

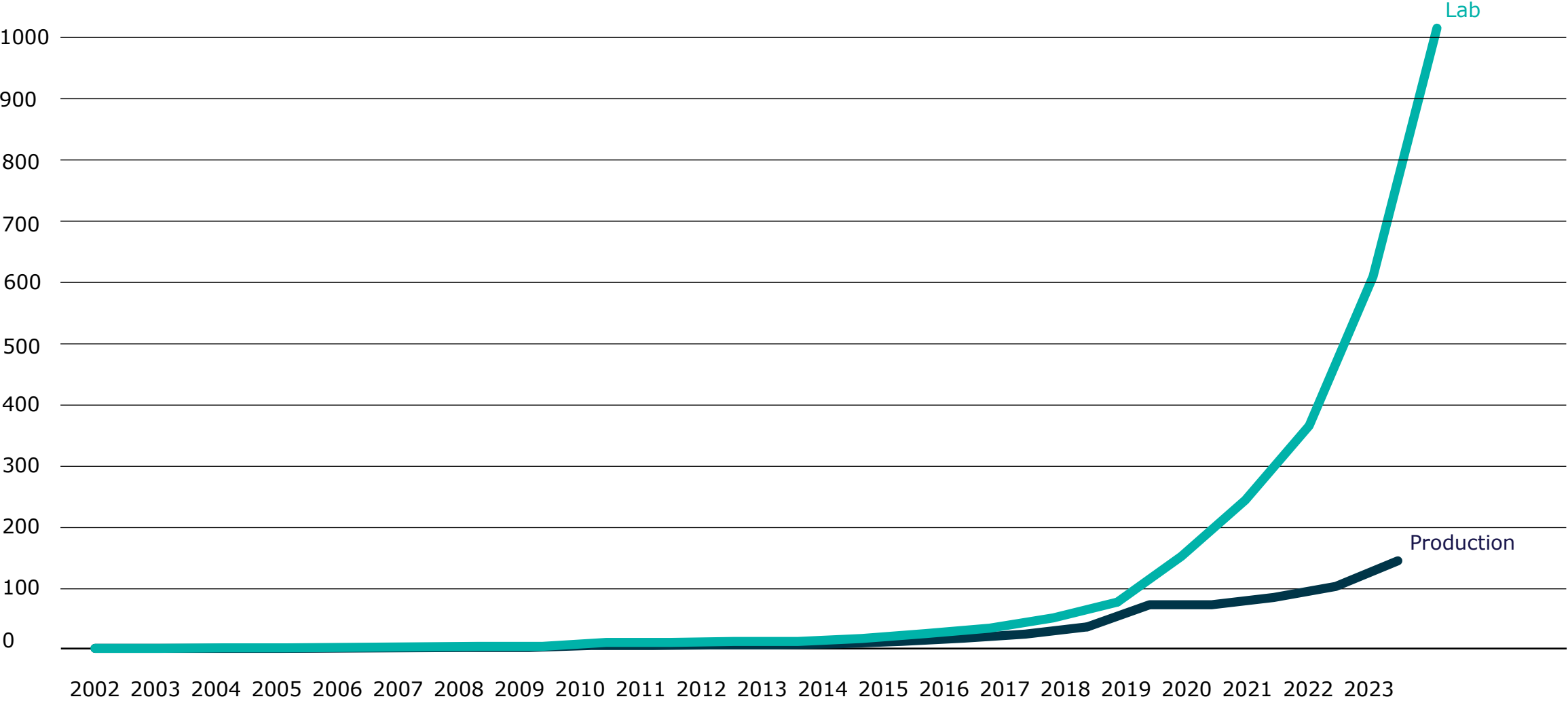
InterSystems IRIS:

Foundations and Future


Jeff Fried
Director of Platform Strategy



InterSystems IRIS Millions gref/s






INTERSYSTEMS 

[Über uns](#) [Produkte](#) [Branchen](#) [Referenzen](#) [Partner](#) [Support & Training](#) [Communities](#) [Videos](#)

Advanced technologies for breakthrough applications



Schottland nutzt InterSystems TrakCare, um die Gesundheits-IT landesweit zu vereinheitlichen.
[ERFAHREN SIE MEHR](#)

Partner with us.
Get more innovation.
And more attention.

