

DEEP TECH FORUM

KYOTO
2024

主催：株式会社Monozukuri Ventures Holdings

#DTFKyoto

Special Speech

Pittsburgh: Center for AI, Robotics and Advanced
Manufacturing

Speaker

Innovation Works CSOO (Chief Strategy Operations Officer)
Kirk Botula



2024



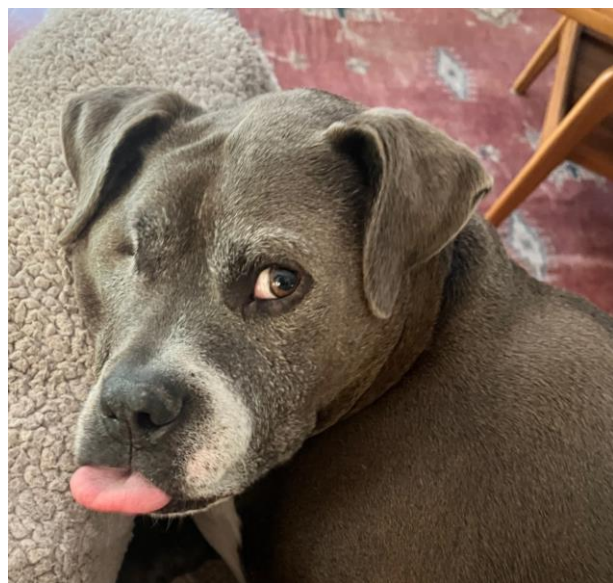
**Pittsburgh: Driving Innovation in
AI, Robotics, and Advanced Manufacturing**

Kirk Botula, Chief Strategy & Operations Officer







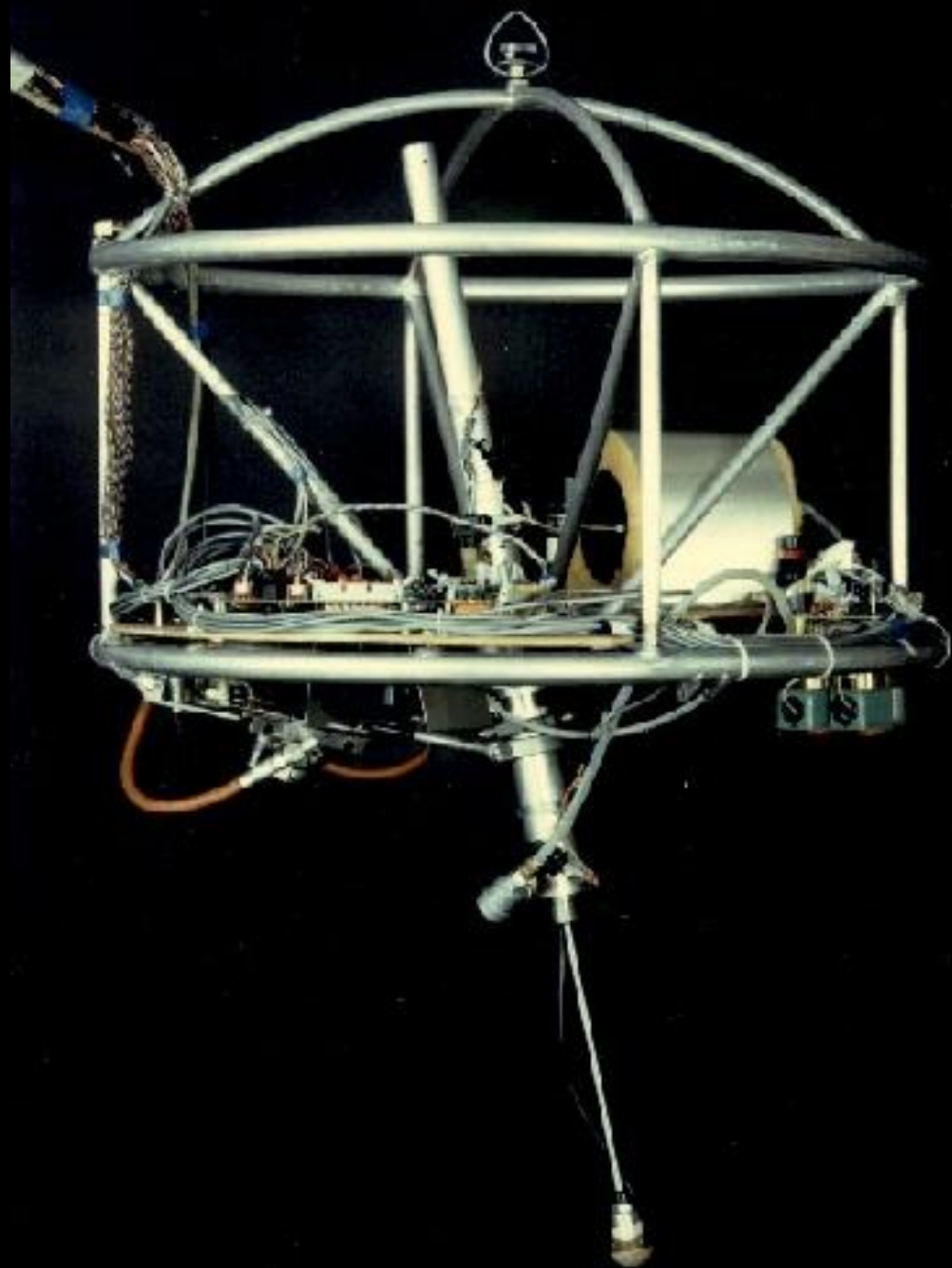


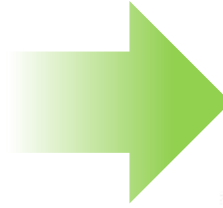




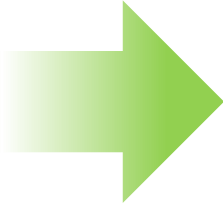
Carnegie
Mellon
University



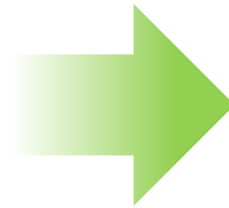




CMMI[®] Institute



ISACA[®]





IW is a State funded pre-seed and seed stage investor that supports the people and businesses that drive innovation and economic growth in Pittsburgh and the surrounding region.



REPRODUCED BY THE PITTSBURGH HISTORICAL SOCIETY FROM A SKETCH BY MRS. E. C. GIBSON, 1817.

Engraved by Pittsburgh, Pa.

VIEW OF THE CITY OF PITTSBURGH IN 1817.

Taken from a sketch drawn by Mrs. E. C. Gibson, Wife of Jas. Gibson, Esq.
of the Philad'a. Bar, while on her Wedding Tour in 1817.



DRAWN BY T.M. FOWLER, MORRISVILLE, PA.

COPYRIGHT BY T.M. FOWLER & JAMES B. MOYER.

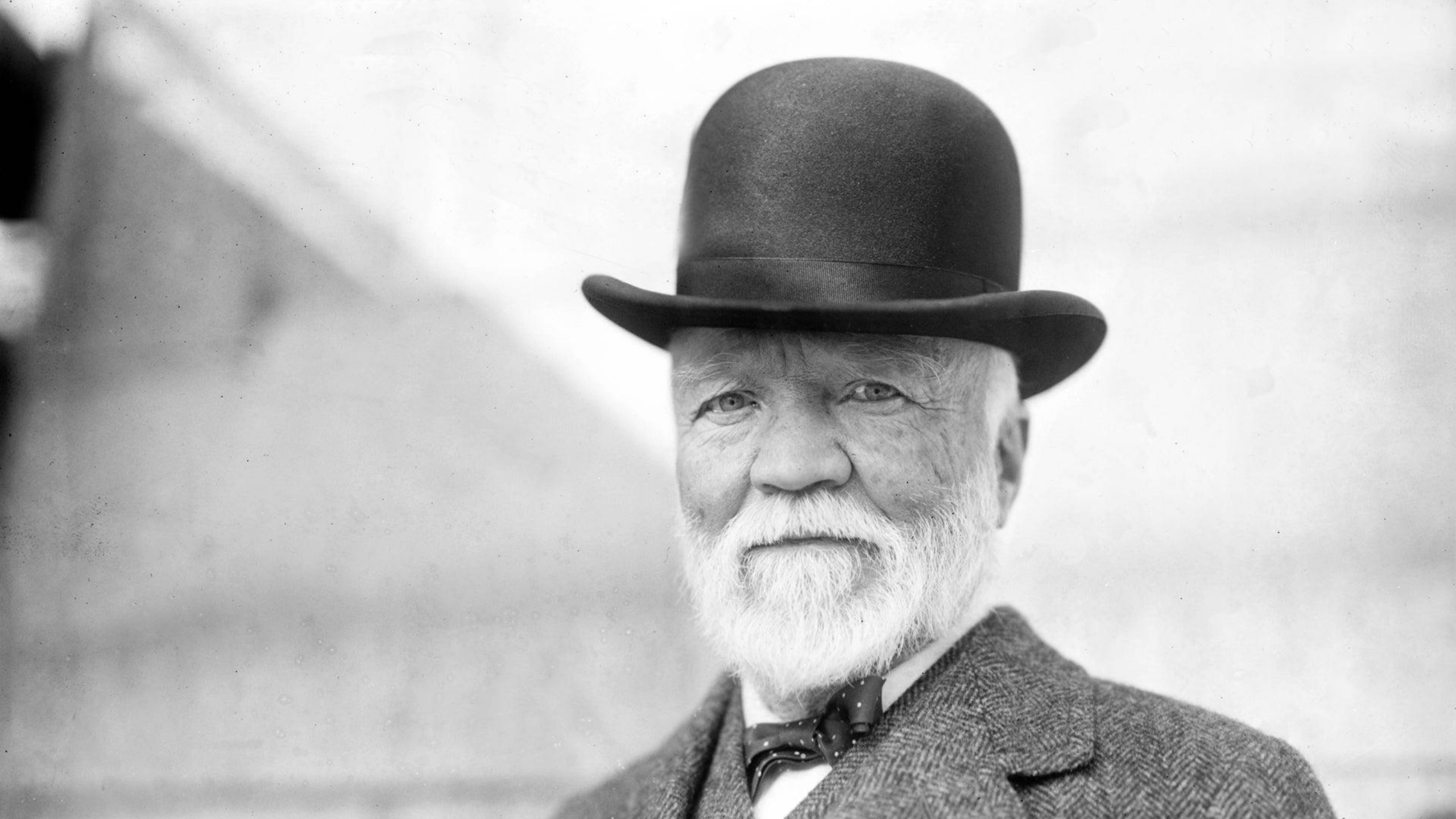
PUBLISHED BY T.M. FOWLER & JAMES B. MOYER.

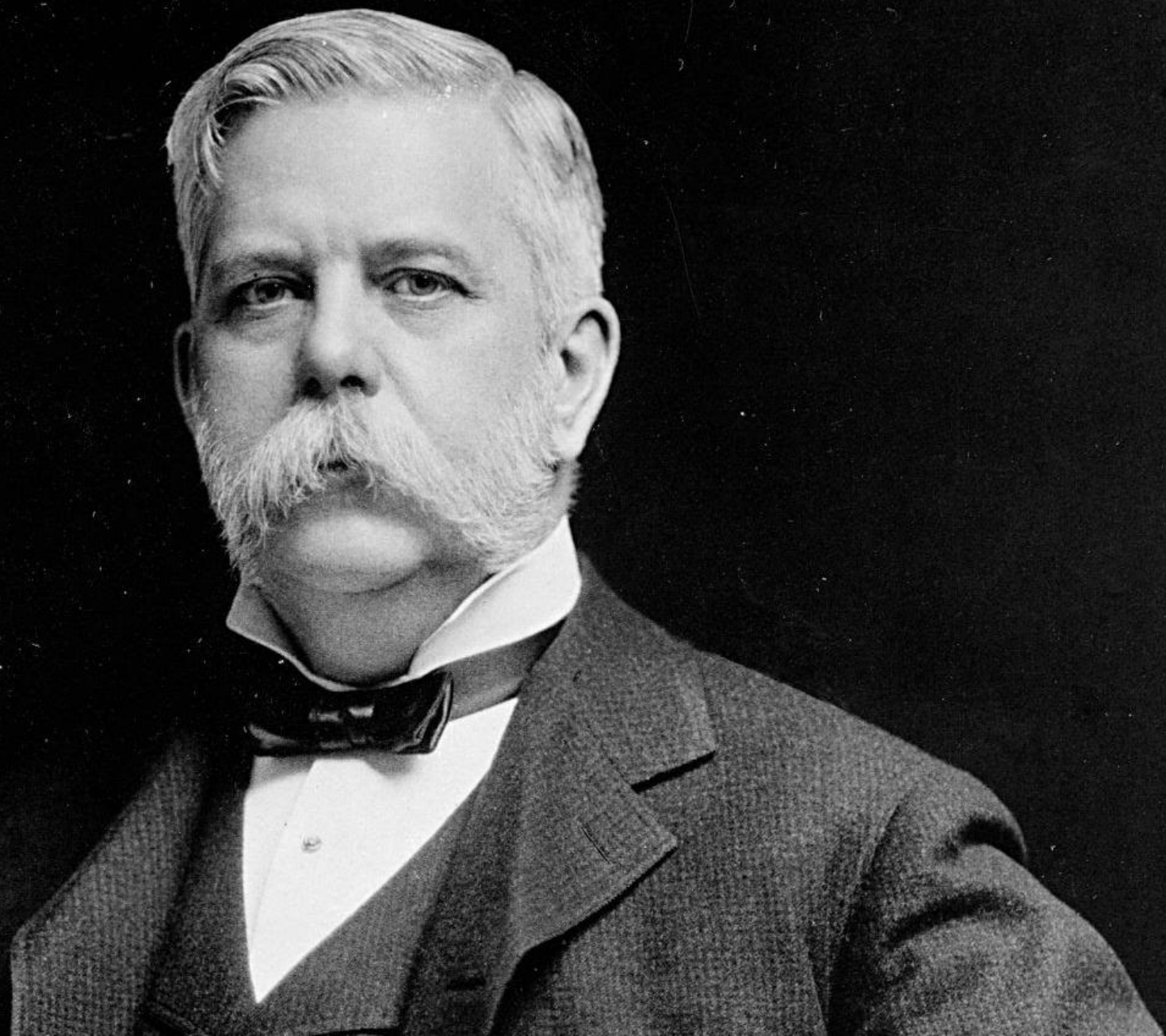
- NO. 1. UNION PASSENGER P.R.R.
- 2. BIRMINGHAM STATION PANHANDLE R.R.
- 3. F. & L. R.R. STATION
- 4. B. & O. " " " "
- 5. P.W. & B.R. & P.R.R. " "
- 6. POST OFFICE
- 7. EXPOSITION BUILDINGS
- 8. FORT PITT BLOCKHOUSE

PITTSBURGH,

PENNSYLVANIA.
1902.

