

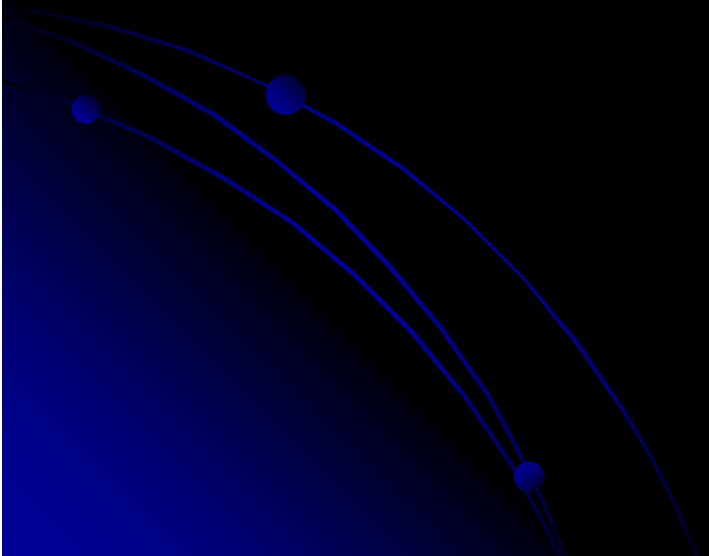
# The Power of Technical Leaders

Presenter: Andrew J. Taylor, Director, Intel Fellows Office



September 1, 2007

# Technical Leader



\*Other names and brands may be claimed as the property of others

# Definition

Leader

Technical  $\approx$  Technologist

*Someone others follow*

*Applies science*

*“Manages” Technology*

“Companies need leaders who do not try to anticipate the future so much as create it.”  
Maccoby, HBR Jan 2000

# Agenda

- Characteristics
- The 4 classic mistakes, solved
- Industry Technical Leader Pipeline practices
- Leadership tools for technologists



