

Guide

HR Tech Guide: Building People Analytics for HRIS and HR Ops



visier[®]



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Understanding build vs. buy in people analytics

The choice between developing a people analytics solution internally and purchasing a dedicated platform is unavoidable.

Building seems, in theory, cheaper and more flexible. Nevertheless, behind all of that rosy first impression, expect hidden complexities. Development can take a lot of time, maintenance costs might overextend, and, most importantly, you need specialized domain expertise for data modeling and integrations into the BI tools you're using.

But off-the-shelf BI tools can't serve as the building blocks of automated domain-specific insights. At least not in a timely manner.

Not to mention that building a people analytics solution in-house also greatly increases risks. Shortly before business requirements can evolve, you might experience costly delays, resulting in data silos and bottlenecks in decision-making.

Buying a ready-made solution doesn't mean you have to give up on customization. A people data platform that scales with your company can speed up time-to-value and shift internal resources to wherever the real strategic priorities are.

Selecting between these two options allows for an unvarnished evaluation of cost, complexity, and future adaptability. It's no longer about whether we can build it or not, but whether we should. So what are the implications?

Architecting infrastructure for people analytics

A great people analytics infrastructure goes beyond stellar data collection. It needs to come with an entire ecosystem of extracting, transforming, storing, and modeling people data perfectly.

Among these, ETL (Extract, Transform, Load) tools help extract raw workforce data from different HR systems, transform them into usable formats, and load information onto storage platforms. [Data connectors](#) act as a bridge, enabling other disparate systems to engage one another in top-notch data applications.

To ensure consistency and reliability, data cleansing technology corrects inconsistencies, normalizes, and standardizes inputs before analysis. Scalable, secure storage platforms keep structured and unstructured workforce data, while data modeling frameworks define relationships between important metrics, supporting meaningful insights that can open doors to actionable findings beneficial to an organization.

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“Once we showed what Visier was capable of and the resources we would need to run Visier internally, it helped us sell Visier. For instance, one question I've been frequently asked, which I haven't been able to answer before Visier, is, 'how are we benchmarked against our peers?' Visier allows us to do that. If I were building internally, I wouldn't have the capability to say our turnover analysis compared to our peers looks great—Visier gives me that capability.”



Allison Capra,
Senior Director of People Systems and People
Operations, Eventbrite

Technical steps

1. Select and license ETL technology and data storage solutions

Start by picking an ETL and data storage solution that can support data integration and increase performance.

2. Gather requirements from HR stakeholders to define key analyses and metrics

Before building a data model, it's crucial to engage HR stakeholders to understand the specific analyses and metrics they need. This informs both the structure of the data model (entities, relationships, etc.) and the selection of the right tools to support data integration, transformation, and reporting.

3. Design a scalable data model that evolves with your HR analytics needs

A well-structured data model translates business requirements from stakeholders into entities, relationships, and rules, forming the foundation for an adaptable schema that can accommodate back-dated transactions while remaining scalable for future analytics needs.

4. Ensure data quality with robust cleansing and transformation processes

Cleansing and transformation processes are a must if you want to standardize data, fix inconsistencies, and ensure data accuracy.

Potential roadblocks when building

But while we're still at ground zero, there are many challenges you're likely to face while building a people analytics solution from scratch.

For starters, initial license costs associated with ETL tools, data storage solutions, and infrastructure can be significant, while weekly upkeep and daily consumption charging can swell the total in no time. Timelines are also something to worry about. A robust infrastructure may take anywhere between 12 and 36 months to build.

Resource intensiveness adds the most time and budget spend. Multiple vendors are involved in ETL activities, integration, storage, and analytics. All this requires specialized knowledge and vast IT resources.

Data systems related to HR and the workforce are also likely to experience frequent changes that will require constant change management. That's an extra cost that you have to juggle alongside manually managing the extensive complexity of people data.

Beyond this, designing the data structure and models from scratch presents another significant challenge. Identifying and defining thousands of workforce metrics and calculations requires deep expertise in both people analytics and data architecture. Without a well-established model, ensuring consistency, accuracy, and scalability becomes an ongoing struggle.

People data differs from other enterprise data because, unlike its counterparts, it's time-sensitive and event-driven. This means it requires a past context to share clear insight when analyzed. Handling back-dated transactions, hierarchies, tenure, career progression, and organizational changes makes traditional data models inadequate without specialized processing.

Enter a prebuilt, scalable approach

The good news is you can skip having to spend several years just on building infrastructure. With a prebuilt yet customizable people data platform like Visier, you can enable quicker time-to-value while lowering complexity and costs.

How?



