Open@Epic CONFERENCE

FHIRcast

Synchronizing the Physician's Workflow

Presenters



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Learning Objectives

1. Keep clinicians synced across several applications at once with FHIRcast, an open standard.
2. Move beyond syncing what is open to exchanging the data itself.
3. Collaborate to shape where standards start and where they go next.
4. Understand where this standard can be applied outside of imaging

Agenda

01 **The Problem**

A story of multiple monitors

02 **Purpose of FHIRcast**

Where it came from

03 **How it Works**

Roles, flows, and levels of sync

04 **What we Built**

FHIRcast in action

05 **Looking Ahead**

Where the standard goes next

06 **Q&A**

The Problem

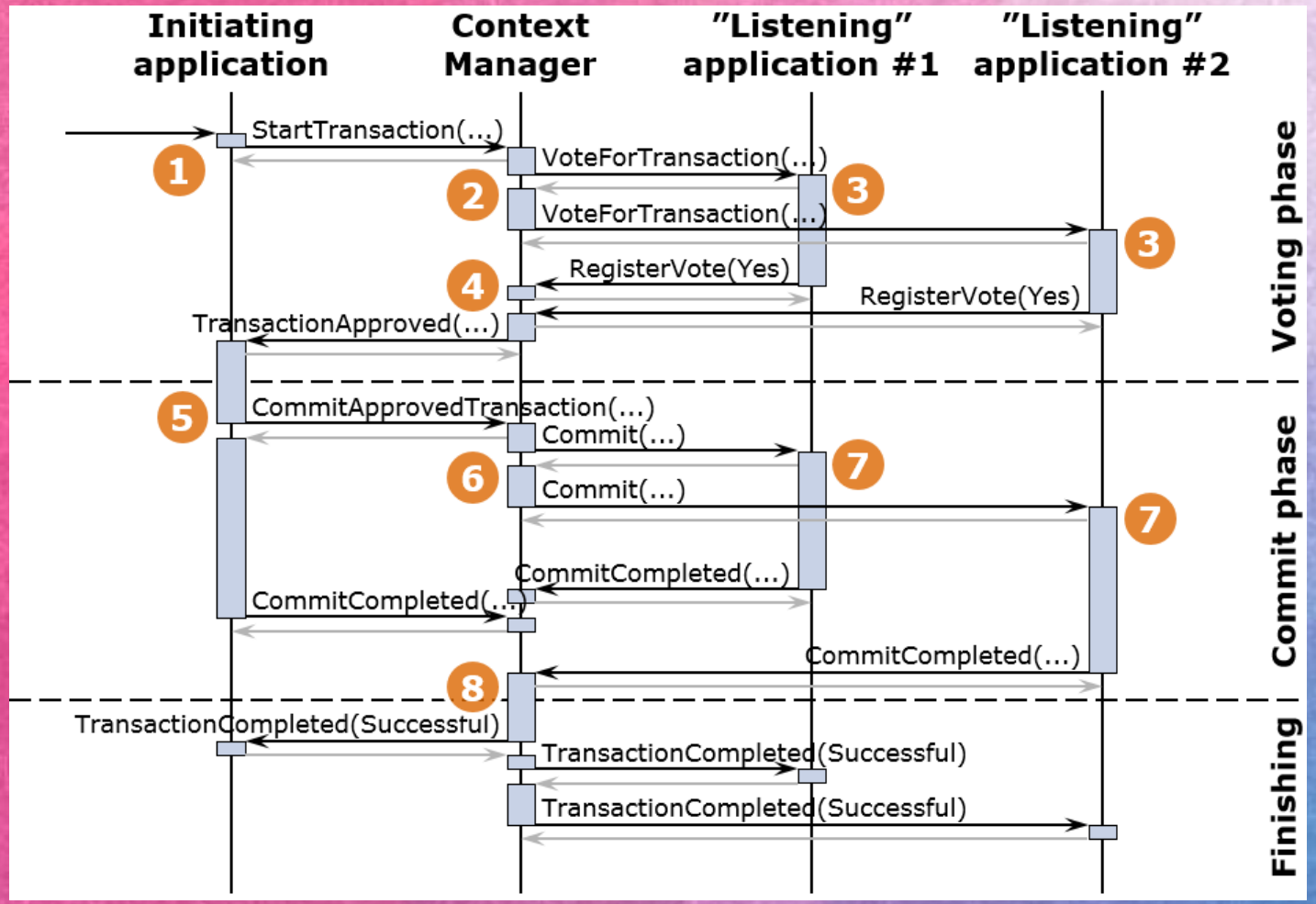
Native feeling integration across applications

Radiologist's View



Without synchronization, each app shows whatever was last touched. The physician manually realigns context, or worse, reviews the wrong patient. They must double document between all systems to operate on the same measurement and content.

Example


Initiating application
Context Manager
"Listening" application #1
"Listening" application #2
StartTransaction(...)
VoteForTransaction(...)
VoteForTransaction(...)
RegisterVote(Yes)
RegisterVote(Yes)
TransactionApproved(...)
CommitApprovedTransaction(...)
Commit(...)
Commit(...)
CommitCompleted(...)
CommitCompleted(...)
CommitCompleted(...)
TransactionCompleted(Successful)
TransactionCompleted(Successful)
TransactionCompleted(Successful)
1
2
3
3
4
5
6
7
7
8
Voting phase
Commit phase
Finishing

Purpose of FHIRcast

Where it came from


FHIRcast

Preface

CCOW



The Alternative

XML



The Standard



FHIRcast



Where It Came From

Born from the imaging community's own workflow needs

- Synchronizes the RIS, PACS, and dictation system.
- Stewarded today by HL7.
- Reuses infrastructure implementers already have.

How It Can Be Used

Single Sign On



Voice Recognition



Synchronization

In genomics, digital pathology, tumor boards, and many more



Any application that needs more screen real estate than an iframe can provide can benefit

Where We Are Focused Now

- Very active area of development for Epic
- Recently released performance improvements and improvements to SMART on FHIR launch behavior
- FHIRcast is now supported for Hyperspace on Mac OS



How FHIRcast Works

The roles and flow to enable synchronization

The Roles



Hub

The coordinator of a session.



Subscriber

Any user-facing app that wants to stay in sync.



Driving Application

Whichever app is directing context at a given moment; context can be driven from any side.

