

Leadership Tips

Doug Gray

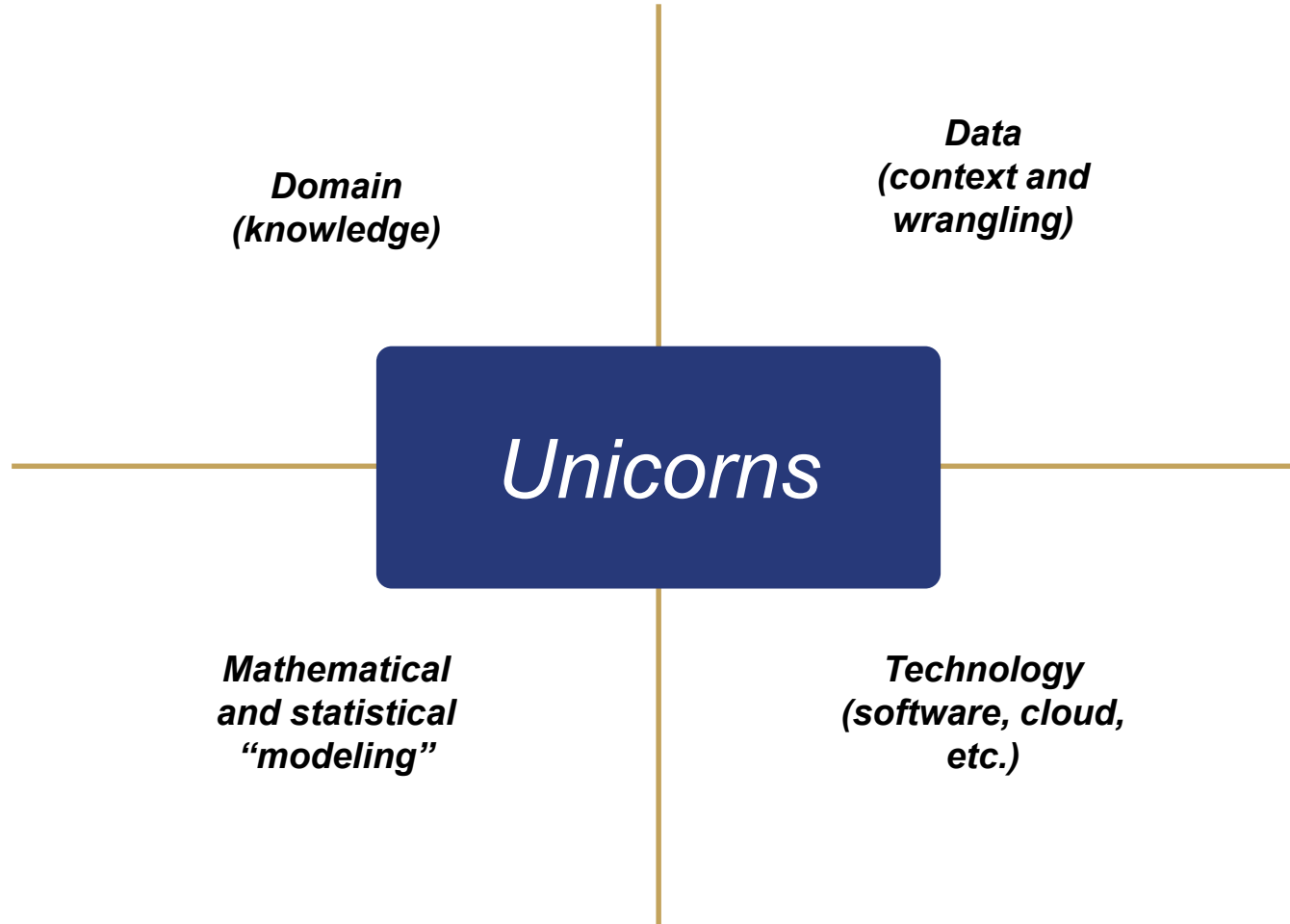
The
Top Ten
Analytics Leadership
Skills

Think:
GM (general manager)
(ideally BS/MS/MBA)
not (necessarily) *PhD*

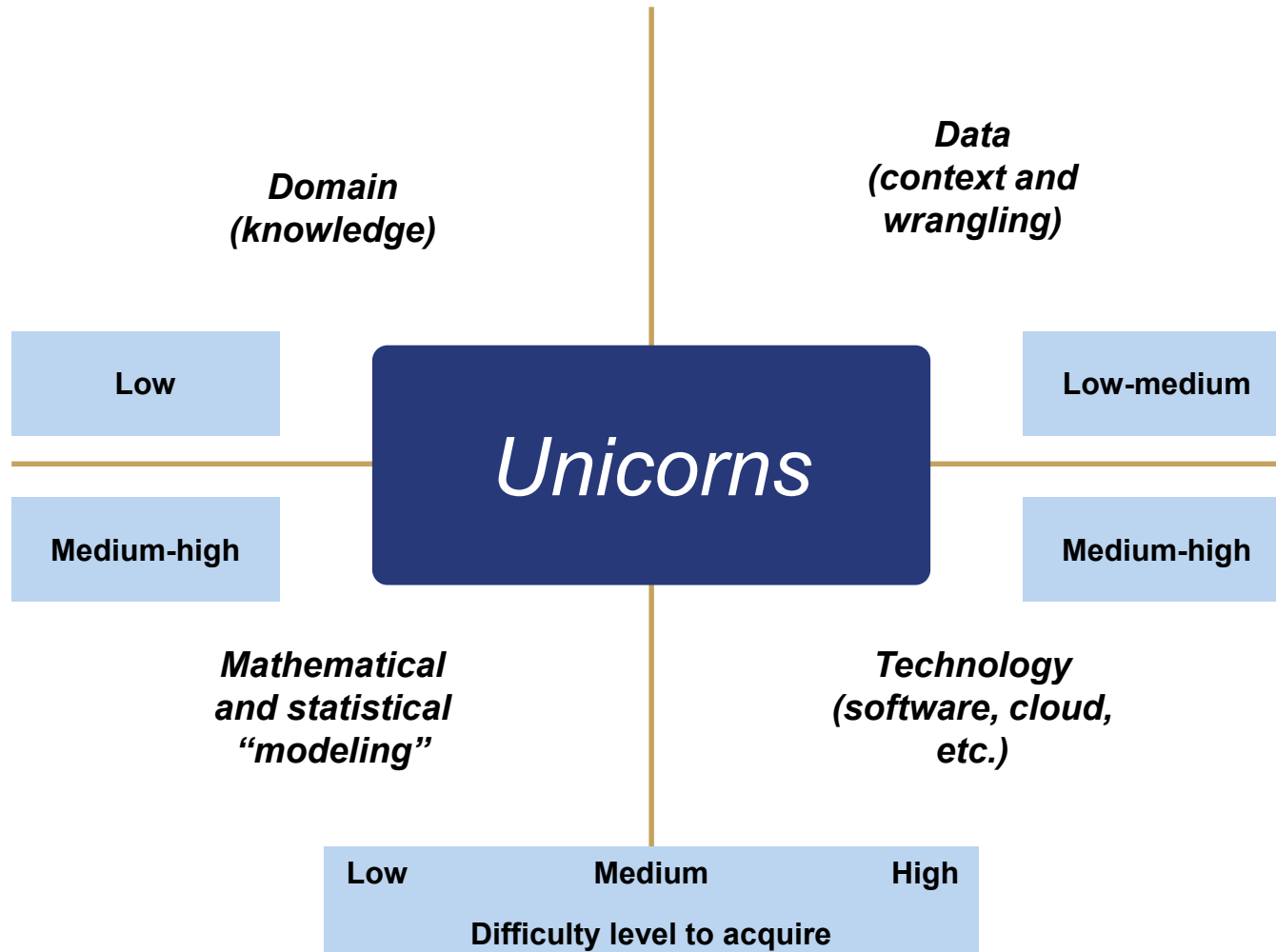
The Top Ten Analytics Leadership Skills

1. Recruitment | retention | people development (supply - capacity)

Applying Analytics Effectively Requires Unicorns



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Award Winning Case Study

Fuel supply chain and inventory optimization



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Fuel supply chain and inventory optimization



The Top Ten Analytics Leadership Skills

1. Recruitment | retention | people development (supply - capacity)
2. **Securing projects by domain area (demand)**

Departments and Domains Leveraging Analytics

- **Technology (advanced analytics*)**
- **Corporate strategy***
- Network planning
- Crew scheduling and crew training scheduling
- Revenue management
- Marketing
- Customer relationship management
- Finance (treasury)
- Supply chain management
 - Fuel (SCM: purchasing, inventory management)
- Operations strategy and performance
- Network operations control (NOC)
- Technical operations
- Ground operations (*starting on Provo!*)
- People (*starting on labor relations!*)
- Safety and security

“Nothing happens until somebody sells something”; You = VP sales!

- Customer self-service analytics solutions
 - Stand-alone analytics
 - *Non-mission-critical* business processes
- Third party partner-customer solutions
- Systematic analytics
 - **Mission-critical** business processes