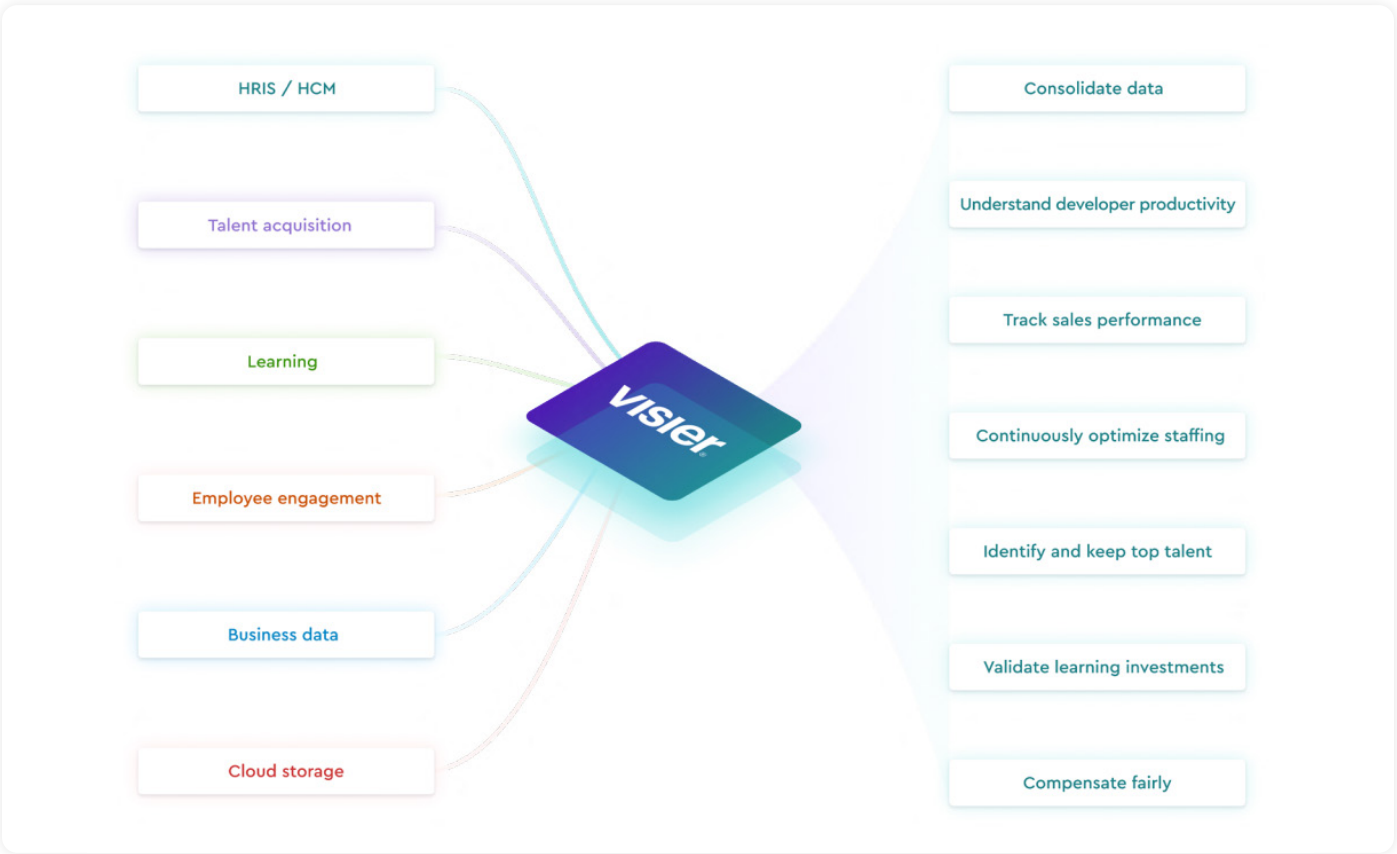
Automated ETL processes and connectors: Visier’s Event Stream Loader (ESL) is a proprietary ETL tool that seamlessly connects to almost all HR systems and automatically extracts, transforms, and harmonizes people data into Visier’s subject-centric model for downstream analytics.



Extensible, built-in proven data models: Visier’s built-in data models are backed by over a decade of expertise in people analytics, ensuring accuracy and seamless integration without the need for custom development. You can easily customize and extend the data model to include new HR systems or other sources like finance and sales, giving you a more complete view of your workforce.



Immediate value opportunity: Visier delivers instant actionable insights, allowing you to begin validating your data as soon as it’s mapped to the model. Most traditional BI projects take dozens of drafts and a lot of time, eliminating the worth of complex infrastructure.



Implementation and deployment

Deploying a people analytics solution is more than just a technical rollout. A thorough deployment requires careful planning around data integration, security, governance, and user enablement to ensure that insights are accurate, accessible, and actionable.

From aligning with IT infrastructure to managing change across HR and business teams, your organization must first address data compatibility, system interoperability, and user adoption strategies to unlock the full potential of their analytics investment. With the right approach, deployment becomes a streamlined process that delivers rapid insights without disrupting existing workflows. But what are all the implications?

Technical steps

1. Define implementation roles

Give clear responsibilities to project managers, data analysts, and HRIS specialists.

2. Establish project timelines and milestone tracking

Set realistic, achievable timelines for different phases so you can track progress against key deployment milestones and keep business priorities in line without delays.

3. Incorporate change management, training development, and stakeholder engagement

Consider setting up extensive training programs, working towards improving user adoption by engaging stakeholders, and proactively addressing resistance to change and analytical workflows.



Potential roadblocks when building

High costs attached to consulting and labor (quite often exceeding \$750K), are the primary hurdle you have to overcome with deploying people analytics. That's because organizations tend to work with specialized experts in areas such as data integration, system configuration, and analytics deployment.

For instance, a firm integrating analytics across multiple HRIS platforms may need, at the very least, custom APIs and ongoing IT support. All this raises initial costs before you can even calculate the ROI for the deployment.

