AI: Built to Scale & Compete

BIL-T CONFERENCE ARTIFICIAL INTELLIGENCE

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An Association for All IT Architects

SCALING AI IS KEY TO SURVIVAL & GROWTH

84%

say they must leverage AI to achieve their growth objectives.

75%

agree that if they don't scale AI in the next five years, they risk going out of business entirely.

76%

acknowledge they know how to pilot, but struggle to scale AI across the business.

AI: Built to Scale Research (Accenture) 1500 GLOBAL EXECUTIVES WEIGH IN

93%

of executives say they know their industry will be disrupted at some point in the next five years, but **only 20% feel they're well prepared to address it.[7]**

Decide what value looks like for you—now and three years down the line. Don't be so focused on delivering for today that you aren't prepared for the next wave. Understand how AI is changing your industry and the world—and **have a plan to capitalize on it and stay relevant.**

SCALING AI IS KEY TO SURVIVAL & GROWTH

Strategic Scalers achieved nearly 3X the return from AI investments compared to their non-scaling counterparts, plus a premium on key financial valuation metrics.
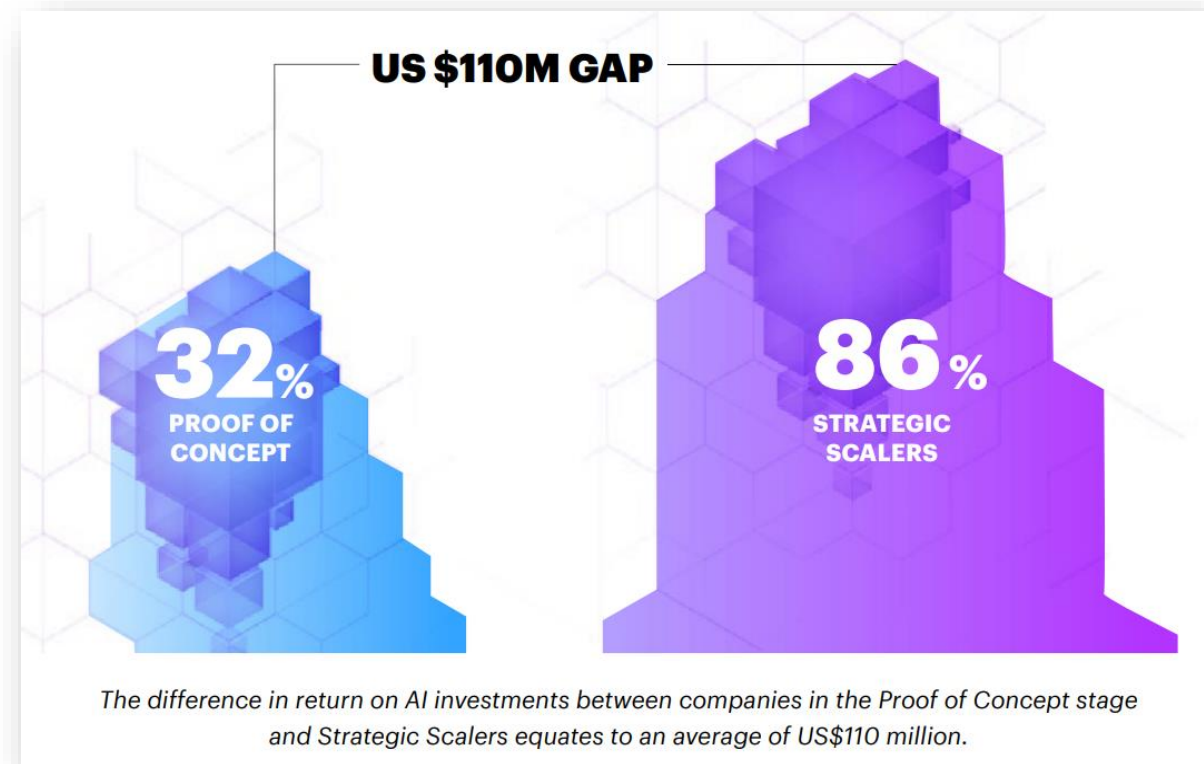
+35% Enterprise value / revenue ratio

+33% Price / earnings (P/E) ratio

+28% Price / sales (P/S) ratio

AI: Built to Scale Research

US $110M GAP

32% PROOF OF CONCEPT

86% STRATEGIC SCALERS

The difference in return on AI investments between companies in the Proof of Concept stage and Strategic Scalers equates to an average of US$110 million.

