

THE
RIGHT CAREER
FOR **EVERYONE**
IN THE **WORLD**



ETNO Digital Upskilling for All Conference

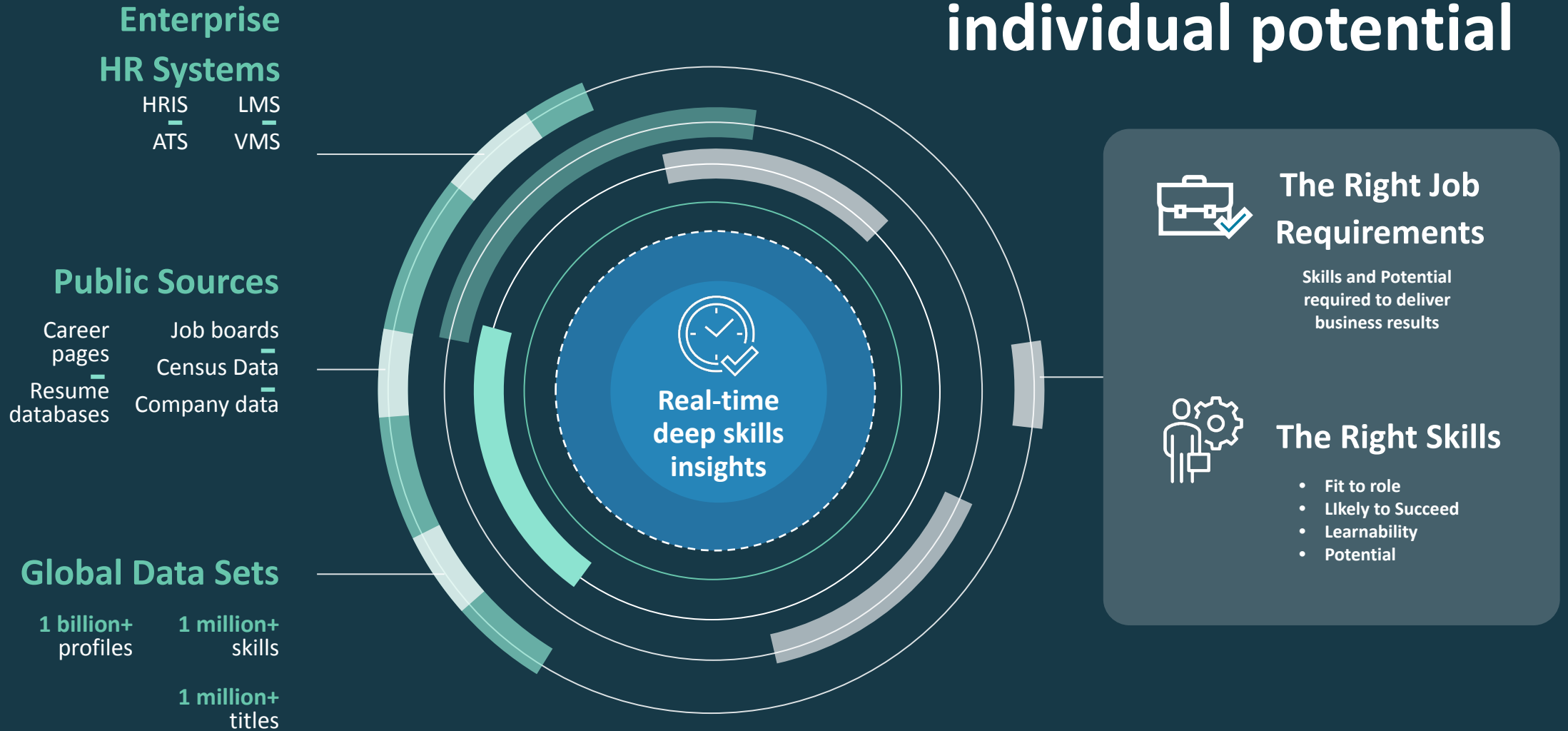
The Role of Skills AI

Andrea Shiah,
Head of Strategy and Transformation, Eightfold.ai

May 24, 2022

Why Skills AI is the key to helping workers and organizations grow their talent

Eightfold AI unlocks individual potential



Enterprise HR Systems

HRIS
LMS
ATS
VMS

Public Sources

Career pages
Job boards
Resume databases
Census Data
Company data

Global Data Sets

1 billion+ profiles
1 million+ skills
1 million+ titles

Telecom Industry Skills Insights

Such trends are putting more pressure on Telcos to transform

From...



Discrete Network Elements

- Expensive and hard-to-manage
- Inability to scale and lack of automation



BAU Operating Model

- Longer time to Market
- Continuous reprioritization and rework



Limited Data Exploitation

- Siloed data systems
- Low business intelligence and analytics maturity



Closed Management Infrastructure

- Legacy systems tightly coupled to vendor technologies
- Limited flexibility and interaction with external systems



Reactive Security

- High number of incidents
- Increased legal and regulatory risks

...To



Autonomous Virtual Communications

- Autonomous management of multiple network elements at scale
- Fully utilize and optimize the capabilities of 5G



Agile Operating Model

- Accelerated product delivery
- Greater flexibility to respond to customers' needs



Data-Centric Enterprise

- Seamless Interaction across various data systems
- Data driven decision-making via real-time analytics



Platform for Open Services

- Open APIs for digital service management
- Integration with external partners, enabling new services and business models

