

ACADEMIC

PRESENTATORS

SURVIVORS



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PRESENTATION



Prifysgol Cymru
Y Drindod Dewi Sant
University of Wales
Trinity Saint David

Master of Business Administration

The Tesla logo, a stylized 'T' with a wing-like shape above it, is projected onto a red wall in a modern office setting. The office has red walls, long linear lights, and several people working at desks with multiple computer monitors.

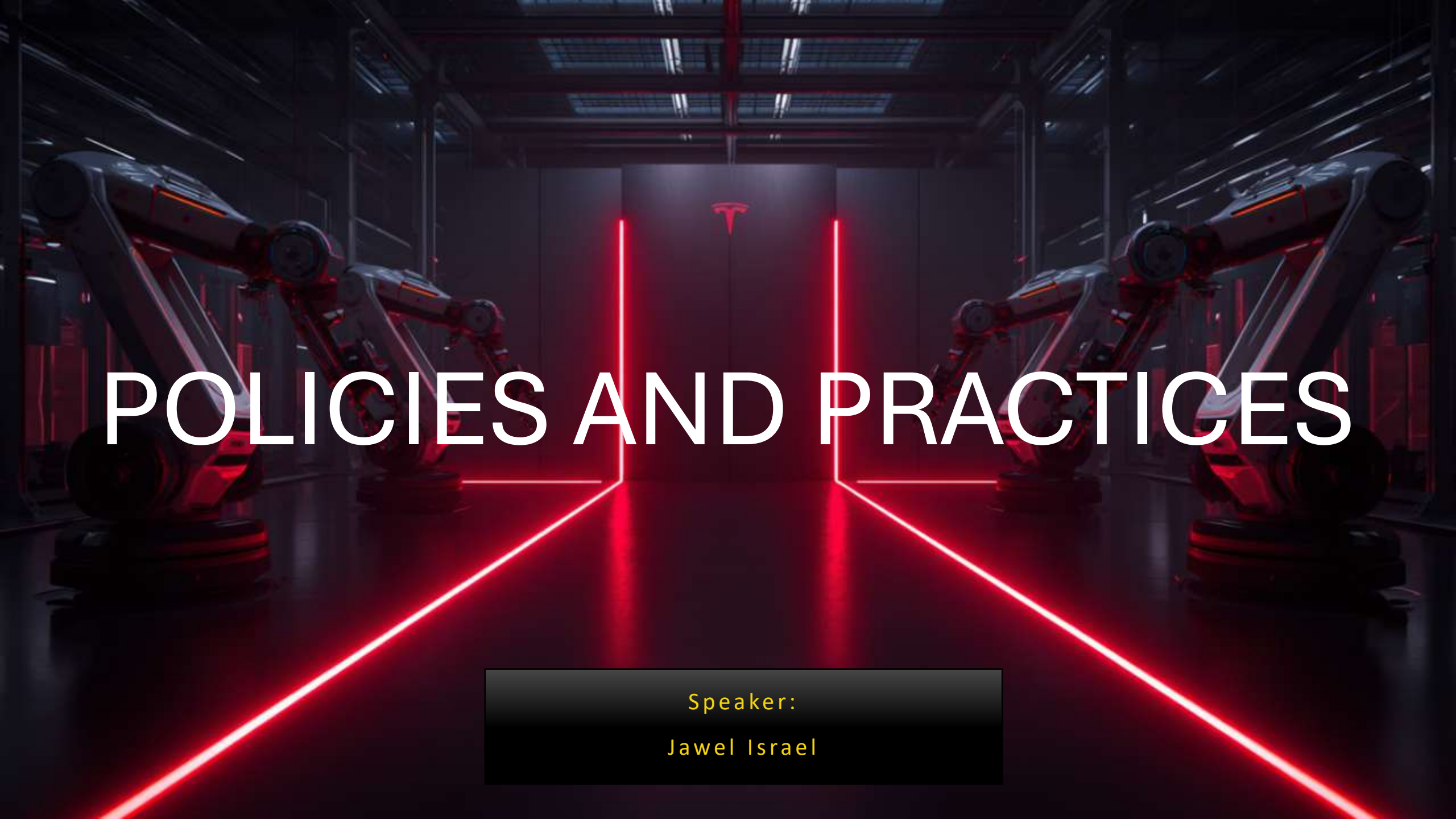
TESLA

Human Capital Management
LCMB7023

AI, Automation & Workforce Transformation

Introduction

Today, our presentation explores how artificial intelligence, automation, and robotics are transforming Tesla's workforce and shaping the future of work. We will examine how Tesla has integrated AI into its products, manufacturing processes, and human resource strategies, while also considering the opportunities and challenges that accompany this transformation. Throughout the presentation, we will analyse the root causes of workforce-related issues, apply relevant management theories, present evidence-based recommendations, and evaluate how Tesla can balance technological innovation with effective people management to achieve long-term organisational success.

A futuristic factory floor with robotic arms and red laser lines forming a perspective grid.

POLICIES AND PRACTICES

Speaker:
Jawel Israel

Tesla at the Forefront of AI & Automation

02

INTRODUCTION

Jawel Israel



134,785

Global Employees (End 2025)



\$94.8B

2025 Revenue (AI Pivot Year)



29,000+

Employees Advanced Careers (2025)



92%

Employees in Stock Ownership

Tesla is transitioning from EV leader to Physical AI & Robotics powerhouse, fundamentally reshaping its workforce through AI, automation, and ambitious human capital strategies.

