

Building Your Human Performance Analytics Team

A Step-by-Step Guide for Human Performance Leaders

Version 1.0

Letter From the CEO

High-performing organizations of all kinds, from sports to military to corporate, are racing to implement systems that help them make data-informed decisions, better serve their customers, and give them a competitive advantage.

Technology like [Smartabase](#) is only one piece of the equation when building a data and analytics team. It may sound crazy, but in many ways, the technology component is the simpler piece to implement and manage. The people, processes, and data are often the more complex and difficult pieces to build, retain, and evolve over time. But without those pieces, any technology is destined to fail.

That's why we created this guide.

In our work with hundreds of [elite human performance organizations](#) across many industries, we've seen the full spectrum of teams: well-funded groups with deep experience, those with strong leadership and vision, scrappy teams making an impact with limited resources, and dysfunctional groups that can't get out of their own way.

In the pages that follow, we've collected the wisdom of our internal team, clients, and partners to provide you with some best practices for building your human performance analytics team. While your organization's recipe for success is unique, we believe you'll find valuable tips in this guide to help you achieve your goals faster or avoid some common pitfalls.

After you've read this guide, if you feel we've missed anything or gotten something wrong, we [welcome your feedback](#). Through candid conversations, we can help our industry as a whole deliver on the promise of human performance optimization.

Sincerely,

Markus Deutsch

CEO and Co-founder

Fusion Sport

TABLE OF CONTENTS

Introduction **1**

Chapter 1: Creating a Data-Informed Culture **3**

Chapter 2: Understanding Your Customers **5**

Chapter 3: Designing Your Human Performance Analytics Teams **7**

Core Purpose & Service Philosophy 7

Team Structure 7

Roles & Responsibilities 11

How Big Should Your Team Be. 15

Who to Hire First 16

Partnering with Outside Organizations 17

Chapter 4: Staffing Your Team **18**

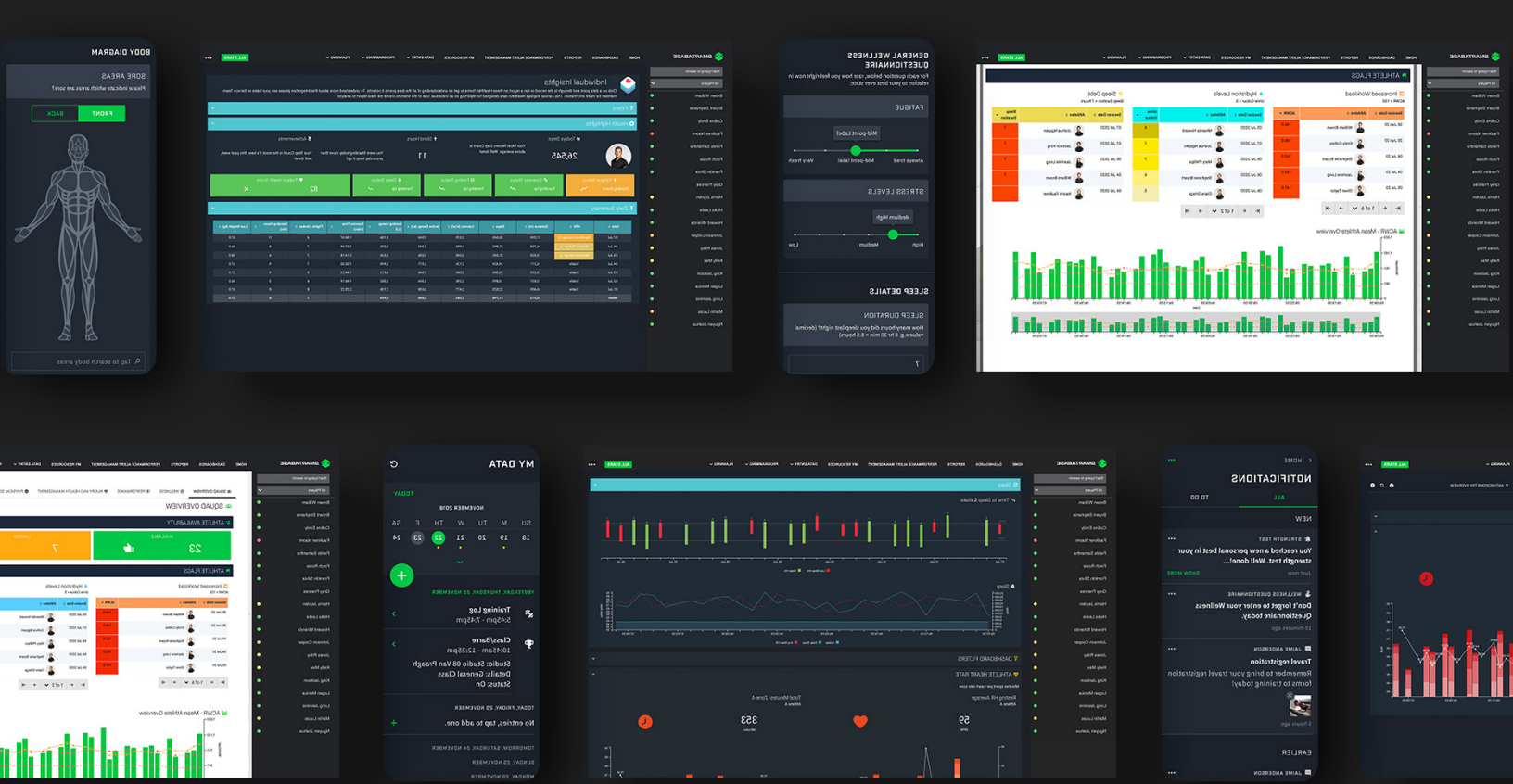
Where to Recruit 18

Tips for Interviewing. 19

Retaining & Developing Your Team. 21

Final Thoughts. **21**

Additional Resources **22**



INTRODUCTION

Who This Guide Is For

This guide aims to help human performance leaders build and evolve their analytics team. You're in the right place if...

- **You lead a human performance team and are considering building a dedicated HP analytics group.**
- **You are looking to expand your existing analytics team's capabilities.**
- **As a team-of-one (the only part- or full-time person focused on data), you want guidance on how to evolve into a full-fledged team.**
- **You're a data-savvy performance practitioner (e.g. Athletic Trainer, S&C Coach, etc.) who sees the need to build a dedicated analytics team.**

Prerequisite: Vision & Strategy

This guide provides the tactical steps to building your human performance (HP) analytics team. It's important to have already completed the strategic work described below that serves as your north star and provides necessary guardrails as you build your team.

- **You Know Where You Want to Go:** You've created the vision for your human performance data program and clearly articulated how it will deliver value to your organization and those you serve.
- **You Understand Where You Are Today:** You've assessed your current capabilities and level of maturity when it comes to data & analytics.
- **You Have a Roadmap:** Based on the above, you've identified and prioritized the initiatives to get you from point A to point B and understand the resources you need to do so.

