Breaking Down Data Silos

The Power of Business Intelligence Tools & Integrations

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Speaker

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Georgia-Pacific-Who We Are:

Georgia-Pacific is one of the world's leading makers of tissue, pulp, packaging, and building products. You may recognize our household brands, such as Brawny® paper towels, Quilted Northern® bath tissue and Dixie® cups and tableware. If you're in the construction business, you're probably familiar with our gypsum panels and other quality building materials.

Consumer products	Building products	Packaging and cellulose
		
30,000+ Employees globally	180+ Locations worldwide	Located in 30 States across U.S.

A Brief History:

- 1927-Founded in Augusta, Georgia
  - Operated five sawmills
- 1947-Went West acquiring a facility in Washington
- 1963-Entered the tissue business
- 2000-Acquired Ft. James Corp
- 2005-Acquired by Koch Industries
- 2010-Acquired Alabama River Pulp & Pine pulp mills
- 2010-Acquired OSB facilities from Grant Forest Products
- 2013-Acquired Temple Inland Building Products assets
- 2013- Acquired Buckeye Technologies
- 2015-Purchased Rocky Creek lumber facility
- 2016-Acquired Excel Displays & Packaging
- 2017-Acquired Pax Corrugated Products
- 2020-Recyclable mailers to serve e-commerce begins
- 2022-Two new mailer sites open

***2019- Sr. VP Environmental: Figure out how to completely TRANSFORM our environmental program!!!**

Transformation-The What & Why?

- **Transformation:** Transform yourself and the company. Seek, develop and utilize the **visions**, **strategies**, **methods** and **products** that will enable us to create the greatest value. (*Guiding Principles*)

- No matter how well a business is doing, if it doesn't drive continuous improvement and **perpetual transformation**, it will become obsolete. Any attempt at closing itself off from competition or innovation will prove fatal. It's not a matter of if that business will die, but when it will die.

- An individual or business cannot be successful in the modern world without improving at a greater rate than **current and future competitors**.

What problems need to be solved?

Inefficient Data Management
- A lot of manual data handling (spreadsheets)
- Multiple data touches
- Not using modern data tools

Lack of consistency
- Interpretations, calculations and report formats.
- Systems and infrastructure.

Lack of documentation of critical information
- Lack of documentation of critical information
- Heavily reliant on “institutional knowledge”

Lack of visibility to compliance data
- Systems were “closed” and data visibility was limited.
  - Spreadsheets
  - Paper (inspections)

Talent Retention/Acquisition Challenges
- Experiencing a lot of turnover
- Difficult recruiting

Future Regulatory Requirements
- More monitoring, recordkeeping and reporting is expected.
- Reported data to be more readily available to the public

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Our Vision

We want to transform GP’s environmental capability to give us a competitive advantage in the market by leveraging technology and improving work processes to more efficiently meet our regulatory requirements and support our manufacturing vision of becoming the best manufacturer in our industries by operating as a responsible environmental steward.

To achieve this, we will:
1. Define/Prioritize opportunities to utilize technology to free-up employees for more value-added tasks.
2. Standardize work processes.
3. Create a virtual environmental workforce.

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The Key Challenges:

1. Large organization with a diverse set of facilities
   - Mergers/acquisitions
   - Competing priorities
2. Until recently, businesses were “siloed”.
   - Drove a lot of inconsistencies
   - Created a lot of different systems/infrastructure
3. Aging tech. infrastructure not designed or are well suited for current/future needs.
4. Very high expectations for environmental performance
   - Created very low tolerance for trying new, innovative approaches to managing the environmental programs.
5. For environmental, the organization had operated in the same model for a very long time. This created a workforce that was not accustomed to “change”.
6. The Team (environmental, processes control, IT, OT, data teams, etc.) that would be needed to deliver on transformation would all be “speaking different languages”.