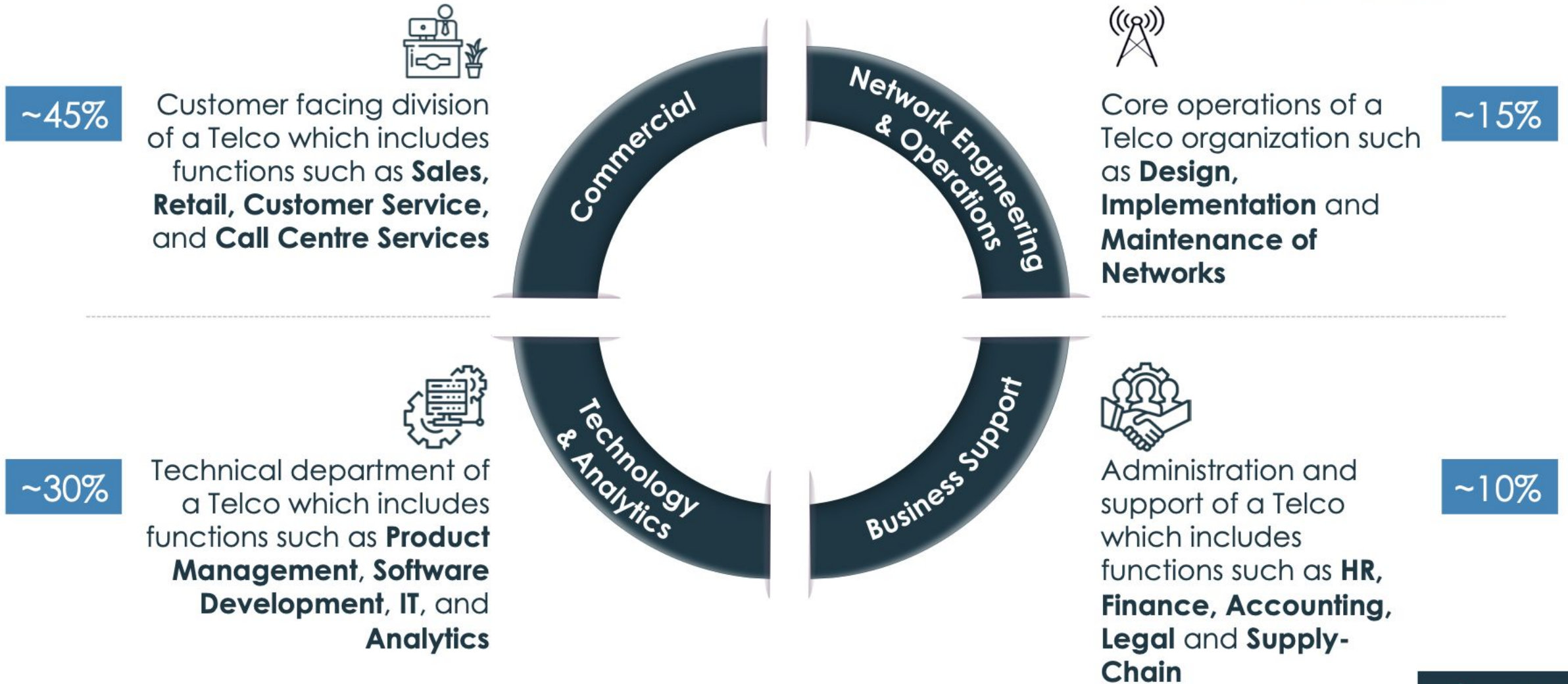


Integrated Security

- End-to-end security practices
- Real-time threat detection and prevention
- AI-driven regulatory compliance

4 Key Talent groups make up a Telecom organization

 % Telco Workforce Employed



2

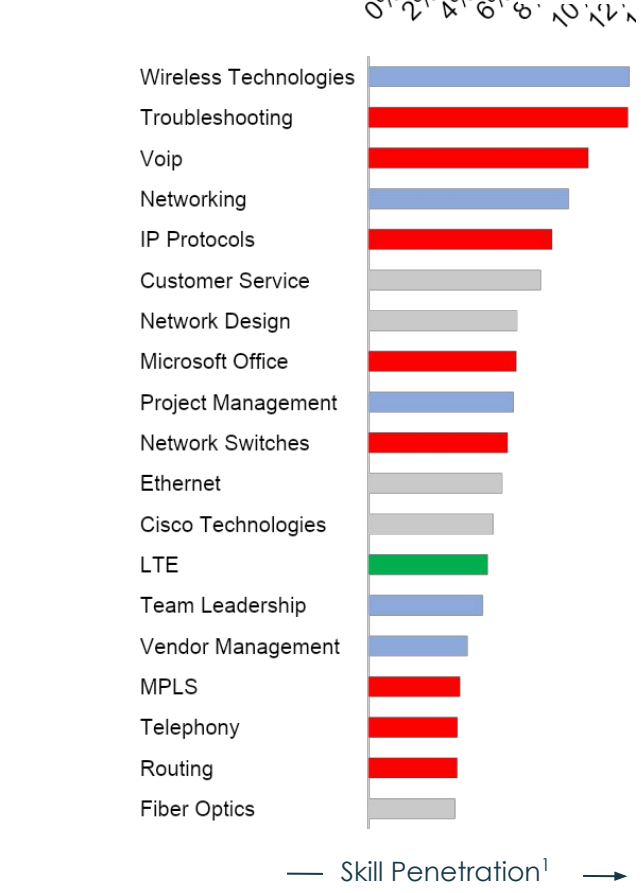
Similarly, the top penetrated skills in the industry are either stable or declining



