



THE PROJECT DATA ANALYTICS COMMUNITY

COMMUNITY RESEARCH REPORT

NO.1 - AUGUST 2021

PROUDLY PRODUCED BY **PROJECTING SUCCESS LTD** FOUNDERS OF THE
PROJECT DATA ANALYTICS COMMUNITY

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Q2 2021

This report summarises the interactive feedback from members of the Project Data Analytics Community between 14th April 2021 and the 12th May 2021

Where we are
TODAY

Q1 2021

FOREWORD

In 2017 we founded a community to help drive transformational change into the heart of project delivery. A vision where we leverage the vast exhaust plume of project data to deliver a x10 improvement in project delivery performance.

The Task Force is helping to shape the foundations to make this vision a reality. But such a bold ambition requires collaboration at its very heart. Where we create the critical mass in skills, data, systems and methods, underpinned by a wealth of practical examples.

But we acknowledge that this isn't as easy as it looks. The obstacles are not trivial and by sharing our collective experience we can much more quickly together than alone.

We created this report to help shine a light on the current state of the industry and areas of focus. We hope it provides the evidence and inspiration to shape your own journey.

A journey where we can all make an impact...

Think big.

Experiment.

Change the world.



MARTIN PAVER
Community Founder

Q2 2021

EXECUTIVE SUMMARY

Project Data Analytics (PDA) is an emergent field. It is a dynamically evolving in an age where technology is everchanging. This brings the opportunity to leverage data to unlock a wealth of insights into project delivery. Yet, whilst data has the potential to augment projects, it is an opportunity that needs to be gripped effectively. This means with a devised strategy set by committed leaders and carried out by a capable workforce.

We appreciate the diverse range of approaches to PDA across various businesses and sectors. Yet, PDA is nascent, and so there is no gold standard to its implementation. We believe it is important to understand the variance in implementation to help shape future work and to benchmark how data-driven projects are delivered.

This report will provide insight into how various sectors are approaching project data analytics. By doing this we can identify a baseline of activity of which the progress made within organisations in their implementation of PDA can be measured. This can then be used to support others along their PDA journey.

We aim to release reports twice a year of which the next report will be released in Q4 2021. It will focus on capability development covering the driving factors, main limitations, IT suitability and also the utilisation of tools in automation, business intelligence, machine learning and AI. It will also explore the scope in which businesses are building capability internally and across the supply chain.

"Project Data Analytics is an emergent field, that we need to get to grips with now or face getting left behind"

MARTIN PAVER, CEO
PROJECTING SUCCESS

KEY INSIGHTS

The key insight across the June 2021 report highlighted interesting findings within leadership, strategy, senior support, tools and capability.

Leadership

65% of respondents believed their organisation has appointed a **credible, senior leader** to drive forward PDA across the business and functions.

[Read more on page 10.](#)



Senior support is key to driving PDA within organisations. Yet, **no significant commitment** from senior leadership was reported.

[Read more on page 10.](#)



Talent

The approach of **upskilling current project professionals** was more prominent than building core data teams.

[Read more on page 12.](#)



60% of respondents reported that their organisation had an **unclear career pathway** for project data analytics.

[Read more on page 12.](#)



Strategy



59% described their organisational approach to project data analytics as either ad hoc (27%) or experimental (32%). [Read more on page 14.](#)

72% ARGOS

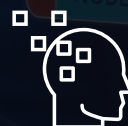
28% AMAZON

The **majority** reported that their organisation's approach to PDA was more akin to Argos (bolt on) than Amazon (data driven at its core) [Read more on page 14.](#)

Having seen the insights from this report, there is a key distinction between **two types** of organisations approaching Project Data Analytics **How does your organisation fit in into this?**



There are those with clear strategies and visionary leadership. Such businesses understand the disruptive potential and the opportunities it will unlock. They are onboard **committing significant investment**, starting with up skilling, building capability, then piloting and building momentum from the inside.



Others currently see it as a cosmetic add-on or are not yet sold on the benefits. They want clear **evidence of the return on investment** before taking the next step. Some have secured an outline agreement in principle, but require an implementation plan that requires cross functional buy in first.

