



Global



Future of Work

Workforce Solutions Ecosystem

Defining the Staffing industry and Other Workforce Solutions

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The Workforce Solutions Ecosystem: 2020 Update

This report is the fifth update to Staffing Industry Analysts' Workforce Solutions Ecosystem, originally released in September 2015. It highlights the interconnected networks comprising the Staffing Industry and other types of Workforce Solutions and notes the changes to the industry over the last 12 months. This update is the most significant revision to the ecosystem since its launch with more granular insights into each segment of the ecosystem, some reclassification and changes to categories to reflect more contemporary nomenclature.

In nature, an ecosystem is a community of living organisms and non-living components interacting as an environmental system. Similarly, businesses operate in a broad and complex network of related and unrelated products and services which interact and compete with each other.

Workforce Solutions are third-party products and services relating to the sourcing, engagement and development of employed and non-employed (including contingent) workers. Workforce Solutions include the Staffing Industry, Talent Acquisition Technology, Process Outsourcing, Payrolling/Compliance, Direct Work Engagement and Other Workforce Solutions.

Improvements in technology combined with economic and demographic trends means that, today, the Workforce Solutions Ecosystem is undergoing a period of turbulent change. We are confident that the Ecosystem provides a good representation of the market as it exists today, but we are equally confident that it will require further reviews and updates on a frequent basis, owing to the rapid evolution of technology and globalization.

Definitions for all the terms used within this report are given at the back of this document (pages 7 to 41).

This report codifies and defines the various parts of the Workforce Solutions Ecosystem. It will be of use to those who operate within this Ecosystem and also those who procure services or products from it.

Ecosystems are, by their very nature, constantly evolving and as such this document reviews the current state of play as we perceive it in November 2020.

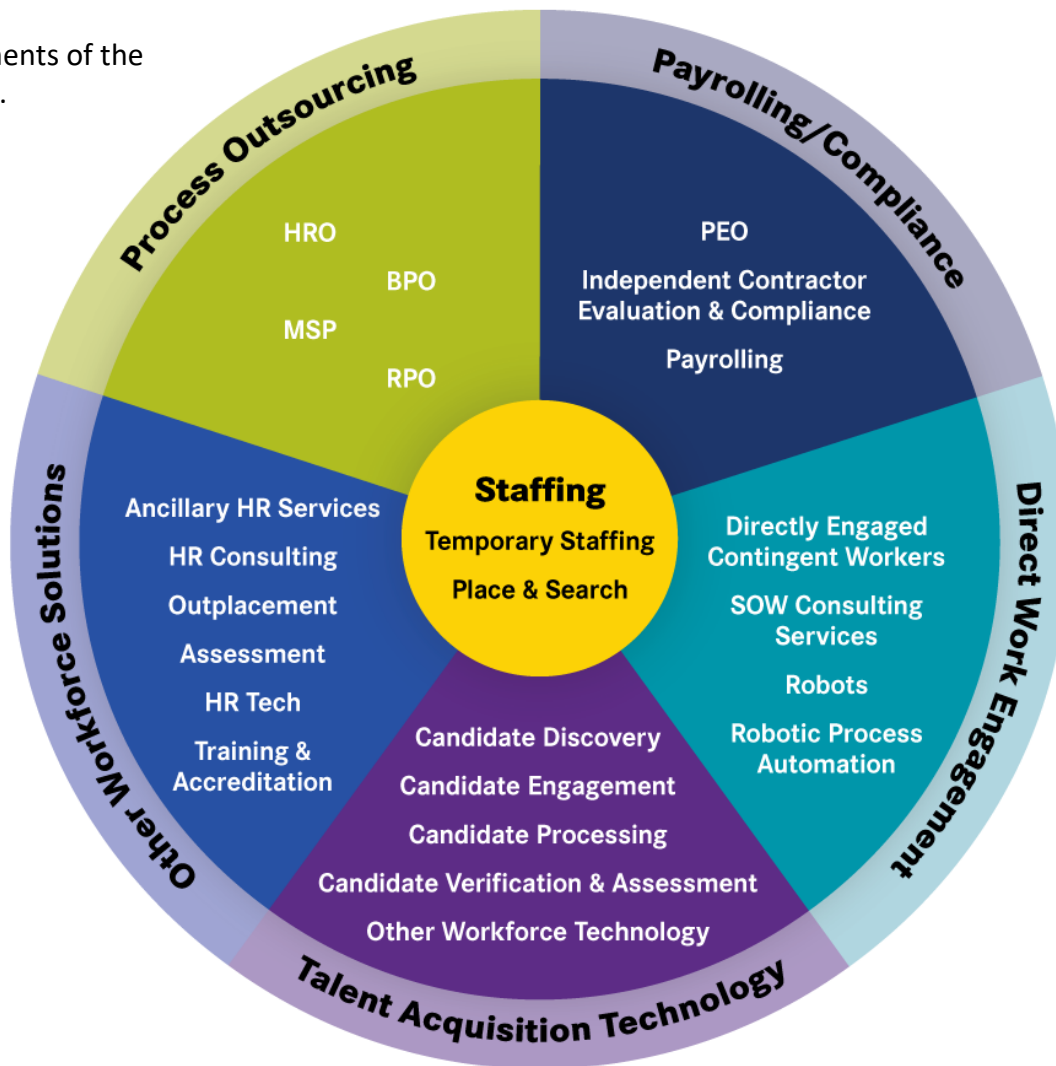
The Workforce Solutions Ecosystem

The chart on the right highlights interconnected components of the Staffing Industry and other types of Workforce Solutions.

It comprises six primary segments:

- Staffing
- Process Outsourcing
- Payrolling/Compliance,
- Direct Work Engagement,
- Talent Acquisition Technology, and
- Other Workforce Solutions

Within each segment are the products and services that comprise the segment which are defined on pages 7 to 41.



Investments in the Workforce Solutions Ecosystem

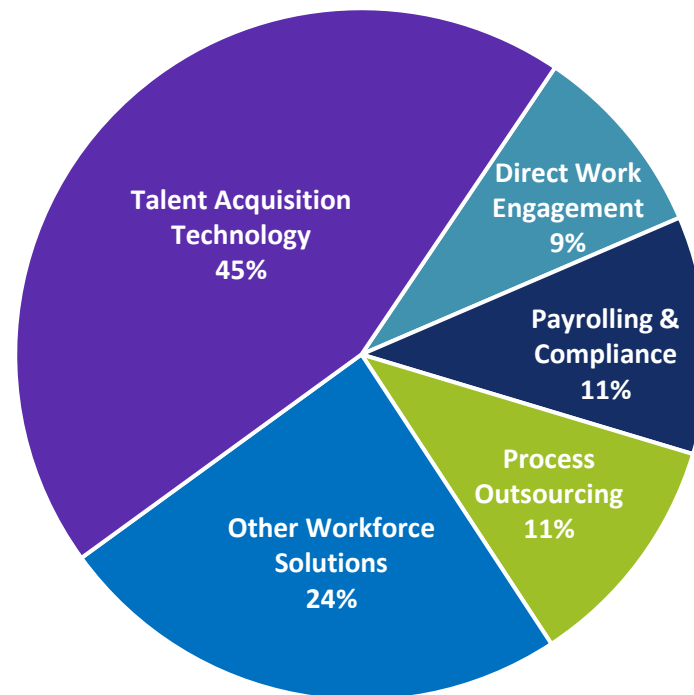
The COVID-19 pandemic has had a sudden and dramatic impact on all areas of global commerce and the products and services that comprise the Workforce Solutions Ecosystem are, by no means immune from this impact.

As the economic recovery from the pandemic begins, it is apparent that a new set of dynamics will come into play. Just as different segments of the ecosystem will fare differently during the peak of the crisis, we must also expect marked differences during the recovery period. While we might hope that all segments will benefit to some extent, it is likely that the crisis will prove to have fundamentally undermined some business models in the long-term and provided a strong tailwind to others. Whatever business looks like in 2021, it is not likely to look like ‘business as usual’.

While there is little doubt that the pandemic is amplifying the adoption of new technologies within the Workforce Solutions Ecosystem, technological advancements were already changing the landscape of the wider industry.

Staffing firms have broadened their service portfolios in recent years offering their clients a much broader range of services than just temporary staffing and place & search. There is nothing new in this - payrolling, outplacement, recruitment process outsourcing (RPO) and managed service provision (MSP) are now well-established offerings for many staffing firms. However, as client sophistication has grown alongside rapid advances in technology, staffing firms have begun to invest in many new categories within the Workforce Solutions Ecosystem. Investments have been made by staffing firms outside of their core staffing segment, partly as a defensive measure to protect themselves from disruption but also as an offensive move to take advantage of new and fast-growing revenue streams. Of all M&A by staffing firms since Q1 2014 (excluding the acquisition of other staffing firms), nearly half involved talent acquisition technology firms (see chart to the right and SIA’s [Staffing M&A Database](#)).

Acquisitions by Category since 2014



Source: SIA

Growing convergence within the Workforce Solutions Ecosystem

The defensive criteria has, perhaps, become more pertinent as large, powerful companies from outside the Workforce Solutions Ecosystem have also started to make investments in this space. These companies have well-recognised brands and have deep wallets so staffing firms are well-advised to be mindful of this new encroachment. Examples of such investments include the following Microsoft (LinkedIn and GitHub), ADP (WorkMarket), Coca Cola (Wonolo), Amazon (The Mechanical Turk and, more recently the Amazon Web Services brand) as well as platform initiatives by a number of major consulting firms.

Another prime example of external encroachment is Google's temporary staffing platform, Kormo, which expanded to India in August 2020. Originally launched in 2018 in Bangladesh and subsequently Indonesia, Kormo now operates in the 2nd, 4th and 7th largest labor markets in the world.

To fully recognise the changes within the Ecosystem over the past year, this year's report has retitled and/or moved existing categories or added new categories. The primary changes are as follows:

- Addition of 'staffing platforms' as a sub-segment to the staffing category (p.9)
- Re-classification of parts of the Talent Acquisition Technology segment with 'talent platforms' replacing the former category of the 'human cloud' and the addition of employee referral platforms and recruitment marketplaces (pp.14-16).
- A much deeper look at the services that compromise both BPO (pp.27-28) and payrolling (pp.30-33) markets.

Links to recommended research linked to each segment can be found throughout the report as well as examples of firms providing the service described.

