



Mastering Complexity

Assessment Technology for Talent Management
and People Due Diligence

Dr Tuvia Melamed

TMelamed@ClearWater-UK.com

2 Pear Tree Way; Wychbold; Droitwich Spa; WR9 7JW

01527 861123 ● ● ● 07739 285710

www.ClearWater-UK.com



Skills Audit Framework

$$\mathbf{P} \Rightarrow f(\mathbf{A} \times \mathbf{M})$$

Performance is a *function* of **A**bility & **M**otivation



Overplaying M (Motivation)

- ④ Organisational language
 - No mountain is too high
 - With the right attitude you can achieve anything
 - If you set your mind to achieve it, you will
- ④ Symptoms
 - Promotion beyond level of capability
 - Surprise and dismay for not achieving goals

The Reality of PfAM

Overplaying A (Ability)

- ④ Organisational language
 - We are a leading-edge company
 - Our products are better than anyone else
 - World-class
- ④ Symptoms
 - All ideas, no real action
 - Issues with implementation
 - Paralysis by analysis



Influences & Inspiration

Stratified Capability

*Elliott Jaques
Gillian Stamp*

Supra Competencies

*David McClelland
Victor Dulewichz*

Intelligence Models

*J. Welton; P. E. Vernon; J. P. Guildford
Jean Piaget*

PfAM

Individual Differences

*Raymond Cattell
Robert Hogan*

Cognitive Biases

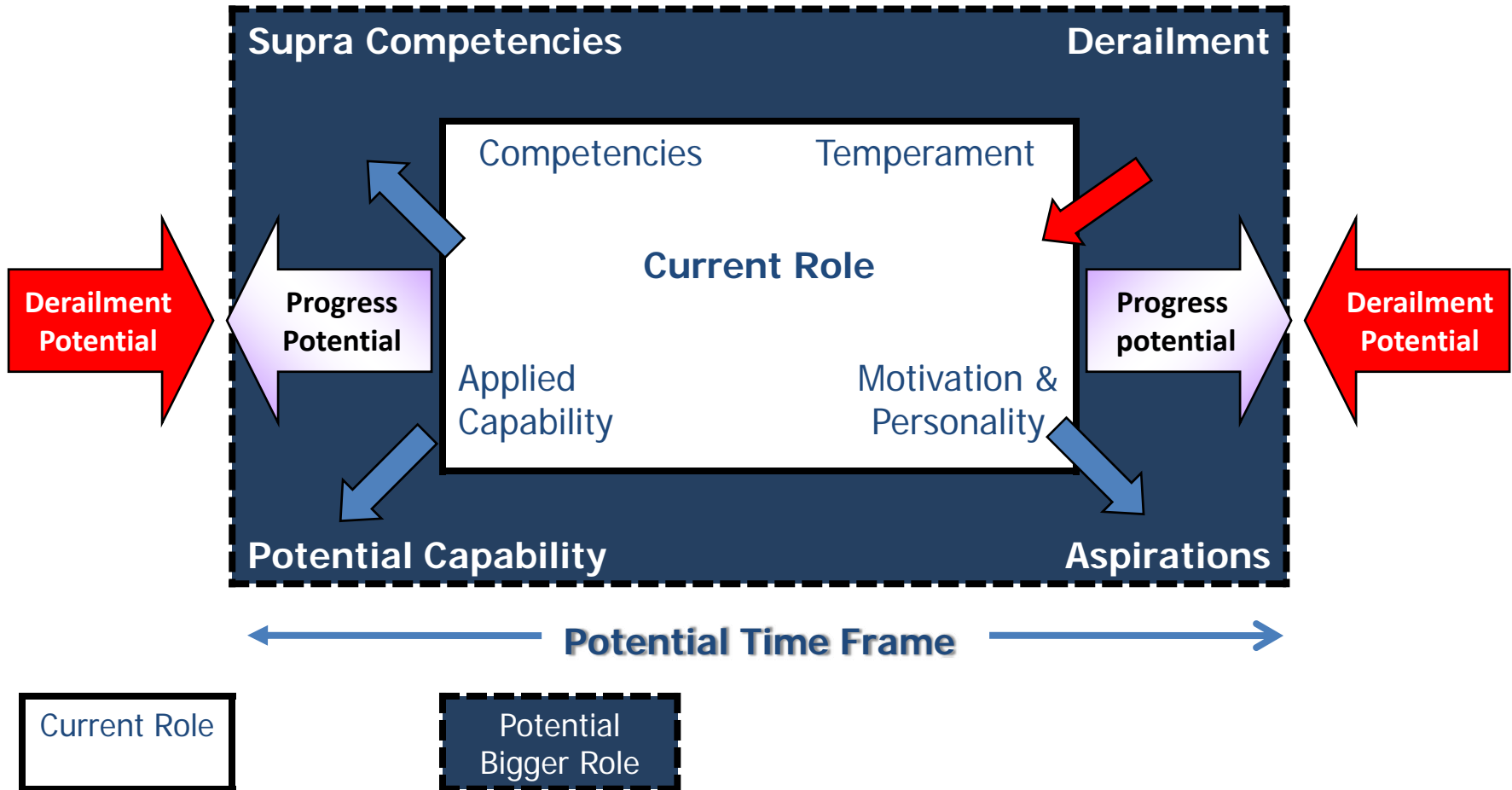
*CIA Studies (Richards Heuer)
D. Kahneman & Amos Tversky*

