

ESTIMATOR 9 - PRODUCT PROFILE

END TO END AUTOMATED SOLUTION FOR THE ESTIMATION OF PROVISIONS UNDER IFRS 9

FinelT Private Limited
Risk Solutions & Quantitative Consulting



FinelT is a quantitative consulting and analytics advisory firm which has developed Estimator 9, an end to end fully automated software for the estimation of ECL based provisions under IFRS 9.

IFRS 9 BACKGROUND



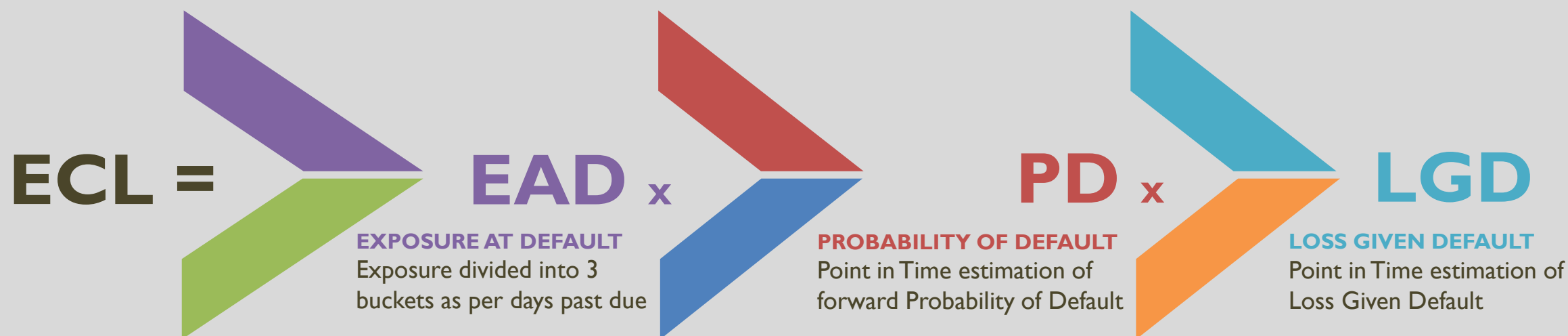
- Post 2008 financial crisis, regulators around the world realized that history based accounting standards can be extremely misleading and a paradigm shift in accounting methodologies is needed.
- In July 2014, IASB issued IFRS 9 standard which replaced existing IAS 39 provisioning method. The IASB stated that the IAS 39 incurred cost method leads to delayed recognition of credit losses, thus a forward looking approach is being introduced.
- IFRS 9 became effective worldwide on Jan 2018 and has since then posed huge challenges for accounting firms, auditors and corporations who were neither used to deal with such predictive analytics nor qualified to do so.



IFRS 9 SNAPSHOT



- Incurred Loss Provisioning Method under IAS 39 has been replaced by Expected Loss Provisioning Approach of IFRS 9 where provisions are taken upfront and Expected Credit Loss (ECL) is estimated as a product of EAD, PD and LGD.



- Definition of EAD is different for each of 3 buckets, term structure of applicable point in time PD is also different for each of 3 buckets of EAD, and LGD is estimated differently for collateralized and non collateralized exposures.

GPPC DEFINED ECL ESTIMATION METHODOLOGY



01

PORTFOLIO SEGMENTATION

Segmentation & pooling of portfolio on the basis of discriminant analysis and statistical mass.

02

MEVS IDENTIFICATION

Identification of statistically significant macro-economic variables for each segment's default rates.

03

MES SIMULATIONS

Projections of macro-economic scenarios and assignment of probabilistic weight to each scenario.

04

PIT PD ESTIMATION

Estimation of point in time probability of default term structure for each segment of portfolio exposure.

05

LGD ESTIMATION

Estimation of point in time loss given default distribution for each segment of portfolio exposure.

06

BUCKET-WISE EAD ESTIMATION

Distribution of current exposure under each segment into three days past due (DPD) buckets as defined by IFRS 9.

