



# CYBEREUM

## IMPROVE CAPITAL PROJECT PERFORMANCE

[cybereum.io](https://cybereum.io) | [cybereum.eth](https://cybereum.eth) | [cybereum.ai](https://cybereum.ai)



# ANANTH (FOUNDER) - BIO

- Over 20 yrs of worldwide megaproject experience.
- Project Manager - Led multi-disciplinary teams in numerous complex EPC projects around the world.
- Expert in Project Engineering Management, Systems Engineering, Technology Qualification, Product Development & PLM
- BEng & MS in Mech Engineering,
- MBA (IESE); Graduated at top of class
- MSc (w/ Distinction) in Major Programme Management (Oxford); Said Foundation Prize for Academic Excellence
- Professional Engineer (PE, Texas),
- Chartered Engineer (CEng) with Institute of Mechanical Engineers (IMechE, UK).
- Project Management Professional (PMP)
- AI expert for the Project Management Institute (PMI)
- Patents in blockchain and offshore wind technology



Our roots are in EPC projects

# TEAM & CO-FOUNDERS

We have achieved billions in project deliverables in diverse sectors globally



**Christopher Cass, COO**

Over 15 yrs leading large-scale technology deployment in 2 of the largest telecom /media companies, overseeing vast expansion of technology programs such as \$500 million 5G infrastructure.

BS (Penn State), MSc in Major Programme Management (Oxford), MBA (Ross, Michigan).



**Francis Mendoza, Lead Developer**

MS (Autonomous Systems & Robotics), BS (Com Sci)

Francis Mendoza is a blockchain research engineer at Cybereum. He has 4 years of R&D experience at the ASU Blockchain Research Lab and prior software engineering experiences at Intel, Fujitsu, Ripple, and the Hyperledger Foundation



**Christine Natarajan, Counsel**

Licensed Attorney (Texas), JD  
Renewable Energy Projects, Project Contracts

Legal & compliance experience in America, Europe & Africa in several industries.

Big 3 Accounting experience, Industries from the world's largest companies in Oil & Gas, Renewable Energy, Automotive etc.



**Kyle LeeSang, Lead Blockchain Dev**

Software Developer with a focus in Blockchain and Decentralized technologies. Experience in a diverse assortment of programming languages including: Rust, C++, Java, Python, ReactJS, Javascript and Solidity. With a development focus in Decentralized Finance, Zero Knowledge Proofs, Interplanetary File System (IPFS), Non Fungible Tokens (NFTs), and post quantum computing .



**Anthony Onuegbu**

Industry expert in programme & project management w/ over 22 years experience. industry knowledge in the oil & gas, energy, power and corporate real estate sectors within the United Kingdom, Europe, Middle East, Africa.

MEng w/ Honors, MSc in Major Programme Management (Oxford)  
CEng, Certified Project Manager IAPM.





# CAPITAL PROJECTS ARE SUPER IMPORTANT

\$9.2  
Trillion

## CAPITAL PROJECTS

Additionally annual average spending on physical assets for net-zero emissions by 2050 will be "\$3.5 Trillion more than today" \*

\$10+  
Trillion

## CONSTRUCTION PROJECTS

Yearly spend on construction projects.\*\*

\$130  
Trillion

## MASSIVE MARKET

Global capital projects between 2020 and 2027 estimated at 130 T\*

Megaprojects - 8% of total global GDP in 2014 & rapidly growing \*\*\*

\* McKinsey (2022), \*\* McKinsey (2020), \*\*\* Flyvbjerg (2017)

- 
- Who – Projects and their stakeholders
  - What - Projects underdeliver benefits at higher cost and longer schedules
  - Why – Cost and schedule overruns cause massive economic losses and social impact
  - Why – Too complex (forecastability), Cognitive limitations (data analytics), Principal-agent problems ( DLT)
  - How- AI/ML for forecasting (outside view), Data analytics (inside + outside), DLT, integrate the project team
  - Impact – Reduce the cost and schedule overruns benefitting all stakeholders to build the world of tomorrow



