

IDEAS



IDEAS_o8

On December 2nd, 2013, forty senior leaders from the AEC, Manufacturing and Entertainment industries met at Autodesk University to explore the evolution of their organizations' business models.

Using a practice called Visual Strategy, the participants mapped global drivers, explored the deep structure of their industry, identified emerging workflow and new business models and determined bold steps for new and thriving organizations.

The exercises provided participants with opportunities to work together closely to think through big issues, identify common patterns between industries, and prototype new organizations with new business models that will thrive in a turbulent future.

IDEAS_o8 PARTICIPANTS

Jon	Anunson AIA	URS CORPORATION [GP]	Director, Design Technology	Paul	Murphy	GHD SERVICES PTY LTD [GP]	Global Technical Leader-Property
Paul	Audsley	NBBJ	Principal-Dir Design Technology	William	Nelson	CAMP DRESSER & MCKEE INC	SVP Project Technology Development
Joe	Barr	HANSEN YUNCKEN	CEO	Andreas	Palmlund	PÖYRY OYJ [GP]	SVP Global Engineering Centers
Rob	Bredow	SONY PICTURES IMAGEWORKS	CTO	Ross	Porter	CB&I	Director Global Engineering Systems
Hugh	Dubberly	DUBBERLY DESIGN	Founder	Jon	Pittman	AUTODESK	VP, Strategy
Jan	Fisher	WORLEY PARSONS	National Project Delivery Systems	Brian	Rogers	M+W	Head of Group Engineering Efficiency
Bane	Gaiser	HNTB	VP - Architecture Practice Leader	JP	Saini	TRC COMPANIES	CIO
Paul	Gibson	EXP GLOBAL INC [GP]	Exec VP, Building	Nathan	Shedroff	CCA	Program Chair, MBA Design
Nils	Gustavsson	POREX	SVP/GM OEM Technology	Alvise	Simondetti	ARUP	Global Leader, Virtual Design
Elizabeth	Harper	GHD SERVICES PTY LTD [GP]	Chief Information Officer (CIO)	Hendrik-Jan	Smaal	HEIJMANS	Chief Information Officer
Mark	Hatch	TECHSHOP	CEO	Greg	Smith	EVANS CONTROLS	CEO
Andy	Hendrickson	WALT DISNEY ANIMATION	CTO	Friedrich	Spitzer	VOITH IT SOLUTIONS	General Manager
John	Jacobs	JE DUNN	Senior Vice President	Kevin	Sticht	CANNON DESIGN	COO
Brian David	Johnson	INTEL CORPORATION	Futurist	Maurice	Tayeh	MCDERMOTT INC.	VP & Chief Information Officer
Karim	Khalifa	MARRIOTT	SVP	Dick	Thomas	SHP ARCHITECTS	VP
Sue	Klawans	GILBANE	VP of Operational Excellence	Luca	Tiepolo	DANIELI OFFICINE	Chief Information Officer
Jochen	Köhler	PERI	Head of Engineering and Design	Lincoln	Wallen	DREAMWORKS	CTO
Dr. Jürgen	Kussi	BAYER TECHNOLOGY SERVICES	Vice President / Head Plant Layout	Markus	Weidner	PENNONI	CIO
Matthew	Kyte	ARCADIS NV	CIO EMEA	Jon	Williams	BECA GROUP	Director
Patrik	Lindvall	NCC	VDC Integration Director	Kenneth	Wiseman	CANNON DESIGN	President, Professional Services
Chris	Luebke	ARUP	Director Global Foresight	Tom	Wujec	AUTODESK INC	Fellow
Mike	McCullough	WALT DISNEY IMAGINEERING	VP Environmental Design Engineering				

NEW BUSINESS MODELS

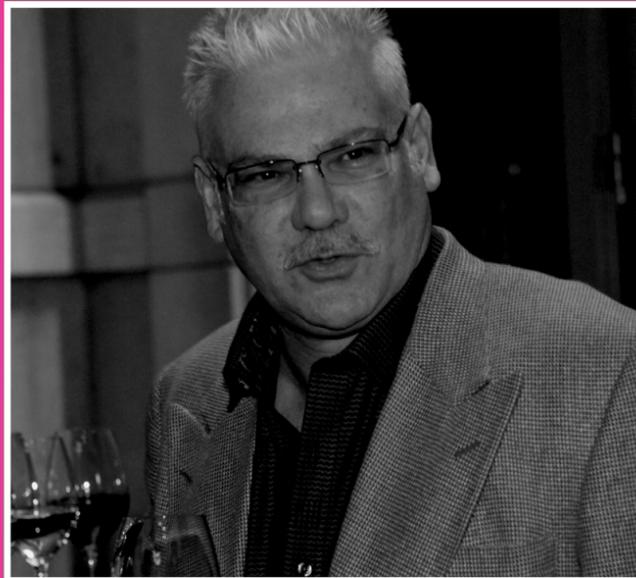
The participants developed seven new business models in their industries.

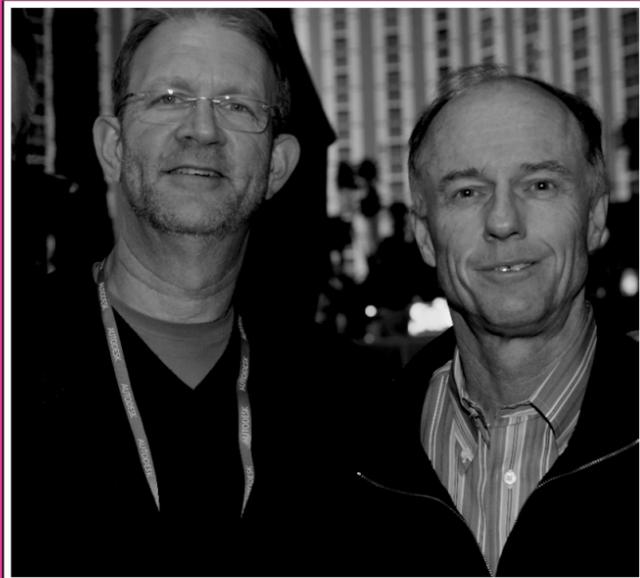
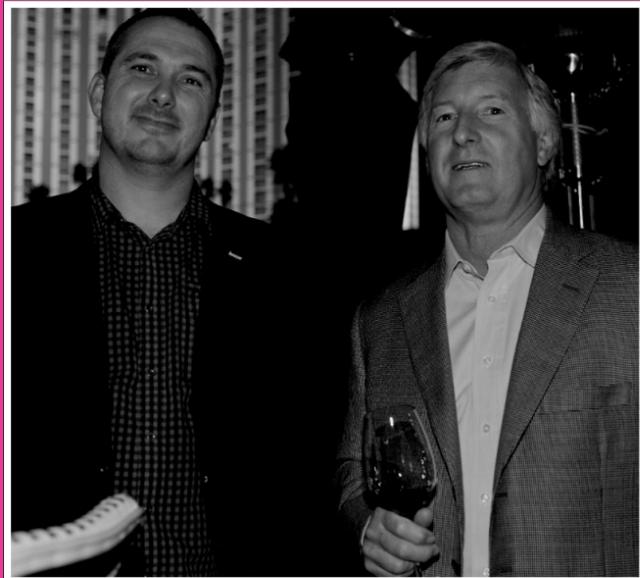
Common themes emerged:

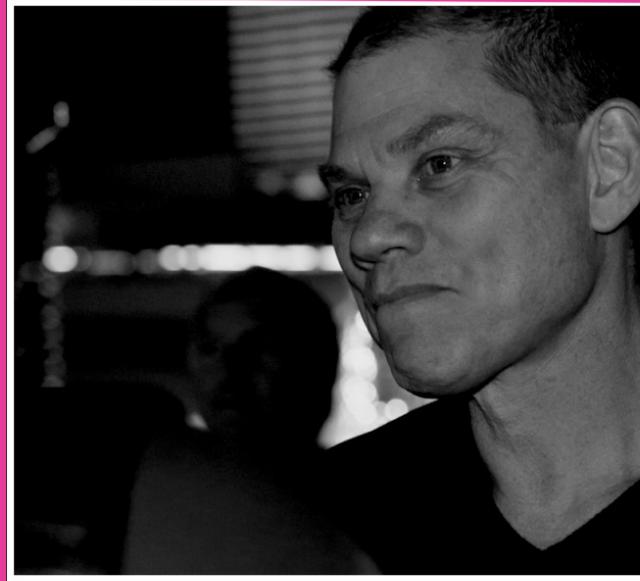
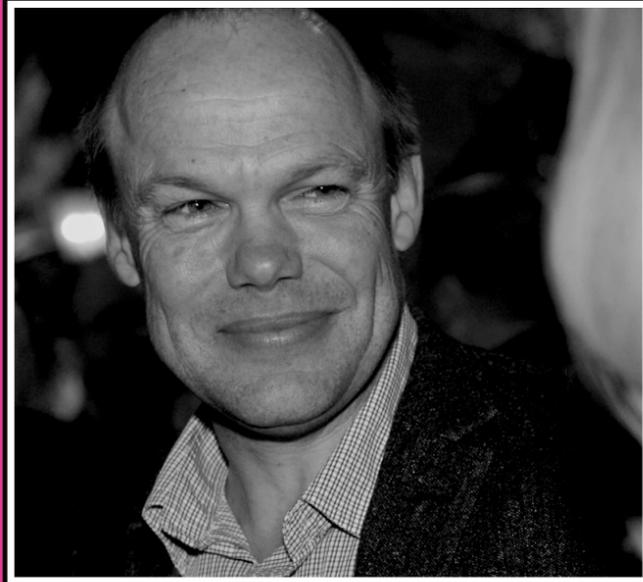
- To thrive in the evolving economies, businesses must deliver more complete service offerings, rather than point solutions.
- Success depends on creating new mechanisms and incentives for collaboration with clients and partners delivering services.
- Businesses must incorporate more data driven decision-making approaches.
- There are many more opportunities to include successive prototyping at all levels of business.

IDEAS 08 RECEPTION









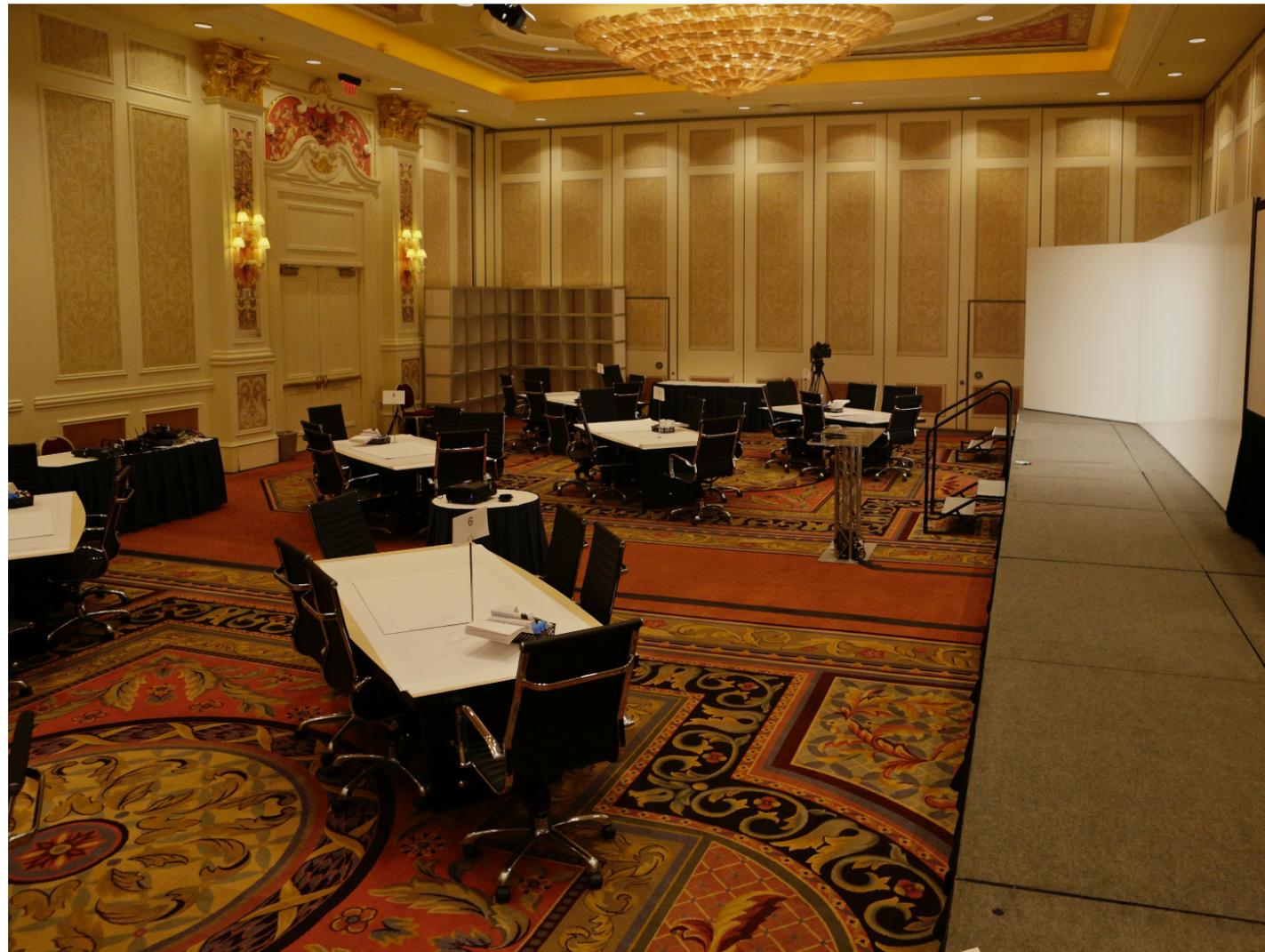
WELCOME & INTRODUCTION



WELCOME AND INTRODUCTION

Jon Pittman, VP Autodesk Strategy welcomed the participants to IDEAS.

Tom Wujec, Autodesk Fellow, acted as the facilitator, leading the group through the exercises.



INTRODUCTION

The goal of the workshop was to collectively explore how to reinvent the business models of design. Using the Visual Strategy approach, participants engaged in a series of systems model exercises to map out the key business model elements.



INTRODUCTION

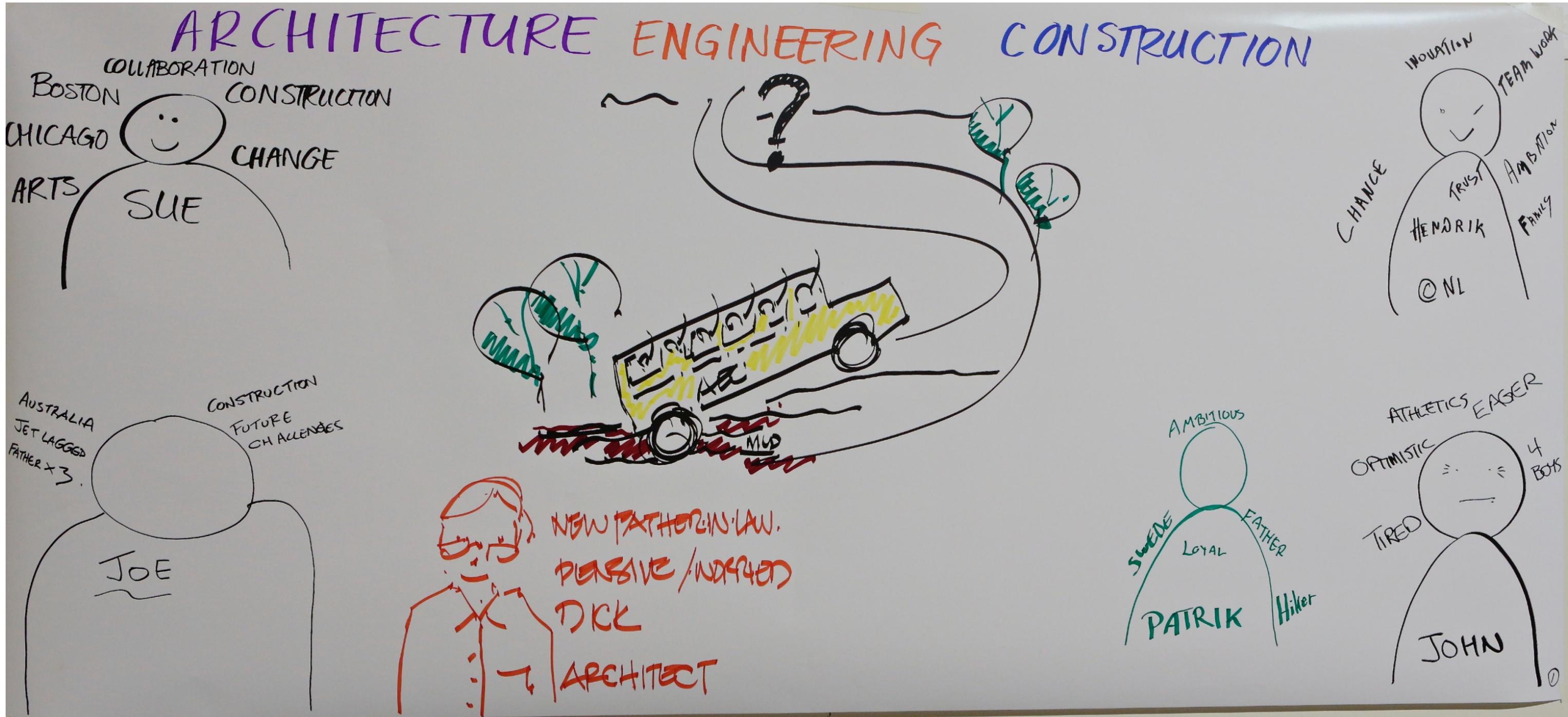
The workshop began with a warm up exercise which involved drawing pictures of how they felt about their industry today.

Working in industry teams, these drawings became incorporated into team posters that charted collective attitudes and introduced the participants.