The Workforce Solutions Ecosystem: 2020 Update

The following pages provide definitions for each of the Workforce Solutions segments and sub-segments, including detailed explanations of the new definitions within the Ecosystem.

- Staffing
- Process Outsourcing
- Payrolling/Compliance,
- Direct Work Engagement,
- Talent Acquisition Technology, and
- Other Workforce Solutions

Staffing

The staffing industry affords flexibility for business and serves as a bridge to permanent employment for the unemployed and inactive workers. As international labor markets become increasingly complex, volatile and unpredictable, the industry is well placed to provide the vital support businesses need to grow and prosper.

Staffing Industry Analysts estimates the global staffing market to be worth USD 498 billion (EUR 445 billion) in 2019. Randstad is the largest player globally, followed by The Adecco Group and ManpowerGroup with the three largest firms accounting for just under 15% of the market while the top 10 represent 25% of total revenue.

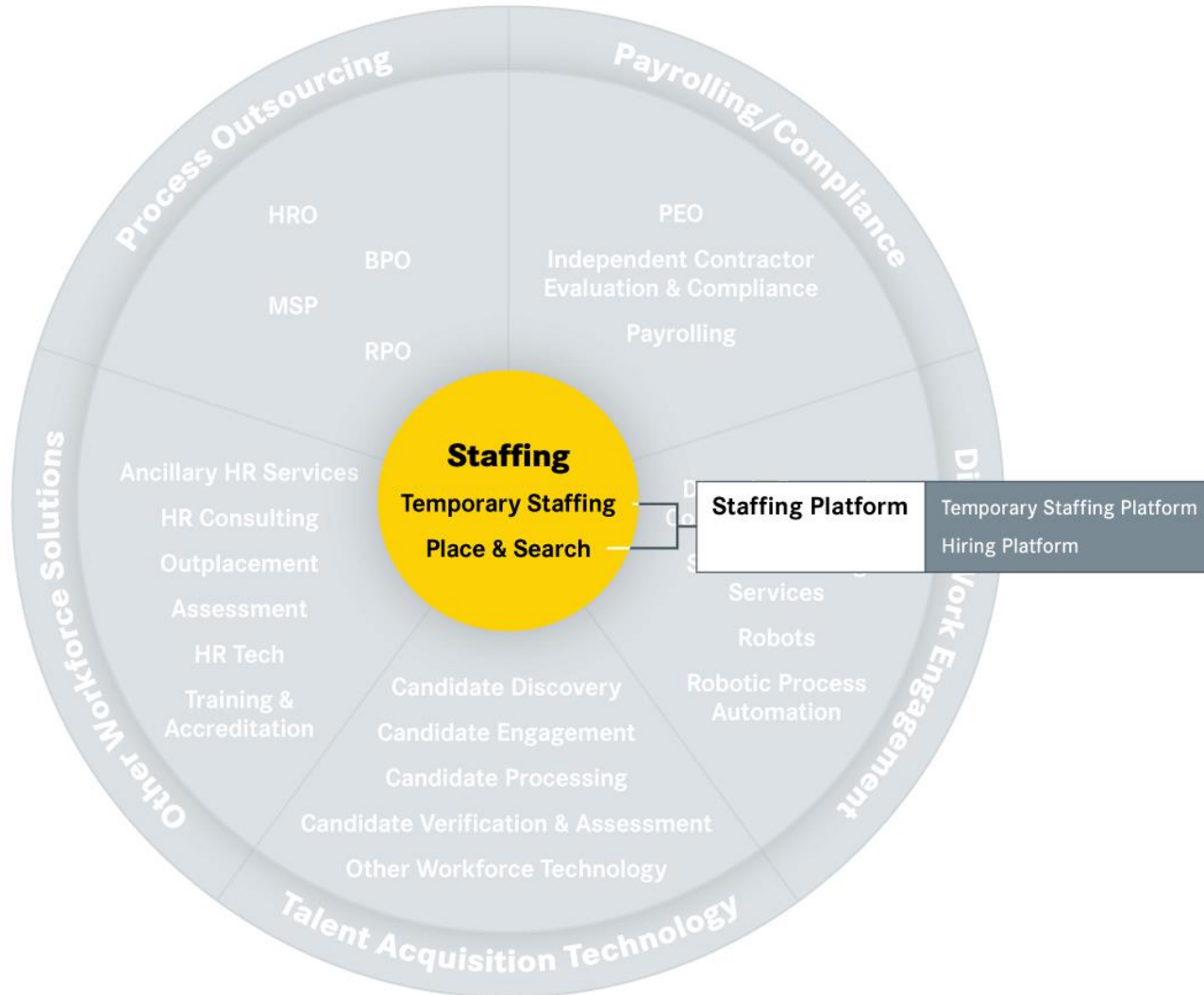
The fourteen largest national staffing markets accounted for 87% of global staffing industry revenue in 2019. The US is the world's largest staffing market with USD 152.3 billion of annual staffing sales, almost a third of global market size.

Japan is the next largest market with staffing sales of USD 65.5 billion representing 13% of global sales. The UK remains the third largest staffing market worldwide (10% of global sales) and the largest market in Europe. Alongside the UK, the largest European staffing markets are France, Germany, and the Netherlands.

The following page presents a full taxonomy of the Staffing segment.

Definition: Staffing – Major sectors of the Staffing Industry include Temporary Staffing and Place & Search with the commonality of sourcing workers for a client. Place & Search is comprised of three activities: Direct Hire (or Permanent Placement), Retained Search and Temporary-to-Permanent conversions. These services can also be provided in the form of a staffing platform. (See following page for service segment descriptions.)

Staffing



Definitions: Staffing by Service/Product Line

- **Temporary Staffing** provides temporary help and related staffing services to businesses and other clients. The temporary staff provided are recruited, screened, possibly trained, and employed by the temporary staffing provider, then assigned to client organizations. Although the customer typically assumes supervisory responsibility for these workers, in certain service arrangements coordination or supervisory functions may be provided by the supplier.
- **Place & Search** incorporates certain activities of staffing firms and executive search firms. The 'Place' part of the definition 'Place & Search' refers to the bringing together of a job seeker and a prospective employer by a third party staffing firm for the purpose of effecting a traditional employment relationship, for a fee. Also refers to the process of arranging such a relationship. This term is often substituted by the terms 'direct hire' (in the US) and 'permanent placement' (elsewhere).

The 'Search' part of the definition 'Place & Search' refers to any one of a variety of unbundled sourcing research services provided by third-party executive search firms (sometimes referred to as 'headhunters') involving the identification of potential candidates at competitive firms, pre-screening, reference-checking, and other search-related research. 'Search' could also refer to the hiring activities undertaken directly by corporate recruiters though our definition of 'Place & Search' refers exclusively to those services provided by third-parties. Temporary-to-Permanent (or 'Temp- to-Perm') conversion is also feature of Place & Search and refers to the transition of a temporary worker to permanent employment status.

Both place & search and/or temporary staffing services can be offered in the form of a **staffing platform**. Staffing platforms marry technology and processes found in talent platforms (e.g. two-sided digital labor marketplace, ratings systems, algorithmic recruiting, management, and matching) with traditional staffing firm pricing models. A key difference between staffing platforms and traditional staffing is that matching is conducted within the platform by the clients themselves rather than by the staffing firm. However, while staffing platforms leverage technology in assisting the matching of hirers and workers, the similarities with traditional staffing are undeniable. For example, staffing platforms can perform background checks, drug screening, and other onboarding/screening services for workers – services generally not associated with technology companies, yet ubiquitous in staffing.

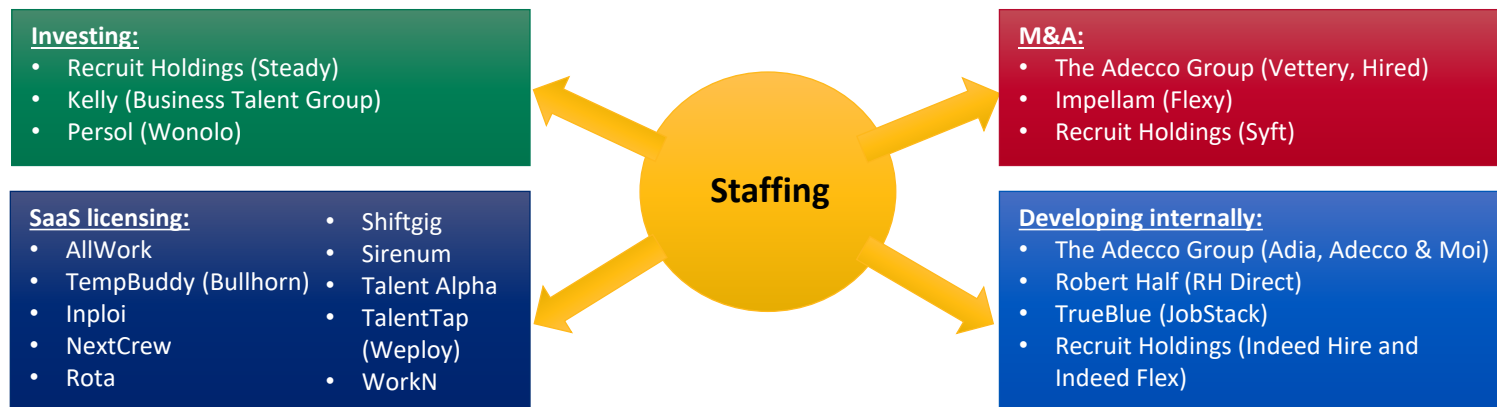
Traditional staffing and newer staffing platforms are often perceived as competing sourcing models and while this may be true for independent staffing platforms, a number of the largest global staffing firms are developing or acquiring platform models as part of an omni-channel approach giving their candidates and clients options in how to engage with them (see diagram overleaf). Such a development follows the same strategy seen in many other established industries which offer both offline and online services to their customers such as banks, supermarkets, retailers and realtors.

Definitions: Staffing by Service/Product Line

Temporary staffing platforms offer a more automated version of temporary staffing provision. These platforms can provide Employer of Record services, either themselves (handling statutory employment taxes and workers’ compensation as a traditional staffing firm would) or via a payrolling firm. Outside the US, these platforms frequently employ workers directly under relevant local temporary agency worker regulations. Due to these similarities, SIA now classifies staffing platforms as a subsegment of staffing rather than a subsegment of talent acquisition technology.

