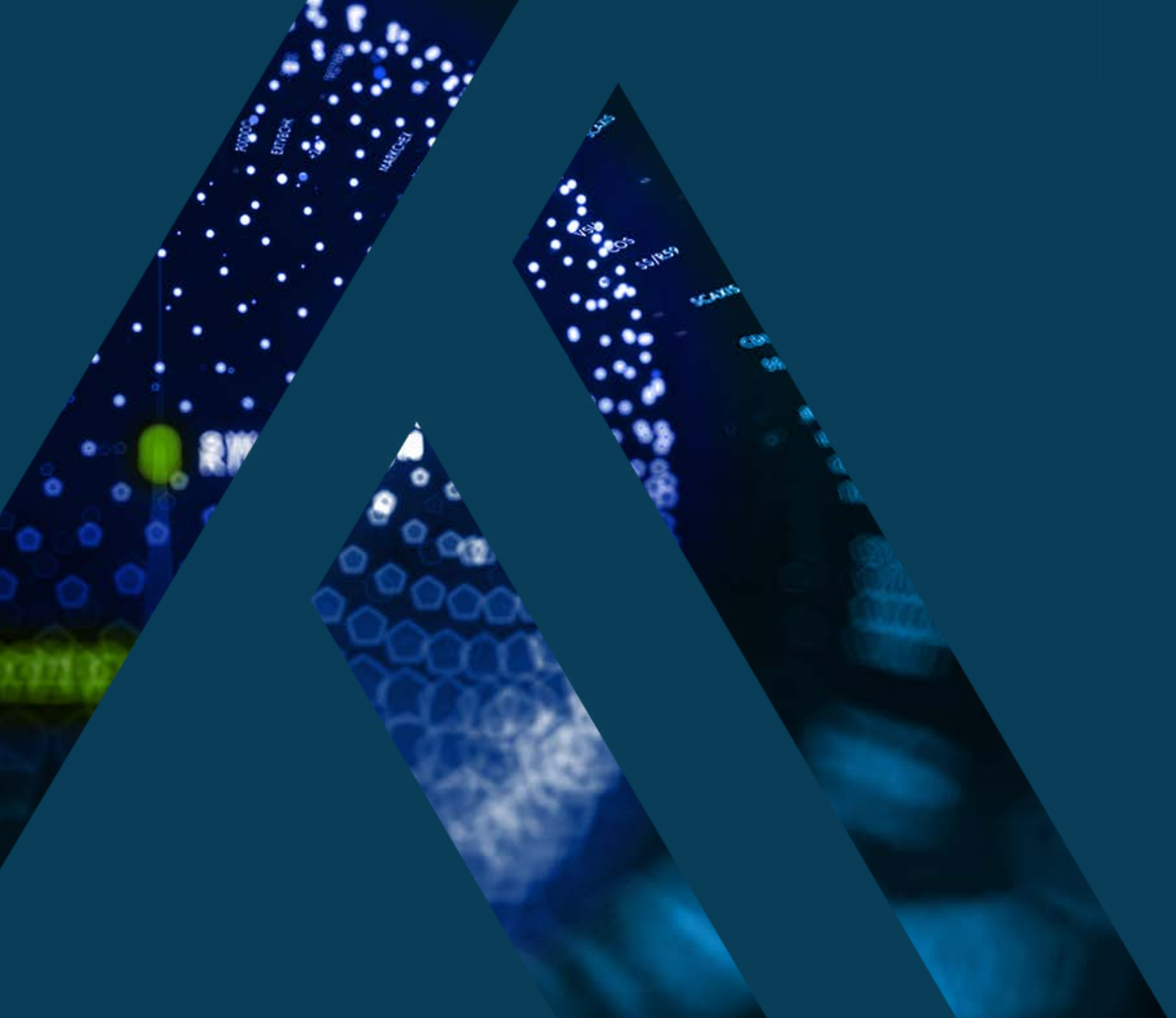
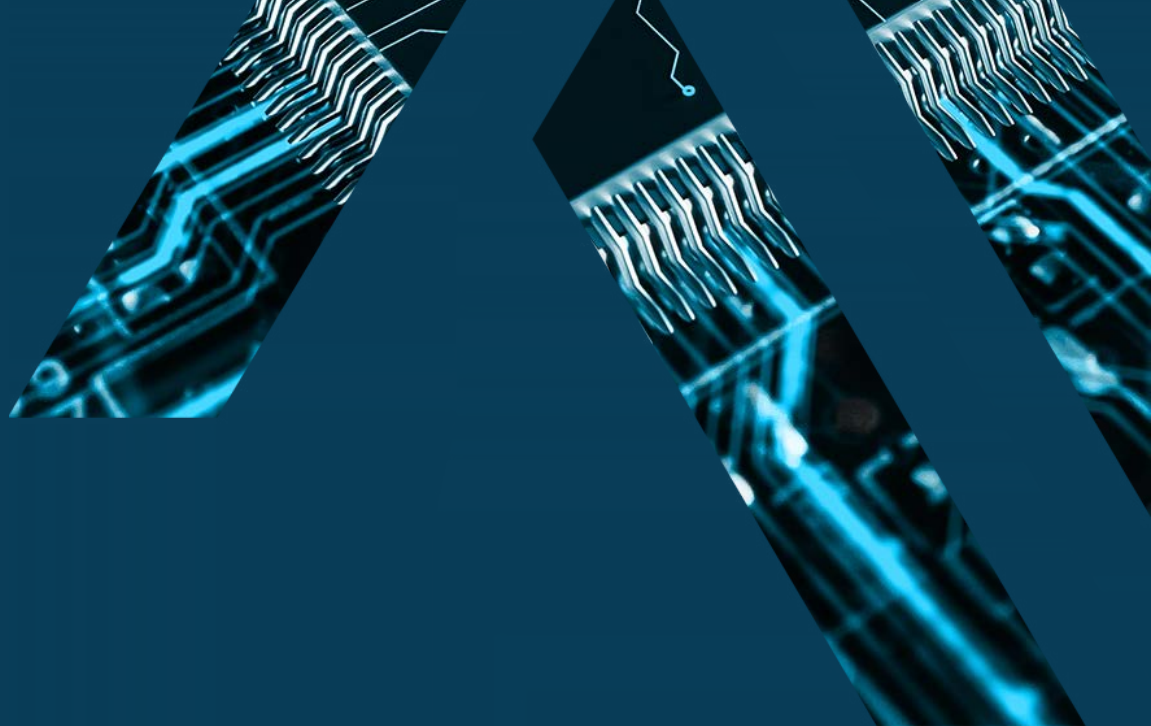




ARKANE

a CSG Group Company



01

CSG / OVERVIEW

1.1 CSG Group Structure

The Facilities division offers a progressive and forward-thinking range of facilities management solutions which are comprised of engineering, technical, food, cleaning, and security solutions.

The Talent Division provides specialised recruitment and contracting services, skills development, training and B-BBEE consulting.



**FACILITIES
DIVISION**



**TALENT
DIVISION**





**We shape personalised
solutions that supercharge
your business and people.**

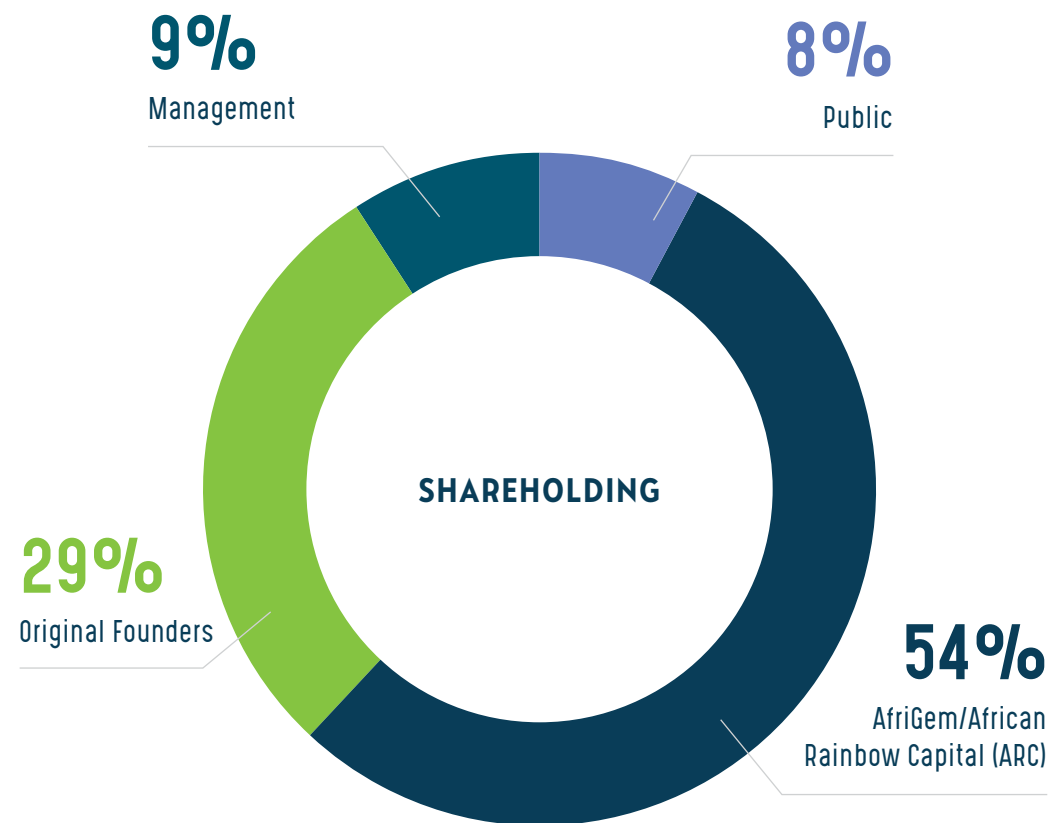
1.2 B-BBEE Credentials

The CSG Group is serious about transformation and promotes the empowerment of previously disadvantaged individuals. Our group companies have a black shareholding percentage upwards of 60%, resulting in an overall B-BBEE level 1 contributor rating.



