How to become a Distinguished Engineer

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Warwick Technical Vitality Event

What is a Distinguished Engineer?

- Top technical achievement in IBM apart from IBM Fellow

- 160 IBM Fellows in 40 years; one in Global Services (Maurice Perks)
  - "All other men are specialists, but his specialism is omniscience"

- 265 DEs so far in 4 years
  - Will stabilise around 500

- Band D, Technical Executive

DE – Corporate Appointment

- Appointment by Nick Donofrio, Senior VP, Technology and Manufacturing

  For Outstanding Technical Contributions and Leadership

- Executive behaviour - enabling people to act

Disclaimer

- There is no nice neat career path to becoming a DE
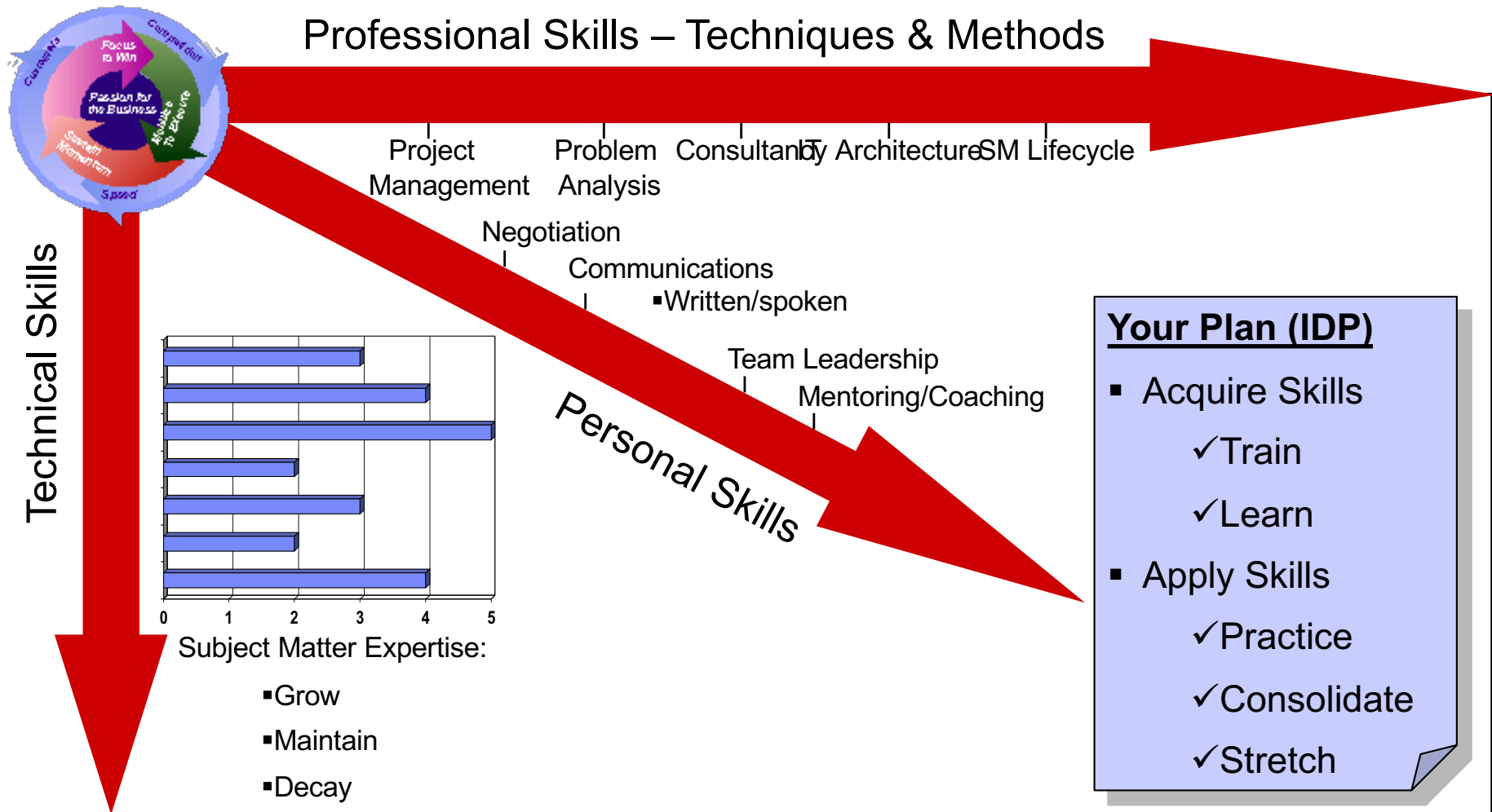 - Every DE I know is unique