CULTURAL CHANGE

Project Data Analytics is incredibly disruptive. We are facing a new era that may require a radically different approach than most organisations reported in this survey. With some organisations being late adopters, incremental change may no longer an option. **We are entering a new era.**

CULTURAL CHANGE

Over the last decade, the concept of project data analytics has grown substantially from an idea advocated by few, to being at the core of how organisations operate and deliver projects. The paradigm shift is a product of change culture within organisations that is driven by a convolution of factors. In reference to the May 2021 GII Summit Outcomes Report (GIISOR), the *"main barrier to tech adoption tends to revolve around organisational culture, not the technology itself"*. In looking at the diverse scale and nature in which businesses deliver projects, how well teams make use of the technical environment is strictly dependent on their ability to theoretically understand and practically use the tools provided. For this to succeed will require investment across the whole organisation. This report will explore cultural change by looking at the pillars which have the greatest influence over it and provide a level of understanding of where most organisations are currently at. It will focus on **leadership** vision and commitment, **strategy** and **talent** development.

DATA CULTURE

Leadership, strategy and talent development are all key factors which when harmonised provide the framework and engine to drive a data-driven culture.

STRATEGY

With established top-down support and credible leaders at the helm, the key in optimising the implementation of PDA is dependent on strategy. Data is emergent and dynamically evolving at pace. Businesses may need to pivot, and thus developing an efficient, adaptable strategy that feeds into the other components is critical.



LEADERSHIP

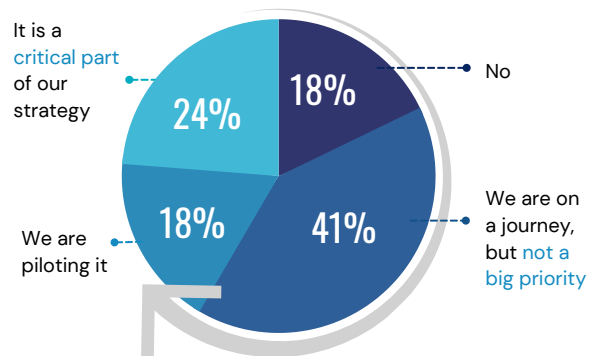
The leadership teams are vital for driving data-culture as they dictate and direct the level of investment into PDA and the approach underpinning it.

TALENT DEVELOPMENT

Building a successful data culture requires an upskilled workforce to execute and consolidate a data-driven culture. Whether it be through internal programmes, recruitment of higher-level data scientists, upskilling programmes such as apprenticeships, the demand for data savvy employees is increasing organisation-wide.

Is PDA a priority within your organisation?

59% of those surveyed reported that PDA wasn't a priority for their business, although many are on the journey. Only **24%** saw it as a critical part of their strategy. Numerous factors play into this with a lack of data (access, quality and volumes), data culture and organisational ambition being key.