Commercial skills



Network Engineering & Operations skills



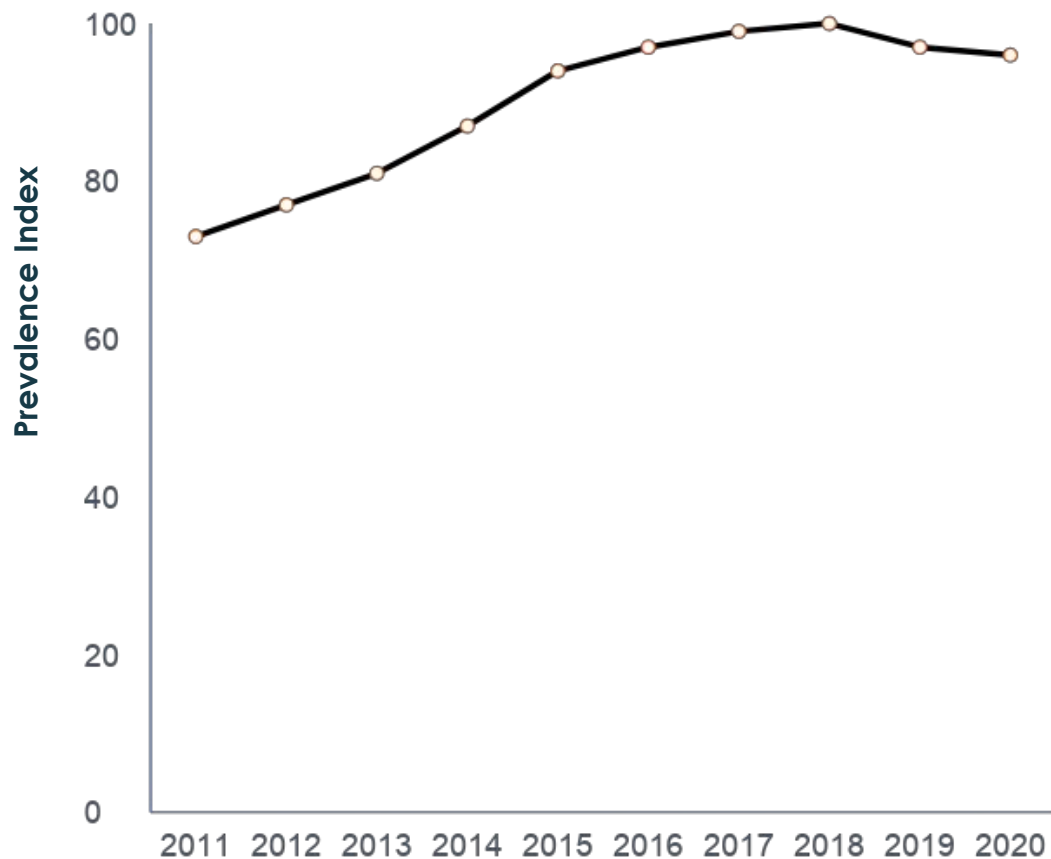
Technology & Analytics skills



Business Support skills



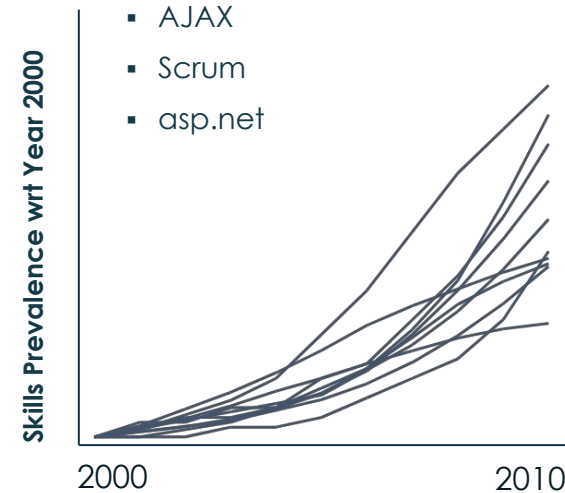
Software Engineer – role prevalence



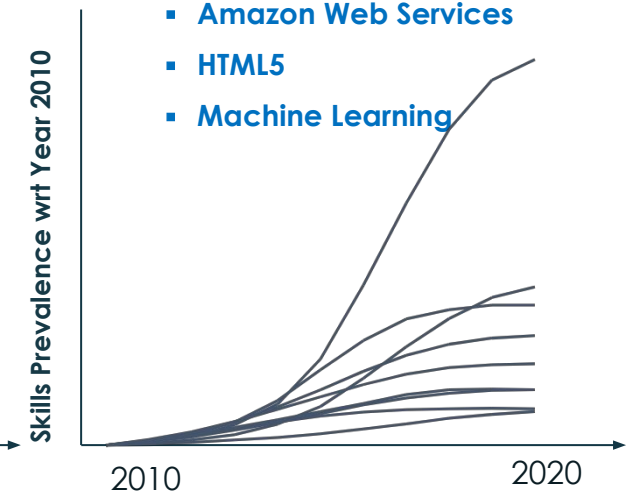
Software Engineer – skill trends

Top rising skills¹ in 2010

- Spring Framework
- jQuery
- Jira
- Apache Maven
- JSON
- Android Development
- C#
- AJAX
- Scrum
- asp.net

Top rising skills¹ in 2020














- **react.js**
- **Spring Boot**
- **Docker**
- **AngularJS**
- **node.js**
- **MongoDB**
- **Git**
- **Amazon Web Services**
- **HTML5**
- **Machine Learning**



3

Moreover, innovation trends are increasing the need for new skills/capabilities

■ Skills rapidly gaining relevance

	 5G and IoT	 Cloud and Edge Computing	 Big Data & AI	 SDN and SASE	 Open RAN
 Use-cases	<ul style="list-style-type: none"> Broadband-Like Mobile Service Low latency and High Network Capacity Smart Traffic Mobility and Grid-Automation Expanded Industrial IoT 	<ul style="list-style-type: none"> Network automation and management Highly Scalable and Flexible Infrastructure Faster time-to-market Targeted consumer experiences and solutions 	<ul style="list-style-type: none"> Virtual Assistants for Customer Support Preventive maintenance Network Optimization Recommendation Engines 	<ul style="list-style-type: none"> Efficient, smarter network management Dynamic WAN reroutes Stronger security posture Reduced time-to-market for new products 	<ul style="list-style-type: none"> Flexibility, choice, uniformity and agility in RANs Lower TCO of Networks Resource Sharing Traffic Steering
 Key Skills	<ul style="list-style-type: none"> Network Slicing Massive MIMO NFV² Node.js Near Field Communication Small Cells 	<ul style="list-style-type: none"> Cloud Computing Virtualization AWS Vmware Edge Computing Fog computing 	<ul style="list-style-type: none"> Python TensorFlow Data Mining Hadoop Machine Learning Deep Learning NLP 	<ul style="list-style-type: none"> SD-WAN Network Virtualization Network Automation Kubernetes DevOps Cyber Security DevSecOps 	<ul style="list-style-type: none"> C-RAN CI/CD Practices vRAN Interoperability OpenStack
 Telco' Talent Readiness¹					

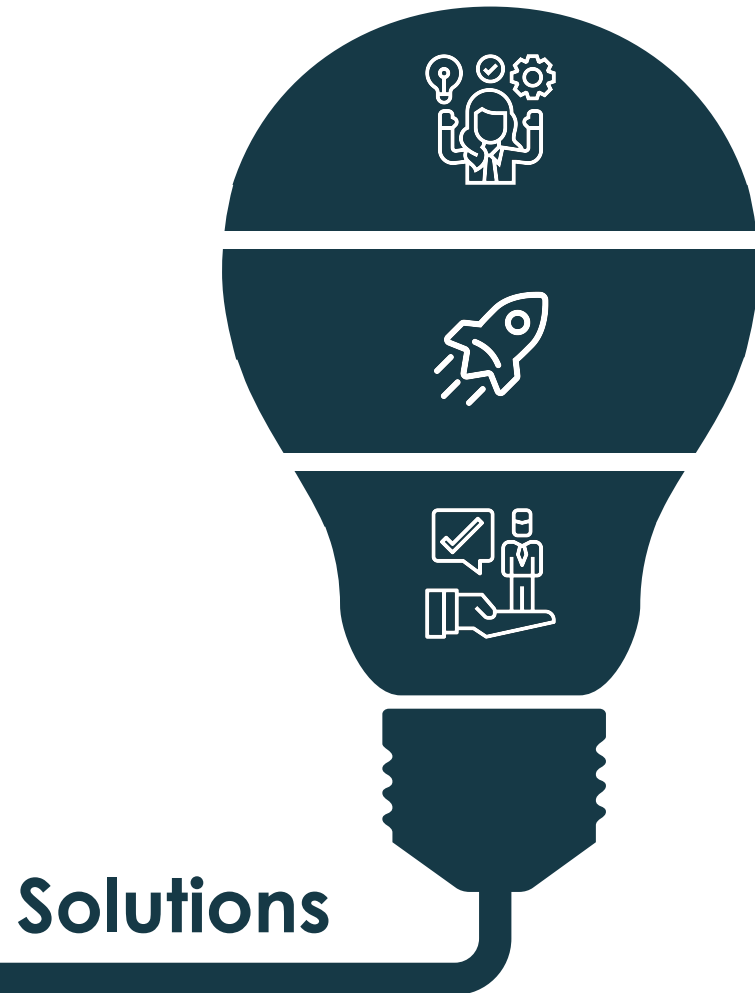
¹ Used the skill penetration of Key Skills to assess the workforce readiness for each of the capabilities/Innovation Trends

² Network Function Virtualization

Eightfold[®] Confidential. Copyright ©2020, Eightfold AI Inc.

