PROCESS AUTOMATION AT DHL GLOBAL FORWARDING

THE FREIGHT FORWARDING EXPERTS

SINCE 1815

The Global Service Center (GSC) is an integral part of our DHL Global Forwarding, Freight division

EXPRESS

Time Definite, Same Day and Day Definite Products

- Global market leader in the international express market[1)]
- Presence in more than 220 countries and territories
- 3 main global hubs linked by intercontinental network
- Approx. 84,000 service points
- Approx. 3,000 facilities
- > 260 dedicated aircraft serving approx. 500 airports globally
- Approx. 34,000 vehicles
- Approx. 2.6m customers
- Approx. 101,400 employees[3)]

GLOBAL FORWARDING, FREIGHT

Air & Ocean freight / Road Transportation

- Global market leader in air freight
- One of the top two leading ocean freight services with a market share of 3.259m TEU
- No. 2 of European road freight forwarders with a market share of 2.2%
- Specialist in industrial projects and end to end transport management solutions
- Presence in >150 countries and territories
- Strong customer base (>50% of Forbes 500)
- Approx. 45,400 employees worldwide[3)]

SUPPLY CHAIN

Contract Logistics and Industry Solutions

- Global market leader in contract logistics with more than 7% global market share
- ~13.2m square meters of warehouse space[2)]
- Strong customer base built on long-lasting partnerships
- About 158,400 employees worldwide[3)]

eCOMMERCE SOLUTIONS

Domestic Delivery, Cross-Border and Fulfillment

- Connects e-commerce sellers and buyers across the globe
- Operates standard domestic parcel operations in selected countries in the US, Europe, India and Asia Pacific and provides cross-border solutions into 220 countries world-wide
- Fulfillment services in selected markets
- Operates a convenient service point network across our markets with more than 67,000 service points
- Approx. 37,000 employees

1) TDI by revenues; Source: Market Intelligence 2017, Annual Reports and other analysis 2) Owned or leased sites 3) Headcount as of Dec. 31, 2018

