# EMC for Business Managers

### Presented by

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# EMC for Business Managers

This presentation is about communication,
It is about expectations,
It is about humans beings.

This presentation is not about technology,
It is not about physics,
It is not about product design.

## It is about creating success.

# EMC for Business Managers

I was once asked by a
Vice-president of Engineering:

Are all EMC people crazy?

I quickly responded: Yes, every single one of us.

It was a moment of clarity and honesty.
That was when I seriously started thinking
about the disconnect between
upper management and me.

# "What we've got here is failure to communicate."



Image source: Warner Brothers Pictures, Cool Hand Luke
http://www.warnerbros.com/cool-hand-luke

# "What we've got here is failure to communicate."

- Yet where did the communication break down?
- And why did the communication break down?
- Was it due to:
  - Unrealistic expectations?
  - Lack of technical knowledge?
  - Personal confilts
  - Political issues?
  - Cultural content?

# "What we've got here is failure to communicate."



What is wrong with this slide?

Image source: Warner Brothers Pictures, Cool Hand Luke
http://www.warnerbros.com/cool-hand-luke

# Not everyone shares the same cultural content.



Image source: Warner Brothers Pictures, Cool Hand Luke
http://www.warnerbros.com/cool-hand-luke

# This is my cat

- We have very different cultural norms.

- There are things about being human that she doesn't understand.

- And she's not ever going to understand these things. There is no need, she's a cat.

# This is my cat

- Often in the mornings she gets very upset with me.
- You can see it in her eyes as if she's saying:

## That's water.
## You drink water.
## You don't get it all over yourself!

# Executive Management Culture

- They are running a business to make money.
- Their primary interest is in the next quarterly statement.
- They have people to do the technology.

# Executive Management Culture

- They don't need or want to understand the technology.
- Their motivations and culture is about making money, not technology.
- Talk to them in terms of their interest; making money.

# The Art of War

- The Art of War (Chinese: 孫子兵法; pinyin: Sūnzǐ bīngfǎ).
- An ancient Chinese military treatise attributed to Sun Tzu, a high-ranking military general, strategist and tactician, 544–496 BC (traditional).
- The text is composed of 13 chapters, each of which is devoted to one aspect of warfare. It is commonly known to be the definitive work on military strategy and tactics of its time.
- I suggest you read it.

# Sun Tzu

- Sun Tzu 孫子; Sūn Zǐ;
- 6th century BCE, (Before Common Era)
- He was a Chinese general, military strategist.
- The accepted author of the "Art of War".
- Also known as Sun Wu (孫武; Sūn Wǔ), and Chang Qing (長卿; Cháng Qīng).

Source: Wikipedia, the free encyclopedia
http://en.wikiquote.org/wiki/Sun_Tzu
History Channel Full Length Documentary, The Art of War 1:30:33
https://www.youtube.com/watch?v=erZ2YidTZp4

# The Art of War

- "So it is said that if you know your enemies and know yourself, you can win a hundred battles without a single loss."
- "If you only know yourself, but not your opponent, you may win or may lose."
- "If you know neither yourself nor your enemy, you will always endanger yourself."

## Know your management,
## Know yourself,
## and you will get that funding.

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/The_Art_of_War

# The Art of War

- The successful General only seeks battle after the victory has been won. Those destined to be defeated, fight first and then look for victory.

- Always leave a way of escape. Don't put your opponent on "Death Ground" as it will make him strong. He is fighting for his life.

- The skilled General wins without conflict.