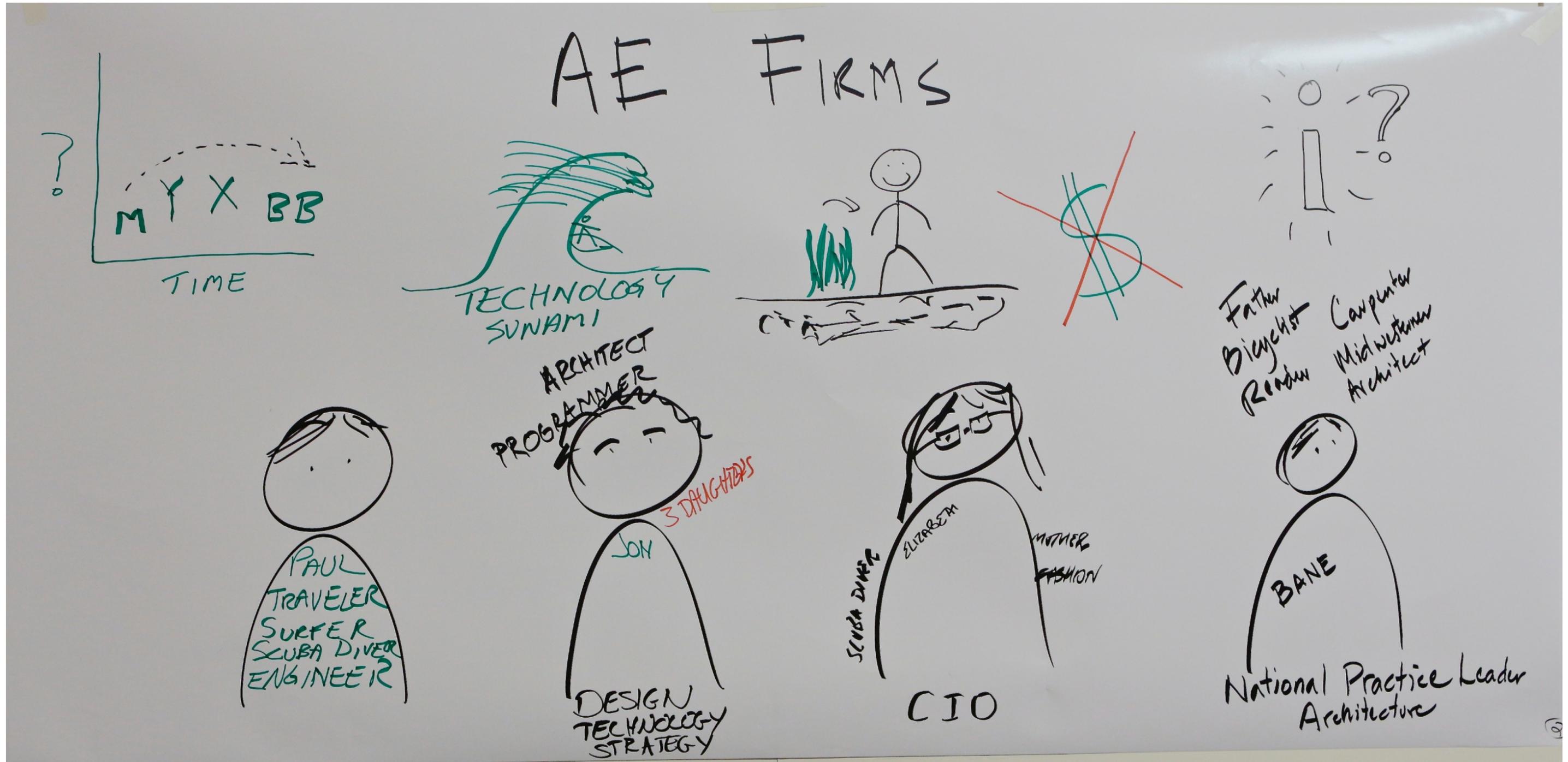
INTRODUCTION

TEAM ONE:
Architecture, Engineering, Construction



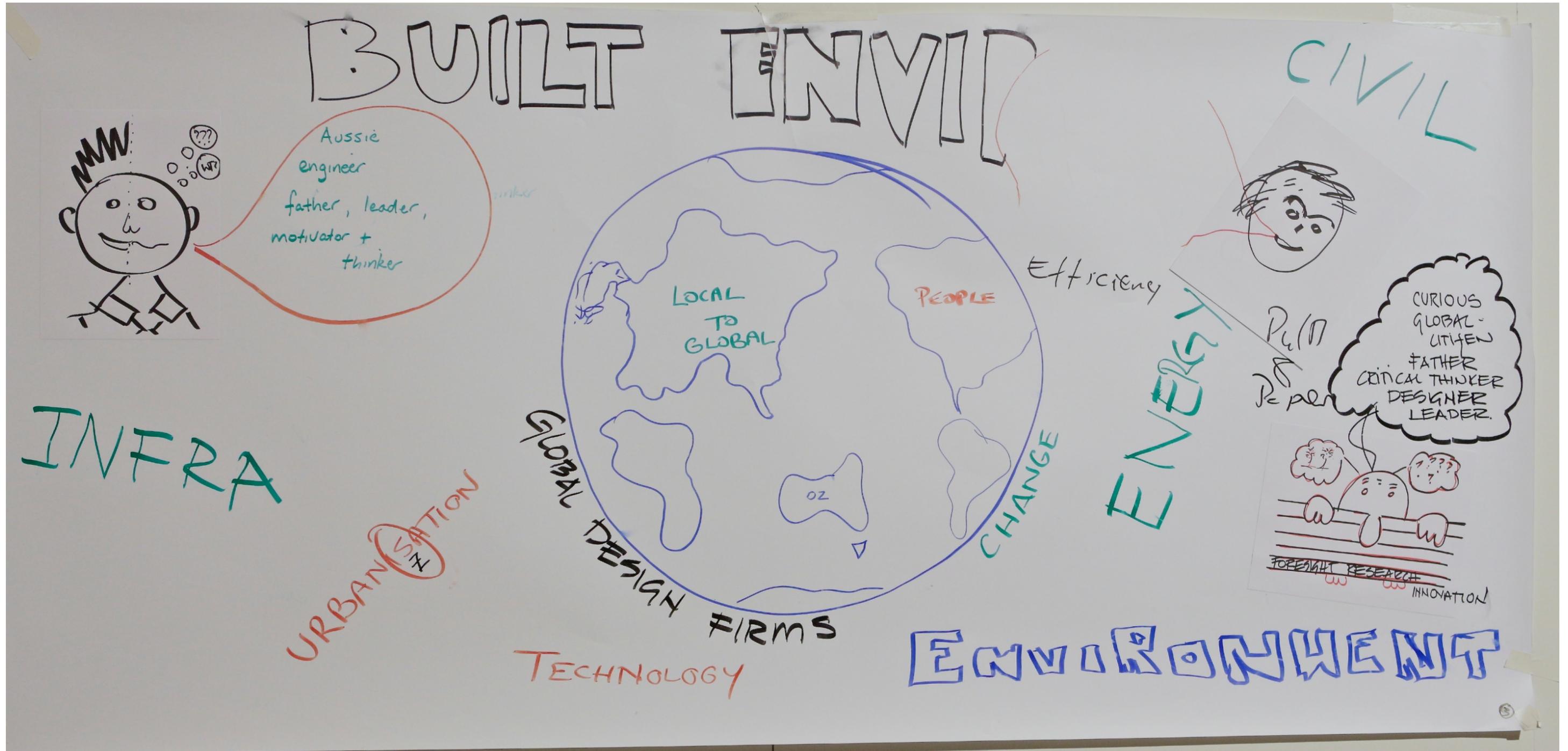
INTRODUCTION

TEAM TWO:
Architecture, Engineering, Firms



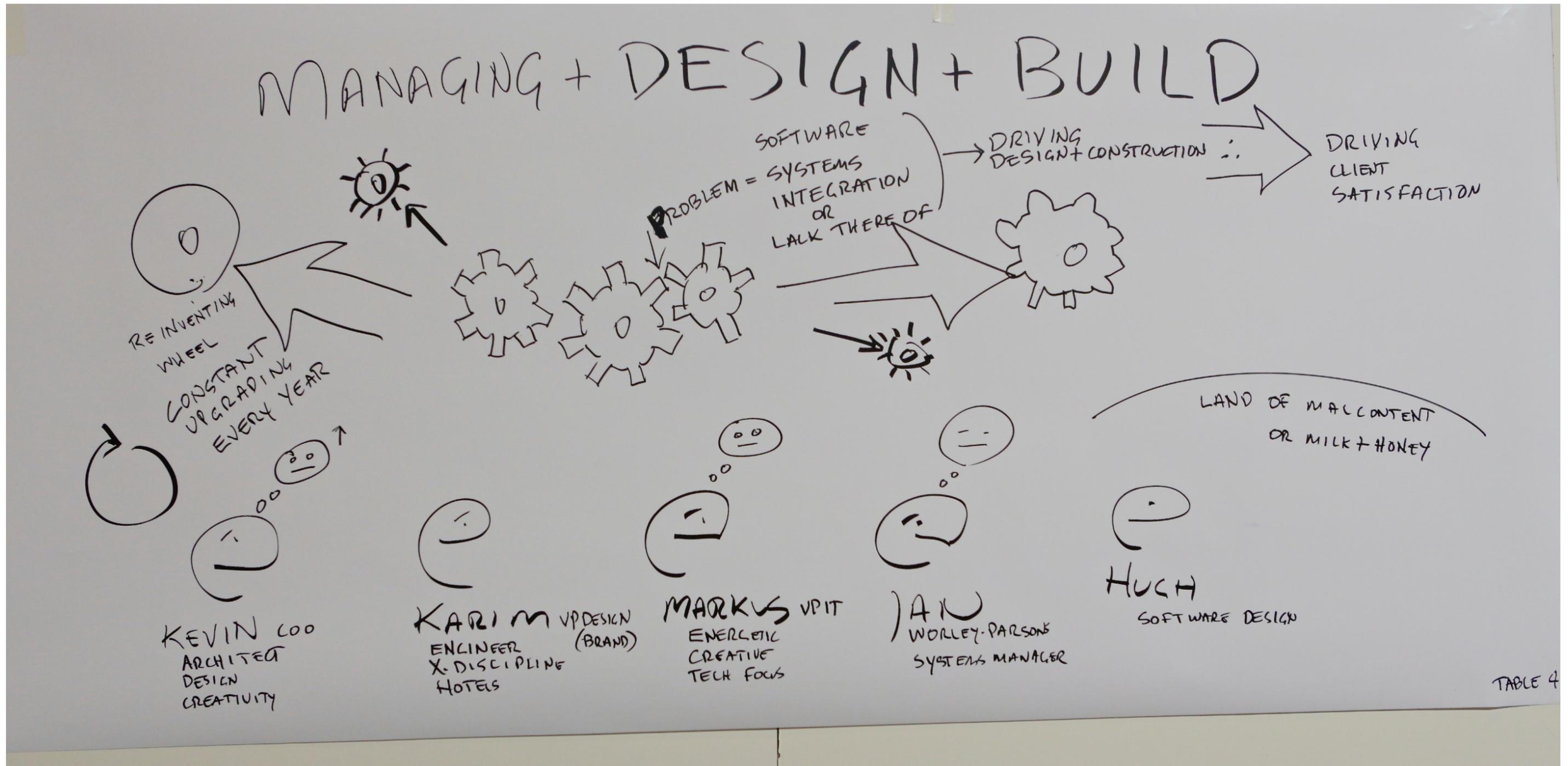
INTRODUCTION

TEAM THREE:
Built Environment



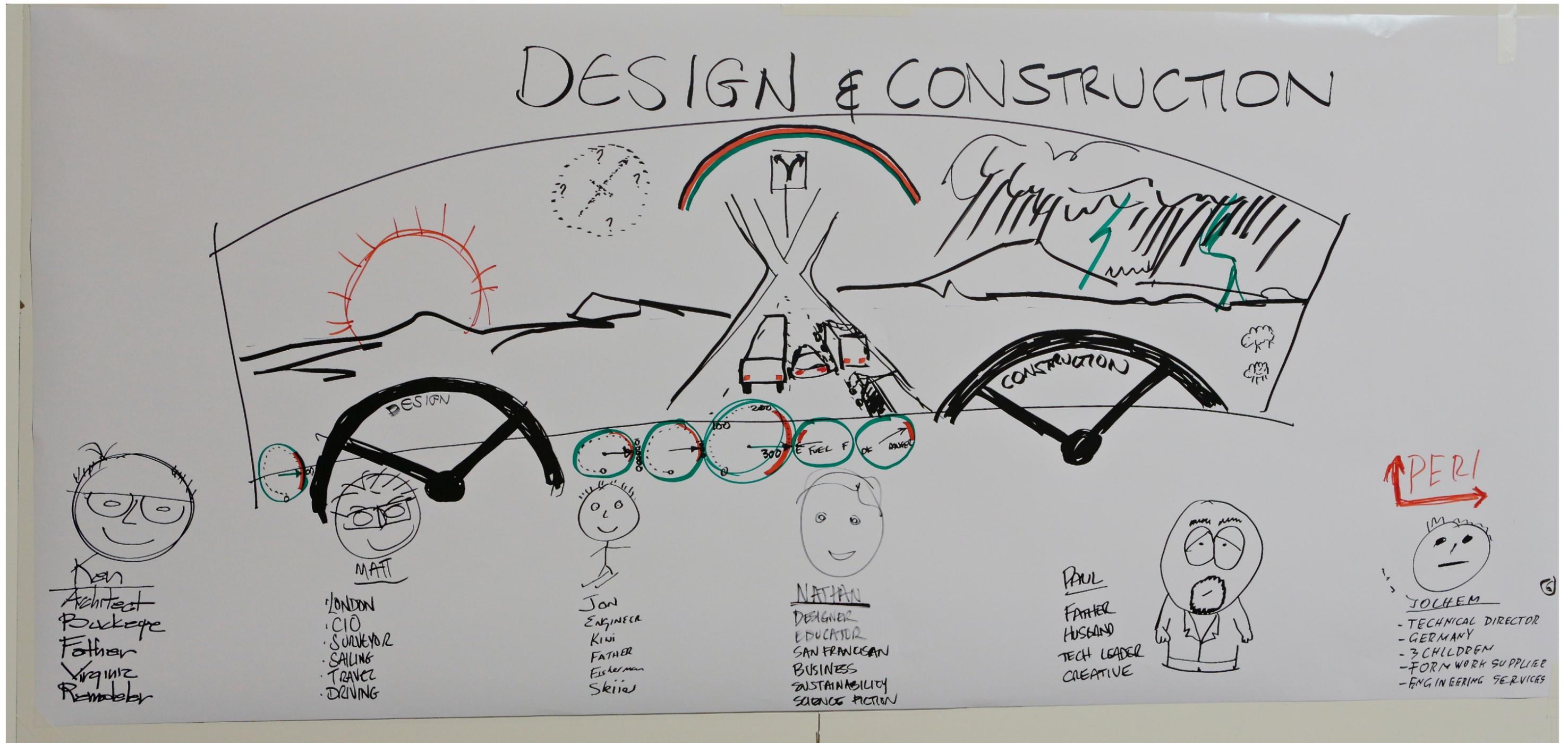
INTRODUCTION

TEAM FOUR: Managing Design & Build



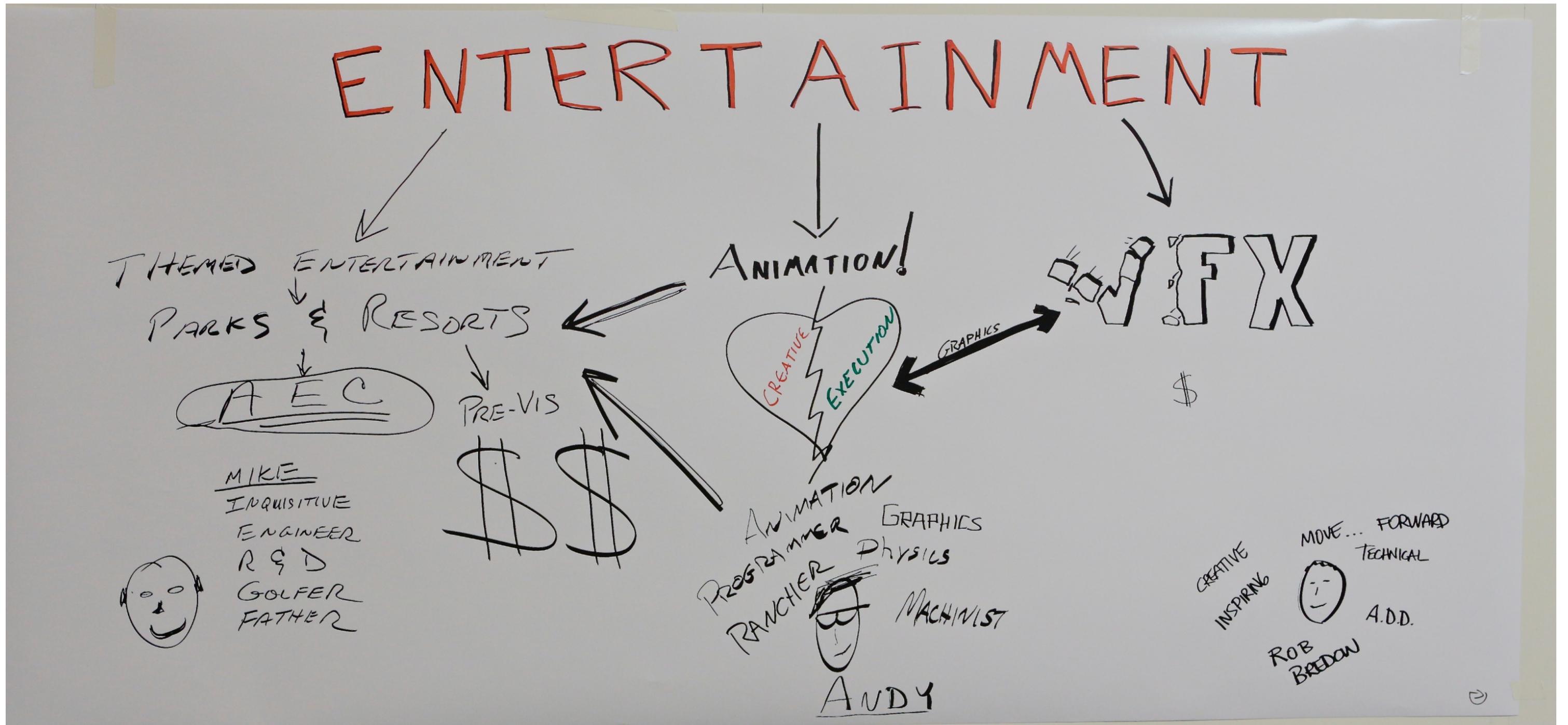
INTRODUCTION

TEAM SIX:
Design & Construction



INTRODUCTION

TEAM SEVEN:
Entertainment



SYSTEMS THINKING



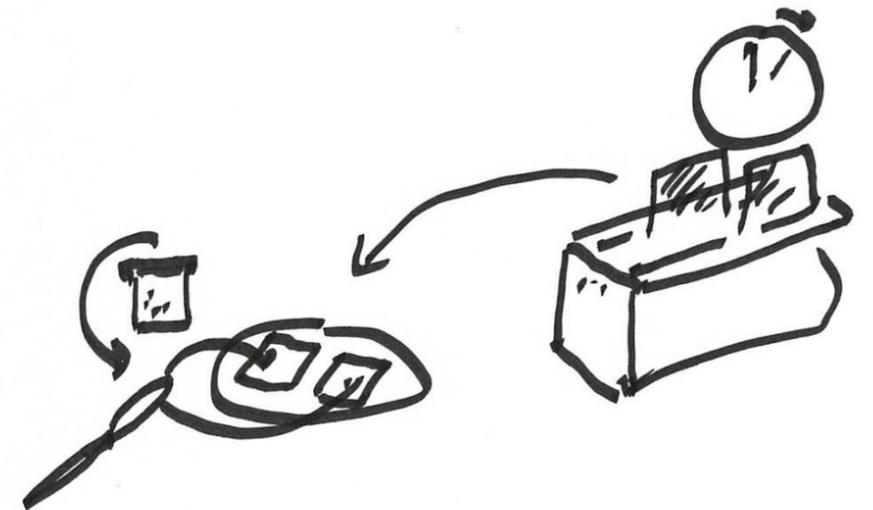
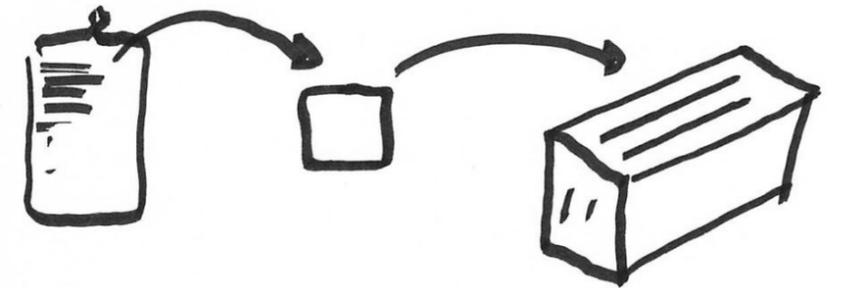
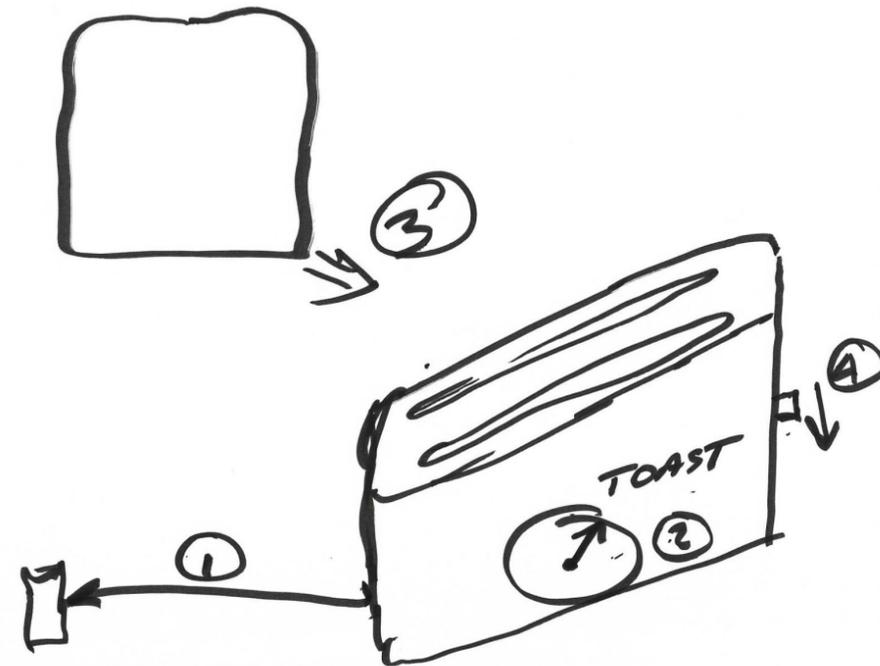
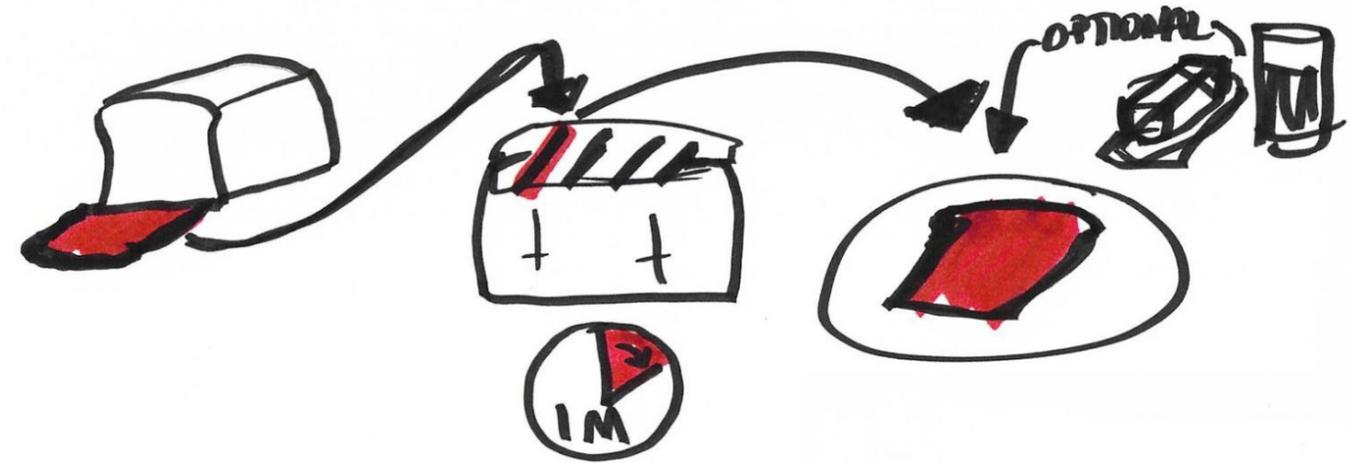
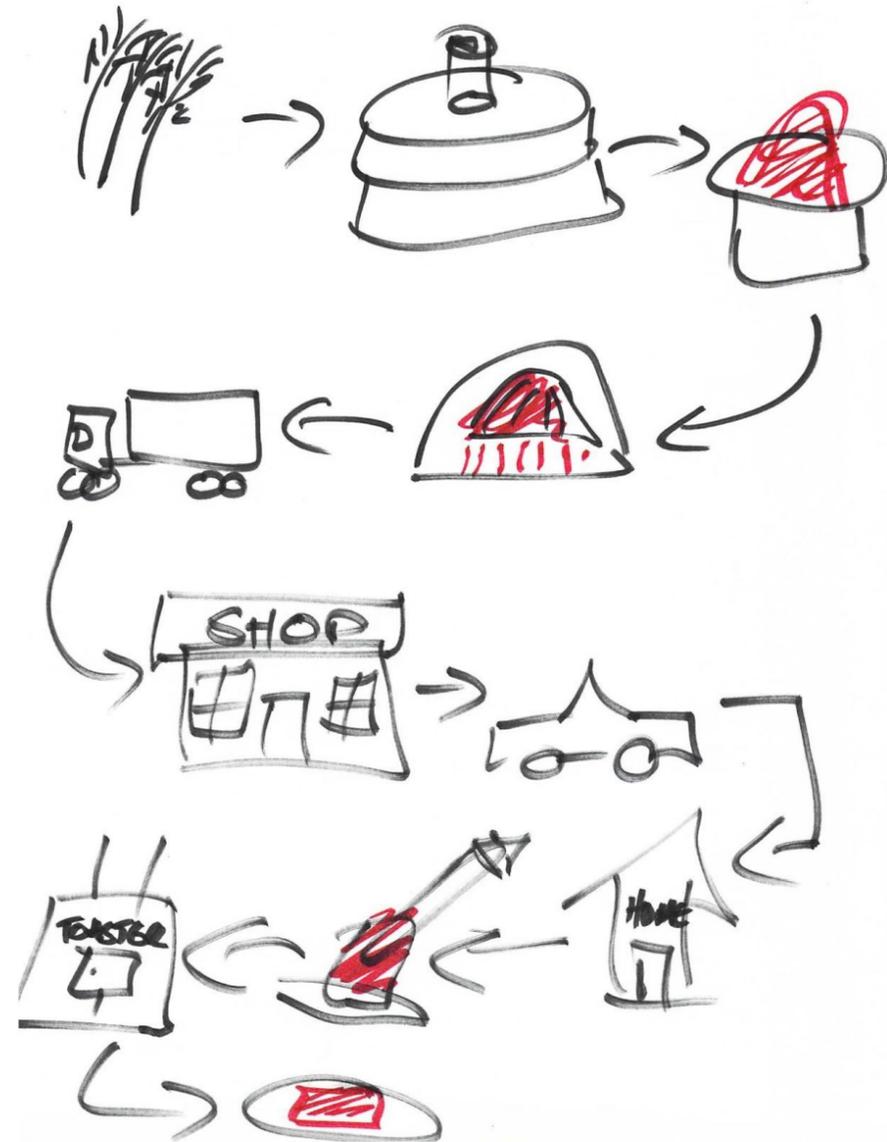
SYSTEMS THINKING

Participants continued with an exercise called 'Draw How to Make Toast' which provided a shared framework on systems thinking.

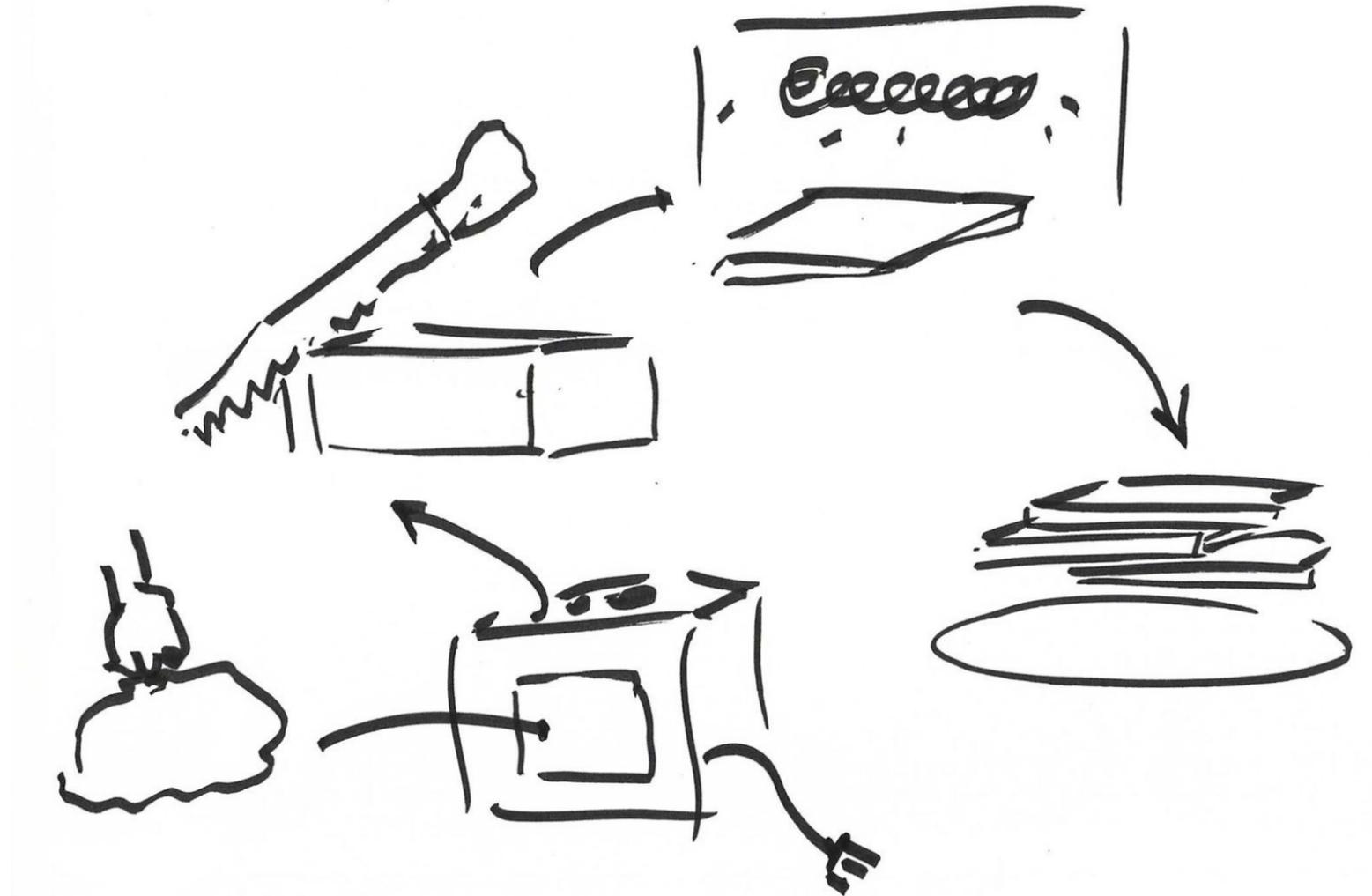
The essential nature of diagramming is to identify parts of the a system and label them as nodes and identify the connections between the nodes as links. The combination of links and nodes produces a visual model of a system.



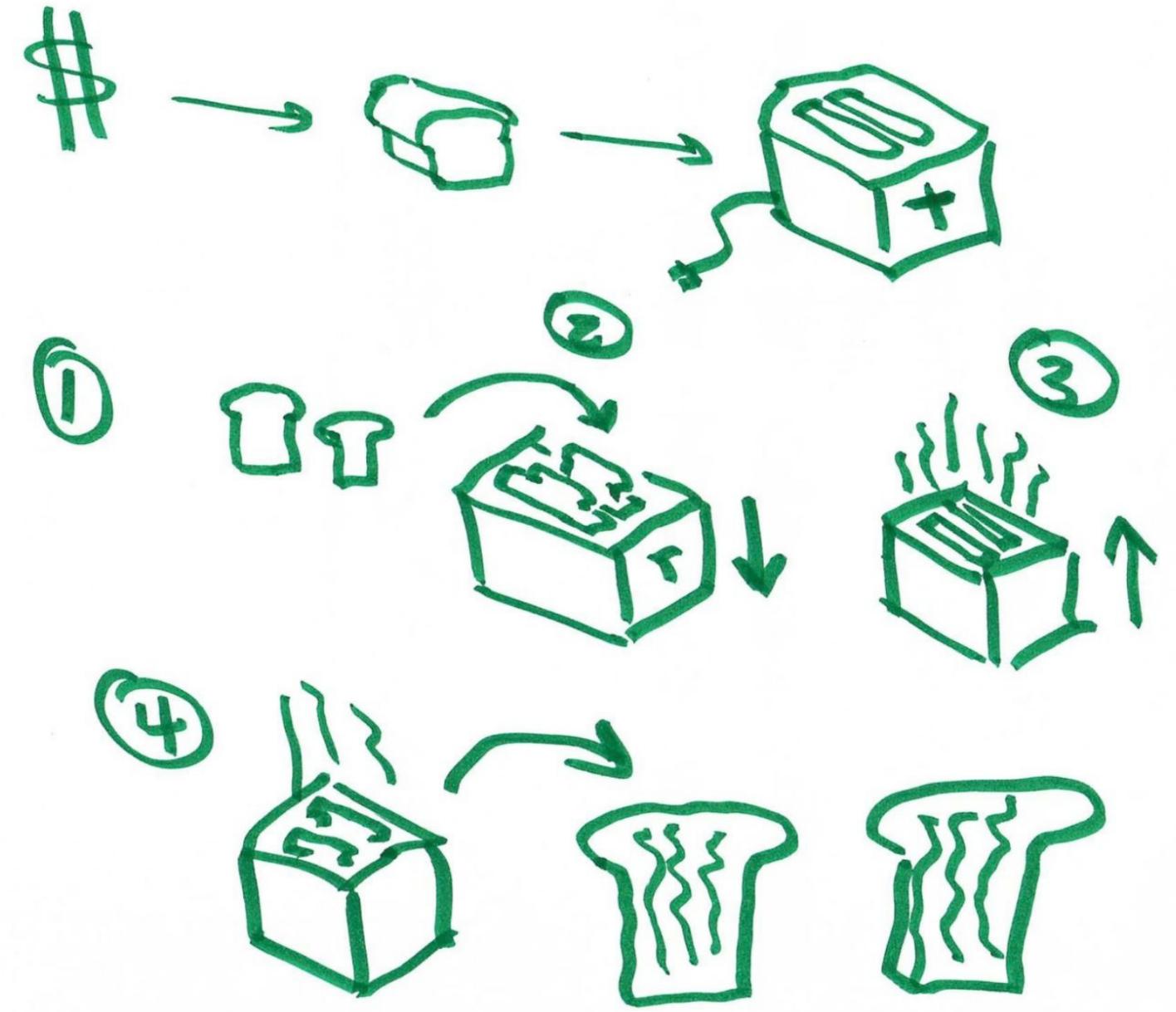
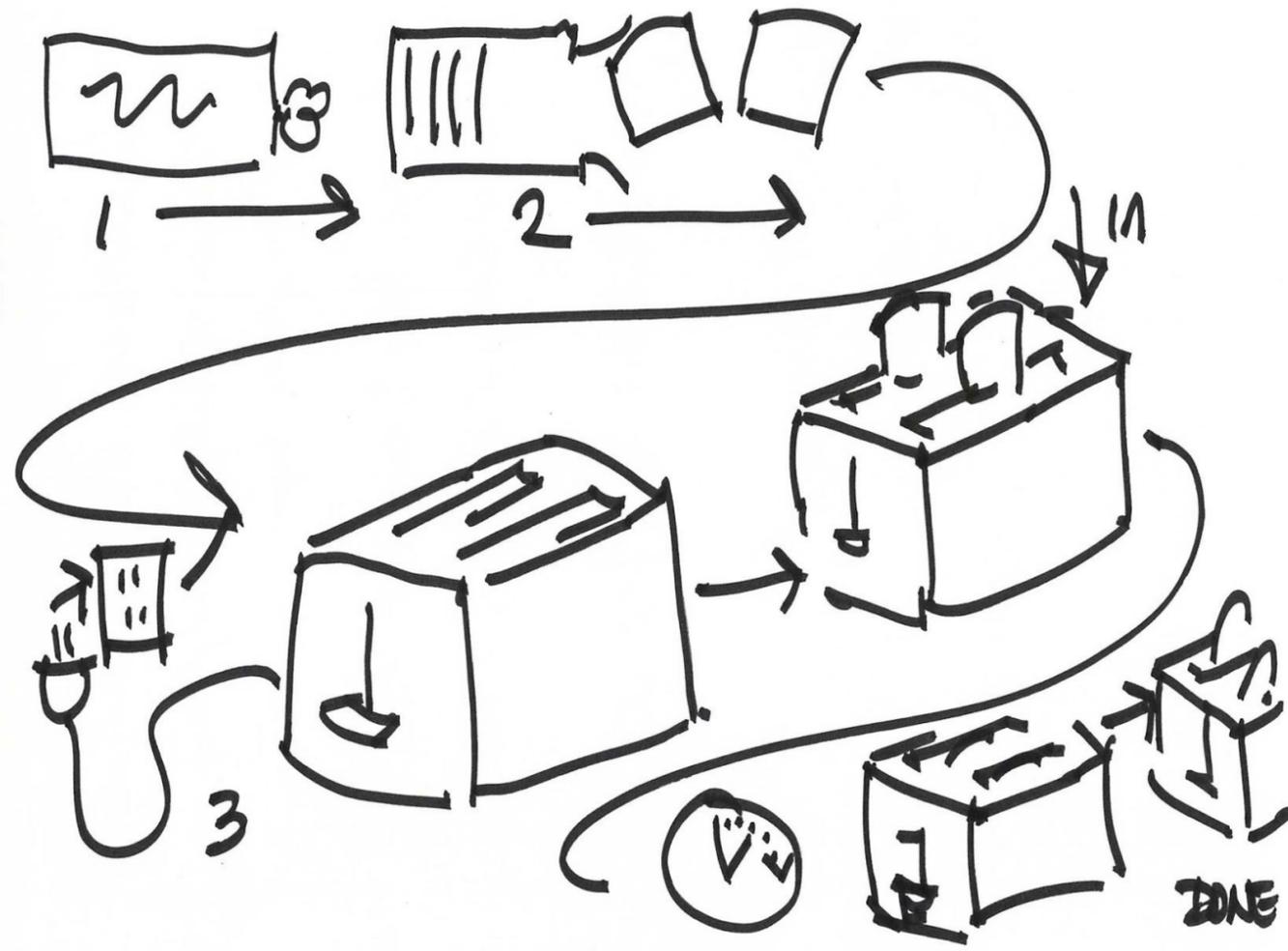
HOW TO MAKE TOAST DRAWINGS



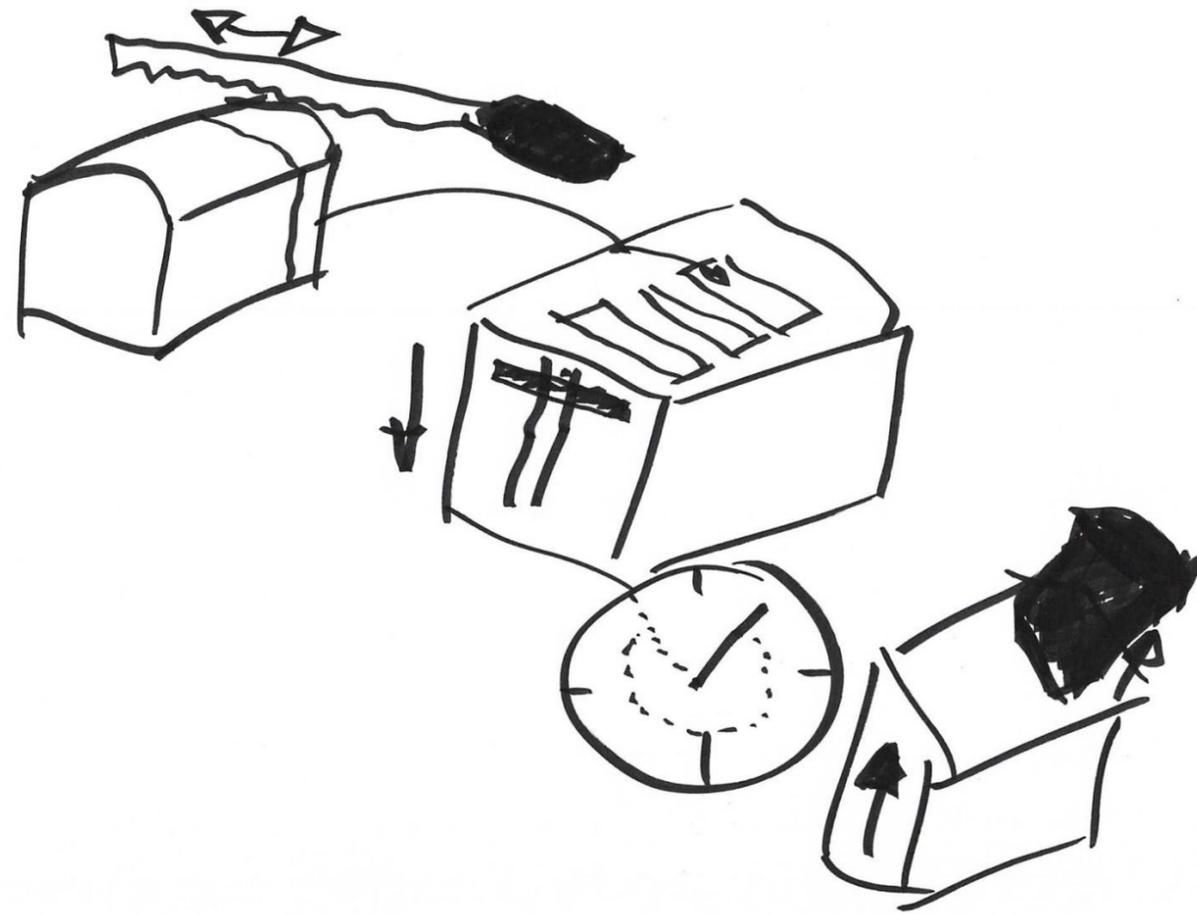
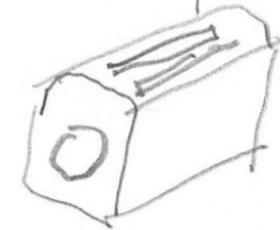
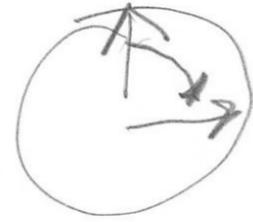
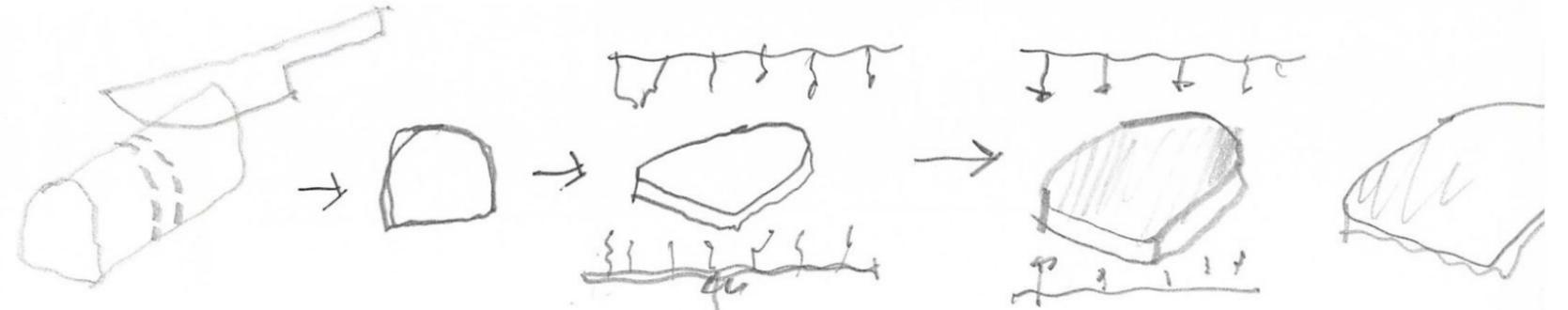
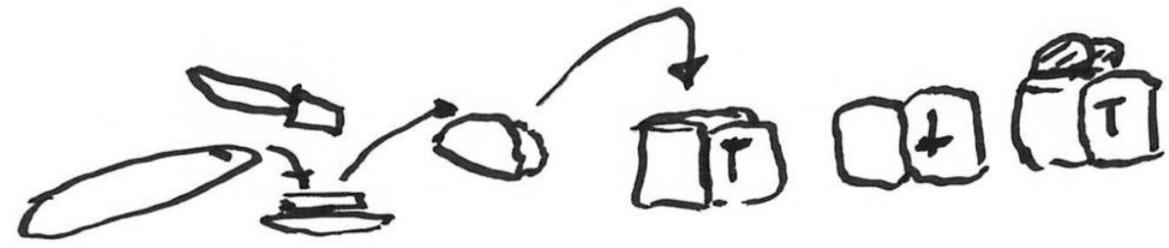
HOW TO MAKE TOAST DRAWINGS



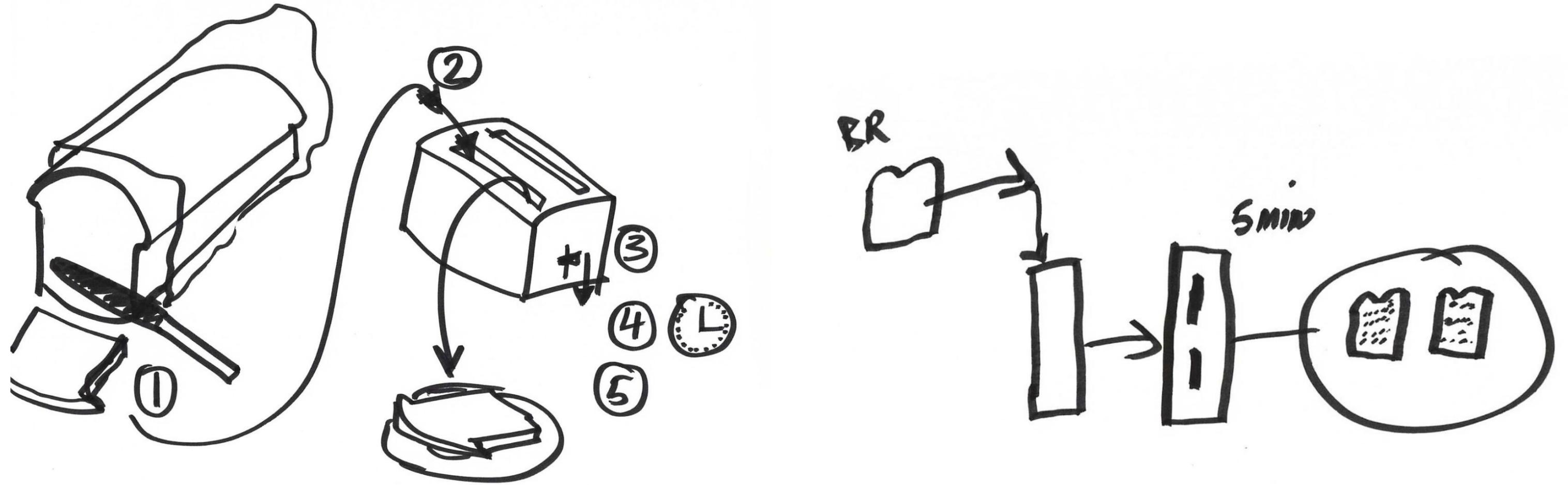
HOW TO MAKE TOAST DRAWINGS



HOW TO MAKE TOAST DRAWINGS



HOW TO MAKE TOAST DRAWINGS



BUSINESS MODEL SYSTEMS THINKING

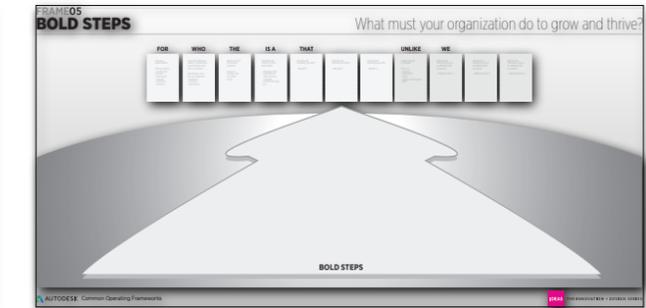
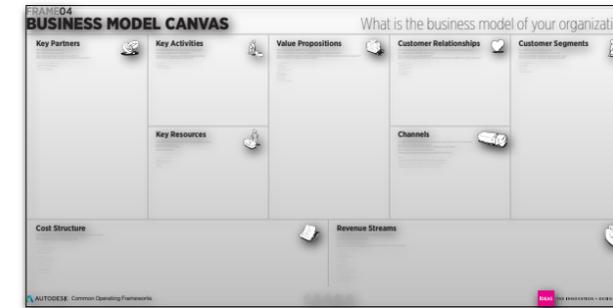
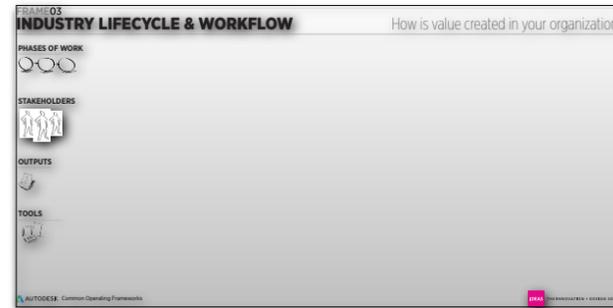
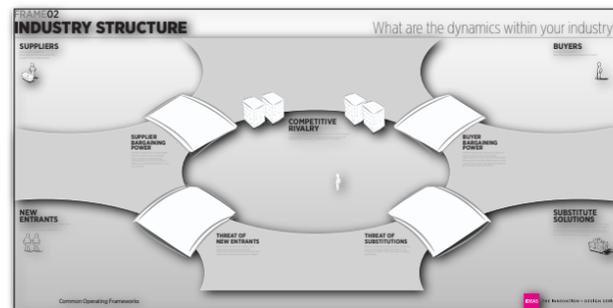
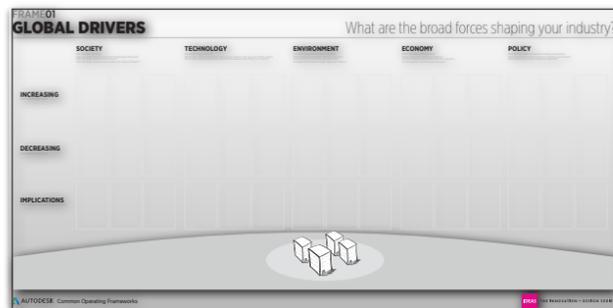
The remaining bulk of the workshop focused on developing comprehensive systems models at five focal settings.

- 1) Global Drivers
- 2) Industry Structure
- 3) Workflow and Life Cycle
- 4) Business Model
- 5) Bold Steps for Success

Each systems model provided participants with a way to identify key nodes, analyze their relationships and synthesize their meaning.

FIVE KEY QUESTIONS

The workshop identified five central topics for discussion, each of which had its own systems diagram.



WHAT BROAD FORCES ARE SHAPING YOUR INDUSTRY?

WHAT IS CHANGING IN YOUR INDUSTRY?

HOW ARE ORGANIZATIONS CREATING VALUE?

HOW ARE BUSINESS MODELS CHANGING?

WHAT MUST ORGANIZATIONS DO TO THRIVE?

FRAME 01 GLOBAL DRIVERS

FRAME 01 GLOBAL DRIVERS

SOCIETY

• Younger people developing relationships through technology vs. human interaction

• Aging population in the world

• We've been transformed to a society of entitlement
- coffee orders
- retail service expectations

• Society is becoming more pluralistic

• IMMEDIATE ACCESS TO INFORMATION
• ALWAYS CONNECTED
• INCREASING COMMITMENT TO FAMILY/WORK BALANCE

• Social Sustainability is driven by Globalization

TECHNOLOGY

• DATA CENTRIC
• PERSUASIVE COMPUTING
• DIGITAL COLLABORATION
• DATA DRIVEN DECISION MAKING

ENVIRONMENT

ECONOMY

DECREASING

IMPLICATIONS

FRAME 01

GLOBAL DRIVERS

The first focal setting identified the major relevant forces in five categories:

- Society
- Technology
- Economy
- Environment
- Politics

Within each category, participants determined what has increasing, decreasing, and what reached a milestone.

With these factors identified, each group developed a thesis of the central impact of the changing world on their industry.

FRAME01 GLOBAL DRIVERS

What are the broad forces shaping your industry?

SOCIETY

*How is society changing?
How are people changing? Physically? Emotionally? Physically?
What are people doing more of? Less of?
What trends do you see in cultural behaviors, values and beliefs?*

TECHNOLOGY

*How is technology evolving?
Which tools - digital and physical - are having an impact on the way your industry operates?
Which technologies have the greatest potential to advance and disrupt your industry?*

ECONOMY

*What is the state of the economy?
Locally? Regionally? Nationally? Globally?
How does the economic climate affect the ecosystem of your suppliers, customers and employees?*

POLICY

*Which policies, laws and regulations shape your industry?
What new regulations will augment or constrain your business?
How much is your business shaped by legislation?*

INCREASING

Which factors are growing?

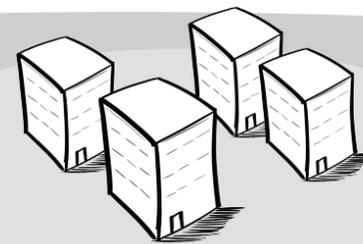
DECREASING

Which factors are shrinking?

IMPLICATIONS

What do these trends mean for your industry?

WHAT BROAD FORCES ARE SHAPING YOUR INDUSTRY?



SOCIETY

How is society changing?

How are people changing? Physically? Emotionally? Physically?

What are people doing more of? Less of?

What trends do you see in cultural behaviors, values and beliefs?

Three empty dashed rectangular boxes arranged horizontally, intended for taking notes or drawing related to the text above.

TECHNOLOGY

How is technology evolving?

Which tools - digital and physical - are having an impact on the way your industry works?

Which technologies have the greatest potential to advance and disrupt your industry?

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ENVIRONMENT

*How is the physical environment changing?
Which environmental drivers affect your business?
From local living conditions to global changes,
how does environmental change shape your industry?*

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ECONOMY

*What is the state of the economy?
Locally? Regionally? Nationally? Globally?
How does the economic climate affect the ecosystem
of your suppliers, customers and employees?*

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POLICY

Which policies, laws and regulations shape your industry?

What new regulations will augment or constrain your business?

How much is your business shaped by legislation?

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INCREASING

Which factors are growing?

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DECREASING

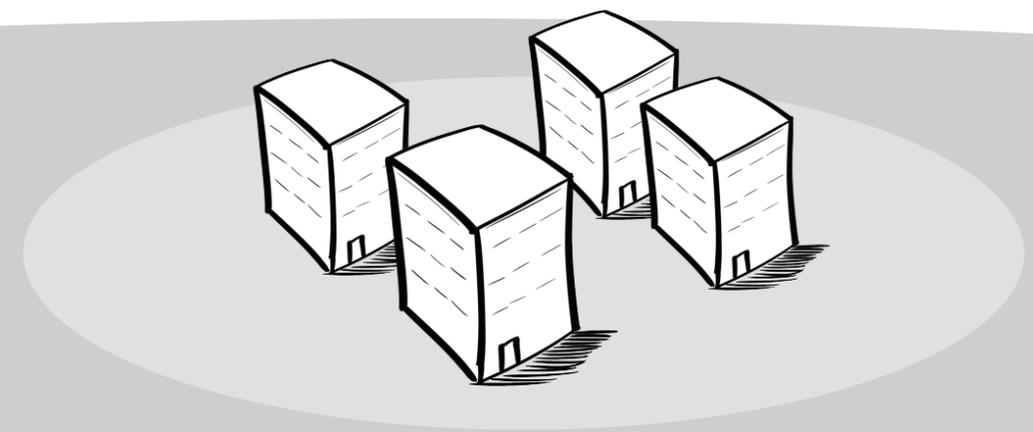
Which factors are shrinking?

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IMPLICATIONS

What do these trends mean for your industry?

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GLOBAL DRIVERS PRESENTATIONS

Each team delivered a short presentation describing their themes.



GLOBAL DRIVERS

TEAM ONE:

Increased demand for speed of cost reduction.

FRAME 01 | 1 AEC INDUSTRY

GLOBAL DRIVERS

What are the broad forces shaping your industry?

SOCIETY

How is society changing? Which factors are driving change? How are people doing more of? Less of? What trends do you see in cultural behavior?

- Younger people developing relationships through technology vs. human interaction
- We've been transformed to a society of entitlement - coffee orders, retail service expectations
- Aging population in the industrial world
- Society is becoming more pluralistic!
- INCREASING COMMITMENT TO WORK/FAMILY BALANCE
- CHANGE MANAGEMENT BIGGEST CHALLENGE.

TECHNOLOGY

How is technology evolving? Which tools, data, and information are being used? How is it changing? How is it being used? How is it being shared?

- Information is the new value proposition
- Information management is key to successful business value
- Technology evolving as underpinning of dialog/communication
- ALWAYS CONNECTED
- DIGITAL COLLABORATION NECESSITY
- implications: the business process has changed + will continue to change - need to embrace it

ENVIRONMENT

How is the physical environment changing? Which environmental drivers affect your business? From local living conditions to global changes? How does environmental change shape your industry?

- DESIRE TO MAKE A STATEMENT (PERSONAL OR CORPORATE) ABOUT POSITION ON ENVIRONMENT
- Environmental preservation is still an option versus necessity
- CO2 ENERGY DELIVERING INSTANT CONSUMING
- increasing focus on building operational cost over - reduce energy consumption
- increased demand for speed & cost reduction requires new processes

ECONOMY

What is the state of the economy? Locally? Regionally? Nationally? Globally? How does the economic climate affect the engagement of your business, customers and employees?

- RISK BEING PUSHED TO CONTRACTORS DISTORTION B/W RISK & REWARD
- MARGIN PRESSURE - harder to make A RETURN.
- Buyer's Market - increased commoditization - price as driver - piling on rights + contract terms
- implications: must find new ways to: - differentiate & provide value - disrupt the pricing model

POLICY

Which policies, laws and regulations shape your industry? What new regulations will impact or control your business? How much is your business shaped by legislation?

- policy making has become stratified - non-productive "collaboration" is losing!
- DATA OWNERSHIP & SECURITY IS HEAVILY REGULATED & VERY COMPLEX
- ACA IMPACT ON HEALTHCARE PROVIDERS: HOW THEY DELIVER SERVICES
- GLOBAL U.S. LOCAL POLICY

IMPLICATIONS

What do these drivers mean for your business? How are they changing? How are they being used? How are they being shared?

- higher levels of collaboration are required! team funding critical
- implication: what was specialized about our business is less so; need to create new specialized, new value
- DATA IS SINGLE SOURCE OF TRUTH
- TECHNOLOGY DRIVING OPPORTUNITIES FOR GREATER COLLABORATION "catalyst for change"
- TECHNOLOGY WILL EVOLVE TAKE OVER THE DESIGN-BUILD PROCESS. AEC NEEDS TO CREATE NEW VALUE PROCESS AROUND: 1 CREATION 2 DELIVERY 3 FM

GLOBAL DRIVERS

TEAM TWO:

Cool the Potato: Intelligent Risk Management

FRAME 01 GLOBAL DRIVERS

What are the broad forces shaping your industry?

