



How To Unify Your Workforce Data

Getting to a single source of truth, powering skills-based decisions that turn talent into a competitive advantage.

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Introduction

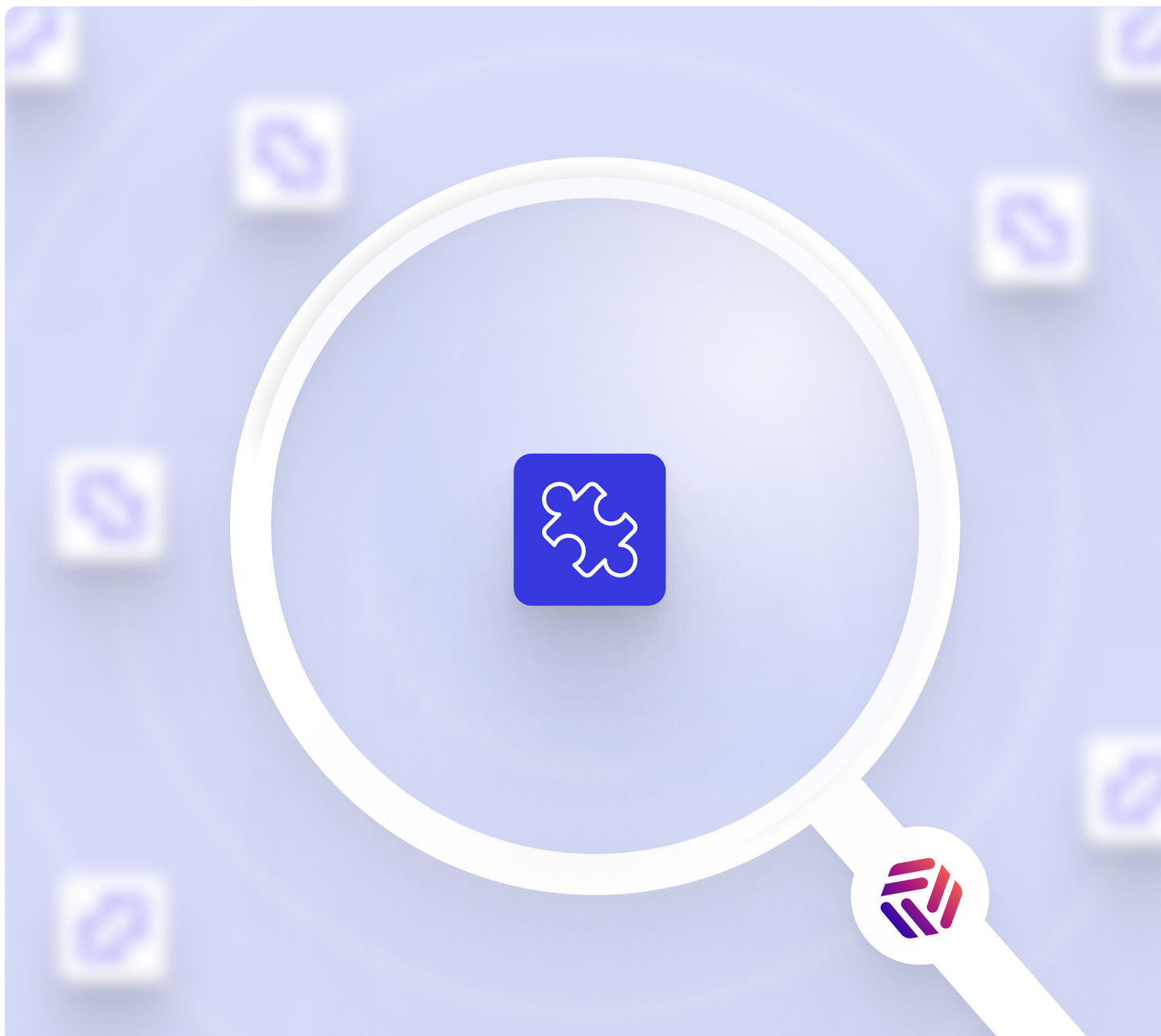
If you are a CHRO trying to help your enterprise business gain or maintain a competitive edge, your biggest concern will be skills gaps – finding, hiring and retaining the talent you need to meet current and future goals.

Talent shortages are an urgent concern: 83% of Talent Acquisition leaders report struggling to find enough people with the right skills ([Gartner](#)), while 60% of businesses say that skills gaps in the local labour market are holding back their transformation ([World Economic Forum](#)).

