

Agile Australia 2016



CAREER GROWTH WITH IMPACT

Tom Adams
Georg Friedrich



UNCOMMON DESIGNS BY 400K+ INDEPENDENT ARTISTS

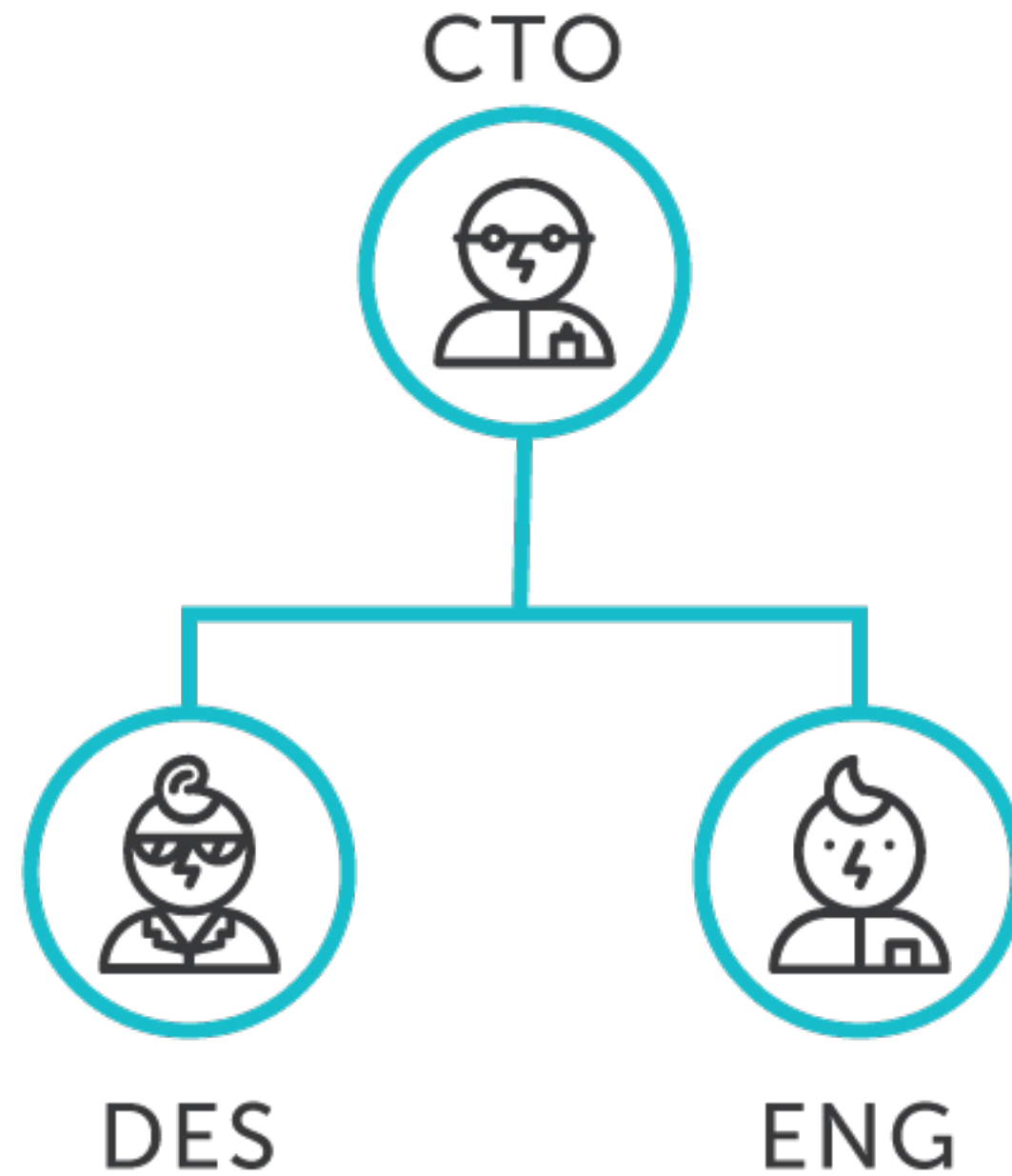


*DESIGNS THAT HIT YOUR
BRAIN'S PLEASURE CENTER.*

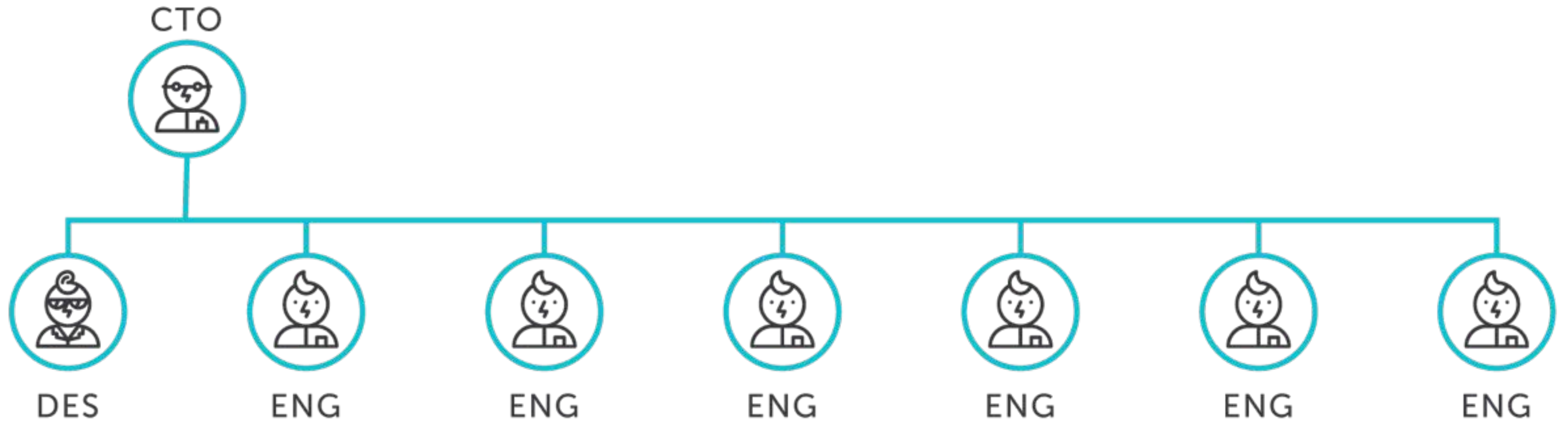
GALAXY S6 AND S7 CASES ARE HERE



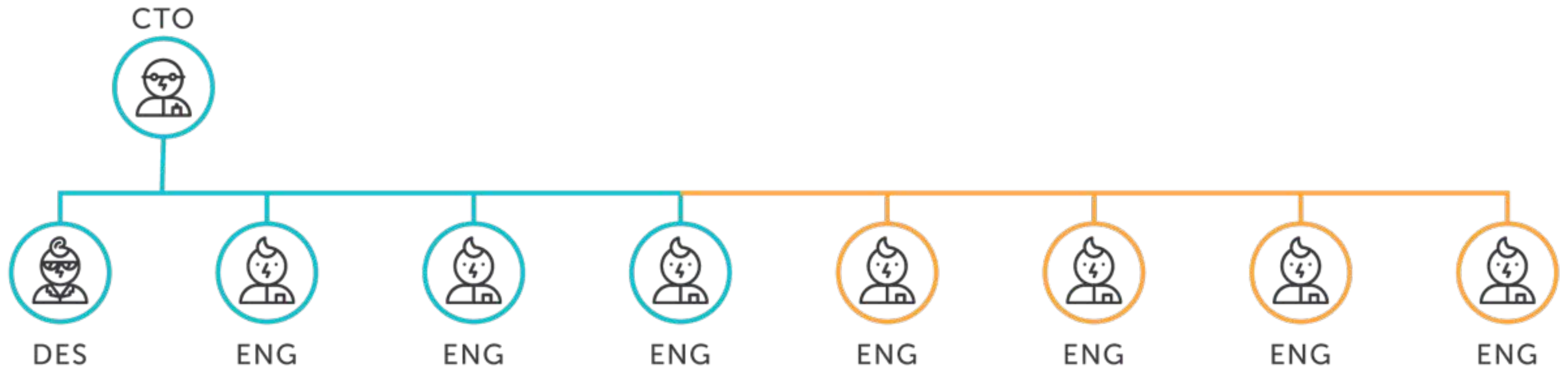
2009



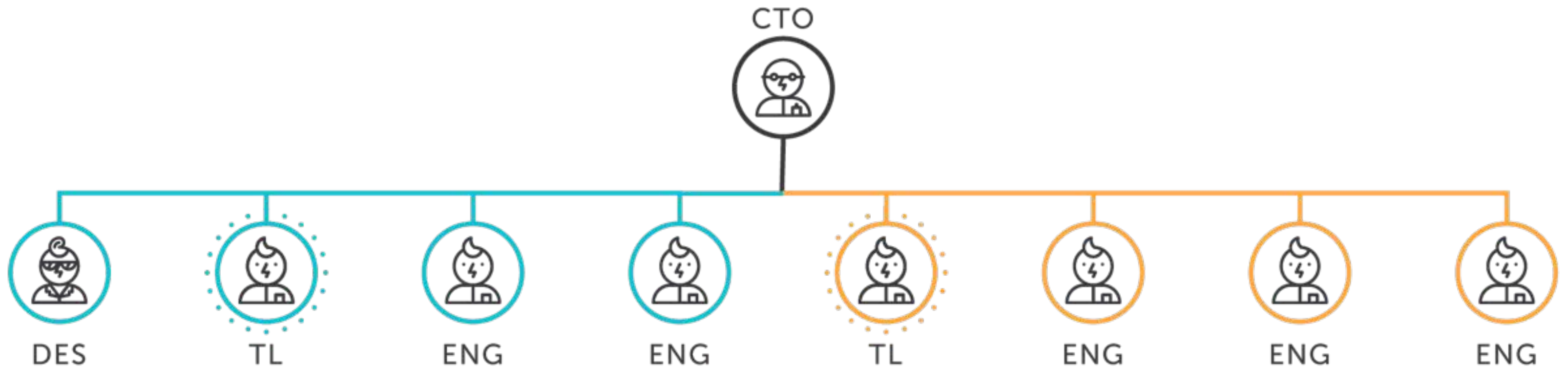
2009...2010



2009...2010...2011



2009...2010...2011...2012

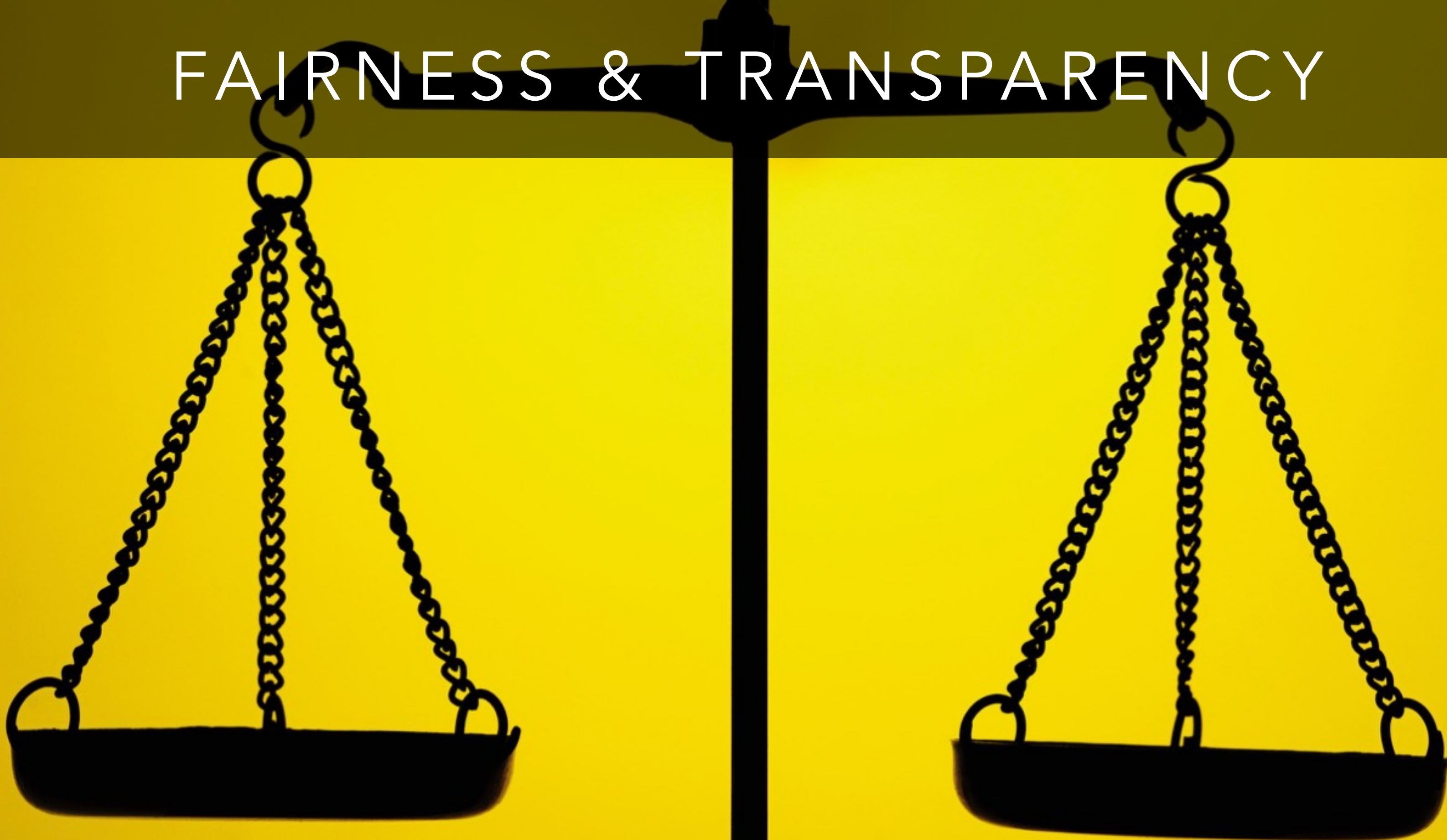


2009...2010...2011...2012...2014





FAIRNESS & TRANSPARENCY



WHAT DOES CAREER GROWTH MEAN?



EXPERIENCE BASED

- Graduate, junior, mid, senior, ...
- What does “senior” mean?
- Not explicit what is required to grow
- Salary bands, often overlapping

FOG CREEK

Alert! This ancient trifle retrieved from the Joel on Software archives will pass its expiration date. Proceed with care.

Joel on Software

Fog Creek Professional Ladder

by Joel Spolsky

Friday, February 13, 2009

The Fog Creek Professional Ladder determines your base salary. It is recalculated every August, and new base salaries go into effect September 1st (you'll see it on the September 15 paycheck).

Currently, the professional ladder is used for:

- Software developers
- Software QA/Testers
- System Administrators

Your career level at Fog Creek is determined as a function of three things: **experience**, the **scope** of your job, and your **skills**.

Experience

Definition: Years of full-time experience developing and testing software or administering computer systems.

This includes things like:

- software development/programming
- user interface design
- managing software teams

Wanted: Senior .NET Developer at stratton (Port Melbourne, Australia).

See this and other great job listings on [the jobs page](#).



