



Curate

Subsurface Data. Managed



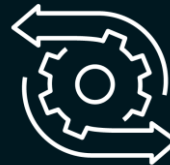
Accessible

Intuitive data access through browser interface



Integrated

Open and innovative technology delivers interoperability



Automated

Optimized data flow through automated integrations



Intelligent

Data enrichment and insight generation through AI



Immediate

Quick to implement, commercial product based solutions

Unlocking the Value of Subsurface Data Leveraging Generative AI, Data Exploration and Workflow Streamlining

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SCIENCE



Subsurface has a data problem

Engineers spend:

30% of time searching for data

20% of time reprocessing data

Operators want change:

90% Rank improved geoscience data handling as a key aim

Common barriers to change:



Cost

“Software and additional resourcing is too expensive for us”



Complexity

“Our data is a mess, we don't know where to start”



Expertise

“We don't have anyone in the organization who can lead this”



**Resource
Constrains**

“We don't have the resources to implement this solution”



**Improper
Tools**

“Data solutions rarely benefit our geoscientists”

Curate Overview

Collate and Appraise

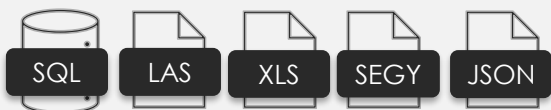
Store and Secure

Access and Action

