

# Edmund Situmorang

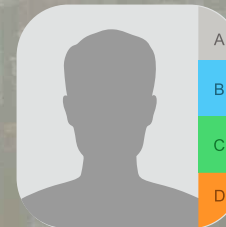
Chief Technology Officer  
& Head of Artificial Intelligence  
Trans Meta Teknologi

LET'S  
CONNECT  
COLLABORATE  
INNOVATE

TRANS  
META TEKNOLOGI



- AI Strategy, Solution Design and Implementation
- AI Talent Acquisition and Training



CLICK TO ADD  
TO CONTACTS





# Digital Transformation for a Sustainable Future

Leveraging IT for Environmental, Social, and Governance (ESG) Objectives



[edmund.situmorang.com](http://edmund.situmorang.com)

## ARTIFICIAL INTELLIGENCE

Learn it or you'll become the dinosaur soon





# AWARDS



# EDMUND SITUMORANG







**ASURANSI JIWA  
PERTAMA  
YANG MEMBERIKAN  
LAYANAN**



**UANG MUKA  
KLAIM**

**VERSI MURI No. 5538/R.MURI/VIII/2012**



Asuransi kecelakaan paling praktis

**HARIO Siaga**

PREMI Rp 55.000,-

**MANFAAT SANTUNAN DUKA  
Rp 30.000.000**

**MANFAAT PERAWATAN RS  
Maks. Rp 3.000.000**

MASA PELINDUNGAN 1 (SATU) TAHUN

**3 LANGKAH AKTIVASI  
VOUCHER HARIO SIAGA  
OTP (ONE TIME PIN)**

**1**

Gosok bagian pelindung **NOMOR PIN**

STRATEGY IS ABOUT INNOVATION  
BEING AHEAD AND TRUSTED MARKET LEADER





A group of five men are standing in a modern office interior. From left to right: a man in a white shirt and glasses wearing a white face mask; a man in a black polo shirt; a man in a colorful batik shirt; a man in a light blue button-down shirt; and a man in a grey blazer over a black shirt. They are standing in front of a glass wall with the 'ZEABORN SHIP MANAGEMENT' logo. The floor is made of light-colored wood with a large circular compass rose design in the center. The ceiling has recessed lights and a blue decorative light fixture.

**ZEABORN**  
SHIP MANAGEMENT

# **BENCHMARK SET SMART GOALS**

**YOU CAN'T IMPROVE WHAT YOU CAN'T MEASURE**

# Project Status

Sprint 5 Apr - 19 Apr 22. We plan to do several backlog. Here the details :

No	Sprint	Project Desc	Business Owner	Priority
1	Danamas (Update flow Issued policy with e-certificate + Claim API + Deposit Dashboard)	To provide dashboard for Danamas to periodically check the deposit amount	Sales	P1 - on progress
2	Shopeepay (Claim API)	API integration with ASI for claim process	Sales	P1 - on progress
3	Nabila (Claim API)	To provide dashboard for Nabila to periodically check the deposit amount	Sales	P1 - on progress
4	Mitra Driver+ iteration 3 (customer portal to surrender request and endorsement of data changes mobile phone) - UI, Integration with ASI	To provide surrender request and endorsement of data changes mobile phone	Sales	P2 - on progress
5	Enhance Claim Portal-2 (Upload document more than 1 + Add new free text field for chronology + SLA) - UI and Integration with ASI	Enhancement on current claim portal based on feedback from Sales	Sales	P2 - on progress
6	Danamas recovery cicilan (API Doc for Danamas + API Development)	To enhance current API Credit Insurance for new product integration, according to API requirements from ASI	Sales	P3 - not yet

