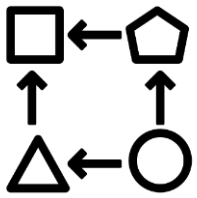
CadDo™

Cost-to-Serve with CadDo Calculate

January 2021

Our business



CadDo Transformation

Technical expertise in data integration and business modelling with unique cross-functional skills



CadDo Calculate

Class-leading calculation Software as a Service (SaaS) running on Microsoft's global Azure platform



CadDo Analytics

Helping clients make data-driven decisions and improve performance

Underpinned by:

- 24/7/365 availability on Microsoft's Azure platform, where we've been selected as a "Preferred Solution"
- All delivery team of cross-functional experts across all these areas, allowing our 3-step model to be delivered efficiently without separate resources. Setup to work remotely, ensuring resiliency & agility
- World-class delivery partners, in ESRI and Microsoft (co-sell Partner)

ABInBev Unilever Heineken acliam TÜRK TUBORG GROUPE RENAULT Asahi TESCO GRÄNDE DOT

CadDo Calculate®

The Capabilities

- Rules-based easy-to-change business and costing model
- Integrated reports with Power BI, Excel and other tools
- Consume data from any data source
- Fully traceable flow from source data to results
- Managed service, allowing business to focus on value and save time

The Benefits

- Granular financial analysis and P&Ls at any level (DC, SKU, Shift, Customer, Delivery, Order, Team etc.)
- Customer renegotiations with a focus on changing behaviour using cost and operational metrics
- Operational metrics, at any level, to drive performance improvement and management
- Segmentation, Pricing, SKU Rationalisation, Route-to-Market optimisation
- Predictive Costing, Anomaly Detection and Prescriptive Analytics

What You'll Get

Our Solution

- Fully customisable based on your changing needs & changing requirements
- Agile development, enabling new features to be added quickly (days/weeks, not months)
- Fully scalable – the solution will grow and develop with you
- Ongoing design of team-specific purpose-built dashboards, reports & simulation tools
- Fully hosted, with CadDo providing the technology and infrastructure

What You Do

- Load raw data as-is: no need to develop custom data extracts
- Define logic with us on a whiteboard or on paper – change it as frequently as needed
- Access fully auditable & traceable model logic and financial results all directly inside the application
- You focus on your business requirements, we do the rest as a fully managed service

Analytics Maturity Curve

CadDo will help along the journey with its out of the box platform, allowing a complex yet flexible business model and advanced analytics solution to be built

With the Calculate model as the backbone for historical and peripheral data, it will become possible to utilise data science to make decisions and take informed actions in a timely manner

Prescriptive

- *What should happen?*
- Which commercial actions should I take with my customers?

Predictive

- *What will happen?*
- How will my unplanned costs look next week and next month?

Diagnostic

- *What caused the problem?*
- Why is contribution low in this channel?

Descriptive

- *What Happened?*
- What does our performance look like last month and over history?



Supporting Digital Transformation



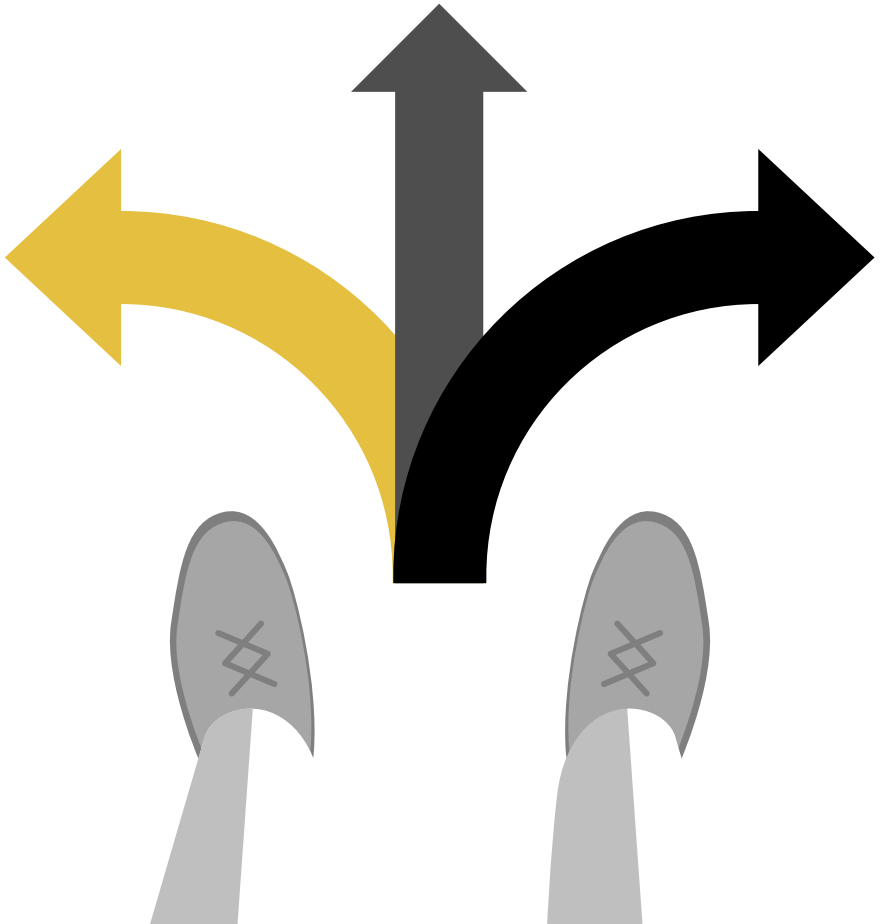
Using multiple systems to reconcile and report

CadDo brings everything in one place, traceable from source to results, all the business rules transparent, reports accessible anytime anywhere



Collecting information from other departments

CadDo ingests data from any source, automates data integration process, overlays it with an intelligent ETL that learns and improves over time



Not enough resources to manage workload

CadDo acts as an extension of your team, with an uber-responsive service, making changes and delivering requirements in a matter of days, not weeks or months





Introduction to Cost-to-Serve

What is Cost-to-Serve?

