

# DIGITAL INNOVATION

## How to foster crazy ideas that transform industries?

Taís Lima | July 2019



# To understand today, we must **look back**



**1979**

*Sony Walkman was launched*



**1989**

*First GPS was put in to space*



**1999**

*Y2K bug got relevance*



**2009**

*Popularized 3D scanning*



**2019**

*First image of a black hole*



1979

1989

1999

2009

2019

Braskem



*<<Início da Indústria petroquímica*

# Petrochemical Industry

## COMPETITIVE INTEGRATION

### EXTRACTION

Raw Materials

### 1<sup>st</sup> GENERATION

Basic Petrochemicals

### 2<sup>nd</sup> GENERATION

Thermoplastic Resins

### 3<sup>rd</sup> GENERATION

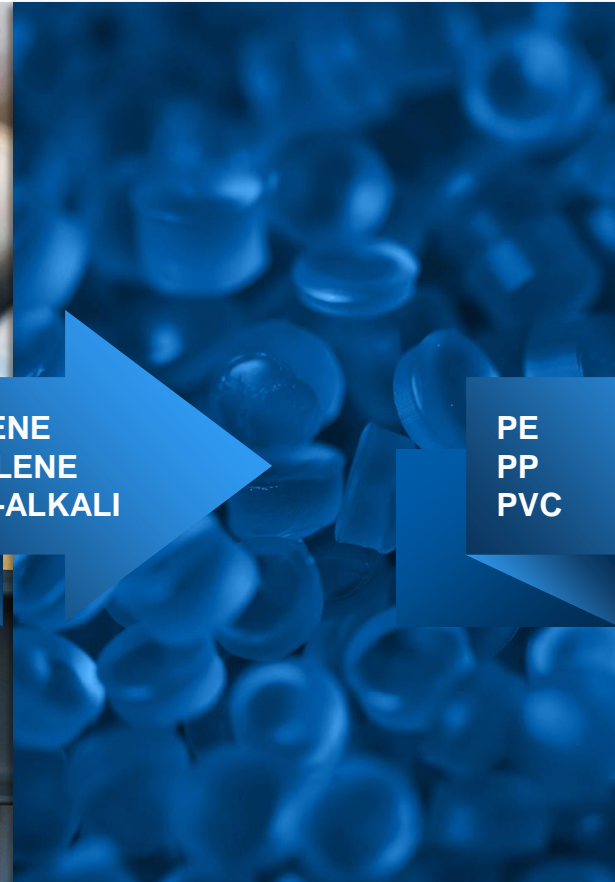
Plastic Converters



NAPHTA  
NATURAL GAS  
ETHANOL  
SALT



ETHYLENE  
PROPYLENE  
CHLOR-ALKALI



PE  
PP  
PVC



# COMMERCIAL FOOTPRINT

OFFICES & COUNTRIES

## GERMANY

PP: 545\*

## UNITED STATES

PP: 1,570\*

## MEXICO

PE: 1,050\*

## BRAZIL

CHEMICALS: 3,752\*

PE: 3,055

PP: 1,850

PVC: 710

### BRAZIL

- SALVADOR
- SÃO PAULO
- RIO DE JANEIRO
- PORTO ALEGRE

### UNITED STATES

- PHILADELPHIA
- HOUSTON

### LATIN AMERICA

- |           |              |
|-----------|--------------|
| VENEZUELA | CARACAS      |
| PERU      | LIMA         |
| CHILE     | SANTIAGO     |
| ARGENTINA | BUENOS AIRES |
| COLOMBIA  | BOGOTA       |
| MEXICO    | MEXICO CITY  |

### SALES TEAMS

- SPAIN
- UNITED KINGDOM
- POLAND
- ITALY

### GERMANY

- FRANKFURT

### NETHERLANDS

- ROTTERDAM

### ASIA

- SINGAPORE
- INDIA
- SERVES ALSO:  
CHINA, INDIA, INDONESIA, SOUTH KOREA & JAPAN

# INDUSTRIAL FOOTPRINT

41 INDUSTRIAL UNITS  
AROUND THE WORLD

# Braskem in **NUMBERS**



**41** INDUSTRIAL  
UNITS:  
29 in Brazil, 6 in USA, 4 in  
Mexico, 2 in Germany



EBITDA OF R\$

**11.3** BILLION  
in 2018



**100** COUNTRIES  
Exports to clients in  
some 100 countries



NET REVENUE OF R\$

**58** BILLION  
in investments in 2018



MORE THAN

**7.7k**

Team Members around the  
world



R\$

**44** MILLION

in innovation investments in 2018

In most industries, including ours,  
the exponential **pace of change** is  
making it harder to **predict the future**



