Industrial Intelligence Solutions

AI isn't the threat...it's your competitors with AI

ectobox

Quick Intro

OBJECTIVES

Objectives

- The origins and path of AI
- How to think about AI as a tool that can work for you
- How it is being applied in manufacturing

Themes

- AI amplifies and enables
  - Focus, clarity
  - Judgement
  - Everyone can be a builder
  - Enabling people to do interesting work
  - Must have data foundation

WHO WE ARE

Right Data to the Right People
at the Right Time

Pittsburgh based
Remote company

- Data Integration Thought Leader
- Scalable, Standards-based
- No Vendor Lock-in

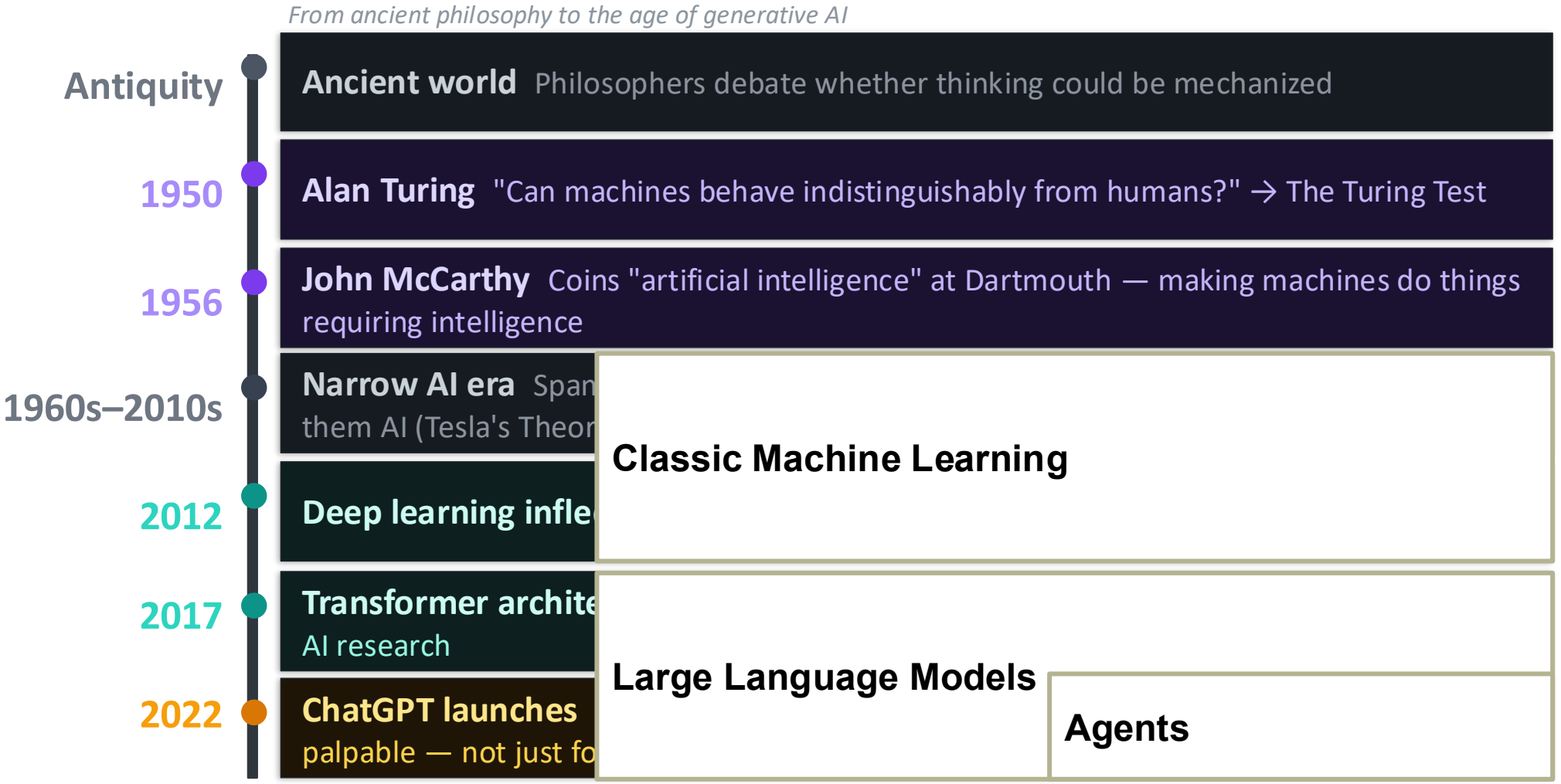
- Predictable Production
- Labor Efficiency
- ROA
- More