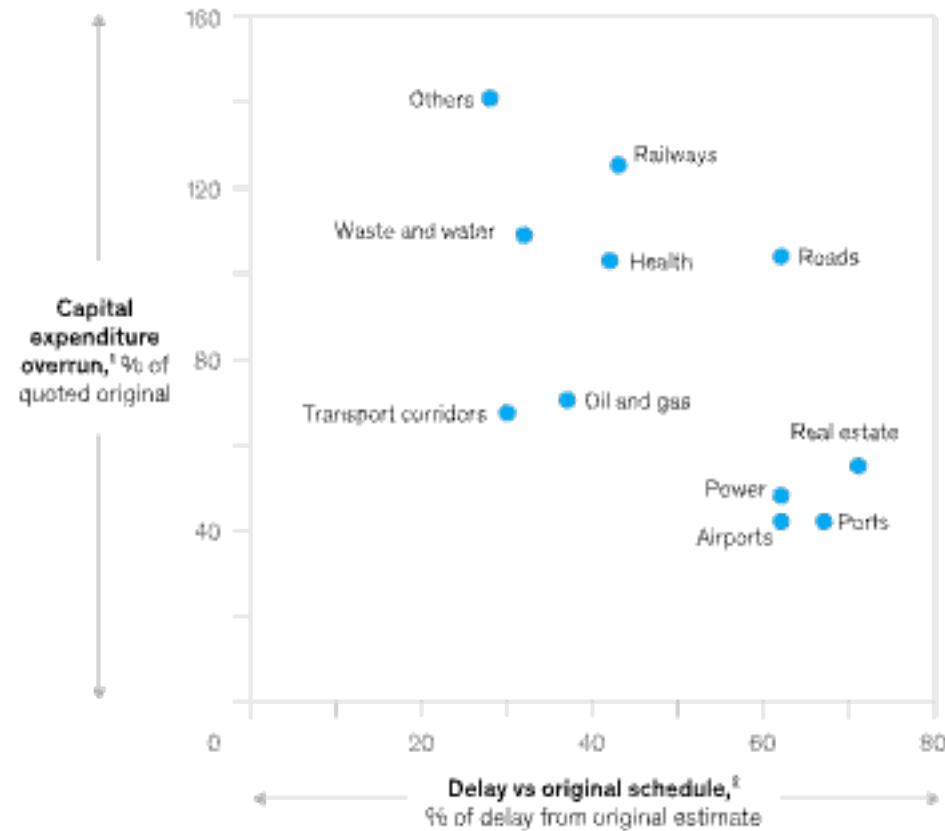


## Capital project delivery is consistently late and over budget.

# BUT THEY HAVE A TERRIBLE TRACK RECORD - PROJECTS ARE OUT OF CONTROL

- Cost overruns ~\$1.2 Billion on the average capital project—79 percent of budget\*
- Delays - 6 months to 2 years
- \$1.6+ Trillion dollars lost annually on construction projects \*\*
- \$250 Billion annual profit opportunity from digitization

Expenditure and delay by sector



The typical schedule delay<sup>1</sup> is between  
**6–24 months**

The share of schedule delays<sup>1</sup> on average compared with initial is  
**52%**

The average cost overrun<sup>2</sup> for a project is  
**\$1.21 billion**

The average cost overrun<sup>2</sup> relative to initial budget is  
**79%**

\* McKinsey (2022), \*\* McKinsey (2020)

<sup>1</sup>n = 427 projects.

<sup>2</sup>n = 532 projects.

Source: Press releases; McKinsey Overruns Predictive Capability databases; McKinsey analysis.

