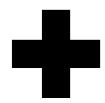


Sustainable Profitability with CadDo

Businesses have always focussed on profits



Companies & investors increasingly care about sustainability



Why not bring those two things together?

CadDo unifies these capabilities

(e.g. Profitability & environmental impact, for every line on every invoice)

Detailed P&L, down to contribution / trading results by every line on every invoice. Allocations driven by real behaviours

Availability of ESG metrics, by customer and product (in fact invoice line)

Extend basic P&L down to contribution / trading results

Increasing levels of understanding and insight

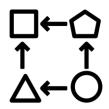
Understanding of ESG metrics at the product group level

> Statutory ESG metrics at company-level

Basic P&L, allowing Gross Margin by Customer & Product. Allocations financially driven

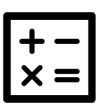






CadDo Transformation

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

Track record of helping clients improve business performance using Data Science methodologies

Underpinned by expertise in profitability & sustainability data, and analytics we help our clients in abroad range of areas, such as:

- Customer & Product Profitability
- Connecting Disparate Data Sources into a Single Version of the Truth
- Holistic Customer Investment

All delivered by a team of cross-functional experts across all these areas, allowing our 3-step model to be delivered efficiently without separate resources

AON

ABInBev



actiam





GRÄNDE.







★ Heineken



GROUPE RENAULT









Design

(weeks 1-2)

Outline end-state reports
(Fully remote via 1-3 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 2-8)

Build model

(100% CadDo)

Build reports

(100% CadDo)

Review & approve reports

(Fully remote having calls as needed)

Underpinned by:

- 24/7/365 availability on Microsoft's Azure platform, as a "Preferred Solution" \(\hat{R} \)
- A delivery team fully setup to work remotely, ensuring resiliency
- World-class delivery partners, in ESRI and Microsoft (co-sell Partner)





What is Sustainable Profitability?

- •A powerful tool making previously unseen cost & profitability information easily accessible to decision makers
- •This cost data is further augmented by including sustainability metrics, such as carbon footprint and water utilisation...so the environmental cost of each product and customer is also understood

How it supports Performance Management

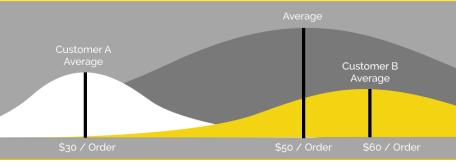
- Uncover hidden opportunities with a clear view of customer / product profitability & environmental impact, at the lowest level of detail, across all business dimensions & activities
- Enrich decision making with automated KPI packs, reports and simulation tools
- Enable cross-functional initiatives, using readily available transactional data

What's the output?

- Much more than analytics: It's a rich pool of data containing your entire P&L, showing every business activity and environmental metric you define, by every line on every invoice across all business dimensions
- Accessible in Excel, Power BI or any other BI tool of your choice
- In depth analysis & business cases, performed by CadDo, on the pressure points in your market

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

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



The light on ESG is shining brighter than ever before

Millennials are investing between \$15-20t in US-based ESG investments

MSCI

In 2018, €44.6b net new investment in Europe was in funds with ESG criteria

Broadridge

89% of investment consultants anticipate an increase of client interest in ESG

Eurosif

But there is still a gap between expectation and reality

40% of advisors say that lack of understanding of ESG holds back investment

Cerulli

Data challenges make ESG investment more complex and expensive

BNP Paribas

Lack of comparable data is a major hindrance for 43% of investors

CFA

There is a need to start viewing companies not just by their financial metrics...but by their ESG Score

Environmental

Social

Governance

Master Data

Products
Customers
Assets
Distribution Centre
Etc.

Financial Data

General Ledger P&L Transport Systems Etc.

Other Measures

Carbon Emissions Water Stress Levels Distances Etc.



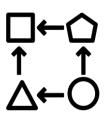






(e.g. Delivery Lines or Sales Invoice Lines)

We are a team of cross-functional experts across all these areas, allowing this 3-step model to be delivered efficiently without separate resources



CadDo Transformation

- Extract, Transform and Load clean data into CadDo Calculation
- 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









Define the model

- Cost Object (a.k.a. Business Dimensions)
- Drivers (metrics and calculations, written in logical syntax)
- Custom tables and views (for specialist areas outside the Cost Object structure)
- General Ledger structure

Process Model

- •System triggers the ETL process to import data from source files into CadDo Calculation
- Trigger calculations that execute the allocations defined by the drivers

Report

- Produce OLAP cubes to access the results of the calculation
- Access these cube in whichever reporting tool meets the needs of your business