Application Synchronization

with FHIRcast

Content & Context Exchange

- Context: Patient Information
- Content: Findings
- Context: Study Information
- Content: Measurements



AI Tools

PACS

RIS

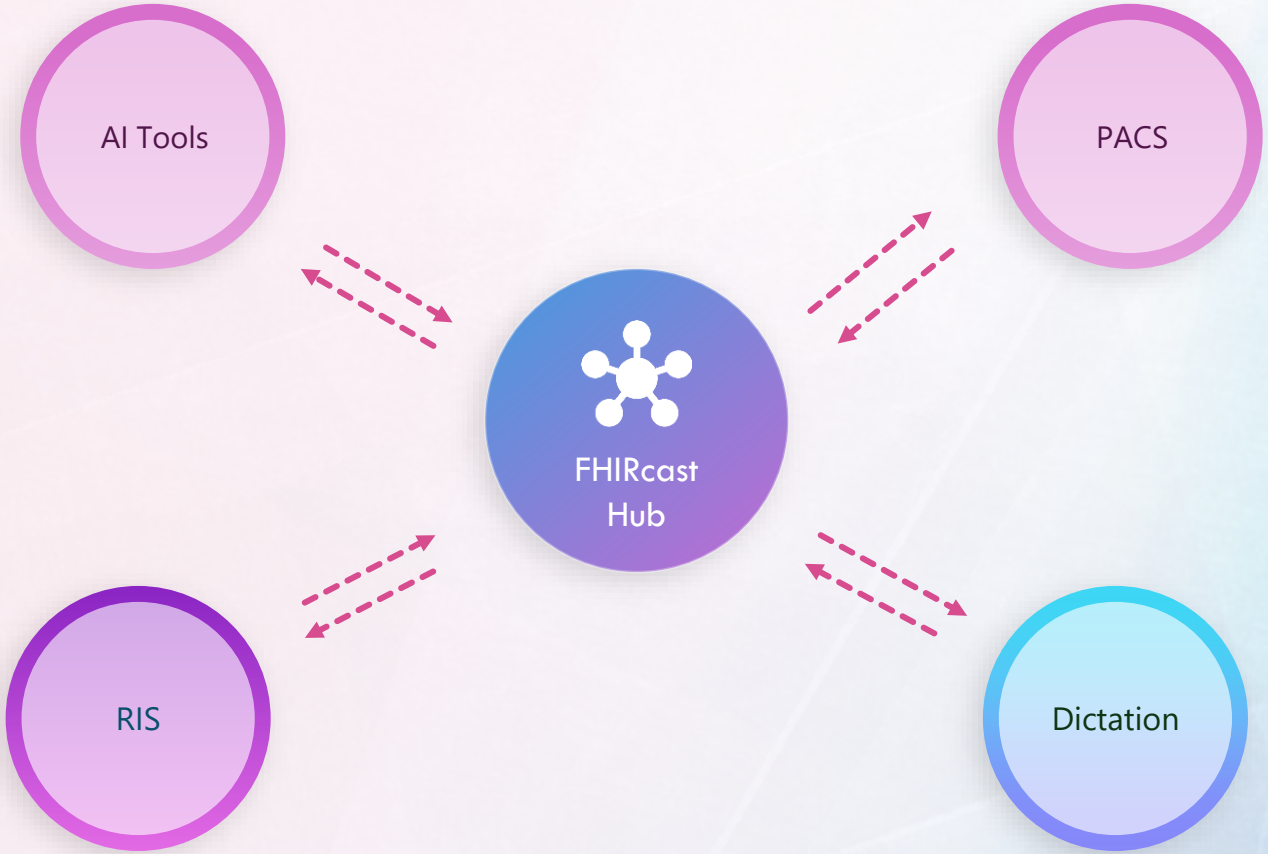
FHIRcast Hub

Dictation

Application Synchronization

with FHIRcast

1. SMART Launch
2. Subscribe
3. Notify / RCC
4. FHIR Event



Two Levels of Synchronization

Context

Which record is open across every synchronized application.

Content

The actual clinical data flowing between applications.

What We Built

Content and context synchronization in action

How this started



Joint customers problems

Common customers had a need that we both identified



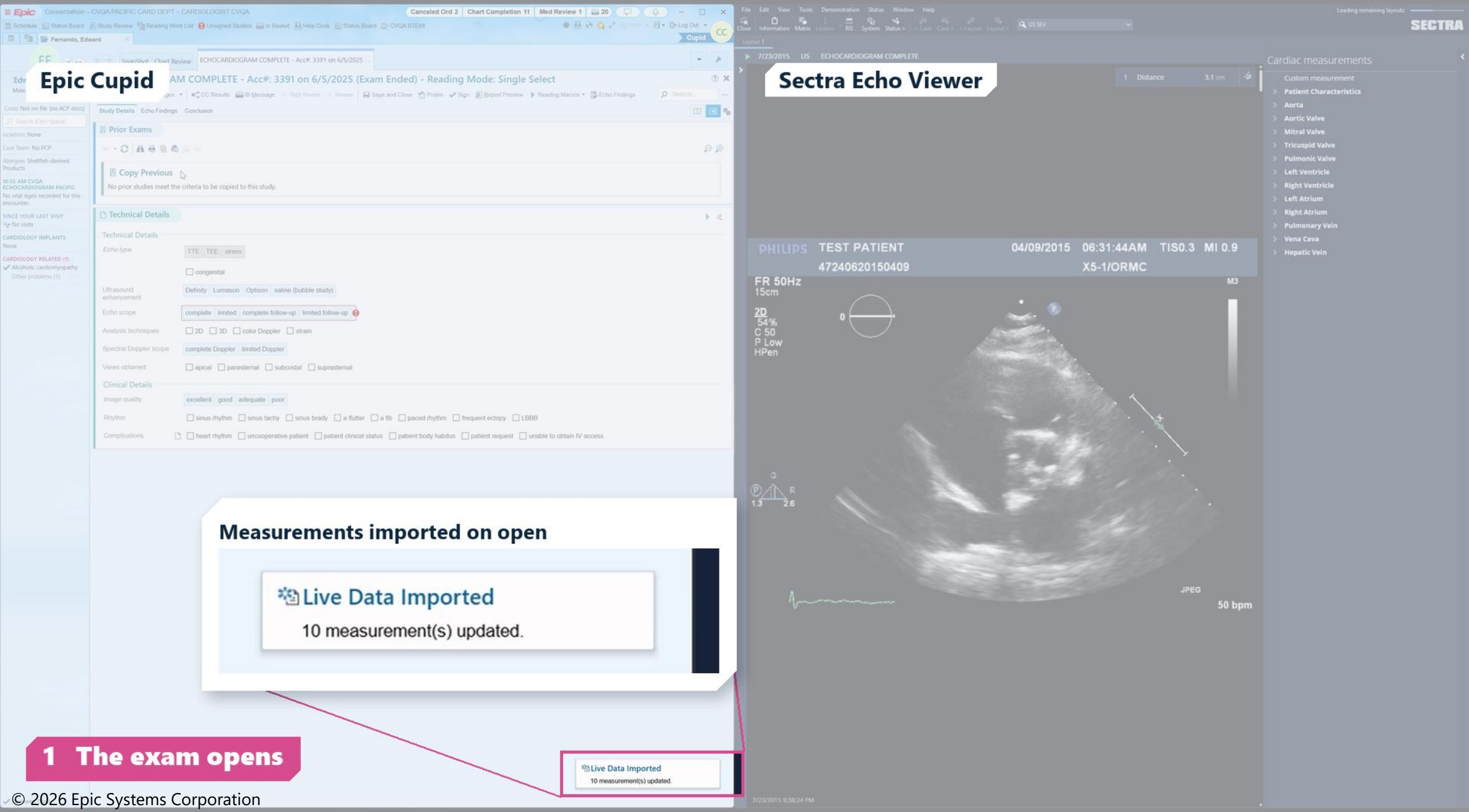
Shared view on improving healthcare

During visits to the same hospitals, we've discovered that we have a shared view on improving healthcare

