The Innovation Farm

A Modern Replacement for the Innovation Funnel

modus

GORE

IARIA

HEALTHINFO, Lisbon, October 2022

modus

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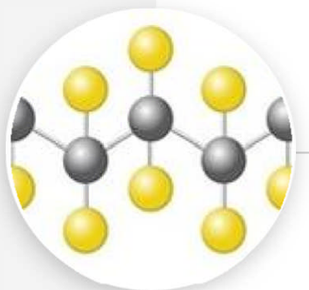


1958

Founded to create products around PTFE

1962

First products in space - cables for Telstar satellite

1969

Discovery of ePTFE

1975

First GORE-TEX® Vascular Graft is

1976

GORE-TEX® fabric launches

1986

ePTFE sutures

1997

ELIXIR® guitar strings

2009

Fabric woven from GORE® Fiber for retractable roof at Wimbledon Centre Court

2019

45 million implants milestone

Core foufid6tiofi6l ififiov6tiofis - PTFE ifi 1958 > ePTFE ifi 1969

- Cascade of diverse innovative applications and materials science

Ufiique org6fiiz6tiofi6l structure

- power of small teams
- lattice structure

New pressures to ififiov6te

- competitive pressure
- larger org = less nimble
- rise of digital
- climate change

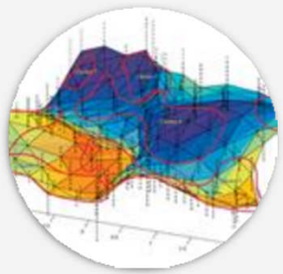
Our Mandate

Leverage emerging digital technology to inhabit the future by evolving products, embracing complexity and solving customer problems

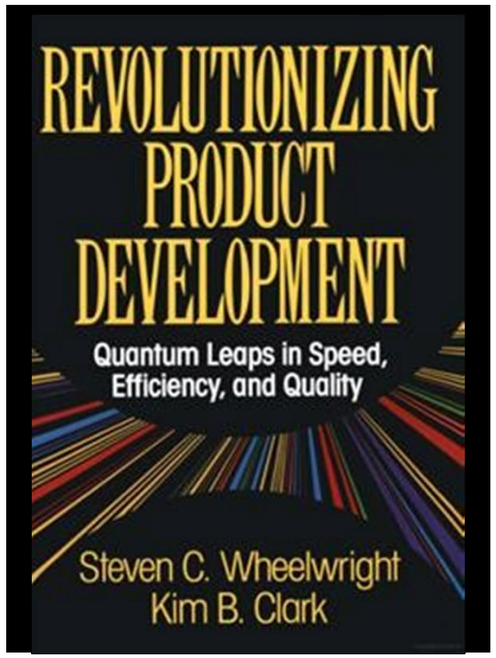
“ ”

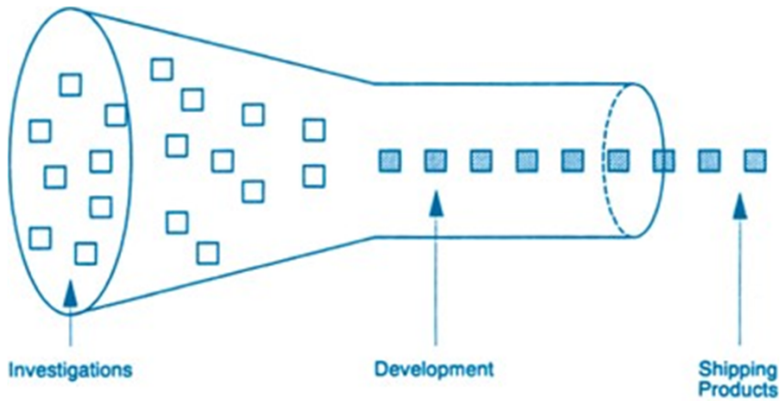
How c6fi we mo ve from lifec6 thifikifig to supportifig complex, gr6ph-b6sed systems?