Source: Eightfold Talent Intelligence Platform ; McKinsey (The 5g Era : New horizons for advanced electronics and industrial companies) ; 5G and IoT: Emerging Technologies With Endless Use Cases ; (O-RAN Alliance (O-RAN Use Cases and Deployment Scenarios) ; Deloitte (Operationalizing SDN and NFV Networks)

3 solutions to help overcome the talent challenges



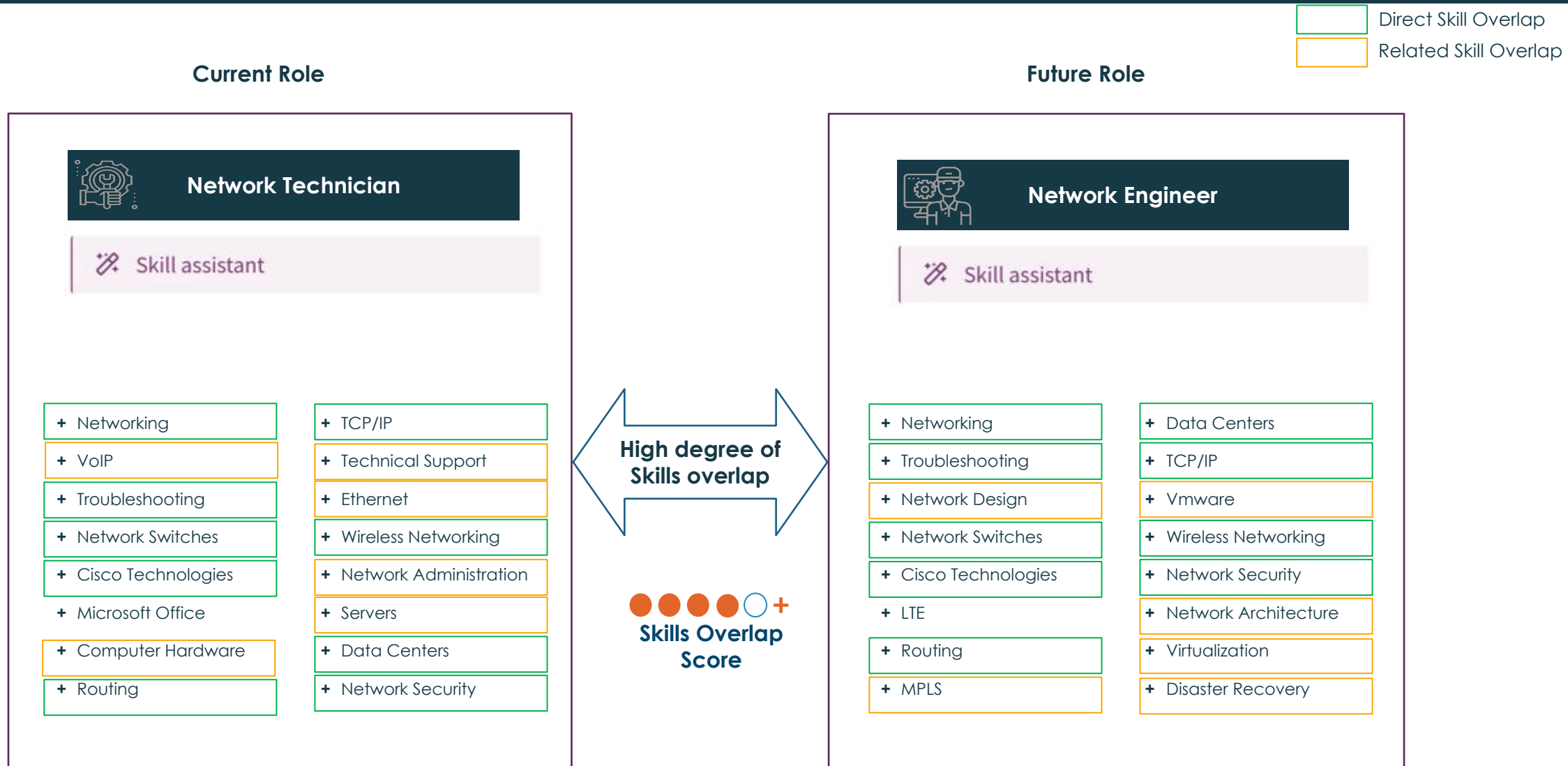
1. Upskill/reskill the current workforce