- This pitch is my view of what you need to develop to become a senior technical leader

- Other DEs may have different views

Agenda

- Skills – Technical, Professional, Personal

- Attributes technical leaders need to develop

- Technical Leadership Competencies
  - Derailment Factors

A Balanced Approach to creating the development plan (IDP) requires us to focus in 3 main areas

Professional Skills – Techniques & Methods

Technical Skills

Project Management

Problem Analysis

Consultancy

IT Architecture

SM Lifecycle

Negotiation

Communications
- Written/spoken

Team Leadership

Mentoring/Coaching

Personal Skills

Subject Matter Expertise:
- Grow
- Maintain
- Decay

Your Plan (IDP)
- Acquire Skills
  - ✓ Train
  - ✓ Learn
- Apply Skills
  - ✓ Practice
  - ✓ Consolidate
  - ✓ Stretch

The 'T-Shaped' person combines depth in certain areas of expertise with broad experience

| Project Management	UNIX	Enterprise Systems	Networking	Retail Industry	IT Architecture	Systems Management

Breadth:

- Range of differing experiences
- 'Big picturing' ability
- Super generalist
- Generally sought out for opinions
- Keeps up to date across the topics
- Knows how to learn and filter
- Business and commercially aware
- Good personal networking

IP Networking

Network Security

Internet Banking

Depth:

- Deep knowledge of a few relevant topics
- Connected to the 'leading edge'
- Level 4-5 in skills terms
- IT Industry connected in the topic
- Leader in 'networks' in their community

We need to operate out of our 'comfort zone' to further our skills and capability
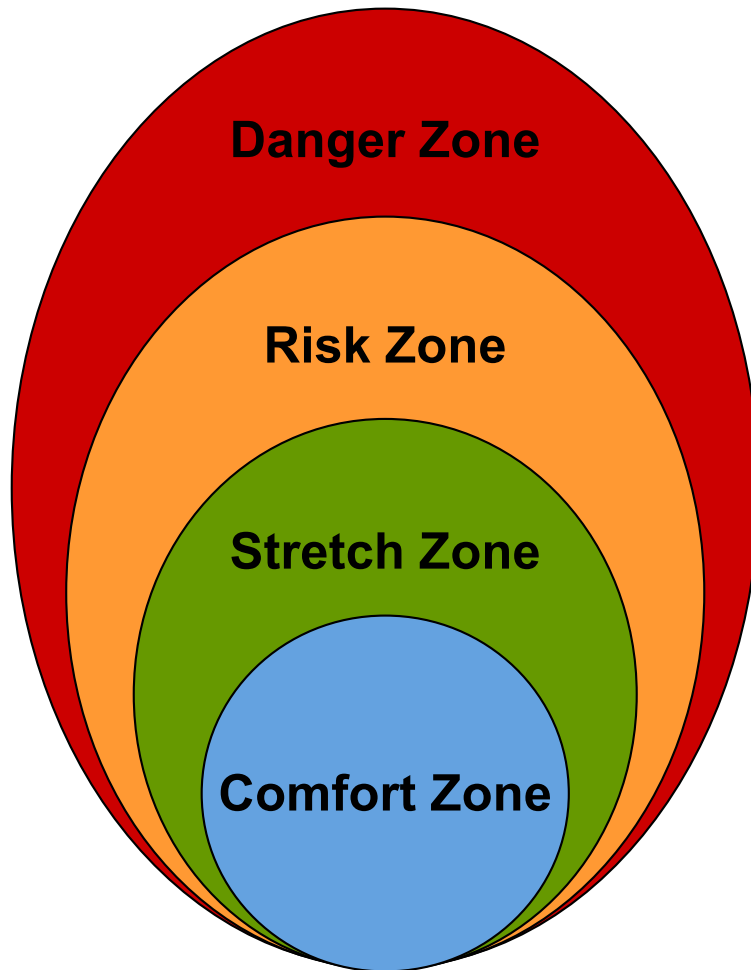
- Danger Zone
  - Don't go there!
  - Learn to know if you are there!
  - ..then know how to get back into a safer zone

- Risk Zone
  - You need the right equipment to operate here

- Stretch Zone
  - Aim to be here the majority of the time

- Comfort Zone
  - Challenge yourself!
  - Get out of there!

