Tellius 4.1

Better Decision-Making through Improved Context and Collaboration

Hardik Chheda
Chief Product Officer

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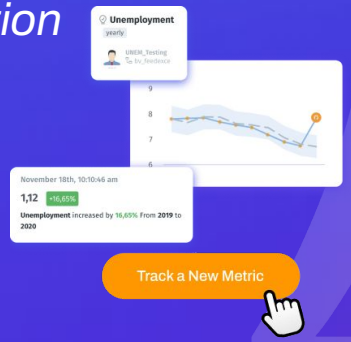
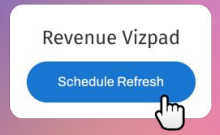
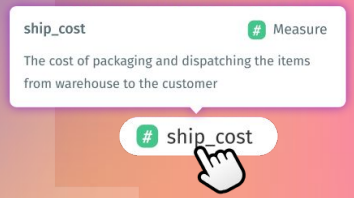
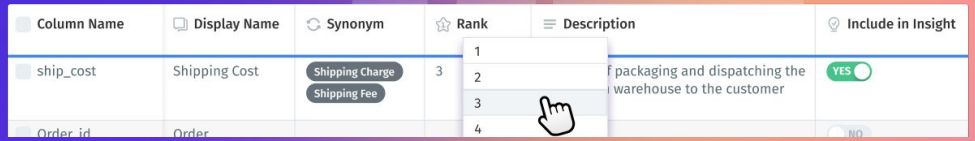








LIVE WEBINAR

Thursday Feb 16, 2023
11am ET | 8am PT

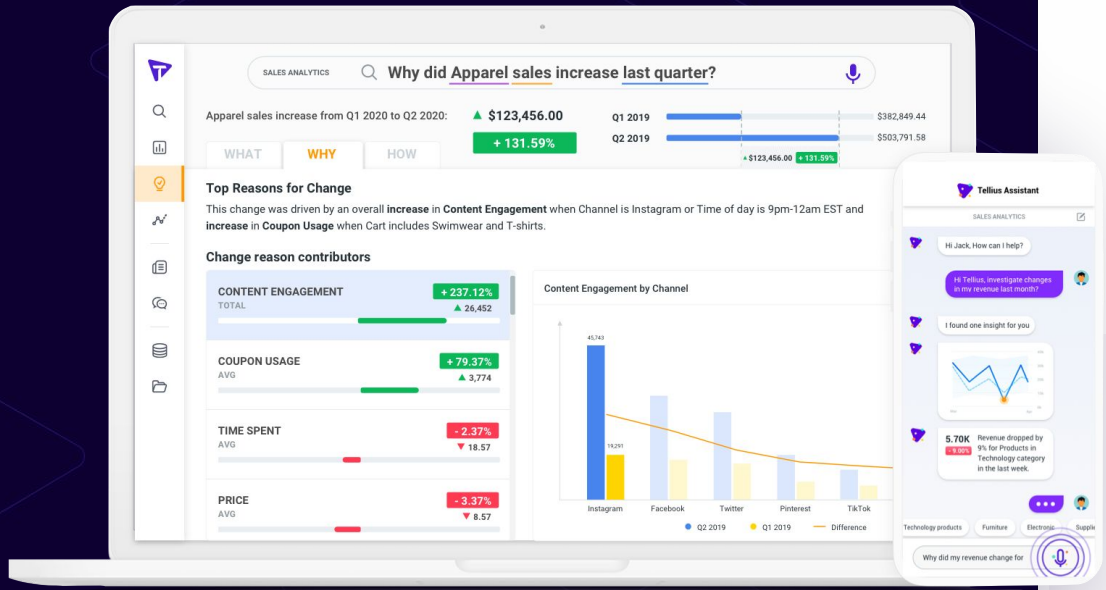
Agenda

February 2023

- Intro to Tellius
- Tellius 4.1 Product Themes
- Innovations in 4.1
  - Key Features
  - Demo
- Q & A

What Is Tellius?

Faster decisions
with *better* understanding of the
'what' and ***'why'***
from your *business data* using
AI-Powered Insights



Trusted by Innovative Global Brands

Pharmaceutical	NOVARTIS	AstraZeneca
Finance & Insurance	homepoint	UNITERS
CPG	PEPSICO	P&G
Telecom & ICT	NOKIA	genpact
Retail	ebay	FRESHMART
Technology	Teletrac Navman	Pelmorex Corp