2. Calibrate roles with future skills

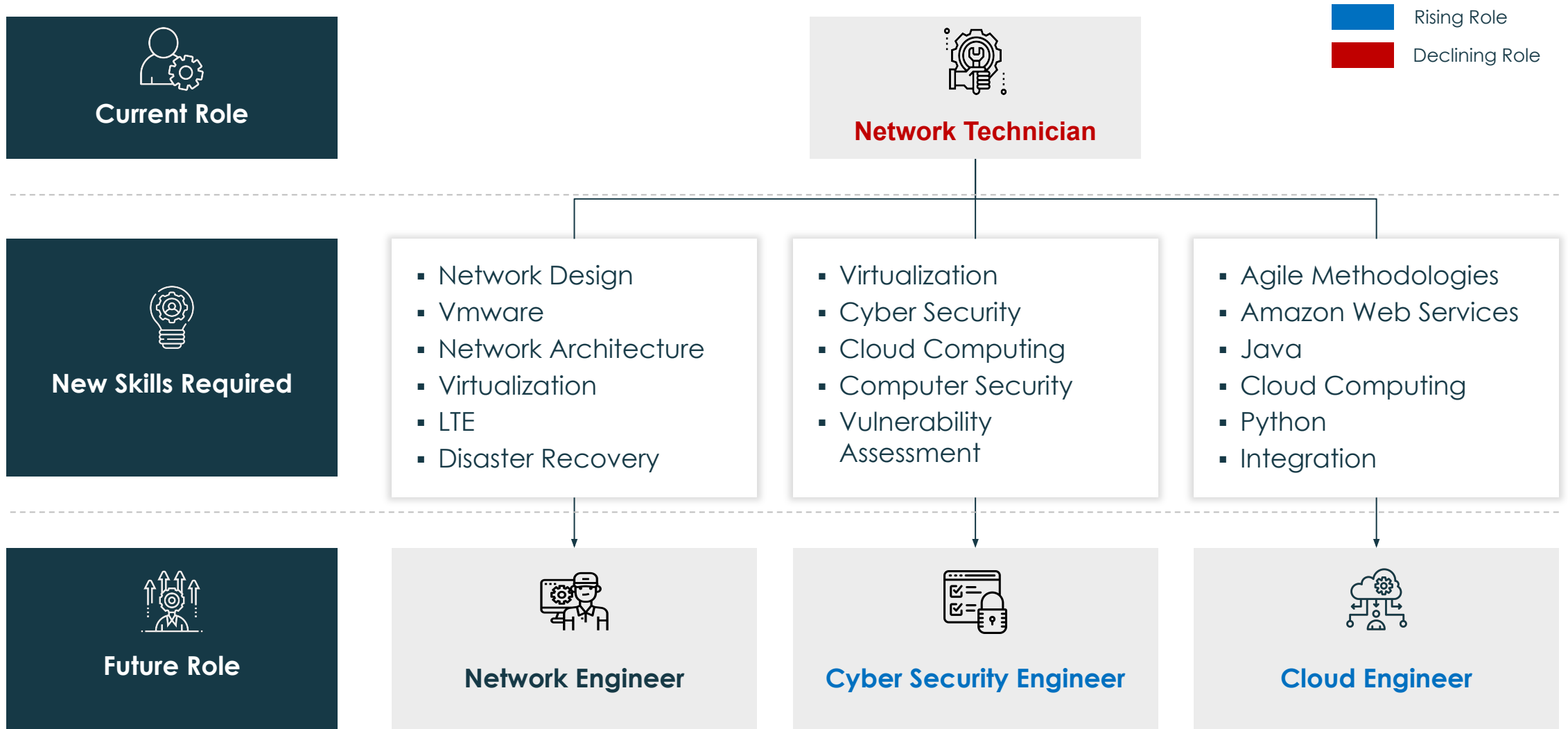
3. Hire for Potential

Analyze how the current and future roles are related

Skills inferred and validated by
Eightfold AI



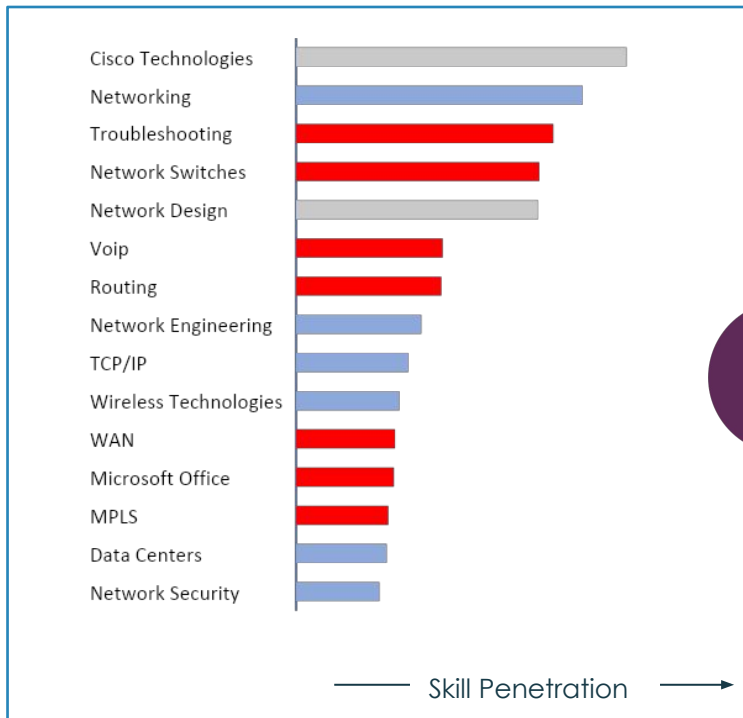
Outline the skills requirements into the future roles



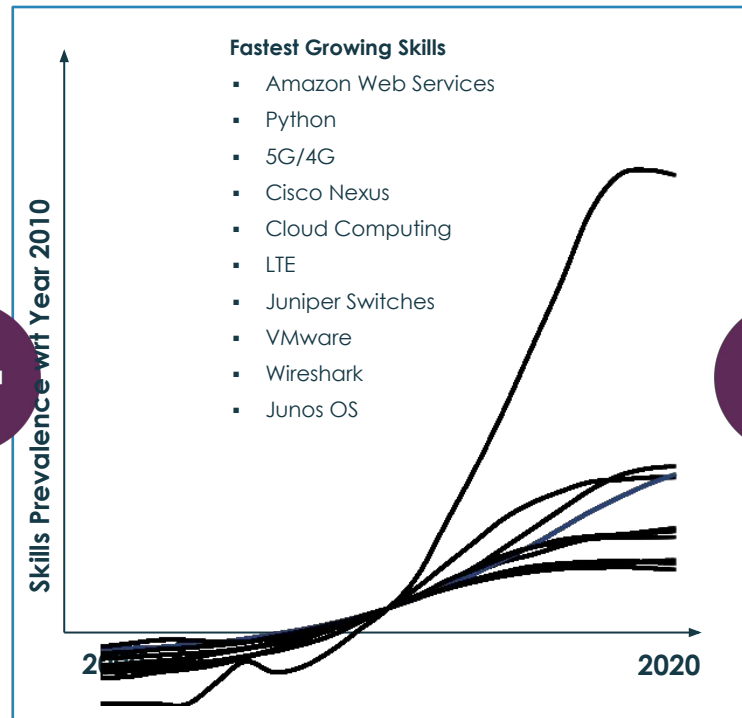
2

Telcos can build the workforce of tomorrow by calibrating roles with the skills of the future

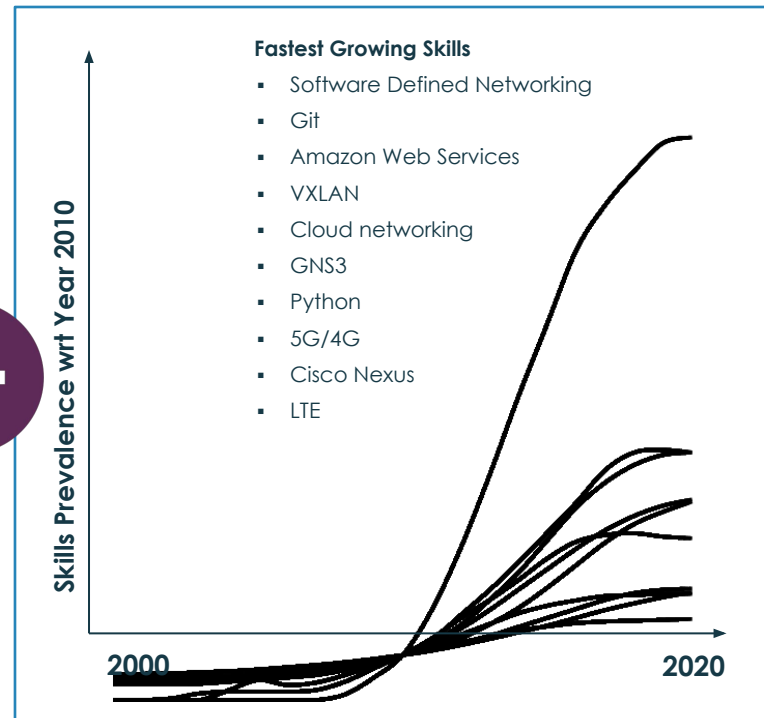
Top skills for Network Engineers (NEs)