Other challenges include time-to-value, which can span from a few months to years. Because traditional deployments involve extensive data mapping, validation,

and security setup, access to actionable insights is delayed. For instance, a global enterprise might struggle to harmonize data out of decentralized HR systems. This prolongs implementation since IT teams will have to put in all those efforts to standardize and normalize data into a single source of truth.

Managing change is also resource-intensive. Unless you already have the necessary training and stakeholder guidance, new tools won't cut it. Many companies fail to invest in structured training and change management programs. This creates low levels of uptake, diminishing the benefit they get from their investment in building people analytics.

How Visier's proven implementation methodology leads to faster deployment cycles

Compared to traditional methods for people analytics deployment (those that take months or even years), Visier runs on a rapid implementation cycle, involving just 12-14 weeks.

Organizations can shorten setup times and gain faster access to insights by using Visier's prebuilt data connectors, automated ETL processes, and standardized HR metrics. This approach allows HR and business leaders to make data-driven decisions more quickly by eliminating the need for lengthy custom development.

Visier gives users predictable, inclusive costs covering expert consulting, change management, and training.

With these value-added services, Visier helps businesses navigate the complexities of people data and user adoption with ease. This partnership isn't just about a faster rollout—it's about understanding the unique challenges of people data and shifting from transactional system reporting to action-oriented insights.

Built-in best practices, a powerful user interface, and self-serve analytics capabilities empower leaders to retrieve insights independently from IT. This high level of accessibility ensures you can optimize analytics investments from day one, removing the worry of low adoption and technology going underutilized.



Developing analytic content and features

Creating valuable and relevant HR analytics content starts with identifying key HR metrics. Metrics such as employee turnover rate, time-to-fill, and engagement scores provide a foundation for understanding workforce trends. Ensuring these calculations are correct and aligning them with industry standards improves the credibility of your HR analytics and supports better decision-making down the road.

Benchmarks are a powerful way to contextualize your HR data. External benchmarks compare performance against industry peers, providing insights into competitive positioning. By pulling insights from industry reports, third-party data sources, and custom benchmarking studies, you can set realistic goals and identify areas for improvement. Adding these benchmarks to your HR dashboards and reports gives leaders a clear reference point for evaluating workforce performance.

Let's not forget about the value of a well-designed report or dashboard. The most effective reports go beyond numbers, offering visual storytelling and written narrative that highlights trends and key takeaways. Interactive dashboards support real-time data exploration and accessibility, allowing HR teams to drill down into specific metrics and uncover deeper insights through a couple of clear steps.

Technical steps

1. Design and build analytics and reporting frameworks from scratch

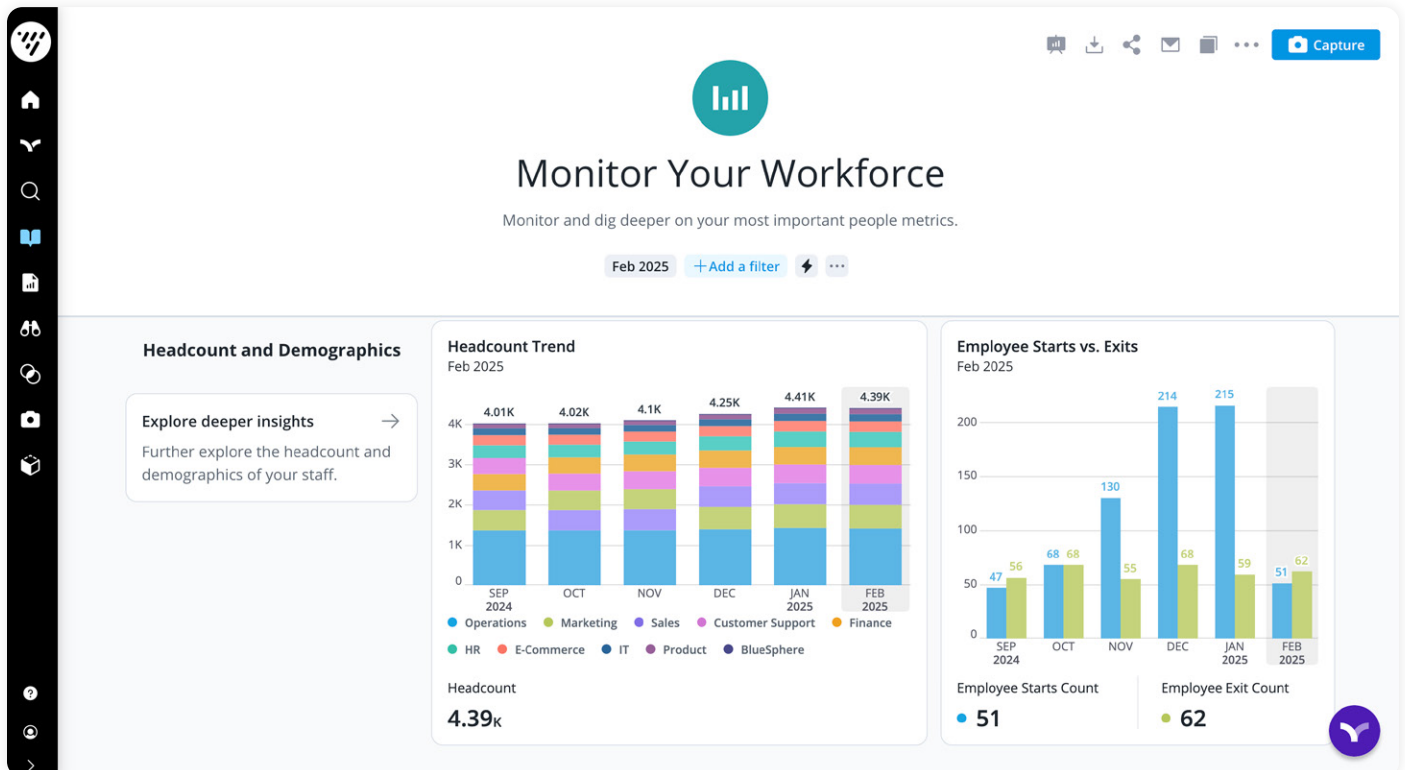
That includes creating key HR metrics like employee turnover, engagement scores, and time-to-hire, ensuring consistency in calculations and building metadata to define every metric available.