# WE KNOW WHAT CAUSES THIS



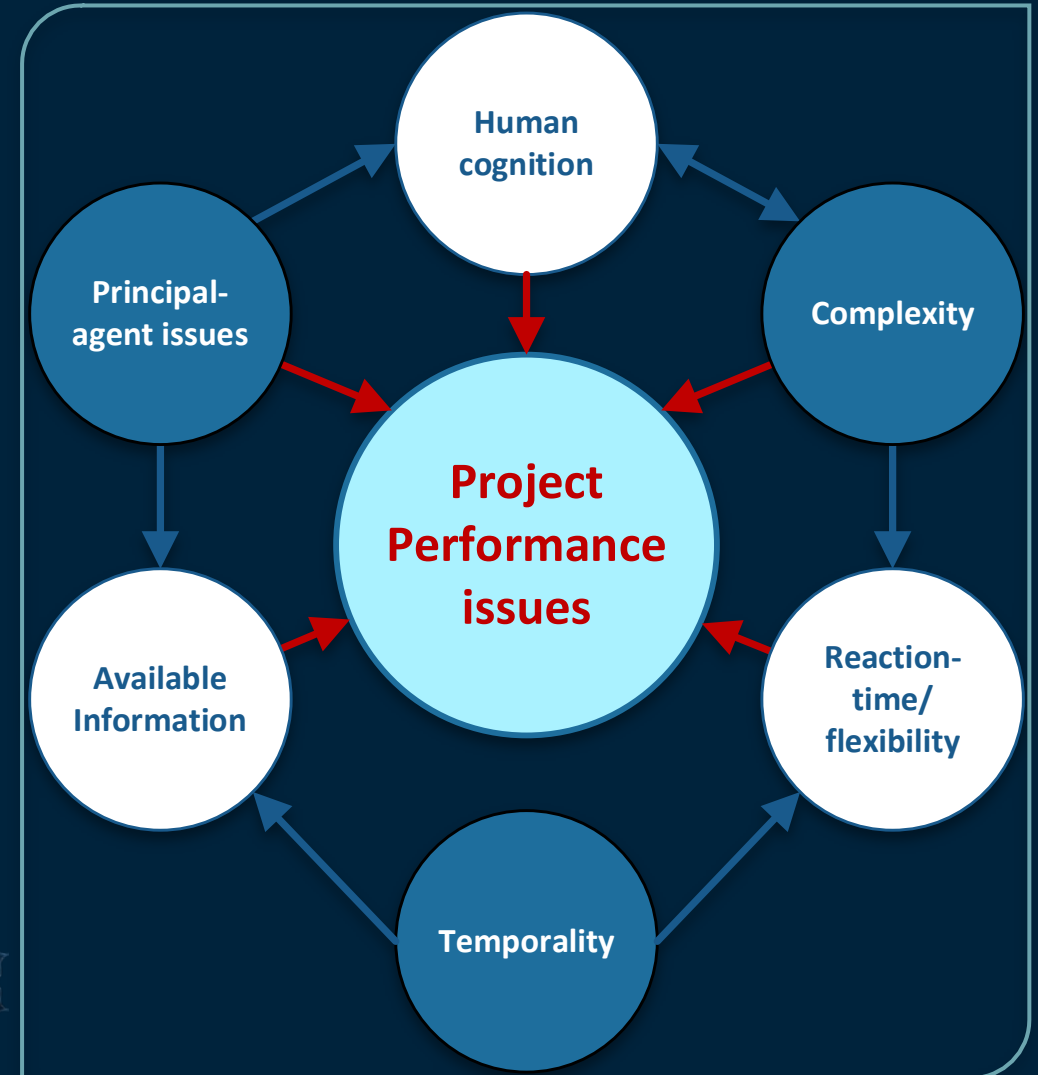
Projects are complex



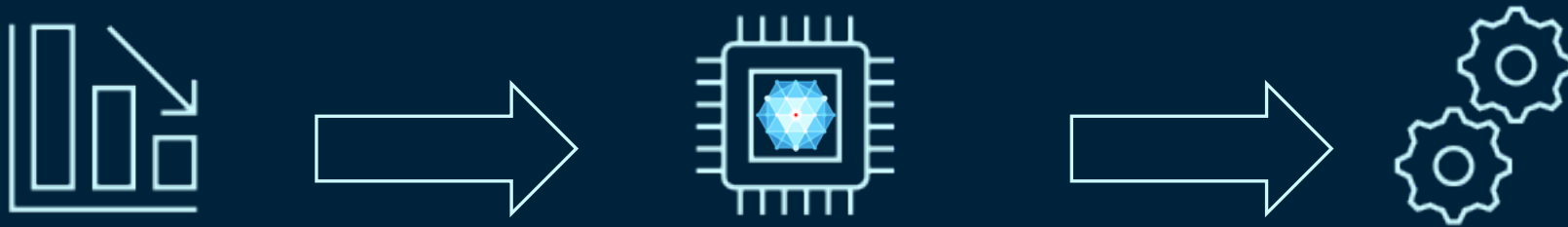
Human forecasting & processing have limitations



Every company in a project has separate often conflicting interests



# WITH CYBEREUM PROJECT PLANNING & GOVERNANCE BECOMES EASIER



High average & many  
extreme cost & schedule  
overruns, scope under  
delivery

Cybereum – Cybernetic  
process:

Synergistically combining human  
and computer inputs across  
organizational boundaries