TECHNOLOGY (Hyde, Tech)

ENVIRONMENT

ECONOMY

POLICY

Driving Policy → RISK

INCREASING

- Connectivity through Social Media
- Digital Human Interaction: ONLINE GAMING, TEXTING
- SPEED OF EVERYTHING
- Construction is resembling Manufacturing
- INCREASING DATA COMPLEXITY & AVAILABILITY DURING DESIGN
- SPEED DEMANDS INSTANT GRATIFICATION
- INCREASED SUSTAINABILITY
- INCREASING PRESSURE TO OPERATE SUSTAINABLY
- COMMUNICATION OF TODAY'S REALITY
- INCREASING PRESSURE TO ELIMINATE WASTE/ ERRORS
- DEMAND FOR ENERGY

DECREASING

- DIRECT HUMAN INTERACTION: VERBAL, PERSONAL, SOCIAL
- DECREASE IN PHYSICAL CONNECTION
- DIFFERENT GENERATIONAL APPROACHES IN THE WORKPLACE
- TIME TO "SMELL THE ROSES"
- IMPLEMENTATION OF "THINGS" EVERYTHING IS CONNECTED
- DATA ORGANIZATION (TRANSLATION) IN THE LIFE CYCLE
- DECREASING FEES
- CAPITAL FOR INFRASTRUCTURE
- R&D Budgets
- AUSTRALIA GOVT SPENDING MINING
- INCREASING MARKET FOR ALTERNATIVE OWNERS
- DIGITAL PROTOTYPING & SIMULATION
- LOW COST DELIVERY I.E. ASIA
- LONG TERM Relationships w/ owner/client
- LEGAL SHED RISK

IMPLICATIONS

- TEAMS ARE SEPARATED PHYSICALLY. COLLABORATION MUST BE WORKING IN CONJUNCTION WITH THIS.
- WE ARE GETTING READY FOR THE MATRIX
- POOR COMMUNITY
- SKILLS GAP
- DATA HAS VALUE BEYOND CONSTRUCTION I.E. ASSET MGMT
- FLATTE OR GROSS
- NEED FOR COLLABORATION
- COMMON COMPATIBILITY
- Specialists are increasing
- VALUE IN DATA
- INTEGRATION OF SUSTAINABLE ENERGY?
- DESIGN TO PERFORMANCE GOALS need to reject performance
- FEES
- RESPONSIBLE DESIGN
- UNREAL EXPECTATIONS: Decision makers don't have to live with their decisions
- OWNERSHIP WILL TRANSFER TO THOSE TAKING RISKS
- INNOVATION + DESIGN SERIES

Other Handwritten Notes:

- 2 A+E
- What are the broad forces shaping your industry?
- Driving Policy → RISK
- Construction is resembling Manufacturing
- INCREASING DATA COMPLEXITY & AVAILABILITY DURING DESIGN
- SPEED DEMANDS INSTANT GRATIFICATION
- INCREASED SUSTAINABILITY
- INCREASING PRESSURE TO OPERATE SUSTAINABLY
- COMMUNICATION OF TODAY'S REALITY
- INCREASING PRESSURE TO ELIMINATE WASTE/ ERRORS
- DEMAND FOR ENERGY
- DECREASING FEES
- CAPITAL FOR INFRASTRUCTURE
- R&D Budgets
- AUSTRALIA GOVT SPENDING MINING
- INCREASING MARKET FOR ALTERNATIVE OWNERS
- DIGITAL PROTOTYPING & SIMULATION
- LOW COST DELIVERY I.E. ASIA
- LONG TERM Relationships w/ owner/client
- LEGAL SHED RISK
- INNOVATION + DESIGN SERIES

COMMUNICATION

AUTODESK Common Operating Frameworks

GLOBAL DRIVERS

TEAM THREE:

Stop Denying the Global Forces.

FRAME01 GLOBAL DRIVERS

GLOBAL DESIGN & ENGINEERING FIRMS.

What are the broad forces shaping you

SOCIETY

How is society changing? How are people changing? Physically? Emotionally? Psychically? What are people doing more of? Less of? What trends do you see in cultural behaviors, values and beliefs?

- RISE OF INDO-ASIAN MIDDLE CLASS
- Demand in Africa + Asia for Western middle class lifestyle + opportunities
- Generational turnover results in loss of years of knowledge
- Generational West vs East
- Global Communities
- Cost of labour in global economies is highly variable
- Mega Cities around the world

TECHNOLOGY

How is technology changing? Which tools - digital and physical - are having an impact on the way your industry works? Which technologies have the greatest potential to advance and disrupt your industry?

- UBIQUITOUS ACCESS TO PROCESSING
- BIM BAM BOOM
- PL USE
- PLATFORM LIFE CYCLE DECREASING

ENVIRONMENT

How is the physical environment changing? Which environmental drivers affect your business? How does the environment impact your business? How does environmental change shape your industry?

- Climate Δ results in big needs in cities
- Society cares about the environment
- Environment focus
- Clients \rightarrow Los Angeles

ECONOMY

What is the economic environment? Locally? Regionally? Nationally? Globally? How does the economic climate affect the ecosystem of your business, customers and employees?

- GLOBALIZATION 3.0
- Efficiency Drive
- WEALTH IS DEFINED BY ADAPTABILITY OF SOCIETIES + PEOPLE TO CHANGE
- END OF CAPITALISM - What is the new 'ISM'
- Global structural changes in industry investments

POLICY

What policies, laws and regulations shape what new regulations will be required to get how much to your business? Support by gov

- PERFORMANCE BASED CODES
- Integrity is a more visible theme due to global interactions

IMPLICATIONS

- MEGA CITIES = INFRASTRUCTURE BUILDING "BOOM"
- NEED FOR RECONNECTION TO REALITY OF BUILDING
- STRUCTURAL EVOLUTION IN THE DESIGN + DELIVERY PROCESS + TEAMS
- WE NEED MUST PAY ATTENTION NOT OPTIONAL
- HUGE OPPORT TO ENHANCE MODELLING + DESIGN TOOLS

"Forces" on our sector cannot be denied... to do so is like putting lipstick on a pig "

AUTODESK. Common Operating Frameworks

IDEAS THE I 3

GLOBAL DRIVERS

TEAM FOUR: Increasing client consumer expectation of Integrated Data.

FRAME01

GLOBAL DRIVERS

MANAGE + DESIGN + BUILD

What are the broad forces shaping your industry?

#4

SOCIETY

How is society changing?
How are people changing? Physically? Emotionally? Physically?
What are people doing more of? Less of?
What trends do you see in cultural behaviors, values and beliefs?

INCREASING

Which factors are growing?

- SOCIETY**
 - People want greater degree of social engagement in all aspects of life.
 - DESIGN QUALITY EXPECTATIONS
 - CLIENT EXPECTATIONS - LOST IMPLICATIONS
 - AVERAGE IN INDUSTRY COUNTRY

DECREASING

Which factors are declining?

- EXPECTATIONS OF THOUGHTFUL DESIGN
- DECREASING ATTENTION SPAN FOR DEEPER INVESTIGATION

IMPLICATIONS

What are their implications for your industry?

- CONSUMER SERVICE SET EXPECTATIONS FOR BIZ SERVICE
- ∴ BIG DATA NEEDS TO BE A SOLID INTEGRATED SYSTEM

TECHNOLOGY

How is technology evolving?
Which tools - digital and physical - are having an impact on the way your industry works?
Which technologies have the greatest potential to advance and disrupt your industry?

- SPEED OF IT HAS INCREASED EXPECTATIONS OF DESIGN/CONSTRUCTION SPEED
- Cloud based solutions - client's req high level of becoming necessary
- client's req begin integration

- Technology - Democratization makes tech barriers almost non-existent. See: mobility
- DECREASING IT PLATFORM COMPATIBILITY OVER TIME DUE TO EVER CHANGING IT UPDATES/INNOVATION
- STAND ALONE PRODUCTS NO LONGER VIABLE

- MICRO SAS
- Cost of Integrating Systems
- PLATFORMS BECOME INCREASINGLY IMPORTANT
- PRODUCT SERVICE ECOSYSTEMS

- CLIENTS WANT INTEGRATION - SHARING META DATA → 1 DATABASE
- DESIGN BUILD OPERATE TRAINING

ENVIRONMENT

How is the physical environment changing?
Which environmental drivers affect your business?
From local living conditions to global changes, how does environmental change shape your industry?

- ENVIRONMENT
- People want "the emission meet" incorporated into messaging increasingly
- SENSOR TECH
- BIG DATA + CLOUD COMPUTING
- ANALYTIC VISUALIZATION OUTSIDE DESIGN APPS

- STABILITY IN WEATHER

- UNCERTAINTY CREATES OPPORTUNITY
- ANTICIPATE INHABITANTS NEEDS

ECONOMY

What is the state of the economy?
Locally? Regionally? Nationally? Globally?
How does the economic climate affect the adoption of your products, customer and employees?

- Data/File Sizes
- Number of Systems
- UNCERTAIN FUTURE STATE - DEBT IMPACT

- Downturns stifle desire for innovation
- Can inhibit growth short/long term

- Innovation brings opportunity for explosive growth - if recognized + harnessed
- GLOBAL ECONOMY MAKES TIMELY INFORMATION CRITICAL FOR DECISION MAKING
- COMBINATORIAL INNOVATION SWARMING FADS

POLICY

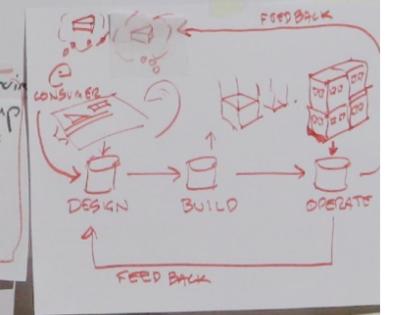
Which regulations and institutions shape your industry?
What new regulations will impact or constrain your business?
How much is your business shaped by legislation?

- BIM IS GOVERNMENT REQUIREMENT
- Tech brings increasing complexity - little relief
- IMPACT ON ECONOMY - UNCERTAINTY RETARDS INVESTMENT

- Policy seems decreasingly relevant to modern/current tech. lawmakers out of touch

- Need to redefine and reimagine regulations in a tech-led world
- Data skin opens up platform

INCREASING CLIENT/CONSUMER EXPECTATION OF INTEGRATED DATA PROCESS
EG. BUILDING DATA PROVIDE MODEL FOR TV AD + INTERNET ROOM SELECTOR ON GOOGLE MAPS



GLOBAL DRIVERS

TEAM FIVE: Friendlier tools, better processes, lowers the barriers to sustainable manufacturing.

FRAME01 #5 DESIGN & MFG

What are the broad forces shaping your industry?

SOCIETY

How is society changing?
How are people changing? Physically? Emotionally? Psychically?
What are people doing more of? Less of?
What trends do you see in cultural behaviors, values and beliefs?

- PEOPLE ARE SPENDING MORE TIME BALANCING THEIR LIVES.
- more IT-connected young people
- PEOPLE ARE BECOMING MUCH MORE CONCERNED ABOUT THE ENVIRONMENT

INCREASING
Which factors are growing?

- GLOBAL AWARENESS IS INCREASING QUICKLY
- Global awareness
- Social digital life
- travels
- collaboration

DECREASES
Which factors are decreasing?

- THE AMOUNT OF TIME PEOPLE ARE WILLING TO LEARN/ADAPTING TO NEW TECHNOLOGIES
- PEOPLE ARE SPENDING LESS TIME ONLY FOCUSING ON THEIR CAREERS

IMPLICATIONS
What do these trends mean?

- what is tight or wrong
- question of quality
- EVOLUTION OF ROLES
- AUTOMATED DECISIONS
- RESPONSIBILITY

TECHNOLOGY

How is technology evolving?
Which tools - digital and physical - are having an impact on the way your industry works?
Which technologies have the greatest potential to advance and disrupt your industry?

- HIGHER LEVEL OF CONNECTION
- cloud computing
- CROSS DISCIPLIN
- SIMPLIFICATION OF TOOLS
- fast and pervasive communication
- big data analysis
- mobile
- LOCATION BASED SERVICES DECREASE
- SKILLED ENGINEERS
- DESIGN ROLES ARE CHANGING SIGNIFICANTLY AS NEW IDEAS CAN BE TESTED & PROVEN WITH COMPUTER MODELING.
- globalization => technology is available everywhere
- IMPLICATIONS: TOOLS NEED TO BE MUCH MORE USER FRIENDLY & FAST
- SECURITY INFORMATION
- VIRTUAL TEAMS

ENVIRONMENT

How is the physical environment changing?
Which environmental drivers affect your business?
From local living conditions to global changes.
How does environmental change shape your industry?

- ENVIRONMENT. CUSTOMERS ARE DEMANDING PRODUCTS RECYCLABLE
- AVAILABILITY OF TOOLS
- SUSTAINABILITY
- Reduce pollution
- Energy saving
- INNOVATE PRODUCTS
- INNOVATE MANUFACTURING PROCESSES

ECONOMY

What is the state of the economy?
Locally? Regionally? Nationally? Globally?
How does the economic climate affect the operations of your suppliers, customers and employees?

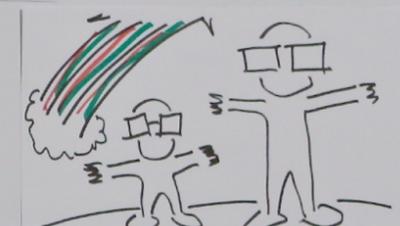
- DELIVERY TIMES
- QUALITY
- growth of digital economy
- stagnation of mature economy
- supply chain distribution -> logistic
- financial investment reduced
- more complex -> hetero
- IT-Systems by merger & acquisitions
- ENTERY COSTS
- THUS THERE ARE MOVES TO LOW COST MFG.
- INTELLIGENT PRODUCTION
- STANDARD PLANTS
- FRAMEWORK DESIGN
- LARGE 'BEARS' HAVE LESS MARKET CONTROL

POLICY

What policies, laws and regulations shape your industry?
What new regulations will attempt to constrain your business?
How much of your business is shaped by regulation?

- POLICIES INTERNAL & EXTERNAL INCREASING
- IP- Protection is a growing topic

As design/engineering tools become more user friendly combined with new flexible manufacturing processes, people are developing and producing innovative new solutions much more less negative impact on the environment, very capable of being deployed anywhere in the world, unlike the old barrier to entry, and much more difficult to protect from an IP perspective, for larger industries engineering standardization will be the "value" & it's IP whereas the small will be speed to market, flexibility and user/friend friendly.



AUTODESK Common Operating Environment

IDEAS THE INNOVATION + DESIGN SERIES

5

GLOBAL DRIVERS

TEAM SIX: Economic disparity and global connectedness is forcing agility & strategic balance.

FRAME 01 GLOBAL DRIVERS

⑥ DESIGN + CONSTRUCTION

What are the biggest drivers forcing your industry?

ECONOMIC DISPARITY & GLOBAL CONNECTEDNESS IS FORCING OUR INDUSTRY TO BE AGILE / STRATEGIC & DYNAMIC TO FIND THE RIGHT BALANCE

SOCIETY

- INCREASED IMPATIENCE
- MILLENNIALS (YOUNG WORKERS) AREN'T INTERESTED IN TRADITIONS, PAYING DUES, OR OLD STRUCTURES
- THE "PEOPLE" WITH INFLUENCE ARE CORPS
- Reliance on Social Media
- Crackdown between Secular Gov. and Religious Gov.
- SOCIO-POLITICAL OPINIONS & DISCUSSIONS MORE POLARIZED THAN EVER
- PEOPLE ARE MORE:
 - MOBILE
 - GLOBALLY MIND
 - BUSY
- URBANISATION OF SOCIETY
- CO-WORKING & TELECOMMUTING INCREASING
- SOCIAL FACE TO FACE CONTACT
- FAMILY UNIT (WHICH?)

TECHNOLOGY

- TECHNOLOGY SOCIETIZED
- HOW DO WE LEVERAGE?
- Drive to mobile
- ENABLING COST THIRD MOBILE VISUALIZATION
- EVERYTHING FASTER MUCH FASTER
- Availability of big data to model existing
- TOOLS ARE COMING MORE AND MORE
- FUTURE
- Decreasing Pace of Electronics in innovation
- URBAN SPEED OF CHANGE IMPACT ON SOCIETY HAS HUBS

ENVIRONMENT

- INCREASING COMPETITION FOR RESOURCES → HIGHER PRICES
- FUKUSHIMA NUKED ENTIRE PACIFIC FOOD SUPPLY
- CLIMATE CHANGE → ↑ MIGRATION
- ↑ EXTREME WEATHER
- CAPACITATING FOOD SUPPLY
- INCREASING RESOURCE RECYCLING & COMPOSTING (INDUSTRIAL & RESIDENTIAL)
- Less focus on "Green Bling"
- Tolerance for sub-standard / less than excellent conditions
- Increasing Need for Disaster Mitigation
- FOOD SUPPLY WILL DRIVE ECONOMICS & MIGRATION
- CLIMATE CHANGE EFFECT / KNOCK-OUT
- RISK MANAGEMENT (COSTS) MAY BE CRITICAL DECISION DRIVERS

ECONOMY

- Global center of economy moving to the East.
- China moving outside China
- INCREASING INSTABILITY OF GLOBAL & MARKETS
- NEW PROVED DESIGN
- Global economy must have an Asia agenda
- Trade Barriers, Duties, Taxes, Slow Rate of Change
- INCREASING CEASELEADS TO FUZZING OF GEO POLITICAL DIVISIONS
- IS EXPERTISE BEING COMMODITIZED? NEED FOR LESS / MORE THE RIGHT REGULATION
- INTERNATIONAL COMPETITION IN A JEOPARDY
- THE CAPABILITIES CONSIDERED "TRADE SPACES" FAR FROM MASTERED INDUSTRIES

IMPLICATIONS

- Need for workforce to be globally mobile / connected
- Impacts of increase in home or remote working
- IS THERE A WORK/LIFE BALANCE? SEPARATION?
- POPULATION DENSITY IN URBAN LOCATIONS
- UNDERSTAND YOUR CUSTOMERS BUSINESS
- Need for global resource base
- COMPETITION FOR ATTENTION
- DO PEOPLE NEED / WANT LESS SPACE TO WORK & LIVE?
- Safety of People
- CAPABILITIES CONSIDERED "TRADE SPACES" FAR FROM MASTERED INDUSTRIES
- "Kakawad" "Wald day"
- Shorter time between need to refresh technology
- AGILITY IS CRITICAL

Other notes:

- POLICY IS DRIVEN BY LOBBYING & "CABLE NEWS"
- GLACIAL SPEED OF CHANGE COMPARED TO TECH & EXPECTATIONS
- INTEREST IN DIGITAL CURRENCIES
- WANNING US INFLUENCE
- POLICY CHANGE Does Not Keep UP With CHANGES IN SOCIETY
- LONG-TERM THINKING
- NO INTERNATIONAL REGULATIONS STANDARDS
- FURTHER ISOLATED STATES BUT MORE EXTREME
- INCREASING SPEED OF CHANGE COMPARED TO TECH & EXPECTATIONS
- TECHNOLOGY CEASELEADS TO FUZZING OF GEO POLITICAL DIVISIONS
- IS EXPERTISE BEING COMMODITIZED? NEED FOR LESS / MORE THE RIGHT REGULATION

IDEAS THE INNOVATION + DESIGN SERIES ⑥

GLOBAL DRIVERS

TEAM SEVEN:
Give people stories they love.

FRAME01 GLOBAL DRIVERS ENTERTAINMENT #7

What are the broad forces shaping your industry?

SOCIETY
How is society changing? Physically? Emotionally? Psychically?
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ECONOMY
What is the state of the economy?
Locally? Regionally? Nationally? Globally?
How does the economic climate affect the ecosystem of your suppliers, customers and employees?

POLICY
Which laws, rules and regulations shape your industry?
How do you monitor, control or contain your business?
By whom?

Handwritten Notes:

- SOCIETY:** ENTERTAINMENT ON DEMAND ALL TITLES ALL THE TIME; Expectation of Participation; INCREASING; DECREASE; PRODUCT VALUE DECREASING; PEOPLE'S ATTENTION SPAN IS DECREASING; ABILITY TO CONTROL RELEASE WINDOWS; NO RELEASE WINDOWS; OUR PRODUCTS MUST CHANGE
- TECHNOLOGY:** UTILIZING PRE-VIS IN DESIGN DEVELOPMENT; VISUALS INCREASING IN COMPLEXITY; LOWER BARRIER TO ENTRY; DIGITAL TOOLS MODEL REAL PHYSICS; CREATION OF NEW TOOLS AND TECHNIQUES REQUIRES INCREASED TIME; DIGITAL TOOLS FOR PRE-CONSTRUCTION VISUALIZATION; TRAINING INCREASES WITH TECH ADVANCES; IMAGE CREATION RELIES MORE AND MORE ON SIMULATION; MOBILE; PC/W/STATION; DATA CENTRE
- ENVIRONMENT:** UNSUSTAINABLE; INCREASE IN POWER CONSUMPTION; ARTIST SKILLS; UNSTABLE UNPREDICTABLE CREATIVE
- ECONOMY:** TV REVENUE; DVD SELL THRU LESS \$; PRODUCTION COSTS; LOW QUALITY MOVIES DON'T MAKE AS MUCH \$; MORE SEQUELS LESS RISK; REVENUE MUST BE REALIZED IN SHORT TIME CYCLE; LABOR COST MORE DOMINANT THAN TECH COST IN FUTURE?
- POLICY:** INTERNATIONAL TAX INCENTIVES REQUIRE MORE REMOTE WORK; NETWORK SUBSIDY DE-VALUES CONTENT; OSHA; ADA; ENERGY CONSERVATION; NOTHING; WORK LEAVING AMERICA; CAPITAL IN US PRODUCTION IN NON-US

Central Diagram:

- EVOLUTION Biz Model
- Future (People, talent, assets, cost of entry)
- Scarcity (money per view)
- can't forget - People love stories !!

Other Notes: \$1 Bn. PRICE OF ENTRY

Footer: AUTODESK. Common Operating Frameworks | IDEAS THE INNOVATION + DESIGN SERIES | 7

FRAME 02 INDUSTRY STRUCTURE



FRAME 02

INDUSTRY STRUCTURE

Each group explored the underlying structure of their industry through the Porter Five Forces Model:

- Supplier Bargaining Power
- Customer Buying Power
- Threat of New Entrants
- Threat of New Substitutions
- Competitive Churn

Each Industry charted the nodes and links of each system and presented their findings.

FRAME02 INDUSTRY STRUCTURE

What are the dynamics within your industry?

SUPPLIERS

Who are your suppliers?
What products and services do they provide? Who is indispensable?



BUYERS

Who are your buyers?
What offerings are most important to them?



SUPPLIER BARGAINING POWER

Powerful suppliers can charge higher prices or insist on more favorable terms, lowering industry profits. When suppliers serve alternative industries, they exert more force on any one industry.

COMPETITIVE RIVALRY

What is the nature of the industry competition: Price? Quality? Speed? Reliability? How do they differentiate themselves? Illustrate how the industry players battle for business.

BUYER BARGAINING POWER

Powerful buyers can force prices down or demand more value in the product, capturing more of the value for themselves. When buyers see little differentiation in the industry's products, they have the power to pit one vendor against another.

NEW ENTRANTS

Entry barriers protect an industry from newcomers who would add new capacity and seek to gain market share.



THREAT OF NEW ENTRANTS

Entry barriers protect an industry from newcomers who add new capacity. What are the specific barriers to entry? How might these barriers be lowered or raised?

THREAT OF SUBSTITUTIONS

Effective substitutes can provide an attractive price performance trade-off relative to the industry's product. They put a cap on industry profitability.

SUBSTITUTE SOLUTIONS

Substitutes are offerings that meet the same basic needs as the industry's product, but in a different way. Substitutes are not direct rivals, they often come from unexpected places. This makes substitutes difficult to anticipate or even to see once they appear.



FRAME02

INDUSTRY STRUCTURE

SUPPLIERS

*Who are your suppliers?
What products and services do they
provide? Who is indispensable?*



BUYERS

*Who are your buyers?
What offerings are most important to them?*



BUYER

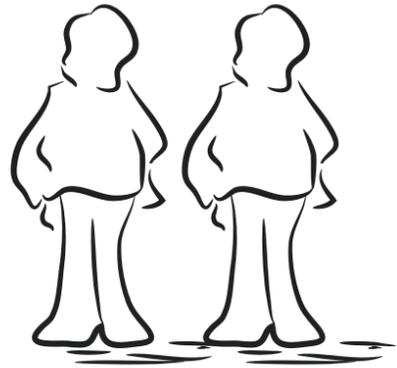
SUBSTITUTE SOLUTIONS

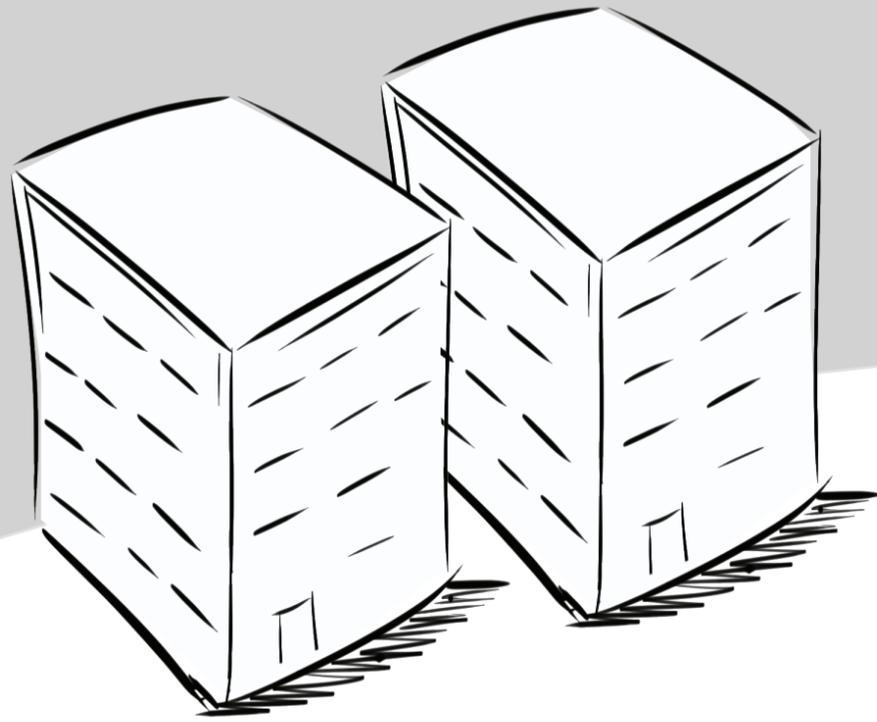
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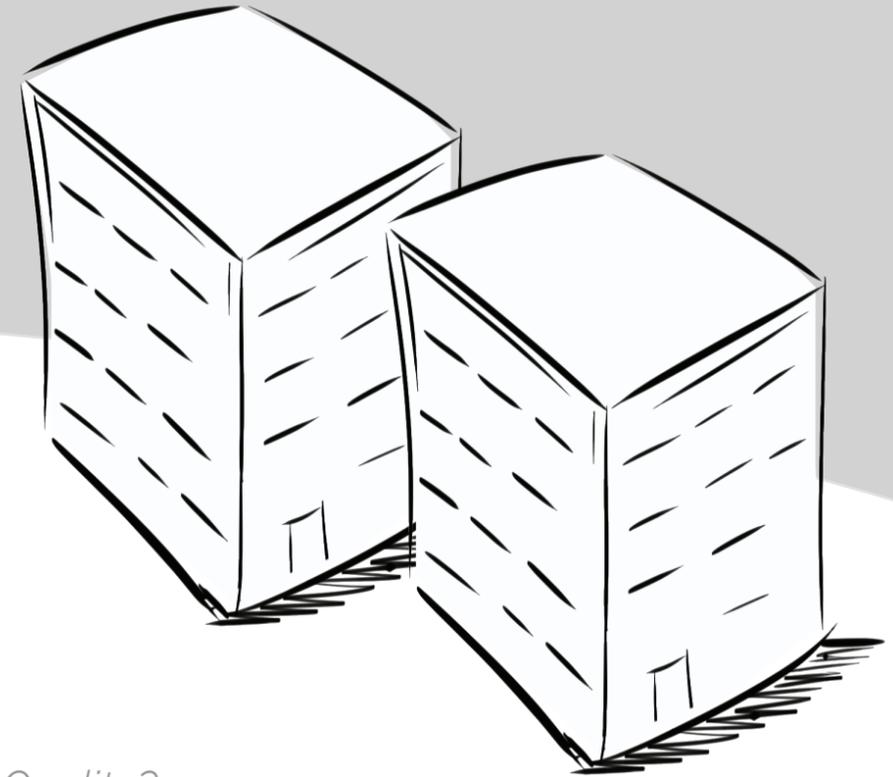
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COMPETITIVE RIVALRY



What is the nature of the industry competition: Price? Quality? Speed? Reliability? How do they differentiate themselves? Illustrate how the industry players battle for business.

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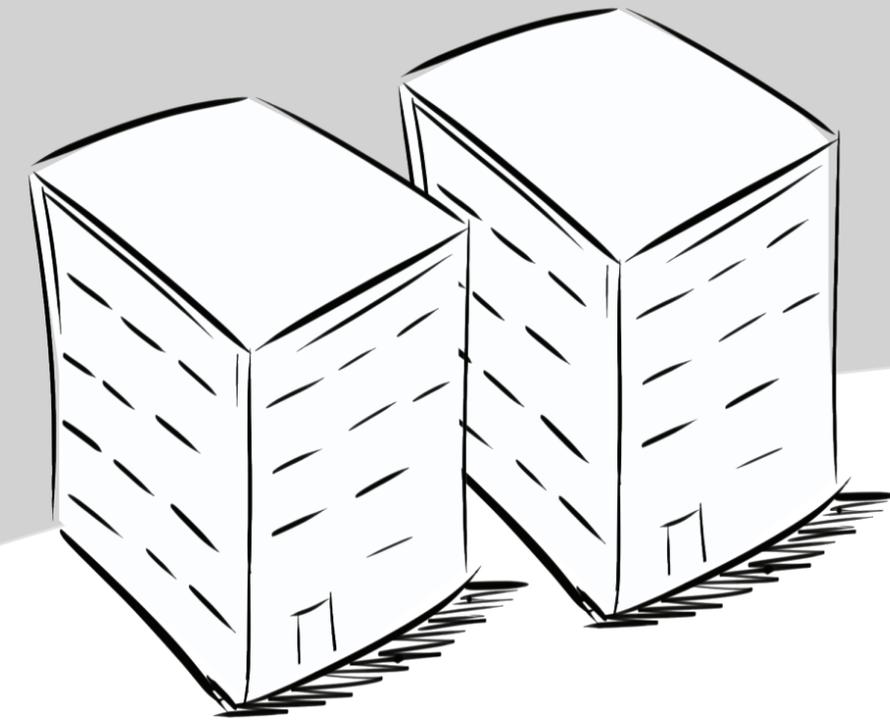
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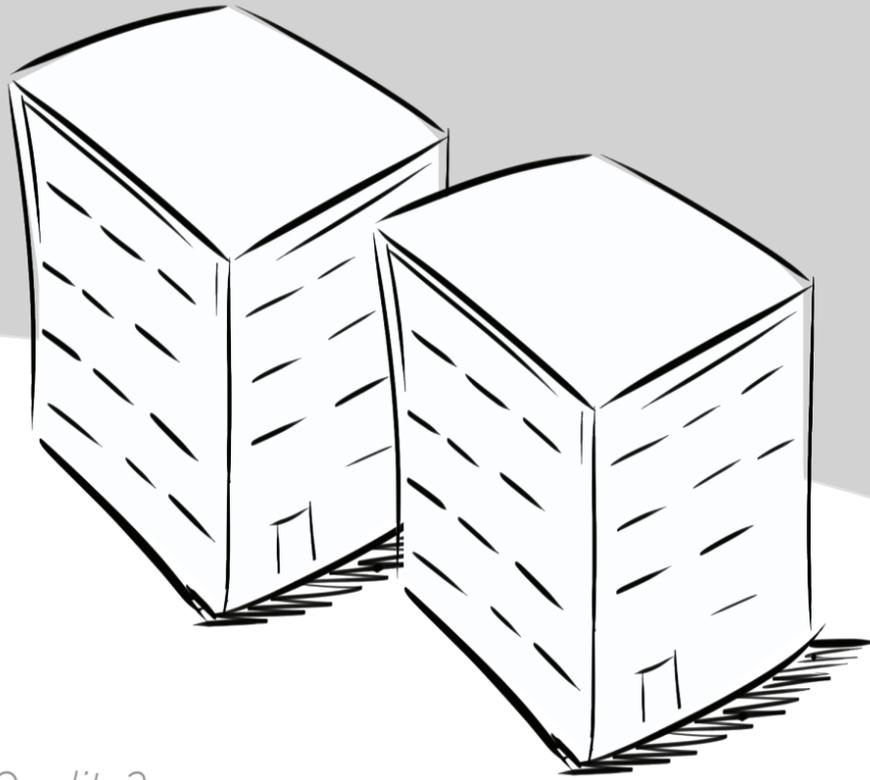
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e? Quality?
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The background features a large, light blue, diamond-shaped area with a dark grey outline. This diamond is set against a white background with grey, curved shapes in the corners. The text is positioned on the left side of the diamond.

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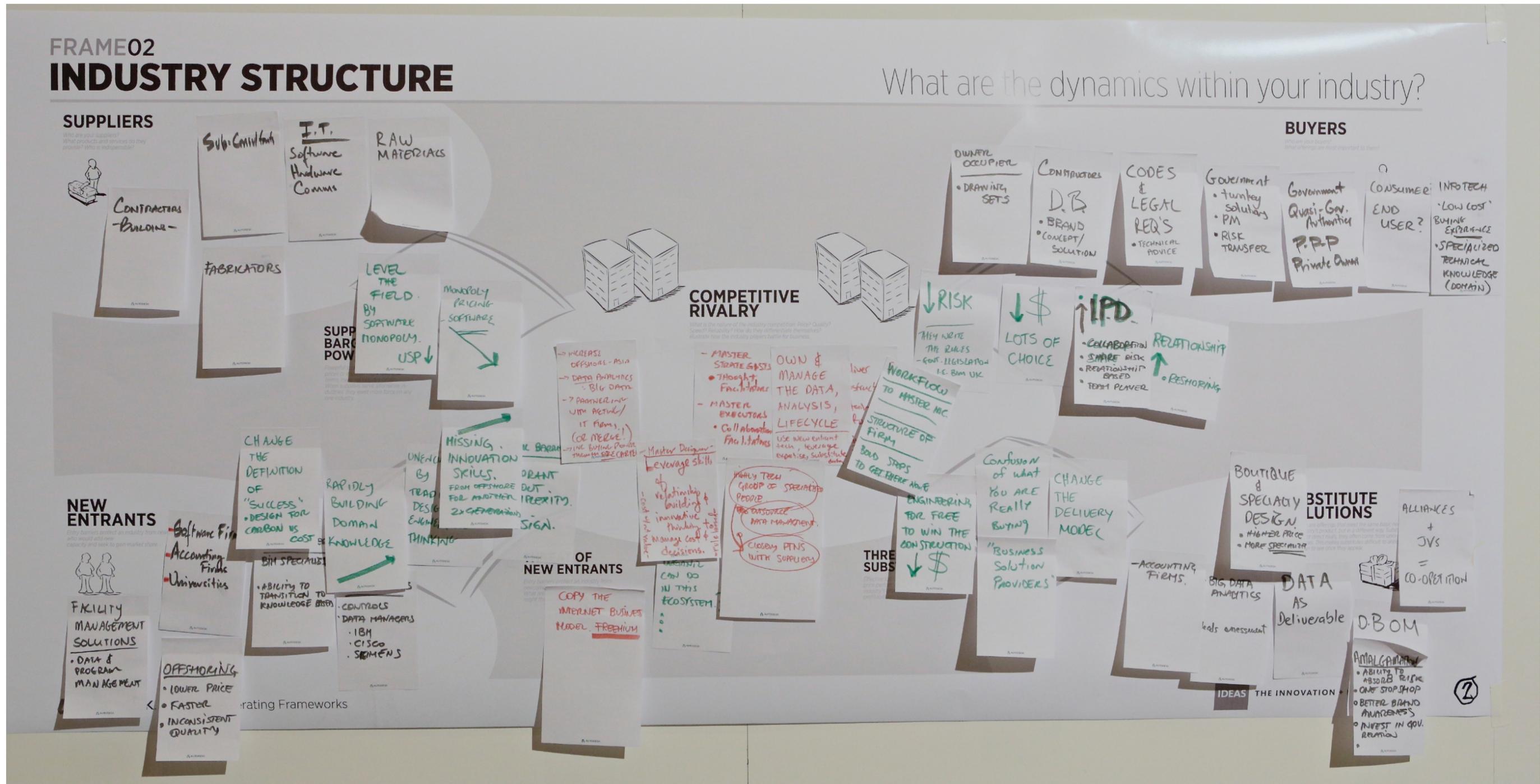


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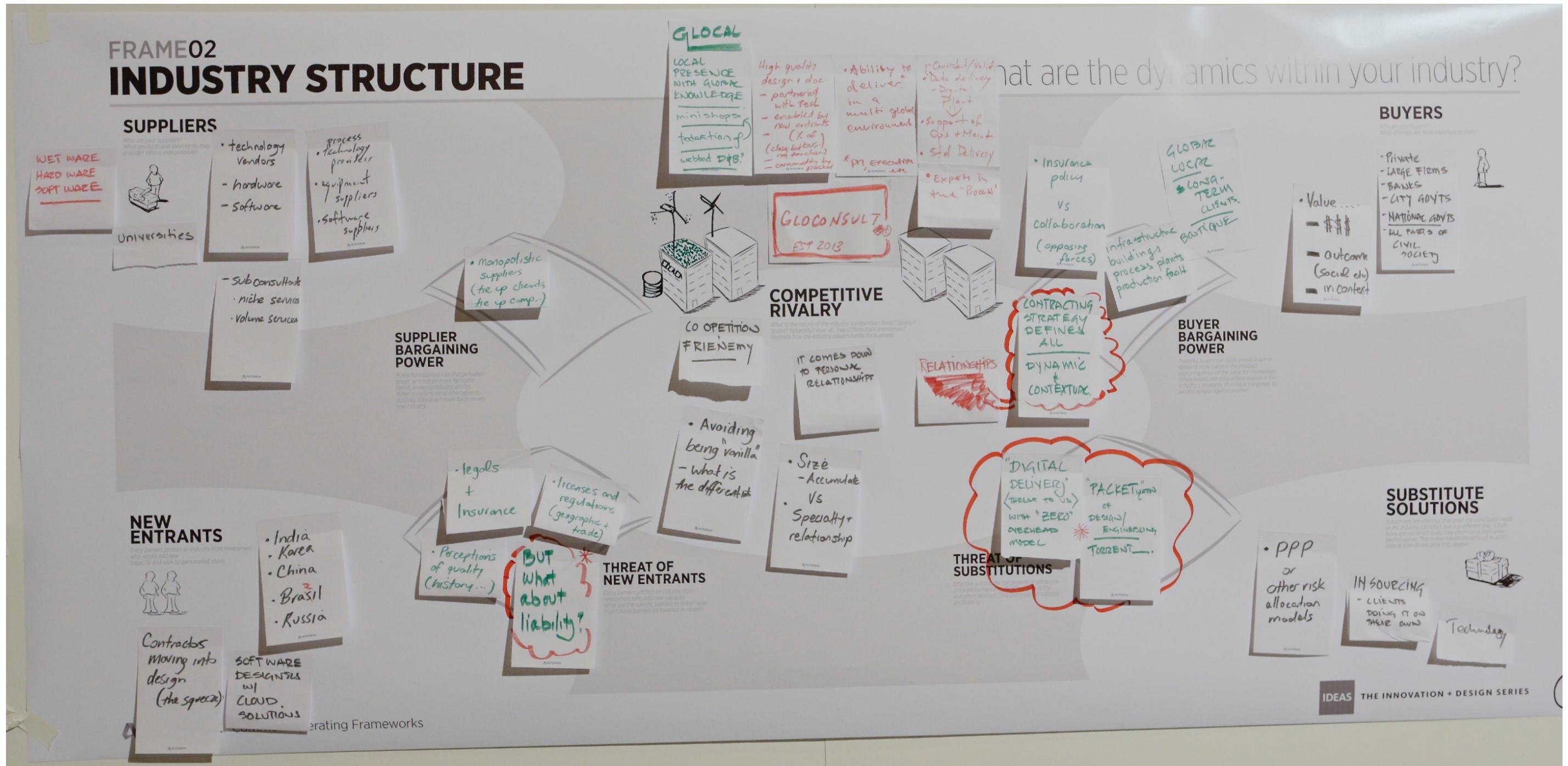
INDUSTRY STRUCTURE

TEAM TWO: AEC Own and manage the data analysis lifecycle. Leverage Skills. Copy the Internet Premium Business Model.