RENT THE RUNWAY

	A	B	C	D	E	F
		Dex	Str	Wis	Cha	
		Technical Skill	G(et)S(tuff)D(one)	Impact	Communication & Leadership	NOTES
1						
2						
3						
4						
5	Engineer I (<1-2)	<p>Broad knowledge of core CS concepts.</p> <p>Focus on growing as an engineer, learning existing tools, resources and processes</p>	<p>Develops their productivity skills by learning source control, editors, the build system, and other tools as well as testing best practices</p> <p>Capable of taking well-defined sub-tasks and completing these tasks</p>	<p>Developing knowledge of a single component of our architecture</p>	<p>Effective in communicating status to the team</p> <p>Exhibits RTR's core values, focuses on understanding and living these values</p> <p>Accepts feedback graciously and learns from everything they do</p>	
6						
7		<p>Writes correct and clean code with guidance; consistently follows stated best practices</p> <p>Participates in technical design of features with guidance</p>	<p>Makes steady progress on tasks; knows when to ask for help in order to get themselves unblocked</p>	<p>Self-sufficient in at least one large area of the codebase (multiple services in a pillar, all frontend code related to a main funnel flow) with a high-level understanding of other components</p>	<p>Gives timely, helpful feedback to peers and managers</p> <p>Communicates assumptions and gets clarification on tasks up front to minimize the need for rework</p>	<p>This is a big role. Listed here are some of the basic requirements.</p>
8	Engineer II (2-6+)	<p>Rarely makes the same mistake twice, begins to focus on attaining expertise in one or more areas (eg, Java/JS/Ruby/iOS development, performance best practices, efficient use of data stores, messaging, etc).</p> <p>Learns quickly and makes steady progress without the need for constant significant feedback from more senior engineers.</p>	<p>Able to own small-to-medium features from technical design through completion;</p> <p>Capable of prioritizing tasks; avoids getting caught up in unimportant details and endless "bikeshedding"</p>	<p>Capable of providing on-call support for their area including systems that they are not familiar with</p>	<p>Solicits feedback from others and is eager to find ways to improve</p> <p>Understands how their work fits in to the larger project and identifies problems with requirements</p>	
9						
		Understands and makes well-reasoned	Persistent in the face of roadblocks:	End-to-end responsibility on projects of	Communicates technical decisions	

COGENT

	Experience	Level	Salary	Engineer	
				Skills	Responsibility
Graduate	None	0	...		
		...	...		Self
		2	...		
Junior	1+ years.	3	...		
		...	...		Story
		7	...		
Mid-level	Usually 3+ years.	8	...		
		...	...		Domain
		11	...		
Senior	Usually 5+ years.	12	...		
		...	...		Team
		19	...		
Business Influencer	Usually 10+ years.	20	...		
		...	...		Customer
		24	...		

		Experience	Level	Engineer	
				Skills	Responsibility
Mid-level	Usually 3+ years.	11			
Senior	Usually 5+ years.	12	<p>Good working knowledge of software architectural design patterns and their applicability to solutions.</p> <p>Strong working knowledge of software design patterns and SOLID (or equivalent) principles to create well designed software.</p>	<p>Domain Leader.</p> <p>Frequent full responsibility for successful contribution by that domain area. Seeks out ways to develop and improve team, communicates at a high level internally and with customers, ensures that domain delivers toward the project outcome.</p>	
Senior	Usually 5+ years.	14			
		15			

	Experience	Level	Engineer	
			Skills	Responsibility
Mid-level	Usually 3+ years.	11	<ul style="list-style-type: none"> Develops and maintains software components. Collaborates with team members and stakeholders. Participates in code reviews and testing. 	<ul style="list-style-type: none"> Assists in project planning and execution. Supports the team in meeting deadlines. Participates in team meetings and discussions.
Senior	Usually 5+ years.	12	<ul style="list-style-type: none"> Designs and implements complex software solutions. Mentors junior team members. Conducts technical research and innovation. Participates in architectural decisions. 	<ul style="list-style-type: none"> Manages team tasks and resources. Coordinates with other teams and stakeholders. Conducts performance reviews and provides feedback.
		13	<ul style="list-style-type: none"> Leads the development of new features. Provides technical guidance and support. Participates in strategic planning. 	<ul style="list-style-type: none"> Manages team performance and morale. Coordinates with other teams and stakeholders. Conducts performance reviews and provides feedback.
		14	<ul style="list-style-type: none"> Manages the team's workflow and priorities. Participates in high-level technical discussions. Conducts performance reviews and provides feedback. 	<ul style="list-style-type: none"> Manages team performance and morale. Coordinates with other teams and stakeholders. Conducts performance reviews and provides feedback.
		15	<ul style="list-style-type: none"> Leads the team in achieving business goals. Participates in high-level technical discussions. Conducts performance reviews and provides feedback. 	<ul style="list-style-type: none"> Manages team performance and morale. Coordinates with other teams and stakeholders. Conducts performance reviews and provides feedback.

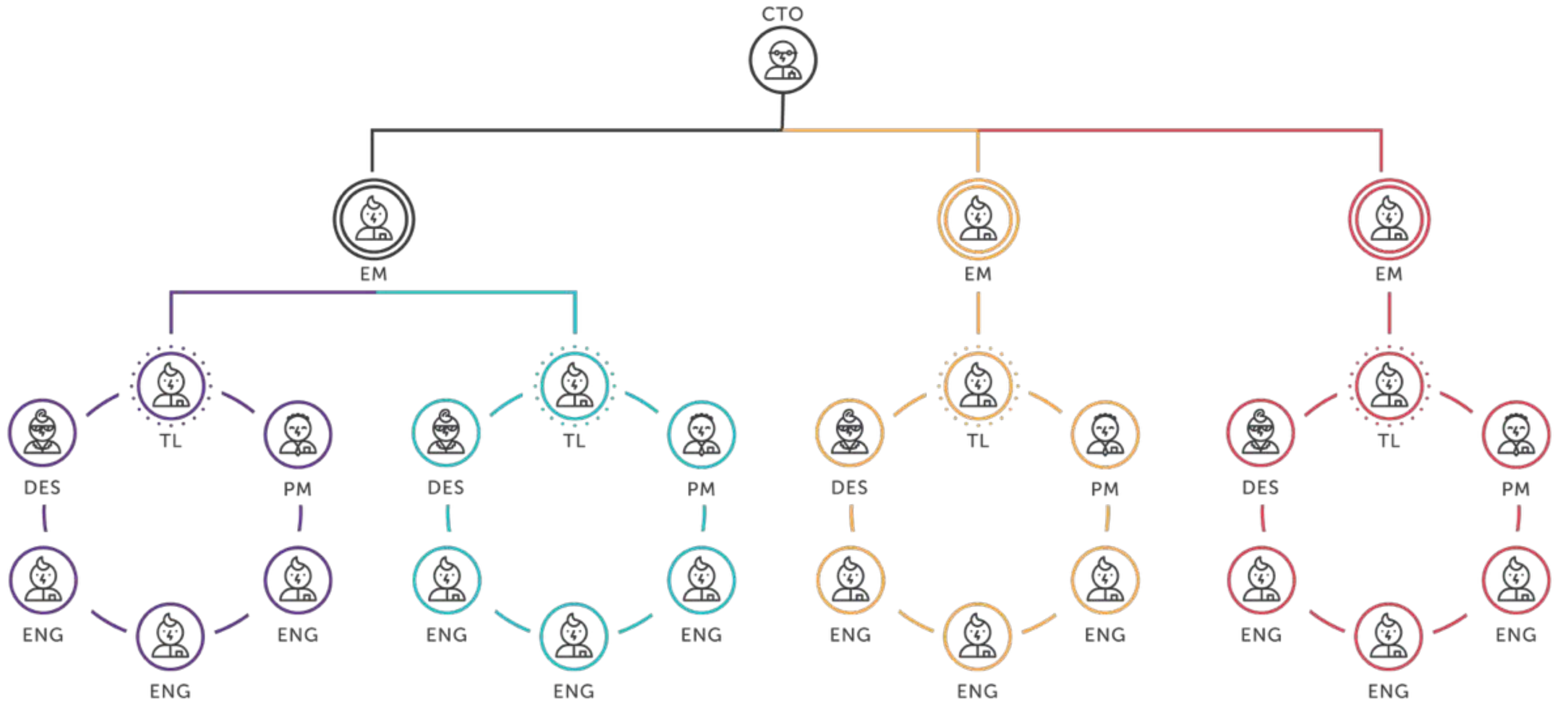
Can articulate the business value of the team's work and contributes to the wider business goals of the team.