AI/ML for forecasting

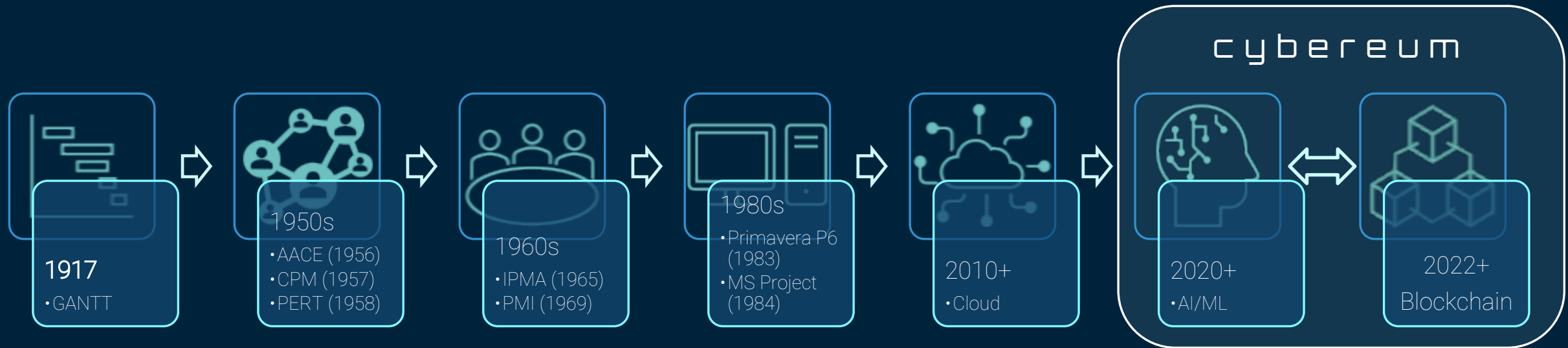
Next-gen dashboards

Bring projects  
under control

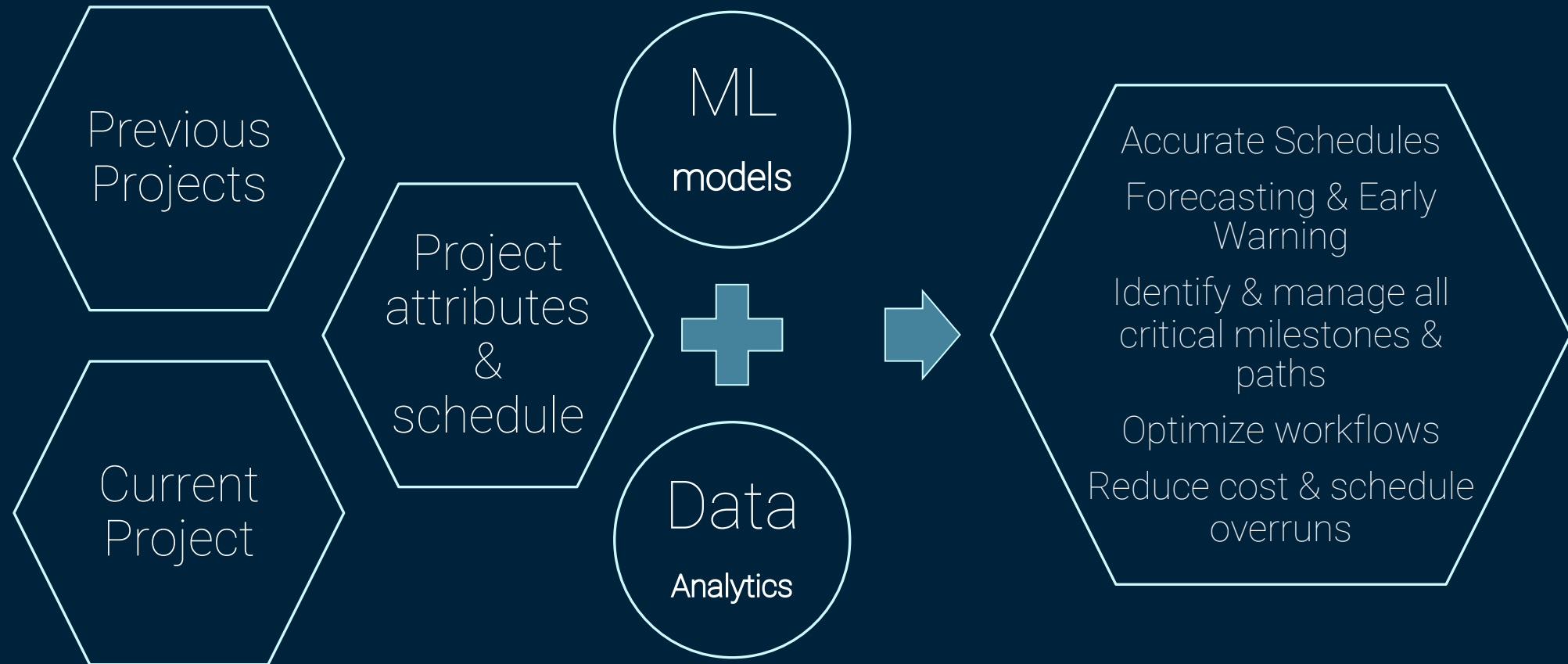




# WE WILL BRING PROJECT GOVERNANCE INTO THE 21<sup>ST</sup> CENTURY

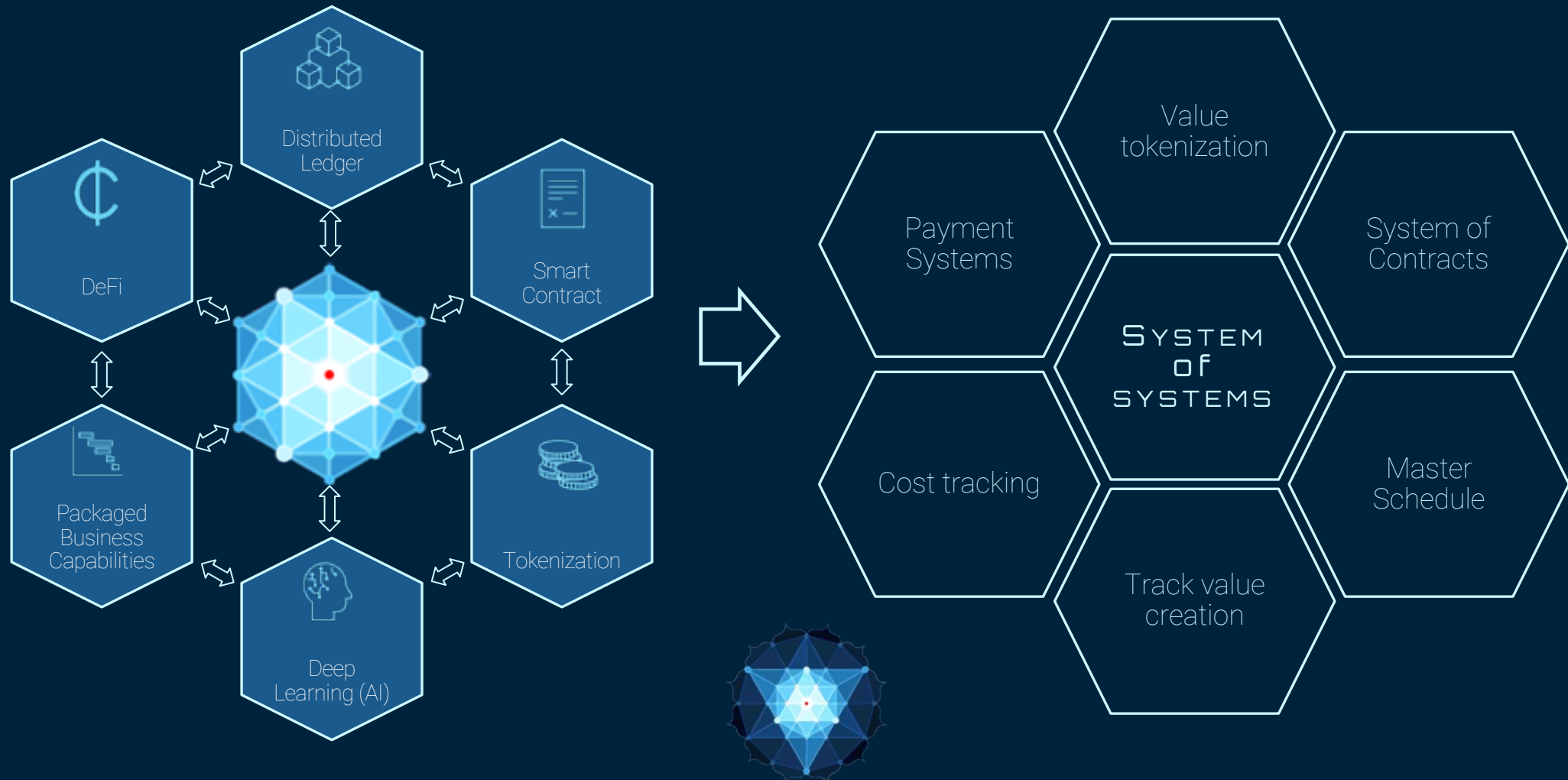


# ANALYZE YOUR PROJECT & LEARN FROM PAST PROJECTS -AI/ML

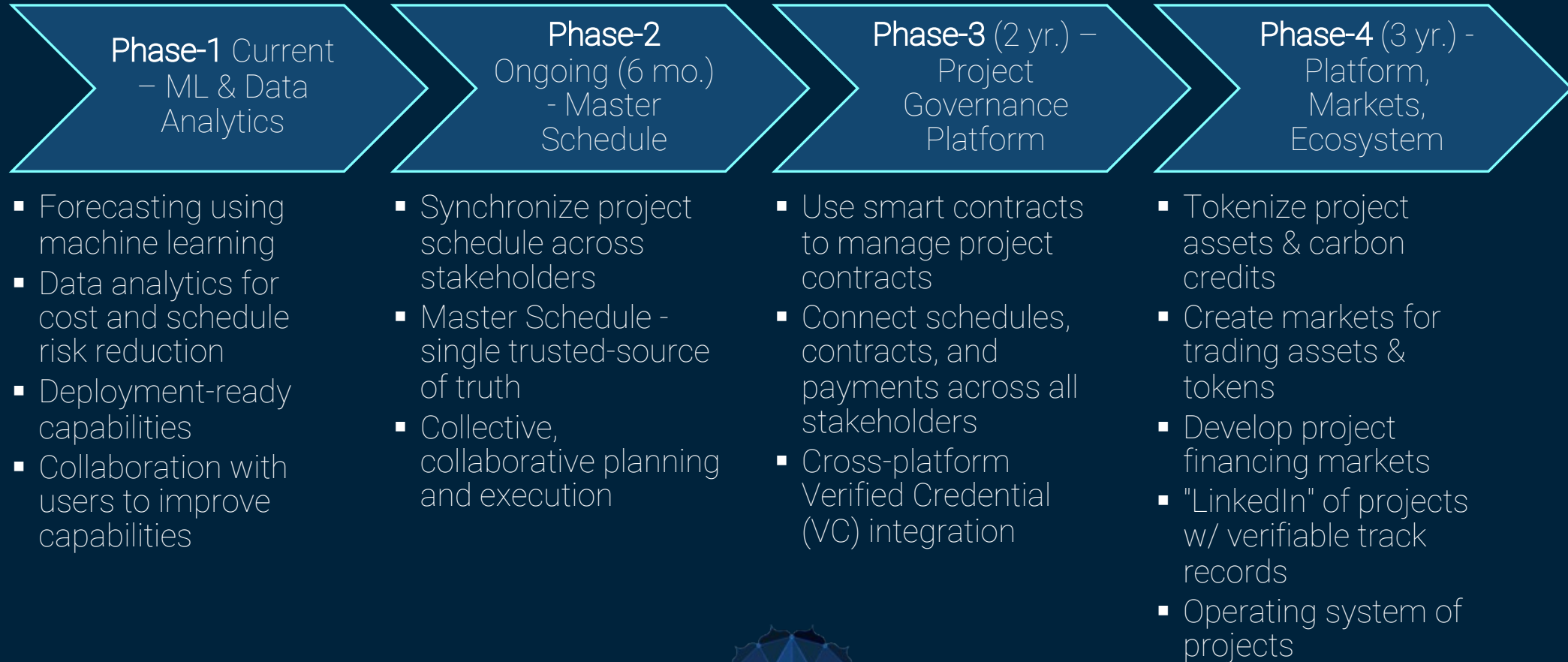


