CYNTEGRITY
THE COMPANY

Since:	2013
Founders:	RBQM pioneers, ERT's former Quality Data Systems Development Lead and team and co-founded by Bayer's former Head of Global Data Management
Focus:	Full-service RBQM solutions, exclusively designed for clinical purpose
Headquarters:	Olof-Palme-Str. 15, D-60439 Frankfurt am Main, GERMANY
	220 Juana Avenue, San Leandro, CA 94577, UNITED STATES

Cyntegrity is one of the leading risk-based quality management technology providers in the BioPharma industry. We're proud of our bespoke and highly rated MyRBQM® Portal and MyRBQM® Academy brands.

We support sponsors and CROs with clinical trial risk management technology and related educational programs to focus monitoring resources on the locations and activities where they are most needed. Cyntegrity is a fast-growing scale-up company staffed by an international team of industry experts.

We strive to become the first-choice provider of fit-for-purpose cloud and SaaS solutions for ICH GCP E6(R2) and E8(R1) compliant risk-based quality management and clinical research.

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Going ICH Risk-Based

YOUR RISK FREE

OPPORTUNITY

TO ELIMINATE THE DREADED 100% SDV BLIND SPOT

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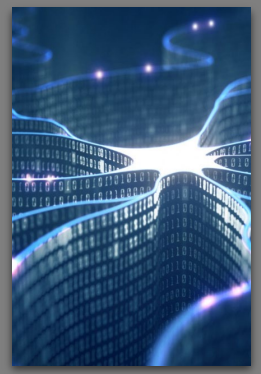
“Adaptive” Is The Future Of Drug Development

There’s never been a better time to invest in a clinical trial risk management system that facilitates remote and central monitoring. COVID-19 taught us to be adaptive and this approach is already built into the latest ICH E6 and upcoming ICH E8 guidance.

You Don’t Want You To Be The Next Scandal

The problem of misconduct may go far deeper than could be revealed by 100% SDV. Risk-based algorithms that are trained to detect "dirty" data in real time, help us to prevent you from huge monetary cost and reputational harm.



No More Late Surprises, We Plan For Predictable Success

Early risk detection is key to clinical success. We found MyRBQM® Portal to be the best-in-class clinical trial risk management system on the market.
MyRBQM® Portal is uniquely designed for lean predictive data analytics. Your data remains in the eClinical systems maintaining the “single source of truth” principle.

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2022 Business as Usual?

*Probably **not**...*

Treatment at Home

Clinical Safety Monitoring

Virtual Visits

‘REMOTE’ IS BECOMING THE NEW NORMAL

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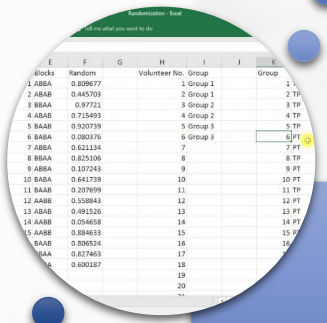
AN URGENT NEED FOR AN INTELLIGENT DATA SCIENCE SOLUTION

2020 – DATA SCIENCE

MyRBQM® Portal
powered by Cyntegrity



2000 – DIGITAL DATA

1990s – PAPER-BASED

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GOING "RISK-BASED"

A GCP COMPLIANT APPROACH TO NAVIGATE YOUR STUDIES TO PREDICTABLE SUCCESS

Taking a risk-based approach without technology is like using a paper map rather than a GPS. You know where you want to go, but you don't know what problems you may run into along the way, or how long it will take to get to where you're going.

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PLAN
PREDICT
PROCEED

ICH GUIDELINES REQUIRE SPONSORS TO MITIGATE RISKS BEFORE THEY BECOME AN ISSUE

We use intelligent clinical trial risk management technology to bring all risks into scope and help us uncover the 100% SDV blind spots at source.