1.3 Shareholding

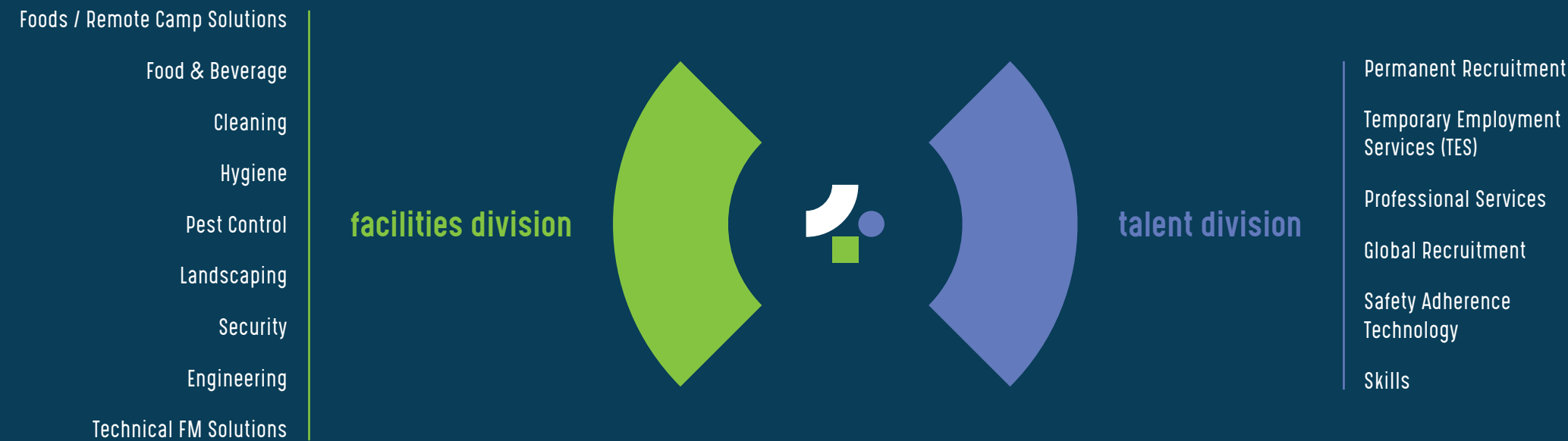
The CSG Group takes pride in an esteemed and diversified collection of shareholders:



1.4 CSG Board

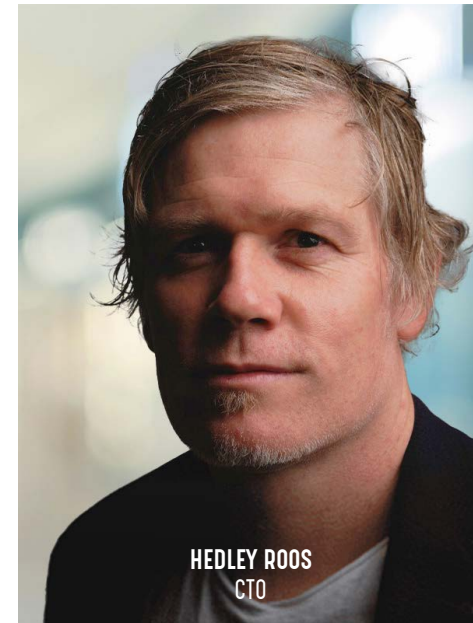
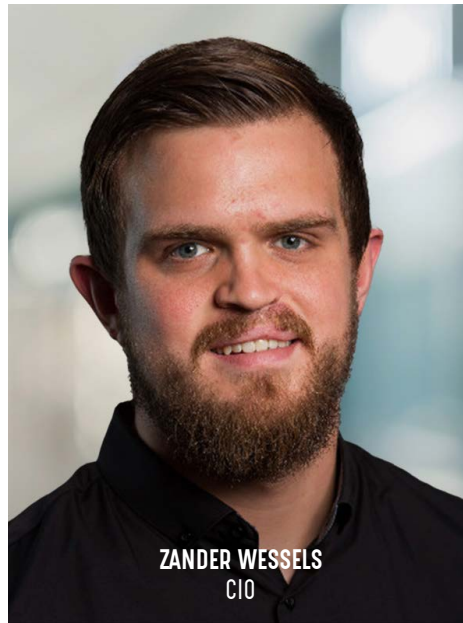


1.5 Group Structure / Expanded



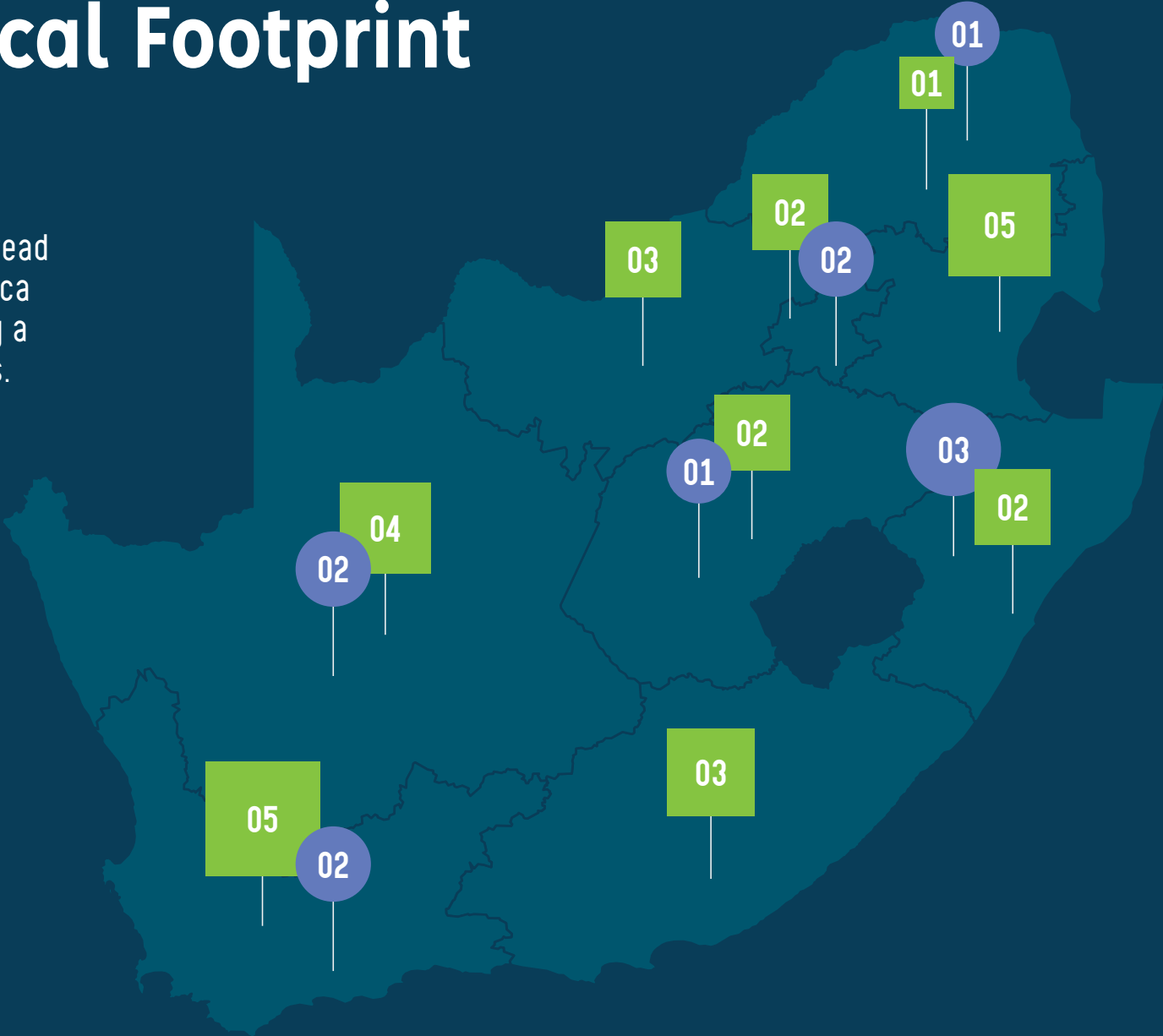
1.6 Arkane Team

Our team combines a total of over 50 years of diverse experience in finance, data science, statistics, coding, data management and process scaling.



1.7 Geographical Footprint

The CSG Group has established a formidable track record and a widespread footprint, spanning across South Africa to an assortment of clients, covering a multitude of sectors and industries.



1.8 Our Clients

We pride ourselves in our ability to foster strategic partnerships with our clients and align our service models with the key business drivers of each client in its own unique way. This makes for a dynamic approach that enables the core business to operate at its optimum. We are thankful to be the partner of choice to our well established and ever-expanding client base.