INDUSTRY STRUCTURE

TEAM THREE: Built Environment
 GlobalLocal Consulting Business Model using
 new Entrants to use Digital Data Backbone.



INDUSTRY STRUCTURE

TEAM FOUR: Design & Build Create an integrated cloud-based design environment with uniformity, compliance, security and harmony.

FRAME02 INDUSTRY STRUCTURE

What are the dynamics within your industry?

SUPPLIERS

Who are your suppliers? What products and services do they provide? Who is indispensable?



- Software Vendors
- Fabricators
- Engineering Companies
- Hardware/IT Vendors
- Software Providers
- Specialty Consultants
- Hardware Providers

SOFTWARE DOMINANCE IMPACTS INNOVATION

WILL MATERIALS BECOME SMART?

FEW OR NO EXAMPLES OF SUPPLIERS WITH DIFFERENTIATION EXCEPT AUTODESK

UPGRADE CYCLE MUST BE COORDINATED ACROSS SUPPLIERS + BUYERS (OPEN MOUNTAIN RUNNING MULTIPLE VERSIONS)

WHAT ABOUT COMPETITOR COOPERATION?

SHARED LIABILITY

BUYERS LOOKING FOR CLARITY ON LIABILITY (RISK OWNER) BUT RISK CAN BE DIFFUSED

- Customers
- EPC M's

BUYERS

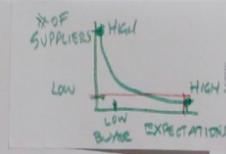
What are their needs? What offerings are most important to them?



- Private Industry
- Public Sector
- > value
- > quality
- > creativity (sometimes)
- > technology
- > innovation

- CLIENTS:
 - GOV'T
 - FEDERAL
 - STATE, ETC.
 - PRIVATE:
 - HEALTH
 - EDUCATION
 - CORP/COMM

BUYERS HAVE MORE POWER THAN SUPPLIERS CHOICE OF COMMODITY SUPPLIERS (IF LOW EXPECTATIONS)



BUYER BARGAINING POWER

Powerful buyers can force prices down or demand more value in the product. Customers who are more discerning in the industry's products, they have the power to get one vendor against another.

DESIGNING CREATIVE SOLUTIONS TO CLIENTS GREATEST CHALLENGES - DELIVERING VALUE

BUILDING IS "OPEN LOOP" - FRAGMENT VS MANUFACTURING IS "CLOSED LOOP" - CENTRALIZED



NEW IDEAS CREATE VALUE

Niche Market Supplier

VALUE IS CREATED BY IDEAS

- OWNERS
- ENGINEERS
- SOFTWARE SUPPLIERS

COMPETITIVE RIVALRY

What is the nature of the rivalry? Competition? Price? Quality? Speed? Reliability? How do they differentiate themselves? How do the industry players battle for business?

Competition Centering on price + speed.

- PEER DESIGN FIRMS
- CONSTRUCTION COMPANIES
- CONSULTING FIRMS - E.G. IBM
- REAL ESTATE/INVESTMENT FIRMS

BEING FLEXIBLE TO MEET CUSTOMER CHANGING NEED/EXPECT.

Can a design be productized + commoditized - repeatable - predictable - value

NEW ENTRANTS

Entry barriers protect an industry from newcomers who would add new capacity and seek to gain market share.



- EMERGING GLOBAL DESIGN FIRMS - (LOWER COST) BASE

- OPEN SOURCE
- GOOGLE
- AMAZON

Software Companies Now playing in ENGINEERING SPACE.

Smaller Dynamic Companies.

Smaller, agile firms w/ low OH, high tech + knowledge + ideas. Ability to unify subs, tech, clients.

THREAT OF NEW ENTRANTS

Entry barriers protect an industry from newcomers who add new capacity. What are the specific barriers to entry? How might these barriers be lowered or bypassed?

Company that works jointly with customer & owns software/development solution. Works closely with supplier to enhance transfer & integration.

THREAT OF SUBSTITUTIONS

Alternative products or services that meet the same basic needs as the industry's product, but in a different way. Substitutes are not direct rivals; they often come from completely different industries.

LIABILITY IS ALSO A THREAT LARGE COST HINDERS COOPERATION

GOVERNMENT MANDATED BUILDING DATA STANDARDS

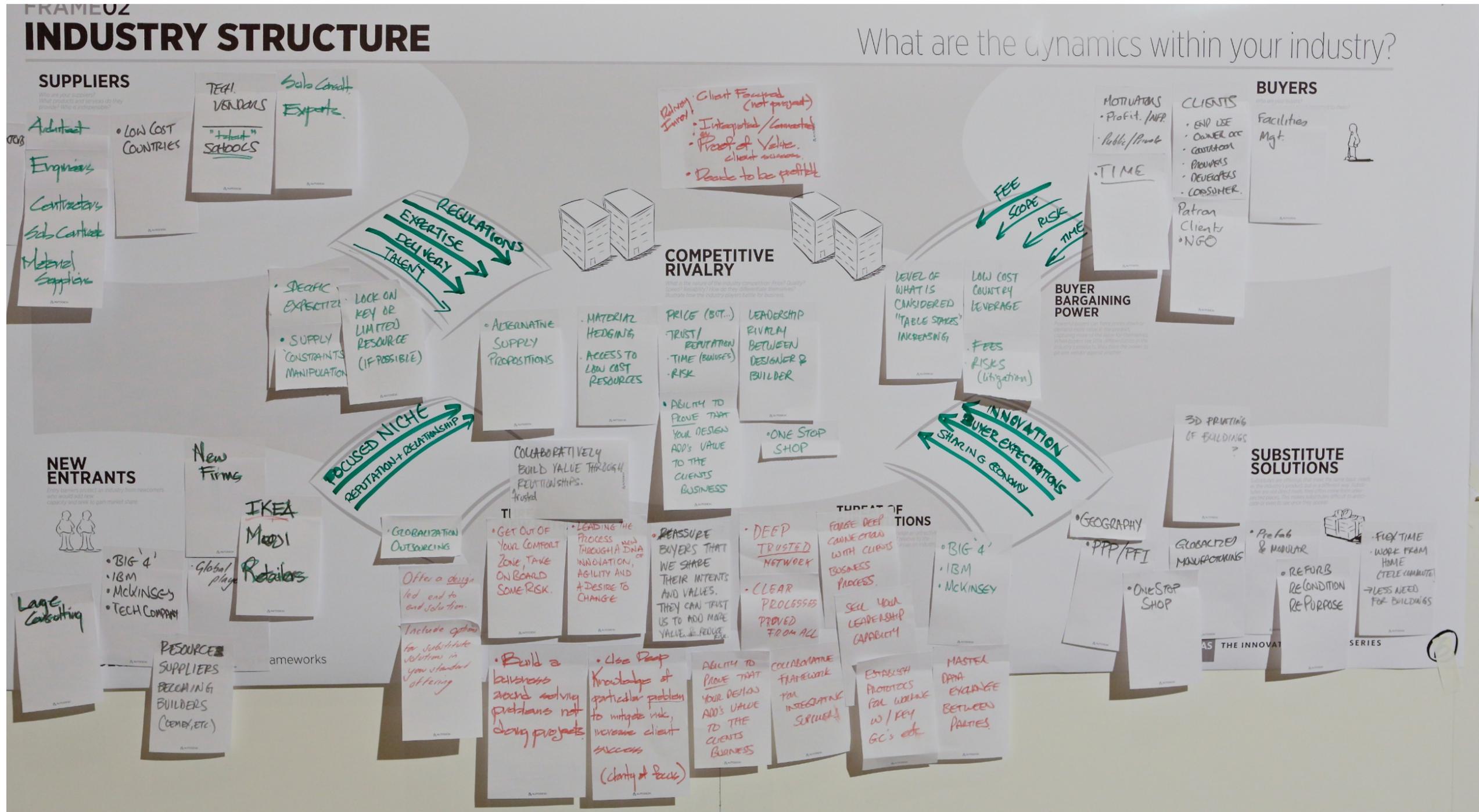
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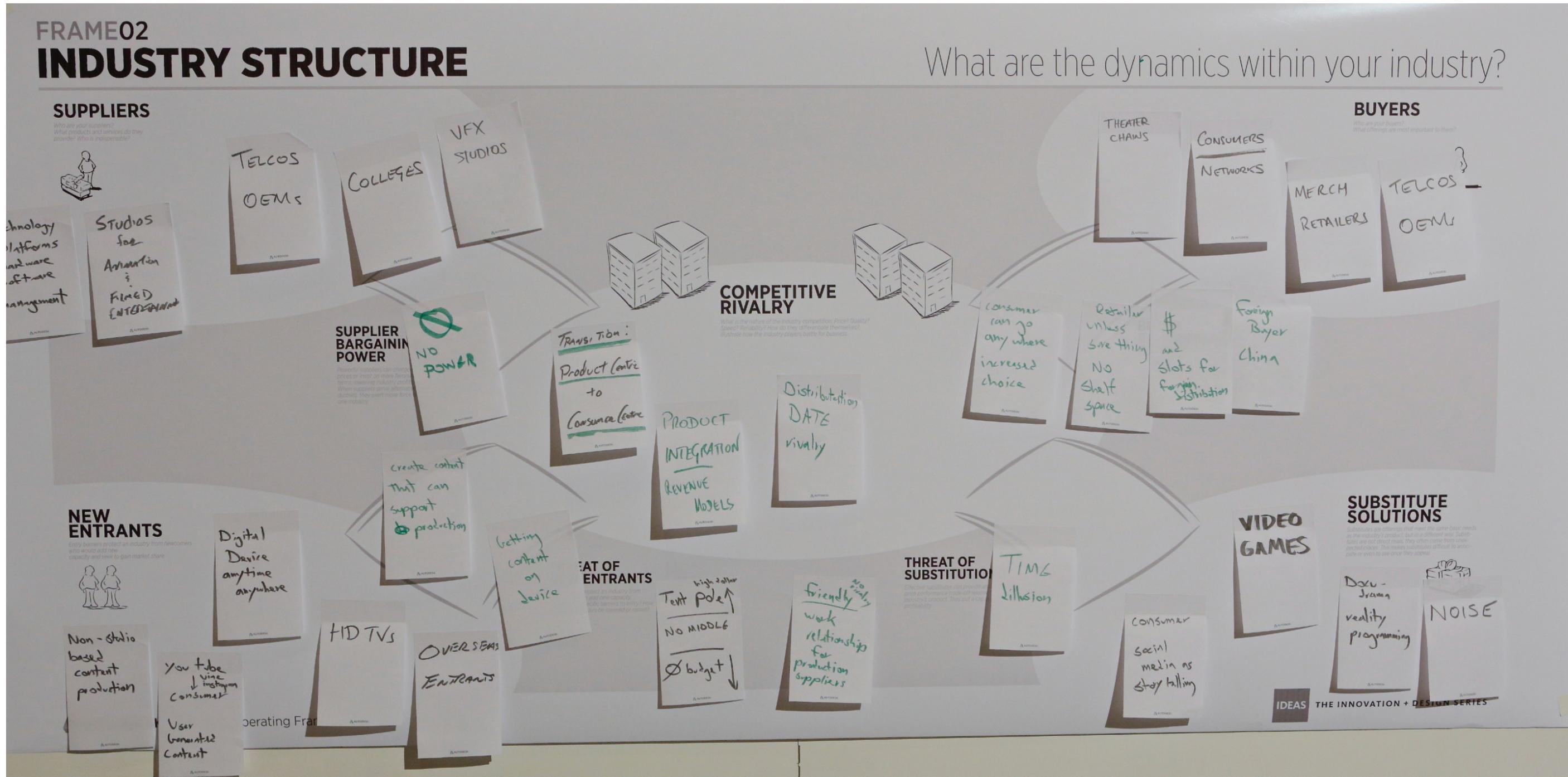
INDUSTRY STRUCTURE

TEAM SIX: Design & Construction
 Create client focused,, connected consultancy.
 Focus on solving problems, not projects.



INDUSTRY STRUCTURE

TEAM SEVEN: Entertainment
Create a business model that goes outside of traditional timing and structured development.



FRAME 03 INDUSTRY LIFECYCLE / WORKFLOW



FRAME 03 INDUSTRY LIFECYCLE / WORKFLOW

Each group charted the current set of processes to create value and identified pain points, issues, and risks.

Simple line drawings chart the rise and fall of risk and profits across the project lifecycle.

Each group used this as an opportunity to identify improvement, largely by integrating emerging technologies that enable new processes.

FRAME03 INDUSTRY LIFECYCLE & WORKFLOW

How is value created in your organization?

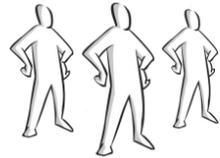
PHASES OF WORK

What are the major stages of value creation?



STAKEHOLDERS

Who is involved in making work happen?



OUTPUTS

What are the major deliverables?



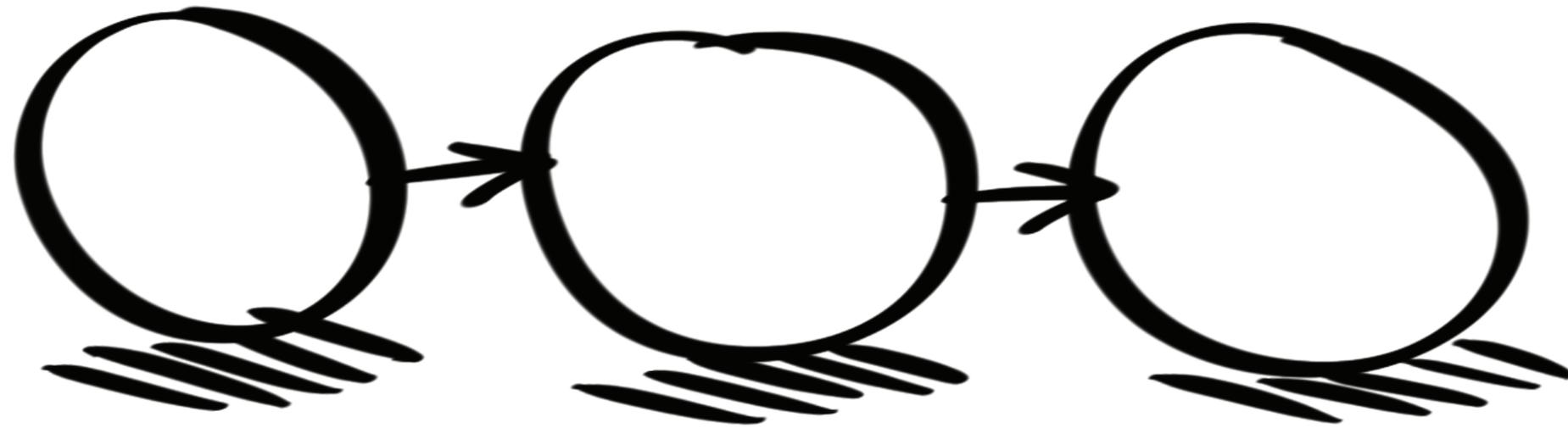
TOOLS

What technologies augment value creation?



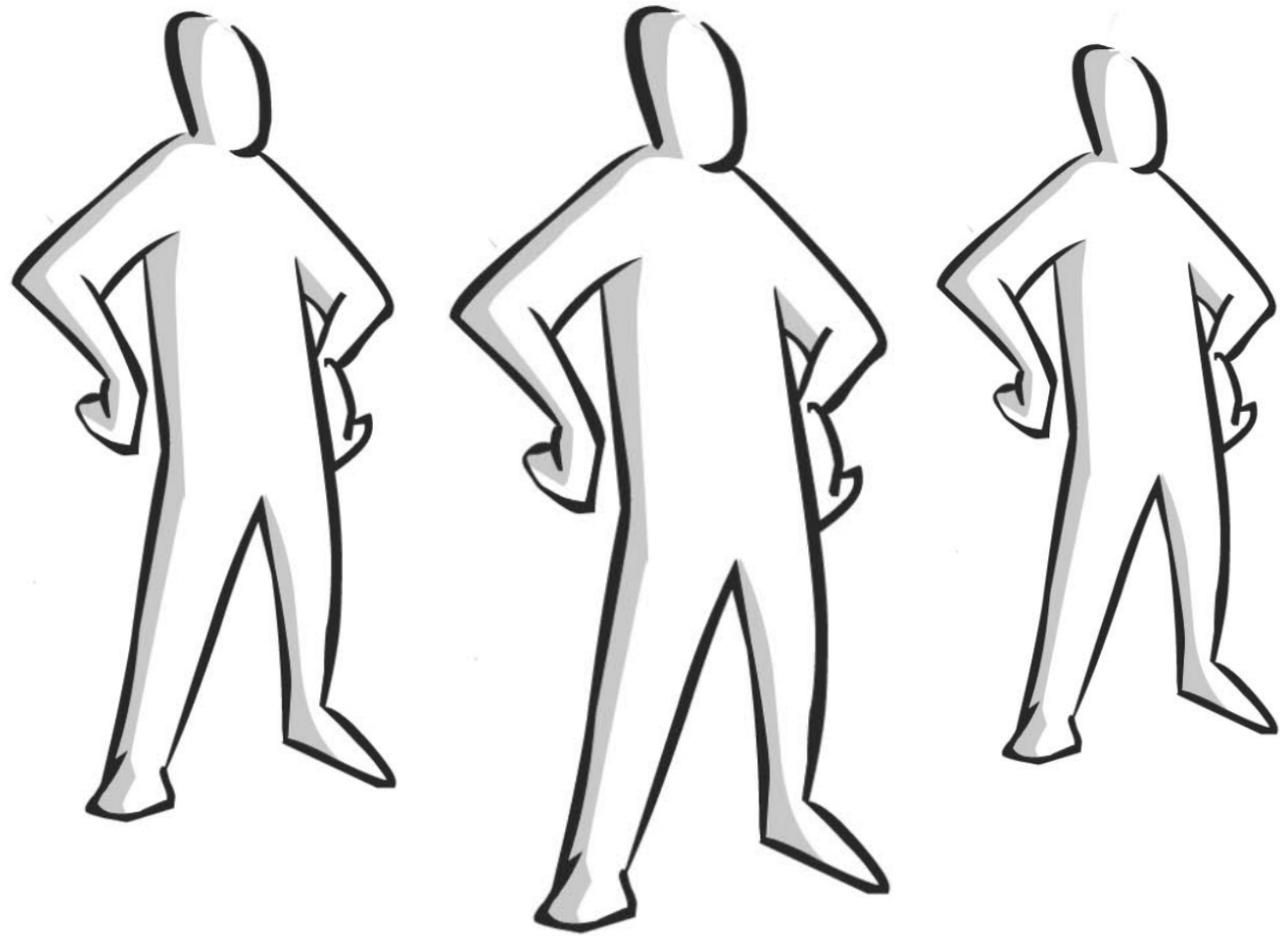
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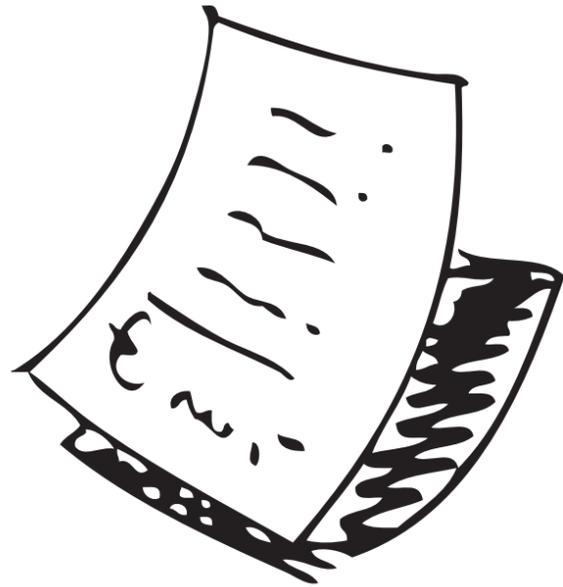
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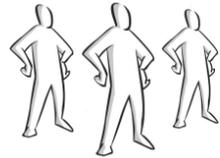
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STAKEHOLDERS

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OUTPUTS

What are the major deliverables?



TOOLS

What technologies augment value creation?



















FRAME01 GLOBAL DRIVERS

What are the broad forces shaping you?

SOCIETY

DECREASING

IMPPLICATIONS

NEED FOR RECONNECTING TO REALITY OF BUILDING

MEGA CITIES

THREATS TO BUILDING INDUSTRY

TECHNOLOGY

UBIQUITOUS ACCESS TO PROCESSING

BIM BAM BOOM

PL USE

ECONOMY

GLOBALIZATION 3.0

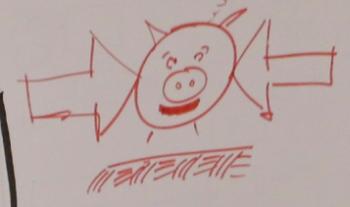
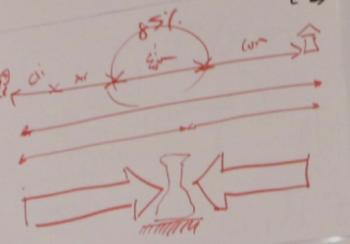
Efficiency Drive

POLICY

Wealth is defined by adaptability of people

there are global drivers

Changes on our sector cannot be denied... to do so is like putting lipstick on a pig



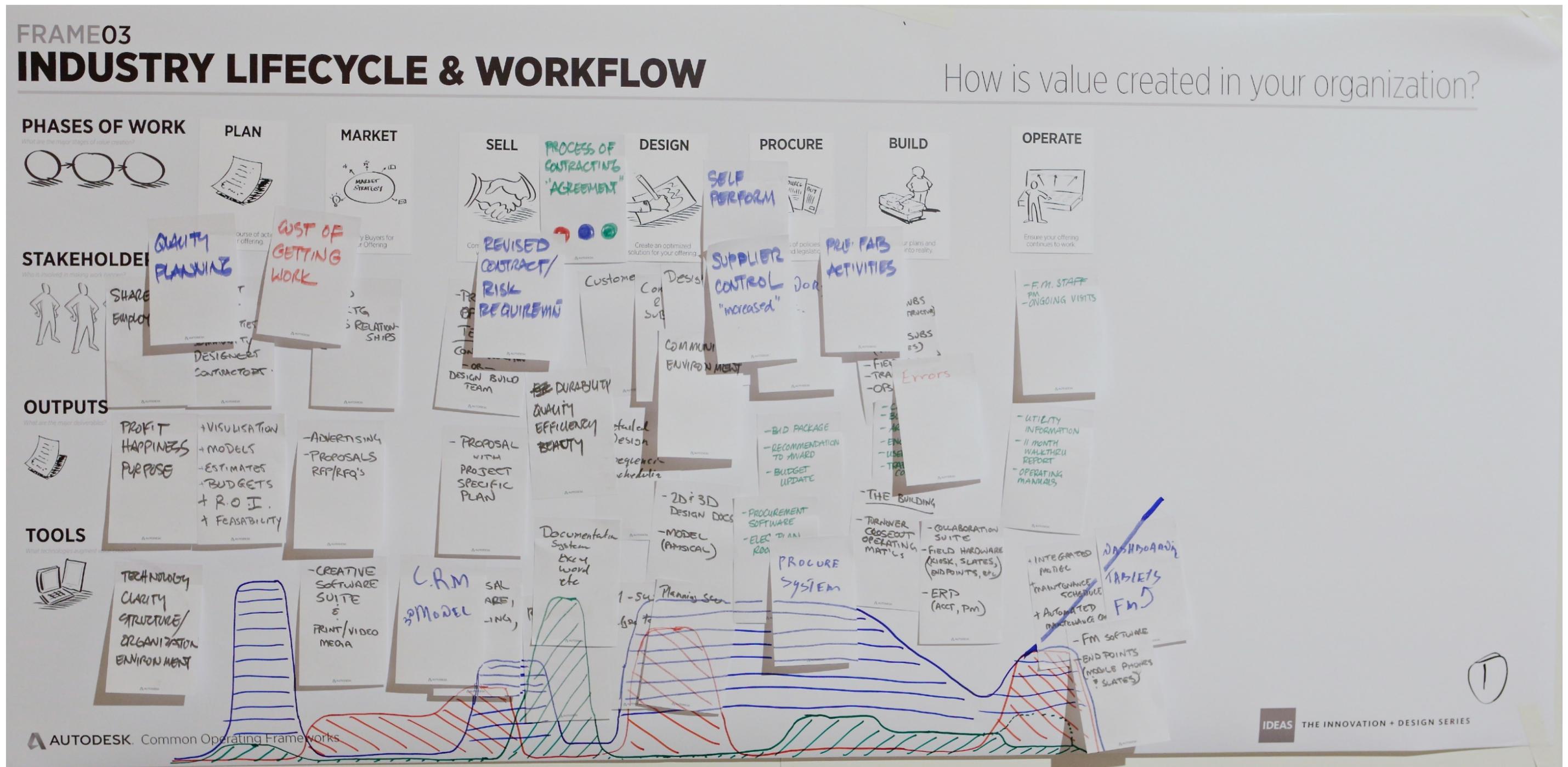
IDEAS THE I

Leadership Forum

Paul Murphy

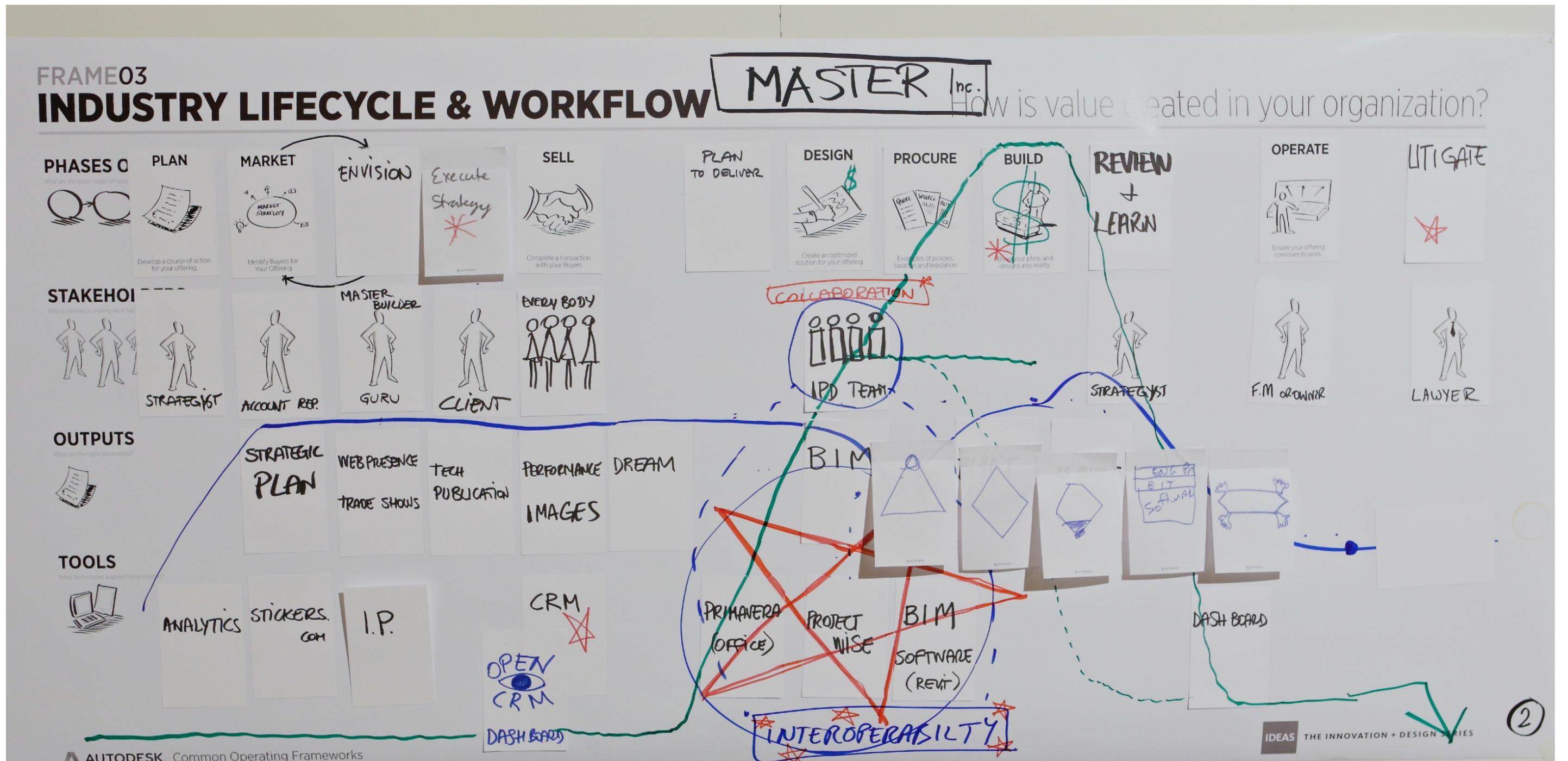
LIFECYCLE WORKFLOW

TEAM ONE:
Architecture, Engineering, Construction



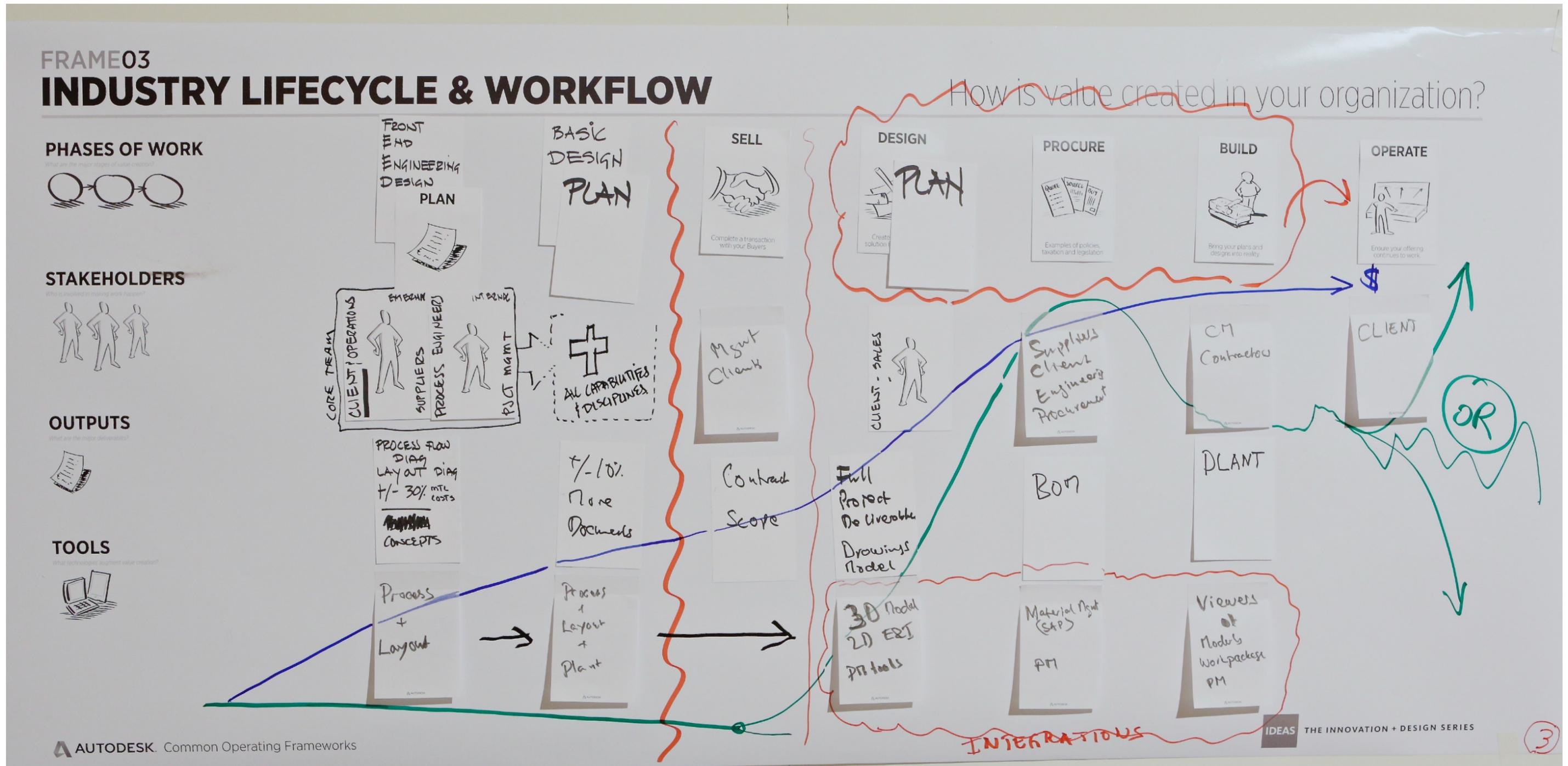
LIFECYCLE WORKFLOW

TEAM TWO:
Architecture, Engineering, Firms



LIFECYCLE WORKFLOW

TEAM THREE:
Built Environment



LIFECYCLE WORKFLOW

TEAM FOUR:
Managing Design & Build

FRAME03

INDUSTRY LIFECYCLE & WORKFLOW

How is value created in your organization?

PHASES OF

What are the major stages of value creation?



MARKET

Identify Buyers for Your Offering



PLAN

Develop a course of action for your offering



SELL

Complete a transaction with your Buyers



DESIGN

Create an optimized solution for your offering



PROCURE



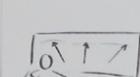
BUILD

Bring your plans and designs into reality



OPERATE

Ensure your offering continues to work



MAINTAIN

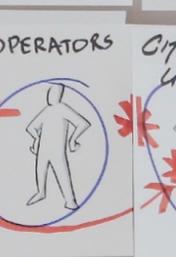
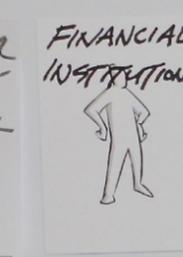
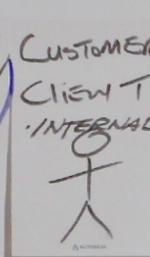


MODIFY IMPROVE



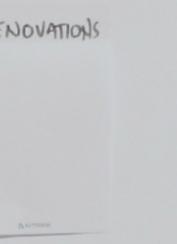
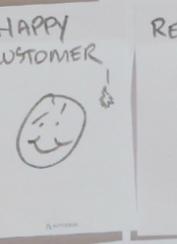
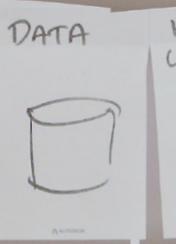
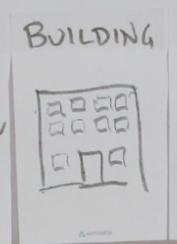
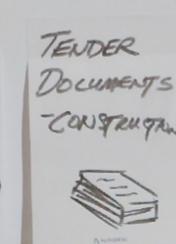
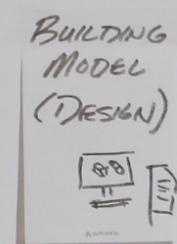
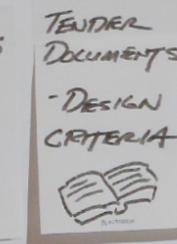
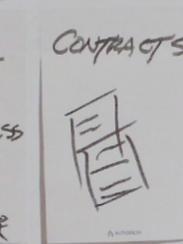
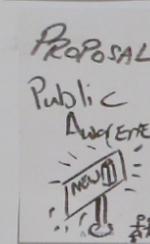
STAKEHOLDERS

Who is involved in making work happen?



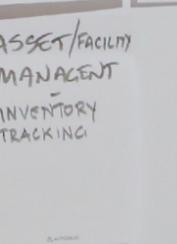
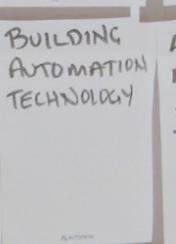
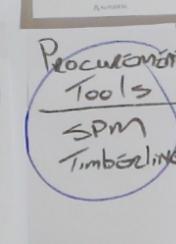
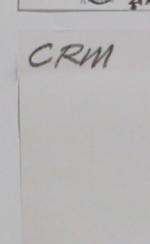
OUTPUTS

What are the major deliverables?



TOOLS

What technologies augment value creation?



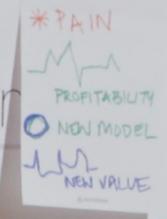
LIFECYCLE WORKFLOW

TEAM FIVE:
Design & Manufacturing

FRAME03

INDUSTRY LIFECYCLE & WORKFLOW

How is value created in your organization?



PHASES OF WORK

What are the major stages of value creation?



MARKET

Identify Buyers for Your Offering

PLAN

Develop a course of action for your offering

PROTOTYPING (OPTIONAL)

SELL

Complete a transaction with your Buyers

DESIGN

Create an optimized solution for your offering

PROCURE

Examples of policies, taxation and legislation

BUILD

Bring your plans and designs into reality

COLLECTION OF SALE

Ensure your offering continues to work

OPERATE

Ensure your offering continues to work

STAKEHOLDERS

Who is involved in making work happen?



SALES
ENG.
PURCH.
MFG.
SUPPLY CHAIN
FINANCE

ENG.
MFG.
SUPPLY CHAIN
FINANCE
SALES
MKT'NG

ENG/R&D
MFG.
SUPPLY CHAIN

CLIENTS
SALES
FINANCE
ENG.
LEGAL

ENG
MFG.
SUPPLY CHAIN
FINANCE

CLIENT

SUPPLY CHAIN
LOGISTICS
MFG.
ENG.
FINANCE

MFG
ENG
LOGISTICS
SUPPLY CHAIN

SALES
CLIENT
FINANCE

SALES
R&D
ENG

OUTPUTS

What are the major deliverables?



MARKET PLAN
PRODUCT DEF.
FORECAST
FORECAST SELLING PRICE

BUSINESS PLAN
RESOURCE REQU.
CAPITAL, TOOLS,
CAPITAC

TECHNICAL REPORT

CONTRACT
SPECIFICATION
DELIVERY LIST
BUDGET
TERMS & CONDITIONS OF SALE
Business Detail Plan

TECHNICAL DETAILS
BOM
ENG SCHEDULE

NEGOTIATION OF SUPPLY CONTRACT RESULTING IN ECONOMIES OF SCALE = lower prices - delivery schedules

MFG SCHEDULE
BUILD PRODUCT
TEST PRODUCT TO MEET REQ'S
QUALITY TEST
FINALIZE IMPROVEMENTS
CUSTOMER INSPECTION & ACCEPTANCE

INVOICING DONE & CUSTOMER VERIFIES RECEIPT

FINAL ACCEPTANCE BY CLIENT
PERFORMANCE REVIEW of contract & equipment. Fee Back to sales & ENGINE FOR FUTURE IMPROVEMENTS

TOOLS

What technology segment value creation?



