

Metrics for Change: Careers, Competencies, Compensation and Personal Responsibility in the Minerals Industries

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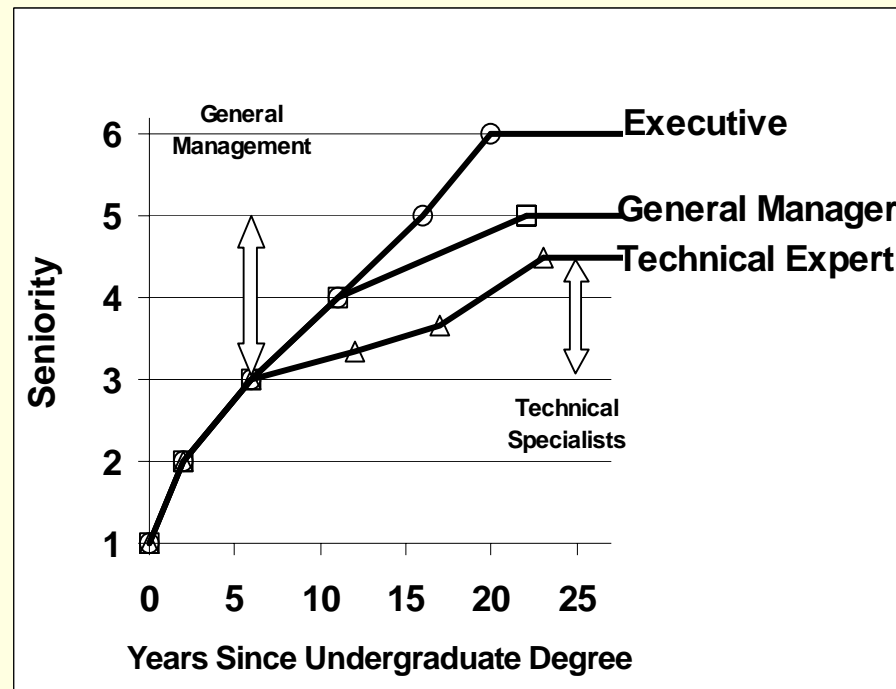
This paper...

From new graduates to CEO

- **Career tracks – rate of change in seniority (responsibility / title)**
- **Necessary competencies for each seniority**
- **Characteristic behavior patterns (social competencies) for each seniority level**
- **Compensation for each seniority level**
- **Direct relationship between competencies and compensation**

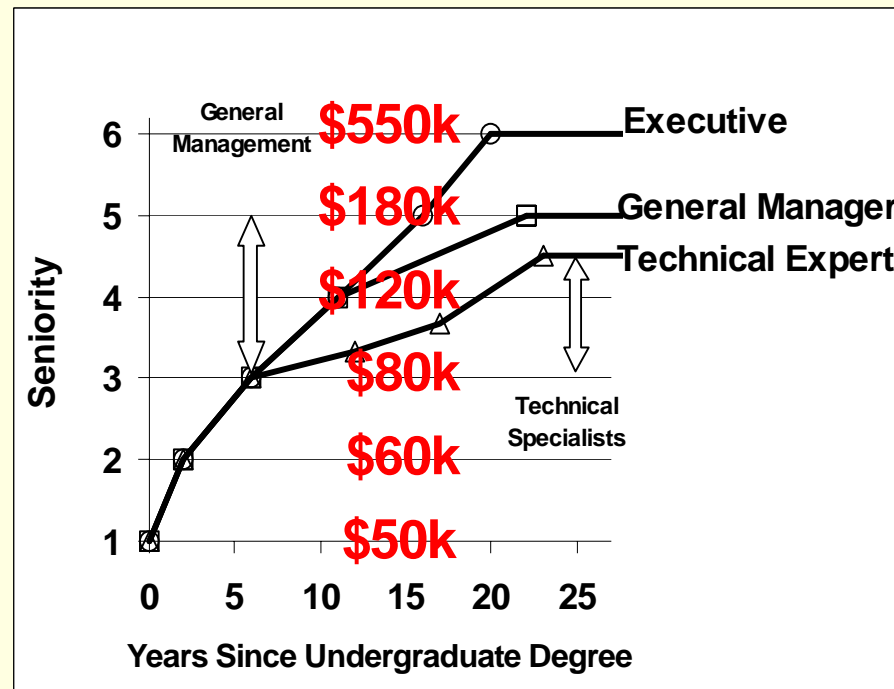
Use a three track model...