**WORK WITH SMALLER SMART GOALS**  
**AGILE WORK WITH SPRINTS**  
**ITERATIONS + CI**

**Specific, Measurable, Achievable, Relevant, and Time-Bound**







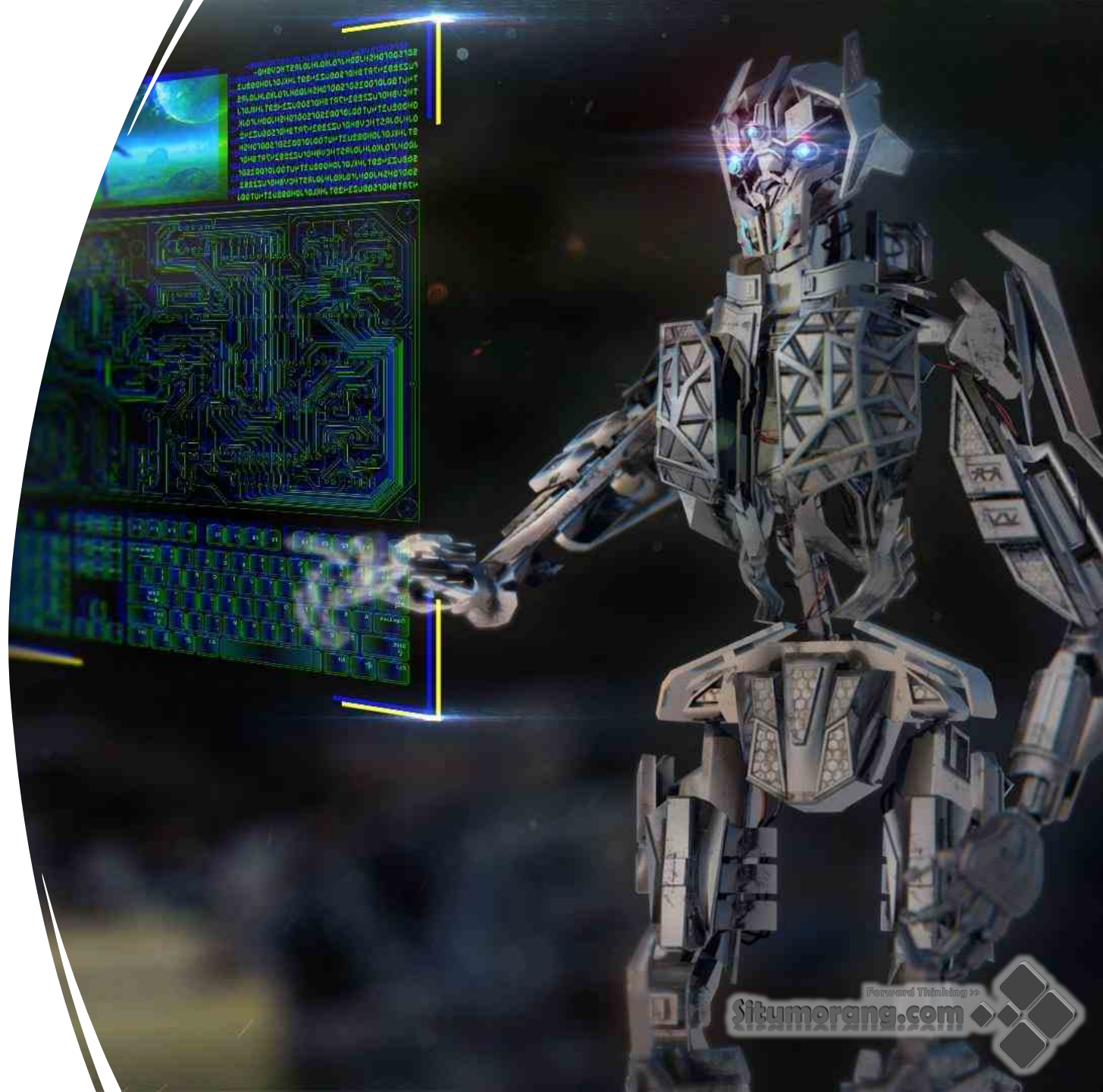
# WHY DIGITAL TRANSFORMATION?





# What are you doing to prepare for the future?

By 2023 Gartner predicts that 40% of infrastructure and operation teams in large enterprises will use AI-augmented automation, resulting in higher productivity.







# Digital Transform ation



## ARTIFICIAL INTELLIGENCE

Learn it or you'll become the  
dinosaur soon

Forward Thinking >>  
**Situmorang.com**





# MARINE EYES

## Security

Drug Smuggling, Piracy,  
Stowaway, Theft



VESSEL PROXIMITY



PILOTING



## Bridge Activities

Lookout, Bridge Watch Level,  
Unattended Bridge, Unusual  
Behavior, Pilotage

## Maintenance

Planned vs Actual, Critical  
Equipment, Remote Guidance,  
Asset Utilization



MAINTENANCE



UNPLANNED STOPPAGE



## Cargo Operations

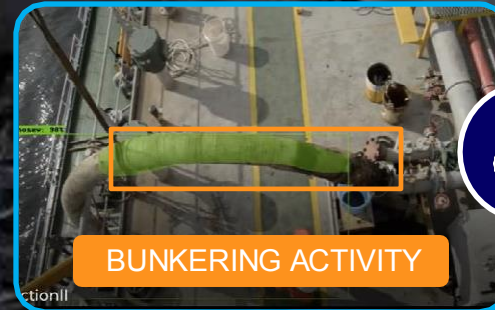
Port Efficiency, Tank Cleaning,  
Unreported Stoppages, Stevedore  
Conduct