- Granular actionable cost and profitability information accessible to decision makers anytime anywhere
- Predictive analytics showing the impact of alternative decisions ahead of time
- Prescriptive analytics allowing proactive decision-making at high-speed, enabling higher ROI

How does it support Performance Management?

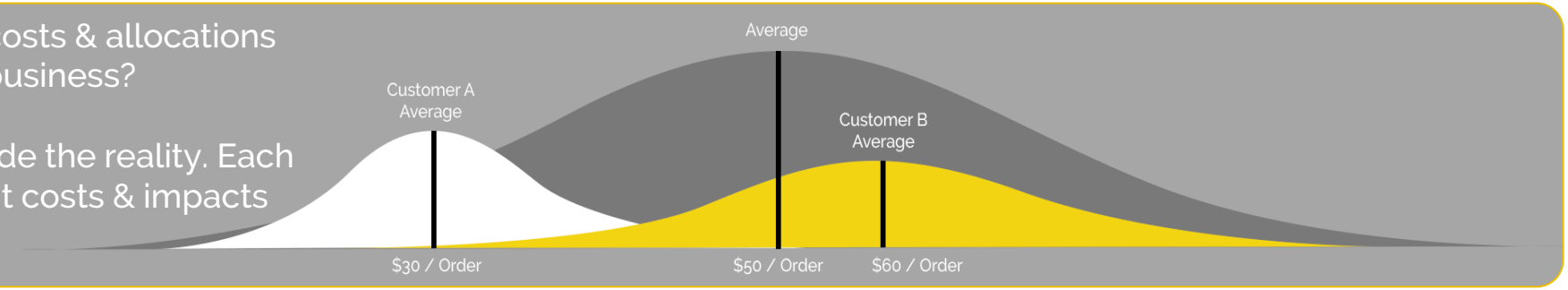
- Spotting opportunities / anomalies proactively, with a clear view of reasons and the impact of potential actions
- Enriched decision-making with automated KPI packs, reports and simulation tools
- Enabling cross-functional initiatives, using readily available granular data

What is the output?

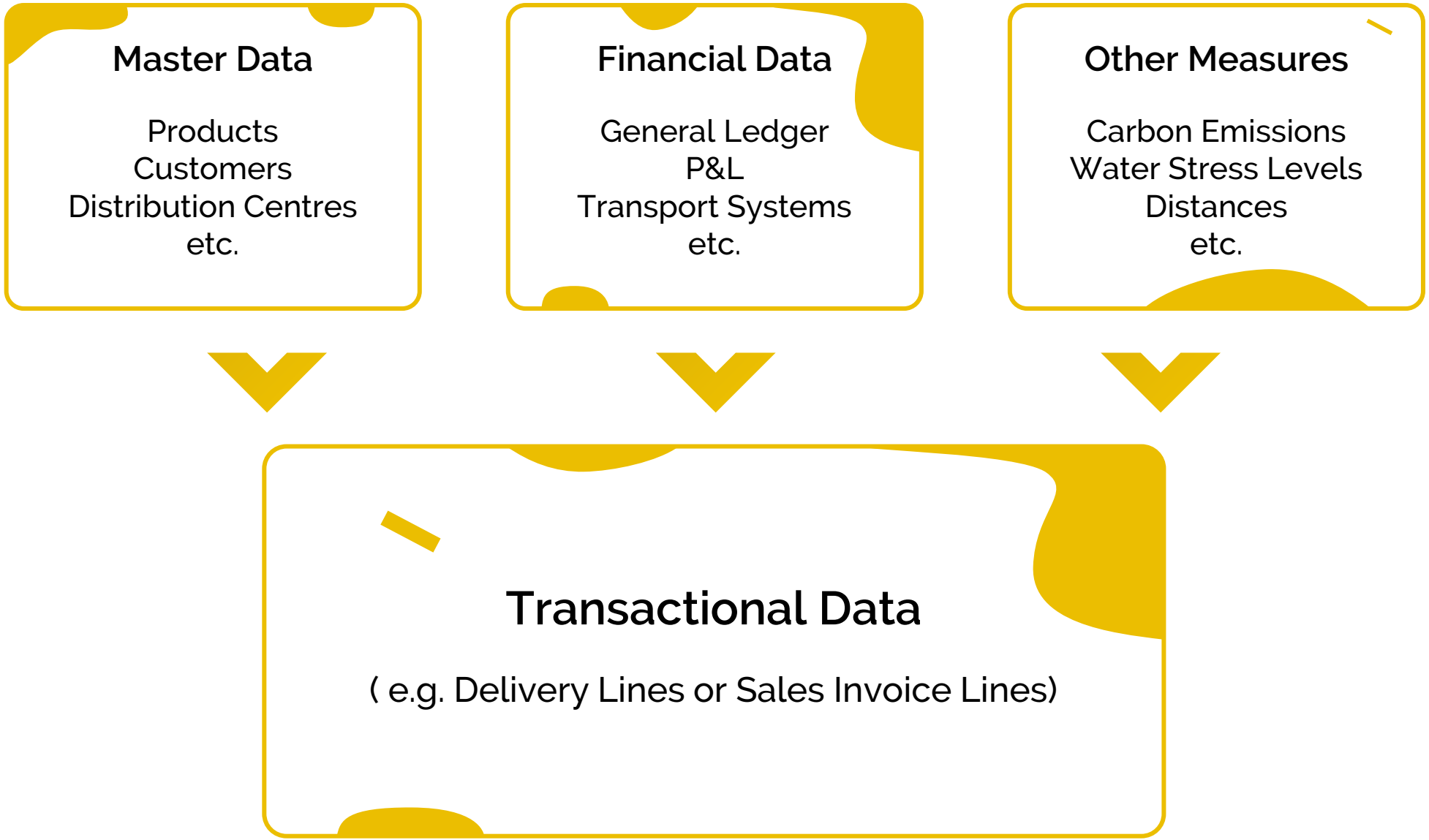
- A rich pool of data containing operational P&L, showing every business activity
- Accessible in Excel and Power BI (or other BI tools)
- In depth analysis, supported by CadDo, on the pressure points in your market
- Advanced analytics through simulations, what-if scenario analysis and data science layers