CRITICAL SUCCESS FACTORS IN THE JOURNEY TO SCALING AI

Value Realization

- Productionize and scale value
- **Continuous Engineering**
- **AIOps**

Governance

- **Digital Ethics**
- **DevSecOPS**
- Build responsibility into your AI (**Responsible AI Framework**)

People + capabilities

- Get your people ready
- **Digital Fluency Framework**

Align Business Strategy and AI Strategy

- Value and Strategy
- Underpin your AI Strategy with **Data Strategy**

#1 |
ALIGN BUSINESS STRATEGY AND AI STRATEGY

1. Define your business value. Be Bold and Disruptive

2. Translate that definition into a business strategy

3. Establish your Data Strategy (Data as an Asset)

4. Chart a course that aligns with your business' strategic priorities to deliver unprecedented returns

71%

of Strategic Scalers have a **clearly defined strategy** and operating model.

Pro Tip : Identify and Prioritize Focus Areas — and focus. Take a portfolio view of your AI projects.
Look to the highest-level priorities. Define value for today-with a vision for tomorrow.
Think practical, not provocative.

Key questions:
- Will the use case be a differentiator in the marketplace, compared to competitors?
- Will the use case help with workforce well-being and better employee experience?
- Does the use case improve Customer experience (satisfaction, onboarding, retentions and promote loyalty)
- What growth levers can you pull to maximize value? What is the potential monetary benefit to business?

GET YOUR PEOPLE READY
# DIGITAL FLUENCY FRAMEWORK

1. Enable Technology Leaders and the C-Suite on Responsible AI

2. Look at your organizational culture

3. Establish the right talent mix

4. Engage right Partners and Partner Ecosystem

5. Reuse-Buy-Build approach

6. Establish and rollout Digital Fluency Framework across organization

POC GROUP | **STRATEGIC SCALERS**

Employees fully understand AI at scale and how it applies to their role. — **59%** | **78%**

All employees working with AI receive formal training. — **62%** | **70%**

Appropriate level of user / organization experience with AI — **34%** | **48%**

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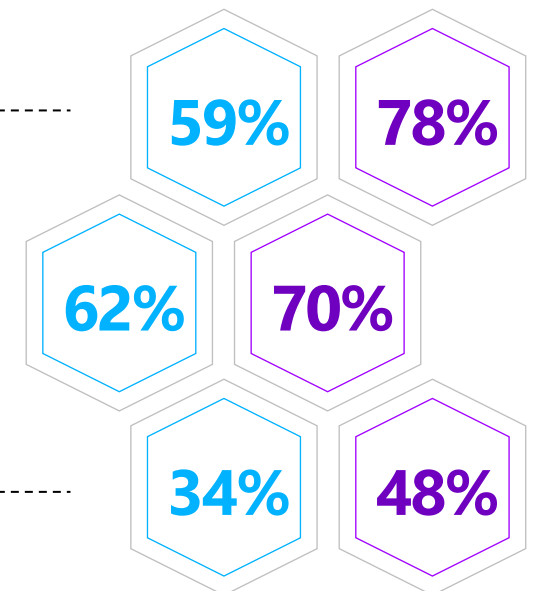
DIGITAL ETHICS
BUILD RESPONSIBILITY

1. Define what fairness and bias mean to your organization

2. Lookout for any Unconscious bias (designer, Data Engineer, Data Values, Algorithm (and its parameters)

3. Establish and socialize an ethical data usage policy

4. Ensure considerations are built into core values and compliance processes.

5. Establish and Implement Responsible AI Framework & guidelines to ensure AI Systems are safe, transparent and accountable

88%
of respondents indicated that they **do not have confidence** in AI-based decisions and outputs.

60%
of respondents reported that they **still require a human override** of an AI system at least one a month.

RESPONSIBLE AI

Responsible AI is the practice of using AI with **good intention** to empower employees and businesses, and **fairly impact** customers and society – allowing companies to **establish trust** and scale AI with confidence

WHILE UNLOCKING VALUE, AI INTRODUCES NEW RISKS AND CHALLENGES

UNINTENDED CONSEQUENCES

- Launching AI without an understanding of its social impact can be risky to your company's reputation and brand.

