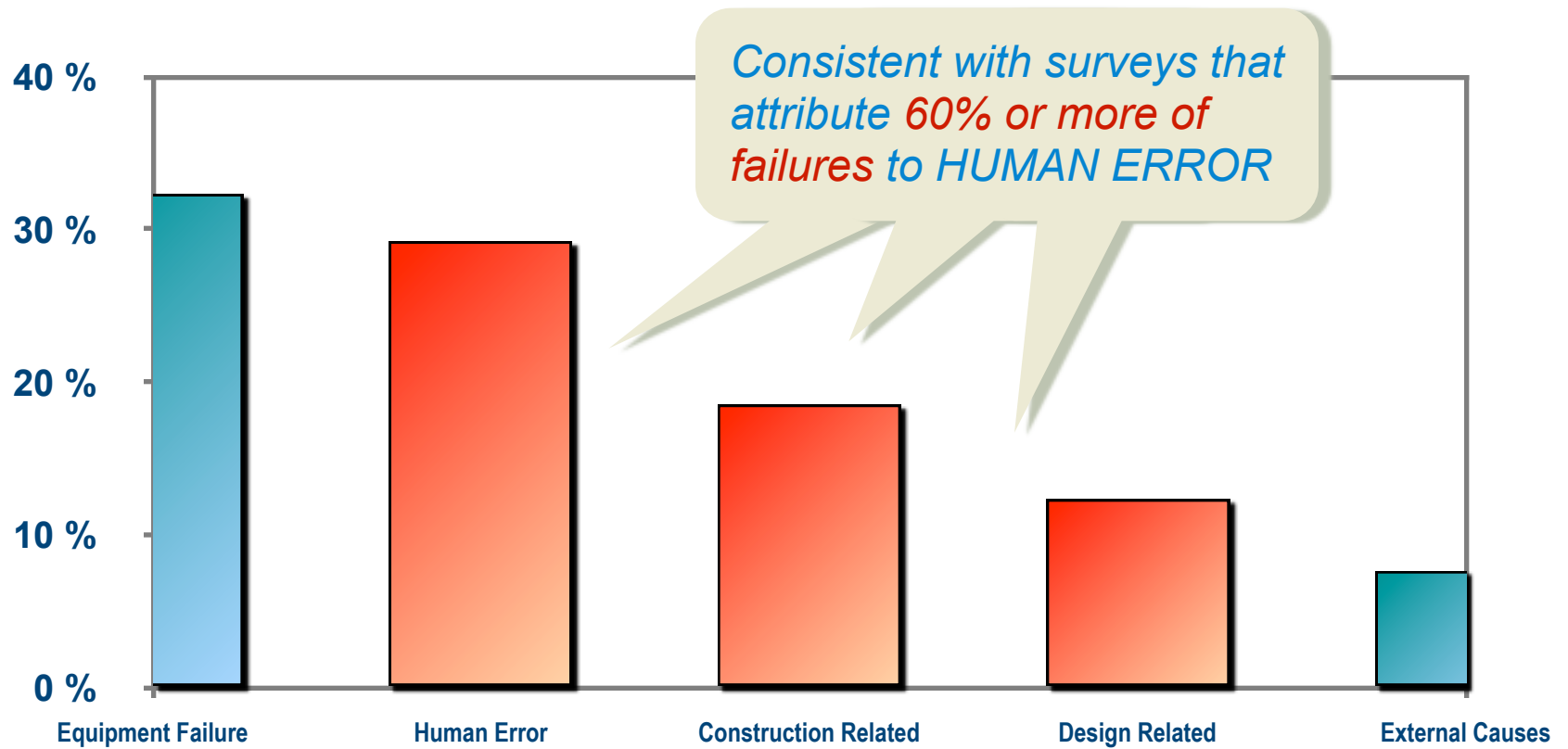
- Corporate with a datacenter
- Hosting/Colo operator
- Disaster/Recovery organisation
- Manufacturer
- Software
- Communications
- IT Services
- Facilities Management
- Construction

# The #1 Issue

- What keeps datacenter executives awake at night?



