Building Science Institute, Ltd. Co. Policy 13-2023 Data Governance

Scope
This Data Governance Policy applies to all employees, brands, contractors, vendors, and Quality Council members that use Building Science Institute, Ltd. Co.'s data.

Purpose
This policy is intended to provide guidance to all Building Science Institute, Ltd. Co. (BSI) employees, contractors, vendors, and Quality Council members that use BSI data in order to:

1. Reduce inadvertent operator errors
2. Increase confidence that homes earn certification
3. Create transparency through entire system
4. Increase consistency in ERI outputs
5. Increase collaboration on quality management with stakeholders

This requires we have a market orientation and take a proactive approach to eliminate data quality problems before they have a chance to appear.
The goals of this policy are to:

- Minimize risks
- Establish internal rules for data use
- Implement compliance requirements
- Improve internal & external communication
- Increase the value of the data
- Facilitate the administration of the above goals
- Reduce costs
- Help to ensure the continued existence of the Building Science Institute, Ltd. Co. through risk management and optimization

Definitions
For the purposes of this policy, the following definitions shall apply:

- **Data**: Any information that is collected, used, stored, shared, or otherwise processed by BSI.
- **Data Governance**: The processes, policies, and procedures that BSI use to ensure the security, privacy, accuracy, and integrity of its data.
- **Data Security**: Measures taken to protect data from unauthorized access, alteration, disclosure, or destruction.
- **Data Privacy**: Measures taken to ensure that data is collected, used, and stored in a manner that respects the privacy of individuals.
- **Data Accuracy**: Measures taken to ensure that data is accurate and up-to-date.
- **Data Integrity**: Measures taken to ensure that data is complete and reliable.

Additional definitions for data quality dimensions are found in "Dimensions of Data Quality, DAMA NL", attached. BSI uses the preferred definitions found in Appendix 6 of that document unless otherwise noted in our documents.

Policy
BSI is committed to protecting the security, privacy, accuracy, and integrity of its data. To this end, BSI has established a data governance program to ensure the secure and responsible use of data.

BSI will ensure that all data is collected, used, stored, shared, and otherwise processed in accordance with applicable laws, regulations, and industry standards. BSI will also ensure that appropriate measures are taken to protect the security, privacy, accuracy, and integrity of its data.

BSI will ensure that all personnel who handle data are trained in data security, privacy, accuracy, and integrity best practices. All personnel who handle data must also abide by BSI's policies and procedures with respect to data governance.

BSI will regularly review its data governance program to ensure that it is in compliance with applicable laws, regulations, and industry standards.

Principles

1. **We must have integrity in our dealings with each other.** We must be truthful and forthcoming in discussing the drivers, constraints, options, and impacts for data-related decisions.
2. **Our data governance and stewardship processes require transparency.** It must be clear to all participants and auditors how and when data-related decisions and controls were introduced into the processes.
3. **We are committed to data quality.** We create a sense of accountability for data quality across our organization, and make a commitment to the ongoing assessment, improvement, and reporting of data quality.
4. **Our data-related decisions, processes, and controls subject to data governance must be auditable.** They must be accompanied by documentation to support compliance-based and operational auditing requirements.
5. **We know our users and their needs.** We must understand our users needs to ensure that data is fit for purpose. We discover those needs and prioritize efforts on the data our users deem most critical.
6. **We communicate data quality clearly and effectively.** We communicate quality to users regularly and clearly to ensure data is used appropriately.
7. **We recognize data as a valued & strategic enterprise asset.** They are the foundation of decision making and customer service, so data must be carefully managed to ensure their accuracy & timeliness.
8. **We clearly define who is accountable for cross-functional data-related decisions, processes, and controls.** Most data has value to BSI beyond the uses of any one brand or business function. BSI requires that data be shared and integrated at the enterprise level, consistent with information security and privacy policies. Data must be well-defined to be shareable.
9. **We define who is accountable for stewardship activities that are the responsibilities of individual contributors and groups of data stewards.** The BSI General Manager functions as the data steward.
10. **Our programs must define accountabilities in a manner that introduces checks-and-balances between business and technology teams, and between those who create/collect information, those who manage it, those who use it, and those who introduce standards and compliance requirements.**
11. **Our programs must introduce and support standardization of enterprise-level data.** Enterprise-critical data must be tested against the standards consistently across the enterprise, with understood standards available to all data definers, producers, and users. Enterprise-shareable data must be defined consistently across the enterprise, with understood definitions available to all users.
12. **Our programs must support proactive and reactive change management activities for reference data values and structure/use of master data and metadata.** We anticipate changes that affect data quality. We can't predict all future problems, but we can anticipate and prevent future data quality problems through good communication, effective change management, and addressing quality issues at the source.
13. **We manage data to follow internal & external rules**. Current legislation & regulations require the safeguarding, security, and privacy of personally identifiable information (PII). Open data sharing, managed accessibility, and the release of data and information must be balanced against the need to restrict the availability of restricted, proprietary, or sensitive information.
14. **We define data quality and manage it consistently across the data life cycle**. The quality standards for data must be well-defined in order to be able to identify, record, measure, and report the quality of the data. The quality standards must focus on measuring business process and decision-making improvements from complete, relevant, and unique data.