- NO. 9. COURT HOUSE
- 10. FARMERS SAVINGS BANK.
- 11. ARROTT BUILDING.
- 12. PEOPLES SAVINGS BANK.
- 13. FRICK BUILDING
- 14. CARNegie " " "
- 15. PARK " " "







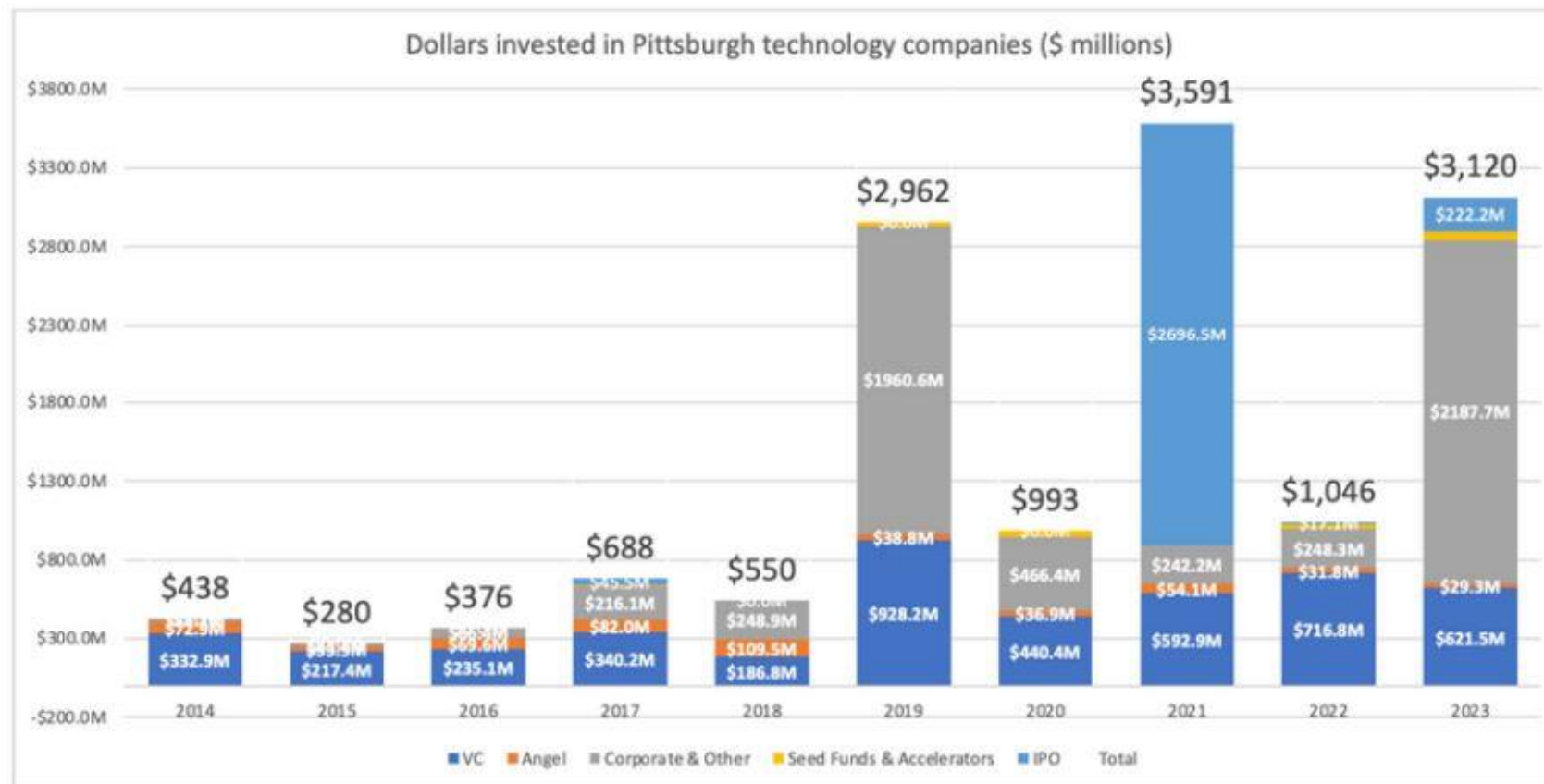








Pittsburgh sees increasing investment as venture is down in 2023



INVESTMENTS IN PITTSBURGH TECHNOLOGY SECTOR: 2023



3.12B
Investment Raised



130
Companies



\$2.19B
Corporate
Investment

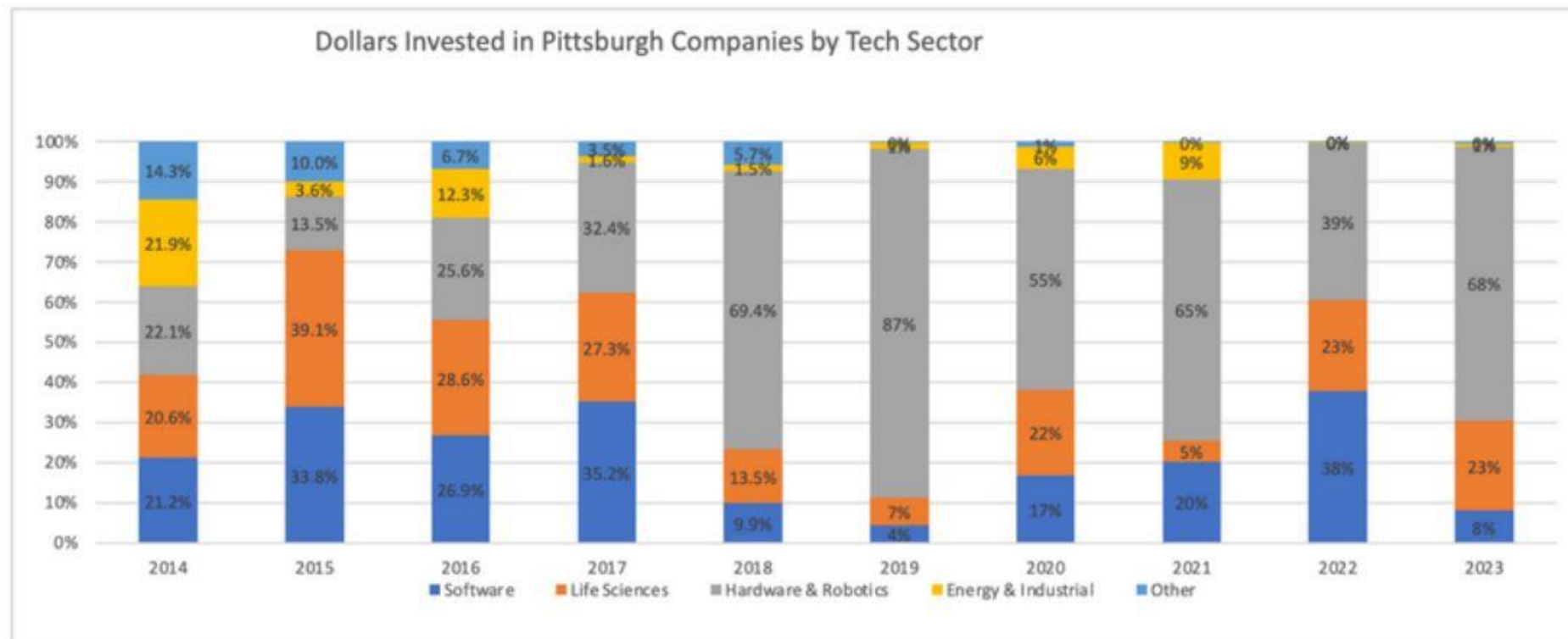


800%
Corporate
Investment
Increase

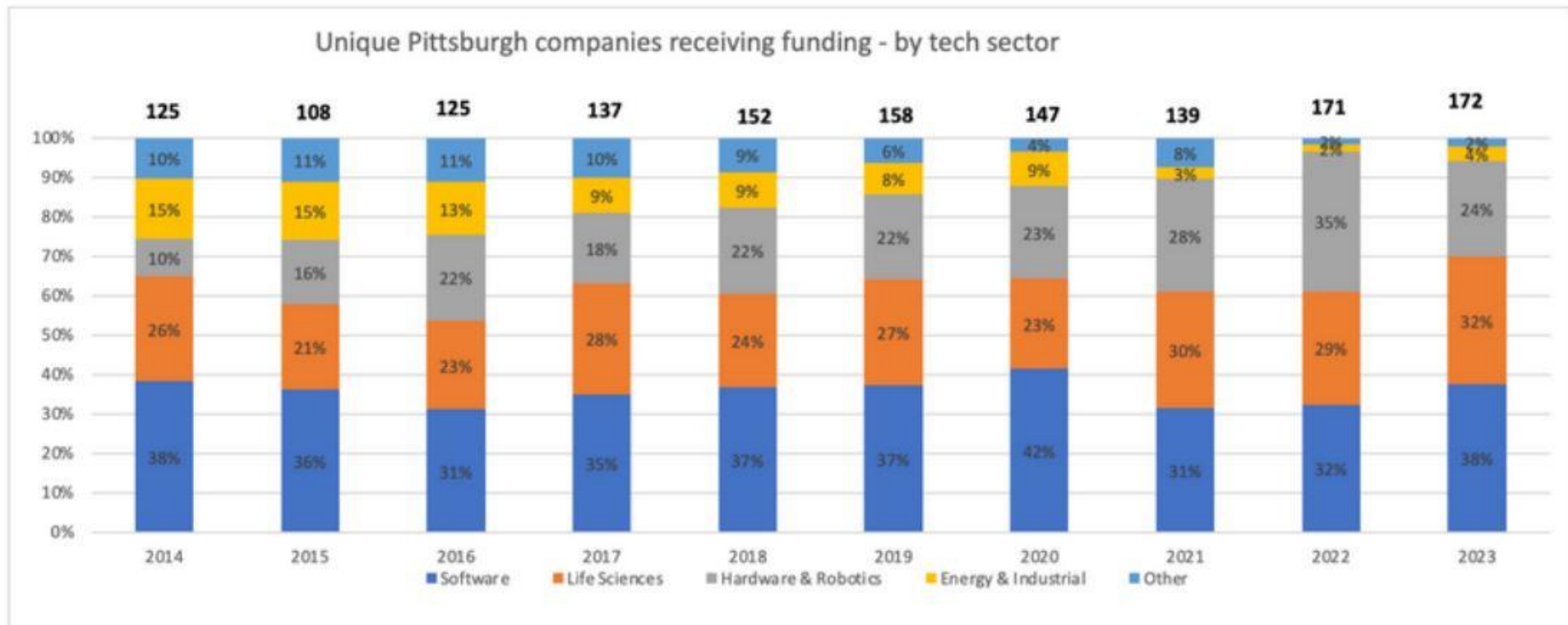


2ND Largest investment year in 12 years

Corporate Investments in Hardware & Robotics led fundraising in Pittsburgh

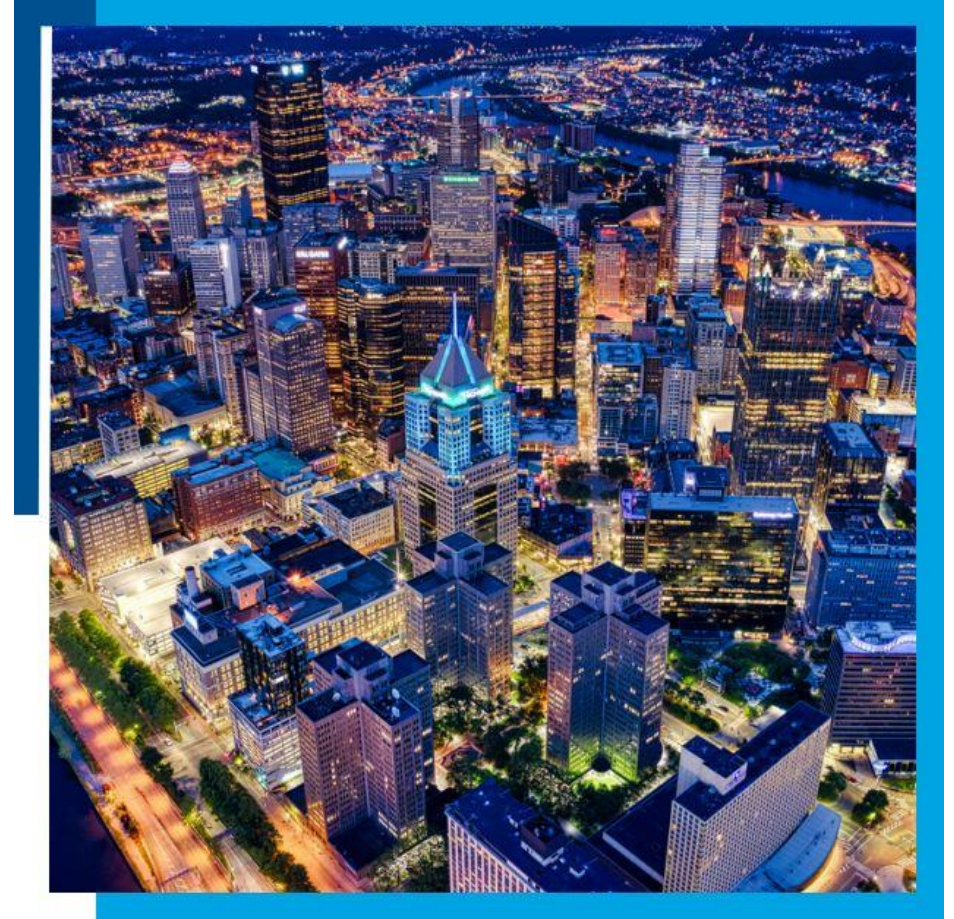


In addition to Hardware & Robotics, robust investment in Software, Life Sciences, and other Hardware



2023: 12 exits with disclosed values of \$1.57B

- **Acquisitions**
- Private Placement of **Capital**
- Drives Pittsburgh as an **attractive investment destination**
- **Global** tech firms opening more offices



**What is driving
innovation?**

29 Colleges and Universities



**Carnegie
Mellon
University**

#1 In AI
#1 In Computer Science
**#1 In Information and
Technology Management**
#6 College of Engineering
**#2 in IP-based startups per
research dollar**
#24 University in the World



**University of
Pittsburgh**

**#3 in funding from the
National Institute of Health
in 2022**
**\$1.16B externally funding
research dollars 2023**
**#19 Top University
Worldwide for number of
utility patents in 2023 (114)**



• APTIV •



PHILIPS



proofpoint>



Microsoft



Pittsburgh's Startup Ecosystem

Incubators / Accelerators

Alpha Lab
Alpha Lab Gear
Alpha Lab Health