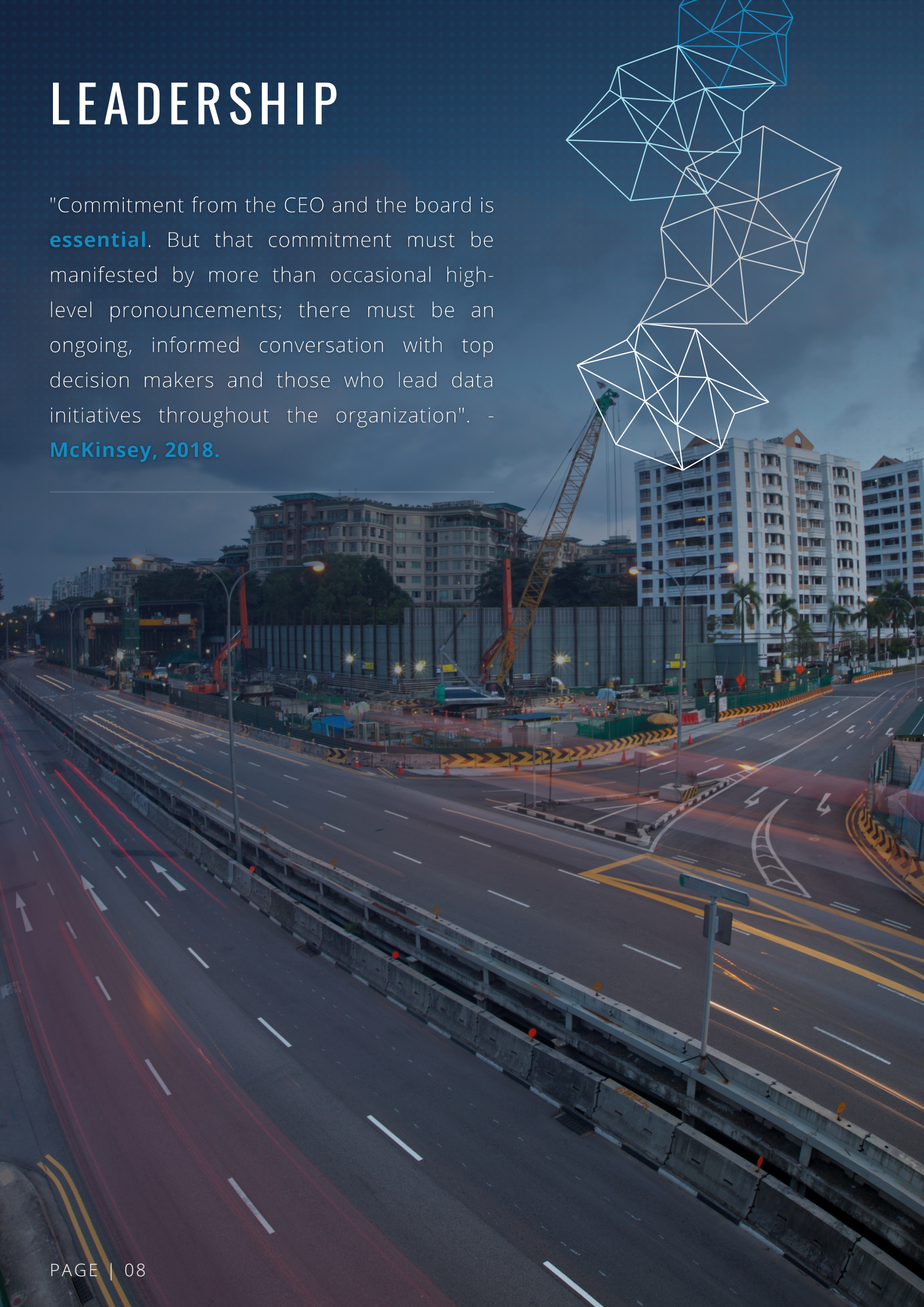
Organisations where data culture is thriving can be seen with **Sir Robert McAlpine**. Grant Findlay, Strategy Director at SRM and Data Access lead for the PDA Task Force gave commentary at the PDA community's most recent meetup. Whereby, *"your own data will be useful to a point, but it is constrained by your own people, your own processes and your own culture"*.



Grant Findlay delivered an excellent presentation to the PDA community. You can view the full presentation [here](#). Taking a leading role in mapping out his vision, Grant is also the lead for the Data Access workstream on the **Project Data Analytics Task Force**.

LEADERSHIP

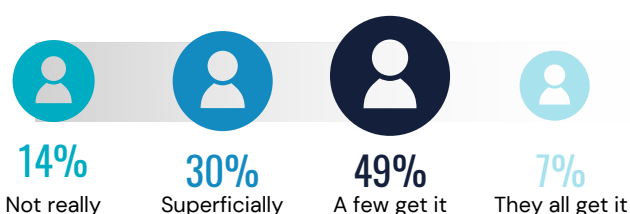
"Commitment from the CEO and the board is **essential**. But that commitment must be manifested by more than occasional high-level pronouncements; there must be an ongoing, informed conversation with top decision makers and those who lead data initiatives throughout the organization". - **McKinsey, 2018.**



LEADERSHIP

Feedback from the community indicates that there is generally **lack of support and vision at the executive level** and we anticipate that this will be a major barrier to progression for some organisations. But there are pockets of visionary and bold leadership helping to shape the industry.

Does your senior leadership team get project data analytics?



Interestingly, only **7%** of respondents claimed that their senior team really understand the opportunities afforded by PDA, with **93%** reporting that either only a **few get it**, only have a **superficial understanding** or **don't really get it**. These statistics are from a community who are engaged in the topic; we anticipate that the reality will be worse than reported here.

Key clients such as Highways England, who have expressed an intent to become a data driven project delivery organisation, will help to escalate PDA onto board room agendas. Some will react, others will use the opportunity to initiate transformational change.

Having a senior leader to drive forward project data analytics.