PRODUCT BRIEF



Estimator 9-S

$$ECL = \sum_{t=1}^T DF(t_i) * PD(t_i) * LGD(t_i) * EAD(t_i)$$

Software Package Features

- ❖ Installation
- ❖ Customization
- ❖ Integration
- ❖ Data Calibration
- ❖ Test Runs
- ❖ Stress Tests
- ❖ Validation
- ❖ User Training

- Complete IFRS 9 estimations and disclosures in accordance with Simplified Modeling Method prescribed by Global Public Policy Committee (GPPC) of the representatives of the 6 largest accounting firm in their joint document issued in June 2016.
- Comprehensive estimations of EAD, PIT PDs, and LGDs for counter party receivables including Banking and Sovereign receivables.
- User-friendly platform undertaking all aspects of IFRS 9 modelling, reporting and execution.
- Transparency around all model components – allowing them to be sense checked and ratified.
- Strong technical support system with assistance from dedicated helpdesk.
- Can be customized to comply with country specific regulatory reporting requirements.
- Consolidated solution including the software installation, country specific customization, full integration with bank's internal DataViews, and strong on-ground technical support with annual validation services.

PRODUCT FEATURES



Estimator 9

$$ECL = \sum_{t=1}^T DF(t_i) * PD(t_i) * LGD(t_i) * EAD(t_i)$$

FULLY AUTOMATED



User friendly, requires only data inputs and recalibrates automatically.

TOTALLY RISK FREE



Extensively tested, free from errors and cannot be manipulated.

INDEPENDENT



No dependence on vendor with 24/7 technical support service.

