Strategic Approach to R&D Planning, Agile Development, and IT Operations

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TOWERS

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“The point is to divide up all activities in the company into Running or Changing.

***Running** refers to normal business activities and daily operations with clear processes …*

*…while **Changing** refers to starting new projects and working with a lack of information.”*

THE ESSENCE OF ITB:RTB

ITB:RTB Essentials

DEFINITIONS, MODELS, AND STRATEGY

ITB:RTB Introduced

Definitions

- "Run-the-business (RTB): The day-to-day work you have to get done to keep the business working.
- Change-the-business (CTB or ITB): The projects you execute to change the trajectory of your current business" (Mowat, 2019).

Context

- RTB is all about operating what is in place today and optimizing.
- ITB is all about developing new processes and technologies and in most cases replacing the environment that RTB is managing.
- Through the RTB focus companies achieve a consistent mitigation of risk and enhance effectiveness by streamlining processes and focusing on continuous improvement.
- The ITB stream produces new value-added capabilities to leapfrog existing products and applications and capture new markets.

ITB:ITB Key Characteristics

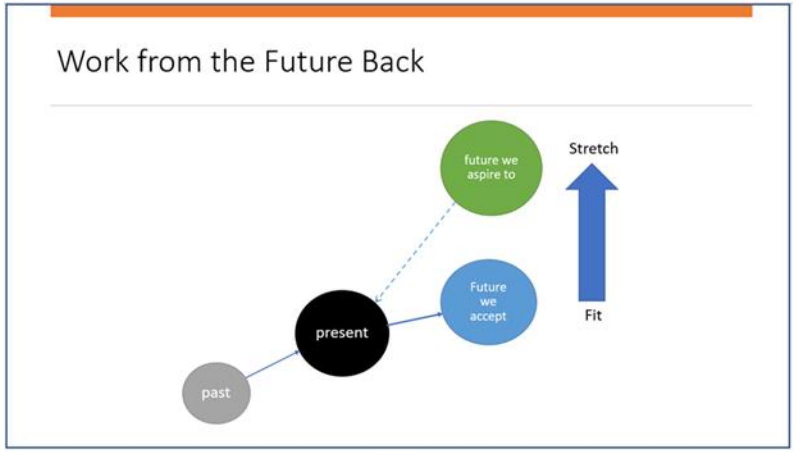
Invest in the Business (ITB)	Run the Business (RTB)
▪ Grow revenue ▪ Design and build future platforms and applications ▪ Product lifecycle: early development ▪ Focus on agility, automation, reusability ▪ Support Transformation of existing platforms ▪ Design in security	▪ Protect revenue ▪ Maintain core applications and operationalize new technology ▪ Product lifecycle: mature ▪ Focus on reliability, security, compliance ▪ Supporting full suite of applications ▪ Manage Cybersecurity operations