Governance Metrics

We have targeted these quality dimensions, defined in Procedure F, to achieve the following standards:

- Accessibility: "Completely Accessible"
- Accuracy: 95%
- Believability: 98%
- Completeness: 95%
- Conformance: 95%
- Consistency: 95%
- Credibility: 98%
- Ease of Operation: 90%
- Integrity: 95%

- Objectivity: 95%
- Reliability: "Sufficiently Reliable"
- Reputation: 95%
- Trustworthiness: 98%
- Validity: 95%

Decision Obligations

The BSI Quality Council has the collective decision obligations for which regulations, programs, and standards for compliance-based programs will be followed for the company.

The General Manager has decision obligations, in consultation with the Quality Council, for how all compliance-based programs will be implemented.

Brand managers have decision obligations, in consultation with the General Manager, for all other programs.

The guiding principle is "Those with the most complete knowledge of the situation at hand must make the decision."

Accountabilities

With compliance-based programs, the work is not finished until you:

1. Do it
2. Control it
3. Document it
4. Prove compliance

The BSI General Manager is responsible for data collection, analysis, and reporting for BSI at the company level. They:

- run the data governance program
- keep track of data customers and Quality Council members
- liaisons with other disciplines & programs
- collects & aligns policies, processes, and procedures from these customer groups
- facilitates & coordinates data analysis & issue analysis projects
- facilitates & coordinates meetings of the Quality Council
- collects metrics & reports on them to data stakeholders
- provides ongoing stakeholder care in the form of communication, access to information, record-keeping, and education/support
- articulates the value of data governance & stewardship activities
- provides centralized communications for governance-led & data-related matters
- maintains governance records
- leads the Quality Council

Controls

We manage risk of data breaches by:

1. preventing events we don't want to occur
2. detecting events so we can correct the problem

We focus on:

1. user processes
2. applications
3. database
4. network/operating system
5. project management
6. training
7. policies
8. change management

Our software for integrating energy modeling & inspections must have validity checks and boundaries set in accordance with the attached spreadsheet "Final Reasonability Checks".

These checks and boundaries must be implemented to provide user feedback at the time of the event so they can correct any mistakes before the project is submitted to BSI for certification.

Customers

The US Environmental Protection Agency (US EPA) and the US Department of Energy (US DOE) are the linchpin customers of BSI's data.

The homebuilders and verification organizations who are clients of BSI are the primary users of the data we are stewards of.

Violations

Any violations of this policy may result in disciplinary action, up to and including termination of employment or contract.

Processes & Procedures

Building Science Institute, Ltd. Co. Process 010 Data Analysis Cycle
Building Science Institute, Ltd. Co. Procedure E Data Collection
Building Science Institute, Ltd. Co. Procedure F Data Quality Assessment
Building Science Institute, Ltd. Co. Procedure G Data Visualization & Analysis

Questions

Any questions regarding this policy should be directed to the BSI General Manager.
Approved by the Building Science Institute, Ltd. Co. Quality Council on May 22, 2023.
Approve: Kevin Burk, Erik Straite, Brian Christensen, Amber Wood
Reject: None
Not Voting: Wes Davis, Brett Dillon (Chair)