- Requires mutual engagement
 - Business customer
 - Leadership
 - Domain experts
 - Technology—all functions
 - ED&A

*Centralized enterprise-wide analytics service providers, primary thought leaders, and co-sponsors of **The Data Science Center**

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2. Securing projects by domain area (demand)
3. **Relationship building (benefactors | peers | customers | stakeholders | constituents)**

Relationship Building Across the Enterprise



The Top Ten Analytics Leadership Skills

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4. **Change management (analytics is disruptive; cheese will be moved!)**

Change Management

“It must be remembered that there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than a new system. For the initiator has the enmity of all who would profit by the preservation of the old institution and merely lukewarm defenders in those would gain by the new ones.”

—Niccolo Machiavelli, *The Prince*

Obstacles to Change in Implementing Analytics

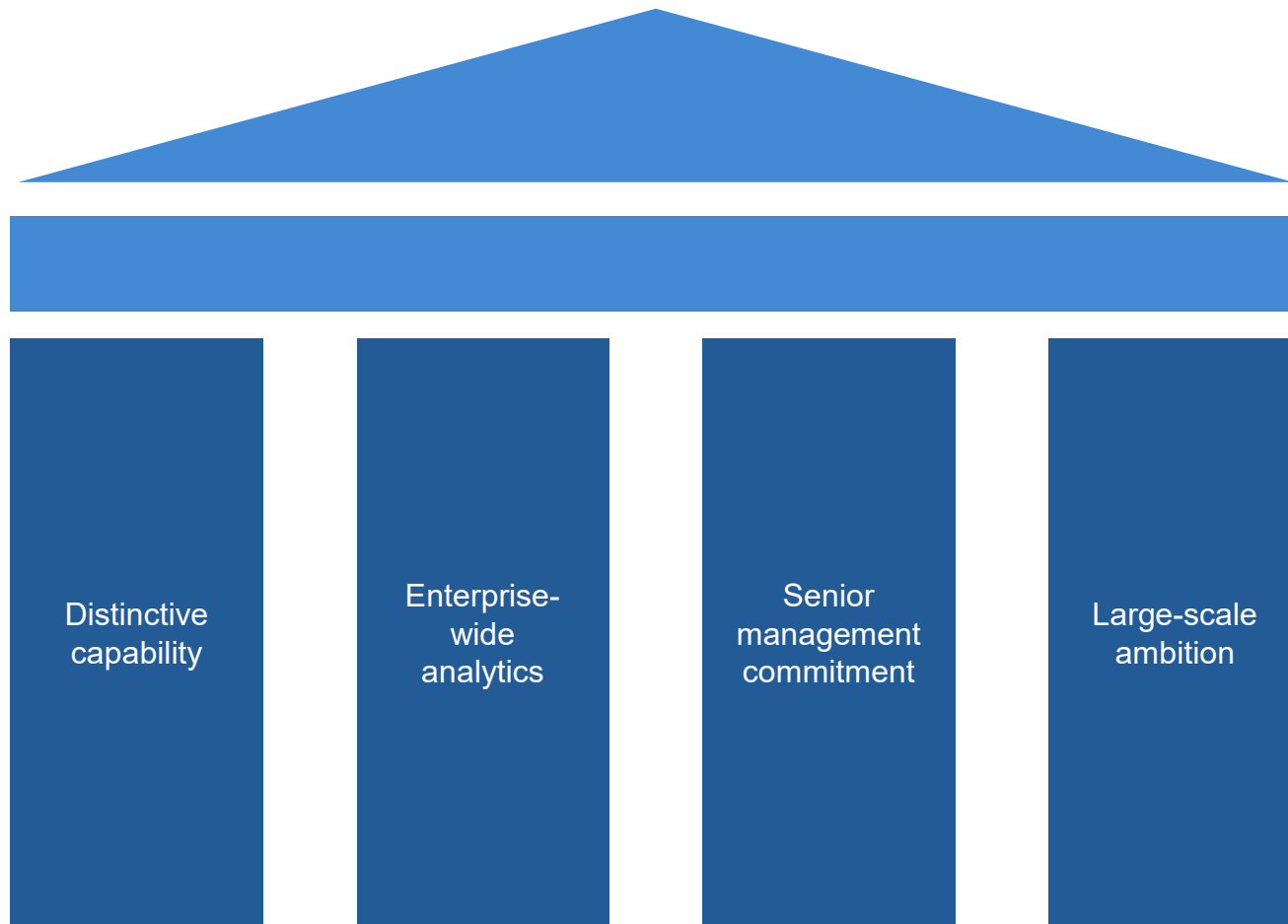
- “I make decisions by gut instinct alone, based on “rules of thumb” and 30 years of experience!”
 - HiPPOs* rule!
- “We don’t have the data!”
- “I don’t have time to do this!”
- The business *must* believe that the *new and improved* analytics-based process is *their* idea and is in *their best interest*; and they get *all* of the *credit*!
- What’s in it for me?
- “That *can’t* be right?!” “*Prove it!*”
- “You can’t get a computer to **<fill in the blank>** !”
- “I *hate* math, especially Algebra 2 word problems!”
- “What’s *luv* got to do with it?”

