



EMPIRICS
Credentials Pack



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Empirics Marketing Pty Ltd A.B.N. 16 115 085 820



Connecting people with their assets

Link Group connects millions of people with their assets including equities, pension and superannuation, investments, property and other financial assets. We do this by partnering with thousands of financial market participants to deliver services, solutions and technology platforms that enhance the user experience and make scaled administration simple.

We help manage regulatory complexity, improve data management and provide tools to help people connect to their assets, leveraging analysis, insight and technology. Our core businesses are complemented by our expertise in digital solutions and data analytics, and enable us to provide a complete service to our global network of clients and partners, across the following divisions:

- Retirement & Superannuation Solutions
- Corporate Markets
- Fund Solutions
- Banking & Credit Management



Founded in 2004, Empirics became part of the Link Group in 2012 and is part of the Retirement & Superannuation Solutions Division.





End to End Data Solutions Provider

Empirics is a leading data solutions provider specialising in building integrated data platforms and tailored analytics solutions for our clients across a wide range of sectors. We provide innovative, flexible and cost-effective solutions to meet the unique requirements of each of our clients - using a best of breed cloud technologies, sophisticated data integration techniques and machine-learning based modelling and analytics.



Data Platforms

Instant improvements in operational efficiencies with cloud platforms

Using secure cloud-hosted data technologies Empirics will design a solution for your specific requirements. We can rapidly create your desired data ecosystem and connect all your existing data sources and customer touch points into a cohesive network that drives intelligence and value for every business stakeholder and highly relevant, personalised experiences for your customers.



Data Intelligence

Drive growth and customer service through data insights and innovation

Empirics provide Data Science and Analytics solutions for a wide range of Industry sectors to drive customer growth, retention, and engagement strategies.

With our heritage in financial services, our Data Science and Analytics teams are specialists in a wide range of Machine Learning and AI data modelling techniques, predictive analytics, data visualisation and sector specific problem solving.



Master Data Management

Foster a data-driven culture in your organisation

We specialise in helping you Modernise your 'Data Estate' and build a trusted data culture, enforce data quality and governance standards, identify, and resolve data issues.

Our custom Master Data Management solutions help our clients facilitate and manage the complexities surrounding data strategy and the responsibilities of your Data Stewards.



Empirics is a Microsoft Gold Partner (Data Analytics & Data Platforms)

Extract the maximum value from your data

We deliver guidance and hands-on expertise in your transition to a data-optimised business. We work closely with our clients to develop a tailored roadmap and solution that ensures you fully leverage all your available data assets and address critical gaps, setting you up to drive growth, provide better service to customers and continually improve operational efficiency.



Data Platforms

Data Platforms for instant improvements in operational efficiencies with best of breed cloud technologies

Empirics leverage our Microsoft Gold Partnership and Azure cloud technologies to build integrated Data Platforms and Modern Data Warehousing solutions that connect all your data assets into a secure, living data ecosystem - built to your individual requirements.

The Data Platform drives your strategic and business objectives, delivering the hosted environment to:

- Ingest multiple data sources and data feeds from inside and outside your business
- Stage and transform the data into a single customer view data model
- Provision your integrated and optimised data for analytics and insights
- Dynamically connect your data to multiple applications

Sector-Specific Integrated Data Models

Empirics have over 15 years' experience in building large scale, fit-for purpose integrated data models that give you the single view you've always dreamed about. The integrated view of your data is the true heart of your business intelligence, driving your dashboards, feeding other platforms, operationalising your predictive models - by drawing all the intelligence out of your data sources and putting it into the hands of those who need it.

Using a range of data integration and data science techniques like Bayes Matching, this data model is also designed to feed triggers and insights to third party applications such as websites, mobile apps, your CRM and or marketing platforms. We provide the ability to securely connect systems, analytics platforms and externally hosted applications with Connectors and APIs working seamlessly with your Data Platform.

Client Innovation Area

Flexible data access is a key focal point for an independent and evolving data strategy. With that in mind, Empirics have developed the Client Innovation Area (CIA). The CIA environment gives users the ability to access your productionised data environment, load and integrate your own third-party data sources.