The gaps themselves are not the only problem. Skills requirements are evolving faster than ever, as the nature of work is increasingly augmented by emerging technologies like AI. [According to LinkedIn](#), more than 10% of professionals hired today have job titles that didn't even exist in 2000 – and, by 2030, 70% of the skills used in most jobs will change.

Thus, the bigger challenge is visibility – truly seeing the gap between skills supply and skills demand; visualizing what skills your business has today and what it will need tomorrow. [But currently only 10% of HR executives](#) feel they have a clear understanding of the skills within their organization and, [according to Gartner](#), 62% of HR leaders feel that uncertainty around future skills poses a significant risk.

The disconnect is clear: **How can you close a skills gap you can't see?**

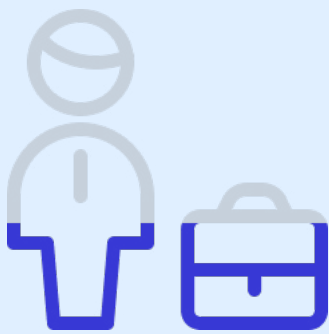


The Power of Connected Skills Data

To see and close skills gaps, you need skills data. You possibly feel you have plenty – too much, even. But that data is likely outdated, incomplete, and fragmented across numerous platforms. It can't help you make faster decisions to plug skills gaps, and you can't trust its accuracy or relevancy.

As organizations move towards a skills-based approach, getting to richer skills data is more important than ever. This means creating a single source of information – trustworthy insights about the skills people have, in your workforce and beyond, and the skills you need, today and in the future.

[According to Deloitte](#), 63% of HR executives say they use “skills-related technology embedded in core HR information systems” – but just 33% have a single source of skills data across their workforce.



Only **33%** of HR leaders have a single source of skills data.

Connected, dynamic skills data enables HR leaders to identify gaps proactively, pivot quickly to meet changing demands, and optimize talent mobility within the organization. Instead of simply reacting to shortages, companies can predict where skills will be needed, allocate resources more effectively, and create opportunities for employees to learn and grow.



Today's HR Tech Stack Isn't Working

HR leaders are looking to technology to help them visualize and act on skills gaps. They know that tech is the only way to surface the insights needed – at speed and at scale – to determine whether to hire, reskill, or redeploy talent, in line with changing business needs.

But the HR tech stack isn't giving them what they need – it's just proliferating. Recruiters, for example, now juggle 5 to 15 different tools every day – leading to inefficiencies, clunky candidate experiences, and time and money wasted.

Indeed, [Gartner](#) found that only 24% of HR employees feel they're getting full value from their HR technology, and just 35% of HR leaders believe their tech approach is helping them achieve business goals.

Only **24%** of HR employees feel they're getting full value from their HR technology.



Historically, organizations bought HR systems in silos – an ATS here, an onboarding tool there, an LMS or LXP later. While these systems may have loosely connected across the hire-to-retire journey, there's rarely been a unifying data layer tying them together.

Whenever an attempt has been made to create such a layer, the process has generally been manual (spreadsheets and static job descriptions), lengthy (12-18 months to map tasks and skills across the organization) and expensive – both on consultancy fees and internal resources.

These outdated approaches serve to create further silos (data locked in spreadsheets, or systems that don't talk to each other), and don't scale. By the time you've built your framework, it's already out of date.

HR teams need a new approach that reduces complexity, rather than adding to it, and allows them to make more effective workforce decisions quickly, in line with (ever-evolving) business goals. Data and technology is the solution to make HR more strategic, productive and proactive – but it needs to be connected.

The New Connected HR Tech Stack

Two in three HR leaders believe HR effectiveness will decline without tech transformation ([Gartner](#)). And yet, layering in more tools hasn't fixed the problem. It's only made it harder to find the signal in the noise.

So how can you get the maximum value – and richest insights – out of your core HR system implementations, while improving the experience for employees and HR alike? The solution is unifying your workforce data.

This isn't about creating one big database or migrating everything into a single HR system. That kind of project takes years and lots of costly resources, and rarely delivers the promised results.

Unification means building an intelligent layer that sits across your existing systems – connecting data, standardizing it, and turning it into something useful.



That layer needs to do four things:

- Structure the data around a shared language for jobs and talent – skills
- Connect data across systems like your HRIS/HCM, ATS, CRM, LMS, and more
- Enrich profiles with missing information, in real time – with the power of AI
- Activate that intelligence in real workflows across talent functions.

It's a foundation for skills-based transformation, and for operational excellence in HR – and a prerequisite for any serious use of AI in workforce planning, recruiting, or internal mobility.