Question: Are standard costs & allocations enough to manage the business?

Answer: No. Averages hide the reality. Each customer drives different costs & impacts

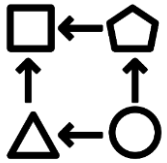


How it works: Logical equations allocate financial & other data to the lowest-level transactions



The logical data layers, delivering the full suit of steps between raw data processing and Analytics

Our cross-functional experts deliver all these steps efficiently without separate resources



CadDo Transformation

- Extract, Transform, Load clean data into CadDo Calculate
- An essential task at the start of the process to enable disparate data sources to be collated
- Business logic does not reside here: This is a data transformation process



CadDo Calculate

- Perform the logical calculations & allocations needed
- 100% of business logic sits here
- Allows understandable equations to be written & kept transparent
- Ensures logic is valid and dependencies maintained
- Allows for calculation logic changes to sit independently of source data



CadDo Analytics

- Acts as the user-facing layer
- Allows ‘approved’ data to remain static whilst the back-end model is adjusted or reprocessed
- Does not contain business logic.
- Attributes & measures come from the calculation engine
- OLAP cubes can be access by your BI tool of choice

The process to go-live

Design
(weeks 1-3)

Outline end-state reports & logic
(Fully remote via design calls)

Analyse required data
(100% CadDo)

Collate data, in currently available formats
(100% client-side)

Iteratively move between design & development phases

Development & Go-Live
(weeks 3-8)

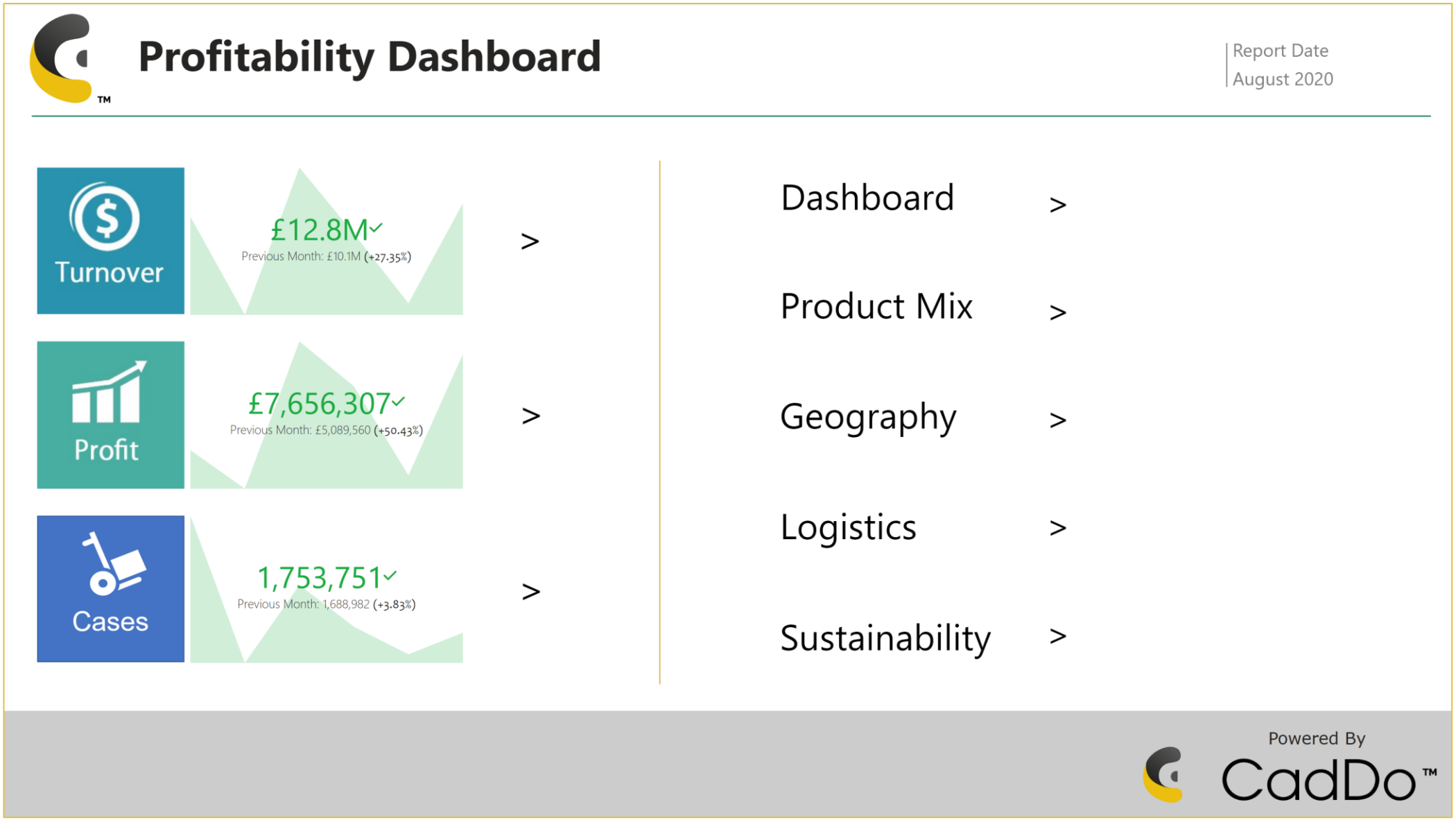
Build model
(100% CadDo)