2. Integrate and manage external benchmark datasets

Successful benchmark management involves selecting appropriate datasets, aligning them with internal HR systems, and ensuring they stay updated with current market trends, all while managing the significant costs associated with purchasing external benchmarks.

3. Continuously generate content based on user requirements and business queries

Monitor workforce trends, answer ad-hoc inquiries, and pull data from reports like workforce performance reviews. These will help you understand where your workforce stands and what you need to improve.

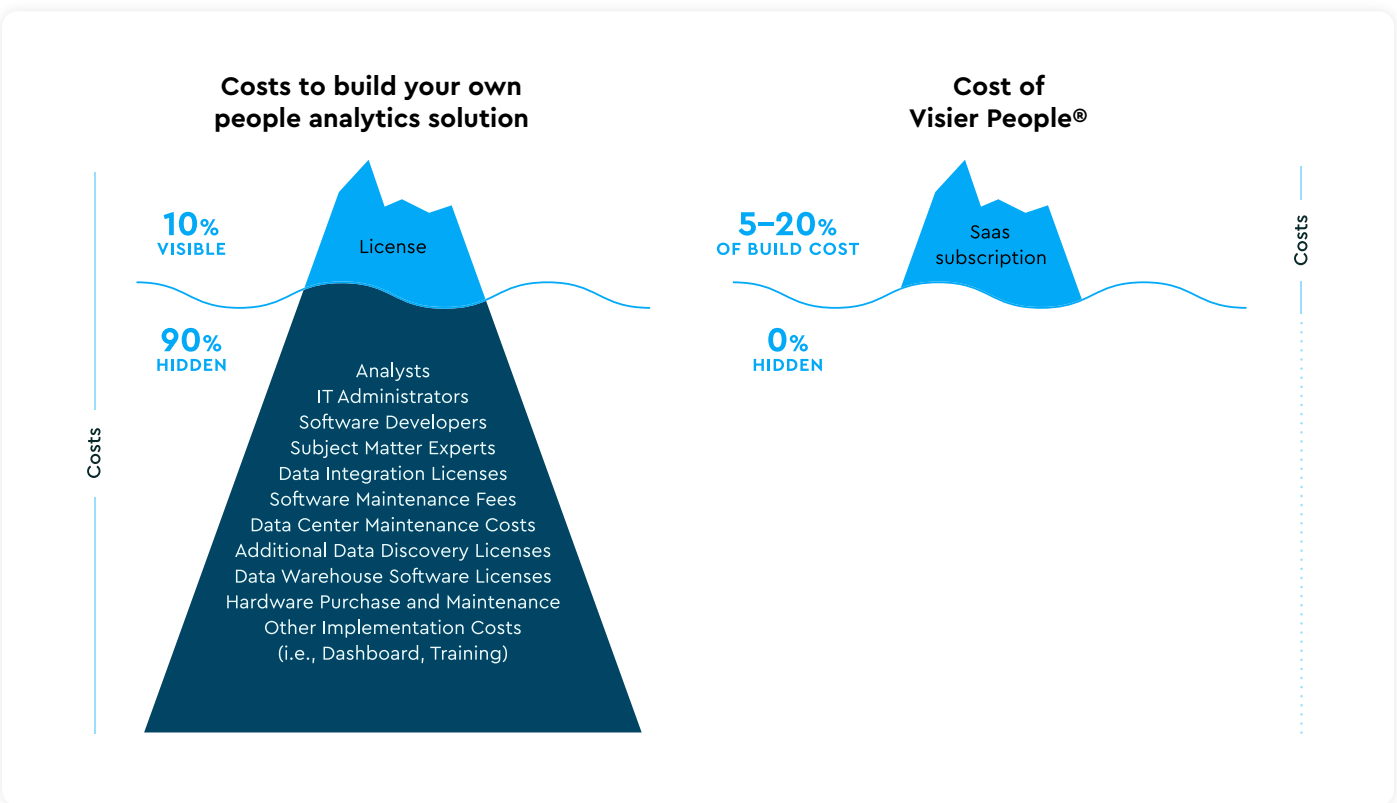


Potential roadblocks when building

Content creation inevitably consumes a lot of time, effort, and financial resources. Developing even a base-level analytics framework from scratch will normally require hiring data analysts, buying more software, and ensuring regular maintenance on the data infrastructure.

Integrating external benchmarking data can be costly, as most datasets come with expensive licensing fees. Additionally, these benchmarks are typically updated only once or twice a year, meaning organizations may rely on outdated insights that don't reflect current trends.