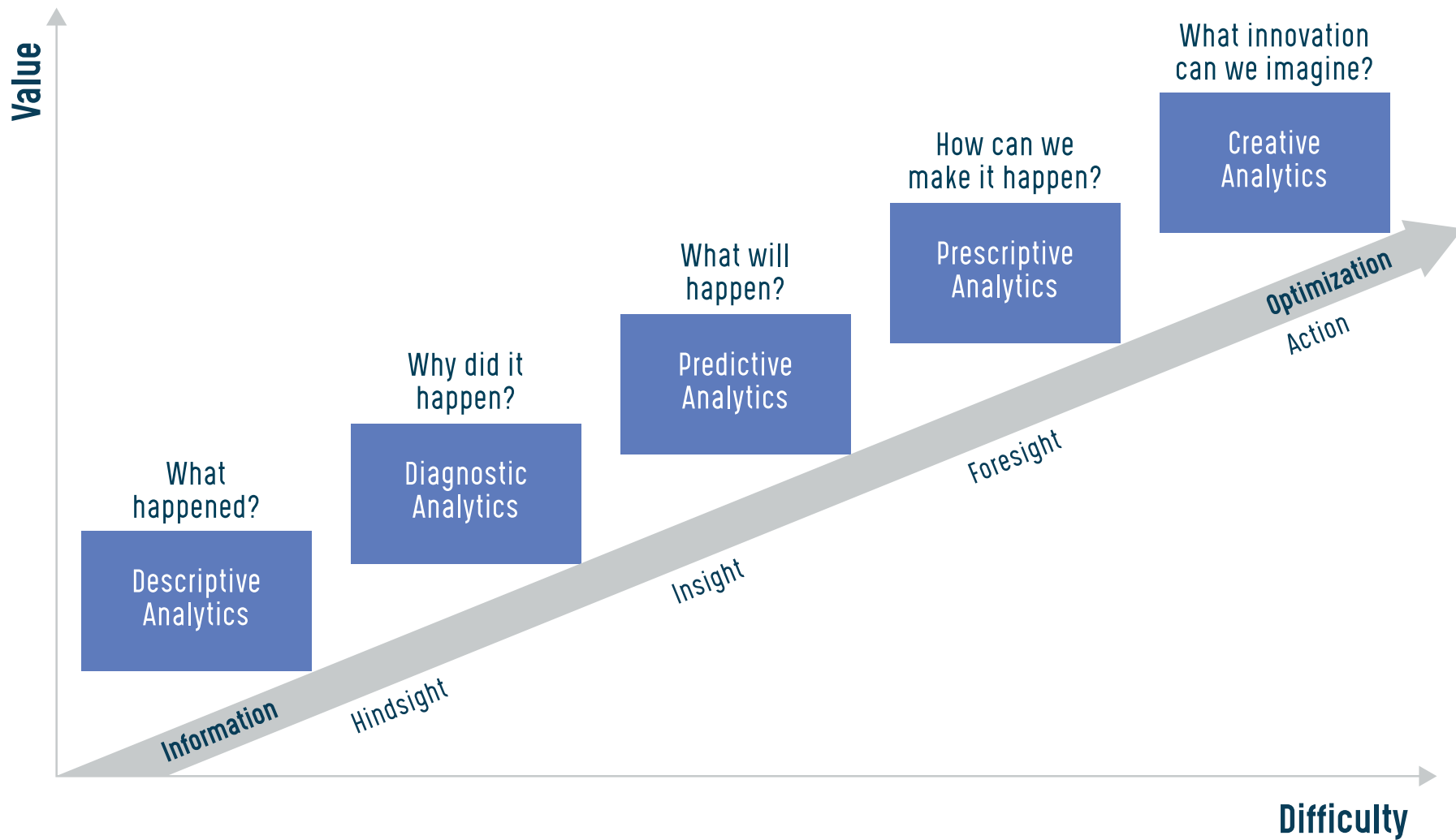


Diverse, hands-on expertise
in data handling.



02

DATA / A PROBLEM OR A RESOURCE?



2.1 What is Arkane?

Every enterprise, irrespective of its domain, is a data powerhouse, teeming with data in diverse formats - from paper to pixels, spreadsheets to streams.

This untapped data reservoir holds the key to transformative insights, operational prowess, and potential new revenue streams.

Unlocking this potential is no mean feat - it demands the data be organised, cleaned, mined, refined, and interpreted - a process akin to constructing a data pipeline.

Only then can this raw data be harnessed into strategic insights and monetizable intelligence.

From building a robust data pipeline to crafting data-centric solutions and dashboards, we empower you to turn your data from dormant to dynamic, transforming your operations and enabling your monetization strategies.

With ARKANE, your data journey is in safe and capable hands.



2.2 Unique Value Proposition

We deliver an all-encompassing suite of services for your data journey. Our unique proposition hinges on:

01

UNIFIED DATA ACCESS

Linking diverse sources (Oracle, Postgres, MSSQL, Spreadsheets) into a single, unified pipeline.

02

INNOVATION & OPEN-SOURCE CONTRIBUTION

Delivering cutting-edge products and contributing to open-source software.

03

DATA TRANSFORMATION

Using Python, TensorFlow, and more to transform raw data into actionable insights.

04

CUSTOM SOLUTIONS

Tailoring solutions to unique data needs for optimal decision-making and growth.

05

EXPERT DATA ORGANIZATION

Structuring data for maximized accessibility, usability, and security.

06

SKILLED STAFF PROVISION

Supplementing teams with experienced data professionals, including machine learning experts.

07

END-TO-END SUPPORT

Offering comprehensive data journey guidance on a scalable, vendor-free cloud infrastructure (AWS, etc.).

08

INTERACTIVE VISUALIZATION

Leveraging tools like PowerBI, Looker, Tableau for effective data visualization and interaction.



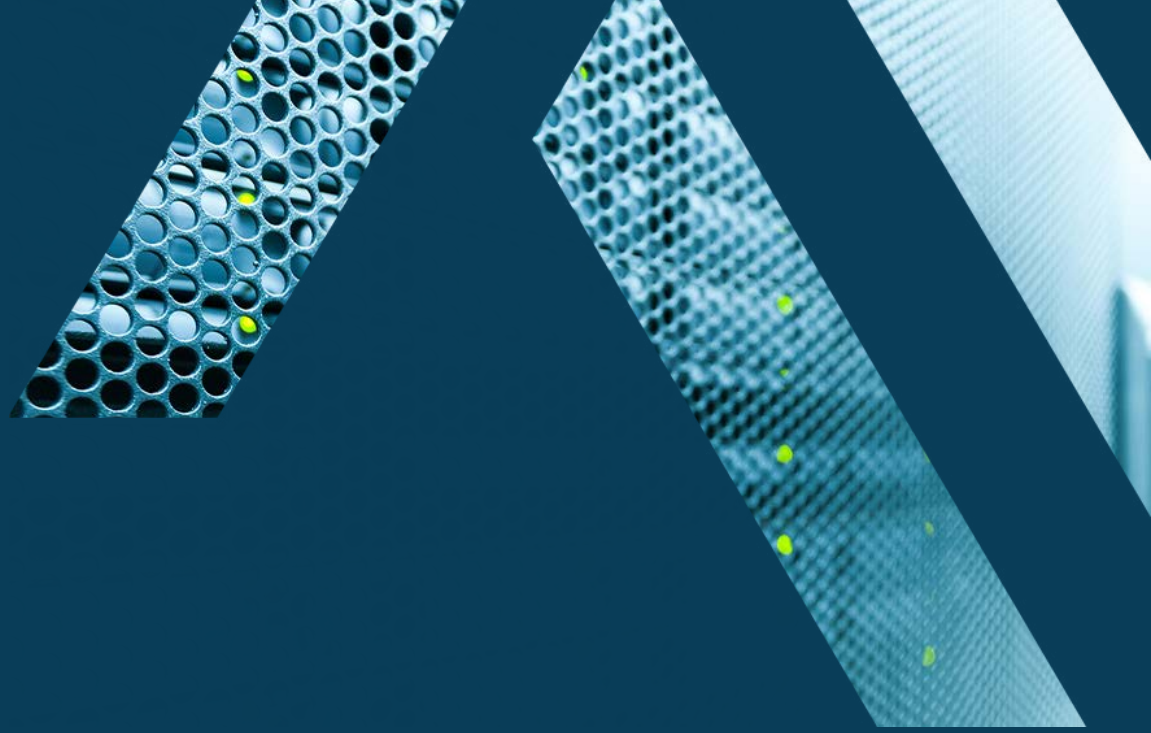
SOME OF ARKANE'S TOOLS:

ORACLE





**We create innovative data
tools to enhance collection,
analysis, & decision-making.**



03

WHAT WE DO

3.1 Arkane Services



3.2 Data Readiness

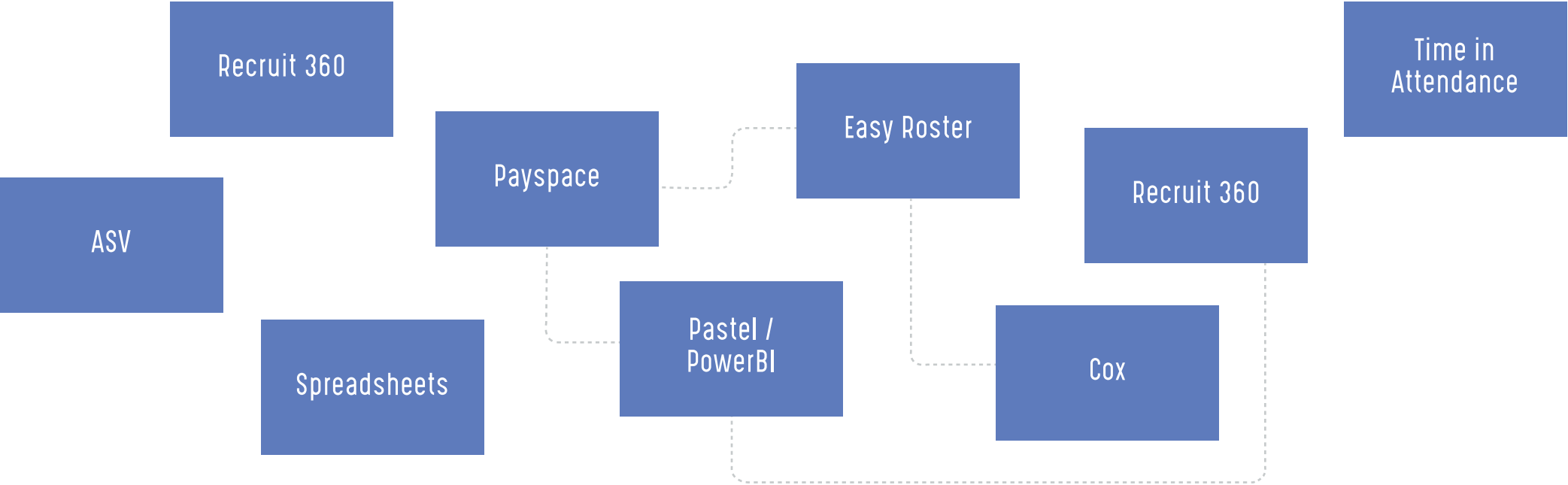
Data Readiness refers to the state where an organization's data assets are prepared, organized, and primed for effective and efficient use in decision-making processes. It encompasses the quality, accessibility, and relevance of data, ensuring that it is ready for analysis and application in various business operations.