ENERGY  
**Solar/Wind**



MANUFACTURING  
**3D Printing**



AUTOMOTIVE  
**Electric/Autonomous  
& Shared**



BIOCHEMISTRY  
**Biotechnology**

**Disruption** is a process where a **new player** with **restrict resources** is able to **challenge and replace big and consolidated companies** in the market

1

Large companies focus on improving their products for most demanding customers, causing excess of supply for certain segments and absence for others

2

New entrants focus on underserved segments offering more convenient and affordable solutions

3

Large companies seeking greater profitability tend not to respond to threats

4

New entrants begin to move up the market delivering performance that mainstream consumers require and retaining their advantages

5

When mainstream consumers begin to adopt the new incoming scaled solution, disruption has occurred



## Clayton Christensen

### The innovator's dilemma



The reason why it is so difficult for existing firms to capitalize on disruptive innovations is that their processes and their business model that make them good at the existing business actually make them bad at competing for the disruption.



# Digital Innovation approach combines the best of corporates & startups worlds

## CORPORATE ASSETS

Market Knowledge

Customer Access

Brand & Reputation

Intellectual property

Cash Reserves



## ENTREPRENEURIAL APPROACHES

Customer-Centricity

Fearless Re-invention

Multidisciplinary Teams

Attacker Mindset

Learn-fast Culture

=

**GAME CHANGING PRODUCTS & BUSINESSES**

**Companies care about innovation. Senior leaders believe their business may be disrupted!**

CB Insights innovation research reveals that larger companies, especially those generating more than \$10B in revenue, placed the highest importance on innovation.

**85%**

Consider innovation **high priority**

**41%**

Believe they are extremely very at **risk of disruption**

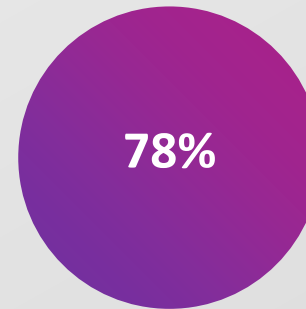
**<4%**

Said they were **not at risk**

**BUT...  
Despite  
deep fear  
and talk of  
disruption,  
companies  
still invest  
in the small  
stuff**

When asked about their innovation efforts, companies priorities reveal focus on incremental innovation:

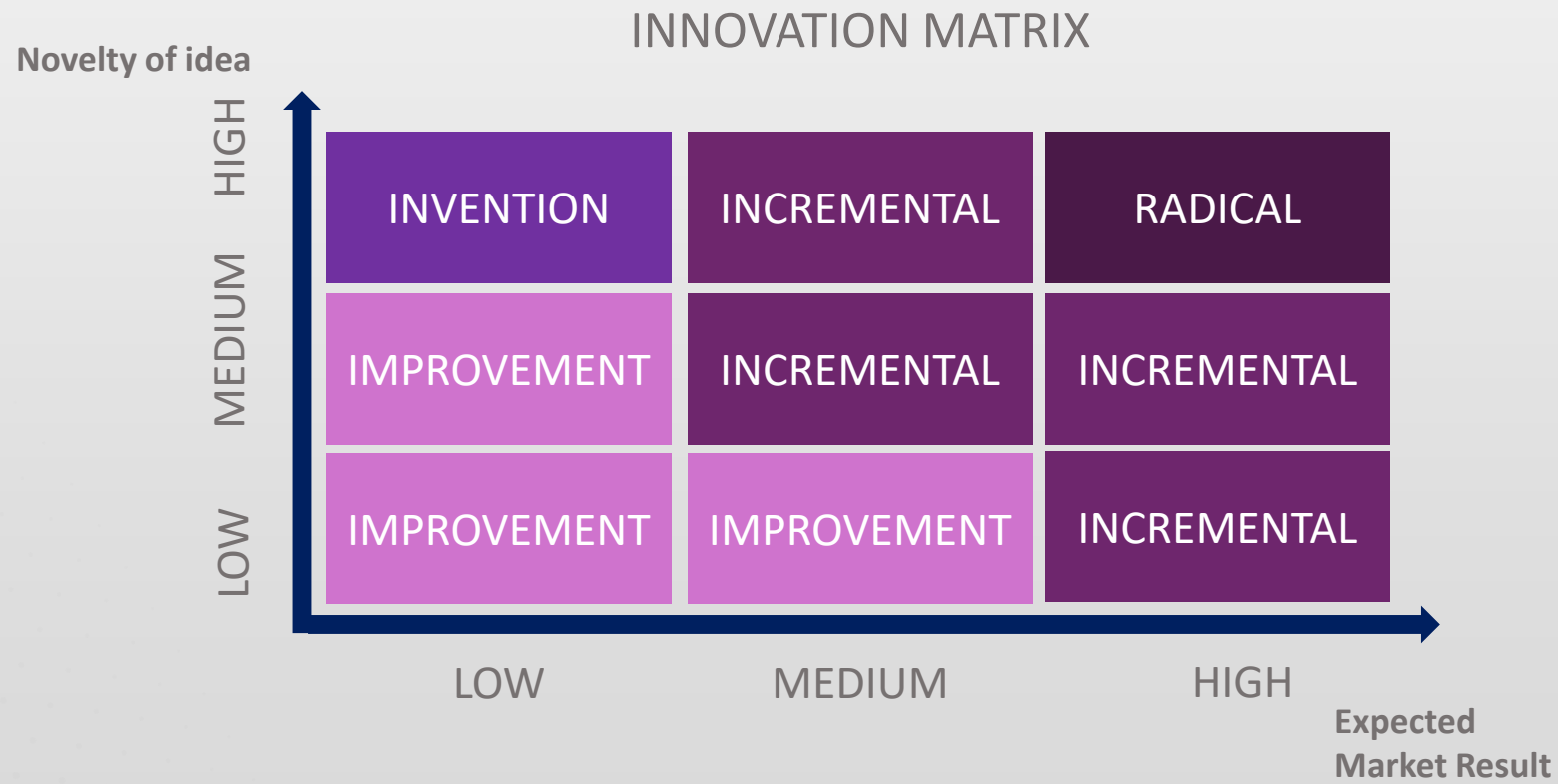
- 1 Generate revenue by enhancing existing products & services
- 2 Generate revenue by launching new products & services
- 3 Improve customer satisfaction
- 4 Improve operational effectiveness /productivity
- 5 Reduce costs for existing products and services



of companies innovation portfolios are allocated to continuous innovation instead of disruptive risks.

Primary type of innovation companies pursue is incremental: enhancing existing products/services, cutting costs, and efforts focused on productivity.

# To reduce innovation risk and uncertainty level, companies must balance short and long term



# The game changer for innovation is a mindset shift



## Think like a VC

Stop ideas sitting on shelves - test them in market; fail early, fail fast



## Focus on real customer friction

What are the elements of the current customer experience that are really broken?



## Look 3 to 5 years out

Focus on what will be possible – what will “great” look like in the future?



## Keep the aperture wide

Be open to concepts that may initially appear unrealistic / outside comfort zone



## Plan for tomorrow, build for today

Ruthlessly target an MVP that is Desirable, Feasible and Viable

As a company, our job is to explore  
today what will matter tomorrow



*We created a Digital Center to accelerate all transformational digital initiatives, develop new ventures and be the catalyst for change at Braskem.*

