Enterprise BI Portals

The Heart and Soul of a Business Intelligence Program

WAYNE W. ECKERSON

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About the Author

Wayne W. Eckerson is an international thought leader in the data and analytics field since the early 1990s. He is a noted speaker, sought-after consultant, and widely read author. Eckerson has conducted groundbreaking research studies, chaired numerous conferences, and consulted with organizations around the world during his 25 years in the field. Eckerson has also written two books: **The Secrets of Analytical Leaders: Insights from Information Insiders** (2012) and **Performance Dashboards: Measuring, Monitoring, and Managing Your Business** (2005/2010) He has degrees from Williams College and Wesleyan University.

About Eckerson Group

Eckerson Group is a global research and consulting firm that helps organizations get more value from data. Our experts think critically, write clearly, and present persuasively about data analytics. They specialize in data strategy, data architecture, self-service analytics, master data management, data governance, and data science. Organizations rely on us to demystify data and analytics and develop business-driven strategies that harness the power of data. **Learn what Eckerson Group can do for you!**

About This Report

Research for this report comes from briefings with Metric Insights, its customers, and other providers of BI portal technology. This report is sponsored by Metric Insights, which has exclusive permission to syndicate its content.

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Executive Summary

An enterprise BI portal is an essential ingredient of any successful business intelligence program. It provides business users one-stop shopping for any BI asset throughout an enterprise. It enables them to search BI assets no matter which tool generated them and interact with BI content without having to leave the BI portal. Also called an analytics catalog, a BI portal can personalize the home page for each business user, presenting them with thumbnails of relevant content based on role, department, or favorites. Users can inspect the asset's metadata prior to opening its content to verify its origin and trustworthiness. They can also annotate the asset with comments or ratings, increasing data usage and growing data literacy.

A BI portal's ability to abstract content from tooling is an immense benefit for BI administrators who can change or update BI tools without impacting business users. Many companies that use BI portals have been able to reduce the number of BI tools to a manageable amount. More importantly, a BI portal makes it possible for BI administrators to track usage by user, department, tool, report, and any number of other attributes throughout the enterprise. This provides powerful line-of-sight visibility into BI activity that enables BI administrators—often for the first time ever—to govern and optimize the lifecycle of reports and dashboards throughout the enterprise.

Key Takeaways:

An enterprise BI portal enables business users to:

> Search for any BI asset throughout an enterprise.

> Use BI assets no matter which tool generated them without leaving the BI portal.

> View a home page that displays content based on role, department, or favorites.

> Improve data literacy by inspecting metadata attributes for every BI asset.

> Contribute "tribal knowledge", such as comments and ratings.

> Gain confidence in the trustworthiness of BI content by using certified BI assets.

An enterprise BI portal enables BI administrators to:

> Gain line-of-sight visibility into BI activity and optimize BI environments.

> Track usage by user, department, tool, report, and any number of other attributes throughout the enterprise.

> Manage the lifecycle of reports and dashboards, paring unused or underused assets.

> Abstract content from BI tooling so changes or updates to BI tools or content doesn't impact business users.

> Reduce the number of BI tools to a manageable number.

> Provide effective BI governance through the entire lifecycle of a BI asset.

Recommendations:

1. Implement an enterprise portal, especially if your company has multiple BI tools or is afflicted with report sprawl.

2. Investigate enterprise BI portals from Metric Insights, Zenoptics, or Digital Hive to see which provides the best fit for your organization.

3. Roll out the enterprise BI portal one department at a time, recruiting business champions in each to coordinate the implementation and tailor the environment to their colleagues.

4. Provide training and hand-holding to get business users used to the idea of going one place to access any and all BI reports and dashboards.

Analytic Pain Points

The modern organization contains a hodgepodge of systems, tools, applications, reports, and models that create a fragmented view of data and information. This makes it hard for businesspeople to find trustworthy information to create plans, make decisions, and forecast trends. Organizations that are riddled with analytic pain points need a central mechanism to manage business intelligence (BI) assets for the benefit of both BI users and administrators.

Top 10 Pain Points

How about your organization? How much analytic pain do your business users and BI administrators experience? Has your organization harmonized data across systems and applications, creating trust in reporting output? Or has it left business users to fend for themselves to find, validate, and merge reports[1] to get the data they need?