The temporary staffing platform model has hitherto lent itself to low wage, high turnover, blue collar roles. Many of these firms specialize in very short-term work (e.g. shift-based or hourly) that can be filled in a very short period of time (minutes to hours) such as catering/hospitality roles. We expect many more staffing firms, will be tempted to take advantage of the lower-cost and efficient business model offered by staffing platforms and follow the examples of The Adecco Group with their platform Adia and TrueBlue with their platform, Jobstack. Staffing firms have several options in how to go about this, but one thing is clear, COVID-19 is serving as an accelerant for staffing firms to address their digital strategies.

The graphic below highlight the ways in which staffing firms are pursuing staffing platform technology.



Source: SIA

Definitions: Staffing by Service/Product Line

Hiring platforms are simply a more automated version of direct hire/permanent placement in the same way that temporary staffing platforms are more automated versions of temporary staffing provision. Like temporary staffing platforms, they provide clients with the opportunity to ‘self-serve’.

While there are examples of independent hiring platforms, the staffing industry has not been slow to develop or acquire their own solutions.

A particularly noteworthy example of a hiring platform developed by a staffing firm was in August 2019 when Robert Half, pioneers in specialty staffing services, launched Robert Half Direct. Given that investments in staffing platforms had, hitherto, been undertaken in the blue collar/catering staffing sector as outlined on the previous page, the fact that such a well-established professional staffing firm has taken this step is significant. Robert Half Direct provides organizations with direct access to full-time candidates and claims to offer “*the best of both worlds: smart matching technology and a customer success team that’s with you throughout the process*”.

The pricing model of hiring platforms is usually (though not always) by way of a placement fee calculated as percentage of starting salary (priced lower than a standard staffing firm placement fee).

Hiring platforms are growing in scale and scope as a result of a three way convergence and investment from firms traditionally identified with other parts of the Workforce Solutions Ecosystem. While investment from the staffing sector is notable, investments from both talent platforms (e.g. Talmix) and online job advertising firms (e.g. Indeed in the form Indeed Hire) serve to highlight the growing convergence within hiring platforms.

In November 2020, shortly before the publication of this report, The most well-established independent hiring platform, Hired, was acquired by The Adecco Group’s sub-brand Vetterly (which, in turn, had been acquired by The Adecco Group in 2018).

For further information please consult SIA’s [Introduction to Hiring Platforms Report](#).

Talent Acquisition Technology

Talent Acquisition Technology has become a critical tool for most large and medium sized organizations and has been a key driver of the enhanced efficiency, compliance, cost rationalization, and transparency of the modern contingent workforce.

Talent acquisition technology can be grouped into five broad functions that mirror the candidate hiring lifecycle. These functions are:

- Candidate Discovery
- Candidate Engagement
- Candidate Verification & Assessment
- Candidate Processing
- Other Workforce Technology

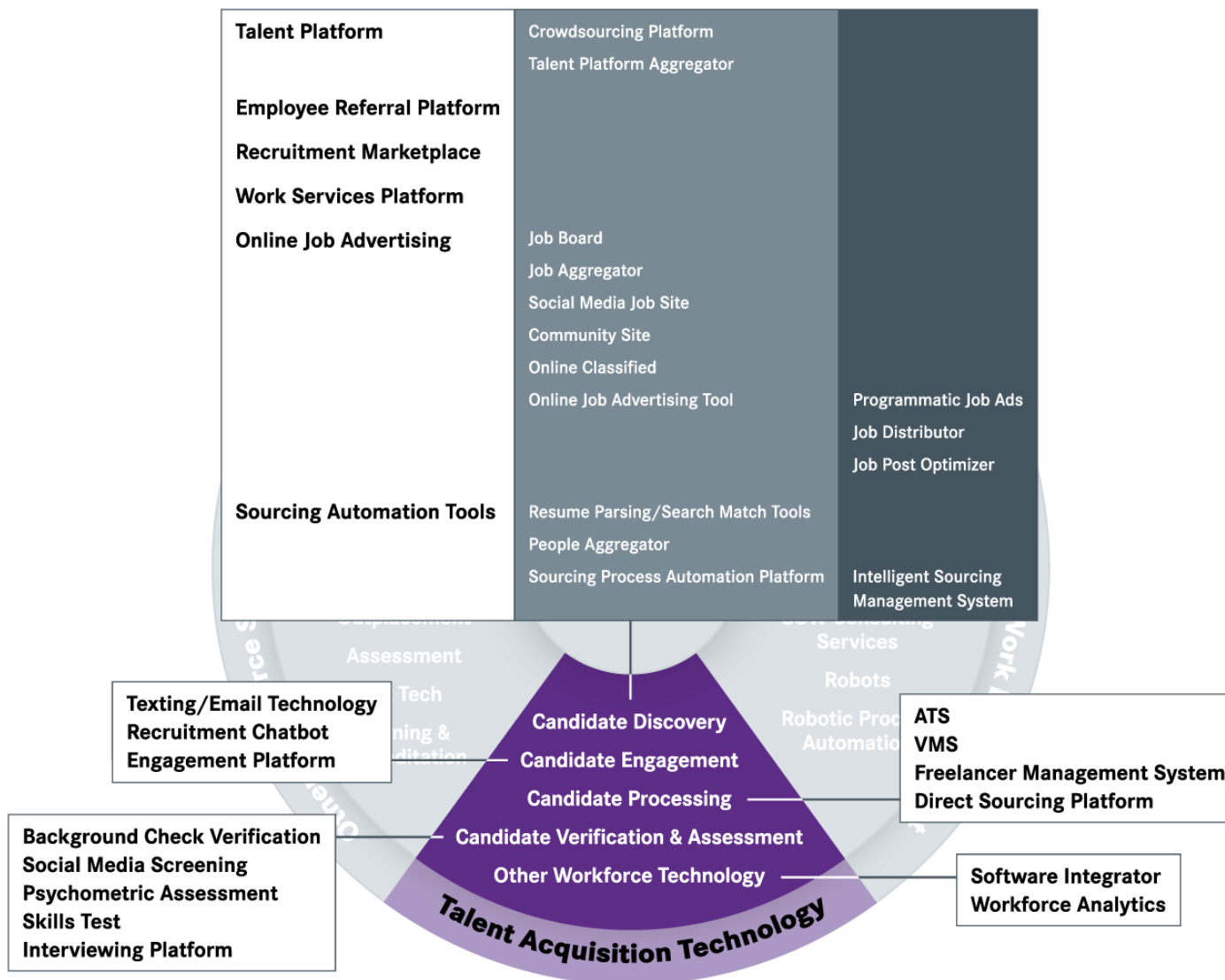
What makes up each function is outlined on the following page.

There are thousands of talent acquisition technology companies. Many are focused on a particular point solution or niche, while others combine a variety of solutions and may operate across multiple categories.

This segment is focused on talent acquisition technologies *used directly by firms to source talent*, and not on technologies that are primarily designed for workers or by intermediaries as included in other parts of the Workforce Solutions Ecosystem (such as staffing firms), though some technologies are used by both firms as well as their intermediaries to source talent. The following page presents a full taxonomy of the Talent Acquisition Technology segment.

Definition: Talent Acquisition Technology – Technology based businesses related to attracting, sourcing, recruiting, and hiring (or placing) employees and non-employed workers within an organization. This includes elements of employment branding, candidate attraction, networking, and relationship building with potential candidate communities to continually build and enhance the talent pool for an organization. Talent Acquisition Technology is a broad category which includes online job advertising firms, Applicant Tracking Systems (ATS) for processing new hires, Vendor Management Systems (VMS) for managing staffing suppliers and talent platforms, an emerging category of technology companies that connect workers to (typically contingent) work through a website or some other digital platform. (See following pages for service segment descriptions.)

Talent Acquisition Technology



Definitions: Talent Acquisition Technology by Service/Product Line

Candidate Discovery

Candidate Discovery technology includes companies that help clients find candidates, whether through a client’s own database, a website where an applicant has posted a resume, or an online marketplace where companies and individuals freely buy and sell contingent labor. It includes talent platforms, employee referral platforms, recruitment marketplaces, work services platforms, online job advertising platforms and sourcing automation technologies.

Candidate discovery technology is arguably where most innovation and transformation is happening in the talent acquisition technology ecosystem today given advances in technology, big data methodologies and growing skills shortages, which have intensified the need for innovative solutions.

- **Talent Platforms** are a group of technology companies that enable hirers to find and engage independent workers to transact and complete various kinds of work, typically of a contingent nature, which can be completed remotely or in person, most often (though not exclusively) through an online marketplace. In previous editions of the Workforce Solutions Ecosystem, these platforms have been described as ‘online staffing platforms’ and include well-known brands such as Upwork, Fiverr and Freelancer.com, however, we have updated this definition based on current market trends.

The nature of a talent platform engagement is most often a one-to-one B2B labor relationship. Although other talent acquisition technology vendors support the sourcing and recruitment of candidates, such as job boards and VMS providers, they differ from talent platforms as they do not fully support work arrangements through to completion (e.g. payment of workers, tax filings, etc.).

- Talent platforms enable a direct legal relationship between the manager and worker unless they follow the **crowdsourcing** model which enables work assignments to get parsed out and performed, often as disaggregated “micro-tasks”, by a far-flung “crowd” of independent workers who perform, paid or otherwise compensated/incented, work at will. Typically, the client of a crowdsourcing platform is purchasing “an outcome”, rather than a labor relationship. These categories are not mutually exclusive, and many talent platforms offer a blend of these models.
- Given the proliferation of talent platforms, Kelly Services launched its own **talent platform aggregator** (titled by the company as a ‘human cloud platform aggregator’), a solution that delivers a curated pipeline of highly skilled, niche talent through one interface. It uses a company’s pre-existing Managed Service Provider (MSP) to integrate with talent platforms and aggregates platforms based on a customer’s talent needs for skill sets such as strategy and analytics, operations and organizational effectiveness, corporate finance, project management, marketing and web development. This is a new category for our ecosystem in 2020.

Definitions: Talent Acquisition Technology by Service/Product Line

- **Employee Referral Platforms** take advantage of the personal connections of an organization’s employees and/or social media networks in order to solicit recommendations for the organization’s open positions. The platform will be deployed as part of a structured program and credit the person making a referral with a reward (normally, but not always financial) if the referred candidate makes it through the recruitment process and is hired.