Having a clearly defined vision and strategy not only helps guide the creation of your team, they also help you attract the right talent for your team. People want to be inspired and have confidence their work will have an impact.

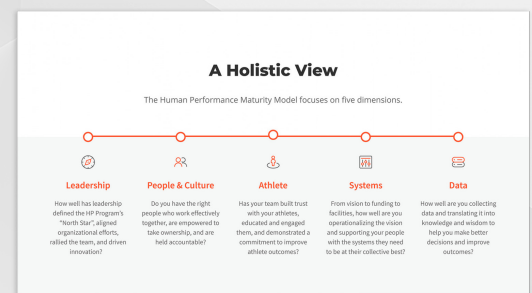
Bonus Content

The Human Performance Maturity Model

The Human Performance Maturity Model (HPMM) is a framework to assess the capability of your human performance program and provide guidelines for evolution. It aims to help leaders like you:

- Assess where your human performance program is today
- Build a roadmap to get to where you want to be
- Focus investments in areas that will deliver the greatest impact

[Download Your Free Copy of the HPMM](#)



INTRODUCTION

How to Use This Guide

Building an effective human performance analytics team involves orchestrating people, processes, technology, and data to achieve specific outcomes.

This guide focuses specifically on the PEOPLE part of the equation – who is involved and the roles they play. While we touch on the broader set of stakeholders of your human performance program, such as coaches and performance practitioners, the intention of this guide is to help you build your data and analytics team.

In the following pages, you'll find tips and best practices for building your HP analytics team. But each organization is unique, and various domains, such as military and public safety, will have different environments and challenges to consider as compared to sports organizations. We encourage you to use this as a starting point – take what you like, change what you need, and ignore what doesn't apply to you.

Finally, please let us know if you have any feedback on this guide by [completing this form](#).

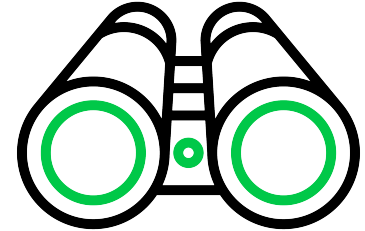


Chapter 1: Creating a Data-Informed Culture

The human performance analytics team may bear the main responsibility for data, but it's critical for the entire organization to transform into a data-informed culture. While your team is required to “speak data fluently”, all stakeholders must develop a degree of data-literacy. Below are a few tips to help you begin to sow the seeds of that change.

Take the Long (and Iterative) View

Meaningful change is rarely accomplished in the short-term. Set expectations that evolving into a data-informed culture can take 3-5 years depending on the size and complexity of your organization. An iterative approach – planning, acting, and adjusting quickly – will help you recognize progress in the short term on your journey to long-term transformation.



Communicate the Why

Leaders must consistently and clearly communicate why becoming a data-informed culture is important. The vision and strategy encompass this, but you also need a tactical communication plan that regularly reinforces the message. While leaders within the human performance program carry the torch day-to-day and do the legwork, executive leadership, such as Athletic Directors, GMs, Generals, COOs, and other executives, must also champion the cause. Ideally, you have an executive sponsor to help bring visibility, credibility, and guidance to your initiative. Arm these executives with the tools (presentations, stats, anecdotes, etc.) and make it easy for them to foster a data-informed culture.

Tailor Education

Not everyone needs to know the various methods of calculating acute-to-chronic workload or how to do a regression analysis. To help others in your organization become data-literate at a minimum, provide simple ways for them to get the relevant education they need. LinkedIn Learning, Coursera, Khan Academy, DataCamp, and other online learning platforms provide the 101 of data and statistics. Curate a list of resources people can view on their own or host short (and dare we say fun) learning sessions where the videos can be watched and discussed together.



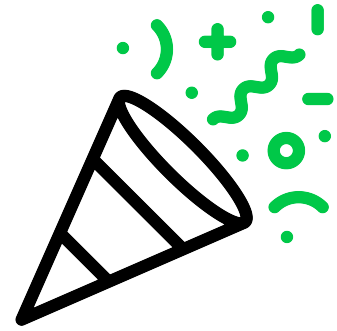
“Start by providing value.”

Jesse Green, Director, Performance & Sport Science, Pittsburgh Penguins

Chapter 1: Creating a Data-Informed Culture

Celebrate Success

When there are specific and real-life examples (big or small) of how data has resulted in improved injury risk management, optimized performance, or process efficiencies, celebrate and share those. Not only does this help you and executive leadership reinforce the “why”, it makes people feel good about the work, fueling them for the long-haul and creating more champions to drive change organically.



Arm Yourself with Change Management Skills

If you don't already have them, take a bit of time to learn the basics of change management. Understand how to get people on-board, break change down into digestible projects, build feedback loops, and avoid common traps that can derail any effort. The time you invest in building these skills will pay off throughout your career.

Resource Recommendations

Switch: How To Change Things When Change Is Hard

[Switch, by Chip & Dan Heath](#), provides an easy-to-remember and simple-to-use framework for creating change. The authors take a humanistic approach, uncovering and addressing the emotional elements that are often the biggest obstacles to change. We recommend this book for any leader who wants to make a difference in their organization.

Start With Why: How Great Leaders Inspire Action

One of Simon Sinek's most popular books, [Start With Why](#) provides both inspiration and practical tips for leaders. We recommend reading the book (it's a quick read), but if you're pressed for time, [Sinek's Ted Talk](#) presents a good overview.

Success Story: Texas Athletics



See how The University of Texas at Austin built a world-class Applied Sports Science department with Smartabase at the core.

[Read the Full Case Study](#)



Chapter 2: Understanding Your Customers

You may or may not think about your team as having “customers”. But for the purposes of building your human performance analytics team, doing so can be very useful. At the end of the day, your team is providing a service to others: delivering data and insights to help make better decisions that improve outcomes for athletes, service members, or first responders.

Who Are Your Customers?

The following are common groups that rely on the services provided by HP analytics teams:

- **High-Performers:** Athletes, service members, first responders, performing artists, etc. They need to know how to change their behaviors to optimize their performance or reduce/recover from injury.
- **Team Coaches:** Head and assistant coaches, role-specific coaches (e.g., pitching coach, offensive line coach, goalie coach), scouts, academy/developmental team coaches, etc. They need data to make decisions about talent acquisition, how best to develop a player, who is ready to train or compete, and who will give them the best chance to win.
- **Performance Practitioners:** Strength and conditioning coaches, athletic trainers, physical therapists, medical doctors, nutritionists, psychologists, etc. They need data to focus their attention on the people that need it most and deliver effective and timely interventions that improve performance, mitigate injury risk, and speed recovery.
- **Human Performance Leadership:** Directors, heads, and managers of the human performance program. They need data to not only optimize performance and reduce injury, but to manage priorities, resources, and demonstrate the impact the program is having on the organization’s goals.
- **Organization Leadership:** Executive leaders such as Athletic Directors, GMs, COOs, senior military leadership, and others. As the ones who often hold the “purse strings”, they need data to make decisions about initial and continued investments in the human performance team.