	Experience	Level	Engineer		
			Skills	Responsibility	
				Team Contributor	Individual Contributor
Mid-level	Usually 3+ years.	11	<ul style="list-style-type: none"> Develops and maintains software components Participates in code reviews Collaborates with team members 	<ul style="list-style-type: none"> Contributes to team projects Follows team standards and processes Communicates effectively with team members 	
Senior	Usually 5+ years.	12	<ul style="list-style-type: none"> Designs and develops software components Participates in code reviews Collaborates with team members Mentors junior team members 	<ul style="list-style-type: none"> Contributes to team projects Follows team standards and processes Communicates effectively with team members Participates in team meetings 	
		13	<ul style="list-style-type: none"> Designs and develops software components Participates in code reviews Collaborates with team members Mentors junior team members 	<p>Takes initiative to identify and solve important problems, coordinating with others on cross-cutting technical issues.</p> <p>Provides technical advice and weighs in on technical decisions that impact other teams or the company at large.</p>	
		14	<ul style="list-style-type: none"> Designs and develops software components Participates in code reviews Collaborates with team members Mentors junior team members 		
		15	<ul style="list-style-type: none"> Designs and develops software components Participates in code reviews Collaborates with team members Mentors junior team members 	<ul style="list-style-type: none"> Contributes to team projects Follows team standards and processes Communicates effectively with team members Participates in team meetings 	<ul style="list-style-type: none"> Contributes to team projects Follows team standards and processes Communicates effectively with team members Participates in team meetings

		Engineer					
Experience	Level	Skills	Responsibility		Examples		
			Team Contributor	Individual Contributor			
Mid-level	Usually 3+ years.	11					
Senior	Usually 5+ years.	12	<div style="border: 1px solid black; padding: 10px;"> <p>Introduced pre-estimation analysis work to cards identified as having external dependencies, folded this work back into the team's estimation process.</p> <p>A team member suggested that we do a whole team review when picking up a card from the backlog to better understand the cards. They then followed up on it during the next iteration to make sure it was happening.</p> </div>				
		13					
		14					
		15					



REDBUBBLE



THE ROLL-OUT



ACHIEVEMENTS

- **Fairness & transparency**
- **More objective salary determination**
- **Clearer path to career growth**
- **Career track that doesn't include people management**



Engineers
Designers

21-24

18-20

15-17

12-14

9-11

6-8

3-5

0-2

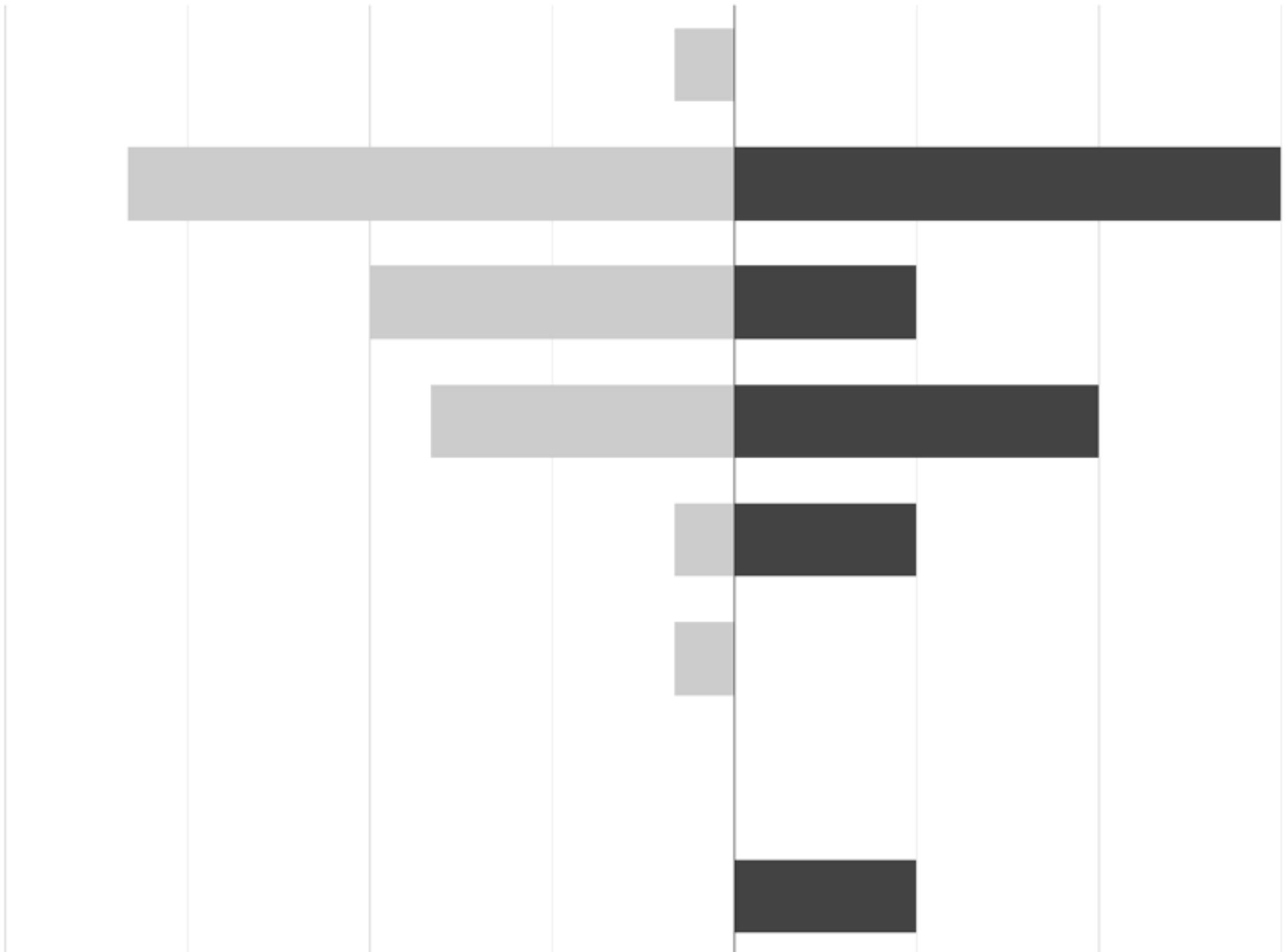
50.00%

25.00%

0.00%

25.00%

50.00%



REFINEMENTS



PROBLEMS

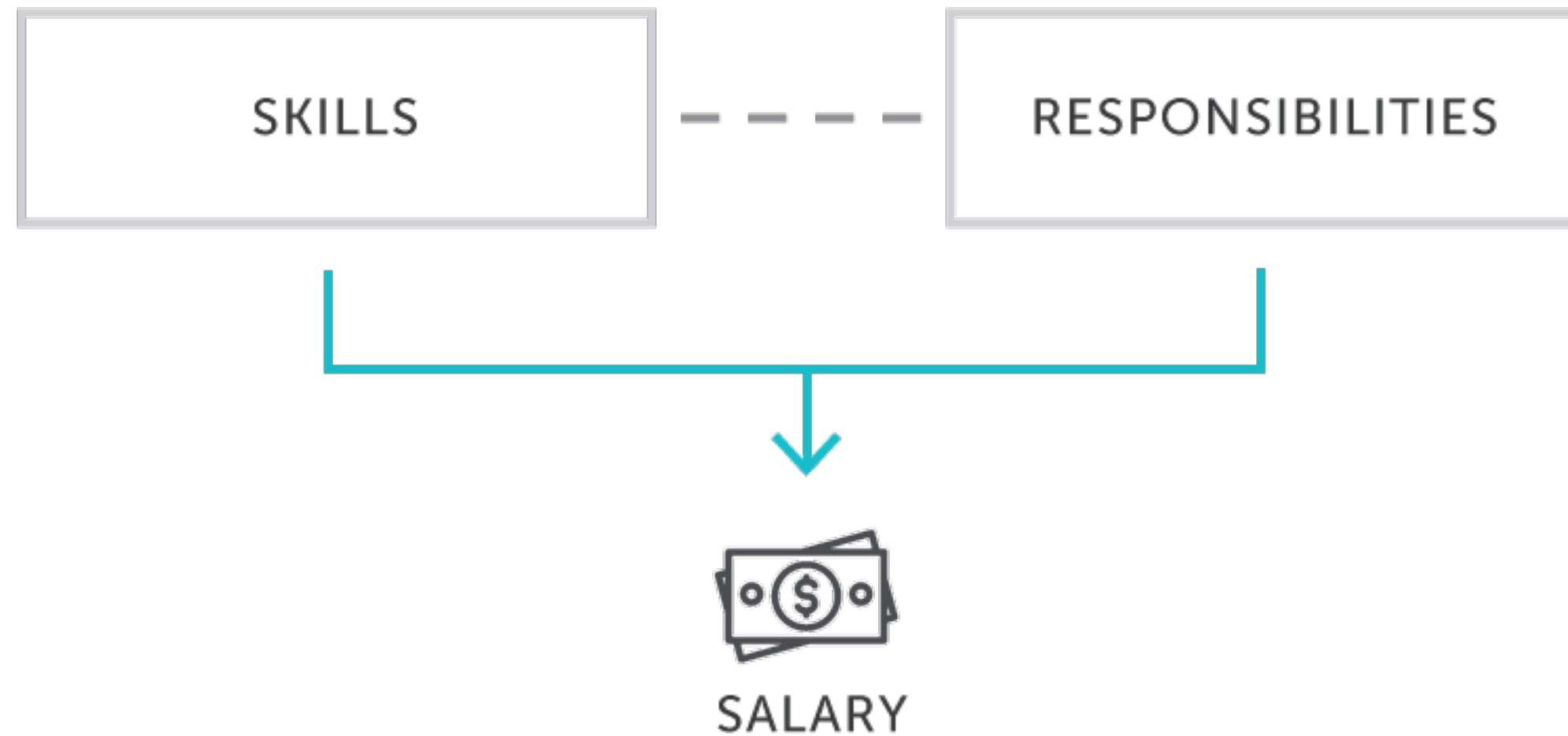
- **Too restrictive - skills & responsibilities coupled**
- **Dimensions of growth are not explicit**
- **Assessment of non-generalists**