MARKET STUDIES
SURVEYS
BI & SIMULATION
CRM

BI & ERP

CAX
SIMULATION

CRM
ERP
PRODUCT CONFIGURATION

CAX
PDM
ERP

ERP
PDM

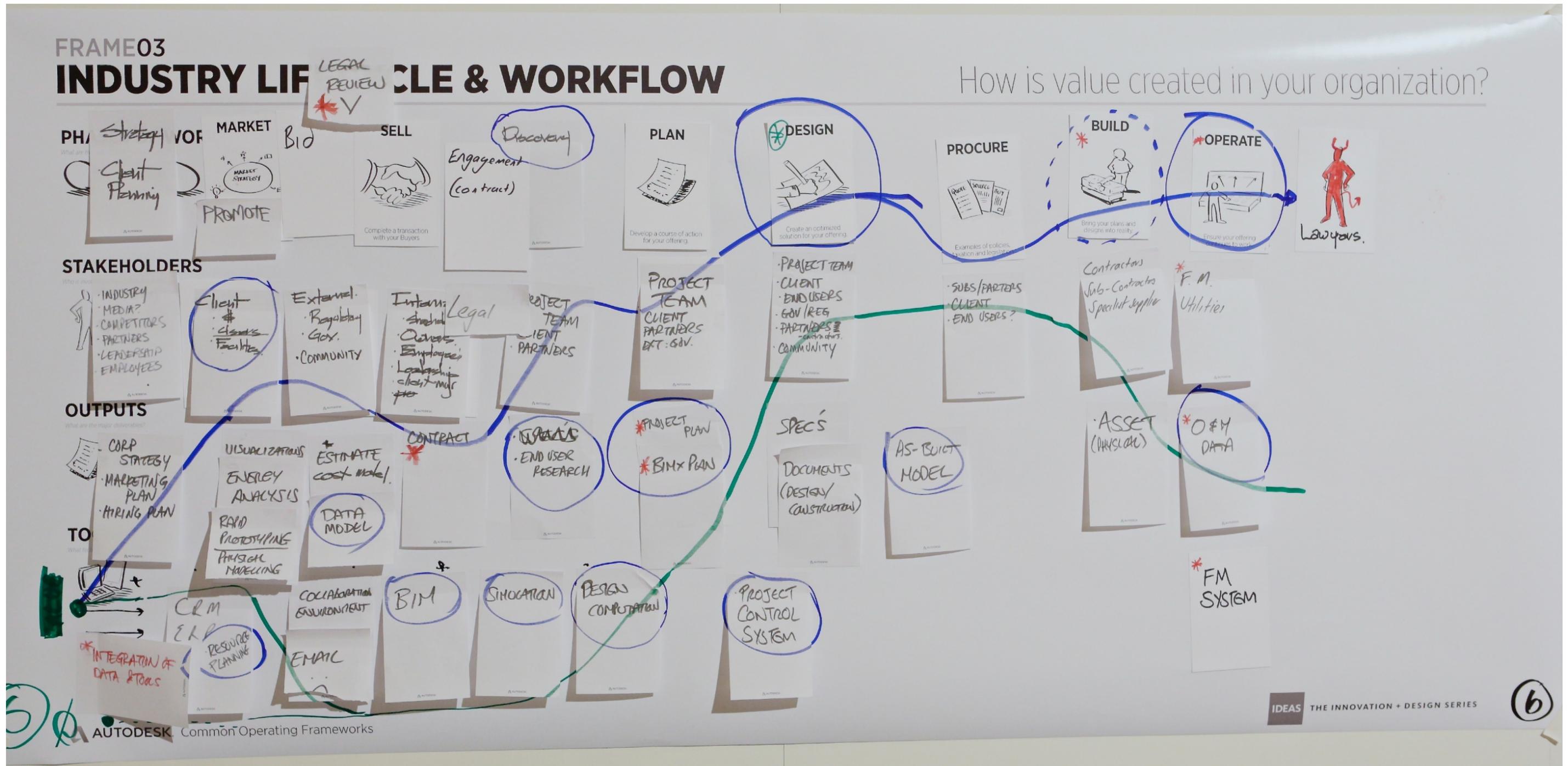
ERP
CAD/M

ERP
CORP. BANKING

ERP
CONTRACT MGMT SYS

LIFECYCLE WORKFLOW

TEAM SIX:
Design & Construction



LIFECYCLE WORKFLOW

TEAM SEVEN:
Entertainment

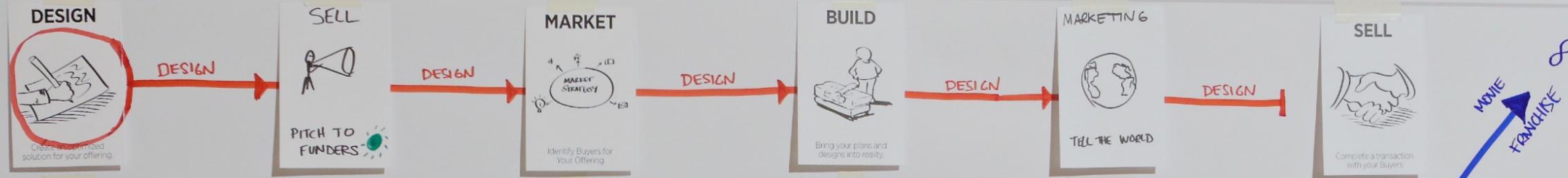
FRAME03

INDUSTRY LIFECYCLE & WORKFLOW

How is value created in your organization?

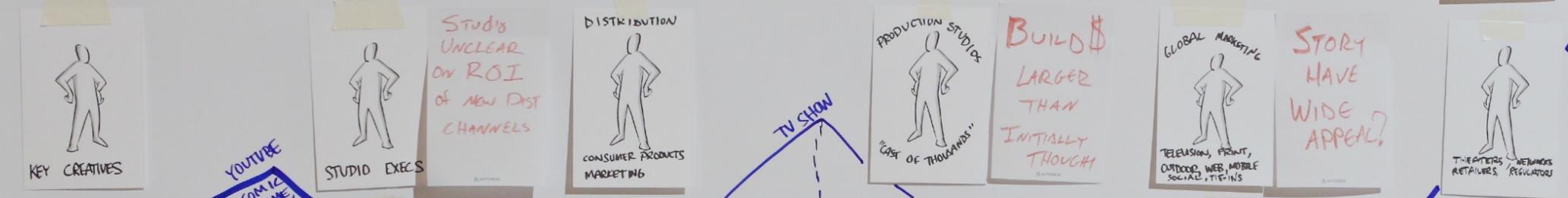
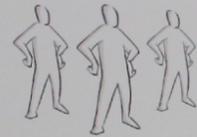
PHASES OF WORK

What are the major stages of value creation?



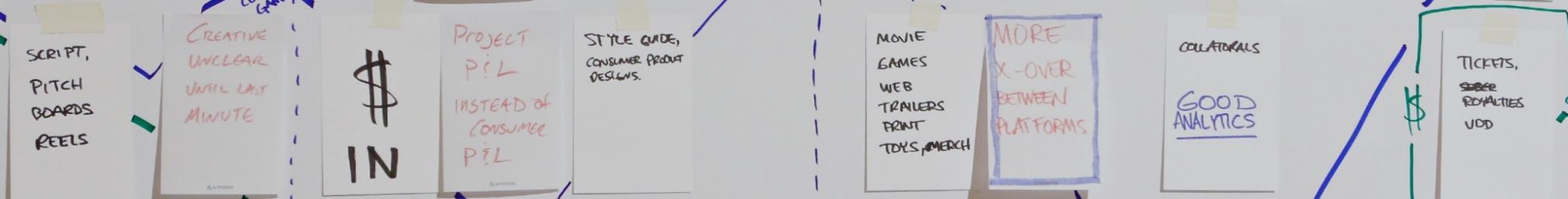
STAKEHOLDERS

Who is involved in making work happen?



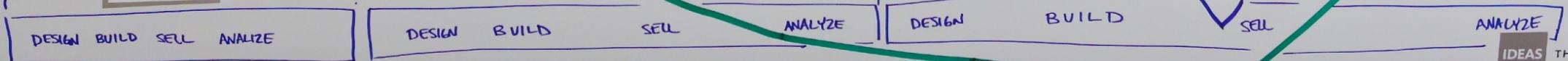
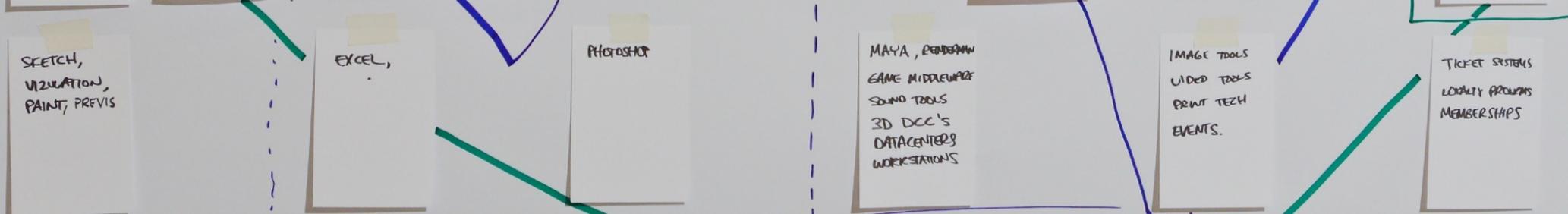
VALUE OUTPUTS

What are the major deliverables?



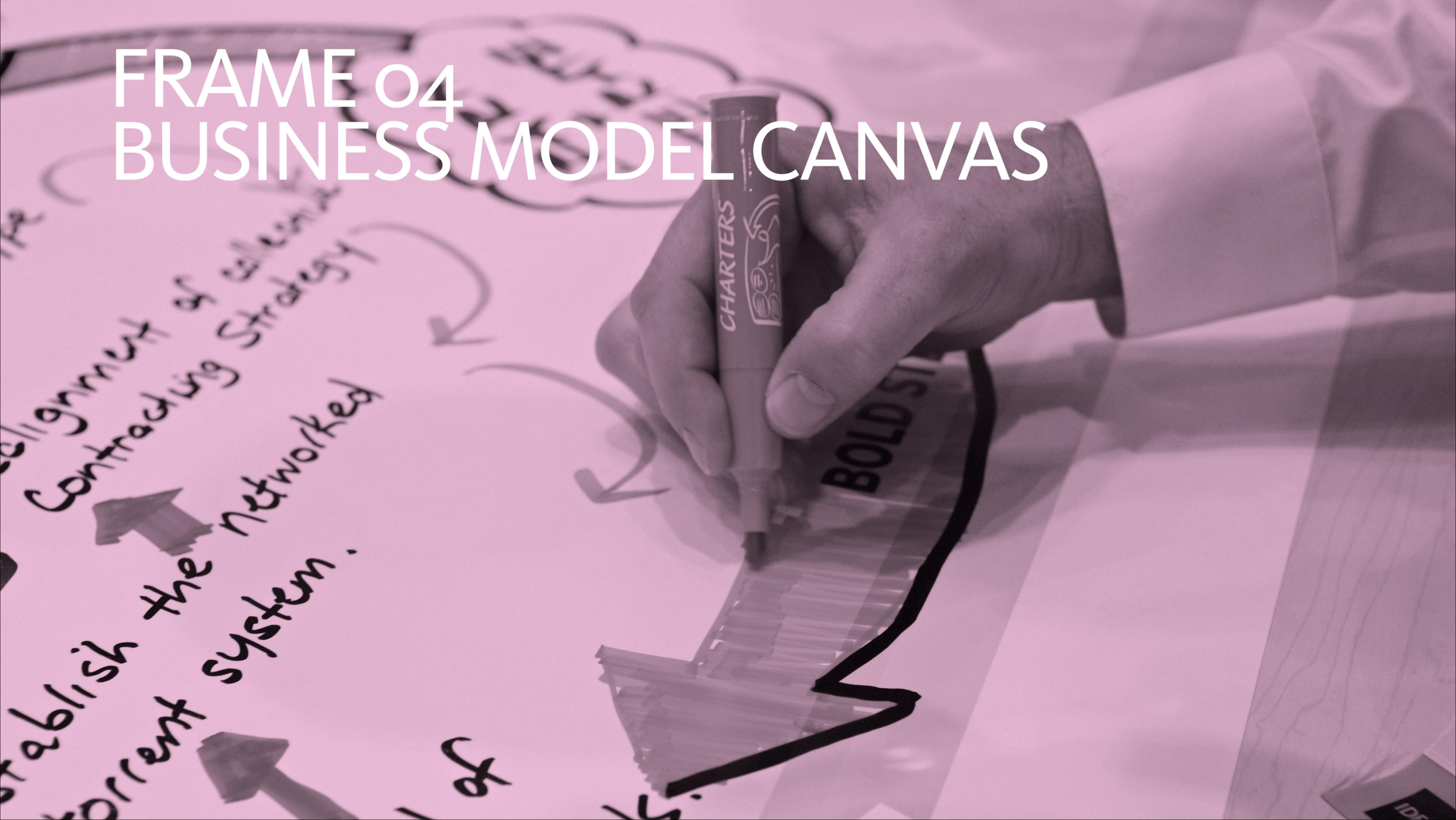
TOOLS

What technologies augment value creation?



7

FRAME 04 BUSINESS MODEL CANVAS



FRAME 04 BUSINESS MODEL CANVAS

Groups took their emerging ideas about places to create more streamlined workflow and plotted the elements of the business on a Canvas with 9 nodes:

- Customer Segments
- Value Propositions
- Customer Relationship
- Channel
- Key Resources
- Key Activities
- Partners
- Revenue Streams
- Cost Structure

FRAME04 BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners



Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources are you acquiring from partners?

MOTIVATIONS FOR PARTNERSHIPS

- Optimization and economy
- Reduction of risk and uncertainty
- Acquisition of particular Resources and activities

Key Activities



What Key Activities do your Value Propositions require?
What Distribution Channels do you use?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

CATEGORIES

- Production
- Platform Building
- Network/Networks

Value Propositions



What value do you deliver to the customer?
Which one of your customer's problems are you helping to solve?
What bundles of products and services are you offering to each Customer Segment?
Which customer needs are you satisfying?

CHARACTERISTICS

- Newness
- Performance
- Customization
- Getting the Job Done
- Design
- Brand/Status
- Cost Reduction
- Risk Reduction
- Accessibility
- Convenience/Usability

Customer Relationships



What type of relationship does each of your Customer Segments expect you to establish and maintain with them?
Which ones have you established?
How are they integrated with the rest of your business model? How costly are they?

EXAMPLES

- Personal assistance
- Dedicated
- Personal Assistance
- Self Service
- Automated Services
- Communities
- Co-creation

Customer Segments



For whom are you creating value?
Who are your most important customers?
How do customers measure value economically?
How do customers measure value emotionally?

KINDS OF OFFERINGS

- Mass Market
- Niche Market
- Diversified
- Segmented
- Multi-sided Platform

Key Resources



What Key Resources do your Value Propositions require?
What Distribution Channels do you use?
What Customer Relationships do you have?
What Revenue Streams do you have?

TYPES OF RESOURCES

- Physical
- Intellectual (brand, patents, copyrights, data)
- Human
- Financial

Channels



Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are our Channels integrated? Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

PHASES

- Awareness: How do we raise awareness about our company's offerings?
- Evaluation: How do we help customers evaluate our Value Proposition?
- Purchase: How do we allow customers to purchase specific offerings?
- Delivery: How do we deliver a Value Proposition to customers?
- After Sales: How do we provide post-purchase customer support?

Cost Structure

What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

BUSINESS NATURE

- Cost Driven
- Lowest cost structure
- Low price value proposition
- Maximum automation
- Extensive outsourcing

Value Driven

- Focused on value creation
- Premium value proposition

Fixed Costs

- Salaries, rents, utilities

Variable costs

- Economies of scale
- Economies of scope

Revenue Streams

For what value are your customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

TYPES

- Asset sale
- Usage fee
- Subscription Fees
- Licensing/Renting/Leasing
- Licensing
- Brokerage Fees
- Advertising

FIXED PRICING

- List Price
- Product feature dependent
- Customer segment dependent
- Volume dependent

DYNAMIC PRICING

- Negotiation (Bargaining)
- Yield Management
- Real-time Market

Customer Segments

For whom are you creating value?

Who are your most important customers?

How do customers measure value economically?

How do customers measure value emotionally?

KINDS OF OFFERING

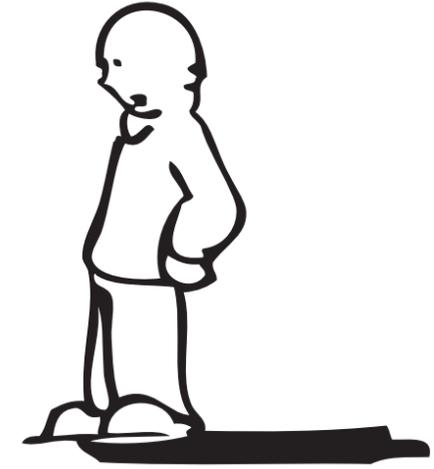
- Mass Market

- Niche Market

- Diversified

- Segmented

- Multi-sided Platform



Value Propositions

What value do you deliver to the customer?

Which one of your customer's problems are you helping to solve?

What bundles of products and services are you offering to each Customer Segment?

Which customer needs are you satisfying?

CHARACTERISTICS

- *Newness*
- *Performance*
- *Customization*
- *Getting the Job Done*
- *Design*
- *Brand/Status*
- *Cost Reduction*
- *Risk Reducti*
- *Accessibility*
- *Convenience/Usability*



Customer Relationships



What type of relationship does each of your Customer Segments expect you to establish and maintain with them?

Which ones have you established?

How are they integrated with the rest of your business model? How costly are they?

EXAMPLES

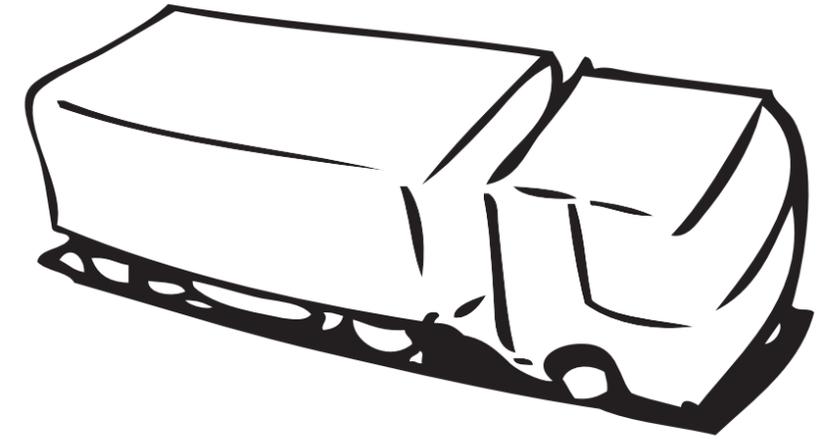
- Personal assistance*
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- Personal Assistance*
- Self-Service*
- Automated Services*
- Communities*
- Co-creation*

Channels

*Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are our Channels integrated? Which ones work best?
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PHASES

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TYPES

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- Usage fee*
- Subscription Fees*
- Lending/Renting/Leasing*
- Licensing*
- Brokerage fees*
- Advertising*

FIXED PRICING

- List Price*
- Product feature dependent*
- Customer segment depe*
- Volume dependentndent*

DYNAMIC PRICING

- Negotiation (bargaining)*
- Yield Management*
- Real-time-Market*

Key Activities

*What Key Activities do your Value Propositions
require our Distribution Channels?
How do you manage our Customer Relationships?
How do you create Revenue Streams?*

CATEGORIES

- Production
- Problem Solving
- Platform/Networks



Key Resources

*What Key Resources do your Value Propositions require?
Distribution Channels?
Customer Relationships?
Revenue Streams?*

TYPES OF RESOURCES

Physical

*Intellectual (brand patents,
copyrights, data)*

Human

Financial



Key Partners

Who are your Key Partners?

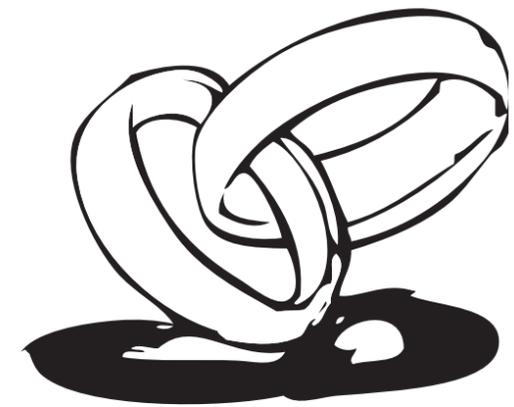
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Which Key Activities do partners perform?

Which Key Resources are you acquiring from partners?

MOTIVATIONS FOR PARTNERSHIPS

- Optimization and economy*
- Reduction of risk and uncertainty*
- Acquisition of particular*
- Resources and activities*



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FRAME04 BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners



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MOTIVATIONS FOR PARTNERSHIPS
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Key Activities



What Key Activities do your Value Propositions require?
What Distribution Channels do you use?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

CATEGORIES
- Production
- Platform/Service
- Network/Relationships

Value Propositions



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Revenue Streams?

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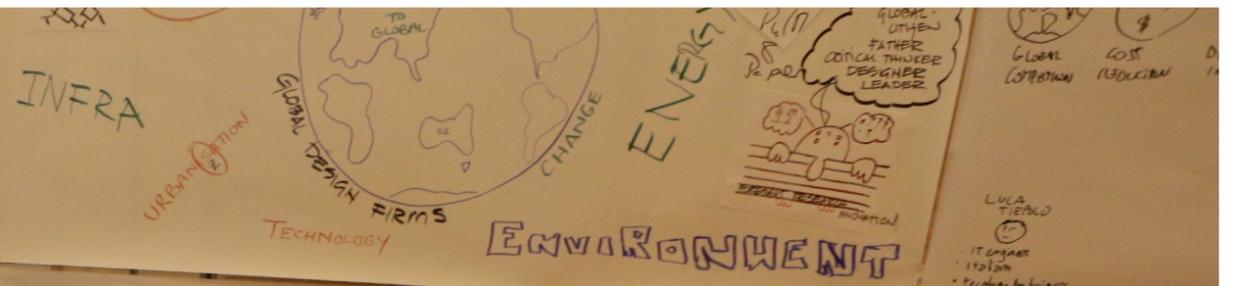
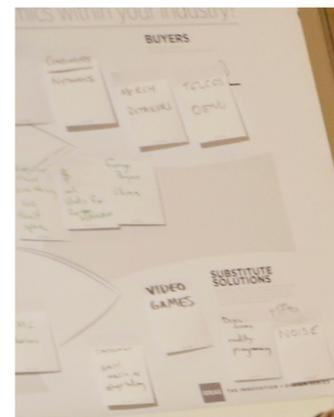
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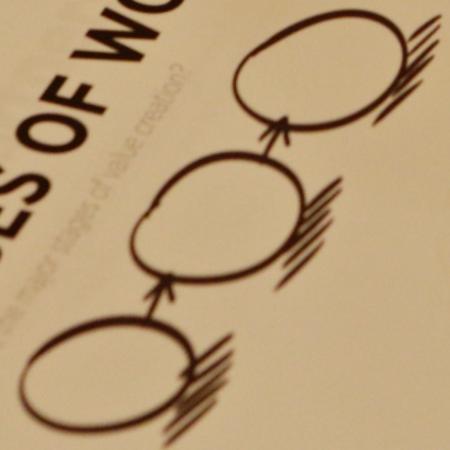






FRAME03
INDUSTRY LIFECYCLE

PHASES OF WORK
What are the major phases of value creation?



TAKEHOLDERS
Who are the primary work holders?



DESIGN



Create optimized solution for your offering

WORKFLOW

MARKET

DESIGN

PITCH TO FUNDERS

SELL

Study UNCLEAR ON ROI

CREATIVE CLEAR













BUSINESS CANVAS

TEAM ONE:

Identify new Concepts for Co-Creation.

FRAME04 BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners
Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources are you acquiring from partners?

Key Activities
What key activities do your Value Propositions require?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

Value Propositions
What value do you deliver to the customer?
Which one of your customer's problems are you helping to solve?
What bundles of products and services are you offering to each Customer Segment?
Which customer needs are you satisfying?

Customer Relationships
What type of relationship does each of your Customer Segments expect you to establish and maintain with them?
Which ones have you established?
How are they integrated with the rest of your business model? How costly are they?

Customer Segments
Who are the most important groups of people you are trying to serve?
What economic value do they create for you?
How are they integrated with the rest of your business model? How costly are they?

Key Resources
What key resources do your Value Propositions require?
Which ones are most costly?
Which ones are most rare?
Which ones are most difficult to imitate?

Channels
Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are our Channels integrated? Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer outreach?

Cost Structure
What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most costly?

Revenue Streams
For what value are your customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

Handwritten Notes:

- Key Partners:** CONTRACTOR, SUBS, ARCH, ENGERS, MODULAR MFES. GAIN TIME ADVANTAGE FROM MFRG. + MODULAR TECHNIQUES. CUSTOMERS: SUB CONTRACTORS + MODULAR CONTRACTS. FINANCING (LENDERS), COUNSEL, PR. STRATEGIC PARTNERS AND VALUE. VENDOR RELATION ON LOW PRICE.
- Key Activities:** Quality Plan with Design, Validation of Design and Plan, INTEGRATED WORK FLOW PROCESS, OPTIMISING TIME.
- Value Propositions:** VIRTUALLY VALIDATED SOLUTIONS, NEW CONCEPTS (CO-CREATING BRAND VALUE (TEAM)), SMART DESIGN FOCUSED ON INCREASING RETURN ON INVESTMENT, ENVIRONMENTALLY RESPONSIBLE/SUSTAINABLE, SHARED KNOWLEDGE, DATA BANK OF TIME, COST, QUALITY, DESIGN DETAILS, LESSONS LEARNED.
- Customer Relationships:** TRUSTED ADVISOR, ONGOING OPERATIONS ROLE, EVALUATED ON MUTUAL PERFORMANCE METRICS.
- Customer Segments:** WORK FOR THOSE OF OUR OWN CHOOSING, EVERY ONE WE SHAPE THE WORLD OF TOMORROW, REPEAT BUSINESS BY REPUTATION.
- Key Resources:** Virtual representation of Product & Process, INFORMATION DATA BANK, SHARED KNOWLEDGE VALUE PROPOSITION, CREATIVE TALENT.
- Channels:** REPEAT BUSINESS BY REPUTATION.
- Cost Structure:** MODEL DESIGNERS, PROJECT MANAGERS, IT PLATFORM, BIL DATA UPFRONT BASED ON MODEL PRIVATE FIN.
- Revenue Streams:** LONG TERM RECURRING ADDED VALUE 2WAY, PAYING BASED ON AVAILABILITY OBJECT, FIXED FEE W/ PERFORM INCENTIVE.

Logos: AUTODESK Common Operating Frameworks, IDEAS THE INNOVATION + DESIGN SERIES, www.businessmodelgeneration.com

BUSINESS CANVAS

TEAM TWO:

Create a master apprentice C2C model

FRAME04
BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners
Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources are you acquiring from partners?

Key Activities
What Key Activities do your Value Propositions require?
Which Customer Channels do you use?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

Value Propositions
What value do you provide to the customer?
What does the customer expect to gain?
What are you offering?
What are you doing differently?

Customer Relationships
What type of relationship does each of your Customer Segments expect you to establish and manage with them?
Which ones have you established?
How are they interacting with the rest of your business model? How costly are they?

Customer Segments
For whom are you creating value?
Who are your most important customers?
How do customers measure value economically?
How do customers measure value emotionally?

Key Resources
What Key Resources do your Value Propositions require?
Which Customer Channels do you use?
Customer Relationships?
Revenue Streams?

Channels
Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are our Channels integrated? Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

Cost Structure
What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

Revenue Streams
For what value are your customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenue?

Handwritten Content:

- Key Partners:** SOFTWARE COMPANIES -> PARTNER; Low Cost Commodity Service providers
- Key Activities:** CREATE VISION & SIMULATE OR TEST; AGGREGATE DATA & ANALYZE; MANAGE & MAINTAIN DATA
- Value Propositions:** MASTER APPRENTICE; ENG. PRINC.; ENG. in TRAINING; INTEGRATED APPROACH -> RISK -> VALUE; CRADLE TO CRADLE
- Customer Relationships:** MATRIX C-LEVEL
- Customer Segments:** IMPROVED OUTCOME FOR END USERS; SOPHISTICATED OWNERS
- Key Resources:** CONSTRUCTORS; EXPERIENCED DOMAIN KNOWLEDGE; DECISION making & VISION; STRATEGY; HUMAN PARALLEL PROCESSING; UTILIZED PARALLEL; DATA CONTINUITY; TECH + 20Y EXPERIENCE; MULTIPLE PARTIES
- Channels:** PANEL CONTRACTS; IDIQ FRAMEWORK; Relationship to Relationship DATA; understand owner's metrics (Business)
- Cost Structure:** PREMIUM VALUE CREATION; - ECONOMIES OF SCOPE + SCALE
- Revenue Streams:** FROM DESIGN SEL TO INSIGHT BUSINESS CONSULTING - END USER EASIER THAN TRANSACTIONAL; STRATEGIC PLANNING; DESIGN; MAINTAIN DATA

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2

BUSINESS CANVAS

TEAM THREE:
Restructuring risk through integrated data.

FRAME04 BUSINESS MODEL CANVAS

What is the business model of ^{NEW} your organization?

Key Partners
Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources are you acquiring from partners?

Key Activities
What Key Activities do your Value Propositions require?
What Distribution Channels do you use?
How do you Manage your Customer Relationships?
How do you create Revenue Streams?

Value Propositions
What value do you deliver to the customer?
Which one of your customer's problems are you helping to solve?
What bundles of products and services are you offering to each Customer Segment?
Which customer needs are you satisfying?

Customer Relationships
What type of relationship does each of your Customer Segments expect you to establish and maintain with them?
Which ones have you established?
How are they integrated with the rest of your business model? How costly are they?

Customer Segments
For whom are you creating value?
Who are your most important customers?
How do customers measure value propositionally?
How do customers measure value economically?

Key Resources
What Key Resources do your Value Propositions require?
What Distribution Channels do you use?
What Customer Relationships do you need?
What Revenue Streams do you need?

Channels
Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are our Channels integrated?
Which ones are most cost-effective?
How are we integrating them into our business model?

Cost Structure
What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

Revenue Streams
For what value are your customers really willing to pay?
For what do they currently pay?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

Handwritten Notes:

- Key Partners:** Support Svcs - Cloud; Maybe Same partners but emphasis changes; Hi tech Hi Value
- Key Activities:** Workflow mapping (consistency)
- Value Propositions:** Consolidate Integrated Validated Consistent
- Customer Relationships:** RISK RESTRUCTURED
- Customer Segments:** TORRENT TEAM
- Key Resources:** CLOUD TOOLS THAT FLOAT IN THE CLOUD; PREDICTABILITY TIME TO MARKET; BETTER CLIENT MANAGEMENT RESPONSE
- Cost Structure:** Value expectation through entire value chain; Variable Cost model reduced o/h by using 'fairm'; Effort + O/H drives operating Struet + stcl workflow; Cost over-run Captured Where incurred
- Revenue Streams:** PROPORTIONAL REWARD DISTRIBUTION

Logos: AUTODESK. Common Operating Frameworks; G10 CONSULT; IDEAS THE INNOVATION + DESIGN SERIES; 3

BUSINESS CANVAS

TEAM FOUR:
Focus on ultimate Customer Satisfaction.

FRAME04

BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners

Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources do you acquire from partners?

- DEVELOPER
 - PROJECT INTEGRATION
 - FINANCE
 - DESIGN
 - BUILDERS
 - OWNERS
- CLIENT/
CUSTOMERS



Key Activities

What Key Activities do your Value Propositions require?
What distribution Channels do you use?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

REQUIREMENT
DEFINITION
MEETINGS
&
DOCUMENTATION

Recognize subtle
functional
evolution to require
to change needs
Iterative design

Value Propositions

What value do you deliver to the customer?
Which one of your customer's problems are you helping to solve?
What bundles of products and services are you offering to each Customer Segment?
Which customer needs do you address?

Ultimate, cust.
satisfaction.

- Better product
- Higher quality
- Lower op. cost
- Lower cost cost
- On-time delivery



Customer Relationships

What type of relationship does each of your Customer Segments expect you to establish and maintain with them?
Which ones have you established?
How are they integrated with the rest of your business model? How costly are they?

Integrated exp.
Better/efficient
Communs.
Customer feedback
mechanism.
Response.

Customer/Client

- retention
- loyalty
- satisfaction
- trust



Customer Segments

For whom are you creating value?
Who are your most important customers?
How do customers measure value economically?
How do customers measure value emotionally?

Most important

- END USERS #1
- OWNERS/ #2 OPERATORS
- INVESTORS #3

Value for

- OWNERS
- OPERATORS
- USERS
- INVESTORS



Key Resources

What Key Resources do your Value Propositions require?
What distribution Channels do you use?
Customer Relationships?
Revenue Streams?

ENGINEERING
INTEGRATION
TEAM

Data + Doc
Management
TEAM

GIS
TEAM

FEASIBILITY
EMERIT
\$ ON
Project
Attr. butea

PROJECT
CONTROLS
TEAM

PROCUREMENT
TEAM

EARLIER
AND MORE
COMPREHENSIVE
PROTECT
INTEGRATION

∴ SAVE TIME
MONEY
∴ BETTER QUALITY
+ LESS WASTE/CONFLICT

Channels

Through which Channels do your Customer Segments want to be reached?
How are you reaching them now?
How are your Channels integrated? Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer business?

How do we reach them?

- Public mtg.
- Local news/media
- web
- Social media



Cost Structure

What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

INTEGRATION
SPECIALISTS

SYSTEMS
DEVELOPMENT

INTEGRATION
MANAGER



Revenue Streams

For what value are your customers really willing to pay?
For what do they currently pay?
How would they prefer to pay?
How much does each Customer Segment pay? (Price sensitivity to overall demand?)

Integrated
Model

TRAINING
of Staff
(course)

Risk management
+ reduction

Customer
loyalty



BUSINESS CANVAS

TEAM FIVE:
Share risk of design and operations.

FRAME04 BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners

Who are your Key Partners?
Who are your key suppliers?
Which Key Activities do partners perform?
Which Key Resources are you acquiring from partners?

CLIENTS
SALES
ENGIN
R&D
MFG
SUPPLIERS

New
Maintenance
support
partners

- availability
at customer
site (global)

Key Activities

What Key Activities do your Value Propositions require?
Which Key Resources do you need?
How do you manage your Customer Relationships?
How do you create Revenue Streams?

ONGOING
MAINTENANCE
CONTRACTS

UPGRADES TO
EXISTING
INSTALLATIONS

NEW PRODUCT
SALES

- Key Partners

Key Resources

What Key Resources do your Value Propositions require?
Which Key Activities do you need?
Which Customer Relationships do you need?
Which Revenue Streams do you need?

GLOBAL
STANDARDS
FOR
DESIGN
MANUFACTURING
SERVICE

SALES → CLIENT
ENGINEERING
EXPERTISE

TECHNOLOGY
INNOVATION
R&D

CAPITAL
INVESTMENTS

Value Propositions

What value do you deliver to the customer?
Which one of your customer's problems are you helping to solve?
What bundle of products and services are you offering to each Customer Segment?
Which customer needs are you satisfying?

SHARE THE
RISK OF
DESIGN &
OPERATIONS

CUSTOMIZATION
INCOME "EUSO
PRODUCT"

RELIABILITY
SUSTAINABILITY
QUALITY

ENGINEERING
EXPERTISE

AUTOMATION
EXPERTISE

CUSTOMER
FLEXIBILITY

SPEED OF
DELIVERY

TIME TO
MARKET
FOR NICHE
PRODUCT
SPECIFIC TO
CLIENT

GLOBAL
SERVICES

LOCAL
ASSISTANCE

Customer Relationships

What type of relationship does each of your Customer Segments expect you to establish and maintain with them?
Which ones have you established?
How are they integrated with the rest of your business model? How costly are they?

SERVICES X
PLANT
OPTIMIZATION

KEEPING THEM
AWARE OF
NEW TECHNOLOGIES
& BETTER PERFORMANCE
OPTIONS

OPERATIONS ELF SEPARATE
OR SPAN
ACROSS

Channels

THROUGH WHICH CHANNELS DO YOUR CUSTOMER SEGMENTS WANT TO BE REACHED?
How are they reaching them now?
How are our Channels integrated? Which ones work best?
Which ones are most cost-efficient?
How are we integrating them with customer routines?

ATB
THROUGH
SERVICE

DIRECT
SALES TO
CLIENT
PROCUREMENT

Direct
contact

Customer Segments

For whom are you creating value?
Who are your most important customers?
How do customers measure value economically?
How do customers measure value emotionally?

Customer
needs
reliability
for his
business

Sell
h of service
of machinery
& economic
value of
customer

MEASURE VALUE
ON ROI
+
HAPPINESS OF
THEIR OPERATOR.

THEIR CLIENTS
HAPPY WITH PRODUCT

No emergency
calls
by customer

NICHE
TARGET

Cost Structure

What are the most important costs inherent in your business model?
Which Key Resources are most expensive?
Which Key Activities are most expensive?

MATERIAL RICH.
DESIGN HOURS
MFG HOURS

STANDARDIZATION
MFG FLEXIBILITY

VALUE
CREATION

STD. COMPONENTS
ASSEMBLED INTO
A VARIETY OF
PRODUCTS.

Revenue Streams

For what value are your customers really willing to pay?
For what do they currently pay?
How are they currently paying?
How would they prefer to pay?
How much does each Revenue Stream contribute to overall revenues?

PREVENTATIVE
MAINTENANCE
CONTRACTS

high revenue
for reliable
service of
machinery

today
just invest
of equipment
NO service

today
pay / month

future
pay / year

SUSTAINABLE
PRODUCTS

MACHINE
UPGRADES
WITH NEW
TECHNOLOGIES

BUSINESS CANVAS

TEAM SIX:

Build, own, lead and manage data model.

FRAME04
BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners

- Client
- Client key stakeholders
- Billboards
- ACADEMIA / RESEARCH

Key Activities

- ANALYTICS
- INFORMATION MANAGEMENT
- BIG DATA
- Upskill designers in how to build & build on the value of design
- FACILITATE THE RELATIONSHIPS BETWEEN ALL PARTNERS / STAKEHOLDERS

Value Propositions

- BUILD, OWN, LEAD & MANAGE DATA MODEL
- CASE STUDIES & METRICS THAT PROVE YOUR DESIGN
- DEEP UNDERSTANDING OF CLIENTS BUSINESS & PROBLEMS
- UNIQUE DESIGN INTELLIGENCE & EXPERIENCE (MARKET)
- RISK MITIGATION
- PIECE OF MIND (CONFIDENCE)
- COST CONTROLS (EFFICIENCY)
- "YOU WILL HAVE NO RISK" (RISK OWNERSHIP)
- INNOVATION
- AGILITY
- ALTERNATIVE SUPPLY PROPOSITIONS
- FUTURE-PROOFING BUILDINGS & INFRASTR. (CERTAINTY)
- UNDERSTANDING THE CLIENT'S CUSTOMER

Customer Relationships

- TRUST
- REAL TIME INFO & CONFIDENCE

Channels

- BUILD ON TRUSTED PARTNERSHIPS REACH-OUT
- CALL CLIENTS AND GO TO THEM (IN THEIR LANGUAGE?)
- CLIENT NETWORKS & ORGS

Customer Segments

- CLIENTS BUSINESS
- MULTI-NICHE BUSINESS
- OWNER OPERATORS - END TO END 1-STOP SERVICE
- LONG TERM PROJECT COSTS?
- SHORT TERM? ENERGY COSTS?