# COLLABORATIVE PLANNING, DISTRIBUTED GOVERNANCE, COLLECTIVE RESPONSE - DLT

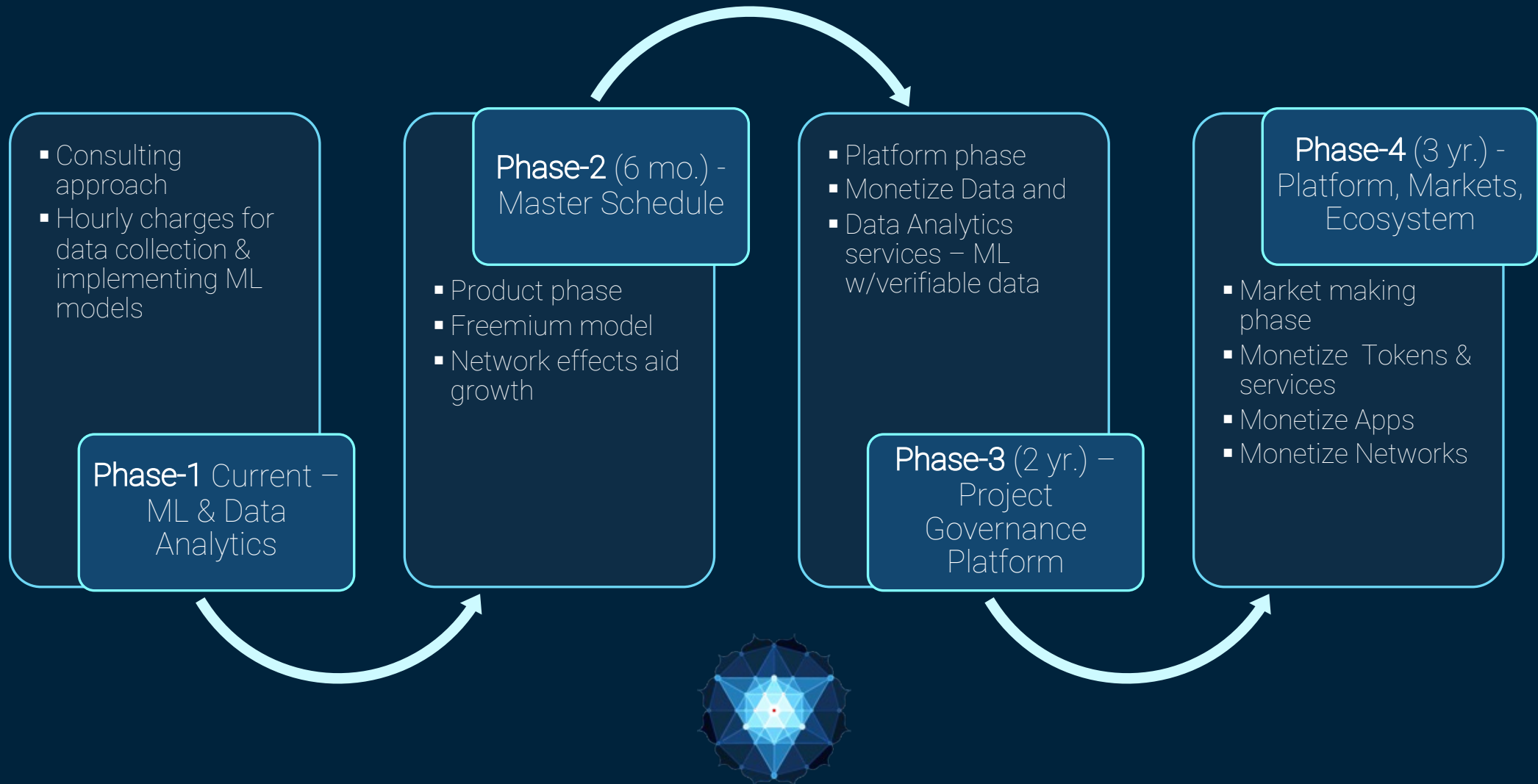
Projects are encoded into a responsive, committed, symbiotic organism comprised of all the stakeholders



# HOW WE GET THERE - PROGRESSION



# GROWTH & BUSINESS MODEL



# MONETIZATION

Monetization will evolve with phase

## Project Consulting

Consulting powered by domain expertise and data analytics

Hourly /rate

Helps to market later capabilities

## SAAS + Advanced Data Analytics

Project Scheduling and Management with advanced analytics & next-gen dashboards

Added value from machine learning, classification and prediction methods.

