The Digital Twin That Risk Management Has Been Missing

AI can transform risk management. But only with the right context.

Michael Schank · Founder, Insight Twin

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WHY RISK PROGRAMS STILL STRUGGLE

More ground to cover, every quarter



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WHY RISK PROGRAMS STILL STRUGGLE

Failure to manage risk effectively can jeopardize



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THE DEFAULT RESPONSE: ADD MORE

Risk teams struggle with coverage



74%

Data quality issues
find maintaining reliable data for nonfinancial risk challenging
Deloitte, Global Risk Management Survey, 12th ed.

84%

Management reporting
of CEOs are concerned about the quality of the data behind their decisions
Forbes Insights, 2017

Subjective risk assessment
risk matrices score likelihood × impact on opinion, not evidence

50%

Operating model confusion
struggle to define roles between the first and second lines
Deloitte, Board and Chief Risk Officer: Reimagine Risk Governance

Capacity was never the constraint.

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THE REAL PROBLEM

Risk lives in what the business does

Risk is **the effect of uncertainty on objectives.**

ISO 31000

Uncertainty

↓

Objectives

↓

What the business does

↓

Processes

?



We have data, but we don't know what our business does to operate.

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INTRODUCTION

Michael Schank



- Over 25 years in consulting and financial services
  - EY: Head of Process Excellence
  - Citi: Head of Process Excellence, US Retail Bank
- Extensive risk transformation background
- Founder of Insight Twin · InsightTwin.com

Digital Transformation Success

The transformative power of the **Process Inventory framework** to drive digital transformation success by aligning resources, organizational goals and efforts, leading to unparalleled agility.



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AI IN RISK MANAGEMENT

Imagine asking AI these questions, and trusting the answer

- "How can I automate a risk assessment?"
- "If a critical vendor goes down, show me every process, control and regulatory obligation affected."
- "Do we have full coverage of our AML regulations: every obligation mapped to a process, a control and an owner?"
- "Show an examiner, end to end, how we comply with fair lending."

What's the key to making these prompts return an accurate result?

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WHY AI STALLS

The AI context gap

To scale, AI needs to understand how your organization operates.

- AI is trained on publicly available data.
- AI doesn't know your organization. That knowledge is proprietary.
- And it's rarely in a single, trusted, comprehensive source.

The bottleneck isn't the LLM. It's the context.

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Digital Twin of an Organization

= a model *= of your organization*

01 · DESCRIBE

See how it really works

A single, accurate account of how the organization operates today.

02 · PRESCRIBE

Model the best path

Compare options and choose the best path before committing to it.

03 · ACT

Generate real work

AI generates deliverables grounded in the model, with people in control.

04 · MONITOR

Steer in real time

Every level of management works from the same view of performance.

THE DIGITAL TWIN

One process, connected to its data

SYSTEMS
from the System Repository

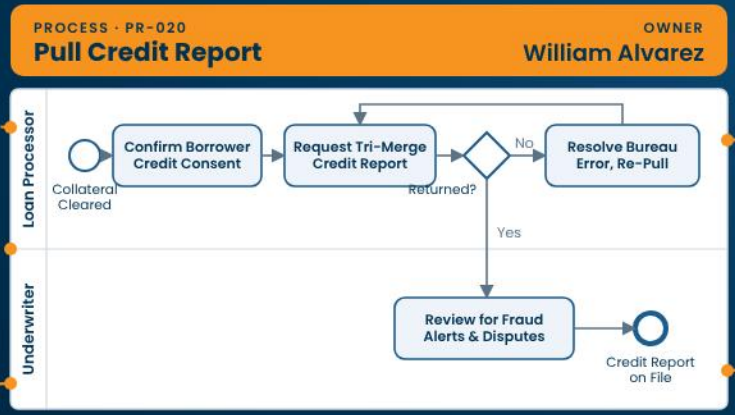
Credit Bureau Integration
Consumer Loan Origination System

ROLES
from the HR Repository

Loan Processor
Underwriter

PRODUCTS
from the Product Taxonomy

Mortgages
Home Equity Loans & Lines
Personal Loans & Lines
Student Loans
Auto Loans



