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Data Infrastructure Governance Program

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AVEVA

Agenda

- Introductions
- Who is Radix?
- Radix PI System Governance Program
 - Challenges & Maturity
 - Data Governance Model & Benefits
- Blackstone Monitor
- Conclusion

ENGINEERING + DIGITAL

We provide technology solutions to overcome your challenges --
together.



radix

A unique
combination of

different expertises

**Engineering is
our foundation.**

At Radix,
**digital and
traditional
engineering coexist.**

**We act as a
consultant**
to create complete solutions
that combine **ET, OT and IT.**

Information Technology (IT)

Consultancy

radix

Operation Technology (OT)

Engineering Technology (ET)

The Radix Way

Customer success is our guiding principle to define the best strategy to develop our solutions, we help Forbes 500+ companies with **innovative approaches to optimize their industries and achieve business goals.**

By understanding our clients' challenges, we believe solid partnerships are grounded by trust.

We succeed together.



**WE COMBINE
TECHNOLOGIES
AND EXPERTISE**



**WE CARE ABOUT
OUR CLIENTS'
UNIQUE NEEDS
AND CONTEXT**



**WE COMMIT TO
OUR CLIENTS'
SUCCESS**



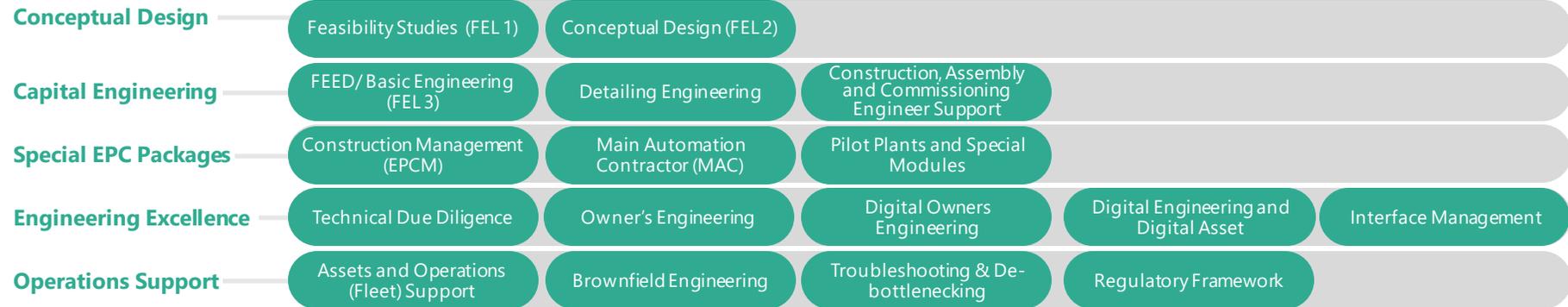
**WE NURTURE SOLID
AND LONG-TERM
RELATIONSHIPS**



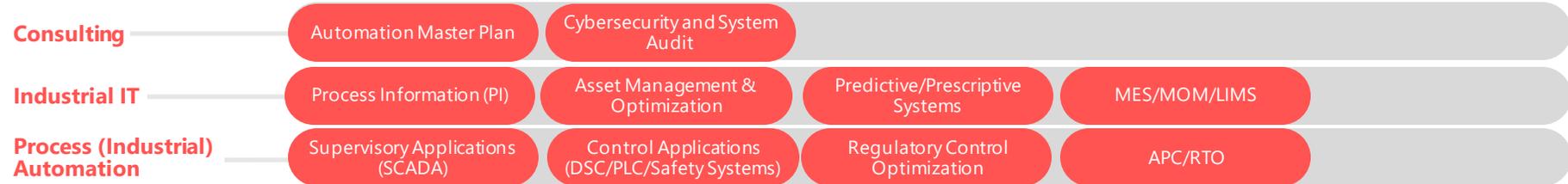
**WE ENABLE OUR
CLIENTS TO
CONSISTENTLY
SUCCEED IN THE
DIGITAL AGE**

Radix Solution Framework

Engineering



Operation Technology



Software & IT Offers



Consultancy Services





Oil and Gas
(DW, Conv., Unconv.)