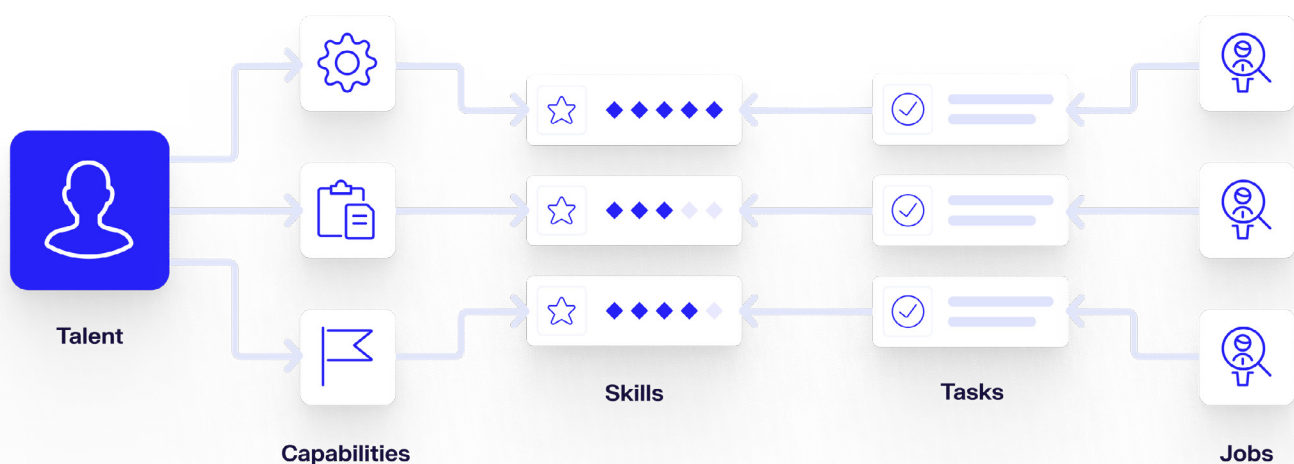
1. Skills: A Shared Language For Jobs & Talent



“ The language of skills will start to form a key part of planning, resourcing, upskilling, re-skilling and sourcing decisions. You will hear it from every corner of the business; the most successful businesses will have this at their core and will be able to allocate resources more effectively and efficiently than their competitors. Why? Because to make impactful operational decisions, you need two things: data on the work to be done and insights about the people and capabilities required to do it. Skills data connects these things.

Abakar Saidov

Executive Chairman, Beamery



The journey to unifying your workforce data starts with establishing a common language – defining the capabilities of your workforce, and the tasks that need to be done, in the same way. Tasks and capabilities can both be seen as a collection of [skills](#) – so it makes sense to turn this into the “currency” for talking about, and matching, people and jobs.

Senior Product Designer

Update the fields below so that we can help you find the best possible candidates for this vacancy.

Skills

Q Search for skill

Emotional Design X

Figma X

Sketch X

Design Thinking X

Industry experience

Q Add an industry...

Enterprise Software X

Human Res

3 year trend

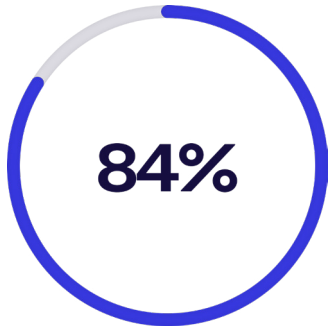


A unified language eliminates inconsistencies and enhances interoperability across systems – that is, it makes your data easier to share and use. Standardizing data around “skills” (rather than qualifications, or job titles) also leads to a more equitable approach to talent management – helping you widen the talent pool without lowering the bar.

You need a consistent, actionable [skills taxonomy](#) – tailored to your organization. A project manager in aerospace has a different skill set than one in retail, so a one-size-fits-all approach won't work. Therefore, it's essential to have a skills taxonomy that adapts to your organization's unique context and requirements, while taking the wider labor market context into consideration.

[AI models can help here.](#) By analyzing unstructured data sources such as resumes, job adverts, learning histories, and performance feedback, AI can infer, normalize, and structure skills data automatically – delivering skills-based profiles for talent, and skills-based descriptions for roles.

2. Data Integration: Creating A Single Source Of Truth



of CHROs are investing in modern workforce architectures to help them take stock of skills and integrate this data into the existing job architecture. – [PwC](#)

Talent profiles in your CRM – including previous applicants, employees, alumni, and proactively sourced candidates – should now be described in the same way as roles in your Job Architecture, which will also change dynamically as needs evolve.