A-Players

*Jack Welch
Bradford Smart*



Expanded Assessment Model



3 aspects of Potential: Capability, Progress, Time



Departure from Current Thinking

PfAM

Contemporary Thinking

Discontinuous and distinct steps in human capability	Evolutionary nature of human capability
Empowerment spray throw out of kilter 75% of work compositions	More empowered workforce
Complexity of Business Decision Making	Academic Intellect (IQ)
Divergent Processes & Evaluation	Convergent Processes
Behavioural reasoning	Verbal, numerical, diagrammatic, and abstract reasoning
Supra Competencies	Job-specific Competencies



PfAM Principles

<p>There are 8 discontinuous and distinct layers of potential capability</p>	<p>People develop by discontinuous periodic jumps (rather than linearly) from one complexity state to the next</p>
<p>The 8 layers are universal and cuts across organisations, industries, and nations</p>	<p>Layers are benchmarked across all industries and sectors</p>
<p>The ability to handle complexity is not static. It matures with age in a predictable manner</p>	<p>4 complexity progression paths: (a) Reactive, (b) Expert, (c) Generalist, (d) High Potential</p>
<p>Level of work complexity should be in line with the person's potential capability</p>	<p>Complexity in organisational roles corresponds with complexity of mental processes</p>
<p>Managers should be 1-layer removed from direct reports in role and potential capability</p>	<p>All direct reports should be at the same layer in role complexity and potential capability</p>



Complexity Model

Role Complexity
Global
Strategic – Global
Strategic
Tactical – Strategic
Tactical
Operational – Tactical
Operational
Support

Level	Mental Processing Complexity
8	New World Thinking
7	Reconstructive Thinking
6	Transformational Thinking
5	System Thinking
4	Divergent Thinking
3	Convergent Thinking
2	Affirmative Thinking
1	Retrieval Thinking