Characteristics of a Technical Leader

- Has breadth – is 'T-shaped'

- Adaptable
  - To changes in customers, technology, organisation

- Decisive
  - The wrong decision is better than no decision
  - Timing is important

Characteristics of a Technical Leader

- Optimistic

  - Part of having a positive outlook

  - Optimistic that in IBM someone always knows the answers

- Curious

  - Learn the main characteristics of new things

  - As you broaden you can't learn the detail

  - Worth while spending some of your own money on your education

Attributes

- Honest

  - Builds trust in colleagues, customers

  - Professional integrity essential for long technical life

- Courageous

  - Forsake the comfort zone; go where you fear to venture

  - Speak out; have a position on important matters

  - Don't be a moral coward

- Modest

  - There's always someone brighter than you

  - Techies hate an arrogant smartarse

Attributes

- **Cheerful**

  - Takes less effort to smile than to frown

- **Firm, but not obnoxious**

- **Committed**

- **Influential**

  - Comes from <u>sustained</u> track record of delivering

  - From the exercise of professional judgement; from trust

Attributes

- Responsive

- Drive and persistence
  - Beware, ambition can be a two edged sword

- Learns from mistakes
  - Hopefully, mostly others' mistakes
  - "the man who never made a mistake never made anything"

- Customer Safe
  - Maintain correct amount of discretion with customers
  - Don't argue with colleagues in front of customers

Things to develop

- **Personal Network**

  - IBM is the ultimate matrixed company

  - A good network is essential

  - Do people favours; you get them back multiplied

- **Sponsorship**

  - Business and technical sponsors

  - More than one of each

  - Beware of being identified too closely with one sponsor

- **Trust**

  - Deliver for people

  - If somebody senior takes the trouble to ask you to do something – do it and go back directly and promptly

 - This is very important

Things to develop

- Visibility
  - Need to be known by senior folk
  - For the right reasons
  - Two edged sword – forget the quiet life

- Teaming
  - Teams produce better output than individuals
  - Teams need empathy, give and take

- Commercial Awareness
  - Contracts and negotiation
  - How IBM operates in the marketplace and the implications for you

- Negotiation skills

Things to develop

- Financial Awareness
  - Capital, expense, depreciation, VAT, NBV, etc

- Root Cause Analysis Skills
  - Never be satisfied till you have an explanation
  - An unresolved problem usually comes back; beware complacency
  - Needs ability to step back and see wider picture

- Clarity
  - Be clear about what you want, what you do
  - Reduce uncertainty

- Ability to think on your feet
  - Essential as you go higher and get more unexpected challenges
  - Some people prefer to reflect before speaking (good!)

Things to develop

- **Self Awareness**

  - So you can minimize faults and maximize strengths

- **Empowerment**

  - Better to ask for forgiveness than permission; but not too often

- **Innovation and Creativity**

  - These can be taught

  - Hard work, otherwise we'd do more of it

- **Reuse Culture**

  - Faster, easier to reuse than invent

  - Innovation – putting existing things together creatively

- **Ability to prioritise**

  - There's a difference between immediate and important
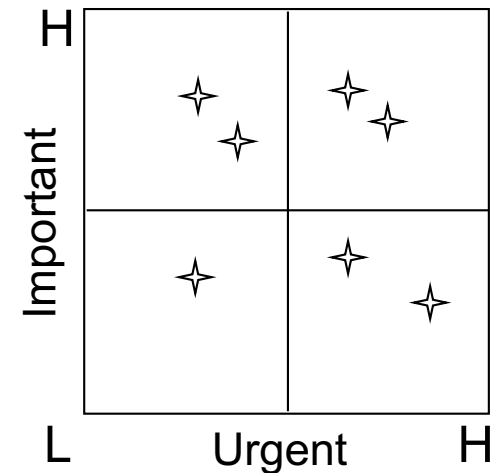
Communication Skills

- Vital – in danger of becoming a lost art

- Must communicate in terms recipient can understand
  - Put yourself in the other person's shoes
  - Explain technical ideas simply to business persons
  - Jargon is useful but only if both parties understand it

- Understand difference between spoken, email, written communication

Communication Skills

- Get your grammar, spelling, arithmetic right
  - Sloppy work takes attention away from your message
  - Get a (literate) colleague to proofread, review your important documents

- Avoid the common mistakes
  - "Its" is a possessive pronoun
  - "It's" is short for "It is"
  - "There" and "Their" are often confused

- Prepare well for meetings, presentations
  - First items on agendas should be easy to agree
  - But sometimes you have to wing it, think on your feet

People are Different!

