

An Introduction to CadDo ESG

January 2021

The light on ESG is shining brighter than ever, yet there is a gap between expectation and reality

Investors need to view companies not only by financials...but by ESG Scores

Sounds simple, but it's a big challenge:

Market providers only offer black-box calculations



\$\ \ \\$ Bespoke solutions are costly, slow, and don't evolve

no market or government standards

Ever changing consumer expectations



CadDo's platform delivers concentrated intelligence on sustainability & ESG to Financial Services

It is presented through a simple-to-deploy SaaS solution meaning no work for in-house IT teams

It enables clear, aggregated ESG metrics and analysis across all investments

Data is weighted to each clients' assets giving a tailored, holistic view of holdings and portfolios

The platform gives asset managers and investors the ability to view their holdings with up-to-date, accurate ESG metrics, underlying data and trend information

...alongside existing financial performance analysis

All the logic is your logic: no black-box calculations

Underpinned by:

- SaaS "<u>Preferred Solution</u>" இ on Microsoft's class-leading Azure platform
- A delivery team fully setup to work remotely, ensuring resiliency & agility
- World-class delivery partners, in ESRI and Microsoft (co-sell Partner)





Open Data Integration

CadDo ESG is designed to work with your data providers











Open Data Sourcing

CadDo ESG is designed to take feeds from the host of data maintained by your analysts







Underpinned by our proven abilities to collate disparate data sources, and identify & manage inconsistencies and discrepancies

All Asset Classes

Equities

Funds

Bonds

Commodities

Illiquid Assets

Non-Financial
/ ESG Metrics

Voting History

Engagements

Relationship Management

Screening Results

Outlier Identification

Additional Information

Climate-related CapEx

ESG-related Initiatives

Related Subsidiaries

Geographical Spread

Climate-related Disclosures

The platform can meet any ESG reporting requirements, off the same underlying technology

For instance, CadDo can deliver interactive Portfolio-manager toolsets alongside Investor-level reporting

ESG Risk & Opportunity into Asset Selection



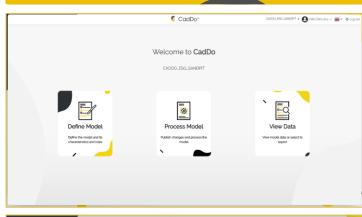


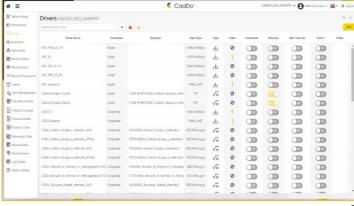






The Science







The starting point for any solution, is the ability to produce meaningful and usable ESG Scores

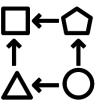
...A single indicator of the overall ESG performance, in accordance with the priorities and preferences of you & your investors

CadDo ESG delivers that outof-the-box



Live demo...





Portfolio Management is complex

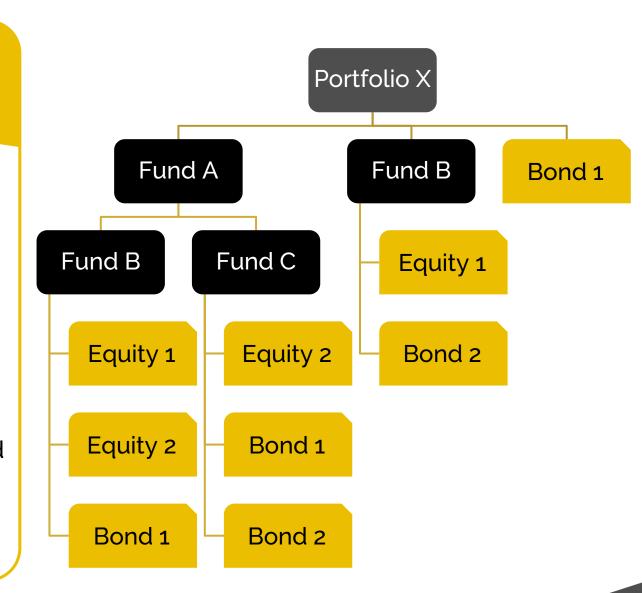
'Direct' ESG Scores can only be calculated for base securities (equities, bonds etc)

But investors buy funds to build their portfolios

Funds consist of mixtures of base securities & other funds...which in turn may own other funds...eventually getting down to base securities

How do you get from the client's portfolio, down through the layers of funds, to the base securities and their ESG Scores?

And then how do you roll that back up to a portfoliolevel ESG score?