PfAM Model

Super Corporation CEO	Construct and implement worldwide strategic plans in the largest of the world's corporation	Global	8	8	New World Thinking	Originating – Propel universal knowledge systems to uncharted territory	Imagination – Absent and non-existent knowledge systems
Corporate CEO	Construct and implement worldwide strategic plans. Place businesses in the world	Strategic – Global	7	7	Reconstructive Thinking	Absent – Challenging the foundations of existing knowledge	Elusive Dynamism – Dynamic and changing systems of information
MD	Lead the accumulated impact of multiple business units	Strategic	6	6	Transformation Thinking	Inference – Transforming global info systems to optional pathways	Transformations – Altering or reframing abstract concepts
VP; Director	Optimise the function of a single business unit or corporate support staff	Tactical – Strategic	5	5	System Thinking	Calculated Guessing – Deducing conceptual pathways as future routes	Implications – Diverse perspective on order of multiple concepts
General Manager	Manage multiple, interdependent serial projects. Balance resources among departments or projects	Tactical	4	4	Divergent Thinking	Accretion – Accumulating Inter-linked concepts to reconstruct new	Systems – Sequence, ordering or classification of relations
Departmental Manager	Plan and carry out sequential projects while considering contingencies and alternatives	Operational – Tactical	3	3	Convergent Thinking	Interplay – Reframing the interplay among multiple concepts	Relations – Order and connection between concepts
Supervisor; First Line Manager;	Accumulate pieces of information to diagnose problems. Pro-activity appears. Trends noticed	Operational	2	2	Affirmative Thinking	Conclusion – Judging likely impact of internal and external factors	Classes – Classification of information to groups
Administrator, Shop Floor Operator	Follow predefined procedures; seek help when facing an obstacle. Not expected to anticipate issues	Support	1	1	Retrieval Thinking	Consequential – Tracing secondary order effect of factors' impact	Units – Single pieces of independent information



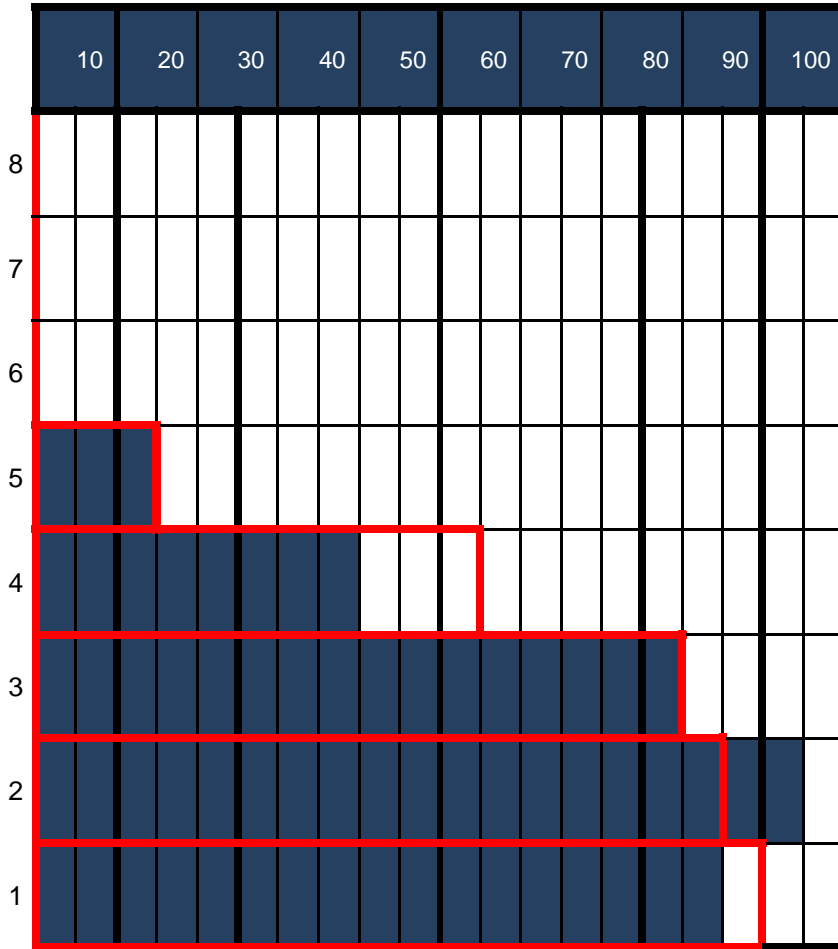
Complexity Level Profile

		10	20	30	40	50	60	70	80	90	100	
		No	Limited Evidence		Partial Evidence			Solid Evidence			Good Evidence	Strong
8	New World											
7	Reconstructive											
6	Transformation											
5	System											
4	Divergent											
3	Convergent											
2	Affirmative											
1	Retrieval											