ORG UNIT
from the Org Hierarchy

Loan Processing and Underwriting
ORG-U-005 · Department

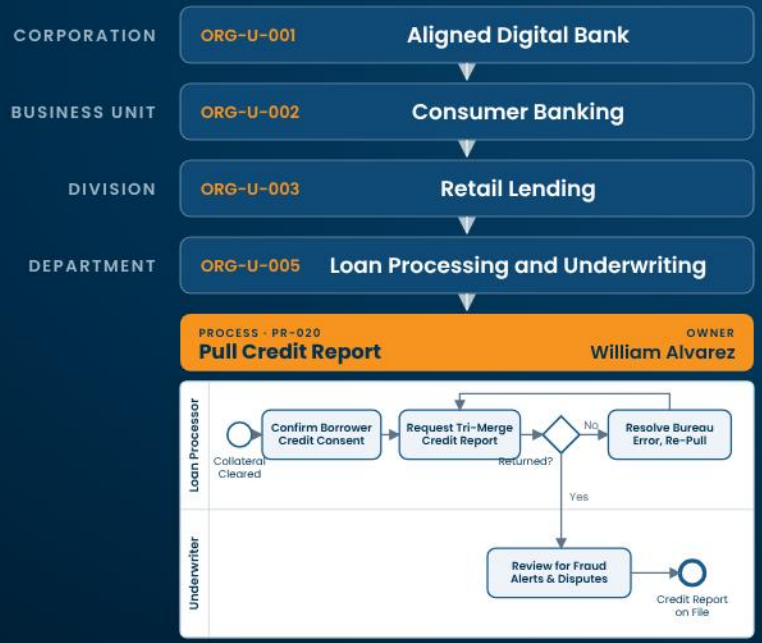
METRICS
from the Metrics Library

Report Retrieval Success
98.1% · target >98%
Retrieval Response Time
9.6s · target <10s
Consent Documentation
100% · target 100%
Multi-Bureau Coverage
76% · target >75%
Report Data Integrity
99.6% · target >99.5%

Metadata attaches once, at the process, pulled from the repository that owns it.

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In the context of who performs it



Every process belongs to a team, and every team to the organization.

VIEWPOINTS

Three viewpoints, one process inventory

1

How the organization operates

"Who owns this, and is it controlled?"

Org hierarchy | Process inventory

2

Commonalities across the organization

"Where do we do the same thing differently, or twice?"

Business capabilities | Business services | APQC

3

End to end

"How does work flow to the customer, and where does it break?"

Value streams | Customer journeys



Line of business leaders
e.g., Head of Retail Lending



1st & 2nd line risk
e.g., Risk officer, Compliance



Enterprise architects
e.g., Business architect



Portfolio planners
e.g., Strategy, PMO



Program delivery
e.g., Transformation lead



Customer experience
e.g., CX lead, Op ex

Each viewpoint needs its own model. Every model anchors to the same process.

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VIEWPOINT 3 OF 3 · VALUE STREAMS

End to end

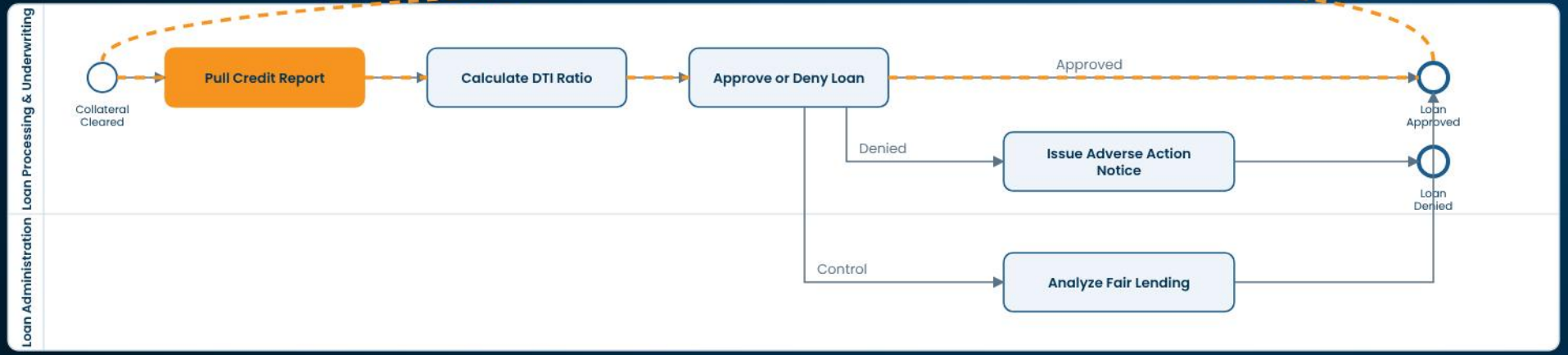
LEVEL 1 · VALUE STREAM: INQUIRY TO BOARDED LOAN