## Safety

PPE Compliance, Unsafe Acts,  
Unsafe Conditions, Fire / Safety  
Rounds, Incident Management



SAFETY ROUND COMPLETE



BUNKERING ACTIVITY



## Environment

MARPOL Compliance, Use of  
OWS, Bunkering



An aerial photograph showing a large, irregularly shaped sediment pool with several smaller, interconnected ponds. The water in the ponds is a murky, greenish-brown color. The surrounding landscape is a mix of brown, eroded soil and patches of green vegetation. A winding road runs along the right side of the sediment pool, with a few vehicles visible. The overall scene suggests a large-scale construction or mining project with significant earthmoving and sediment management.

**HONESTY IS THE BEST POLICY**  
**LAZINESS IS AN INFECTIOUS DISEASE**

WE NEED HONEST  
PEOPLE WHO REALIZED  
THEIR INCAPABILITY  
AND ARE WILLING TO  
BE TRAINED

**SEDIMENT POOL**



**PERHATIAN...!!!**  
KAMI DARI PERSATUAN OJEK KALIBATA CITY  
**MELARANG** GO  **JEK DAN GRAB BIKE**  
MASUK KE DALAM KAWASAN KALIBATA CITY  
By : KALIBATA CITY

# PROGRESS ALWAYS WINS

**THE REAL PROBLEM WHY PEOPLE REFUSE CHANGE:**

- MOTOR BODONG
- TIDAK PUNYA SIM
- TAPI MAU DIBAYAR MAHAL

Forward Thinking >>  
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**OJEK PANGKALAN VS OJOL**



# Creativity

# Leadership

# Emotional Intelligence

## Reskilling needs

50% of all employees will need reskilling by 2025.

The infographic features a large blue '50%' with a man in a white shirt and tie standing inside the '0'. To the left, a yellow line with black dots and a cursor icon is positioned above the text. To the right, a list of programming symbols is shown: `<`, `>`, `=`, `/`, `"`, `'`, `-`, `(`, `)`, `//`, `}`, `-`, `"`.

**of all employees will need  
reskilling by 2025.**

**Source:** Future of Jobs Report 2020, World Economic Forum.

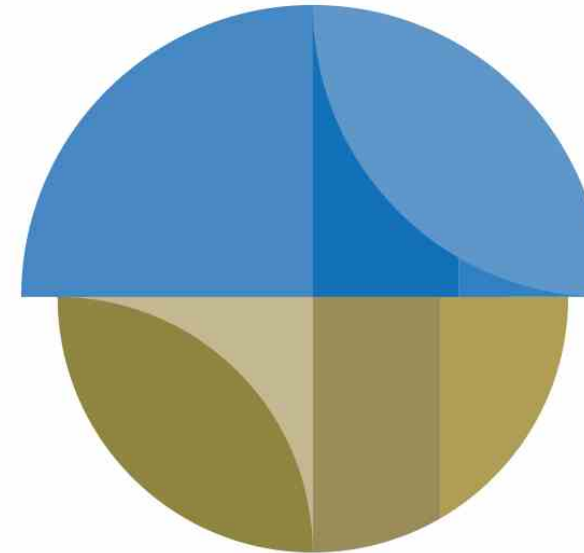


AI will automate many repetitive and sometimes dangerous tasks like data entry and assembly line manufacturing. The technology will also change the nature of work for many other jobs, allowing workers to **focus on higher-value and higher-touch** tasks that often require interpersonal interactions. These newly enhanced jobs will create benefits for both businesses and individuals who will have **more time to be creative, strategic, and entrepreneurial.**

## Job landscape

By 2025, new jobs will emerge and others will be displaced by a shift in the division of labour between humans and machines, affecting:

**97 million**



**85 million**

### Growing job demand:

1. Data Analysts and Scientists
2. AI and Machine Learning Specialists
3. Big Data Specialists
4. Digital Marketing and Strategy Specialists
5. Process Automation Specialists
6. Business Development Professionals
7. Digital Transformation Specialists
8. Information Security Analysts
9. Software and Applications Developers
10. Internet of Things Specialists

### Decreasing job demand:

1. Data Entry Clerks
2. Administrative and Executive Secretaries
3. Accounting, Bookkeeping and Payroll Clerks
4. Accountants and Auditors
5. Assembly and Factory Workers
6. Business Services and Administration Managers
7. Client Information and Customer Service Workers
8. General and Operations Managers
9. Mechanics and Machinery Repairers
10. Material-Recording and Stock-Keeping Clerks





digital  
transformation  
plays a crucial role  
by optimizing  
processes,  
reducing waste,  
and driving  
innovation