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RBQM Is Laser Focused

Risk-based Quality Management (RBQM) considers each research program holistically, identifies areas of increased risk and uses that information as the basis for a customized monitoring program.

RBQM is not “reduced” monitoring, it is strategic monitoring based on technologically enabled, risk-based algorithms that focus monitoring resources on the locations and activities where they are most needed.

RBQM Isn’t Static

If risk levels increase at any phase or stage of a study, monitoring can quickly be intensified.

The power of RBQM lies in **risk identification** and **strategic vigilance**.

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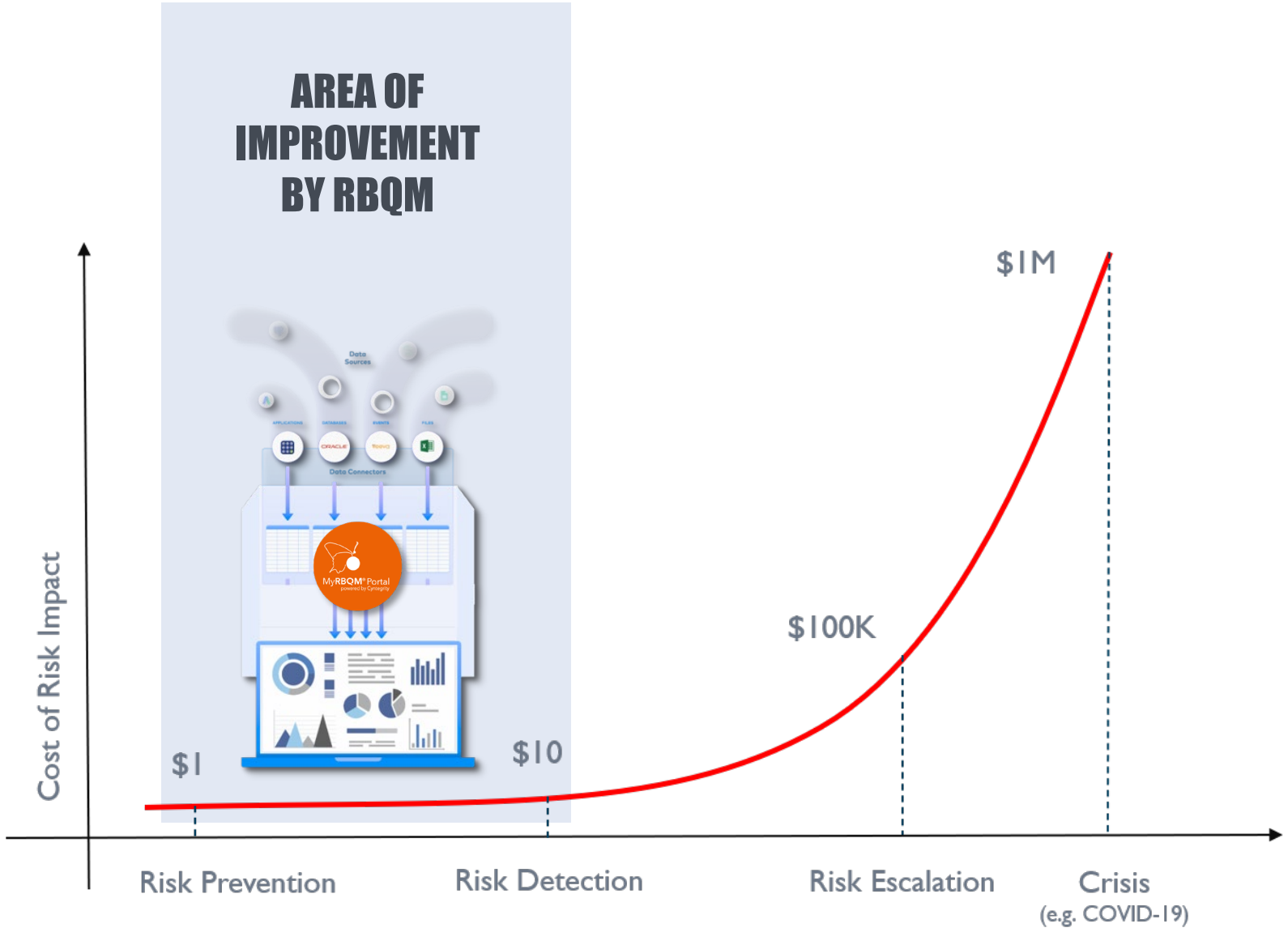
Our Vision