Automated Data Flow

Parse → Categorize → Standardize

Structured Data



Unstructured Data



Categorize → Extract

Assess/
QC

Curate Datastore



Oracle/MSSQL
Relational DB

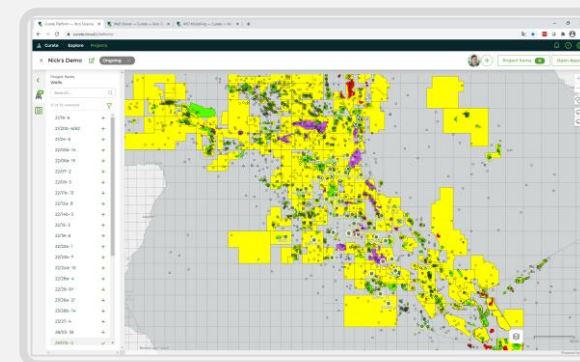


Internal/external
file store

Curate Data Access

Curate Chat –
NEW IN 2024.1

AI Enabled



Collaborative Workspace

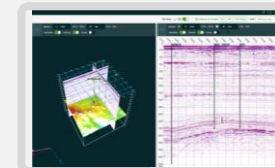
Data Distribution



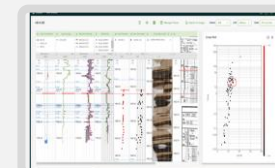
Curate Data API



Curate VFS



Seismic Viewer



Well Viewer



Correlation

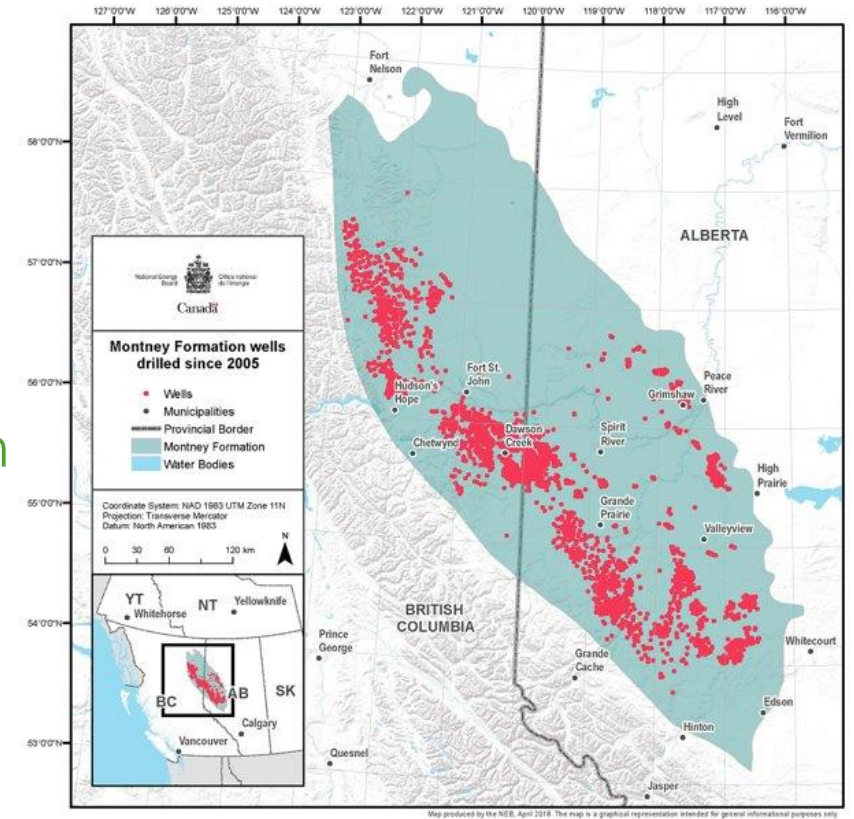


Admin Tool

Case Study: Well Database

- Objectives: Organize and consolidate geoscience well data managed database that will create transparency and facilitate consistent usability amongst the geoscience team.

- Data Challenges:
 - Data from various source stored in flat file system
 - Header information
 - Surveys
 - Logs
 - Raw
 - Vendors (IHS, TGS, GeoScout)
 - CPI
 - Rock Physics etc
 - Documents



Case Study: Well Database

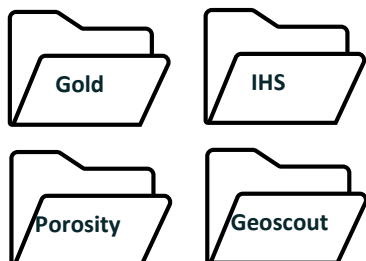
Objectives:

Provide users with a single source of quality and trusted data, which has been cleansed for use in subsurface related workflows.

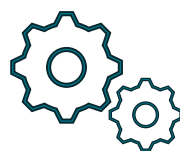
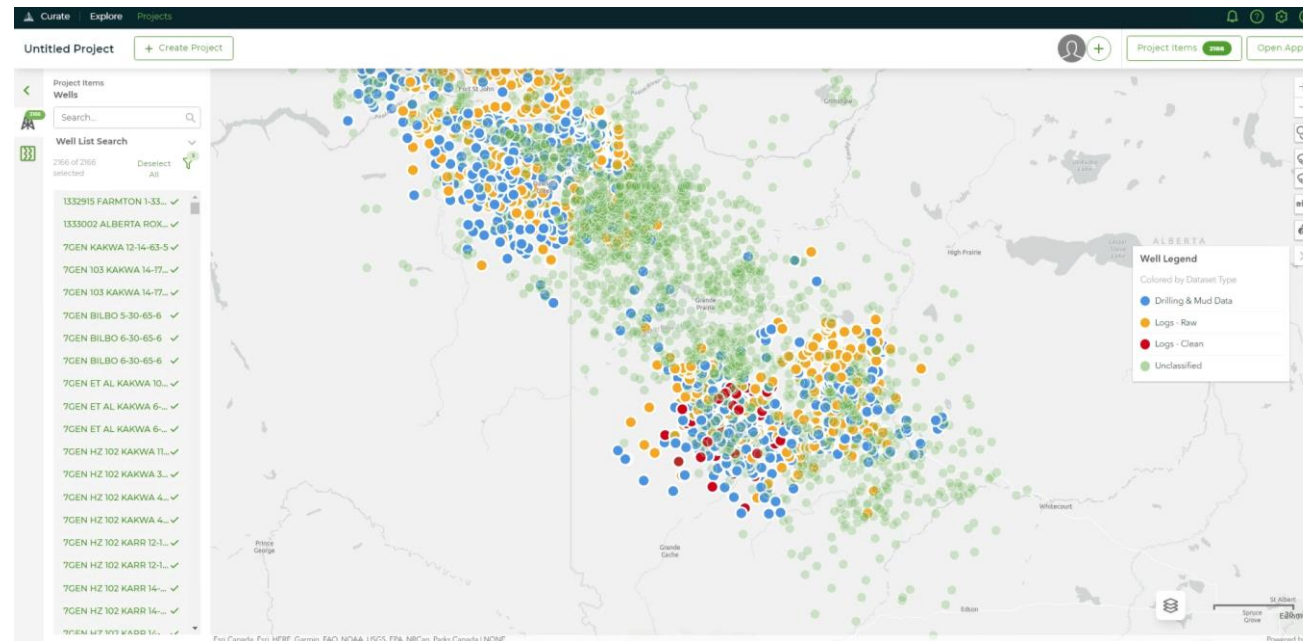
Flat Files