- Myers-Briggs – 16 personality types
  - Extrovert - Introvert
  - Sensing - Intuitive
 - Thinking - Feeling
  - Judging - Perceiving

- Different personality types react differently
  - Need different stimuli, persuasion
  - Have dominant characteristics, behaviours
  - You need to understand, deploy your non-dominant behaviours

Circles of Concerns, Influence

- Stephen Covey – 'Seven Habits of Highly Effective People'

Circle of Influence

Circle of Concern

Circle of Influence

Circle of Concern
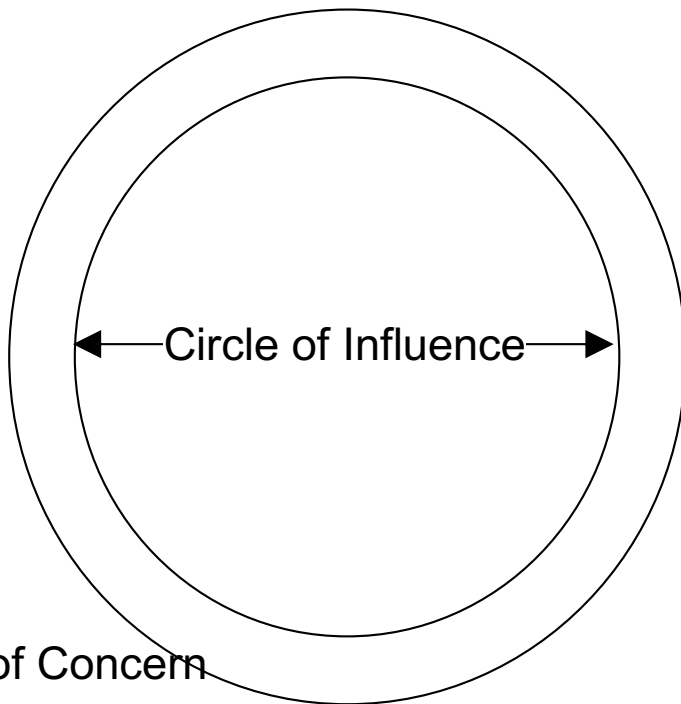
Focusing on what you can influence puts energy into worthwhile places
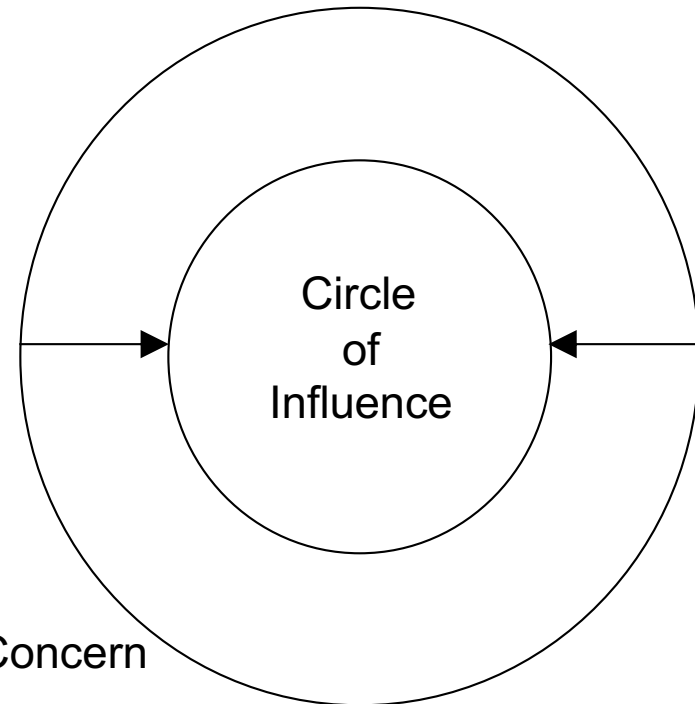
Focusing on what you cannot do anything about and what might happen in the future wastes resources

Image

- "For the apparel oft proclaims the man"

- Think about the image you project through your appearance

- Do you look as if you're in the comfort zone?

- Do you look as if you want to get on?

Other Important Things

- Do what IBM needs you to do
  - May not be attractive in short term; builds your credibility
  - Don't say (too often) "that doesn't fit my career plan"

- Own and drive your own career; joint responsibility with IBM, but…

- Get a mentor; be a mentor

- Get accredited, certified in an IBM Profession

- Do giveback
  - Expands your network
  - Rewarding in itself; vital for senior levels

Further Important Things

- Join a professional body – IEE, BCS, IEEE CS etc

- Be known outside IBM – for the right things

- Work life balance

  - You don't become a technical leader on 37hrs per week

  - Have outside interests

- Time management

  - Leave time for the unexpected

- Say "Thanks" often

Further Important Things

- Have a role model
  - Imitate his/her good attributes

- Don't be afraid of looking, sounding like an idiot
  - It comes with thinking outside the box