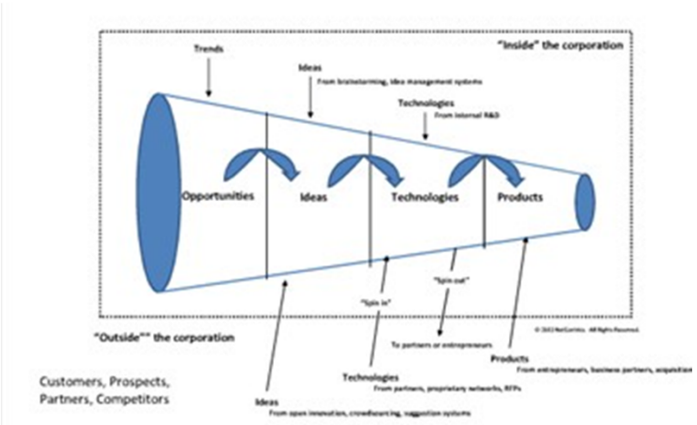
Bob Murray / GORE / Innovation Champion

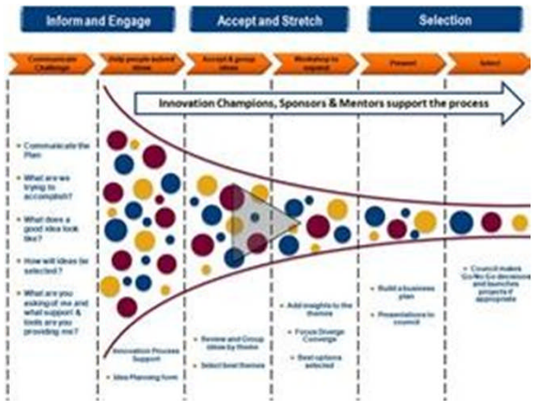


1992 › The Innovation Funnel is Born

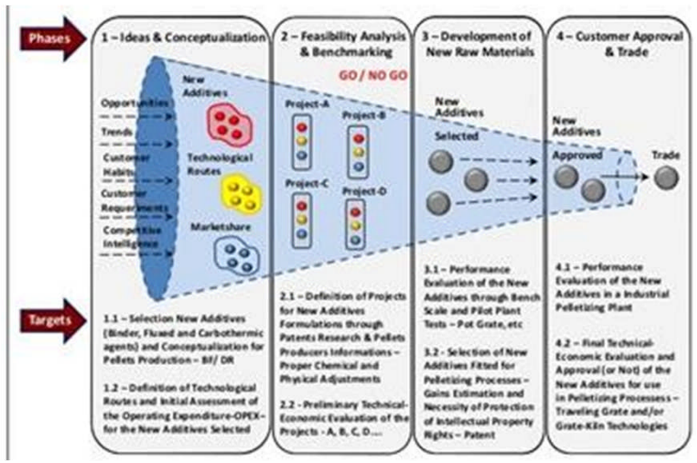


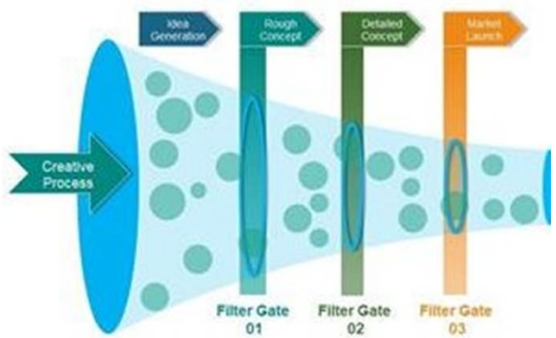


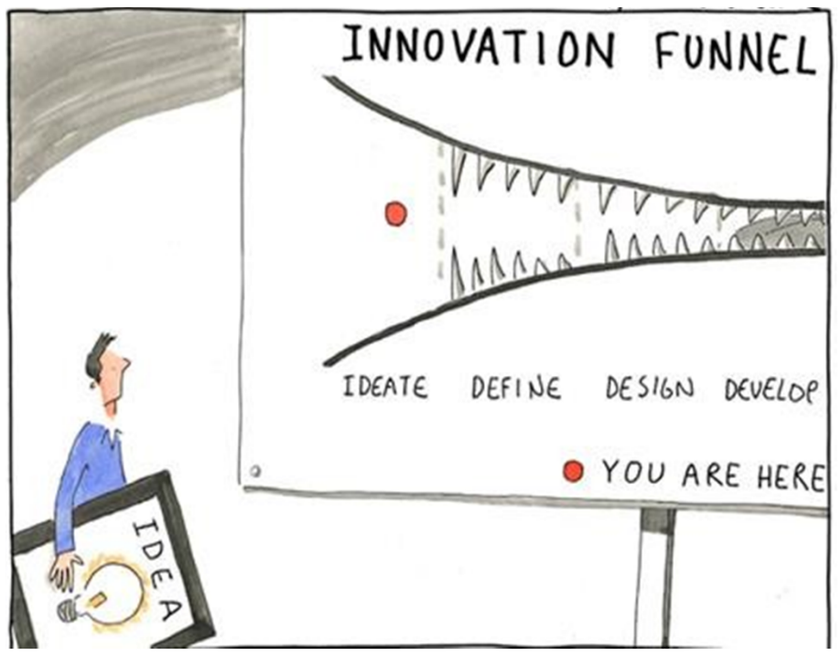

"Inside" the corporation
Trends
Ideas
From brainstorming, idea management systems
Technologies
From internal R&D
Opportunities
Ideas
Technologies
Products
"Spin out"
"Spin in"
To partners or entrepreneurs
"Outside"" the corporation
Customers, Prospects, Partners, Competitors
Technologies
From partners, proprietary networks, RFPs
Products
From entrepreneurs, business partners, acquisitions
Ideas
From open innovation, crowdsourcing, suggestion systems


Inform and Engage
Accept and Stretch
Selection
Innovation Champions, Sponsors & Mentors support the process

Ideas
Idea Management
Development of Projects
Protection and Exploitation
Market Introduction
Results