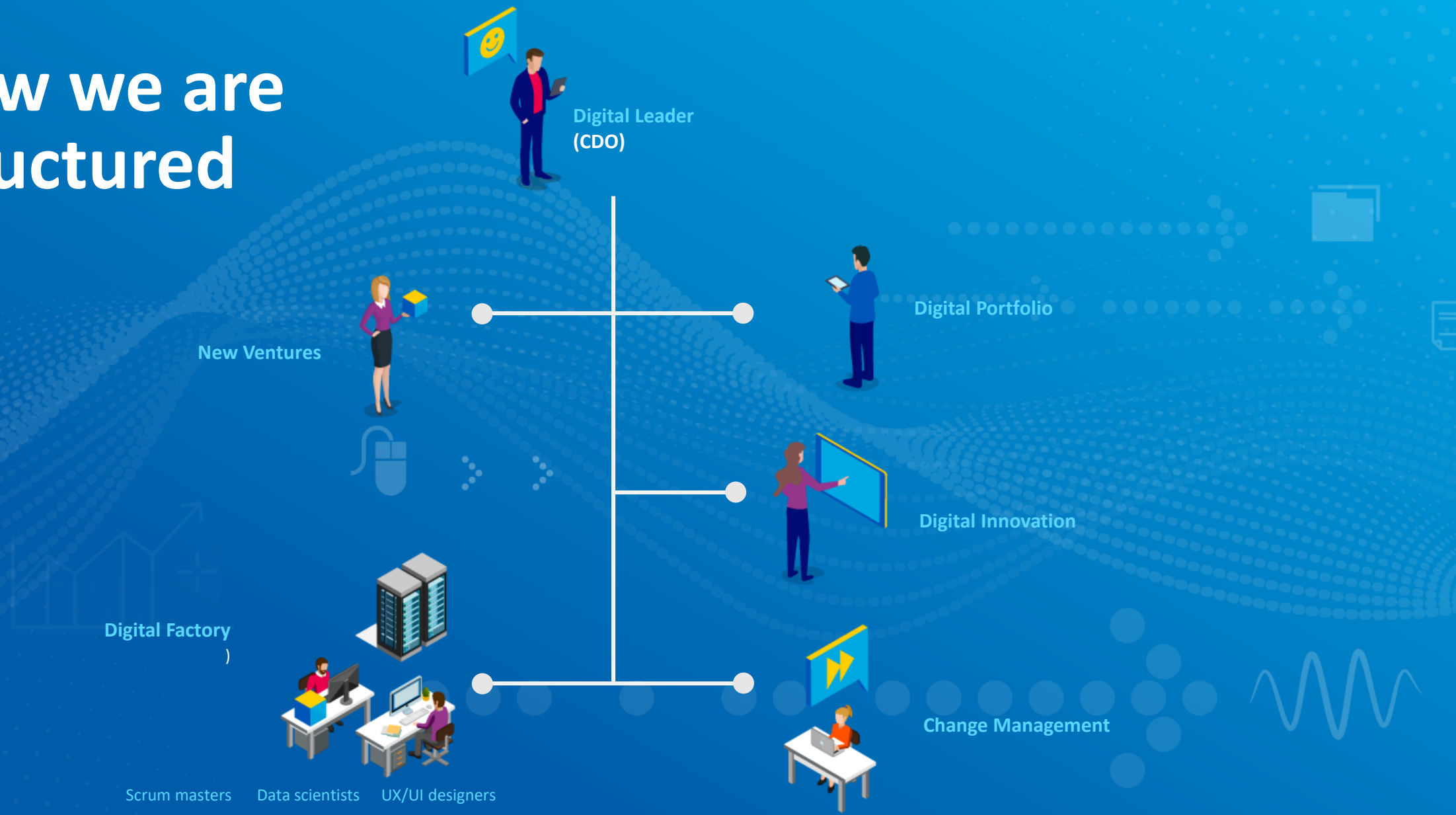


*Sri Iyer*

VICE PRESIDENT, STRATEGY, PLANNING, AND  
INNOVATION & TECHNOLOGY AT BRASKEM



# How we are structured



# Two lenses allow us to keep innovating



## PUSH

Strategy-driven search  
for opportunity areas  
to drive innovation from  
**the outside-in**



## PULL

Pain-driven search for  
use-cases and tech applications  
to drive innovation from  
**the inside-out**



# Push



## Anchor search in strategic domains

Define the innovation vision, determine universe of exploration areas, create search plans, and prioritize domains



## Map and connect to innovation ecosystem

Tap into deal flows, relevant research/innovation agenda and think tanks to gain access to the bleeding edge and insight



## Get the "bird's eye view" of opportunities and build expertise

Encourage broad aperture for exploration, maintaining focus on innovation domains and opportunity areas to build knowledge



# Pull



## Run sprints to update business' demands

Cycle pain-points mapping in sprints based on strategic themes with support from the business



## Leverage benchmarks and map use-cases

Spot trends, leverage benchmarks, map use-cases and vendors that can address pains and transform the core



## Gauge opportunity and document use-cases

Size the opportunity (high-level) to assess potential for impact, evaluate ease of implementation, and document use-cases

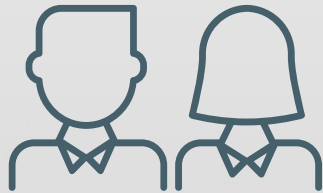
# So how does the Innovation Sprint happen?



