



ETF – Burning Glass

Case study – day 2

Big Data for Labour Market Intelligence (LMI)

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Burning Glass turns real-time data into actionable insights

- Burning Glass Technologies is a leading job market analytics firm, helping global enterprises track and plan for disruptive skills while aligning talent strategy to business strategy.
- Our data-driven approaches to strategic workforce planning help firms to:
 - Predict future changes to their workforces and their impact;
 - Rearchitect roles to ensure their workforces are future ready and to optimize for cost & availability;
 - Identify new talent pools for hard to fill jobs; and
 - Map reskilling and upskilling pathways and align learning investments to talent strategy.
- Burning Glass's team of 380+ employees spans four continents and includes deep expertise in applying big data methods, natural language processing, taxonomy development, and complex model development in the HR domain. The company is backed by global private equity leader KKR.



Sourcing Talent through Skills

Jobs are defined by the **skills they require**



But those skills are **constantly changing**



Our job and skills taxonomies form a common language that **decodes these changes**



This yields real-time insight into the **skills that unlock opportunity** and prepare the workforce for the future

3.4 million

Active unique jobs collected daily

40,000

Sources across the web - job boards and corporate sites

>1 million

Firms represented, from large corporations to SME's



Dynamic Labor Market Taxonomy

23 Career Areas
1,700 Occupations
18,000 Skills
60,000 Skill Variants

80%

Deduplication ensuring integrity and consistency

300 million

Resumes processed per annum

>1 billion

Historical job market records

What it Takes: Data and Analytics Engine

Normalising the labour market to enable data-driven conclusions



Capturing Job Market Data

3.4 million active,
unique jobs daily

Tagging and Structuring

70+ elements
of metadata

A Common Language

Proprietary
taxonomy for valid
comparisons

Drawing Conclusions

Insight from
in-demand skills

Jobs Have a Genome

And leading recruiters need a map

- Jobs are defined by skills
- Increasingly, the unit of currency of the job market is skills – not jobs
- Skills express the job market's (workforce's) dynamics
- Skills are the key to unlocking mobility within and between roles
- Mapping between skills and jobs provides a powerful bridge between Talent Analytics and Strategic Workforce Planning



OECD paper – Occupational representativeness

OECD Science, Technology and Industry Working Papers
2021/05

Burning Glass Technologies'
data use in policy-relevant
analysis: An occupation-
level assessment

Emile Cammeraat,
Mariagrazia Squicciarini

Link: <https://dx.doi.org/10.1787/cd75c3e7-en>

Proposes: Weighting schemes aimed at making BGT-based analysis representative

Concludes: BGT appears as a good source of information and allows an up-to-date snapshot of jobs and skills demand patterns and trends

What it Takes:

Robust, Multi-Tiered Ontologies for Skills & Jobs



Skill Hierarchy Sample: Web and Mobile



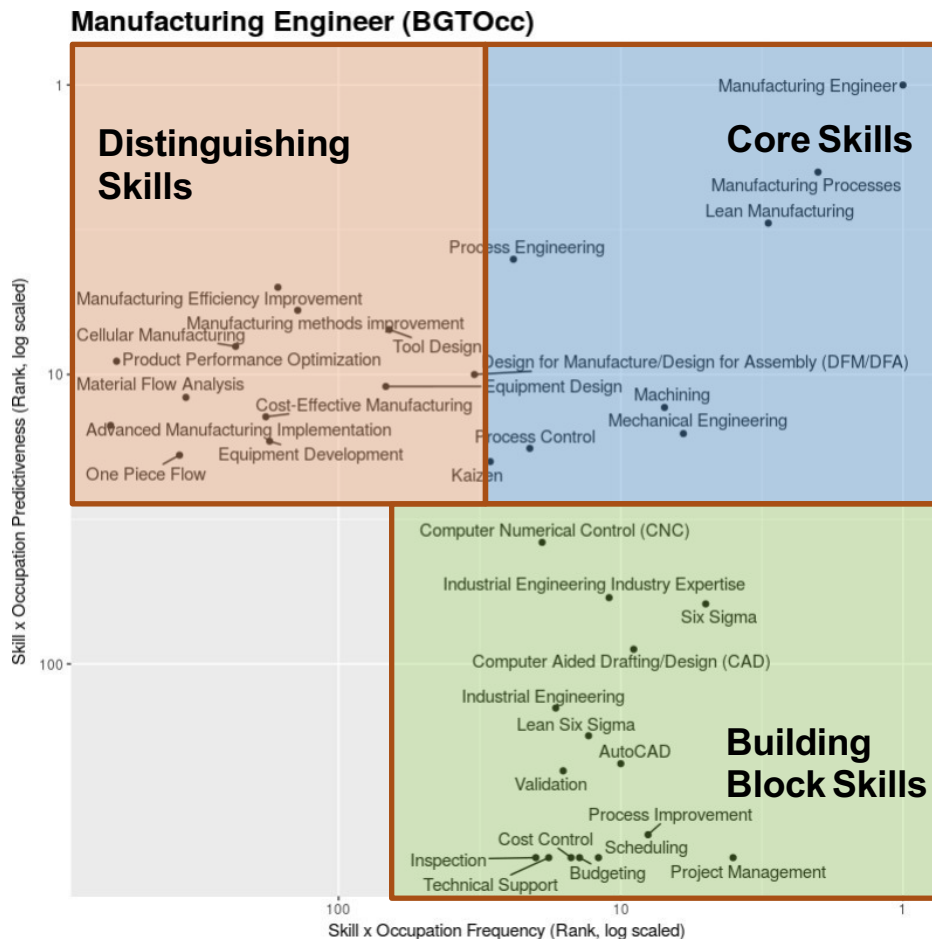
Metadata Elements

- Skill Type
- Description
- Demand
- Projected Growth
- Occupations Hiring
- Average Salary
- Industries Hiring
- Employers Hiring
- Similar Skills