Basic Chemical &
Petrochemicals



Refining



Power
Transmission



Construction



Steelmaking &
Metallurgy



Cement



Mining



Food and Beverage



Pulp and Paper



Agroindustry



Sugar and Alcohol



Media &
Entertainment



Transportation



Healthcare

RADIX'S MARKETS

Radix delivers true value solutions that help to overcome the challenges from today and tomorrow.

Global technology partners



Leading the way in PI Systems Integration

Radix is an AVEVA Global Alliance Partner.

63 Accreditation

- 47 Infrastructure Specialists
- 14 Developer Specialists
- 2 Installation Specialists

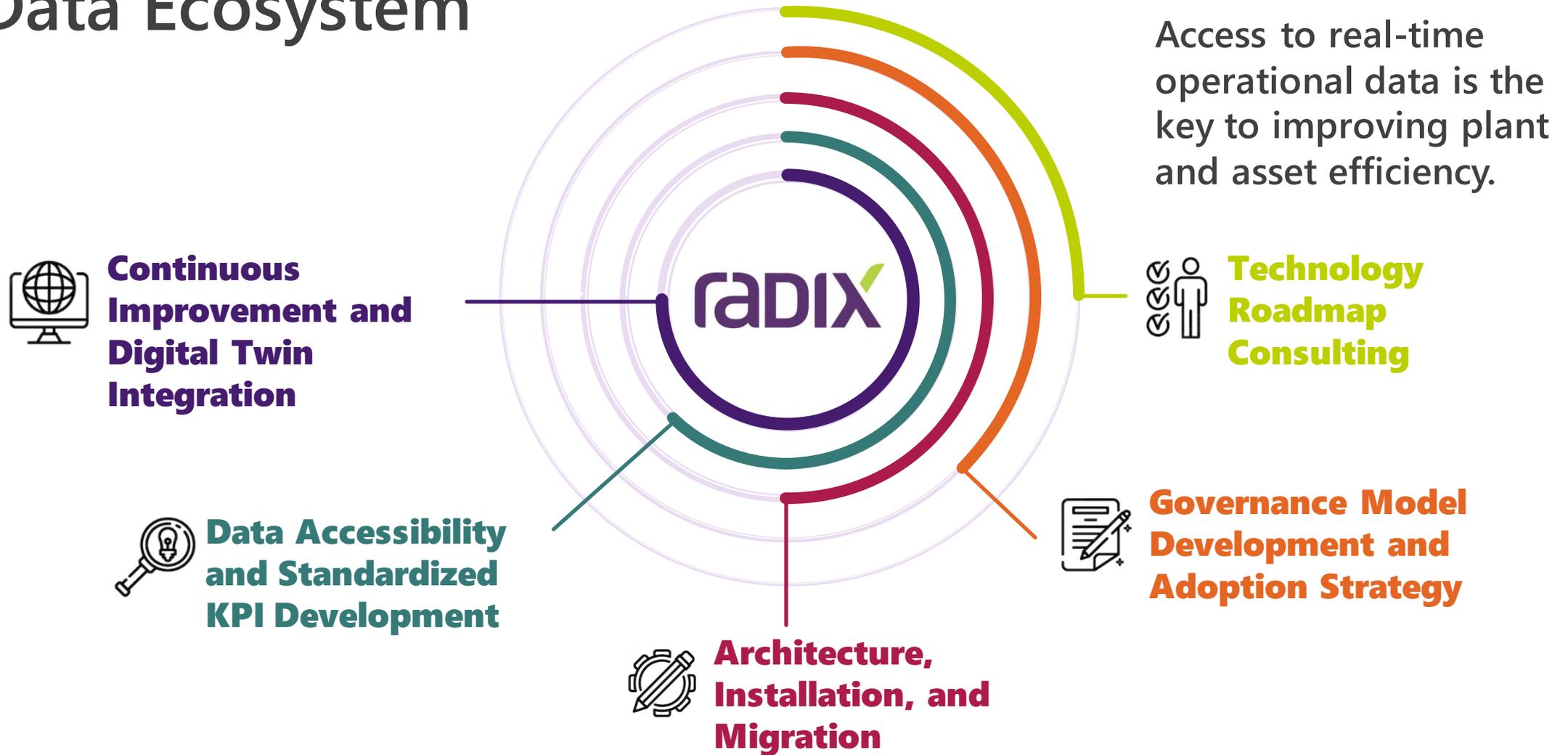
200+ team members with experience in PI System projects

100+ completed projects

Multidisciplinary team to understand client's operations and business model, not just PI technology.