Long development cycles will complicate the process further delaying access to timely insights. Custom-built HR analytics platforms and dashboards can take months to years to set up and actually work. By the time they're ready for use, business requirements and goals have very likely changed. Organizations must find ways to achieve development speed by using automation, prebuilt analytics tools, or flexible processes that allow modifications in successive iterations.



Extending Visier's prebuilt solution

Visier comes with an extensive library of prebuilt analytics content that can answer 80-90% of HCM questions. With such ready-to-use metrics, reports, and dashboards, you won't need to build your analytics frameworks from scratch, reducing time and hiring investment. HR teams can use Visier to quickly gain insights into the trends of their workforce, employee performance, turnover rates, and so much more.

Visier provides built-in benchmarks derived from aggregated and anonymized data from over 20,000 companies, updated quarterly to reflect the latest trends. Additionally, an annual benchmark report offers a comprehensive industry-wide view.

Since Visier's analytic model structures both internal and external data similarly, users can easily compare their HR performance against industry standards, including external benchmarks from sources like the EEOC and unemployment data. This built-in alignment eliminates the complexity of third-party data integration, ensuring real-time access to actionable insights.



User experience, scalability, and security

Delivering a seamless, intuitive user experience alongside scalable security management is a critical step to add to your list. A well-designed system allows easy self-service users to gain insights while protecting sensitive workforce data. Striking this balance calls for purposeful designs, standardized data management, and scalable security controls.

Focus areas will include self-service analytic capabilities, data definitions, validation protocols, and role-based security access control. These steps ensure analytics remain accessible, consistent, and secure across the organization.

Technical steps

1. Establish data definitions, dictionaries, and validation protocols

A standardized data dictionary guarantees that key HR concepts (e.g. headcount, attrition, tenure) are defined across the reports. For example, a rule might state that the headcount only includes full-time employees, so that separate reports on the workforce avoid discrepancies.

2. Develop intuitive user interfaces and self-service analytic capabilities

Consider adding drag-and-drop dashboards or easy-to-customize reports that will let HR teams analyze workforce trends without asking data specialists for help.

3. Design and manage scalable, role-based security access controls

Role-based access restricts the data an employee can see based on their function. For instance, you can set these restrictions so that while directors can view all employee records, managers only have access to information about their direct reports, and hiring managers can only see candidate data relevant to open positions.

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“Given the complex nature of healthcare and HR data, the ability to have a very robust, flexible, and rules-based security system has enabled us to make philosophical decisions about data at Providence. We know that everyone can see what they’re supposed to see.”



Gary Russo,
Executive Director of Workforce Intelligence,
Providence Health and Services



Potential roadblocks when building

When building analyses for your own people data platform, you can expect to spend significant time ensuring data consistency and reliability. Standardizing HR data can take weeks or even months, and you'll still struggle with inconsistent data formats and definitions.

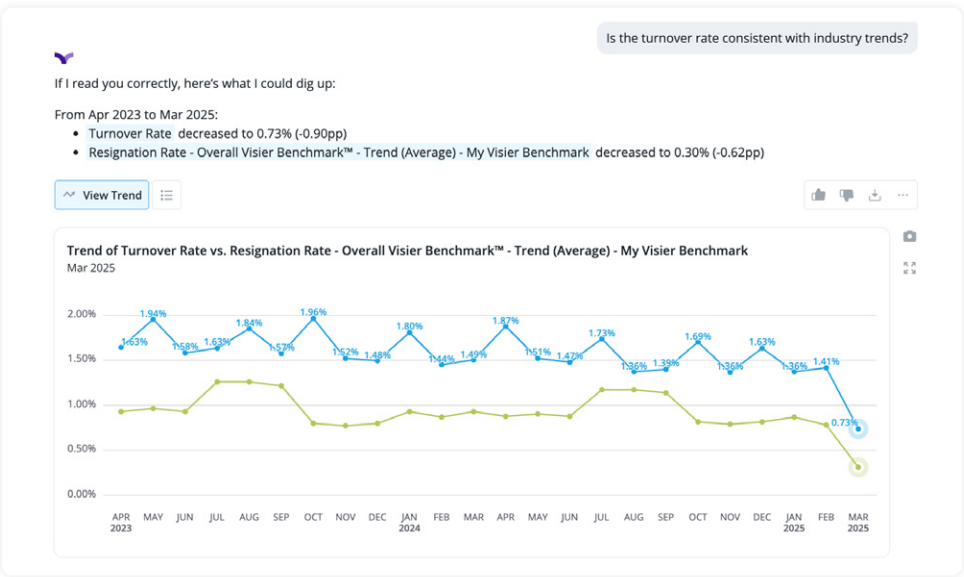
Security requirements also come into the picture. Think continuous updates, compliance monitoring, and user access control adjustments—all features you need to allocate extra time and money towards. In fact, maintaining an up-to-date, secure system can often be more expensive than the initial platform development.

Any kind of user training and data literacy programs also need to be built from scratch. These are a must though if you want to make sure your team can properly use your analytics solution. But these come with an extra cost you might not be expecting as complex training materials and ongoing education programs are mandatory.



Secure, AI-driven workforce insights for faster adoption

Visier provides organizations with a Workforce AI Edge through its AI assistant, **Vee**, enabling users to interact with data and reports using a natural question-and-answer interface. The platform's ease of use alone can boost adoption and let analytics teams pursue more strategic initiatives instead of spending time on data wrangling and ad-hoc requests.