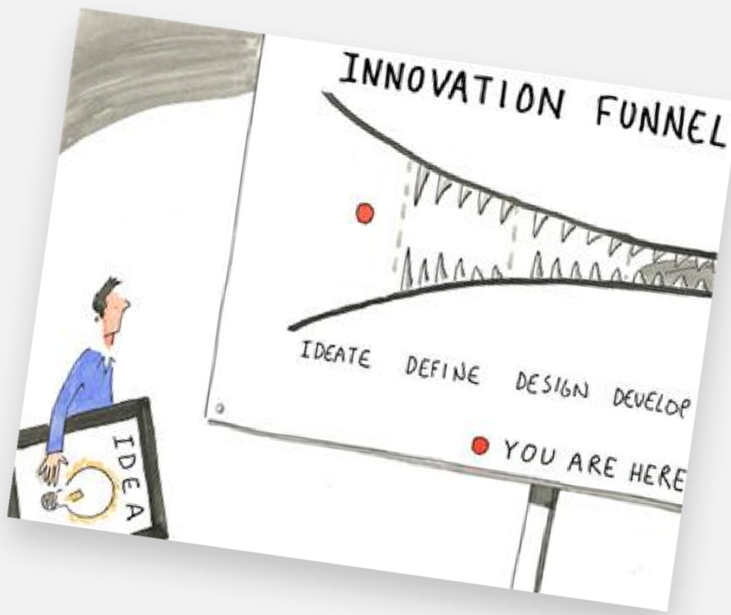

Phases
Targets
1 – Ideas & Conceptualization
2 – Feasibility Analysis & Benchmarking
GO / NO GO
3 – Development of New Raw Materials
4 – Customer Approval & Trade
Opportunities
Trends
Customer Habits
Customer Requirements
Competitive Intelligence
New Additives
Technological Routes
Marketshare
Project-A
Project-B
Project-C
Project-D
New Additives
Selected
New Additives
Approved
Trade
1.1 – Selection New Additives (Binder, Fluxed and Carbothermic agents) and Conceptualization for Pellets Production – BF/ DR
1.2 – Definition of Technological Routes and Initial Assessment of the Operating Expenditure-OPEX- for the New Additives Selected
2.1 – Definition of Projects for New Additives Formulations through Patents Research & Pellets Producers Informations – Proper Chemical and Physical Adjustments
2.2 - Preliminary Technical-Economic Evaluation of the Projects - A, B, C, D....
3.1 – Performance Evaluation of the New Additives through Bench Scale and Pilot Plant Tests – Pot Grate, etc
3.2 - Selection of New Additives Fitted for Pelletizing Processes – Gains Estimation and Necessity of Protection of Intellectual Property Rights – Patent
4.1 – Performance Evaluation of the New Additives in a Industrial Pelletizing Plant
4.2 – Final Technical-Economic Evaluation and Approval (or Not) of the New Additives for use in Pelletizing Processes – Traveling Grate and/or Grate-Kiln Technologies


Idea Generation
Rough Concept
Detailed Concept
Market Launch
Creative Process
Filter Gate 01
Filter Gate 02
Filter Gate 03


INNOVATION FUNNEL
IDEATE
DEFINE
DESIGN
DEVELOP
YOU ARE HERE
IDEA

Funnel Problems

- Focus is on **pickifig wififiers fiot cre6tifig wififiers**
- **Admifi is 6t the core** not ideas or product development
- Senior **expertise becomes focused ofi ev6lu6tiofi 6fid fiot cre6tiofi** or improvement
- Stage **g6tes become clogs**
- **Low toler6fice for risk** or faltering