Supporting your Data Ecosystem



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Radix PI System Governance Program

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Maturity

The Journey chasing value creation

Level 1

- Basic PI System or No PI System
- Minimal use of data

Level 2

- No central structure
- No understanding of PI System
- Site based Data archive
- Use of data through PI Datalink at the sites
- Minimal use of AF

Level 3

- Basic understanding of Governance needs
- Standardized use of Asset Framework structures
- Central PI System data aggregation

Level 4

- Implementation of Production / Development Environment
- Standardized structures of AF
- Widespread usage of AF Templates
- Constituently implemented KPIs, Event Frames, Notifications, and PI Vision dashboards.

Level 5

- Continuous improvement on governance processes and utilities
- Continuous improvement of Engineering analysis happening in PI System
- Automated workflows between 3rd party systems
- Aggregation and use of PI system and Data Lake data in Predictive/Prescriptive applications.

Data governance consists of **Processes, Roles and Responsibilities**, and an **Organizational Structure** to help manage industrial data.

Data Governance Model

A data governance model must be structured in a way that provides:

- Insights,
- Security,
- and trust into an organization's data,

Especially as companies scale and accumulate more data sources and assets.

Organizational Structure



Business Needs Lead

Ensuring use of standards and best practices, decision making, and ownership and guardian of governance.



Technical Lead

Monitoring health, addressing end user tickets, and infrastructure activities.