Below is an Analytics Pain Point Assessment to help you gauge the degree of analytics pain in your organization. Rate the degree to which each statement below applies to your organization by filling in the blank with a number between 1 and 4, where 4= "Agree a lot"; 3= "Agree somewhat", 2= "Disagree somewhat", and 1= "Disagree a lot".

1. _____ We have too many reports, most of which are no longer used.

2. _____ We have too many reports with conflicting data and rules.

3. _____ Business users don't trust most reports.

4. _____ We have too many BI tools.

5. _____ Business users must use different BI tools to see different reports.

6. _____ Business users don't know which reports to use.

7. _____ Business users can't find the right report or don't know that some reports exist.

8. _____ BI and data teams are flooded with requests for custom reports.

9. _____ Business users make decisions by gut feel rather than data.

10. _____ Most BI tool licenses are unused or underutilized.

_____ **TOTAL**

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1 From now on, we'll use the word "report" to indicate any business intelligence (BI) output, including reports, dashboards, scorecards, or collections of charts and tables.

How did you score? Use the key below to determine the degree of analytic pain that exists in your organization. Better yet, give this quiz to your colleagues and business counterparts, average the score, and bring the result to your executive team.

Score:

> 30-40: Analytics Suffer Fest. Get help immediately! Productivity is low, frustration levels are high, morale is in the dumps, and people are making decisions on bad data or none at all.

> 20-30: Analytics Pain Drain. Lack of consistent, trustworthy, and accessible data and reports makes it hard for people to do their jobs. Many wish they worked elsewhere.

> 10-20: Analytics Irritation. Your organization has a proverbial pebble in its data shoe, creating an irritating work environment that saps energy and commitment.

> 0-10: Analytics Bliss. Congratulations! You have mastered data and BI and now it's time to share your know-how and technology with other organizations.

BI Program

The above pain points are the bane of BI professionals who are charged with eliminating them. Unfortunately, most BI professionals are overwhelmed by the scope and complexity of the issues underlying these pain points and under-armed with technology to address them. It's no fun coming to a shoot-out with a water pistol. But that's what it's like to run a BI program at many organizations.

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A BI program serves as a gateway for the delivery of insights to business users. Run by a BI director, the program oversees the development, distribution, and management of reports and dashboards for the enterprise. As report development increasingly moves to business units, the BI team now focuses on standardizing and coordinating BI activities across the enterprise. Its goal is to harmonize data and reports so business users can speak the same language when analyzing issues and making decisions.

But this is challenging. Most BI directors are hamstrung by a lack of tools for managing an enterprise BI environment. Most don't have line-of-sight visibility into what business users are doing with BI tools, reports, and dashboards. It's hard to manage what you can't see or measure. Without a central mechanism to track BI usage, personalize content, and provide business users with a single place to find relevant reports and dashboards, BI directors are fighting a losing battle.

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Here are challenges that BI directors face:

> Report sprawl. BI directors need to identify unused or under-used reports and dashboards and consolidate them to save data processing costs and simplify user access.

> Lack of user adoption. Many BI directors need to ensure business users actively use new self-service tools to get full value from those investments, but often struggle to do so.

> Dueling reports. Every BI director fears getting scolded by executives frustrated by conflicting reports and data that subordinates bring to planning meetings.

> Tool proliferation. Most organizations have multiple BI tools used by different business units and departments, increasing maintenance and support costs as well as the risk of conflicting data.

> Usage monitoring. With multiple BI tools, BI directors struggle to gain an enterprise view of business usage and work proactively to optimize usage and minimize costs.

> BI bottleneck. With too many tools and reports, business users often turn to the BI team for custom reports, creating a bottleneck that undermines data-driven decisions.

> Lack of report standards. In a heterogeneous BI environment where each department creates its own reports, it's hard to govern output, create standards, and foster trust in data.

> Poor ROI. Executives may question the value of BI if, despite investments in new tools, the company is still afflicted with report sprawl, low user adoption, and conflicting reports.

To run a successful BI program, BI directors need a better way of seeing and managing BI activity across the enterprise. What BI directors need is an enterprise BI portal.