GSC at a Glance

Manila

Chennai

Mumbai

Chengdu

Bogota

Human Delivery

- **4400** employees
- **5** delivery centers
- Awarded workspace

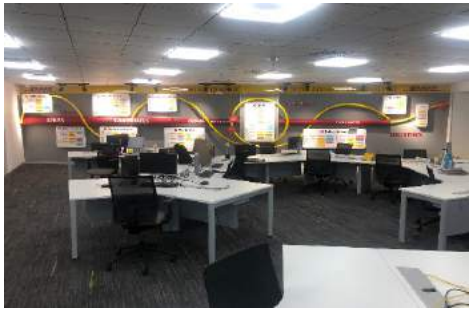
GSC

15 Service Lines

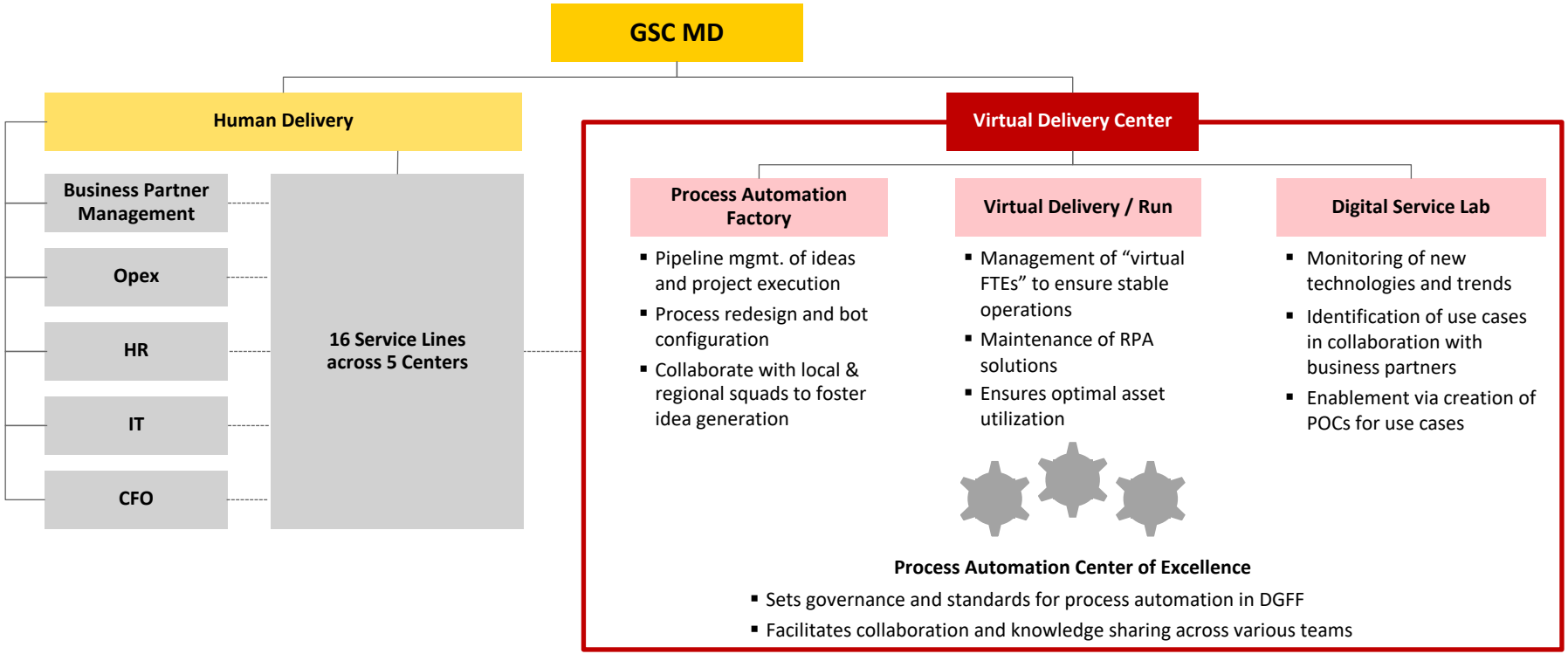
150 Business partners

Virtual Delivery – Chennai

- **452** virtual FTEs
- **141** Robots
- **10%** virtualization ratio expected



GSC has established its Virtual Delivery Center (VDC) as the Center of Excellence for Process Automation in DGFF



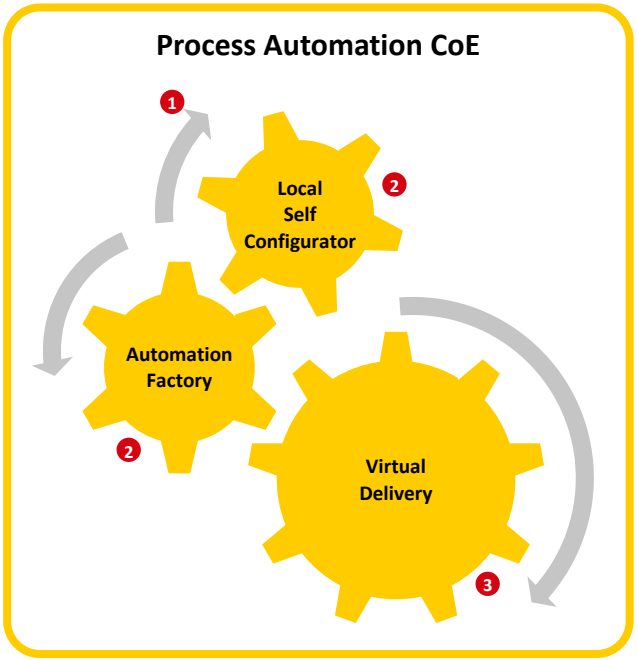
The VDC leverages agile methods to ensure right balance between local speed and global governance in executing and delivering PA

PA Tribe and Regional Squads

1 Process Automation CoE
- Sets governance and standards in Process Automation for DGFF
- Facilitates collaboration and knowledge sharing across various teams

2 VDC Automation Factory / Local / Regional Squads
- Manage pipeline of ideas and execute automation projects as per standards and governance of Process Automation CoE
- Handover configuration to virtual Delivery
- Realize BCA together with business unit owner

3 Virtual Delivery Center
- Central management team in GSC
- Optimize utilization of assets
- Ensure stable operations of “Virtual Employees”