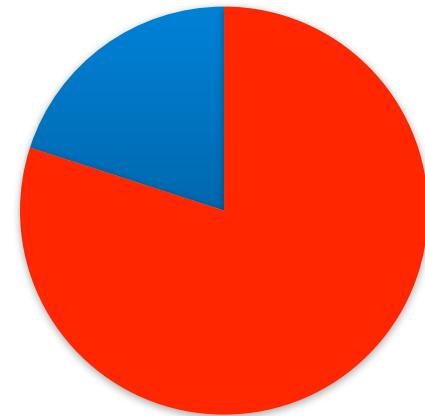
# Human Error





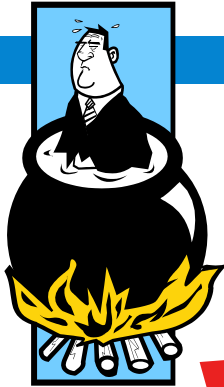
# Human error

- Found to cause 80% of failures in various industries, e.g.
  - Nuclear (Chernobyl)
  - Aeronautical (Concorde)
  - Space (Apollo / Shuttle)
  - Power (US grid 2003)

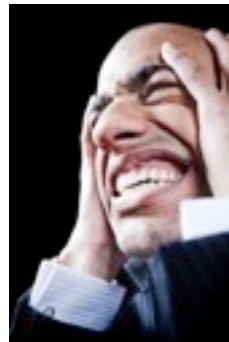


*Duffey & Saull 2008 "Managing Risk: The human element"*

# Response to failure



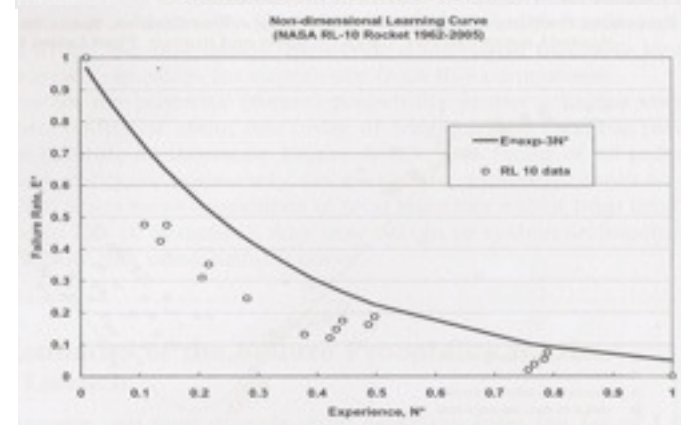
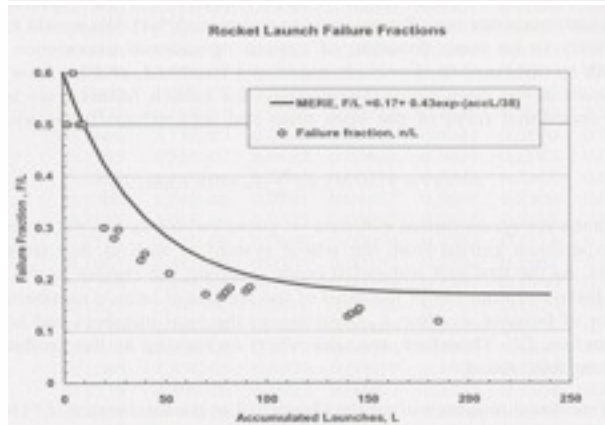
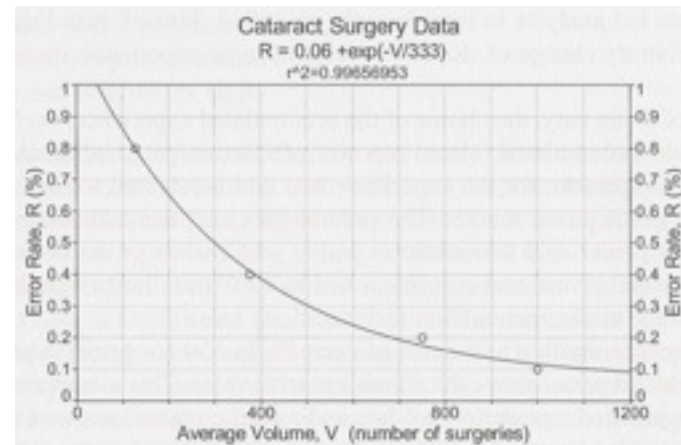
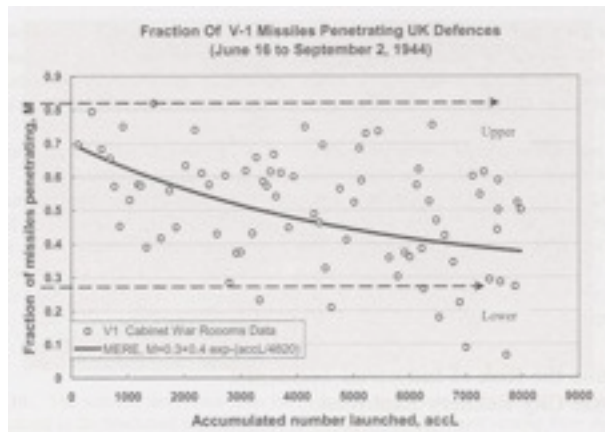
Blame culture: fire people with the relevant experience