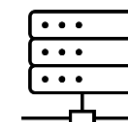
Log Auto Loaders



Collaborative Search, Visualize, QC



Intelligent collation and QC



Digital Log Data

Case Study: Digital Database

Objectives: Maximise the value of core data to enable digital workflows.

“Interpreters should be limited only by their imagination”

Data Type Focus

Core Log Data

- Core Fracture Data
- Core Gamma
- CT Scan Data
- Profile Permeability
- Scratch Test

Geomechanics

- Compressibility
- Thick Wall Cylinder Test
- Sonic
- Uniaxial
- Triaxial

Petrography & Geochemistry

- XRD
- XRF
- Point Count
- Biostratigraphy
- Source Rock Analysis

Routine Core Analysis

- Core Inventory Data
- Conventional Plug Analysis
- Conventional Whole Core Analysis

Sedimentology

- LPSA
- Sieve Analysis
- Facies

Images

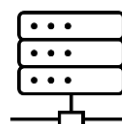
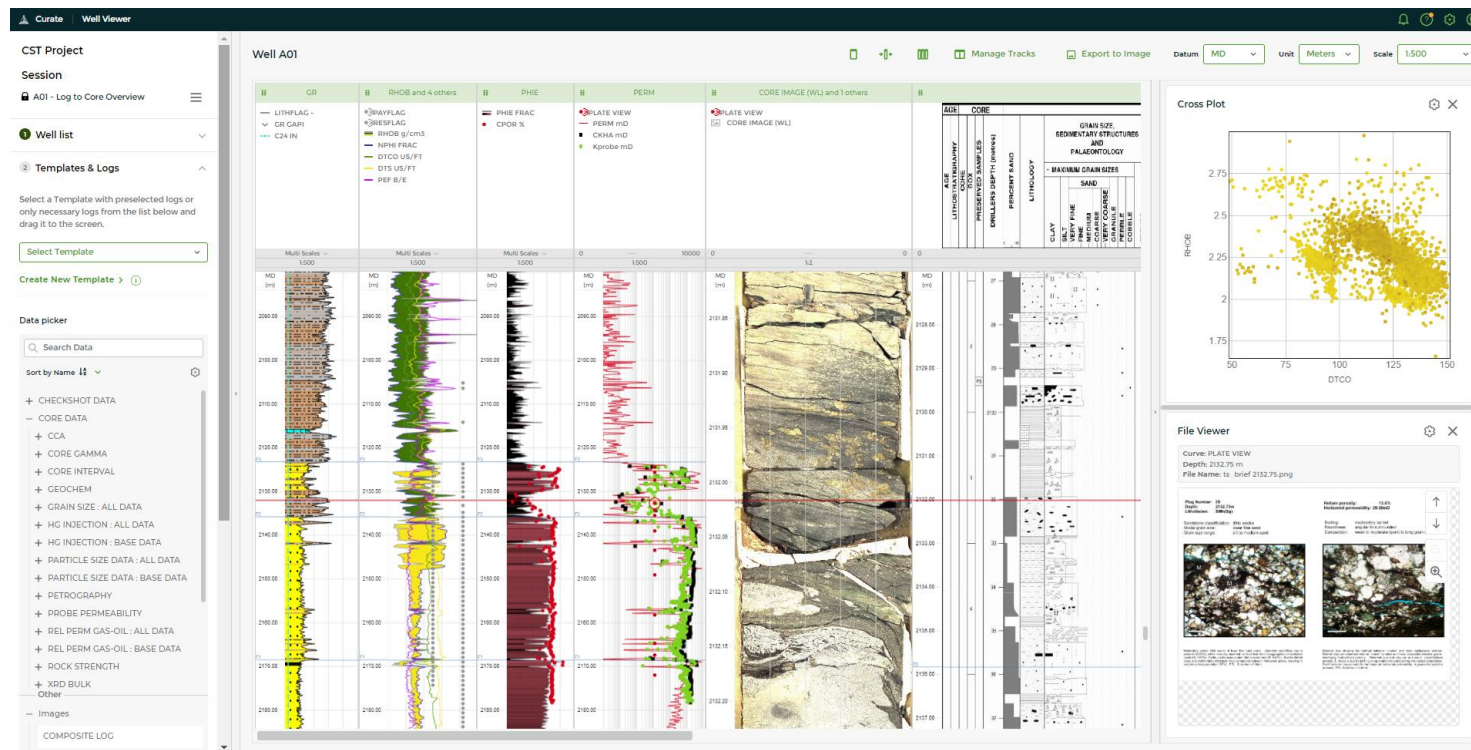
- Core Slabbed Photos (WL & UV)
- Core Whole Photos (WL & UV)
- Core 360 Photos
- CT Scan Photos
- Core Description
- Biostratigraphic Charts
- Thin Section
- SEM
- Plug Photos