What we built

- Problems identified in echocardiography
  - A lot of measurements for every exam
  - Measurement synchronization is manual
  - Deployment is time consuming





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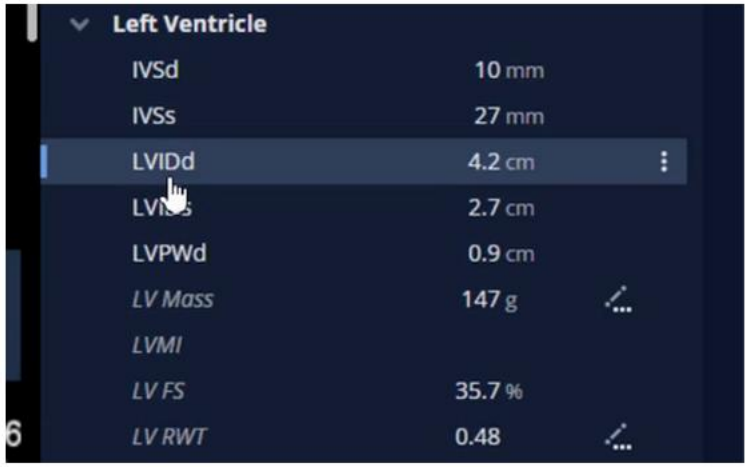
Epic Cupid

Sectra Echo Viewer

Epic: LVIDd 4.2



Echo Viewer: same value, plus calculated



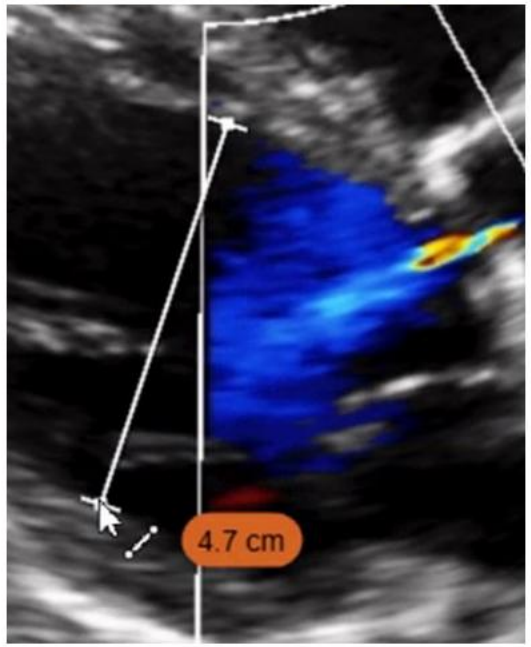
2 The existing measurement

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Epic Cupid

Sectra Echo Viewer

Caliper live on the image



3 Re-measuring

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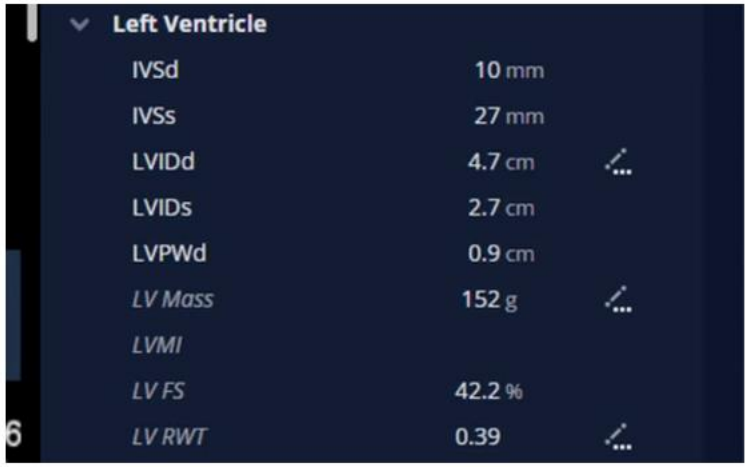
Epic Cupid