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/The_Art_of_War

# The Art of War

1. Calculations; think first
   (Chinese: 始計，始计)

2. The Challenge; work within available resources
   (Chinese: 作戰，作战)

3. Attack by Stratagem; have a plan
   (Chinese: 謀攻，谋攻)

4. Positioning; recognize strategic opportunities
   (Chinese: 軍形，军形)

5. Use of Energy; creativity and timing
   (Chinese: 兵勢，兵势)

6. Illusion and Reality; real and perceived perceptions
   (Chinese: 虛實，虚实)

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/The_Art_of_War

# The Art of War

7. Engaging The Force; the dangers of direct conflict
   (Chinese: 軍爭，军争)

8. Variation of Tactics; flexibility to shifting circumstances
   (Chinese: 九變，九变)

9. Maneuvering; the intentions of others
   (Chinese: 行軍，行军)

10. Situational Positioning; distance, dangers and barriers
    (Chinese: 地形)

11. The Nine Situations; nine common situations
    (Chinese: 九地)

12. The Fiery Attack; know what weapons are available
    (Chinese: 火攻)

13. The Use of Intelligence; network with others
    (Chinese: 用間，用间)

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/The_Art_of_War

# The Thirty-Six Stratagems

- The Thirty-Six Stratagems have been attributed to Sun Tzu, or maybe Zhuge Liang or they could have originated in both the written and oral history of China. We don't know for sure.
  - Chapter 1: Winning Stratagems
  - Chapter 2: Enemy Dealing Stratagems
  - Chapter 3: Attacking Stratagems
  - Chapter 4: Chaos Stratagems
  - Chapter 5: Proximate Stratagems
  - Chapter 6: Desperate Stratagem

Source: Wikipedia, the free encyclopedia
http://en.wikipedia.org/wiki/Thirty-Six_Stratagems

# Start With Why
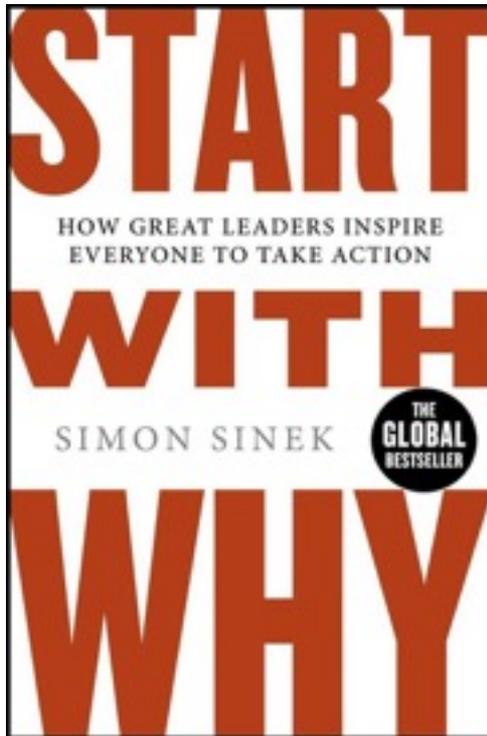
- Most people start with
  **What** then **How** and sometimes **Why**.

- Great Leaders
  Start With **Why**.

Simon Sinek

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Simon_Sinek
Start With Why on Amazon
http://www.amazon.com/Start-Why-Leaders-Inspire-Everyone/dp/1591846447
Simon Sinek on TED: How great leaders inspire action
https://www.youtube.com/watch?v=qp0HIF3SfI4
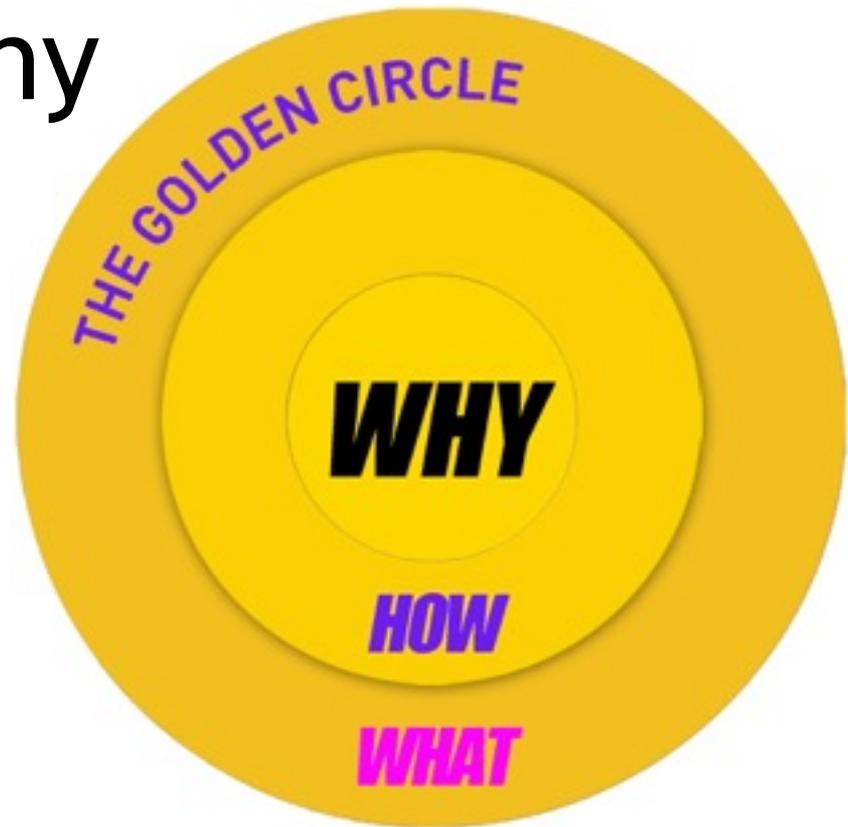
# Start With Why