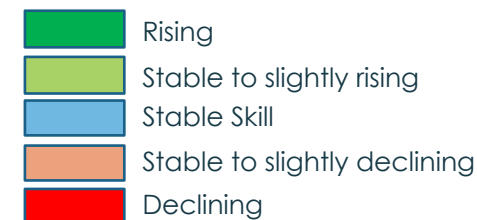
Emerging skills for NEs in the Telecom workforce



Fastest rising skills in best-in-class¹ companies



Future-ready Network Engineer role



3

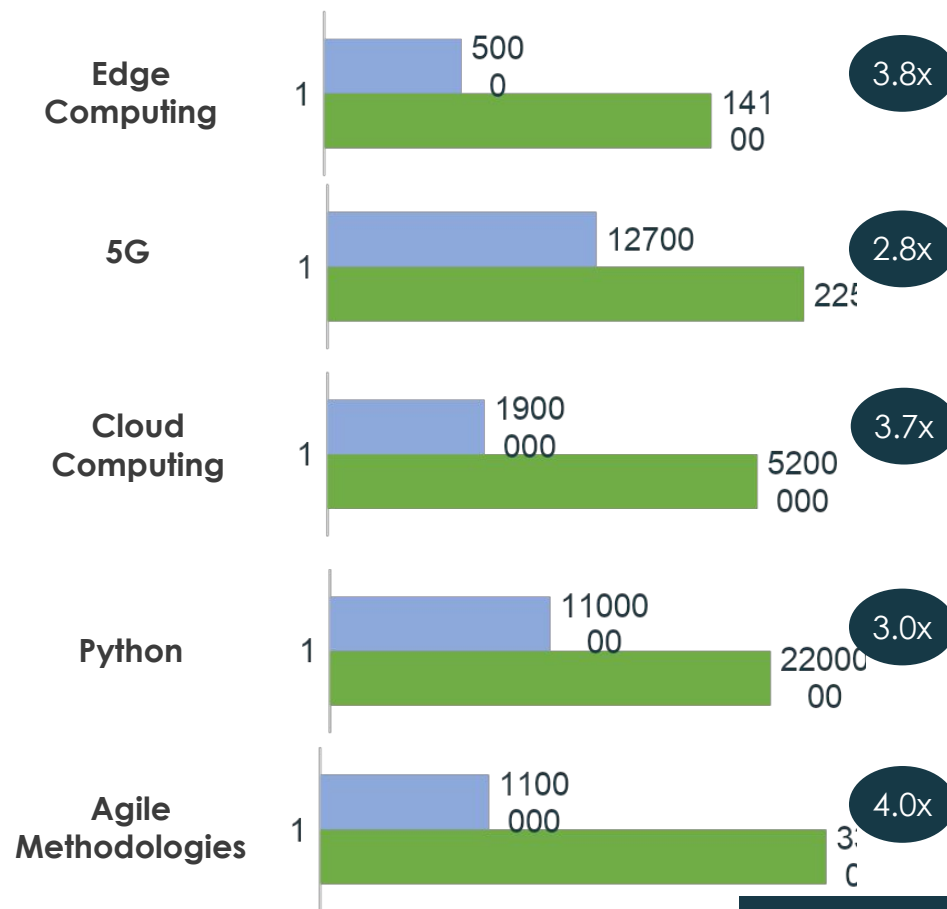
Telcos can adopt “hiring for potential” approach, which makes available a much larger talent pool

■ Knows skill ■ Potential to learn skill
 Talent pool expansion when hiring for potential

Telco workforce

	← Adjacent Skills →				
Edge Computing	Cloud Computing	IoT	Virtualization	LTE	Wireless Technologies
5G	LTE	Wireless Technologies	4G	Network Function Virtualization	MIMO
Cloud Computing	SaaS	Virtualization	Integration	Data Centers	Solution Architecture
Python	C++	Algorithms	Java	R	Data Structures
Agile Methodologies	Scrum	SDLC	Requirement Analysis	User Centred Design	Continuous Integration