* HiPPO: highest paid person’s opinion

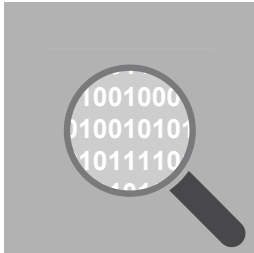
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5. **Analytics strategy (as a component of and integrated with corporate strategy)**

Four Pillars of Analytical Competition



Analytics Strategy Incorporated with Corporate Strategy



Data



**Leadership
support**



Enterprise view



**Facts, test,
and learn**

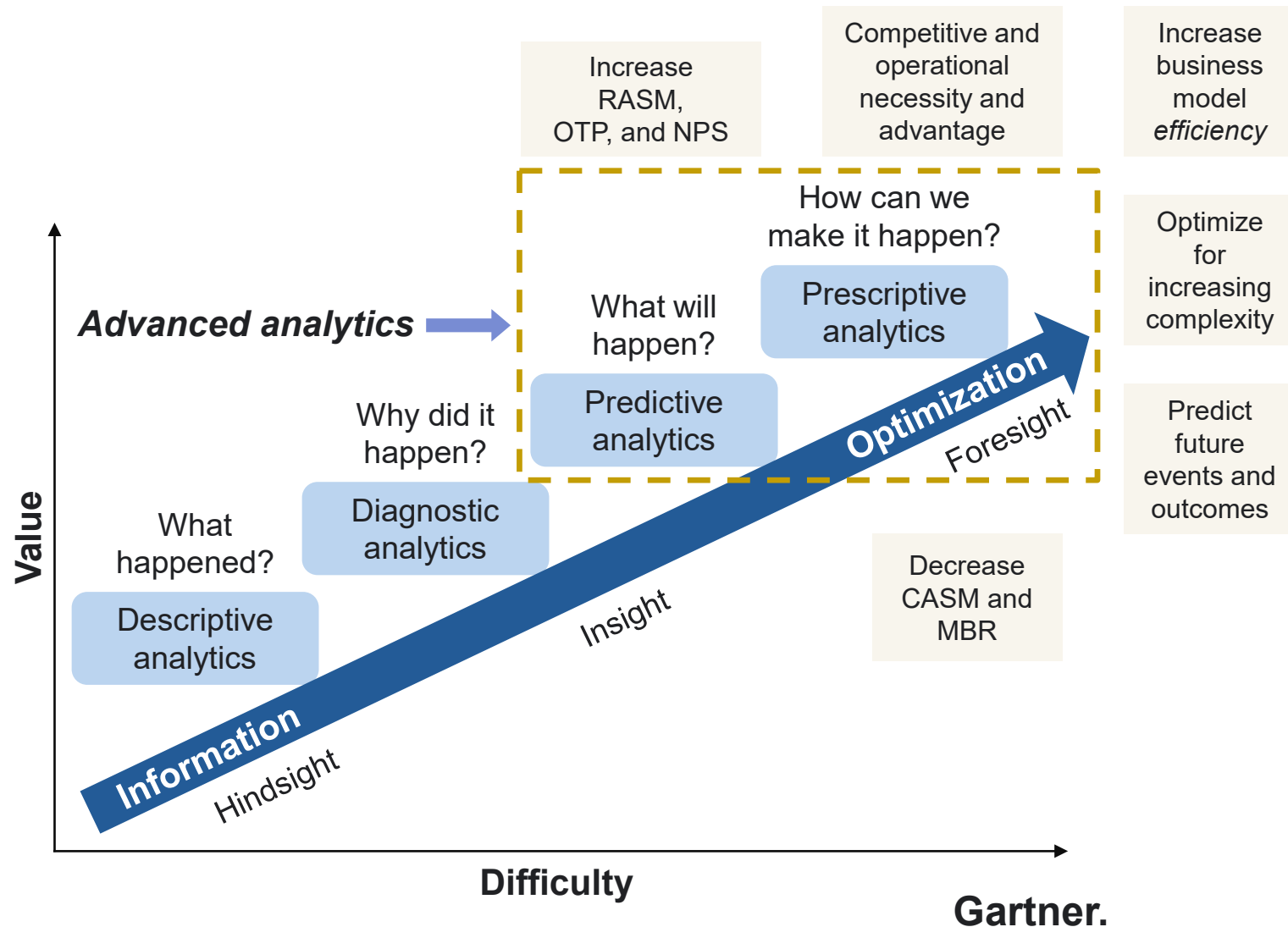


Analysts

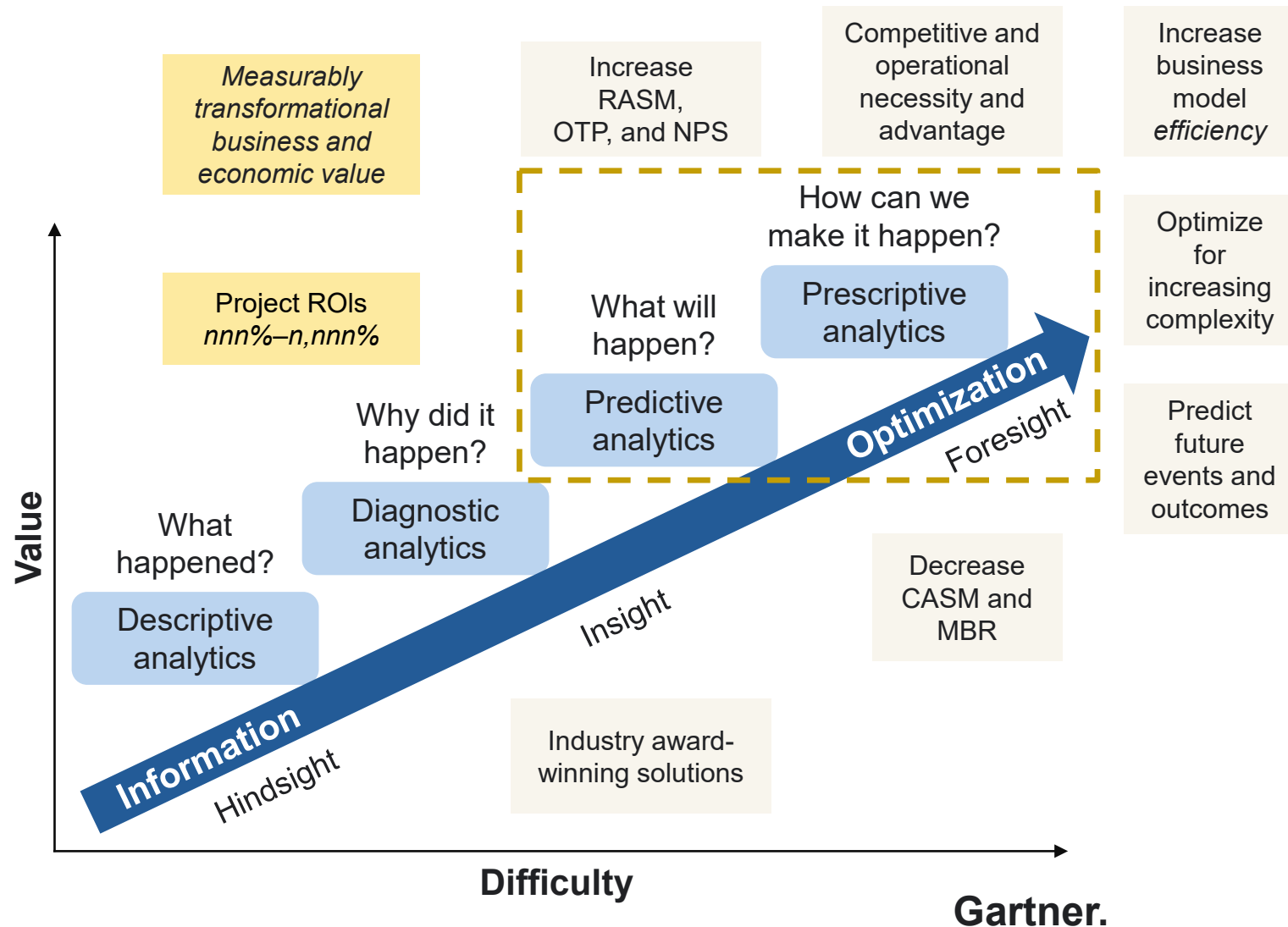


Targets

Analytics Strategy Integrated with Corporate Strategy



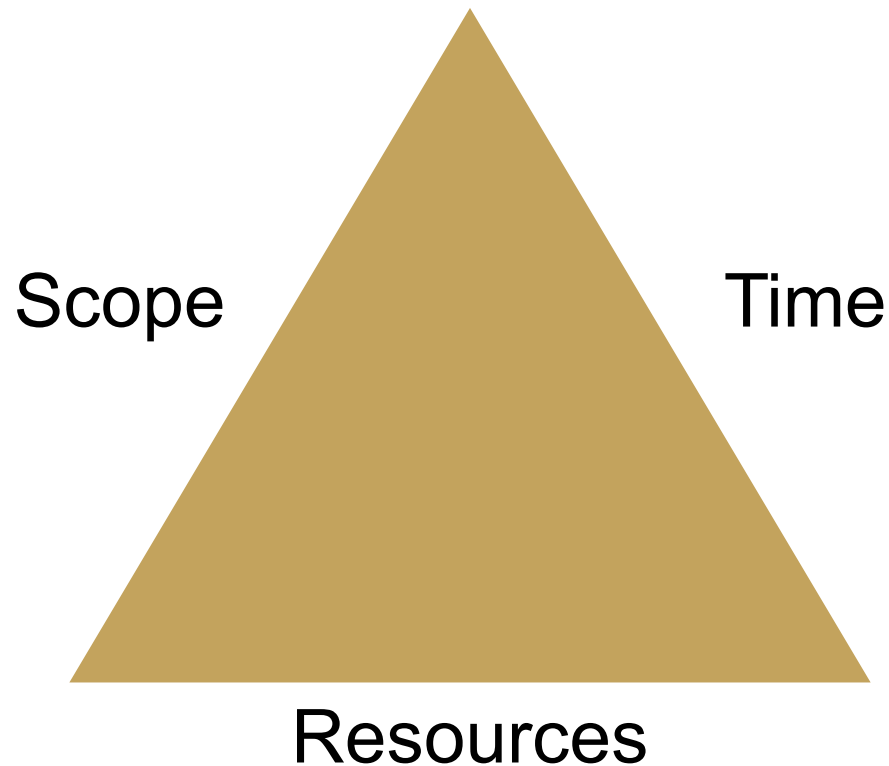
Analytics Strategy Integrated with Corporate Strategy



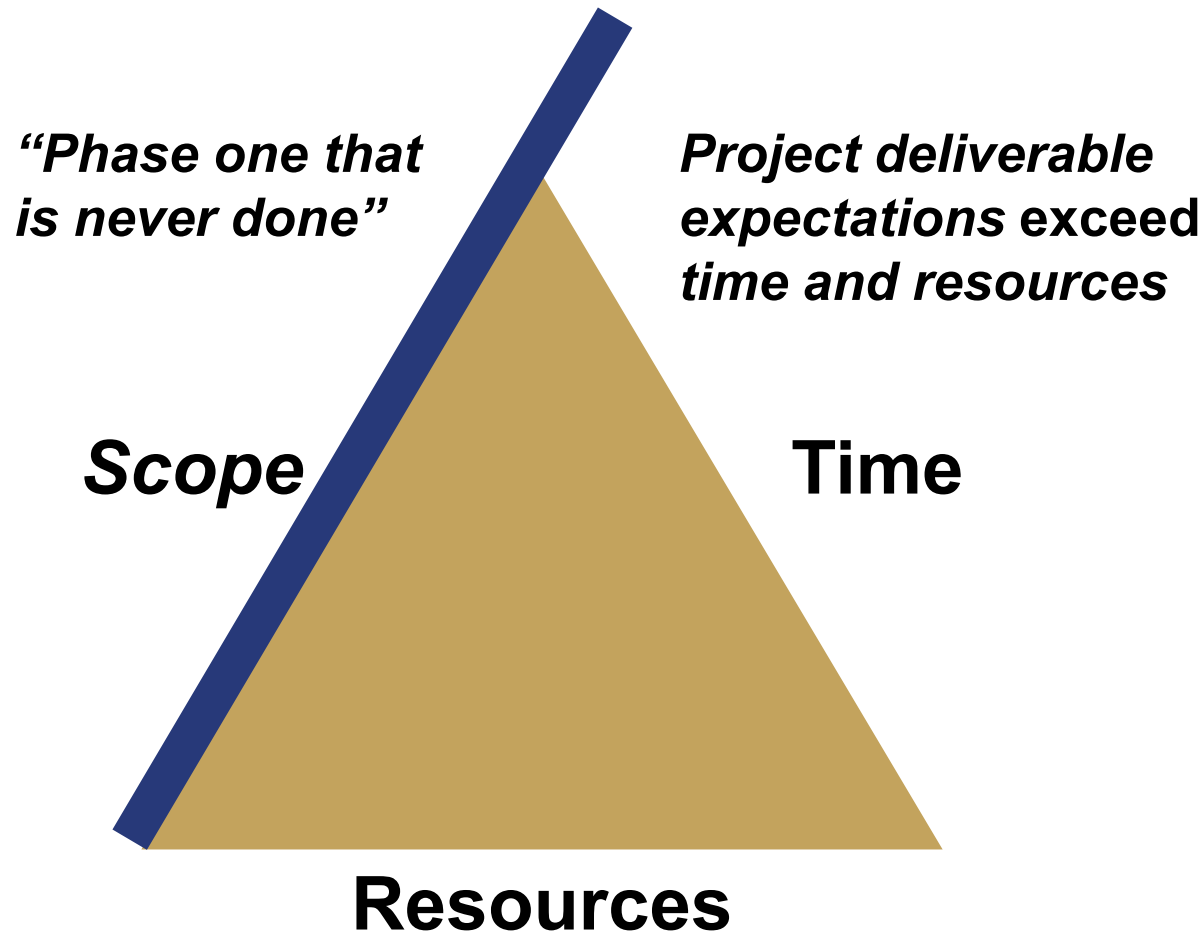
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6. **Analytics project (delivery execution) management**