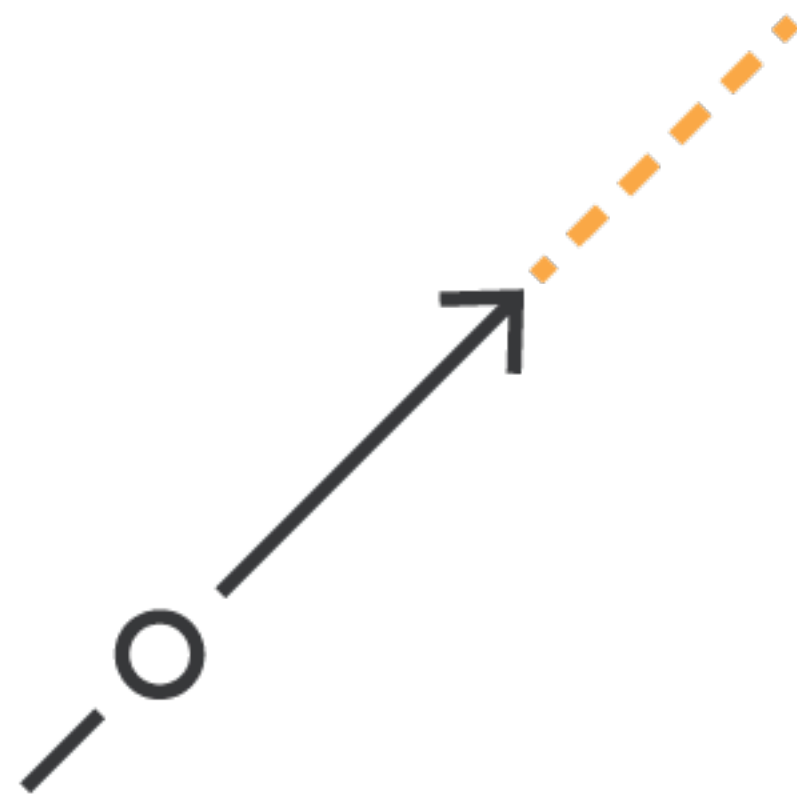
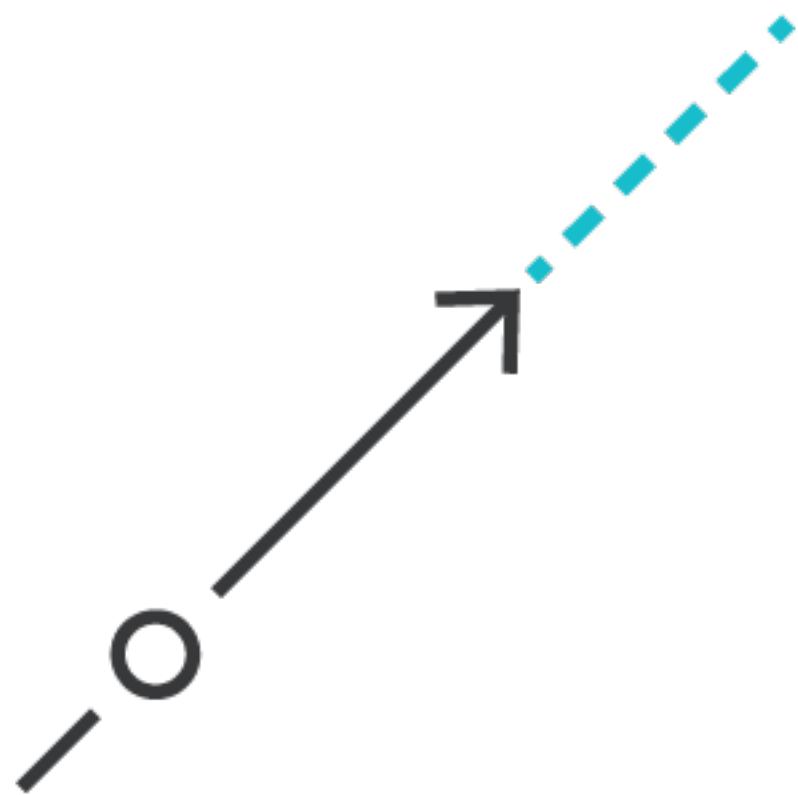
OUR MODEL

	Experience	Level	Engineer			
			Skills	Responsibility		Examples
				Team Contributor	Individual Contributor	
Mid-level	Usually 3+ years.	11	<p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p>		
Senior	Usually 5+ years.	12	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		<p>_____</p> <p>_____</p> <p>_____</p>
		13	<p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p>		<p>_____</p> <p>_____</p> <p>_____</p>
		14	<p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>	<p>_____</p> <p>_____</p>		