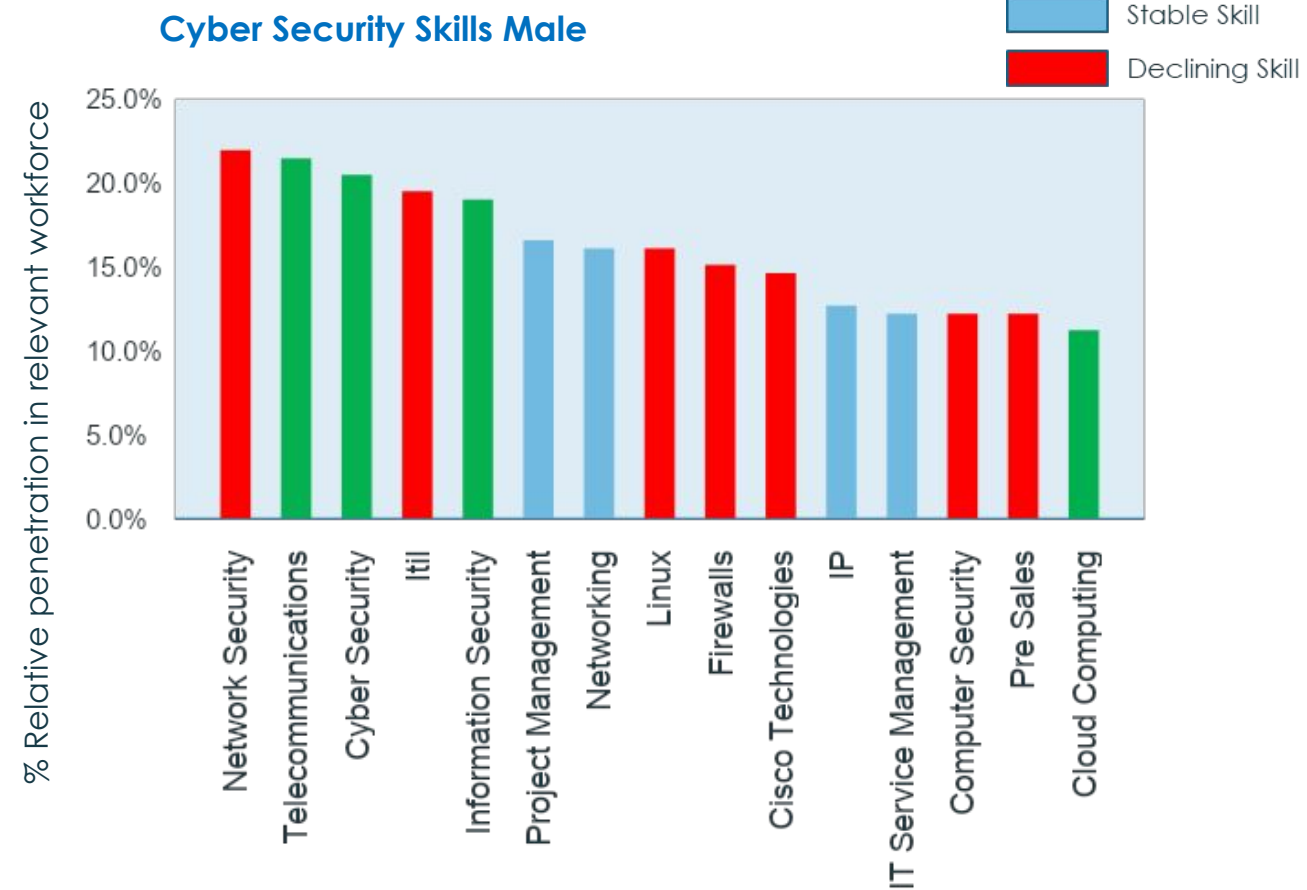
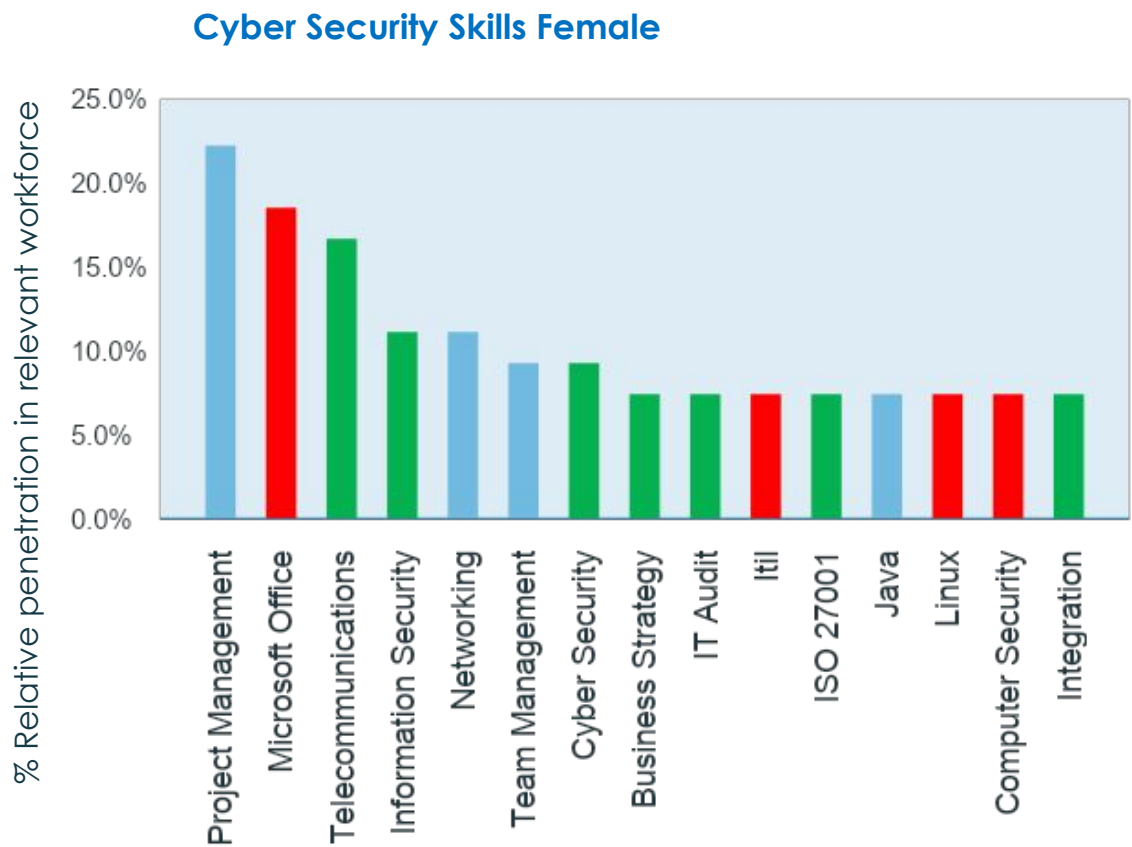
Potential to learn based on adjacent skills - US Workforce



Future Skills

Gender Skills Deep Dive

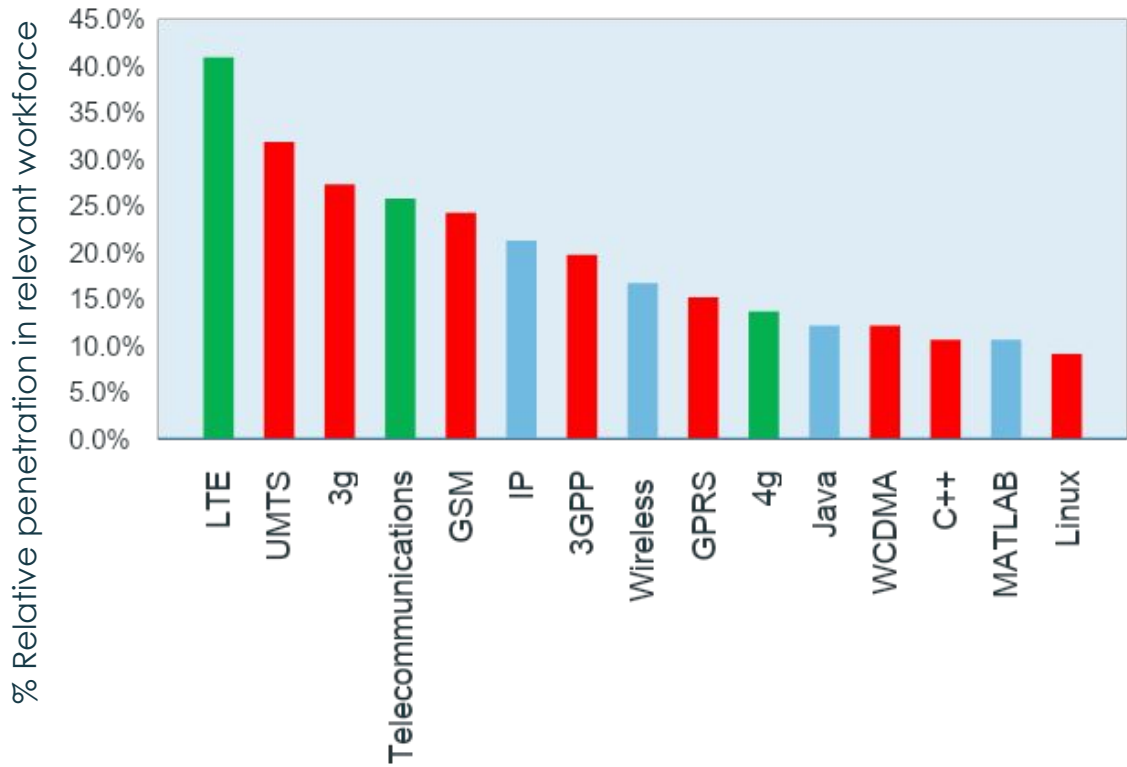
2 Skill bakeoff – Cyber Security Female vs Male Europe