SCAL

- Overburden Core Analysis
- Capillary Pressure
- Electrical Properties
- Relative Permeability

Nuclear

- NMR



Digital Core Data

Integration



Direct API calls (ML/AI)

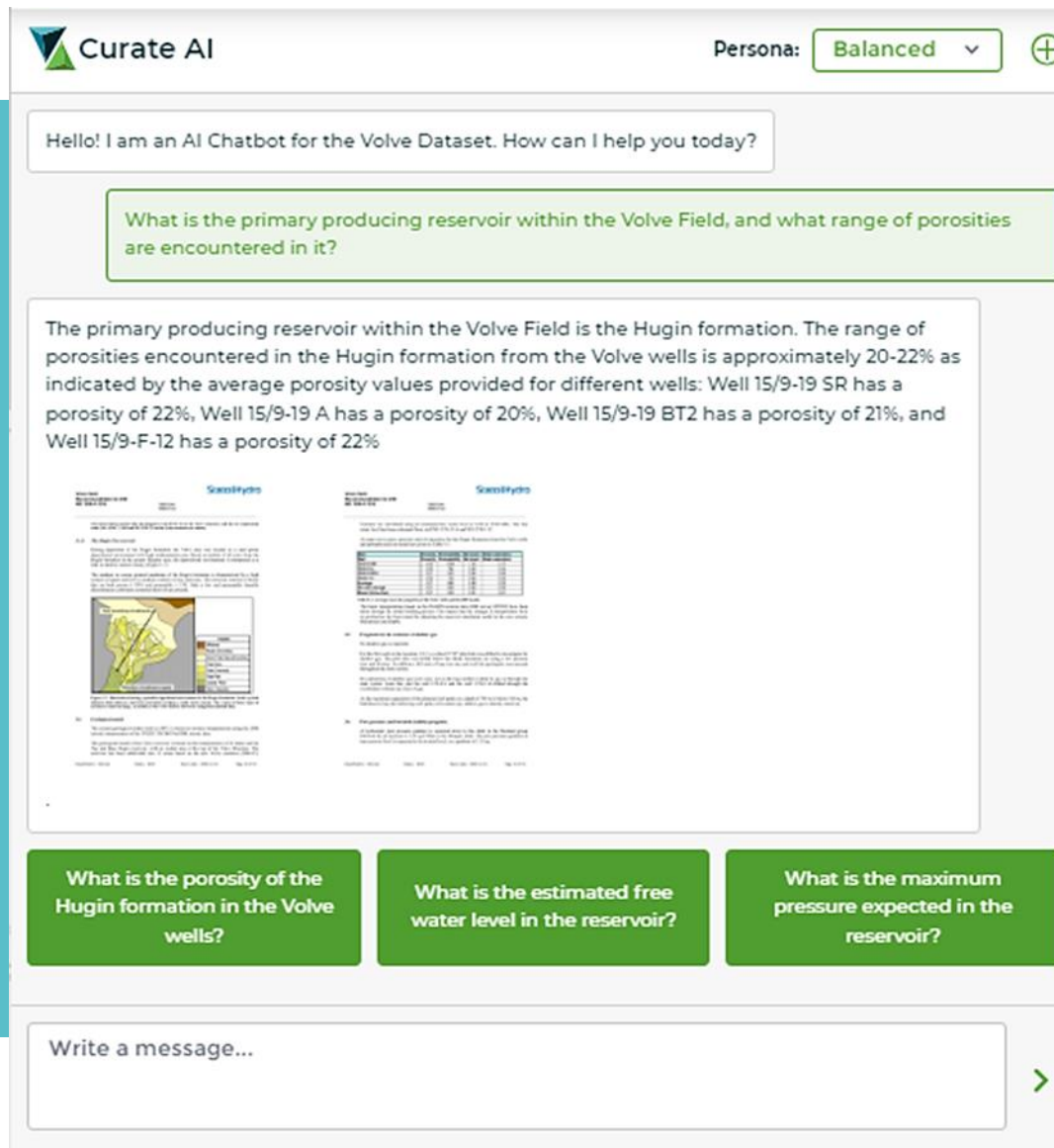
Curate AI Chat

Problem:

- 80% of data is in unstructured format, making it inaccessible to traditional softwares and workflows.
- This dark data has limited operational value

Solution:

- Curate AI Chat – powered by generative AI – allows users to communicate and access these documents.
- Written queries return referenced and insightful answers – fuelling knowledge in your organization



Curate AI Persona: **Balanced**

Hello! I am an AI Chatbot for the Volve Dataset. How can I help you today?

What is the primary producing reservoir within the Volve Field, and what range of porosities are encountered in it?

The primary producing reservoir within the Volve Field is the Hugin formation. The range of porosities encountered in the Hugin formation from the Volve wells is approximately 20-22% as indicated by the average porosity values provided for different wells: Well 15/9-19 SR has a porosity of 22%, Well 15/9-19 A has a porosity of 20%, Well 15/9-19 BT2 has a porosity of 21%, and Well 15/9-F-12 has a porosity of 22%

Suggested follow up questions:

- What is the porosity of the Hugin formation in the Volve wells?
- What is the estimated free water level in the reservoir?
- What is the maximum pressure expected in the reservoir?

Write a message... >

Users can ask any question

Information is summarized and returned

Sourced documents are reference and linked via a thumbnail

Suggested follow up questions are prompted

Spotlight on Curate VFS

Problem:

- Traditional geotechnical applications have **no means to consume data directly from data platforms**
- Results in **data duplication and siloing** of information

Solution:

- Curate VFS **virtually replicates the Curate datastore** as a network drive, allowing any application to access the data **without unnecessary duplication**