Key Resources

- EXPERT CONSULTANTS
- INTEGRATED RESOURCE PLANNING
- PROJECT CONTROL SYSTEM
- BIM Managers

Cost Structure

- Maximize use of low cost resource - OUTSOURCING
- OPTIMIZED BACK-OFFICE - CENTRALIZED - SSC'S
- INDUSTRY Standard Contracts.
- 'SMART LEARNING ENVIRONMENTS (SYSTEM)
- CLIENT BUSINESS DATA

Revenue Streams

- SELL "OPERATE" SERVICES
- SELL USER RESEARCH TO OTHER PARTNERS
- LICENSE DATA & MODEL
- ONE STOP SHOP

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BUSINESS CANVAS

TEAM SEVEN:
Create an integrated prototyping system.

FRAME04 BUSINESS MODEL CANVAS

What is the business model of your organization?

Key Partners
Build/Identify Scalable Cost Production Facilities
Key Creatives willing to Sign into A World

Key Activities
CREATING A WORLD THAT HAS MULTIPLE STORY OPPORTUNITY
CREATE CONTENT FOR EVERY CHANNEL

Value Propositions
MULTIPLE INTERACTIONS WITH A WORLD THAT YOU LOVE
ANYTIME, ANYWHERE, ANY MEDIUM
INSPIRE, FANTASY, ESCAPE, LAUGH, CRY
DREAMS

Customer Relationships
DISCOVER AUDIENCE
ENGAGE (STUDIO ↔ CUSTOMER)

Customer Segments
FOUR QUADRANT

	CHILD	ADULT
MALE	×	×
FEMALE	×	×

Key Resources
ANALYTICS

Channels
THEATRICAL TV, NETFLIX, VIDEO GAMES, YOUTUBE APPS
WEB VOD, TOYS, CLOTHES

Cost Structure
CAPITAL WITH CONTINUITY ACROSS MULTIPLE OPPORTUNITIES
COSTS SCALE AGAINST REVENUE OPPORTUNITY

Revenue Streams
AUDIENCE INVESTS, PRE SALE
FRANCHISE PASS
EXISTING REVENUE STREAMS
EVALUATE GROSS REVENUE APPEAL AT EVERY RELEASE OPPORTUNITY across chnl

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FRAME 05 BOLD STEPS

What are the broad forces shaping your industry?

ENVIRONMENT

- DESIRE TO MAKE A STATEMENT (PERSONAL & CORPORATE) ABOUT POSITION ON ENVIRONMENT
- ENVIRONMENTAL PRESERVATION is still an option versus necessity
- opportunity to redefine how we design + build components & assemblies vs. bricks + sticks
- ALWAYS CONNECTED
- CO2 ENERGY DELIVERING INSTANTLY
- Awareness to firmness of global economy is growing!

ECONOMY

- RISK BEING PUSHED TO CONTRACTORS DISTORTION B/W RISK & REWARD
- MARGIN PRESSURE - harder to make A RETURN.
- Buyer's Market" - increased commoditization
- Reduced funding for government (Fed, State, ...) projects
- uncertainty in private funding

POLICY

- Integrated thinking is required for success
- Awareness of legal requirements in the synthetic or virtual world
- policy making has become stratified - non-production "collaboration" is losing!
- DATA OWNERSHIP & SECURITY GLOBALLY IS HEAVILY REGULATED & VERY COMPLEX
- ACA IMPACT ON HEALTHCARE PROVIDERS: HOW THEY DELIVER SERVICES

SOCIETY

- digital HUMAN INTERACTION - ONLINE GAMING - TEXTING
- Connectivity through social media
- INCREASING COMMITMENT TO WORK!
- Society is becoming more pluralistic!
- INFORMATION management is key to successful business value
- Technology enabling us underpinning of dialog / communication
- Age where any time Access to information

SOCIETY

- Digital HUMAN INTERACTION - ONLINE GAMING - TEXTING
- Connectivity through social media
- INCREASING COMMITMENT TO WORK!

FRAME05 BOLD STEPS

FLIP'D

What must your organization do to grow and thrive?

FOR our new and returning customers	WHO need to reduce costs and project schedules while ensuring low TCO and CO2 footprint	THE Name of your bold step initiative Use it's catchy and memorable name	IS A a next gen Design & Build Company	THAT Design & Build 30% Faster	UNLIKE YOU!	WE ESTABLISH MUTUAL PERFORMANCE METRICS + GENERATE PROOF	COST SAVINGS CERTAINTY	ENHANCED ROI
---	---	---	--	--	------------------------------	--	-------------------------------	---------------------

DESIGN & BUILD 30% FASTER

INFRASTRUCTURE THAT DEMANDS MUTUAL TRUST
Full COLLABORATION

REDEFINE ROLES & PROCESS
REDEFINE RISK/REWARD (INCENTIVES)

PERFORMANCE CRITERIA DEFINED UPFRONT
AGREEMENT TO LIMIT CHANGE & MAKE RAPID DECISION

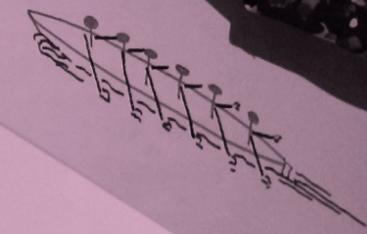
TECHNOLOGY PLATFORM TO ENABLE THE NEW PROCESS
OPEN TO CROSS-PLATFORM INTEGRATION

REDEFINE IPD
DEFINE VALUE PROP. FOR ALT. CONTRACTING FORM

IMPROVE SUPPLY CHAIN MANAGEMENT
- DESIGN
- MATERIALS
- EXECUTION
- MANAGEMENT

FOR

- SOPHISTICATED OWNER USERS
- OPERATIONAL DRIVEN DESIGN.
- BUILDER
- SOFTWARE TECHNOLOG



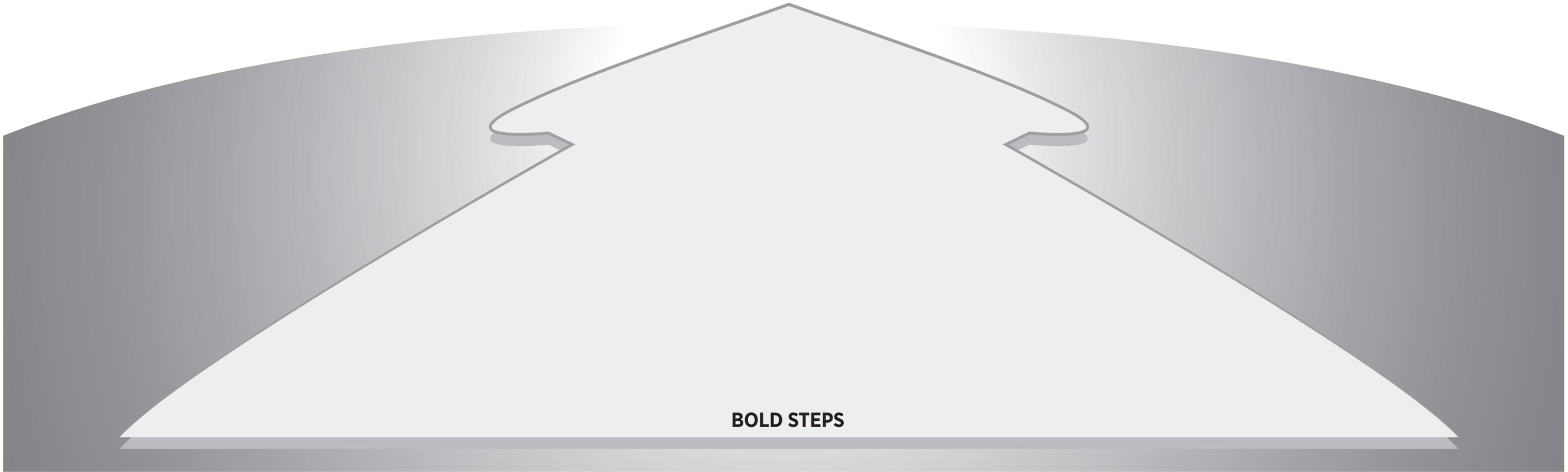
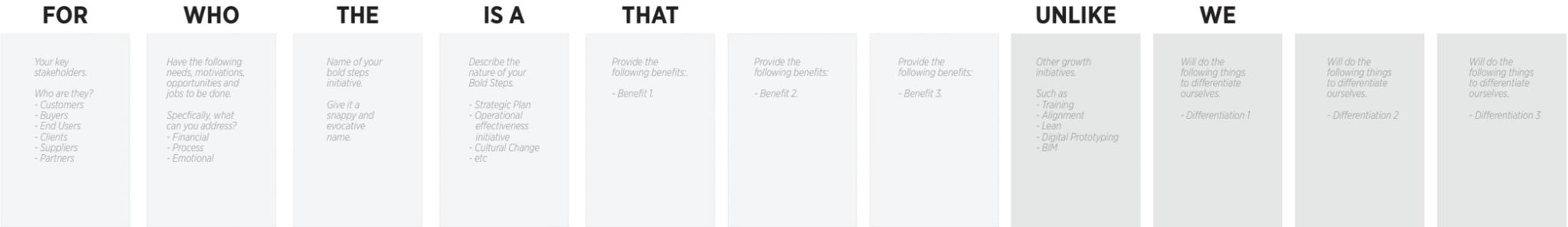
FRAME 05 BOLD STEPS

Each team developed a vision for a new organization that would thrive in the new economy, identifying

- WHO it would serve
- WHAT problems it would solve
- HOW it would solve the problems
- WHY it was important
- WHERE it would differentiate itself

FRAME05
BOLD STEPS

What must your organization do to grow and thrive?



FOR

Your key stakeholders.

Who are they?

- Customers
- Buyers
- End Users
- Clients
- Suppliers
- Partners

WHO

Have the following needs, motivations, opportunities and jobs to be done.

Specifically, what can you address?

- Financial
- Process
- Emotional

FOR

Your key stakeholders.

Who are they?

- Customers
- Buyers
- End Users
- Clients
- Suppliers
- Partners

WHO

Have the following needs, motivations, opportunities and jobs to be done.

Specifically, what can you address?

- Financial
- Process
- Emotional

THE

Name of your bold steps initiative.

Give it a snappy and evocative name.

IS A

Describe the nature of your Bold Steps.

- Strategic Plan
- Operational effectiveness initiative
- Cultural Change
- etc

IS A

THAT

Describe the nature of your Bold Steps.

- Strategic Plan
- Operational effectiveness initiative
- Cultural Change
- etc

Provide the following benefits:

- Benefit 1.

Provide the following benefits:

- Benefit 2.

Provide the following benefits:

- Benefit 3.

UNLIKE

Other growth initiatives.

Such as

- Training*
- Alignment*
- Lean*
- Digital Prototyping*
- BIM*

WE

Will do the following things to differentiate ourselves.

- Differentiation 1*

Will do the following things to differentiate ourselves.

- Differentiation 2*

Will do the following things to differentiate ourselves.

- Differentiation 3*

FOR

Your key stakeholders.

Who are they?

- Customers
- Buyers
- End Users
- Clients
- Suppliers
- Partners

WHO

Have the following needs, motivations, opportunities and jobs to be done.

Specifically, what can you address?

- Financial
- Process
- Emotional

THE

Name of your bold steps initiative.

Give it a snappy and evocative name.

IS A

Describe the nature of your Bold Steps.

- Strategic Plan
- Operational effectiveness initiative
- Cultural Change
- etc

THAT

Provide the following benefits:.

- Benefit 1.

Provide the following benefits:

- Benefit 2.

Provide the following benefits:

- Benefit 3.

UNLIKE

Other growth initiatives.

- Training
- Alignment
- Lean
- Digital Prototyping
- BIM

WE

Will do the following things to differentiate ourselves.

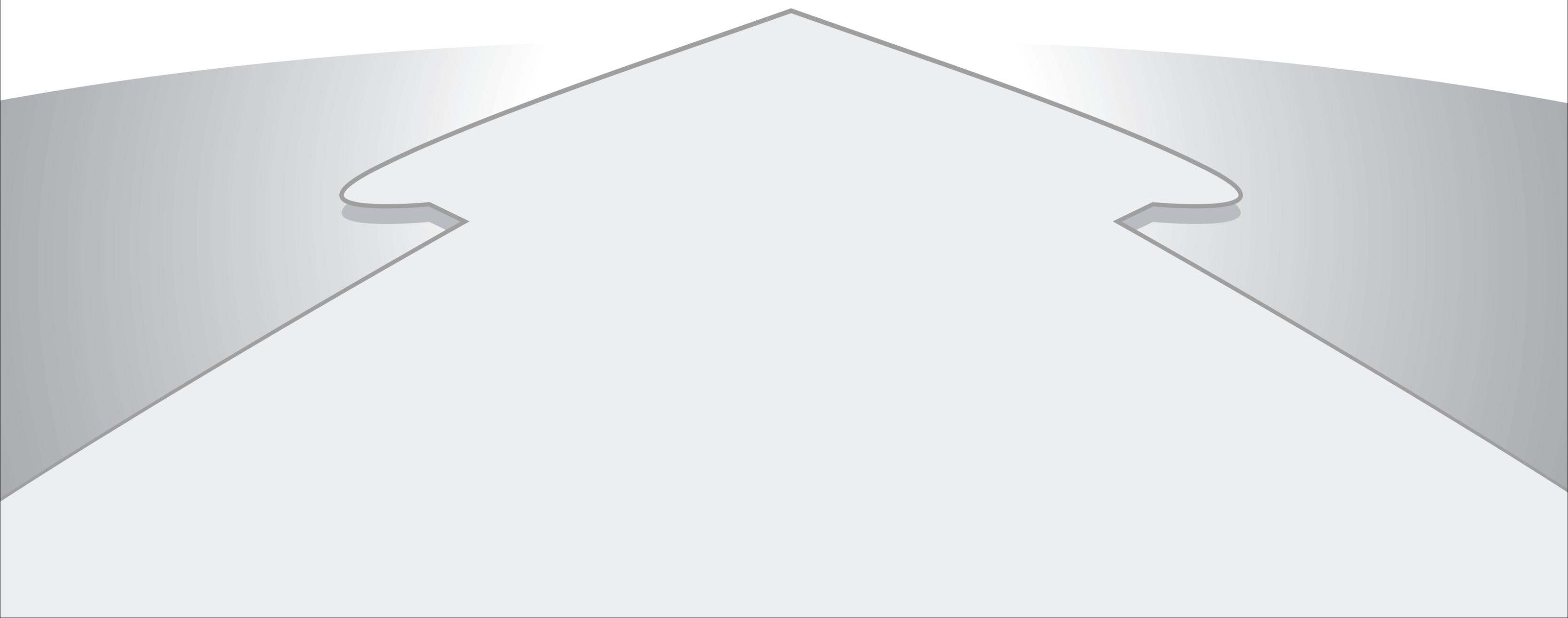
- Differentiation 1

Will do the following things to differentiate ourselves.

- Differentiation 2

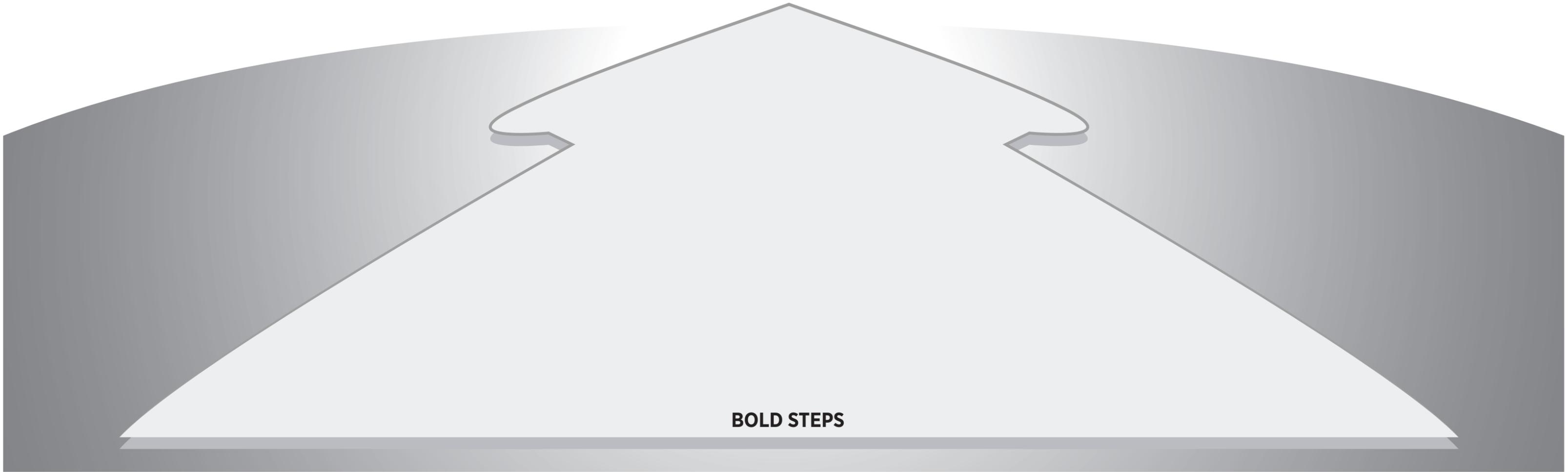
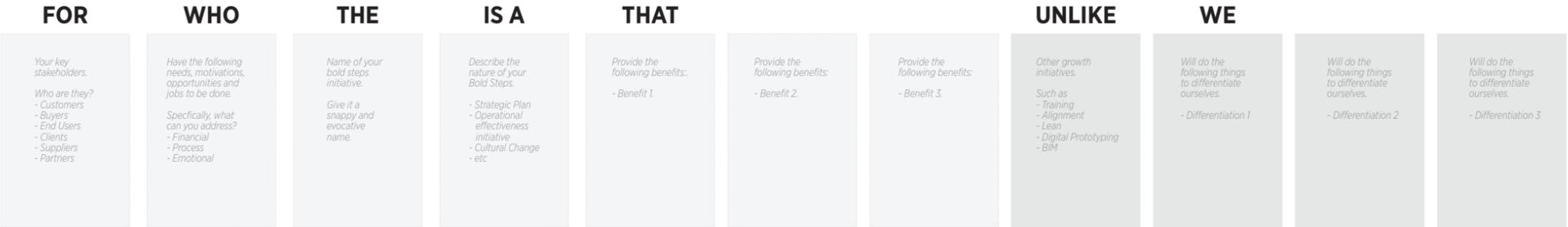
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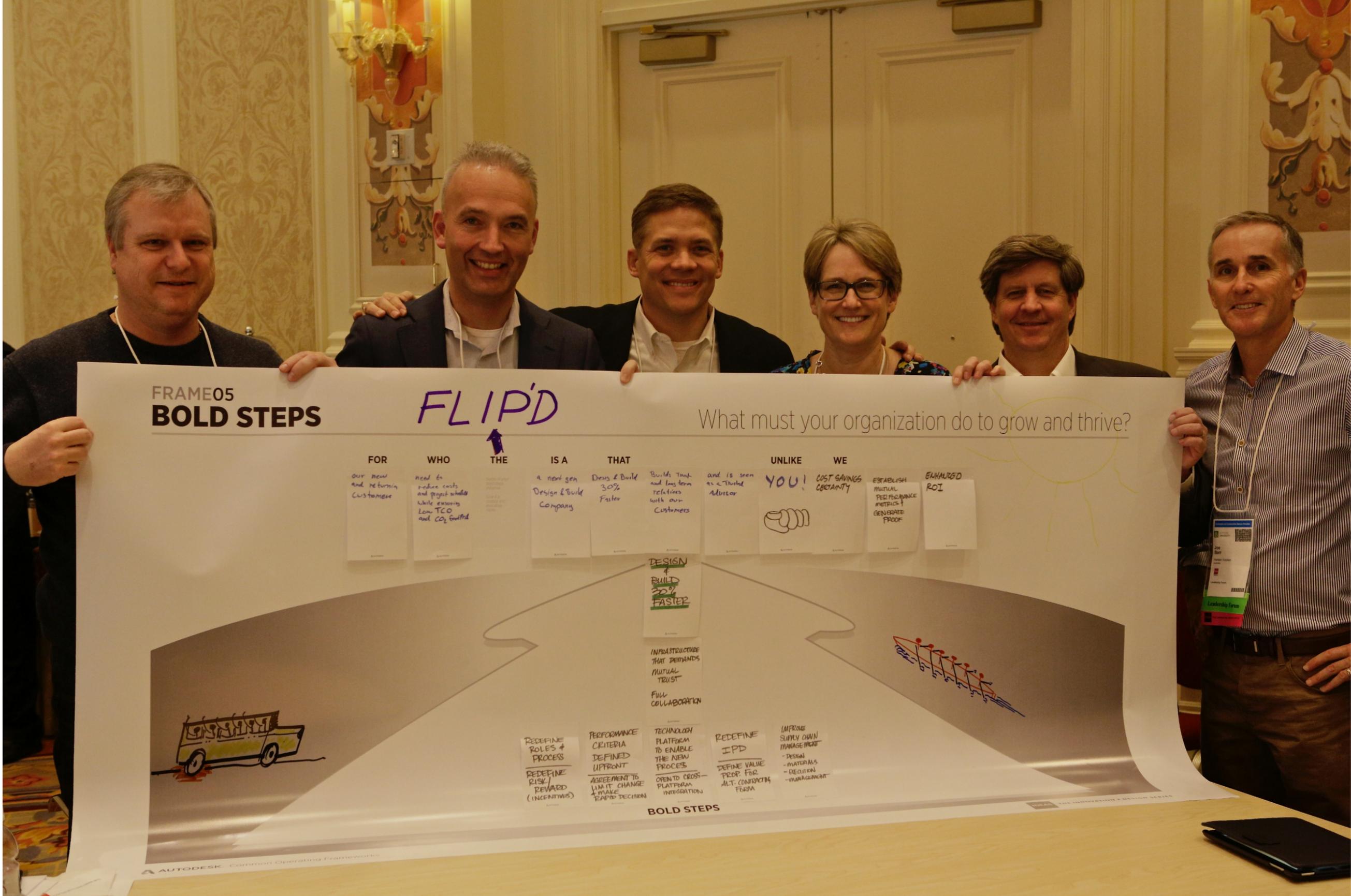
- Differentiation 3



FRAME05
BOLD STEPS

What must your organization do to grow and thrive?





FRAME05
BOLD STEPS

FLIP'D

What must your organization do to grow and thrive?

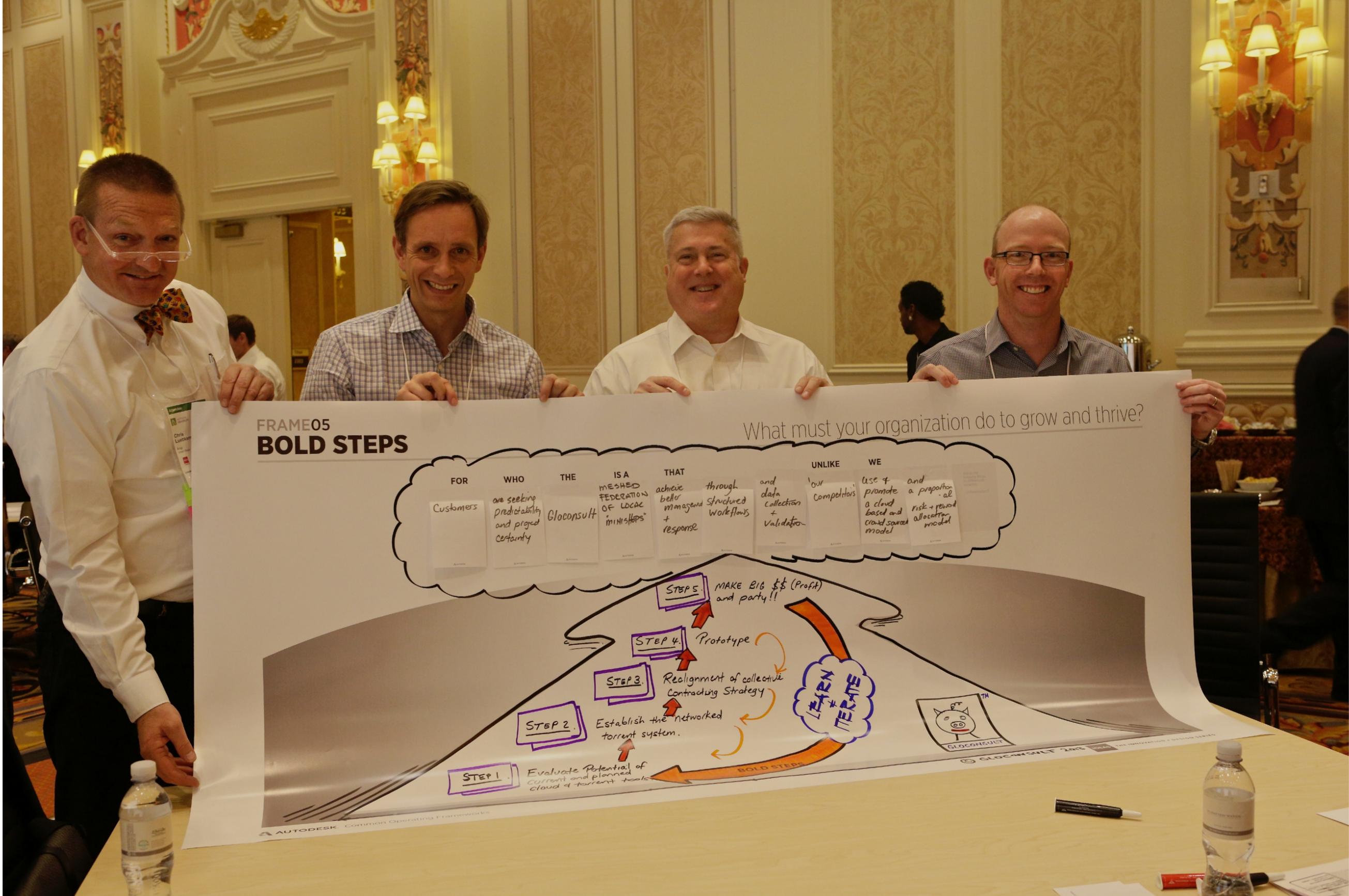
FOR	WHO	THE	IS A	THAT	UNLIKE	WE
our new and returning customers	need to reduce costs and project schedule while ensuring Low TCO and CO ₂ footprint	↑	a next gen Design & Build Company	Design & Build 30% Faster	Builds Trust and long term relations with our customers and is seen as a Trusted Advisor	YOU! COST SAVINGS CERTAINTY
						ESTABLISH MUTUAL PERFORMANCE METRICS + GENERATE PROOF
						ENHANCED ROI

DESIGN & BUILD 30% FASTER

INFRASTRUCTURE THAT DEMANDS MUTUAL TRUST
FULL COLLABORATION

REDEFINE ROLES & PROCESS	PERFORMANCE CRITERIA DEFINED UPFRONT	TECHNOLOGY PLATFORM TO ENABLE THE NEW PROCESS	REDEFINE IPD	IMPROVE SUPPLY CHAIN MANAGEMENT
REDEFINE RISK/REWARD (INCENTIVES)	AGREEMENT TO LIMIT CHANGE & MAKE RAPID DECISIONS	OPEN TO CROSS-PLATFORM INTEGRATION	DEFINE VALUE PROP. FOR ALT. CONTRACTING FORM	- DESIGN - MATERIALS - DELIVERY - MANAGEMENT

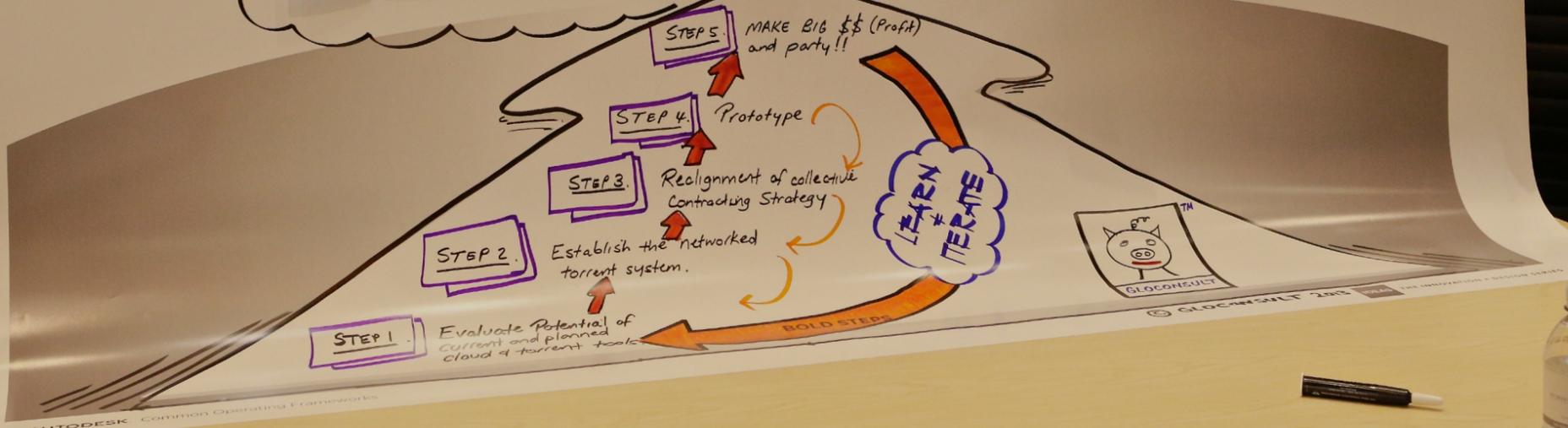
BOLD STEPS



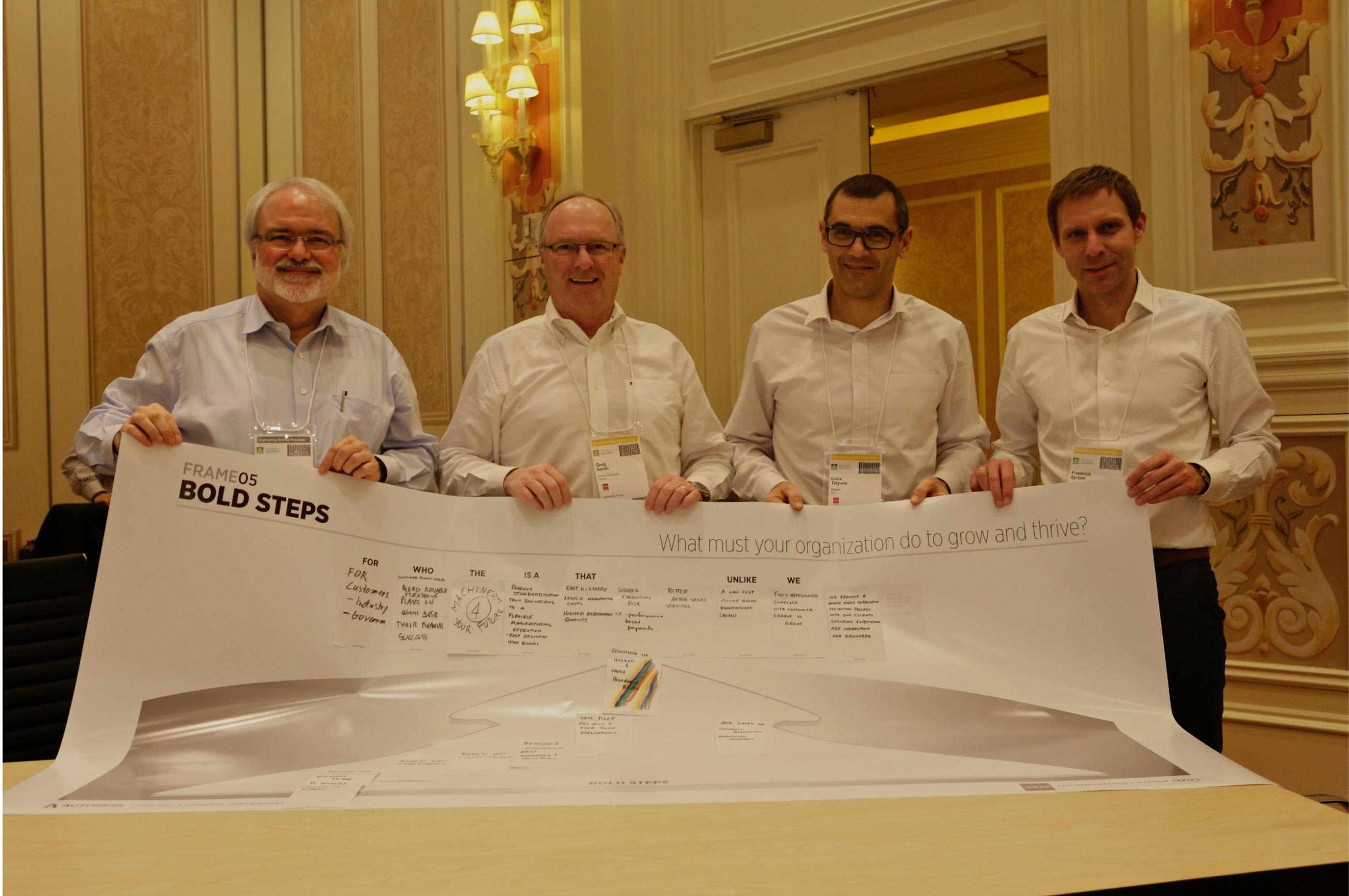
**FRAME05
BOLD STEPS**

What must your organization do to grow and thrive?

FOR WHO THE IS A THAT UNLIKE WE
Customers are seeking predictability and project certainty
Gloconsult
MESHED FEDERATION OF LOCAL "MINISTERS"
achieve better management + response
through structured workflows and data collection + validation
our competitors
use 4 and promote a cloud based and crowd sourced model
and a proportional risk + reward allocation model

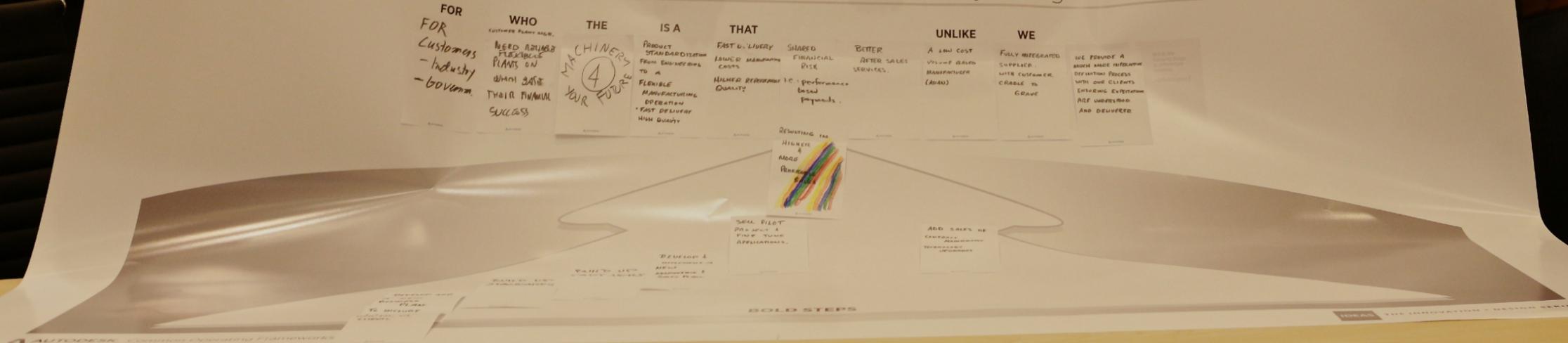


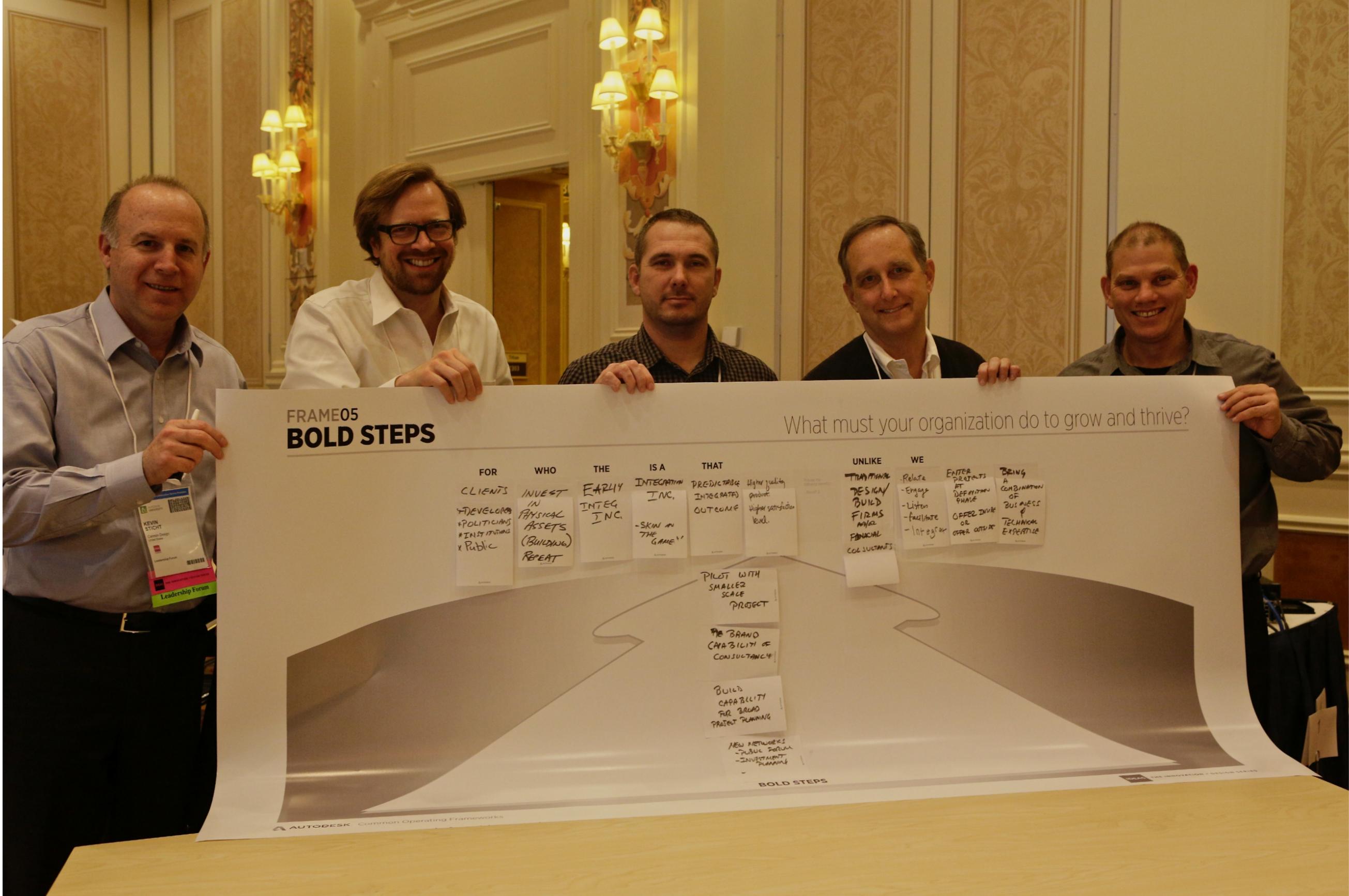




**FRAME05
BOLD STEPS**

What must your organization do to grow and thrive?





FRAME05
BOLD STEPS

What must your organization do to grow and thrive?