The Intersection of Skill & Occupation Taxonomies



Yields Insight on What Drives the Value of Talent

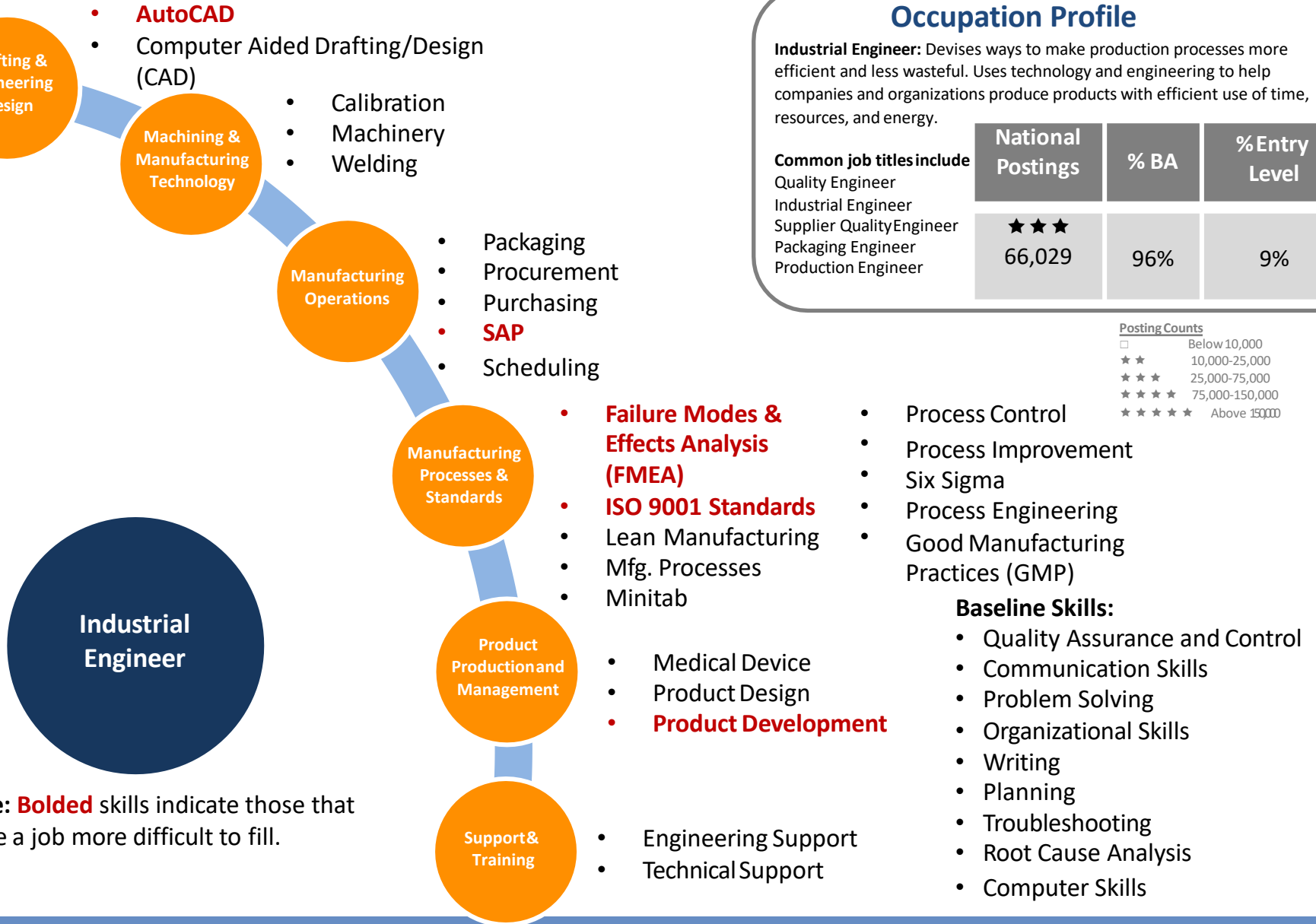


Core Skills: Definitional skills to each occupation which workers need in order to contribute.

Building Block Skills: Although these are required and relevant, **workers aren't always trained in these skills**

Distinguishing Skills: These are emerging, fast-growth skills or core opportunities for specialization that **enable workers to differentiate themselves – and often command significant salary premiums**

How Skills Define Occupations



Occupation Profile

Industrial Engineer: Devises ways to make production processes more efficient and less wasteful. Uses technology and engineering to help companies and organizations produce products with efficient use of time, resources, and energy.

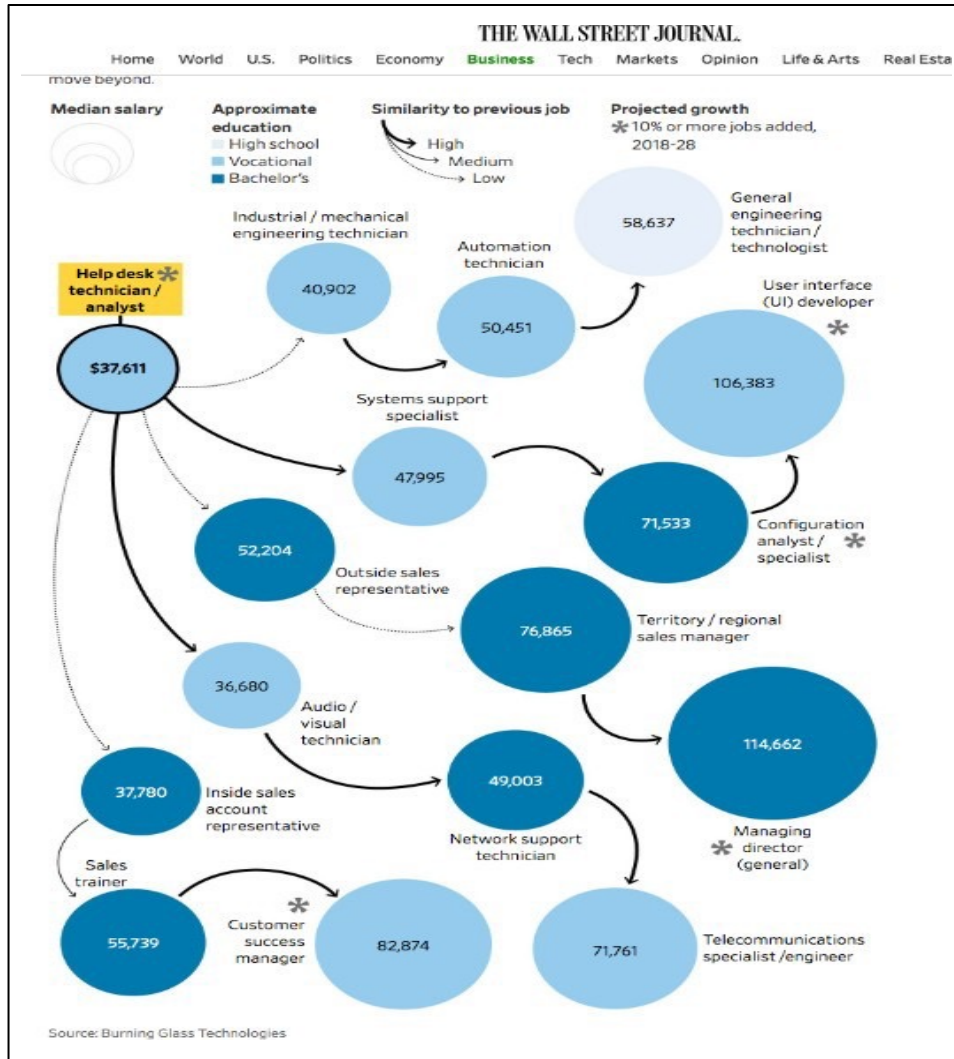
Common job titles include	National Postings	% BA	% Entry Level
Quality Engineer	★★★ 66,029	96%	9%
Industrial Engineer			
Supplier Quality Engineer			
Packaging Engineer			
Production Engineer			