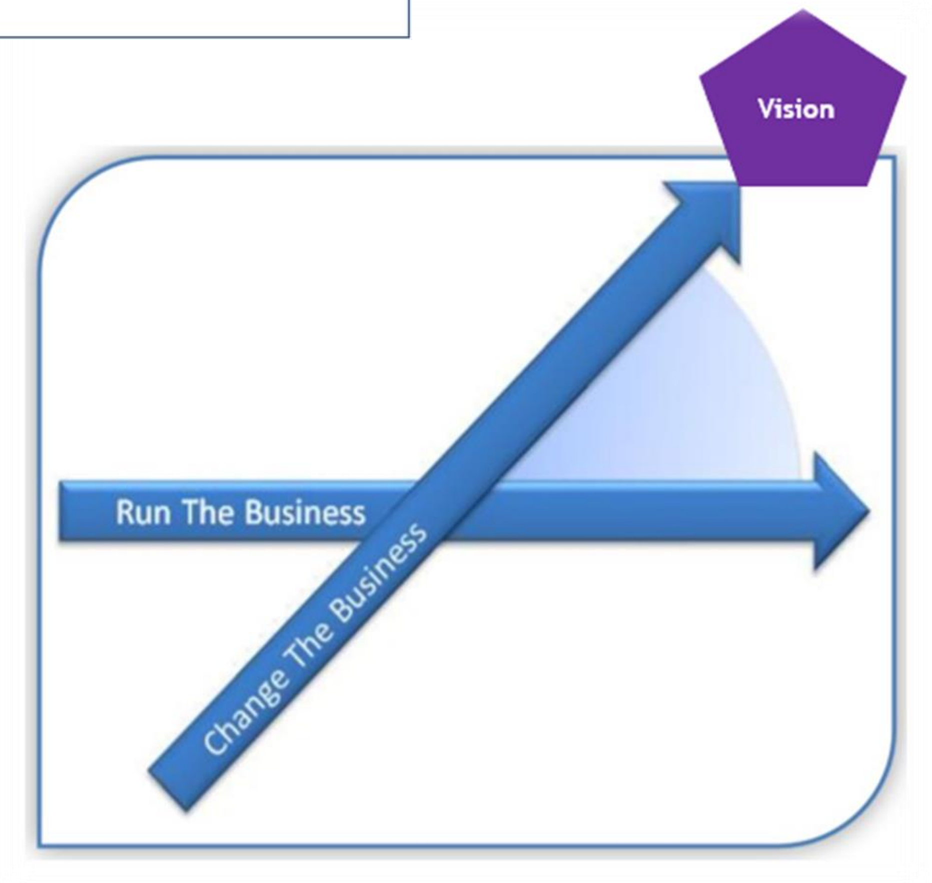
Future Back Strategic Planning

CTB (Change the Business) or the earlier GTB (Grow the Business) are sometimes used for ITB.

RTB powers the business forward horizontally, supports customers, products, and revenue.

This allows the CTB vector to propel the company to a new level.



