

DMIE MODEL — PRIVACY POLICY

(For the DMIE Calculator App)

Status: GDPR & POPIA Compliant

Version: 1.0

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Model: DMIE — Diophantine Model of Informal Economy

1. OVERVIEW

The **DMIE Calculator App** is designed to process **non-personal, economic parameter inputs** to estimate informal economic activity using the Diophantine Model of Informal Economy (DMIE). This Privacy Policy explains:

- What data the app processes
- How data is protected
- What rights users have
- What the app does **not** collect
- How GDPR & POPIA principles are implemented

The DMIE Calculator App is developed with a **privacy-first architecture**, meaning privacy is the default, not an added feature.

2. SCOPE OF THIS POLICY

This Privacy Policy applies to:

- The DMIE Calculator App (web or local version)
- The DMIE economic parameter interface
- All non-personal input values entered by users

It does **not** apply to:

- External documents
- Third-party platforms

- User devices or browsers outside the app's control
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3. DATA COLLECTION PRINCIPLES

3.1 Zero Personal Data Collection

The DMIE Calculator App does *not* collect, store, transmit, or process:

- Names
- Identification numbers
- Contact details
- Locations
- Demographic characteristics
- Device identifiers
- Cookies
- IP addresses
- Behavioural analytics

The system is intentionally designed to operate **without any personal or identifying data**.

4. WHAT DATA THE APP PROCESSES

The DMIE Calculator App processes only:

4.1 Economic Parameter Inputs

These include numerical figures such as:

- Sectoral activity levels
- Estimated population segments (non-personal)
- Average transaction quantities

- Informal-to-formal conversion ratios
- Cross-check integer values
- Constraints for Diophantine calculations

These values **cannot identify a person or household.**

4.2 Model Configuration Data

Examples:

- Selected parameter presets
- Calculation modes
- Sensitivity range selections
- Model version used

These are ephemeral and non-identifiable.

4.3 Temporary Computation Data

All calculations occur **in-memory**, not in a database.

5. HOW DATA IS USED

Input values are used for:

- Performing DMIE Diophantine calculations
- Generating structured, anonymised output ranges
- Producing export-ready reports (local only)
- Enabling parameter cross-checking

No data is shared, resold, transmitted, logged, or profiled.

6. DATA STORAGE & RETENTION

6.1 No Server Storage

The DMIE App does not store any data on servers.

6.2 No Cloud Transmission

The model does not upload user values to external services.

6.3 Local-Only Exports

If the user manually exports results (PDF, CSV, etc.), the file is stored **only on the user's device**.

6.4 Session-Based Temporary Memory

All inputs exist only during the active session.

When the user closes the app or refreshes the page, all information is cleared automatically.

No logs are retained.

7. PRIVACY BY DESIGN

DMIE is built according to GDPR Article 25 and POPIA Section 8 principles:

7.1 Data Minimisation

Only the minimum required numerical values are processed.

7.2 Purpose Limitation

All input values are used solely for informal-economy estimation.

7.3 Storage Limitation

No long-term storage exists inside the app.

7.4 User Autonomy

Users control:

- What values they enter
- Whether they export outputs
- When to clear or end a session

7.5 Transparency

All model processes are:

- Documented
 - Explainable
 - Equation-based
 - Non-proprietary in logic
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8. GDPR COMPLIANCE FRAMEWORK

DMIE aligns with the following GDPR principles:

8.1 Lawfulness, Fairness, Transparency

Users are fully informed that no personal data is processed.

8.2 Data Minimisation

Only non-identifiable numeric values are accepted.

8.3 Integrity & Confidentiality

No data leaves the user's device.

8.4 Rights of Users

Although no personal data is collected, users retain:

- Right to transparency
 - Right to understand computation logic
 - Right to request deletion (not needed; nothing stored)
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9. POPIA COMPLIANCE FRAMEWORK

DMIE adheres to the POPIA conditions for lawful and minimal processing:

9.1 Accountability

The app contains no mechanisms capable of violating data privacy laws.

9.2 Processing Limitation

The system processes only user-supplied non-personal values.

9.3 Information Quality

Outputs are methodological, not behavioural or personal.

9.4 Further Processing Limitation

No repurposing of inputs is possible.

9.5 Security Safeguards

Because no personal data exists, no compromise can expose identity.

10. SECURITY MEASURES

Although the app handles no personal information, it still employs:

- Secure code practices
 - Input sanitisation
 - Protection against injection attacks
 - Offline-safe computation
 - No third-party trackers or analytics
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11. THIRD-PARTY ACCESS

11.1 None

The DMIE App shares nothing with:

- Advertisers

- Analytics companies
- Government systems
- Cloud platforms
- External applications

11.2 No Cross-Site Communication

The app does not embed scripts that transmit data off-site.

12. USER RIGHTS

Even without personal data collection, users retain the right to:

- Understand all model logic
- Request clarification on computation processes
- Request documentation
- Report suspected misuse of DMIE outputs

Because no personal identifiers exist, requests such as “delete my data” are automatically fulfilled.

13. LIMITATIONS OF LIABILITY

The DMIE App provides **non-personalised, academic estimations**.
Users are responsible for:

- Correct interpretation
- Ethical application
- Safeguarding any exported files they generate

The app cannot be held liable for misuse outside the documented scope.

14. POLICY UPDATES

This Privacy Policy will be updated when:

- The DMIE model receives major version changes
- Data-protection regulations shift
- More documentation tools are added
- Ethical-use standards evolve

Version history will be included in the Change Log.

15. CONTACT & GOVERNANCE

Questions or concerns regarding:

- Privacy
- Data handling
- Mathematical transparency
- Academic integrity

may be directed to the DMIE Research Unit's documentation channel.
(Contact placeholder: can be filled once your website is ready.)

16. APPENDICES

Appendix A — Compliance Summary Table

A quick mapping of GDPR & POPIA clauses to DMIE features.

Appendix B — Definitions

- *Personal Data*
- *Processing*
- *Anonymisation*
- *Diophantine Computation*

- *Economic Parameter Input*

Appendix C — Security Architecture Overview

A high-level description of the local-only computational flow.