Posting Counts

- Below 10,000
- ★ 10,000-25,000
- ★★ 25,000-75,000
- ★★★ 75,000-150,000
- ★★★★ Above 150,000

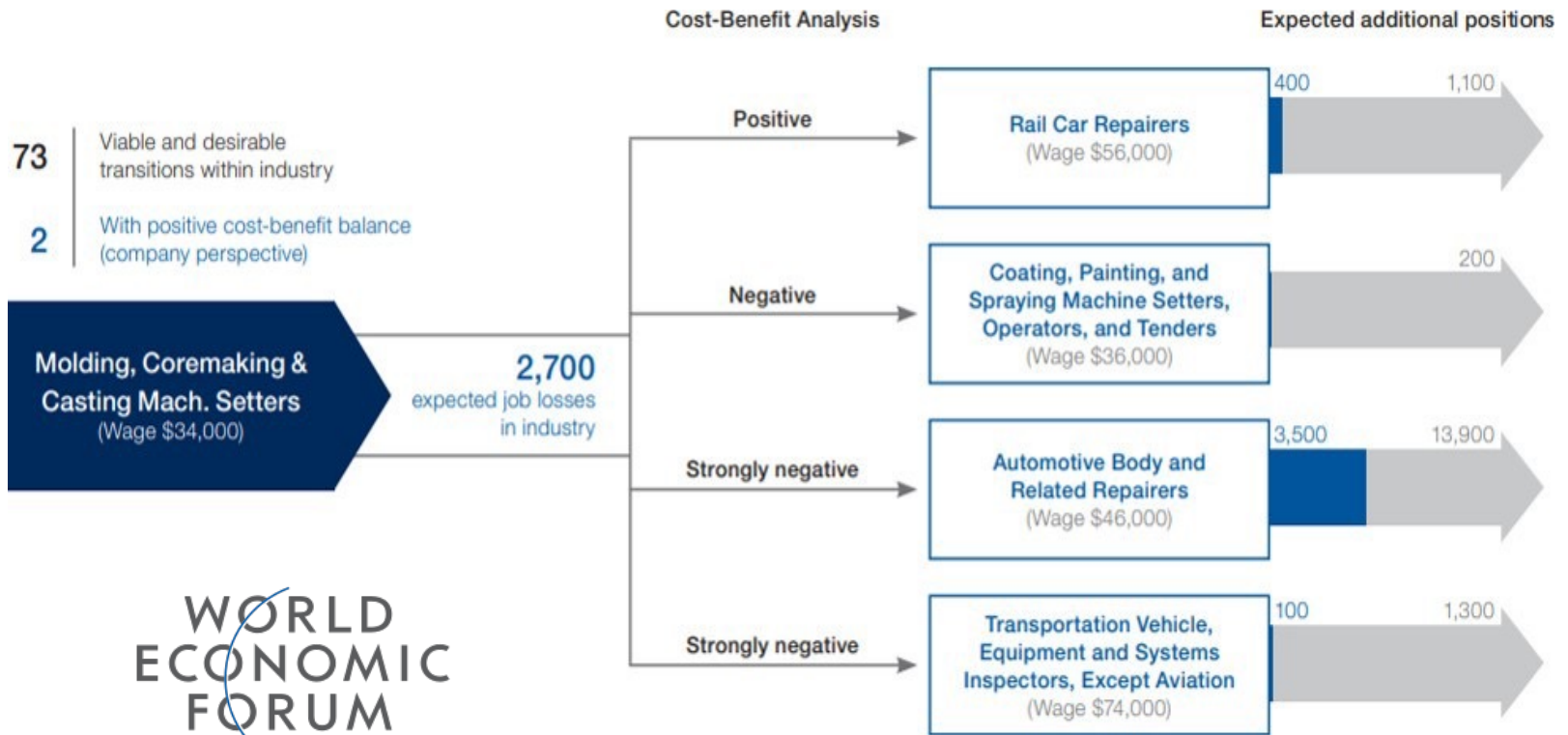
Note: **Bolded** skills indicate those that make a job more difficult to fill.