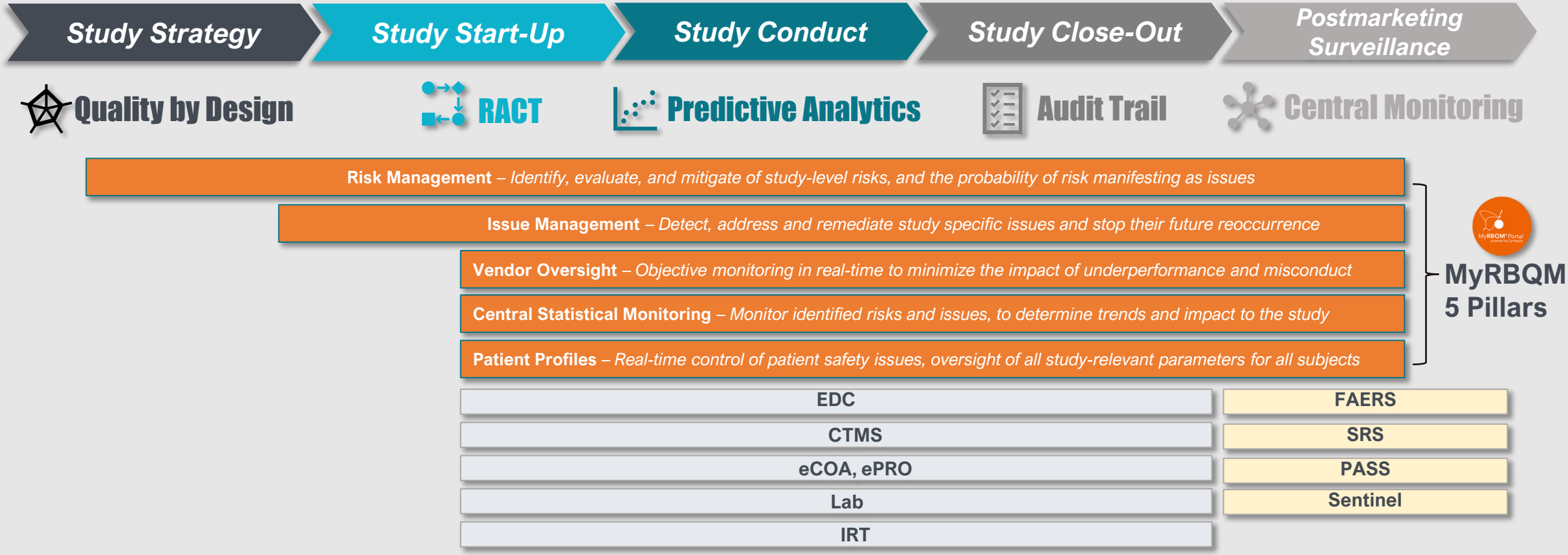


Clinical Trial Risk Management

COST SAVINGS POTENTIAL

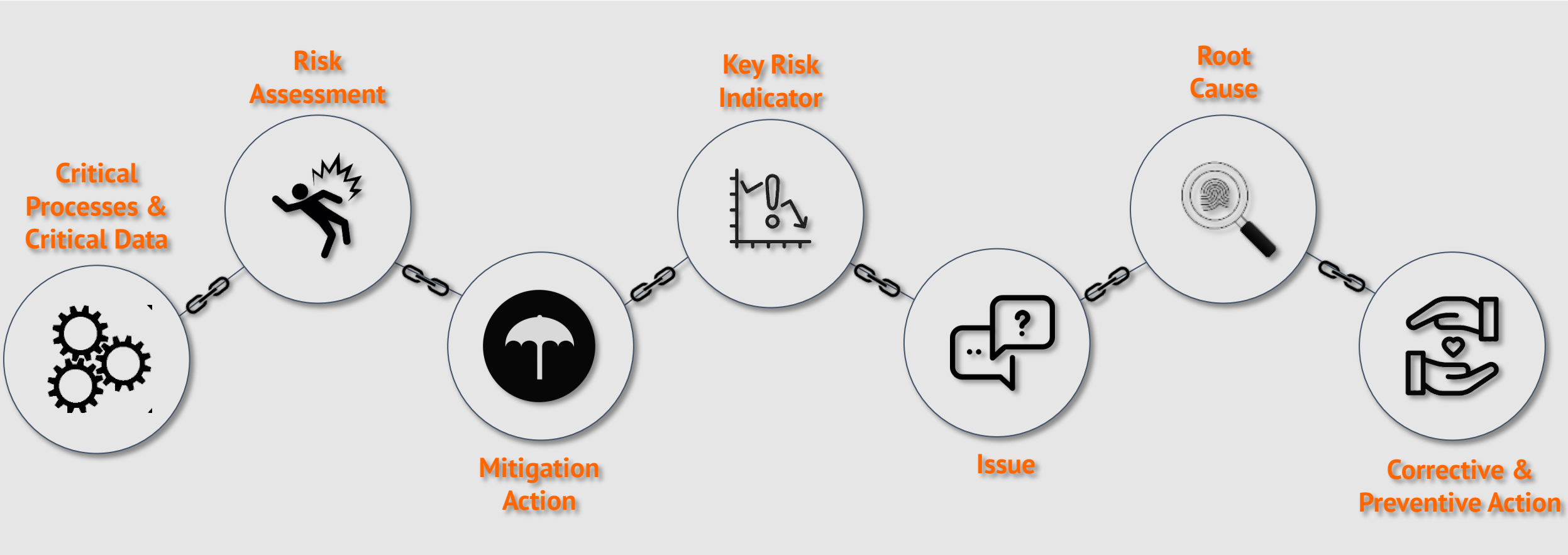
Our Vision | GCP End-to-End Risk Management

The fully implemented MyRBQM® Portal capabilities support a GCP compliant clinical study process, including the Clinical Development Plan creation through postmarketing drug safety monitoring.



Our Vision | GCP-Driven Integrated Workflow

The fully implemented MyRBQM® Portal capabilities support a GCP compliant clinical study process, including the Clinical Development Plan creation through postmarketing drug safety monitoring.



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AUDIT READINESS AT ALL TIMES

COLLABORATION
TRACEABILITY
TRANSPARENCY

You & Us & MyRBQM® Portal

- MyRBQM Portal facilitates a transparent Sponsor-CRO coworking space
- We jointly assess risks more thoroughly at the protocol level and expand the initial list of critical data and processes
- We work from common assumptions and quality benchmarks
- An Integrated Quality and Risk Management Plan (IQRMP) is crafted by the MyRBQM Portal
- All of the data in the IQRMP trace their roots back to the risk assessment in a time-stamped audit trail

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MyRBQM® Portal

MyRBQM® Portal

Clinical Trial Risk Management technology that…

Facilitates research **continuity** in times of crisis

Detects **misconduct** and **fraud** in clinical research

Drives clinical operational **efficiencies**

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RISK-BASED QUALITY MANAGEMENT SYSTEM

Conduct protocol assessment

@RACT

RISK HISTORY

- Metric results
- Lessons learned

RISK ASSESSMENT

- Gather data for risk identification
- Assess study to identify risks
- Quantify risks