Connecting these, along with external labor market insights about the cost and availability of skills, gives you what we call “skills intelligence” – a clearer view of the connection between people and work.



“Skills intelligence is an evolution of core HR data. We see skills as the next layer of maturity in our talent acquisition function, driving the evolution of how we identify and attract talent.”

Art Lokerson

HR Product Management Director – Talent Acquisition
Wells Fargo

This skills intelligence should feed, and be fed by, every other system in your HR tech stack – so integration capabilities are key.

The integration process should be automated and real-time. Data must flow seamlessly between systems, enriching what's already in place, and delivering insights where they are needed. With HR professionals feeling the pain of too many tools, and cumbersome workflows, powerful integrations between systems should allow them to work smarter and faster – seeing the insights or nudges they need inside the tools they use most commonly.



With AI-driven insights and automation, your business gets more value from existing tools, and accelerates new implementations.

By using a middleware solution, you can bring information from multiple tools together, without needing to log into a new, separate platform to see the “latest” information.

When you connect systems, and embed the logic of “skills” across the entire employee lifecycle – from recruiting to alumni management – you get the infrastructure to maintain a consistent skills story: one where the skills used in hiring are the same ones assessed, developed, and managed throughout an employee’s career.



3. Embrace AI & Enrich Insights

No unified skills data ecosystem can function effectively without AI. While many organizations struggle with the “cold start” of skills-based transformation – the seemingly insurmountable challenge of finding and organizing massive amounts of data – AI has been patiently waiting (and improving) to make this task simple.

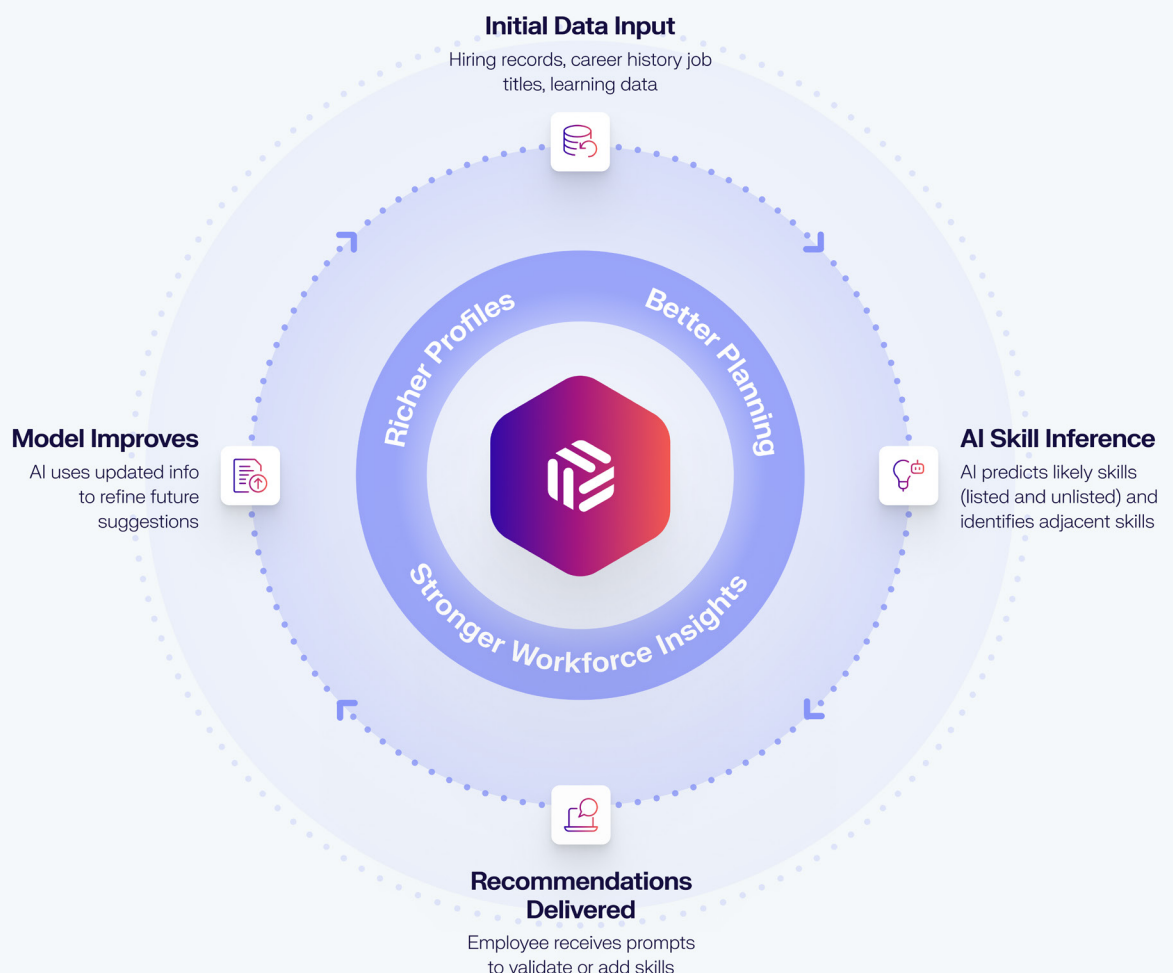
As noted, AI models can take unstructured data sources and infer, normalize, and structure skills data automatically – providing the skills intelligence needed to power workforce transformation. But it can also make that data work harder for you: keeping it up to date, recommending improvements, and spotting the patterns that humans could miss.