Sectra Echo Viewer

Epic: now 4.7

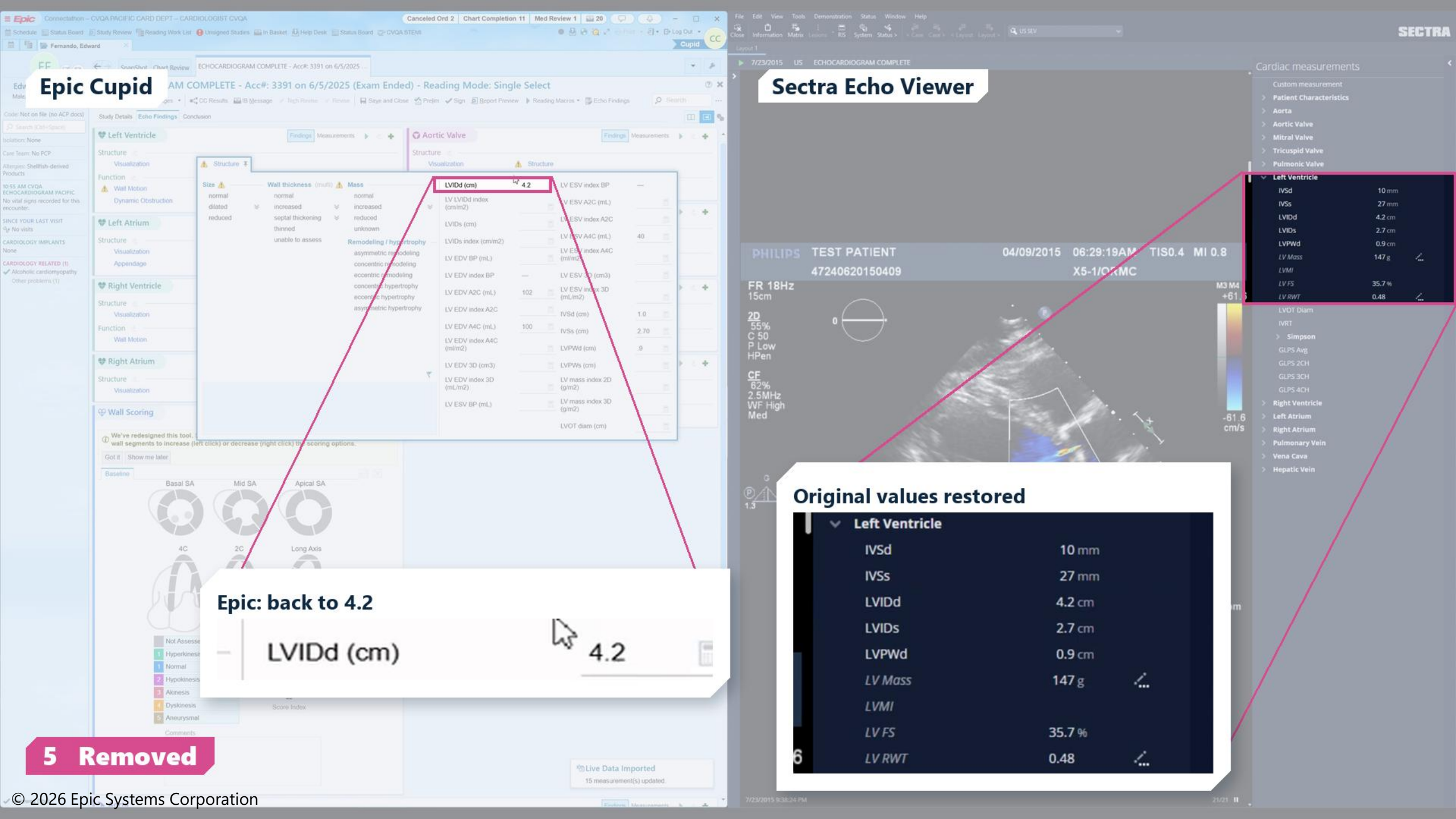


Calculated values follow



4 Updated live

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How It Reached Customers

Demos

Being able to show how actually works something live

Extra value

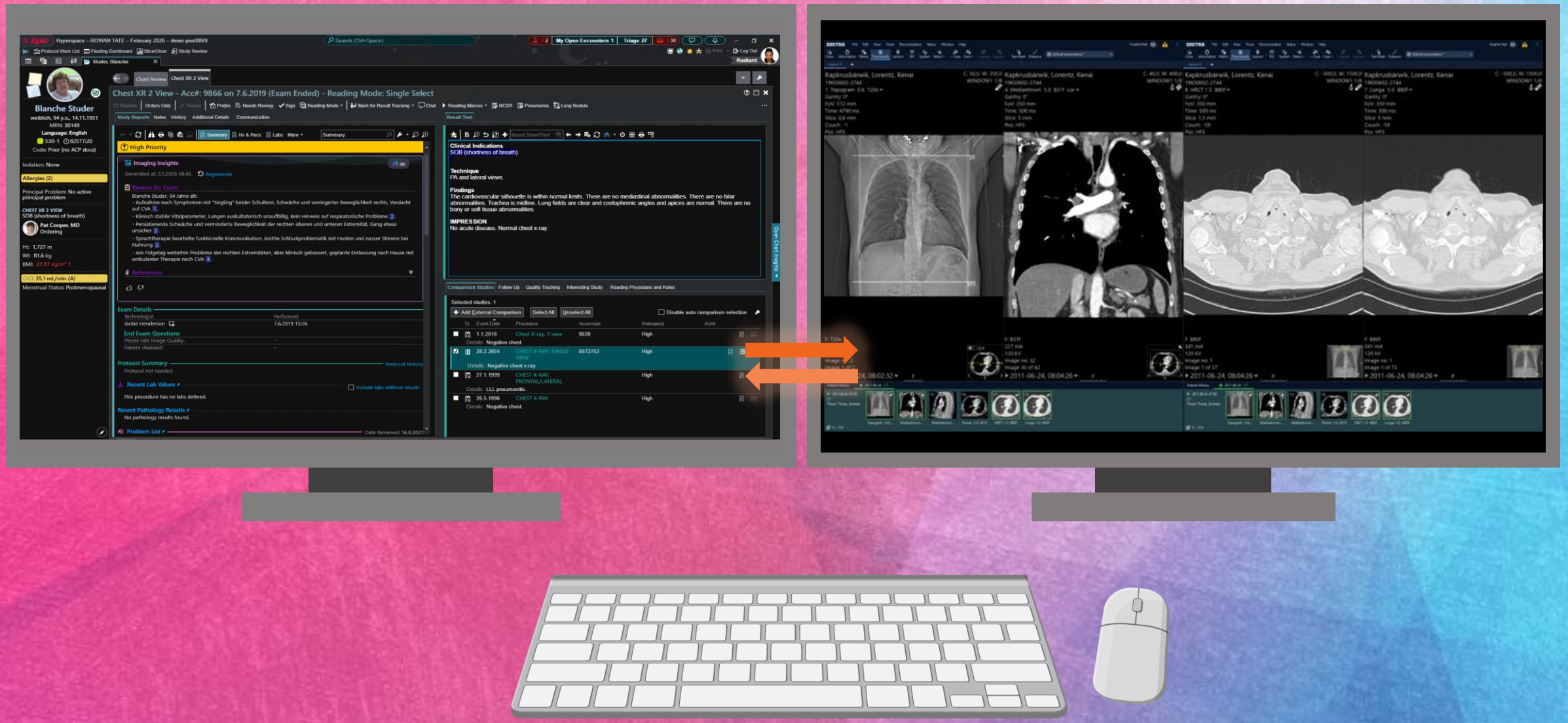
Hospitals aren't interested in technology – only how it can help them