The IT Department

In most cases, the human performance analytics team is not part of the IT department. But it’s important for your team to have a good relationship and collaborate with your IT department. In addition to possibly being involved in your technology purchase decisions, they can help ensure proper data governance (including proper and legally required privacy & security), support integration with other internal systems, and provide a safety-net and degree of continuity during staff transitions.

“Using data to remove ambiguity is a foundational piece to change management.”

Gus Kaeding, Senior Manager of Data & Analytics, US Ski & Snowboard

Chapter 2: Understanding Your Customers

What Do Your Customers Need From You?

Each person in the groups outlined above has a job to do. Your mission is to design a performance data and analytics team that helps them do their job more efficiently and effectively. To this end, take some time to get a better understanding of exactly what their job is, the challenges they face, and where they feel opportunities to improve exist.

We've created a [Data Needs Assessment Template](#) to help you have structured and productive conversations with your customers to develop this understanding. We recommend setting up a 60-90 minute working session (please don't call it a "meeting") with key stakeholders from each group to walk through the data needs assessment.

Part one of the assessment focuses on their role and responsibilities, the tools they use, the metrics they measure (or want to measure), and the reports they need. Part two of the assessment gets into more detail about how they do their job – stepping through the process and capturing the who, what, and how, in addition to any privacy/security considerations, how they feel about that part of the process, and any opportunities for automation.

Bonus Content

Human Performance Data Needs Assessment Template

Use this template to have structured and productive conversations that will help you better understand what each of your customers needs from your data and analytics team.

[Download Your Free Data Needs Assessment Template](#)

PART ONE						
ROLE/S TITLE	GROUP	SPORT/TEAM	GOALS	TOOLS	METRICS	REPORTING NEEDS
	<input type="checkbox"/> Performance <input type="checkbox"/> Medical <input type="checkbox"/> Nutrition <input type="checkbox"/> Recovery <input type="checkbox"/> Other					
	<input type="checkbox"/> Performance <input type="checkbox"/> Medical <input type="checkbox"/> Nutrition <input type="checkbox"/> Recovery <input type="checkbox"/> Other					
	<input type="checkbox"/> Performance <input type="checkbox"/> Medical <input type="checkbox"/> Nutrition <input type="checkbox"/> Recovery <input type="checkbox"/> Other					

Success Story: UFC Performance Institute

UFC PERFORMANCE INSTITUTE

See how the UFC Performance Institute took a fighter-centric approach to building an interdisciplinary human performance program.

[Read the Full Case Study](#)



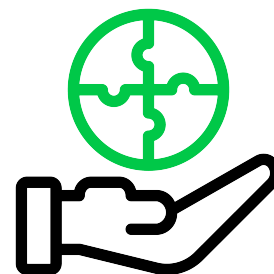
Chapter 3: Designing Your Human Performance Analytics Team

With your vision and strategy defined, and an understanding of your customers, it's time to design your team. The design step includes considering the best structure for your team and the key players it will include now and in the future.

Core Purpose & Service Philosophy

While your vision and strategy for your HP analytics team will be unique, most teams share a common purpose within their human performance program regardless of industry (sport, military, etc.).

- Own the performance analytics vision, strategy, and roadmap
- Define and oversee data governance processes and policies
- Identify opportunities to use data to improve athlete and service member outcomes
- Provide best practices for data modeling and analysis
- Ensure the effective sharing of data, knowledge, and insights



Your service philosophy also influences how you design your team. Is your aim to be a high-touch, full-service team that is heavily involved in conducting analysis, uncovering insights, and driving new research? Or will you strive to build a more self-service model, enabling your customers with the tools they need to do most of it on their own with support and guidance from your team? Or possibly both? Whatever you decide will influence how you structure and design your team.

Team Structure

There are three common structures for a human performance analytics team:

- Centralized
- Decentralized
- Hybrid/Center of Excellence (COE)



What's right for you will depend on your specific organization's size and structure, culture, human performance team structure, and your vision/strategy for your data team.

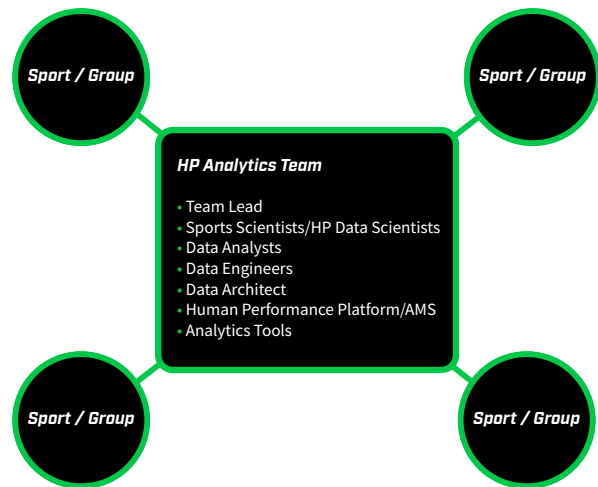


Chapter 3: Designing Your Human Performance Analytics Team



Centralized

In a centralized team, all HP analytics team members report directly to the head of the analytics team or head of the performance team. The budget, human performance technology, and data governance processes are owned and managed by this team. The HP analytics leadership and team members support the various performance practitioners, sports teams, or other groups.



PROS

- Simplest model – often easiest to implement and manage
- More control over technology and data governance across all groups
- Easier to prioritize data projects and allocate resources
- Easier to ensure alignment of activities with vision and strategy, especially early-on
- Better collaboration between data and analytics team members
- Consistent KPI tracking to demonstrate value
- Often more visibility with executive decision-makers

CONS

- Especially for multi-sport organizations, the data team may not have the necessary experience or context to understand the unique tech and data needs of each sport or group
- Some groups may feel they aren't being prioritized or getting the support they need quickly enough
- Because of the above, groups may “go rogue” and build their own solutions (e.g., spreadsheets) that make data governance much more difficult

We recommend a centralized model for:

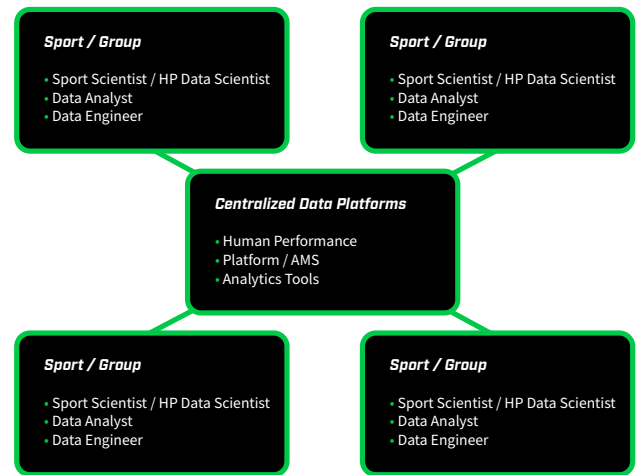
- Single-sport organizations, such as pro sports teams, leagues, and performing arts organizations. Or local/regional public safety organizations, such as a county's police or fire department. Smaller National Governing Bodies may also benefit from the centralized structure. With good communication and processes that ensure the data and analytics team is staying in tune with the needs of its customers, a centralized model can be highly effective and the easiest to manage.
- Start-up programs where speed, adaptability, and demonstrating quick-wins early is crucial for continued investment and growth. Even if the eventual structure will be decentralized or hybrid (discussed below), starting with a centralized team can help you build the momentum and gain the buy-in you need to evolve your team down the road. For example, in a collegiate environment, you may start with a centralized team supporting a few key sports and later evolve to a hybrid model with a sports scientist and/or data analyst embedded within each sport.

Chapter 3: Designing Your Human Performance Analytics Team



Decentralized

In a decentralized team, data and analytics team members are embedded with and report directly to the group they support. Ideally, they are working within a shared and centralized data platform and follow the same data governance processes. The individual groups often manage the budget for their data resources.



PROS

- Deeper domain knowledge and better understanding of the day-to-day needs and challenges of the group they support
- Ability to quickly respond to requests and adjust to changing needs
- Ability to hire the resources specific to suit a group's needs and the technology they are using

CONS

- Data often becomes siloed and duplicated, resulting in no real “source of truth”
- Little collaboration and knowledge sharing between groups, resulting in inefficient or redundant resources
- Resources can be underutilized or misused (e.g., wrong skill set or experience for a given problem)
- Lack of a coherent vision and strategy, and ineffective management of data team members, which can result in higher staff turnover
- Not as cost effective as the other structures

We don't recommend the decentralized approach for human performance data and analytics teams. With two main goals being to optimize performance and reduce injury, the need for centralized and high-quality data along with effective collaboration outweighs any of the benefits this structure might provide. Instead, to get the benefits of agility and domain expertise, we recommend the hybrid structure described below.

“Hire people willing to get out from behind their desk to analyze training in all conditions and better understand the environment in which data is collected.”

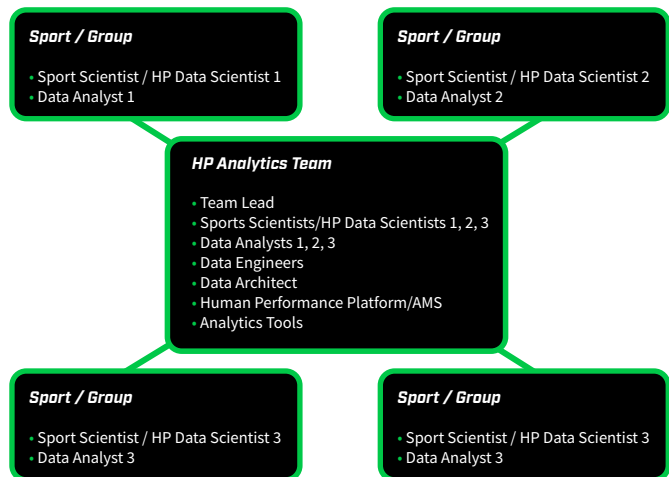
Chief Master Sergeant [Ret.] Josh Smith

Chapter 3: Designing Your Human Performance Analytics Team



Center of Excellence / Hybrid

In a hybrid structure, often referred to as the Center of Excellence (COE) model, data team members are embedded in one or more groups and take their day-to-day direction from the group leadership. But the data team members report, directly or indirectly, into the Center of Excellence which manages the general budget and human performance data tech stack, provides leadership and training, and oversees the data governance processes.



PROS	CONS
<ul style="list-style-type: none"> • Deeper domain knowledge and better understanding of the group’s day-to-day needs • Ability to quickly respond to requests and adjust to changing needs • Flexible resource allocation when the need arises, tapping into other data team members’ skills and experience • Higher degree of collaboration, sharing of best practices and ideas that drive innovation • Data remains centralized and silos can more easily be eliminated • More options for team member career paths within the organization 	<ul style="list-style-type: none"> • More effort required to ensure strategic alignment and integration of data systems to eliminate silos • Budget and resource management is more complex • Indirect reporting lines can introduce a lack of clarity or conflicts and requires strong relationships between group and COE leadership

We recommend the Center of Excellence model for:

- Multi-sport organizations including colleges/universities, Olympic committees, and sports academies. Larger National Governing Bodies (NGBs), especially those covering a geographically large and diverse area, may also benefit from the COE model.
- Military and larger public safety organizations looking to share best practices and realize economies of scale, while providing a degree of autonomy and encouraging innovation.
- Global high-performance organizations who require local or regional data and analytics resources to ensure availability and support the localization (e.g. language, culture) of data and analytics services.

Chapter 3: Designing Your Human Performance Analytics Team

Roles & Responsibilities

Below we explore the talents needed and roles to be filled on a typical human performance data and analytics team.

Talent Mix

Building your team is a creative process. You are the alchemist, bringing together the people with the right mix of talents to achieve the goals you've set out. We've identified five key human performance analytics team talents:

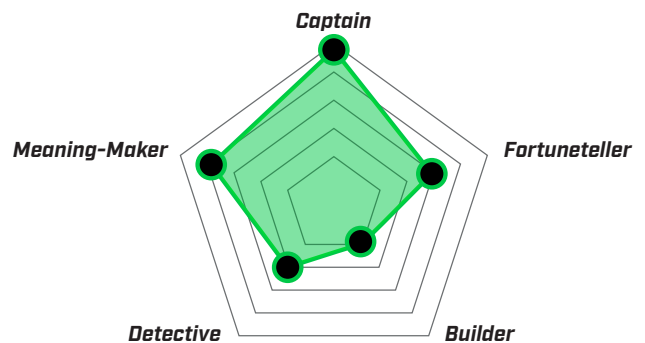
- **Captain:** inspires with a clear vision and purpose, provides strong leadership and management, keeps the team on course, and removes roadblocks.
- **Meaning-Maker:** transforms data and insights into meaningful action and serves as a translator for others, such as coaches and athletes, so they understand how it impacts them.
- **Fortuneteller:** uses data to build models that help predict the likelihood of a particular event occurring, such as injuries or the success of a game tactic.
- **Detective:** uses data to understand what has happened in the past and why, provide actionable insights, and lay the foundation for the Fortuneteller to create predictive models.
- **Builder:** engineers and maintains the technology systems that collect, house, display, and share data.