To ensure data consistency, Visier provides a prebuilt data governance framework with standardized metrics, definitions, and validation protocols. This eliminates inconsistencies and enables data democratization, increasing trust in workforce analytics as a single source of truth. By conducting automated data integrity checks, organizations can save time that would otherwise be spent reconciling conflicting reports.

Visier's purpose-built role-based security was designed for analytics, providing granular access control to both detailed and aggregate data, as well as capabilities available to users. This allows you to securely scale your workforce analytics across your organization.

	☒ DETAILED	☐ AGGREGATE	☐ NONE
Birth Date	☐	☐	☒
Ethnicity	☐	☒	☐
Full Name	☒	☐	☐
Gender	☐	☒	☐

Multi-level user permissioning

Ongoing maintenance and continuous innovation

Your main priority should be keeping your people analytics solution operational, secure, and innovative. But time expectations play their part in this story. Particularly, analytics infrastructure can become outdated and fail to align your business objectives over time.

You should conduct routine system maintenance, internal support structures, and constant content development as part of your team's responsibilities. These are the key pillars to offering long-term value and ongoing improvements.

Nonetheless, development and continuous innovation on your own gets tricky. Let's see what you can expect.

Technical steps

1. Conduct maintenance tasks

Regular system updates, data model adjustments, and security patches keep your system compatible with new technologies and your growing business needs.

2. Create internal support desks, define service-level agreements and support protocols

SLAs to your internal support desk will guarantee timely assistance for your end users. A dedicated support team, for instance, can troubleshoot data discrepancies, helping HR teams resolve challenges in reporting faster.

3. Allocate resources for continual innovation and technology integration

Provide ongoing innovation and feature additions to improve and accelerate the value of your people analytics solution. For example, consider incorporating genAI capabilities and automation to deliver faster workforce insights.

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“By the time we would have had something almost comparable with Visier up and running, we would have been outdated already. Investing in a best-of-breed and very focused talent analytics solution will help us move quicker and deliver best practice in the long term.”



Ampie Swanepoel,
Head of Workforce Insights Value
Management, Standard Bank Group



Potential roadblocks when building

Many companies are caught in a dilemma when they need to decide between keeping their current analytic operations running smoothly or investing in new solutions. Operational demands, though, come with enormous time and effort requirements. Innovation cycles alone can be delayed by as much as six to eight months or longer, inhibiting the scope to adopt new technologies and insights.

As analytics infrastructure grows, you'll also have to consider managing the incremental complexity that comes with data integration, security, and performance management. These challenges require continuous oversight and governance. But simply adding more data sources and growing user communities can further complicate things.

Schema changes are also frequent and often overlooked. For example, when columns you've built need to be changed, you'll have to rebuild the entire pipeline to insights to align things to the changes. In the meantime, the entire system around that data remains broken. So continuously repairing such pipelines to keep the integrity of the data and prevent halted insights generation is a critical task.

Don't do it all in-house

Visier offers a fully managed analytics platform that automatically handles system upgrades, security patches, and changes to the [data model](#) on your behalf. What this means, together with 24/7, always-on support, is that you can significantly reduce internal resource demands. No more dealing with troubleshooting data inconsistencies or optimizing analytic models when you should be focusing on strategic work instead.

With Visier, you also get frequent and continuous innovation cycles, providing cutting-edge features, like genAI capabilities, regularly. Unlike classical analytics solutions that typically require slow and regrettably manual upgrades, Visier offers innovation in major quarterly updates.

Innovation cycles have introduced advancements like predictive analytics and continuous improvements to benchmarking tools, ensuring users have the latest capabilities and features for better workforce insights and decision making.



The true cost of building your own people analytics

If you're not sure which solution is best for you, here's a summary of the key factors influencing the total cost of ownership (TCO):

- **Initial development costs:** What are the upfront investments required to build a people analytics solution in-house?
- **Speed-to-insight:** How quickly can you derive actionable insights from your analytics solution?
- **Scalability:** Can your in-house solution grow with your business and data needs?
- **Innovation opportunity:** Will you be able to enhance your in-house solution with new innovations at the speed your business demands?
- **Hidden costs:** What unexpected complexities or expenses might arise over time?

Let's take a closer look

Explore the details to understand why Visier offers a more cost-effective and better alternative than in-house development.

In-house development	Implementing Visier
SCOPE AND PLAN	
☐ Determine the objectives of the project and the investment required, both financial and talent. ☐ Calculate a budget, with contingencies for overages, and get approval.	Visier provides you with help proving the ROI for an analytics project and explains how and when your team will contribute to the implementation. Our pricing for unlimited users and onboarding and adoption services are fixed-fee, so you can plan with certainty.
ANALYSIS	
☐ Define your requirements ☐ Identify your source data and the transformations required ☐ Determine how to get your current data, assess the state it's in and if it will work for your needs ☐ Identify integration requirements	Already built and modeled, with the data points identified, there is nothing to model or build in Visier People . We'll assess and prepare your data with you.
ARCHITECTURE AND DESIGN	
☐ Design your mappings ☐ Design your workflows ☐ Refine your architecture ☐ Design your standards ☐ Map out storyboards by business requirements	Do nothing. Already built and modeled, we just need to map your data columns to our prebuilt solution.
PREPARE SERVERS	
☐ Prepare and configure the data warehouse or data lake server ☐ Prepare the reporting/analytic server	Do nothing. Visier is hosted and so maintains all of the infrastructure.