Full Self-Driving, Cortex & Real-World AI Training

03

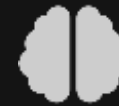
AI IN PRODUCTS & OPERATIONS

Jawel Israel



Full Self-Driving (Supervised)

- Trained on billions of miles of anonymous real-world driving data from 6M+ vehicle fleet
- Neural networks improved via massive compute: Dojo supercomputer + Cortex cluster at Giga Texas
- 2025 expansions: Cortex scaled, Samsung partnership for advanced AI semiconductors
- Cortex 2 under construction to further boost training capacity



AI Across Operations

- AI-controlled HVAC systems expanded across Gigafactories (Nevada, Texas, Berlin, Fremont) for energy efficiency
- Predictive maintenance, quality control, and supply chain optimization powered by AI
- Massive investment in AI infrastructure: \$11.34B+ in recent years for compute and data centers
- Vision: Unsupervised FSD and Robotaxi network as key growth drivers

Gigafactories: World's Most Advanced Production Systems

04

Current State of Automation

AUTOMATION IN MANUFACTURING

Jawel Israel

- ▶ Tesla's Gigafactories (Fremont, Shanghai, Berlin, Texas, Mexico planned) represent the pinnacle of automotive automation with highly integrated robotics, AI vision systems, and end-to-end vertical integration.
- ▶ Advanced robotics handle battery cell production, motor assembly, body welding, and painting with precision and 24/7 operation.
- ▶ AI applications include real-time quality inspection, predictive maintenance reducing downtime, and process optimization.
- ▶ 2026 Plans: Ramping six new production lines across vehicles, Bots (Optimus), energy storage, and batteries – leveraging existing footprints for growth.
- ▶ Impact: Significant productivity gains, cost reduction, and consistency; however, requires highly skilled technicians and engineers to oversee and maintain systems.

Humanoid Robots Reshaping the Future of Work

05



Vision: General-purpose bi-pedal robot for unsafe, repetitive, or boring tasks in factories and homes. "Physical AI" to create abundance by giving humans time back for meaningful work.



OPTIMUS: THE NEXT FRONTIER

Jawel Israel

Deployment Plans & Economics

- Target: ~10% workforce replacement for \$2.5B annual savings
- Each Optimus: ~\$57k/year savings vs human; 5-yr cost ~\$105k
- Production ramp: Thousands in 2025 → 50,000 in 2026
- 100+ Optimus-related job openings posted (2026)

Workforce Impact (Musk, Mar 2026)

- "We are not planning any layoffs... In fact, we will increase our headcount."
- AI & robotics will make "output per Tesla employee nutty high"
- New 2026 production lines for Bots alongside vehicles & energy
- Hybrid model: Robots handle routine; humans focus on creativity, oversight & complex tasks

Policies, Practices & Human Capital Strategy

06

WORKFORCE TRANSFORMATION

Jawel Israel

Talent Acquisition & Retention



Aggressive hiring for AI, ML, robotics & engineering talent. Competitive labor market challenges acknowledged in SEC filings. Strong employer brand via mission & equity attracts top talent globally.

Career Development & Mobility



29,000 employees advanced careers in 2025. 69% of managers promoted internally. Emphasis on meritocracy, skills-based evaluation, and rapid internal growth opportunities.

Compensation & Ownership Culture



92% of employees included in total rewards with stock ownership. Performance-linked equity, bonuses, and promotions. Tesla360 survey (91% participation) measures engagement via Maslow-inspired framework.

Culture & Psychological Contract



Mission-driven (sustainable energy + AI abundance). "Think like an owner" mindset. High-performance, high-accountability environment. Demanding pace balanced by purpose, impact, and wealth creation potential.

Balancing Theory with Tesla's Real-World Evidence

THEORETICAL FRAMEWORKS

Jawel Israel

Psychological Contract

Implicit agreement: High commitment, long hours, adaptability to AI/automation in exchange for mission impact, equity upside, rapid growth, and "changing the world." Breaches (e.g., sudden layoffs) risk trust & retention. Tesla attracts via strong ideological & transactional elements.

Motivation Theories

Goal-Setting: Ambitious, specific targets (FSD unsupervised, Optimus scale) drive performance. Equity Theory: Stock ownership fosters ownership mindset. Herzberg: Strong motivators (achievement, recognition via impact); hygiene factors challenged by workload pressure & culture intensity.

High-Performance Work Systems

Selective hiring of top talent, extensive internal development & promotions (69% managers internal), performance-based rewards tied to stock & reviews, employee involvement via ownership culture. Supports innovation in fast-changing AI/automation environment.

Navigating Tensions in AI-Driven Transformation

CHALLENGES & CRITICISMS

Jawel Israel

Key Tensions Identified in Research & Reporting

- ▶ **Work Culture Intensity:** Historical high turnover; demanding hours and pressure. Reuters (2026) reports former FSD data labelers worked long nights pre-Cybercab event and expressed skepticism about safety claims despite Tesla's "10x safer" assertions.
- ▶ **Job Displacement Narrative vs. Reality:** Optimus targets significant labor cost reduction (~10% initially). However, Musk's 2026 statements emphasize net headcount growth and higher productivity per employee through AI augmentation.
- ▶ **Talent Retention in Competitive AI Market:** 10-K notes difficulty attracting/retaining AI talent amid negative publicity and intense competition. Data labeling roles involve repetitive, high-volume annotation work with potential burnout.
- ▶ **Ethical & Governance:** Responsible AI commitments in Impact Report focus on safety and human rights. Need for transparent communication on automation impacts to maintain psychological contract and employee trust.