Using these talents, you can create the job titles and descriptions with the right talent profiles that best suit your organization and strategy. Below, we look at general roles on a human performance analytics team and the common talent profile for each role.

Keep in mind, for smaller teams or teams just starting out, one person may serve in multiple roles while on larger teams, members are typically more specialized. Lastly, the titles you chose for each of these roles may be different. But in general, their responsibilities and necessary experience and skills will likely be similar to what we describe below.

Head of Human Performance Analytics

The Head of Human Performance Analytics is responsible for creating the vision, strategy, and roadmap for the HP data program. They develop strong relationships with customers and other stakeholders to gain the necessary buy-in for and create champions of the team and their efforts. In a centralized and Center of Excellence structure, they provide daily leadership and direction to team members and manage priorities, resources, and budgets.



Primary Skills & Experience

- Data and analytics strategy, planning, and governance
- Experience implementing a data tech stack
- Strong leadership and relationship building skills
- Employee management and talent development
- Change management
- Domain expertise (e.g., a background in sports or military) is not required, but they can quickly come up-to-speed in a new domain

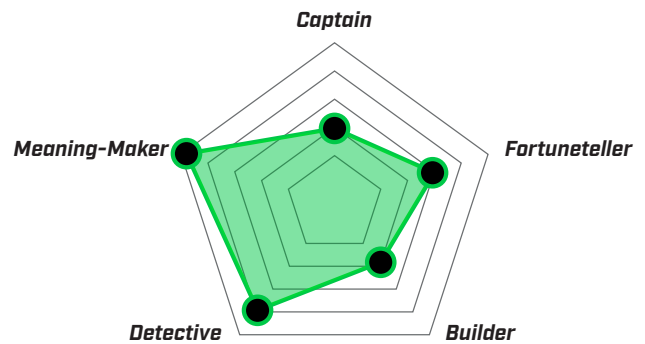
Secondary Skills

- Understanding of data architecture, tools, and integrations
- Basic understanding of coding languages such as Python, R, and SQL

Chapter 3: Designing Your Human Performance Analytics Team

Sport Scientist

The Sport Scientist brings a deep domain expertise in human physiology and exercise science, often with backgrounds working as an athletic trainer or strength and conditioning coach. They’ve also developed an aptitude in math and statistics. As such, they act as the “interpreter” between the customers and the data team. They work closely with coaches, leadership, and practitioners to understand the human performance problems to be solved with analytics. They collaborate with the analytics team to uncover meaningful and actionable insights that can be practically applied to real-world problems.



Primary Skills & Experience

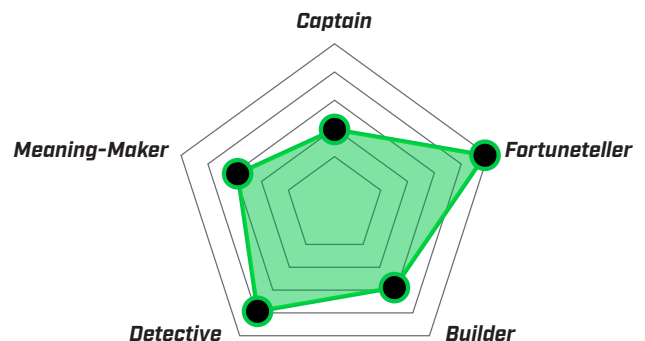
- Exercise physiology, physical therapy, or athletic training
- Experiment design
- Knowledge of research standards and best-practices
- Highly organized and analytical
- Communication, especially communicating technical data science to a non-technical audience

Secondary Skills

- SQL, Python, R
- Data cleaning and prep
- Statistics
- Data modeling, mining, and visualization
- Process analysis
- Experience with HPO technologies (e.g. force plates, GPS, screening tech)

Data Scientist

The Data Scientist’s primary purpose is to drive innovation and create a sustainable competitive advantage for the organization using data and analytics. They derive value from large sets of complex performance, health, medical, and other related data. The Data Scientist brings a deep expertise in programming, math, and statistics knowledge and focus most of their time on designing and conducting experiments and building predictive models.



Primary Skills & Experience

- SQL, Python, R
- Data cleaning and prep
- Statistics
- Data modeling, mining, and visualization
- Experiment design
- Working with a Human Performance Platform or AMS
- Highly organized and analytical
- Communication, especially communicating technical data science to a non-technical audience

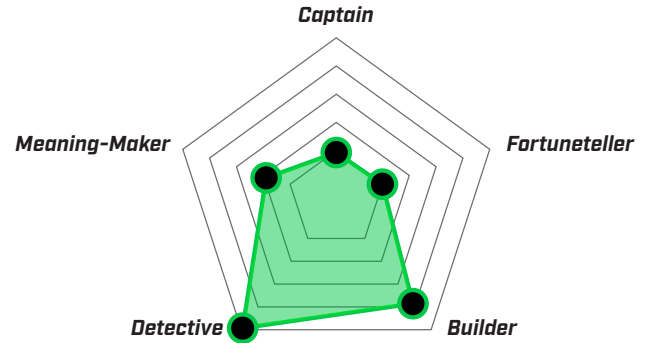
Secondary Skills

- Process analysis
- Artificial intelligence and machine learning
- Experience with cloud technologies (e.g. AWS)
- Experience with HPO technologies (e.g. force plates, GPS, screening tech)

Chapter 3: Designing Your Human Performance Analytics Team

Data Analyst

The Data Analyst is responsible for working with the data sets available to do direct analysis and create reports, data visualizations, and dashboards. They use the data to answer common performance questions and have the ability to dive deeper to answer new ones when they arise. Their job is to present the data in a meaningful and personalized way to help their customers make better decisions. Unlike the Data and Sports Scientists, the analyst is primarily focused on using data to understand what has happened and what the current situation is (e.g., what players are available today for training based on load and injury data), not as much with predictive models.



Experience working in human performance is not necessary. Their main focus is on providing excellent analysis, presenting the data, and collaborating with the Sport Scientist and Data Scientist to ensure the analysis is accurate and relevant.

For many small teams, or teams in their early stages, the Data Scientist/Sport Scientist and the Data Analyst will often be the same person. But as the team grows or gets more sophisticated, the analyst role takes much of the day-to-day work and frees up the data scientist to focus on solving bigger, more complicated, forward-looking problems.