Reskilling and Upskilling Pathways



- Map common career paths
- Map uncommon career paths
- Discover “hidden” employee skills
- Define the optimal skill requirement for roles

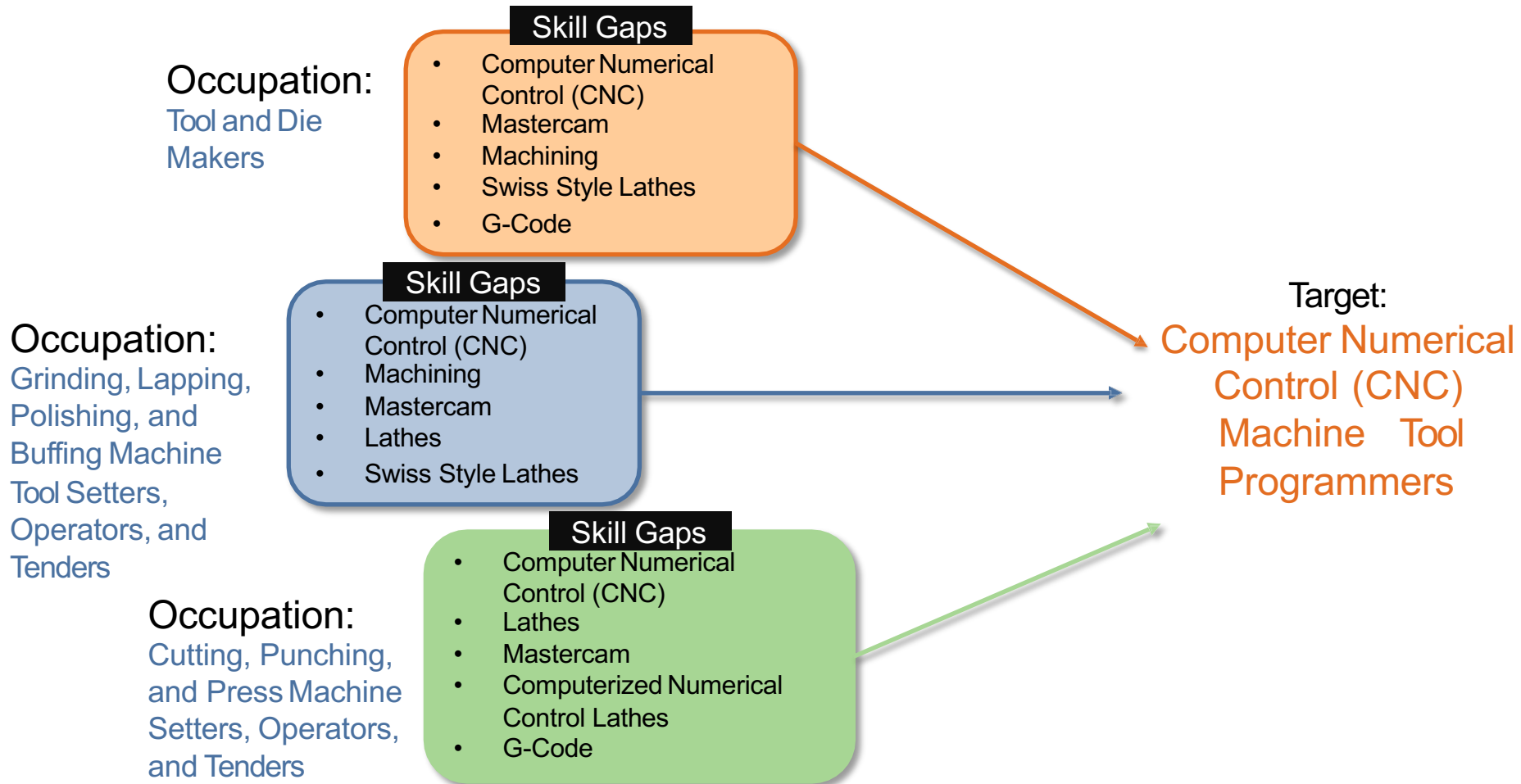
Map Pathways To Advance Careers By Building on Workers' Existing Skills