The market for these solutions comprises standalone third-party products as well as modules within Applicant Tracking Systems (ATS) or broader Recruitment CRM software. Employee Referral Platforms are mostly focused on internal employee referrals though a number also reach out for referrals from social media contacts. Oracle Taleo Social Sourcing Cloud Service sends open positions to employees and also scans their social connections to make referral suggestions to them. Those that focus exclusively on social media contacts and not internal employee referrals include Huntclub, InterviewChaCha, Onya, Preferhired, Referred and Weesper. Those platforms that reach out for external referrals will need to cope with more complex requirements than those focused exclusively on internal referrals.

Employee Referral Platforms will mostly be targeting larger enterprise customers among the Fortune 500 who are more likely to need a sophisticated platform to manage their referral program than a small employer. For further information please consult SIA’s [Introduction to Employee Referral Platforms Report](#).

- **Recruitment Marketplaces** facilitate a platform of hundreds to thousands of individual freelance recruiters and/or staffing agencies that employers can tap into to help fill open roles. Typically, these firms have a set placement (or “success”) fee, which is split between the recruiter that ultimately “places” a candidate and the platform. Recruitment marketplaces allow employers to conveniently tap into a much broader and diverse network of staffing suppliers - networks that are potentially larger and more diverse than those owned by the largest global staffing firms.

These platforms may be used primarily, though not always, as the final resource for hard-to-fill vacancies. They can also provide employers with the convenience of single-supplier invoicing (and rebates) and also much better speed of engagement as participating parties will be obliged to subscribe to the terms and conditions imposed by the platform and not have to negotiate terms on an agency-by-agency basis. Some Recruitment Marketplaces act as a platform for staffing agencies while others are a platform for a network of freelance (or independent) recruiters. Some vendors combine both channels. Participation in a Recruitment Marketplace platform means that agencies can spend more time focused on sourcing and matching and less time on client prospecting. Examples of Recruitment Marketplaces include Bountyjobs and Scout Exchange (acquired by Workday in November 2019). For further information, please consult SIA’s [Introducing Recruitment Marketplaces Report](#).

Definitions: Talent Acquisition Technology by Service/Product Line

- **Work Services Platforms** (formerly Online Work Services in previous editions of our ecosystem) enable the delivery of certain specialized services (e.g. customer service, translation, writing, taxi rides, food delivery, etc.) performed by workers organized and managed by the platform provider. Similar to crowdsourcing, the client here is purchasing an outcome, not a labor relationship. The common denominator of work services platforms is a specialized service offering made possible by the labor of freelancers. A company that sends its documents to One Hour Translation to be translated, for example, does not search a marketplace (as with talent platforms) to find a qualified individual or team to do the work. Instead, it looks to One Hour Translation to manage/organize the workforce and deliver a finished product/service through its platform. The platform itself is not the freelancer, however the platform is ultimately responsible for the outcome.

Work services platforms have experienced explosive growth in recent years, primarily driven by the meteoric rise of mobile-phone enabled “localized” consumer service platforms. The main services offered by such platforms are ridesharing, food/other delivery, and cleaning/household services. Uber’s success has led to a myriad of imitators applying its business model to other consumer services, with varying degrees of success. These platforms were formerly included in SIA’s definition of the human cloud (grouped together with online staffing and crowdsourcing, which now comprise the talent platform category).

Given the work services platform market is dominated by US and China-based ridesharing giants, Uber, Didi Chuxing, Meituan Dianping and Lyft and firms that primarily sell to consumers (B2C), we felt it was necessary to draw a distinction to the talent platform market (p.14) that is primarily focused on selling to businesses (B2B).

Definitions: Talent Acquisition Technology by Service/Product Line

- **Online job advertising** firms are a collection of websites and phone applications that offer employers the ability to advertise local, national and/or international job postings. SIA has formally defined six different business models within this segment: job boards, job aggregators, social media job sites, community sites, online classifieds and online job advertising tools. For further information please consult SIA's [Online Job Advertising Market Update](#).
 - The **job board** is still the predominant online job advertising model globally. Companies such as Monster, CareerBuilder (under the brand Netstart) and JobServe pioneered this model. A job board would normally charge an up-front payment for an online job posting, often structured as a “slot” available for a certain period of time that employers can switch multiple job postings in and out of. Basic job board functionalities for candidates include the ability to search and apply for jobs online, upload a resume or build a profile. As these basic functionalities have not fundamentally changed since the 90s, they have essentially become commodities and firms have been squeezed on price and many established brands have struggled to grow. As a result, many job boards, especially the largest, have been adding additional services to differentiate and expand their service portfolios.
 - **Job aggregators** aggregate job listings from thousands of websites, including other job boards, staffing firms, associations, and company websites. They are verticalized search engines, which means they primarily function as a search engine (like Google or Bing) for jobs. Job aggregators use a “pay-per-click” (PPC) pricing model and makes money when a candidate clicks to apply for a job. Indeed, founded in 2004, pioneered the job aggregation model and subsequent PPC pricing in the mid-2000s. Job aggregators originally helped drive traffic to traditional job boards (as it distributed their postings to a wider audience and made them easier to find), though eventually PPC put pressure on traditional job boards, as PPC is often cheaper than traditional pricing, and Indeed eventually began allowing end clients to post jobs directly to their site (as opposed to merely aggregating job postings from other sites).
 - Although **online classified** websites can offer listings for everything from real estate to cars, a number derive a significant amount of their revenue from job postings. Employers can pick a geographic location and an industry sector to determine where their job postings appear and pricing is normally very low. Online classified sites usually lack any of the additional features found on more sophisticated job boards, such as employer reporting, career information, or sometimes even “Apply” buttons. However, despite primitive functionality and basic user interfaces that have hardly changed in more than a decade they continue to be a feature of the market. Craigslist dominates the US classifieds market but there are many regional players with strong market positions in other parts of the world.

Definitions: Talent Acquisition Technology by Service/Product Line

- A number of **social media sites** have taken advantage of the huge traffic and visibility they have in order to offer job ads. The best-known and most successful example is LinkedIn (acquired by Microsoft in 2016), which lets users create profiles and connect in an online social network. LinkedIn started to offer job advertisements two years after its launch and a substantial amount of the company's revenue comes from allowing recruiters, headhunters, and HR personnel to source candidates using search tools. Despite its dominance, LinkedIn does not have this category all to itself. Maimai is the “LinkedIn for China” and Germany-based XING (in the process of rebranding as New Work) also follows a model similar to LinkedIn's.
- A relatively newer variant of online job advertising, **community sites** provide information that is relevant to an audience and creates forums where employers want to advertise jobs. The most significant brand in this category is Glassdoor (part of Recruit since 2018). Primarily a site that allows employees (and ex-employees) to rate employers, Glassdoor provides jobseekers with unique insights via company reviews, CEO approval ratings, salary reports, interview reviews and questions, benefits reviews, and more. Other community sites are dominated by firms where IT programmers can share coding information and where competitive programming challenges are set for developers to program according to provided specifications. Some sites provide a forum where programmers can ask questions or help peers figure out difficult programming challenges. These community sites make money by also offering job opportunities. Examples include Stack Overflow, HackerRank and Codility.
- **Online job advertising tools** include programmatic job ads, job distributors and job post optimizers.
 - Programmatic job advertising is a method of algorithmically placing job ads on websites that candidates visit, which can then follow them across other web pages. For instance, if a candidate searches for information about java developers online or visits the career site of a staffing firm, these firms can “programmatically” place job advertisements at the various sites the candidate later browses. While programmatic ad buying is common among marketers, it is a newer development for the recruiting industry. Appcast, Recruitix, PandoLogic, Joveo, and JobAdx are examples of programmatic job advertising brands.
 - Job distributors dispense a job post to a network of affiliate or partner job sites, in effect amplifying the posting's audience. ZipRecruiter is, by some way, the most significant job distributor. Other examples include Broadbean (part of CareerBuilder since 2014), eQuest, and Talroo. Like Careebuilder, a number of traditional job boards also offer job distribution services.
 - Job post optimizers attempt to make job postings more effective and interactive, acting as consulting/marketing firms for employers who want to maximize their job advertising. Job post optimization can be offered as a standalone solution or as part of a broader suite of software, such as an applicant tracking system or recruitment marketing platform.

Definitions: Talent Acquisition Technology by Service/Product Line

Sourcing Automation Tools refer to services that help staffing firms and corporate clients automate the process of sourcing candidates. These tools can generally be broken into three categories of increasing sophistication: resume parsing/search-match tools, people aggregators, and sourcing process automation platforms (SPAP).

- **Resume parsing/search-match tools** can “read” resumes and job responses, format the data in a structured manner, and facilitate searchable candidate databases.
- **People aggregators** are search engines that gather relevant job information about millions of candidates from across the internet and allow recruiters to search that database. (They can also be used to enhance information on an existing candidate).
- **Sourcing process automation platforms (SPAP)** are more holistic solutions that perform data processing, aggregate information about candidates, and typically provide assistance with candidate selection, in some cases including automated outreach to candidates as well.
 - Intelligent sourcing management systems (ISMS) are a more sophisticated version of SPAPs. Artificial intelligence capabilities are used in ISMS, but not necessarily in SPAP. They typically work by linking together disparate applicant tracking systems or candidate information systems so there is a single source of “truth” for all available candidates across an organization, regardless of which candidate information system any brand or business division may use. The aggregate of all this information is then “cleaned” (e.g. duplicate candidate profiles deleted, inaccurate or erroneous information removed) and “enhanced” (i.e. all profile information updated and consolidated based on the people aggregation techniques discussed earlier)

Candidate Engagement

Candidate Engagement is unique in that it isn’t necessarily a particular “step” in the talent acquisition process; good companies should be keeping candidates engaged from initial outreach through placement and re-deployment. However, organizations often fall short in keeping job candidates happy, productive, and engaged through the hiring process. Well-designed engagement campaigns can make organizations more efficient and productive, freeing up time for recruiters to focus on higher value-added activities. Candidate engagement technologies are grouped into three further sub-categories; texting/Email technology, recruitment chatbots and engagement platforms.