Primary Skills & Experience

- Data analysis methods
- Data visualization
- Graphic & UI design skills
- BI tools and technologies
- Oral and written communication skills
- Critical thinking
- Domain expertise (e.g., a background in sports or military) is not required, but they can quickly come up-to-speed in a new domain

Secondary Skills

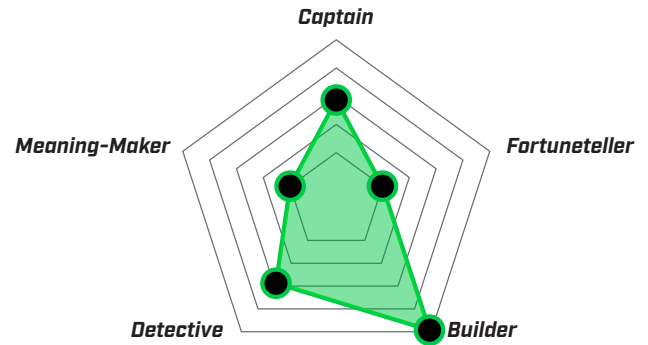
- Math
- Statistics
- Data modeling



Chapter 3: Designing Your Human Performance Analytics Team

Data Engineer

The Data Engineer focuses on the “back of the house”. They are responsible for the data infrastructure and processes that collect, clean, transform, and organize the data into a format the Data Analyst, Sport Scientist, and Data Scientist can use. They ensure the availability and security of performance, health, medical, and other related data. With all the various **human performance optimization tech** on the market, they are responsible for building and maintaining the integrations with various devices, apps, and data platforms. For smaller teams, they are often the ones to define and manage the data governance process.



Primary Skills & Experience

- Database tools (e.g., SQL)
- ETL tools
- Data warehousing tools
- API management

Secondary Skills

- Coding languages
- Statistical analysis
- AI & machine learning
- HPO-specific technologies (e.g., Athlete Management Systems, Force Plates, GPS)

Additional Roles to Consider

While the roles below aren’t common in a human performance analytics team, we are compelled to mention them. As the human performance optimization industry and related technology mature, and as these programs and systems are seen as a strategic asset and revenue driver, the visibility of the HP data team is likely to increase.

With a higher profile in the organization, the roles below help ensure your HP data and analytics team builds the right relationships and is strategically positioned to get the necessary support and investment. As with the roles mentioned above, even if a person does not have the exact title or isn’t dedicated to this role, it’s important for someone to be fulfilling some or all of their duties.

Data Architect

The Data Architect is responsible for ensuring the HP data systems are part of a coherent data strategy for the organization. They help integrate performance and medical systems with other internal platforms, such as player contract management or ticketing systems, that help create a competitive business advantage for the organization. If this role already exists in your IT department, building a strong relationship early on with that person will go a long way towards designing, evolving, and advocating for your HP analytics team.

Athlete/Service Member Advocate

For maximum impact, you need buy-in from the athletes and service members you ultimately serve. This is especially true when it comes to sensitive performance and medical data. Athletes and service members can be skeptical about why you’re collecting data, especially when much of it isn’t made available to them in a meaningful way. Having someone who has “walked in their shoes” fill the role of Athlete/Service Member Advocate on your HP analytics team shows you’re serious about listening to their needs and concerns and incorporating that into your program’s design and operations.

Chapter 3: Designing Your Human Performance Analytics Team

How Big Should Your Team Be?

Unfortunately, there is no clear-cut answer for how large your data and analytics team should be. Several factors will influence this, including:

- Your budget
- How ambitious your human performance optimization and your HP analytics strategy is
- How many teams and athletes or service members you support
- The maturity of your HPO organization and data and analytics program
- The structure of your human performance analytics team (centralized, decentralized, hybrid)
- The size and complexity of your existing HP data infrastructure

The best advice we can provide in determining the size of your team is to let your HP data and analytics strategy and roadmap be your guide, with your budget being your constraint.

If you're aiming to tackle several big, hairy problems with data and analytics in a relatively short amount of time, you're going to need a larger team with more specialized skill sets. But if you're targeting one or two complex problems or a number of more basic ones, you could afford a smaller team made up of more generalist and bring in temporary outside expertise where specialties are needed.

Bonus Content

Job Description Templates for Your Human Performance Analytics Team

You can put your own unique spin on a job description, but there's no need to reinvent the wheel for the roles described in this guide. To help you get started, we've provided sample job descriptions for you to download and customize to suit your organization.

[Download the HP Analytics Job Descriptions Now](#)

“As you build your team, actively seek feedback from your staff and peers. A collaborative process with open communication helps foster an inclusive environment and promotes a growth-mindset within your team.”

Dr. Marcus Colby, Principal Consultant - Data & Analytics, Fusion Sport

Chapter 3: Designing Your Human Performance Analytics Team

Who to Hire First?

Like team size, who you hire first is driven primarily by your human performance data and analytics strategy, roadmap, and budget.

However, there is a common and logic order to filling the roles we described earlier in this guide. Below we recommend the order in which roles should be filled but keep in mind, for your organization, the same person might fill multiple roles.

Head of Human Performance Analytics: This is the first role to fill as they drive the vision, strategy, and roadmap for the team. They are responsible for designing your team and, depending on structure, for building, and managing the team too. In the beginning, for smaller or budget-constrained organizations, or for a decentralized team, this role may be filled by the same person who heads the overall human performance team (e.g., the Director of Performance).

Sport Scientist or Data Scientist: It's important for your first analytical role to have the domain expertise in sports or military performance environments because they serve as the translator between your customers and the data team. Too often, teams hire people with great experience in data science but don't know how to make it meaningful in a human performance optimization setting. In contrast, a Sport Scientist without enough aptitude in math, statistics, programming, and data modeling can also lead to your team having a less than desired impact. It's important to get this first analytical role right and ensure your team as a whole has the proper mix of talents.

In the early stages, your Sport Scientist and/or Data Scientist may be a bit of a generalist, taking on some responsibilities of the analyst and engineer. However, for your program to mature, this role needs to become more specialized, focusing their attention on using data to answer more complex questions, build predictive models, and leveraging AI and machine learning. In the beginning, or for smaller or budget-constrained organization, the Head of Human Performance Analytics may also serve in this role.

Data Engineer: This role is often paired with the hiring of the Sport Scientist or Data Scientist when that person doesn't have enough technical know-how to get the program started, or when budget supports both roles. They provide the back-end systems expertise needed to build and maintain the data infrastructure and often define and oversee the data governance processes. Because having access to reliable historical data is critical to [climbing the data science pyramid](#), effectively filling this role early on is important.

Data Analyst: The addition of a dedicated Data Analyst typically comes at the later stages of building your team. They often are hired to take some of the day-to-day analytics responsibilities off the Sport Scientist or Data Scientist, freeing them up to work more on predictive models and complex problems. The Data Analyst may be one of your earlier hires when the Director of Performance or Head of Performance Analytics is filling the roles above, or when the Analyst brings enough domain expertise to fill some of the responsibilities of the Sport Scientist or Data Scientist.