With systems integrated and a common language for skills established, AI can begin to extract actionable insights from your standardized and integrated data, taking the guesswork out of workforce planning. It can enrich profiles by inferring missing information and identifying adjacent skills – those that employees are likely to learn next based on their career trajectory. It can predict where upskilling efforts are most needed based on existing skills gaps, helping to streamline development and mobility efforts.

The AI's role in enriching profiles doesn't stop once it's gathered initial data; it continues to evolve, updating profiles in real time as new insights are generated.

This is where the flywheel effect truly takes hold.

1. The cycle begins with a small amount of data, such as from hiring records, career history, or external profiles (e.g., LinkedIn). This provides an initial understanding of the employee's background and experience.
2. The AI system uses its knowledge of the employee's roles, projects, and career history to infer skills that the employee likely possesses but hasn't yet listed on their profile. This can include skills gained through past work experiences or informal learning that haven't been captured in their profile.
3. Based on this inference, the AI recommends that the employee add these missing skills to their profile.
4. As employees review and engage with these recommendations, they may update their profiles to reflect their actual skill set more accurately. They may also participate in training or projects that help further validate and showcase these skills.
5. With each update, the AI system gathers more accurate and granular data about the employee's capabilities. As the system continues to gather information on unlisted skills, it improves its ability to make better suggestions in the future, ensuring that profiles reflect a more comprehensive set of skills.
6. As employees continue to add new, previously unlisted skills, the AI system's understanding of their full skill set grows. Over time, this leads to more accurate skills profiles, improved role matches, and better development recommendations.



As AI becomes [integral to talent management](#), you need to ensure your technology partners are compliant, ethical, and transparent. [Smart explainable AI](#) – ideally audited for bias – should be able to show the rationale behind any recommendation, and designed to improve human decision-making (not replace it).

AI thrives on high-quality, standardized data – and it needs to be applied across a connected data set, to get to the richest insights. The seamless integration of HR tech is crucial for maximizing the value of AI across talent management.

66 Rather than existing as a standalone tool, AI works best when integrated and embedded across your tech stack — automating repetitive tasks, delivering valuable workforce insights, personalising user experiences, bolstering security and supporting scalability. When thoughtfully integrated, AI doesn't just complement your tech stack — it transforms it into a smarter, more agile ecosystem.

Mercer



4. Activate Intelligence In Real Workflows: From Data to Action

The final step is to activate your skills intelligence in real workflows across the talent lifecycle. Data isn't valuable unless it's used to make informed decisions, whether it's for recruiting, talent mobility, learning and development, or performance management.

The goal is to embed skills intelligence in such a way that the insights generated by AI are actioned in real time – to improve talent outcomes, and ultimately meet business needs.

By embedding this intelligence into daily decision-making, your organization can:

- Quickly respond to talent needs.
- Enable mobility and growth opportunities across the workforce.
- Align development efforts with organizational goals.

When applied across the entire talent lifecycle, this approach creates a more agile, skills-driven workforce that can adapt to shifting business needs. Whether you are:

- Growing: Maybe you need to hire specialists or scarce talent to drive innovation – embedded skills data enables you to look at a broader pool of talent and assess skills availability (and cost) in the broader labor market, as it changes.
- Transforming: Do you need to harmonize jobs and minimize layoffs after a merger or acquisition? When you standardize jobs & job families, and infer skills across your organization, you can easily spot opportunities to redeploy or reskill employees.
- Building resilience: Geopolitical shifts and regulatory changes are keeping company executives on their toes. Embedding skills intelligence throughout HR workflows – and keeping a dynamic connection between planning and execution – ensures you are able to pivot quickly, allocate resources efficiently, and avoid risk to your business.