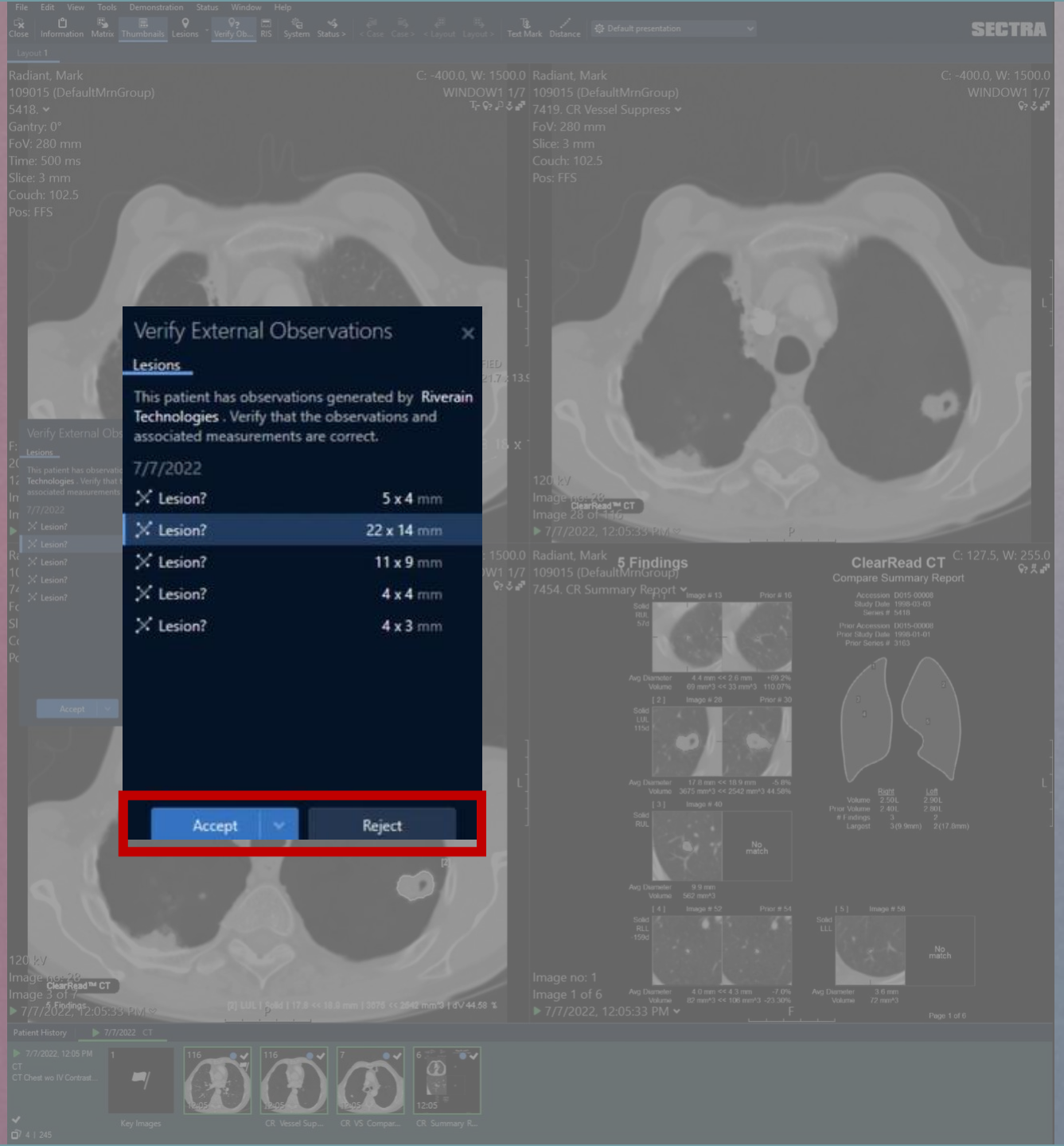
“Sectra Echo Viewer is very user friendly. Everything is right here, it’s fast and measurements come right over into Epic. I was excited the last time we tried to go live and I’m even more excited now.

“A tech at a US community hospital loves that not only do the measurements cross over from the cart, but that she can manually make measurements and they cross over no problem!

AI Workflow Integration with FHIRcast




Blanche Studer
Chest XR 2 View - Acc#: 9866 on 7.6.2019 (Exam Ended) - Reading Mode: Single Select
High Priority
Imaging Insights
Clinical Indications
SOB (shortness of breath)
Technique
PA and lateral views.
Findings
The cardiovascular silhouette is within normal limits. There are no mediastinal abnormalities. There are no hilar abnormalities. Trachea is midline. Lung fields are clear and costophrenic angles are apices are normal. There are no bony or soft tissue abnormalities.
IMPRESSION
No acute disease. Normal chest x-ray.



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Open Standards and Collaboration

Collaboration is a two-way street with the standard

Working through Friction

Feeds into both the standard as well as the implementation

- For newer standards, we learn what works well, and what needs to change during implementation
- This is an excellent opportunity to improve the standard



Sync Success Signaling



FHIR ID Look Up Friction

Sectra's view on standards

- We are pro standards
  - We can achieve much more with standards
- We are pragmatic about the standards
  - Must be adoptable
- Customer driven
  - They must solve problems that the customer actually has
- Global
  - They should not be different per region

Take Aways

1. Clinicians can live in several applications at once with FHIRcast
2. Synchronizing both context and content is easy and secure with FHIRcast
3. We can all shape where standards go next through collaboration
4. Standard can grow to be used outside of their initial use case

Additional Resources



FHIRcast Developer Guide



HL7 Connectathon

Q&A

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Bullet Point Slide

Maybe you need a subtitle

- Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
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Bullet Point Slide

Maybe you need a subtitle

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Our Top Goals



Goal Name

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Another Goal

- Quis nostrud exercitation ullamco laboris
- nisi ut aliquip ex ea commodo consequat.
- Duis aute irure dolor in reprehenderit in voluptate velit esse.



This is a Goal Too!

Cillum dolore eu fugiat nulla pariatur.

Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum.

Outcomes

↑ 30%

patient satisfaction and quality of life after implementing Epic

↑ 30%

nurses who adopted a new puppy last year

↓ 30%

patient messages that our doctors need to urgently answer

6 Cards to Show 6 Things



Goal Name

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Goal Name

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Six Item Ring

Item One

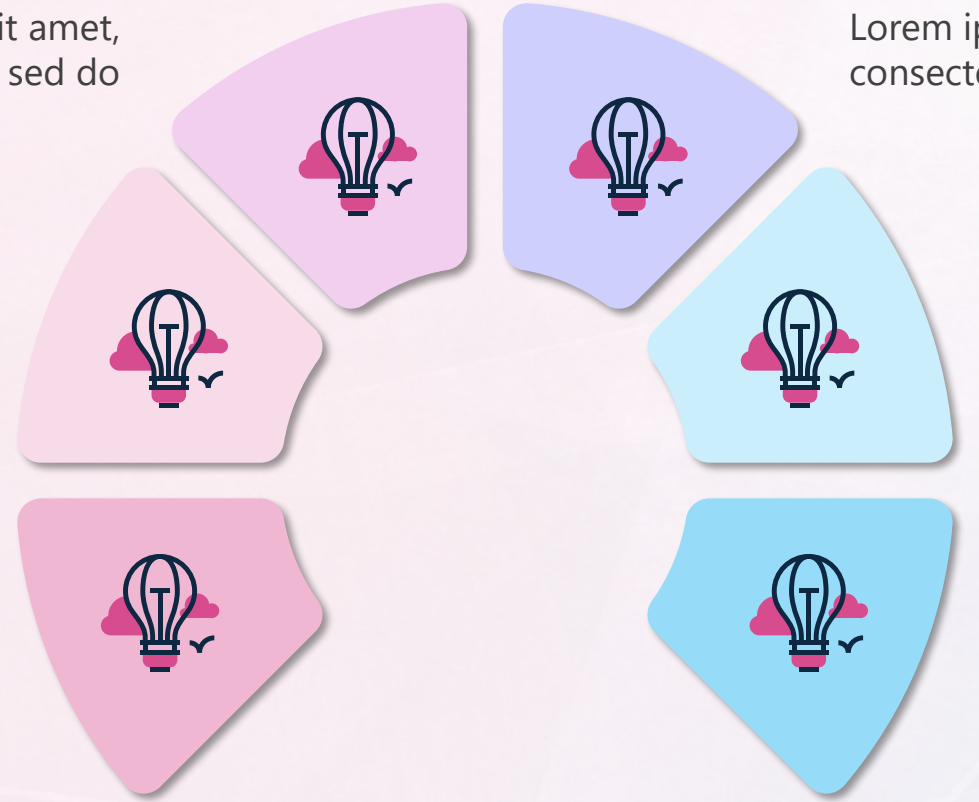
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Item Two