3.2.1 Current Landscape



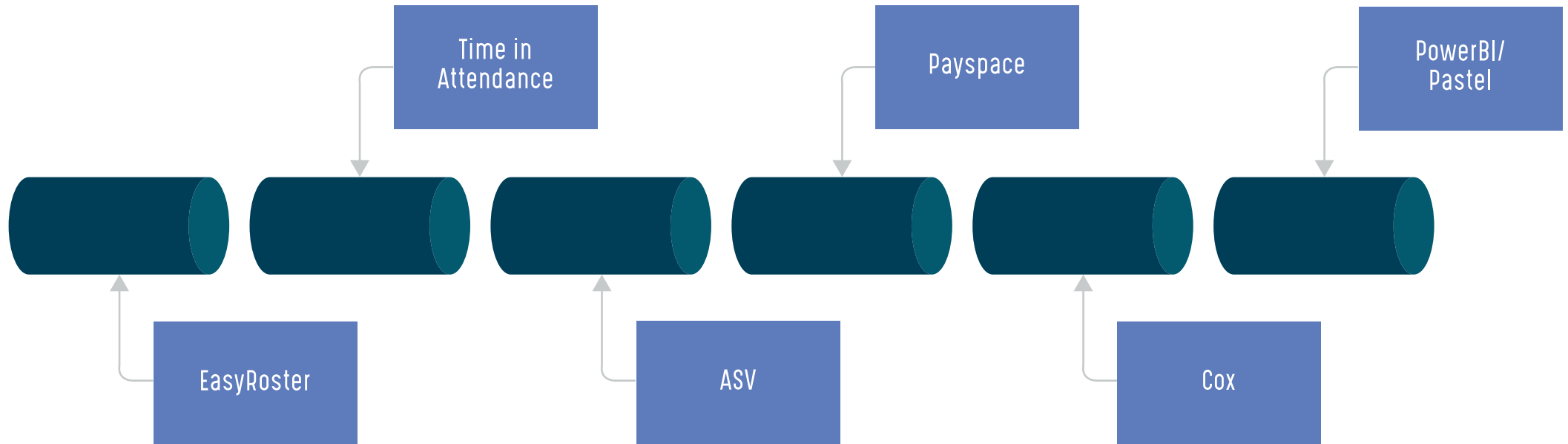
Today, virtually every company produces or utilizes data. Often, due to outdated infrastructures or design flaws, this data lives in disconnected systems and formats, making intelligence extraction challenging. With the rise of AI tools and a fast-paced business climate, smarter data utilization is crucial for staying relevant.



3.2.2 End-End Data Unification



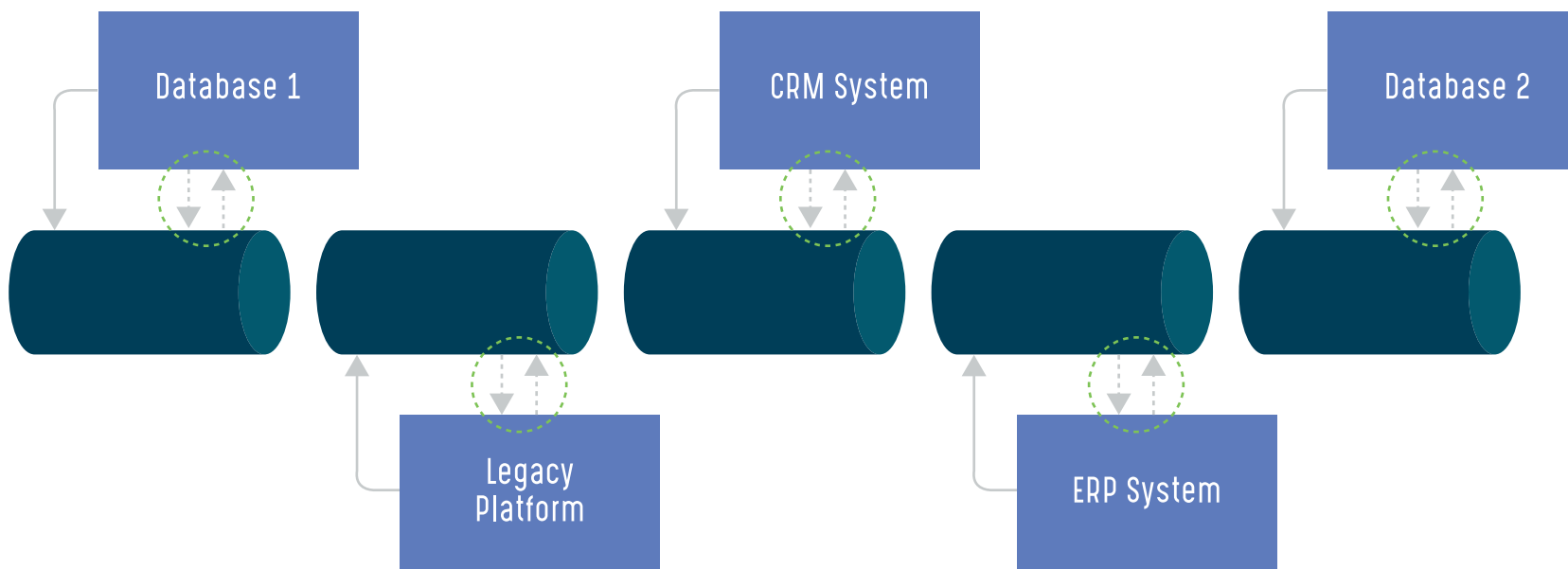
We create pipelines that connect and unify all your disparate systems into a single, accessible data source.



3.2.3 Client Plug-ins



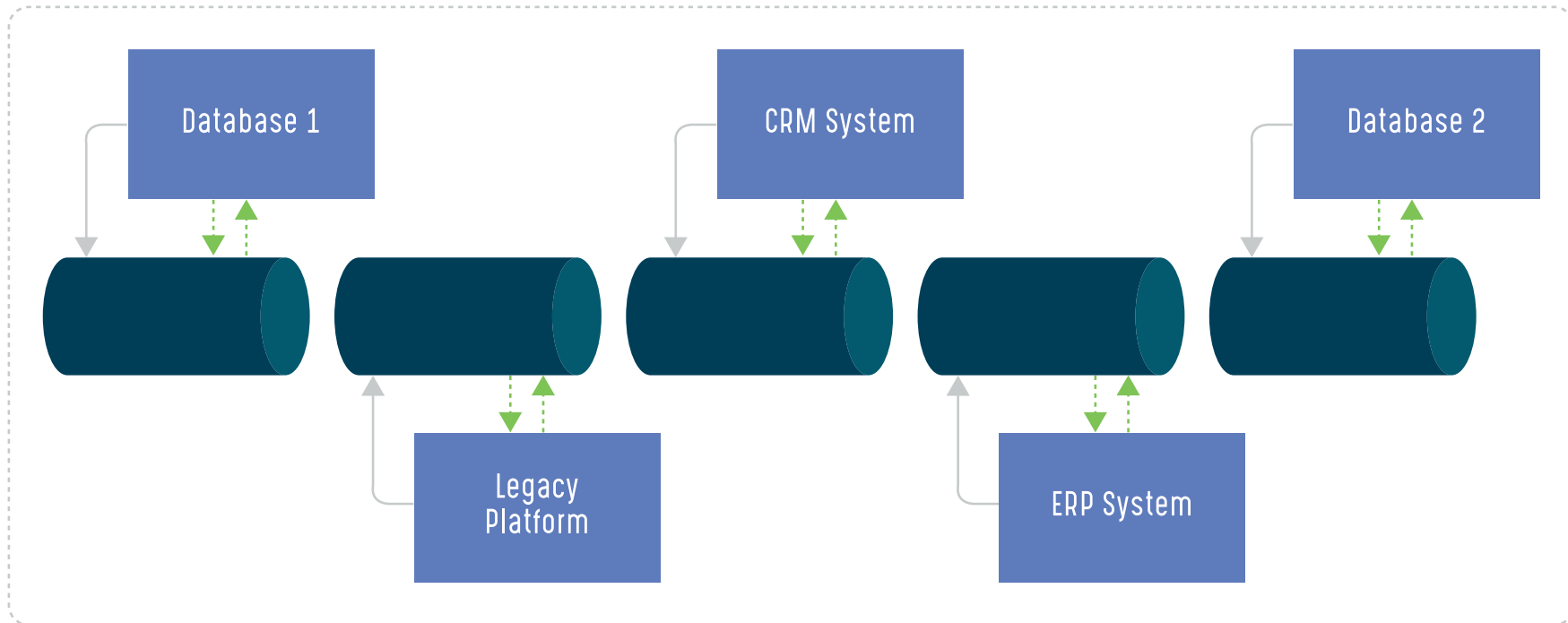
We create innovative data tools to enhance collection, analysis, and decision-making. Clients are smoothly integrated into our pipeline via bi-directional connections. The custom 'glue code' and configurations, held by the client under licence, ensure data alignment and ownership.