A Step-by-Step Guide to Creating a Unified Talent Data Ecosystem

Start by assembling the appropriate stakeholders. Ensure representation from IT, legal, HR leadership, data governance, and talent operations to align on strategic objectives and implementation requirements. With the right team in place, you can move forward with a structured, 10-step process to connect and optimize your workforce data systems.

1. Define Your Business & Talent Objectives

- ☐ **Action:** Start by clearly identifying your organization's broader business goals and how talent fits into those objectives. Are you focusing on digital transformation? Expanding into new markets? Building internal mobility?

Tip: Work closely with leadership to align talent strategies with business outcomes. Consider how the future skills your workforce needs align with your company's growth trajectory.

2. Map Existing Data Sources

- ☐ **Action:** Audit the various systems where skills data is currently stored (e.g., HRIS, ATS, LMS, performance management systems, etc.). Assess what type and format of data is kept in each place.

Tip: Document both structured (e.g., skills data in HRIS) and unstructured data (e.g., resumes, employee performance reviews) to ensure nothing is overlooked.

3. Adopt A Tailored Skills Framework

- ☐ **Action:** Adopt a skills taxonomy that aligns with your organization's roles and business strategy. It should be flexible enough to accommodate emerging skills while standardized enough to be used across your systems.

Tip: Ensure your framework allows for skill granularity that suits your needs (e.g., broad categories for strategic planning vs. detailed skill sets for recruitment).

4. Build A Connected Ecosystem

- ☐ **Action:** Centralize your data into one platform or system; ideally your HCM. This will act as the authoritative source of truth for all skills data and workforce information.

Tip: Consider platforms like SAP, Workday, or a specialized HR data ecosystem that can integrate various sources seamlessly, creating one comprehensive view.

5. Develop Integration Capabilities

- ☐ **Action:** Ensure your systems are capable of sharing data with each other. Develop APIs and connectors that allow your HRIS, ATS, and other systems to communicate and synchronize skills data in real time.

Tip: Focus on integrations that allow for seamless data flow, so any update in one system (e.g., new skill added in a learning module) automatically reflects in the others.

6. Implement Data Quality & Standardization Protocols

- ☐ **Action:** Establish data governance protocols to ensure that your workforce data is accurate, consistent, and up to date. This includes data validation, standardization of terms, and regular data audits. Define clear rules for data entry (e.g., how to record skill levels, how to describe job titles) and assign data stewards to monitor data health.

Tip: Consider working with a partner who can build data governance and security into your workflows with AI, to remove the manual work required here.

7. Incorporate Skill-based Assessments & Analytics

- ☐ **Action:** Integrate skill-based assessments into your hiring, performance, and development processes. Use AI to continuously assess and track skills across your organization.

Tip: Invest in tools that use AI to map and match skills dynamically, assessing not only current competencies but also growth potential.

8. Embrace AI

- ☐ **Action:** Leverage AI technologies to match talent to the right opportunities, based on skills. Use AI-driven skills mapping to assess both existing employee competencies and future workforce needs. AI can help forecast skill gaps by analyzing trends in talent demand and automatically suggesting upskilling opportunities for your teams.

Tip: When evaluating an AI HR tech vendor, ask: Are their models audited for bias, and do they protect privacy by using only the necessary data? Do their tools integrate securely across your HR systems to ensure data quality and consistency? And, crucially, can they explain how recommendations are made?

9. Enable Self-Service For Employees & Managers

- ☐ **Action:** Empower employees and managers by providing them access to their own skills data, career progression paths, and opportunities for development through a user-friendly portal.

Tip: Create intuitive dashboards where employees can track their skills, receive personalized recommendations for learning, and explore internal mobility options.

10. Continuously Refine & Iterate

- ☐ **Action:** Treat your workforce data ecosystem as a dynamic system that needs continuous refinement. Regularly update your skills taxonomy, integration processes, and AI models based on evolving business needs and feedback from HR teams.

Tip: Set up periodic reviews to assess the effectiveness of your skills framework, the accuracy of your data, and the success of your AI-driven decisions. Adjust strategies based on organizational and technological changes.

[Download PDF Checklist](#)



Template for Skills Data Source Mapping

Source	Data type	Skills employees already have	Skills employees want to develop	Employee proficiency in skills
LMS / LXP	Course completion			
	Search			
Talent Marketplace	Search			
	Project completion			
HRIS	Role			
	Promotion			
	Profile			
Career Pathing	Future role search			
	Current role search			
Performance	IDP			
	Performance			
	Manager check in			
	Feedback			
Applicant Tracking System	Resume / application			
Work tech	Authorship			
	Portfolio			
	Task type / volume			
External	Social media			
	Wikis / portfolio			
	Open source (Github)			

Data sources and possible data types | Source: RedThread Research 2024



How Beamery Helps You Build a Unified Talent Data Ecosystem

Beamery helps enterprise organizations connect the dots between people, roles, and skills across the entire talent lifecycle, to unlock ROI from tech investments and realize the full potential of your workforce.