Learning Environment: reflect, learn

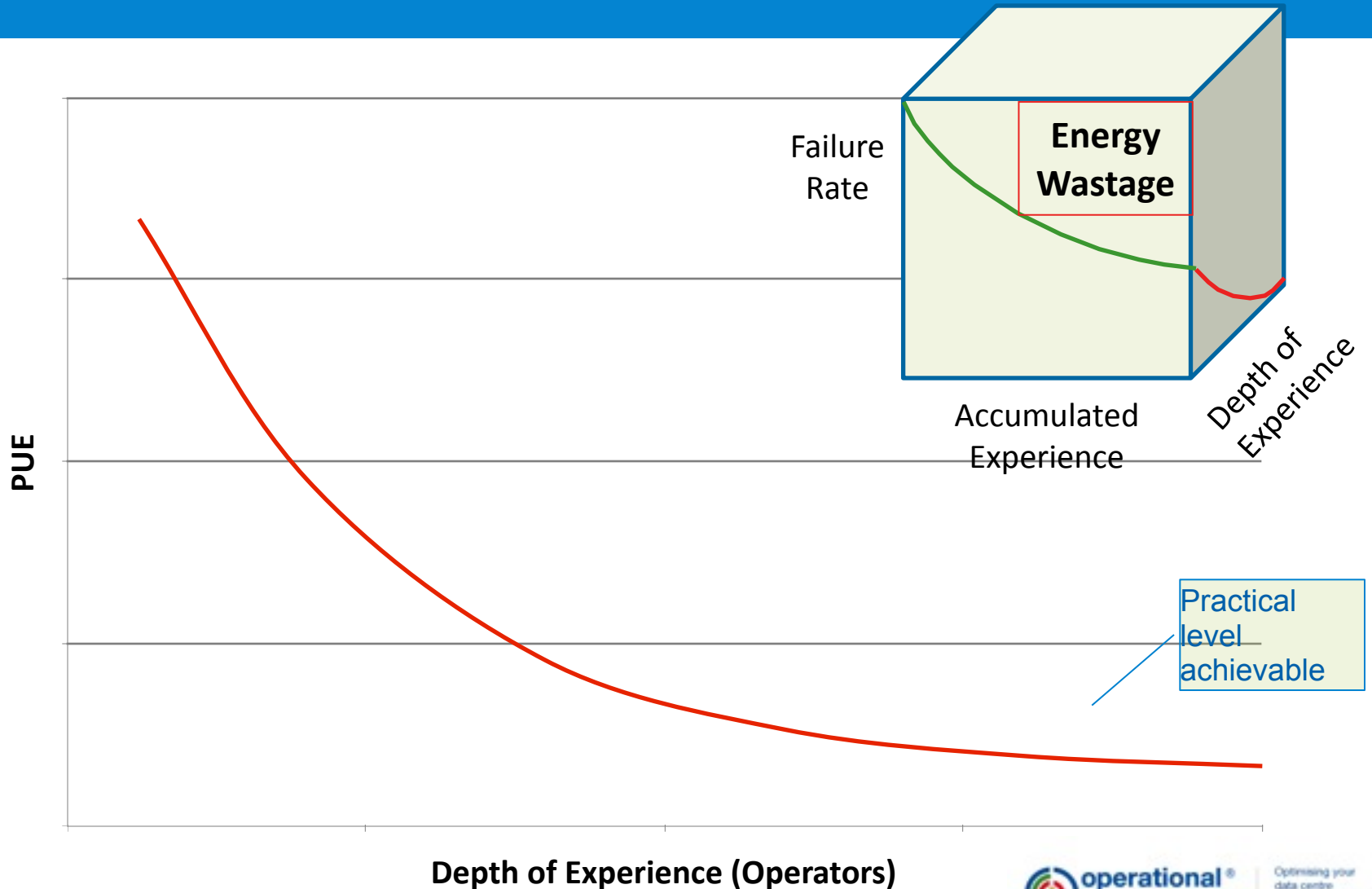


# Learning in different industries