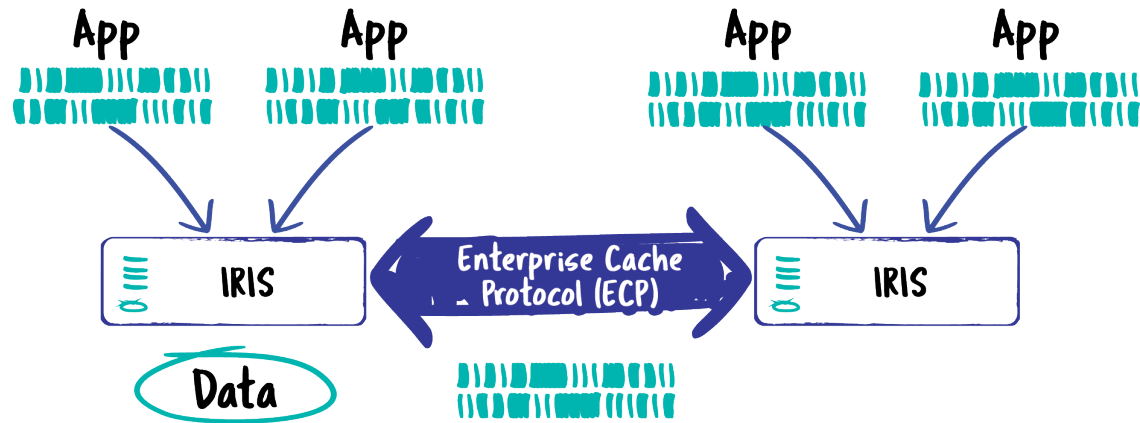
&

Mumps -> M -> ObjectScript



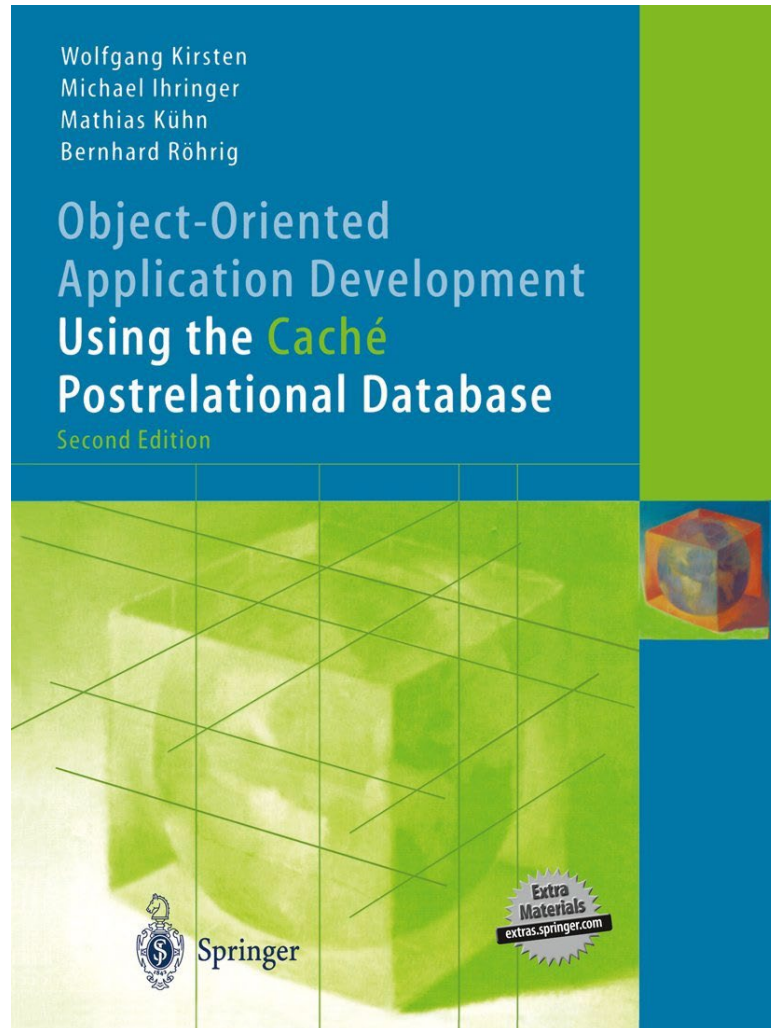
Development & Database

Enterprise Cache Protocol (ECP)