Partners

aws

Recognition from the industry & analysts

Market Validation and Customer Growth

Tellius named a **VISIONARY**

Gartner

2022 Analytics & BI Platform
Magic Quadrant

FORRESTER®

Now Tech:
Augmented BI
Platforms 2021

IDC

BI & Decisioning Software Solutions 2021

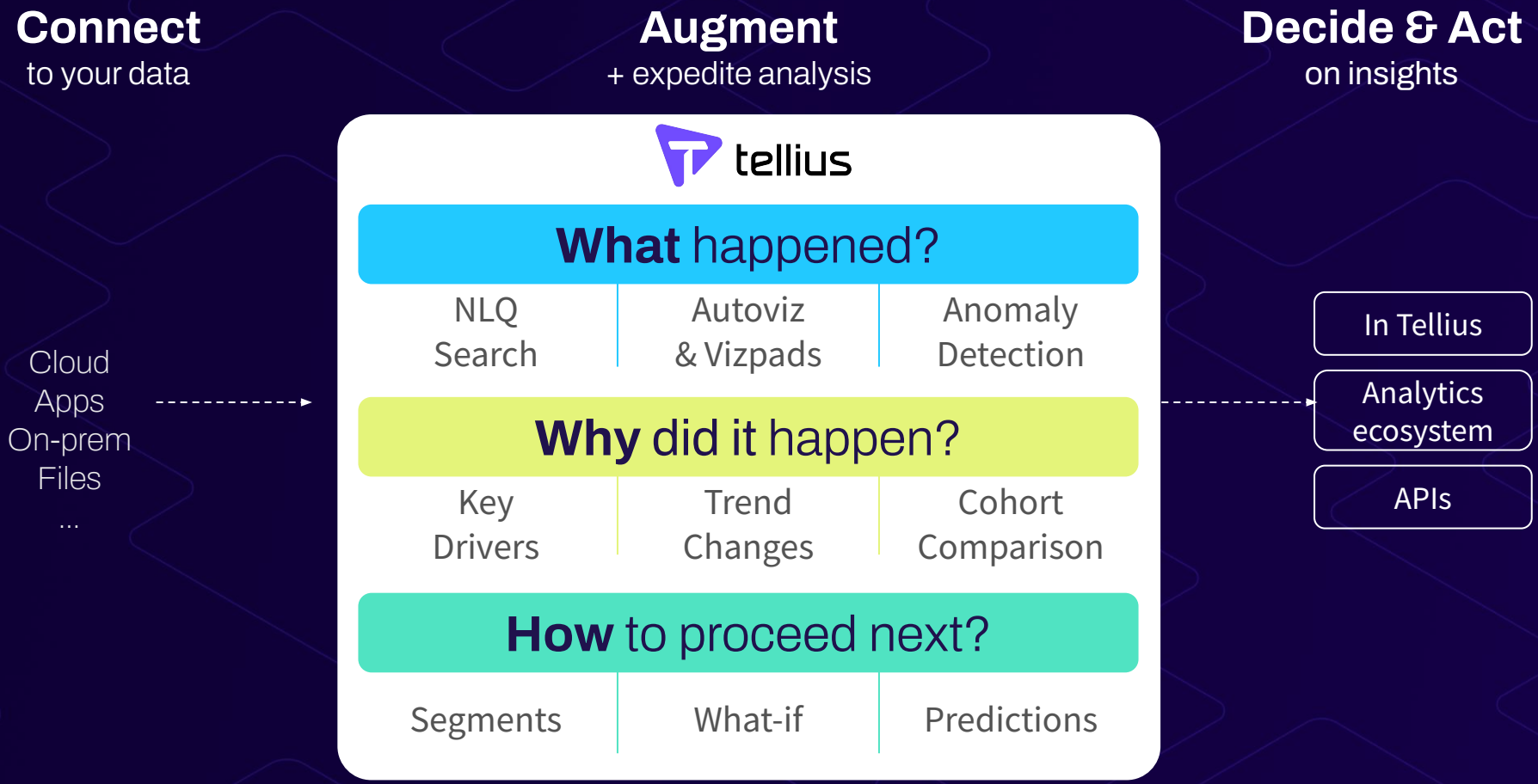
INNOVATOR

451 Research®

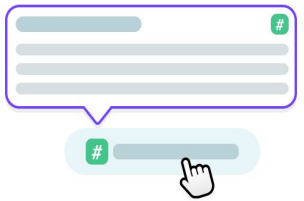
"[Tellius]'s automated detection of key business metrics and anomalies has really started to sizzle"

Gartner

COOL VENDOR 2019

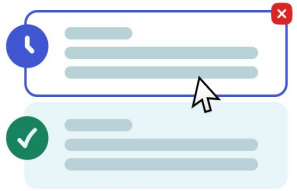

Connect
to your data
Augment
+ expedite analysis
Decide & Act
on insights
tellius
What happened?
NLQ Search
Autoviz & Vizpads
Anomaly Detection
Why did it happen?
Key Drivers
Trend Changes
Cohort Comparison
How to proceed next?
Segments
What-if
Predictions
Cloud
Apps
On-prem
Files
...
In Tellius
Analytics ecosystem
APIs

Tellius 4.1 Key Themes



Context

Establish context for every dataset with contextual metadata



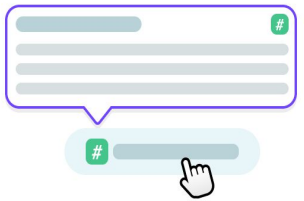
Transparency

Provide visibility on scheduled jobs via periodic alerts

Collaboration

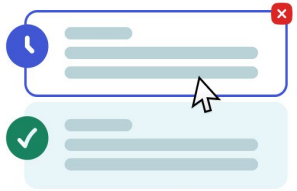
Boost cross-team collaboration via multi-user subscription to Feed

Tellius 4.1 Key Themes



Context

① Metadata for Columns
② Data Dictionary for Columns
③ Include/Exclude Columns for Insights/Predict
④ Rank Columns for Live Insights



Transparency

⑤ Metadata for Notifications
⑥ Scheduled Jobs View and Subscribe
⑦ Processing Queries on Sample Data

Collaboration

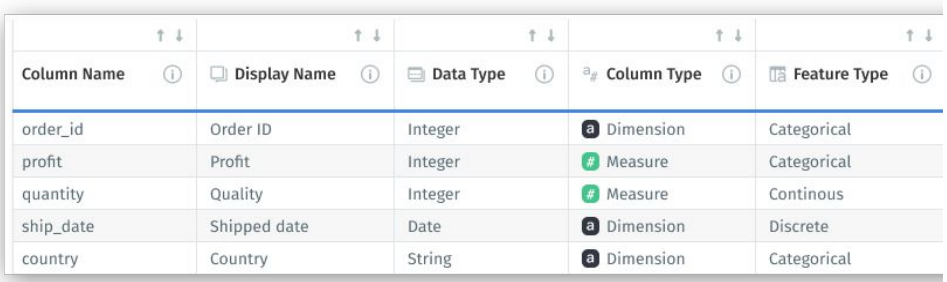
⑧ Feed Subscription

Major: Metadata for Columns

Understand the context of data

Why

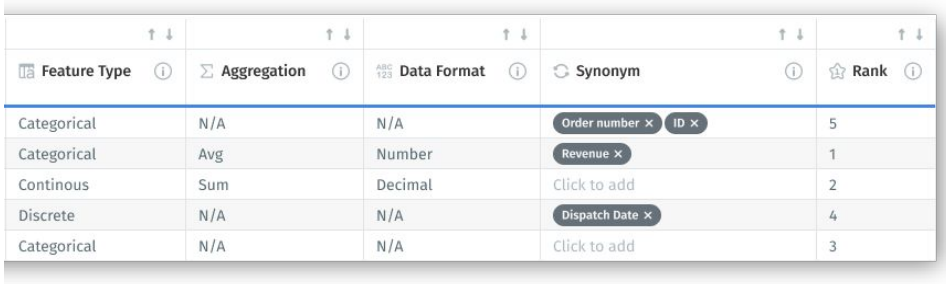
- **Easier** and **faster** to **view** and **edit metadata**
- **Provides context** - data dictionary, user preferences *(rank, include/exclude columns, index)*
- Enables **context driven analysis**