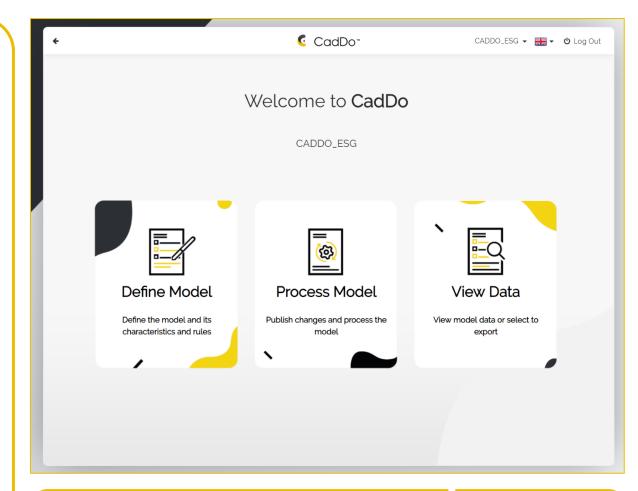
CadDo Calculate Solves The Problem

Our CadDo Calculate engine is designed, from the ground-up, to solve problems like this

From parent-child relationships, to recursive allocations, CadDo Calculate delivers what's needed

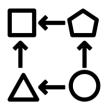
We build bespoke models inline with your requirements, but based on our extensive experience

All models run within our CadDo Calculate toolset meaning logic is auditable, controlled and visible



Live demo...





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

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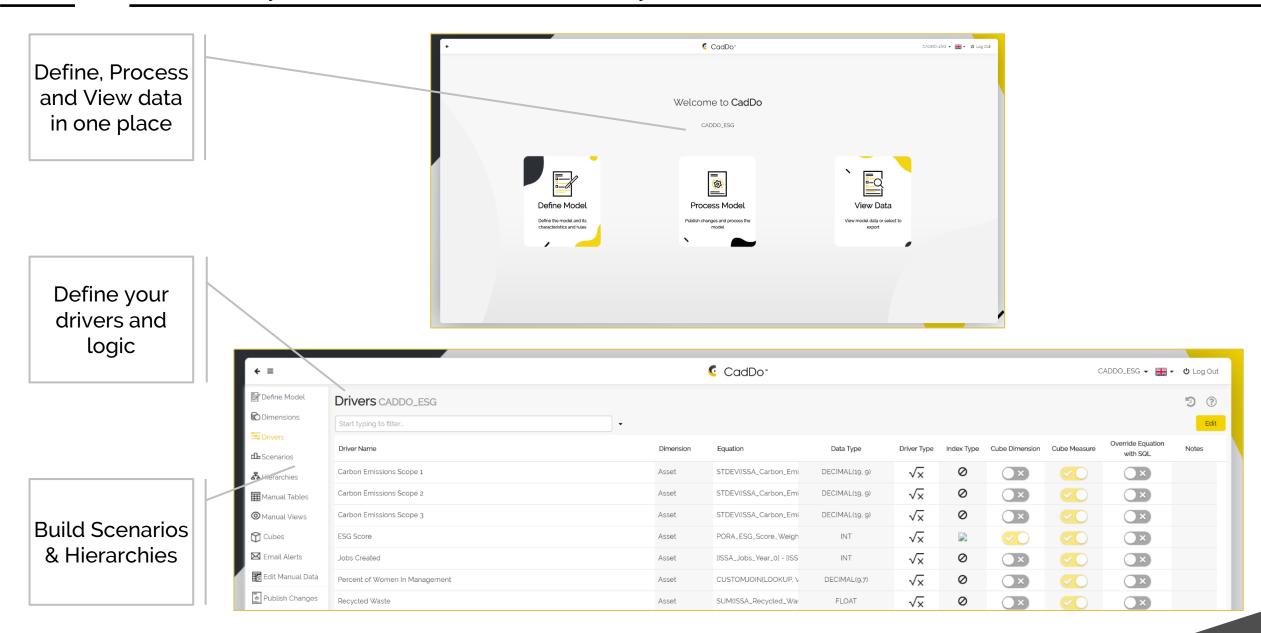
GROUPE RENAULT











Our Solution

- Fully hosted. CadDo provide all the technology, management & support
- Fully customisable based on your changing needs & changing requirements
- Adaptive, enabling new features to be added quickly (days/weeks, not months)
- Fully scalable the solution will grow and develop with you
- Client-specific reports, inline with your Marketing team's requirements, with CadDo doing all development work

Your Involvement

- Send your raw data as-is: no need to develop custom data extracts
- Your IT team can play as big or small a part as desired, from day-1 and into operational running
- Provide new requirements in a flexible way (mock-ups, drawings etc.): no functional specs!
- You focus on your business requirements, we do the rest

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

Post go-live this agile development process continues to deliver new features

Development & Go-Live (weeks 2-8)

weeks 2-0)

Build model

(100% CadDo)

Build reports

(100% CadDo)

Review & approve reports

(Fully remote having calls as needed)