- Food & Beverage
- Steel / Aluminum
- Chemical
- Pharmaceutical
- Machine Shops

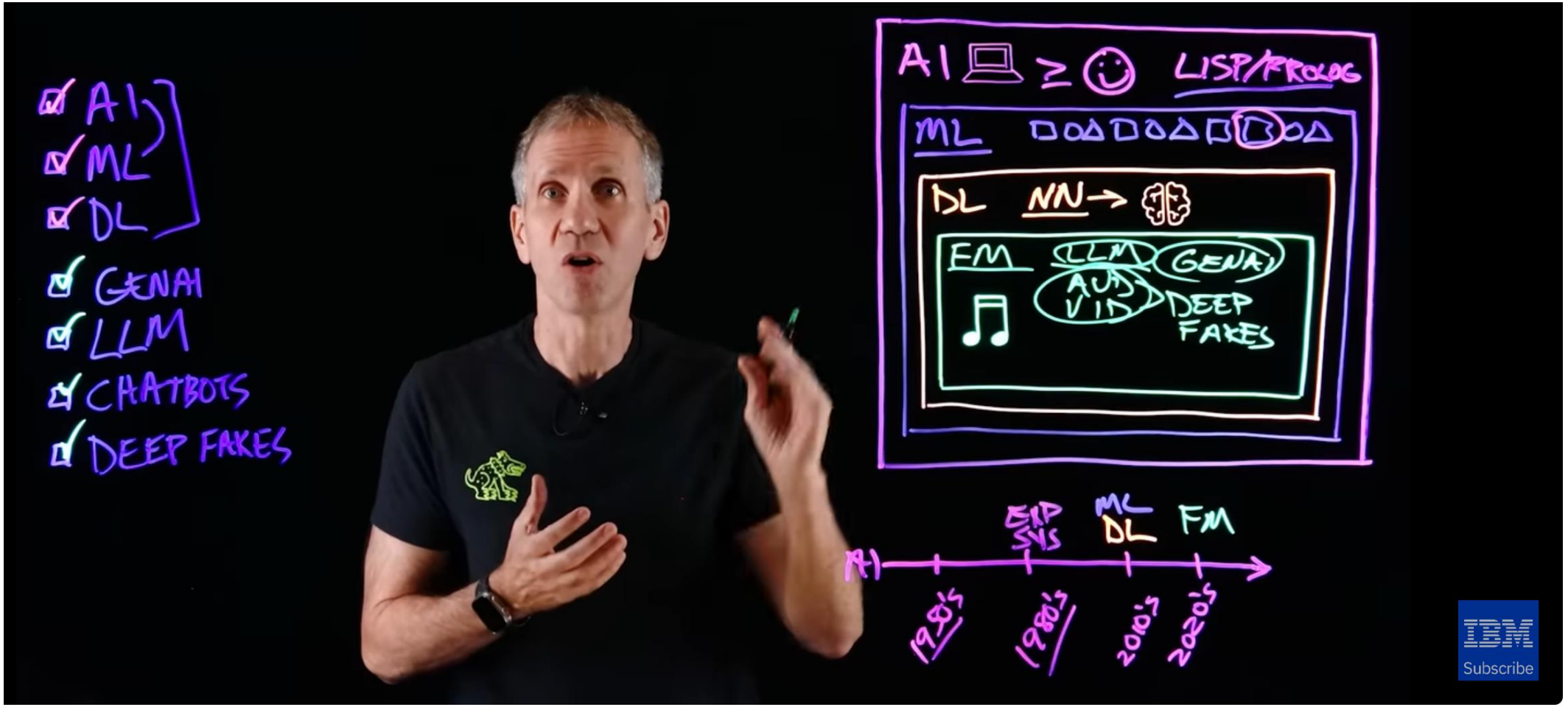
Survey

AI

HISTORY OF AI



WHAT IS AI



Source: Jeff Crume, IBM
YouTube – AI, Machine Learning, Deep Learning and Generative AI Explained

HOW AI IS USED NOW — PERSONAL

- **Research and learning**
- **Health and personal data**
- **Navigation**
- **Physical performance**
- **Creative work** (Videos)
- **Personalized learning** (Alpha School)

HOW AI IS USED NOW — BUSINESS

- **Legal** — research, contract review, drafting (Harvey AI)
- **Accounting and tax** —search & analysis, recommendations (Thomson Reuters CoCounsel)
- **Marketing** — content creation, analysis, A/B testing
- **Sales** — analysis, more effective activities, automated tasks
- **Insurance** – claims processing, risk assessment
- **Manufacturing** — see Part 2

HOW AI IS USED — SUMMARY

Help Understand and Decide (LLMs)

- Learning and skill development
- Answering questions and retrieving knowledge
- Analyzing and interpreting data
- Predicting outcomes
- Decision support

Help Execute (Agentic)

- Automating repetitive tasks
- Generating content (text, image, video)
- Monitoring and alerting

How

- Train the models

GATHERING

↓

RECOMMENDING

↓

DOING

IMPACT – PEOPLE

- **AI as empowerment and human agency —** lower barriers to learning, creating, building
- **Democratizes access —** tutors, legal advice, medical second opinions
- **Anyone can now be a builder —** vision and judgement over technical skill

IMPACT – PEOPLE

- **Cognitive atrophy —** outsource thinking, lose the muscle
- **Judgment gap —** AI removes entry-level work — that's how judgment gets built
- **Pace of change exceeds human adaptability —** next 5 years disruptive; not everyone adapts at the same speed

Threat: your competitor who uses it while you decide.

IMPACT – BUSINESS

- **AI amplifies what already exists**
- **Stuck on yesterday's tools?**
- **Speed is the competitive weapon**

Your competitor figured it out while you were deciding.

IMPACT – BUSINESS

Adoption: WEF Lighthouse factories: 10% had advanced AI in 2019 → 100% by late 2023/2024

Leading Indicator: Data-driven companies are 23x more likely to acquire new customers vs. peers *(McKinsey)*