Analytics Project (Delivery Execution) Management

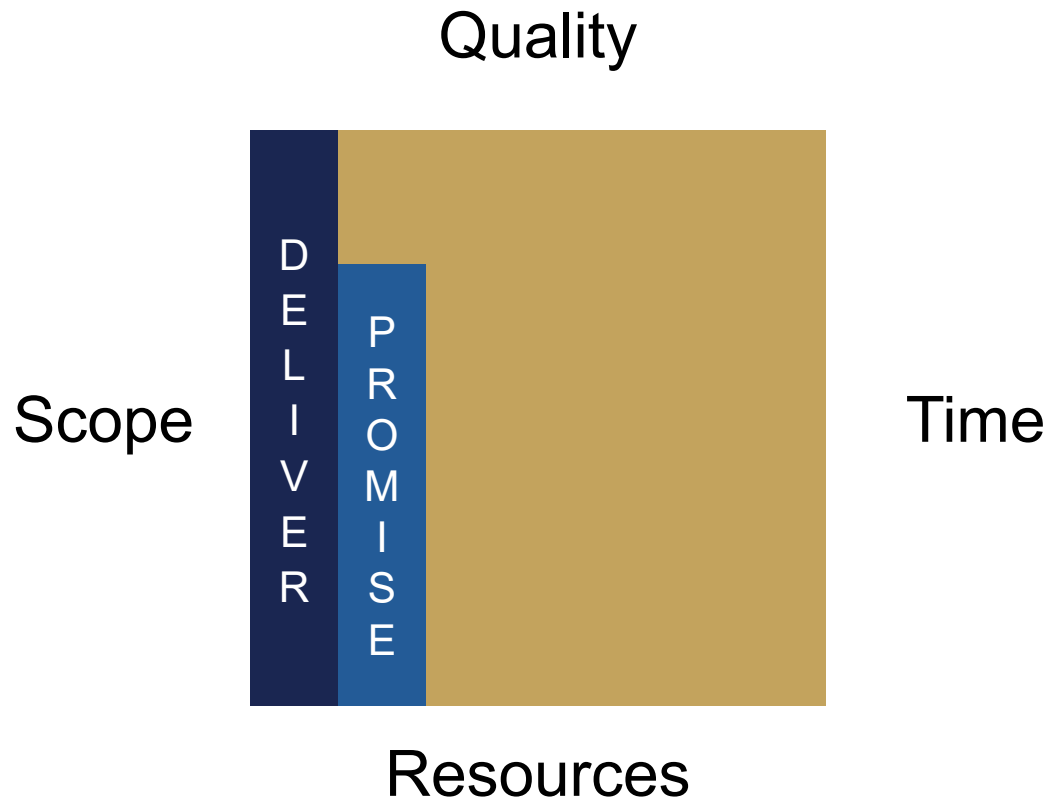


Analytics Project (Delivery Execution) Management

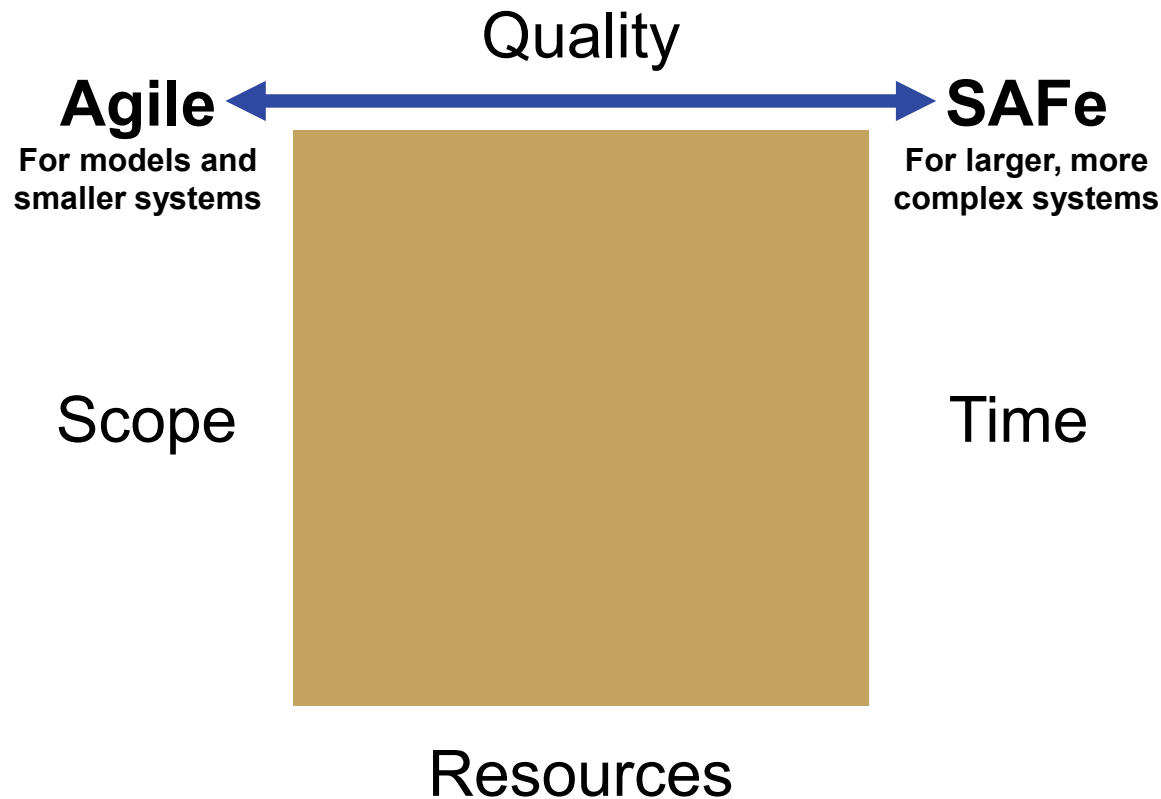


*According to ***The Standish Group Chaos Report***, the large majority of software development projects fail