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Key Terms:

Cloud- a term used to describe a global network of servers, each with a unique function. The cloud is not a physical entity, but instead is a vast network of remote servers which are hooked together and meant to operate as a single ecosystem. These servers are designed to either store and manage data, run applications, or deliver content. Instead of accessing files and data from a local or personal computer, you are accessing them online from any Internet-capable device. *(Source: Microsoft)*

Data Lake-A data lake is a centralized repository that allows you to store all your **structured** and **unstructured** data at any scale. You can store your data as-is, without having to first structure the data, and run different types of analytics. (*Source: Amazon Web Services*)

Application Programming Interface (API)- APIs are mechanisms that enable two software components to communicate with each other using a set of definitions and protocols. *(Source: Amazon Web Services)*

IOT-Internet of Things-The collective network of connected devices and the technology that facilitates communication between devices and the cloud, as well as between the devices themselves. IOT integrates everyday "things" with the internet. (Source: Amazon Web Services)

CSC- GP's Collaboration & Support Center. A team (data scientist, engineers, SMEs, IT, etc.) that bring expertise, technology, analytics and advance control systems together to improve GP's operations.

Our Strategy

Utilize technology to free-up employees for more value-added tasks

- Automate data collection wherever possible (utilize IOT)
- If data collection can't be automated, digitize the data collected
- Identify/establish "official compliance engines".
- Automate regulatory reports generation/submittals
- Use **business intelligence tools** for data visualization
- Become a data driven organization