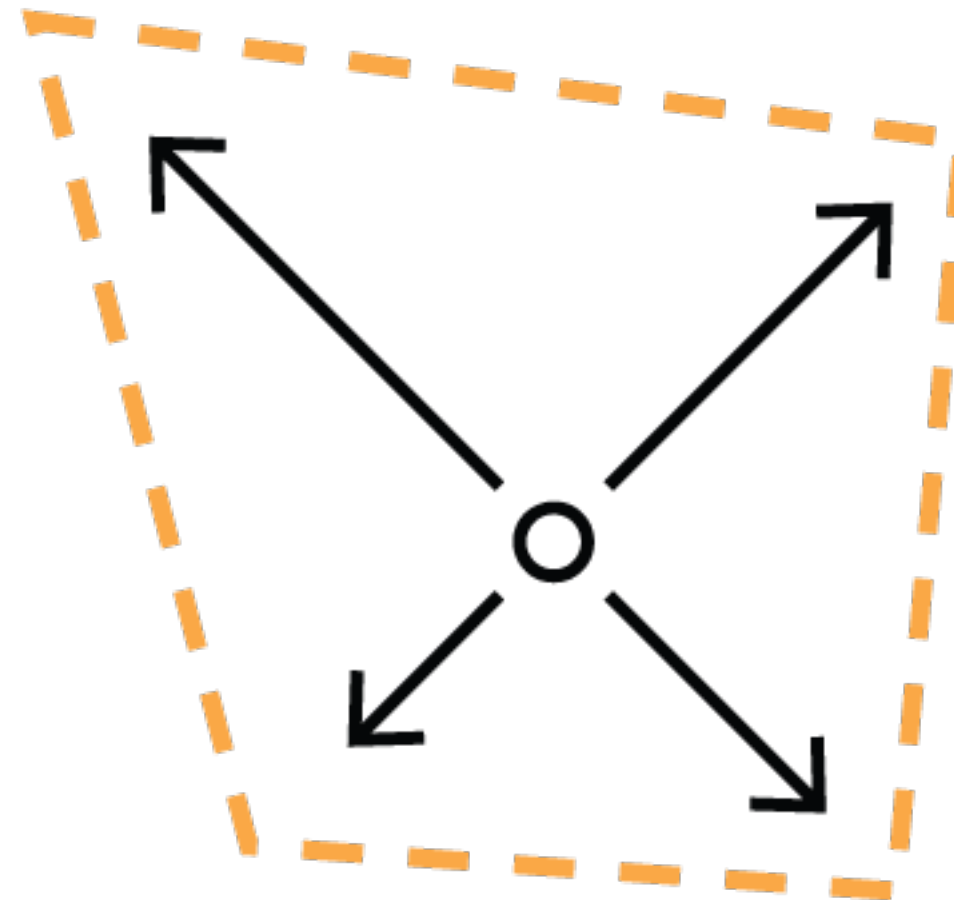
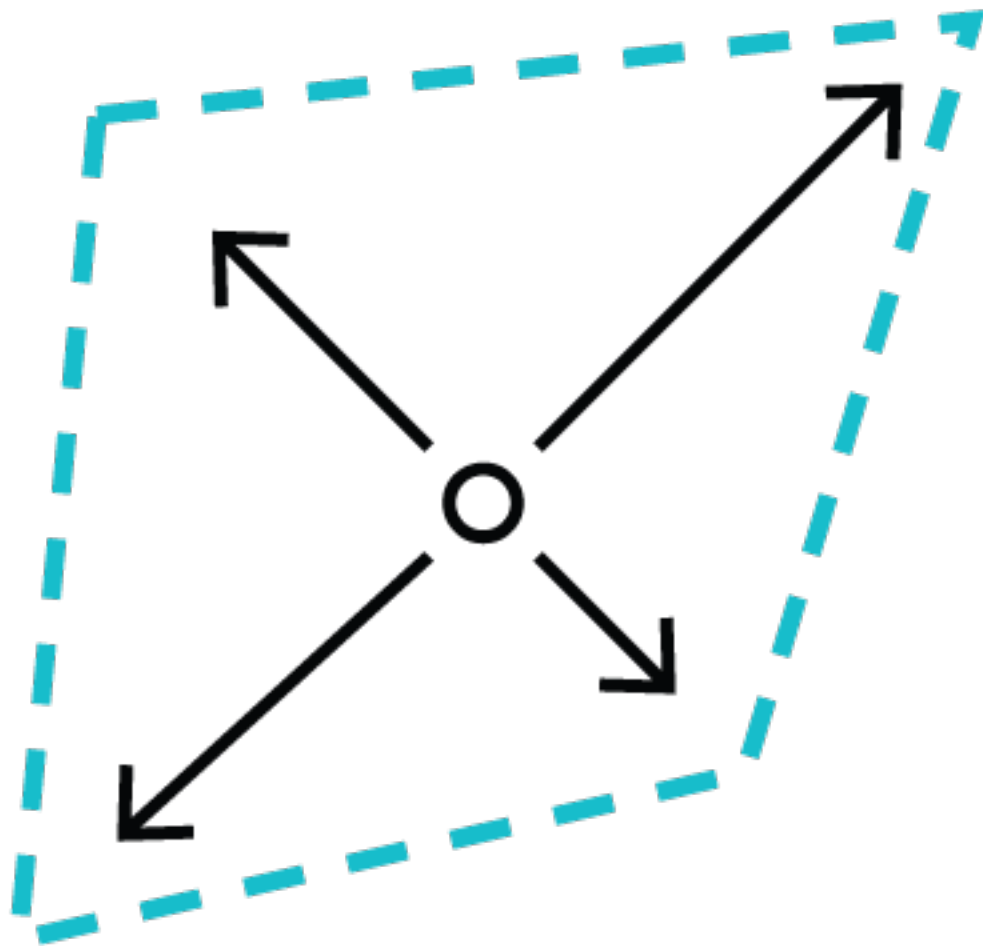
OUR MODEL



GROWTH



GROWTH



SKILL TRAITS

	Experience	Level	Engineer			Examples
			Skills	Responsibility		
				Team Contributor	Individual Contributor	
Mid-level	Usually 3+ years.	8	Has been on multiple projects, and is able to contribute effectively in multiple areas of delivery.			
		11	Has been involved in one or more projects end to end, and contributed to all aspects.			
Senior	Usually 5+ years.	12	Has comprehensively covered all aspects of product delivery through work on multiple projects.			<p>.....</p> <p>.....</p> <p>.....</p> <p>.....</p>
		15	Has been involved in multiple successful deliveries, including being instrumental for key aspects.			<p>.....</p> <p>.....</p>
		20	Has been critical on shipping many high quality and successful projects.			<p>.....</p>
		14				<p>.....</p> <p>.....</p>

EXAMPLE

Software craft Practicalities of building high quality, maintainable software; languages, code quality, code architecture, patterns, principles, etc.

None - 0	<ul style="list-style-type: none">- No skills in building & maintaining software.- Likely no commercial experience.
Novice - 1	<ul style="list-style-type: none">- University degree or equivalent experience.- Knows a single programming language.- Has an ad hoc personal development process.- Just starting out with learning basic delivery skills.- Unit testing, class design, basic patterns etc.- Has created production-ready output regularly under guidance; pairing, pull requests with close attention etc.- Limited commercial experience, likely 1-3 years.
Advanced beginner - 2	<ul style="list-style-type: none">- Has solid foundations for work. Can tackle straightforward pieces of work, and have them reasonably well designed and tested.- Has implemented components of work (feature areas) with occasional guidance, using key concepts. Supported for more challenging pieces of work.- Skills forming across multiple languages; Ruby, Javascript, Objective-C, Swift, Java, Scala, Clojure, etc.- Can work comfortably across development tools including editors, testing frameworks, SCM, CI, deployment, etc.- Makes effective use of source control management in git.- Bundles work into pull requests & seeks out code reviews from more experienced engineers.- Requires guidance from more senior engineers.- Forms and vocalises an opinion on how to solve specific localised problems in area of expertise.- For example, technical design for several stories; or regularly helps a colleagues to solve an implementation problem.- Likely 2-5 years experience.
Practitioner - 3	<ul style="list-style-type: none">- Has comprehensively covered all aspects of product delivery through work on multiple projects, and is able to contribute effectively in multiple areas of delivery.- Writes correct and clean code with guidance; consistently follows stated best practices.- Has been involved in one or more projects end to end, and contributed to all aspects.- Breaks work into small, self contained units, that are individually committable such that pull requests are easy to interpret.- Enables the technical foundations of a new project to get a delivery team up and running.- Likely 5+ years experience.
Proficient - 4	<ul style="list-style-type: none">- Recognised within the technology team as the go-to expert in one technical area of the codebase; understands the broad architecture of the entire system.- Learns new tools, techniques or technologies to help shape new opportunities for the business.- Understands & can articulate the cost/benefits of technical practices against short & long term goals.- Has been involved in multiple successful deliveries, including being instrumental for key aspects.- Likely has has 7-10 years experience.
Expert - 5	<ul style="list-style-type: none">- Has a record of creating sweeping improvements in stability, performance, and scalability across major business-critical systems.- Identifies and proactively tackles technical debt before it grows into debt that requires significant up-front work to resolve.- Has made an obvious positive impact on the entire company's technical trajectory.- Has developed sufficient expertise to consult on software or experiment designs from other engineering teams. This feedback is valuable enough that it shaves days or weeks worth of work or it turns key projects from failures into successes.- Identifies critical business opportunities and works closely with other areas of the business to complete them.- Builds tools and abstractions that multiply the output of the engineering teams around you.- Helps build out onboarding and mentoring programs to teach and train other engineers, to make them significantly more valuable members of the team.- Likely has 10-15+ years of experience.