RISK MITIGATION & CONTROL

- Take actions to reduce risks
- Define KRIs & set tolerance limits
- Develop issue mitigation plans

ISSUE MANAGEMENT

- Monitor KRIs for issues
- Manage events / conditions

Archive risk management results

Risk communication

MEDICAL MONITORING PATIENT PROFILES

RISK / MITIGATIONS ACTIONS DB

AD-HOC REPORTING

PROBABILITIES DB

DOCUMENTS GENERATOR

DATA-DRIVEN METRICS

TICKETING SYSTEM

MCC Metrics Champion Consortium CHAMPION

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MyRBQM® Portal

- Gets only the required data **endpoints** for the Key Risk Indicators
- **Daily/Hourly** data processing
- Does **not** require a data warehouse or a data lake
- Keeps all clinical data in place as a **single source of truth**
- Builds up a **neural network** of a clinical study data

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BUILT-IN KRI ENGINE

- Bayesian Inference
- Clinical trial design, monitoring, and analysis
- Statistical Process Control
- Machine Learning & Statistical Learning / Natural Language Processing
- Medical Image Analysis and Signal Analysis

EXAMPLES OF USED METHODS

- **Enrollment** - Maximum Likelihood Estimation of Cox process parameters
- **(S)AE Reporting** - Bayesian estimation of event rates. Posterior distribution with Gamma prior and Poisson-distributed likelihood
- **All Metrics** - accurate predictions (SSA) for detecting patterns in long time series
- **Stratification** - Cohen's Kappa
- **eCRF data quality** - Positive-unlabelled learning with TSVM for revealing an association of values of related metrics to escalations of that risk by other simpler KRIs
- KRI engine summarizes KRI findings on **FMEA**

TURNKEY APPLICABILITY

Fit for clinical purpose

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THERAPY SPECIFIC RISK CATALOGS

- Enhanced Risk Assessment and Categorization Tools (RACTs)

GENERATE RISK MANAGEMENT PLANS FASTER AND EASIER

- Based-on the TransCelerate spreadsheet methodology
- Complementary risk mitigation actions
- Currently available indications:
  - → Oncology
  - → Pulmonology
  - → Diabetes
  - → Cardiovascular
  - → Medical Devices
  - → Phase I – Healthy Patients
  - → COVID-19

TURNKEY APPLICABILITY

Fit for clinical purpose

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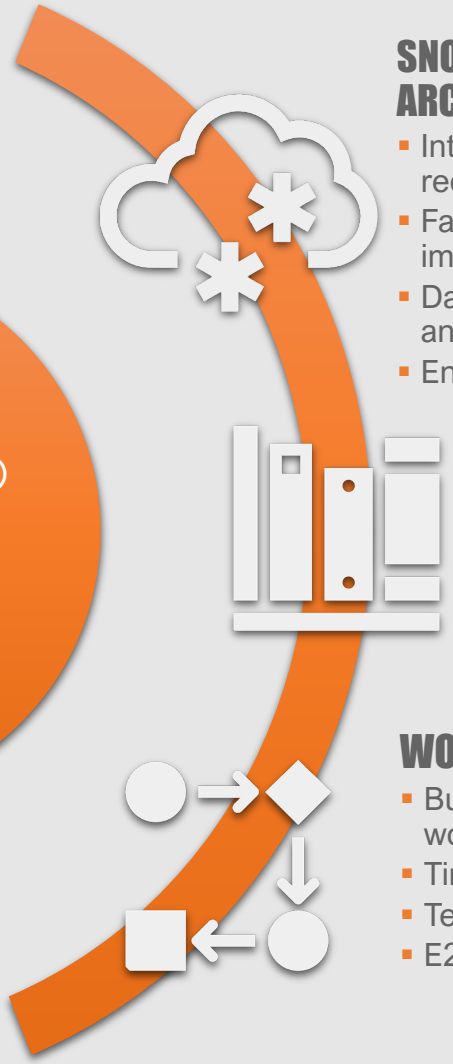
WHAT DIFFERENTIATES OUR TECHNOLOGY