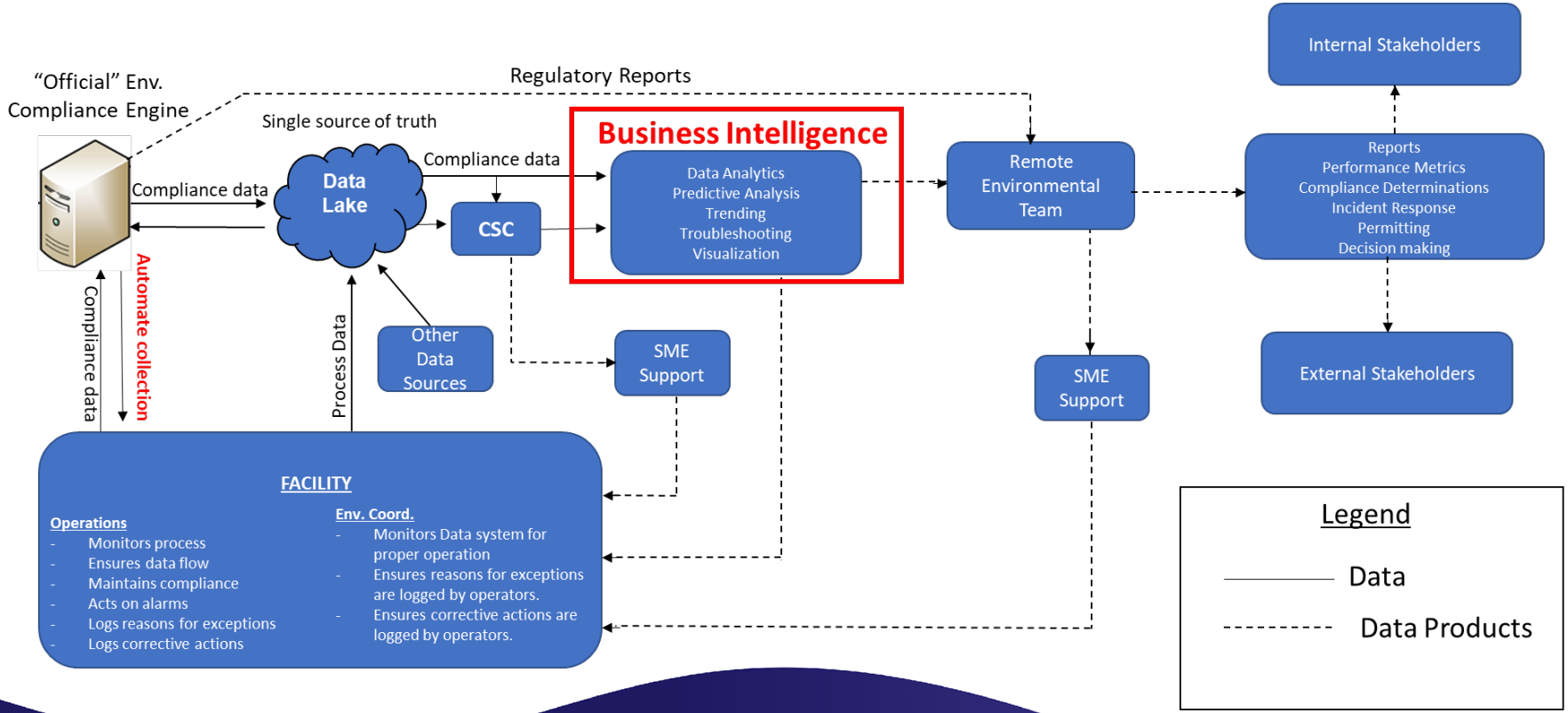
Standardize work processes

- Standardize interpretations, calculation methodology & report formats
- Standardize work processes-establish a disciplined approach to managing our environmental programs