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OF THE WORLD

Find The Most Efficient Opportunities For Retraining

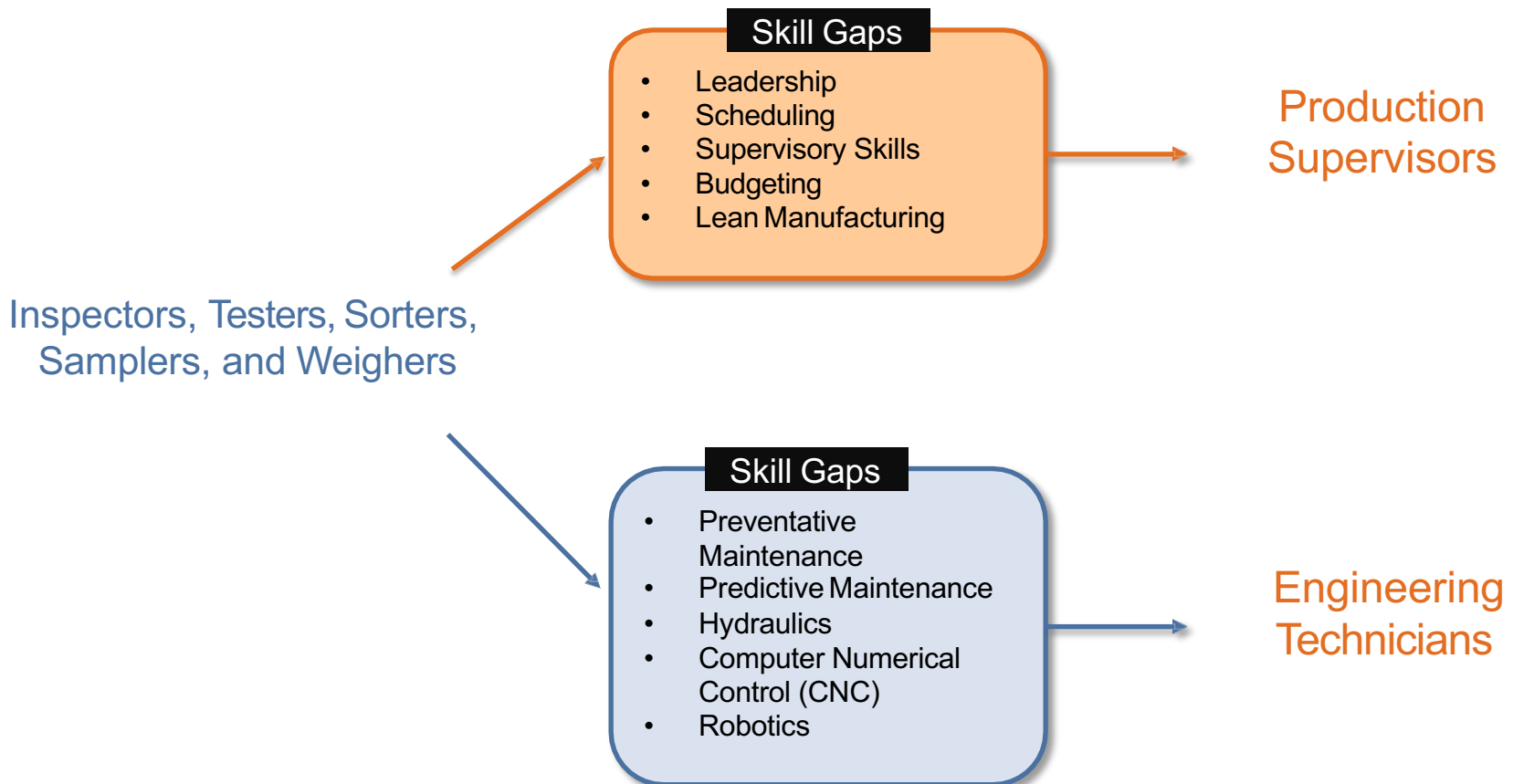
Talent Pools and Skill Gaps for a Growing Auto Industry Occupation