Universal BI Portal

A BI portal is an enterprise tool that provides immense benefits to both BI users and BI administrators. For business users, a BI portal eliminates report sprawl and makes it easy to find relevant reports and dashboards they can trust. For BI administrators, it forms a seamless bridge between disparate BI tools and provides line-of-sight visibility into all BI activity across the enterprise. It also enables them to create custom workflows to certify changes to standard reports and create report "journeys" to address
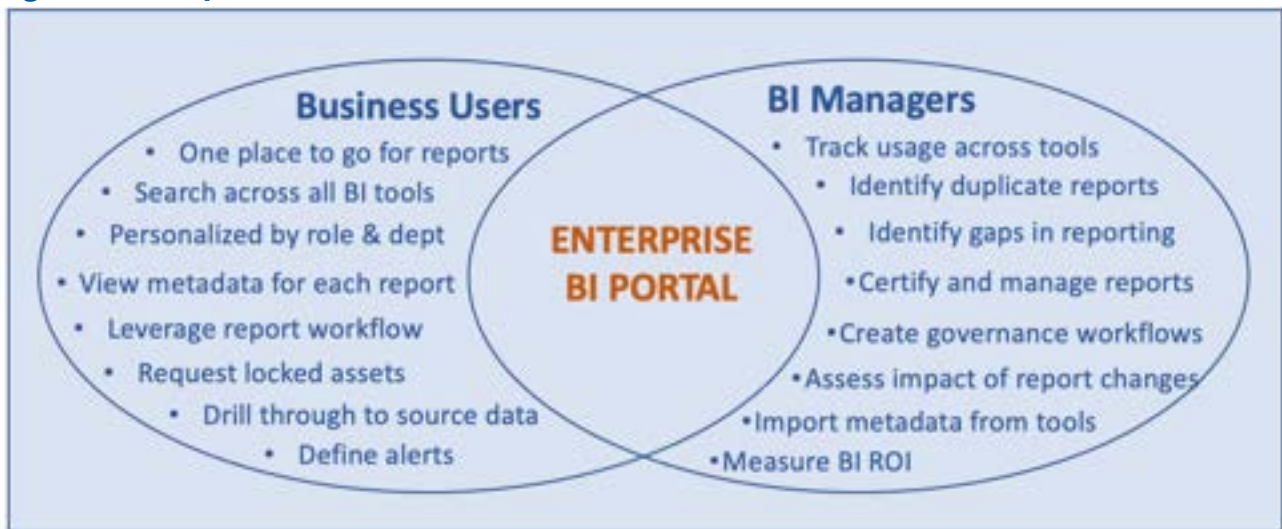
common business processes.

An enterprise BI portal forms a seamless bridge between disparate BI tools.

Figure 1 shows the benefits of an enterprise BI portal to its two core audiences: business users and BI managers. A BI portal is sometimes called an analytics catalog.

Figure 1. Enterprise BI Portal Benefits

Use Case: Truist Financial

Truist Financial is a top ten US commercial bank based in Charlotte, North Carolina that was formed through the merger of BB&T and SunTrust. After the merger, the bank counted more than a dozen BI tools, including Cognos, QlikView, and SharePoint. The BI team didn't know which users were using which tools and reports, and business users had a hard time finding relevant reports to use.

"People were spending more time finding content than analyzing and acting on it," says Gopi Devarajan, senior data manager in the enterprise data office at Truist.

"People were spending more time finding content than analyzing and acting on it."
Gopi Devarajan

From 15 to 3. To clean up the chaos and pare down the number of tools and reports, Truist purchased a BI portal from Metric Insights, which sponsored this report. The BI portal enabled Truist to track usage by

tool, department, and user. These insights made it easier for Truist to rationalize its BI portfolio, reducing the number of BI tools from 15 to 3.