Ascender
Avenu
eCenter@LindenPointe
Idea Foundry
Youngstown Business Incubator
Steel Bridge Lab
BNY Mellon
NUMO
Robotics Hub
LifeX
Immune Transplant and Therapy
Center
Pittsburgh Life Science Greenhouse
Project Olympus
Blast Furnace
Next Leap
One Valley

Support / Development

Innovation Works
Idea Foundry
Pittsburgh Tech Council
Catalyst Connection
URA
Pittsburgh Life Science Greenhouse
UPMC Enterprises
New Sun Rising
Founders Institute

Competitions

Randall Family Big Idea
McGinnis Venture
Michael G Wells
Kuzneski Cup
Clean Tech Energy
Up Prize
StartUp Weekend
Invest in Her
Hardware Cup

SBA/SBDCs

Chatham
Pitt
Duquesne

Networking Events

Open Coffee
Caffeinated Innovation
Pittsburgh Enterprise Forum
TIE Pittsburgh
PVCA
First Fridays
Bio Breakfast
Build 412 Tech
Moss Generation

Showcases

Demo Day

Uni. Tech
Showcases

Coulter Showcase

3 Rivers
Venture Fair

Maker Spaces

Alpha Lab Gear

Hack Pittsburgh

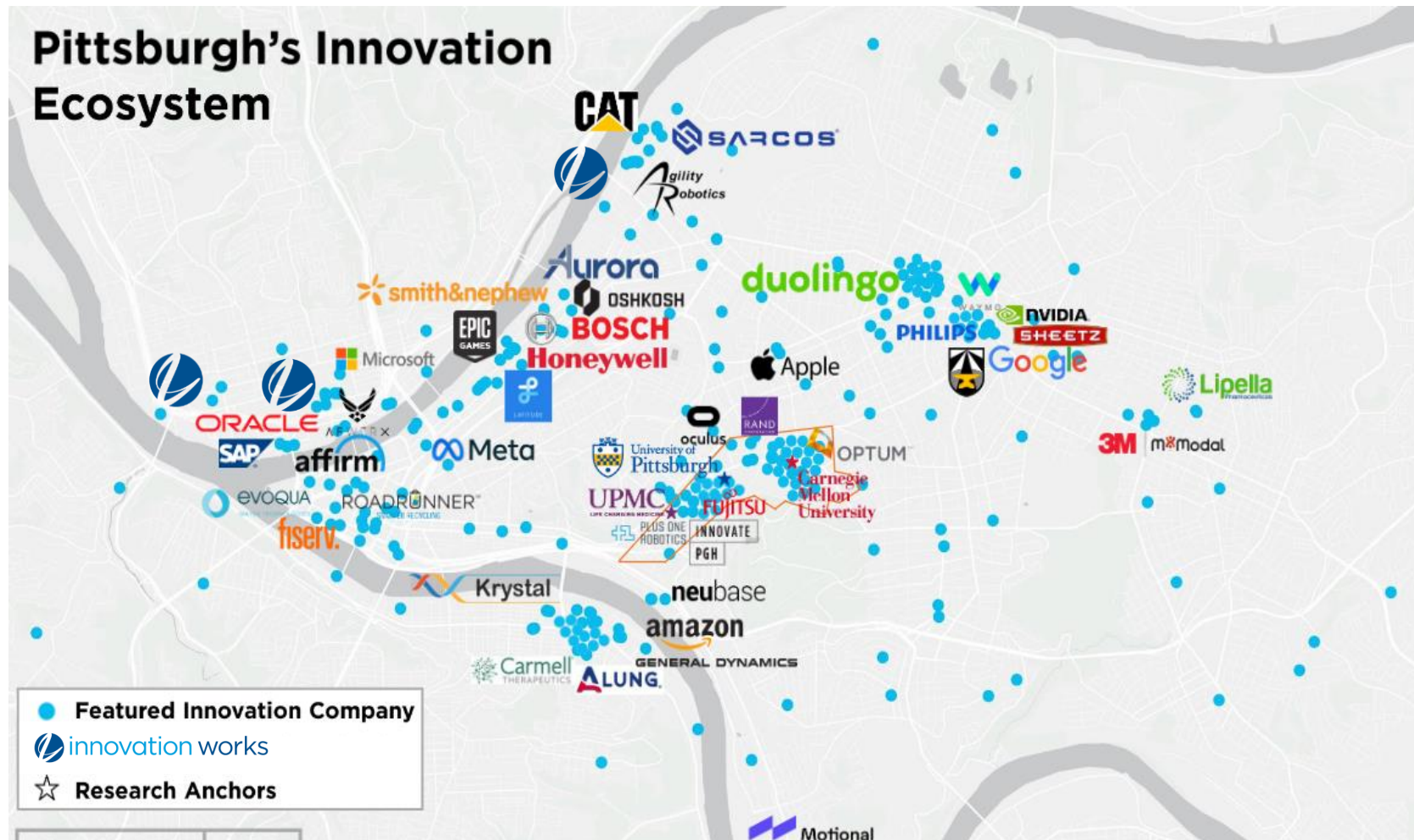
Prototype PGH

Protohaven

Funding

Innovation Works
Alpha Lab
IW Seed Fund
Idea Foundry
Ascender
Advantage Fund
LifeX
URA
and more...

Driver of innovation, tech transformation





Supporting The Early Continuum



**IW
ACCELERATORS**



**IW
SEED FUND**



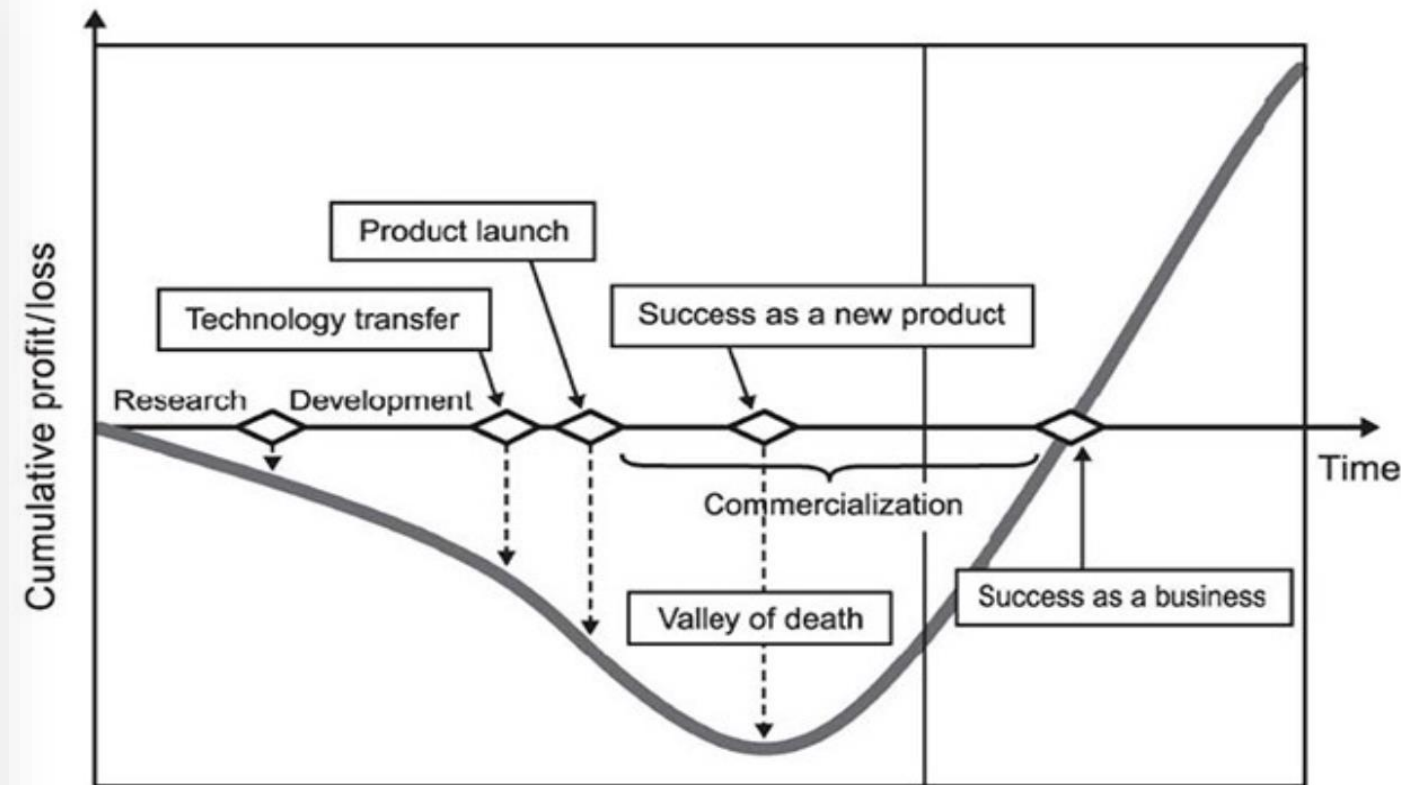
**RIVERFRONT
VENTURES**



**INVESTOR
CONNECTION
& SUPPORT**

Bridging the “Valley of Death.”

- Identifying highest-potential startups
- Filling an early-stage funding gap
- Assist founders in critical development areas
- Activate networks to help startups attract other critical resources



Prospecting

In 2023, our seed fund supported 42 SWPA-based startups, with an average check size of over \$150,000.