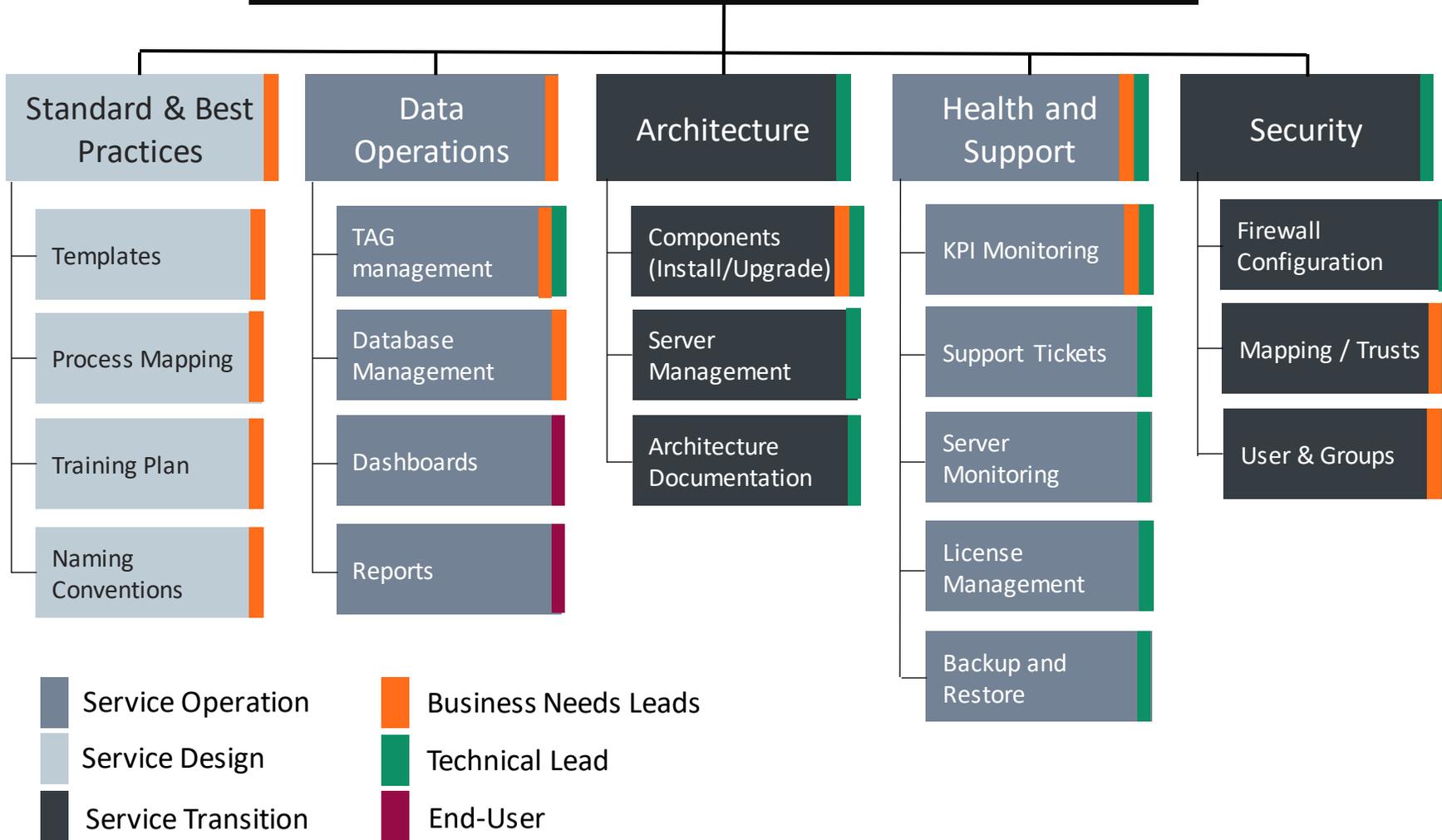


End-User

Build Reports, improve daily activities, spot check data quality, raise issue