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Item Three

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Item Four

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Item Five

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Item Six

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In *the* News

FIERCE Healthcare

May 2023

Hospital margins inch up in March as volume, revenue growth outpace expenses

FIERCE Healthcare

May 2023

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FIERCE Healthcare

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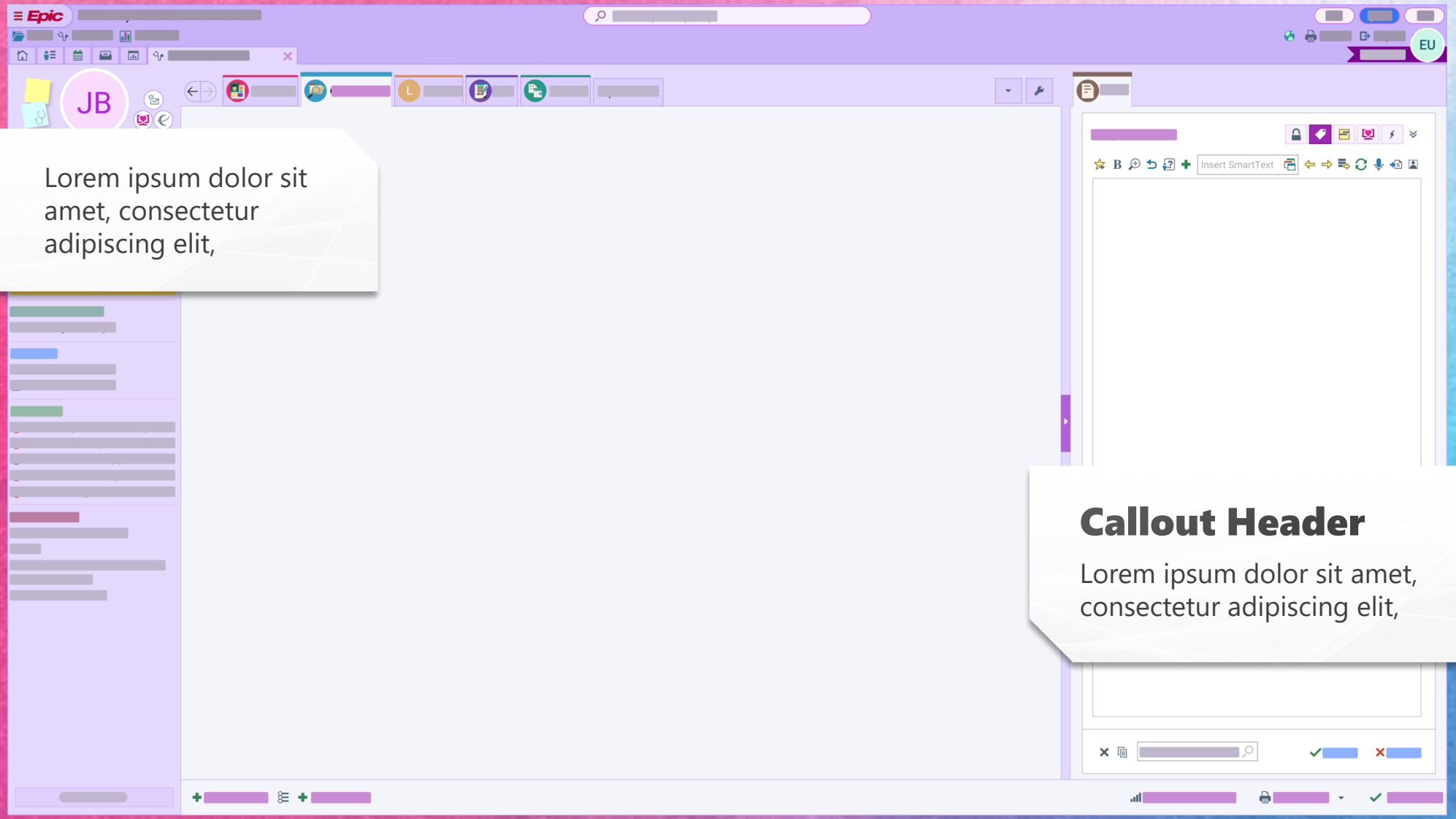
Hospital margins inch up in March as volume, revenue growth outpace expenses