- People don't buy **What** you do.

  They buy **Why** you do it.

- The Golden Circle:

  - Great leaders communicate, from **Why** to **What**.

  - This is also a cross-sectional map of the human brain.

THE GOLDEN CIRCLE

**WHY**

**HOW**

**WHAT**

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Simon_Sinek
Simon Sinek on TED: How great leaders inspire action
https://www.youtube.com/watch?v=qp0HIF3SfI4

# Dale Carnegie



- Dale Harbison Carnegie (/ˈkɑrnɪgi/; (November 24, 1888 – November 1, 1955).
- American writer and lecturer and the developer of famous courses in self-improvement, salesmanship, corporate training, public speaking, and interpersonal skills.
- Author of How to Win Friends and Influence People (1936).
- I suggest you read the updated version:

  How to Win Friends and Influence People in the Digital Age (2012).

How to Win Friends and Influence People in the Digital Age
http://www.amazon.com/How-Friends-Influence-People-Digital/dp/1451612591
Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/Dale_Carnegie

# Dale Carnegie Quotations:

- "Winning friends begins with friendliness….If you argue and rankle and contradict, you may achieve a victory sometimes; but it will be an empty victory because you will never get your opponent's good will."

- "To get the best of an argument … avoid it."

- "Personally I am very fond of strawberries and cream, but I have found that for some strange reason, fish prefer worms. So when I went fishing, I didn't think about what I wanted. I thought about what they wanted."

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/How_to_Win_Friends_and_Influence_People

# "Creating a Want"

- "There is only one way…to get anybody to do anything. And that is by making the other person want to do it."

Your management will
make the decision.
Create a want in them to
do what you need done.

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/How_to_Win_Friends_and_Influence_People

# Dwight D. Eisenhower

- Dwight David "Ike" Eisenhower (pronounced /ˈaɪzənhaʊər/, eye-zən-how-ər; (October 14, 1890 – March 28, 1969).
- The 34th President of the United States from 1953 until 1961.
- He was a five-star general in the United States Army during World War II and served as Supreme Commander of the Allied Forces in Europe.



Source: Wikipedia, the free encyclopedia
http://en.wikipedia.org/wiki/Dwight_D._Eisenhower

# Eisenhower Quotations:

"Pull the string, and it will follow wherever you wish. Push it, and it will go nowhere at all".

Your management will make the decision.

Don't be pushy,

Don't be preachy,

Pull them into the decision.

Make them feel like it was their idea.

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# Find something to agree on

- When you are nose to nose with someone that does not share your opinion, find something to agree on.

- It can be almost anything, but it is best if it is related to the issue in conflict.

- Then as you continue, look for further opportunities to agree and bring attention to these points of agreements.

- Pay Attention to nonverbal signals (Body Language).

# Find something to agree on

- The idea is to first build a positive connection with your opponent.

- And then show "concern" for the subject where there is disagreement.