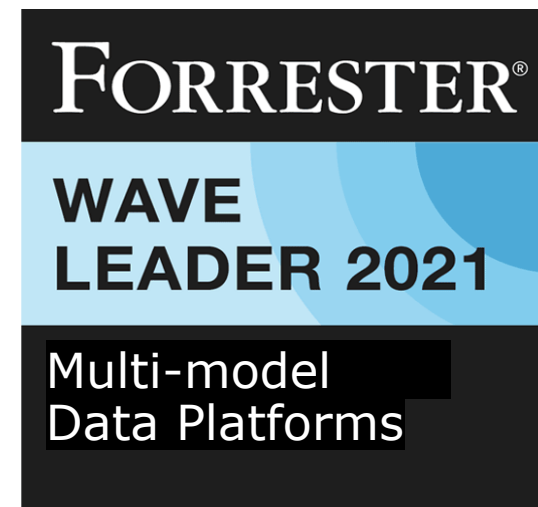


Speed
&
Scale

Multi-Model



Objects & Relational



Integration engine / middleware



Database & Interoperability



Multi-workload



Transactions & Analytics



InterSystems IRIS



Speed
&
Safety



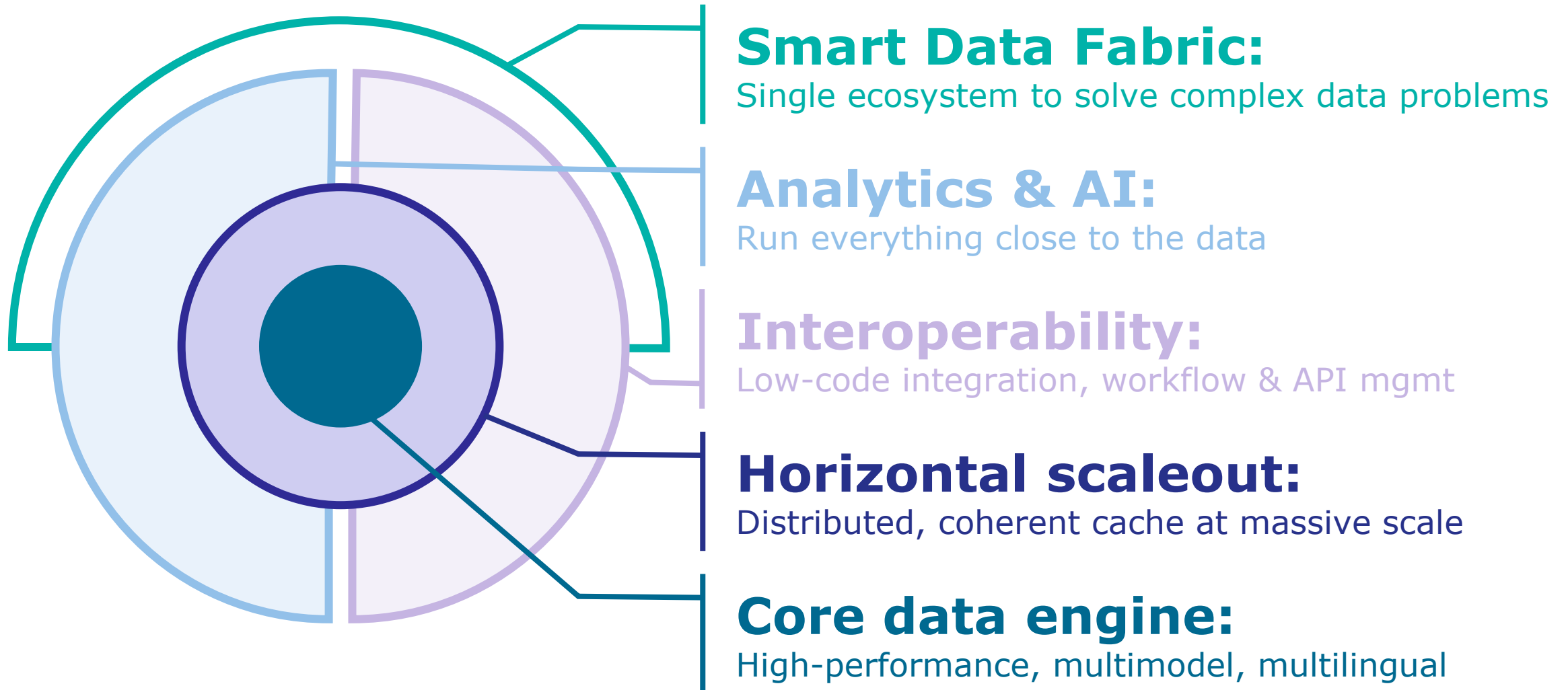


Platform & Applications



ML & genAI

InterSystems IRIS - Architecture



Key Investment Areas



Speed, Scale
& Security



Developer Experience



Interoperability
& IoT inc. FHIR

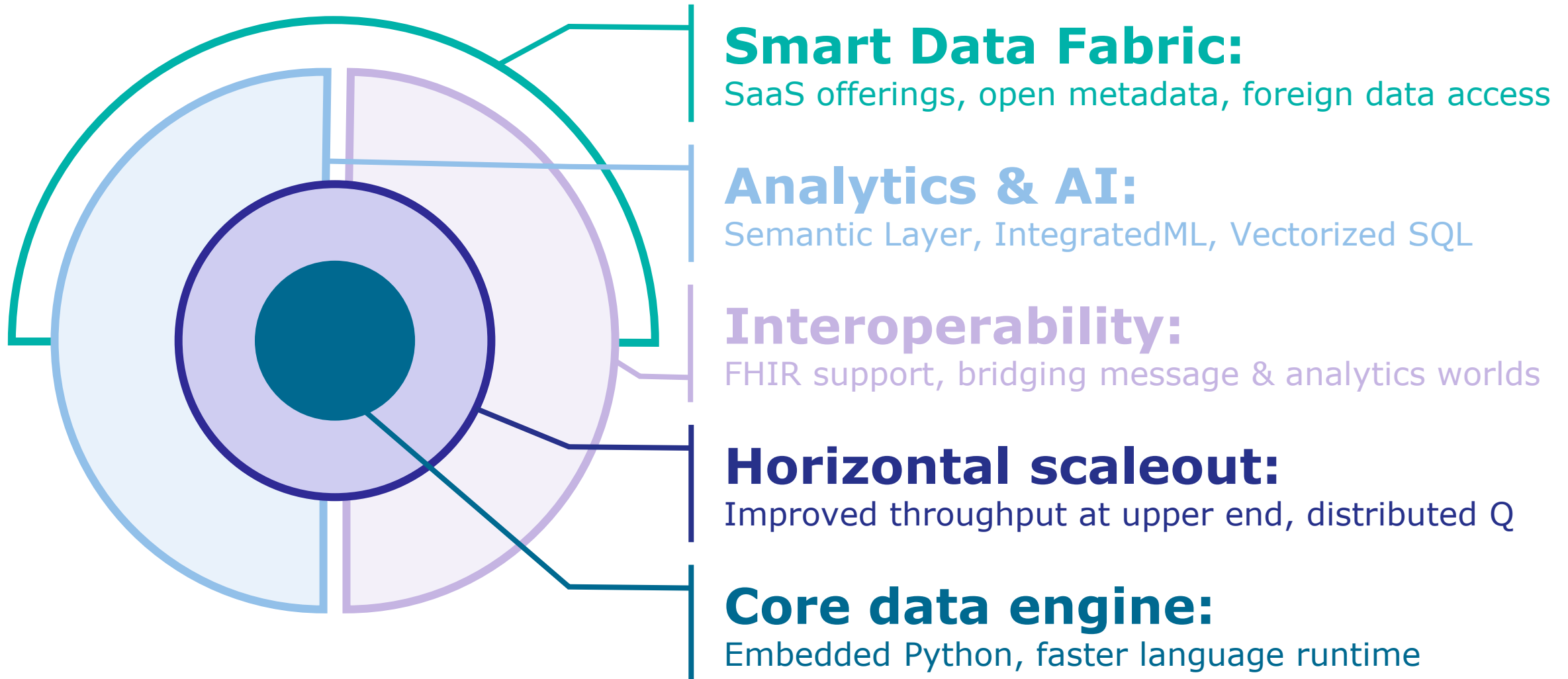


Advanced
Analytics & AI



Cloud
& DevOps

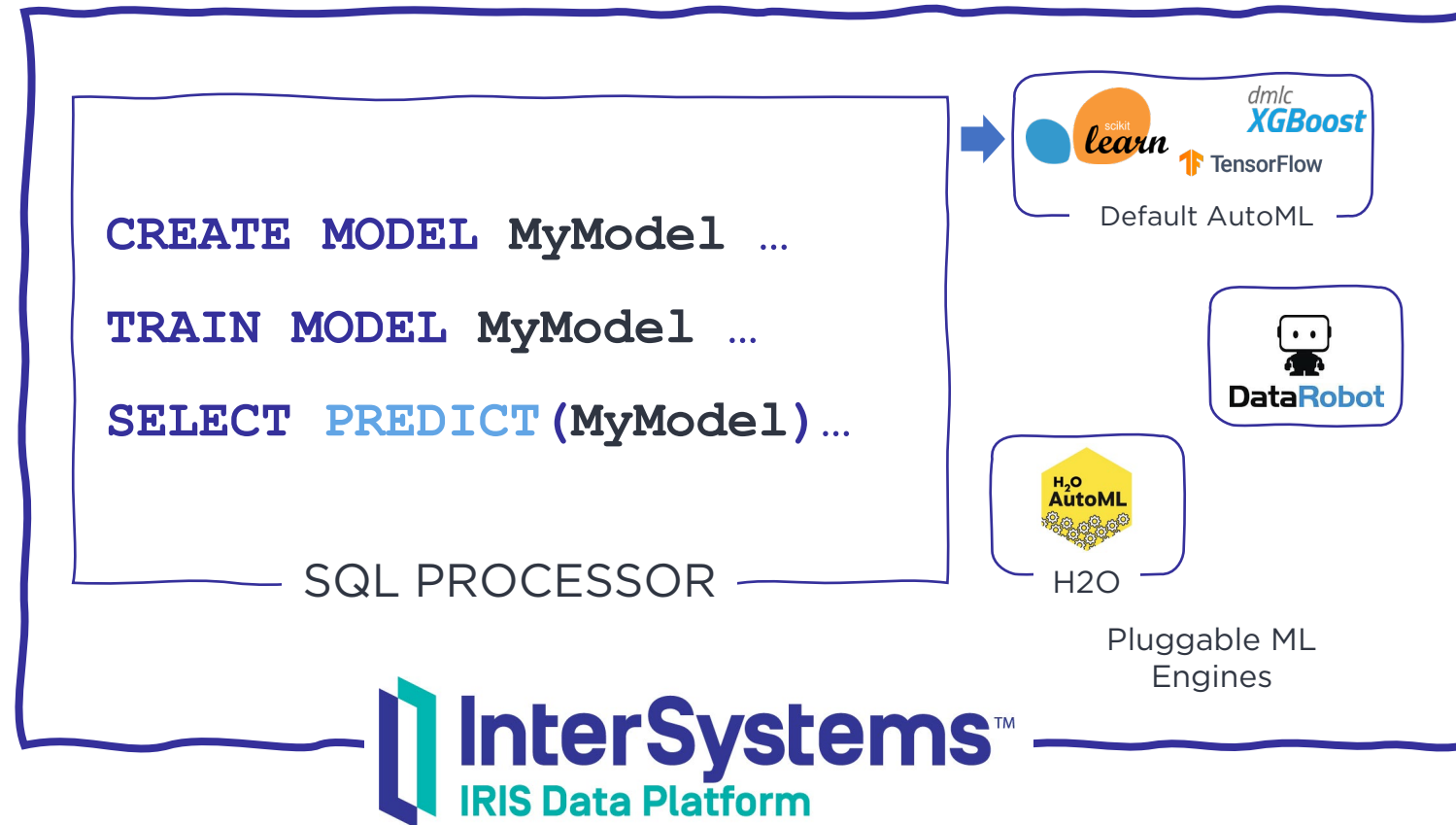
InterSystems IRIS – Recent Investments



InterSystems IntegratedML



IntegratedML brings **automated machine learning** to SQL developers and augments the productivity and reach of data scientists.



Embedded Python

Solve Business Problems Quickly & Safely Using Familiar Tools



HIGH PERFORMANCE

Analytics stay close to the data



INTUITIVE

Familiar tools for developers



SCALABLE

Works with ECP and sharding



SECURE

Leverage InterSystems IRIS security model



Analytics



Analytics close to the Data

IRIS BI:
Embedded Cubes
for real-time analysis

Adaptive Analytics:
Semantic Layer with **Virtual Cubes** for large-scale, adaptive analysis in client of choice

InterSystems Reports:
Built-in report design
& distribution server



ML close to the Data

IntegratedML:
Embedded AutoML engine for
rapid model development
and operationalization

Embedded Python & PMML support:
Native language support and ML
runtime engine for operationalizing
expert-built models & code

AI-Link:
Share data models between
data analysts (BI) and data
scientists (AI)