Build reports
(100% CadDo)

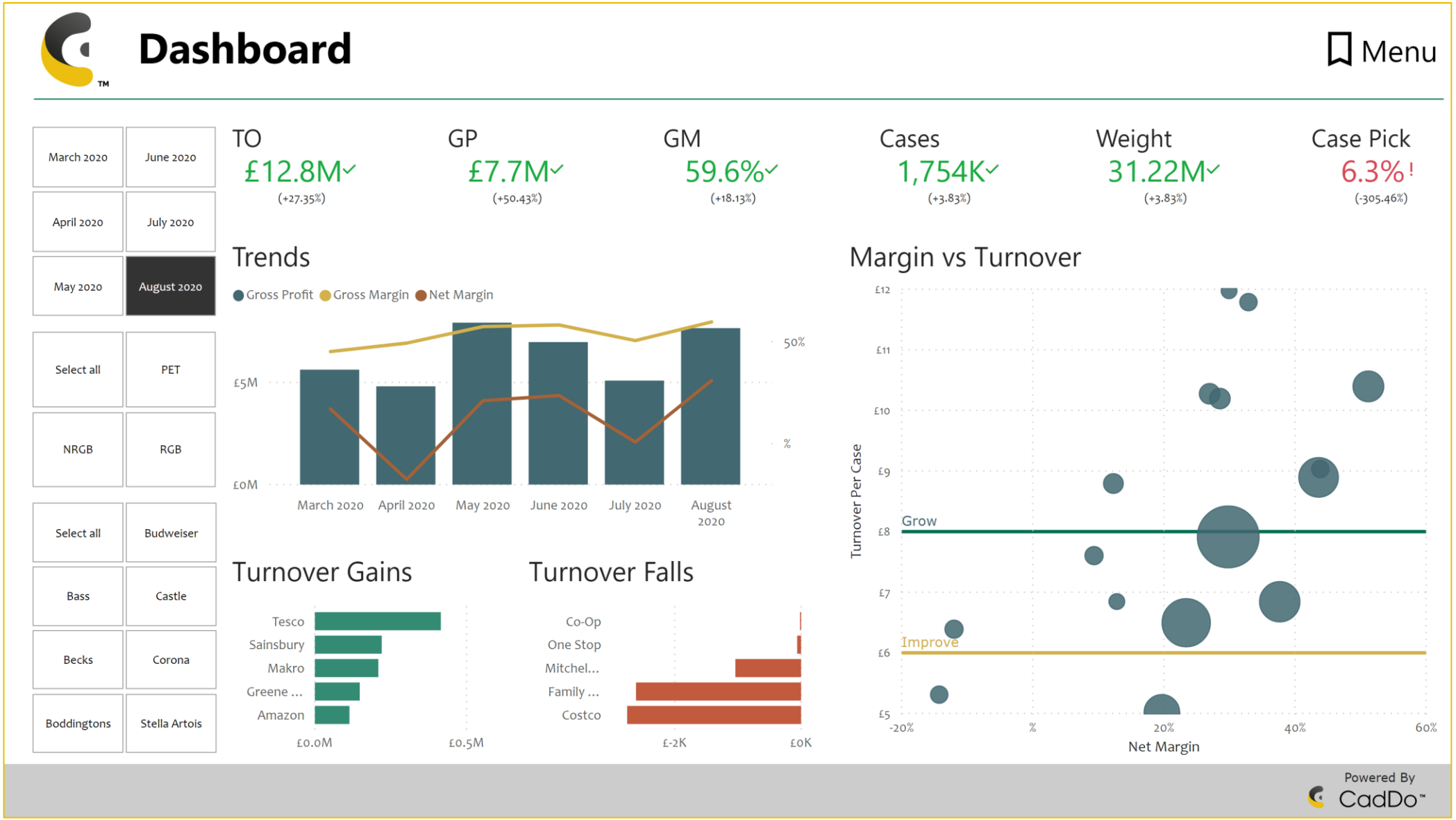
Review & approve reports
(Fully remote having calls as needed)