INNOVATION WORKS 2023 SEED FUND DEAL FUNNEL



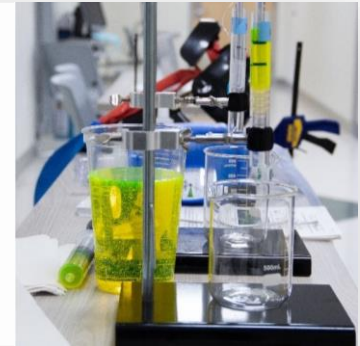
Nationally Ranked Accelerator Programs



SOFTWARE



LIFE SCIENCES



HARDWARE



ROBOTICS





ROBOTICS FACTORY

Robotics Factory Overview



CREATE



ACCELERATE



SCALE

Robotics Factory Overview



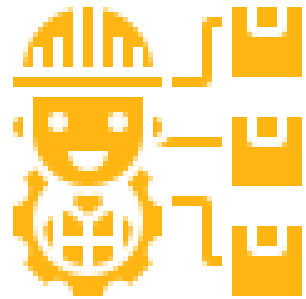
ACCELERATE

Key Program Components

June - November 2024 **in-person** accelerator addressing needs specific to robotics and advanced tech companies



Up to \$100k pre-seed funding



Manufacturing & product development



12 month lease in Lawrenceville



Investor network and robotics mentorship



Customized programming

Robotics Factory Accelerate Team



Kevin Dowling
Managing Director



Jessi Mazzoni
Program Manager



Dejana Raggi
Program Coordinator



Afshan Khan
Portfolio Executive



Jeffrey McDaniel
Portfolio Executive



Jorgen Pedersen
Entrepreneur in Residence



Parag Batavia
Entrepreneur in Residence



Matt Verlinich
Mfg. Program Manager



Connor Claussen
Mfg. Program Associate



Andrew Katon
Electromechanical Engineer



**Brandon
Contino**

Founder & CEO,
Four Growers



**Dan
Seitam**

Partner,
Black Ice Strategies



**Julie
Gulick**

CEO,
Bally Design



**Jorgen
Pedersen**

Founder & Former
CEO, RE2



**Tom
Galluzzo**

Founder,
IAM Robotics

Expert Pittsburgh Robotics Network Mentors



**Parag
Batavia**

Founder,
Neya Systems



**Rich
Flati**

COO,
AutoRabit



**Jess
Pedersen**

Former COO,
RE2



**Doug
Descalzi**

Founder & Principal,
Thioply



**Tom
Lauwers**

Founder & CEO,
Bird Brain

Inaugural Cohort Success

- **500+** Hours of 1:1 custom support
- **18** Skill development workshops
- **250** Hours of mentor coaching
- **30** Introductions per company



Our 2023 Cohort is...

- Kicking off **pilots**
- Signing **contracts with customers**
- **Closing** fundraising rounds
- **Opening** fundraising rounds!
- **Continuously improving products**



500 Global

SOSV

Y Combinator

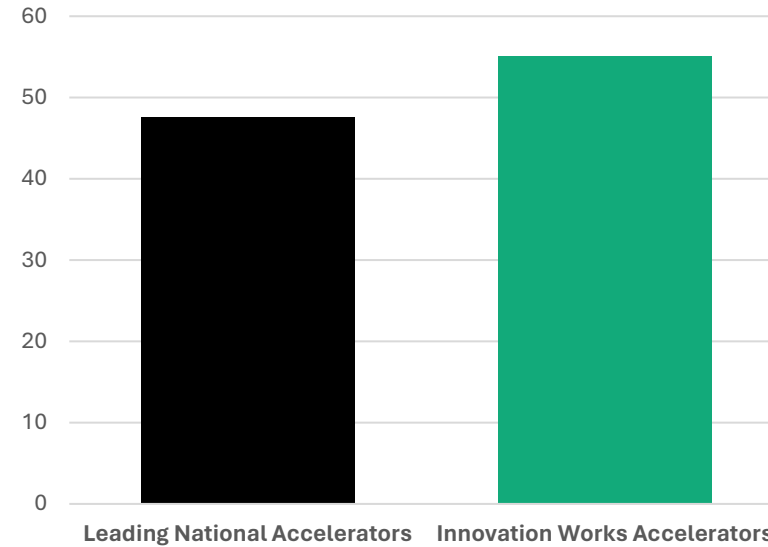
Plug and Play

Techstars

MassChallenge

Other

Net Promoter Score



Calculating The Net Promoter Score



$$\text{NPS} = \text{\% of Promoters (i.e. 9 \& 10 scores)} - \text{\% of Detractors (i.e. 0 - 6 scores)}$$

Robotics Factory Overview



ACCELERATE

Robotics Factory Overview



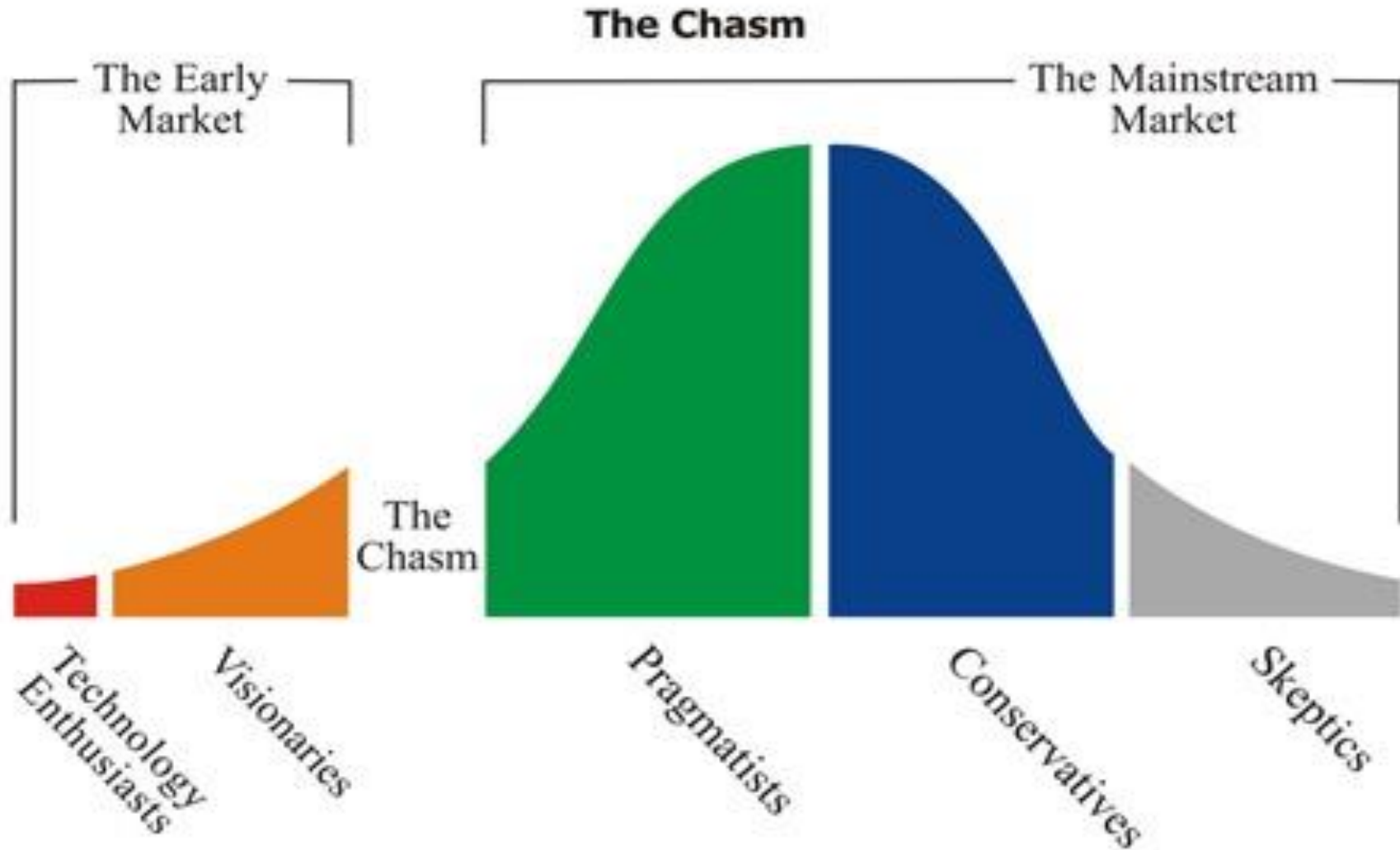
ACCELERATE

Problem 1: Solutions in search of a problem



Problem 2:

Crossing the Chasm



Two Solutions

- Value Risk: Solutions in search of a Problem: Real customers collaborating with technologist in a human-centered design process.
- Market Risk: Crossing the Chasm: Convening a critical mass of industry participants to validate shared problems.

2023 Aviation Summit

- 3 Day Workshop
- 300 industry leaders, entrepreneurs, investors, technologist
- Identified problem areas in baggage handling, aircraft servicing, airside asset management, work force support and enhancement
- Leverage human centered design on real-world industry-wide problems
- 6 projects are advancing now

Robotics Factory Overview



CREATE



ACCELERATE

2024 AgTech Summit

- **2-Day workshop** to explore, assess, and propose new product and business ideas around **AgTech**
- Bring together **Ag Industry Leaders with Robotics Leaders, Entrepreneurs, and Investors, Government**
- **Tours and demonstrations** of local robotics capabilities
- Direct contracts between **OEMs** and **tech suppliers**
- **Goal** to create 6-8 investment ready product/business opportunities





CREATE



ACCELERATE



More problems

- Preparation for Scale
- Design for Manufacturability
- Bill of Materials
- Supply chain

Scale Residency Program

- High Bay Prototyping Shop
- Engineering consulting
- Training in Design for Manufacturing
- Connections to Manufacturers
- Grants for prototypes
- 12 month lease





ROBOTICS FACTORY



CREATE



ACCELERATE



SCALE

Why Are We Doing This?

A close-up, slightly low-angle shot of Jim Lovell's face. He has a serious, almost worried expression, with his eyes looking slightly upwards and to the right. His skin is fair, and he has light-colored eyes. The background is dark and out of focus, suggesting an interior setting with some structural elements.

**Houston,
we have
a problem.**

- Jim Lovell

A photograph of a cemetery at sunset. The sky is a mix of orange, pink, and blue. Bare trees are silhouetted against the sky. In the foreground, several tombstones are visible, including several large, upright, arched ones and a cross on the right.

75% of all start-ups fail

Harvard Business School's Shikhar Ghosh

Business Plan Outline Example

Milo's Cupcake Factory Business Plan

1. Executive Summary.....	Page 3
2. Business/Industry Overview.....	Page 4
3. Market Analysis.....	Page 6
4. The Competition.....	Page 8
5. Sales & Marketing Plan.....	Page 12
6. Ownership and Management Plan.....	Page 15
7. Operating Plan.....	Page
8. Financial Plan.....	Page
Indices and Exhibits.....	Pag









Love Kills Companies

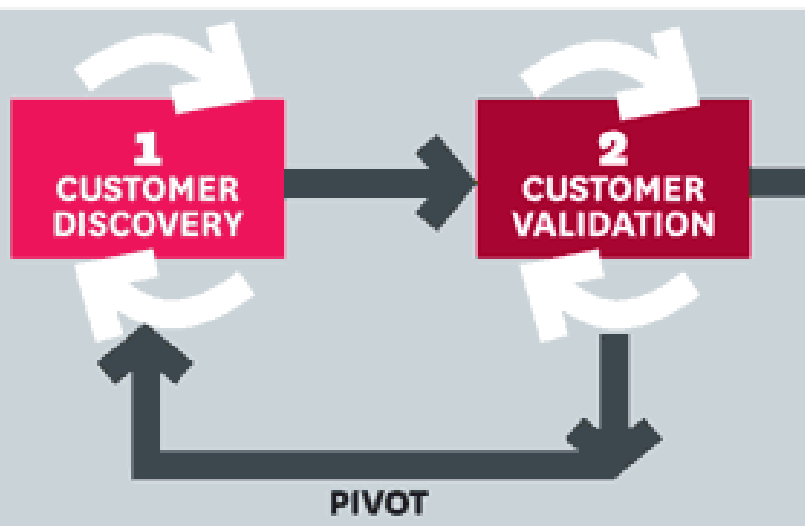
A **Lean startup** is not a company: A **temporary** organization designed to **search** for a repeatable and scalable business model.