3.2.4 Data Organisation & Skills Provision



After unifying and making data accessible, we leverage it for insightful analytics and product creation. We transform raw data into actionable insights using advanced analytics, extracting meaningful patterns for decision-making and business growth.



3.2.5 Why it matters?



01

ENHANCED DECISION MAKING

High-quality, ready-to-use data allows for more accurate and timely decisions. Without it, businesses risk making decisions based on incomplete, outdated, or inaccurate information.

02

OPERATIONAL EFFICIENCY

Readily available and organized data streamlines business processes, reduces time spent on data cleaning and preparation, and accelerates the time to insight.

03

COMPETITIVE ADVANTAGE

In today's data-driven world, businesses that can quickly leverage their data have a significant edge over their competitors. Data readiness facilitates rapid response to market changes and customer needs.

05

COMPLIANCE AND GOVERNANCE

With increasing regulations around data privacy and usage, having ready data ensures compliance and aids in effective data governance.

04

RISK MANAGEMENT

Properly managed and ready data helps in identifying and mitigating risks before they become critical.



3.2.6 Arkane / Getting you 'Data Ready'



01

EXPERTISE IN DATA MANAGEMENT

Arkane possesses deep expertise in managing complex data landscapes. We understand the nuances of data quality, structure, and governance, ensuring your data is not just collected but is truly ready for use.

02

TAILORED SOLUTIONS

We recognize that each business has unique data challenges. Our approach is to provide customized solutions that address your specific data readiness needs, whether it's in cleaning, organizing, or optimizing your data assets.

03

ADVANCED TECHNOLOGY UTILIZATION

Utilizing cutting-edge technologies and methodologies, we ensure that your data is processed, stored, and managed with the highest standards of efficiency and security.

05

EMPOWERING YOUR TEAM

Beyond preparing your data, we empower your team with the knowledge and tools to maintain data readiness. This includes training in best practices for data management and ongoing support.

04

STRATEGIC PARTNERSHIP

Choosing Arkane for data readiness means more than just hiring a service provider; it's forming a strategic partnership. We align our services with your business goals, ensuring that your data readiness journey contributes directly to your organizational success.





**Custom pipeline solutions that
unite all your data sources.**

3.3 Data Science



Data Science refers to the extraction of insights and predictions from the data.

THESE COULD INCLUDE:

**CUSTOM ANALYTICS
AND MODELING**
From predictive
modeling to
advanced analytics

**AI AND MACHINE
LEARNING DEPLOYMENT**
Leveraging the latest in AI
and ML to uncover
hidden patterns, predict
trends, and optimize
business processes.

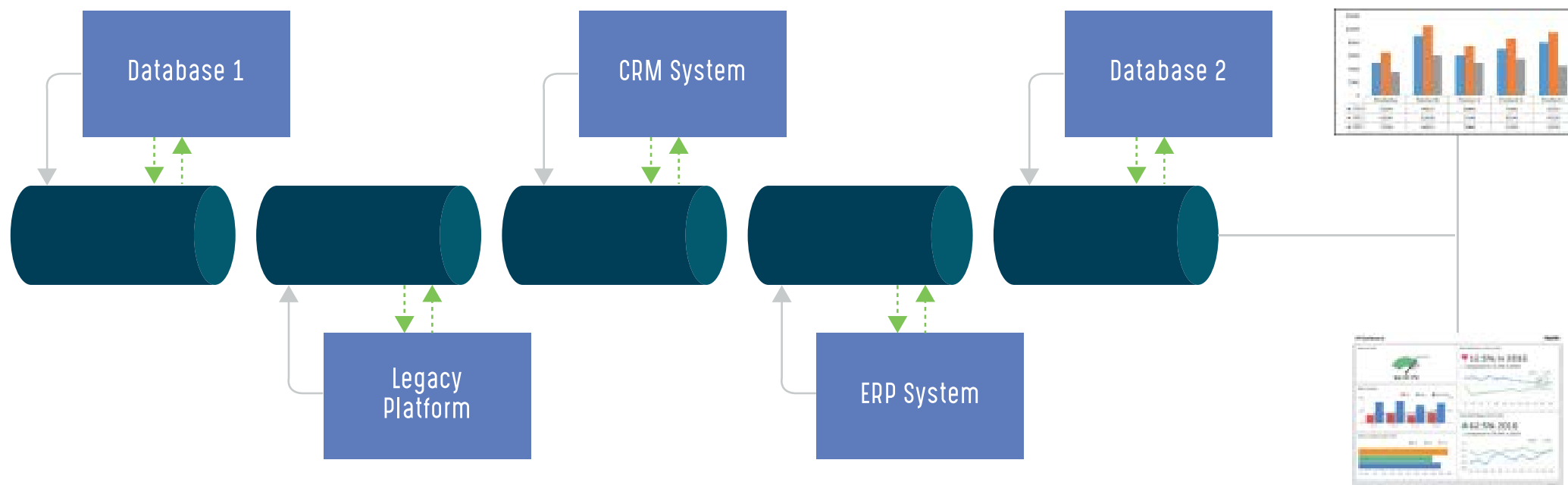
**DATA STRATEGY
AND CONSULTING**
Providing expert guidance
on data management,
governance, and
utilization to maximize the
value of your data assets.



3.3.1 Data Analytics & Insights



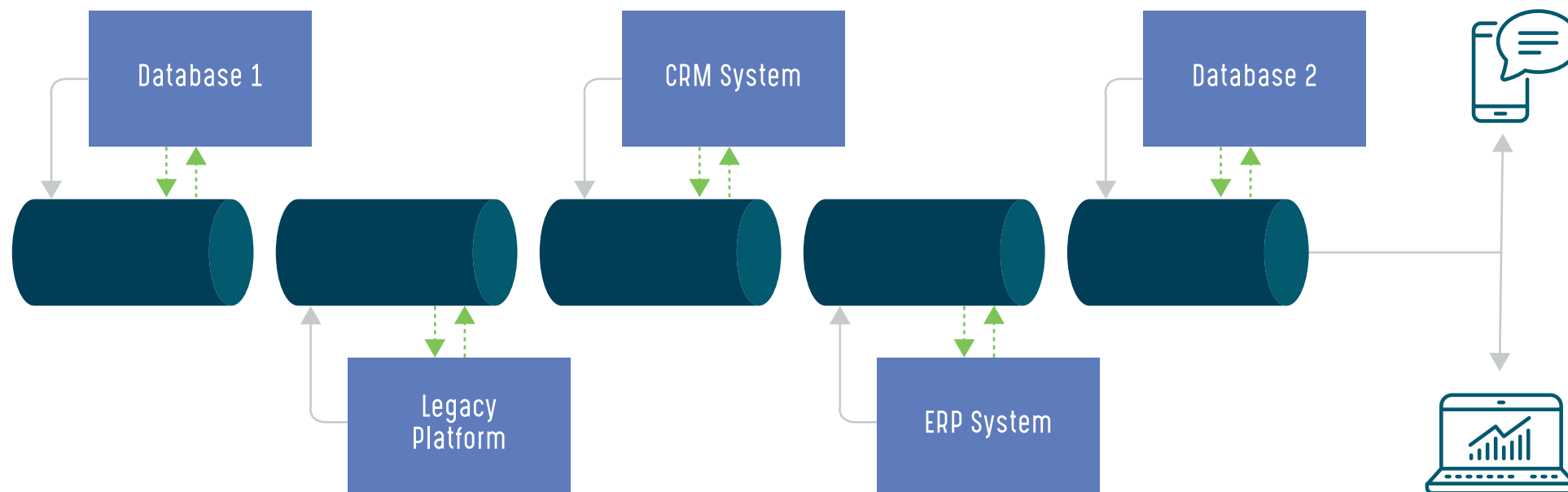
Post data unification, we harness it for insightful analytics and product development. Beyond mere data collection and organization, we convert raw data into actionable insights, using advanced analytics to extract meaningful patterns. These insights translate into recommendations for informed decision-making and business growth.



3.3.2 Customised Solutions



We appreciate each organization's unique data challenges and needs. Excelling in customization, we align our services with your specific requirements. We delve into your business objectives, data landscape, and pain points to deliver personalized, effective solutions.



3.3.3 Tailored Solutions for every Business Need



At Arkane, our "Pure Data Science" services are the pinnacle of our expertise, offering bespoke data science solutions to businesses across industries. We specialize in harnessing the power of data to solve complex business challenges, delivering insights that drive strategic decision-making.

KEY OFFERINGS:

CUSTOM ANALYTICS AND MODELING

From predictive modeling to advanced analytics, we create customized solutions that fit your unique business context.

AI AND MACHINE LEARNING DEPLOYMENT

Leveraging the latest in AI and ML to uncover hidden patterns, predict trends, and optimize business processes.

DATA STRATEGY AND CONSULTING

Providing expert guidance on data management, governance, and utilization to maximize the value of your data assets.

3.3.4 A Business Transformation Catalyst



Our data science services extend beyond mere technical expertise; they are a conduit for transformative business outcomes. We cater to:

01

RETAIL AND E-COMMERCE

Enhancing customer experience through personalized recommendations, demand forecasting, and optimized supply chain management.

02

HEALTHCARE

Applying data science to improve patient outcomes, streamline operations, and support medical research.

03

FINANCE AND BANKING

Offering predictive analytics for risk assessment, fraud detection, and customer segmentation.

04

MANUFACTURING

Utilizing predictive maintenance, quality control analytics, and process optimization to improve efficiency and reduce costs.

BENEFITS:

COMPETITIVE ADVANTAGE

Stay ahead in your industry with data-driven insights and strategies.

EFFICIENCY AND COST REDUCTION

Optimizing operations and reducing costs through data-informed decision-making.