# Persevere

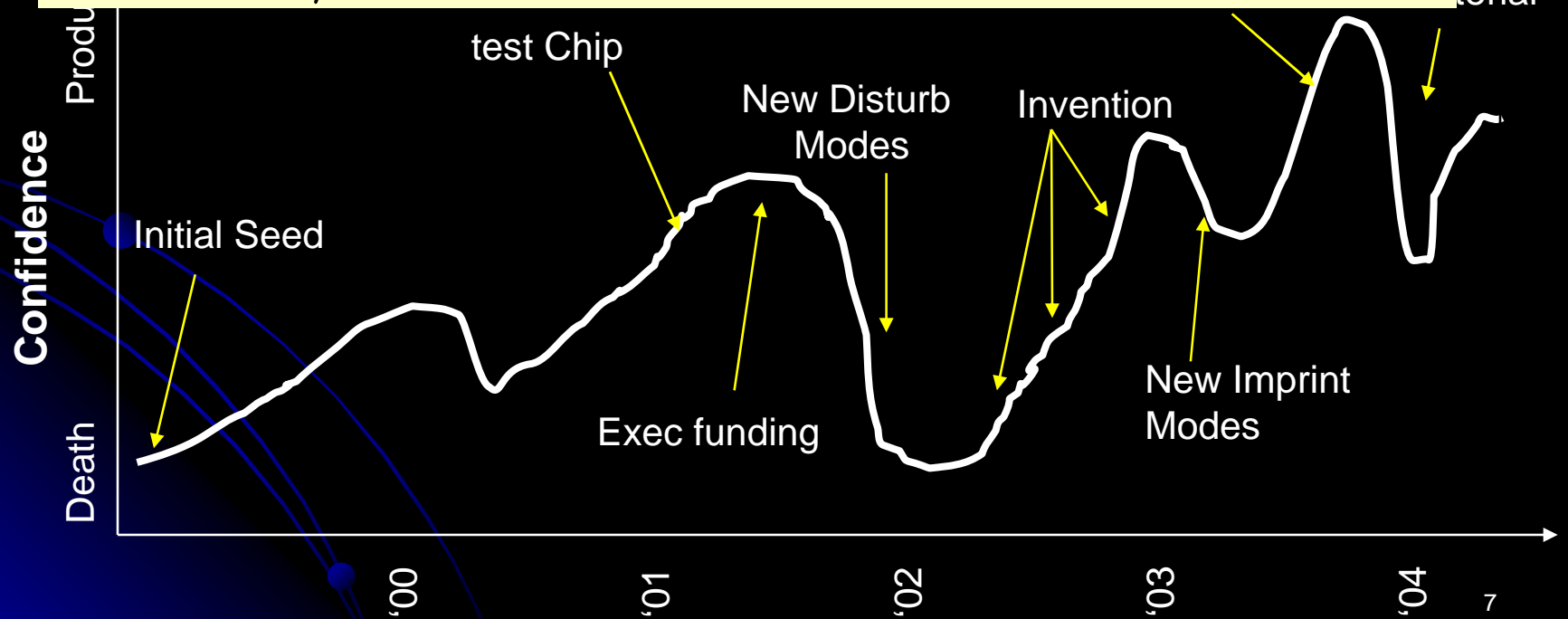


Dr. Mario Paniccia, Intel Fellow  
Director, Photonics Technology Lab

# Not for the Faint of Heart

## Notes to self:

- Don't overreact - seeming showstoppers are often overcome by invention with time. Integrate confidence level over time
- Ask myself: "Would it be a good thing if we had 10 programs with the same risk/reward profile" - if no then stop!
- Help team see big picture in down times
- Run as lean as possible



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# Have An Agenda

*How do you want to change the world?*



**Dr. Shekhar Borkar, Intel Fellow  
Director, Microprocessor Technology Lab**



**Dr. Genevieve Bell,  
Intel Senior Principal Engineer  
Anthropologist**

**The best way to predict  
the future is to invent it.**

**Dr. Alan Kay**



***Corollary: When the future  
gets here, find a new one***

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# Mistake #1: “Why do we need technical leaders?”

- Enthusiastic support at the highest level
- Passion to ensure a long, rich future of technical leadership

- “Get it”

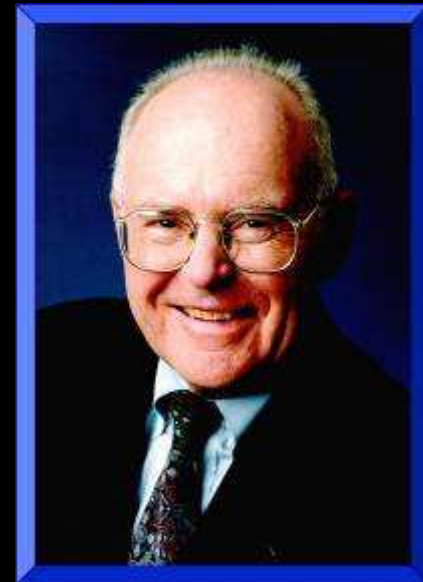
*Retention*

*Seat at the table*

*International*

*Draw talent*

*Results*



**Dr. Gordon Moore**  
**Intel Co-Founder**

Congratulations! You're a \_\_\_\_\_

Fellow  
Distinguished Engineer  
Chief Scientist

**Now What?**

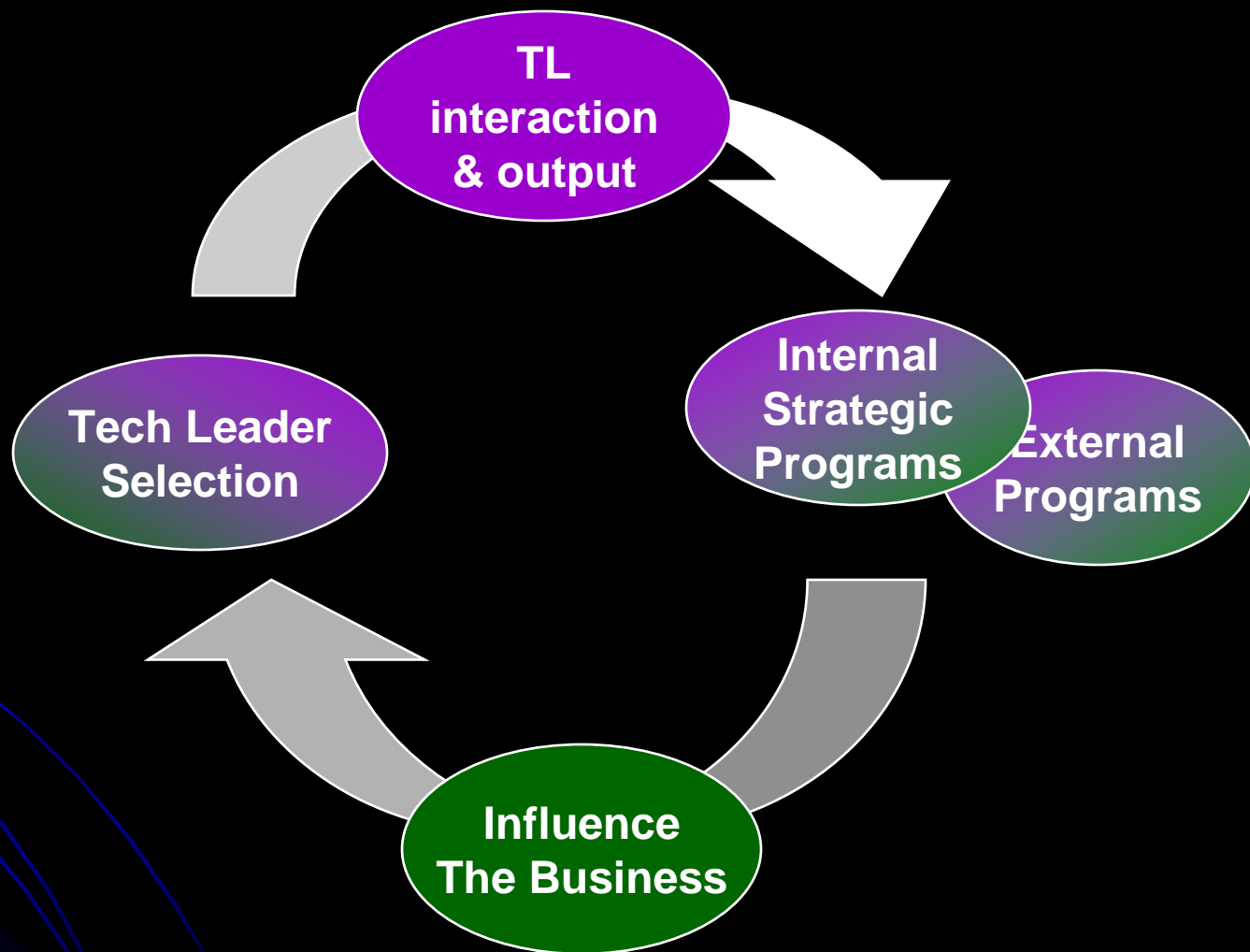
# Mistake #2: Don't Set Clear Expectations