VALIDATION

- ☐ Create and test code for the integration schema for each data source
- ☐ Extract your sample data, clean, normalize, and validate it, then the test data loading process
- ☐ Perform UAT and validate storyboards

Visier will configure and test the integration schema for each of your data sources, and use our built-in tools to analyze your data quality. We'll help you clean and transform the data, then walk you through the available metrics and analyses for UAT.

FULL LOAD AND TEST

- ☐ Build an optimized data extract
- ☐ Performance tune the data loading process
- ☐ Load current and historical data
- ☐ Validate the BI applications, data, and the storyboards
- ☐ Conduct system testing

You provide an optimized data extract and Visier will load it. Together we'll validate the solution and the available metrics and analytics.

BUILD AND TEST

- ☐ Develop and test your data integration code
- ☐ Develop and test your BI applications
- ☐ Develop and test your storyboards

Do nothing. Visier is prebuilt.

SECURITY OPS AND TEST

- ☐ Provide access to the data store to approved users, by function, by type of data, by organization.
- ☐ Verify your BI and data integration operations by subsystem.
- ☐ Build and verify additional security roles for users of your BI applications
- ☐ Create another layer of security at the report level for final end users

Create role-based security for all users, admin through to report consumers, for data, capabilities, and analytic content. Visier verifies the BI and data integration operations.

ROLLOUT

- ☐ Create a structure, identify core attributes and sources, and identify your data experts
- ☐ Add your catalog to a Master Data Management tool
- ☐ Establish a metadata review process to keep it current

A metadata catalog vastly increases the usability of a data store by identifying the data, its source, and how it interacts and connects across sources and silos. Without a catalog, the number of users that can leverage the data in the data store effectively is limited to those who were involved in the build.

Do nothing. The prebuilt Visier data model includes metadata.

ROLLOUT

☐ Test and verify your production monitoring and controls by subsystem

☐ Roll out to your report writers to begin building queries, reports, and dashboards

While the infrastructure is in place, there is nothing yet for end-users. Data analysts and report builders will need to start creating analytics to support the business, which can often require small projects of their own to gather requirements.

Repeat the project plan to add new subject areas.

Roll out Visier to all identified users for the self-service access to the leading-practice people analytics questions. Visier maintains and adds to the data model so you can add new subject areas at any time.

Visier is immediately ready to use with thousands of metrics, hundreds of prewritten analytics, and a simple interface to enable users to modify or create their own analytics.

Getting started with Visier is easy

You don't need to have perfectly clean data before starting your people analytics journey with Visier. [Visier's people data platform](#) includes HCM domain specific data processing capabilities combined with best practice rules and logics, designed to automatically transform raw data into an event-based data model specifically built to generate complete and accurate people insights. With a simple set of data points below you will be able to provide your users with answers to sophisticated questions about employee hiring, churn, and diversity.



Employee ID

Unique identifier for employees



Location

Employee Location. This usually is part of a hierarchy



Start Date

Employee's first date of employment



Gender

Employee gender



Job Title or Family

Employee job or job family. May change over time



End Date

Employee's last date of employment



Department/Organization

Employee's department. This usually is part of a hierarchy



Exit Reason

(A nice to have - the reason for the employee's exit)

visier

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End-to-end people data and analytics infrastructure

Combine people data and work data for critical insights into productivity and impact, without the complexity and overhead of traditional analytics. Visier’s people data platform tackles the complexity of bringing AI to people and work data, delivering the critical, always-on insights you need to achieve your Workforce AI Edge. You can easily easily infuse the power of its gold-standard people insights into other domain specific applications, enterprise data warehouses, data lakes, or BI tools.