Funnel to **F6rm**

20th Century
Industrial Era

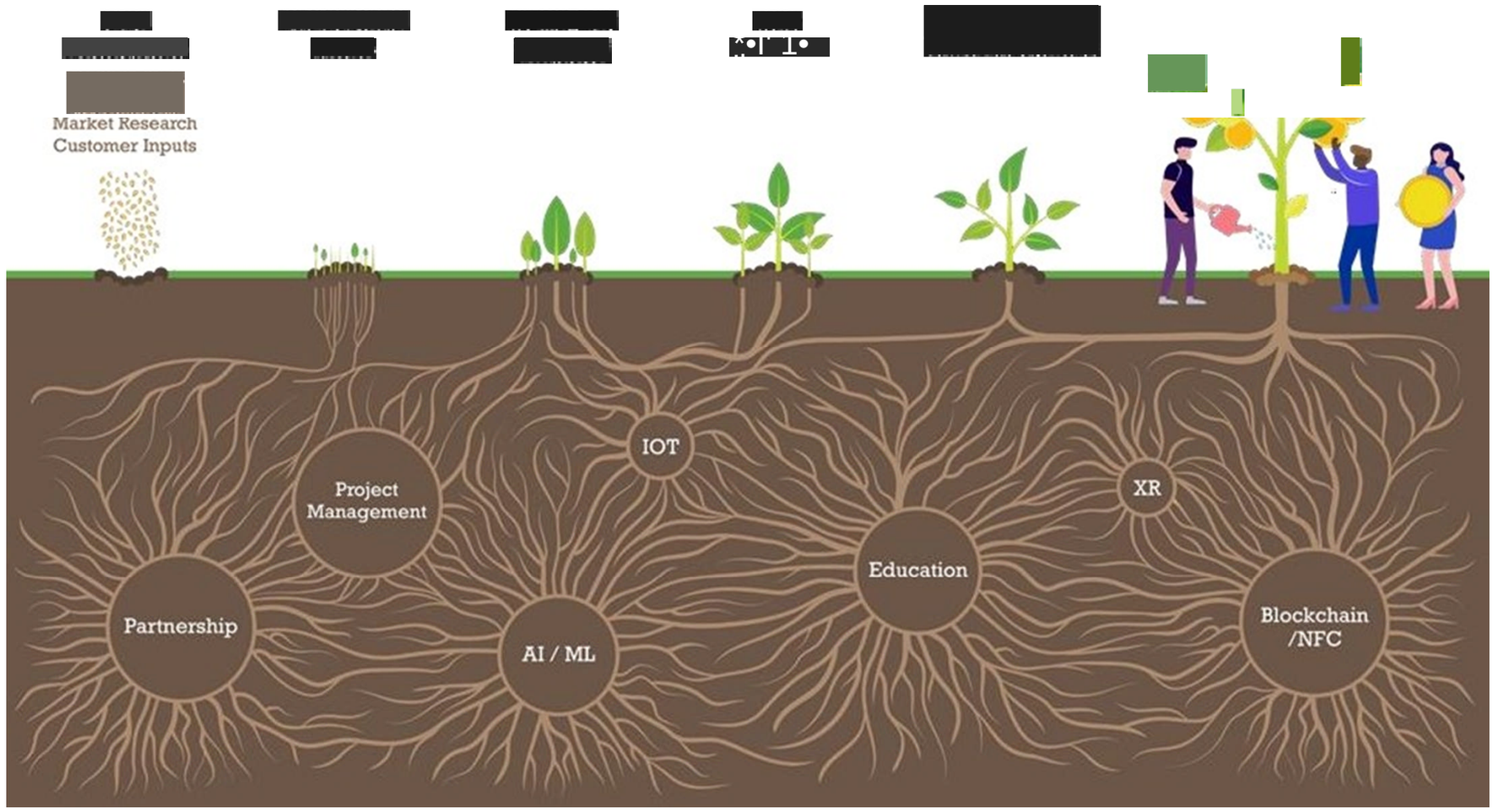
21st Century
Digital Era

Nature ›

All Time Top #1 Champion Innovator

The Original Complex System

- Non-centralized rulesets
- Competitive forces
- Selective processes
- Mutation = Innovation


Market Research
Customer Inputs
Partnership
Project Management
AI / ML
IOT
Education
XR
Blockchain /NFC

Farm Features

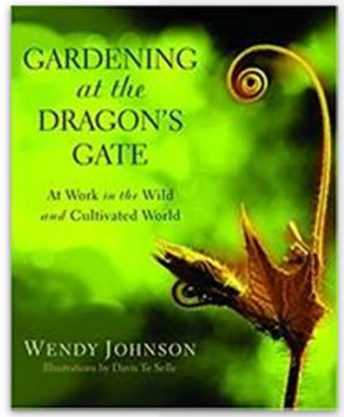
- Harness natural forces with **ifitefitiofi6l evolutiofi**
- End goal is to harvest the fruit but **ifivestifig ifi good seeds, ifiputs, soil he6lth**, etc
- **Ide6s h6ve ifitrifisic drive** to grow, evolve, flower, fruit
- **Tr6fisp6refit** and **fi6vig6ble**
- **Friefidlier im6ge / ifiterf6ce** (not trapping your idea / project in my funnel)
- **Cross pollifi6tiofi & gr6ftifig**
- **N6tur6l selectiofi, weedifig 6fid thififiifig**
- **“Failed” plafitifigs become compost afid cofitribute to soil** health (expect < 5% of concepts to fruit)
- Allows for **highly v6ri6ble growth** and **h6rvest times**

XR Model Warehouse
Marketing
Functional IT
Legal
Finance
Customer Problem #1
New Product
IOT solutions
Emerging Technology Innovation
AI/ML
Key Partnership

Space for The Wild

"My first principle is to learn gardening from the wilderness outside the garden gate. In honor of wildness inside and outside the garden gate, every spring **I leave a random corner of our garden untended."**