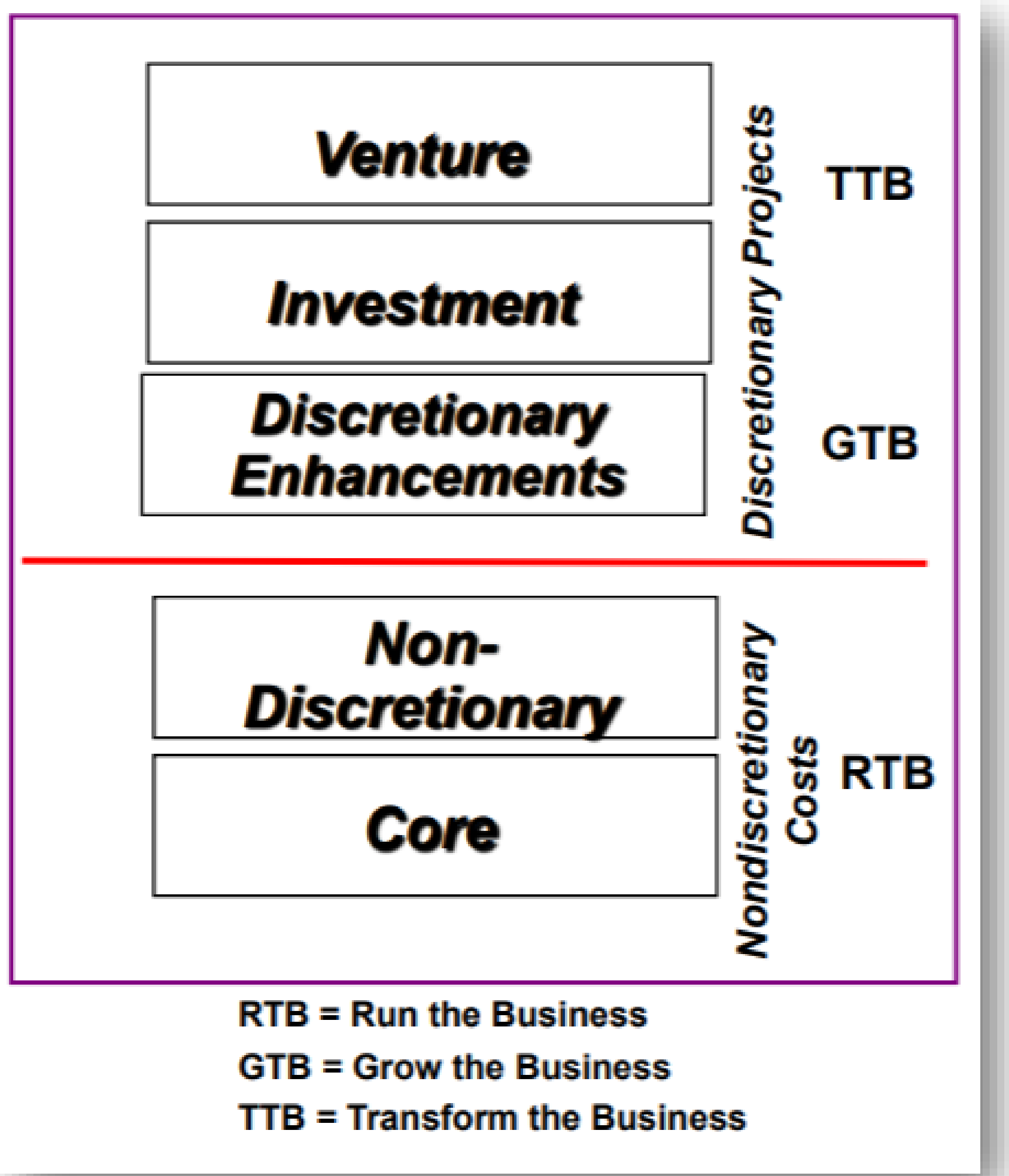


The ITB:RTB Model

RTB is non-discretionary. This work must be done to operate the business.

ITB is discretionary. If investment were frozen and all ITB