Tesla's Integrated Approach to AI, Automation & People

09

Tesla exemplifies a dual strategy: aggressive automation for efficiency and cost leadership, paired with strategic human capital investment to fuel innovation in AI and robotics.

1

Attract & Retain via Mission + Equity + Growth

Leverage compelling vision (sustainable energy + AI abundance) and stock ownership to draw and keep elite AI/robotics talent despite competitive market and cultural intensity.

2

Develop Through Internal Mobility & Real-World Exposure

Prioritize internal promotions (69% managers) and on-the-job upskilling via AI tool exposure, automation oversight roles, and cross-functional projects. 29k career advancements in 2025 demonstrate commitment.

3

Manage Psychological Contract Proactively

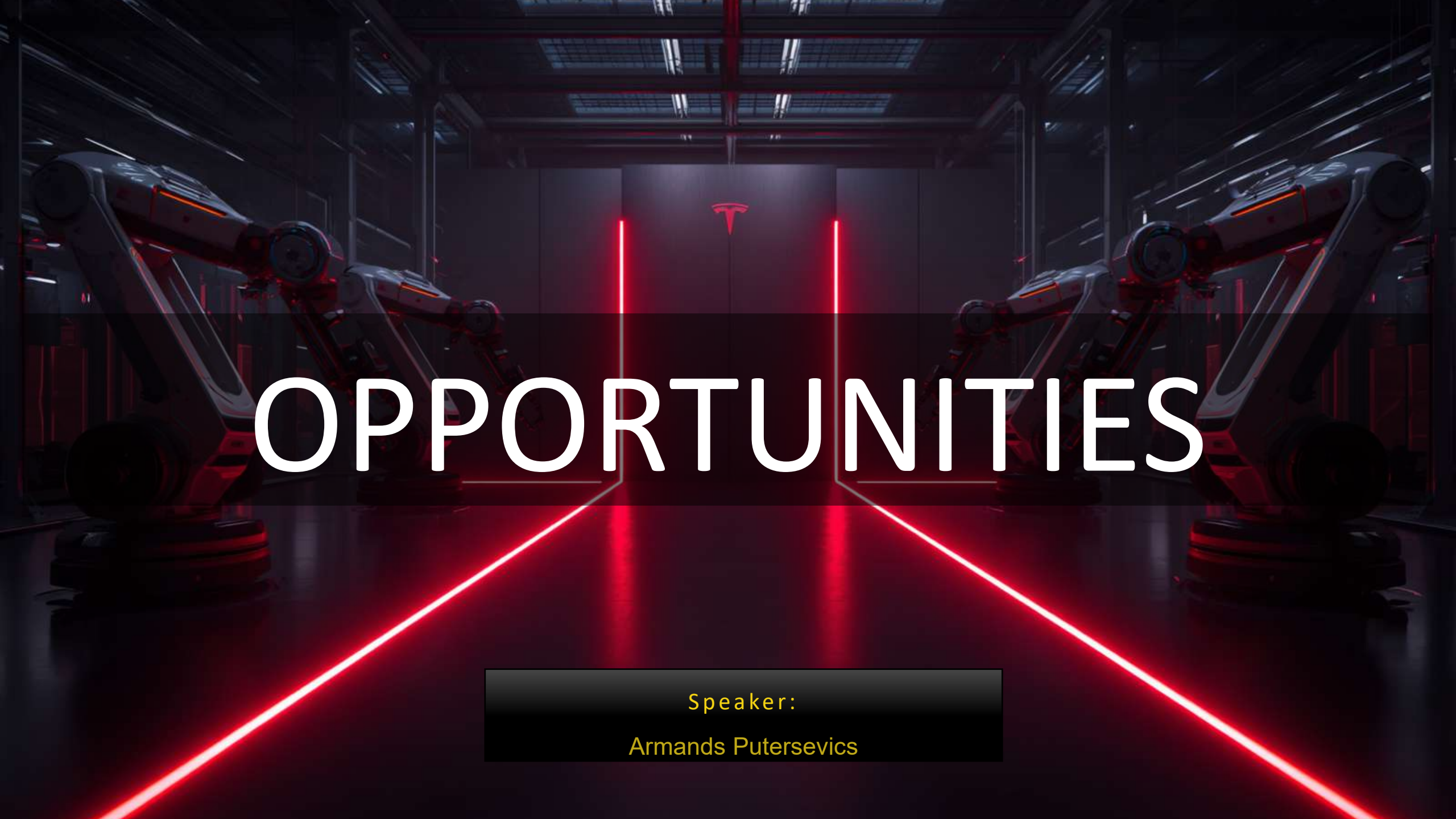
Foster ownership mindset while communicating transparently about automation's role (augmentation, not just replacement). Balance high expectations with support for well-being to sustain engagement.

4

Design for Human-AI/Robot Collaboration

Redesign roles so humans focus on creativity, judgment, complex problem-solving, and robot/AI oversight. Prepare workforce for hybrid teams as Optimus and FSD scale.





OPPORTUNITIES

Speaker:

Armands Putersevics

Opportunities

Why it matters?