to deliver on one or more of the project management KPIs.

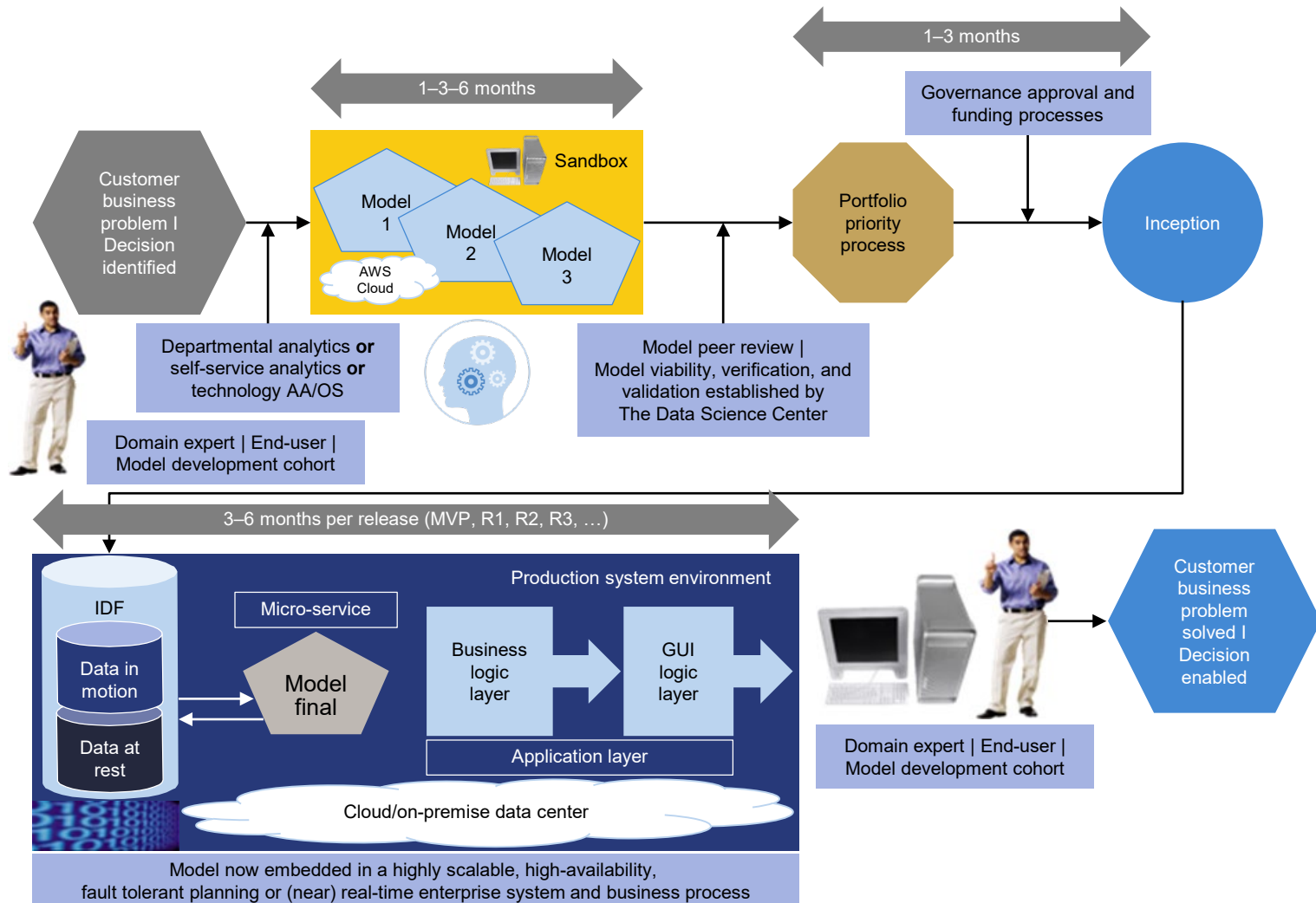
Analytics Project (Delivery Execution) Management



Analytics (Software) Development Life Cycle Methodology

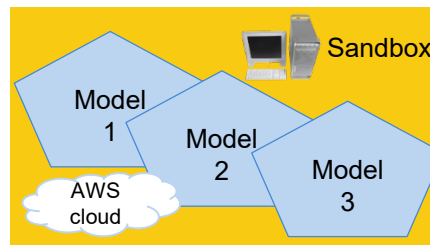
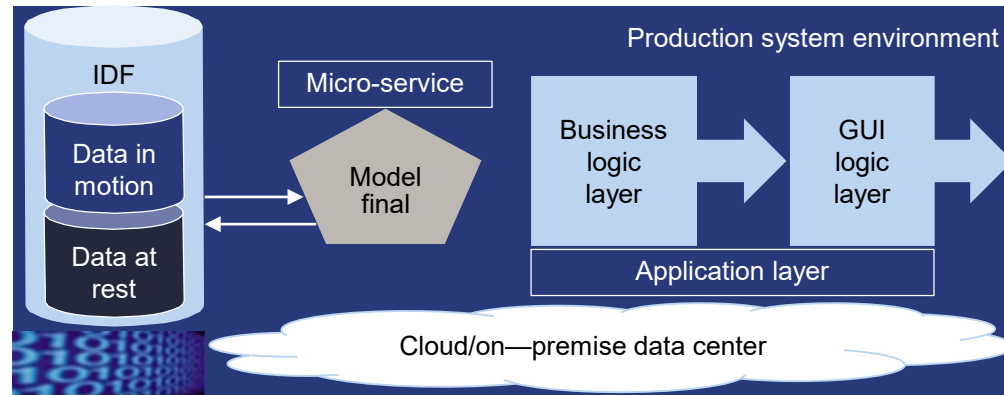