FOR	WHO	THE	IS A	THAT	UNLIKE	WE
CLIENTS DEVELOPERS POLITICIANS INSTITUTIONS PUBLIC	INVEST IN PHYSICAL ASSETS (BUILDING) REPEAT	EARLY INTEG INC.	INTEGRATION INC. -SKIN IN THE "GAME"	PREDICTABLE INTEGRATED OUTCOME Higher quality products Higher satisfaction level.	TRADITIONAL DESIGN/ BUILD FIRMS AND FINANCIAL CONSULTANTS	-Relate -Engage -Listen -Facilitate -Integrate ENTER PROJECTS AT DEFINITION PHASE OFFER IN-HOUSE OR OFFER OUTSIDE BRING A COMBINATION OF BUSINESS & TECHNICAL EXPERTISE

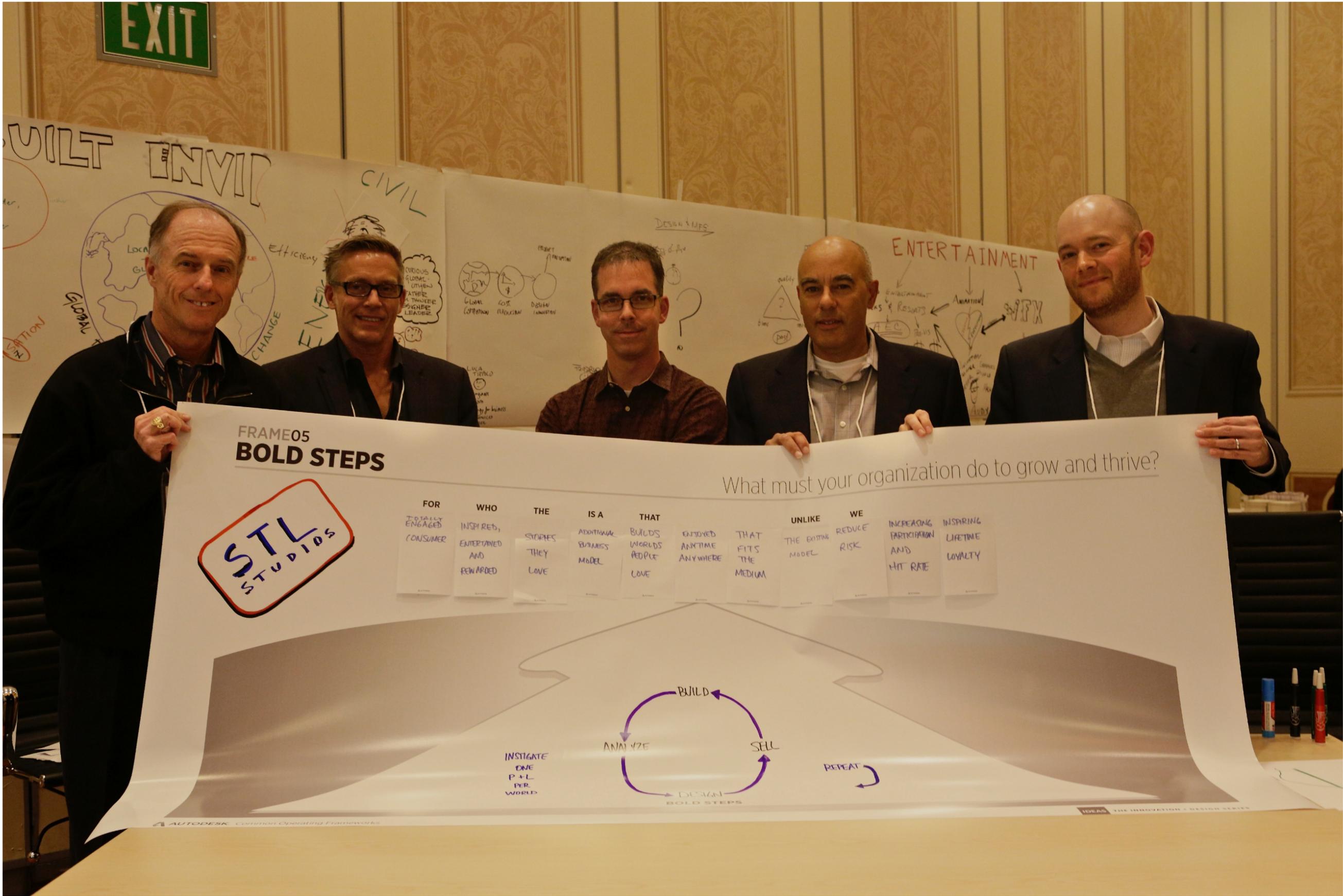
PILOT WITH
SMALLER
SCALE
PROJECT

THE BRAND
CAPABILITY OF
CONSULTANCY

BUILD
CAPABILITY
FOR BROAD
PROJECT PLANNING

NEW NETWORKS
-PUBLIC FORUM
-INVESTMENT
PLANNING

BOLD STEPS

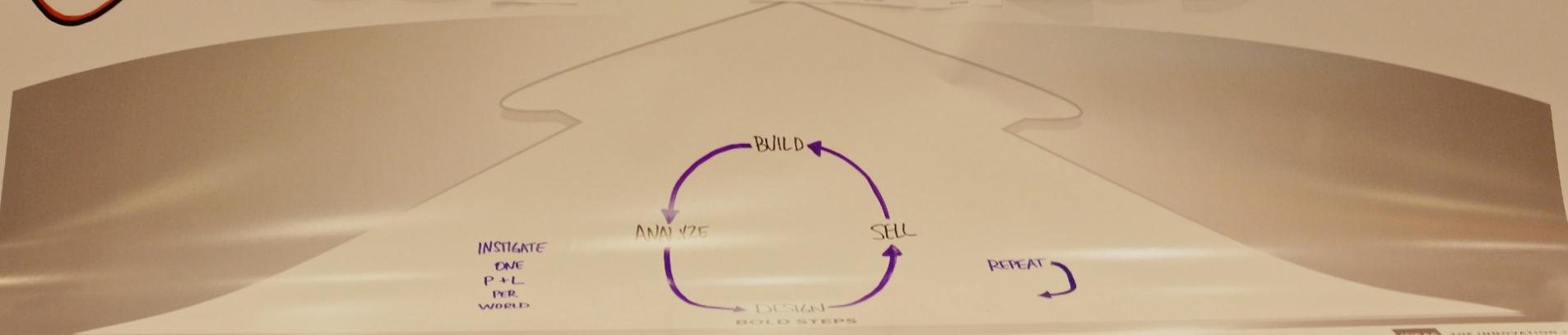


FRAME05
BOLD STEPS



What must your organization do to grow and thrive?

FOR TOTALLY ENGAGED CONSUMER	WHO INSPIRES, ENTERTAINED AND REWARDED	THE STORIES THEY LOVE	IS A ADDITIONAL BUSINESS MODEL	THAT BUILDS WORLDS PEOPLE LOVE	ENJOYED ANYTIME ANYWHERE	THAT FITS THE MEDIUM	UNLIKE THE EXISTING MODEL	WE REDUCE RISK	INCREASING PARTICIPATION AND HIT RATE	INSPIRING LIFETIME LOYALTY
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FRAME05
BOLD STEPS

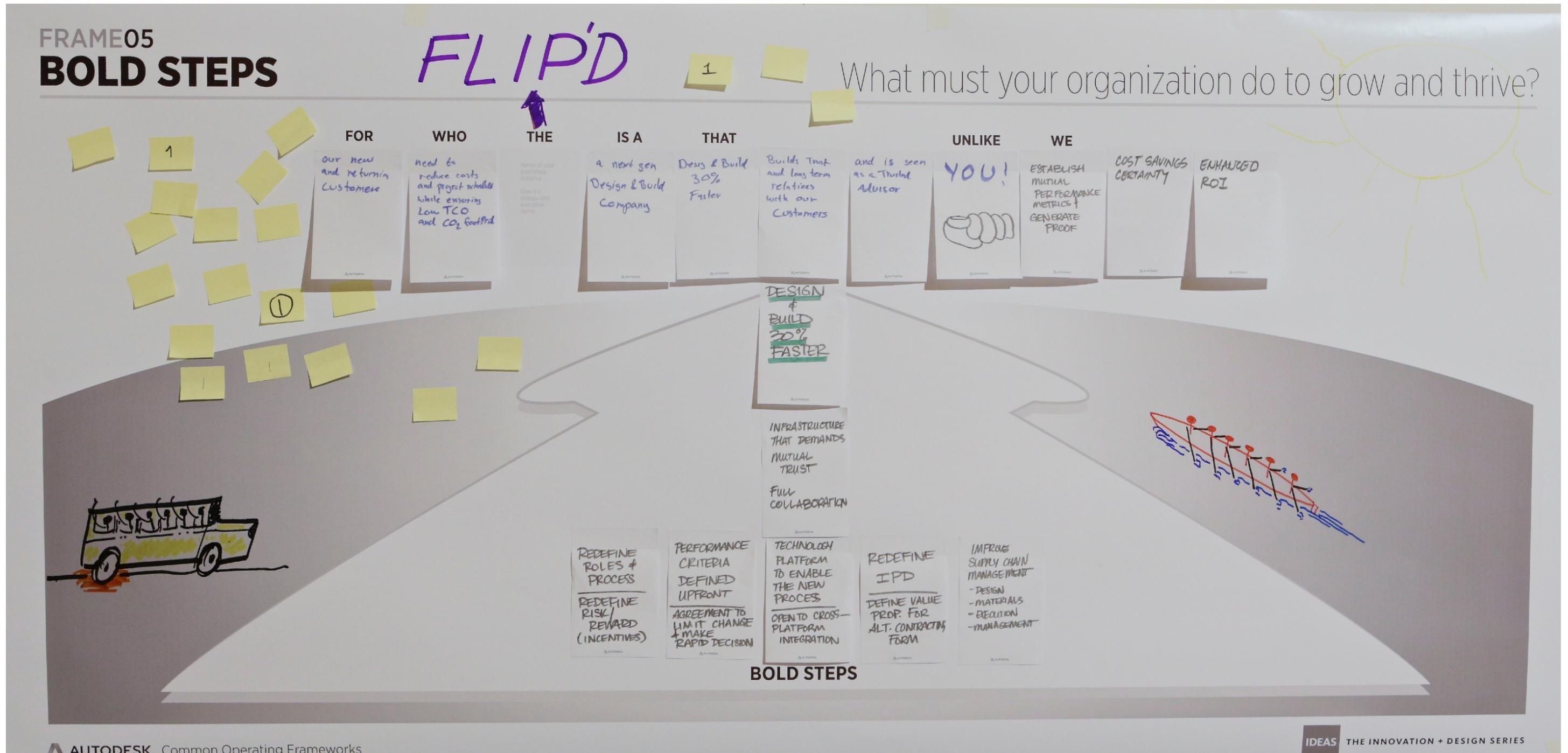
MASTER Inc. What must your organization do to grow and thrive?

FOR	WHO	THE	IS A	THAT	THAT PROVIDES	THAT	UNLIKE	WE	ENGAGE AT AN EARLIER POINT IN THE VALUE CHAIN, MORE STRATEGICALLY	MAINTAIN DIRECT CUSTODIAL RELATIONSHIP WITH PROJECT DATA THROUGH LIFECYCLE OF THE ASSET	TO COOL THE (NEW) POTATO
SOPHISTICATED OWNER USERS OPERATIONAL DRIVEN DESIGN. BUILDER SOFTWARE TECHNOLOGY	HAS HIGH VOLUME OF NEED & VALUES STRATEGIC PARTNERSHIP	MASTER Inc.	APPRENTICE PROBLEM SOLVING PARTNER WITH OTHER PROFESSIONALS & ORGANIZATIONS	PROVIDES INTEGRATED BUSINESS VALUE	SPEEDS QUALITY OPERABILITY CREATES BETTER FUNCTIONAL OUTCOMES	REDUCES RISK FOR ALL PARTIES	TRADITIONAL DESIGN SERVICE PROVIDERS THAT FOCUS ON PROFITS	WE FOCUS ON UNIQUE INTELLECTUAL VALUE, NOT COMMODITIZED, HIGH RISK SERVICES			



BOLD STEPS

TEAM ONE:
Architecture, Engineering, Construction



BOLD STEPS

TEAM TWO:
Architecture, Engineering, Firms

FRAME05
BOLD STEPS

MASTER Inc.

What must your organization do to grow and thrive?

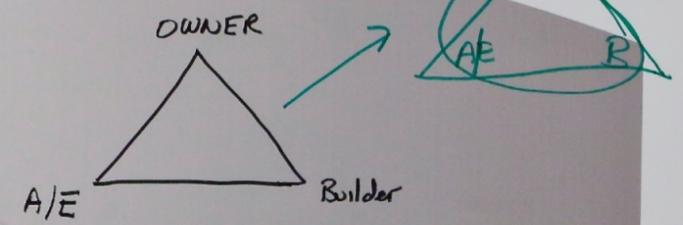
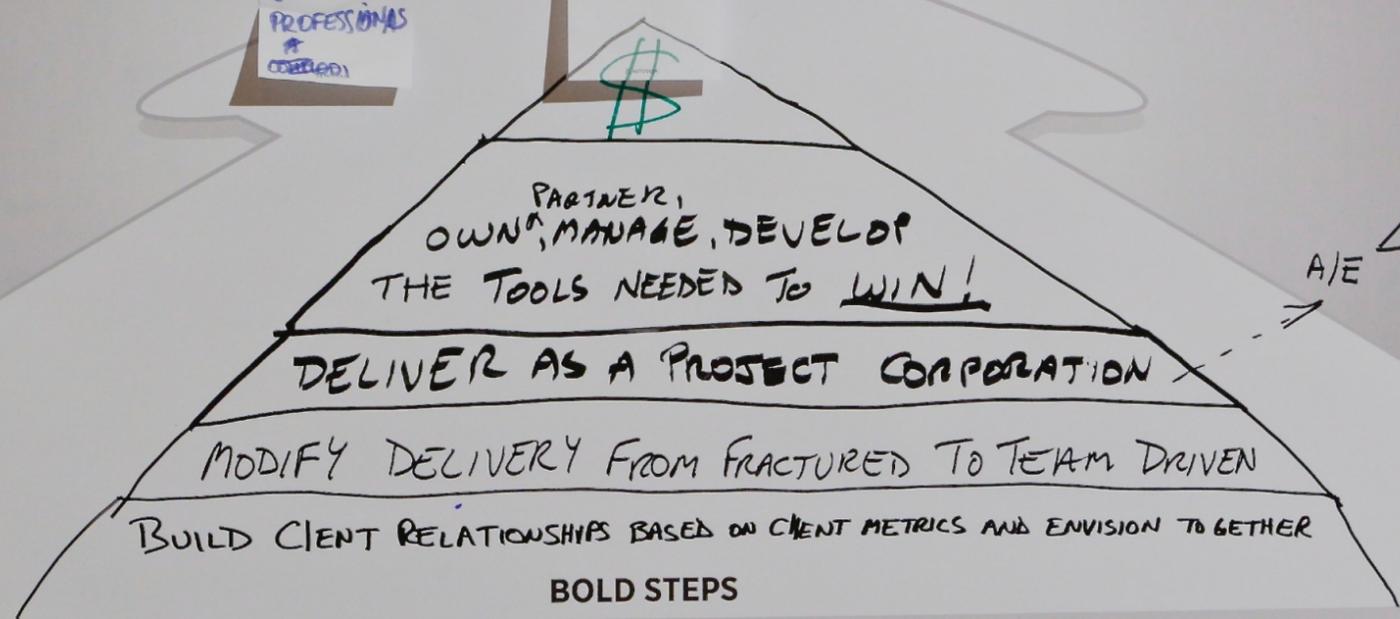
3 2

FOR WHO THE IS A THAT THAT UNLIKE WE

- FOR: SOPHISTICATED OWNER USERS, OPERATIONAL DRIVEN DESIGN, BUILDER, SOFTWARE TECHNOLOGY
- WHO: HAS HIGH VOLUME OF NEED & VALUES STRATEGIC PARTNERSHIP
- THE: MASTER Inc.
- IS A: MASTER APPRENTICE PROBLEM SOLVING, PARTNER WITH OTHER PROFESSIONALS
- THAT: PROVIDES INTEGRATED BUSINESS VALUE, CREATES BETTER FUNCTIONAL OUTCOMES
- THAT: SPEED, QUALITY, OPERABILITY, REDUCES RISK FOR ALL PARTIES
- UNLIKE: TRADITIONAL DESIGN SERVICE PROVIDERS THAT FOCUS ON PROJECTS
- WE: ENGAGE AT AN EARLIER POINT IN THE VALUE CHAIN, MORE STRATEGICALLY, WE FOCUS ON UNIQUE INTELLECTUAL VALUE, NOT COMMODITIZED, HIGH RISK SERVICES

2

AWESOME COLLABORATION AGREEMENT.

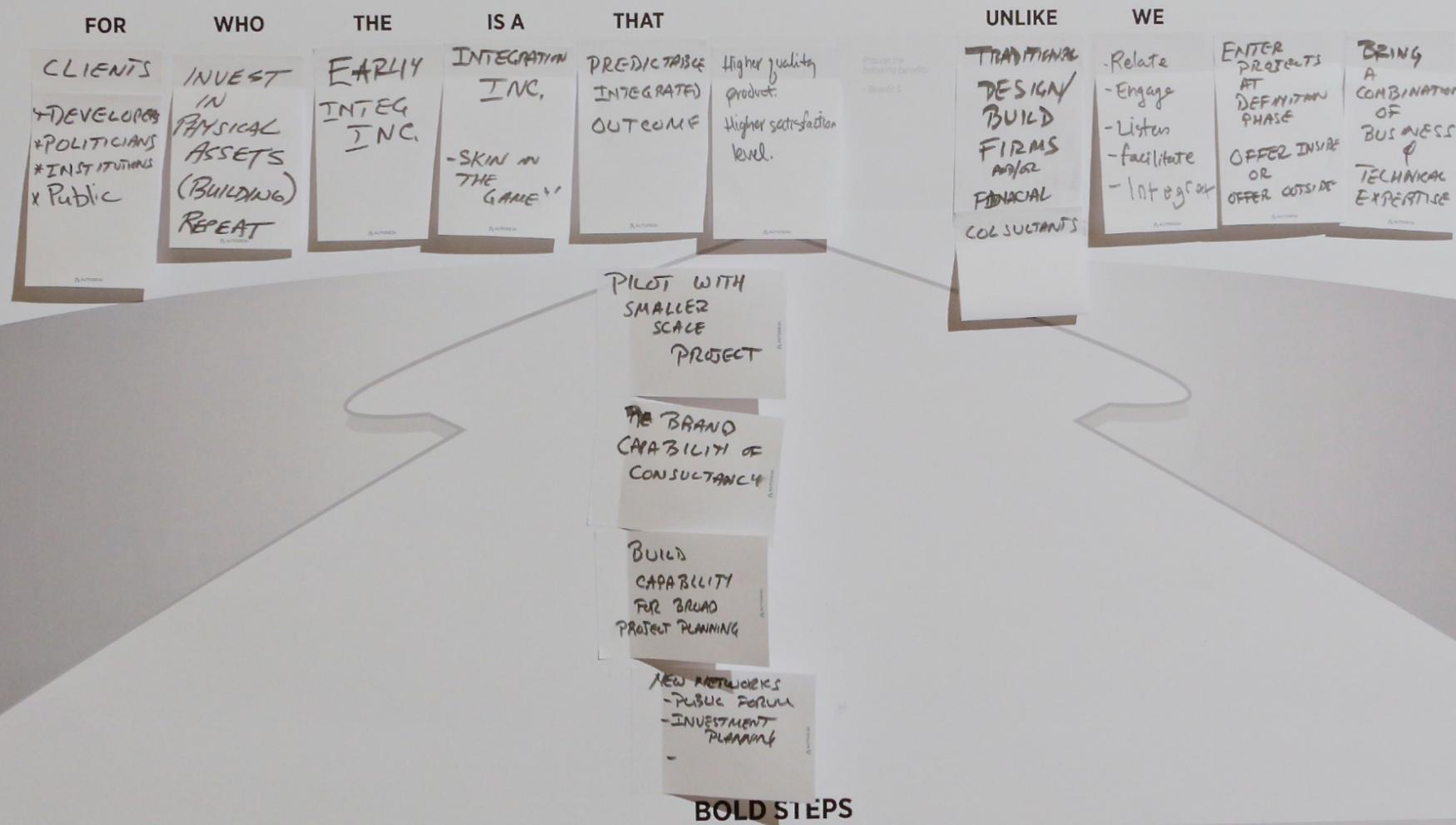


BOLD STEPS

TEAM THREE: Built Environment

FRAME05 BOLD STEPS

What must your organization do to grow and thrive?

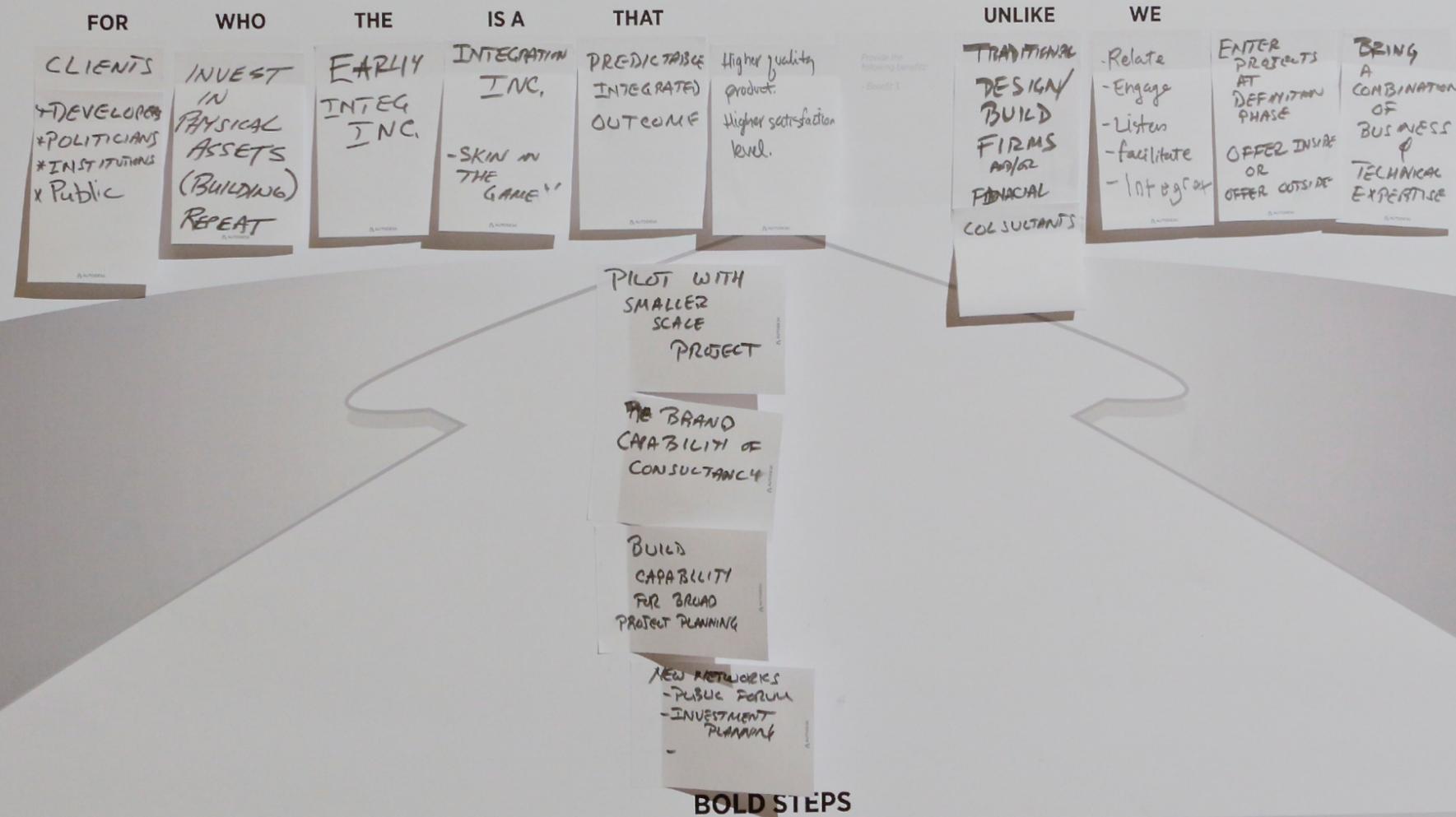


BOLD STEPS

TEAM FOUR: Managing Design & Build

FRAME05 BOLD STEPS

What must your organization do to grow and thrive?

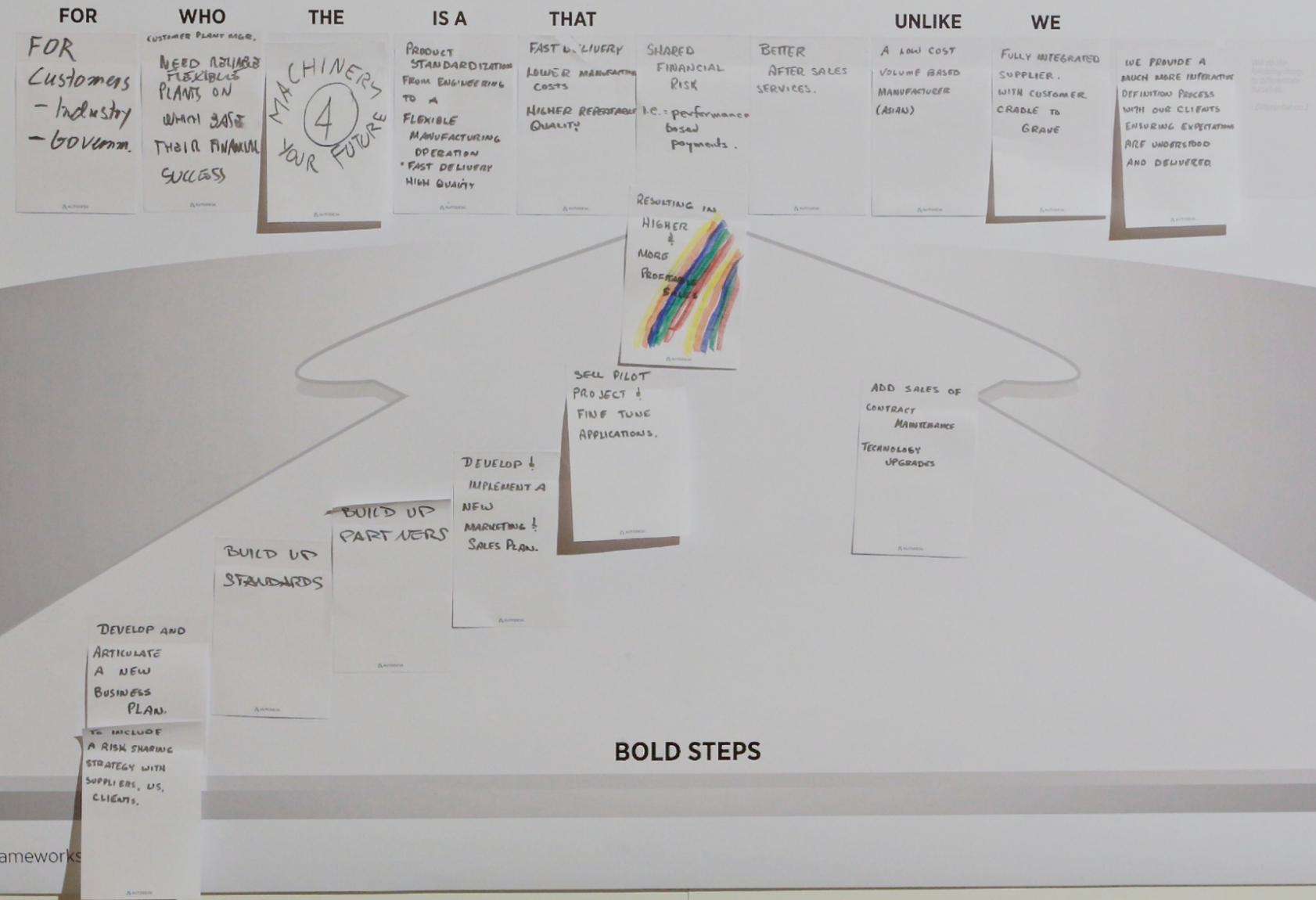


BOLD STEPS

TEAM FIVE: Design & Manufacturing

FRAME05 BOLD STEPS

What must your organization do to grow and thrive?



BOLD STEPS

TEAM SIX: Design & Construction

FRAME05 **BOLD STEPS**

What must your organization do to grow and thrive?

FOCUS
"NICHE GLOBAL PROBLEM"
"1-STOP SHOP FOR THIS NICHE"

FOR	WHO	THE	IS A	THAT	UNLIKE	WE
LIFELONG LEARNERS	NEED SKILLS, EXPERIENCE, KNOWLEDGE IN AN AFFORDABLE ENVIRONMENT	GANESHA GROUP	AN INTEGRATED LEARNING ENVIRONMENT (BOTH PHYSICAL & VIRTUAL) (SYSTEM)	FOR STUDENTS AFFORDABLE * MOBILE * PERSONAL * RELIABLE TRUSTABLE SUSTAINABLE SOLUTION	CURRENT EDUCATION SOLUTIONS (SCHOOLS)	IDENTIFY LEARNING OUTCOMES AND PLOT... CREATE PERSONAL LEARNING PLANS & JOURNEYS CREATE NETWORKS OF LEARNERS & EXPERTS COMBINES FREE & LOW-COST CONTENT WITH IN-PERSON LEARNING EXPERIENCES

Provides the following benefits:
- Benefit 1

CREATE END TO END, SUSTAINABLE SOLUTIONS OPTIMIZING CAPEX+OPEX

GANESHA GROUP

LEADERSHIP

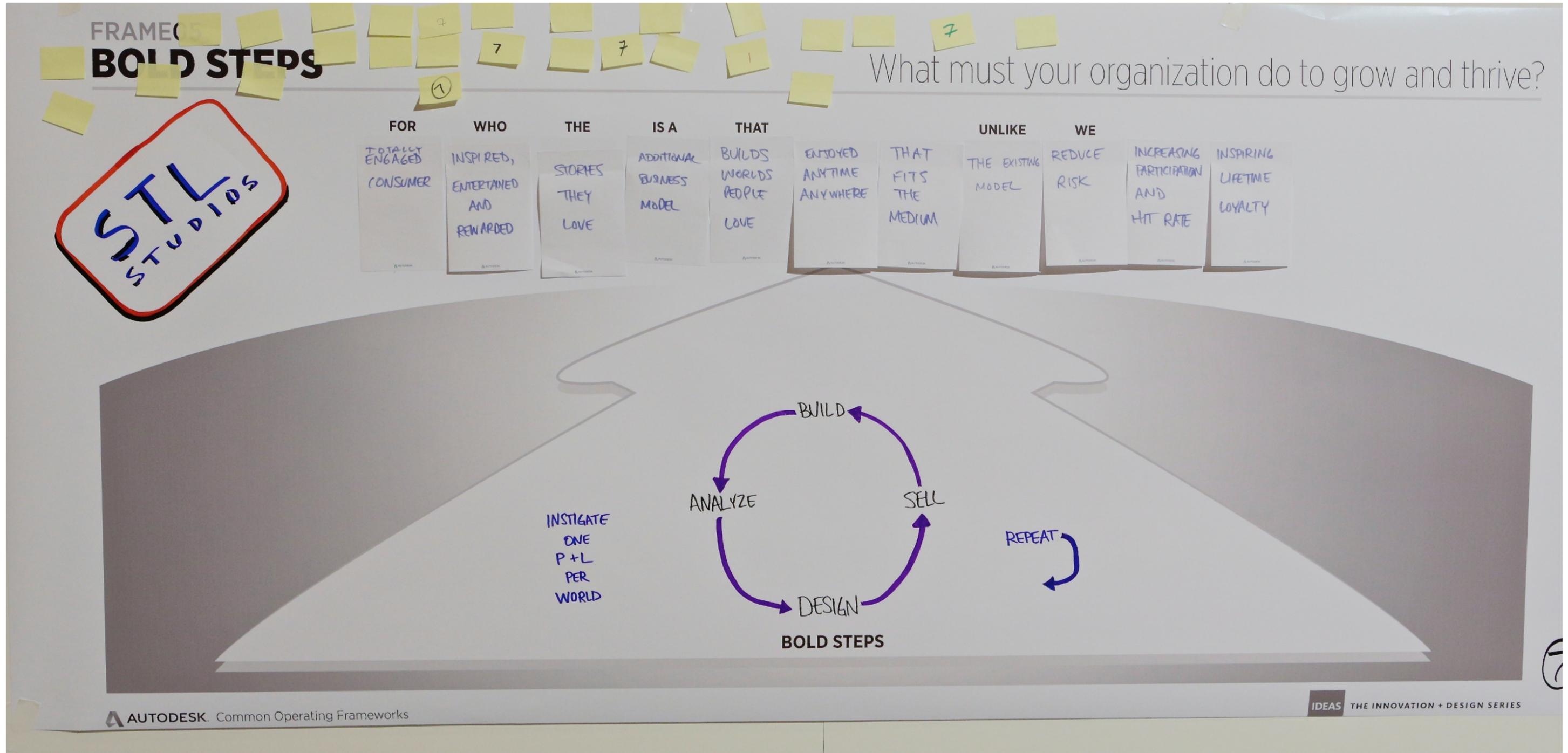
- TOOLING
 - BIM
 - SIMULATION
 - COMPUTATION
- IN-HOUSE EDUCATION PROFESSIONALS
- ESTABLISH FUNDING RESOURCES
- DEEP UNDERSTANDING OF THE EDUCATION SYSTEM
- ASSESSMENT METRICS + ANALYTICS
- OUTCOME FOCUSED MODELS
- EMPLOYEE EDUCATORS
- LISTEN
- RESEARCH
- OBTAIN ACADEMIA BUY-IN

AUTODESK. Common Operating Frameworks

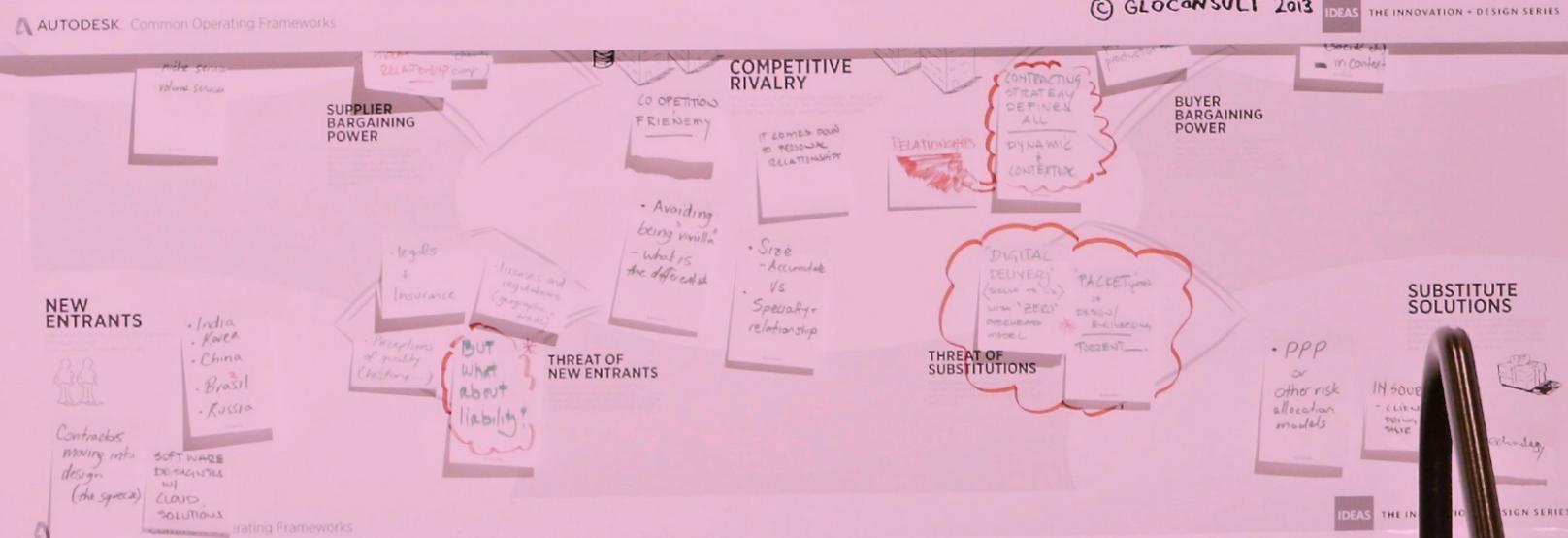
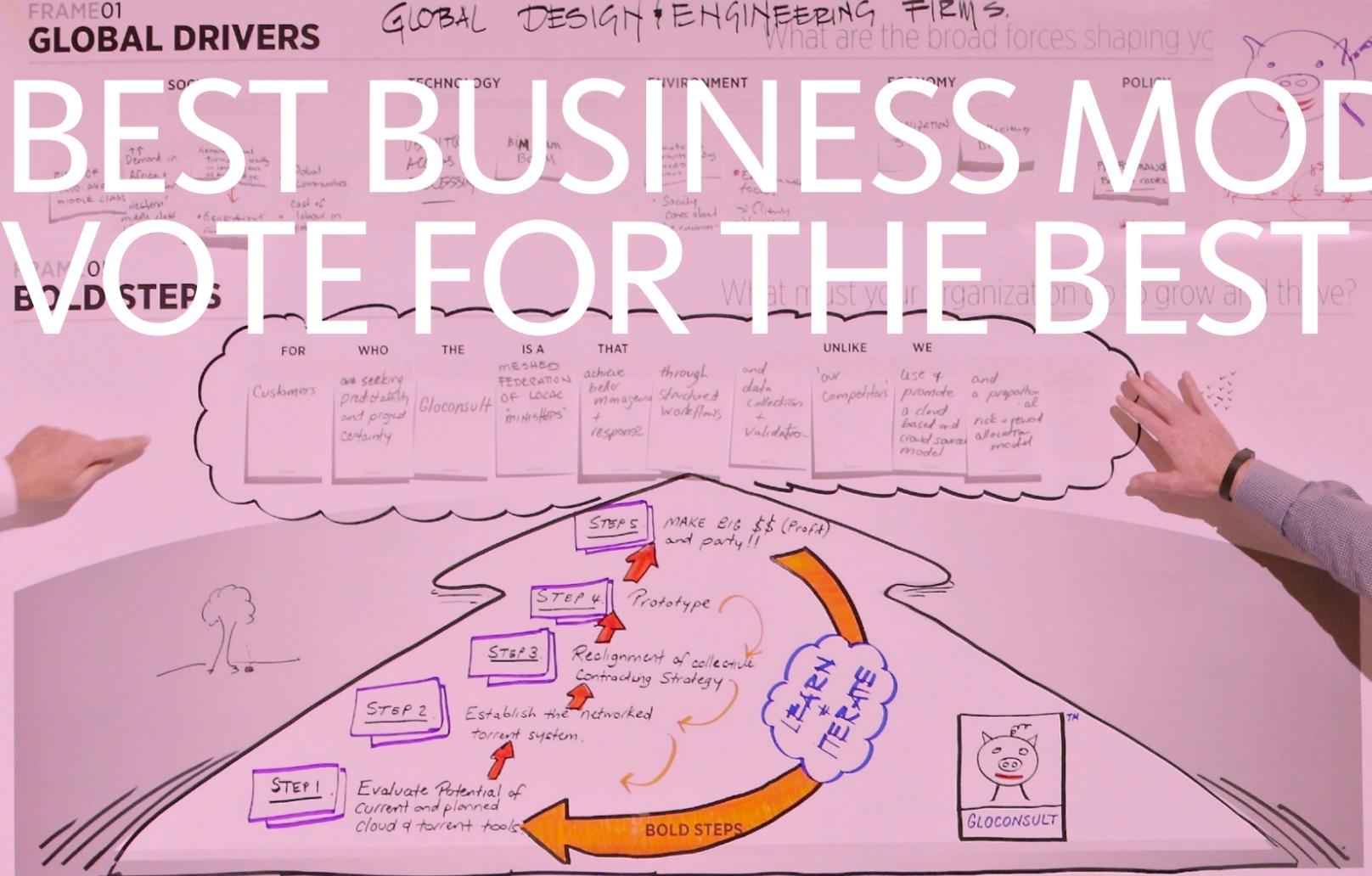
IDEAS THE INNOVATION + DESIGN SERIES

BOLD STEPS

TEAM SEVEN: Entertainment



BEST BUSINESS MODELS VOTE FOR THE BEST THREE



BEST BUSINESS MODELS VOTE FOR THE BEST THREE

Each team make a 90 second pitch that illustrated their business model.