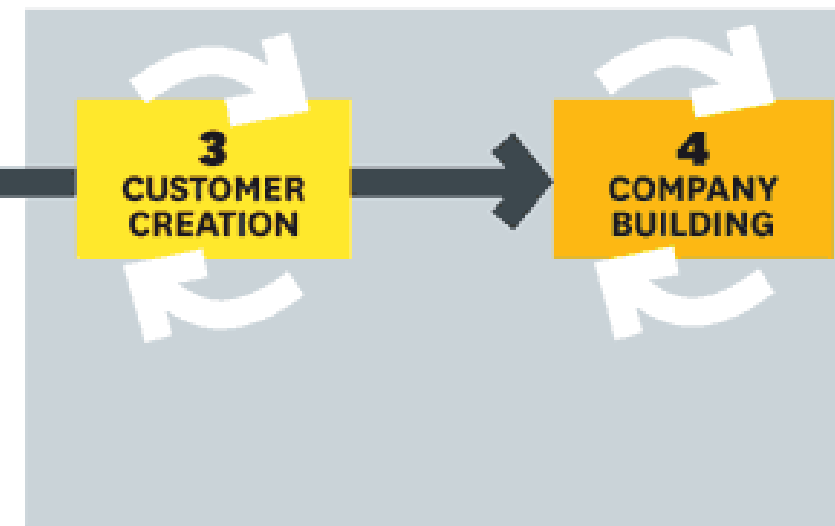


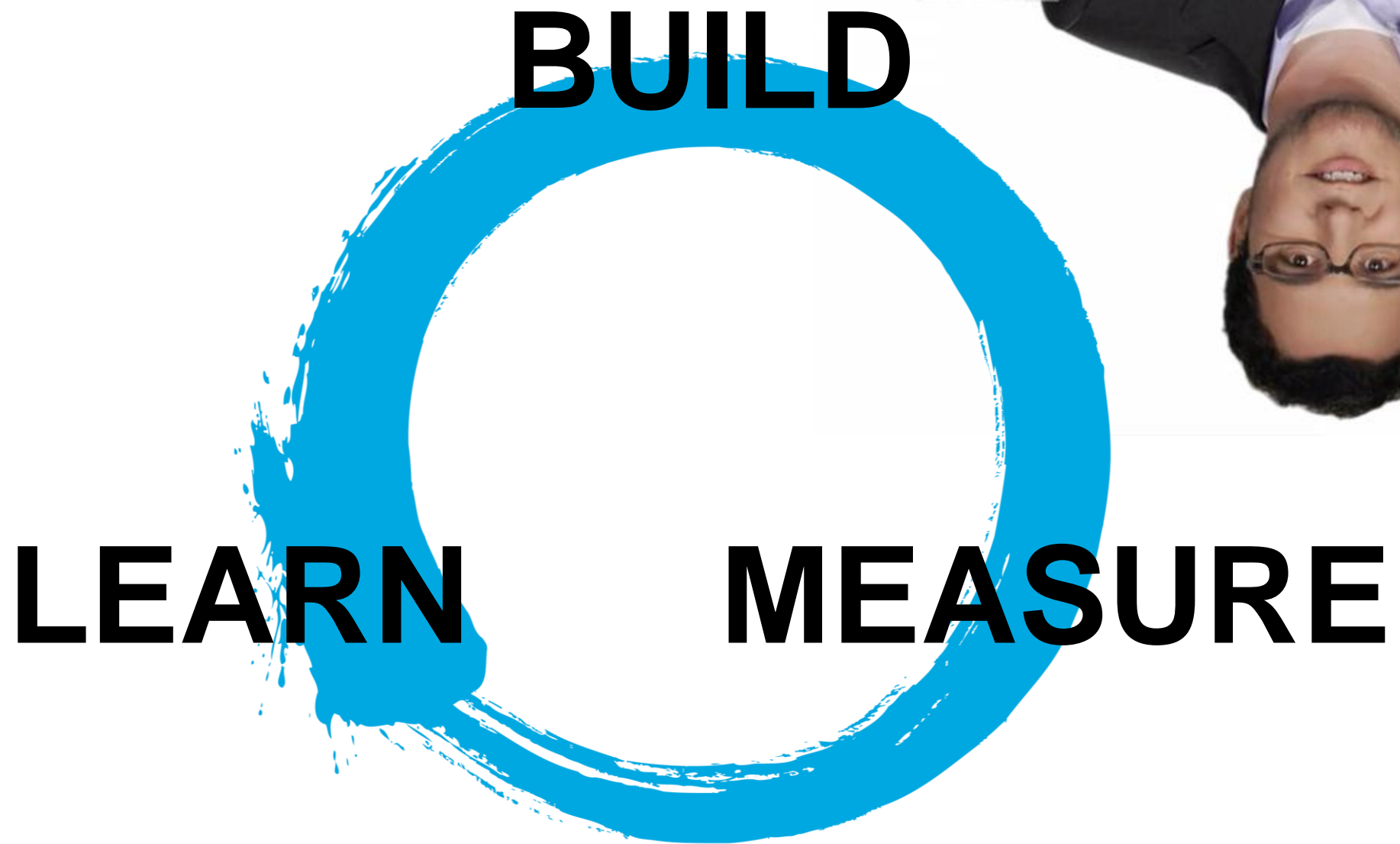
**RAPID
EMPIRICAL
PRIORITIZED
RISK REDUCTION**