## Hub of 2 Side Markets

Project services clients ↔  
Project services providers

Project app developers ↔  
Projects

Project financiers ↔  
Project backers

## Value Tokens

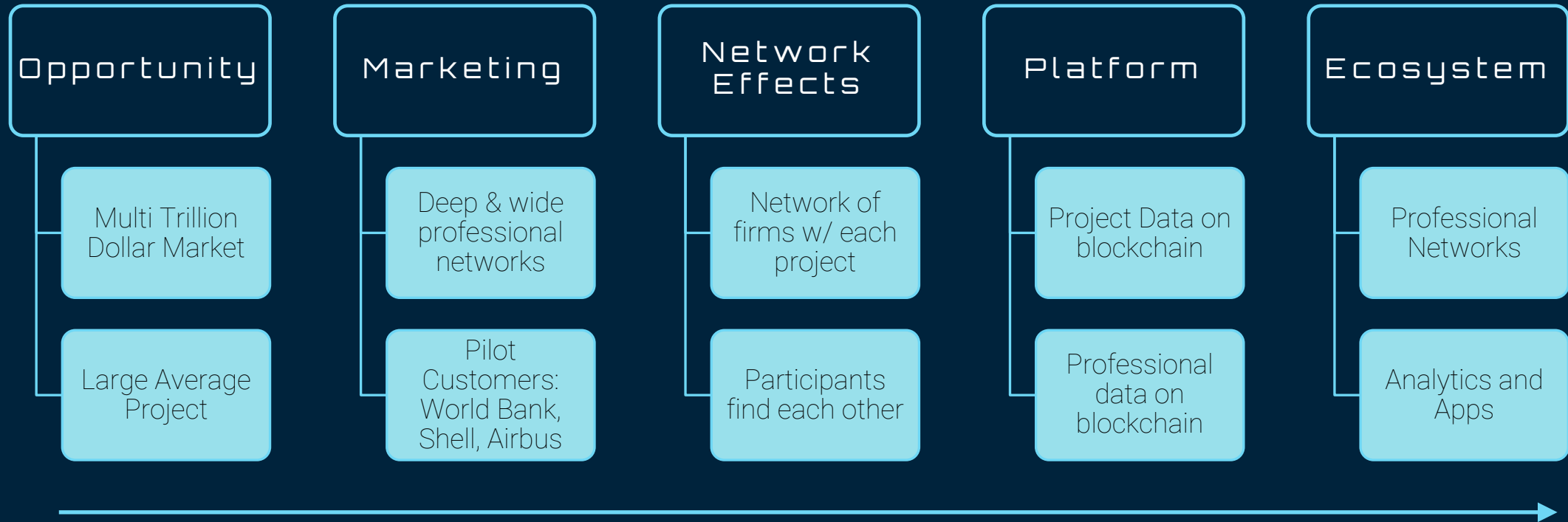
Tokenization of Real-world Assets

Asset-backed tokens  
- *ValTokens represent project assets.*

New ways of funding and trading real projects & assets

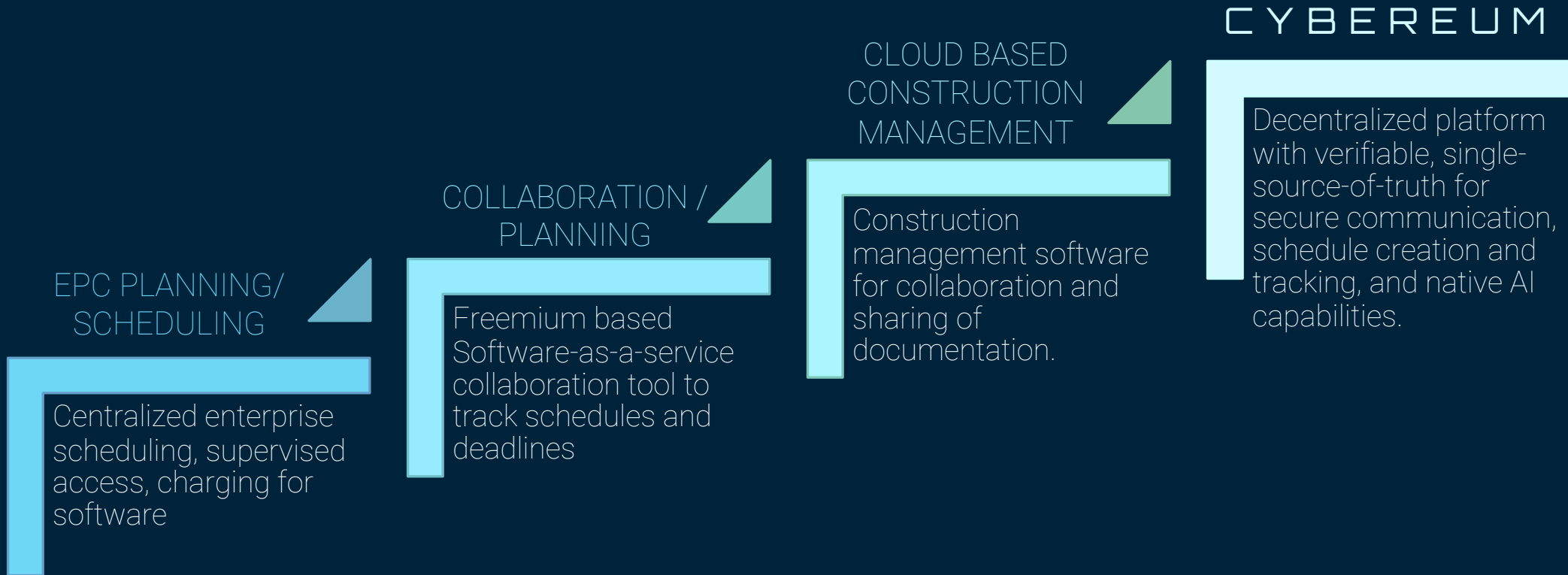


# GO-TO-MARKET FRAMEWORK



# COMPETITORS BECOME COMPLEMENTORS

Groundbreaking Tech | Transformative Business Model | Disruptive go-to-market strategy





# THOUGHT LEADERSHIP- IP & PAPERS

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*Peer-reviewed PMJ paper describing some cybereum forecasting methods:*  
<https://journals.sagepub.com/eprint/QG73TJCSJKF9UHS7WNGB/full>

*Peer-reviewed ACM paper describing cybereum DLT architecture:*  
<https://dl.acm.org/doi/pdf/10.1145/3460537.3460563>

*Patent 1 - US11227282 (Granted Jan 2022):*  
<https://patentimages.storage.googleapis.com/4f/a1/8f/0153b2f2997357/US20200058020A1.pdf>