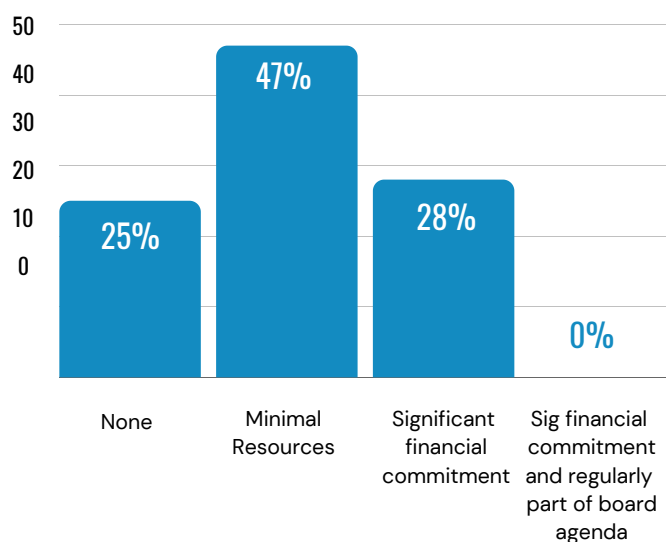
65% of respondents believed their organisation has appointed a credible, senior leader who could pioneer the strategy and implementation of PDA. The significance of having such a leader is that according to Gartner's top data trends in 2021, instead of holding a secondary focus, data analytics is becoming a **core function** within the business. This means with inadequate leadership comes improper strategy and thus substandard implementation. This is something organisations cannot afford to experience with others on the same journey, increasing the level of competition.

Considered a Chief Data Officer?



Whilst having a champion CEO, the growing role of a chief data officer is to shape adoption and sustain the vision. They are key to leading cultural change initiatives (Davenport, Mittal, 2020).

What level of board commitment is there?



Although **28%** reported that there was at least significant financial commitment to PDA, it hasn't yet found its way onto the board agenda. Organisations are beginning to experiment but the level of commitment varies significantly with **47%** receiving minimal resources.

A **lack of quantifying the benefits** of data adoption is acknowledged as a key barrier to adoption (GIISOR). Some are seeing early benefits and drawing confidence from how other sectors leverage the inherent potential of data. But others are waiting for early adopters to move first and demonstrate the business case. The key question is not the level of board commitment, but what they are actually committing to. How bold is their vision?

TALENT

"The ability to take data — to be able to understand it, to process it, to extract value from it, to visualize it, to communicate it — that's going to be a hugely important skill in the next decades."

- **Hal Varian**, *Google Chief Economist*



TALENT

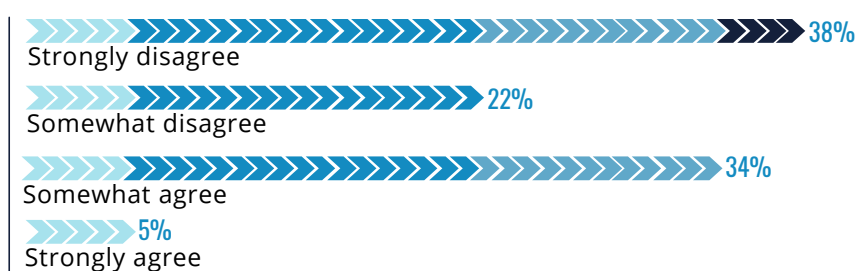
The rapid advancements within technology means there are a vast array of capabilities which can be deployed to underpin an emergent PDA capability. Clients are beginning to understand the scale of the opportunity. As a result, there is a growing demand within projects for competent professionals who understand the domain, are able to shape use cases and understand how to deploy new methods. They help to unlock new insights which have previously been unimaginable.

A clear career pathway for PDA?

The industry has a long way yet to go on the development of a career pathway for project data analysts, with **60%** challenging whether one exists. This is a major theme within the [PDA Task Force](#).

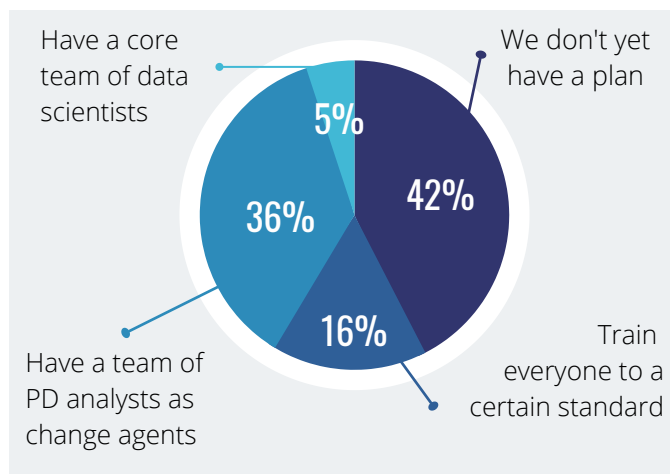
Data literacy is key

In 2020 HBR reported that, *"Data skills are now essential for almost every role in every organization. Companies need more people with the ability to interpret data, to draw insights, and to ask the right questions in the first place."* It is no longer an issue of whether these skills are required, but rather how deep the skills should be.