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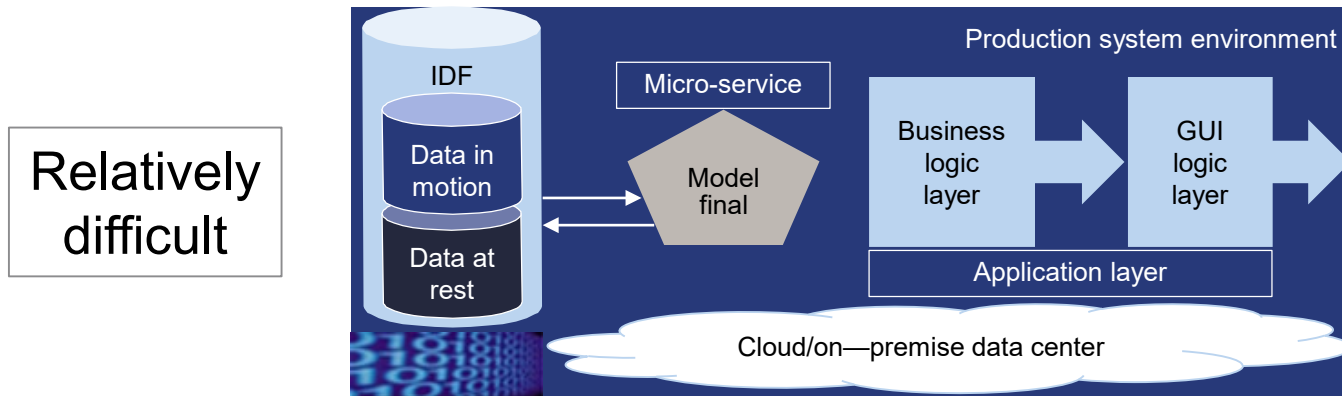
Analytics Project (Delivery Execution) Management

Relatively
difficult



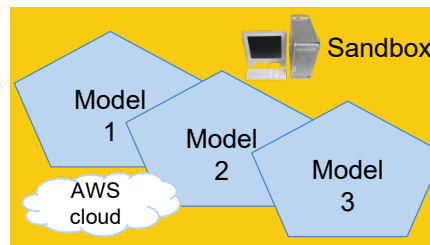
Relatively
simple

Analytics Project (Delivery Execution) Management



*“Models make the enterprise smarter; models embedded in production systems that enable business process make the enterprise **more efficient**”*

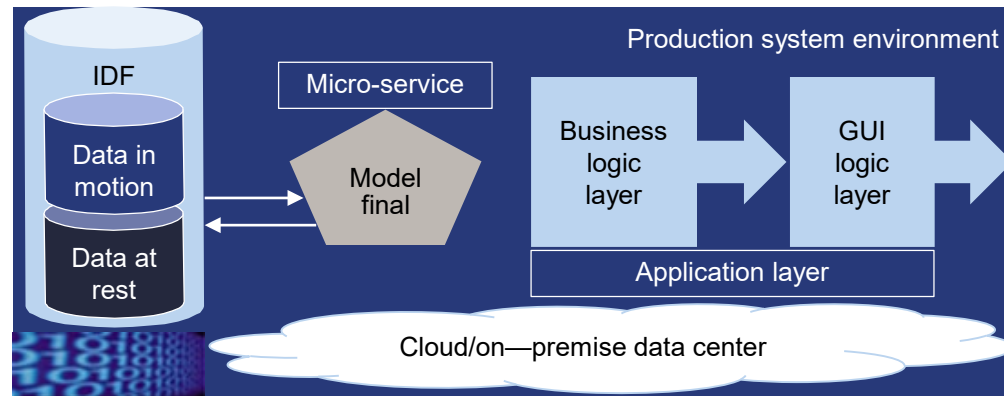
*—Tom Davenport, author of **Competing on Analytic***



Relatively
simple

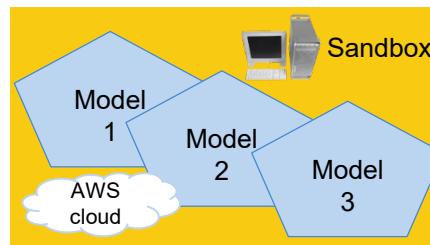
Analytics Project (Delivery Execution) Management

Relatively
difficult



Develop
develop
system

The project is not finished until you measure the business benefit and communicate and act on the results



Relatively
simple

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5. Analytics strategy (as a component of and integrated with corporate strategy)
6. Analytics project (delivery execution) management
7. **Communication (oral (formal and informal) | written | nonverbal)**

Analytical Approach

- Frame the problem/decision/question
- Analytically “model” and solve for the
pro *The most advanced analytical model without
appropriate **communication** throughout all
project phases **will not** have the desired
business value impact* the
- **Co**
res
- *Embed models in enterprise business
processes and systems*

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4. *You will be judged on the **business value** that your Team delivers, which requires you to manage your team/organization like a business*
5. *ate*
6. Analytics project (delivery execution) management
7. Communication (oral (formal and informal) | written | nonverbal)
8. **Planning and P&L management (ROI/EVA | budgeting | administration)**

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4. *Imagine running your own auto repair garage
without ever having been an auto mechanic!*
5. *...ate*
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9. **Analytics practitioner experience and expertise**

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9. Analytics practitioner experience and expertise
- 10. Information technology (IT) experience and expertise**