SEARCH



EXECUTION







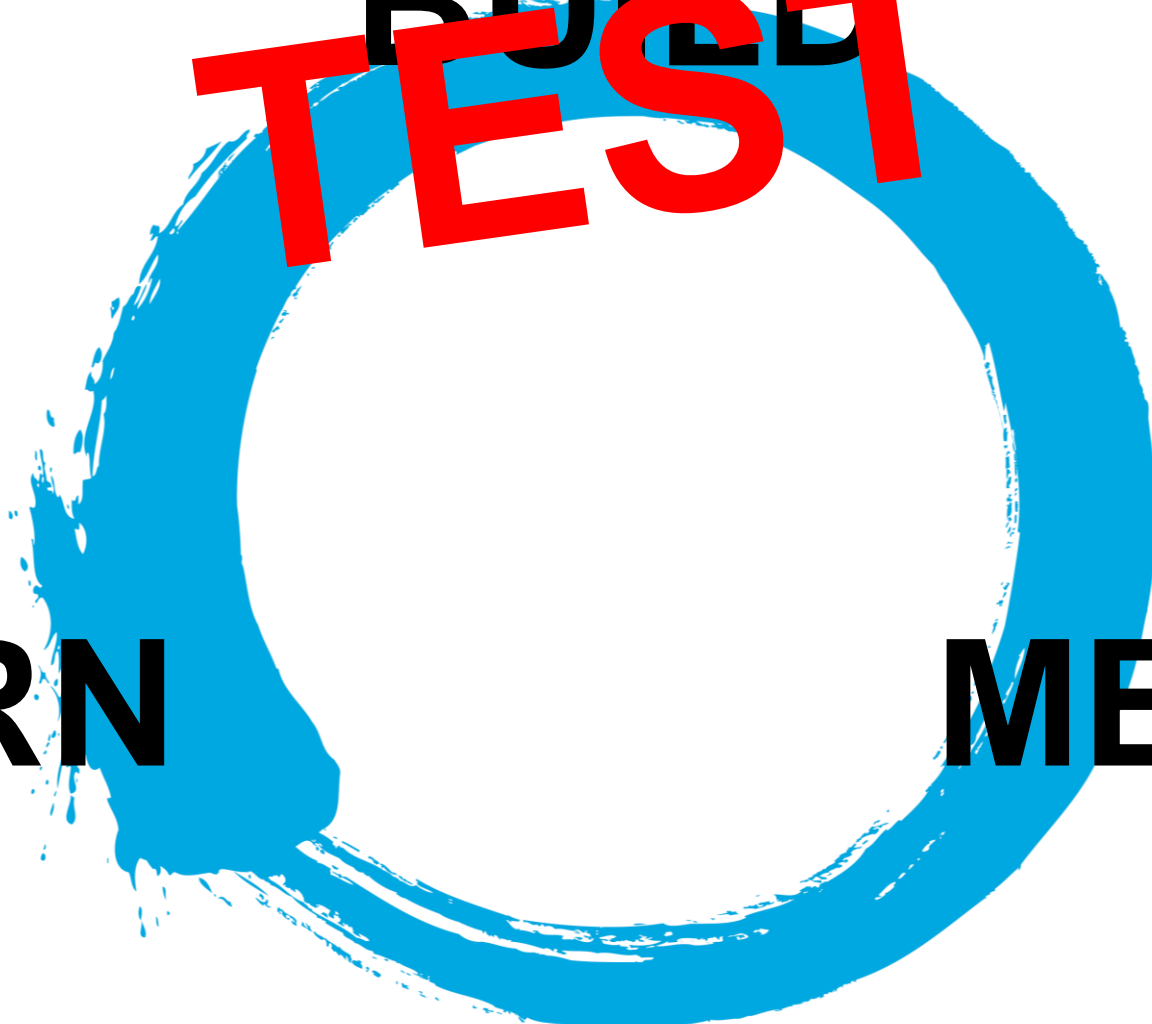


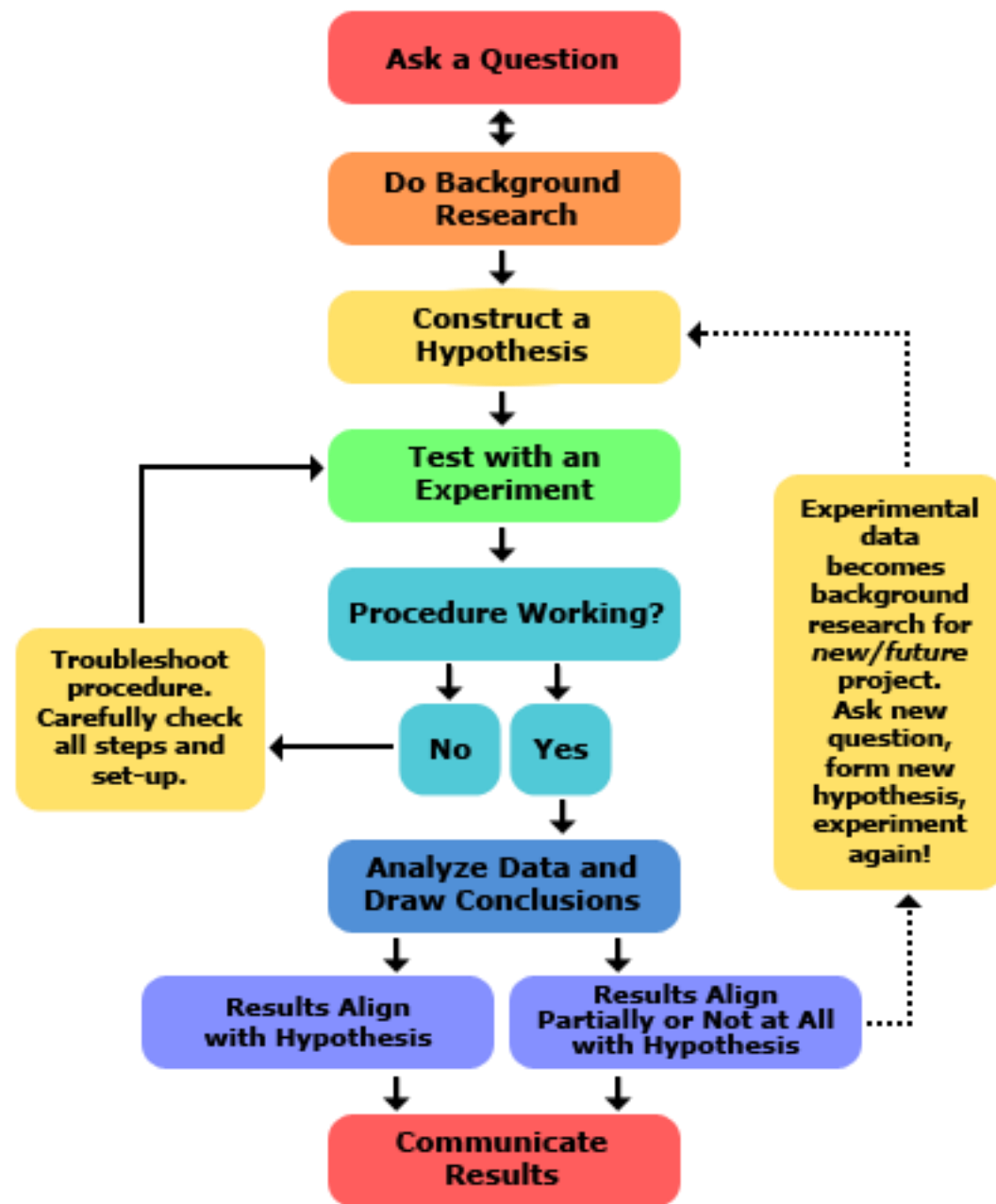
BUILD

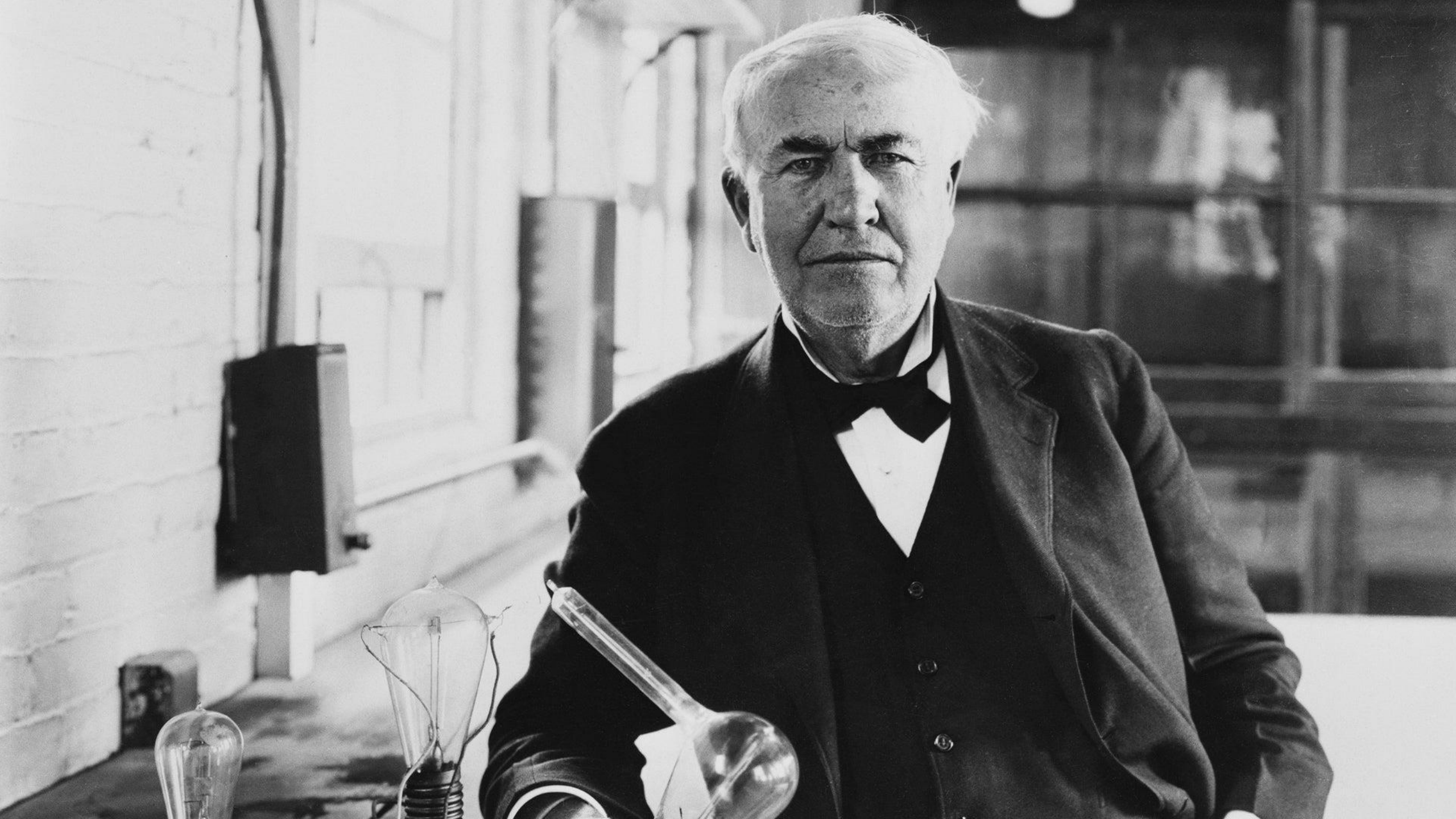
TEST

LEARN

MEASURE



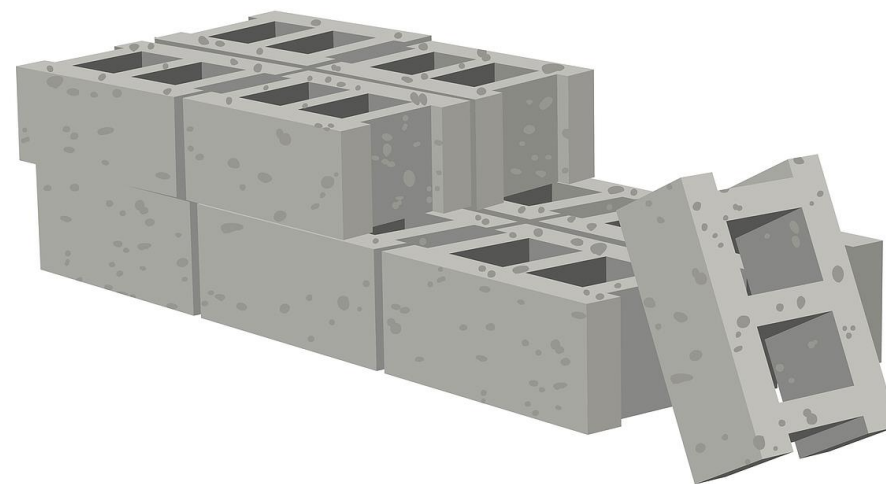




VALIDATED LEARNING

A man in a dark suit, white shirt, and dark tie stands in the center of the frame. He has a serious expression and is looking directly at the camera. The background is dark and out of focus. Overlaid on the image is text in a bright cyan color. The text reads: "Your opinion although interesting is Irrelevant". The word "Irrelevant" is significantly larger and bolder than the other words.

Your opinion although interesting
is
Irrelevant







Urgent

urden \rightarrow $\frac{1}{2}$

ident

! Schedule

Low Importance

Do It No

vs Prioritization of Task





The Questions

- How do I define victory?
- Is there a problem our customers are actively looking to solve?
- Will our customer problem take us to victory?
- Are our customers ready to solve the problem?
- Are they ready to let us solve it?
- Will they pay to solve it?
- What will it take to scale?
- Are we ready for investment?





TRD OFF ROAD
TOYOTA RACING DEVELOPMENT



Positively Impacting Tech Startups for 25 year.



5TH

Most active pre-seed/seed
Investor in the U.S.



\$122M

Invested



731+

Co's Financially
Supported



3.54B

Follow on
Investment Raised



77

Co's
Acquired



リバースピッチ

リバースピッチ①

スピーカー

ソニーセミコンダクタソリューションズ株式会社
システムソリューション事業部 ビジネス部
丸山 杏那樣



Edge AI Sensing Platform

Sony Semiconductor Solutions Overview

SONY

Gaming



Music



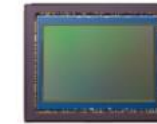
Movie



Music / Video Equipment



Semicon.



Finance



Sony Semiconductor Solutions Overview

SONY

Gaming



Music



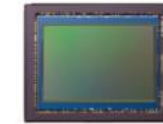
Movie



Music / Video Equipment



Semicon.



Finance



Sony Semiconductor Solutions Corporation





The Role of the Image Sensor
in the AI Era

FROM **Imaging**

Higher Definition / Brighter

Pursuing images that look beautiful to the human eye

TO **Sensing**

Object Recognition / Situational Awareness

Generate data that is easy to process with AI



AITRIOS

AI + trio + S

“AI” is the key

Solution

Social Value

Sustainability

SONY



AITRIOS makes
edge vision AI **simple**

01

AITRIOS-compatible hardware is equipped with Sony's IMX500 to enable highspeed AI processing on the chip at the edge.

02

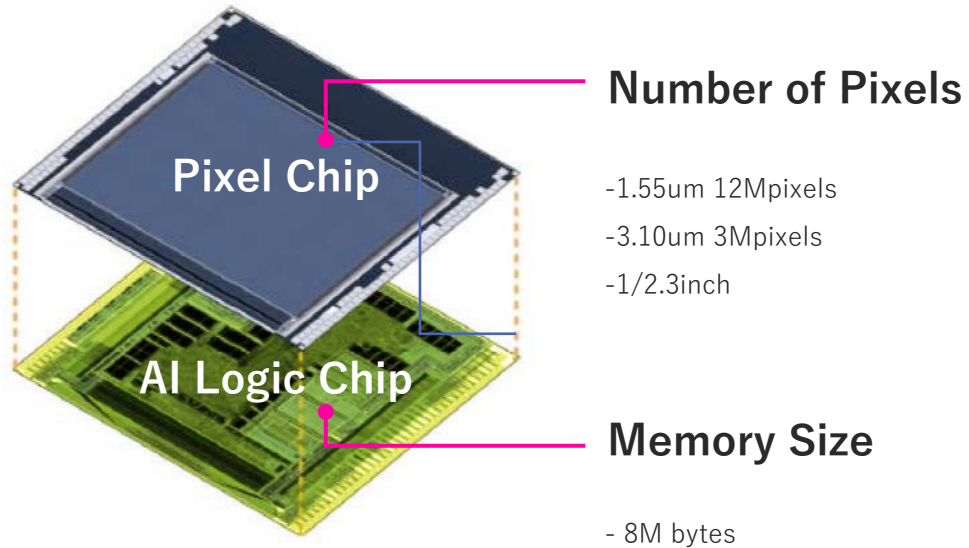
Edge AI Platform

The AITRIOS platform provides tools to develop, deploy, and manage end-to-end edge AI sensing solutions.

Intelligent Vision Sensor - IMX500

World's first *Intelligent vision sensor equipped with AI processing capabilities

Laminated Structure of Intelligent Vision Sensor



Major Features



Downsizing/Cost Reduction



Metadata Output /
Privacy Considerations



High Speed AI Processing



Select/Replace AI Model



*As an image sensor. According to Sony research. (At the time of public relations announcement on May 14, 2020)



Retail



Smart City



Factory



Logistics



Agriculture



Medical



Building



Construction



Architecture



Partner Ecosystem



Platform as a service



IMX500
Edge AI



AI Model
Distribution



AI Model
Training



Device
Management



SDK

A composite image featuring a woman's profile in silhouette. The interior of her head is filled with a detailed, high-angle photograph of a city, likely Tokyo, showing a dense residential area with many small houses, a highway with multiple lanes, and several prominent skyscrapers in the background. The lighting is soft, with a warm glow on the left side of the woman's face.

Our Request to You

Be Bold and Creative.
Let's make the world work smarter,
together.

Let's stay in touch

Please follow our Official Account:
Sony Semicon | AITRIOS (global)



AND

Connect with me and
Keep the Conversation Going!



Anna Maruyama
AITRIOS Evangelist

Anna.A.Maruyama@sony.com
or connect on LinkedIn



SONY

リバーズピッチ②

スピーカー

株式会社エクセディ ビジネス開発部
スムルダースケース様

An aerial photograph of a dense urban area, likely in Japan, with numerous buildings and streets. The image is overlaid with a large, white, stylized logo for EXEDY. The logo consists of the word "EXEDY" in a bold, sans-serif font, with a graphic element of three curved lines above the "X". Below the main logo, the words "EXEDY Corporation" are written in a smaller, white, sans-serif font. In the lower-left quadrant, a tall, modern building is visible, featuring the "EXEDY" logo on its facade.

EXEDY
EXEDY Corporation

EXEDY Corporation

March 8, 2024

Kees Smulders

Section Chief

Business Development Department



Our Factory Is Your Playground!



Overview of Our Company Our Factory Is Your Playground!



- **Independent Manufacturer of Drivetrain Components Established in 1950**
- **45 Locations in 25 Countries**
- **Core Technologies:**
Friction, Fluid Dynamics, Vibration
- **15,000+ Employees**



Motorcycle Clutch



Crane Transmission



2-mass Flywheel



Clutch Cover



Racing Clutch



Hybrid Damper



Torque Converter

Challenges



Shift Towards Electric Vehicles (EVs)



**Investment in Development of Electric
Mobility**

**Development of New Technologies is Slow
and Expensive**

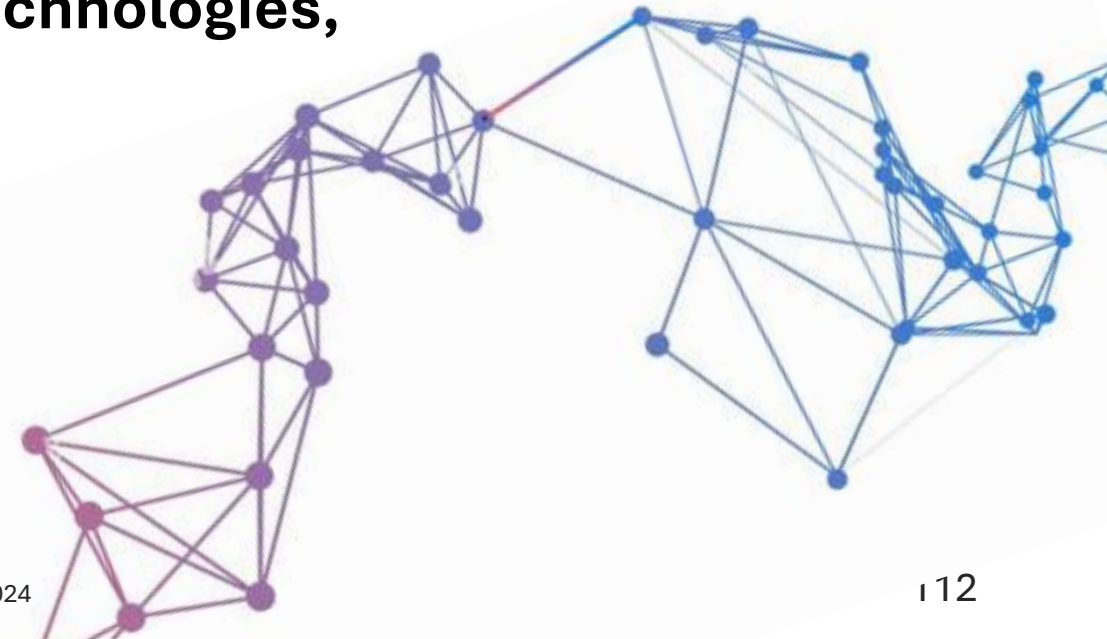


Speed Up Through Open Innovation



We view these challenges as opportunities for innovation and actively invest in emerging technologies for the future.

- **Expanding core technologies (friction, fluid dynamics, vibration) to new applications.**
- **Collaborations with startups for new technologies, fresh perspectives and agility.**



Collaborations with Startups



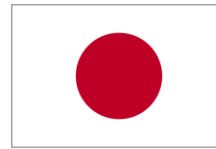
Drones



- Investment
- Scale Up Production
- Facilitate Overseas Expansion



Motor Technology



- Investment
- Joint Development
(Integration of Aster's Technology in EXEDY's Drive Unit)



EV Conversion Kit



- Investment
- Joint Development of Drive Unit for Scooters

and more...

Strengths and Capabilities

Manufacturing Capabilities

Top notch:

- Die manufacturing
- Material technology
- Stamping
- Lathe
- Surface Finishing, Tribology
- Tooling
- Production engineering (Manufacturing process design)



Feedback between functions creates an upward spiral.