Cloud Services for FHIR



FHIR Transformation Services

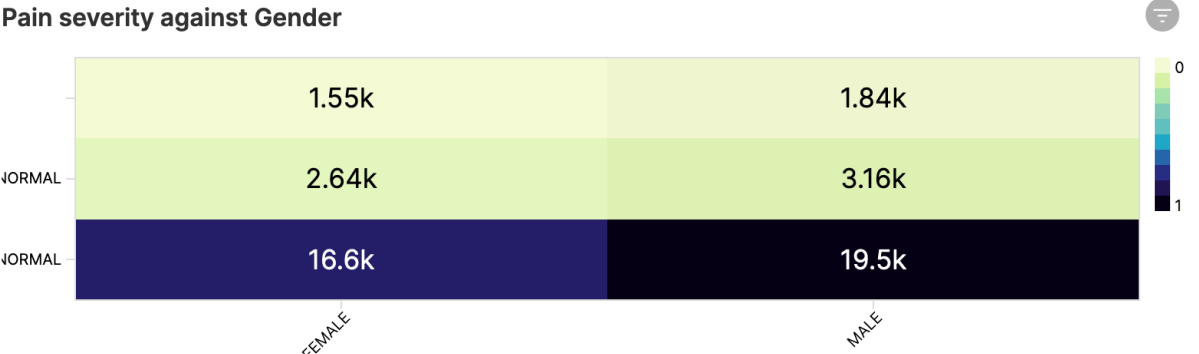
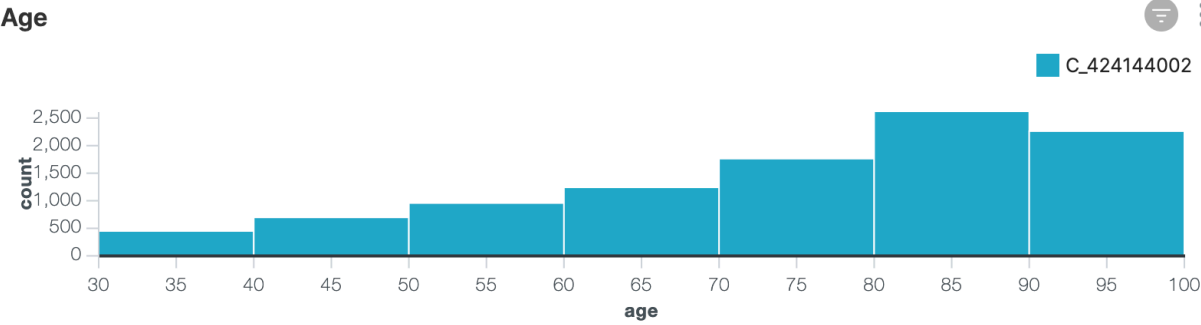