Column Name	Display Name	Data Type	Column Type	Feature Type
order_id	Order ID	Integer	Dimension	Categorical
profit	Profit	Integer	Measure	Categorical
quantity	Quality	Integer	Measure	Continous
ship_date	Shipped date	Date	Dimension	Discrete
country	Country	String	Dimension	Categorical

What

- Provides optimal view of all the **information about data in one place**
- Easily **edit** and **sort** columns
- Apply **changes in bulk**
- Values reflected across Tellius



Feature Type	Aggregation	Data Format	Synonym	Rank
Categorical	N/A	N/A	Order number × ID ×	5
Categorical	Avg	Number	Revenue ×	1
Continous	Sum	Decimal	Click to add	2
Discrete	N/A	N/A	Dispatch Date ×	4
Categorical	N/A	N/A	Click to add	3

Major: Data Dictionary for Columns

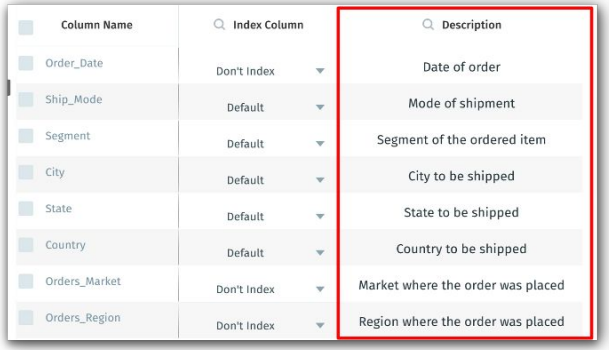
Understand the context of each column

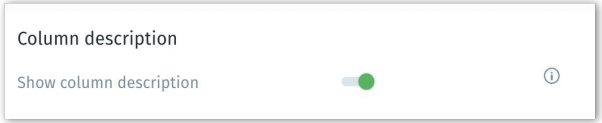
Why

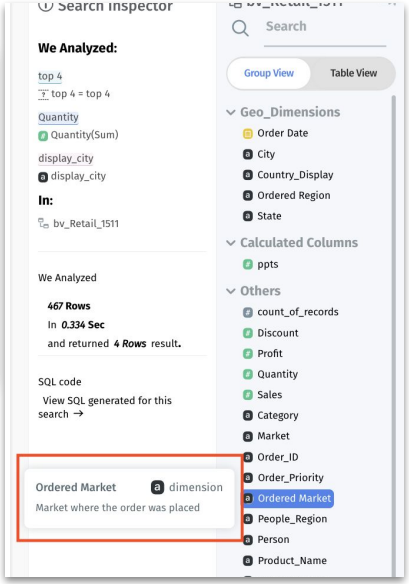
- Informs and educates the users with data context
- Column **description, definition/calculation, lineage, source, and business context** can be presented across the platform
- Promotes **context driven analysis**

What

- Data dictionary to help understand the **context** of each column
- **Contextual tooltip** across the platform
- Set up data descriptions in the **Metadata** view with flexibility to enable/disable descriptions in **Settings**







Major: Include/Exclude Columns for Insights and Predict

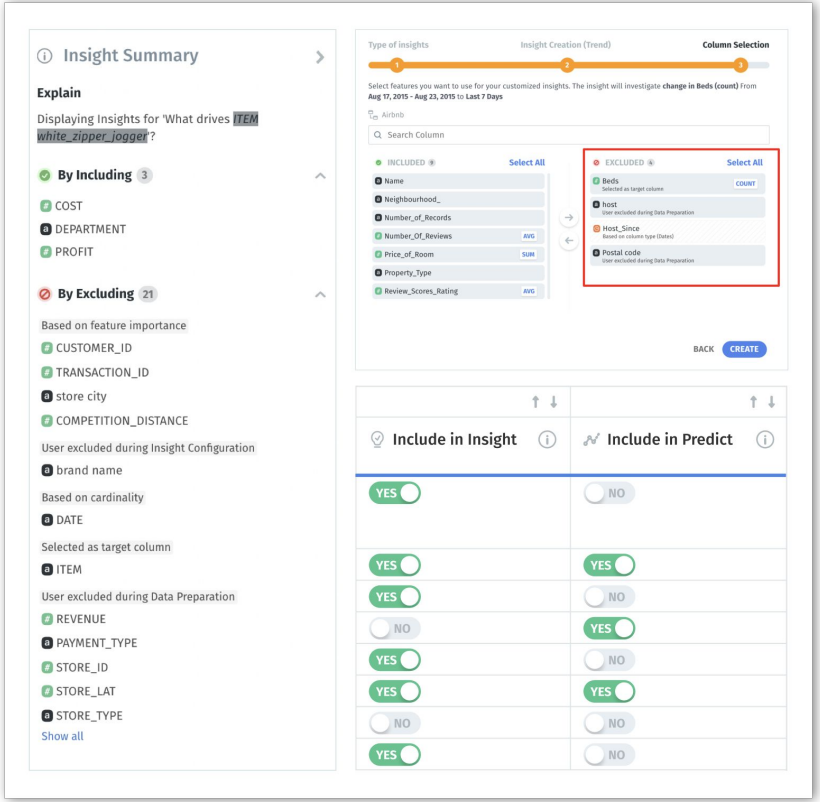
Easily select columns for analysis

Why

- **Generate meaningful Insights**
- Provide **context** on why certain **columns are excluded**
- **Reduced time spent** on repeated column selection for analysis across Insights