Users can independently explore, build visualisations with your tool of choice tools (e.g. SQL, R-Studio, Tableau, Power BI) or run hypotheses, build and train your own models with access to multiple languages like R or Python. It's your own R&D laboratory. Users have the option to utilise their preferred tools and languages for analysis and provided the permission to upload ad-hoc data sets for research.



Data Intelligence

Drive growth and customer service through data insights and innovation

Empirics' Data Intelligence capabilities fall into two distinct categories - 1) Data Analytics, and 2) AI and Machine Learning. Both leverage integrated data environments that contain multiple customer and transactional data sources integrated into 'single customer view' data models.

Data Analytics Capabilities

Dashboard & Data Visualisation

- Strategic KPI Reporting
- Reporting Automation
- BI Tool Evaluation
- Reporting Consolidation and Conversion

Data Insights & Analytics

- Financial Advice Attribution
- Design and Distribution Obligation (DDO) Reporting and Analysis
- True NPS
- Customer Engagement Index
- Customer Sentiment Index
- Customer Journey Mapping
- Marketing Campaign Attribution
- Project Consultancy & POCs

Advanced Analytics

- Data Quality & Anomaly Detection
- Time Series Forecasting
- Project Consultancy & POCs
- Marketing Campaign Attribution

We leverage best of breed data visualisation software across Tableau and Power BI to deliver insights direct to users in the way they want to receive them, with established engagement frameworks and agile project management methodologies.

Self Service Reporting and Analytics

We have developed a comprehensive suite of self-service reporting and analytics tools and functions that allow our clients to independently manage their analytics requirements for strategic independence and the ability to manage key functions internally as required.

AI and Machine Learning Capabilities

- Customer Churn Modelling (e.g. Propensity to Defect)
- Likelihood to purchase a product or service (e.g. Propensity to Take Advice)
- Customer Projected Value
- Customer Segmentation
- Investment Switching Analysis and Forecasting
- Next Best Interaction modelling
- Feature Engineering and Modelling Data Sets

Empirics are specialists in cutting-edge Machine Learning (ML) techniques and algorithms to drive member focused outcomes. We leverage best of breed cloud technologies for modelling including Azure Machine Learning and Synapse, and are proficient in programming languages including Python and R.

Our modelling capabilities extend across Supervised and Unsupervised Machine Learning techniques - with established engagement frameworks to uncover and drive the best strategic outcomes around retention, growth, engagement and resource efficiencies.



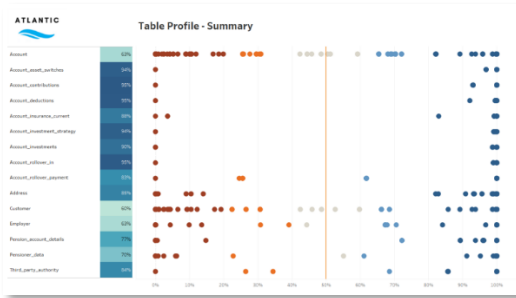
Master Data Management

Foster a data-driven culture in your organisation

Our custom Master Data Management (MDM) solutions are designed to drive deep engagement with your data, providing the tools and platforms for your people to manage data quality, data governance and change management.

Utilising data quality and integrity frameworks, our MDM solutions are designed to enable Data Stewards within your business access to rules-based decisioning tools that are connected directly to your data ecosystem and data model.

MDM Data Stewardship Modules - Empirics provide online user interfaces for Data Stewards to interact with and analyse data quality and matching rules, together with access to Data Glossaries and data quality reporting functions.