MyRBQM® Portal



SNOWFLAKE ARCHITECTURE

- Integrates all clinical data recording systems
- Fast technology implementation
- Daily/hourly data analyses
- Ensures trial continuation

DATA ENGINE

- Unique knowledge (risk) library
- Pre-filled with >290 KRIs
- Self-learning

WORKFLOW

- Built-in GCP compliant workflow
- Time-stamped audit trail
- Team collaboration
- E2E traceability

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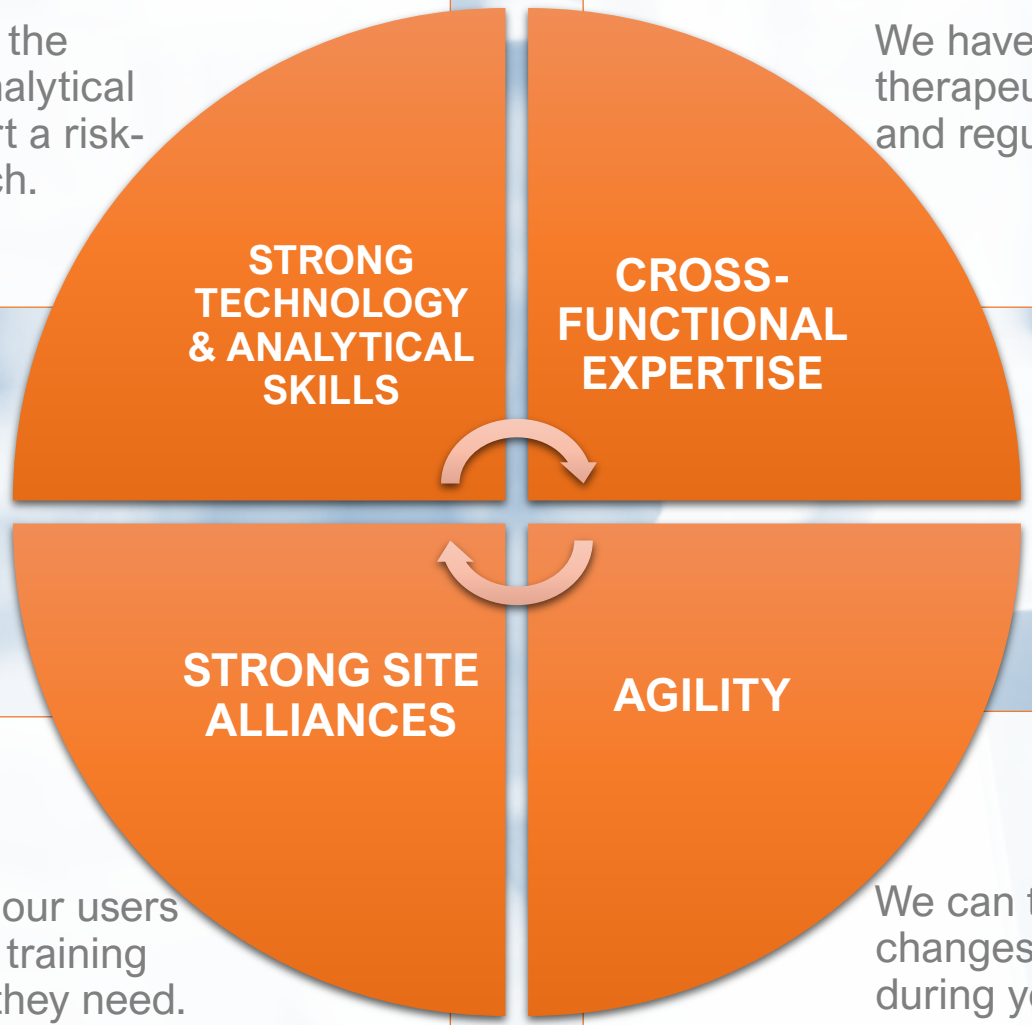
OUR CORE COMPETENCIES

NECESSARY TO CONDUCT RBQM

We invested in the training and analytical tools to support a risk-based approach.