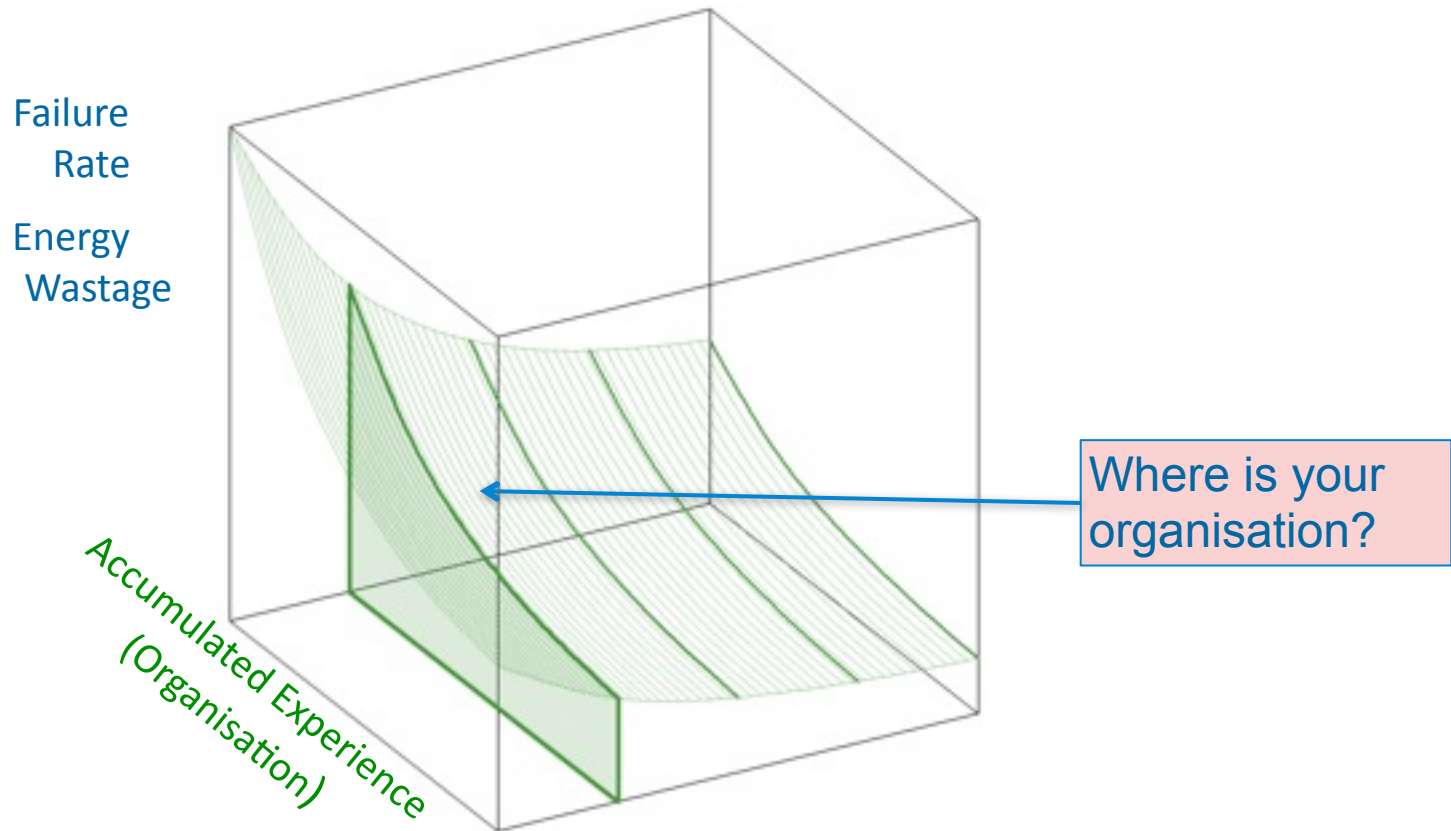


Duffey & Saull 2008, "Managing Risk: The human element"

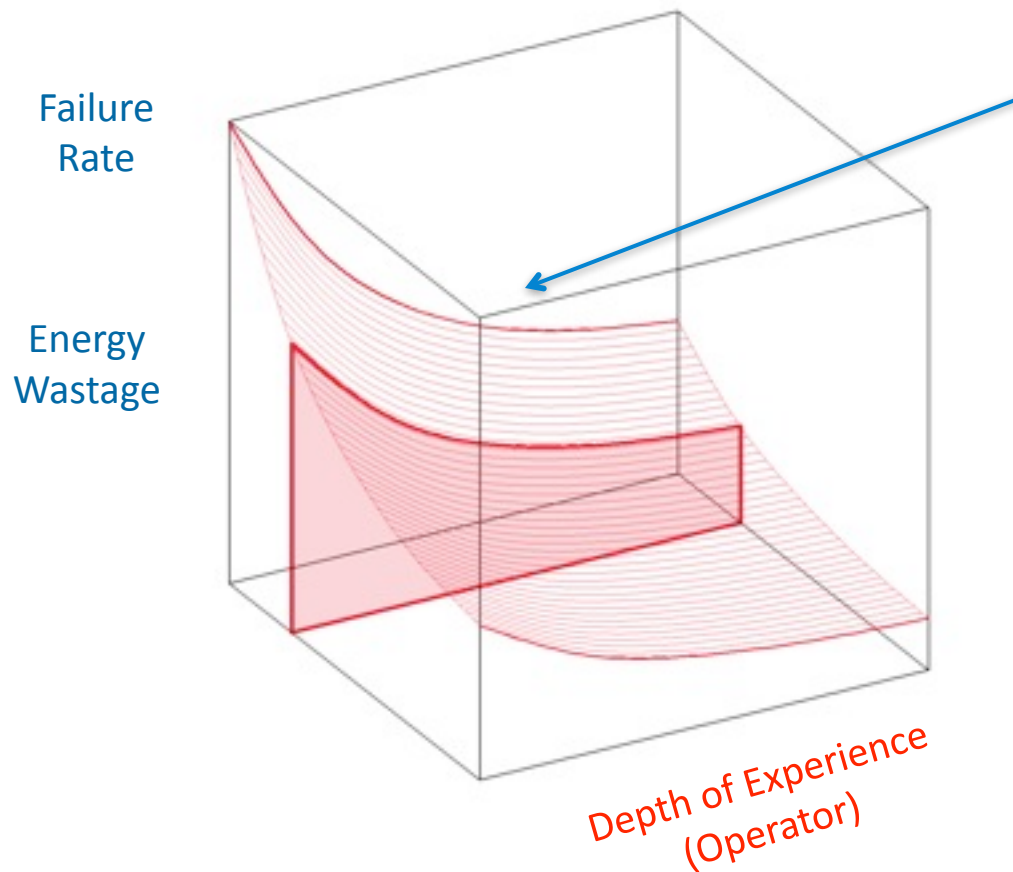
# Depth of experience impact on PUE



# Your learning curve



# Your learning curve



Where are your operators?