FHIR Server



FHIR SQL Builder



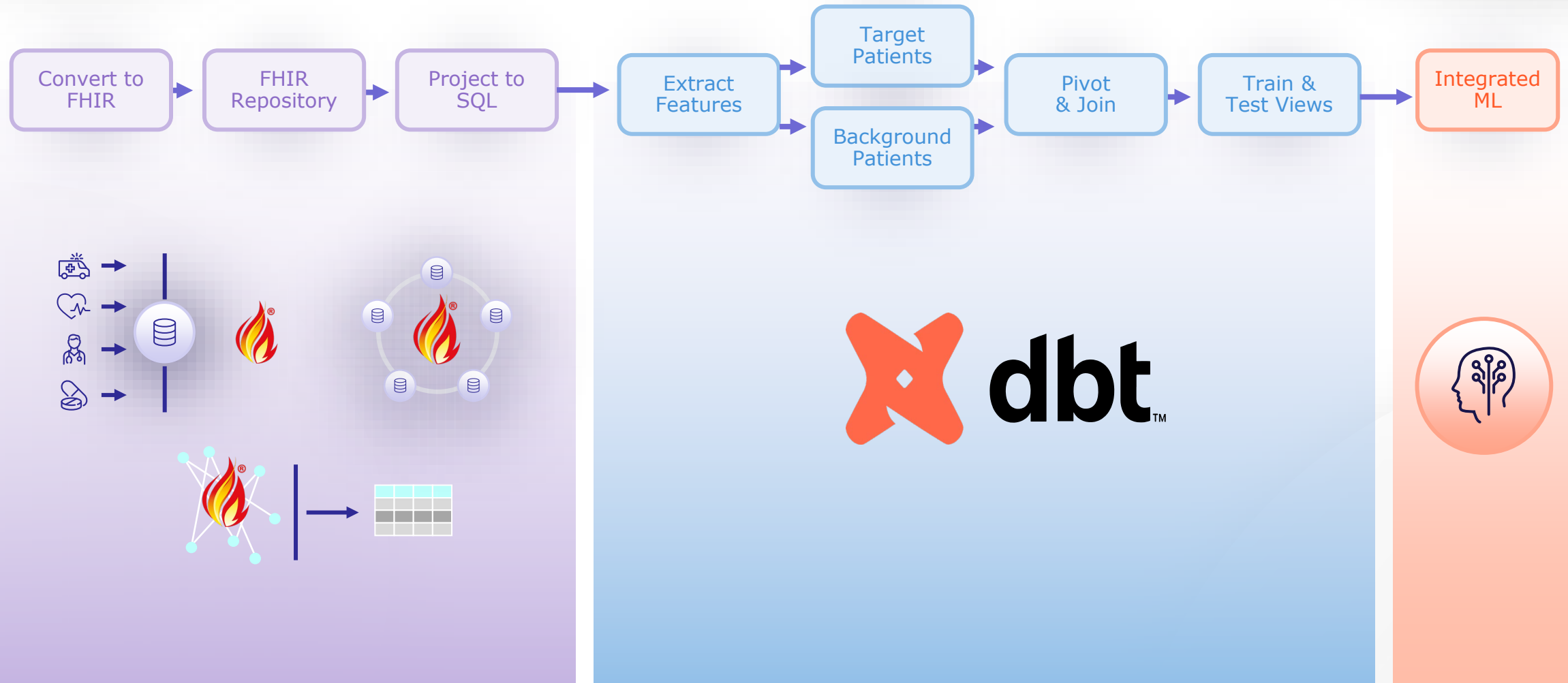


Patient Table

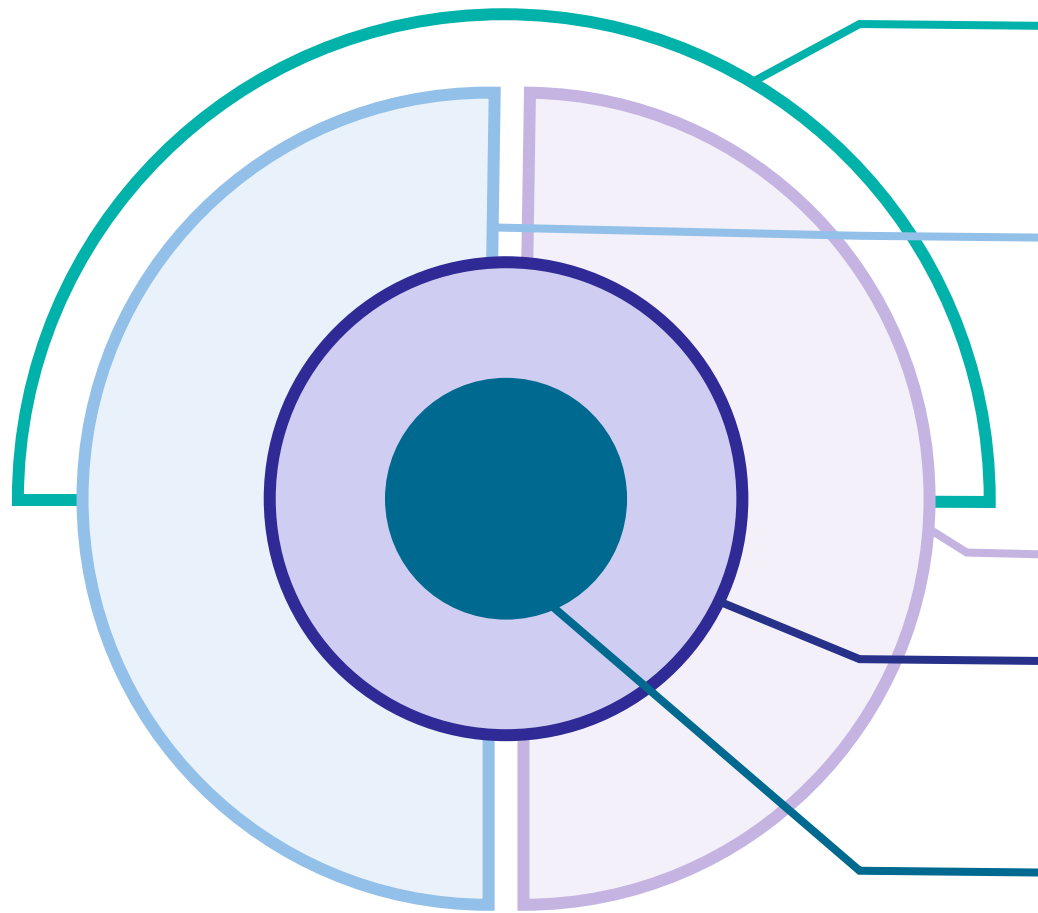
Show 200 entries

Patient/ID	Age	Gender	Heart rate	Pain severity	Respiratory rate	Body Mass Index	Hemoglobin [Mass/volume] in Blood	Platelets	MCH [Entitic mass] by Automated count	MCHC	Stress	Stroke probability
Patient/19106901	89	female	normal	normal	normal	normal	abnormal	normal	normal	normal	N/A	0.6790813207626343
Patient/25722810	95	female	normal	normal	normal	abnormal	abnormal	normal	normal	normal	N/A	0.6684526801109314
Patient/47839313	87	male	normal	abnormal	normal	normal	normal	normal	normal	normal	N/A	0.3915928900241852
Patient/53848915	82	female	normal	normal	normal	abnormal	abnormal	normal	normal	normal	N/A	0.3401651084423065
Patient/104512526	94	female	normal	normal	normal	normal	normal	normal	normal	normal	N/A	0.3325277268886566
Patient/26436620	98	male	normal	abnormal	normal	normal	abnormal	normal	normal	normal	N/A	0.30837756395339966
Patient/102046044	100	female	normal	abnormal	normal	normal	abnormal	normal	normal	normal	N/A	0.29146236181259155
Patient/25325217	99	female	normal	abnormal	normal	normal	abnormal	normal	normal	normal	N/A	0.28647688031196594
Patient/106504610	99	female	normal	normal	normal	abnormal	abnormal	normal	normal	normal	N/A	0.28247272968292236
Patient/36147057	99	male	normal	normal	normal	abnormal	abnormal	normal	normal	normal	N/A	0.26093676686286926
Patient/93929932	94	female	normal	normal	normal	abnormal	normal	normal	normal	normal	N/A	0.2569988965988159