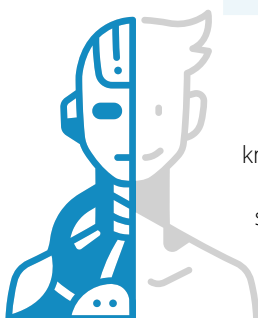
In terms of the approach to data analytics...

42% of organisations are **yet to develop a plan** in regards to the development of PDA talent. **36%** of organisations have a core team of data scientists, but we noted that in many cases these tend to be deployed on client work or product development, rather than project delivery. There are fundamental challenges surrounding data **access, quality and structure** that need addressing before a high end and costly data science team can unlock higher-end predictive and prescriptive analytics.



THE RISE OF THE HYBRID PROFESSIONAL

Technical Implementation
Understanding of end-to-end analytics comprising data processing, modelling, analytics and reporting.



Project Insight
Having domain knowledge will enable more valid data solutions that solve the use-case with precision.

Although some organisations have a centralised team of PDA capabilities, we are seeing that the majority of organisations are developing hybrid professionals. People with project domain expertise who also have a grasp of data fundamentals. They are driving 'innovation at the edge' and helping to inspire their peers. They become the pathfinders, driving up data proficiency and instilling a data culture. They are beginning to value the project data exhaust plume.

STRATEGY



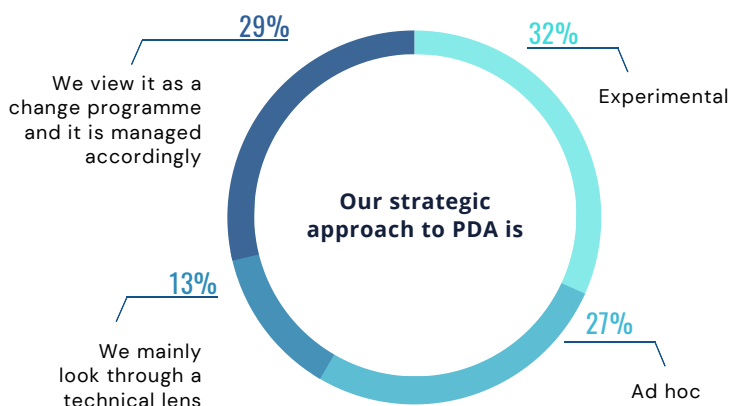
"These data and analytics trends can help organizations and society deal with disruptive change, radical uncertainty and the opportunities they bring"

- **Gartner, 2021**

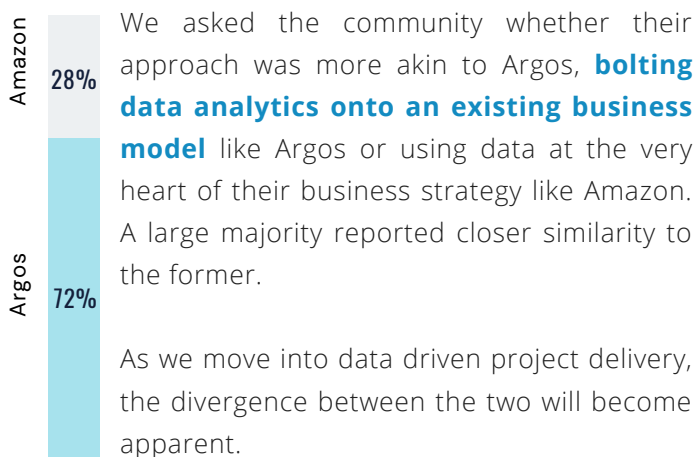
STRATEGY

While it is essential to have senior champions within the business to grow a data-driven culture, an effective strategy is essential to unlocking the vision. A strategy that articulates the level of ambition, underpinning by a roadmap defining the steps needed to transition to data-driven project delivery. This includes defining the underpinning approach, facilitating access to data and associated services, and ensuring an appropriate depth of expertise to deliver it.