BI abstraction. More importantly, the BI portal has made it easy for business users to search and use reports across the enterprise. By abstracting content from tools, the BI portal enables BI administrators to change or upgrade reports without impacting business users. "As we convert to our target BI state, business users don't need to know which tool we're using to generate reports," says Devarajan.
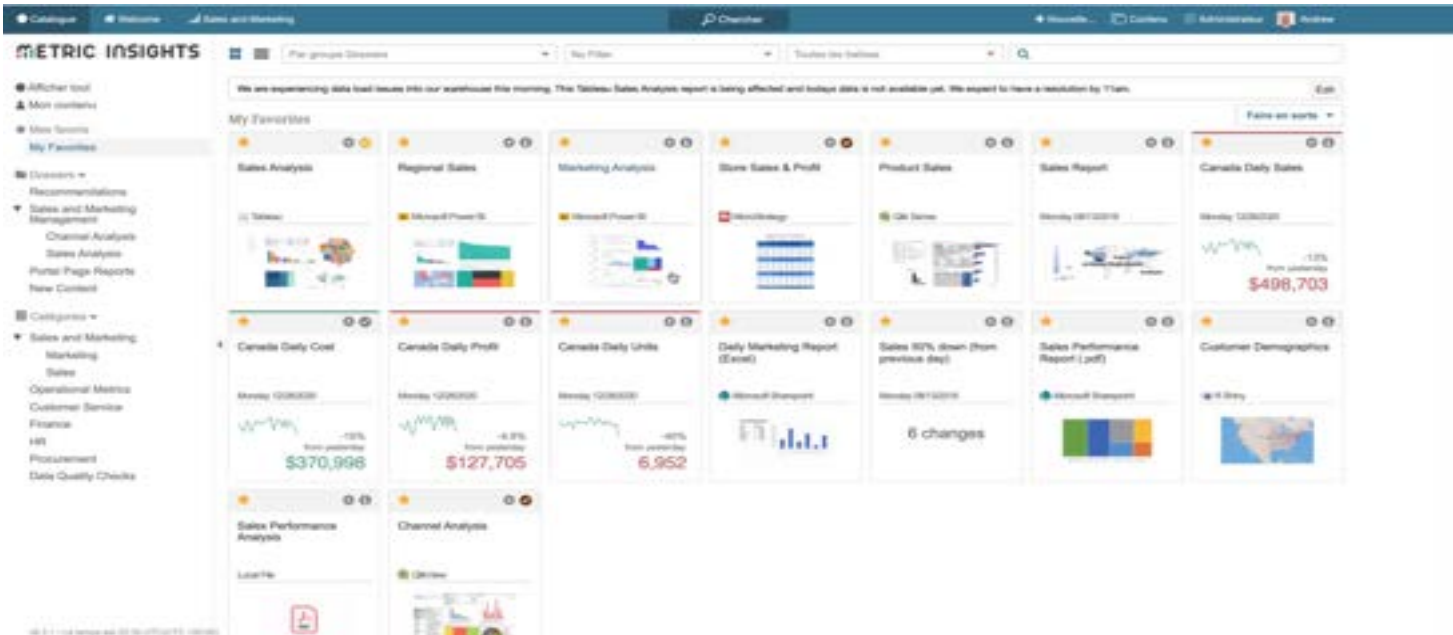
Line-of-sight visibility. The BI portal also makes it easy to track usage. "We now know who is using what and how much, which was very hard to do before," says Devarajan. "Our BI portal brings everything together—to see report activity for the past week or 30 days is powerful." To deal with report sprawl, the BI team has set thresholds for report usage. If usage for an individual report falls below the threshold for a period, the BI team begins the process of decommissioning the report.

Business User Functionality

Personalized home page. Companies like Truist that implement an enterprise BI portal find that it is a godsend for business users. The portal gives them one place to go to find and use any report or dashboard, no matter what tool was used to create it or where it is stored. A BI portal provides the same one-stop shopping experience for business users that a data catalog provides for data stewards and power users. In fact, some people now call a BI portal a "data catalog for business users."

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The portal home page displays a visual grid of relevant content based on the user's role or department as well as reports or dashboards they've marked as a favorite or viewed recently. The page contains a keyword search bar that enables them to find any content that has been indexed by the portal. There is also a ticker at the top that displays messages relevant to all users or a specific group of users. (See figure 2.)

Figure 2. BI Portal Home Page for an Individual User

Live reports. When users click on a thumbnail, they open a live report or dashboard in its native application inside an iFrame window. For example, if the user clicks on a Tableau report, the report opens in a Tableau application within the portal window. This way, business users don't have to switch from the portal to a BI application to view a report. Users can interact with all content inside the BI portal using the full functionality of the originating application. The best BI portals integrate with most popular BI tools, giving business users a one-stop shop for all BI content. This saves them time and makes accessing and analyzing data a more pleasurable experience.