# Danger Signs

- 'Everyone makes mistakes'
- 'We are only Human after all'
- 'To Err is Human'

**But in a  
Mission-Critical  
Facility?**

# People for the Datacenter Lifecycle

- Plan
- Design
- Build
- Commission
- Operate
- Manage
- Maintain





# Complexity



- As the level of resilience increases, so does the risk of overly complicated operational procedures.
- The more complicated the procedure, the greater the probability of something going wrong.

# The Key to Success



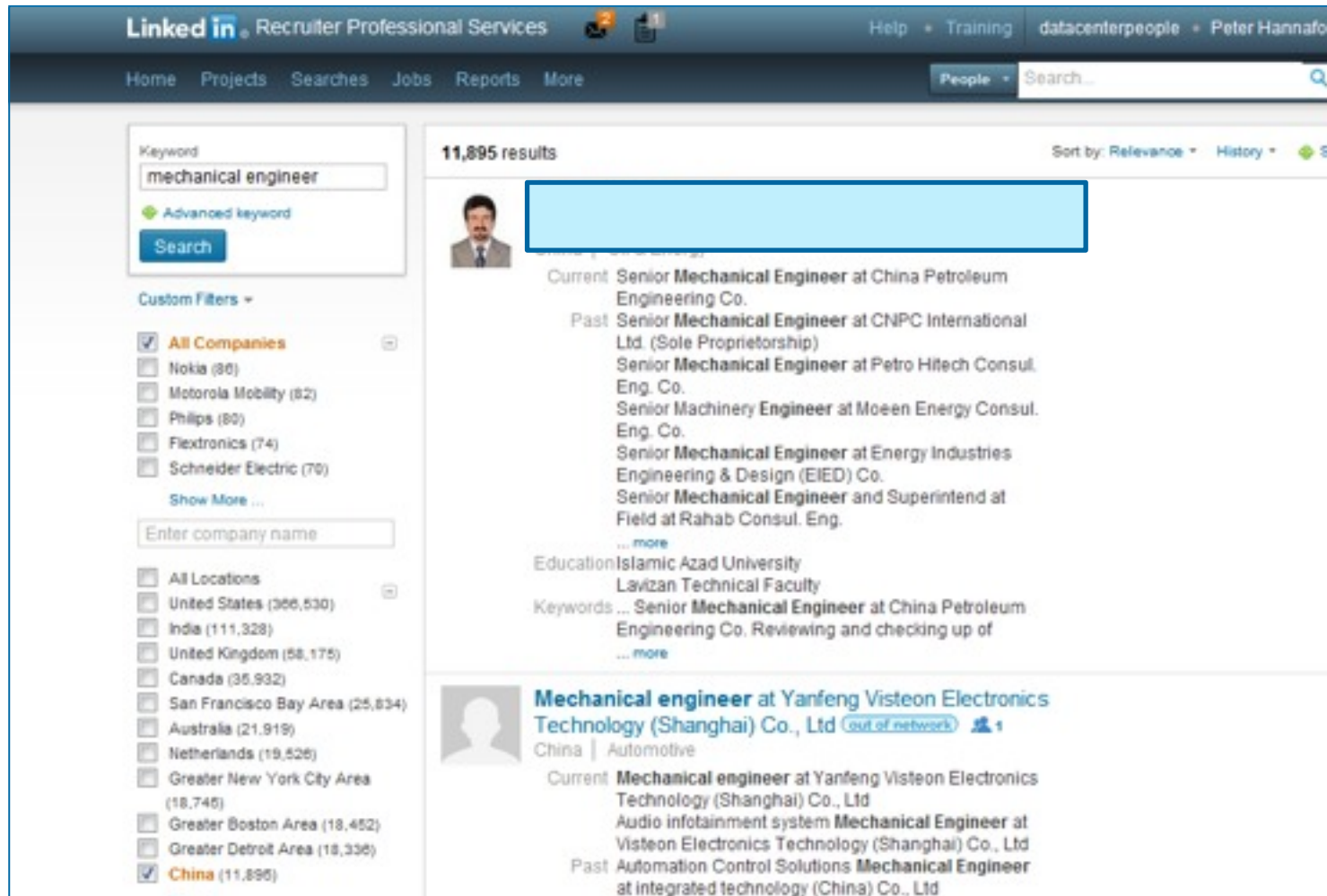
- Finding the right people
- Training the people
- Keeping them at peak performance
- Retaining them