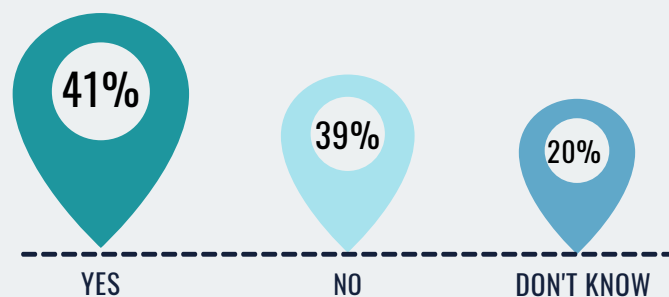
60% of organisations reported having an adhoc or experimental strategic approach to PDA. **13%** viewed PDA mainly through a technical lens, i.e. a series of tools and technical challenges. Only **29%** viewed PDA as part of a broader change programme, requiring an integrated approach, from data culture to integration, data quality to data access, upskilling to supply chain data pipelines.



Is your approach more akin to Amazon or Argos?



Does your organisation have a roadmap prioritising PDA initiatives linked to business value across the organisation?



Top-Down Culture Change

Highways England are an example of an organisation have moved an entire industry to data driven projects.

Watch [Alan Perkins, Head of Complex Infrastructure Programmes](#) provide insight into Highways are aiming to become "Digital by Default"



A great visual from Highways England. It is helpful to extend it further to include app development, automation and integrated, validated data pipelines.

PROGRAMME/CROSS PROJECT DATASETS
analysis, trends and knowledge

PROJECT TOP LEVEL DATASETS
analysis and deep dives, predictive analytics

PROJECT TOP LEVEL DATASETS
analysis and deep dives, trend analysis

WORKSTREAM/PROJECT SPECIFIC
tailored performance reporting

IPC, MP REPORTING
and CIP project adoption metrics

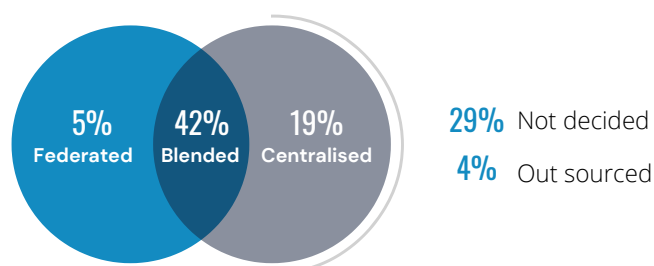
0365 DASHBOARDS
monitoring, data driven innovation

Centralised vs Federated Approaches to Implementation

The transition into core data-driven project delivery is paralleled with the shift into digital transformation. Together, they enable organisations to achieve more at scale, with the automation of key processes and deployment of machine learning and artificial intelligence.

How organisations venture into this depends on their position within the scale of centralised (*establishment of core data teams to conduct transformation*) and federated (*autonomy within P3M teams to direct local implementation*) approaches.

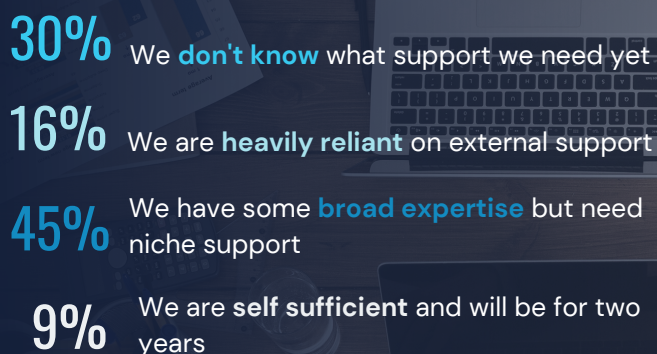
The data shows **29%** of respondents were undecided, reflecting indecisiveness likely driven by a lack focus on PDA from senior leadership. There was a higher preference for a centralised approach yet a majority reported a blended was most likely.



What to consider...

Having a core of superusers is critical in helping to provide additional depth of capability, particularly in the productionisation of data driven solutions. But this needs to be balanced against unlocking insight from domain experts who are able to ask the right questions and understand the integrity of the data.

Our need for technical support...



With only 9% of organisations being self-sufficient, its worth considering the risks of being both reliant on internal and external support. With the former, implementation is likely to be **slower**, and require more **comprehensive change across numerous business processes**. Yet, this is likely to future proof the organisation.

With being heavily reliant on external support, issues surrounding IT compatibility across the supply chain may appear, in addition to **preventing that internal mindset shift towards data-driven culture**.

Both have advantages and the choice should depend on the organisations overall data vision. For instance, Highways England are focusing on becoming a "digitally enabled, data driven major project delivery organisation". To achieve this, a change in **mindset, skillset, toolset and governance** is needed.