Example Screenshots

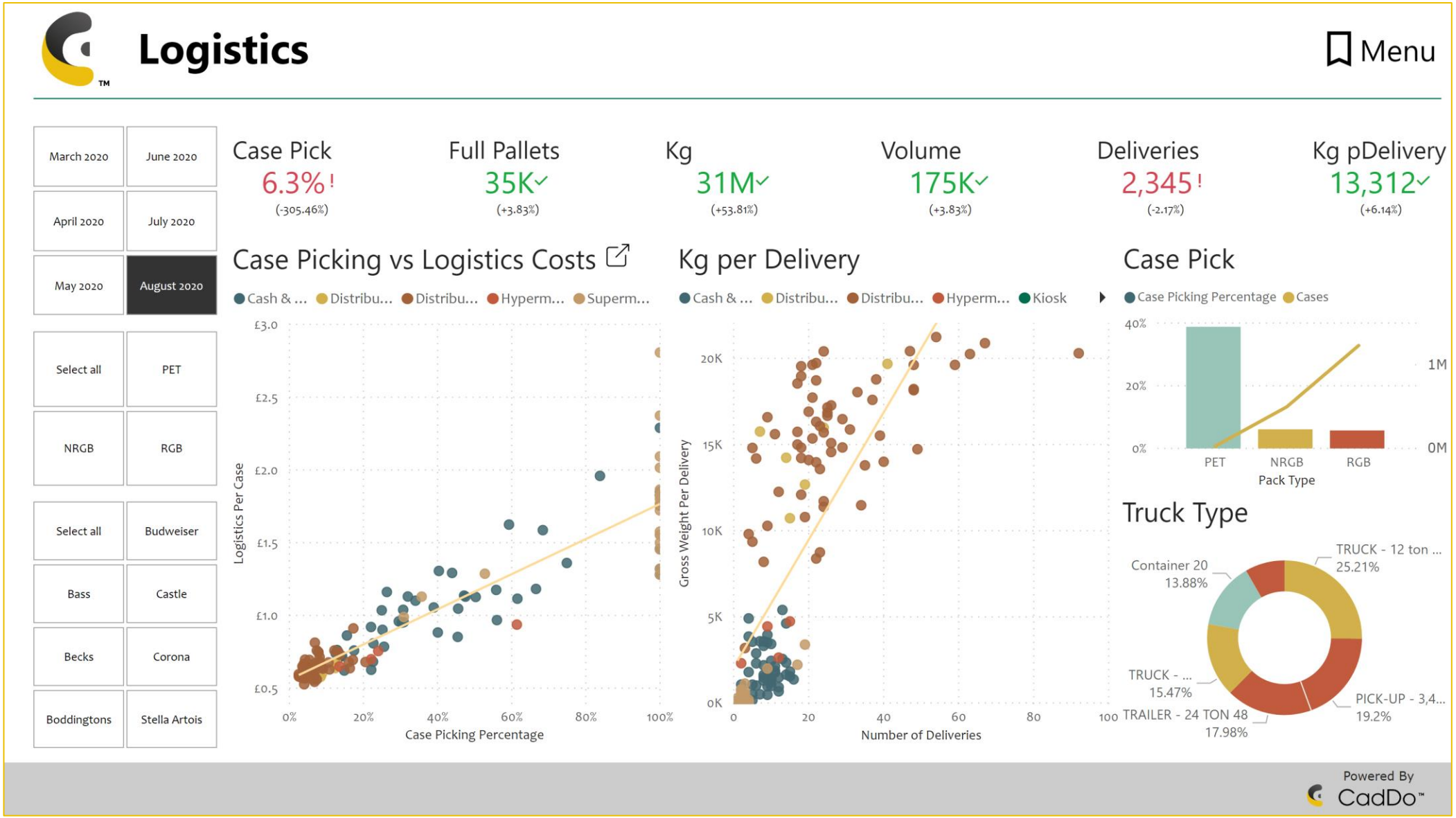
CadDo Analytics: Interactive Dashboards – Sample 1



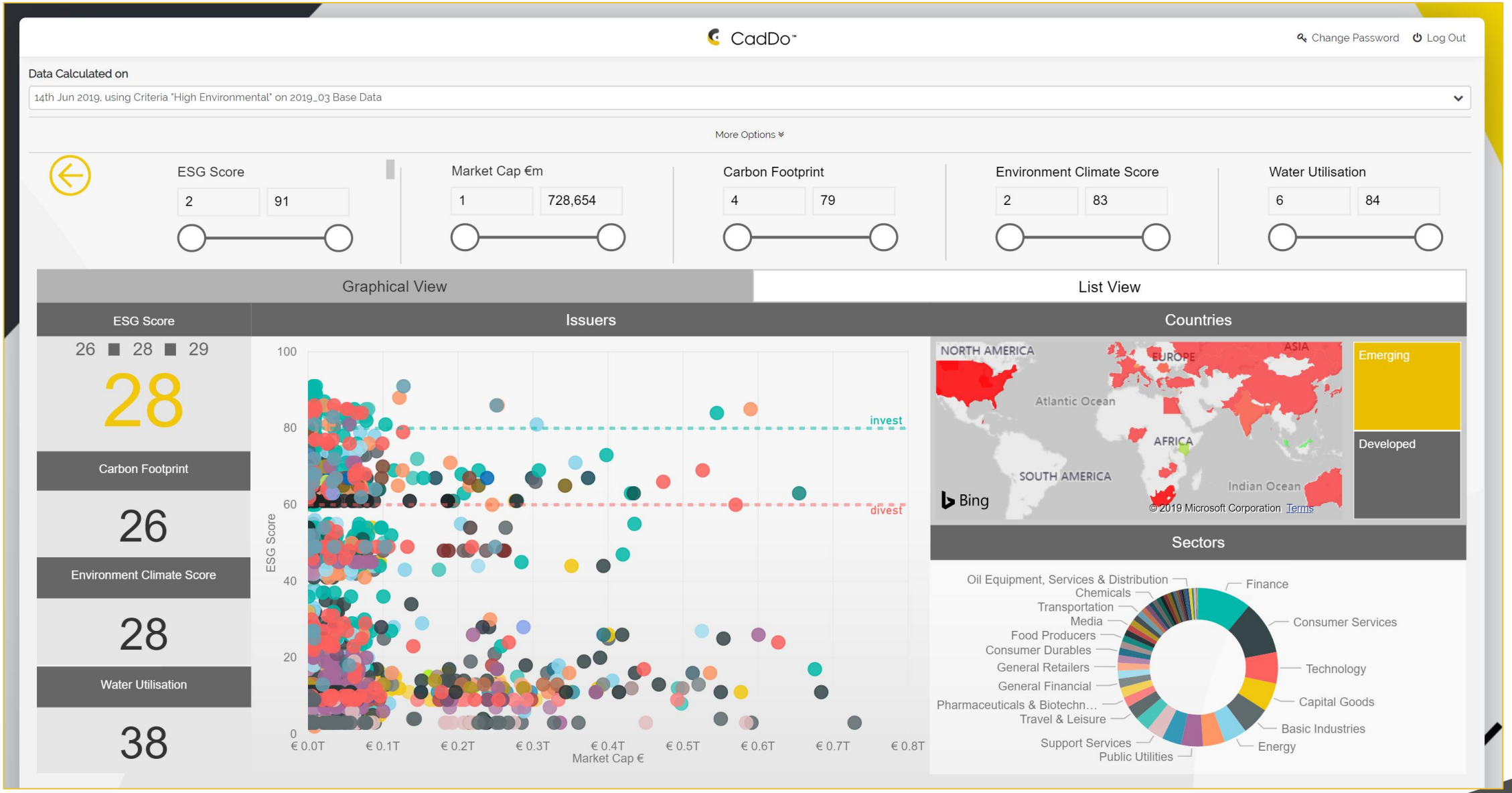
CadDo Analytics: Interactive Dashboards – Sample 2