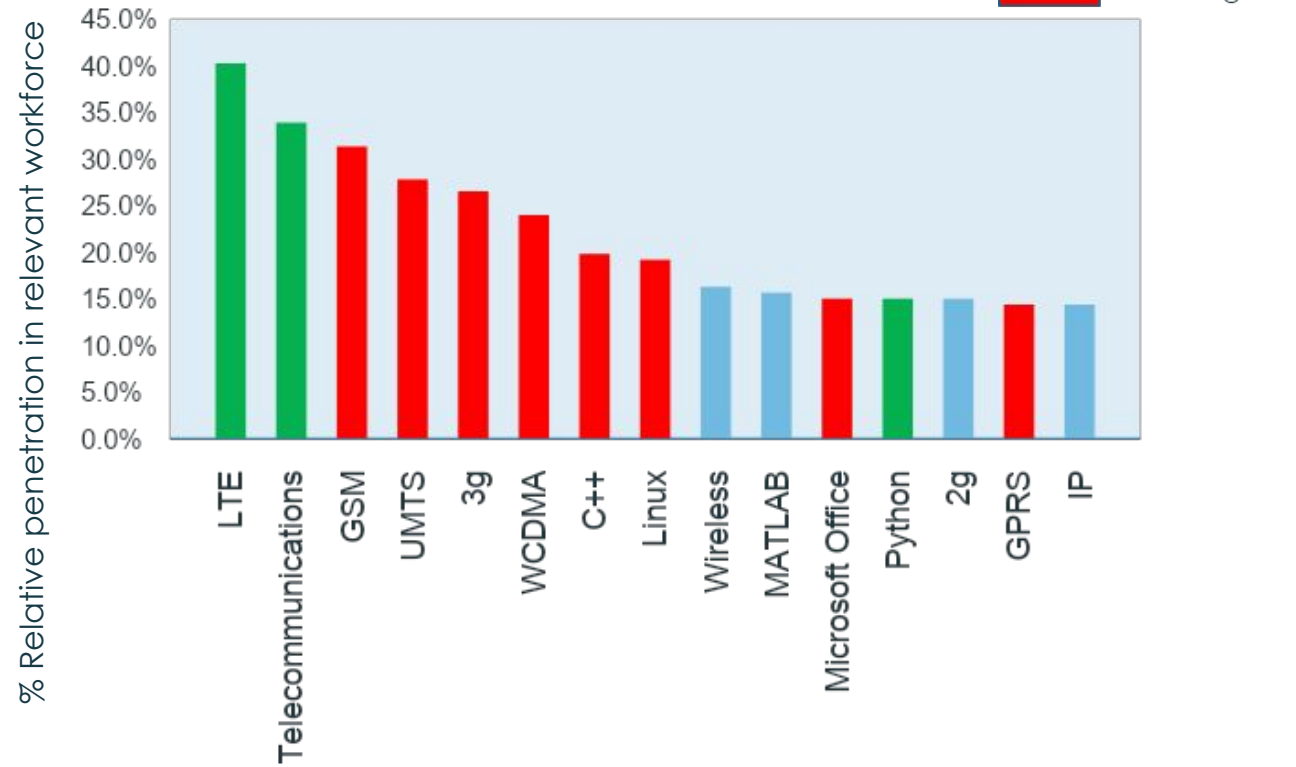
- Rising Skill
- Stable Skill
- Declining Skill

2 Skill bakeoff – 5g Engineer Female vs Male

5g Engineer Skills Female



5g Engineer Skills Male



- Rising Skill
- Stable Skill
- Declining Skill

Employee Experience DEMO

AI for Good: Supports **Worker Inclusivity, Mobility and Upskilling**

AI Feature	Worker Benefits
Transparency of jobs and matching	<i>Empowers workers - movement is no longer dependent on who you know</i>
Ecosystem that supports career development	<i>Able to identify learning, mentors and projects that support career mobility objectives</i>
Skills Adjacency Intelligence - identifies potential to learn new skills	<i>Supports successful upskilling, ensuring employees develop rising skills in growing demand</i>
Skills-based decisions and inclusivity tools	<i>Limits bias throughout the talent processes</i>
Automation lessens administrative work	<i>Recruiters, people leaders, and HR leaders are able to focus on higher order and more critical needs</i>

APPENDIX

With skill intelligence and matching, many new activities are enabled



Talent Strategy

- Automate Job skill requirements to build critical skills at scale
- Understand prevalence of jobs and skills, and rising and declining skill trends
- Understand workforce skills
- Benchmark workforce skills to competitors or industry



Talent Mobility, Learning and Succession Planning

- Employees able to match to internal jobs for transparency and empowerment
- Align learning with career mobility objectives
- Identify pathways for employee upskilling based on adjacent skills (i.e. potential)
- HL tools to support direct report development
- Matching and automation for succession planning



Talent Acquisition

- Match applicant in ATS database for sourcing
- Comprehensively screen hundreds of applicants in minutes
- Personalized and Targeted CRM
- Efficiently manage recruiting events
- Operationalize inclusive recruiting practices for more diversity
- Automated scheduling, interview guides and feedback
- Performance dashboards for recruiters and leaders

Eightfold's Commitment to the Ethical Principles for AI

Our commitment to ethical AI is embodied in our human-centered AI design and governance. Eightfold AI is built on the principles of fairness, accuracy, and robustness. These values guide the lifecycle of our services: from our privacy-forward approach to AI input data, to creating insights that help institutions foster an equitable workforce.

(1) Responsible: We believe that human oversight is a critical tool for responsible AI governance. Eightfold conducts regular feature audits to check against biases before implementing any changes to the algorithm.

(2) Equitable: Every individual should be matched to opportunities that best fit their capabilities and skills. Eightfold's platform is designed to be fair across protected groups. Our algorithms do not consider gender, race, age, and other personal protected characteristics that can lead to unconscious bias.

(3) Traceable: Eightfold validates AI systems with pre-deployment testing to reinforce risk management and human oversight. We couple these safeguards with strong post-deployment controls to provide transparency and configurability to our customers and candidates.

(4) Reliable: Eightfold is compliant with OFCCP non-discrimination obligations. Eightfold's AI validation methods such as candidate masking and statistical parity provide reliable measures for mitigating biases.

(5) Governable: Our AI drives equitable employment and talent management. We govern our AI with the goal to facilitate outreach to diverse groups, mitigate selection biases, and promote diversity and inclusion. Eightfold brings experience in working jointly with government and stakeholders to accelerate labor market transitions with the responsible use of AI.

How clients are measuring success with AI



Quality

145%* Avg increase in % female hires

190%* Avg increase in % ethnic minority hires



Experience

70%* Avg increase in internal hires



Efficiency

35% Faster Time to Fill Overall (ConAgra)

60% Fewer Recruiter Hours per Role (Air Asia)

* 9 Month average across Eightfold customers, February 15, 2022