A Unified View of Talent, Seamlessly Integrated

Beamery integrates directly with your HCM to centralize talent and job data from disparate sources, and with LinkedIn to help you build robust, dynamic talent pipelines.

This unified view gives your teams the accurate, real-time insights they need to make confident hiring, upskilling, and reskilling decisions.

Our certified integrations with Workday Skills Cloud and SAP SuccessFactors ensure your skills data isn't just connected: it's actionable. Instead of relying on out-of-the-box taxonomies, Beamery uses your existing data, job descriptions, and frameworks to build a customized, dynamic skills and capability taxonomy tailored to your organization's structure and needs. That taxonomy is continuously refreshed with market signals, so you can stay ahead of change.

Built to Maximize the Value of Your Existing Stack

Unlike disconnected point solutions, Beamery works within your existing ecosystem – no rip-and-replace required. We partner directly with your technology providers and implementation partners (GSIs, ISVs) to deliver a unified, efficient experience for your internal teams. That means:

- Seamless workflows between Beamery and other platforms
- No duplicate outreach or fragmented experiences for candidates and employees
- AI-powered insights delivered in the tools your teams already use
- Single source of truth for role, skill, and people data

Skills Intelligence, Without the Black Box

Beamery's ethical AI framework keeps humans in the loop, enabling fair, transparent workforce decisions. Our tools are designed for enterprise-grade compliance, with built-in GDPR workflows and configurable consent that adapt to your organization's policies, locations, and industries. We're also continuously evolving to meet emerging AI regulations and mitigate risk.



Real-World Results



“Filling critical and hard-to-hire roles is central to our ability to drive our mission at Sellafield. Combining the power and capabilities of SAP and Beamery is how we’ll do that.”

Martin Stubbs
Sellafield

Customers across industries are already seeing measurable impact from unifying their talent data with Beamery:

- [Hilti standardized its skills and role data with Workday and Beamery](#), and cut time-to-hire by 30%, projecting over \$260M in savings.
- [DraftKings reduced time-to-fill by more than 11 days](#), with 25% of hires now coming from resurfaced talent in Beamery.
- [Sellafield partnered with Beamery and SAP](#) to fill critical, hard-to-hire roles during a major workforce transition.
- [Beamery customers can avoid up to \\$951K in compliance risk](#) annually by using our automated data privacy workflows.