Rule analysis

This dashboard shows a list of rules and their associated data quality metrics. The table includes columns for Rule ID, Rule Name, Table, Field, and a bar chart representing the number of violations. The rules are listed as follows:

| Rule ID | Rule Name | Table | Field | Violations |
|---------|----------------------------|---------|--------------|------------|
| 1 | Phone - check format | Account | Phone_number | 140 |
| 2 | Verify phone area code | Account | Phone_number | 14 |
| 3 | Verify phone number length | Account | Phone_number | 107 |
| 4 | Verify phone number | Account | Phone_number | 108 |
| 5 | Verify phone number | Account | Phone_number | 110 |
| 6 | Verify phone number | Account | Phone_number | 111 |
| 7 | Verify phone number | Account | Phone_number | 112 |
| 8 | Verify phone number | Account | Phone_number | 113 |
| 9 | Verify phone number | Account | Phone_number | 114 |
| 10 | Verify phone number | Account | Phone_number | 115 |
| 11 | Verify phone number | Account | Phone_number | 116 |
| 12 | Verify phone number | Account | Phone_number | 117 |
| 13 | Verify phone number | Account | Phone_number | 118 |
| 14 | Verify phone number | Account | Phone_number | 119 |
| 15 | Verify phone number | Account | Phone_number | 120 |
| 16 | Verify phone number | Account | Phone_number | 121 |
| 17 | Verify phone number | Account | Phone_number | 122 |
| 18 | Verify phone number | Account | Phone_number | 123 |
| 19 | Verify phone number | Account | Phone_number | 124 |
| 20 | Verify phone number | Account | Phone_number | 125 |
| 21 | Verify phone number | Account | Phone_number | 126 |
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| 97 | Verify phone number | Account | Phone_number | 202 |
| 98 | Verify phone number | Account | Phone_number | 203 |
| 99 | Verify phone number | Account | Phone_number | 204 |
| 100 | Verify phone number | Account | Phone_number | 205 |

| Column name | Data type |
|---|-----------|
| account_summary_required | varchar |
| authentication_method | bigint |
| auto_match_by_payment_reference_only | varchar |
| auto_match_by_over_payment | varchar |
| automated_potential_contribution_method | varchar |
| backdate_reason_code | varchar |
| billed_line_count | money |
| billing_type | varchar |
| bpsy_billor_code | varchar |
| bpsy_customer_reference_number | varchar |
| cash_received_data | datetime2 |
| current_line_count | money |



Data Security & Accreditation

ISO27001 Certified



Empirics employ strict data security controls across all our data technologies and assets. We are certified in the global ISO27001:2013 Information Security Management System framework and adhere to the GDPR and CPS234 standards. We are part of the Link Group global standard in Security, Monitoring, Logging and Identity Access management, including Provisioned Access Management (PAM) via OKTA.



Client Focused Partnerships

We are partners. Our focus is to be a dynamic business partner that uses our internal specialists and best of breed technologies to help you achieve your organisation's strategic goals and help you meet your KPI's. Using a consultative framework, we approach our clients' needs through structured methods to best understand your requirements and then apply the best solution for you. We believe that the best model for successful engagement is a phased approach that generates a clear understanding of the problem to solve and the definition of use cases where the solution is applied.



The Empirics Team

With core offices in Melbourne, Sydney, London and Mumbai, our 40+ staff are based in Link Group offices fulfilling the Executive, Operations, Analytics, Development and Sales functions.



Darrell Ludowyke
Chief Executive
Officer



Bill Kelso
Director & Head of
Operations
(London)



Shan Dawe
Head of Operations
(APAC)



Martin Harris
General Manager
Strategy &
Partnerships



Gigu George
Head of Business
Intelligence &
Analytics



Jessica Beresford
Head of Client
Engagement



Luke Smith
Head of Enterprise
Architecture



Peter Mah
Head of DevOps



Ash McLellan
Head of Data
Architecture



David Corcia
Head of Sales



Industry Solutions: Financial Services & Pension (Super)

With over 15 years' experience in the Financial Services and Superannuation sectors in both Australia and Europe, Empirics is at the forefront of developing industry specific solutions to maximise the value of data. We specialise in the provision of analytics and data science services for Pension and Super funds, Banking and Credit Management and Investor Analytics.