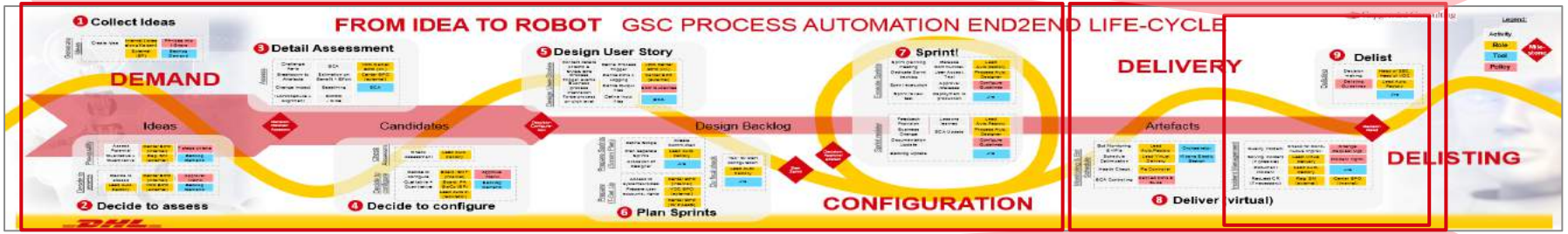
The GSC created the “Idea2Robot” framework encompassing people, methods and tools for the entire automation journey

Demand and Set-Up Process Automation

- 1 Demand Management Process — Internal / external
- 2 Process Automation Design — PA Factory

Interfaces with Standard IT Processes

- 11 Application change management — IT



VDC Operations Process

- 3 Automation Change Process — PA Factory
- 4 Automation Incident Process — Virt. Delivery
- 5 CIP Process — BPO
- 6 Automation Innovation — Dig. Serv. Lab
- 7 Asset Utilization Management — PA Factory
- 8 Integration Management — PA Factory
- 9 Health Checks — Virt. Delivery
- 10 Controlling — Virt. Delivery

Clear selection process helps to identify and prioritize process automation demands

Classification within ESOAR

DMAIC

- Can you **Eliminate** the process?
- Can you **Standardize** the process?
- Can you **Optimize** the workflow?
- Can you **Automate** the process?
- Can you **Robotize** the process?

Criteria for candidate processes and tasks

01 **Stable IT and process landscape** (no substantial change within next 6 month)

02 **Business-rule-based processed**

03 **Highly manual and repetitive processes**

04 **Structured readable electronic input**

05 **Limited process variants**

06 **Well-analysed and documented processes**

07 **Limited process breaks / business partner interactions**

Types of business processes in which RPA can be used

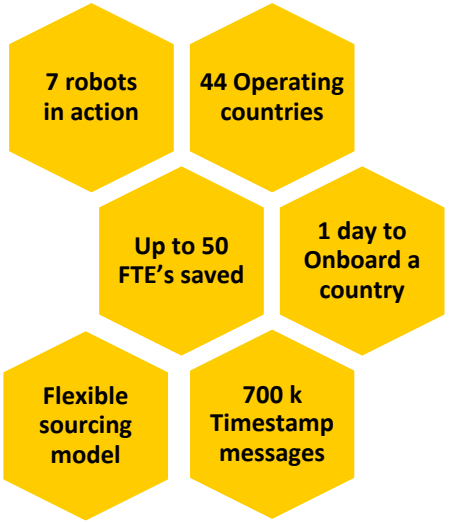
- **Repetitive tasks carried out 50-60 times a day***
- **Process list and file storage***
- **Periodic reporting, data entry and data analysis***
- **Mass email generation, archiving and extracting**
- **Conversion of data format and graphics***
- **ERP and other back-office transactions***