Band	Graduate			Junior				Mid-Level					
SRM Indicative Scale	0	1	2	3	4	5	6	7	8	9	10	11	12
Role													
TRAITS													
Building													
Software craft	1	1	1	1	1	2	2	2	2	2	2	3	3
Software testing	0	1	1	1	1	2	2	2	2	2	3	3	3
Data modelling & system architecture	0	0	0	0	1	1	1	2	3	3	3	3	3
Analytical thinking	1	1	1	1	1	1	1	1	1	2	2	3	3
<i>Indicative average</i>	<i>0.50</i>	<i>0.75</i>	<i>0.75</i>	<i>0.75</i>	<i>1.00</i>	<i>1.50</i>	<i>1.50</i>	<i>1.75</i>	<i>2.00</i>	<i>2.25</i>	<i>2.50</i>	<i>3.00</i>	<i>3.00</i>
Specialties													
Infrastructure & tooling	0	0	0	0	1	1	1	1	1	2	2	2	3
Security	0	0	0	0	0	0	0	1	1	1	2	2	2
Data analysis	0	0	0	0	0	0	1	1	2	2	2	2	2
<i>Indicative average</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.33</i>	<i>0.33</i>	<i>0.67</i>	<i>1.00</i>	<i>1.33</i>	<i>1.67</i>	<i>2.00</i>	<i>2.00</i>	<i>2.33</i>
Practices													
Agile practices	0	0	1	1	2	2	2	2	2	2	2	3	3
User research	0	0	0	0	0	0	0	1	1	1	1	1	2
Practice Improvement	0	0	0	0	0	0	1	1	2	2	2	2	3
<i>Indicative average</i>	<i>0.00</i>	<i>0.00</i>	<i>0.33</i>	<i>0.33</i>	<i>0.67</i>	<i>0.67</i>	<i>1.00</i>	<i>1.33</i>	<i>1.67</i>	<i>1.67</i>	<i>1.67</i>	<i>2.00</i>	<i>2.67</i>
Communication and engagement													
Communication	0	1	1	1	1	2	2	2	2	2	2	2	2
Team engagement	0	0	1	1	1	1	2	2	2	3	3	3	3
Stakeholder engagement	0	0	0	1	1	2	2	2	2	2	2	3	3
Work management	0	0	1	1	1	1	1	2	2	2	2	3	3
Motivation / Proactivity	0	0	1	1	1	1	1	1	2	2	2	2	2
Representation	0	0	0	0	0	0	0	0	0	0	0	0	1
<i>Indicative average</i>	<i>0.00</i>	<i>0.17</i>	<i>0.67</i>	<i>0.83</i>	<i>0.83</i>	<i>1.17</i>	<i>1.33</i>	<i>1.50</i>	<i>1.67</i>	<i>1.83</i>	<i>1.83</i>	<i>2.17</i>	<i>2.33</i>
Leadership													
Mentoring	0	0	0	0	0	1	1	1	1	1	2	2	2
Leadership	0	0	0	0	0	0	1	1	1	1	1	1	1
Product thinking	0	0	0	0	0	0	0	0	0	0	1	2	2
<i>Indicative average</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.00</i>	<i>0.33</i>	<i>0.67</i>	<i>0.67</i>	<i>0.67</i>	<i>0.67</i>	<i>1.33</i>	<i>1.67</i>	<i>1.67</i>
Business													
Strategic thinking	0	0	0	0	0	0	0	0	0	0	1	1	1
Commercial awareness													

REFINEMENTS

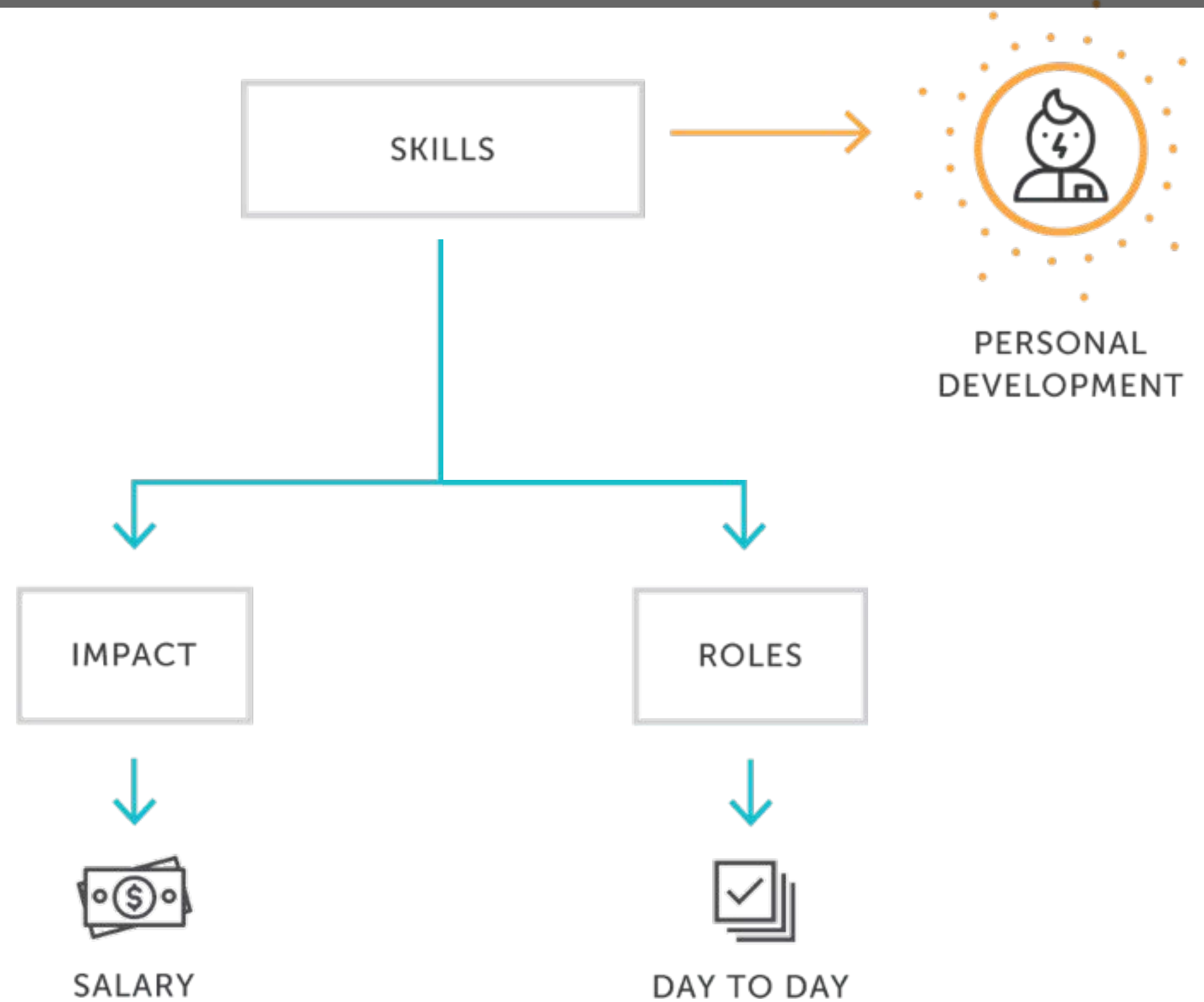
REFINEMENTS?

$$\text{level}_p = \sum_{i=0}^n \text{weight}_i \times \text{skillassessment}_{i,p}$$