Recognizing a critical social competency



The bottom line...

‘Show me the money’ - annual salary



Competency matrix...

The language / metric – Technical Track

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$/
1	Jr. Geologist	2	-	-	-		-	-	-	-	2	25
2	Proj Geologist	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geologist	3	1	1	-		2	1	2	-	5	16
4	Chief Geol (corp)	4	1	1	1		2	2	2	1	7	17
5	General Manager	4	2	2	1		2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Competency matrix...

The language / metric – definitions

- **Technical competency (T)** – discipline knowledge and expertise, foundation based on formal education
- **Business competency (B)** – understanding of how technical competency affects the commercial success of the business, based on mentoring, experience and formal education
- **Internal social competency (SI)** – relationship with others, responsibility with corresponding authority, usually based on mentoring and experience (personality type)
- **External social competency (SE)** – relationship with others, responsibility without corresponding authority, influencing, usually based on mentoring and experience (personality type)

Competency matrix...

The language / metric – definitions

Ranking

- **0 – low**
- **1 – medium**
- **2 – high**
- **3 – very high**
- **4 – world class**

Competency matrix...

Technical Management

Track Track

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	1		2	2	2	1	7	17
5	General Manager						2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Competency matrix...

Value per competency unit

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	\$50k/yr		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	\$60k/yr		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	\$80k/yr		1	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	\$120k/yr		2	2	2	1	7	17
5	General Manager				\$180k/yr		2	2	3	2	9	20
6	CEO				\$550k/yr		3	3	3	4	12	45

Competency matrix...

The language / metric – Competency value

Seniority (comp units)	\$ / competency unit	Comment competencies
1 (2)	\$25k	Paid for potential
2 (4)	\$15k	Foundation
3 (5)	\$16k	Increasing % social
4 (7)	\$17k	Increasing % social
5 (9)	\$20k	Increasing % social
6 (12)	\$45k	Increasing % social

Competency matrix...

Creating and realizing value

Seniority	Title	T	B	SI	SE	T	B	SI	SE	Total	\$k/
1	Jr. Tech. Eng.	2	-	-	-	-	-	-	-	2	15
2	Proj. Geol. / Eng.	1	1	1	-	1	1	1	-	4	15
3	Pr. Mining Geol. / Eng.	1	1	1	1	1	1	2	-	5	16
4	Chief Geol. / Eng. (corp)	1	1	1	1	1	1	1	1	7	17
5	General Manager	1	1	1	1	1	1	1	1	9	20
6	CEO	1	2	2	2	2	2	2	2	12	45

Individual contributor

Technical expertise

Directing subordinates

Influencing peers

Influencing stakeholders

Value via others

Competency matrix...

Social competencies %

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	0%	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	25%	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	20%	-		2	1	40%	-	5	16
4	Chief Geol / Eng (corp)	4	1	29%	1		2	1	42%	1	7	17
5	General Manager						2	1	56%	2	9	20
6	CEO						2	1	58%	4	12	45

Social competencies...