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Content metadata. Besides displaying content, a BI portal grabs relevant metadata and presents it in business-friendly terms. To view the metadata, users can click on the settings icon in a thumbnail view, or they can open the report or dashboard and see the metadata in the right sidebar. Users can view a report description, data origins, metric definitions, report owners, BI format, usage information, user comments, PII classification, and certification status as well as metadata from third-party tools, such as data catalogs. This wealth of supporting information gives users greater confidence and trust in the data. (See figure 3.)
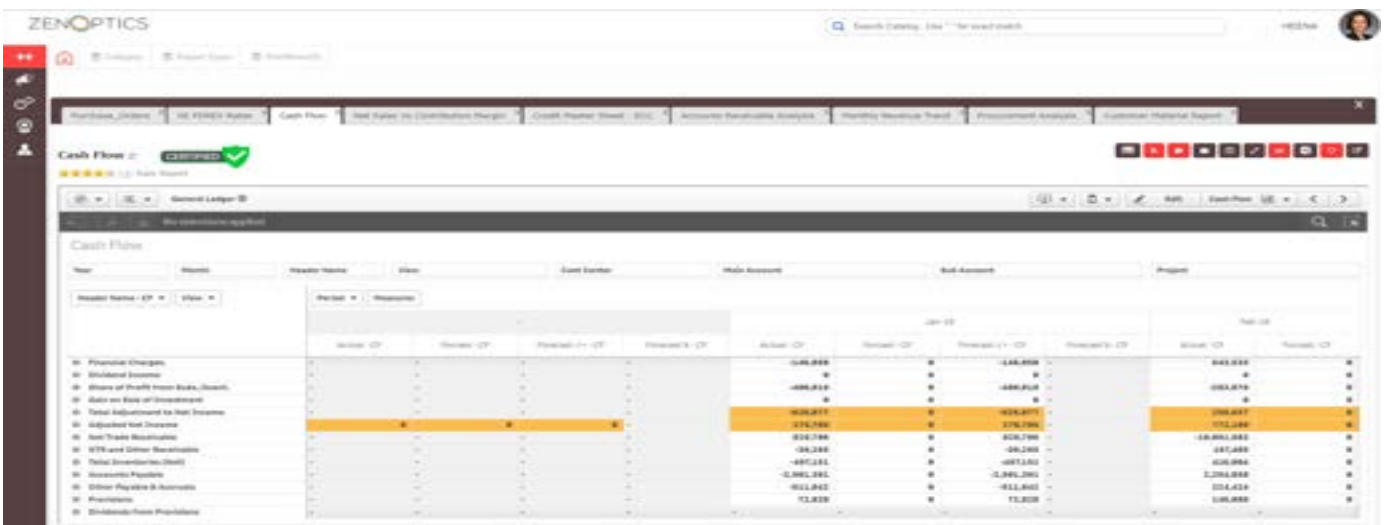
Figure 3. Comprehensive Metadata

Comprehensive search. The search functionality enables users to search by keyword, tag, date, owner, usage, and many other attributes. The search returns results by relevancy along with metadata to make it easy for users to find the best item to select. A good BI portal also displays metadata for content that users don't have permission to see. When users select unauthorized content, the BI portal displays an "access denied" message with a link to request permission from the content owner. This level of control gives users confidence that they can find relevant content and seek permission to view it even if they currently don't have permission to access it. (See figure 4 below.)

Figure 4. User Search with Access Control and Provisioning

Other functionality. BI portals offer a variety of functionality for business users depending on the product. For instance, some support the ability to drill from a report to the source system that feeds it so users can validate data in the report directly against the originating system. Others give users the ability to view two reports side-by-side to compare fields to see which one is the best for a specific task or decision. Some automatically transfer filters between reports created by different BI tools, saving users time spent adjusting filters when switching from one report to another. A few even display reports in a workflow arrangement, allowing a team of users to manage a complex process, such as order to pay, that involves reports from multiple systems. (See figure 5.)