found with system.

IDMS Governance WBS

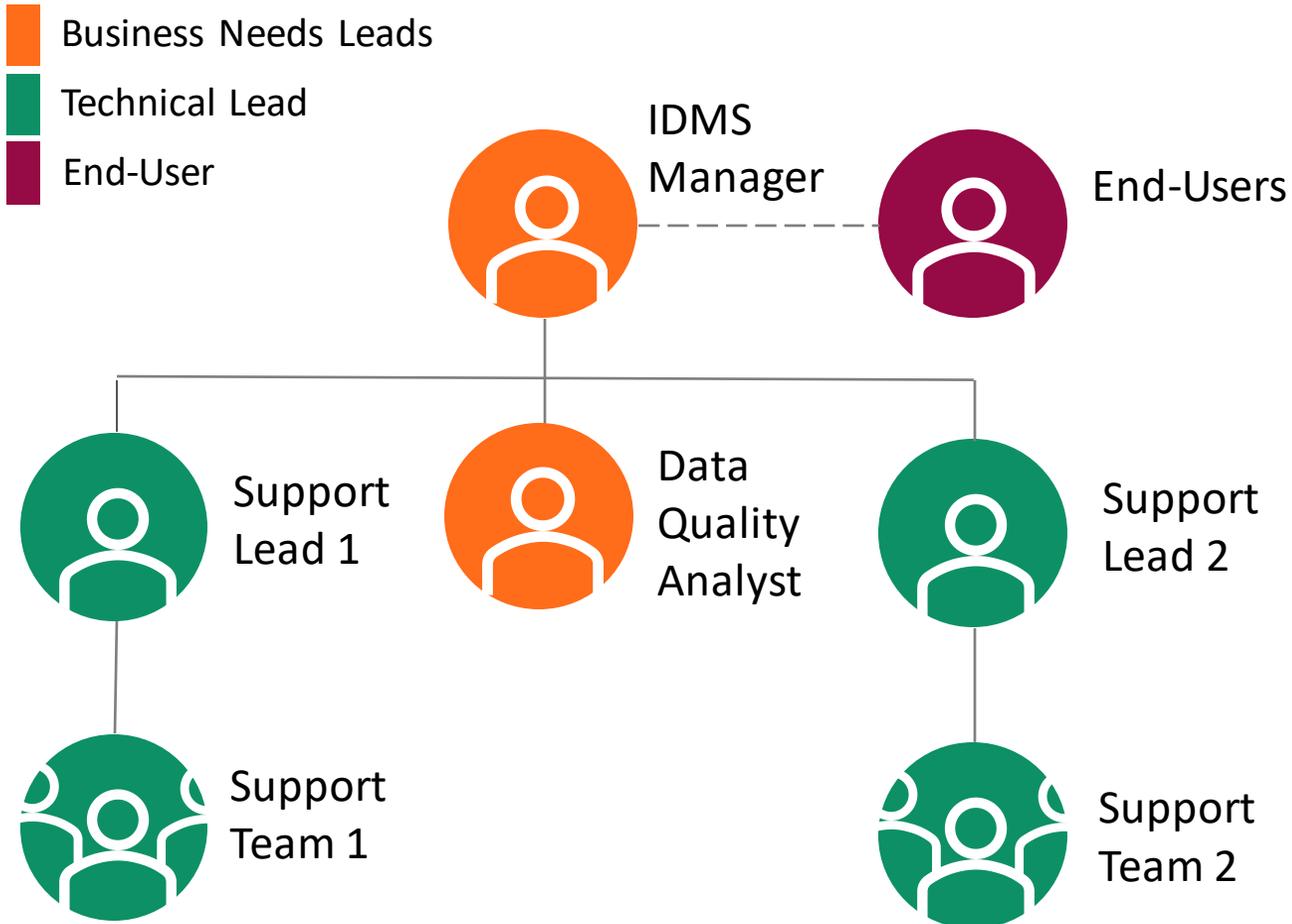
Industrial Data Management System Governance