Definitions: Talent Acquisition Technology by Service/Product Line

- **Recruitment chatbots** are an interactive technology that uses AI and pre-programmed questions/ answers to automate various human interactions and processes through a (typically) text-based conversational interface. They are essentially robot customer service agents, capable of handling routine human tasks/interactions. Solutions in the market range from slightly better-than-static interactive data intake forms to conversational AI that can both “understand” the context of and, in some cases, respond appropriately to a wide range of user input. For further information please consult SIA’s [Introduction to Chatbots Report](#).
- **Engagement platforms** combine the different candidate engagement point solutions into a holistic platform which can be used as the central hub for all candidate engagement activities across an organization. Tools included in a candidate engagement platform can include surveys, automated outreach, custom workflows and engagement campaigns, video calling, document sharing, candidate and employee analytics, and even augmented reality functionality. Example brands include Sense, Appical and Intuo.
- **Texting/Email technology** enables organizations to send candidates text messages and emails in an automated fashion. Typically, these solutions integrate with a firm’s applicant tracking system, and may be used to send notifications to applicants in the ATS based on different criteria. For example, a firm might set up a text message to go out to a certain population of candidates when a certain job requisition is posted.

Generally, the goal with such technology is twofold. First, the automation aspects of the technology can increase productivity and efficiency. Second, by sending messages in a format preferred by candidates, organizations can increase the chance the candidate will open and read the message, potentially increasing open rates, engagement, and ultimately, placements. Example brands include TextRecruit and Text-Em-All.

Definitions: Talent Acquisition Technology by Service/Product Line

Candidate Verification & Assessment

Once a candidate has been identified and selected, the last step before onboarding the candidate is performing verifications. This might consist of checking any criminal history, eligibility for employment, and other relevant aspects of a candidate's background, which has historically been a manual and labor-intensive process due to the fragmented nature of record keeping standards in different jurisdictions. We have split these types of services into two sub-categories; background check verification and social media screening.

- **Background check verification** is a process that enables an employer to confirm information provided by a candidate. There is no standard background check, and organizations vary when it comes to exactly what they check. However it may involve criminal records checks, confirmation of past addresses, personal and professional reference checks, drug screening and bankruptcy checks.
- **Social media screening** offers an additional level of verification to more formal background checks. Organizations regularly use social media networks (notably LinkedIn, Twitter and Facebook) to help screen applicants, looking for information that supports candidate's suitability and qualifications for the role. Social media screening may be carried out in house or as a paid service.

Once a candidate has been discovered, the recruitment process generally moves to validation. Is the candidate qualified for the position? Do they have the requisite skills and experience? Will they work well with the team that plans to hire them? Do they fit the hiring organization's culture? There are a host of talent acquisition technology solutions designed to help firms with this phase of the talent acquisition process. We group these solutions into three categories: psychometric assessments, skills tests, and interviewing platforms.

- **Psychometric assessments** are conducted to provide a more objective overview of a candidate's character, strengths, weaknesses and working style. Unlike tangible assessments such as education, skills and experience, the behavioural traits, work style and personality of a candidate can be much more difficult to assess.
- **Skills tests** can be used to determine whether an individual can perform certain tasks and if so, how well they perform these tasks. While psychometric assessments are a useful indicator of performance regardless of the role and industry, a skills test would normally be role and industry specific.
- **Interviewing platforms** allow for companies to remotely conduct job interviews with potential candidates. Such platforms can offer both pre-recorded interviewing tools, allowing applicants to complete interviews from any location, at any time, by responding to a list of pre-determined questions or live video interviewing tools. These platforms often leverage AI, chatbots, and interview scheduling software options and can be integrated with applicant tracking systems (ATS) to streamline the recruiting process.

Definitions: Talent Acquisition Technology by Service/Product Line

Candidate Processing

Candidate Processing is typically the foundation of a firm's overall talent acquisition efforts. Its' primary function is to track and maintain information about candidates as they progress through various stages of the recruiting lifecycle, often serving as the "central hub" for talent acquisition activities.

- Many organizations use an **applicant tracking system (ATS)** as part of their sourcing strategy for direct hires. ATS is often used as a standalone product and there are many niche providers operating in this space. However, some organizations might use a human resource information system (HRIS) or human capital management system (HCMS), which are robust suites of general HR software that often include ATS functionality. As HRIS and HCMS software suites mostly comprise functionality post-acquisition of talent (time and attendance, payroll, and benefits administration), this broader category of software is not included in our talent acquisition technology ecosystem (save for the ATS module).
- We also include **vendor management systems (VMS)** within the candidate processing category. While end-clients use VMS technology to procure temporary staff and manage temporary staffing suppliers, it is primarily used as a tool to track spend, suppliers, temporary workers, and the data relevant to each of those categories. Furthermore, as VMS technology increasingly integrates with other types of talent acquisition technology, it is also increasingly used as the system of record for tracking worker engagements across platforms.
- **Freelancer Management System (FMS)** is a category of contingent workforce management technology that enables enterprises to self-manage their engagements with independent contractors and freelancers. To fall within the FMS category, a solution must provide a complete, end-to-end technology that enables users in an organization to search for and find a particular worker as well as activate, complete and pay for the work engagement within the system. FMS can be a standalone system though a number of VMS's also have FMS functionality.
- **Direct Sourcing Platforms** aid the process by which a company leverages its own internal candidate pool (i.e.: former employees, retirees, applicants from own ATS) to place within the company as temporary employees. These temporary employees are most often placed on the payroll of a third party payroll provider.

Definitions: Talent Acquisition Technology by Service/Product Line

Other Workforce Technology

Other Workforce Technology encompasses software integrators and workforce analytics.

- **Software integrators** are companies that help different technologies “talk” to each other. For example, a firm might use Salesforce, Workday, Beeline, and Upwork -- solutions which each have their own unique technology stack and workflows, though ideally the systems would interact and share data as necessary and in an automated fashion.
- **Workforce analytics** is an advanced set of data analysis tools and metrics for comprehensive workforce performance measurement and improvement. It analyzes recruitment, staffing, training and development, personnel, and compensation and benefits, as well as standard ratios that consist of time to fill, cost per hire, accession rate, retention rate, add rate, replacement rate, time to start and offer acceptance rate. The metrics provide return-on-investment (ROI) evidence for workforce-related decisions, as well as insights on future workforce planning.

Process Outsourcing

Business drivers for process outsourcing which enable organizations to focus on their core competence(s) have long been clear. They range from reducing costs, mitigating legal risks and conforming to compliance standards, improving quality, and providing access to technology.

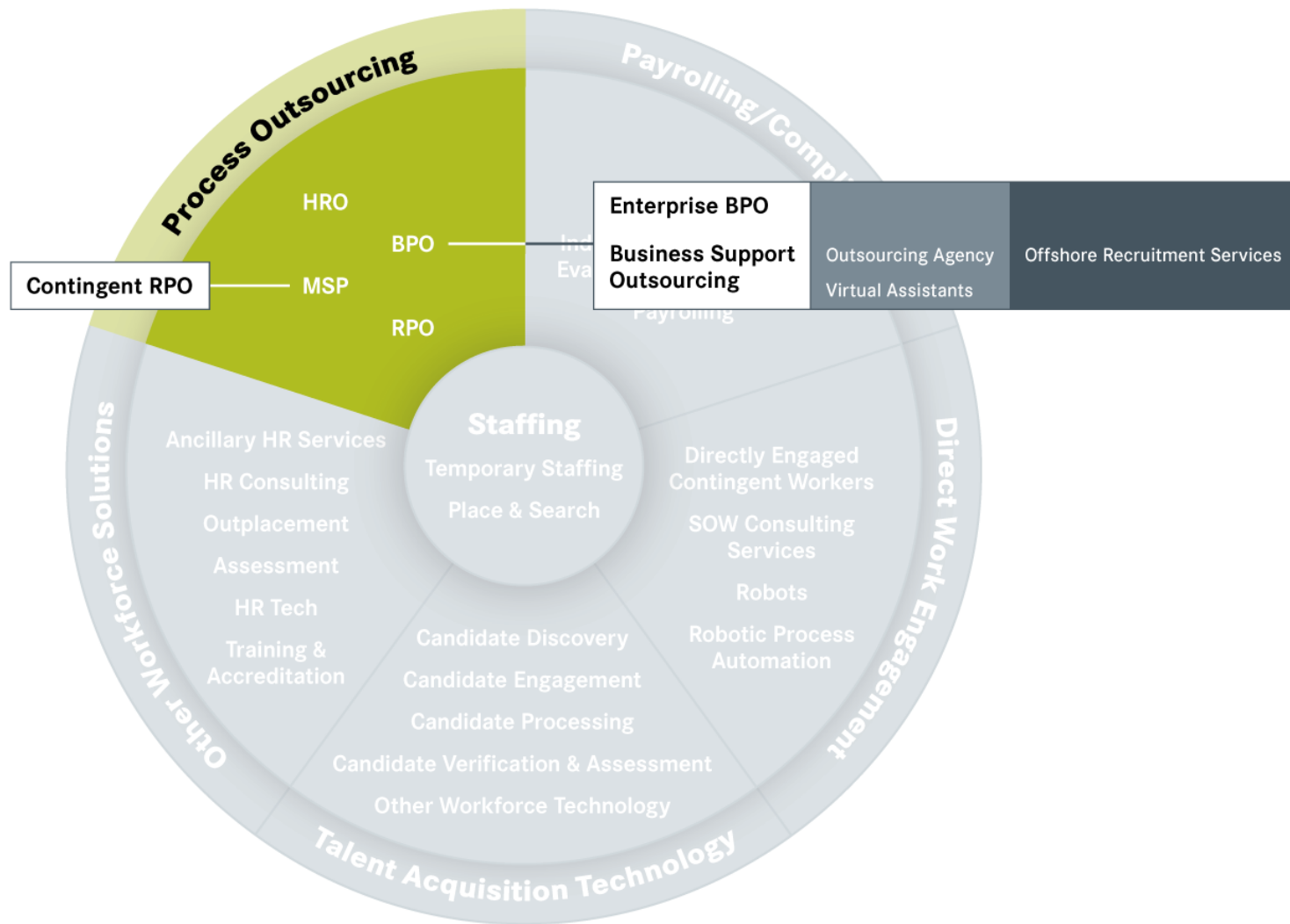
Outsourcing became an increasingly prominent business strategy during the 1980's with low cost overseas markets competing for their share of the development of offshore expertise.

As well as outsourcing or offshoring non-core skills, organizations also seek to outsource certain processes including those relating to the sourcing and management of employed and non-employed labor, i.e. HRO, RPO and MSP.