Reporting / Toolset Example Screenshots

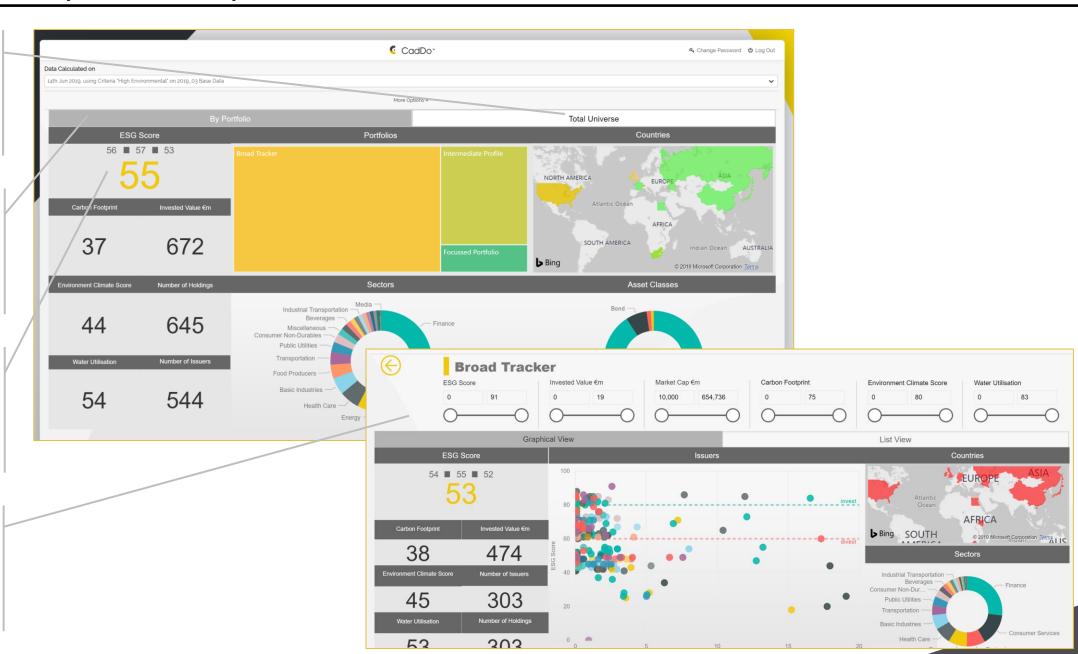
Portfolio-manager Toolsets

See the whole universe of Issuers

...Or see a summary by Portfolio

See the ESG Score...or a score by E vs. S vs. G

Then drill into Portfolios & their holdings

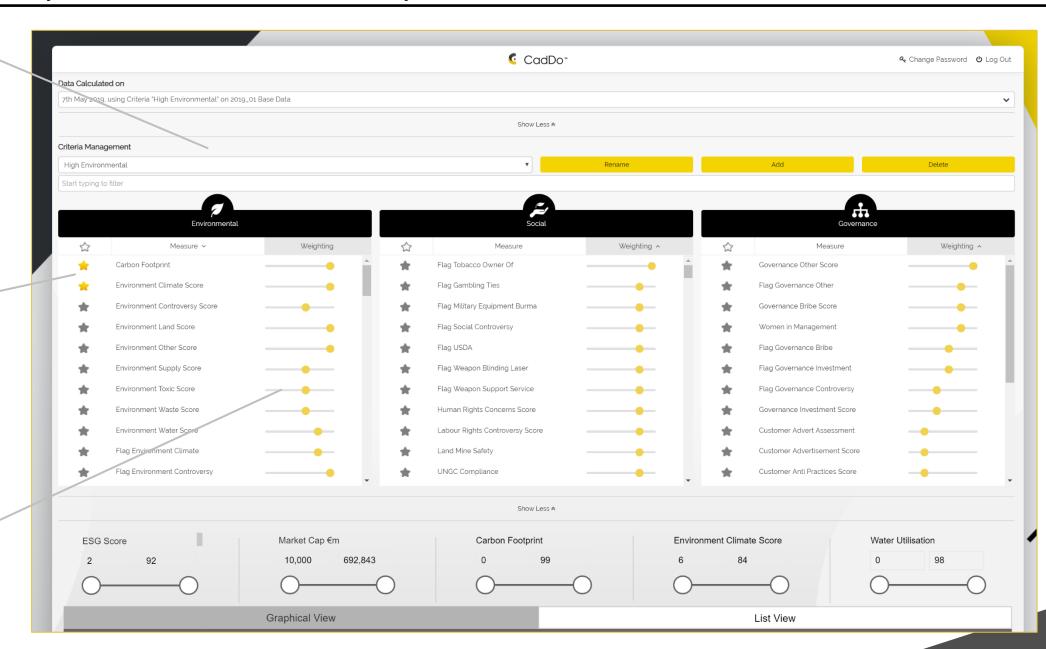


CadDo Add extra 14th Jun 2019, using Criteria High Environmental* on 2019_03 Base Data 'leading' More Options ¥ indicators (\leftarrow) 47 **■** 53 **■** 42 Kayne Anderson MLP/Midstream Investment Co... 47 **Finance** USA 5 GENDER EQUALITY **ESG Scores Through Time** Carbon Scores Through Time Engagements 51 See trend analysis February 2019 March 2019 Market Cap Through Time R&D Spend Scores Through Time Voting History € 420bn 51 Highlight key CadDo م Change Password 🐧 Log Out February 2019 SDG metrics 14th Jun 2019, using Criteria "High