# First things first

## Innovation Sprint **only works with Digital Team + Business seconded**

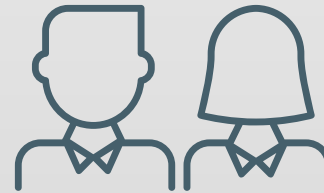
### Digital Center: 1-2 FTEs



*1-2 innovation analysts to lead business pains update sprints*

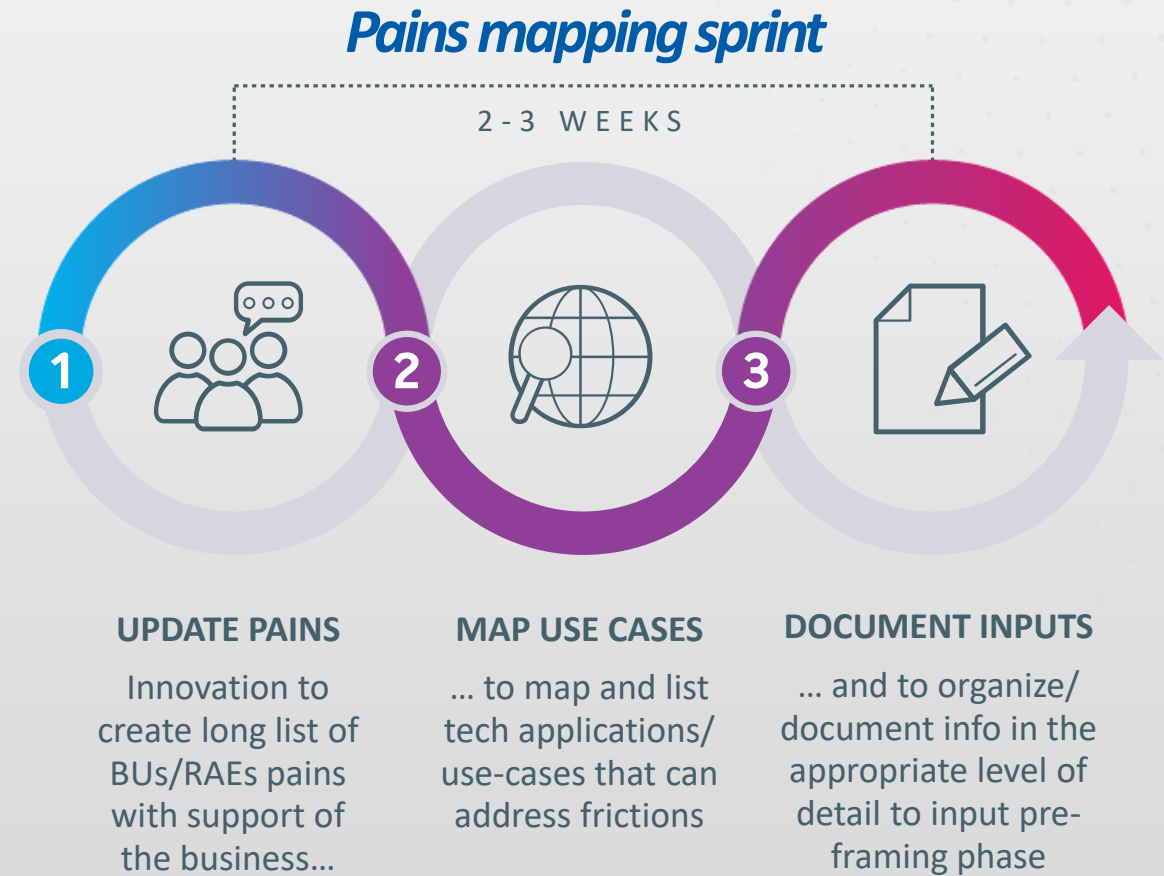


### BU/RAE: 2-3 FTEs



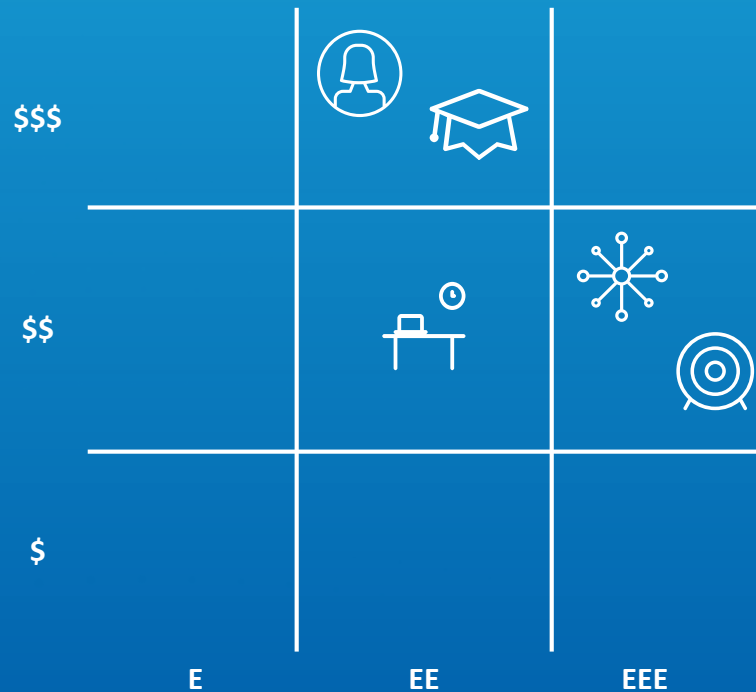