Machine Learning on Healthcare Data: Composing Services Together



InterSystems IRIS – Recent Investments



Smart Data Fabric:

SaaS offerings, open metadata, foreign data access

Analytics & AI:

Semantic Layer, IntegratedML, Vectorized SQL

Interoperability:

FHIR support, bridging message & analytics worlds

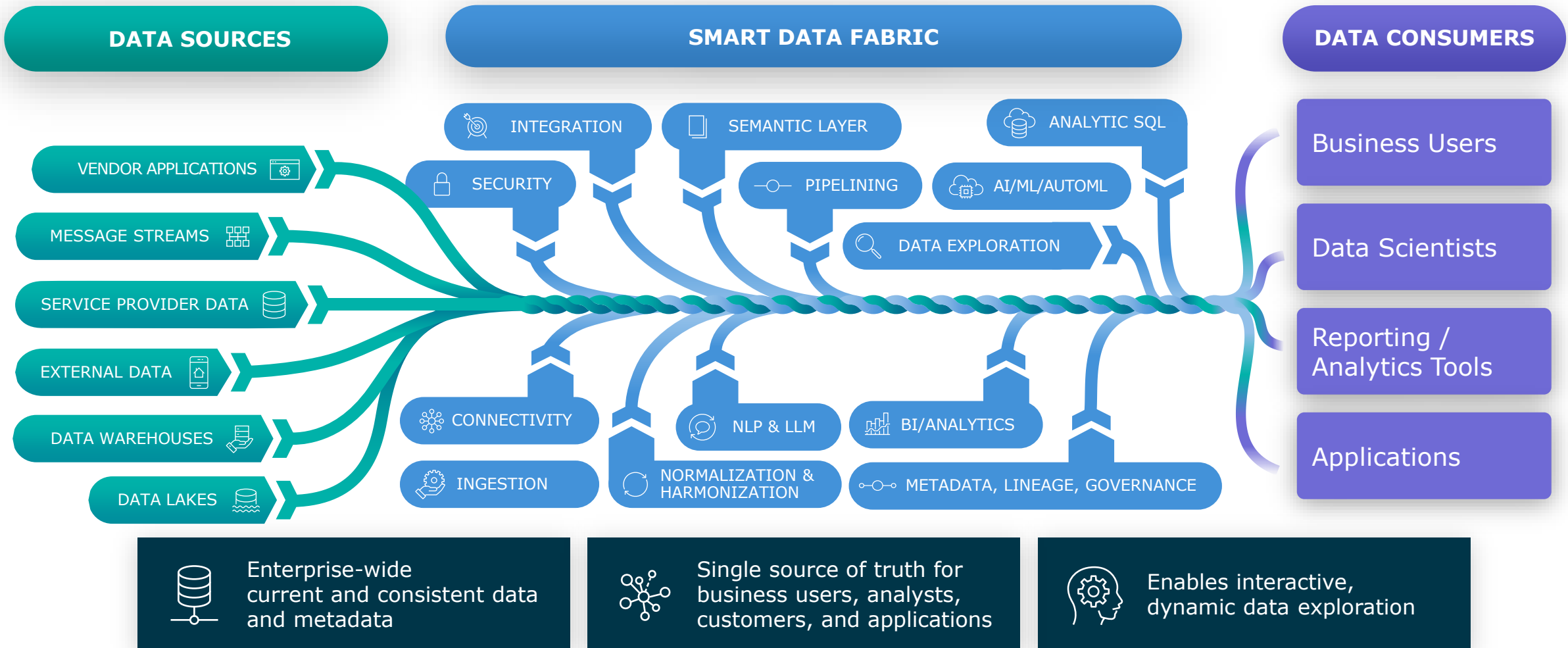
Horizontal scaleout:

Improved throughput at upper end, distributed Q

Core data engine:

Embedded Python, faster language runtime

Smart Data Fabric



Smart Data Fabric Differentiators



Embedded Analytics

moves compute closer to the data;
reduces risk of mismatch & lag
→ **Faster time to insight**