Figure 5. User Workflow Based on Sequence of Reports

BI Administrator Functionality

A BI portal offers many benefits for business users, as we've just discussed, but it's even more beneficial for BI administrators. With a BI portal, administrators gain line-of-sight knowledge of how BI tools and reports in their organization are being used. This makes it infinitely easier to manage and optimize these resources, improving their usage and streamlining costs.

Most BI portals offer extensive statistics on BI usage. They track who is using which reports and BI tools and aggregate this data into easy-to-use reports. BI administrators can search this treasure-trove of data by date, department, category, tool, and user, among other things. (See figure 6.) They can use this data in many ways:
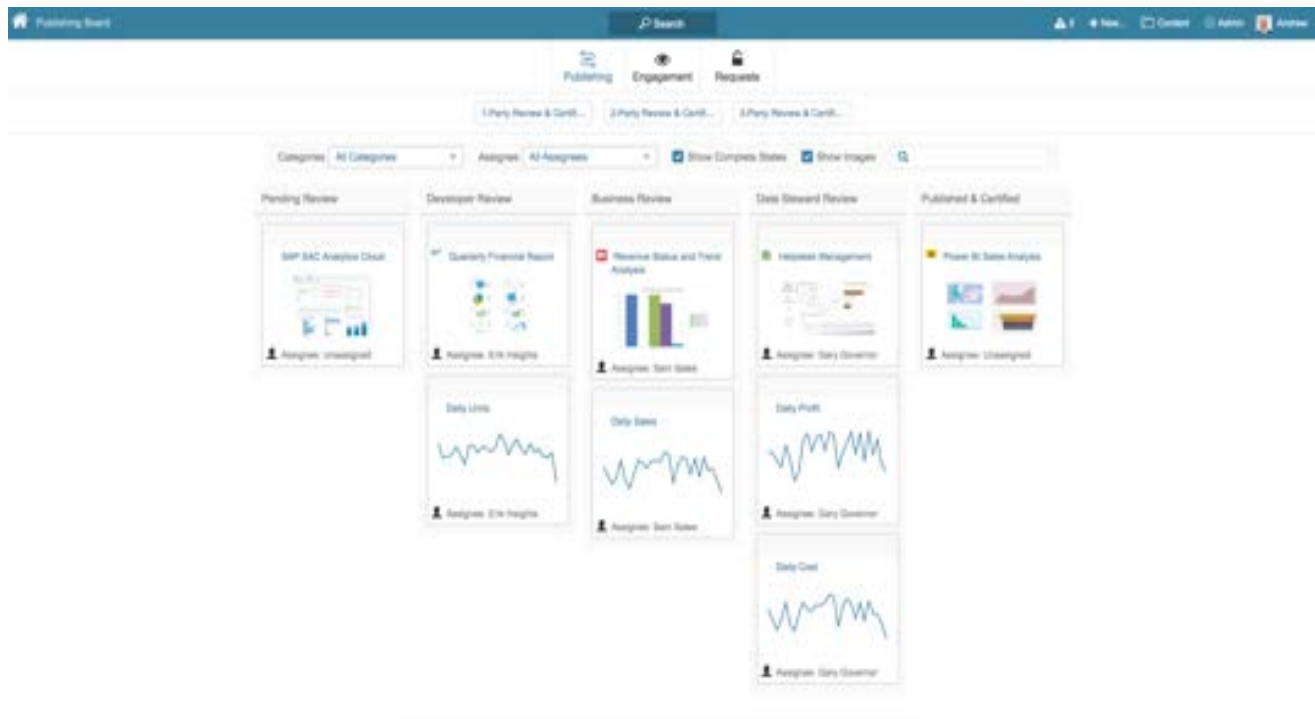
> Determine the effectiveness or "stickiness" of various BI reports.

> Determine which reports need additional promotion and which should be deleted.

> Compare usage among departments and provide extra education and training to "underperforming" groups.

> Track BI usage by tool to determine which BI tools are most popular.

> Track metadata, including fields, across reports to identify duplicate and overlapping reports.

> When a source system or field changes, identify impacted reports.

> Track active BI licenses per tool and display cost savings that would result from deleting unused licenses.