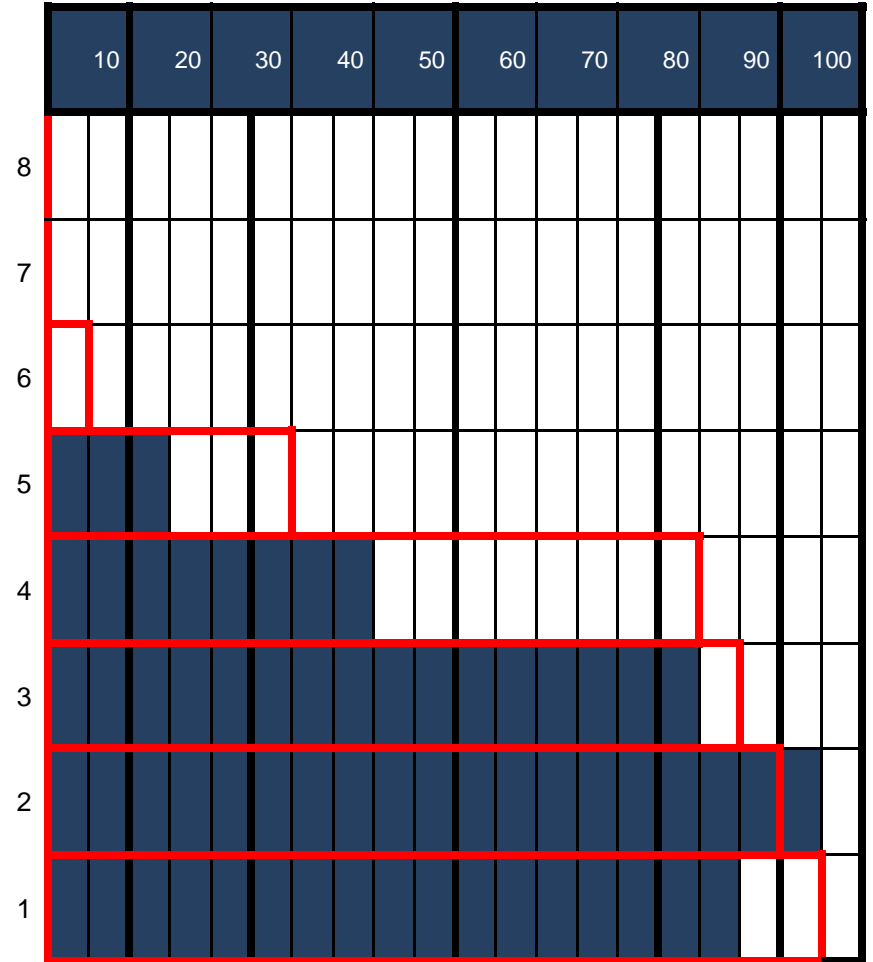
An Example of a Typical Applied Capability Profile



Capacity to Perform at a Higher Grade



Complexity Requirements:
Head of Function role


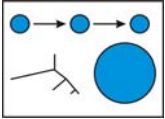

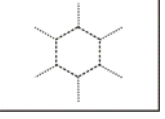
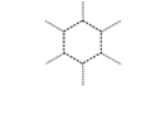