Example Screenshots



Dashboard >
Product Mix >
Geography >

>

>

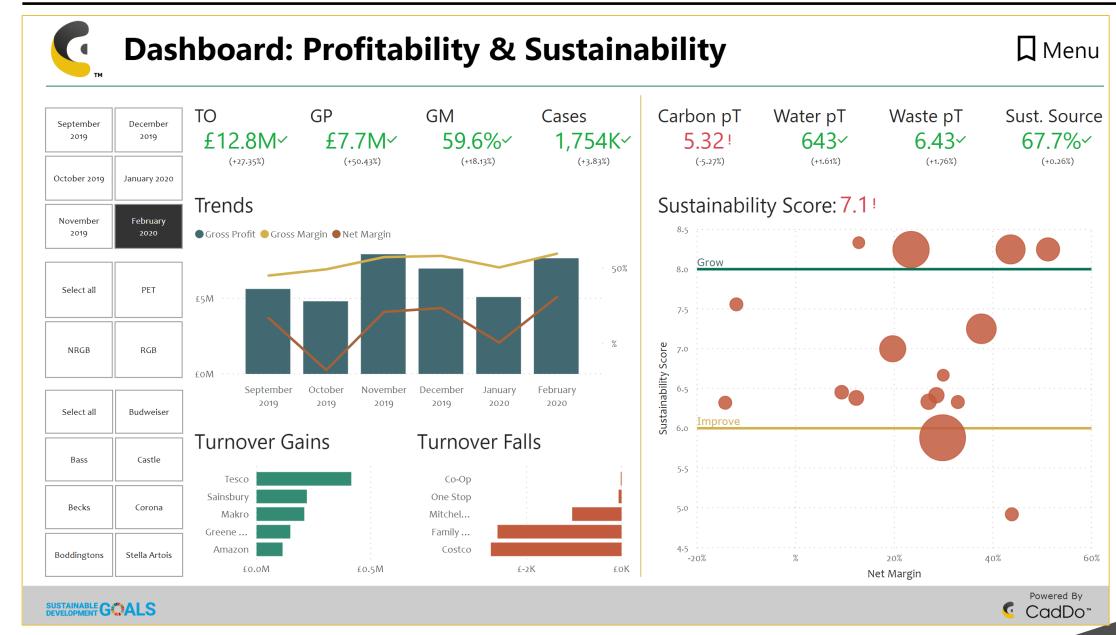
Sustainability

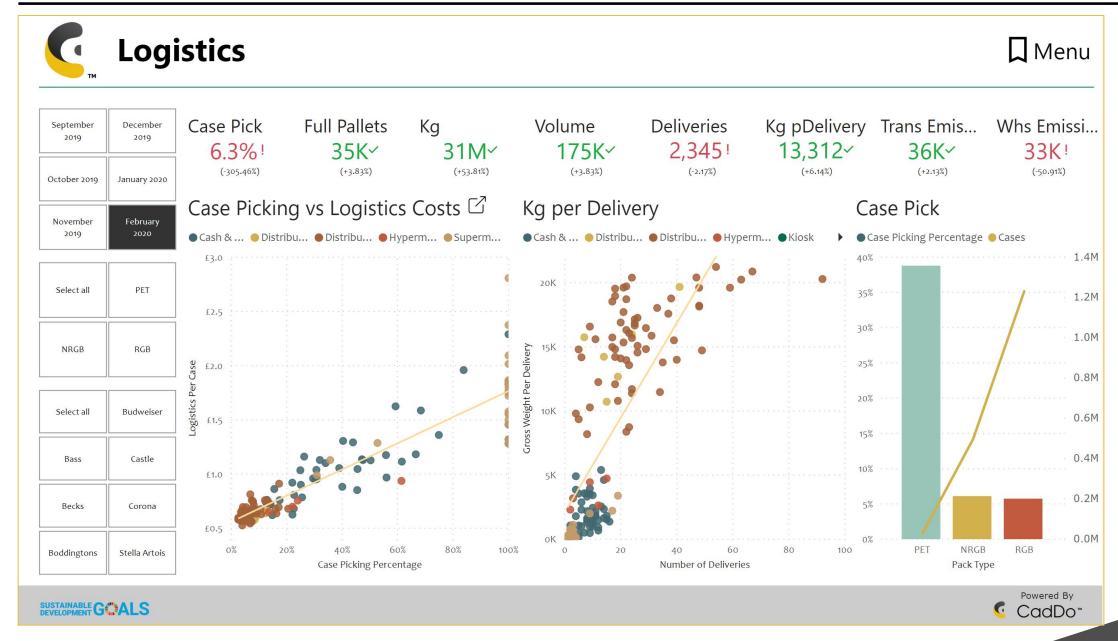
Logistics



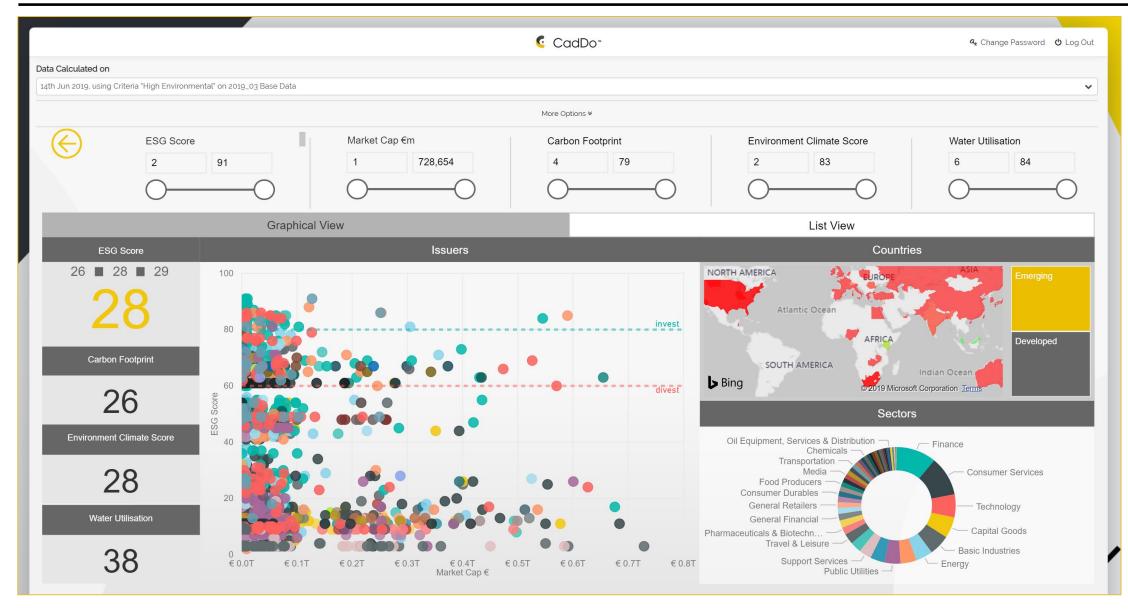


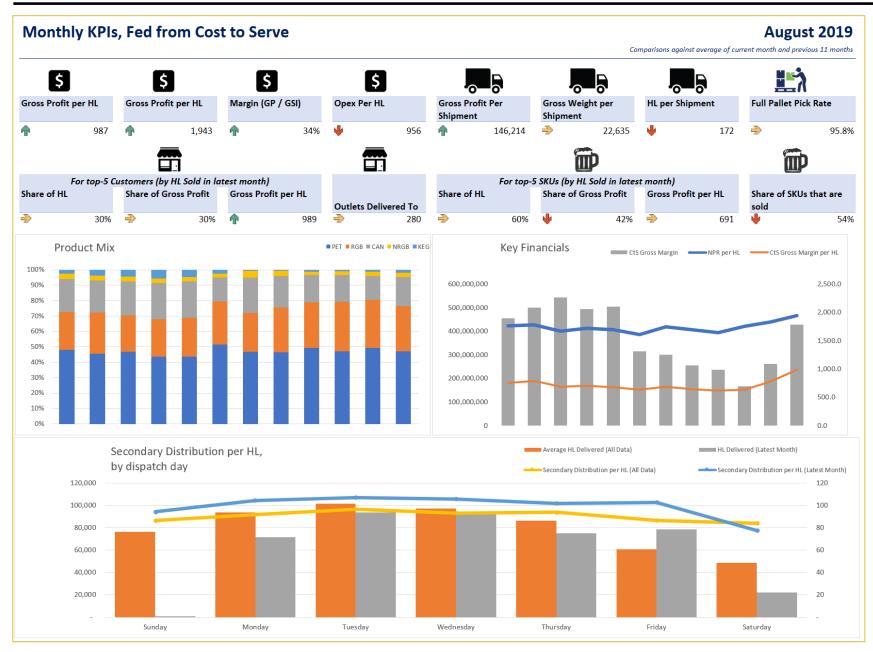
Report Date February 2020

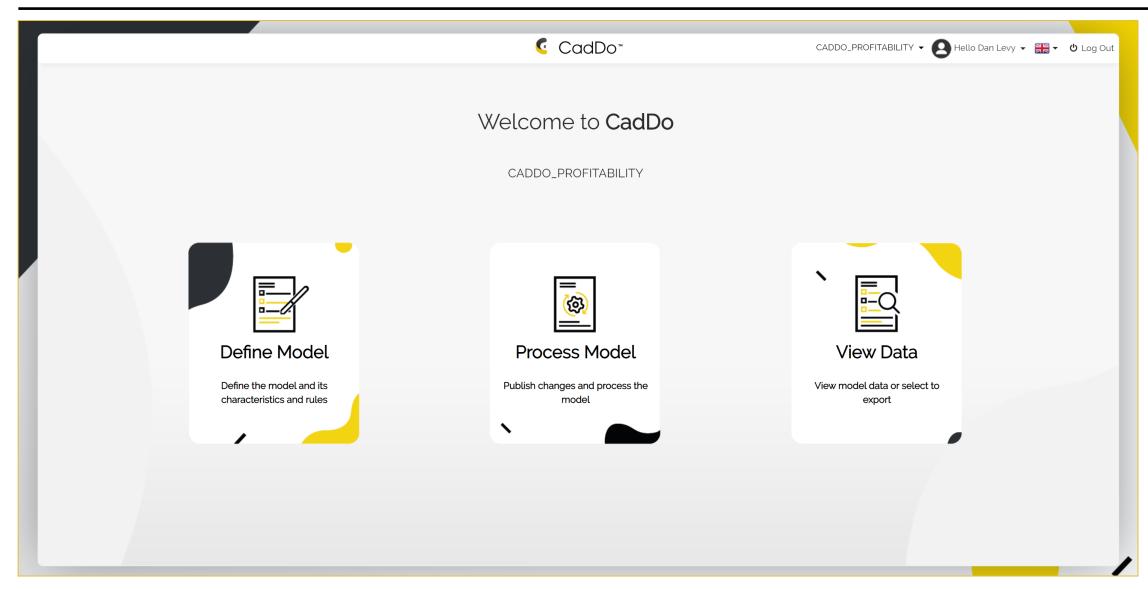


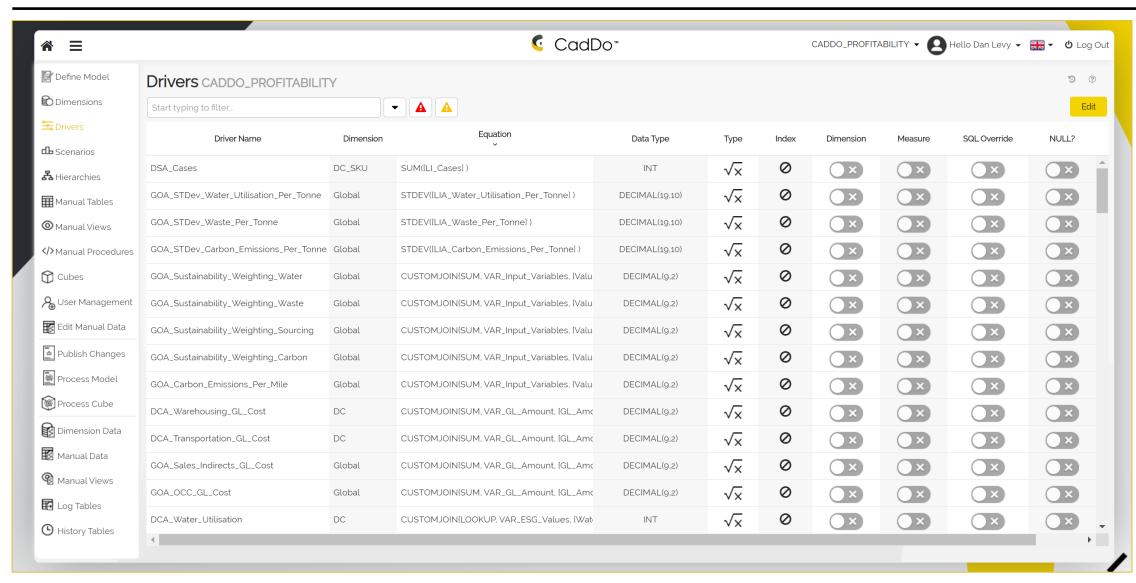


CadDo Analytics: Interactive Dashboards - Sample 4

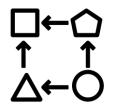








Architecture Summary



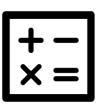
CadDo Transformation

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

Fileshare (Windows 2019 VM)

Accessible via sFTP or browser-based

Users with VPNs can access fileshare via Windows Explorer SQL Server 2019 (Windows 2019 VM)

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

Analysis Services 2019 (Windows 2019 VM)

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

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 selfencompassing

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 selfencompassing

Client-specific fileshares

Client-specific reporting cubes on shared SSAS server

Client resources allowed backend 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 backend access