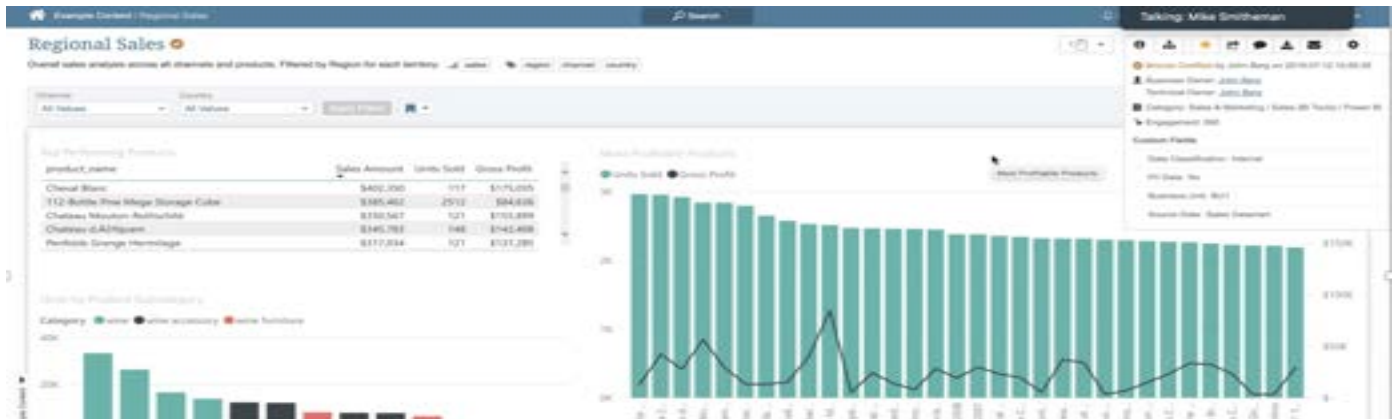### Figure 6. Usage Tracking Statistics

Report Governance. BI portals can also be instrumental in helping BI administrators govern reports and dashboards. Administrators can use the BI portal to establish a governance workflow in which individuals on a governance team sign off on various aspects of a new report or a change to an existing standard report. For example, a data steward might check whether the report's data definitions and metric calculations conform to standards; a developer will review whether it adheres to design principles for layout and branding; and an IT person might check the report for scalability and performance, and perhaps rewrite it to run on a standard corporate BI platform. (See figure 7.)

Figure 7. Report Governance Workflow

If the report passes the review process, it receives a seal of approval with a timestamp. Most BI portals attach a certification mark to the report once it passes the governance check. These seals are displayed with the report and marked in its metadata. Business users rely on these certification marks to indicate whether a report's contents are trustworthy. (See figure 8.)

Figure 8. Report Certification

Summary

A BI portal is an essential tool in any BI practice. It's critical for managing BI activity and assets across an enterprise that may have dozens of BI tools and thousands or tens of thousands of reports. For business users, a BI portal provides a one-stop shop for all BI assets. It abstracts content from tooling, making it easy for business users to find, evaluate, and use reports. For BI administrators, it provides line-of-sight visibility into all BI assets and their usage, making it possible to control report sprawl and BI tool proliferation. No BI practice should go without a BI portal!

About Eckerson Group

Wayne Eckerson, a globally-known author, speaker, and consultant, formed **Eckerson Group** to help organizations get more value from data and analytics. His goal is to provide organizations with expert guidance during every step of their data and analytics journey.

Eckerson Group helps organizations in three ways:

> **Our thought leaders** publish practical, compelling content that keeps data analytics leaders abreast of the latest trends, techniques, and tools in the field.

> **Our consultants** listen carefully, think deeply, and craft tailored solutions that translate business requirements into compelling strategies and solutions.

> **Our advisors** provide one-on-one coaching and mentoring to data leaders and help software vendors develop go-to-market strategies.

Eckerson Group is a global research and consulting firm that focuses solely on data and analytics. Our experts specialize in data governance, self-service analytics, data architecture, data science, data management, and business intelligence.

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Metric Insights' Enterprise Business Intelligence Portal is the leading BI governance platform that integrates all your BI tools, reporting, and metrics into a single, consolidated catalog of governed BI assets. Metric Insights drives engagement with BI making it simple and practical for users to find, trust, and consume data.