Analytics Technology Platforms

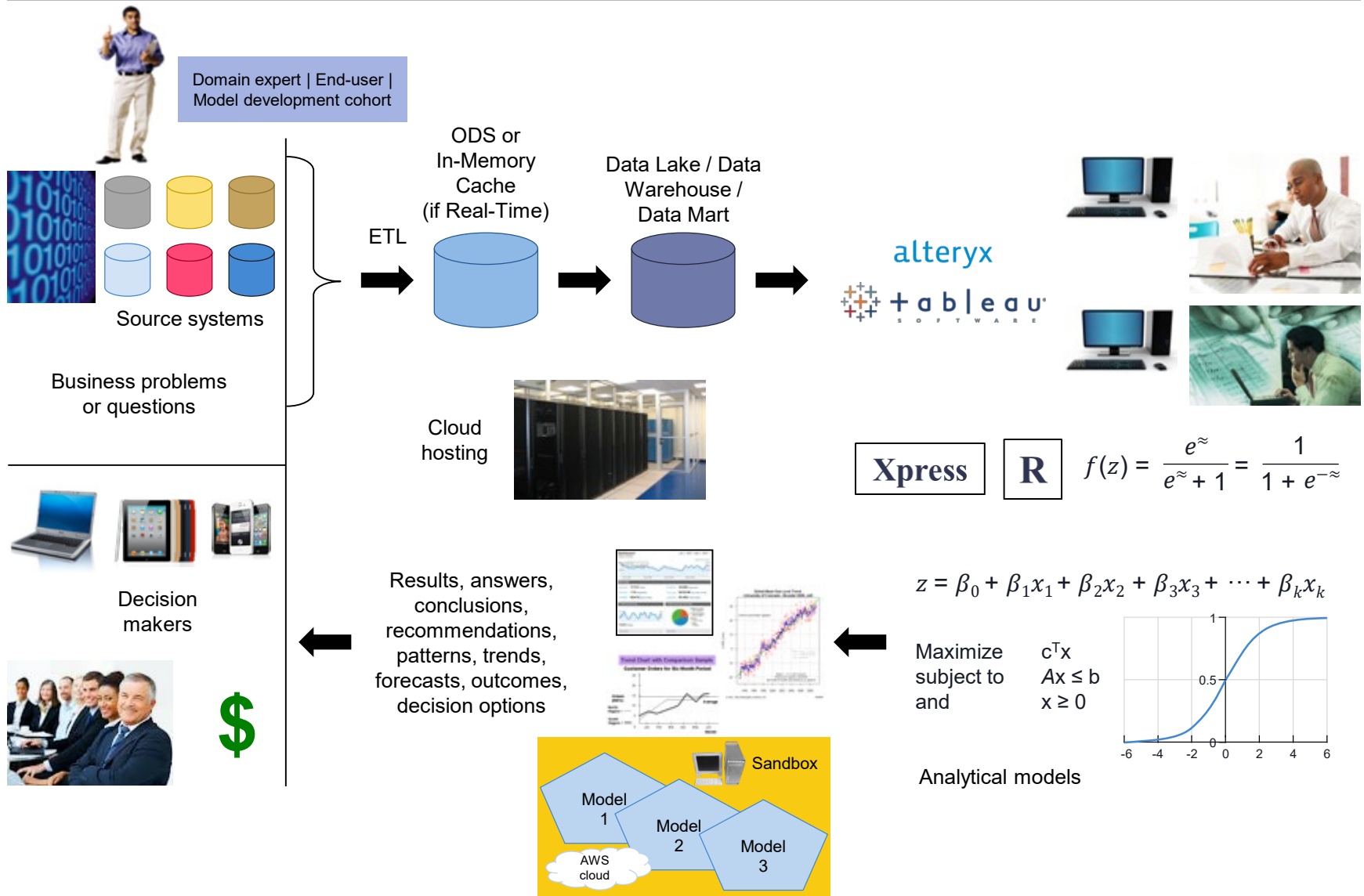


FICO® Xpress Optimization Suite

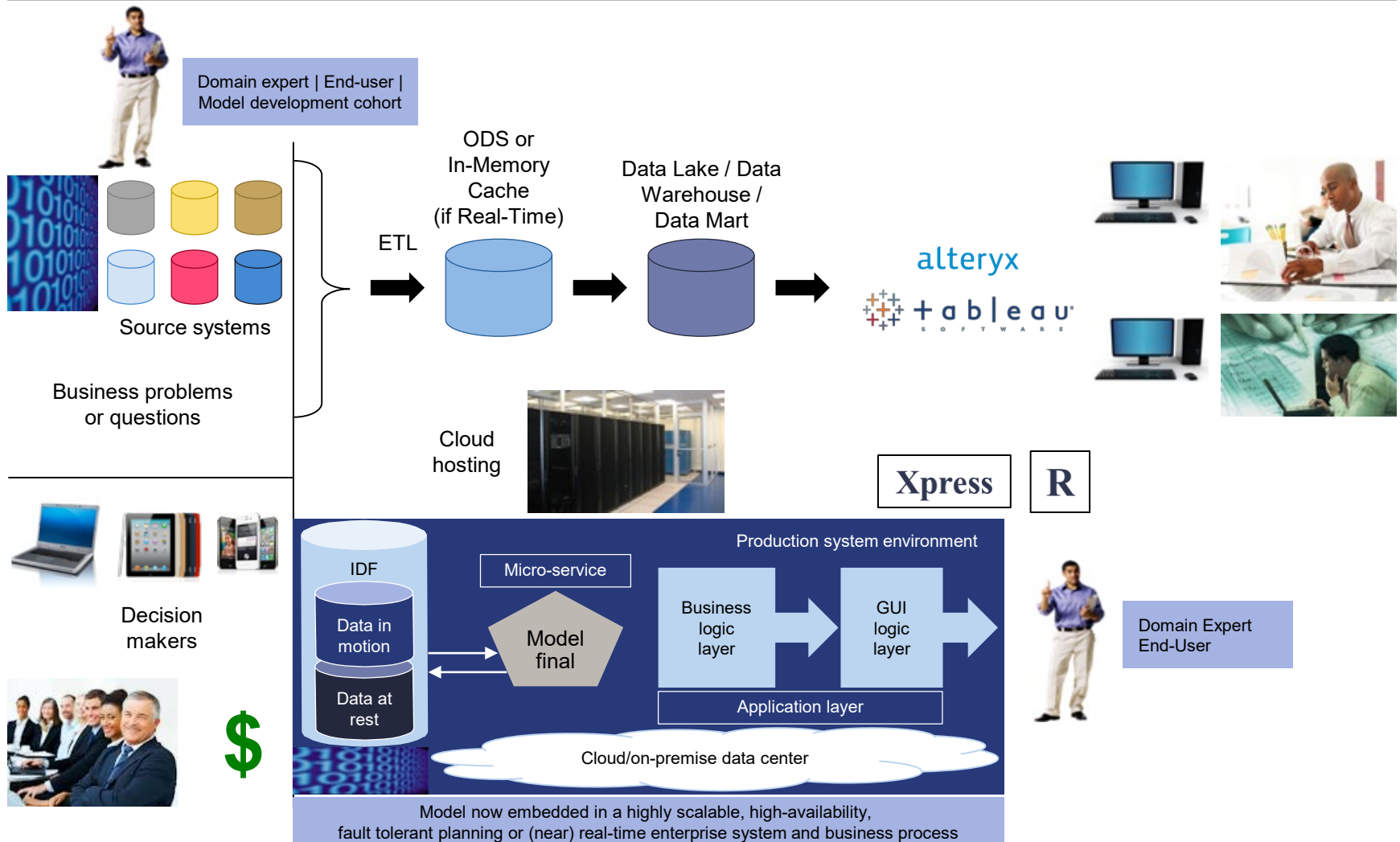
FICO® Blaze Advisor®



Analytics IT Architecture



Analytics IT Architecture



The Top Ten Analytics Leadership Skills...in Closing

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DataScience@SMU