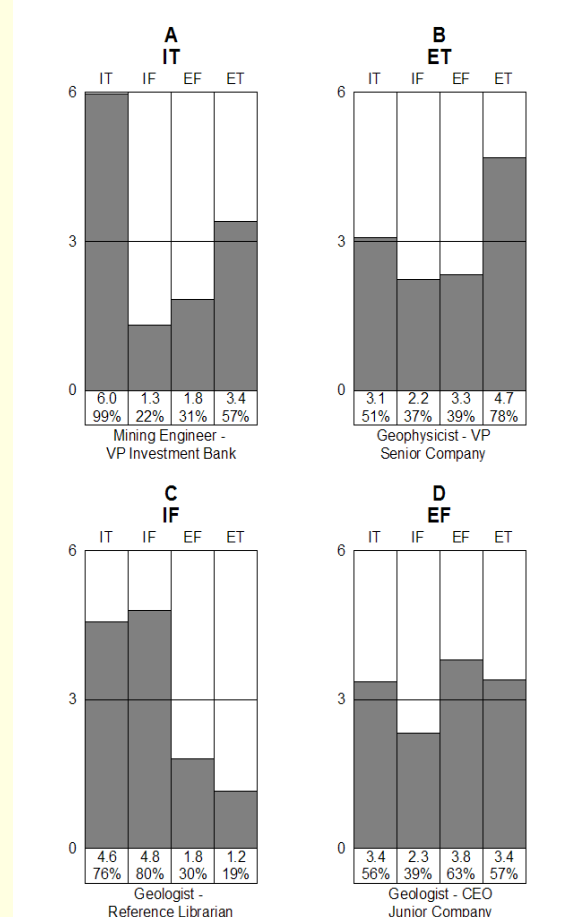
Language / metrics – a MBTI indicator

MBTI Personality Type	Descriptor	Intervention	Good Day	Bad Day
Introvert / Thinking (IT)	Analytical	Informative	Cautious, Precise,	Indecisive, Suspicious
Extrovert / Thinking (ET)	Directing	Confronting	Determined, Purposeful	Controlling, Overbearing
Extrovert / Feeling (EF)	Inspiring	Expansive	Dynamic, Persuasive	Excitable, Indiscreet
Introvert / Feeling (IF)	Supporting	Supportive	Caring, Encouraging	Reliant, Stubborn

Social competencies...

Language / metrics – a MBTI indicator

Figure 3: Example of Individual Personality Type Assessments



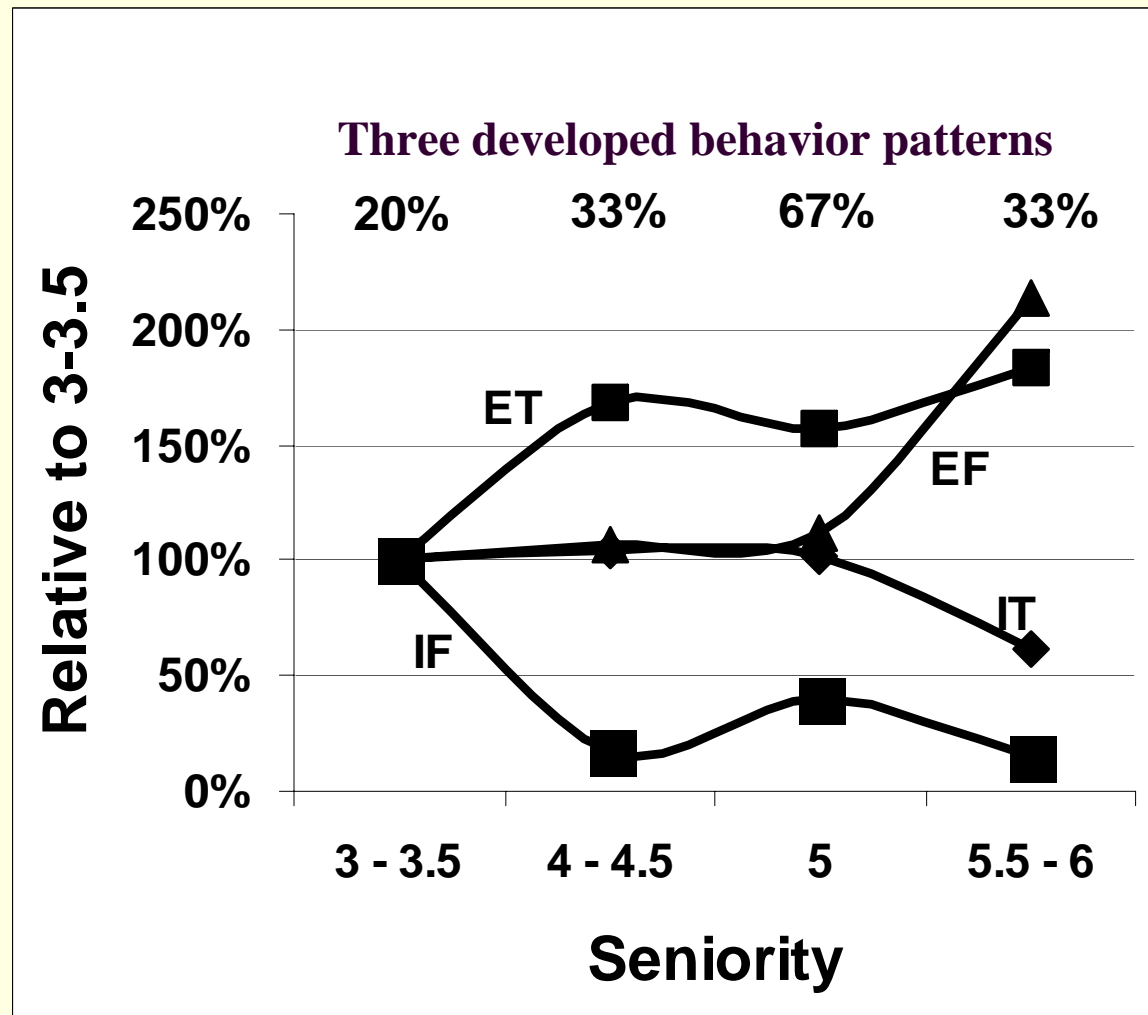
Social competencies...