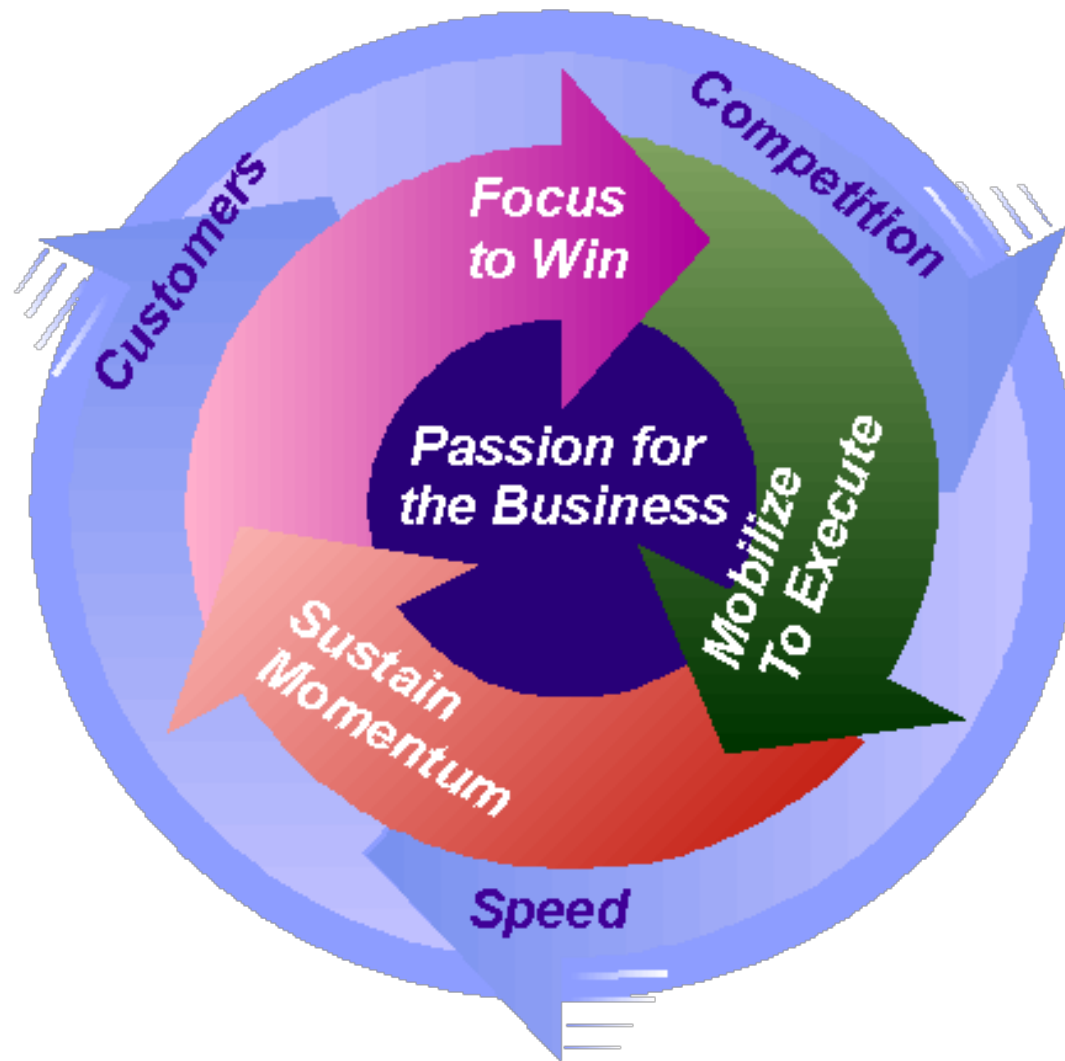- Give the credit to the team; take the blame yourself