- Higher productivity
- Faster production
- Lower manufacturing costs
- Better quality control

TESLA
Theory Resource-Based View (RBV)
(Barney, 1991; Tesla, 2025)



Opportunity One

11

Benefits

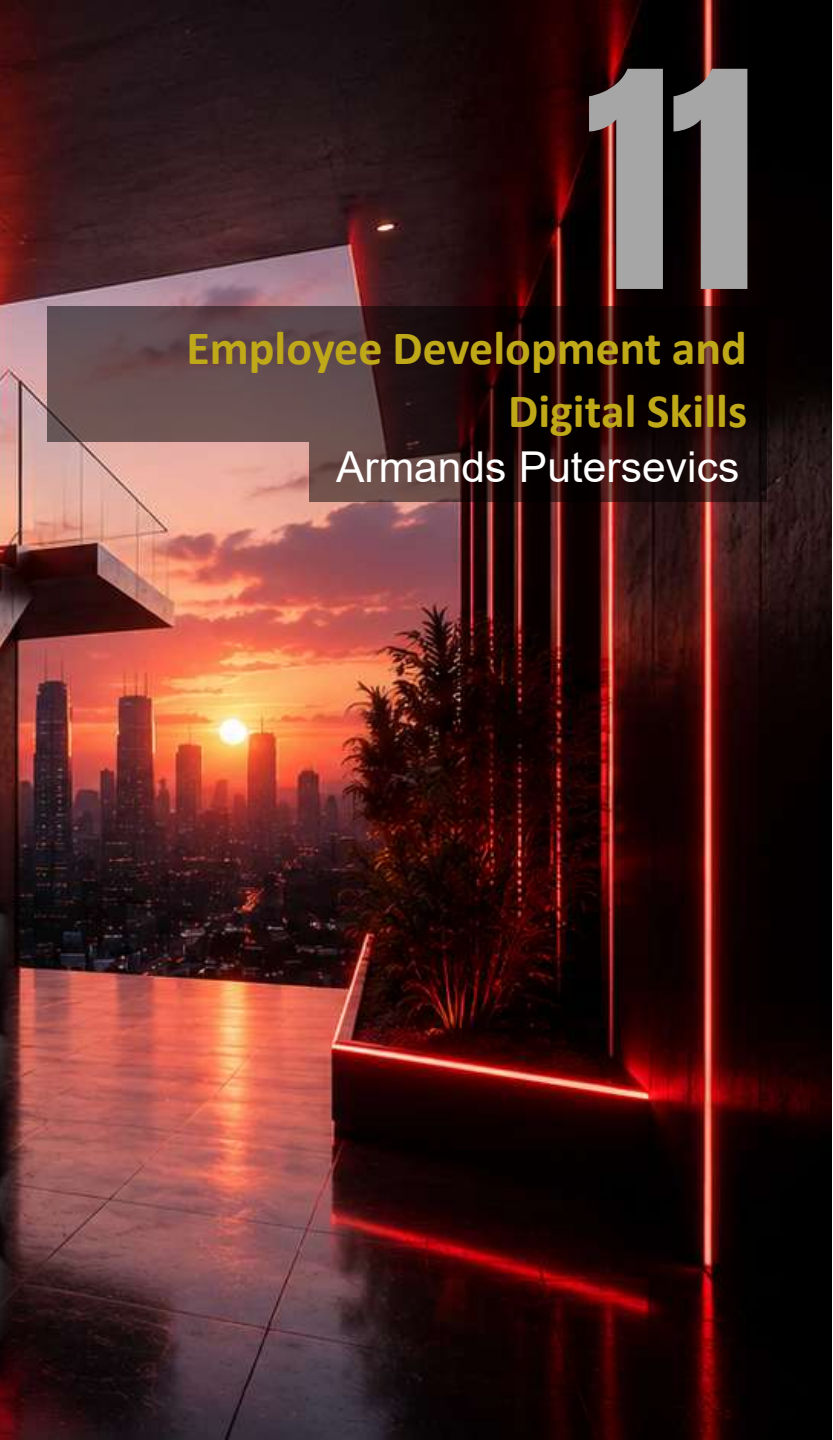
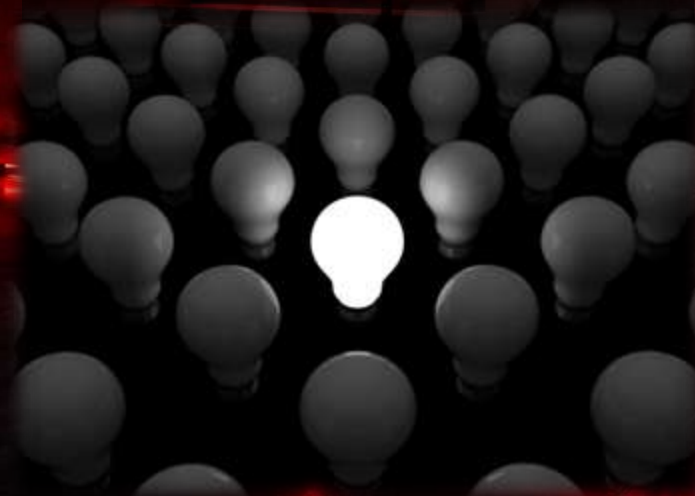
- Improved employee engagement
- Reduced skills gaps
- Better internal promotion rates
- Future-ready workforce

Key opportunities

- AI-supported learning platforms
- Personalised employee training
- Continuous upskilling
- Data-driven performance feedback
- Career development using workforce analytics