What

- **Select columns to be included** for Insights and Predict in Metadata view
- **Flexibility to override** selections during Insights configuration
- Insights configuration and summary displays **exclusion reasons**



Major: Rank Columns for Live Insights

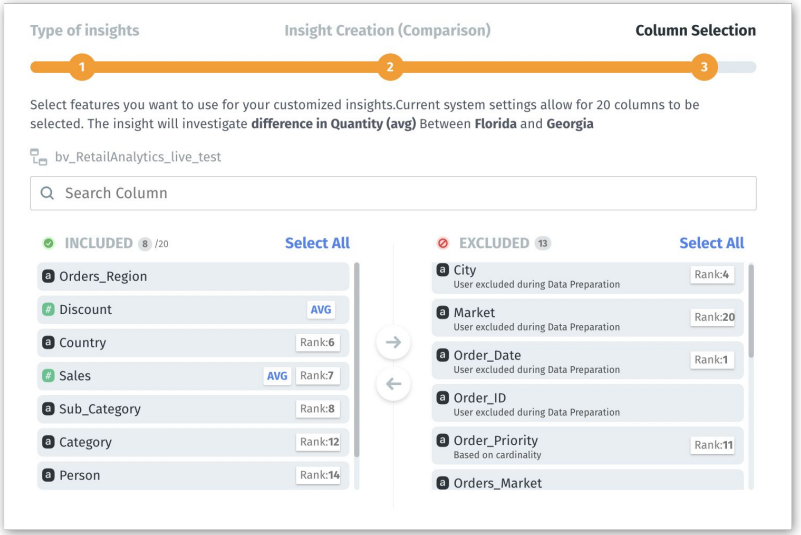
Prioritize columns for Live Insights

Why

- Removes randomness in column selection for live insights
- Allows **prioritization of columns** for Live Insights
- Future: Will power search, recommendations etc. in subsequent releases

What

- **Rank columns (1-20)** to be picked for **Live Insights** in Metadata view
- Ranked columns can still be excluded from Insights
- Available **only for Live Data** sources



Major: Metadata for Notifications

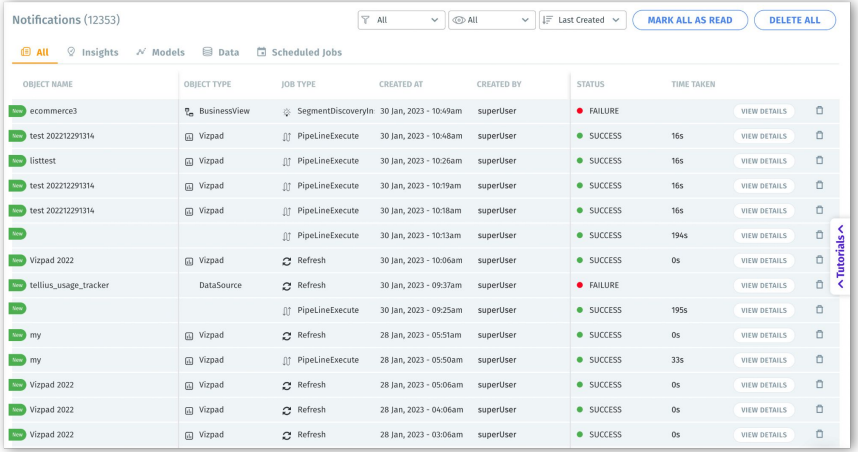
Improved Notifications module

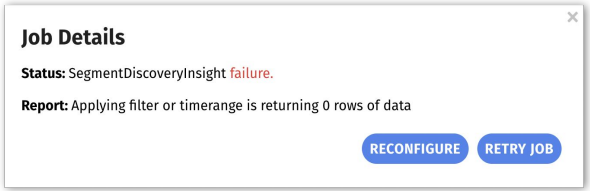
Why

- Improves **transparency** by providing **additional context** on the job metadata and failed jobs
- **Improves visibility** and enables the user to correlate the executed job with an actual object

What

- Provides **additional metadata** for each job executed
- Added **object name and object type** in the Notifications module
- Job details shown for each job executed
- Ability to **re-run specific failed jobs**





Major: Scheduled Jobs View and Subscribe

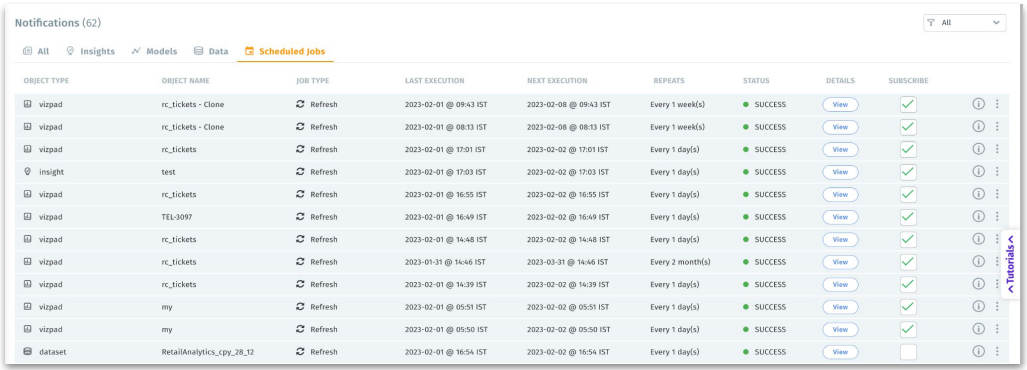
Subscription to scheduled jobs

Why

- Improves **transparency** by providing **visibility** of scheduled jobs on shared objects
- Users can **subscribe** to the required jobs to receive **regular email notifications on job runs**

What

- New tab in Notifications module to **display** and **track all scheduled jobs**
- Ability to **subscribe** to scheduled job and receive email notifications
- Helps users to stay informed about **status** of scheduled jobs on shared objects