Work Ownership

- *Lifecycle approach to support*
- *Define what the team will do*
- *Define Teams to own the work*

Organizational Structure



One Team

- *Cross organization structure*
- *Clear handovers*
- *Strategy & governance*
- *Knowledge of working data*
- **Liaison** *for work and skilled teams for many activities*

Roles and Responsibilities

Activity Group	Process	IDMS Manager	Data Quality Analyst	Supp. Lead	Supp. Team
AR	Software Installation, Configuration, and Update	C	A	A	R
DO	Build Dashboards and Reports	-	A	-	-
DO	Tags and calculations Management	I	A	R	-
BP	Define databases, templates, and naming conventions	C	A	-	-
HS	Troubleshoot issues and Perform Backups	I	A	A	R
HS	Consumption	I	A	A	R
SE	Server, Security, Firewall, and Database Management	I	A	A	R
SE	Associate groups and users with software Identities	-	A	-	-

RASCI Matrix

- *Clear understanding of responsibility for the team*

R - Responsible

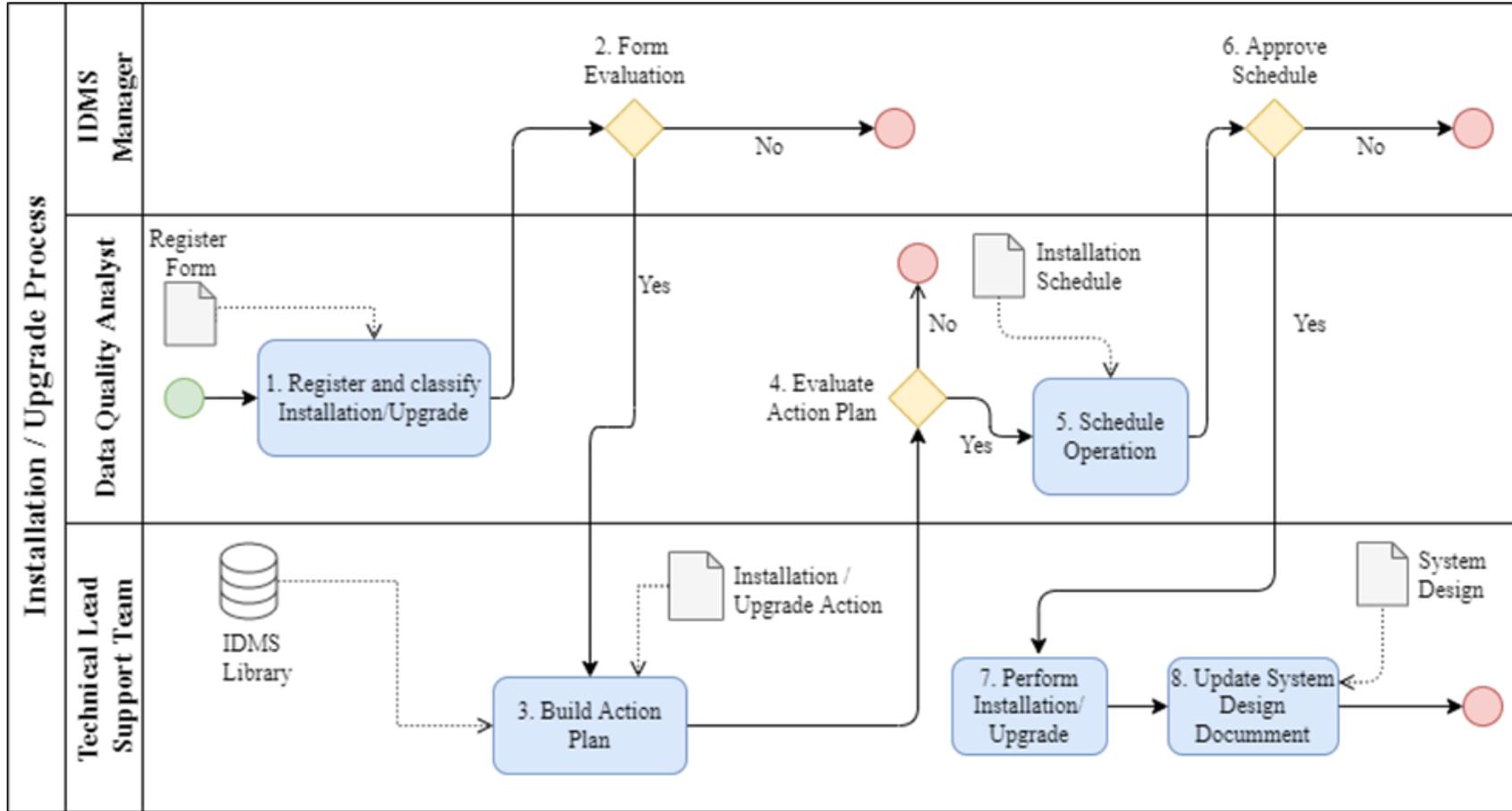
A - Accountable

S - Support

C - Consult

I - Inform

Processes



Critical Process

- *Maintaining*
- *Supporting*
- *Governing*
- *Goal repeatable service*

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Blackstone Monitor

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Blackstone Monitor

OPEX Reductions

Objectives

Data governance

Monitoring

Solution

Several monitoring modules running in cloud
Real time tracking of governance data issues