- Be the right person in the right place at the right time

- "Politics" are inevitable; in IBM and customers
  - You can't ignore them
  - Learn to deal with them but don't play them (too often)
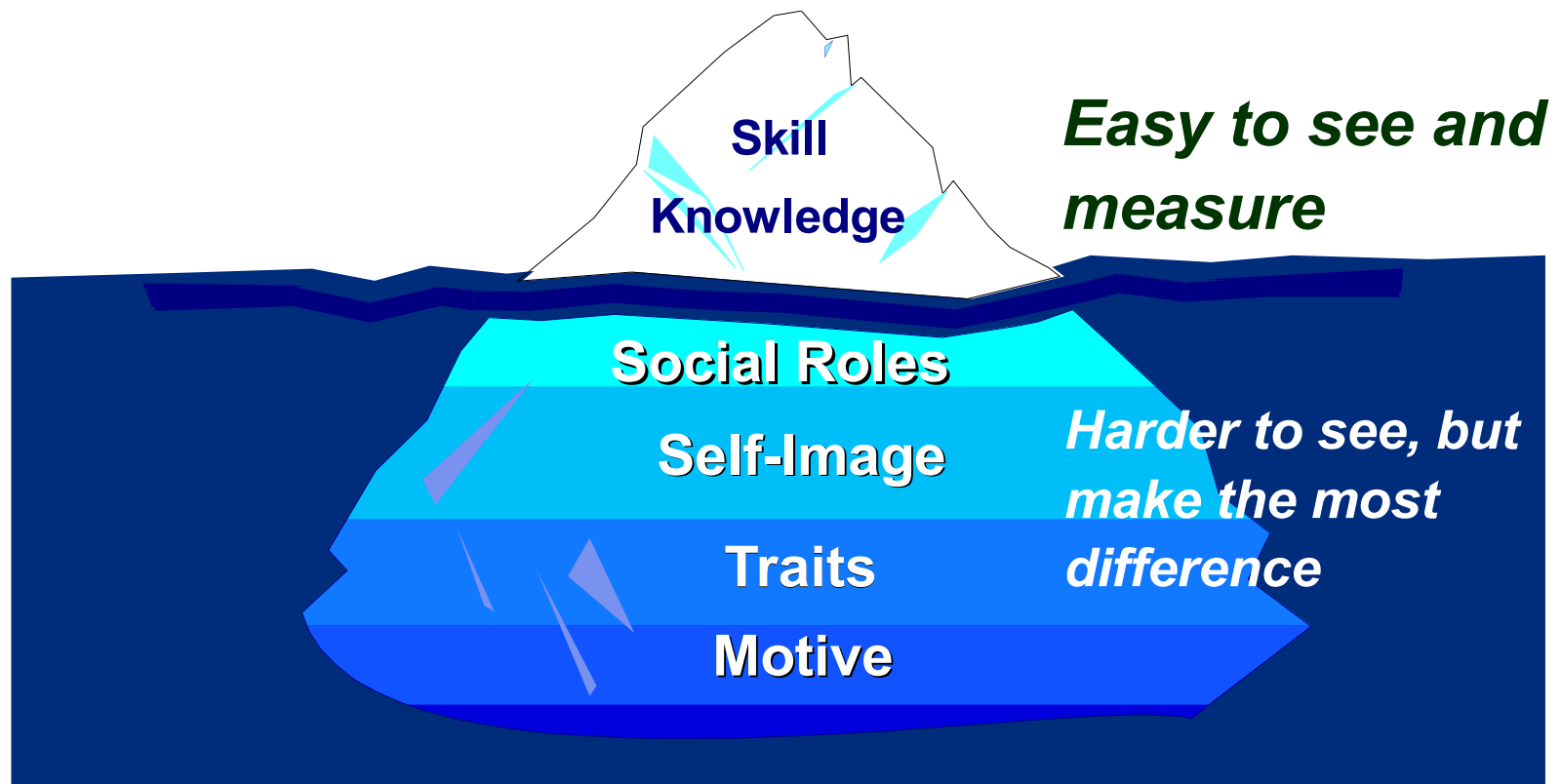
Further Development Things