Major: Processing Queries on Sample Data

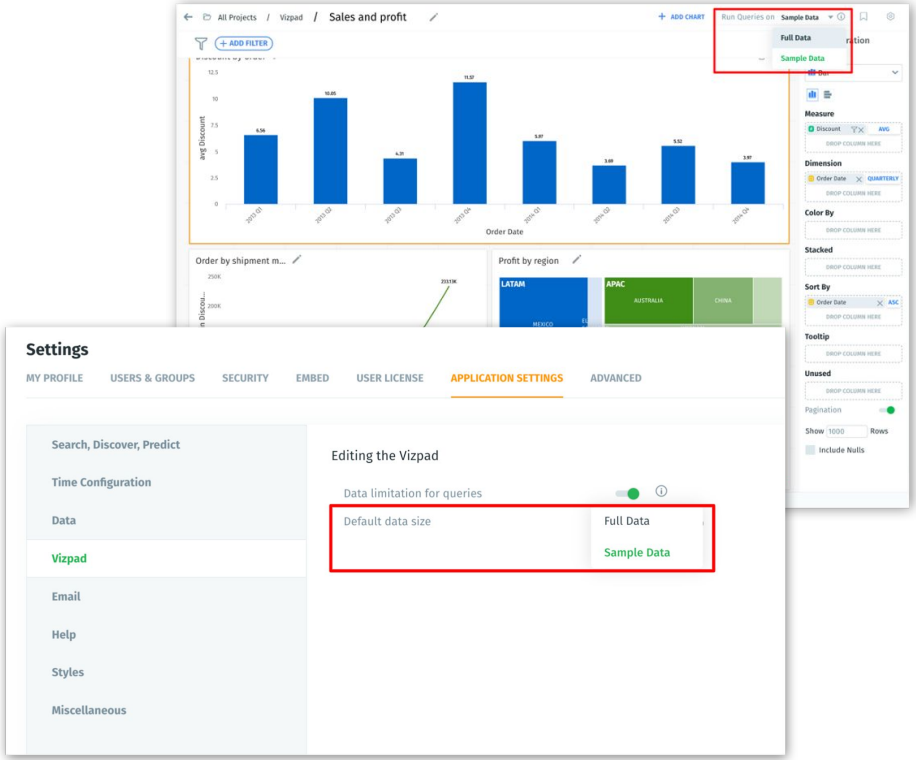
Improved user-experience

Why

- Saves time for the creator persona by making **Vizpad building process more efficient**
- Especially helpful for **live connections** and/or **large datasets**

What

- **Run queries on sample data** while building Vizpad
- Provides ability for Admins to determine the default behaviour in **Settings** (Full data vs. Sample data)
- Once the Vizpad is saved, results shown on **full data**



Major: Feed Subscription

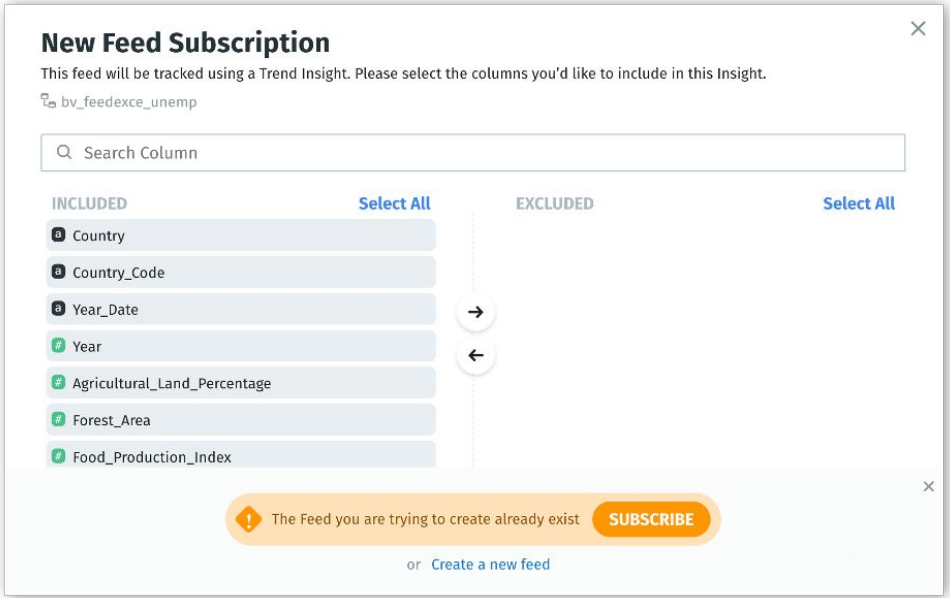
Multi-user subscription to Feed

Why

- Allow multiple users **to access the same feed hence eliminating** creation of **duplicate** Feeds
- Foster **collaboration** with multiple users getting **visibility and access to the same feed**
- **Frees up resources previously clogged due to duplicate jobs**

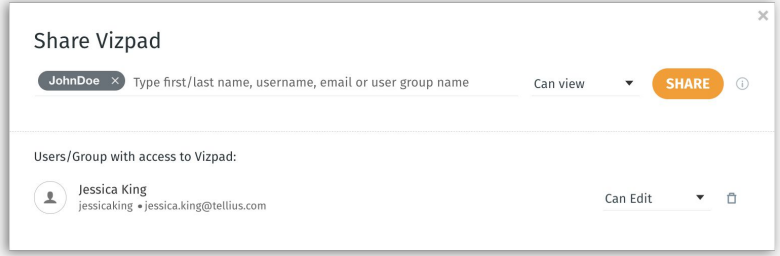
What

- Multiple users can **subscribe to same Feed** and receive regular email alerts
- New Feed will be created after **checking for any similar Feed**
- User can **subscribe to existing Feed** or **create a new Feed**