As a result, process outsourcing is an increasingly crowded and complex industry with large service providers co-existing with significant numbers of much smaller, specialized vendors. Low barriers to entry and relatively low-cost models has created fierce competition and, as a result, an opportunity for buyers to reap further business benefits. The following page presents a full taxonomy of the Process Outsourcing segment.

Definition: Process Outsourcing – Use of an outside business services vendor (and its supervised personnel), either on the customer's premises or off-site at the vendor's location, to perform a function or run a department that was previously staffed and supervised by the customer-directly. (Sometimes, but not necessarily, limited to situations where some or all of the customer's previous staff performing that function are hired by the outsourcing vendor. For our purposes, Process Outsourcing describes the use of an outside vendor to perform part or all of the role of a Human Resources department or a specific work output. Partial solutions would include Recruitment Process Outsourcing (RPO) where a vendor takes on responsibility for an organization's hiring requirements (to some degree) and Managed Service Provision (MSP) where a vendor manages an organization's staffing suppliers. It could include outsourcing certain aspects of human resources (HRO) or outsourcing a whole work function/department such as telesales, catering or security (BPO). Such outsourcing could be done locally or offshore and sometimes, but not necessarily, limited to situations where some or all of the customer's previous staff performing that function are subsequently hired by the outsourcing vendor. (See following page for service segment descriptions.)

Process Outsourcing



Definitions: Process Outsourcing by Service/Product Line (continued)

HRO

Human Resources Outsourcing is an outsourcing relationship in which a third-party vendor is hired to take over part or all of a client's human resources functions. Within our Workforce Solutions Ecosystem, HRO is defined as the outsourcing of at least three HR processes and, therefore, includes those vendors that provide a portfolio of services (sometimes referred to as multi-process HRO) and allow companies to pick and choose which services will be outsourced and which will be managed in-house. A multi-process HRO engagement could include any combination of benefits administration, employment process outsourcing, hiring/recruitment, HR/Personnel management, payrolling, RPO, staffing services, talent and human capital outsourcing, training and staff development, and workforce consulting and management. We define a number of these processes (staffing, payrolling, RPO) separately within the Workforce Solutions Ecosystem as, while they might be part of an HRO engagement, they are primarily procured as standalone services and provided by firms specifically focused on these individual processes. HRO also differs from the services of a Professional Employer Organization (PEO) (see definition) which takes care of all HR functions.

MSP

Managed Service Provision is a service whereby a company takes on primary responsibility for managing an organization's contingent workforce program. Typical responsibilities of an MSP include overall program management, reporting and tracking, supplier selection and management, order distribution and often consolidated billing. The vast majority of MSPs also provide their clients with a vendor management system (VMS) and may have a physical presence on the client's site. An MSP may or may not be independent of a staffing supplier. For further information please consult SIA's [MSP Global Landscape Summary](#).

- **Contingent RPO** is a type of MSP whereby the supplier sources contingent labor through client-dedicated recruiters in an outsourcing mode. These recruiters are trained on the company business and employer brand to attract candidates and any candidate data derived pools developed as part of the sourcing process are owned by the client. As such, the candidate database is the IP of the client which is returned at the end of a contract. Also, unlike the traditional Master Vendor MSP models, the candidate databases are not shared with other clients and candidates are not offered roles in other companies. The majority of activity for the Contingent RPO supplier relates to performing services that deliver a high percentage of direct sourcing through this model, rather than managing and sourcing suppliers which strongly features in a Vendor Neutral MSP model. Further, unlike other MSP models, Contingent RPO pricing is typically volume based, with a price per candidate placed, rather than being based on spend either by number of candidates placed or on a per candidate basis. This model is closer to a Direct Sourcing model except that the service is outsourced to a third party.

Definitions: Process Outsourcing by Service/Product Line (continued)

BPO

Business Process Outsourcing is the use of an outside business services vendor (and its supervised personnel), either on the customer's premises or off-site at the vendor's location, to perform a function or run a department that was previously staffed and supervised by the customer directly. (Sometimes, but not necessarily, limited to situations where some or all of the customer's previous staff performing that function are hired by the outsourcing vendor.) In Europe, certain legal obligations are placed on the outsourcing company. For example, a formal Transfer of Undertakings Procedure (TUPE) applies to outsourced functions whereby the contracts of employment of all staff within the affected area are automatically transferred to the new employer, which then takes over all rights and obligations arising from those contracts of employment, except criminal liabilities and pension obligations.

Outsourcing can be undertaken in a different country, usually to leverage cost advantages and this is more commonly referred to as 'offshoring'. While many offshore projects are outsourced to third party intermediaries, a company can offshore activities using facilities/resources it owns/controls in another country, such that the term does not necessarily imply outsourcing.

- Within SIA's definition of BPO, large-scale **Enterprise BPO** solutions are offered by firms such as IBM, Wipro, Accenture, Capgemini, Infosys, Sodexo and Cognizant. It refers to a company contracting its core business operations such as accounting, payment processing, IT services, human resources, regulatory compliance, and quality assurance to outside professionals who ensure the business runs smoothly. Enterprise BPO relationships differ from project work in that the duration of the contracts are typically much longer than one year or more and are not necessarily driven by milestones or deliverables but ongoing provision of services.
- A close cousin to the Enterprise BPO market is **Business Support Outsourcing** where firms outsource more discrete tasks rather than the business-critical outsourcing found in the Enterprise BPO market. We further differentiate two sub-categories of Business Support Outsourcing; Outsourcing Agencies and Virtual Assistant firms. The demarcation among these various BPO categories can be quite opaque and firms that operate in one category may happen to infringe on another.
 - **Outsourcing agencies** are typically small, specialized firms providing non-core outsourcing services such as website maintenance and/or development, IT support, marketing and graphic design for instance.
 - An interesting sub-category of this market, particularly for staffing firms is **Offshore Recruitment Services** which provide offshore recruitment process outsourcing specifically tailored for staffing firms. For further information please consult [SIA's Offshore Recruitment Services Overview Report](#).

Definitions: Process Outsourcing by Service/Product Line (continued)

— **Virtual Assistant** firms supply Virtual Assistant ('VAs'), a worker who provides various services to entrepreneurs or businesses from a remote (and often offshore) location. The core services offered include those general administrative duties that might typically be performed by a personal assistant such as: scheduling appointments, diary management, email triage, travel booking and meeting arrangements. However, this narrow definition of Virtual Assistant does not do justice to the wide variety of workers that most VA firms can supply.

In addition to general administrative services, most VA firms now provide assistants with expertise in a much wider portfolio of skills and covering all activities that might be performed on a remote basis ranging from bookkeeping to recruiting to website maintenance/design.

- **Recruitment Process Outsourcing (RPO)** – is the partial or full outsourcing of the internal recruitment function to a third-party specialist provider, which serves to provide the necessary skills, activities, tools, technologies, related recruitment supply chain partners and process methodologies to assume the role of the client's recruiting department for direct hire (permanent workers) by owning and managing its recruitment process and related recruitment supply chain partner relationships. RPO is more commonly used as a method for employers to recruit direct-hire personnel, particularly in the US. In Europe, contingent workers will also be included within that scope in some instances. Note that staff augmentation, where recruiters are sitting alongside client based recruiters and following the client recruitment processes is not considered RPO. RPO can include short-term Project RPO as well as longer term ongoing RPO engagements.

Payrolling/Compliance

Due to the variety of regulations by country, the global payrolling and IC compliance landscape is complex and diverse.

Many organizations outsource the payrolling of their employed staff to a third-party though contractor payrolling is also an important feature of the market.

Staffing Industry Analysts use the term “contractor payrolling” to define any arrangement in which a provider serves as the employer of a contingent worker on an assignment with another company, and is not responsible for recruiting. This common definition links together substantially different business models across the globe, such as the typical US payrolling model and umbrella services found in the UK and some other European markets.

In the US, it is fairly common for companies to offer both contractor payrolling and staffing (i.e. Kelly Services, Randstad, Act-1). In Europe, it is not typical for a company to provide both umbrella and staffing services, as accounting is considered core to one and staffing is considered core to the other. The following page presents a full taxonomy of the Payrolling/Compliance segment.

Definition: Payrolling/Compliance – industry segment of the Workforce Solutions Ecosystem comprising a range of payrolling and compliance services. Payrolling and compliance services may be offered by one company or by separate companies. (See following page for service segment descriptions.)

Definitions: Payrolling/Compliance by Service/Product Line

PEO

Professional Employer Organizations (PEO) are entities that provide employee management services, such as payroll processing, benefits management and recruitment, to businesses. Legally speaking, in the United States, they hire the employees directly as joint employers with the client. This makes processing payroll, tax, benefits and insurance far easier. PEOs might also offer ancillary business services like marketing and IT, as well as other employment services such as recruitment and temporary hiring solutions. PEOs may or may not assume legal risk for the employees they hire depending on the nature of the relationship. While this is not a familiar service outside the US, it is known in certain countries such as the Netherlands.

- A sub-segment of PEO's are **Global Employer Organizations (GEO)**, a term used by some international suppliers of Employment of Record services and sometimes referred to as a 'Global Employment Company' (GEC). While they may give the impression of being international versions of PEO's, they do not offer the breadth of services provided by PEO's in the US given differing legal environments. There are, however, benefits to establishing a GEO when a company is sending contractors into different countries on assignment. The GEO offers a cost-effective and efficient vehicle for holding employment contracts in one jurisdiction, issued by one employer. For example, if a company has numerous branches and subsidiaries around the world and each one sends assignees into different countries on project work, that would entail the establishment of a legal entity, registration for tax and employment contracts being held in numerous jurisdictions, with variations to ensure local compliance.

A GEO offers the opportunity to centralise all global assignees dispatched to various projects world-wide, on one standard form of contract. As such, a GEO can be "owned" by companies in different countries and thus provide some standardization and consistency. It also provides efficient centralization for staffing purposes, avoiding replication, in the form of a shared service center. In return for the "service" provided by a GEO, they can charge other organizations in the company structure a management fee, which would cover the payroll and administration costs.

Independent Contractor Compliance

Independent Contractor Compliance describes the ability to act legally, following a set of rules so that parties are not exposed to any specific legal and/or financial risk related to the sourcing, recruiting, hiring and/or management of contingent workers. Compliance services will evaluate processes and worker status to ensure that companies have commercially viable risk mitigation programs in place with regard to the classification of independent contractors. Depending on the legislative environment within a particular country, employee misclassification risk (and the liabilities imposed) can vary as it relates to the independent contractor, the staffing intermediary and the end-user.