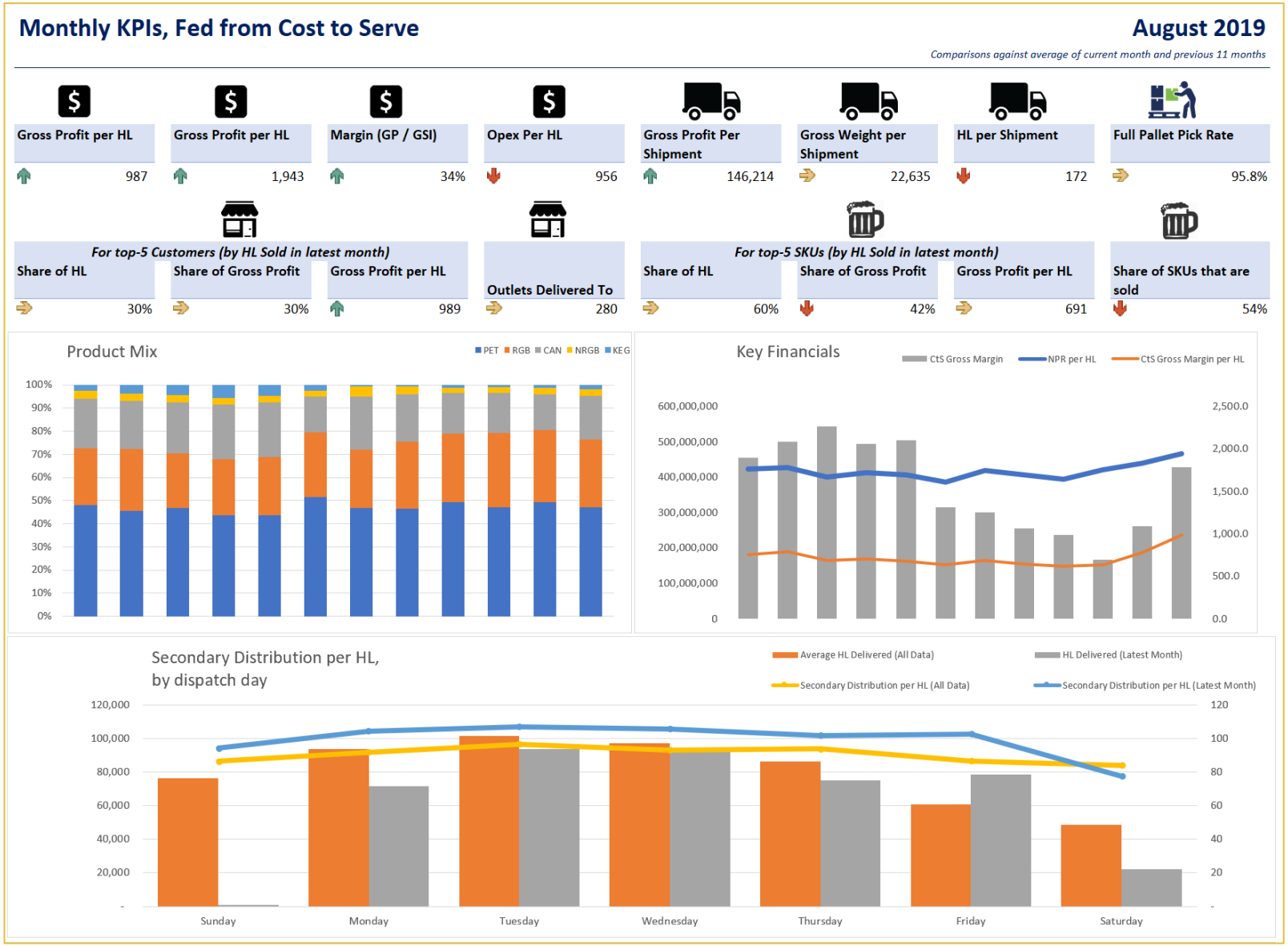
CadDo Analytics: Interactive Dashboards – Sample 3