Collectively, the group voted to select the best, most innovative model, as well as the best presentation.

What are the broad forces shaping your industry?

ECONOMY

- RISK BEING PUSHED TO CONTRACTORS DISTORTION B/LW RISK & REWARD
- MARGIN PRESSURE - NEEDS TO MAKE A RETURN

POLICY

- Economic uncertainty is stifling productivity
- Integrated thinking is required for success
- Awareness of legal requirements in the synthetic or virtual world
- policy making has become stratified - non-productive "collaboration" is losing!
- DATA OWNERSHIP & SECURITY GLOBALLY IS HEAVILY REGULATED & VERY COMPLEX
- Reduced funding, government (Fed, State, ...) projects
- Uncertainty in private funding
- ACA IMPACT ON HEALTHCARE PROVIDERS: HOW THEY DELIVER SERVICES

NEW FINANCE

- "Buyer's Market" - increased commoditization

ENVIRONMENTAL

- Environmental preservation is still an option versus necessity
- Awareness to finiteness of global resources is growing!

GLOBAL DRIVERS

SOCIETY

- INCREASING Digital HUMAN INTERACTION - ONLINE GAMING - TEXTING
- INCREASING DATA COMPLEXITY & AVAILABILITY DURABLE DESIGN
- Construction is reassembling Manufacturing & Manufacturing Systems
- INCREASING SPEED DEMANDS INSTANT GRATIFICATION
- INCREASING PRESSURE TO OPERATE SUSTAINABLY
- COMMUNICATION OF TODAY'S REALITY
- INCREASING PRESSURE TO ELIMINATE WASTE /

TECHNICAL TECHNOLOGY

FRAME05 BOLD STEPS

FOR WHO THE IS A THAT

SOPHISTICATED OWNER USERS
OPERATIONAL DRIVEN DESIGN.
BUILDER
SOFTWARE TECHNOLOGY

HAS HIGH VOLUME OF NEED & VALUES STRATEGIC PARTNERSHIP

MASTER Inc.

MASTER APPRENTICE PROBLEM SOLVING

PROVIDES INTEGRATED BUSINESS VALUE

PARTNER WITH OTHER PROFESSIONALS & ORGANIZATIONS

WE ENGAGE AT AN EARLIER POINT IN THE VALUE CHAIN, MORE STRATEGICALLY

MASTER Inc.

What must your organization do to grow and thrive?

What must your organization do to grow and thrive?

UNLIKE YOU!

and is seen as a Trusted Advisor

ESTABLISH MUTUAL PERFORMANCE METRICS & GENERATE PROOF

COST SAVINGS CERTAINTY ENHANCED ROI

REDEFINE IPD

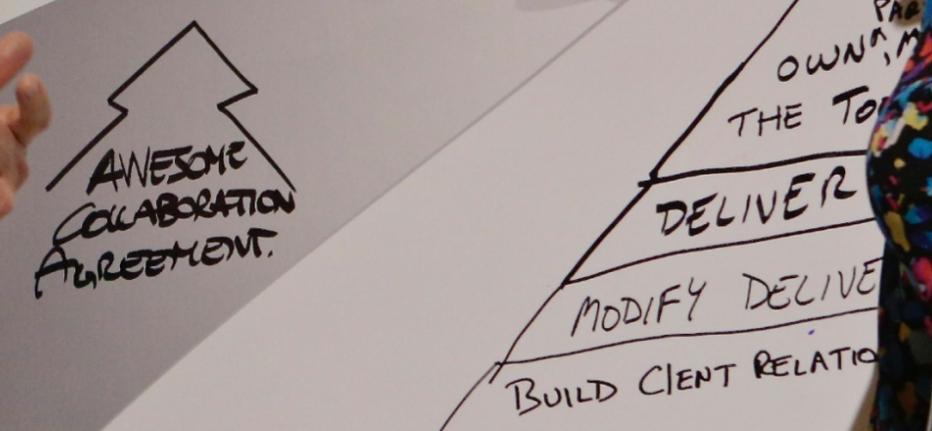
IMPROVE SUPPLY CHAIN MANAGEMENT

- DESIGN
- MATERIALS
- EXECUTION
- MANAGEMENT

Leadership Forum



AUTODESK Common Operating Frameworks



SUPREMACY

THE FIELD

MONOPOLY

By SOFTWARE MONOPOLY. USP ↓

INCREASE OFFSHORE - A

DATA ANALYTICS - BIG D

PARTNER WITH ACTIVITY

IF YOU

LOTS OF CHOICE

FRAME05
BOLD STEPS

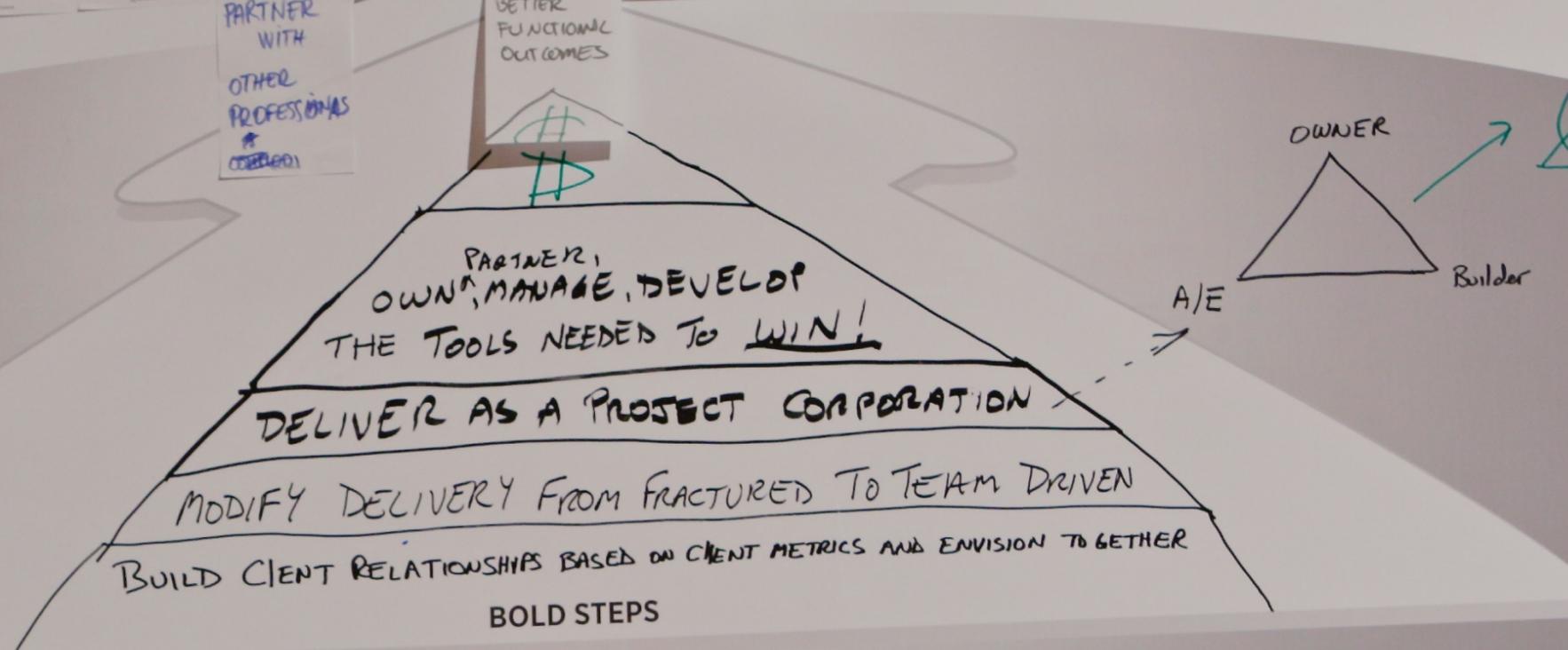
MASTER Inc.

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- WE: WE FOCUS ON UNIQUE INTELLECTUAL VALUE, NOT COMMODITIZED, HIGH RISK SERVICES

AWESOME COLLABORATION AGREEMENT.



COMPETITIVE RIVALRY

FIELD BY SOFTWARE MONOPOLY. USP

MONOPOLY PROVIDE SOFTWARE

INCREASE OFFSHORE - ASIA

DATA ANALYTICS - BIG DATA

7 PARTNERSHIP WITH ACTUAL IT FIRM

USE NEW ENLIGHTENED... LEVERAGE EXPERTISE, SUBSIDIARY

MASTER STRATEGIES OWN & MANAGE THE DATA, ANALYSIS, LIFECYCLE

MASTER EXECUTIVES COLLABORATION FACILITATES

WORKFLOW TO MASTER INC

STRUCTURE OF FIRM

BOLD STEPS TO GET THERE

CONFUSION OF WHAT YOU ARE REALLY

CHANGE THE DELIVERY

BOUTIQUE & SPECIALTY INSTITUTION

to grow and thrive?



higher satisfaction
level.

DESIGN
BUILD
FIRMS
AND/OR
FINANCIAL
CONSULTANTS

- Engage
- Listen
- Facilitate
- Integrate

AT DEFINITION
PHASE
OFFER INVITE
OR
OFFER OUTSIDE

A COMBINATION
OF
BUSINESS
&
TECHNICAL
EXPERTISE

October 2013

* POLITICIANS
* INSTITUTIONS
& Public

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ANNOUNCE

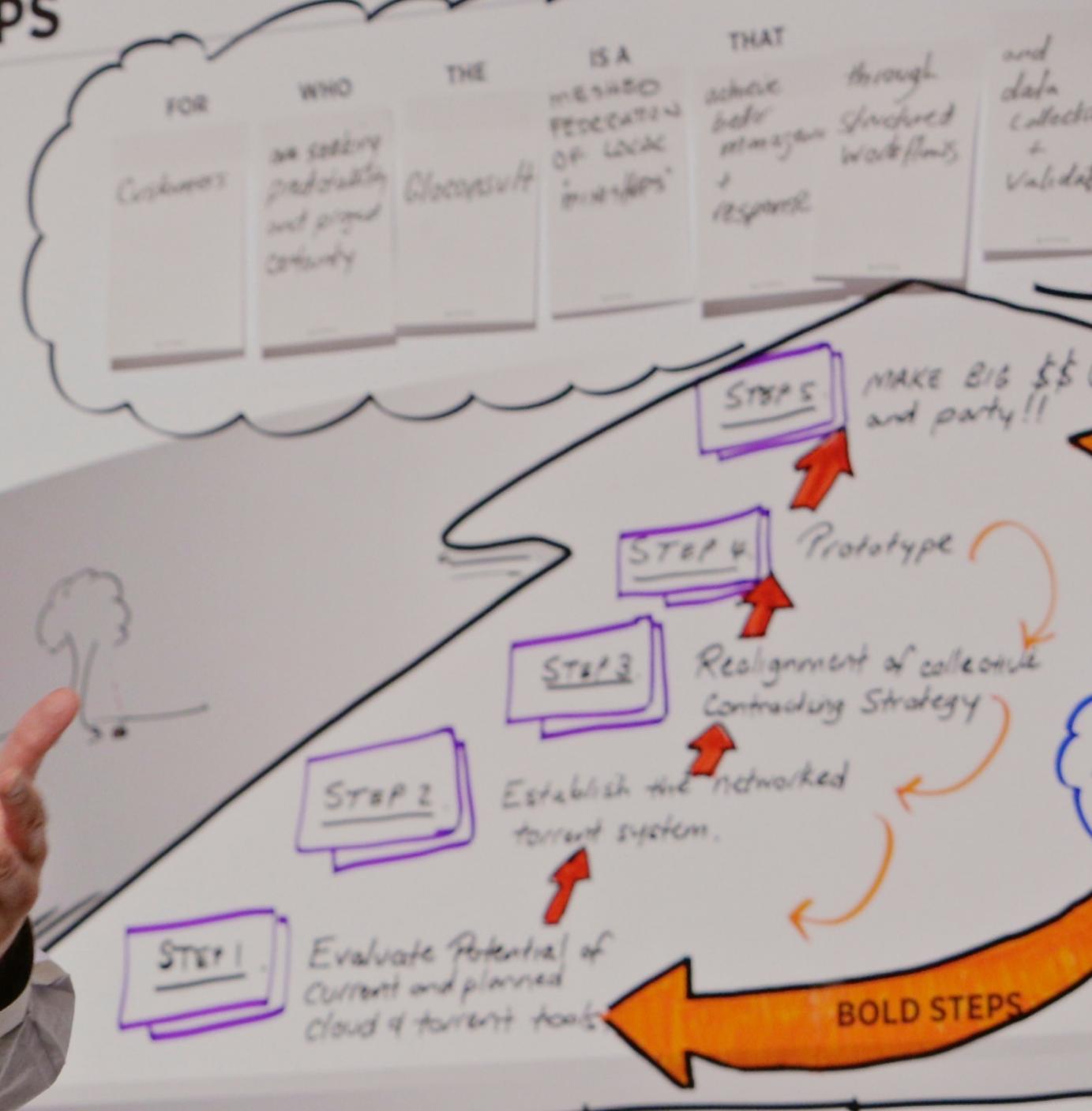
LD STEPS



Attendee
 AUTODESK UNIVERSITY
 Karim Khalifa
 Marriott International
 United States
 Leadership Forum



FRAME05 BOLD STEPS



Architecture and Construction Service Providers

AUTODESK UNIVERSITY

KEVIN STICHT
Cannon Design
United States

IDEAS

Leadership Forum

IDEAS THE INNOVATION + DESIGN SERIES
Leadership Forum

AUTODESK Cannon Operating Frameworks

COMPETITIVE RIVALRY

IDEAS THE INNOVATION + DESIGN SERIES

5

within your industry?

BUYERS

- INDUSTRIAL
- GOVERNMENT
- INVESTORS
- RELIABILITY
- QUALITY
- PRODUCTIVITY
- ROI
- FLEXIBILITY
- SUSTAINABILITY

• Take the risk
 => make profit
 - Understanding of the business of customers [Changes]

BOLD

FOCUS
 "NICHE GLOBAL PROBLEM"
 "1-STOPSHOP FOR THIS NICHE"



What must your organization

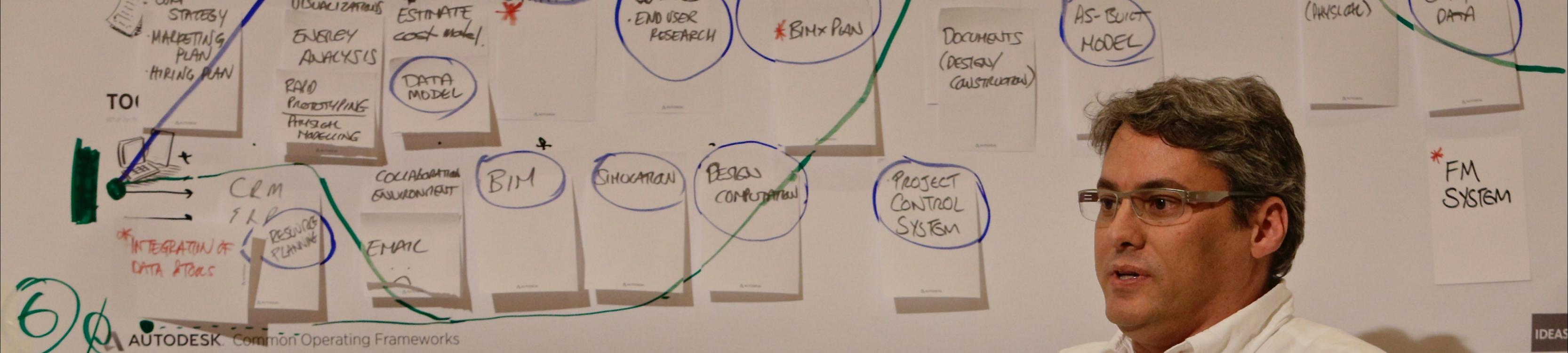
THAT
 FOR STUDENTS
 AFFORDABLE *
 MOBILE *
 PERSONAL *
 RELIABLE
 TRUSTABLE
 SUSTAINABLE
 SOLUTION

UNLIKE
 CURRENT
 EDUCATION
 SOLUTIONS
 (SCHOOLS)

WE
 IDENTIFY
 LEARNING
 OUTCOMES
 AND PLOT...

CREATE
 PERSONAL
 LEARNING
 PLANS &
 JOURNEYS





AUTODESK. Common Operating Frameworks

FRAME05

BOLD STEPS

FOCUS
 "NICHE GLOBAL PROBLEM"
 "1-STOPSHOP FOR THIS NICHE"

FOR
 LIFELONG LEARNERS

WHO
 EXPERIENCE, KNOWLEDGE IN AN APPROPRIATE ENVIRONMENT

THE
 ENVIRONMENT (BOTH PHYSICAL + VIRTUAL) (SYSTEM)

RELIABLE TRUSTABLE SUSTAINABLE SOLUTION

SUSTAINABLE SOLUTIONS OPTIMIZING CAPEX+OPEX

COMBINES FREE & LOW-COST CONTENT WITH IN-PERSON LEARNING EXPERIENCES



Education
 AUTODESK UNIVERSITY
 Nathan Shedroff
 California College of the Arts
 United States
 Leadership Forum

STAKEHOLDERS

- INDUSTRY
- MEDIA
- COMPETITORS
- PARTNERS
- LEADERSHIP
- EMPLOYEES

Client
 - Clients
 - Facilities

External
 - Regulatory
 - Gov.
 - COMMUNITY

Legal
 - Legal
 - Gov.
 - COMMUNITY

PROJECT TEAM
 CLIENT
 PARTNERS
 EXT. GOV.

PROJECT TEAM
 CLIENT
 PARTNERS
 EXT. GOV.

PROJECT TEAM
 CLIENT
 END USERS
 GOV / REG
 PARTNERS
 COMMUNITY

SUBS/PARTNERS
 CLIENT
 END USERS?

Contractors
 Sub-Contractors
 Specialist supply

* F.M.
 Utilities

OUTPUTS

CORP STRATEGY
 MARKETING PLAN
 HIRING PLAN

VISUALIZATIONS
 ENERGY ANALYSIS

ESTIMATE COST MODEL

DATA MODEL

RAND PROTOTYPING
 PHYSICAL MODELLING

* PROJECT PLAN
 * BIMX

AS-BUILT MODEL

ASSET (PHYSICAL)

* O&M DATA

TOI

CRM
 ERP
 RESOURCE PLANNING

* INTEGRATION OF DATA & TOOLS

COLLABORATION ENVIRONMENT

BIM

SIMOCAT

EMAC

* FM SYSTEM

AUTODESK Common Operating Frameworks

FRAME05

BOLD STEPS

FOCUS

"NICHE GLOBAL PROBLEM"
 "1-STOPSHOP FOR THIS NICHE"

FOR

LIFELONG LEARNERS

WHO

NEED SKILLS, EXPERIENCE, KNOWLEDGE IN AN APPROVING ENVIRONMENT

THE

GANESHA GROUP

WE

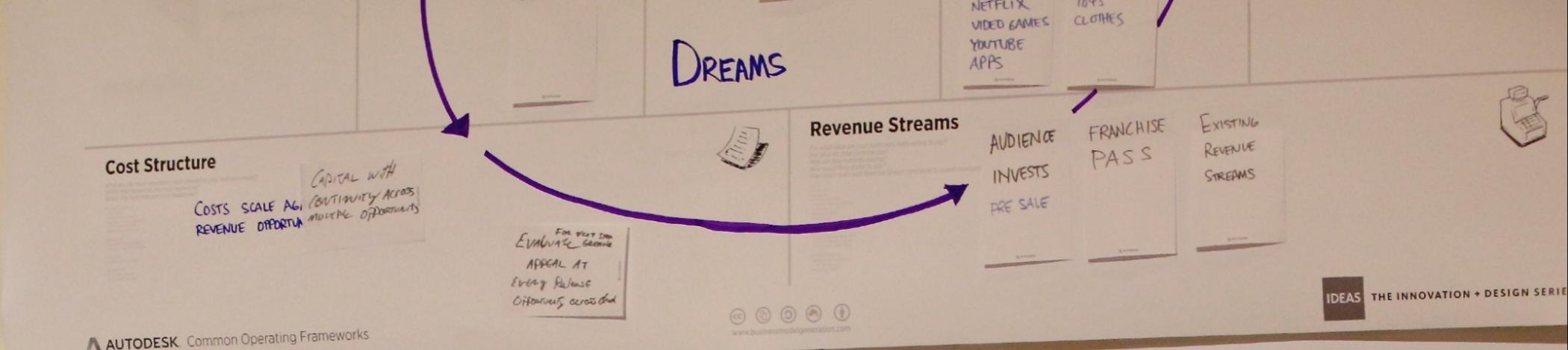
IDENTIFY LEARNING OUTCOMES AND PLOT...

CREATE PERSONAL LEARNING PLANS & JOURNEYS

CREATE NETWORKS OF LEARNERS & EXPERTS

COMBINES FREE & LOW COST CONTENT WITH IN-PEOPLE LEARNING EXPERIENCE

SPECS
DOCUMENTS (DESIGN/CONSTRUCTION)
AS-BUILT MODEL
PROJECT CONTROL SYSTEM
ASSET (MANAGEMENT)
O&M DATA
5 LEVELS OF VALUE:
FUNCTIONAL
ECONOMIC
EMOTIONAL
IDENTITY
MEANINGFUL



What must... thrive?

UNL...

CREATE END-TO-END, SUSTAINABLE SOLUTIONS OPTIMIZING CAPEX+OPEX

ANJESHA GROUP

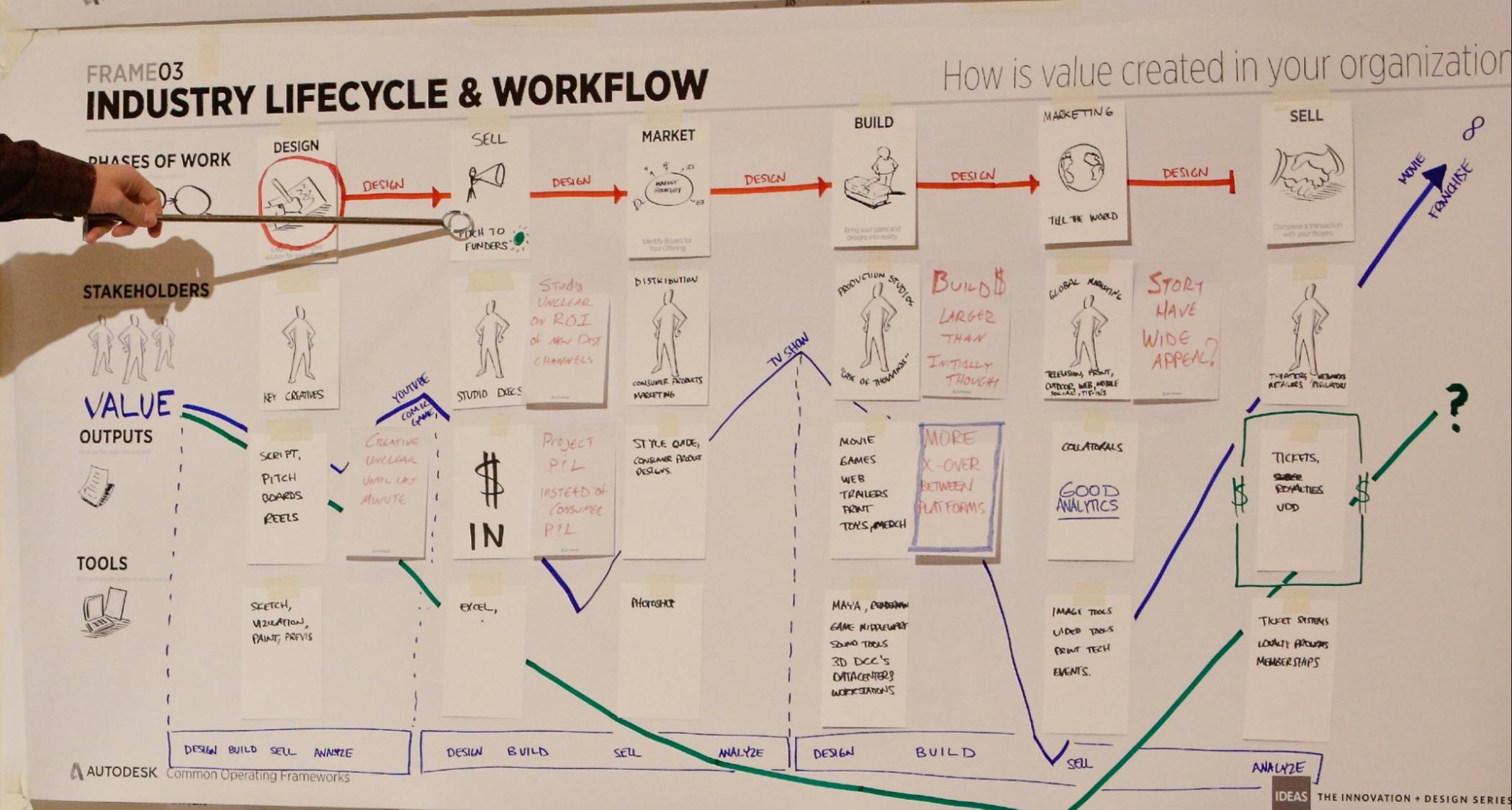
LEADERSHIP

SCHEMATICS & LOGIC

OUTCOME FOCUSED MODELS

EMPLOYEE LIST & EDUCATORS

THE INNOVATION + DESIGN SERIES



What is the business... our organization?

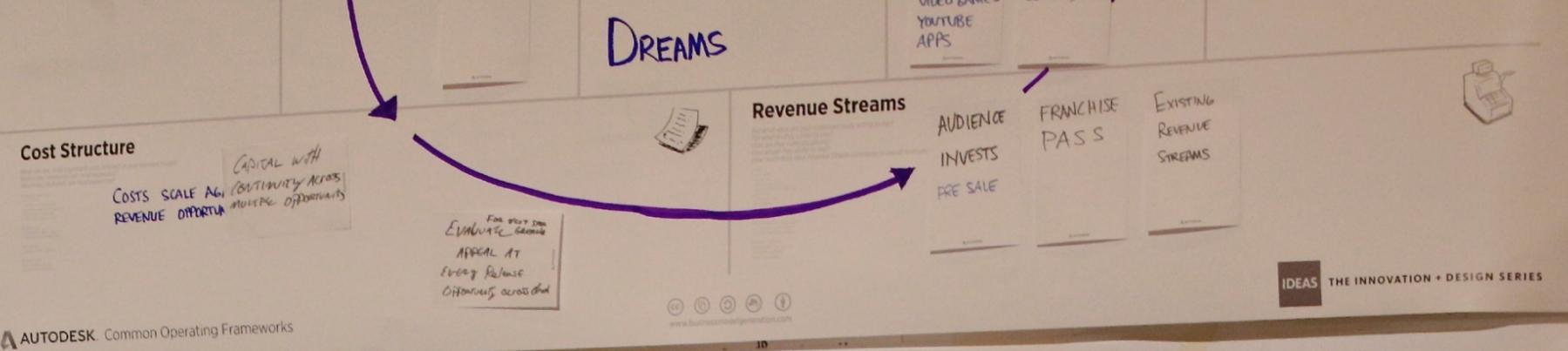
Customer Relationships

Customer Segments

DEEP UNDERSTANDING OF CLIENTS BUSINESS

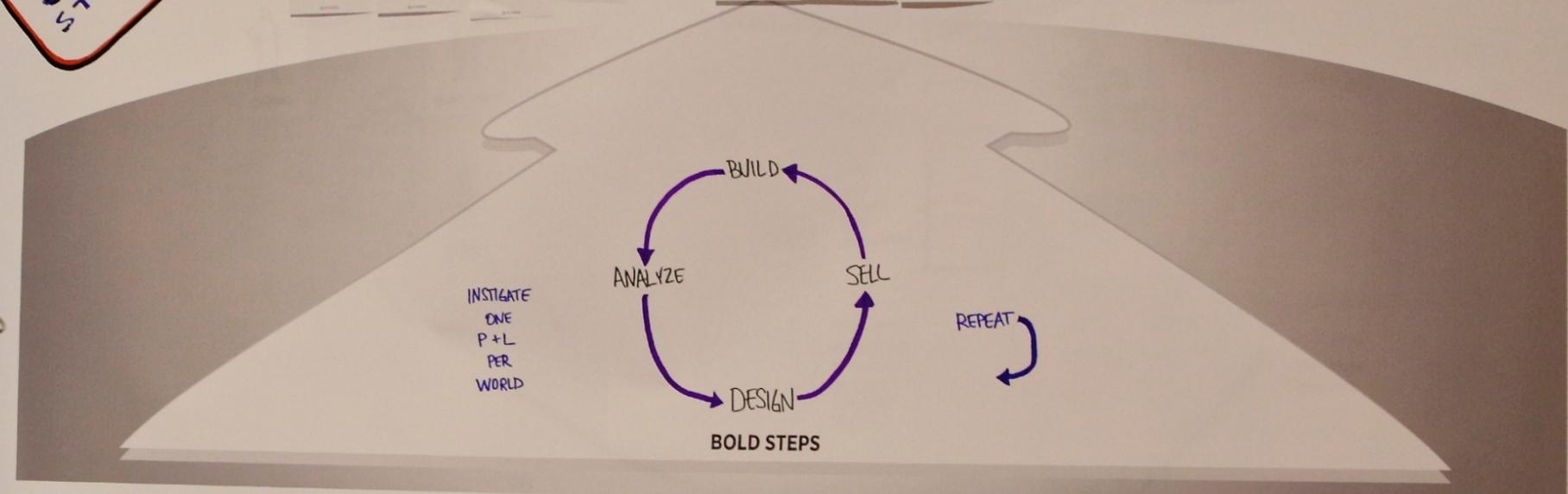
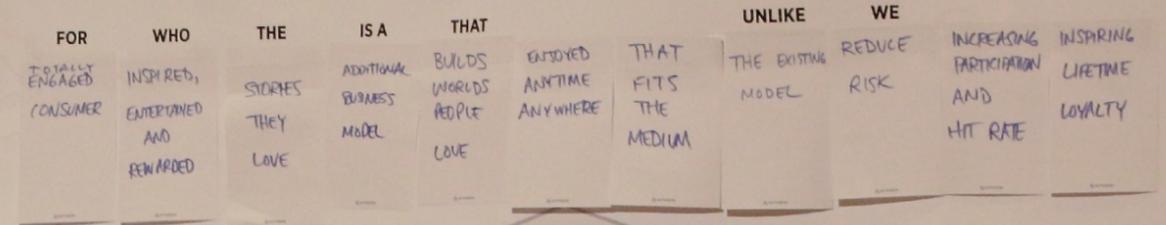


What must your organization do to grow and thrive?



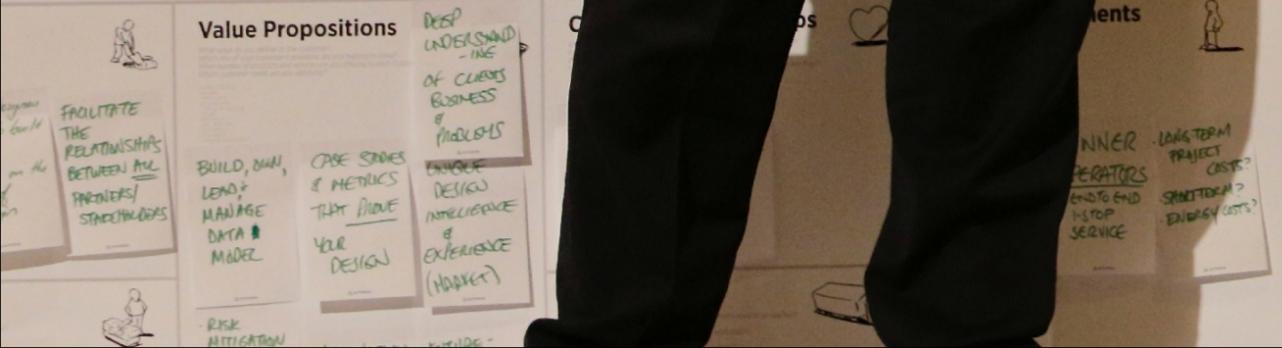
FRAME05 BOLD STEPS

What must your organization do to grow and thrive?



AUTODESK Common Operating Frameworks

What is your organization?





Architecture and Construction Service Providers



John
Jacobs

JE Dunn Construction
United States



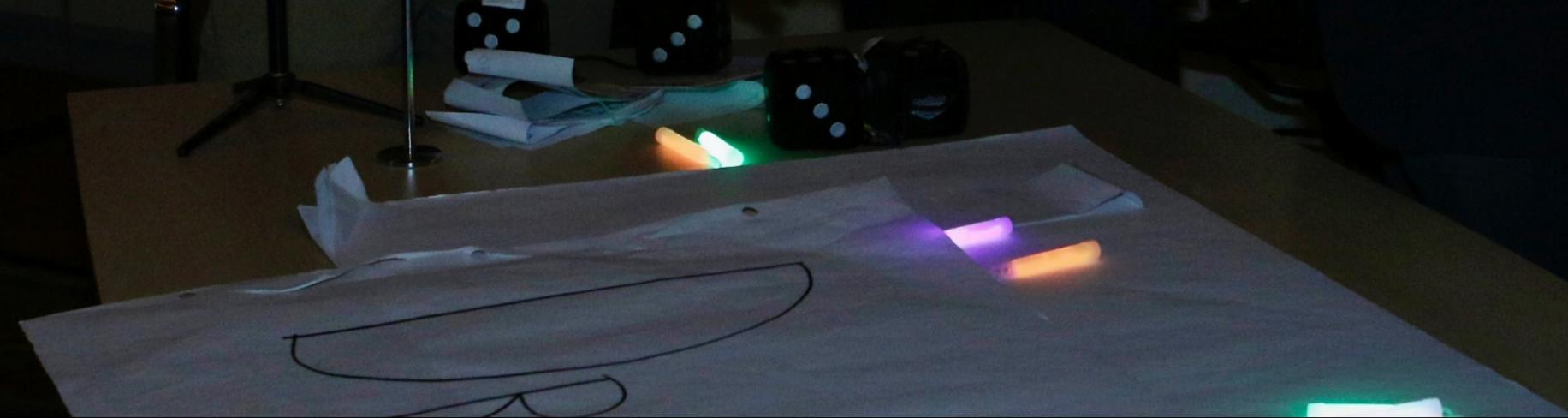
Partnership Forum

Partnership Forum

HOME

WELCOME
TO
VEGAS

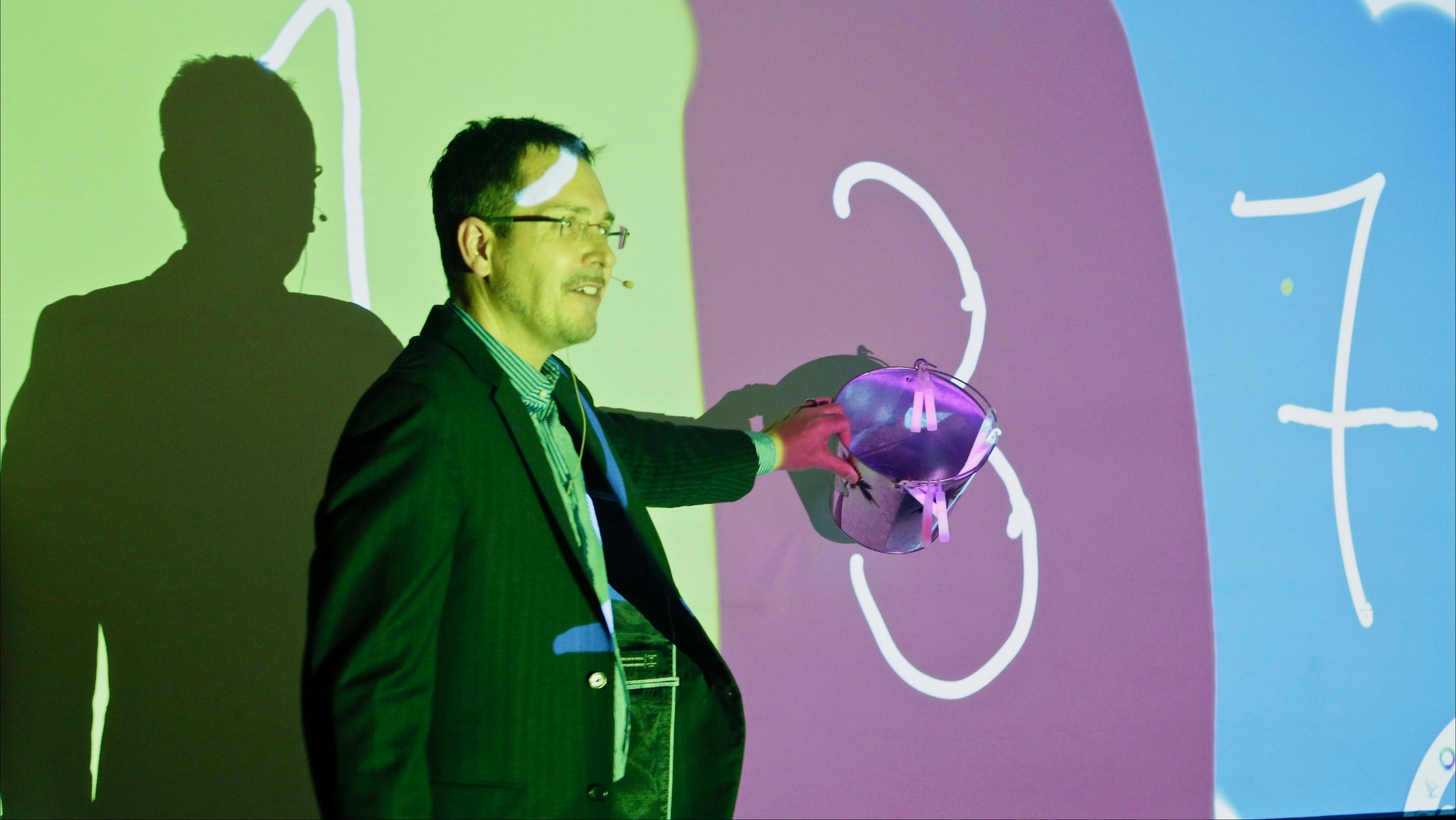






Bayer Te
Germany
Leadership Forum
ENTERPRISE
PRIORITY SUPPORT
Leadership Forum

Coke



THE WINNERS - TEAM 7 A NEW ENTERTAINMENT MODEL