ENHANCED DECISION MAKING

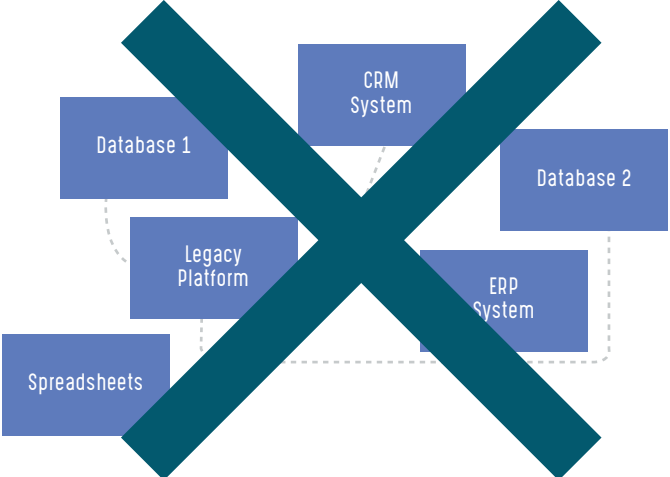
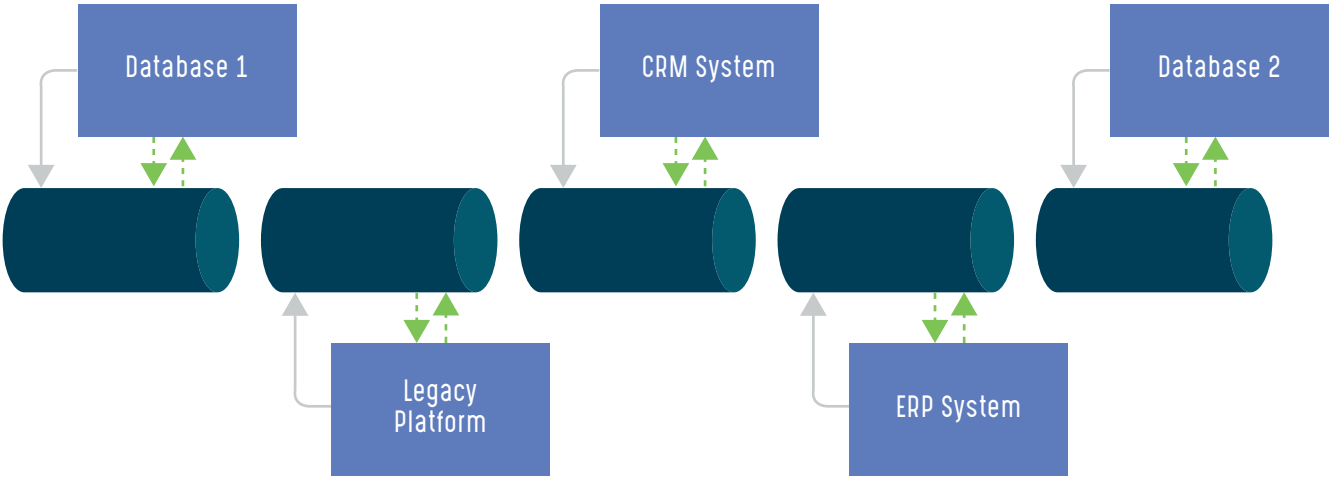
Empowering your team with actionable insights and predictive analytics for informed decision-making.

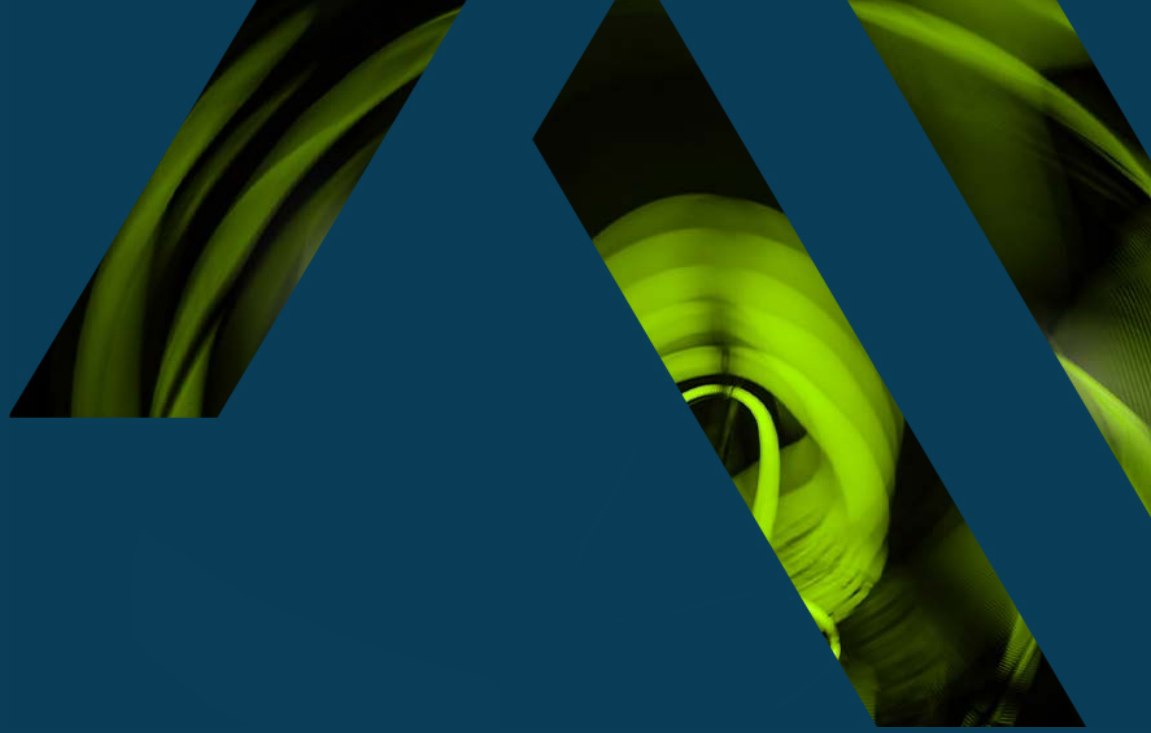


3.3.5 The Arkane Advantage



Going beyond typical platforms, we provide a custom pipeline solution that unites your data sources without the need for another platform. We aid in data analytics and insights for streamlined decision-making and product development.





04

CURRENT ARKANE SOLUTIONS PLATFORMS

4.1 The Hound Platform

4.1.1 Your Data Your Language

Hound is an avant-garde solution in the realm of Large Language Models (LLMs) and Retrieval-Augmented Generation (RAG), designed to bridge the gap between complex data systems and intuitive user interaction. At its core, Hound is an API that empowers users to engage with their own data through the simplicity of natural language. This tool transforms the way businesses interact with databases and written reports.

KEY FEATURES:

NATURAL LANGUAGE SQL INTERACTION

Hound allows users to query SQL databases using everyday language, making data access as simple as having a conversation.

DOCUMENT PROCESSING

It can parse, understand, and interact with written PDF reports, extracting and synthesizing information effortlessly.

AUTOMATED SUMMARIZATION AND REPORTING

Hound is adept at generating concise summaries and drafting detailed reports, streamlining the documentation process.



4.1.2 Hound in Action / Diverse Industry Applications

Hound's versatility makes it an indispensable tool across various sectors. It is particularly transformative in:

01

COMPLIANCE

Enhancing the efficiency of compliance processes by simplifying the analysis of complex

02

CREDIT ANALYSIS

Assisting credit analysts in rapidly processing extensive financial reports and data, leading to quicker

03

ENVIRONMENTAL, SOCIAL, AND GOVERNANCE (ESG)

Enabling ESG-focused firms to evaluate large volumes of sustainability reports and

04

LEGAL AND AUDIT FIRMS

Revolutionizing the way legal and audit professionals interact with case files and audit reports, providing them with swift and accurate

BENEFITS:

TIME EFFICIENCY

Drastically reduces the time taken to process and analyze data.

USER ACCESSIBILITY

Makes complex data systems accessible to non-technical users.

DECISION ENHANCEMENT

Supports informed decision-making by providing quick and accurate data insights.





**We harness data for
insightful analytics and
product development.**

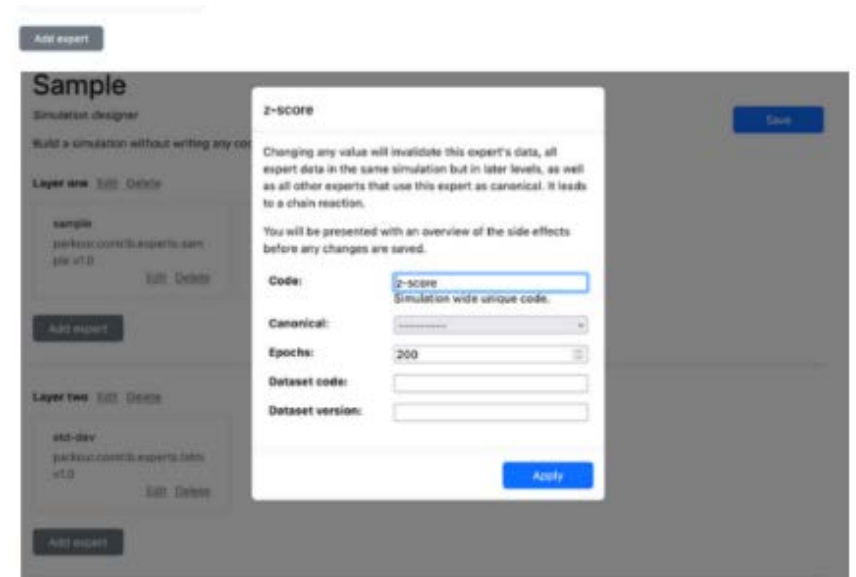
4.2 Parkour

4.2.1 "A General Hypothesis Testing Machine"

Best labeled as Answers questions like:

"What happens when I change this one variable in my strategy?"