exit: Collateral Cleared

entrance: Loan Approved

LEVEL 2 · STAGE: UNDERWRITE LOAN

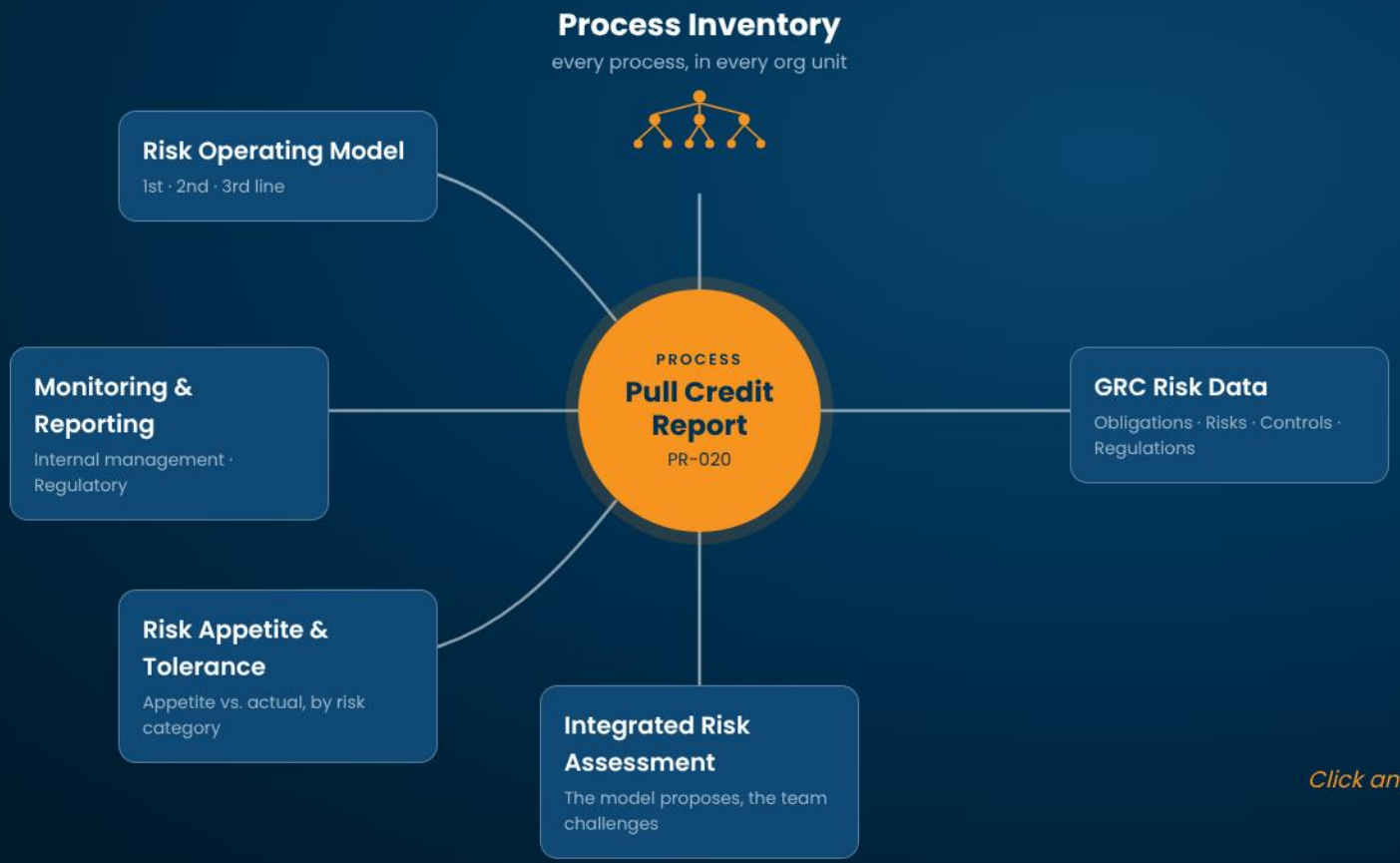


"How does work flow to the customer, and where does it break?" Every process knows what comes before and after it.

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ONE MODEL, EVERY RISK DISCIPLINE

Everything runs through the process

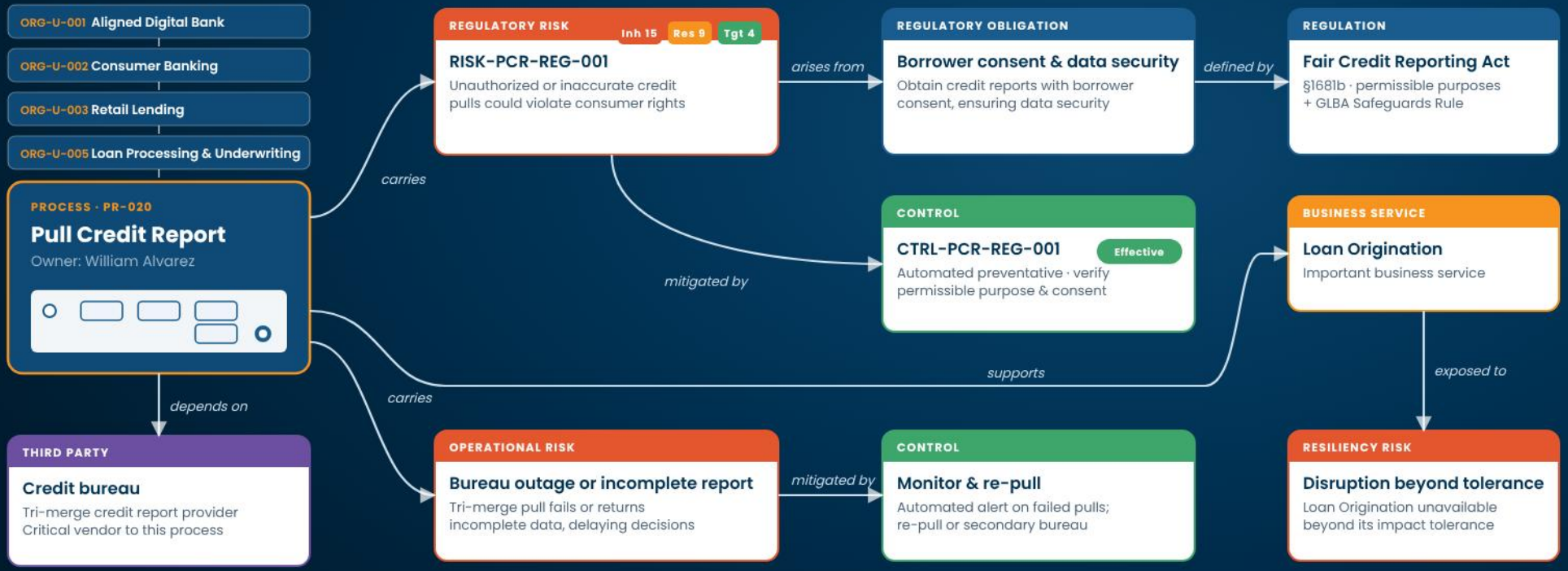


Click any box to explore it

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CONNECTING RISK DATA

Risk data, connected through the process



Every record inherits: Owner: William Alvarez | ORG-U-005 Loan Processing & Underwriting | Credit Risk Management | APQC 5.3.2 | Underwrite Loan stage

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INTEGRATED RISK ASSESSMENT

AI does the processing. People make the call.