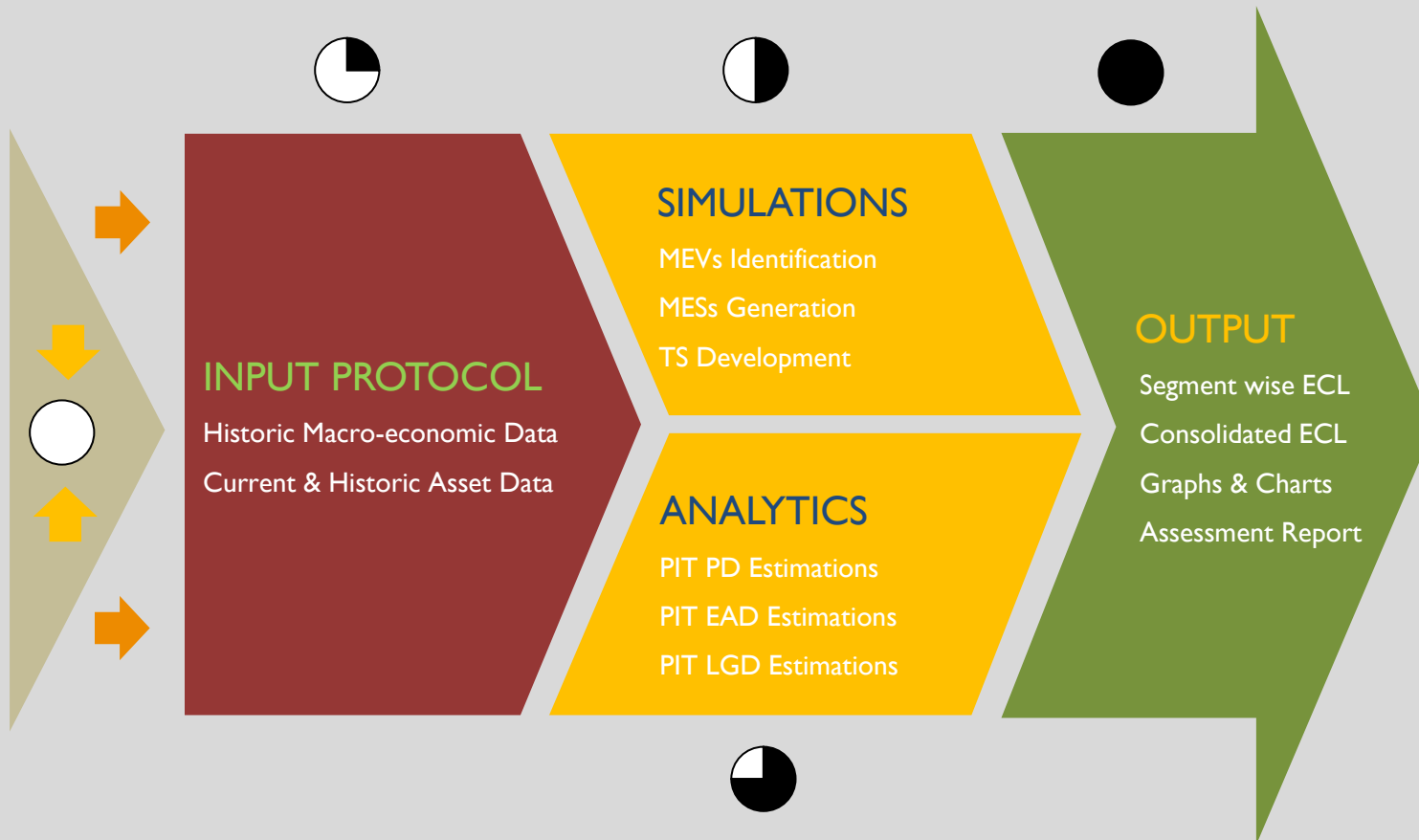
LOW COST



Competitive one time software cost with annual license fee.

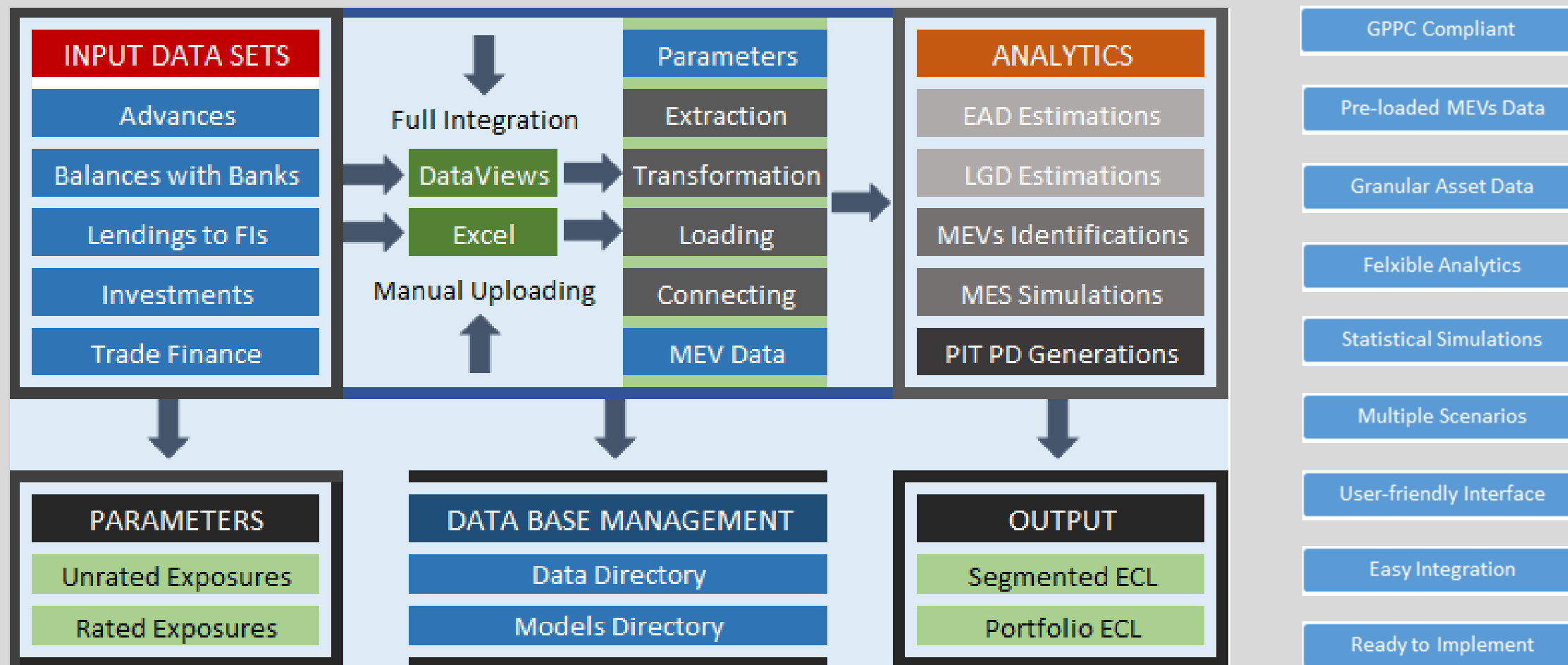
- Provides a comprehensive end to end solution for the estimation of ECL provisions under current IFRS 9 requirements.
- Supports all major IT platforms and browsers.
- Easy to use & requires minimum data input from its users.
- Equally capable of estimating ECL for large input data stream; as well as for a minimum of single quarter's input data.
- Comes with free on-site users training and very strong 4 tier technical support point forward which is available on 24/7 basis.
- Provides free software updates as and when IASB or local regulator amends or refines methodologies or reporting requirements.
- Suitable for both financial and non-financial companies.