We have comprehensive therapeutic, operational and regulatory expertise.



We make sure our users have the tools, training and feedback they need.

We can timely adjust to changes that may arise during your study.

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Project Management & Monitoring

Out-of-the-box algorithms making clinical data analytics accessible to all study members

Regulatory Affairs & Quality

On demand time-stamped audit reports for full ICH E6 compliance

Data Management & Statistics

MyRBQM Portal connects to all clinical data sources and only extracts the required data endpoints for the KRIs

Site Management & Study Physicians

Optimized patient enrollment management through predictive analytics

Patient Profiles for early detection and real time control of patient safety issues

Medical Monitoring

Proprietary risk detection algorithms uniquely designed for clinical trials

Issue Management System for integrated reporting and compliance

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RBQM
Use Cases

Use Case 1

Project Manager prepares a risk assessment

- Alex is a junior project manager, responsible for several clinical trials
- She wishes to analyze potential problems and initiate follow-up
- She wants to define deadlines and get regular status updates
- Alex lacks hands-on experience with risk management

BENEFITS FOR ALEX

→ She can now collaboratively manage her studies around informed decisions

→ She can now control her processes pro-actively

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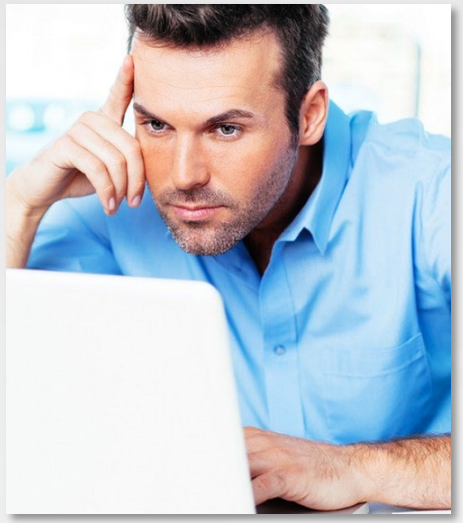
Use Case 2

Central CRA controls metrics, KRIs and thresholds



- Oscar is an experienced central monitor, responsible for several clinical trials
- He wants to control his studies down to the last detail
- Oscar wants to delegate action items to CRAs for onsite checks
- He wants updates on every activity, to ensure that nothing is forgotten

BENEFITS FOR OSCAR

→ He can now focus his attention to what matters most
→ He can consolidate all data sources
→ He can observe the risk dynamics
→ He can now risk-manage his studies confidently

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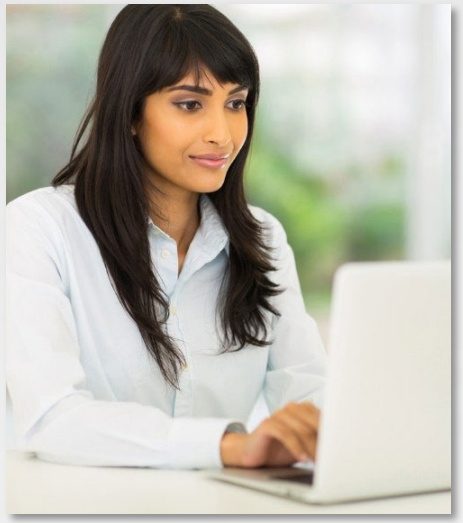
Use Case 3

Data Manager reviews the issues in the query process



- Pooja wants to know more about the sites that struggle with the queries
- She wants a simple and flexible overview of manual queries per site/country
- Are the strata in the study imbalanced?
- She wants to build additional edit checks to reduce manual queries