Complexity Requirements:
Director Level role

1st Aspect of Potential



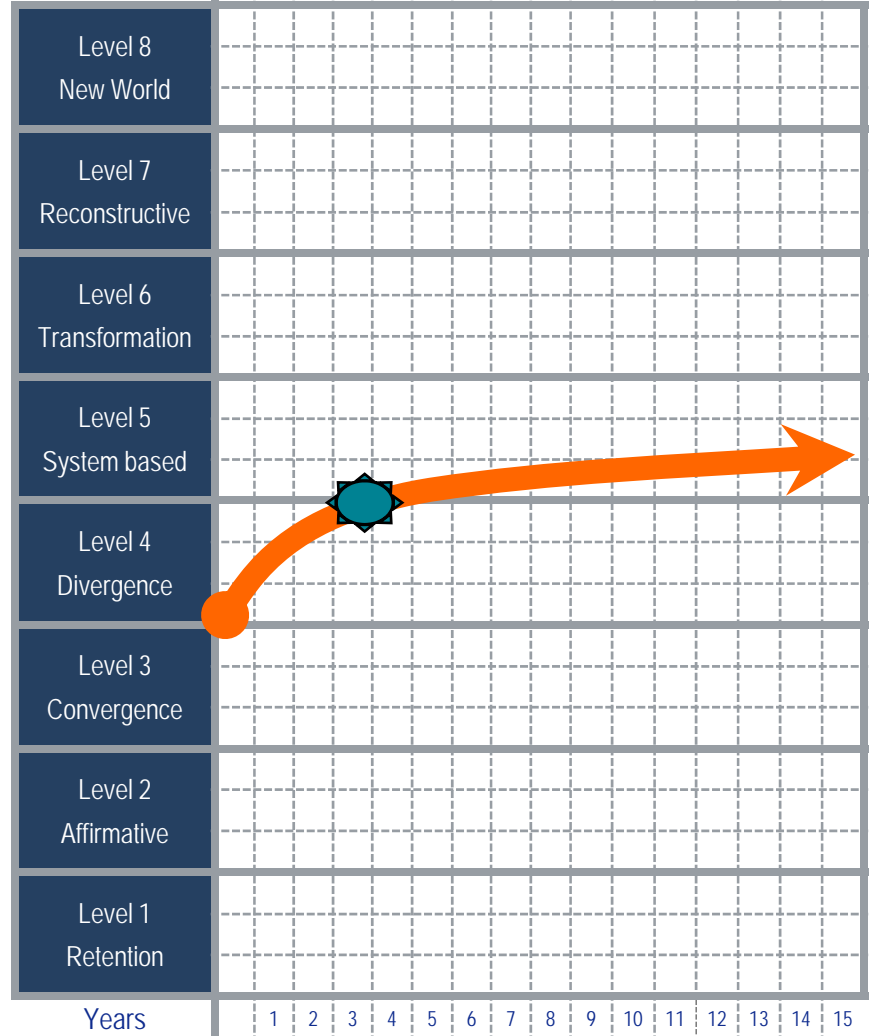
Future Potential

<p>Pure Operational: A focus on single, separate, and isolated elements in a highly structured environment ● Tangible and concrete information ● A fragmented, detailed approach ● Exploration of independent issues one at a time</p>	<p>GOOD EVIDENCE</p>	
<p>Diagnostic: Linear sequences and causality ● Either-or decision tree structures ● Categorization of symptoms for diagnosis ● Tangible focus ● Use of best practices, thorough knowledge and past experience</p>	<p>STRONG EVIDENCE</p>	
<p>Tactical: Co-ordination of structural elements within a system ● Interactions between tangible elements ● Examples: tactical plans, budgets, project management ● Identifying structure, order, and connection among concepts</p>	<p>GOOD EVIDENCE</p>	
<p>Parallel Processing: Co-ordination across systems and contexts ● Process approach ● Relatively intangible focus ● Examples: theoretical models, co-ordination of systems, broad strategy classification of relations</p>	<p>SOLID EVIDENCE</p>	
<p>Interactive Fuzzy Systems: Integration of different, vague, interactive, and dynamic systems ● Few theoretical guidelines exist ● Creation of new models to optimally synthesize these systems ● Formulation of broad strategy to ensure long term viability, and coordination of business units</p>	<p>PARTIAL EVIDENCE</p>	
<p>Emerging Patterns: Focus on patterns that emerge from seemingly chaotic situations ● Identification of what does not make sense and clarifying it in synchronistic and creative ways ● Information of a philosophical nature, or macro economic trends but also entails practical implications</p>	<p>VERY LIMITED EVIDENCE</p>	