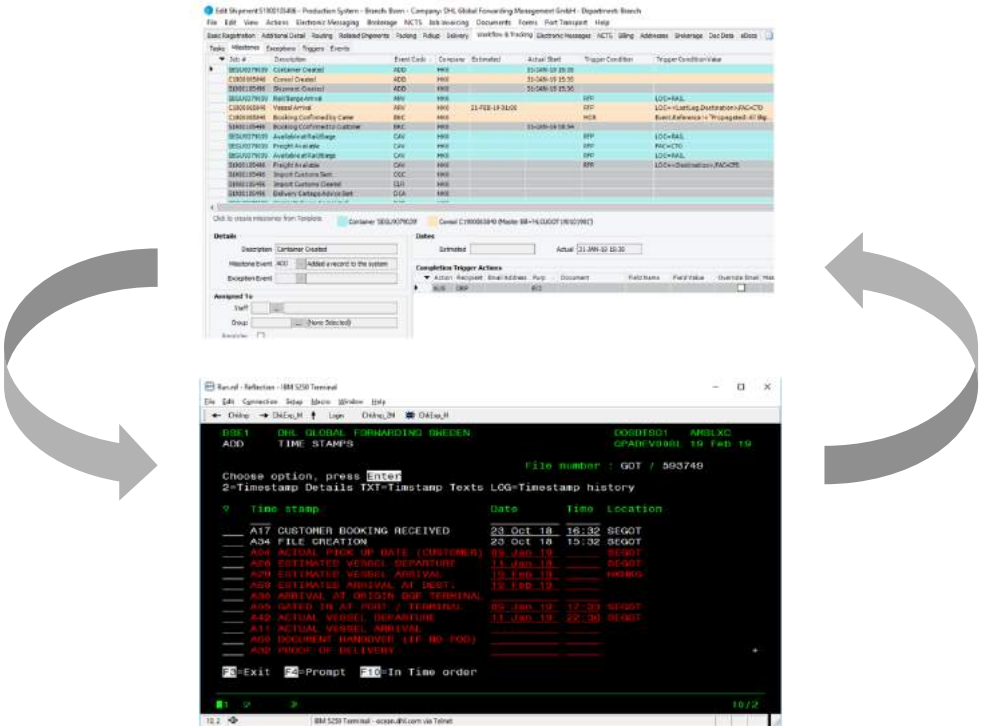
* RPA solutions deployed within DGFF

Use Case: RPA used to synchronize operational systems during business transformation

OFR IRR Coex – Since July 2017…

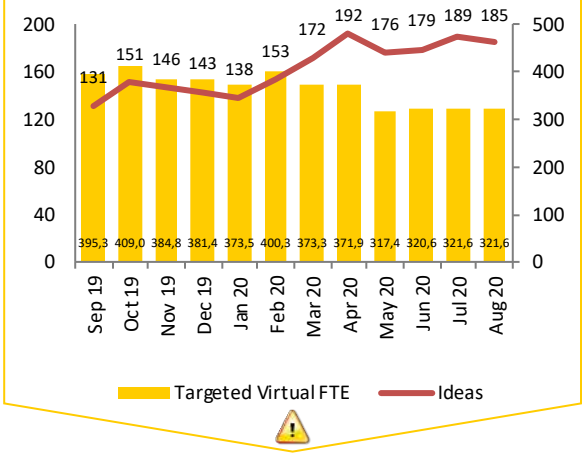
The DGFF operating system is replaced by CW1. The specific import and export timestamps automatically doesn't Flow between two systems CW1 and Logis.
A robot is built to synchronize this milestones.





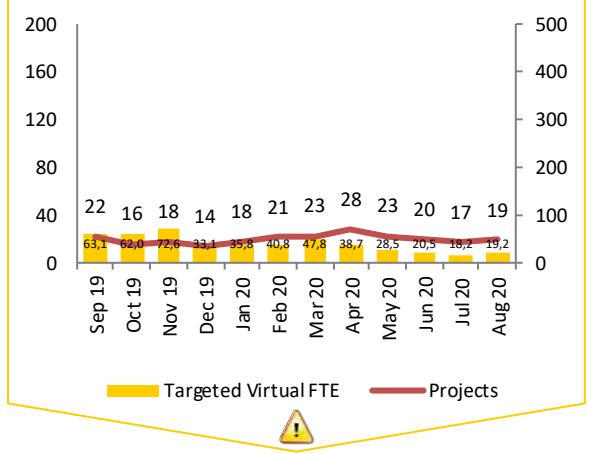
VDC established an industrialized approach to deliver PA in scale; consistent KPI definitions and strong target setting supports utilization