A negative bias

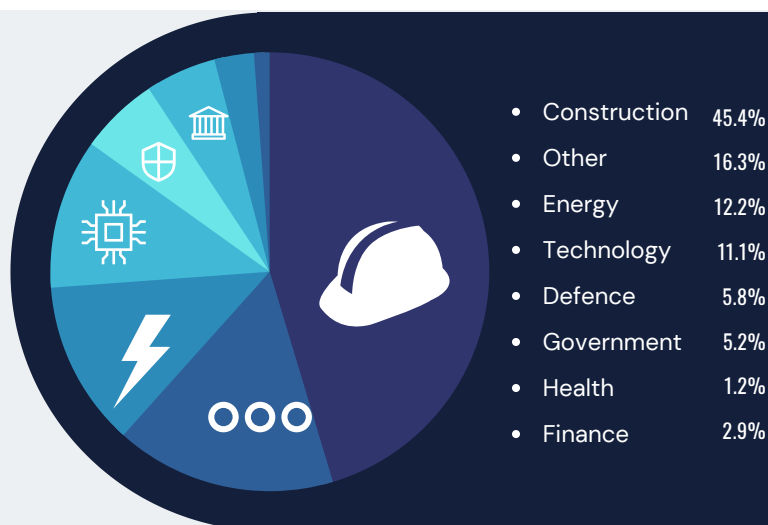
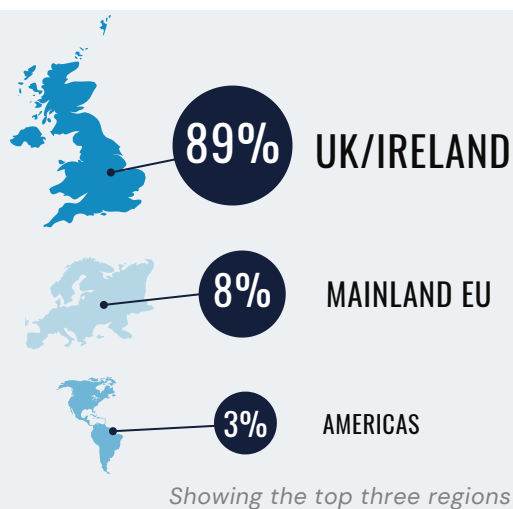
In considering leadership, strategy and talent, the following scale showed that respondents displayed a slight negative bias towards all three.



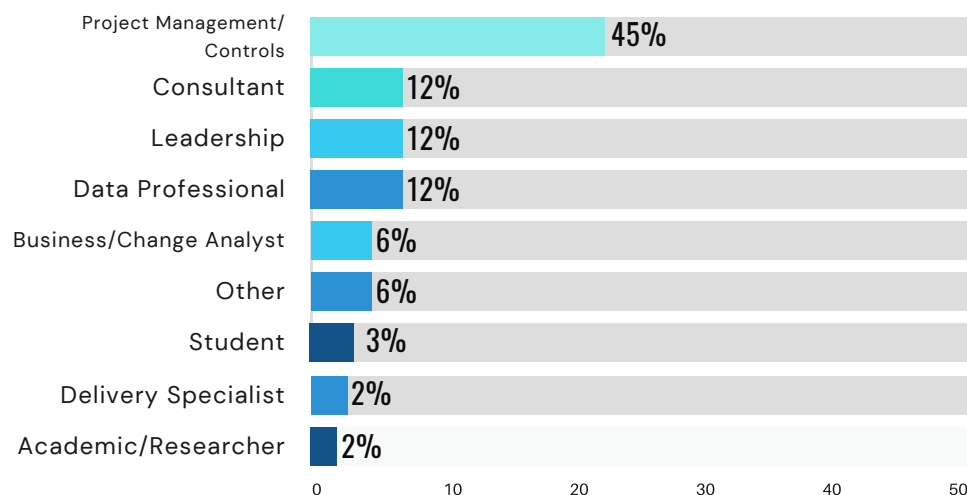
SURVEY DEMOGRAPHIC

The Project Data Analytics Community is starting to develop a global reach and is something we would like to expand throughout 2021. 89% of those surveyed were based in the UK, with 45% being from the construction sector. As the initiative becomes more mainstream we are seeing increasing attendance from other sectors. We'll be looking to improving the 5.2% government participation; an area where PDA has significant potential.

Location & Sector



Discipline



Summary

191 people contributed to the survey.

Mostly **UK** based with a high focus around project management and controls. The participation of data professionals varies significantly by meetup topic.