Personality types – behaviors

- Not distinguished by degree - Geologists, mining engineers and financial professionals are similar
- Not distinguished by industry sector – gold, base metals, industrial minerals, coal, oil and gas, oil sands, service and consulting are similar
- **Distinctly differentiated by seniority (role / title / responsibility) – support specialist, senior technical or management, general manager, executive are very different**

Social competencies...

MBTI tool - Plus 20 years experience



Competency matrix...

Using this matrix

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	\$50k/yr		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	\$60k/yr		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	\$80k/yr		1	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	\$120k/yr		2	2	2	1	7	17
5	General Manager				\$180k/yr		2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Competency matrix...

Technical % Technical Management
Track Track

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	100%	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	50%	-	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	60%	-	-		2	40%	-	-	5	16
4	Chief Geol / Eng (corp)	4	57%	1	-		2	29%	1	-	7	17
5	General Manager						2	23%	2	-	9	20
6	CEO						2	17%	4	-	12	45

Competency matrix...

Teams – Total greater than the sum...

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
	Combined	5	2	3	-						10	?
3	Sn / Mine Geo / Eng	4		1	-		1	2	1	1	5	16
	Combined	5	2	2	1						10	?

Competency matrix

Career Decisions

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	1		2	2	2	1	7	17
5	General Manager						2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Competency matrix...

Changing Tracks – Competency shortfall

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	1		2	2	2	1	7	17
5	General Manager						2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

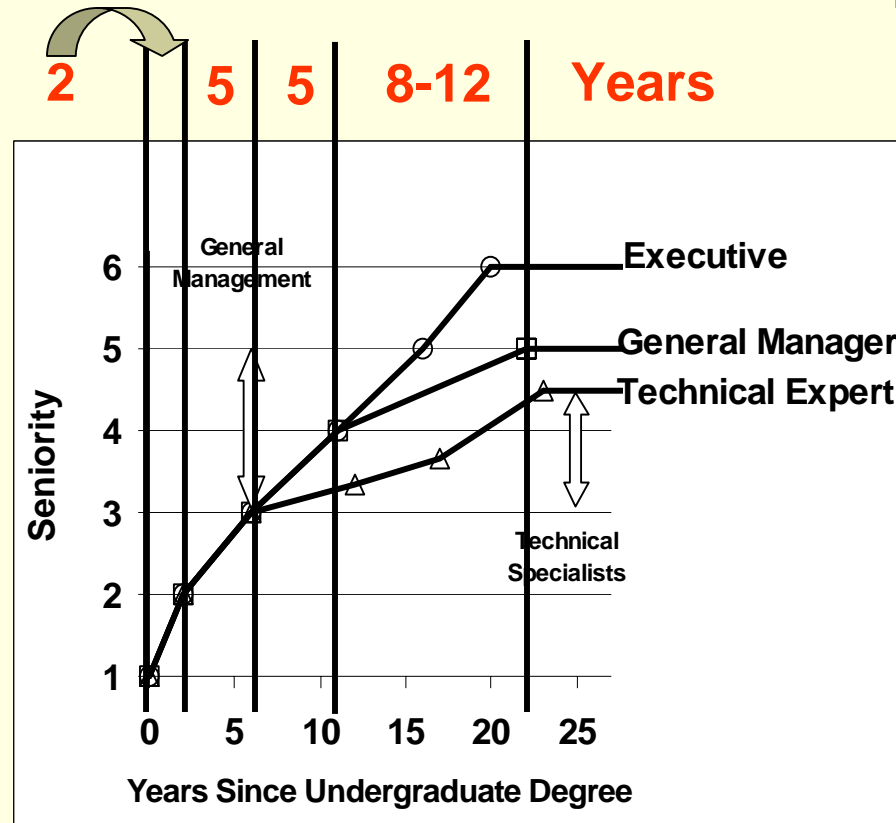
Competency matrix...