work stopped the company would still run. However, the long-term viability of the business might (and probably would suffer).

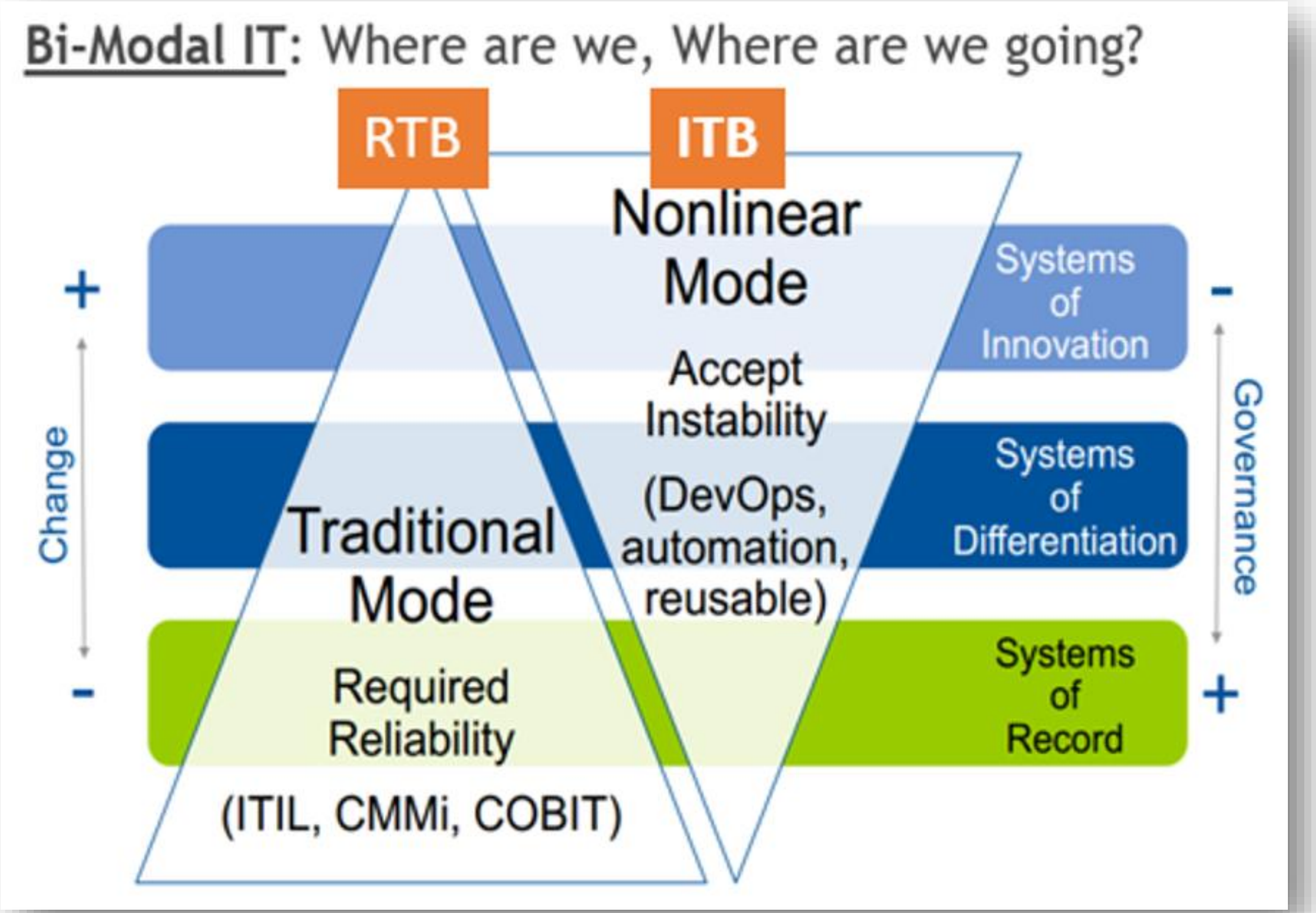
(Image from Donnellan, 2018)