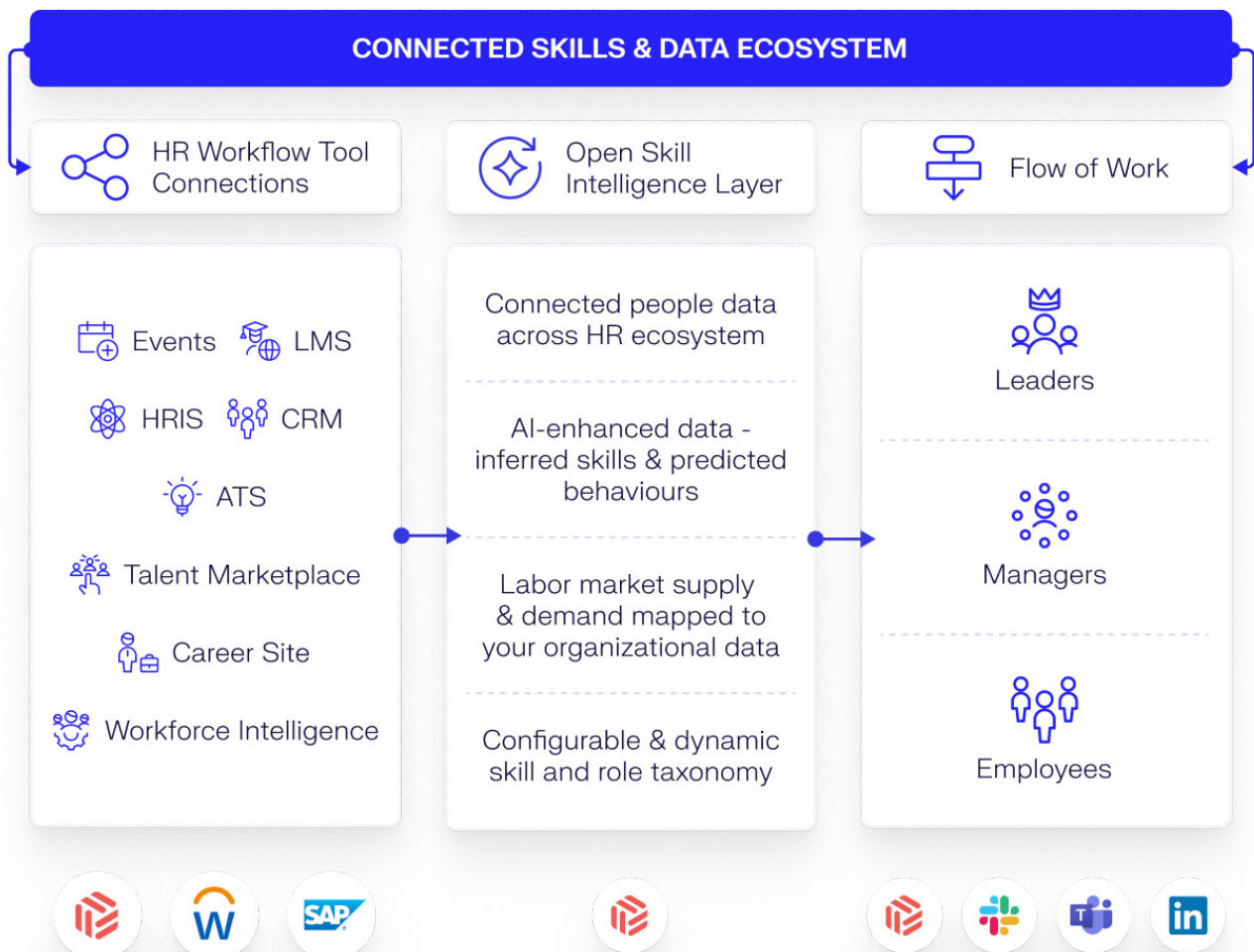




Beamery is a Workday Ventures partner offering [certified integrations with Workday Skills Cloud and Workday Recruiting](#).



[Beamery is an SAP Endorsed App](#): Beamery is an endorsed and certified partner for CRM (currently the only one) as well as a Skills partner.



“ Our joint customers will realize the full value of the Talent Intelligence Hub and accelerate their journey to becoming skill-based organizations.

Josh Gosliner

Vice President, Product Strategy, SAP

Conclusion

CHROs today face an urgent need to make smarter, faster workforce decisions – without adding more complexity. That’s where unified workforce data becomes a true competitive advantage.

Organizations that take a skill-based approach to defining roles and classifying talent – those who “pull the skills thread” through their HR tech stack – will be at an advantage. First and foremost, they get the insights, as they need them, to make more informed decisions about human capital investments and initiatives. They can visualize skills gaps across their organization, often before they even emerge, and make strategic plans to address those gaps by upskilling, reskilling or sourcing for talent.

With connected, dynamic skills intelligence, HR teams can make better “build, buy, or borrow” decisions, improving quality of hire and reducing time-to-fill, and elevate every part of the talent lifecycle – from hiring and retention to workforce planning and productivity.

Unified skills data isn’t just about efficiency – it’s about strategic agility. When your organization has real-time insights into internal capabilities and external market trends, it becomes far easier to anticipate future talent needs, identify critical gaps, and respond confidently to change, whether that’s entering new markets or reshaping your operating model.





When every HR team – and the wider business – has access to the same high-quality, contextualized data, alignment becomes natural. As Betsy Summers, Principal Analyst at Forrester, puts it: “The natural ecosystem that arises when you start investing in skills data... is such an interesting catalyst for change in culture across the organization.”

And when that ecosystem is fully integrated with your existing HCM infrastructure – like SAP or Workday – you finally unlock the full ROI of your HR tech investment. Rather than juggling disconnected tools and duplicate data, teams work seamlessly across systems, with insights surfaced in the flow of work. That means higher adoption, better experiences, and improved outcomes – at every level.

This connected approach also frees up HR to do what it does best: act as a strategic driver of growth. As Verizon’s Ash Walvoord put it: “The epiphany has been how easily interconnected everything can be. And I really think that that’s the answer to the skills ecosystem.”

Companies that pull the skills thread through their entire HR stack don’t just gain better visibility. They gain a transformative edge.

So the question is: **are you ready to unlock it?**

See how Beamery can help.

[Get in touch](#)





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