- Unexpected, but harmful, outcomes have led to consumer backlash and legal problems.

OPPORTUNITY TO UNLOCK TRAPPED VALUE

- AI affords a tremendous opportunities Operational Excellence

- Better Customer and Employee experience

- capacity to help re-imagine businesses and solve critical problems.

COMPLIANCE, GOVERNANCE & SECURITY CHALLENGE

Deploying AI without anchoring to robust compliance and core values may expose a business to significant risks including employment/HR, data privacy, health and safety issues.

What can go wrong?

- Could we trust the system to be fair?
- Was the algorithm inherently biased?
- Could the algorithm be explained?
- Did people really understand the tradeoffs of the solution?
- Did the team understand the groups they were designing for?

**Pro Tip :
Technology alone can't deliver on the full promise of AI**

COMMON ETHICAL challenges RAISED BY AI

Inclusion & Diversity
The power of AI is in the hands of the few and with the traditional power brokers.

Artificial Stupidity
AI lacks general intelligence (empathy, common sense), which can lead to unfavorable outcomes.

Privacy
AI will erode our notions of data privacy and do things with data that we didn't consent to.

Ethical Issues

Job Catastrophe
AI is so ruthlessly efficient that it will lead to massive job loss.

The Singularity
We will create something that is more intelligent than humans and we will lose control.
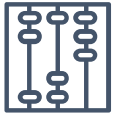
Lack of Transparency
True (scary) AI doesn't explain itself.

HOW MIGHT BIAS CREEP IN?

EXPERIMENTAL BIAS - INTRODUCED BY DESIGN OR BY DATA

DATA BIAS

- Selection or sampling bias
- Measurement bias

RESPONSE / REPORTING BIAS

- Process of data acquisition / ingestion and curation
- Data sensitivity; any motivations for misrepresenting truth?

DESIGN BIAS

- Lack of common taxonomy / metrics of reporting
- Assumptions made in model and its applicability to the question
- Lack of self-learning based on feedback

SOCIETAL BIAS

Data is not an objective truth.
It is reflective of pre-existing institutional, cultural, and social biases.

LOSS OF OPPORTUNITY / ECONOMIC LOSS

Are there reasonable alternatives that have less of a disparate impact on those groups?

SOCIAL DETRIMENT

Does our system create filter bubbles, reinforce stereotypes or create confirmation bias?

LOSS OF LIBERTY

Does our system balance the concerns around surveillance, human rights, free speech, etc. in a way that reflects our values?

An interdisciplinary, innovation-friendly Launchpad for RESPONSIBLE AI

OPERATIONAL

TECHNICAL

ORGANIZATIONAL

REPUTATIONAL
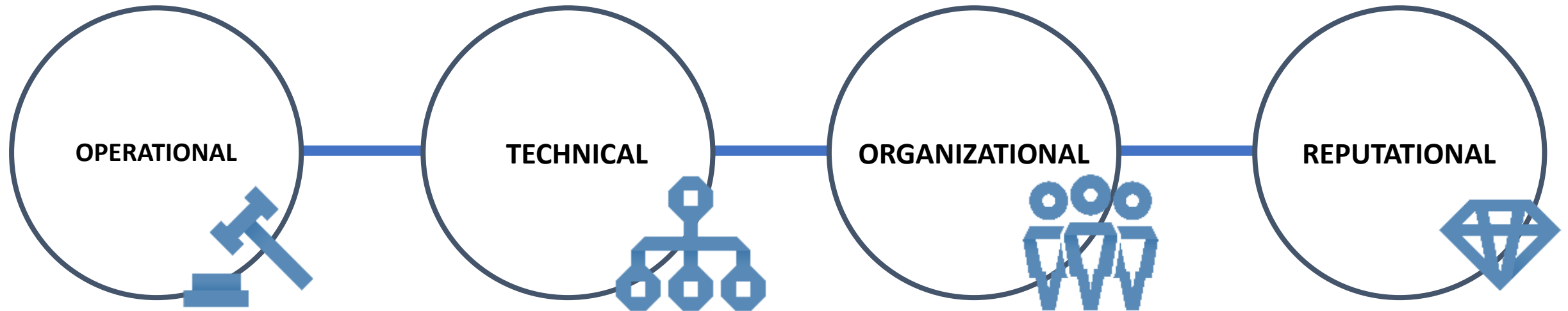
Set up governance and systems that will **enable AI to flourish.**

Ensure systems and platforms are **trustworthy and explainable by design**.