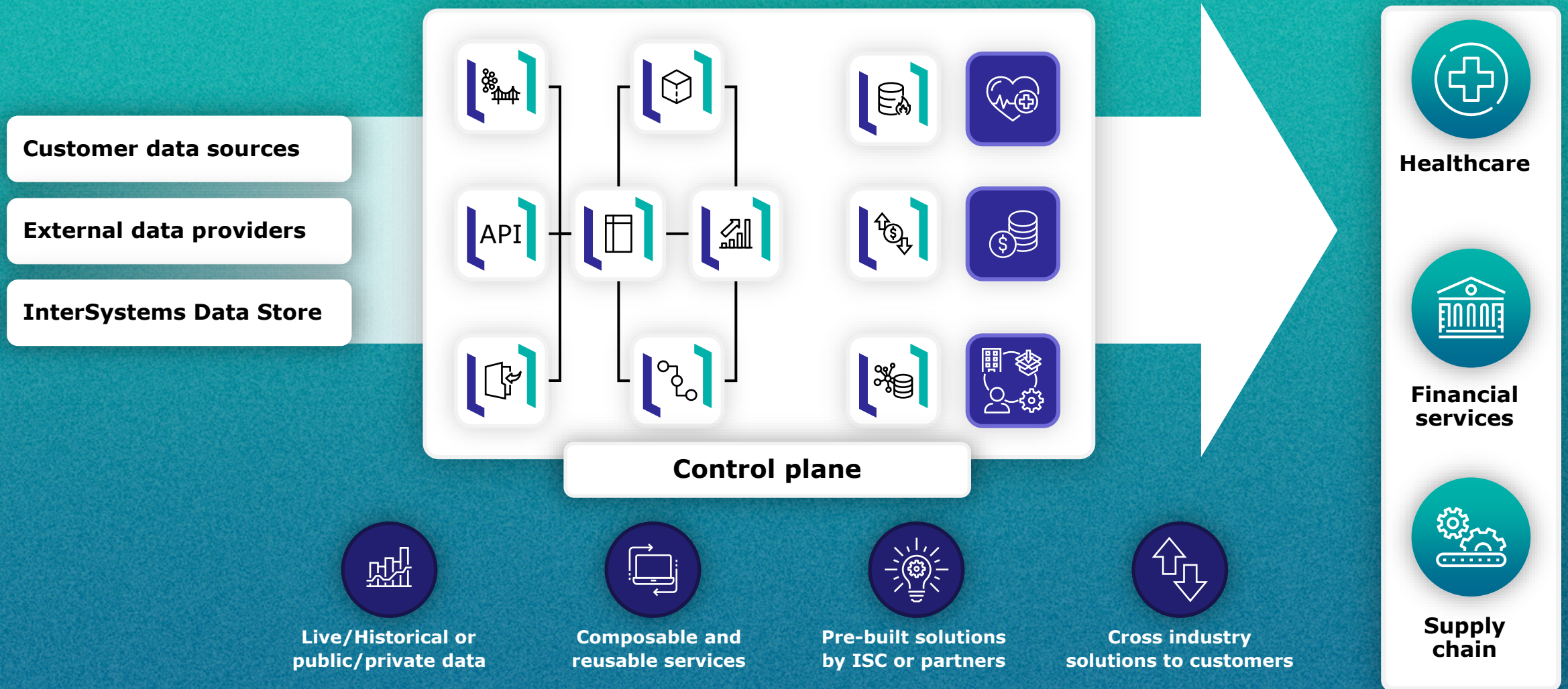
Single Data Plane

minimizes data movement and data duplication;
lower latency, lower footprint
→ **Lower cost of ownership**

Smart Data Services

application composition framework
accelerates solution design & development
→ **Faster time to value**

Smart Data Services



Our Cloud Offerings Lead to Smart Data Services



SDS components

InterSystems IRIS Cloud IntegratedML

InterSystems IRIS Cloud SQL

InterSystems CDA Validator Service

InterSystems FHIR SQL Builder

InterSystems FHIR Transformation Service

InterSystems FHIR Server

More Services to Come!

- Horizontal
 - DocDB
 - Analytic SQL
 - KV
- Action Engine

SDS applications

Supply Chain Orchestrator

Asset Management TotalView

Health Connect Cloud

- Care Community
- Healthcare Analytics
- Provider Directory
- Financial Services (4)
- Supply Chain (2)

HealthShare

InterSystems IRIS for Health

InterSystems IRIS Data Platform

HealthShare Cloud (MS)

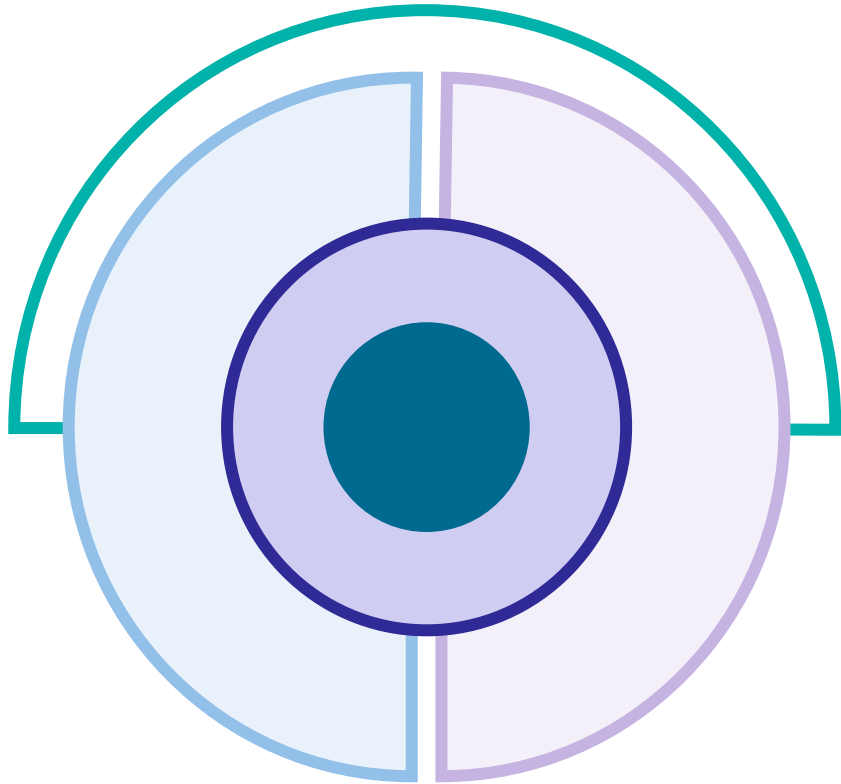
InterSystems IRIS for Health (MS)

InterSystems IRIS Data Platform (MS)

Cloud Licenses

Cloud Managed Services

Cloud Services



We're building on a solid foundation

&

We're investing for the future

&

Thank you for your partnership