Potential: Time Related Progress Curve

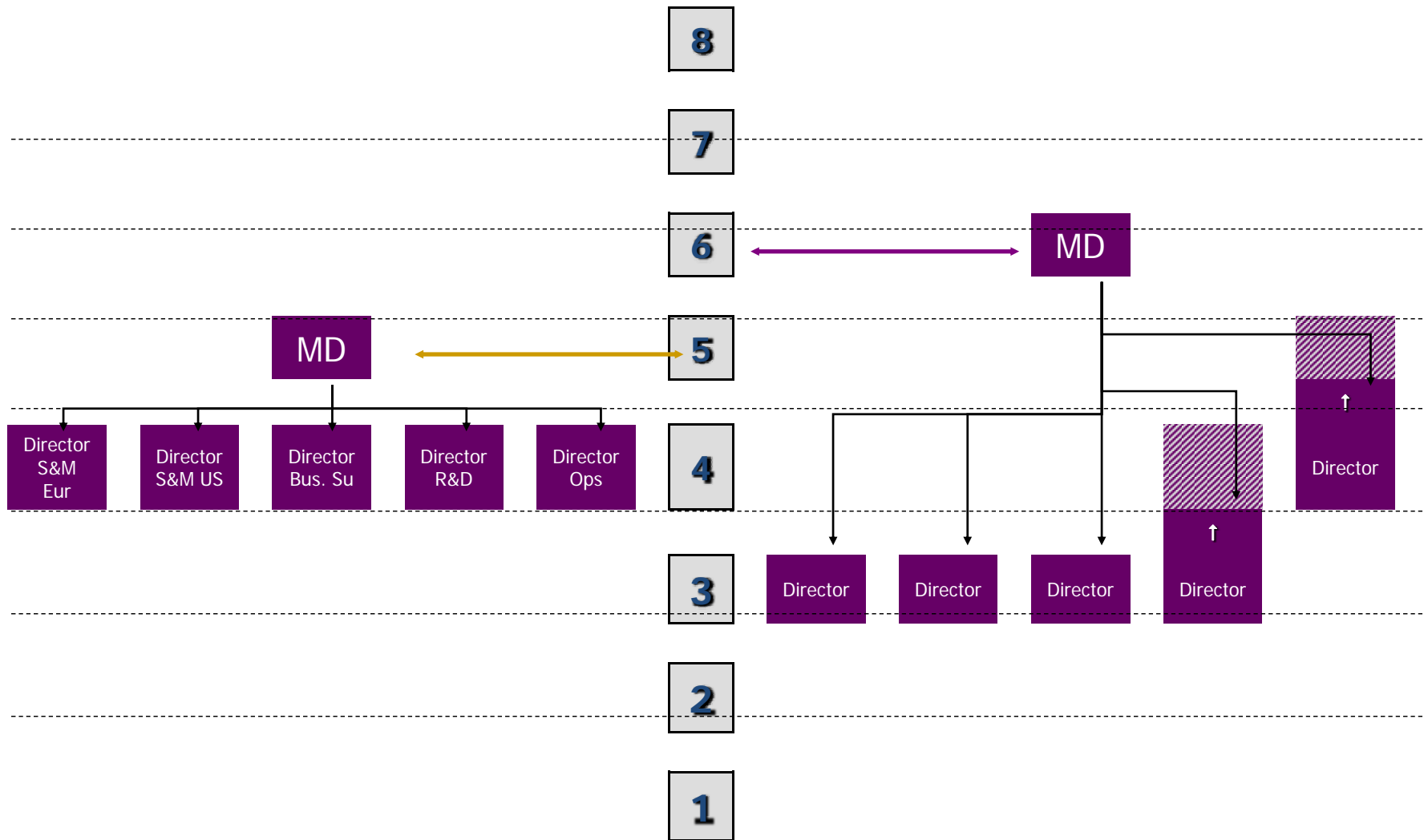
Shapers of Curve	
<p>STRONG FOUNDATIONS</p> <p>Currently at an early level 4. There are some gaps at Retrieval Thinking (Level 1). Strong Affirmative Thinking (Level 2) compensates for some of this gap.</p>	<p>45%</p> <p>PARTIAL Evidence</p>
<p>COGNITIVE PROCESSING</p> <p>Evidence of effective utilisation of analysis, logical reasoning, verbal abstraction, quick insight learning, and experiential learning. Less convincing regarding integration and categorization</p>	<p>55%</p> <p>SOLID Evidence</p>
<p>ASPIRATIONS</p> <p>Exceptionally high ambition, coupled with as high personal commitment, and enhanced further by a supportive personal and family environment. Yet, there is also an element of lack of clarity regarding future direction</p>	<p>90%</p> <p>GOOD Evidence</p>



3rd Aspect of Potential: An Example of Projected Progress over 15 Years



A Case Study of a \$100M Organisation





How Do We Do It?