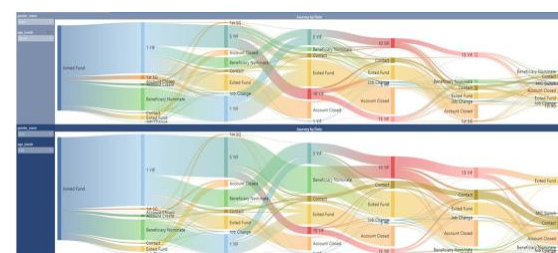
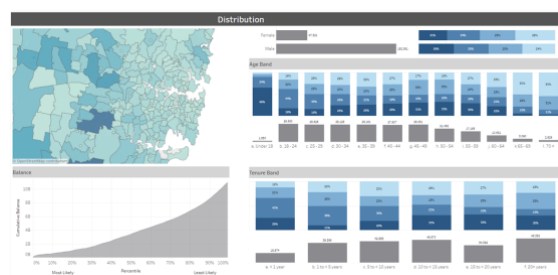
Automated Reporting - Empirics have automated the reporting for dozens of super funds, together with the automation of AGM Services and Investment Reporting to listed companies and fund managers - delivering huge productivity gains for our clients. Bringing data together from all sources and delivering insight into the hands of stakeholders faster, we automate highly manual reporting processes with no manual intervention required once implemented.

Industry, Member and Employer Analytics - Empirics can supercharge our client's understanding of member and employer behaviours as well as keeping abreast of trends across the wider pension industry.

Investment Analytics - We work with Fund Managers and Listed and Unlisted companies to integrate investor data and third-party data sources to analyse investor behaviours, regulatory compliance, generate true ROI on investor engagement activities and broker and holder insights.

Data Science and Consulting - our Data Science and Consulting teams specialise in a wide range of modelling techniques using best of breed tools and techniques. We provide our Financial Services and Superannuation clients with a wide variety of insights that focus on customer outcomes, including data clustering and segmentation, and predictive analytics focused on customer defection, engagement and cross-sell. In addition we provide customer journey mapping and the ability to pinpoint a customer's next best action or conversation.

Campaign and Financial Advice Attribution - Through the integration of multiple siloed data sources, we generate true ROI on marketing and customer engagement activities - such as the value of financial advice and whether individuals follow through with the advice provided. Using data matching techniques, we create the ability to generate attribution models that verify the value of individual activities and return on investment from suppliers and third party providers.





Industry Solutions: Professional Sport

Empirics arrived in the Professional Sports arena around 4 years ago. The explosion of athlete data, wellness data, scouting data, customer data and wearables meant sporting clubs needed fully integrated solutions beyond what was available in the traditional sports sector. Empirics partners with some of Australia's elite AFL clubs to give them the crucial competitive edge.

Data Integration and capture - We have revolutionised the Athlete Management System (AMS) landscape and developed customised data capture and integration systems for professional AFL clubs to deliver an entire data ecosystem.

Automated Reporting - Empirics have constructed integrated data models that automate manual performance metrics reports for AFL clubs to deliver huge productivity gains.

Recruitment Analytics - our Recruitment Analytics module combines multiple player statistics data sources to produce rapid and meaningful talent analysis and incorporates 'intuition', allowing talent scouts to supply automatically organised notes and commentary to classify the perfect talent mix for their club.

High Performance Player Analysis - harnessing the speed, tools and scalability of cloud technology, we've created a highly flexible Player Analysis solution that integrates every data source and provides the tools analysts, coaches and medical staff need to get tailored real time insights, from player wellness and training inputs on any mobile device through to sophisticated data science tools in a single, seamless solution.



Industry Solutions: Wellbeing

Your people are your greatest asset. We have developed a range of tailored solutions that measurably drive staff engagement and improve wellbeing, through to advanced real-time travel analysis management that will reduce costs and deliver insights to your desktop. Our Wellbeing solutions (incorporating Travel and Mobility) are designed to maintain a productive and optimised workforce.

Staff Mobility and Travel Analytics - integrates seamlessly with major GDS systems as well as Corporate Cards and back-office expense systems for a complete view of every trip and a true single view across your business to deliver up to the minute insights and maximum cost savings.