STRUCTURAL ARCHITECTURE



- In compliance with modeling methodologies agreed in GPPC document jointly published by 6 largest accounting firms.
- Extensively tested by the Chartered Accountants worldwide.
- Validated by globally renowned quants and verified by clients' external auditors.
- Excel versions of software already in use in over 56 companies across 17 countries.

SCHEMATIC FUNCTIONALITY



TECHNOLOGY STACK



FRONT END

Html5

CSS3

Bootstrap4

JavaScript

Jquery

Laravel Blade

BACK END

PHP 7.x

PHP 8.x

Laravel 8.x

MySQL

LIBRARIES

Phpspreadsheet

PHP-ML/AI

MathPHP

AI-Kashi PHP



SYSTEM REQUIREMENTS



- Estimator 9 requires a dedicated server with the following minimum configurations:

1

HARDWARE

Processor Intel Xeon 5600 Series or equal AMD CPU.
RAM 16 GB.
Storage Disk (SSD) – 500 GB minimum.

2

SOFTWARE

Linux (Ubuntu 20.x LTS).
Apache 2.0 & Nginx.
MySQL Database.

SECURITY FEATURES



Estimator 9-S

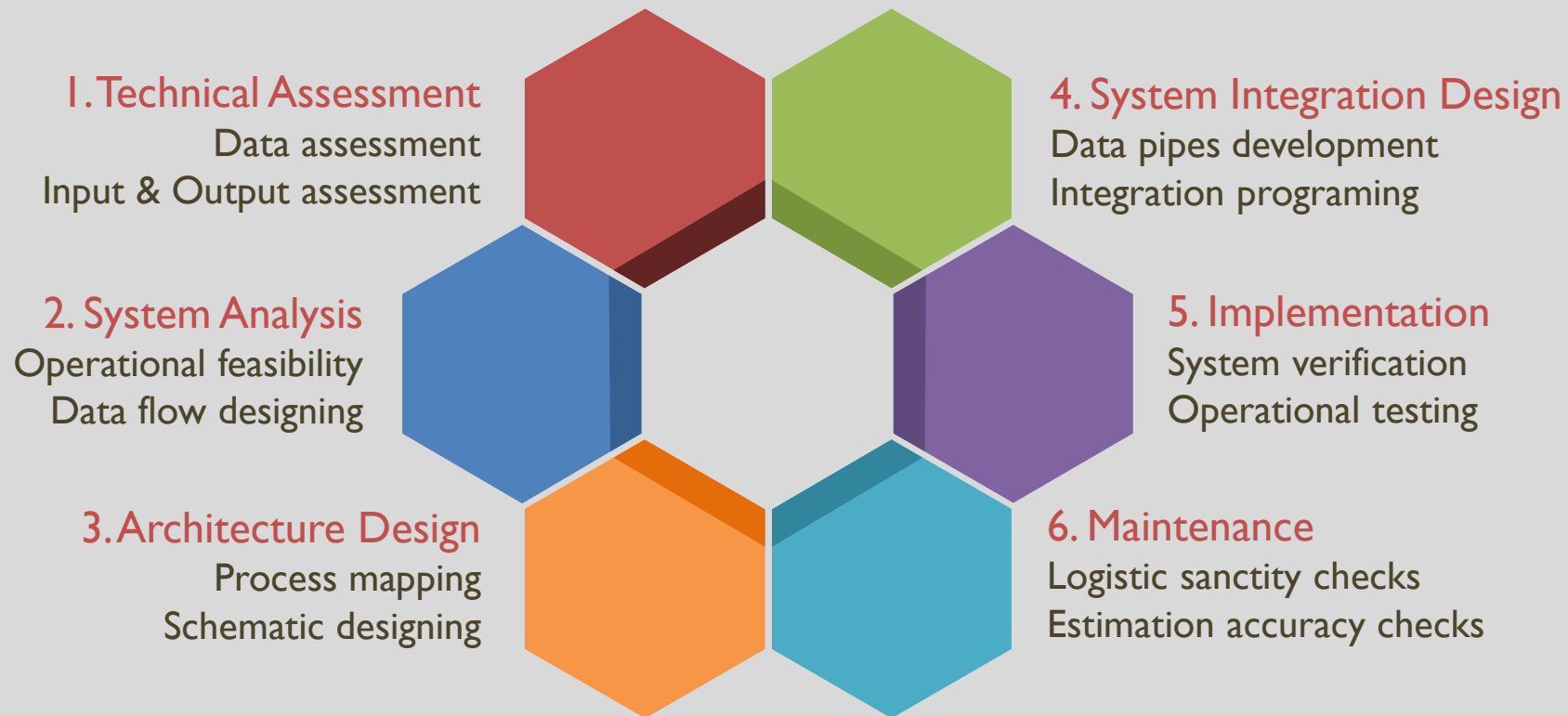
$$ECL = \sum_{i=1}^T DF(t_i) * PD(t_i) * LGD(t_i) * EAD(t_i)$$