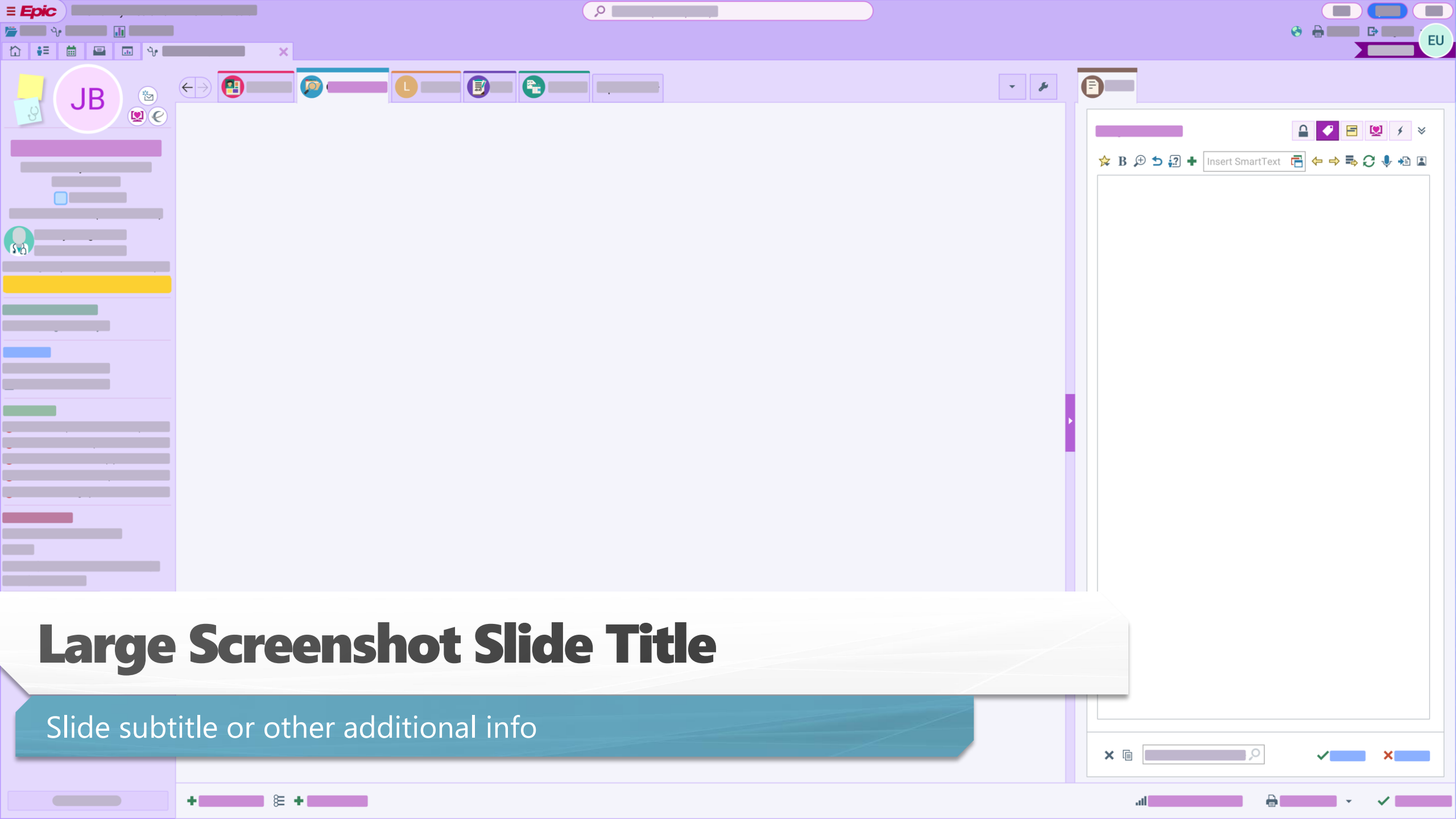
FIERCE Healthcare

May 2023

Hospital margins inch up in March as volume, revenue growth outpace expenses

Interesting Screenshot





Large Screenshot Slide Title

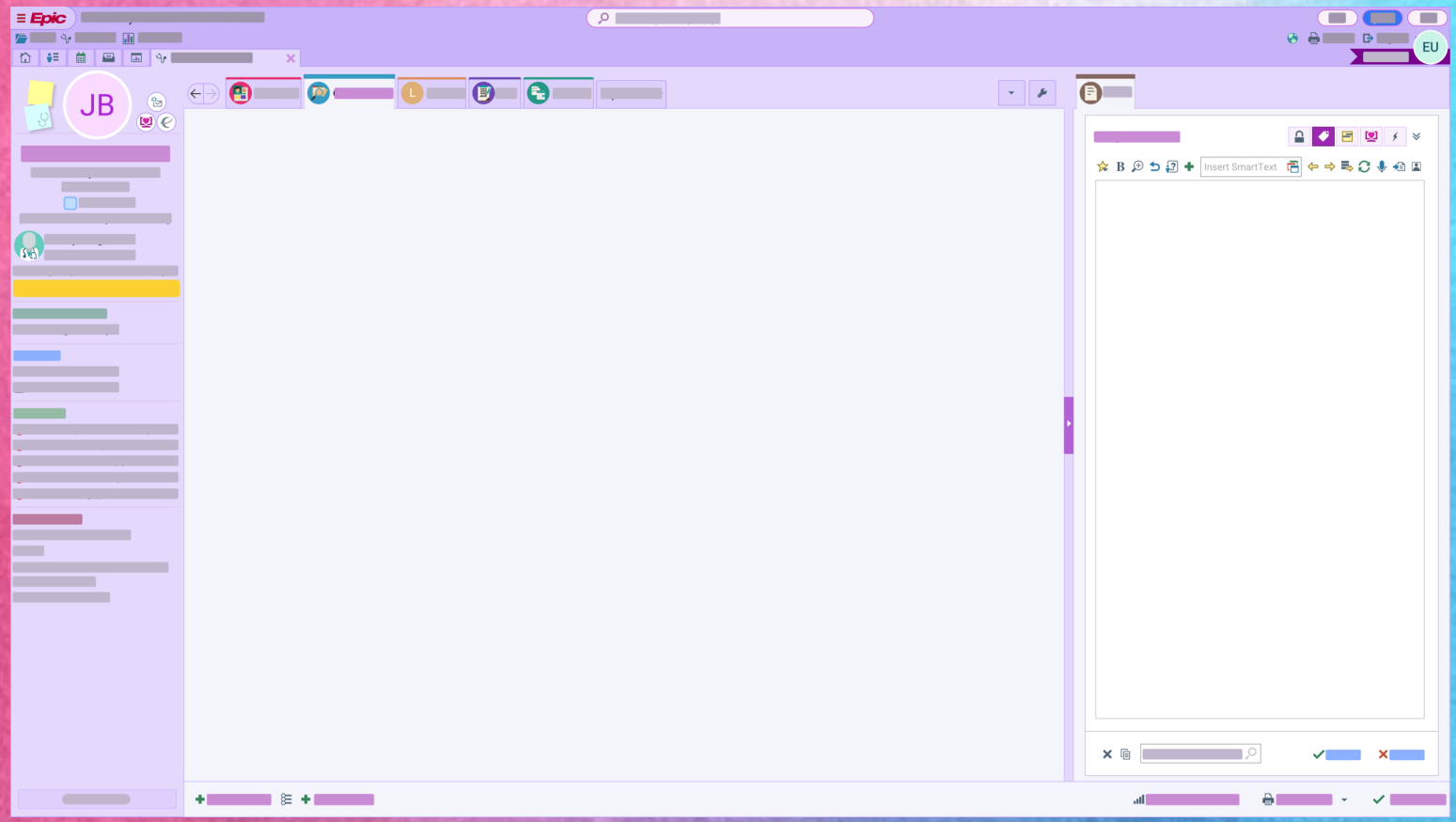
Slide subtitle or other additional info

Interesting Screenshot



Sidebar Title

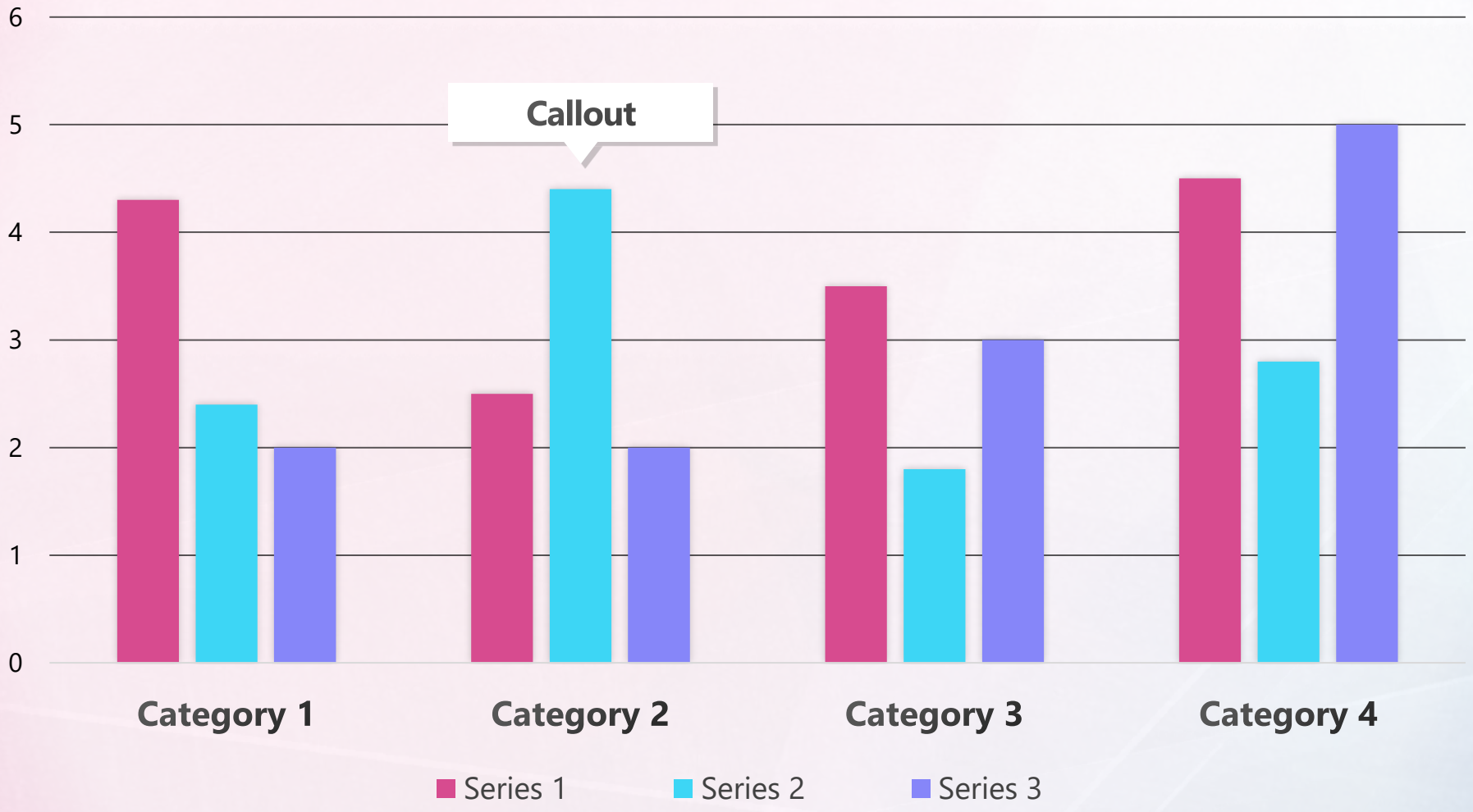
- Integrated
- Efficient
- Robust
- Dynamic
- Responsive
- Systematic



1,234,567