- Turn every adverse circumstance to your advantage

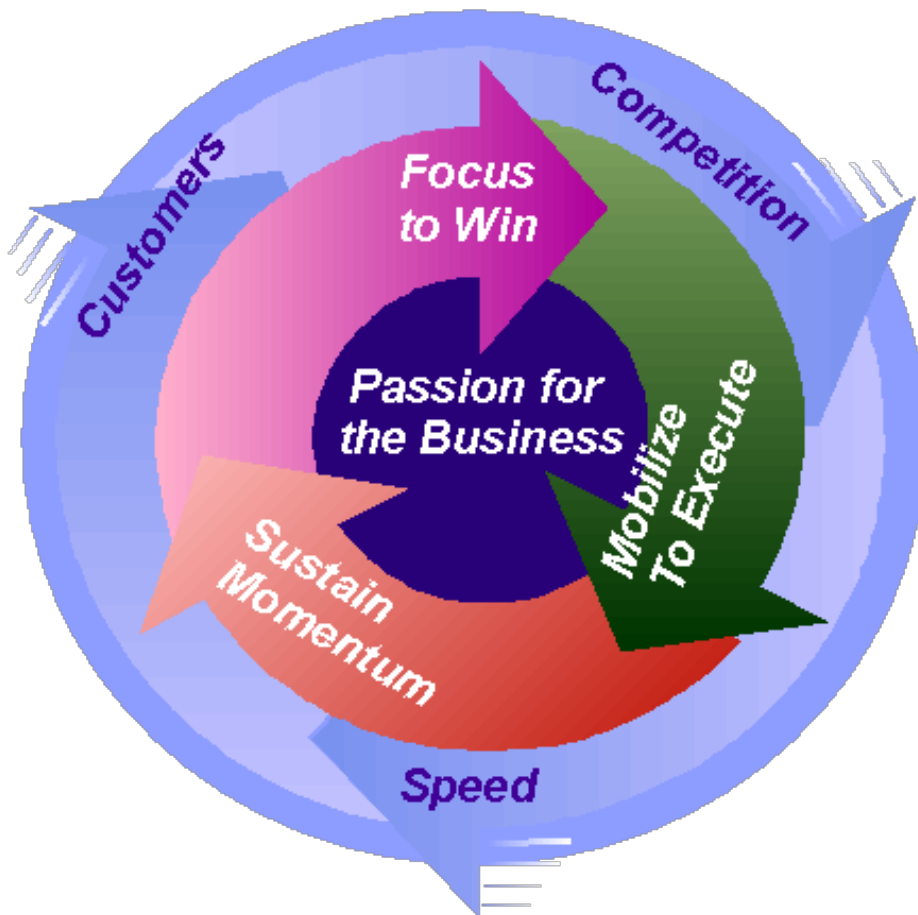# Technical Leadership Competencies

Hugh Varilly | 5/1/24

Leadership competencies go deeper than what is visible to the eye

- Leadership competence: Any demonstrated characteristics or behaviour of a person that differentiates outstanding from more typical performance in a given job, role, organisation or culture.

Skill

Knowledge

Easy to see and measure

Social Roles

Self-Image

Traits

Motive

Harder to see, but make the most difference

Source: Hay/McBer.

It takes all four categories to make a successful leader

Focus to Win

- Customer insight
- Breakthrough thinking
- Drive to achieve

(entrepreneurial-like hunger)

Mobilize to Execute

- Team leadership
- Straight talk
- Teamwork
- Decisiveness

Sustain Momentum

- Building organizational capability
- Coaching
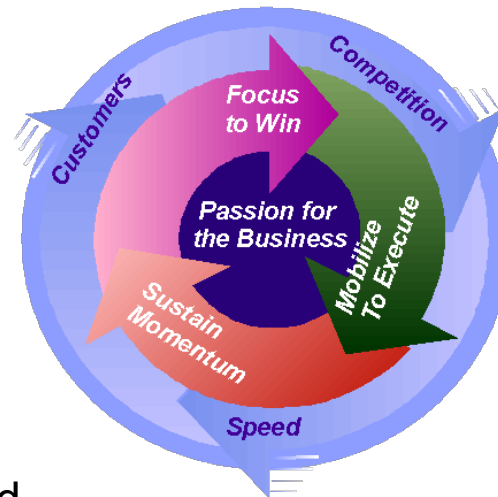- Personal dedication (IBM first)

The Core

- Passion for the business
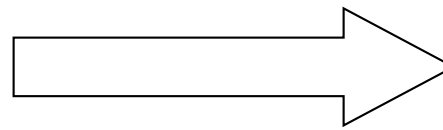
IBM Technical Leader Development Model
http://w3-1.ibm.com/hr/execdev/coe_cm_ass_strength.shtml

- Varied Job Experience
- Start-Ups
- Exposure to Corporate
- High Stakes Assignments
- Managing People
- Customer Contact
- Relationships
- Task Force Work
- Work External to IBM
- Learning from Failures and Mistakes
- Managing Across IBM Groups

- Customer Insight
- Breakthrough Thinking
- Drive to Achieve
- Team Leadership
- Straight Talk
- Team Work
- Decisiveness
- Building Organisation Capability
- Coaching
- Personal Dedication
- Passion for the Business

Eleven Key Experiences → **Competencies Developed**

Derailment Factors

- An early warning system for potentially career-limiting behaviours

- Characteristics or tendencies that can stall or derail a leader's career: blind spots, over-reliance on strengths, success going to one's head, or having obvious, untested areas (i.e. challenges never faced)

- Avoiding derailment is as important to career management as enhancing competencies