Additional Resource

Speaking in X's and O's: How to Talk Data with Coaches

Learn how to communicate data and insights in a meaningful way with your coaching staff. Access an easy-to-use Data Prep Sheet to help you translates 1's and 0's into X's and O's.

[Read the Article and Download the Prep Sheet Now](#)

Chapter 3: Designing Your Human Performance Analytics Team

Partnering with Outside Organizations

For one-off research projects, partnering with outside organizations or individuals, such as a research institution, university, or private performance specialist can be effective. In addition to the value these projects are designed to deliver, they can also serve as a “proof-of-concept”, helping to clarify what talents you want to bring in-house and build the case for making those investments. Similar to outsourcing, be aware that this approach won’t do much to help you build a data-informed culture, but it can still serve a purpose in the right circumstance.

Bonus Content

Should You Outsource Your HP Analytics Team?

Depending on your organization, strategy, and needs, outsourcing some of your human performance data and analytics staff could make sense. In this article, we explore the situations and roles where it makes sense and some keys to making an outsourced relationship successful.

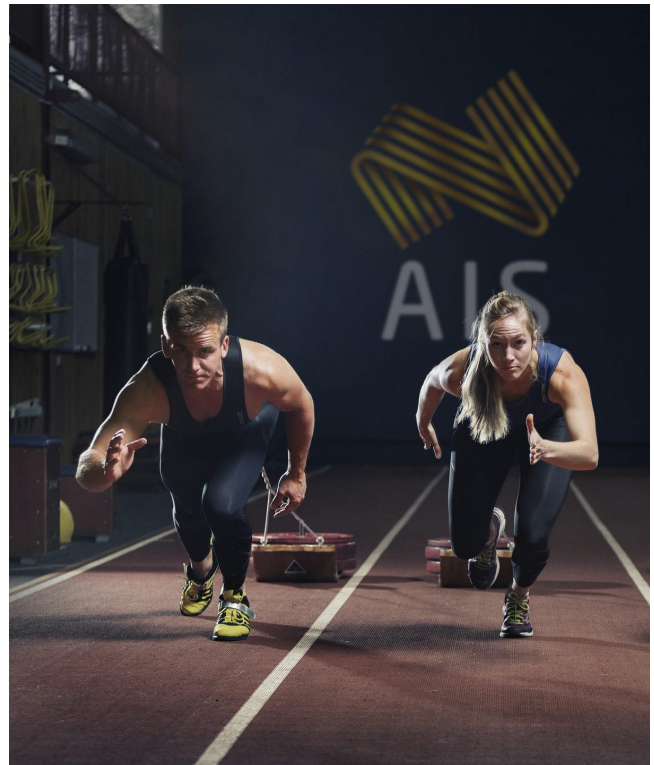
[Read the Article Now](#)

Success Story: Australian Institute of Sport



Learn how Australian Institute of Sport implemented a nationwide athlete management system; it transformed its data culture and reduced injuries.

[Read the Full Case Study](#)



Chapter 4: Staffing Your Team

Now that you've designed your team and identified the roles you need, it's time to find the right people.

We encourage you to be intentional about [attracting diversity to your team](#). The benefits, including improved [problem-solving, productivity, and retention](#) are proven. Your hiring process, including where you look for talent, how they are screened and interviewed, and other systematic components need be designed to support diversity and reduce bias.

Where To Recruit

Existing employees: There are likely people on your performance staff, within your IT department, in the front-office, or other areas of the organization who are looking for their next challenge. Current athletes and service members who are about to retire might also make great candidates. With numerous data and analytics certifications courses available, your investment to upskill an individual you already know could be the most cost-effective route to building your team. In addition, leverage your existing employees' networks – encourage (and possibly incent) them to share job descriptions and refer people they think would be a good fit. Be aware that when it comes to attracting diverse talent, if you rely mainly on an existing homogenous pool of people, you'll likely continue to foster a homogenous workforce.

Industry associations: Organizations like the [National Strength & Conditioning Association](#) (NSCA), [National Athletic Trainers Association](#) (NATA), [British Association of Sport and Exercise Sciences](#) (BASES), and [Australian Strength & Conditioning Association](#) (ASCA), are good places to network and often provide online job boards. For those roles that don't require domain expertise (like the analyst and engineer roles), look to groups such as the [Association of Data Scientists](#) and the [Digital Analytics Association](#).

Sport and military alumni groups: Many college and university sports teams have an organized alumni community. For branches of the military, there are several Veterans groups. Both often have some type of online presence (Facebook groups, Linked groups, Slack groups, etc.) and potentially job boards. If you have an employee or know someone who is connected to an alumni or Veterans group, ask them to share the job description with their network or reach out to the group manager directly.

Colleges and universities: For long-term success, building a relationship with a few key colleges and universities in your region that are known for their sports science or analytics programs will go a long way. Better yet, reaching out to individual professors and building relationships with them can be a fruitful source of top talent.

Data and analytics job boards: In addition to general job boards like LinkedIn and Indeed, there are sites dedicated to data and analytics jobs such as:

- [CareersinAnalytics](#)
- [ai-jobs.net](#)
- [icrunchdata](#)
- [datajobs](#)
- [KDNuggets](#)
- [Open Data Science Job Portal](#)
- [Data Umbrella](#)
- [Jobs for R-Users](#)
- [Python Job Board](#)
- [DataCareer](#)

Additional Resources

Free Salary Calculators

If your HR department doesn't provide you with guidance and resources to determine what you should pay your analytics team members, there are free resources you can use. These are often the same tools prospective talent uses to determine what salary they expect.

- [Payscale Salary Calculator](#)
- [Glassdoor Salary Calculator](#)
- [Comparably](#)
- [Talent.com Salary Search](#)

Chapter 4: Staffing Your Team

Tips for Interviewing

While interviewing people for your HP analytics teams should follow general best practices, there are a few specifics we believe are worth discussing in this guide.

Who to Involve

Beyond the direct manager and other team members that will be working closely with the individual, you may want to involve the people mentioned below when you have a short list of candidates.

Coaches: For roles that will likely interact with members of the coaching staff, such as the Sport Scientist, Data Scientist, or Data Analyst, invite key members from that group to meet the candidates. Even if it's for an informal chat, including the coaching staff will help build a strong relationship that is key to your team's success.

Performance staff: For all roles on your team, it's important to see how they interact with the people they will be supporting daily. While the head of the team, the Sport Scientist, Data Scientist, and Data Analyst will have the most interaction with performance staff, your Data Engineer also needs to understand the tools they are working with to do their jobs. Seeing how they interact with your performance staff can help you identify the right fit or reveal some red flags.

IT team member: The Head of HP Analytics and the Data Engineer may have to collaborate and coordinate with your IT department. Having someone from the IT team involved will help build that relationship. What's more, depending on your technical knowledge, they may be able to ask questions of the candidate you wouldn't think to ask.