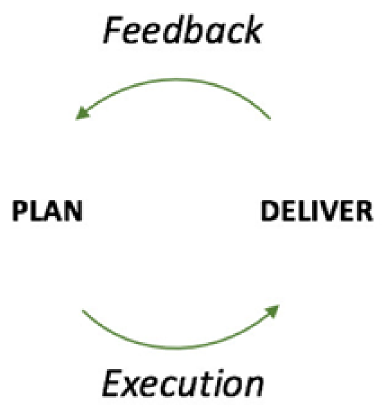


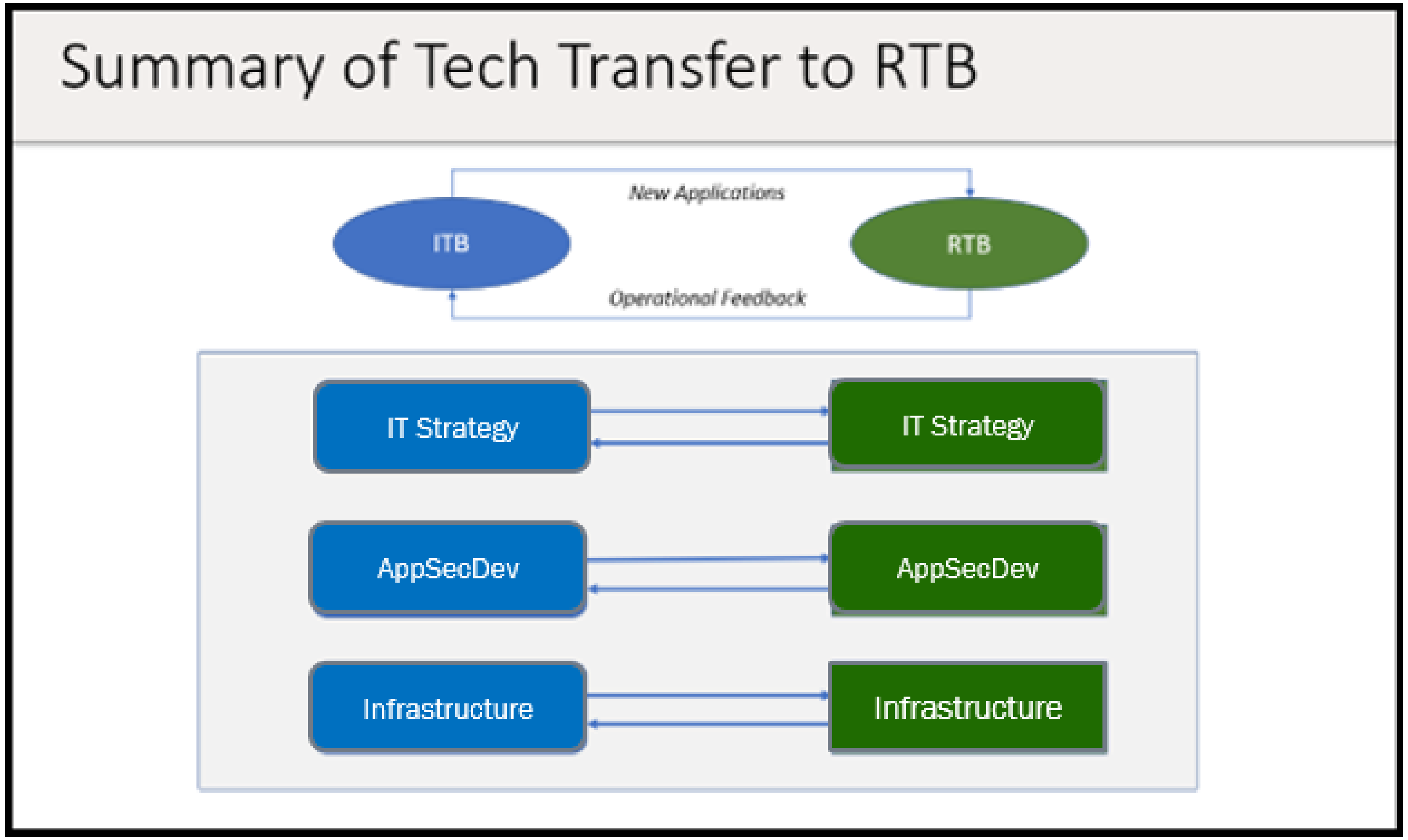
Tale of Two Cities

- Availability and Reliability govern in Traditional Mode.
- Nonlinear Mode uncertainty is expected and allowed.
- Importantly these two modes are blended and gray scale - not absolute.

(Image adapted from Gartner)







Dynamic Relationship between ITB:RTB

Tech Transfer and Feedback Loop

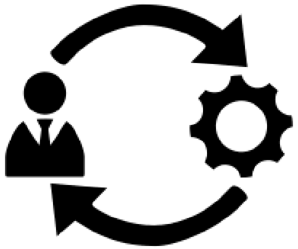
ITB:RTB and Agile Development

Process Models

- RTB tasks are often ticket based and are created in a workflow tool. Kanban could be used for prioritization and execution within a Scrum methodology.
- ITB are normally programs and initiatives that are traditionally managed via the preferred SDLC of an organization. This might be Agile, Scaled Agile, or other methods. Under such structures Scrum processes are used for scheduled deliverables.

An Industry Example

- Microsoft dedicates a small number of engineers to RTB functions to ensure that the ITB related work continues undisturbed (The Shield Team).



ITB:RTB Background

ROOTS, IMPLICATIONS, LEVERAGE

Background of ITB:RTB

- ❑The terms RTB and ITB have been in use for decades with IT.
- ❑This approach is well established in large telecom firms, IT organizations, and with consultants.
- ❑These terms are used together such as “what is our ITB/RTB breakdown”.
- ❑Common budget ratios are 30% ITB and 70% RTB.
- ❑In one large company a $5B USD R&D budget could be summed up with just an RTB:ITB ratio metric.
- ❑Widespread use of ITB:RTB and related terms can be found throughout the industry for planning.

Why these terms?

- Any abstraction which is simple yet powerful has utility and should be named well.
- The terms RTB:ITB are well understood in the industry, and their use is easy to grasp.
- Essentially, any budget, task, or function can be sorted in into one or the other category for significant managerial and operational effect.
- The terms also avoid the somewhat pejorative labels like: Production Support, BAU, Keep the Lights On (KTLO), etc.
- RTB work is just as challenging and rewarding as ITB work including new feature deployment, process improvement (Kaizen), and more.
- And it often comes with the responsibility of ensuring billions of dollars of revenue which can help build an esprit de corps.