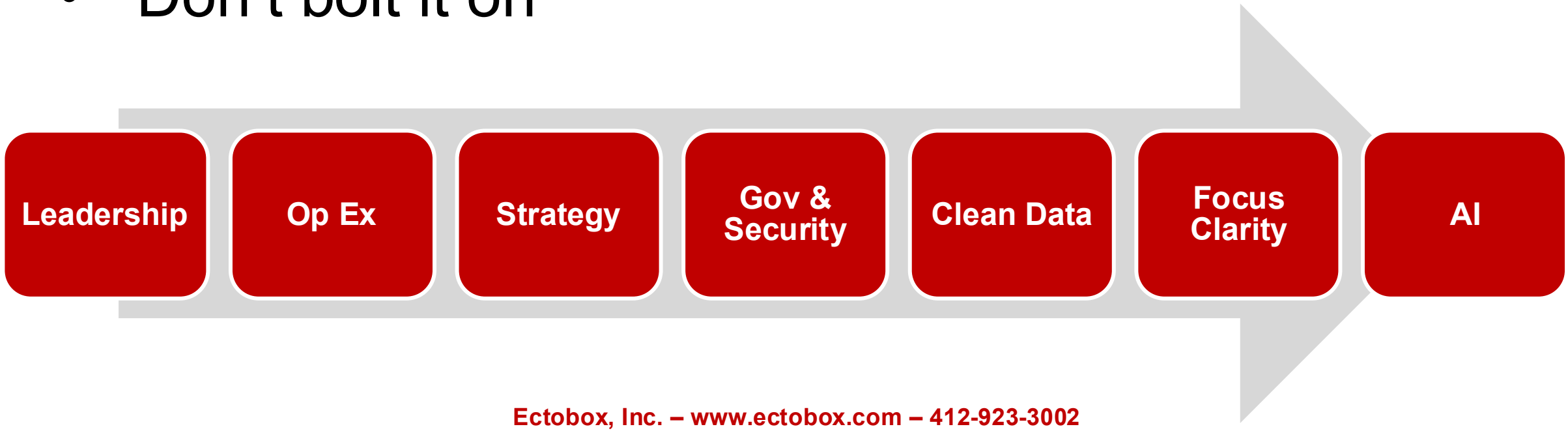
The Numbers

- **Revenue growth:** +12% vs. 8% for non-adopters
- **Profitability:** +15% vs. 8%
- **Productivity:** +20% vs. 10%
- **Marketing ROI:** +30%
- **Cost savings:** Up to 80% in targeted operations
- **EBITDA uplift:** Up to 20%

IMPACT – BUSINESS

How to Win

- Treat AI as operating system
- Don’t bolt it on



MENTAL MODEL

Smart Assistant

- Does what you ask — needs guidance and specifics
- Executes tasks — needs to be set up
- Capabilities will grow

Caveats

- Tool
- Clarity
- Judgment
- Human in the loop

WHERE TO START

1. **LLMs (text) —** ChatGPT, Claude, Copilot
2. **Focus and clarity —** be specific; provide context
    1. GCAO – Goal, Context, Actions, Output
3. **Generative AI —** DALL-E, Midjourney
4. **Find one work-related use**
5. Think about **embed into your business OS**

Remember

- Those who lean in earliest benefit most
- Use it as a thinking partner, not just an output machine

THEMES

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Q&A

AI in Manufacturing

HOW IT'S USED NOW — MANUFACTURING

Industrial Fluid Products

- Meeting notes, document co-authoring
- LLMs on confined data for trend summaries
- Agents improving standard work docs and training

Safety Products

- Computer vision (Roboflow)
- Predictive analytics for equipment health
- Agents + OCR
- AI expert chat for internal knowledge

Food & Bev

- Systems expert in your pocket: (ThredCloud)

Aluminum

- LLMs (same)
- Developing AI strategy
- Sorba.ai

WHAT'S POSSIBLE

- Multi-agent coordination
- Decision latency crushed
- Ask your factory a question

WHAT'S POSSIBLE

Operations

- Dynamic production scheduling
- Yield optimization
- Energy optimization
- Autonomous quality control

Maintenance

- Bearing failure caught before shutdown
- Prescriptive maintenance

WHAT'S POSSIBLE

Supply Chain

- Demand forecasting with far greater accuracy
- Autonomous procurement

Workforce

- AI co-pilot for every operator
- Tribal knowledge captured and distributed
- Faster onboarding

IMPACT – MANUFACTURING

- **Manufacturing produces more data than any other industry** — 90% never used (IBM)
- **54% of manufacturers still run on pen, paper, and spreadsheets** (IoT Analytics 2025)
- **AI amplifies your operating discipline**
- **The gap compounds every quarter**

Your competitor isn't waiting.

IMPACT – MANUFACTURING

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WHERE TO START

1. **Data Foundation –** connected, clean, no silos
2. **Start with One** – high value, low complexity; connect data, then AI
3. **AI Strategy** – define focus, boundaries, guardrails
4. **Governance & Security before scale** – define ownership before you scale
5. **AI Incrementally –** incremental, not big-bang; stay within strategy

Treat AI as operating system; Don't bolt it on

Q&A

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