- Standardize technology systems and infrastructure as much as possible
- Get all environmental data to the data lake that will serve as the source of truth.

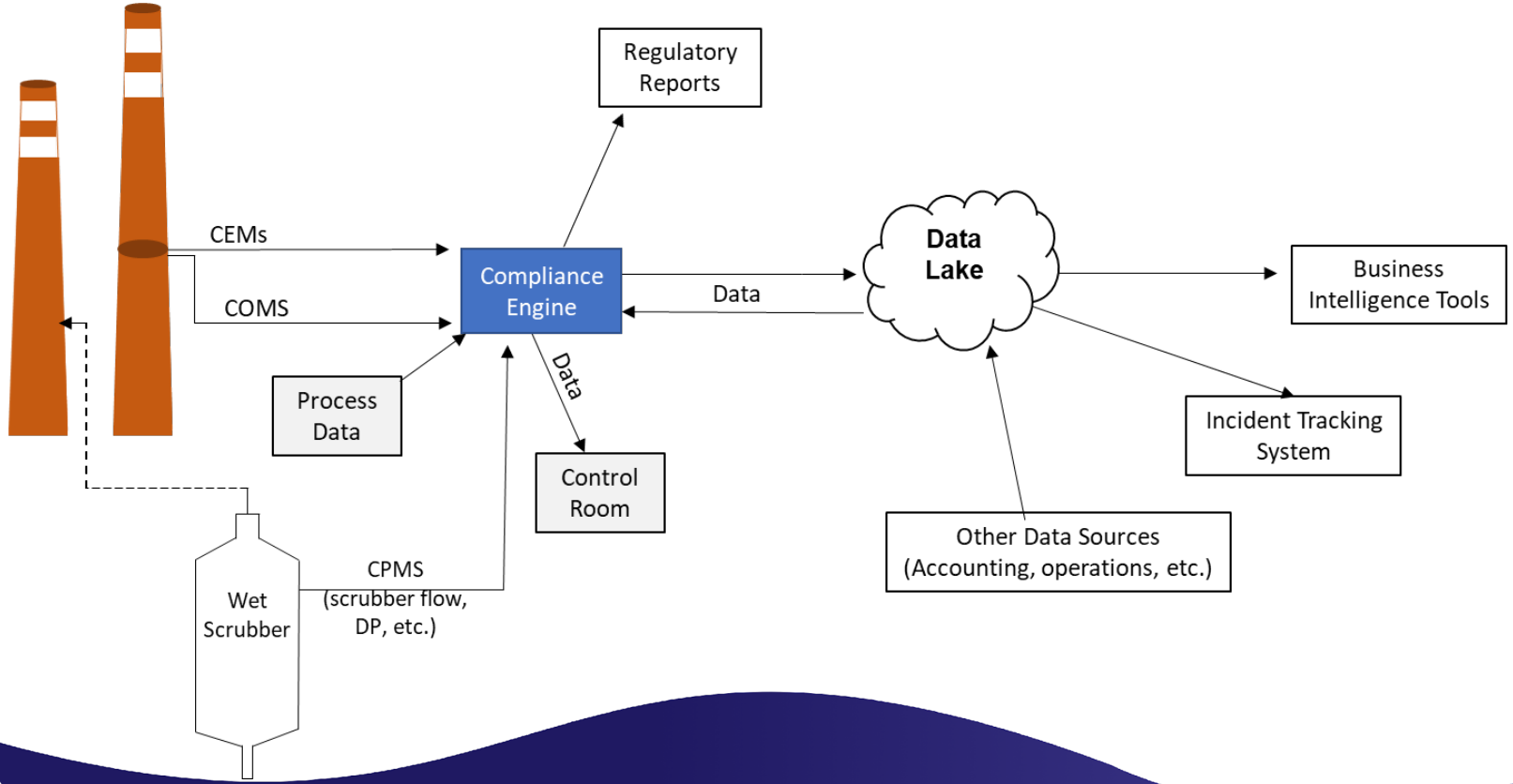
Create a virtual environmental workforce