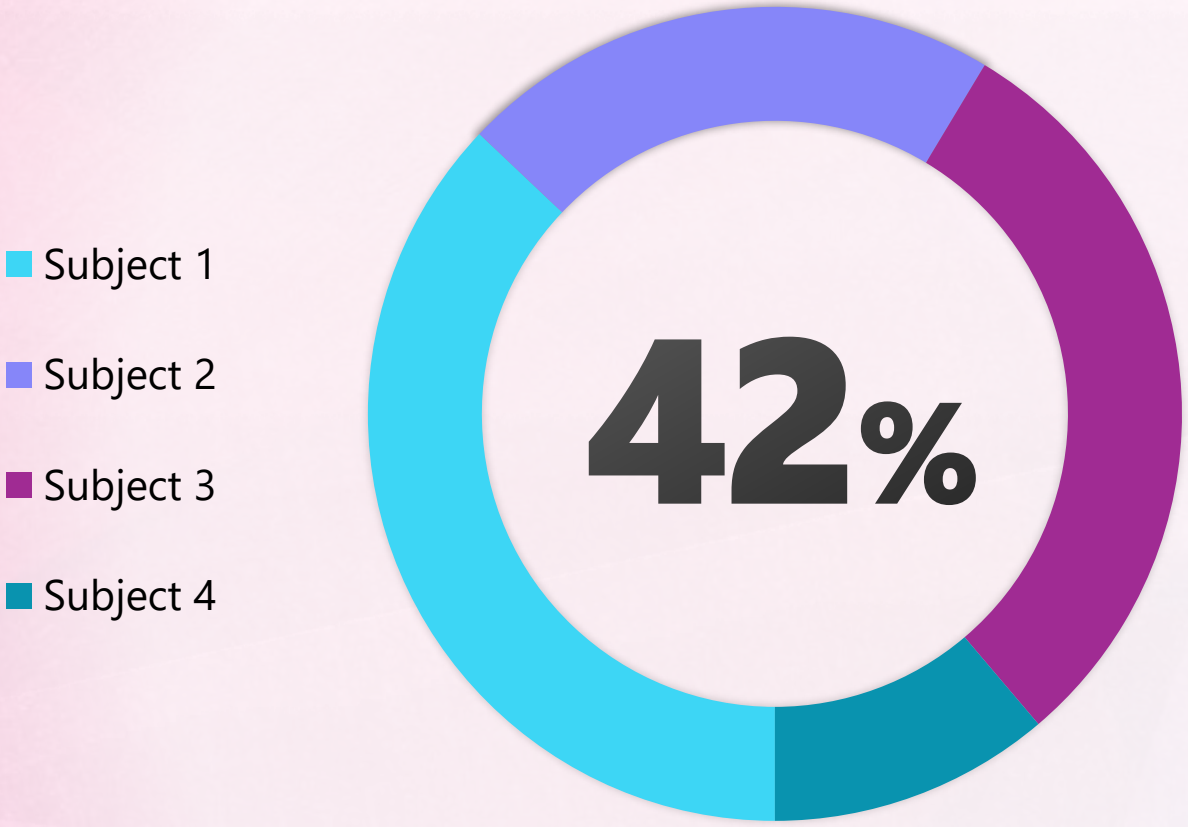
This is a big number to catch the audience’s attention.

Title *of the* Graph



SOURCE: Lorem Ipsum Dolor Sit Amet

Title *of the* Graph



of people lorem ipsum dolor sit amet

Timeline

November 2025

Feature

Feature

February 2026

Feature

Feature

May 2026

Feature

Feature

August 2026

Feature

Feature

Future

Feature

Feature

Q&A

Wrap Up

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