Employee Development and Digital Skills

Armands Putersevics



Opportunity Two

12

AI enables Tesla to

Scale production globally

Improve decision making

Support innovation

Increase flexibility

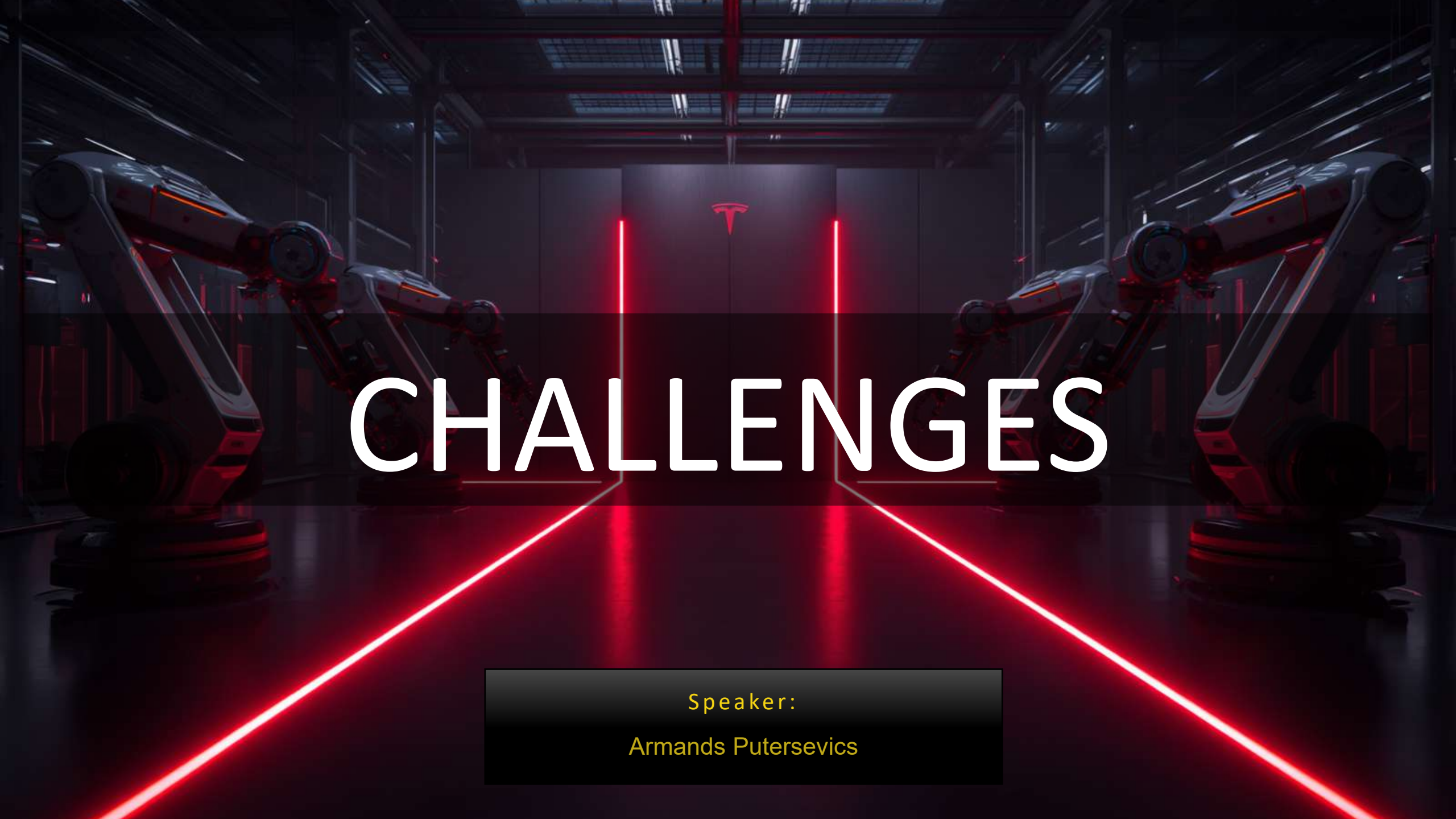
Maintain competitive advantage in EV manufacturing

Strategic Competitive Advantage

Armands Putersevics



AI is not replacing employees entirely it is augmenting human capabilities and creating new technical roles.

The background of the slide is a dark, industrial setting, likely a Tesla factory. Two large robotic arms are visible on either side, and red laser lines project a path from the bottom towards a Tesla logo on a distant wall.

CHALLENGES

Speaker:

Armands Putersevics

Current Challenges

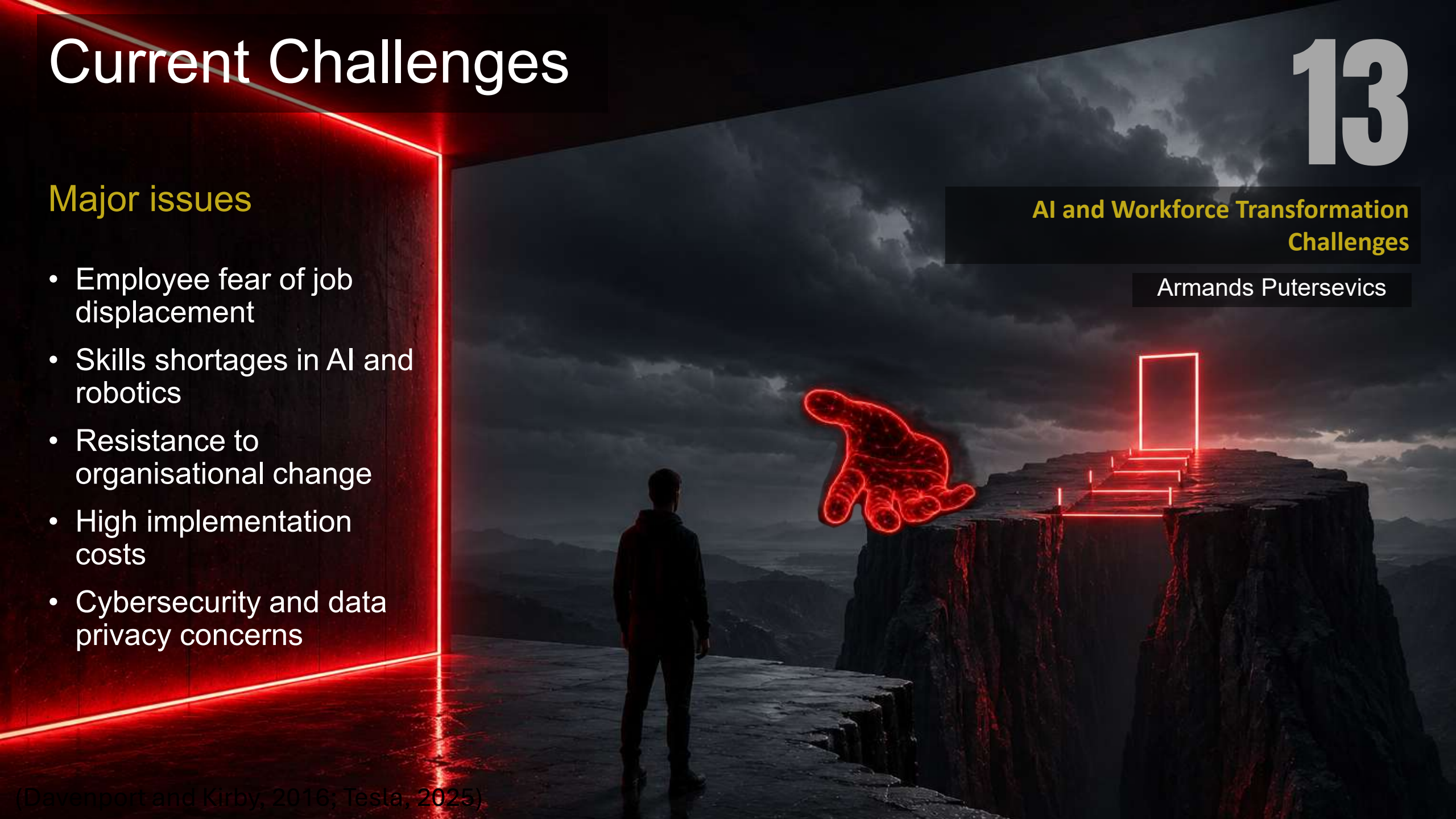
13

Major issues

- Employee fear of job displacement
- Skills shortages in AI and robotics
- Resistance to organisational change
- High implementation costs
- Cybersecurity and data privacy concerns

**AI and Workforce Transformation
Challenges**

Armands Putersevics



Challenge One

14

Problems

- Rapid technological change
- Need for continuous retraining
- Employees may lack AI literacy
- Resistance to automation
- Fear of redundancy

Impact

- Lower engagement
- Reduced productivity
- Slower adoption of AI

Skills Gap and Employee
Resistance

Armands Putersevics

Challenge Two

15

Challenges

- AI bias in HR decision making
- Data privacy risks
- Cybersecurity threats
- Dependence on AI systems
- Maintaining human oversight

Ethical and Operational
Risks

Armands Putersevics

Tesla increasingly relies on AI for manufacturing, autonomous driving and robotics, making governance and responsible AI essential. (Tesla, 2025; Ali et al., 2026)

Key Takeaways

16

Summary

Armands Putersevics

Opportunities

- Increased productivity
- Better workforce planning
- Improved employee development
- Greater innovation
- Stronger competitive advantage

Challenges

- Skills shortages
- Employee resistance
- Ethical AI
- Cybersecurity
- High implementation costs





ROOT-CAUSE ANALYSIS

Speaker:
Andre Pinto

ROOT-CAUSE ANALYSIS

17

TESLA AI & WORKFORCE CHALLENGES

Andre Pinto

01

RAPID AI ADOPTION

Fast AI and automation growth outpaces workforce skills development.

02

HUMAN CAPITAL GAPS

Capability gaps widen as technology innovation accelerates continuously.

03

HIGH-PERFORMANCE CULTURE

Continuous adaptation demands create pressure and resistance to change.

04

EXTERNAL TALENT COMPETITION

Global AI talent demand intensifies recruitment and retention challenges.

ROOT CAUSE ONE

18

TESLA AI & WORKFORCE ANALYSIS

Andre Pinto

RAPID AI ADOPTION & SKILLS GAPS

Tesla's accelerating investment in AI, autonomous driving, and robotics (Optimus) drives demand for advanced digital skills. Workforce capabilities lag behind technological innovation, creating critical skills shortages and an urgent need for continuous learning. Expansion of AI infrastructure intensifies demand for specialist talent across all functions.

HUMAN CAPITAL THEORY

Human Capital Theory (Becker, 1993). Investing in employee knowledge and skills directly boosts organisational performance. As AI adoption accelerates across industries, competition for skilled employees intensifies making workforce development a strategic imperative for Tesla's long-term competitiveness.

ROOT CAUSE TWO

19

TESLA CORPORATION

Andre Pinto

ORGANISATIONAL CULTURE & LEADERSHIP

Tesla's high-performance culture drives innovation but demands continuous employee adaptation. Rapid organisational change without full employee readiness leads to resistance and workplace pressure. Continuous AI transformation shifts roles and skill requirements faster than workforce readiness allows, raising concerns over job security and adaptability.