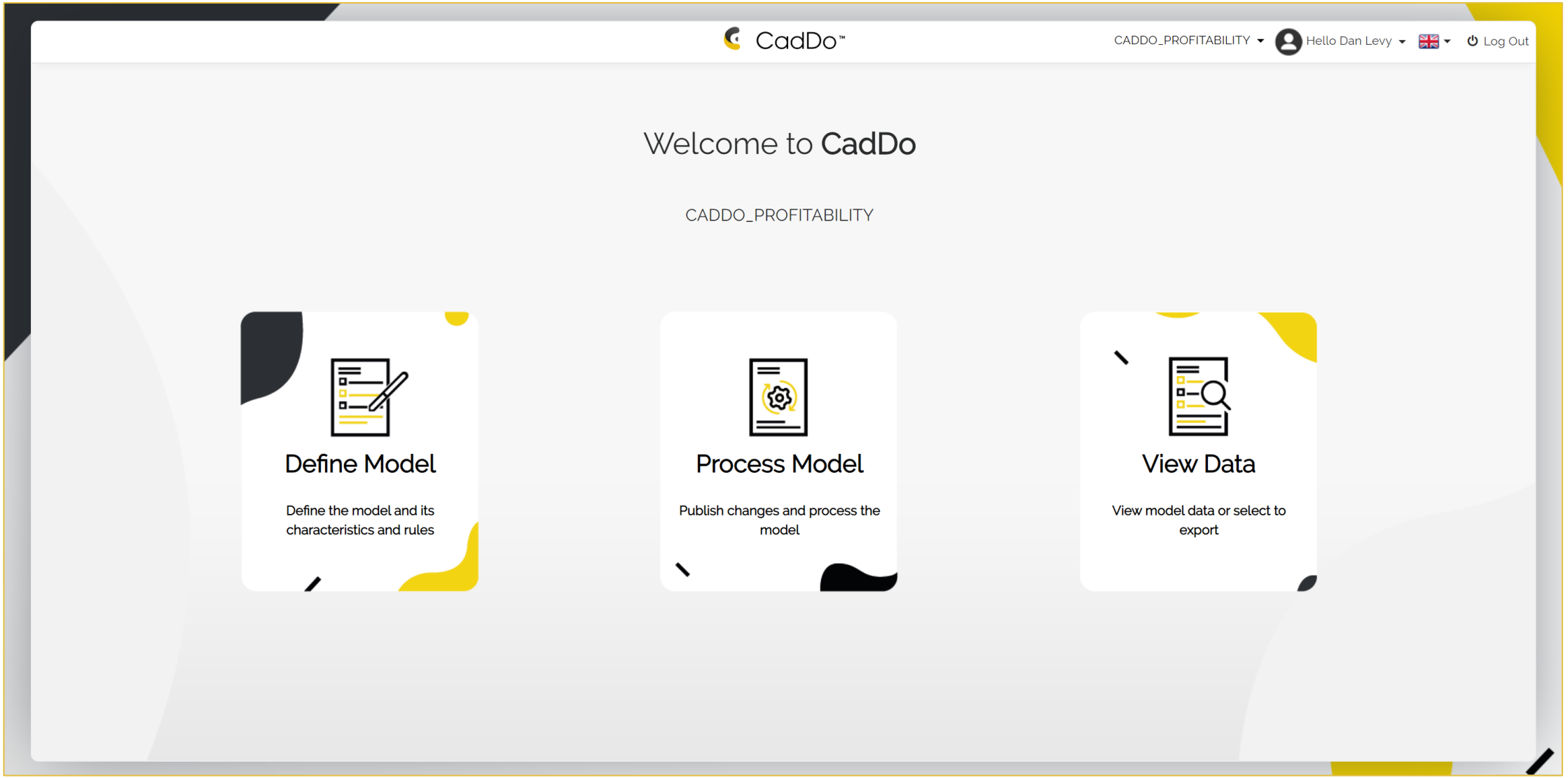
CadDo Analytics: Interactive Dashboards – Sample 4