# ESG & Sustainability

The background of the slide is a composite image. It features a perspective view of a paved road with white lane markings, leading from a green grassy field in the foreground towards a city skyline in the distance. Several tall, lattice-structured communication towers are visible, some in the foreground and others further back. The sky is a mix of blue and white clouds. Overlaid on this scene are various digital and technical elements: a large circular radar-like pattern in the center, several hexagonal icons containing symbols like a leaf, a person, and a gear, and lines of varying thicknesses connecting different points. The text 'TOWER BERSAMA' appears in the upper right, and 'TOWER BERSAMA GROUP' is written vertically on the right side. In the bottom right, there is a logo with the letters 'G' and 'ESG'.

## Environmental Impact

Energy Efficiency, Waste Reduction, Carbon Footprint

## Social Responsibility

Employee well-being, Diversity and Inclusion

## Governance

Data transparency, compliance and reporting, Cybersecurity





TOWER BERSAMA GROUP

Vodafone has implemented energy management systems across its network of mobile towers, resulting in a 15% reduction in energy consumption per site. This was achieved by leveraging IoT technology to monitor and optimize energy usage continuously ([Vodafone Group Sustainability Report, 2023](#)).

AT&T, through its energy efficiency initiatives, saved over 200 million kWh of electricity annually by deploying smart energy management systems across its telecommunications infrastructure ([AT&T ESG Report, 2022](#)).



# CALL TO ACTION

The background is a complex digital collage. At the top, the title 'CALL TO ACTION' is in large, white, serif font with a black outline. Below the title, a network of white lines connects various icons representing ESG themes: a globe, a leaf, a recycling symbol, a person, a document, a gear, and a lightbulb. In the center, a tall, dark communication tower stands against a bright, hazy sky. To the left, there are wind turbines and solar panels. To the right, there are green trees and a large, glowing sphere. The bottom of the image features a road made of circuitry that leads towards the horizon. On the right side of the road, there are four white arrows pointing upwards, indicating growth or progress.

1. Identify Key ESG Areas Where IT Can Have the Most Impact
2. Invest in the Right Technologies
3. Pilot Projects
4. Engage Stakeholders
5. Leverage Data for Continuous Improvement





GCF Academy

Windmill

This document certifies that

**Edmund Situmorang**

has successfully achieved the certification

**DESIGN THINKING INNOVATION**

*Fundamentals*

September 27, 2023



GLOBAL  
CIO  
FORUM

*Tushar Sahoo*

Tushar Sahoo  
Founder, Global CIO Forum



*Sunny Gambhir*

Sunny Gambhir  
Designer-in-Chief, Windmill

Windmill

82968670



# DESIGN THINKING



EMPATHIZE



DEFINE



IDEATE



PROTOTYPE



TEST

Design thinking is a human centered and collaborative approach to problem solving, using a designed mindset to solve complex problems.

*Tim Brown (British Industrial Designer & President of IDEO)*





**Empathize:** Understand the needs, experiences, and emotions of the people for whom you are designing. This often involves user research, interviews, and observations.

**Define:** Clearly articulate the problem you want to solve. Based on the insights gained during the empathize stage, you define the problem from a human-centered perspective.

**Ideate:** Generate a wide range of ideas and potential solutions. This stage encourages creative thinking and brainstorming to explore various possibilities.

**Prototype:** Build simple, tangible representations of your ideas (prototypes) to explore potential solutions. These can be anything from sketches to models to digital prototypes, depending on the nature of the problem.

**Test:** Try out your prototypes with real users to gather feedback. This stage helps you understand what works, what doesn't, and how the solution can be improved.



# TRADITIONAL THINKING

VS

# DESIGN THINKING

Flawless planning

Enlightened trial & error

Scared of failing

Learn from failure

Rigorous analysis

Rigorous testing

Presentations

Lightweight experiments

Arms' length customer research

Deep customer immersion

Periodic

Continuous

Thinking

Doing



# PERSON of the YEAR TIME

ELON  
MUSK



Applications of

## First Principles Thinking



TESLA

“It is important to view knowledge as sort of semantic tree. Make sure you understand the fundamental principles, ie the trunk and big branches, before you get into the leaves/details or there is nothing for them to hang on to.” - *Elon Musk*