Chapter 4: Staffing Your Team

Key Questions

In addition to the basic question about their background, experience, and skills (technical and non-technical), below are a few role-specific questions to include in your interviews.

Head of Human Performance Analytics

- What do you feel are the biggest challenges to successfully implementing a data and analytics program?
- Tell me about a time when you've had difficulty driving the changes you wanted to see. What did you learn?
- How have you engaged athletes/service members in your data programs in the past?

Sport Scientist and Data Scientist

- What's the largest data set you've worked with?
- Give me an example of when you've had to explain something that was highly technical/scientific to a non-technical audience.
- What data do you think is important to make accessible to athletes/service members and what's the best way to provide it?
- Give me an example of a predictive model you built and explain your approach.

Data Analyst

- What's the largest data set you've worked with?
- Can you describe a time when the data gave you an unexpected result?
- How do you validate results for accuracy?
- Do you have an example of an insight you helped uncover that had a significant impact?

Data Engineer

- If we were to hire you, how would you go about getting an understanding of our current data infrastructure and recommending improvements?
- Give me an example of when you've had to integrate a new data source that you weren't familiar with.
- What's the most complex data migration you've had to handle?

Sample Projects

Once you've narrowed the pool down to three or four candidates, a sample project can help you confidently make a final decision. By giving them a real-world and relevant problem to solve, you can verify the candidate's skills, uncover any hidden strengths or weaknesses, and generally get a better sense of their personality and culture fit.

Out of respect for their time, sample projects shouldn't take more than 6-8 hours to complete. Provide them with the data set(s) you'd like them to use and if you want them to work with any specific software or tools, be ready to give them the necessary access.

Bonus Content

HP Analytics Team Sample Interview Projects

For each of the primary roles, we provide a description, hiring manager's objectives, resources to supply, and follow-up questions. Use these as a starting point to create your own or simply for inspiration.

[Download the Sample Interview Projects Now](#)

Chapter 4: Staffing Your Team

Retaining & Developing Your Team

Data professionals are in high demand across all industries, and they tend to have a high degree of voluntary turnover. As such, once you've staffed your team, it's in your best interest to do what you can to grow and retain them. Below are some tips to help keep your team members feeling fulfilled in their jobs.

Provide the “why”: When asking a team member for something, always start with the “why”. Not only does it give the necessary context for them to effectively deliver what you want, it also helps them better understand the impact of their work and avoids them feeling like a cog in a machine.

New challenges: Once your systems are in place, the day-to-day job can begin to feel repetitive, especially for Data Analysts. It's important to find new challenges for them to solve. Allocating a portion of your employee's time to working on innovative projects or new research studies can help keep your team feeling engaged and inspired.

Invest in professional development: There's always something new to learn in the realm of human performance optimization. Time and budget should be allocated for team members to stay on top of the latest tools, technologies, statistical models, and research. Enabling them to attend performance or analytics conferences or meet-ups where they can collaborate with people from other domains is also a way to invest in their growth. Provide them with opportunities to apply their new knowledge or skills they've gained either in their day-to-day responsibilities or on special projects.

Pathways for growth: Even your most seemingly satisfied people often look for new opportunities when they can't see a path for career growth within your organization. While the size of your organization and structure of your team will define the possible career options, showing interest and working with your team members to help them find new opportunities, even outside your team, will help you keep them as long as possible.

Final Thoughts on Building Your HP Analytics Team

In the end, the success of your team depends on your people. You can have all the latest and greatest technology and an enviable budget, but you can still end up failing to make the impact you imagined.

Your chances of success are best when you have the right people leading the team and resourceful team members who can build relationships and make progress in spite of ambiguity and constant change. The time and effort you invest in designing, staffing, growing, and retaining your team will come back to you tenfold.

About Fusion Sport

Founded in Brisbane, Australia, with US headquarters in Colorado and an office in Reading, England, Fusion Sport is a global leader in tracking and analyzing elite human performance. Established in 2003 by co-founders Dr. Markus Deutsch and Dr. Douglas Moore, their performance and analytics platform, Smartabase, is a source of truth for national sporting federations, Olympic committees, many of the world's highest profile sporting teams, military research and operational wings, and performing arts organizations. For more information, visit fusionsport.com.



Additional Resources

- **The Human Performance Maturity Model:** <https://fusionsport.com/human-performance-maturity-model/>
- **Switch: How To Change Things When Change Is Hard:** <https://www.amazon.com/Switch-Change-Things-When-Hard/dp/0385528752>
- **Start With Why: How Great Leaders Inspire Action (Book):** <https://www.amazon.com/Start-Why-Leaders-Inspire-Everyone/dp/1591846447>
- **Start With Why (Ted Talk):** https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action
- **Human Performance Data Needs Assessment Template:** https://perform.fusionsport.com/hubfs/download/HP_Data_Needs_Assessment.docx
- **Job Description Templates for Your Human Performance Analytics Team:** https://perform.fusionsport.com/hubfs/download/HP_Analytics_Job_Descriptions.docx
- **Speaking X's and O's: How to Talk Data with Coaches:** <https://fusionsport.com/blog/how-to-talk-data-with-coaches>
- **Should You Outsource Your HP Analytics Team?:** <https://www.fusionsport.com/blog/outsource-human-performance-analytics-team>
- **Payscale Salary Calculator:** <https://www.payscale.com/salary-calculator>
- **Glassdoor Salary Calculator:** <https://www.glassdoor.com/Salaries/know-your-worth.htm>
- **Comparably:** <https://www.comparably.com/salaries>
- **Talent.com Salary Search:** <https://www.talent.com/salary>
- **Sample Interview Projects:** https://perform.fusionsport.com/hubfs/download/HP_Analytics_Team_Sample_Interview_Projects.docx



SMARTABASE
BY FUSION

fusionsport.com

Fusion Sport Inc.

@FusionSport

sales@fusionsport.com

The collage displays various features of the Smartabase mobile app. Key elements include:

- Athlete Flags:** A table listing athletes with columns for 'Increased Workload', 'Hydration Levels', and 'Sleep Debt'. It includes a bar chart for 'ACQR - Mean Athlete Overview'.
- General Wellness Questionnaire:** A section for tracking 'FATIGUE' and 'STRESS LEVELS' with progress indicators and 'SLEEP DETAILS'.
- Individual Insights:** A dashboard for a specific athlete showing 'Total Steps' (26,545), 'Round Trips' (11), and a table of performance metrics like 'Speed', 'Power', and 'Heart Rate'.
- Notifications:** A list of personalized alerts such as 'STRENGTH TEST' and 'WELLNESS QUESTIONNAIRE'.
- My Data:** A calendar view for November 2018 showing training logs and class details.
- Squad Overview:** A summary of team performance with a bar chart and 'Athlete Flags' for the squad.