Demand



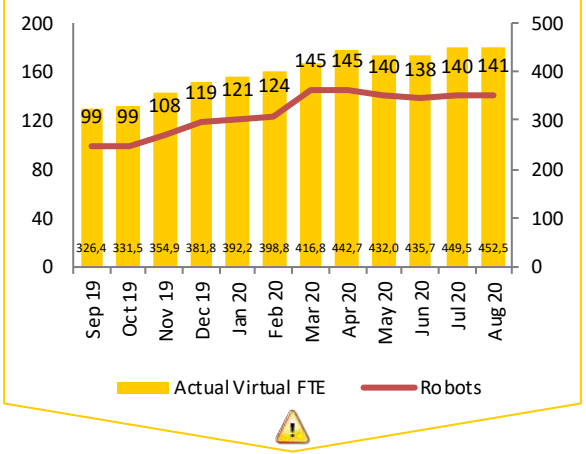
- Select the right process as per the pre-qualification template
- SOP should clearly outline all steps including the exception scenarios @ key stroke level
- Focus on core steps to be automated, instead of 100% automation

Configuration



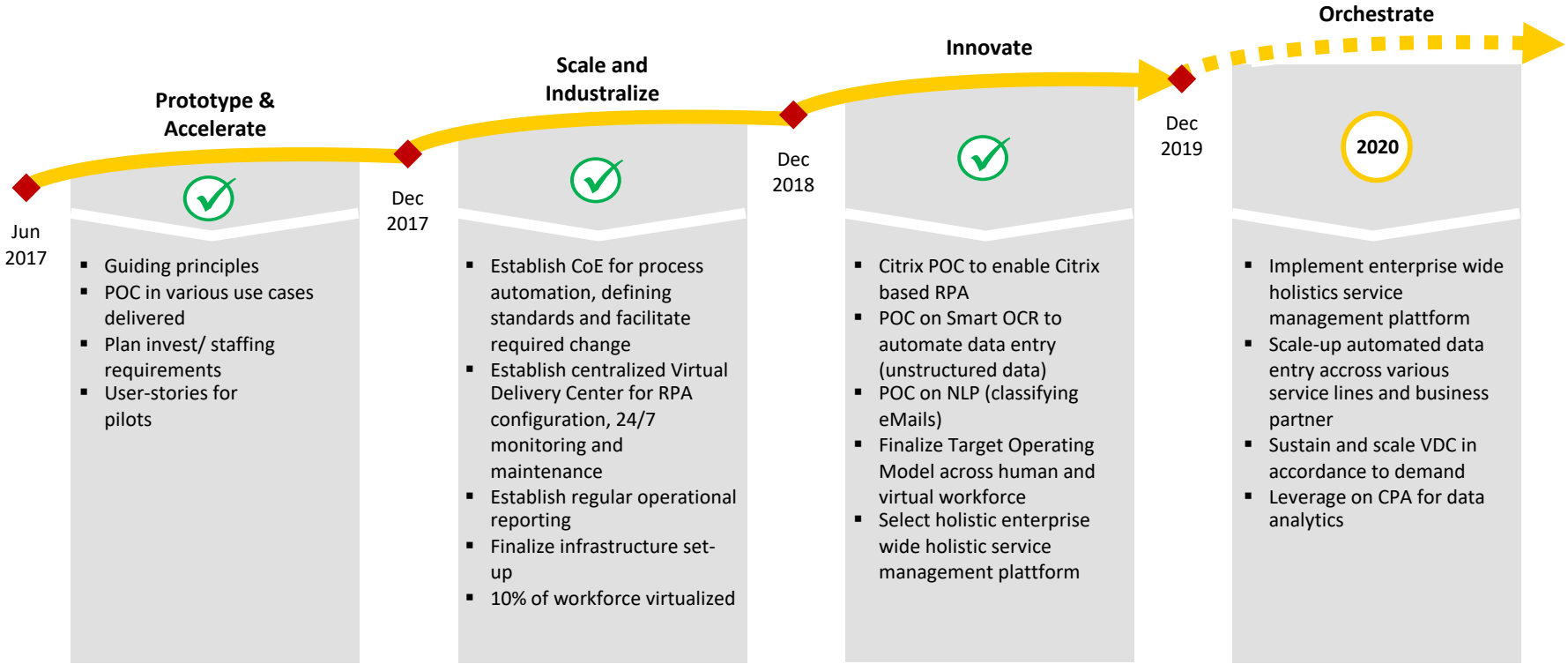
- Agile methodology focus on smaller releases and frequent feedback from users
- Plan for access management before start of the configuration
- Expect changes during development and accommodate changes