"What happens when I change these 100 variables?"



01

Developed over a period of more than 10 years

02

Minimum code is now required to construct hypotheses.

03

Simulations are declared via either a configuration file or a user interface.

04

Simulations leverage work already performed by other simulations to save time.

05

Platform as a Service (PaaS) fundamentals are built into the code base.

06

The platform is capable of incorporating and blending technology from the machine learning and AI domains with traditional finance domains.



4.2.2 Parkour Scalable & Unbiased Financial Analysis

Parkour represents a breakthrough in financial hypothesis testing, offering a scalable platform that integrates robust walk-forward techniques. This innovative approach eliminates common biases and ensures true historical simulation fidelity, making it an essential tool for financial analysis and prediction.

KEY FEATURES:

ADVANCED WALK-FORWARD TECHNIQUES

Ensures unbiased testing by accounting for a wide array of biases, delivering reliable simulations.

FLEXIBLE FINANCIAL MODELING

Accommodates a range of models from standard stock predictions to sophisticated AI-driven analyses.

INCORPORATION OF DIVERSE DATA TYPES

Capable of integrating alternative data, including market sentiments, trade signals, and data embeddings.



4.2.3 Versatility of Parkour / From Hypothesis to Reality

Parkour’s general-purpose financial primitives allow it to be applied effectively across various financial sectors, including:

01

FIXED INCOME MARKETS

Utilized for accurate yield curve predictions in the fixed income domain.

02

EQUITY MARKETS

Aids in stock selection and hypothesis testing, providing an edge in equity market investments.

03

ALTERNATIVE DATA ANALYSIS

Leverages unconventional data sources for deeper market insights and trend predictions.

04

CLUSTERING AND SENTIMENT ANALYSIS

Employs advanced clustering techniques and sentiment analysis for more nuanced financial forecasting.

BENEFITS:

RISK MITIGATION

Reduces the risk of investment strategies by providing thoroughly tested hypotheses.

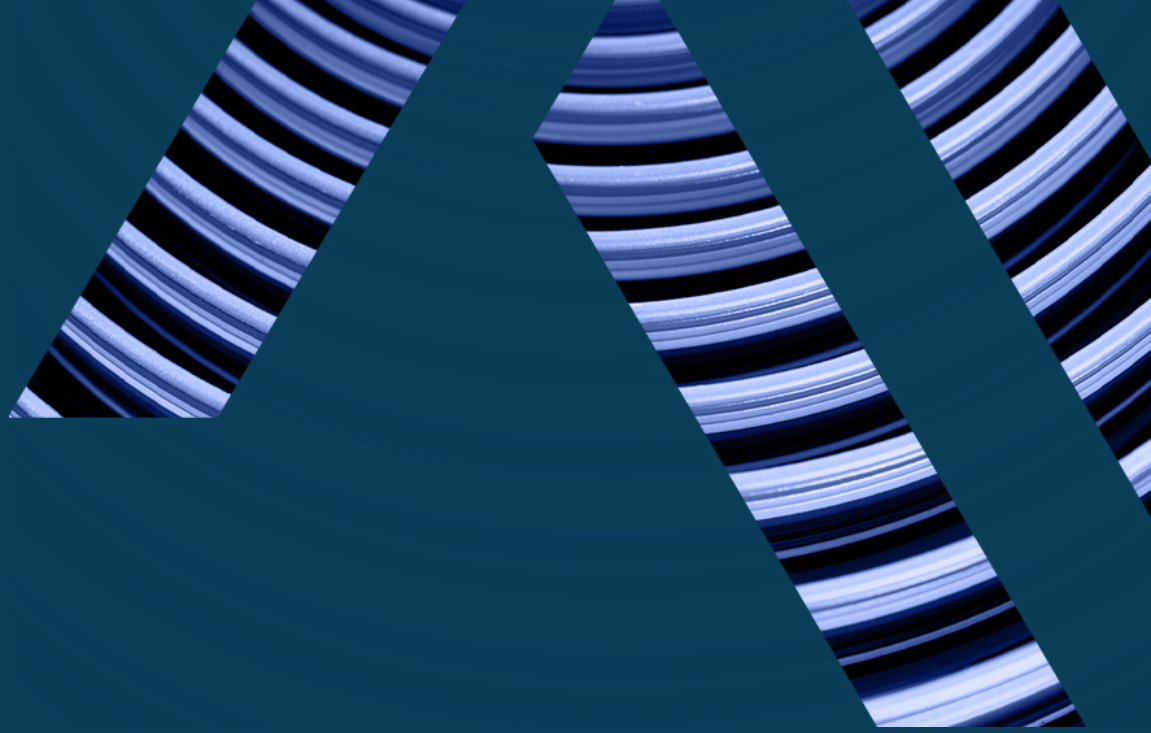
ENHANCED PREDICTIVE ACCURACY

Offers higher accuracy in financial predictions by eliminating biases.

ADAPTABILITY

Customizable to specific financial scenarios, providing tailored solutions for diverse needs.



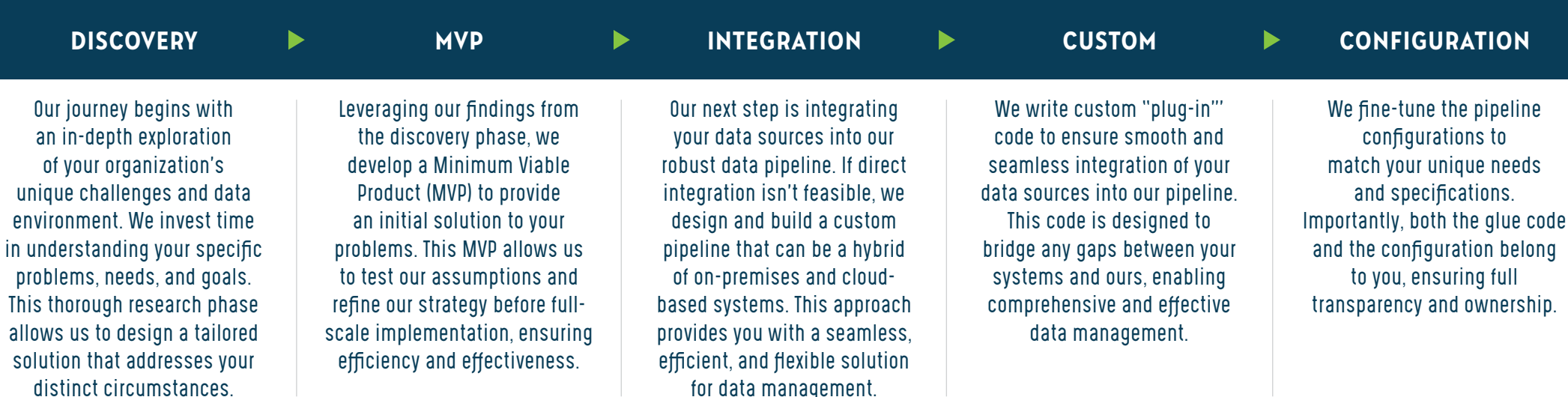


05

PRICING

5.1 Fee Structure

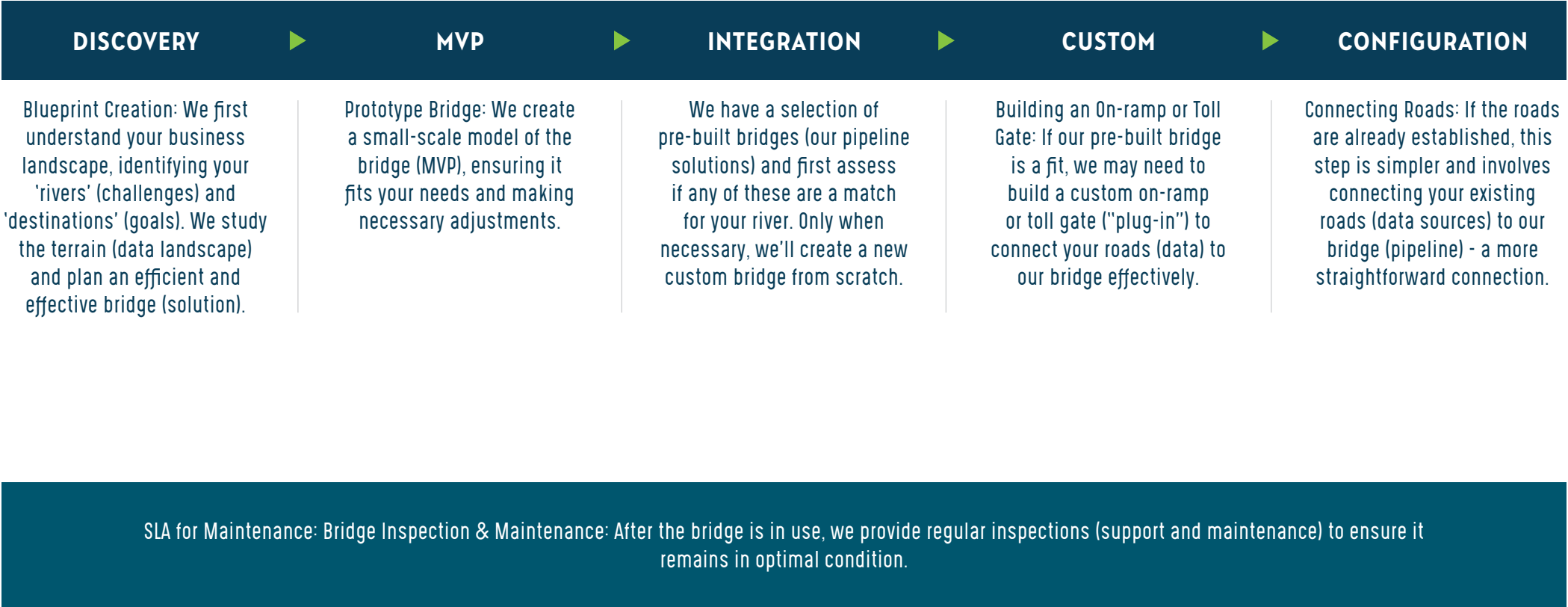
5.1.1 Value Components



SLA for Maintenance: After the pipeline is established and operational, we provide a SLA for ongoing maintenance and support. This ensures that your data pipeline remains efficient, up-to-date, and continuously aligned with your evolving business needs.