- Prove to your opponent and the audience that you are a likable person and reasonable.

- Then and only then resolve the disagreement.

# The Executive Presentation

- Allow and encourage your management chain to help with the slides.
  - This gives them a feeling of control.
  - Encourage that feeling of control.
  - Act as if they are in control even though you are guiding them to the decision you need.
  - Remember: you need their support.

# The Executive Presentation

- First and last, thank them.
- Keep the presentation very short.
- One title slide.
- Fifteen minutes / six content slides.
- Use the corporate formats and logos.
- <u>No</u> technical detail.
- Use the language of management not technology. For example "incorporate" rather than "include".

# The Executive Presentation

- Leave in assertive content for them to take out. Allow them to say no. Don't make the decision for them.

- If you have a reputation for technical skills, tell then at the start of the presentation the presentation is about business issues <u>not</u> technology.

- Look and act professional and strong.

- Smile, be friendly and connect with the executives.

# The Executive Presentation

- Encourage the executives to enter into discussions.

- Pay attention to their discussions adapting your remarks to the interests shown by the executives.

- Find a way to agree with what they are saying.

# The Executive Presentation

- Know deep inside that you are going to win.
- Fake it to make it, if necessary.
- Attitude is everything!
- People can sense your attitude.
- Choose your attitude wisely.
- For further information on the power of attitude see the Charles Swindoll Attitude quotation.

Charles Swindoll Attitude quotation

http://thinkexist.com/quotation/the_longer_i_live-the_more_i_realize_the_impact/296740.html

Source: Wikipedia, the free encyclopedia

https://en.wikipedia.org/wiki/Chuck_Swindoll

# The Executive Presentation

- Most people will support strength and attack weakness.

- It is your posture, personal style, and attitude that shows strength or weakness.

# Win because you know you are going to Win.

# The Executive Presentation

- Make specific proposals with implied financial returns.

- See the SMART criteria:

Specific

Measurable

Assignable

Realistic

Timely

- Do not provide overly specific dates or monetary values to define later success.

Source: Wikipedia, the free encyclopedia
https://en.wikipedia.org/wiki/SMART_criteria

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# The Executive Presentation

- You must internalize the realization that it is their decision
- And the executives must know you understand that it is their decision.
- Some timely silence is okay for effect, stand quietly and erect.
- Have faith in yourself.

# The Proposal

- Training
  - The Physics of EMC for the Electrical Engineer, 2 days.
  - EMC Essentials for the Non-Engineers, 4 hours.
  - EMC Essentials for Product and Program Management, 4 hours.

# The Proposal

- Equipment
  - Equipment for the Electrical Engineers; Network Analyzer, Spectrum Analyzer and other capitol equipment.
  - Crash Kit for the EMC specialist, see EMI Troubleshooting Cookbook by Ken Wyatt and Patrick Andre. Available on Amazon.

    http://www.amazon.com/EMI-Troubleshooting-Cookbook-Product-Designers/dp/1613530196

  - See their Espresso Engineering TV video:

    https://www.youtube.com/watch?v=8wlsZ078WLA

# The Proposal

- Ask for:
  - EMC to be incorporated into the design process.
  - Risk Assessment rather than a design review.
  - EMC Risk Assessments to be performed;
    - Before layout starts.
    - During PCB component placement.
    - Before PCB fabrication.
    - For all new components.

# The Proposal

- Ask for:
  - Give them one free turn to pass EMC.
  - In advance set an expectation for the cost of a single EMC test sequence.
  - Measure Out-of-Plan EMC testing costs; missed lab dates, non-conformances, etc.
  - First Pass EMC Yield to be measured and reported for each product.

# The Proposal

- Ask for:
  - Encourage early testing of first development prototypes
    - With minimal software functionality.
    - Don't count this testing in the
      - First Pass Yield measurement or,
      - Out-of-Plan EMC testing costs.

# The Proposal

- Ask for:
  - Executive Management to communicate expectations:
    - Reducing the costs of Out-of-Plan EMC testing.
    - Improving the First Pass EMC Yield.

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by

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# Thank You