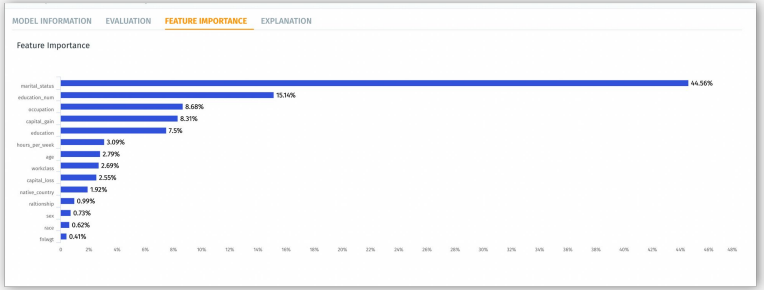


Minor: Features in 4.1

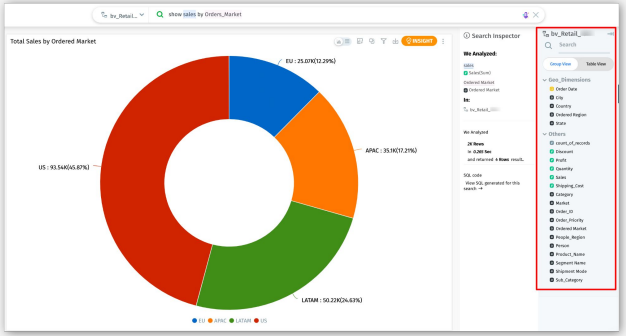
Share objects using person's **first/last name** or **email**



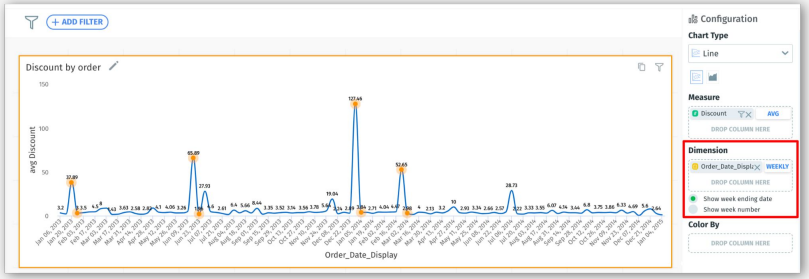
Feature importance for XGBoost



Display columns in Search and Tellius Assistant

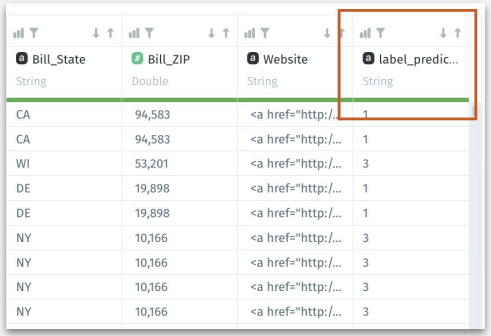


Week ending date as the default for **Weekly aggregation**



Minor: Features in 4.1

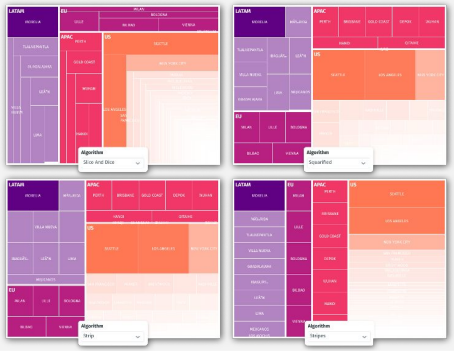
clusters now available as Dimensions for Analysis



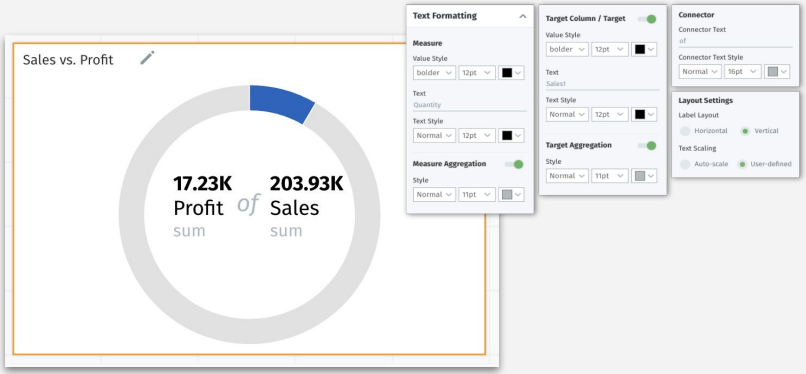
Bill_State	Bill_ZIP	Website	label_predic...
String	Double	String	String
CA	94,583	<a href="http:/...	1
CA	94,583	<a href="http:/...	1
WI	53,201	<a href="http:/...	3
DE	19,898	<a href="http:/...	1
DE	19,898	<a href="http:/...	1
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3

Report generation **URL configurations**

Treemap algorithms - Slice and Dice, Squarified, Stripes, Strip



Enriched **KPI and KPI target chart**



Minor: Features in 4.1

Minor Improvements

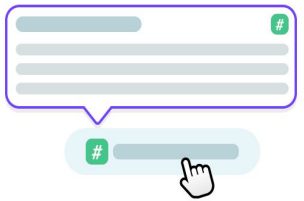
- Kerberos based authentication for Spark SQL
- Proxy support for Salesforce and Google Analytics
- Seamless switching between different tabs in a Vizpad
- Increased timeout limit for the generation of multiple reports on Vizpad
- Added additional Python libraries to forbidden list
- 0 will not be plotted for null values
- Date format in csv download of Vizpad

Minor: Fixes in 4.1

Fixes

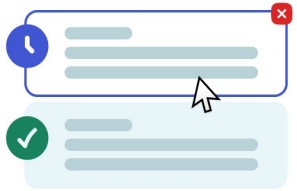
- Vizpad rendering, loading, and performance issues
- Default aggregation for measures
- Visibility of data labels for the waterfall charts
- Filtering of high cardinality columns using a Vizpad list filter
- Conditional formatting and number formatting for KPI charts
- Sanitize HTML tags entered in the Search queries
- Block special characters in names
- Dataset renaming issues with fusion and data load

Summary of 4.1



Context

Establish context for every dataset with contextual metadata



Transparency

Provide visibility on scheduled jobs via periodic alerts

Collaboration

Boost cross-team collaboration via multi-user subscription to Feed

Questions?
Feedback?