Environmental" on 2019_03 Base Data Kayne Anderson MLP/Midstream Investment Co... **Finance** USA Engagements Drill through to Last Changed Engagement_Explanation see further coal mining (10-15%) Engagement will continue to steer energy transition committee details 01 January 2017 Without legal action taken, no movement has been taken yet Open water disclosure 01 January 2017 No progress. This year this engagemNo progress.

Define multiple sets of criteria

Define your key metrics

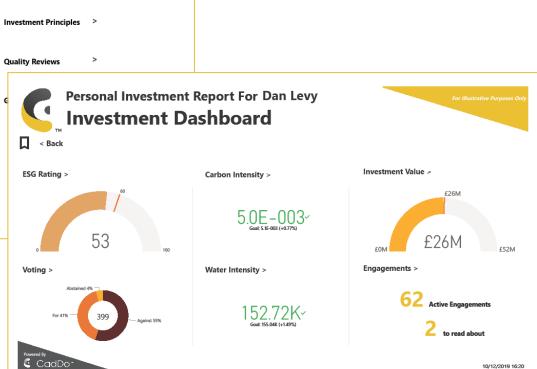
Define your priorities by weighting each metric



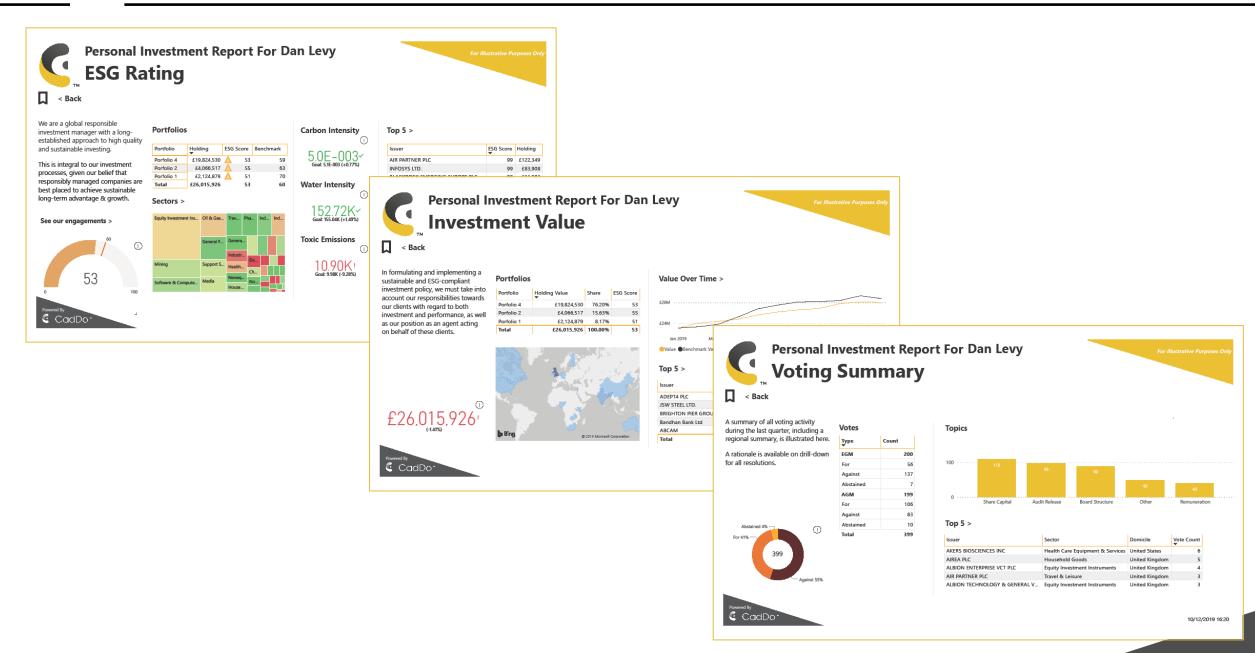
Reporting / Toolset Example Screenshots

Investor-level Reports

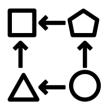




Ability to drill to lower levels of details, dependent on the Investor's needs



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