Delivery

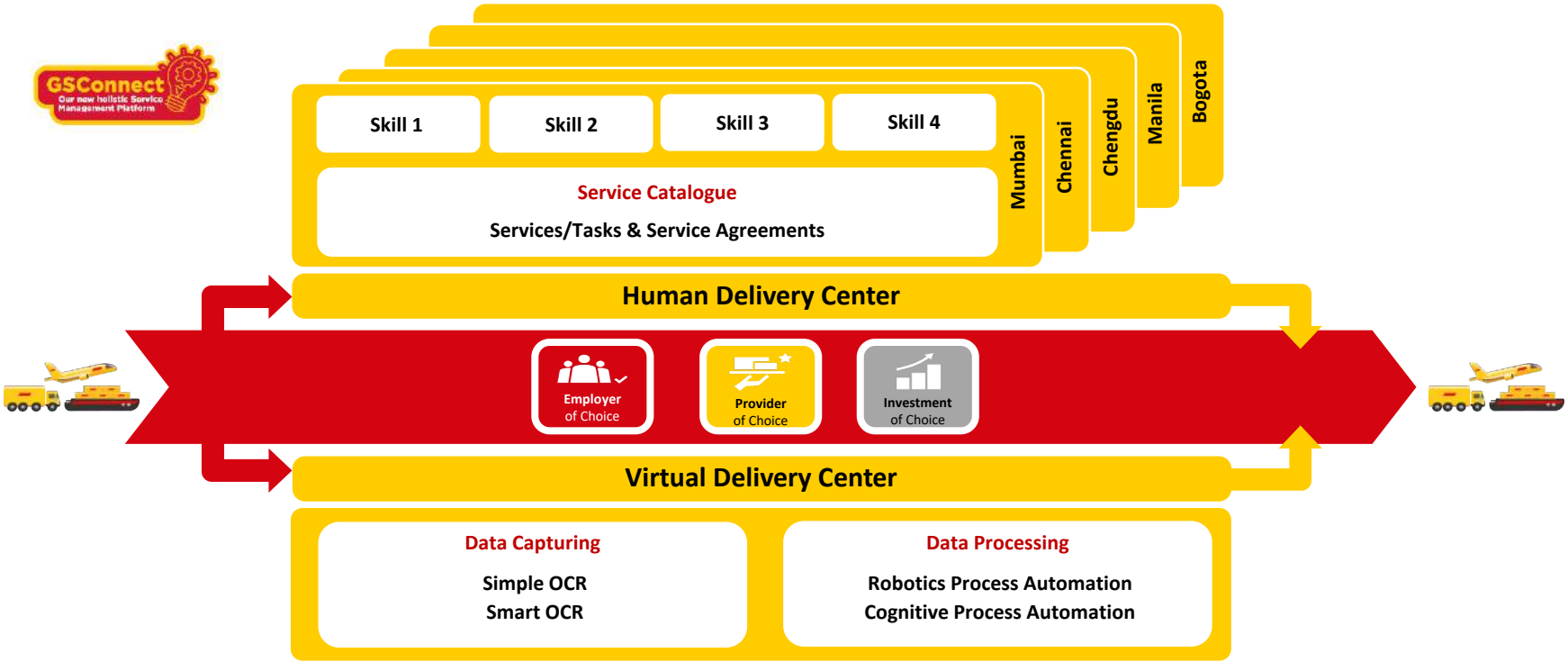


- Don't Deploy and forget – Robots needs maintenance after deployment
- Automation can fail after deployment and requires continuous monitoring
- Plan for product upgrades to leverage the new features

Process Automation at scale through centralized virtual delivery center augmenting human service delivery



Holistic service management plattform to achieve operational effectiveness across the augmented workforce



Option 2

Food for thought …

How can you differentiate yourself in the era of artificial intelligence, big data and robots

> We used to work with our **hands** for many centuries; then we worked wit our **heads**, and now we‘re going to have to work with our **hearts**, because there‘s one thing machines cannot, do not, and never will have, and that‘s a heart.“

Thomas Friedman

Stay human …

Happy to take

your questions!

THANK YOU