product@tellius.com

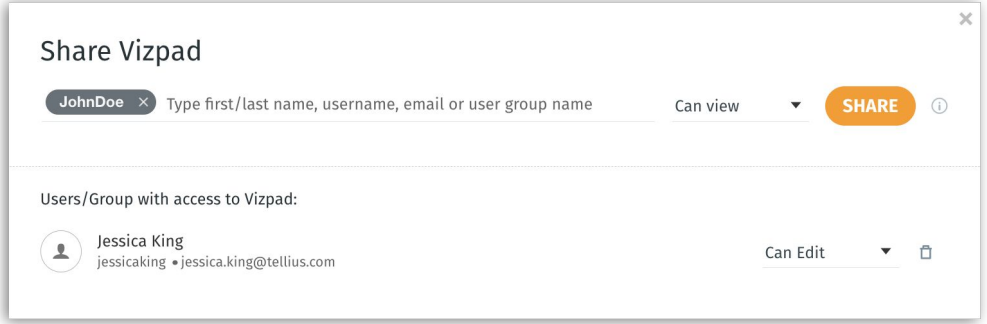
Washington DC ● San Francisco ● Bangalore

Appendix

Minor: Share Objects Using Name

Share objects using person's name

- Ability to **share objects** using person's **first name** or **last name** or **email**
- Now search using first name/last name or email or username while sharing objects
- Available across Tellius - **Data**, **Explore**, **Discover**, and **Predict**

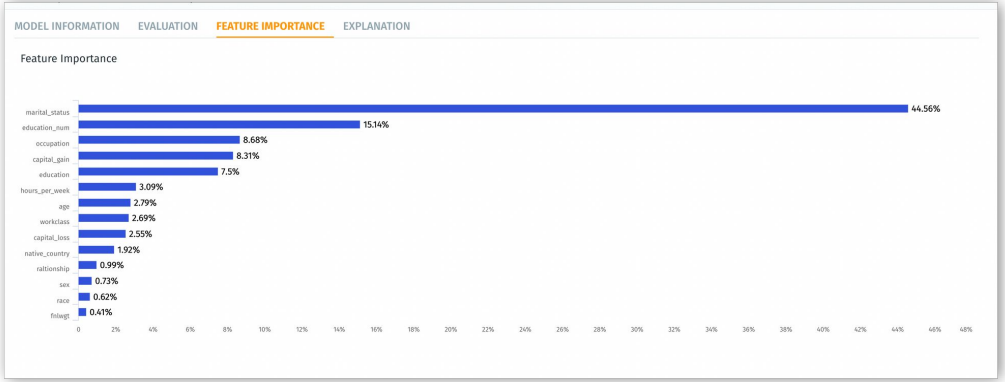


Major: Feature Importance for XGBoost

Display the feature importance for each column

- For models created using XGBoost algorithm, **feature importance for each column** will be displayed

- New tab called **Feature Importance** added to display the values



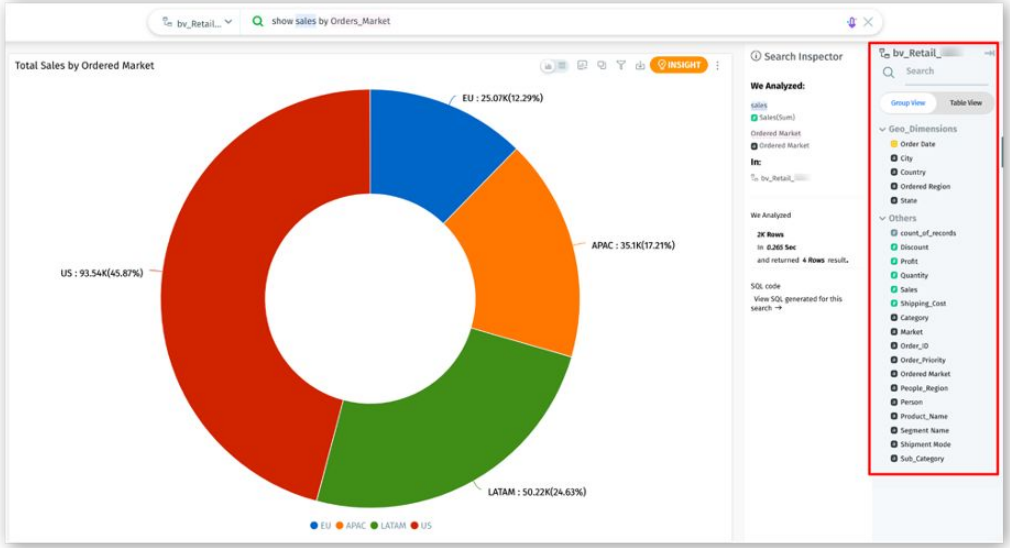
Major: Search Panel Updates

Display columns in a BV in Search and Tellius Assistant

- **Search**
  - When a search query is being typed, **BV panel is always open** unless the user collapses it
  - On successful search, BV panel is pinned right next to the Search Inspector

- **Tellius Assistant**
  - When a BV is selected, BV panel shows list of columns available
  - Option to show/hide columns in Business View