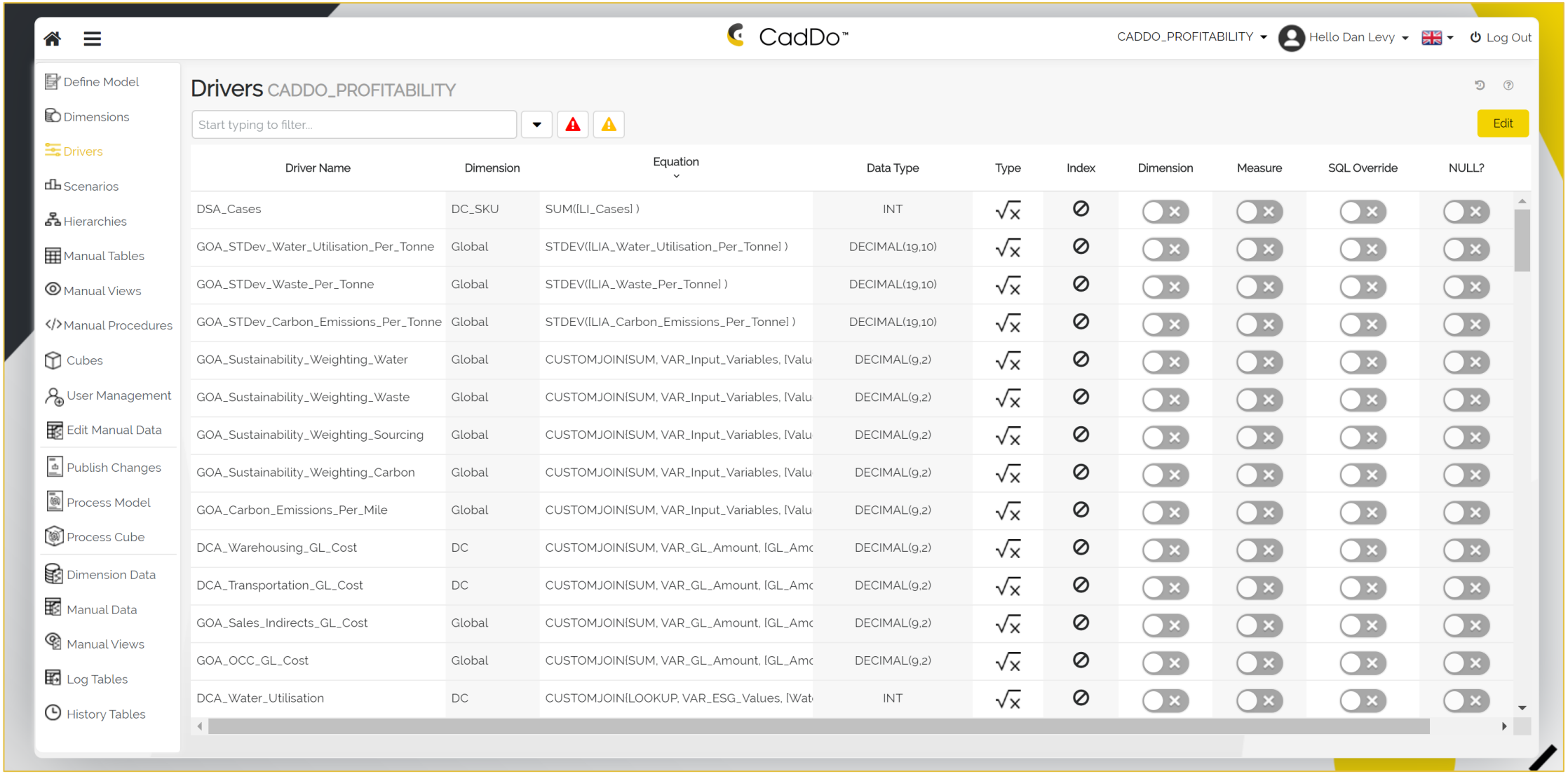
CadDo Analytics: KPI Packs & Simulation Tools



CadDo Calculate – User Interface

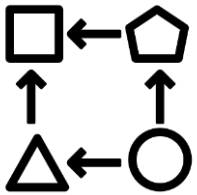


CadDo Calculate – User Interface



Architecture Summary

High-level Components



CadDo Transformation

A set of native SQL procedures, invoking SSIS for just the step of importing data from the Excel source files

SQL and SSIS steps follow our standardised and proprietary methodology

OUTPUT:
Clean data loaded into CadDo Calculate



CadDo Calculate

Multi-dimensional calculation engine, with all logical calculations in place

Application (coded in SQL) converts user-written simple formulae into native SQL which is executed against the database

OUTPUT:
All calculations performed and available for reporting



CadDo Analytics

Microsoft SQL Server Analysis Services (SSAS) reporting cubes sourcing data from CadDo Calculate

Power BI reports fed from the SSAS cubes
(Other reporting tools like Tableau, Qlik, Excel etc. also supported)

OUTPUT:
The end-user report

Technical Elements of Process



Accessible via sFTP or browser-based

Users with VPNs can access fileshare via Windows Explorer

Import from files (Excel, CSV, TXT etc.) using SSIS

Core ETL (data ingestion from remote servers, data transformation and data cleansing) runs using native SQL procedures. These are bespoke for each client, but follow CadDo's standard methodologies & approaches

The standard CadDo Calculate application engine (SQL control logic with Java APIs) is installed on each client database, and accessed via a Web UI (Java)

Users configure all model/calculation elements through the Web UI. No Java or Stored Procedures or advanced SQL required.

CadDo Calculate acts to:

- Maintain the database (tables, columns, views, stored procedures, indexes, security etc.)
- Convert simple user-written logic into native SQL statements that execute the core calculations at the right time in the right order

Supporting both OLAP and Tabular models, though OLAP is the preferred route due to the maturity of the solution

No logic reside in this layer. It simply pulls data from the SQL database and presents to the final reporting toolset

Tenancy Options

Multi-Tenancy

Client-specific databases sit on shared SQL Server instance alongside other client databases

No cross-contamination of data or functional procedures. Each database fully self-encompassing

Client-specific fileshares

Client-specific reporting cubes on shared SSAS server

Only CadDo resources allowed back-end access

Dedicated Instance

Client-specific databases sit on dedicated SQL Server instance on shared Virtual Machine

No cross-contamination of data or functional procedures. Each database fully self-encompassing

Client-specific fileshares

Client-specific reporting cubes on shared SSAS server

Client resources allowed back-end access

Dedicated Environment

100% client-specific infrastructure (SQL Server, Virtual Machines, Analysis Services etc.)

Power requirements of dedicated VMs would be determined as part of scoping and pricing discussions

Client resources allowed back-end access

Architecture Diagram