Curate is represented as mapped network drive

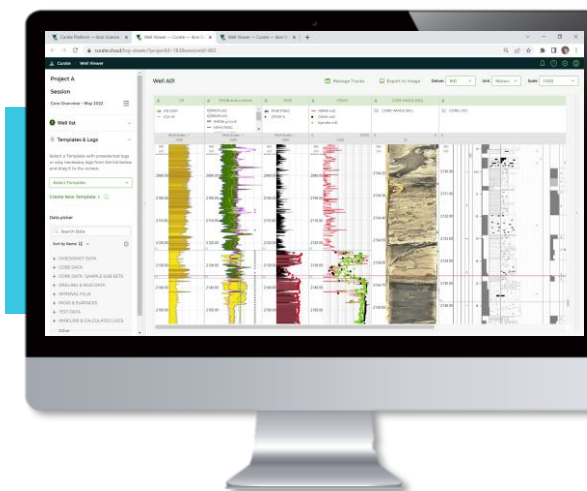
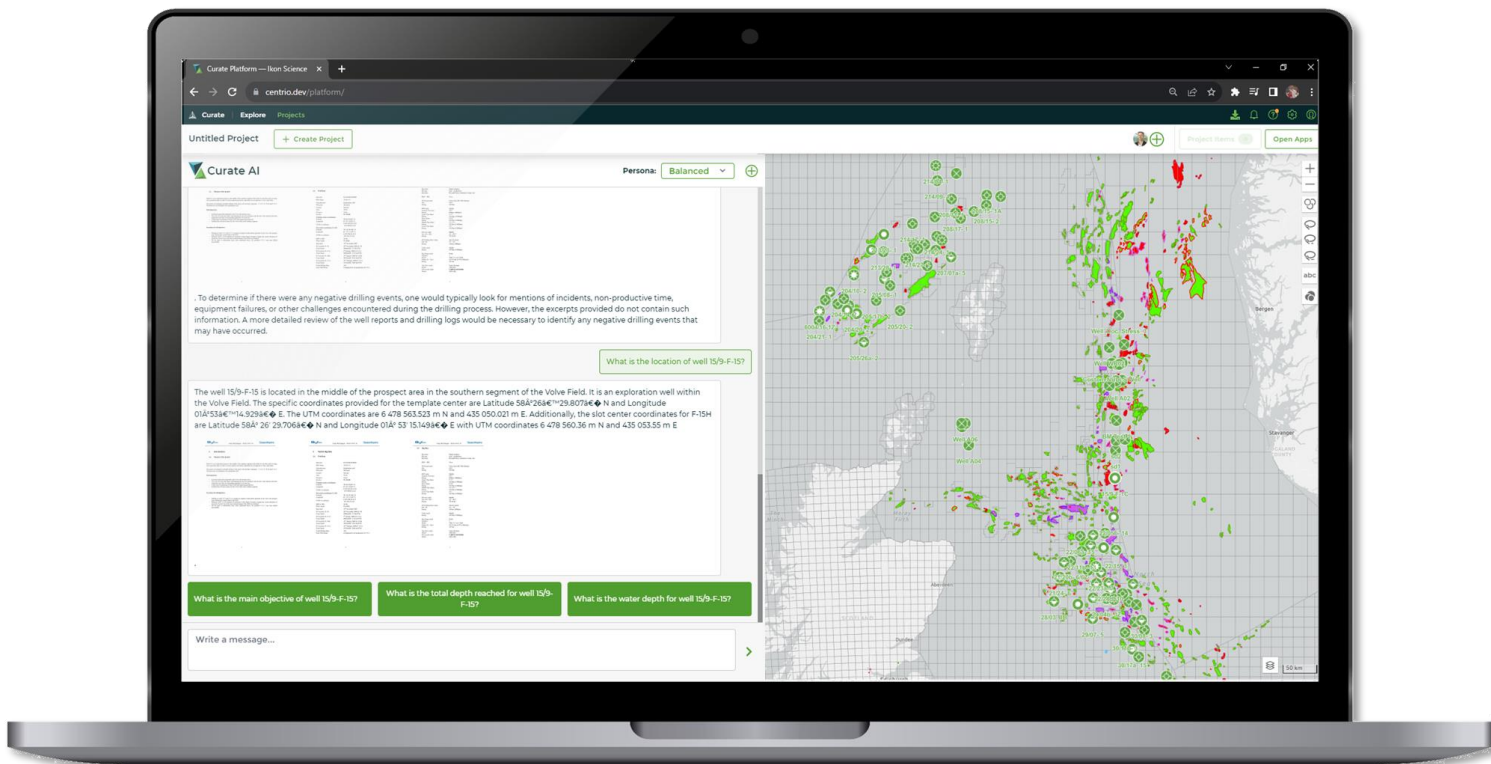
No data is duplicated until it is accessed by user of application

The structure may be configured as required by the end user

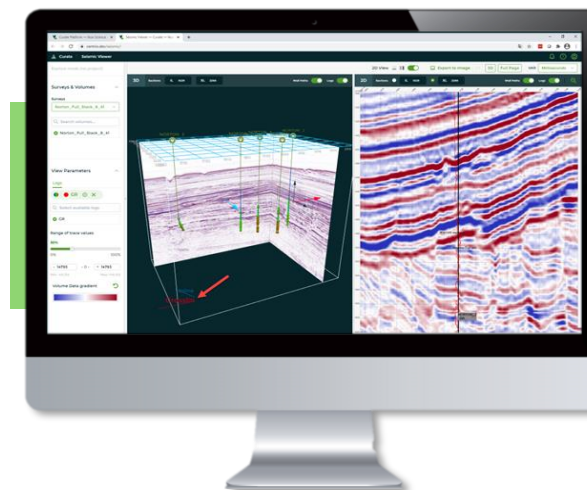
Both structured and unstructured data is accessed

Immediate Knowledge Access

Immediate visualization of data and simple filtering



Multi-scale visualization of complex data types



Seismic and Wellbore in a single platform

Embedded AI powered chat to uncover hidden insights

THANK YOU