- Strategic input to senior management
- Continued trajectory of scope & impact
- Enterprise and business unit resource
- Company spokesperson in area of expertise
- Customer interface where it makes sense; "to save the day"
- Speak the truth to management
- Mentor
- Take risks
- Connect external resources
- Scan new technology
- Act as a community
- Engage senior management to advance the company's best interests

Mistake #3: Isolate them,  
starve them, dare  
lightning to strike again.



# Model: Increase Technologist Impact



# Mistake #4: Manage them like “employees”

***A manager of technical leaders job is hard!***

- If you love them set them free
- YOU must network at +2 level inside and outside the company; know the next big opportunities
- Create programs & opportunities
- At this level work can occur on a 1-3 year project cycle (or longer)
- Nurture risk and failure:
  - *How technical leaders fail often says more about*

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# Established Technical Leader Programs

Bechtel  
Boeing  
Corning  
IBM  
Chevron  
DuPont  
Ford  
HP  
Intel  
Los Alamos Lab  
Motorola  
Microsoft  
Northrop-Grumman  
P&G  
Texas Instruments  
Westinghouse

## Elements

- Conferences
- Selection
- Guest Speaker
- Community of Practice
- Journals
- Strategic Programs
- Tools
- Scholarship/Grant

# Corporate Anatomy of Technical Leaders

## Roles

- CTO
- Lab Directors
- Research Scientists
- Senior Engineers

## Fit into hierarchy

- Vice President
- General Manager
- Director
- Middle Manager

**Determined by corporate culture**

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# Technical Leader Tools



- Mission Statement
- Elevator Pitch
- Personality styles
  - Myers-Briggs
  - DISC
  - Human Dynamics
- SWOT
- Stakeholder Management
- Customer modeling
- Influencing Skills
- Presentation Skills

**You may already teach many of these skills to managers...**

# Innovate on demand

- There is such a thing as Subtraction
- Innovation is a habit

# What do these items have in common?





“Get a good idea and stay with it. Dog it, and work it until it's done and done right.”

WALT DISNEY

# Disney Innovation Idea Generation “Yes And”

To be successful in idea generation,  
separate ideas from identity.

YES: I acknowledge your idea

AND: collaborative culture that welcomes ideas

Use YES AND to add to an idea

# “Yes And” Activity: Coffee Shop


- 1. Teams of 8**
- 2. Person closest to me offers a new product idea**
- 3. Going around, each person says, “Yes, and ...” to expand or add to the previous idea**
- 4. Each person goes once**



**“Technology leadership comes,  
exactly one way -- through  
having the best, the brightest  
and most visible technologists in  
the world.”**

**— *Pat Gelsinger, Intel  
Senior Vice President***

# Refresher



**Characteristics of technical leaders**  
**Solve the 4 classic mistakes**  
**Tech Leader Pipeline Practices**  
**Tech Leader Tools**

# The Power of Technical Leaders

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<http://industry.fellows.googlepages.com/>

"Top Technical Talent", Farris & Coe

Harvard Business Review, Leadership Insights, 2002

# Thank You