Derailment Factors

- **Personal Inhibitors**

  - Reluctant Learner

  - Lacking Self-Awareness

  - Life/Work Imbalance

  - Poor Self-Control

- **Interpersonal Inhibitors**

  - Interpersonal blunders

  - Overdependence

  - Lack of follow-through/untrustworthiness

- **Organizational Inhibitors**

  - Difficulty Making Strategic Transitions

  - Failure to Perform

  - Organizational Missteps

Derailment Factors: Personal Inhibitors

- **Reluctant Learner**

  - Closed to learning new approaches/skills, even when faced with new challenges

  - Unable or unwilling to adapt to change; inflexible

  - Negative, pessimistic outlook; first reaction to new ideas is to state all the reasons they will not work

  - Lacks resilience – the ability to bounce back from failure/setback

- **Lacking Self-Awareness**

  - Lacks self-insight and self-knowledge

  - Fails to seek or respond to personal feedback – sees even constructive feedback as threatening

  - Unaware of one's impact on others; lacks empathy – the ability to read people's reaction and see their perspective

Derailment Factors: Personal Inhibitors

- **Life/Work Imbalance**
  - Difficulty establishing boundaries between work and personal life
  - Stressed and overextended, impacting job performance; strong candidate for burnout

- **Poor Self-Control**
  - Unable to modulate one's own action in appropriate ways – prone to making inappropriate outbursts and loss of temper
  - Overuse of extreme or bad language
  - Overreaction to disappointments or setbacks

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Derailment Factors: Interpersonal Inhibitors

- **Interpersonal blunders**

  - Abrasive, intimidating/bullying style – leaves a trail of bruised people

  - Coarse and inappropriate

  - Caustic, sarcastic, belittling tenor to conversations

  - Overly ambitious; seen as self-promoting

- **Overdependence**

  - Over-reliance on the sponsorship of powerful others – not seen as independent

  - Has been with the same manager and/or subordinates too long and too often

  - Relies on one core talent or technical/functional skill

- **Lack of Follow-through/Untrustworthiness**

  - Betrayal of trust

  - Failing to keep promises/commitments

  - Saying one thing and doing another

Derailment Factors: Organizational Inhibitors

- **Difficulty Making Strategic Transitions**

  - Doesn't think strategically and broadly; gets mired in details and tactics

  - Difficulty making the transition from technical specialist to generalist, integrator role, broad technical leader mindset

- **Failure to Perform**

  - Handles difficult situations poorly

  - Does not take a stand on controversial or unpopular business issues

  - Unable to grasp quickly what should be done next

  - Has moved too quickly and too often to have long-term, meaningful business impact

- **Organizational Missteps**

  - Cannot navigate complex organizational waters

  - Shares sensitive information and opinions with inappropriate people

  - Failure to appreciate organizational realities

Best Advice I got inside IBM

- "Sit and Listen"

Best Bit of Advice

And these few precepts in thy memory

Look thou character. Give thy thoughts no tongue,

Nor any unproportion'd thought his act.

Be thou familiar, but by no means vulgar;

The friends thou hast, and their adoption tried,

Grapple them to thy soul with hoops of steel;

But do not dull thy palm with entertainment

Of each new-hatch'd, unfledg'd comrade. Beware

Of entrance to a quarrel; but, being in,

Bear't that th' opposed may beware of thee.

Give every man thine ear, but few thy voice;

Take each man's censure, but reserve thy judgement.

Costly thy habit as thy purse can buy,

But not express'd in fancy; rich, not gaudy;

For the apparel oft proclaims the man,

And they in France of the best rank and station

Are most select and generous, chief in that.

Neither a borrower, nor a lender be;

For loan oft loses both itself and friend,

And borrowing dulls the edge of husbandry,

This above all: to thine own self be true,

And it must follow, as the night the day,

Thou canst not then be false to any man.

- Shakespeare: Hamlet Act I, Scene iii, Polonius advice to Laertes

Next Best Bit of Advice

- "Get a life!"

    - Megan Varilly

Useful References

- Seven Habits of Highly Effective People – Stephen R Covey

- The Mind Set series of books, videos – Tony Buzan

- A Whack on the Side of the Head – Roger van Oech

- Winning through Innovation – Tushman and O'Reilly

- Troubled IT Projects – John M Smith

- Technical Leadership Competencies –on Tech Vitality site
  - https://servicesim.portsmouth.uk.ibm.com/technical_vitality/

- Straight and Crooked Thinking – Robert H Thoules

- Technical Leadership Team Newsletter – effective writing

Thanks for Listening

- I hope this was useful

- Please give me feedback
    - Constructive criticism is always the best kind