Integrated risk assessment: assessing every risk type for an assessment unit at once, with one taxonomy, one rating method and one set of controls.



Faster assessments, grounded in fact, with accountability where it belongs.

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RISK APPETITE & TOLERANCE

What we'll accept vs. where we are

RISK CATEGORY	BOARD APPETITE	ACTUAL (RESIDUAL)	STATUS	
Regulatory & compliance	Low	Moderate avg 8.6	Outside appetite	47 of 52 risks above Low
Operational	Moderate	Moderate avg 8.1	Within appetite	All 8 risks within Moderate
Resiliency	Low	Moderate avg 10.0	Outside appetite	Both risks above Low

Residual risk score (1–25): Low 1–6 · Moderate 7–12 · High 13+. Appetite levels are an example statement.

REGULATORY RISKS ABOVE APPETITE, BY DEPARTMENT



HIGHEST RESIDUAL RISK

12 Verify Income and Employment
PR-018 · Owner: Carlos Ramirez · ATR/QM

12 Check Document Authenticity
PR-019 · Owner: Carlos Ramirez · BSA/AML

10 Disburse Loan Funds
PR-035 · Owner: Sandra Patel · Resiliency

The board sets the appetite. The twin shows which processes and owners put you outside it.

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RISK OPERATING MODEL

Three lines, one shared model

ORG-U-001 Aligned Digital Bank

ORG-U-002 Consumer Banking

ORG-U-003 Retail Lending

ORG-U-005 Loan Processing & Underwriting

PROCESS · PR-020

Pull Credit Report

Owner: William Alvarez



RISK-PCR-REG-001

CTRL-PCR-REG-001 · Effective

FCRA · GLBA

1ST LINE

The Business

Owns the risks in its processes and runs the controls.

- The process owner attests the process is accurate
- Executes the control in the step where it runs
- Raises issues against a real process, not the nearest guess

2ND LINE

Risk Oversight

Independently oversees and challenges how the business manages risk.

- Challenges the risk profile the model proposes
- Sets control design standards
- Sees coverage gaps by org unit

3RD LINE

Internal Audit

Gives the board independent assurance that risk management works.

- Knows exactly where each control runs
- Tests the control in the step it lives in
- Traces findings back to an accountable owner

50% struggle to define roles between the first and second lines. **A shared model makes ownership explicit.**

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THE DTO PLAYBOOK

Everything needed to succeed

Revisit and refine as needed

1 DTO Strategy

What benefit will be delivered?

Be clear on your why: goals, performance metrics and how success is measured.

2 Use Cases

How will the benefits be delivered?

How the organization changes to use this knowledge and context-bound AI.

3 Framework & Standards

What gets built, and what does good look like?

Which models you build, how they integrate, and the standards governance enforces.

4 Ownership & Governance

Who is accountable, and how is it governed?

The roles, accountabilities and operating processes that build the twin and keep it accurate.

5 Technology

How will technology support the journey?

Choosing and deploying the platform.

Technology comes last. Next: how the foundation gets built.

BUILDING THE TWIN

How the inventory gets built

1 PREPARE

AI

Build a starting draft from everything the organization already has.

2 INTERVIEW

People

Validate it top down with the people who do the work.

3 ALIGN

AI + People

Attach the fact pack data to each process.

4 APPROVE

People

Owners approve bottom up, then leadership.

The approved inventory becomes the structure of your RCSA: every assessment unit, process and owner, already defined.

QUESTIONS & NEXT STEPS

AI can transform risk management. But only with the right context.

What questions do you have?

NEXT STEPS

1. **Deeper conversation**
   Talk through your risk program and where a digital twin fits.
2. **Insight Twin demo**
   See the platform with a working digital twin of a bank.
3. **The DTO Playbook**
   A prescriptive guide to building and running your twin.
4. **DTO Builder demo**
   Watch AI draft a process inventory from your documents.
5. **Advisory & training**
   Inquire about hands-on help to stand up your twin and keep it current.



Michael Schank
Founder, Insight Twin
✉ Michael@InsightTwin.com
🌐 InsightTwin.com
in linkedin.com/in/michael-schank

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