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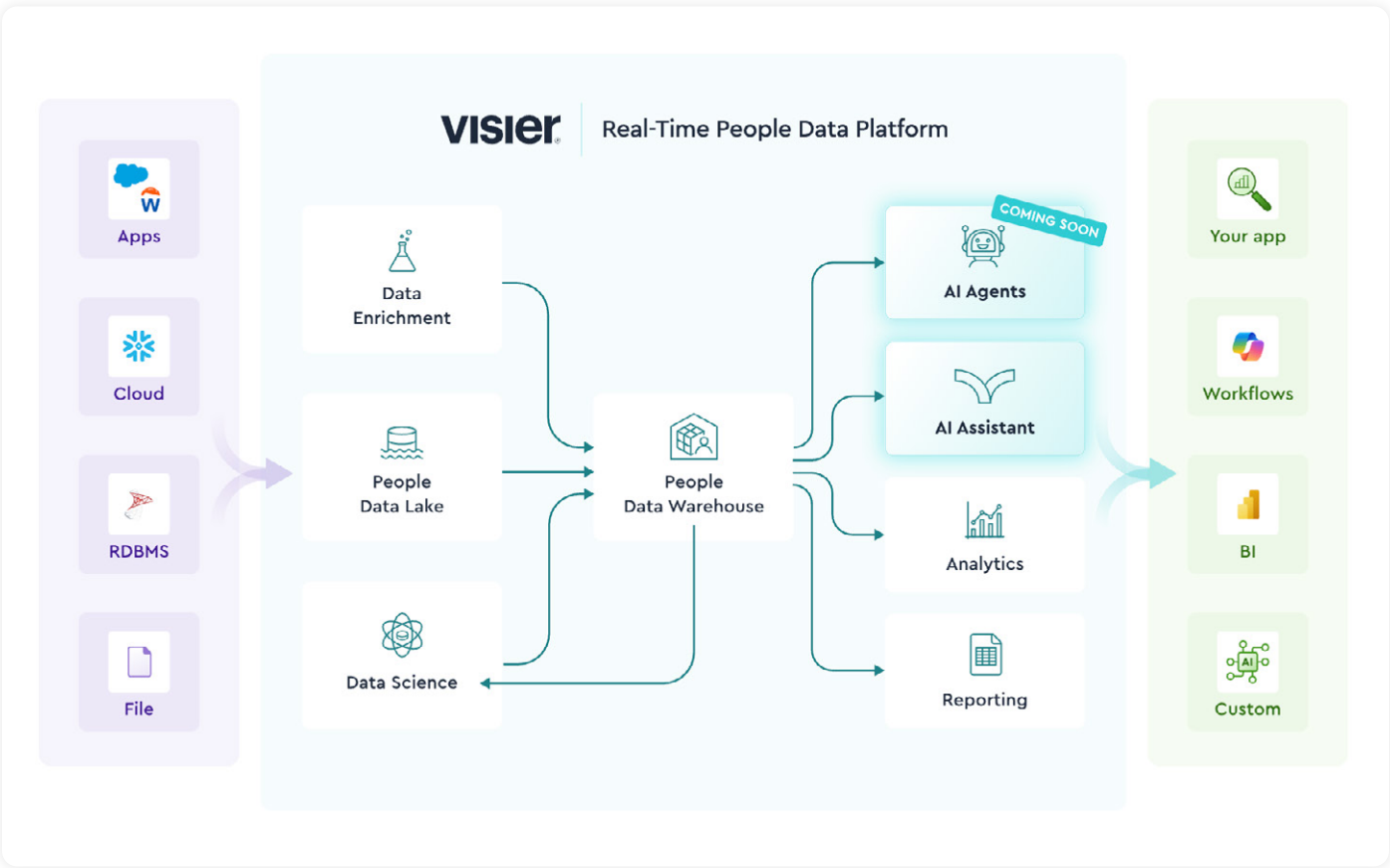
COMPANIES
TRUST VISIER

\$1.8M+

REDUCED COST OF
OWNERSHIP

7.5

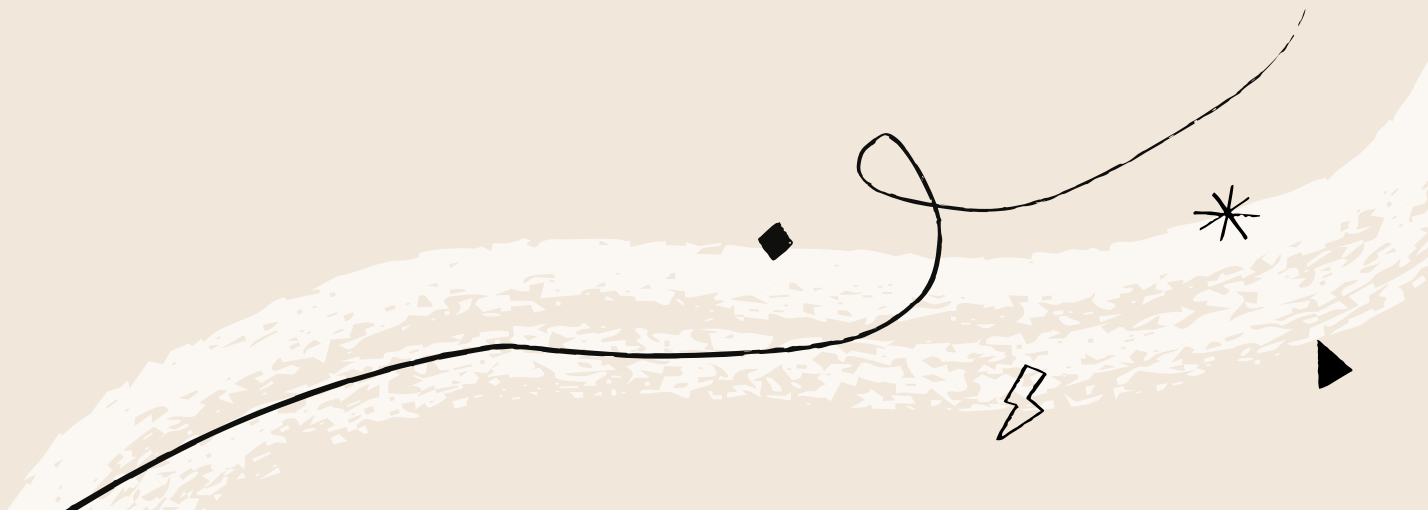
MONTHS TO PAY
BACK INVESTMENT



About Visier

Visier Workforce AI is the context foundation for talent management. The Visier Workforce Intelligence Platform turns scattered, sensitive people data into one governed understanding of the entire workforce, so organizations can understand, plan, and activate all of their talent priorities in one place. More than 85,000 of the world's most complex organizations, including Ford Motor Company, eBay, Experian, and Domino's Pizza, rely on Visier's over 16 years of workforce domain expertise, ranked #1 in vendor satisfaction and user experience for three consecutive years by the Sapient Insights HR Systems Survey.

Learn more at Visier visier.com.





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