Efficiency (RTB) vs Change (CTB)

World Driven by EFFICIENCY

Period	Today
Objectives	Generate Revenues, Survival
Culture	Command, Control, Discipline
Focus	Efficiency, Volumes, Costs, Products
Plans	Business / Operational Plans
KPI's	Commercial, Financial, Performance
Skills	Deep Expertise
Key Role	Chief Operating Officer (COO)
Finance	Yearly Budgeting Cycle
Results	Predictable and Tangible
Systems	ERP, APM, DevOps
Process	Standardized, Automated
Structure	Hierarchy Silos

World Driven by CHANGE

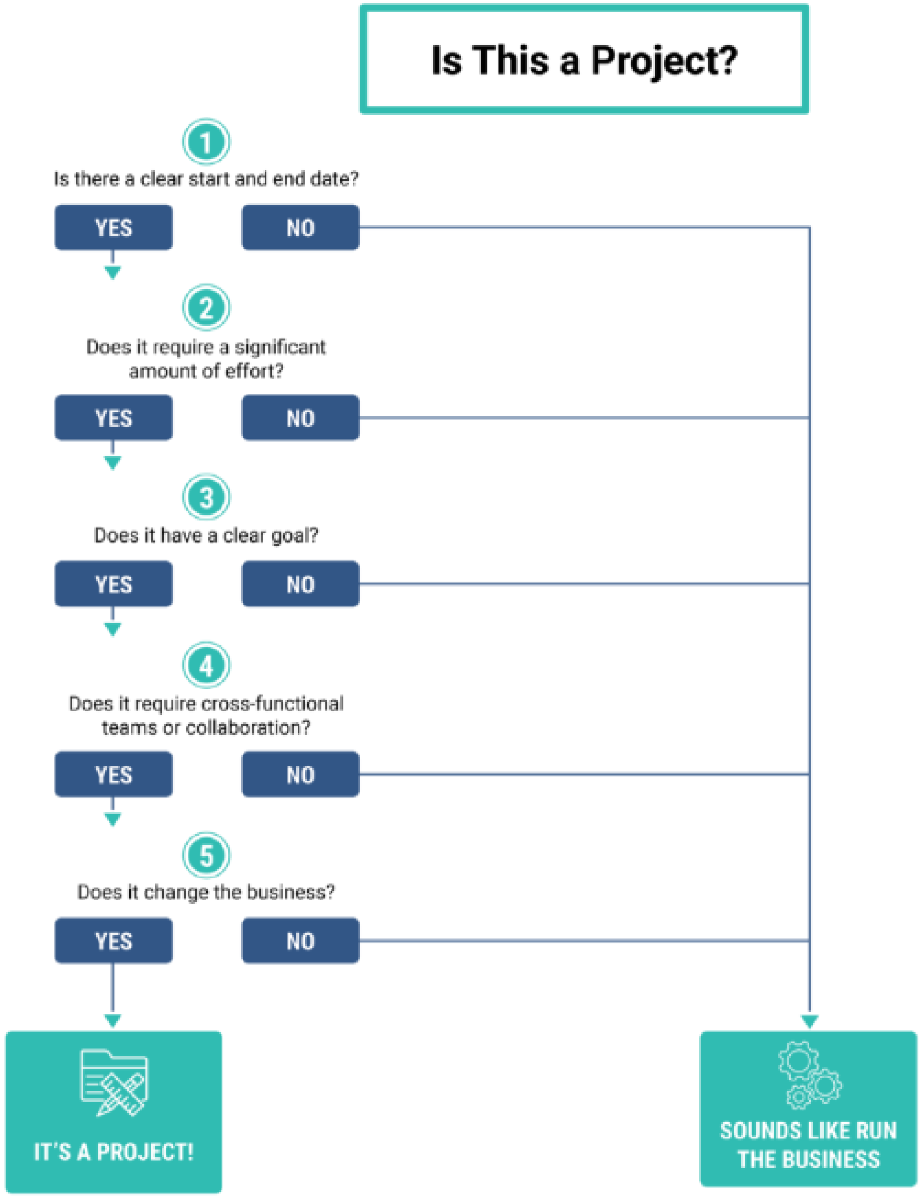
Period	Future
Objectives	Vision, Purpose
Culture	Entrepreneur, Collaboration
Focus	Innovation, Transformation, Benefits
Plans	Strategic Roadmaps
KPI's	Strategic
Skills	Deep Generalist
Key Role	Chief Project Officer (CPO)
Finance	Project Based
Results	High Risk and Intangible
Systems	MSP, PPM
Process	Unique, Non-repetitive, Evolving
Structure	Networks Project Based Self-Managed

NIETO-RODRIGUEZ, 2021

Sorting work into ITB vs RTB

In recent research, over 50% of the companies surveyed committed less than 30% of their total employee and budget resources to objectives that underline changing the business.