# Finding the right people



- Personal network
- Extended network
- Corporate (internal) databases
- Corporate (external) databases
- LinkedIn
- LinkedIn Recruiter
- Jobs website
- General contingent recruitment company
- Recruitment consultant/headhunter

# LinkedIn Recruiter



The screenshot shows the LinkedIn Recruiter interface. The search bar contains 'mechanical engineer' and the results are sorted by 'Relevance'. The first result is a profile for a Senior Mechanical Engineer at China Petroleum Engineering Co. The second result is a profile for a Mechanical engineer at Yanfeng Visteon Electronics Technology (Shanghai) Co., Ltd. The profile name in the second result is highlighted with a blue box.

LinkedIn Recruiter Professional Services

Home Projects Searches Jobs Reports More

Keyword: mechanical engineer

Advanced keyword

Search

Custom Filters

- All Companies
- Nokia (80)
- Motorola Mobility (82)
- Philips (80)
- Flextronics (74)
- Schneider Electric (70)
- Show More ...
- Enter company name
- All Locations
- United States (366,530)
- India (111,328)
- United Kingdom (58,175)
- Canada (35,932)
- San Francisco Bay Area (25,834)
- Australia (21,919)
- Netherlands (19,528)
- Greater New York City Area (18,746)
- Greater Boston Area (18,452)
- Greater Detroit Area (18,336)
- China (11,895)

11,895 results

Sort by: Relevance History

Current Senior Mechanical Engineer at China Petroleum Engineering Co.

Past Senior Mechanical Engineer at CNPC International Ltd. (Sole Proprietorship)

Senior Mechanical Engineer at Petro Hitech Consul. Eng. Co.

Senior Machinery Engineer at Moeen Energy Consul. Eng. Co.

Senior Mechanical Engineer at Energy Industries Engineering & Design (EIED) Co.

Senior Mechanical Engineer and Superintend at Field at Rahab Consul. Eng.

Education Islamic Azad University Lavizan Technical Faculty

Keywords ... Senior Mechanical Engineer at China Petroleum Engineering Co. Reviewing and checking up of ... more

Mechanical engineer at Yanfeng Visteon Electronics Technology (Shanghai) Co., Ltd [Out of network](#)

China | Automotive

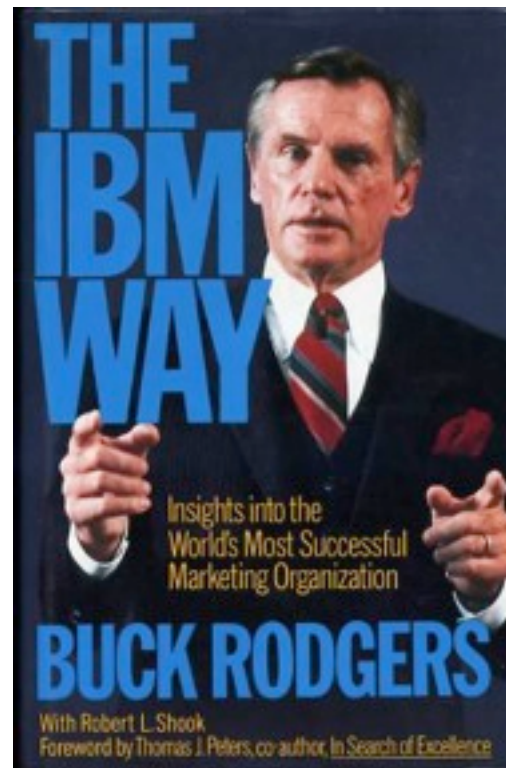
Current Mechanical engineer at Yanfeng Visteon Electronics Technology (Shanghai) Co., Ltd

Audio infotainment system Mechanical Engineer at Visteon Electronics Technology (Shanghai) Co., Ltd

Past Automation Control Solutions Mechanical Engineer at integrated technology (China) Co., Ltd