*Patent 2 - US11074294 (Granted Jul 2021):*  
<https://patentimages.storage.googleapis.com/4b/f8/23/241776c6578f99/US20210004411A1.pdf>

*"IT Risk Management" in Perera S. (ed.) Managing Information Technology Projects, Singapore, World Scientific (Ananth & Geetha)*

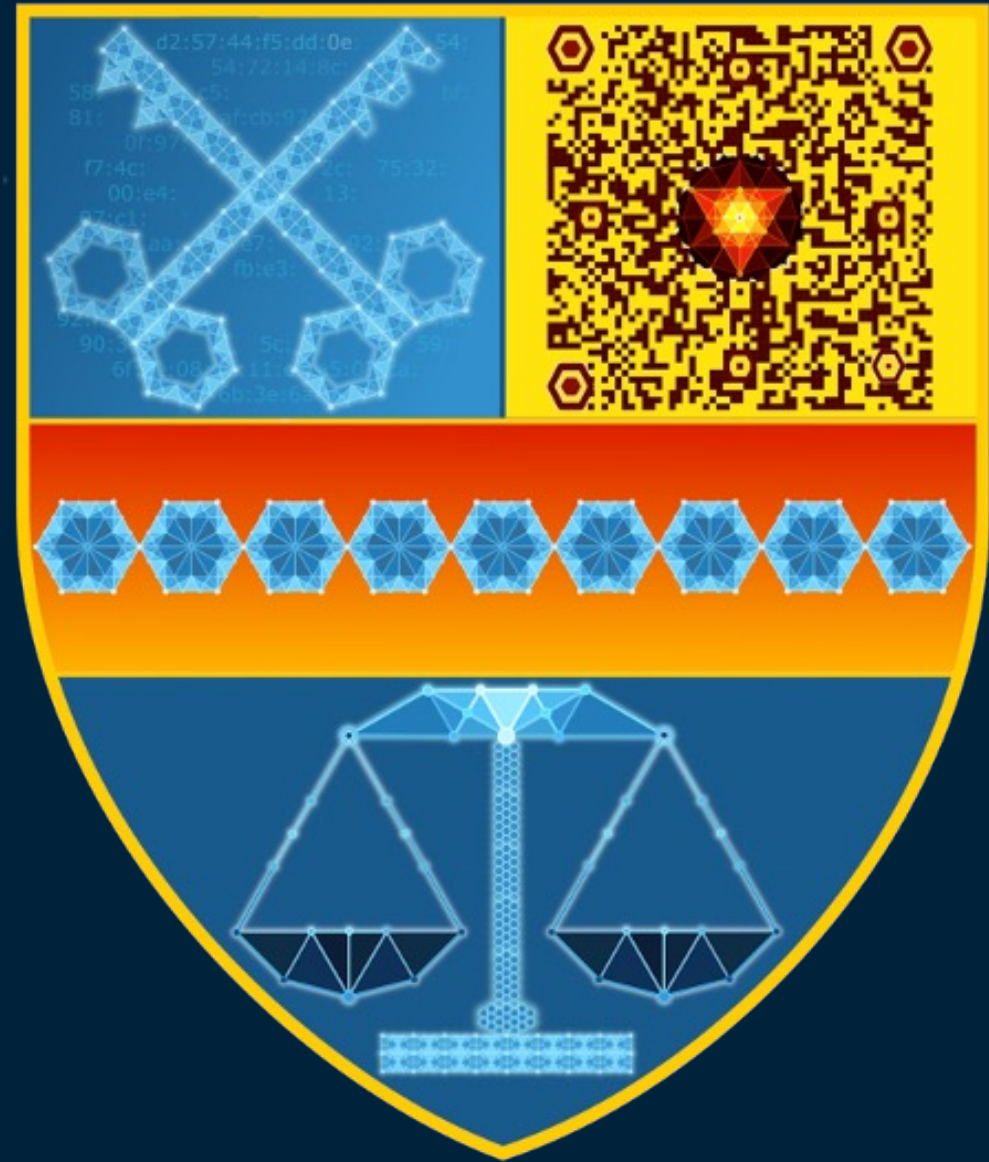
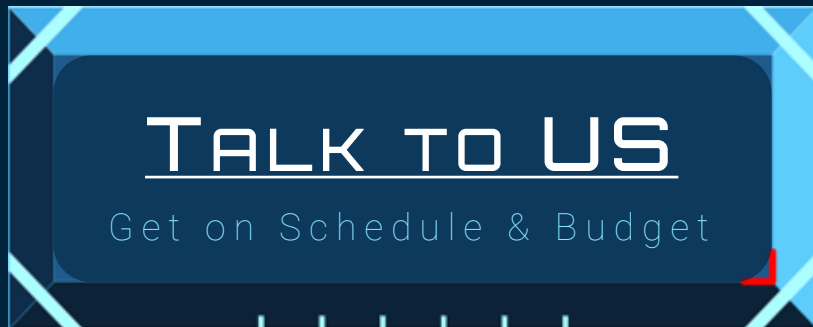
*Paper at EURAM (Dublin, 2023) on digitization, network analysis, AI/ML and blockchain for improving Megaprojects (In Press)*





Increase the efficiency & accountability of organized human endeavor.

Bring a new, reliable, measurable paradigm to Project and Programme Management



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