Community of Practice

The Project Data Analytics Community was founded to provide a platform to share good practice, network, upskill, develop solutions and inspire people. Now ~8000 members strong, we have a powerful voice that is helping to shape the future of how projects are delivered

We are setting up a **community of practice** for those who want to take a more active role in shaping implementation and helping drive the awareness. Support the community in sourcing interesting talks, articles, outputs, solutions and receive numerous community benefits. If you are interested please get in touch at contact@projectingsuccess.co.uk

GET IN TOUCH



Thank you for taking the time to read this report. It was written by Projecting Success on behalf of the Project Data Analytics Community, leveraging community surveys collected during the community meetup sessions. The Project Data Analytics Community is an ever growing community that is committed to keeping you updated on the world of data within projects. We are eager to hear your feedback so we can tailor the insights to your specific needs. Please **let us know** if there's anything you'd like clarification on, how you think we can improve or even if you'd like us to cover a particular topic. Better still, get involved with the community and see how you can make a difference.

How you can get involved...

Get involved in any of our various initiatives. We are welcoming those who are also looking to build their portfolio and build their network. Write blogs, be a part of our community of practice, access our upcoming solutions portal and so much more. Immerse yourself into the world of project data analytics and let's journey together

PROJECT:MEETUP

The **PDA community meetups** are filled with thought-provoking talks from a range of guest speakers looking to showcase their journey into PDA. Talks range from presentations, to panel sessions, to masterclass and more. All meetup events are free and virtual.

Upcoming Talks

Net Zero: How Your Organisations can be Harnessing Data to Support the Mission **(August 18th, 18:30 UK)**.

[Read more](#)

The Project Data Analytics Starter Kit: Getting to Grips with Data in 2021 **(September 7th, 12:00 UK)**.

[Read more](#)



PROJECT:HACK

Project:Hack is a bi-monthly hackathon. It brings a range of data and project professionals to push boundaries and develop project data solutions in teams. Network, build your portfolio and compete to win prizes worth thousands. All tickets proceeds go to Cancer Research UK. **All Hack challenges are now up on the [PDA website](#).** Click to find out more

SPONSOR A GROWING COMMUNITY

- Developing a community for the benefit of its members & society
- Driving and shaping change across multiple sectors
- Igniting the imagination and demonstrating the art of the possible
- Developing a new cadre of professionals & sharing good practice
- Keeping members plugged into the latest developments

[View our Sponsor Leaflet](#)

ASSOCIATED ORGANISATIONS & INITIATIVES



Projecting Success is a forward thinking organisation who enable organisations and individuals to realise the true value of project data. Our mission is to leverage data to help to drive a transformation in how projects are delivered.

The PDA community was founded by Projecting Success. It is one of a number of initiatives we run to create an ecosystem to support data-driven project delivery

2021 has been a breakthrough year for project data analytics and Projecting Success after becoming a **Microsoft Gold Partner**, Martin Paver CEO, being nominated in **DataIQ's top 100 most influential people in data**, and also winning Computing's **AI and ML Team of the Year**. The industry is starting to catch on to Project Data Analytics and we are proud to be a key part of it.



The PDA community and Project Data Analytics Task Force are closely aligned. The Task provides the cross sector leadership to deliver the vision. See the Task Force the white paper for details.

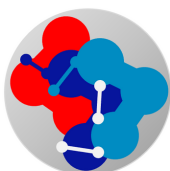
Volunteer and work alongside the workstreams to make your mark. Are you able to get involved to support any of the following?

- Engagement
- Research
- Solutions Development
- Data Access
- Data Structure
- Skills
- Carbon Reduction

View the white paper [here](#)

Transforming project performance with data

Unlocking the power of data to deliver project success



Construction Data Trust

The Construction Data Trust provides a collaborative and secure capability to host construction related data. It forms the heart of a data driven analytics, from productivity to health & safety.

The Construction Data Trust welcomes broad engagement from those aspiring to shape the future of data driven project delivery. It is a community initiative, owned and directed by its members. The immediate focus is on providing evidence to support a step change in delivery productivity.

It facilitates a community of equals, building critical mass to help shape and transform an industry. Developing the data pipelines, evidence and insights needed to drive change.

It is a world first. We hope that you can join us.



REFERENCES

This report was written by the Project Data Analytics Community. Research was also collected by the PDA community during the community meetup sessions.

Davenport.T., Mittal.N. (2020).How CEOs Can Lead a Data-Driven Culture (hbr.org)

Gartner Top Data and Analytics Trends for 2021

2021 GII Summit Recap Report