*2-3 seconded resources to support mapping cycles by bridging DC<sup>1</sup> and business areas*

**We work together to identify most pressing pains, map trends & benchmarks, and list use-cases**

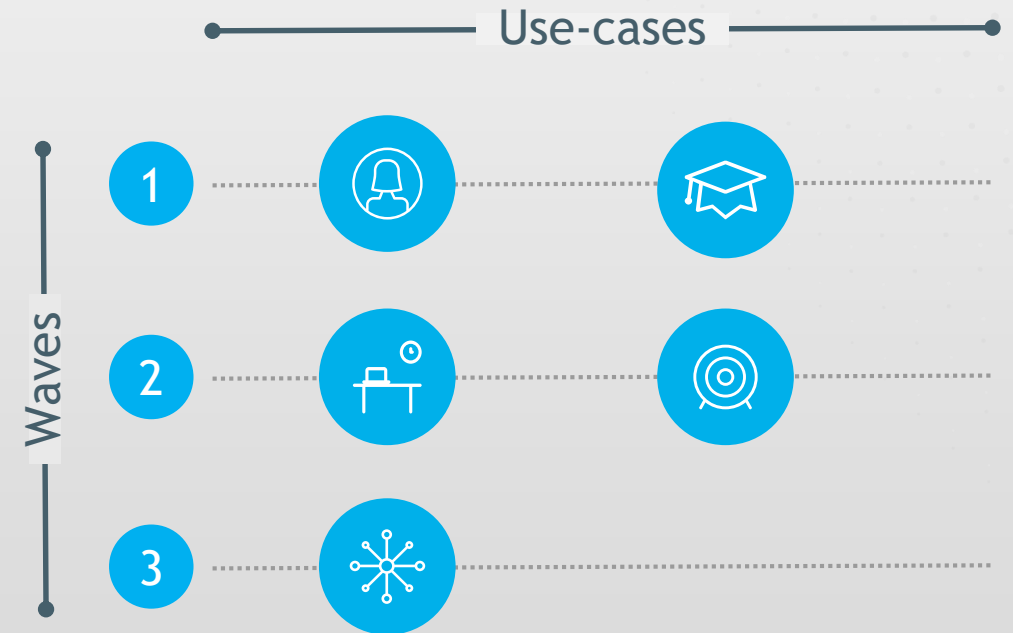


Digital use-cases are **prioritized** over impact vs. ease of execution...