MCKINSEY 7S FRAMEWORK

Successful AI transformation requires alignment across all seven dimensions: Strategy, Structure, Systems, Shared Values, Skills, Style, and Staff. Tesla's challenge lies in synchronizing leadership vision with workforce capability and cultural readiness ensuring that people, not just technology, drive transformation outcomes.

ROOT CAUSE THREE

20

TESLA CORPORATION

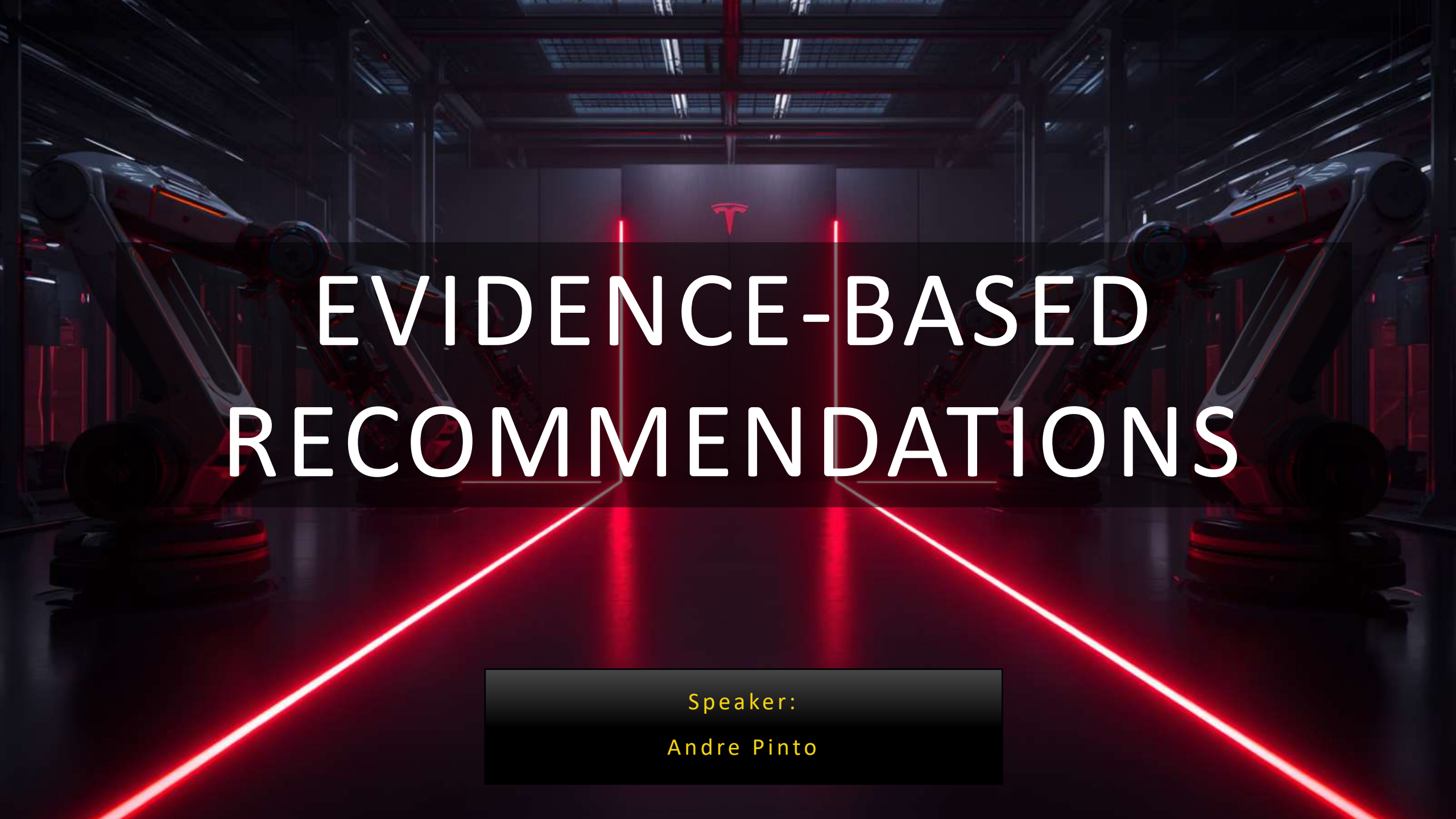
Andre Pinto

EXTERNAL LABOUR MARKET & AI GOVERNANCE

Global competition for AI specialists intensifies, making it increasingly difficult for Tesla to attract and retain top technical talent. Rising recruitment and development costs compound the challenge. Growing governance demands for ethical AI, privacy, and cybersecurity add further complexity as global AI talent demand consistently outpaces supply.

KEY TAKEAWAY

Tesla's workforce challenges arise from both internal organisational factors and broader AI adoption and governance trends. Responsible AI practices are becoming vital in workforce management, requiring Tesla to balance innovation speed with ethical oversight and sustainable talent strategies.

The background is a dark, industrial setting, likely a factory or laboratory. Two large, white robotic arms with orange accents are positioned on the left and right sides, facing each other. In the center, a red Tesla logo is visible on a wall. Two vertical red laser lines extend from the floor to the ceiling, and two diagonal red laser lines extend from the floor towards the center, creating a perspective effect. The overall atmosphere is high-tech and futuristic.

EVIDENCE-BASED RECOMMENDATIONS

Speaker:
Andre Pinto

RECOMMENDATION ONE

21

TESLA CORPORATION
Andre Pinto

AI TRAINING

AI SKILLS TRAINING

Expand AI and digital skills training programs across all workforce levels.