2 exercises in data gathering

Assessing Role Complexity

- Completed with line manager of candidate
- Positioning the role within organisational context
- Formulate the intended output, and analyse what work will be required to achieve the intended output with a planned method
- Outcome = Mapping 'Role Complexity' on the 8-point scale

Assessing Thinking Complexity

- Completed with candidate
- Capability Exercise
- Formulate current capability level (un-aided performance) and potential capability (responses to help and clues given by the assessor)
- Outcome = Mapping the candidate Potential Capability on the 8-point scale



Capability Exercise

- ④ 1-2-1 Interactive problem solving exercise, where a candidate works in partnership with an assessor to address key issues identified in a Case Study
- ④ 7 case studies available – all capable of exploring the full 8-level scale; but the complexity of information benchmarked at different point on the scale
 - ✦ Ai-Vut -- Industry = Charity (AIDS); used with CRUK; Solutions from company to global solution
 - ✦ Prestige Group – Industry = Health Care; used with DePuy CMW; solutions from company to national level
 - ✦ Lavka Group – Industry = Financial Services; used with OMAM; solutions from company to industry level
 - ✦ Del-Maëm – Industry = Pharmaceutical Industry; used with BIUK; solutions from company to Group level
 - ✦ Yahlom – Industry = Diamond mining; Used with Devon International; Solutions from company to global solution
 - ✦ 2 Additional case study are un-tested yet
- ④ Although varied, most Case Studies have 12 sets of information made out of information classified into 3 levels and 4 content areas
 - ✦ Each set contains 4 x 1-page document = $12 \times 4 = 48$ documents
- ④ Only part of the information is made available to the candidate.
 - ✦ Session 1 (15 minutes): Set-up & familiarisation
 - ✦ Session 2 (45 Minutes): 6 Background documents – Compulsory, no choice
 - ✦ Session 3 (30 Minutes): A choice of UP to 4 additional documents
 - ✦ Session 4 (30 Minutes): A choice of UP to 4 additional documents
 - ✦ Session 5 (30 Minutes): A choice of UP to 4 additional documents
 - ✦ Session 6 (30 Minutes): Finalising discussion and action plan