Definitions: Payrolling/Compliance by Service/Product Line

Payrolling

Payrolling is a business service that provides payroll processing, paycheck writing, and payroll tax administration, for a fee. Payrolling is normally provided on the basis that no co-employer or joint employer relationship exists and purely as an administrative function. The service can be provided by specialist payroll companies or, sometimes, directly by staffing companies.

This is a purposefully broad definition covering the provision of both services and software as well as the payrolling of employed and contingent workers. A more narrow and distinct definition of payrolling used in the US and Netherlands describes an arrangement whereby a client recruits or otherwise identifies personnel whose services it needs and refers them to a (staffing firm) supplier, to be employed by the firm and assigned back to the client (which is defined as ‘contractor payrolling’ on p.33). Contractor payrolling includes payroll administration but is more akin to an employer of record service commonly found in the US market.

Payroll Service Providers provide national, and sometimes international, payroll services. Unlike payroll bureaus (see below), these firms will often provide certain complementary outsourced HR services but this tends to be quite partial in nature and not as part of a full and comprehensive HR outsourced offering. Examples of firms providing these services include ADP and Paychex.

- **Payroll Bureaus** offer a service provided to an employer that is partly in-house and partly outsourced. Rather than having the entire process of managing the payroll run in-house, employers control part of it and outsource the remainder. The employer retains control over the process and the employee, while some elements are handled by the provider, such as printing payslips and processing expenses. Some payroll bureaus offer a full-service package that closely resembles outsourced payroll. Payroll bureaus mostly comprise small niche providers offering a local service or niche provision such as in education, construction or non-profit sectors. For example, many small accounting firms offer payroll services alongside bookkeeping and pension advice.
- In addition to those companies providing a payroll service, there are also many **payroll software providers** who sell software rather than outsourced payroll services. This software enables employers to run their own payroll and manages, organizes and automates employee payment. A small number of Payroll Service Providers sell both outsourced payroll services and software. Examples include Patriot Software.

Definitions: Payrolling/Compliance by Service/Product Line

- The term “**contractor payrolling**” defines any arrangement in which a provider serves as the employer of a contingent worker on an assignment with another company, and is not responsible for recruiting.

Payrolling is a term used in the US and the Netherlands to describe an arrangement whereby a client recruits or otherwise identifies personnel whose services it needs and refers them to a (staffing firm) supplier, to be employed by the firm and assigned back to the client. In this case, the workers become, in effect, employees of the supplier providing the payroll services (also known as employer of record services). Payrolling arrangements usually involve a specific client function or position, not the whole or a significant portion of a client’s workforce as in a “PEO” relationship. When provided by a staffing firm, payrolling services are typically billed at significantly lower mark-ups than traditional temporary staffing because the firm has not incurred any recruiting costs.

- In the UK, businesses providing contractor payrolling are known as **umbrella companies**. The umbrella company acts as the employer to contingent workers, in exchange for a fee paid by the workers, who are free to find their own work, usually through one or more staffing agencies. The umbrella company invoices the staffing firm for the services of the workers and handles all administrative, taxation, payrolling and legal issues pertaining to the workers’ employment with the client. The client is responsible for supervising and directing the work and the staffing agency acts as a contract intermediary between the umbrella company and the client. Umbrella company service providers often combine their services with the establishment and administration of personal service companies for independent contractors and independent contractor compliance services.

Direct Work Engagement

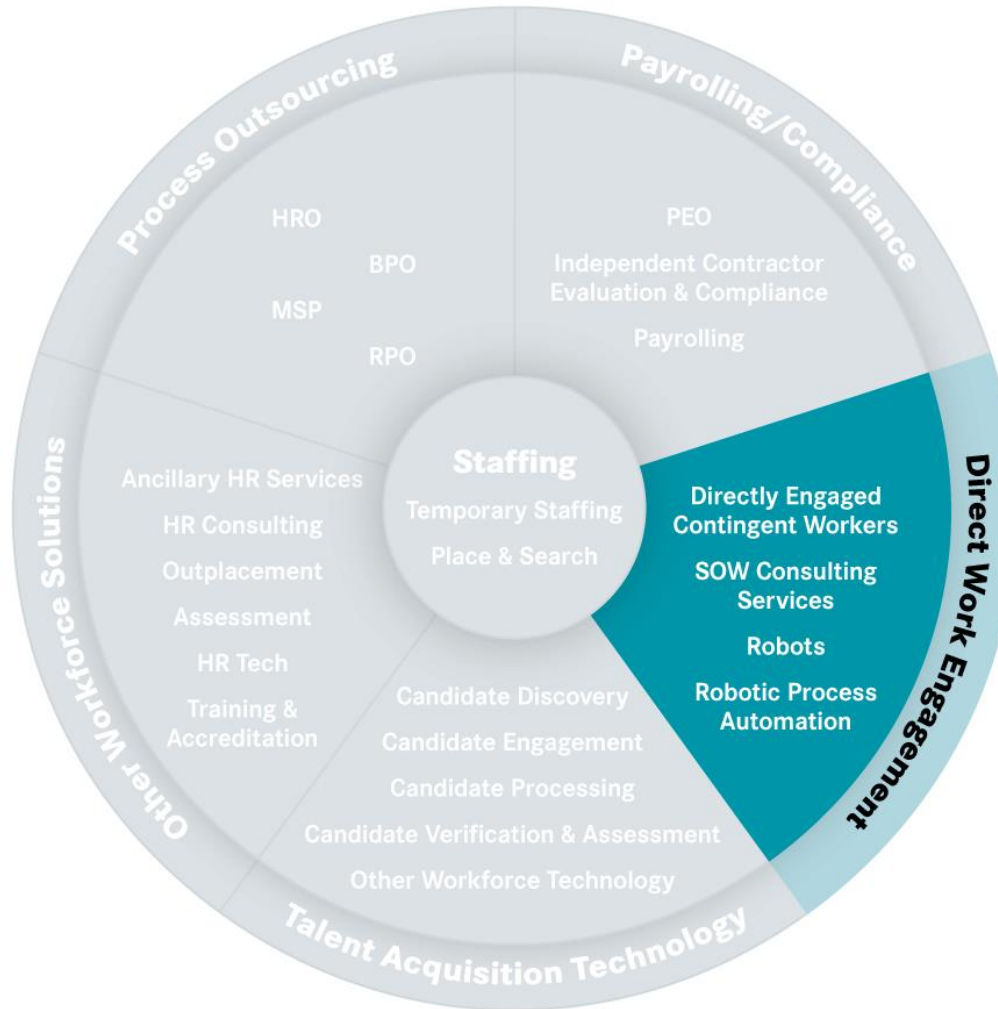
Direct Work Engagement covers categories of directly sourced ways of completing work. These may take various forms, from directly engaged contingent workers, SOW consulting services or even robots and artificial intelligence that automates process (RPA). A common theme is that none of the above are sourced via third-party intermediaries operating in other parts of our Workforce Solutions Ecosystem.

Directly engaged contingent workers include independent contractors/consultants, temporary workers sourced from an internal pool and others such as summer interns and seasonal workers. We define an independent contractor as a self-employed individual performing services for a company under contract; rather than as an employee, either on-or off-site. (Also referred to as freelancers, consultants, and, in the United States, “1099s”.) Unlike employees, independent contractors (ICs) are free to perform their work as they see fit.

Within any SOW engagement model, there is a high degree of variability in the nature of the services provided, number of individual consultants assigned, timeframe and value of the contract. The following page presents a full taxonomy of the Direct Work Engagement segment.

Definition: Direct Work Engagement – industry segment of the Workforce Solutions Ecosystem which includes Directly Engaged Contingent Workers, SOW Consulting Services, Robots and RPA. In addition to consulting businesses where work is paid on the basis of a defined deliverable/statement of work, this covers those categories of contingent workers that are not sourced via third-party intermediaries operating in other parts of our Workforce Solutions Ecosystem (i.e. temporary workers sourced via a staffing firm or freelancers sourced via a talent platform). (See following page for service segment descriptions.)

Direct Work Engagement



Definitions: Direct Work Engagement by Service/Product Line

Directly Engaged Contingent Workers

Contingent work is used to describe work arrangements that differ from regular/permanent, direct wage and salary employment. Contingent workers are primarily distinguished by having an explicitly defined or limited tenure. The ‘contingent worker’ label applies to all workers of any skill type or experience level who meet this definition, including those in professional, blue-collar, or office/clerical roles.

Directly engaged contingent workers include independent contractors/consultants, temporary workers sourced from an internal pool and others such as summer interns and seasonal workers. The term ‘contingent workers’ would normally include a number of other categories however, within our Ecosystem, these workers are supplied via third parties (and appear elsewhere in the Ecosystem) hence the addition of the phrase ‘directly engaged’ to eliminate these categories, namely temporary employees provided by an outside staffing agency and freelancers sourced via talent platforms.

SOW Consulting Services

SOW Consulting Services are provided under a Statement of Work (SOW) contractual arrangement. In contrast to agency consultants, SOW consultants are typically, but not always given a regular, consistent salary by their employer and continue to receive this salary when not working on project assignments (i.e., “benched resource”). While SOW consultants are typically employed by consulting firms, a host of technology and other staffing firms have also entered the solutions space for its greater margins (the theory being that you are paying for the firm’s proven methodology and chemistry of the team).

At times “rogue” managers have used an SOW arrangement in order to avoid restrictions on the use of temporary workers or agency consultants. The statement of work itself is a document that captures the work products and services, including, but not limited to: the work activities and deliverables to be supplied under a contract or as part of a project timeline. In contrast to a typical temporary or contingent work arrangement which is billed based on time worked, SOW agreements are sometimes billed based on a fixed price deliverable or for hitting specific milestones. Like typical contingent arrangements, they may also be billed based on time, including arrangements where there is a time-based billing that is capped at some “not to exceed” level for time and materials.

Definitions: Direct Work Engagement by Service/Product Line

RPA

Robotics Process Automation is defined by the IRPAAI (Institute for the Robotic Process Automation & Artificial Intelligence), as ‘the application of technology that allows employees in a company to configure computer software to capture and interpret existing applications for processing a transaction, manipulating data, triggering responses and communicating with other digital systems

RPA is technology that emulates work that people could carry out and is best suited for processes with repeatable, predictable interactions with IT applications. RPA uses artificial intelligence (AI) and machine learning capabilities to handle high-volume, repeatable tasks including queries, calculations and the maintenance of records and transactions. Although RPA uses the term ‘robotic’ it does not refer to a physical robot.