LEARN

PERSONALISED LEARNING

Deploy AI-powered personalised learning tools to close skills gaps continuously.

CAREER

CAREER DEVELOPMENT

Increase cross-functional career opportunities and professional development.

ADAPT

WORKFORCE RESILIENCE

Build organisational resilience through continuous learning. Human Capital Theory (Becker, 1993).

RECOMMENDATION TWO

22

TESLA CORPORATION

Andre Pinto

Clear

COMMUNICATION

Communicate AI plans clearly to build trust and reduce uncertainty across the workforce.

Active

EMPLOYEE INVOLVEMENT

Involve employees actively in change processes to increase buy-in and ownership.

Human

HUMAN OVERSIGHT

Maintain human oversight on AI-supported HR decisions to ensure fairness.

Collab

AI COLLABORATION

Encourage collaboration between employees and AI systems. Lewin's Model, 1947.

RECOMMENDATION THREE

23

TESLA CORPORATION

Andre Pinto

Ability

ENHANCE ABILITY

AI reskilling programs and continuous digital training for all workforce levels.

Motiv.

**BOOST
MOTIVATION**

Career growth, clear communication, and recognition to drive AI adoption.

Opport.

**INCREASE
OPPORTUNITY**

Employee involvement in AI decisions and cross-functional collaboration.

AMO

**SUSTAINABLE
OUTCOMES**

Higher productivity, engagement, and sustainable competitive advantage.

The background of the slide is a dark, industrial setting, likely a Tesla factory. It features several robotic arms in the foreground and middle ground, illuminated by red laser lines that create a sense of depth and technology. The overall color palette is dark with prominent red highlights.

TESLA AI & WORKFORCE TRANSFORMATION

Speaker:
Olena Kokorieva

Tesla AI & Workforce Transformation

24

Future of Work at Tesla:
2030–2035

Olena Kokorieva

How AI, automation and robotics will reshape Tesla's workforce:

- Wider deployment of Optimus robots in manufacturing and logistics
- More autonomous and AI-controlled production systems
- Generative AI supporting engineering, design and decision-making
- Increased use of predictive analytics and digital twins



AI is likely to transform the content of work rather than eliminate the need for employees

Roles likely to decline	Roles likely to transform	Roles likely to grow
• Repetitive assembly work • Manual quality inspection • Routine data processing • Basic administrative tasks • Predictable warehouse activities	• Manufacturing technicians • Production supervisors • Automotive engineers • HR professionals • Supply-chain specialists	• AI and machine-learning engineers • Robotics specialists • Data scientists • Cybersecurity professionals • AI trainers and validation specialists • Responsible-AI and governance specialists

- ❑ Roles likely to decline: repetitive assembly, manual inspection, routine administration
- ❑ Roles transforming: technicians, engineers, supervisors and HR professionals
- ❑ Roles growing: AI engineers, robotics specialists, cybersecurity experts and AI governance specialists

Tesla will require fewer routine-task roles but more advanced technical, analytical and oversight capabilities.

Future Skills and Human Capital Requirements

Olena Kokorieva

Technical Skills

- AI literacy
- Robotics operation and maintenance
- Data analysis
- Machine learning
- Cybersecurity awareness
- Digital systems management

Human Skills

- Critical thinking
- Creativity and innovation
- Complex problem-solving
- Adaptability
- Ethical judgement
- Communication and teamwork
- Leadership in human-AI teams

- ❑ Technical skills: AI literacy, robotics, data analytics, machine learning and cybersecurity
- ❑ Human skills: creativity, critical thinking, leadership, adaptability and communication
- ❑ Human Capital Theory (Becker, 1993): investment in skills drives long-term performance

Tesla's competitive advantage will depend on combining advanced technical capability with distinctly human skills.

Preparing Tesla's Workforce

Olena Kokorieva

- ❖ Continuous reskilling and personalised learning
- ❖ Strategic workforce planning
- ❖ Internal mobility and cross-functional careers
- ❖ Responsible AI governance
- ❖ Employee wellbeing and engagement

Tesla should develop a human-centred AI workforce strategy that combines technological investment with continuous employee development.

Opportunities	Risks
• Higher productivity • Improved workplace safety • Faster innovation • Reduced manufacturing costs • Better quality and consistency • More meaningful work for employees • Greater organisational flexibility	• Job displacement and insecurity • Employee resistance • Rapid skill obsolescence • AI bias and unfair decisions • Cybersecurity and privacy threats • Excessive employee monitoring • Dependence on automated systems • Loss of human and tacit knowledge

Critical Evaluation of Tesla's Future Workforce:

- Opportunities: productivity, innovation, safety, quality and flexibility
- Risks: job insecurity, skills gaps, AI bias, cybersecurity and overdependence on automation
- Resource-Based View (Barney, 1991): people remain Tesla's sustainable competitive advantage

The benefits of automation will depend on how fairly, transparently and responsibly Tesla manages the transition.

Conclusion

29

Olena Kokorieva

Tesla's adoption of AI, automation and robotics is transforming the way work is performed, creating new opportunities for innovation, productivity and competitive advantage. However, achieving long-term success will depend on how effectively the company develops employee skills, manages organisational change and ensures the responsible use of AI. By combining technological advancement with a people-centred HR strategy, Tesla can build a resilient workforce that is prepared for the future of work



TESLA AI & WORKFORCE
TRANSFORMATION

THANK YOU



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