Reskill & Redeploy Redundant Workers

By Leveraging Skill Adjacency for Highly Efficient Training

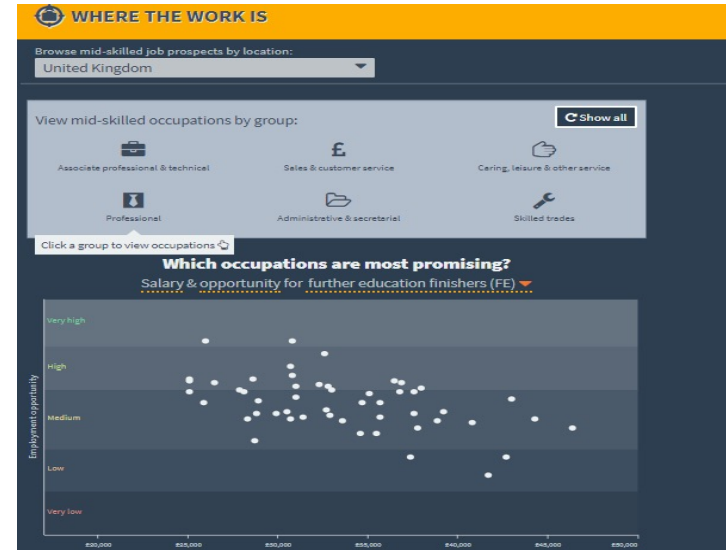
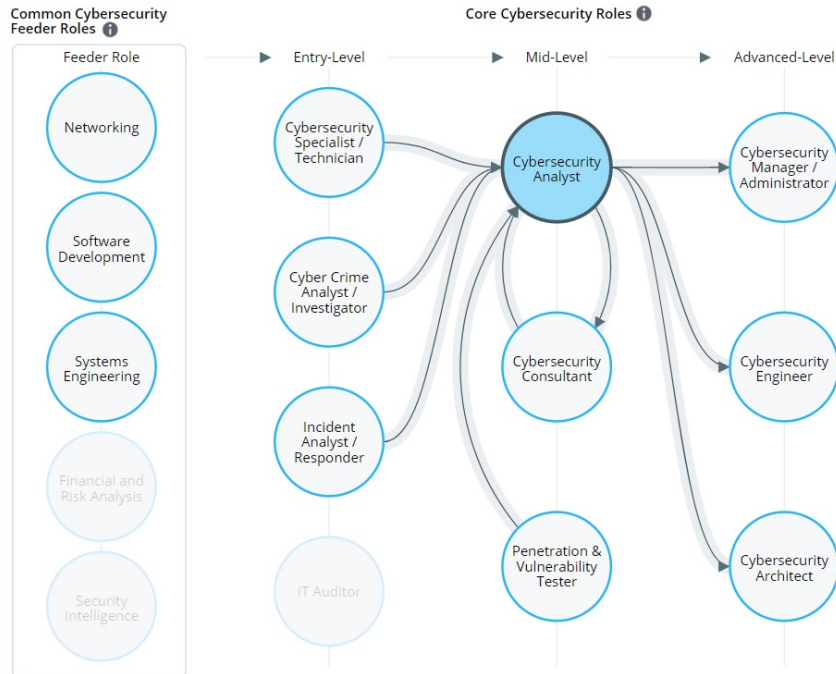
Growth Opportunities and Skill Gaps for a Shrinking Auto Industry Occupation



Career Guidance to the Public



Cyberseek.org and CyberSeek.com.au tracks cybersecurity demand in the United States and Australia and provides interactive career pathways for jobseekers and students.



Wheretheworkis.org compares entry-level employer demand in the UK with the number of learners completing related programs of study.



More information:

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