5.1.2 A Bridge Construction Analogy



5.1.3 Component Pricing

DISCOVERY	MVP	INTEGRATION	CUSTOM	CONFIGURATION
This phase is charged as a flat consulting fee. The fee would cover the time and expertise required to understand the client's business, their data landscape, and identify their needs.	Pricing for this stage is project-based, taking into account the complexity of the MVP, the time it will take to develop, and the resources needed.	The fees for integration is project-based, factoring in the complexity of the integration, the custom code required, and the resources needed for the task.	The creation of custom glue code is charged as a separate line item within the project, taking into account the complexity of the code and the time required to develop it.	The configuration work could is charged as a separate line item within the project, depending on the complexity of the configuration needed and the time it takes.

SLA for Maintenance: For ongoing maintenance and support, we use a retainer model, where the client pays a regular fee (monthly or annually) for a predetermined level of support and service.





06

CONCLUSION

6.1 Why use Arkane?

EXPERIENCE

Arkane's diverse, hands-on expertise in data handling equips us to streamline heterogeneous data sources.

TEAM DYNAMICS

Tom provides the executive vision, Zander masters data transformation, and Hedley ensures data extraction at scale.

OPEN-SOURCE FOCUS

We prioritize cost-effective, trustworthy, and regularly updated open-source solutions.

CLIENT-CENTRIC

Clients own the configuration and plug-in "glue" code, ensuring business continuity.

TOOLS ASSESSMENT

We evaluate your existing tools, fill in gaps, and replace inefficient components.

EXPERTISE

Data Extraction & Loading:
Backed by 16 years of HR's intensive experience.

EXPERTISE

Data Transformation:
Zander's forte, fortified by 5 years in the field and ongoing Ph.D. research.

EXPERTISE

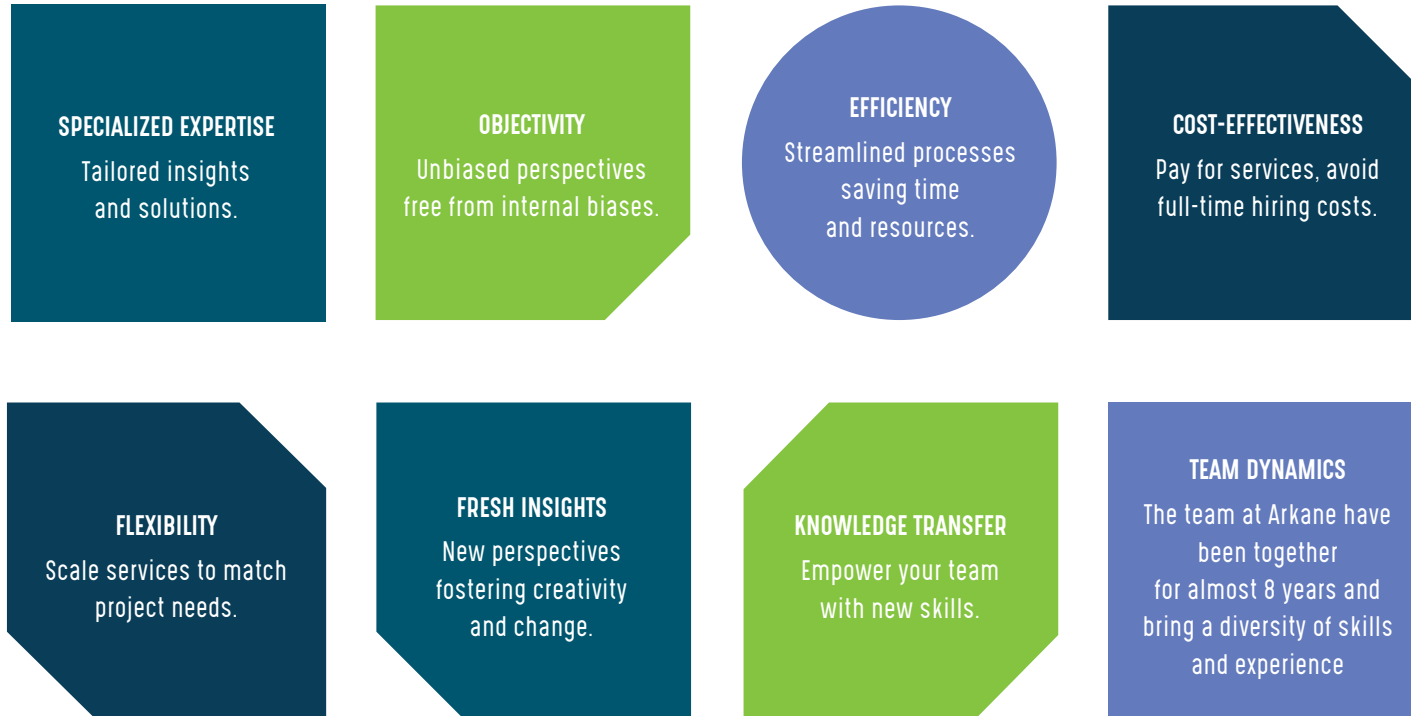
Interpretation: Tom's 27 years of diverse business experience fuels insight.

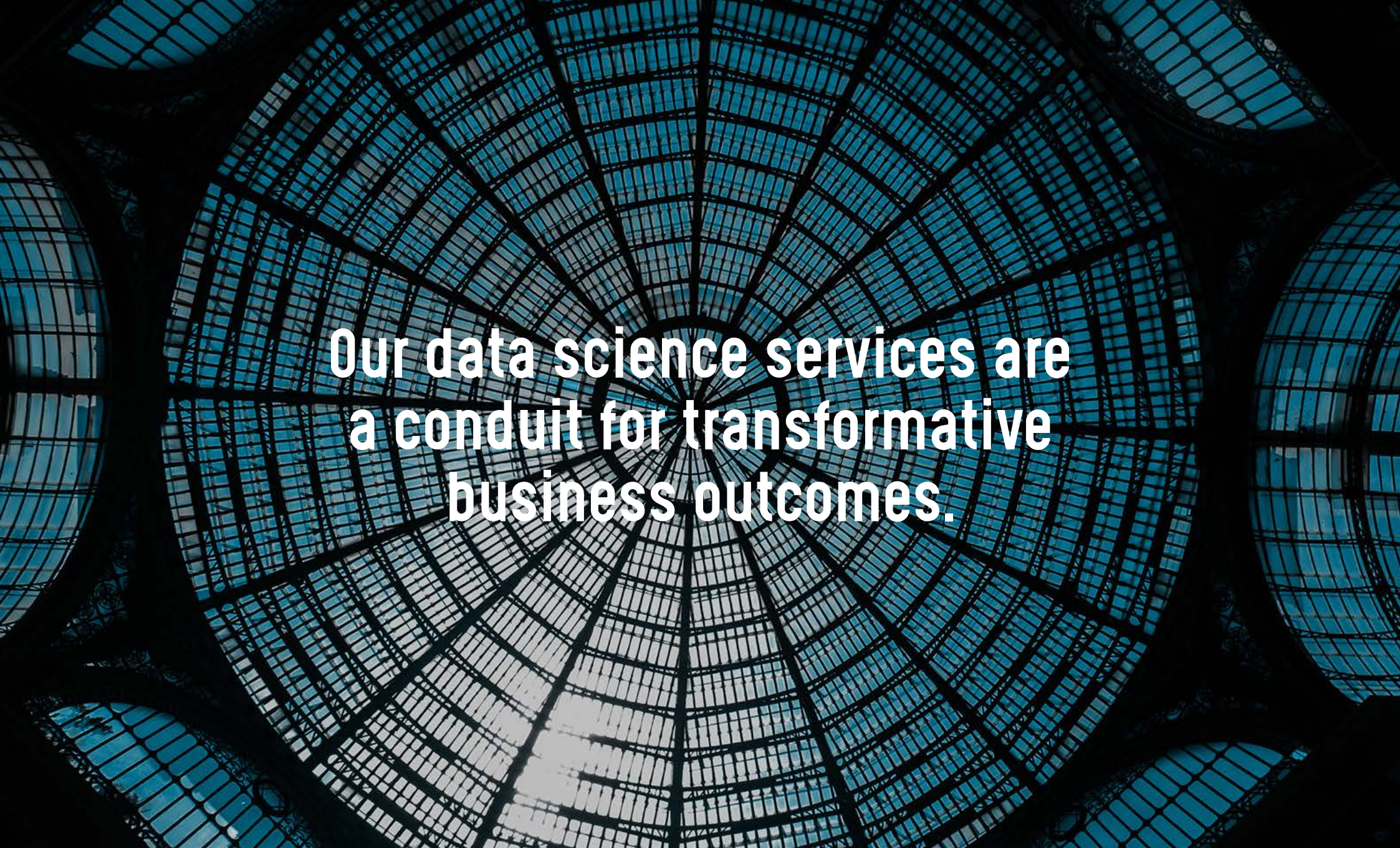
KNOWLEDGE TRANSFER

Hands-on skills impartation for clients needing skill enhancement, backed by years of tutoring and internships.



6.2 The Strategic Advantage of Arkane





**Our data science services are
a conduit for transformative
business outcomes.**



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