Travel Wellbeing and Quality Analytics - designed to derive the true impacts of travel on your workforce's health and wellbeing by integrating travel, HR and wellness data. Our clients use this solution to get live quality ratings at all key stages of their travel experience and ensure travellers have a direct 24/7 communication link to their travel department.

Corporate Engagement and Wellbeing (Mobile Gamification App) - the wellbeing of staff is now a full time priority for all businesses. 'HealthChase' our partners in engagement and wellbeing service some of Australia's largest diversified workplaces, like Australia Post and BP using highly engaging gamification techniques delivering state-of-the-art Workforce Care.

Case Study: Financial Services & Superannuation

Super fund of 1 million + members

Empirics hosts a highly secure, cloud-based customer data platform and delivers the integration of multiple administrative and communications data sources into a single member view. We've created an integrated data model focused on member and employer transactions and interactions that allows our client to access and provision data through analytics tools and a data engineering environment.

Key Outcomes:

- Single member view of all data sources developed and provisioned for the fund to leverage business and operational processes together with strategic decision making and analytical functions
- Automated reporting for Strategic KPIs and operational metrics via Tableau
- Modelling and deployment of a member retention predictive algorithm
- Provision of retention metrics and triggers for campaigns and member targeting
- Provision of web-based analytical tools and applications to empower internal BI teams

Case Study: Financial Services

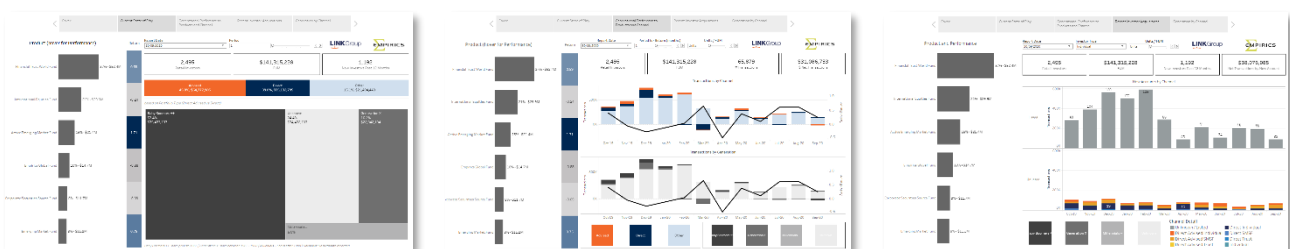
Leading International Fund Manager

This fund manager approached us based on their need to generate a holistic view of their investors across multiple systems for analysis and regulatory compliance. It involved integrating multiple investment and registry data sources into a single 'investor' view data model.

Following this, we built and developed a suite of Investor Analytics insights dashboards together with a series of Design and Distribution Obligations (regulatory) analysis that were interactive and filterable for users, and focused on deep analysis of shareholders, broker analysis and the inclusion of third-party enrichment data sources - all in one highly secure and structured location with self-service guides and user permission access management.

Key Outcomes:

- Complete, integrated, and interactive single view of Shareholders and Brokers
- Automated analysis of regulatory requirements and investor insights



Case Study: PROFESSIONAL SPORT

Carlton Football Club - AFL

Carlton Football Club now have a single data ecosystem which encapsulates High Performance, Medical, Recruitment, Coaching, and Administration and is shared across departments where required.

"We reviewed the global solutions available, and Empirics is by far the most comprehensive and customisable platform that allows us to truly leverage all of our data for performance analytics"



The main return on investment for Carlton has been seen in time saved. Historically, resources would have to capture data, manipulate data, and then present the data in reports for the rest of the organisation.

With Empirics' data ecosystem data is captured, automatically fed into the data model and then results are instantly presented to the organisation through custom designed data visualisations and reporting. Depending on the workload for the week, this has been seen to save a full day of a resource's time per week.

A single source of truth for data ensures the data inside the model is the correct and most up to date source. Collaboration between departments has increased greatly as a result.