Achievements

9 modules under development



Blackstone Modules and Architecture

- **Data Quality Category**

Statistical Process Chart

Data Gaps Detection

Data Frequency Detection

Data Pattern Identification

PI Tags State Surveillance

Data Workflow Surveillance

Duplicates Tags Surveillance

- **Governance Data Quality Category:**

System Growth Rate Surveillance

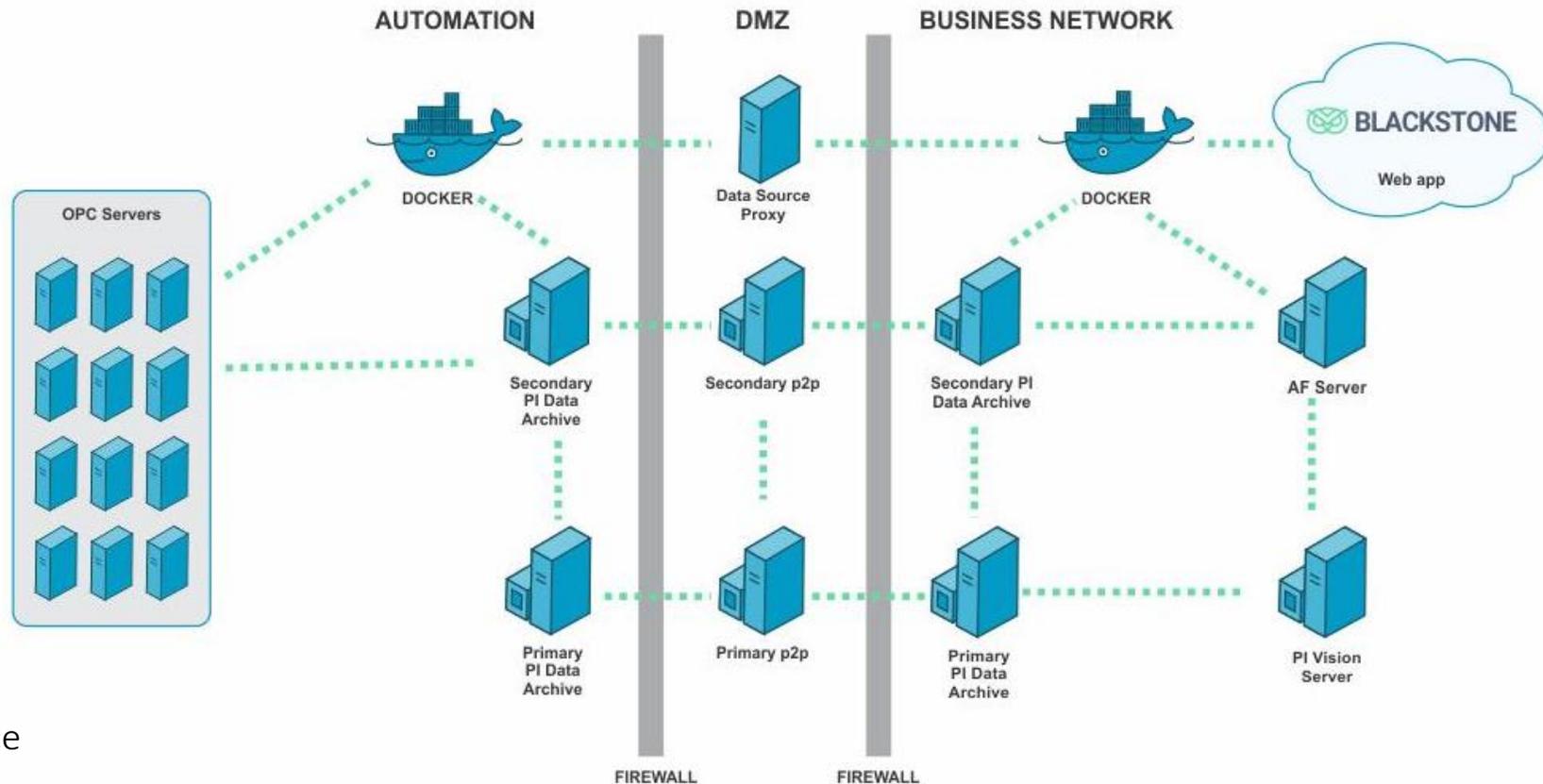
Tag Configuration Consistency Surveillance

Data Archive Scan Class Balance Surveillance

PI AF Template Consistency Surveillance

- **Network and Servers Category**

PI Components Surveillance



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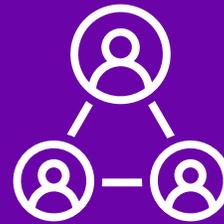
Conclusion

Key Takeaways



It is all about Maturity

**Solve the problems we
have now**



**A good governance
program saves time
and worry**

 BLACKSTONE

**The Blackstone
Monitor**

**A Radix solution,
offsets the costs of
maintaining PI and
help the PI team focus
on what matters for
operations.**



Strategic partnership

Radix holds a unique position as an AVEVA Global Alliance Partner to apply leading technologies to the whole lifecycle of industrial facilities and assets.

Visit us at booth #1 to learn more.



AVEVA



radix

Technology solutions to
overcome your challenges.

Together.



Booth #1

Questions?

Please wait for the microphone.
State your name and company.



Please remember to...

Navigate to this session in the mobile app to complete the survey.



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Thank you!

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ABOUT AVEVA

AVEVA is a global leader in industrial software, sparking ingenuity to drive responsible use of the world's resources. The company's secure industrial cloud platform and applications enable businesses to harness the power of their information and improve collaboration with customers, suppliers and partners.

Over 20,000 enterprises in over 100 countries rely on AVEVA to help them deliver life's essentials: safe and reliable energy, food, medicines, infrastructure and more. By connecting people with trusted information and AI-enriched insights, AVEVA enables teams to engineer efficiently and optimize operations, driving growth and sustainability.

Named as one of the world's most innovative companies, AVEVA supports customers with open solutions and the expertise of more than 6,400 employees, 5,000 partners and 5,700 certified developers. With operations around the globe, we are headquartered in Cambridge, UK and listed on the London Stock Exchange's FTSE 100.

Learn more at www.aveva.com