# Training #1

- Education is not optional
  - ▣ Make it compulsory – no training no bonus



# DC Professional Development



DC Professional Development  
Global Training and Certification Services  
Optimizing People

## Learning & Development Directory 2012

**READER OFFER**  
10% DISCOUNT on all classroom courses PLUS SAVE ONLINE COURSES FREE with all hardware and software purchases. See page 10 for details. **ACT12**

dc-professional.com

DC Professional Development

### A Career Progression Framework for the Data Center Industry

Due to the way that data centers have evolved, their design and operation has created complex interdependencies between the many disciplines that work within them, which can often have a fundamental impact on the efficiency, reliability and availability of what is to most organisations considered critical infrastructure.

Our Career Progression Framework is designed to address the fragmented landscape of learning opportunities that currently exist, and to provide a coherent and accessible pathway for individuals to build on core-skills through to specialist engineering and operations management.

To further recognise the unique skills and experience that flourish within our industry we have developed the Data Center Specialist credential.

**Courses based on ASHRAE TC9.9 books**  
We are working with the TC9.9 committee to produce a series of courses that enable students to understand the various methodologies and best practice guidelines they have published over the last 7 years.  
Course-level website: [www.dcp.com](#)

**IEEE certificate opportunities**  
These courses include IEEE certificate subject materials and as such students are required to attend IEEE examinations.  
IEEE.org for full details

**Datacenter Certified Energy Professionals**  
The DCEP "Save Energy Now" program has partnered with the industry in the development of a process leading to practitioners becoming qualified to evaluate the energy status and efficiency opportunities in data centers. This is commonly referred to as the DCEP program.  
For information on an official course provider, see website for course notes.

**Recommended minimum requirements for course participation**  
The vast majority of the courses on the framework contain required minimum educational/course requirements which are full site relevant. We guarantee a minimum learning outcome from the course. Further education is required where applicable to full site roles of the student, but we do not guarantee other relevant experience or a working background for your IEEE certificate path. Accepting Equivalent courses for level 1.  
If you have already completed some type of formal data center training we can tailor the information as an alternative to taking the Data Center Design Overview course. Please email us at [info@dc-professional.com](mailto:info@dc-professional.com) for further information.

10/11

To gain the DCEP credential a student must complete the necessary hours of classroom and online courses from the framework, then provide detailed project experience, and a full CV with personal references. This information is verified by an external auditor.

**Certificate in Proficiency of Mission Critical Infrastructure**  
100 hours 100

**Level 1**

- 1. Data Center Power Professional (100 hours classroom)
- 2. Mission Critical Network Professional (100 hours classroom)
- 3. Data Center Cooling Professional (100 hours classroom)
- 4. Cost & Energy Storage (70 hours classroom)

**Level 2**

- 5. Data Center Energy Efficiency & Best Practice (100 hours classroom)

**Level 3**

- 6. Data Center Bridge Assessment (100 hours classroom)
- 7. Mission Critical Facilities Management Professional (100 hours classroom)

**Additional Courses**

- 8. Data Center Security
- 9. Data Center Cooling & Humidity Control
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- 100. Data Center Cooling & Humidity Control

# Training #2

- We're in a changing world
  - ▣ Need continuous training



# Staff Retention



- The only lifelong, reliable motivations are those that come from within, and one of the strongest of those is the joy and pride that grow from knowing that you've just done something as well as you can do it.

Lloyd Dobyns and Clare Crawford-Mason, Thinking About Quality

- The only motivation is self-motivation



# Staff Motivation



- “Jack of all trades, master of none”
  - ▣ They possess a rare blend of skills encompassing IT, architecture, electrical and mechanical engineering, security, network connectivity, management software, construction and service delivery
- Move people around
  - ▣ IBM

# Invest in Training

- “What happens if we invest in training and our people quit?”
- What happens if we don't and they stay?



# Thanks for Listening



Peter Hannaford  
Managing Director  
Datacenterpeople Ltd  
+44 8448 005553



[peter.hannaford@datacenterpeople.org](mailto:peter.hannaford@datacenterpeople.org)  
[www.datacenterpeople.org](http://www.datacenterpeople.org)