-Wendy Johnson



Funnel

Cutting and slashing

Feels like a race

Live or die by linear (creative) ROI models

Innovation infrastructure is consumptive

Competitive

Artifact of industrial era

Rigidly defined swimlanes

vs

Farm

Growing and evolving

Variable speeds OK

Projects/ideas have intrinsic value

Innovation infrastructure is generative

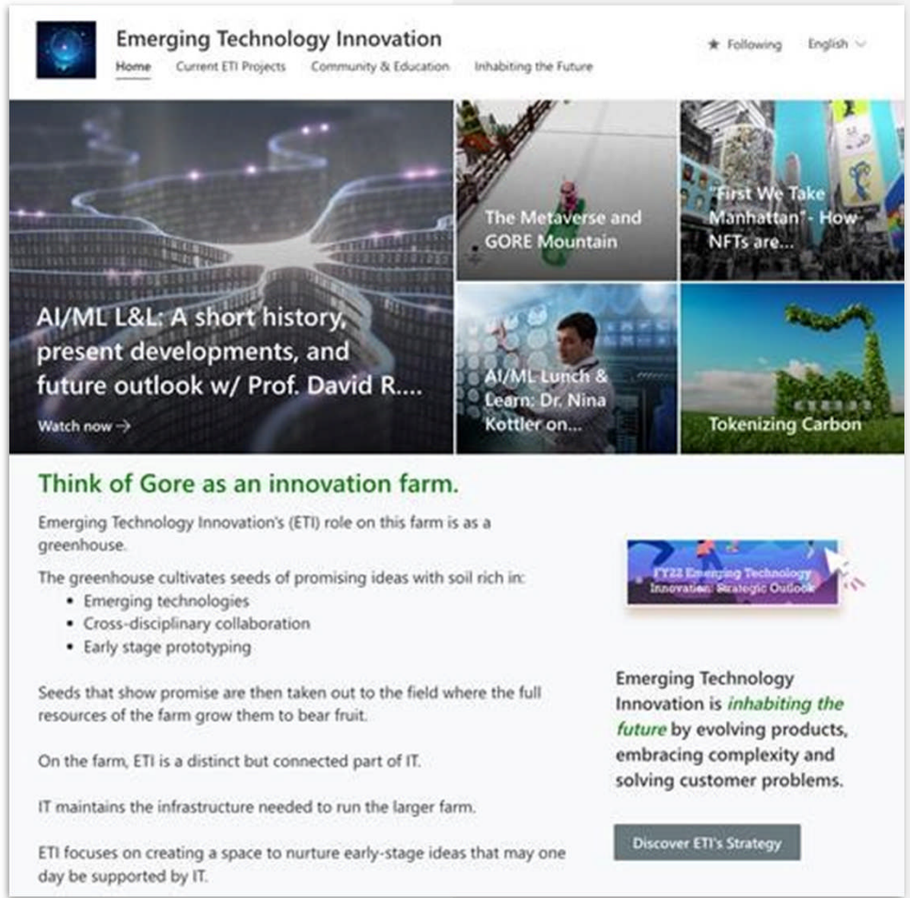
Collaborative

Human and timeless

Space for unexpected, organic emergence

Operationalizing the Farm

- Fund the farm **collaboratively** (CSA / DAO)
- Differing growth rates can add complexity to centralized stage gates
  - Empower farmers to **do their own weeding**
  - Establish **clear OKRs and horizons** for each farmer / planting
- **Rename your kanban** columns / stages (seed, sprouts, seedling, growing, fruiting, etc)
- **Monitor soil** health
  - establish **feedback loops** from stakeholders, innovation team, internal customer
  - monitor **industry trends** for emergent technologies
- Invest in internal communications and **storytelling**


Emerging Technology Innovation
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Current ETI Projects
Community & Education
Inhabiting the Future
Following
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AI/ML L&L: A short history, present developments, and future outlook w/ Prof. David R....
Watch now
The Metaverse and GORE Mountain
"First We Take Manhattan" - How NFTs are...
AI/ML Lunch & Learn: Dr. Nina Kottler on...
Tokenizing Carbon
Think of Gore as an innovation farm.
Emerging Technology Innovation's (ETI) role on this farm is as a greenhouse.
The greenhouse cultivates seeds of promising ideas with soil rich in:
Emerging technologies
Cross-disciplinary collaboration
Early stage prototyping
Seeds that show promise are then taken out to the field where the full resources of the farm grow them to bear fruit.
On the farm, ETI is a distinct but connected part of IT.
IT maintains the infrastructure needed to run the larger farm.
ETI focuses on creating a space to nurture early-stage ideas that may one day be supported by IT.
FY22 Emerging Technology Innovation: Strategic Outlook
Emerging Technology Innovation is inhabiting the future by evolving products, embracing complexity and solving customer problems.
Discover ETI's Strategy

Thank you!

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