It should be noted that RPA is also being used within the ‘Talent Acquisition Technology’ space (specifically to automate processes in the ‘Candidate Discovery’ and ‘Candidate Engagement’, sub-segments). Our definition of RPA within the ‘Direct Work Engagement’ segment applies specifically to technology being used to perform work tasks in areas not related to talent acquisition. Examples of companies providing RPA services include Automation Anywhere, Blue Prism and UiPath. For further information please consult SIA’s [Introduction to Robotic Process Automation Report](#).

Robots

Robots can provide innovative workforce solutions that reduce repetitive (and often dangerous) tasks performed by people, so they can take on more challenging and meaningful work. Robot usage can lead to greater productivity and higher customer satisfaction. A rapid proliferation in robot capabilities, driven by innovations in machine learning, artificial intelligence, adaptive computing and vision systems is accelerating robot utilisation. While the use of robots has been visible in factory automation for some time, from assembly and pick-and-place to material handling and packaging, the use of robots in other industries continues to rise. These robots may include professional service robots, defined as a semi- or fully autonomous robots for the automation of commercial tasks, excluding manufacturing operations or a collaborative robot (or cobot), a type of robot intended to physically interact with humans in a shared workspace.

We have started to see a small number of staffing firms supply robots, offering their clients the option of getting work completed by either a human or robotic resource.

Other Workforce Solutions

The ‘Other Workforce Solutions’ segment serves as a complement to other segments of the Workforce Solutions Ecosystem.

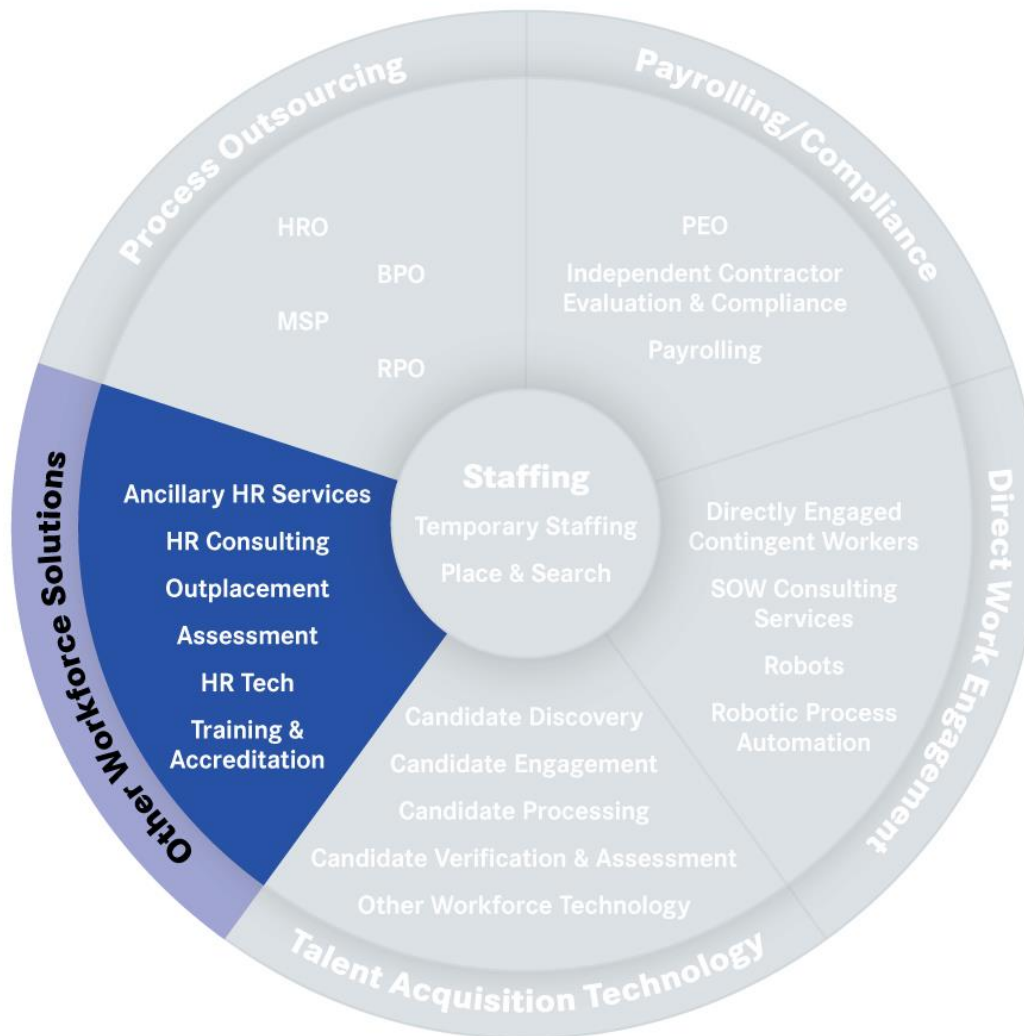
Due to the complementary nature of this segment, some of the largest global staffing firms offer services in this segment, in particular within the outplacement service segment, such as ManpowerGroup (Right Management) and Adecco (Lee Hecht Harrison).

Firms operating in the Process Outsourcing segment will also frequently offer one or a combination of services in this segment in order to complement their core outsourcing services.

Although not directly related to the sourcing or hiring of workers, these services help to develop people in their careers in order to fulfil their potential and also to manage career transition. Whereas staffing helps find candidates who are prepared to interview for open jobs or temporary positions, outplacement, for example, helps candidates find and prepare to interview for open jobs. The following page presents a full taxonomy of the Other Workforce Solutions segment.

Definition: Other Workforce Solutions –
A broad grouping of employment-related services including employee benefits services, insurance, retirement services, employee development, motivation/engagement, outplacement, HR consulting, assessment, training, relocation services and any other ancillary HR services not found elsewhere in the Workforce Solutions Ecosystem. These services are not directly related to the sourcing or hiring of workers but focus on other facets of managing a workforce. (See following page for service segment descriptions.)

Other Workforce Solutions



Definitions: Other Workforce Solutions by Service/Product Line

HR Consulting

HR Consulting is a specialist form of management consulting. HR Consultancies are hired by organizations in order to achieve a better outcome for their human resources-related activities. It differs from HR Outsourcing in that clients pay for an advisory/consulting recommendation rather for a specific HR-related service.

HR Consulting firms can advise clients on important strategic issues such as performance management and alignment, HR technology selection/implementation, HR transformation (i.e. Mergers & Acquisitions, redundancy programs), talent management, and staff analytics. HR Consultancies perform needs assessments or audits and make recommendations or proposals, coordinate the creation and implementation of an action or corrective plan, and when required, organize and coordinate cross-functional HR teams to assist with developing and implementing performance improvement corrective plans, programs or processes.

HR Tech

This segment refers to software solutions that can be deployed post-sourcing of workers in order to better manage, engage, and motivate these workers. These solutions are sometimes offered as a standalone activity (or point solution) but more often as part of a suite of Human Resource Management System (HRMS) solutions. The solutions include technologies that facilitate onboarding, personnel administration, benefits administration, performance management, learning management system (LMS), time & attendance, expenses management and engagement/recognition. Within our definition, HR Tech excludes technologies used to acquire talent (such as ATS and VMS) as these appear in their own right within our Ecosystem. It also excludes payroll which, again, features as an independent category within our Ecosystem. While we might categorize them separately, some vendors do include these services within their wider HRMS portfolios. A number of important vendors bundle HR Tech to provide a comprehensive suite of human capital management tools as part of their wider ERP offerings.

Outplacement

Outplacement is a service to guide a terminated employee of a company to a satisfactory new position or career through the provision of short- or long-term counselling and support services, on a group or individual basis, most often paid for by the terminating employer.

Definitions: Other Workforce Solutions by Service/Product Line (continued)

Assessment

Distinct from candidate assessment & verification which relates to the sourcing or hiring of candidates, these services help to develop hired workers in their careers in order to fulfil their potential. These may include the evaluation and development of hard skills such as performance assessments and job knowledge tests but also soft skills by way of personality examinations using various psychometric techniques. Ongoing drug testing and suitability tests may be conducted for safety critical roles such as heavy machinery or driving and government agencies although there is a growing trend for tests to be administered in a wider range of industries.

Training & Accreditation

A service segment of the Other Workforce Solutions Industry, there are many forms of work-related training provided by third-party experts. Some may relate to a very particular job role such as electrical engineering, accounting or nursing, some provide education on broader skill sets such as sales techniques, public speaking/presenting, health and safety and leadership, while others help workers develop better skills on a particular software program.

Many staffing firms will provide training where it can improve the skills (and, therefore, the value) of a temporary worker and, in certain countries, such as France, such training is a legal obligation.

Where training is provided through via a learning management system (LMS) such as LinkedIn Learning where the training delivery is primarily automated, we would classify this this as HR Tech (see definition).

Accreditation refers to the formal, third-party recognition of competence to perform specific tasks which many training vendors award upon conclusion of a training program.

Ancillary HR Services

This segment includes all remaining workforce related third-party services not captured elsewhere in the Workforce Solutions Ecosystem. Examples include retirement services, compensation and benefits, relocation services as well as data and analytics providers.

About SIA (Staffing Industry Analysts)

Founded in 1989, SIA is the global advisor on staffing and workforce solutions. Our proprietary research covers all categories of employed and non-employed work including temporary staffing, independent contracting and other types of contingent labor. SIA's independent and objective analysis provides insights into the services and suppliers operating in the workforce solutions ecosystem including staffing firms, managed service providers, recruitment process outsourcers, payrolling/compliance firms and talent acquisition technology specialists such as vendor management systems, online staffing platforms, crowdsourcing and online work services. We also provide training and accreditation with our unique Certified Contingent Workforce Professional (CCWP) program.

Known for our award-winning content, data, support tools, publications, executive conferences and events, we help both suppliers and buyers of workforce solutions make better-informed decisions that improve business results and minimize risk. As a division of the international business media company, Crain Communications Inc., SIA is headquartered in Mountain View, California, with offices in London, England.

For more information: www.staffingindustry.com

Global coverage across the workforce solutions ecosystem, and latest SIA research and related news, follow us  @SIAAnalysts, @SIAResearch and connect via    YouTube