Task & Marking Scheme

Level 3: Cognitive Indicators

Examines alternative options in the choice of a course of action

Works with 'Relations' – Order and connection among concepts

Narrowing down options to a single correct answer

Building an argument of a logical sequence of reasons

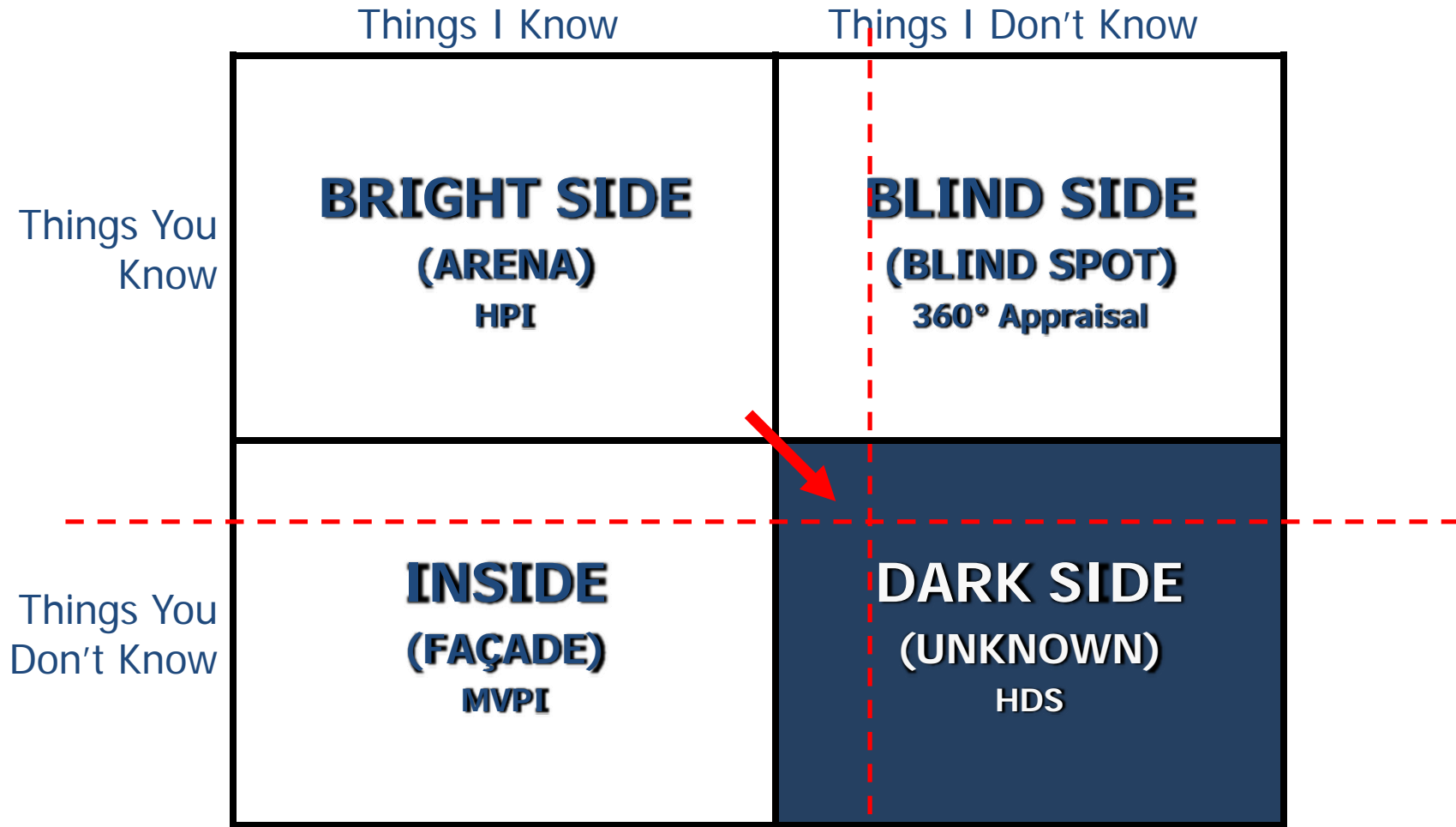
3 not 4 -- Deductive not Inductive – Validates and refutes hypotheses, rather than creates new hypotheses

3 not 2 – Conditional not Additional – Goes beyond classification of info to sequential relations – IF Then

- ⓐ A 3-hour interactive 1-2-1 problem solving exercise in which the participant work in partnership with an assessor to explore and address key issues highlighted in the information provided
- ⓐ Task – Devise a Strategic Direction while addressing specific challenges
- ⓐ Assessor continuously seeks evidence for cognitive indicators of potential capability at the various levels of mental processing complexity
- ⓐ 8 sets of Assessment Sheets, one per each of the 8 Capability Potential levels
- ⓐ Each Assessment Sheet includes a series of 4 cognitive indicators
- ⓐ Differentiating Indicators – Indicators that differentiate between a Potential Capability level, and the next level up and next level down



Motivation & Personality





A 1-2-1 Programme

Pre-Programme Requirements:

Completion of:

- on-line psychometric tools
- on-line 360
- Chronological interview questionnaire

Time	1-2-1 Exploration Activity
08:00 – 08:15	Introduction and Positioning
08:15 – 11:15	Chronological Interview (3-hour session)
11:15 – 11:30	BREAK
11:30 – 12:30	360° Competency Assessment (1-hour session)
12:30 – 13:15	Exploration of Psychometric Data (45-minute session)
13:15 – 14:00	LUNCH
14:00 – 17:00	Interactive Decision Making Exercise (3-hour session)
17:00 – 17:30	Initial Review of Patterns Emerged (½-hour session)
17:30	CLOSE