\$600  
/kwh



FIRST  
PRINCIPLE  
THINKING

Polymers

Carbon

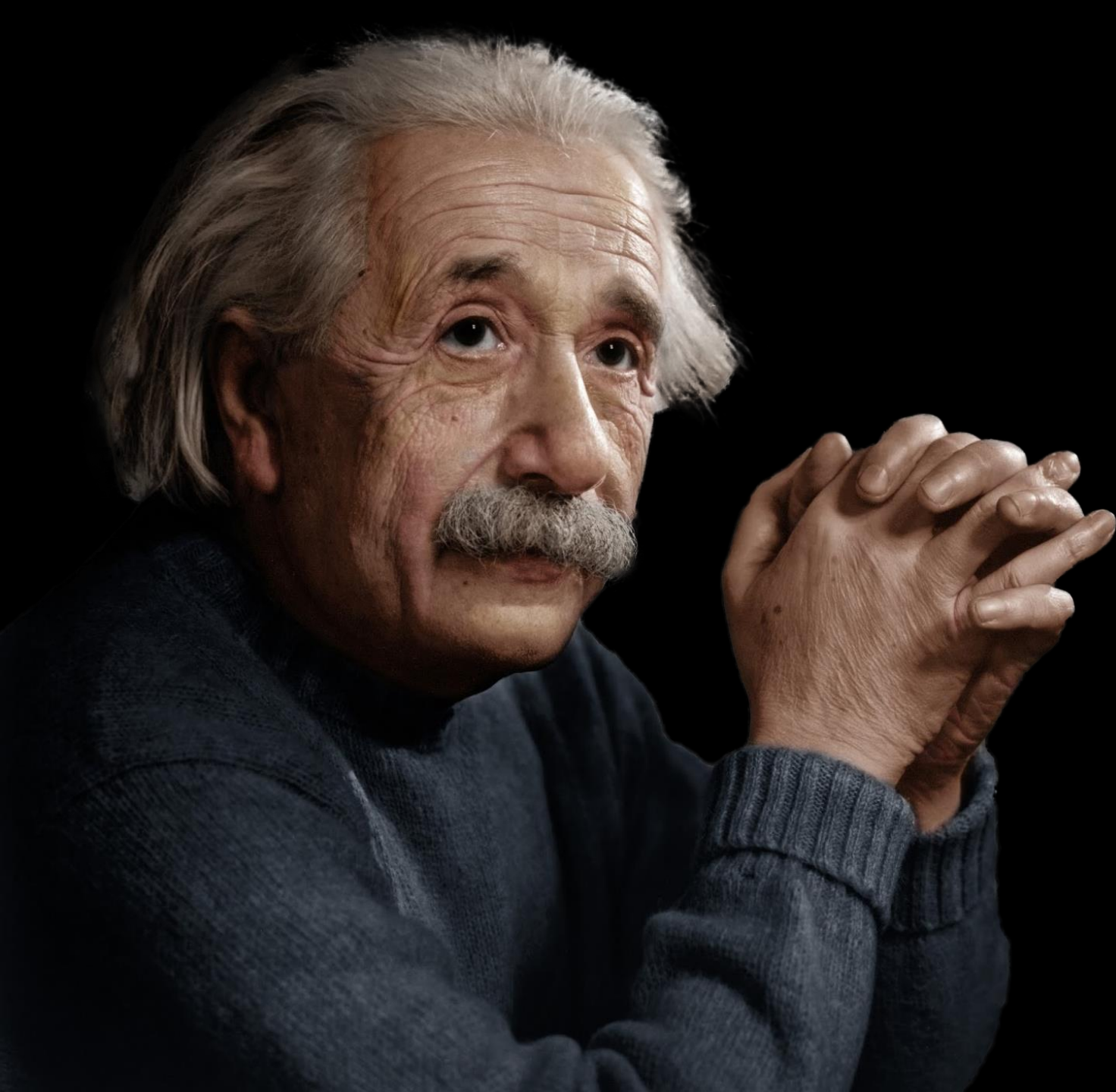
Nickel

Cobalt

Aluminum

\$80  
/kwh





**Insanity** is doing the  
**same thing** over and  
over and expecting  
**different results.**

“If I had an hour to  
solve a problem, I’d  
spend 55 minutes  
thinking about the  
problem and 5 minutes  
thinking about  
solutions.”



# *Cook Vs Chef*





# LAST THING TO DISRUPT

“In a world where everything is connected, where machines can talk, learn and mimic humans, a world where machines are employable, where performance is at its peak, innovation at its finest and job loss at its highest. There is only **one spot left** to transform and that is YOU.”

— Nicky Verd, [Disrupt Yourself Or Be Disrupted](#)



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