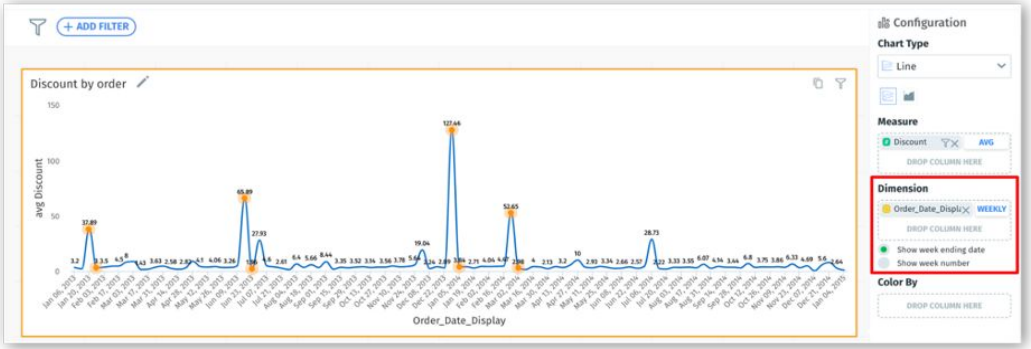
- Enhances Search experience



Major: Weekly Aggregations Enhancements

Change default from week number to week ending date

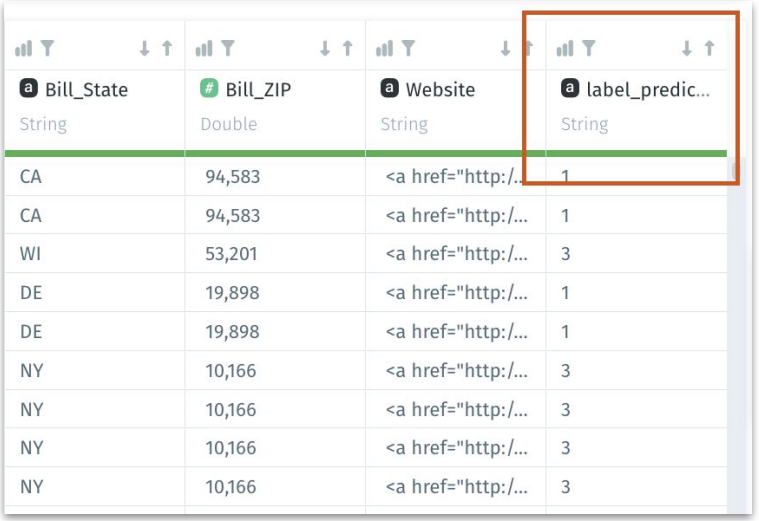
- For date columns with weekly aggregation in charts, default configuration will be **week ending date**
- Provides ability for Admins to determine the default behaviour (week ending date vs week number)
- Flexibility to toggle between week ending date and week numbers



Major: Data Type of Cluster Labels

Change clustering labels to dimensions

- Change the cluster labels to dimensions (string) instead of measures (numeric)
- Enable users to easily understand the output and use it



Bill_State String	Bill_ZIP Double	Website String	label_predic... String
CA	94,583	<a href="http:/...	1
CA	94,583	<a href="http:/...	1
WI	53,201	<a href="http:/...	3
DE	19,898	<a href="http:/...	1
DE	19,898	<a href="http:/...	1
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3
NY	10,166	<a href="http:/...	3

Major: Vizpad Generation on Intranet

Report generation URL configurations

- **Open Vizpads seamlessly** from scheduled emails when connected to an **on-premise network**
- **Configure** required **URLs** in **Settings** to support the rendering of Vizpads
- Improves **adoption** of Vizpads

Major: Additional Treemap Algorithms

Improvements to Treemap chart

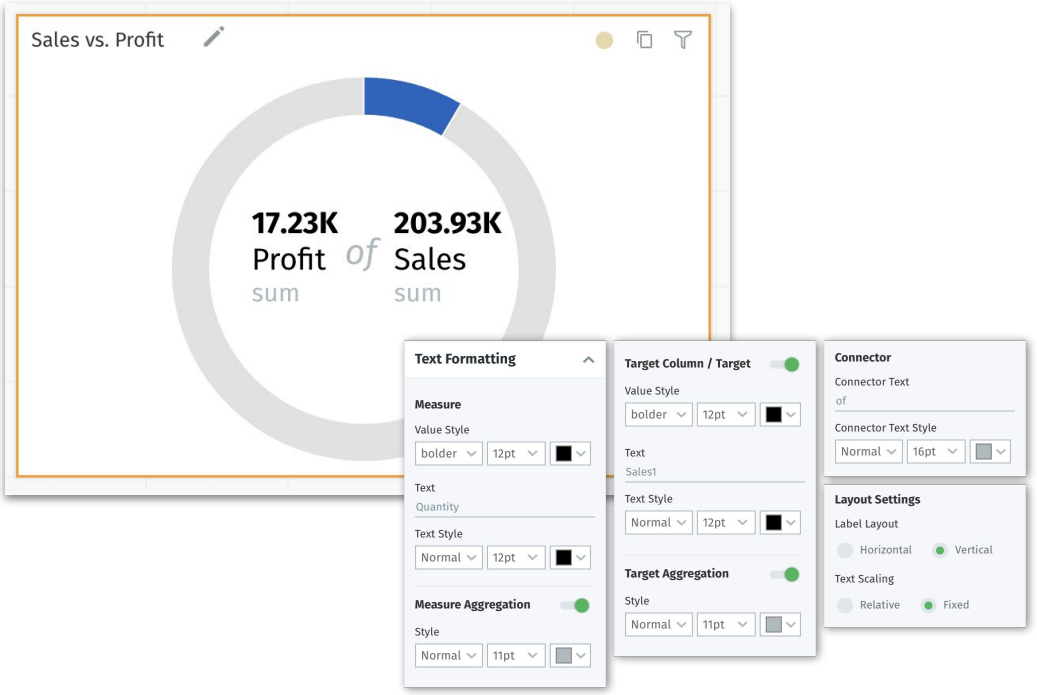
- Users can change the Treemap algorithm to represent **hierarchical data**
- Tellius now **supports all four Treemap algorithms** by Highcharts:
  - Slice and Dice (default)
  - Squarified
  - Stripes
  - Strip
- Option available in **Configuration** panel

Major: Enriched KPI Chart

Improvements to KPI chart formatting

- Flexibility to easily **customize** and **format** (text size, colour, style, layout) the measure, target and connector text

- Ability to customize the font size:
  - **User Defined** - Font size set by users
  - **Auto Scale** - Responsive sizing based on the chart size



Minor: Kerberos Based Authentication

Kerberos based authentication for Spark SQL

- Spark SQL connector supports Kerberos based authentication
- After getting authenticated, the user can access tables (list and load)

Minor: Remove Python Libraries

Add Python Libraries to Forbidden List

- The following libraries have been removed and cannot be imported in Python during data preparation
  - shlex
  - sh
  - plumbum
  - pexpect
  - fabric
  - envoy
  - commands
  - os
  - subprocess
  - requests