CHECKLIST OF SECURITY IMPLEMENTATION

- Filter and Validate All Data
- Invalidate Sessions
- Store Passwords Using Strong Hashing Functions
- Laravel's built-in encryption
- Rate Limit Requests to Prevent DDoS Attacks
- Log All The Things
- Security Headers
- Monitoring Application Security
- SQL Injection
- Protection Against XSS (Cross Site Scripting)
- Vulnerabilities From CSRF (Cross Site Request Forgery)

Security features can be further customized in the application and functionality of software in accordance with Bank specific internal security vulnerability checklist.

INTEGRATION PROCESS

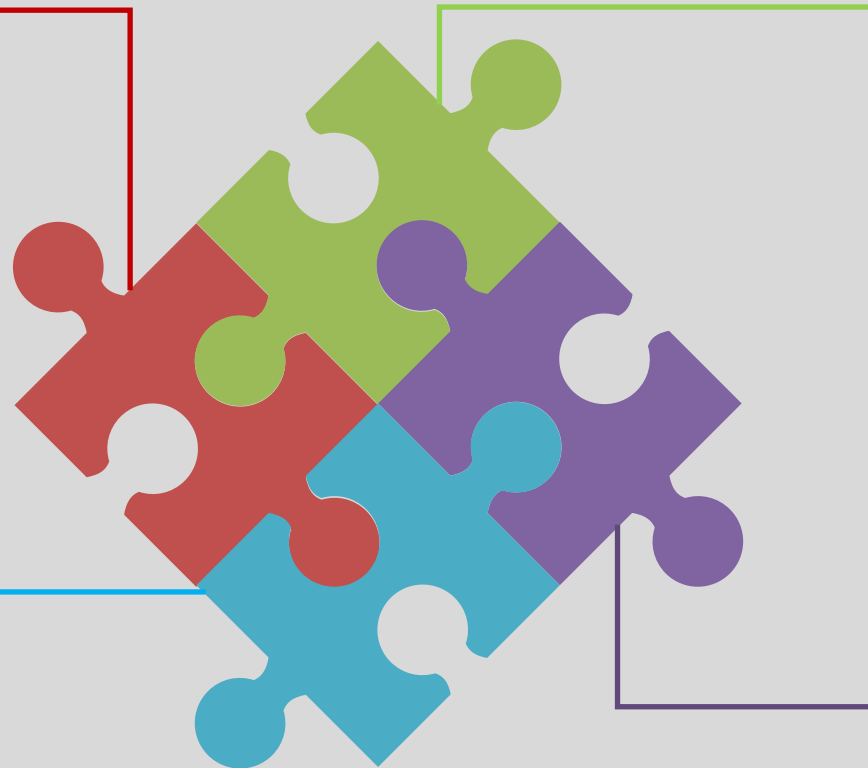


4 TIER 24/7 SUPPORT SYSTEM



LOCAL TEAM

Local Specialized Teams
Specialized Project Managers
Permanent Technical Members
Permanent Qualified Quants



ESTIMATION SUPPORT

Data Verification
Parametric Validation
Output Interpretation
Disclosure Assistance



QUERY SUPPORT

Management Queries
Board Queries
Auditors Queries
Regulatory Queries

TECHINICAL SUPPORT

Trouble Shooting
Anomaly Management
Report Customization
Software Updates



ESTIMATOR 9 - DEMO



To Request a Demo, please contact:

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