Democratize this new way of working and **ensure human + machine collaboration**.

Articulate the Responsible AI mission and ensure it's **anchored to a company's core values, ethical guardrails, and accountability structure**.

Define the ambition and customize principles OF TRUST

Every organization is unique. Define a custom set of principles that align with your enterprise ethics, regulatory compliances, business values and priorities.

T R U S T

Trustworthy
Safe, honest, and diverse in perspectives

Reliable & Reasonable
Enabling enhanced judgement and making better decisions

Understandable / Explainable / Traceable
Interpretable and transparent decision-making

Secure
Privacy and security of company and customer information and data

Trainable
Human-centric design, aiming for humans + machines to co-create, inform, and educate each other

PRODUCTIONIZE, AND GET READY TO REALIZE VALUE

CONSIDERATIONS: ARE YOU BUILT FOR AI AT SCALE?

1. Have you defined what 'value' means to your business and which AI use cases to prioritize to deliver on that defined value?

2. Do you have a AI Strategy and **Data strategy in place**, knowing data is a critical enabler of your AI technologies?

3. Do you have the right **Digital Fluency framework** and program in place?

4. Do you have **ethical frameworks (Digital Ethics and Responsible AI)** and a way to course correct should the AI make erroneous, biased or unlawful decisions?

5. Have you validated the solution for **Regulatory Compliance and Security guidelines**?

6. Do your AI teams understand the business goals you are trying to achieve with AI—and are they set up to move to production (and avoid being trapped in POCs)?

7. Have you planned for **Continuous Engineering** and established a **DevSecOPS and AIOps solution**

THE ROADMAP TO SCALE AI

START

CHECKPOINT #1
Have you defined your data and AI strategies? Do you know what value you expect to achieve?

VALUE + STRATEGY
- AI STRATEGY

Sprint 0

1

PLAN & CREATE EPICS & USER STORIES
Rapidly iterate high-level design for the releases, related features & epics.

PEOPLE + CAPABILITIES
- DIGITAL FLUENCY FRAMEWORK

2

VALUE + STRATEGY
- DATA STRATEGY

CHECKPOINT #2
Is the data you're currently using going to be able to deliver the expected outcome for your use case?

What adjustments are needed? Thinking ahead, can your feature be expanded to support additional use cases?

CHECKPOINT #3
Are there any adjustments you need to make to your operating model to optimize how these specialists can work together?

3

Delivery
Sprint 1 - N

4

CHECKPOINT #4
Are you seeing opportunities to engage more vendors or partners before moving into production?

Do you have the right team and feedback loops to continuously improve production?

DELIVER EPICS & USER STORIES
Iterate epics and user stories in detail and begin development to create the Product.

GOVERNANCE
- DIGITAL ETHICS
- BUILD RESPONSIBLE AI FRAMEWORK

CHECKPOINT #5
Update risk frameworks for contingency plans for incorrect outcomes. Define RACI matrix for decisions made by AI systems?

5

Production Go Live

VALUE REALIZATION

6B

CHECKPOINT #6B
Are you able to re-use the feature you've just created to deliver value against other priority use cases? If not, what tweaks can you make to expand the use of the feature?

6A

CONTINUOUS ENGINEERING

CHECKPOINT #6A
Are you realizing value as expected or projected? How are you measuring it? Are there optimizations you need to make to maximize?

15

Questions

References

- **Changing the AI Landscape Through Professionalization**
- **Impact of AI on Software Engineering**
- **Data-as-an-Asset - Recipe for Success**
- **Data Governance**

For further information, please contactus@iasaglobal.org

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What we're seeing in the industry

Excitement about AI but fear about risks	**Governance is key**	**Embedding values into AI**	**Need for interdisciplinary teams**	**Collaboration between law, privacy, business and data scientists**
User Experience Led Design	**Challenges of Sustainability, Security and global resilience**	**Increased understanding and imperative to correct algorithmic injustice**	**Digital Ethics**	**Rotation and upskilling of jobs**