Quality Assurance

Large quantities → consistent quality (stamping, machining, heat treatment)

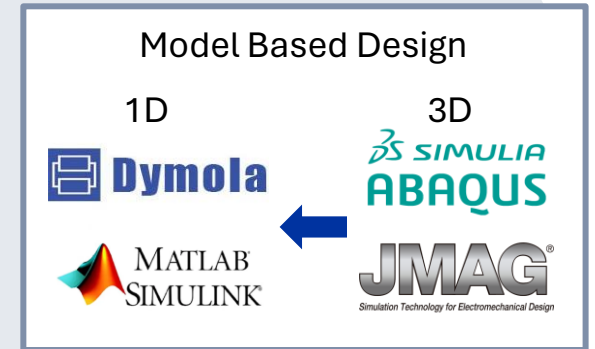
- Highest Quality and Safety standards cultivated through business with global vehicle manufacturers
- ISO, IATF certified



Development Capabilities

(Phenomenological) Analysis Skills

- MBSE
- MBD
- CAE



- Consistent with Actual Vehicle Behavior
- Core Technologies: Fluid Dynamics, Vibration and Friction

Global Sales, R&D and Production Network

OEM supplier to Japan, US, EU and Asian vehicle manufacturers,
aftermarket sales network spans nearly 200 countries

Diverse organization, multicultural backgrounds

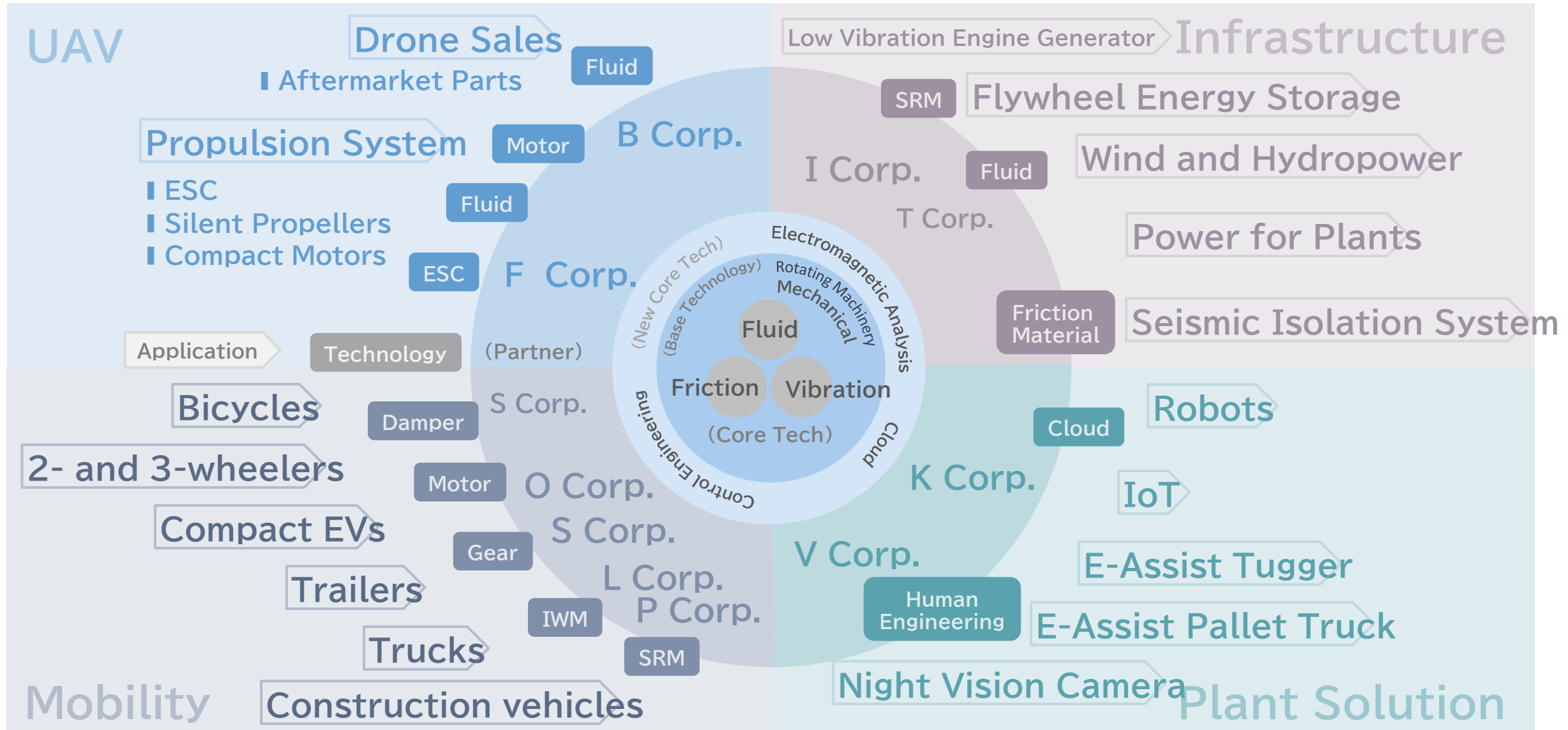


EXEDY's Development

CONFIDENTIAL

Drive our future.

Let's create fulfillment for all, and our future.



Thank You Very Much

リバースピーチ③

スピーカー

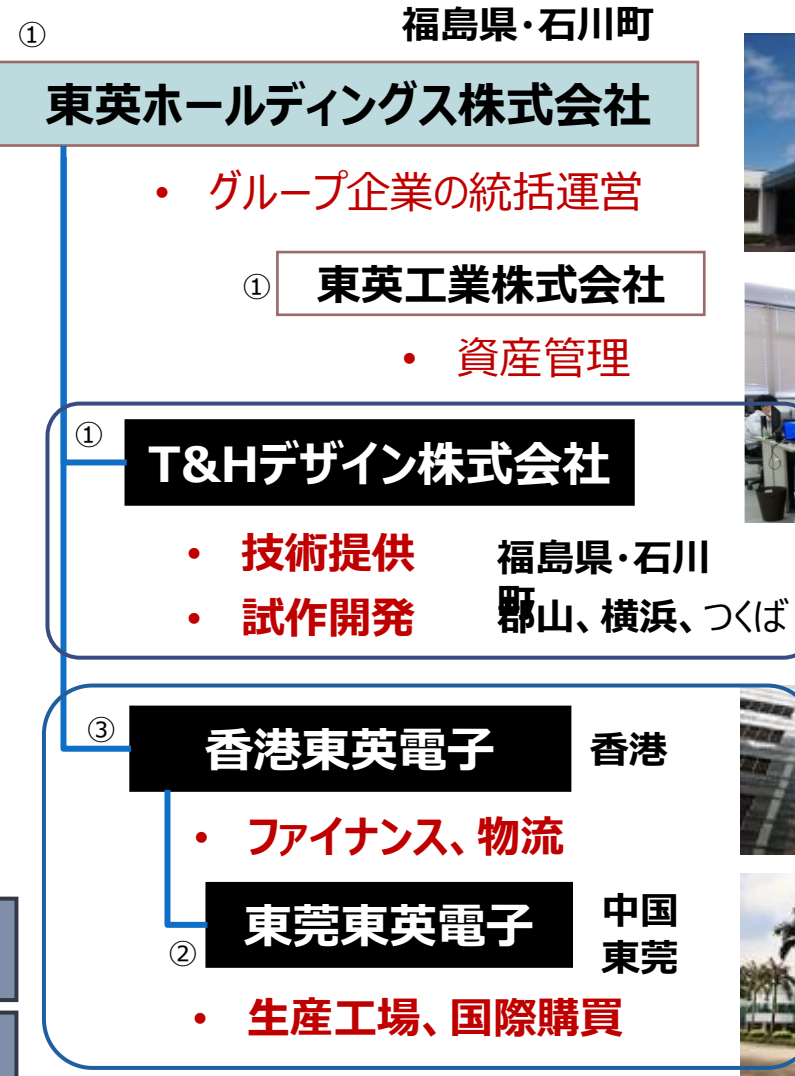
東英ホールディングス株式会社／T&Hデザイン株式会社
営業企画部

安房 善彰様

東英グループの モノづくり支援

- Win-Winを実現する
最適なパートナー

モノづくり企画から、設計・開発、量産までトータルでサポートできるパートナー



3つの拠点でグループを構成しています。

創造型・提案型の設計開発チーム（受託設計、試作製作）



T&Hデザイン
WEB PAGE



機構設計	制御設計	通信	センシング	計測
小型化	駆動系回路	USB通信	衝撃センシング	水分計測 (電気抵抗式)
静音化	LVDS信号回路	Bluetooth2.0	カメラセンシング	屈折率Brix測定
防塵防滴設計	レーザードライバ回路	SPP	光センシング	圧力計測
強度設計	ロボットアーム動作制御	WiFi通信	脈波センサー	微小重量計測
滅菌対応	ラインLED制御	3G、LTE	加速度センサー	微小電流測定
断熱構造	PWM制御	Zigbee	加重センサー	風向、風速計測
バルブ開閉	通信制御	デバイス活用	温湿度センサー	分光光度計測
意匠モデリング	灌流制御		心拍センサー	水位計測
デバイス構造		FPGA	音センサー	位相シフト法
		圧電素子	PM2.5センシング	
		RGB LED	放射線センシング	
		BLE	慣性計測センサー (IMU)	
		音声認識	土砂検知センサー	