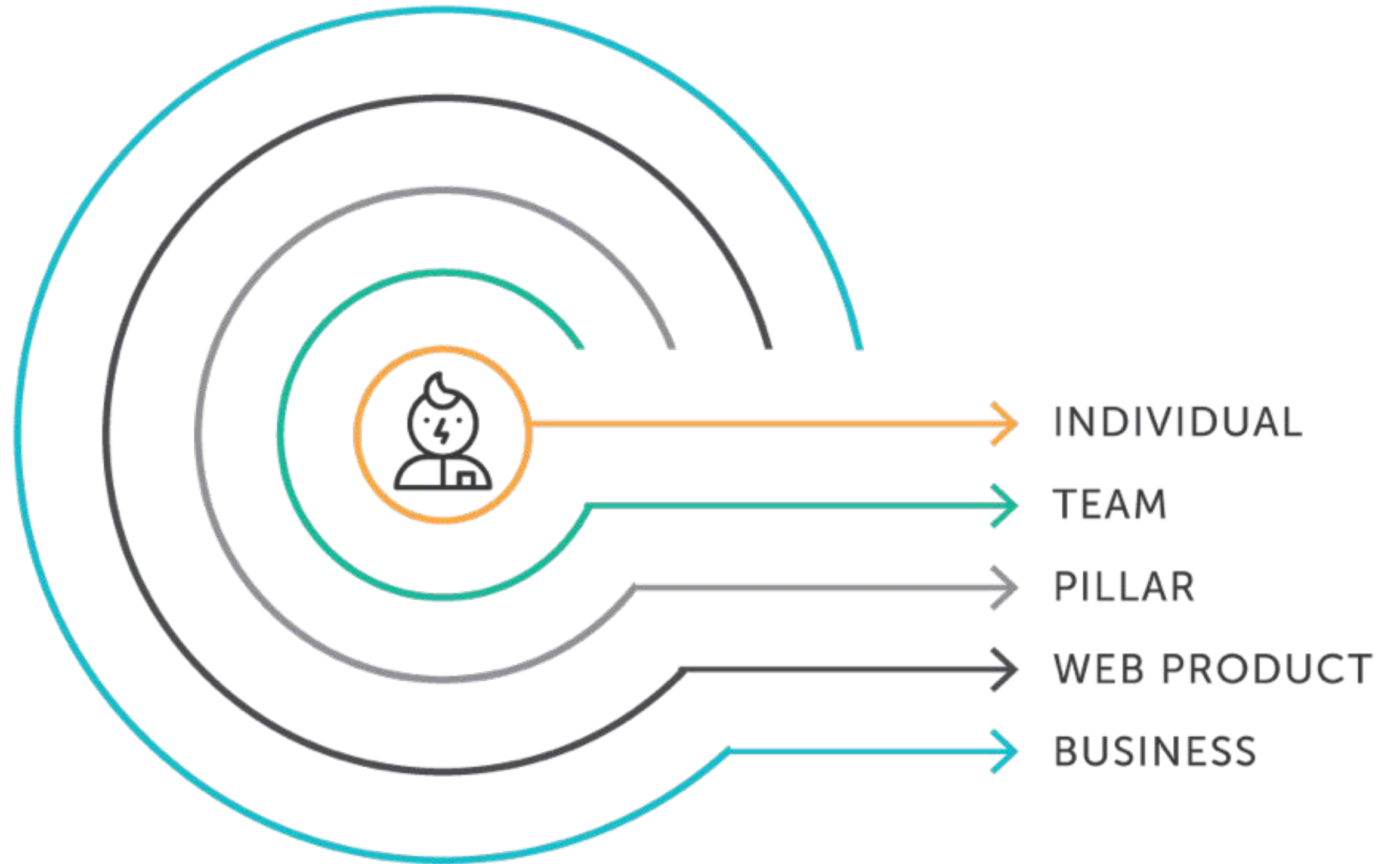
STOP



IMPACT MODEL



IMPACT RADIUS



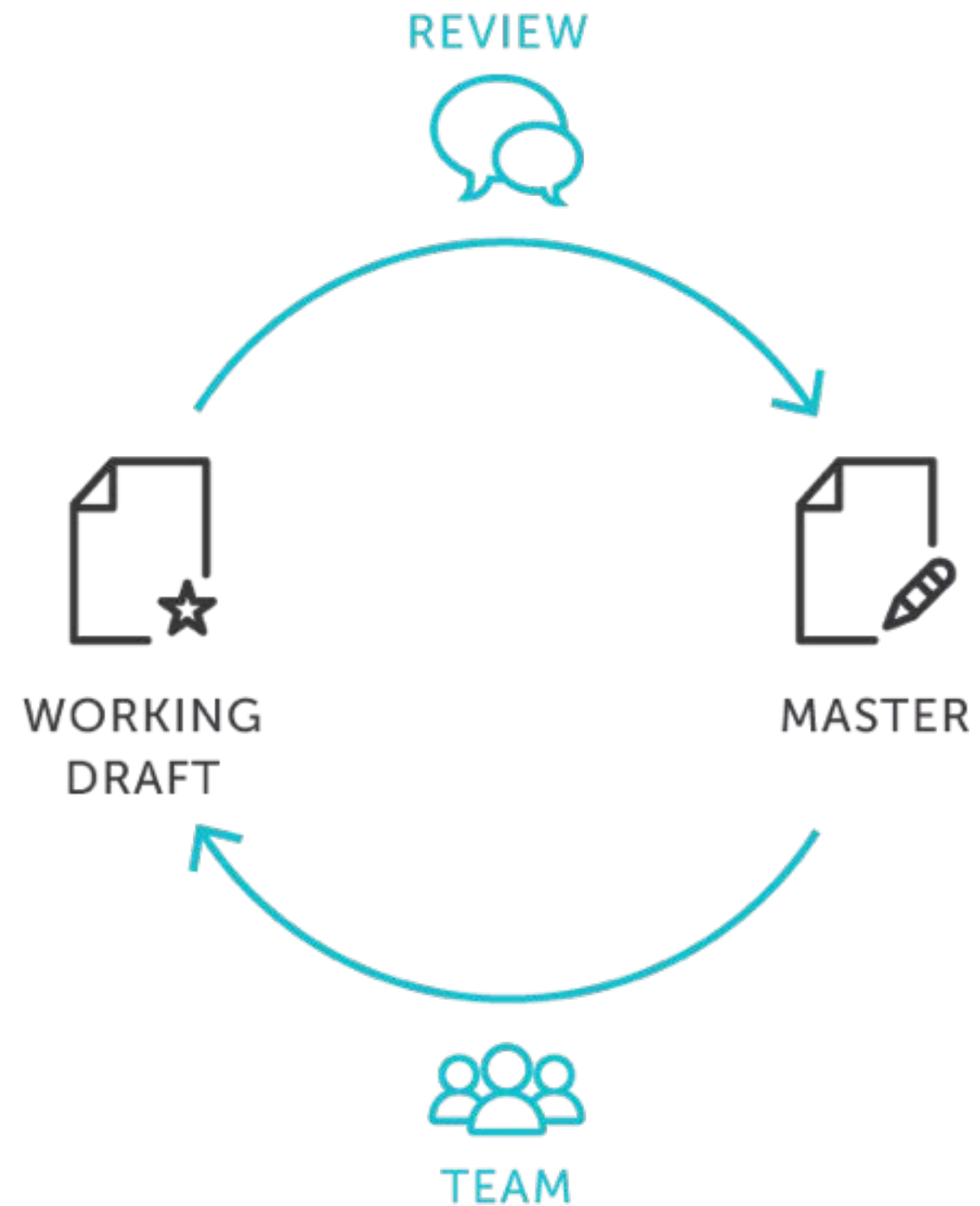
OUR CURRENT MODEL

A	B	C	D	E
	Impact Radius	Level	Impact	Notes
Senior	Influences their delivery team.	11	Improved focused conversations within the team and with stakeholders in relevant areas of expertise.	Has communication skills that enable productive discussions not only within the team, but also with stakeholders.
		12	Contributed effectively to all aspects of the team's product delivery (what the team delivered is better).	This level is concerned with improving the team's work/delivery capability, the impact relates to making the product the team builds better.
	Team leader Is a leader within their delivery team.	13	Coordinated team activities.	Starting to take partial ownership of small issues or activities within the team. For examples running retros, owning smaller projects within the team.
			Improved the functioning of the team (how the team works, is better).	Works with other members of the team to improve the way they work collectively. For example suggests & actions new ways to run retros, champions pair swapping, introducing team 1-1s, etc. This level is concerned with improving the team's process.
		14	All members of the team are aware of the value of the team's work. Improved team objectives. Effective balance of short vs. long term delivery tradeoffs.	Actively helps others understand the business value of the team's work and how their individual work contributes to the objectives of the team. Contributes positively to the creation of the team's objectives, helping to influence their creation, correct metrics, etc. Understands & can articulate the tradeoffs of practices, e.g. unit testing, technical debt.
15	Improved the team's delivery capability. Stakeholders are aware of the team's objectives, work & status.	Influences whole team, communicates with all levels of stakeholders, has successfully held full responsibility for technical delivery of desired key outcomes, and has done this on multiple projects.		

WHERE ARE WE NOW?



CONTINUOUS IMPROVEMENTS



ISSUES



RECRUITMENT

- **Explain and send the model to candidate**
- **Assessment session**



CAREER GROWTH



BENEFITS

- **Team movement**
- **Improved retention**



OTHER APPROACHES

- **Cogent**
 - [Martin Andrews - Open Salaries Talk at Spark the Change, Melbourne, 2015](#)
- **Fog Creek (Joel Spolsky)**
 - [How do you compensate programmers?](#)
 - [Fog Creek Compensation](#)
 - [Fog Creek Professional Ladder](#)
- **Spotify**
 - [Building a technical career path at Spotify](#)
 - [Spotify Technology Career Steps](#)
- **Rent the Runway - [Sharing Our Engineering Ladder](#)**
- **Chartbeat - [Engineering Ladders – Helping Engineers Along Their Way](#)**
- **Artsy - [Artsy's Engineering Compensation Framework](#)**

**FOCUS ON WHAT CREATES THE MOST IMPACT.
YOUR CAREER SUCCESS AND GROWTH WILL FOLLOW.**