- Utilize **business intelligence tools** to increase visibility, improve efficiency, help prioritize work and drive action.
- Develop tools/systems that enables remote monitoring and external support
- Utilize tools for predictive analytics and event learning

Our Strategy



Our Strategy: Air Program Example



Business Intellegence?

Business intelligence refers to capabilities that enable organizations to make better decisions, take informed actions, and implement more-efficient business processes. (Source: Oracle)

Business Intelligence:

- Is built on the foundation of enterprise data
- Enables automated connections to and analysis on large, complex data sets
- Includes using tools that transforms and presents the data in a manner that allows the user to quickly come to conclusions and drives actions:
  - 1-3-10 model (source: McKinsey& Company)

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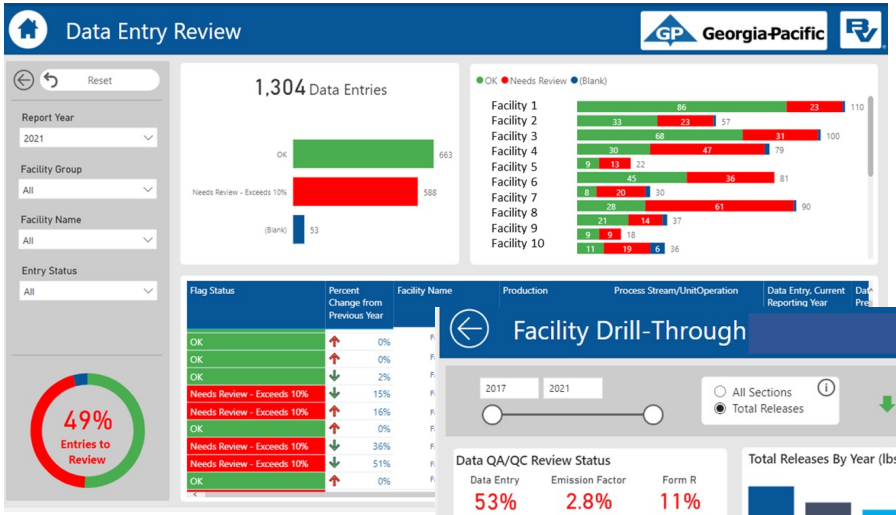
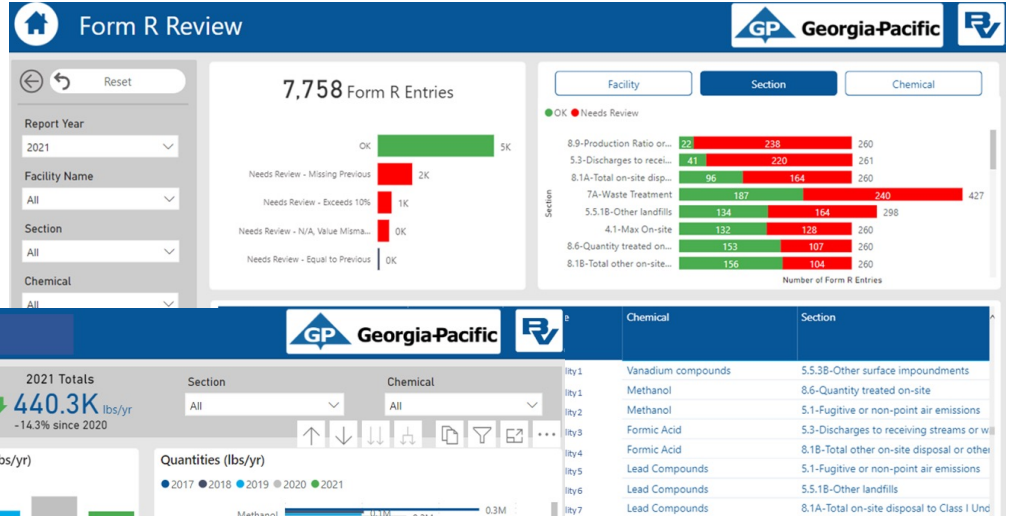
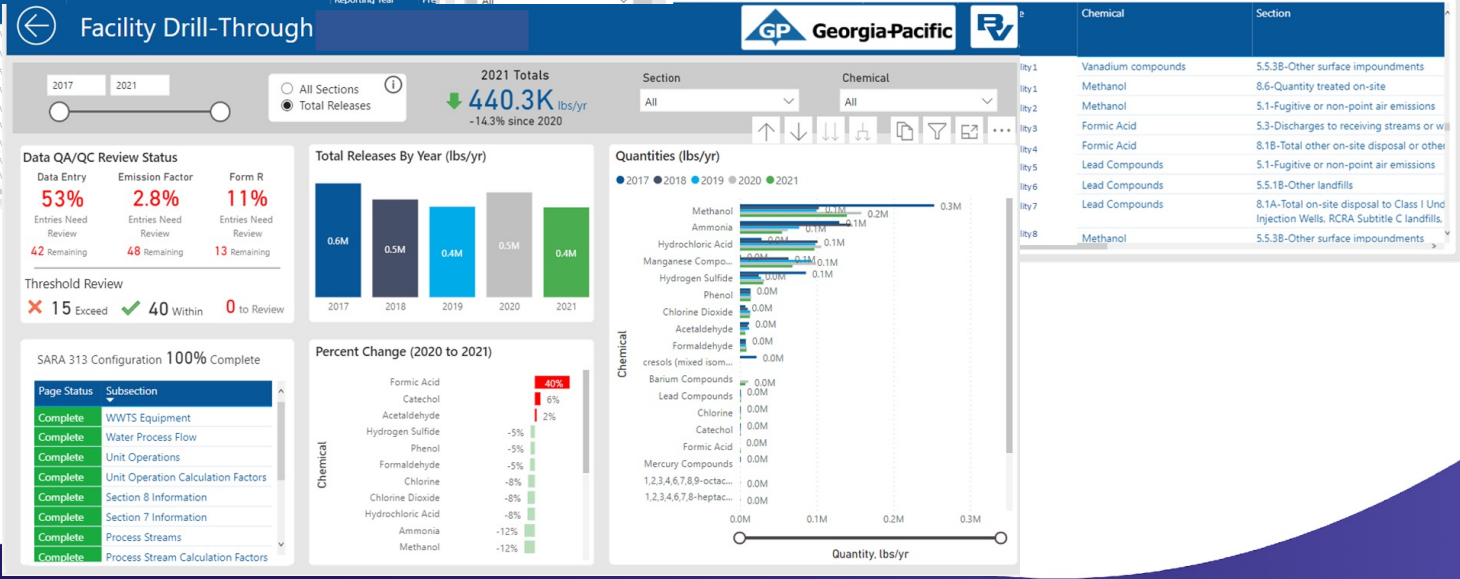
Environmental-BI Examples:







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What we've learned

1. You must prioritize and be disciplined.
2. Change is hard…**Transformation** is really hard!
   - The technology is just the enabler. In order to truly transform it starts with the people.
3. In an organization as complex as ours, breaking down the data silos was imperative.
   - You can't become a "data driven" organization without access to the data.
   - Utilizing BI tools to visualize the data is extremely powerful. In some cases, it is very difficult to become data driven without these tools.
4. Better teamwork and collaboration occurs when you harmonize the approach and breakdown the silos.
   - We are starting to see teamwork and collaboration that wasn't happening prior to these efforts.
5. Being more efficient is now a reality.
6. Better visibility = Better performance

Thank you!