今も新しい分野に取組進行中、
どんどんソリューションが拡大中

総合アッセンブリ工場（部品・基板実装から最終組み立てまで）



- ・高機能メカニズムモジュール(独自製品/ODM/EMS)
- ・完成品ビジネス（EMS/ODM）
- ・ベンチャー企業に対しての量産支援



東莞自社工場
案内動画



<https://www.youtube.com/watch?v=eLf14nM90Fo>



精密プレス

精密プレス部品は社内加工にて製造しています。
プレス設備：15トン～250トン



精密成形

精密成形小物部品は社内加工にて製造しています。成形設備：20トン～280トン



表面実装ライン

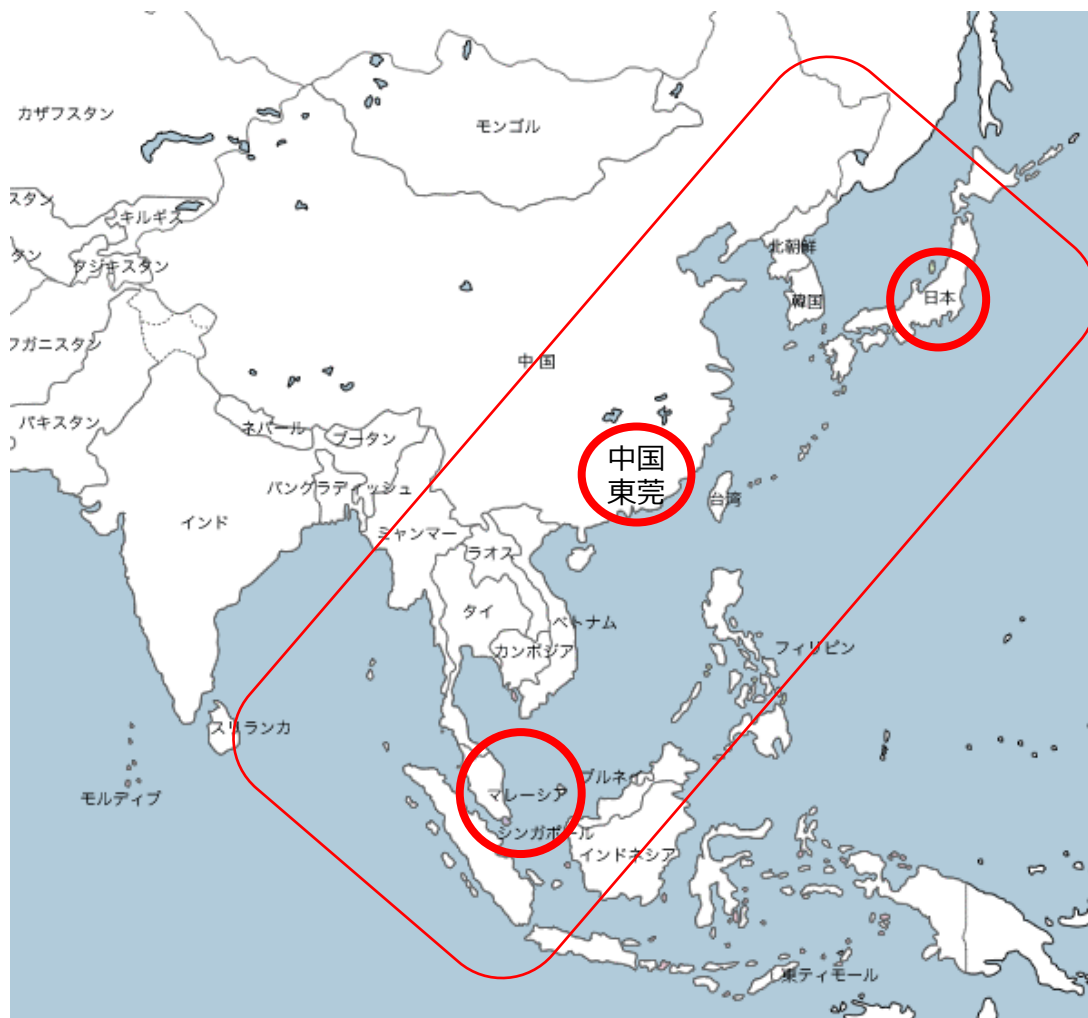
AOI、SPI等の画像検査機付きの最新鋭SMTライン
※縦型、横型IMも設備。



最終組立ライン

ベルトコンベアライン、フリーフローライン、セルラインに対応

フレキシブルな国際サプライチェーンを使い、最適な生産を提案



多様な生産場所と部品手配

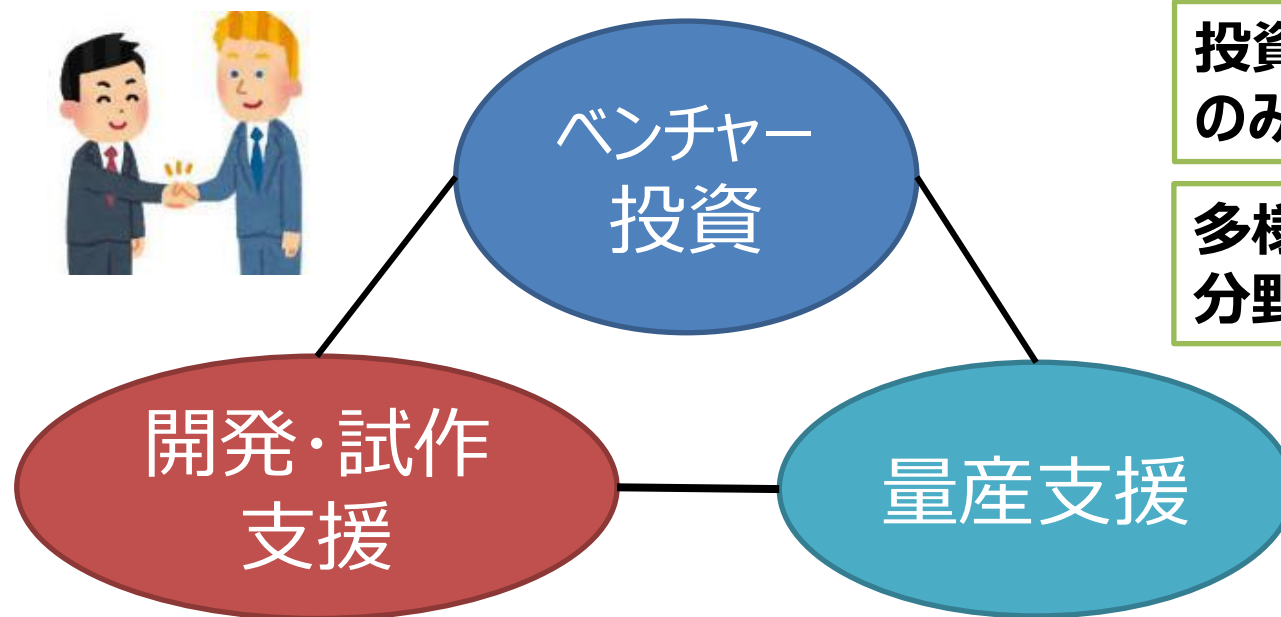
完成品生産

- ・中国生産（東莞、自社工場）
- ・マレーシア生産（協力工場）
- ・日本生産（協力工場）

海外SKD生産⇒日本最終生産

- ・ より安価、部品調達しやすい海外工場で生産、最終工程のみ日本で行い、品質保証やサポートを実施。
- ⇒ 品質とコストのバランスの良い競争力のある製品製造を提供

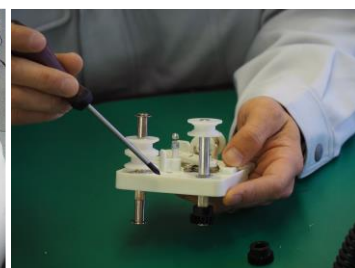
スタートアップ、企業の新規事業室
などへの支援事業を進めています。



投資－開発－量産までの
フルサポートが対応可能

投資のみ、開発のみ、量産
のみの個別対応でも可能

多様な対応ジャンル、最新
分野などでも実績蓄積中



2015年以降、未来あるモノづくりベンチャー企業に対して、投資も継続中。
試作開発からグループでしっかりサポート、量産段階へも安心して移行できます。



光るIoTモジュール
(インタメモジュール)



(株)Yume-Cloud Japan
山形県米沢市
USからJPへ本社移動



音や振動から発電
(Iエネルギーハーベスト)



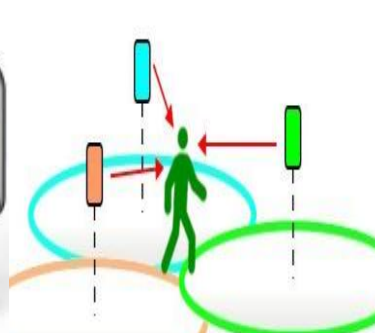
(株)グローバルIエネルギー
ハーベスト(旧・音力発電)
神奈川県藤沢市



IoTティーサーバー
("teplo" Tea Pot)



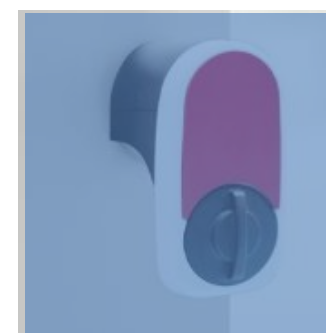
LOAD&ROAD(株)
東京都千代田区



屋内位置情報
システム



ライフラボラトリー(株)
宮城県仙台市



IoT鍵システム
(スマートロック)



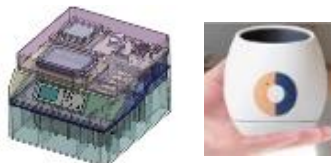
モノコトデザイン(株)
東京都中央区

モノづくり系ベンチャー企業へ投資やコンサルティングをしている企業、目的を
共有、補完関係になり得る開発企業へも直接投資をしています。



■ の企業は、過去には資本関係があったが、現在は資本金を売却、協力関係に繋がっている会社

医療機器



産業機器



測定機器



車載機器



領域に関わらず相談下さい。
蓄積してきた知見・経験が
応用できます。

アミューズメント 機器

126

音楽・楽器 ・映像機器

美容機器 ヘルスケア 機器

IoT関連
機器

エレクトロ
ニクストイ

新領域

ウェアラブル
機器

ロボット
関連

飲食機器



126

- プロトタイプ開発におけるパートナーシップによるWin-Win構築
- 新旧様々な開発経験の蓄積を活かしたモノづくりでのソリューション提案
- 原理試作から開発・量産まで、付加価値としての製造面でのコンサルティング
- 各製造工程において日本と中国双方の利点の活用



T&Hデザイン(株) 営業企画部長、つくばオフィス長

安房 善彰 YOSHIAKI AWA

公立学校教員を経て、1993年にNEC米沢(株)に入社。開発技術者からスタート。開発管理、米国出向などを経て、2000年から商品企画職。NECのPC事業の構造改革後、東京の本社に勤務、NEC製パソコンの新商品創りの最前線を邁進。LaVie/VALUESTATR、ヒット商品の企画も担当。

2005年、山形県中小企業のタカハタ電子に転職。営業、管理、生産、開発と一連の業務を経験後、新事業創りに特化して社内ベンチャーに取り組む。医療用照明としての有機EL看護師ライトを全国販売、欧州販売を実現した。

2019年、山形大学国際事業化研究センターで事業化プロデューサー、2020年から東英グループ・T&Hデザイン入社、東英グループの営業開拓活動及びものづくりベンチャーや企業の新規事業部門への支援事業活動を担当する。



東英グループ、会場内に ブース出展中！

東英グループの実績商品の
一例を見て頂けます。

東英グループの全てを
紹介する最新パンフレットを
ご提供致します。

Technology, Originality and Hospitality Enables Innovation.

技術と創意、そして気づかいで 新たな価値をつくりだす。

TOHEI Group
since 1971

東英グループ | 会社案内

v1.0

BUSINESS FIELDS | 事業分野_受託設計/研究支援/試作/少量生産

T&H

先端・専門分野も含む幅広い領域を受託設計・試作。

高性能・高精度・小型化・高品質。ますます競争とスピードを揃えていく製品開発をプロの設計力で強力に後押し。ベンチャーや大学との連携で次世代技術も取り込みながら進化するモノづくりを続けています。

医療機器

通用技術
・電圧制御
・センサー制御
・パルス制御
・ディスプレイ駆動設計
・熱設計

担当エリア
・企画立案
・設計・試作
・評価



ウェアラブル機器

通用技術
・生体信号検出
・通信制御
・加工技術
・電圧制御
・小型設計
・運動制御
・防水(PV5, PV7)

担当エリア
・企画立案
・設計・試作
・評価
・部品調達
・量産製造



スマート家電

通用技術
・食品衛生対策
・生体信号検出
・通信制御
・IoT

担当エリア
・企画立案
・電圧設計
・設計・試作
・評価
・部品調達
・量産製造



測定機器

通用技術
・屋外環境対策
・防塵防水(IP65)

担当エリア
・企画立案
・電圧設計
・設計・試作
・評価
・部品調達
・量産製造



車載機器

通用技術
・電圧・低電圧動作設計
・小型設計
・熱設計

担当エリア
・企画立案
・電圧設計
・設計・試作
・評価
・部品調達
・量産製造



ロボティクス

通用技術
・駆動系制御
・カメラセンシング
・機械分析(音声、画像)
・防水設計

担当エリア
・企画立案
・設計・試作
・評価





東英グループ
WEB PAGE

東英グループ「設計・
開発」紹介動画



東英グループ「製造・
調達」紹介動画





Monozukuri Hardware Cup 2024 - Go Global -

**Narimasa Makino
Chairman Monozukuri Hardware Startup
Consortium
(CEO Monozukuri Ventures)**



2024.1 | 2024.3 開催期間

募集開始

DEEP TECH FORUM 2024

北米ディープテックスタートアップと
日本の製造業企業をつなぐ

オープンイノベーションプログラム





- Startup/Founder: 79
- Ecosystem (Investor/Accelerator): 73
- Corporate: 56



DEEP TECH FORUM

KYOTO
2024

—
MONOZUKURI
HARDWARE
—
CUP





Hardware Cup



- **Alphalab Gear** that is based in Pittsburgh, has organized the event since 2015. Startups from the US and around the world join the event. It's one of **the biggest hardware pitch events** in the world.
- "Hardware is Hard". Everybody corporates and makes a community for the problems, and tries to change the environment.



Why from Kyoto, Japan

Monozukuri Ecosystem in Kyoto

Global Craftsmanship for Industrial tech and Hardtech startups

Local expertise "Made in Kyoto/Kansai"



Monozukuri

1. "Making things with constant improvement".
2. A "never give up" craftsmanship mood
3. A state of mind, the spirit to produce not only excellent products but also have the ability to constantly improve the production system and its processes.

X

Shisaku

1. Try something experimentally (measuring)
2. Policy
3. Our experts: Kyoto Shisaku Net (Kyoto Prototyping Network), committed to bring innovation to new products

Monozukuri Hardware Cup

Semi-Final of Hardware Cup

- Since 2017. 2024 in Kyoto, KRP and by online
- 7 startups make a presentaion in all English
- The gateway to the global market for hardware, hardtech, deeptech startups in Japan



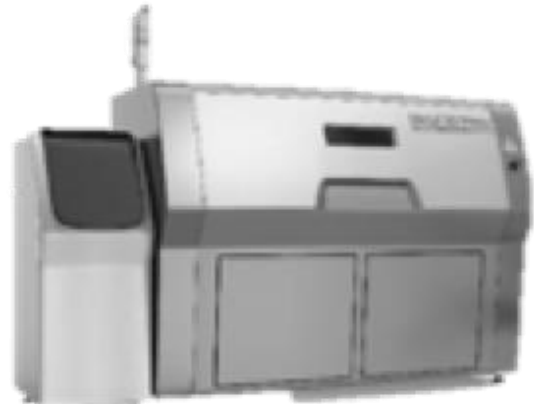
Monozukuri Hardware Cup Results

- About 1000 participants in the last 8 years
- +200 hardware startups all over Japan have applied
- One of the biggest events in Japan



QDLASER Winner of 2017

QD Laser is a developer of quantum dot laser technology designed to offer high performance semiconductor lasers. → **IPO on Feb 2021**



SUN METALON Winner of 2022

Sun Metalon has a ground-breaking new metal 3D printing technology

→ **Fundraising of 800 million yen from JP VCs and the US university**

Sponsors

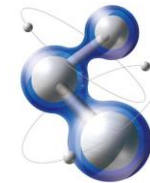
muRata

INNOVATOR IN ELECTRONICS

KRP
KYOTO RESEARCH PARK

 **MATSUO**

shisaku



モノづくり日本会議
超モノづくりへの挑戦

Go Global !!
Monozukuri Hardware Cup

スポンサースピーチ

スピーカー

株式会社村田製作所

技術・事業開発本部 新規事業推進部

部長 野崎 道則様

Murata Manufacturing Co., Ltd.

Corporate Technology & Business Development Unit

New Business Development Department General Manager

Michinori Nozaki

スポンサースピーチ

スピーカー

松尾産業株式会社

アドバンスドテクノ事業部

松川 佳祐様

Matsuo Sangyo Co., Ltd.

Advanced Technology Division

Keisuke Matsukawa

スポンサースピーチ

スピーカー

京都試作ネット 代表理事

佐々木 智一様

Kyoto Shisaku Net Representative Director

Tomokazu Sasaki

スポンサースピーチ

スピーカー

京都リサーチパーク株式会社

イノベーションデザイン部 長田 和良様

Kyoto Research Park Corp.

Innovation Design Department

Kazuyoshi Nagata