Changing Tracks – Competency shortfall

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	1		+1	-1	-1	-1	7-2	17
5	General Manager						2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Developing competencies...

Mentoring – learn, practice, be recognized



Oil industry – career advancement windows every 2.5 - 3 years

Competency matrix...

Industry Enhancing Decisions

Seniority	Title	T	B	SI	SE		T	B	SI	SE	Total	\$k/
1	Jr. Geol / Eng	2	-	-	-		-	-	-	-	2	25
2	Proj Geol / Eng	2	1	1	-		-	-	-	-	4	15
3	Sn / Mine Geo / Eng	3	1	1	-		2	1	2	-	5	16
4	Chief Geol / Eng (corp)	4	1	1	1		+1	-1	-1	-1	7	17
5	General Manager						2	2	3	2	9	20
6	CEO						2	3	3	4	12	45

Industry Report Card...

The three competencies

- **Technical competencies - Good**
- **Business competencies - Poor**
- **Social competencies - Terrible**

Social competencies...

Loggerheads - Sustainable Development...

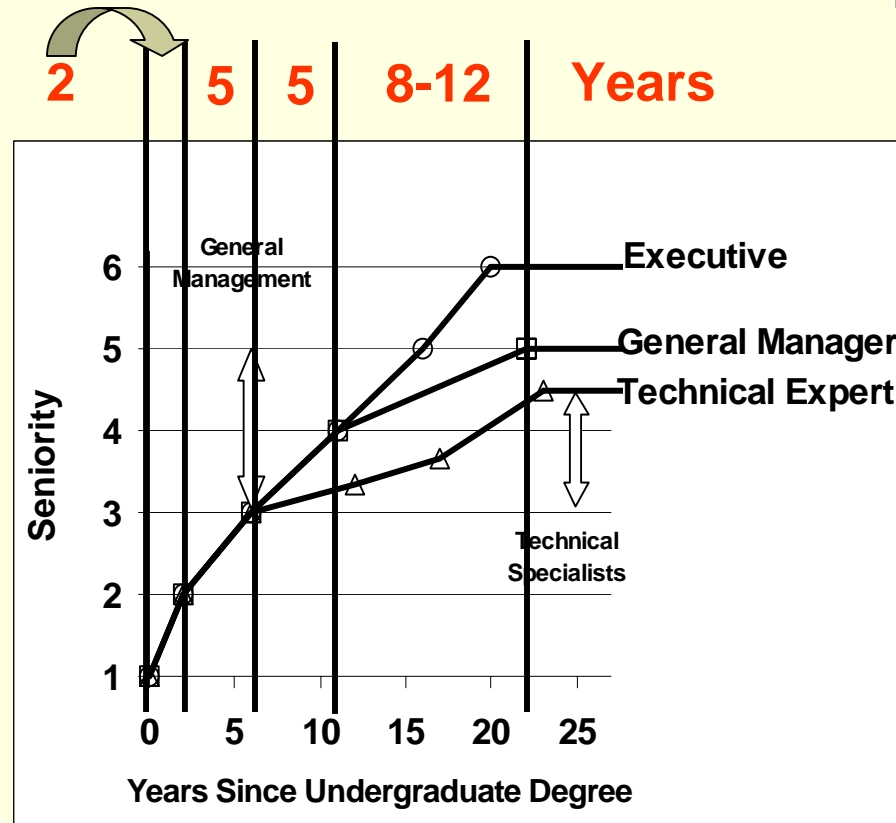
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Introvert / Feeling (IF)	Supporting	Supportive	Caring, Encouraging	Reliant, Stubborn

Mining industry

Stakeholders

Developing competencies...

Mentoring – learn, practice, be recognized



Oil industry – career advancement windows every 2.5 - 3 years

Change...

What actions are required?

- To improve the status quo
- To prepare for the future
- Is it sufficient to be all that we can be?

Or...?

- Do we need a new vision and a plan to get there?

Discussion...?

- **Founded with the language and metrics offered in this paper**

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Comments...

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