(Chart from Hanes, 2021)



ITB:RTB and Staffing Considerations

- **Running vs Changing and Staffing Needs**
  - One person may not succeed in both Running and Changing
  - Runners excel at process and execution, change managers need to be visionaries with less need for operations focus
  - Collaboration between these types of staff is essential
- **Staff Rotation**
  - Most engineers enjoy a new challenge
  - Run engineers do not want to be in operations forever
  - Rotation is important as designers need hands-on experience with operations also (the eat your own dog food effect)
- **RTB team allows ITB teams to focus on the new**
  - Most new initiatives require an organization’s most select resources
  - Often RTB staff have the domain knowledge ITB staff require for transformation efforts
  - This can impact the RTB function if not properly balanced

Conclusions

Key Points

1. ITB:RTB have decades of utilization
2. This model can organize business cases, development priorities, and Tech Transfer
3. In a time of DevOps the ITB:RTB model helps set management guidance
4. RTB typically focuses on current technology, revenue protection, and current customer needs
5. ITB feeds RTB with innovation and new technology for future revenue and long-term customer needs

Abstract

This presentation shares research on the application of strategic methods to align R&D and IT Operations investment as utilized in multiple corporate environments. The ITB:RTB (Invest in the Business vs Run the Business) model has a long history. These practices are summarized within the literature including a methodology for the management to direct R&D vs Development vs Operations spending. RTB is focused on operating the current revenue producing platforms. ITB on developing the next generation bets and future revenue generators such as Digital Transformation. The objectives, approach, and process for developing such strategic plans and allocating spending between competing areas is discussed.

References

1. Bon, Jan Van (Editor), **Foundations of IT Service Management: based on ITIL**, Van Haren Publishing; 2nd edition, September 15, 2005.
2. Choudhary, Amit, "*Leadership Yin-Yang: Where to focus investments: "run" versus "change" the business?*", **Capgemini: Expert Perspectives**, January 18, 2019.
3. Cusick, James, "*CT IT Strategy Process Framework: Applying a Future-Back Approach to Visioning and Planning*", **Wolters Kluwer Internal Memo**, May 29, 2020.
4. Cusick, James, "*Understanding and Applying RTB:ITB at CT*", **Wolters Kluwer Internal Memo**, June 10, 2021.
5. Donnellan, Rob, "*IT Portfolio Management ... 15+ Years Later*", **Ocean State PMI**, May 2018.
6. Endeavor, "*Run the Business, Change the Business: A Key to Implementing a Business Model Change*", **Endeavor Management**, viewed 9/17/2022.
7. Githens, Greg, "*HSBC's Powerful Idea: Separate 'Change the Business' from 'Run the Business'*", **Leading Strategic Initiatives**, Posted on November 29, 2011.
8. Hanes, Emma, "*How to Define a Project and Balance It with Run the Business*", **Meisterplan**, September 15, 2021.
9. Kamath, Abi, "*Agile in Operations: A practical approach*", Published on May 17, 2017, LinkedIn.
10. Mowat, Andy, "*Are you 'Running' or 'Changing' your business?*", **LinkedIn**, April 25, 2019.
11. Nieto-Rodriguez, Antonio, Snæbjörn, Bjarni, Videriksen, Jónsson Flemming, "*Running Versus Changing the Business: A white paper on the new paradigm—linking strategy planning, strategy execution, and project management*", **DECIDEACT - Projects & Co**, 2021.
12. Pisarevsky, Alex, "*The concepts of Run & Change approach in Business*", **The Startup**, May 26, 2017.
13. Williams, Peter, "*IT wastes nearly $4 trillion per year*", **ZDNet**, July 29, 2001.