BENEFITS FOR POOJA

→ She can now quickly see the required information about each site/country
→ She can build up her strategy based on risk & performance issues
→ She prevents larger variance of the data

Use Case 4

CRA prepares for targeted/triggered site visit

- May is a CRA, who needs to build a regular report about the most common risk escalations for her site(s)
- She wants to see where a site systematically struggles and where it is good
- May wants to help her site to improve for the next onsite visit

BENEFITS FOR MAY

→ She can now handle sites with much more focus and in a personal way
→ May acts as a site-coach, who jumps in whenever required
→ May optimizes her time and remains fully mobile

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MyRBQM® Academy

WHITE BELT

- Online course

⇨ The RBQM Essentials White Belt course is dedicated to the **fundamental RBQM knowledge** every risk-oriented clinical expert must have.

GREEN BELT

- Virtual instructor-led

⇨ This training takes you step-by-step through the critical components you must have in your **RBQM Plan**

BLACK BELT

- Virtual instructor-led

⇨ Dedicated to ensuring you have the **change management** strategies you and your team need to create sustainable change

EXECUTIVE BELT

- Virtual instructor-led

⇨ Dedicated to building the best **RBQM strategy** possible for your organization, so that your teams can implement it successfully

EDUCATION

We are happy with the engagement and level of knowledge that MyRBQM® Academy brought to our Operations teams as to the RBQM implementation.

– Jens Opitz, Executive Director, Head of Global Clinical Operations at Merz Pharma


ARG
ATLANTIC RESEARCH GROUP
AiCuris
Anti-infective Cures
GKM
Gesellschaft für
Therapieforschung mbH
ERGOMED plc
TOTAL
Seqirus
A CSL COMPANY
BIOTRONIK
excellence for life
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Meril
More to Life
AFORTIORI
DEVELOPMENT
ono
SAREPTA
THERAPEUTICS
vivoryon
PPD
MyRBQM® Academy
established by Cyntegrity
MyRBQM® Academy Alumni work for...

“What others say

About taking a risk-based approach to clinical trial conduct…

*“There is a growing consensus that **risk-based approaches to monitoring**, focused on risks to the most critical data elements and processes necessary to achieve study objectives, **are more likely** than routine visits to all clinical sites and 100% data verification **to ensure subject protection and overall study quality.**”*
(FDA 2013)

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“What others say

About taking a risk-based approach to clinical trial conduct…

“An analysis of clinical trial data by Medidata and industry group TransCelerate BioPharma has found that the value of source document verification (SDV) in a risk-based approach to clinical trial site monitoring is minimal. These findings generally support the conclusion that ***SDV should not be the primary data quality control method used in clinical trials.”***
(Outsourcing Pharma 2014)

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“What others say

About taking a risk-based approach to clinical trial conduct…

*“The conviction that "more is better“ proceeds with **new proof that onsite monitoring practices don’t inexorably ensure persistent well being and data quality. …sponsor must grasp and receive the precepts of risk-based monitoring** in the connection of the predominant worldwide IT construction modelling. **This will empower them** to meet the regulatory necessities relating to the assurance of exploration subjects and convey engaged and exact supporting information to controllers.”*

(Reseach gate 2016)

“What others say

About taking a risk-based approach to clinical trial conduct…

*“The results support the hypothesis that generalized **SDV has limited value** as a quality control measure and reinforce the value of other risk-based monitoring activities. Instead, other monitoring methods, such as central monitoring and SDR, should be used to **focus on what matters most** to the study.”*
(Reseach gate 2014)

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“What others say

About taking a risk-based approach to clinical trial conduct…

*“Initial estimates show potential of Risk-based Monitoring to **save 15 to 20% in study portfolio costs.**” (Research Gate 2016)*

*“A program that would require 80% SDV in the current model could see **45% SDV in the risk-based model.**” (Research Gate 2016)*

*“Monitoring cost reductions and **data access and quality benefits drive RBM momentum gains.**” (ISR report)*

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