Prioritization matrix

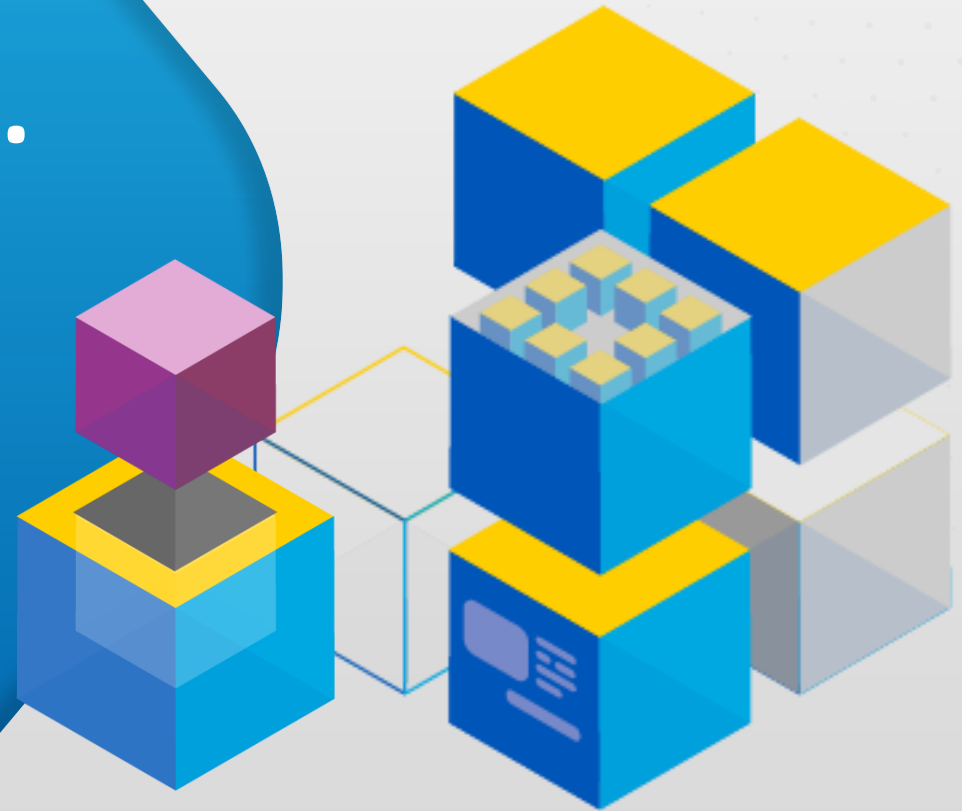


...and organized in delivery waves

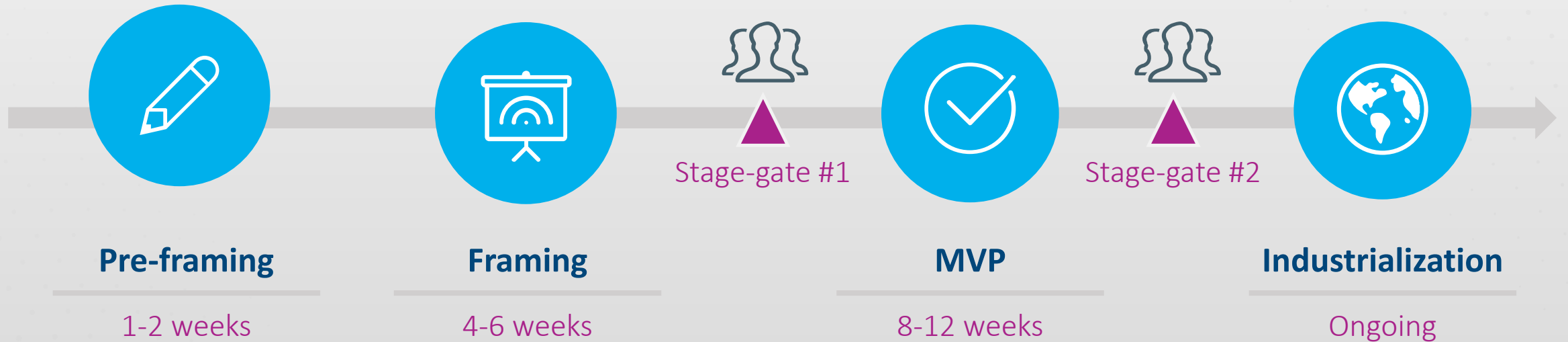




**Innovation Sprint is the start of this transformation. Digital Center is not a stand-alone entity. It works together with all areas at Braskem**



# Digital initiatives lifecycle continues....



# What we know is **key factor** to succeed?





*Taís Lima*

D I G I T A L I N N O V A T I O N T E A M  
A T B R A S K E M



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