

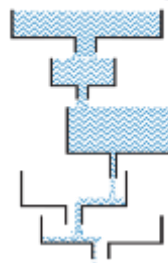


AEROSUD

Aerosud a Theory Of Constraints pearl in South Africa

Webinar

Marris
Consulting

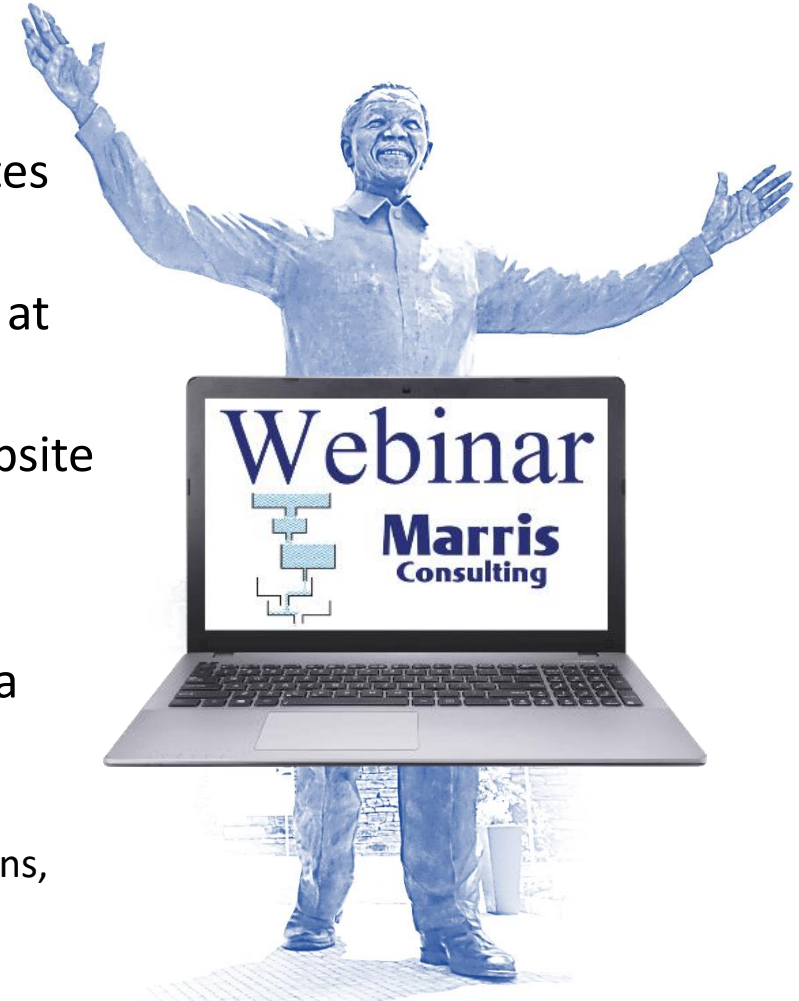


Paris, Wednesday 10th June 2020
Version 1.0



Organization of the webinar

- A webinar presented by Aerosud after a very short introduction by Philip Marris, CEO Marris Consulting
- Presentation : 60 minutes
- Followed by a Questions & Answers session: 30 minutes
- You can ask questions and make written comments throughout the webinar using the "Q. and A." feature at the bottom of the screen (mouse over).
- The presentation material will be available on our website at the end of this webinar.
- There will be surveys during the webinar.
- The webinar is managed by 2 people, Philip Marris & a webinar manager, whose roles are:
 - To read the written questions as the webinar progresses
 - To manage the questions and answers session (choice of questions, opening / closing the microphone, etc...)



Aerosud - Theory Of Constraints pearl in South-Africa



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Company Overview

Aviation Market Reality

Built for Results

TOC, Way of life

Built to last

Thank You



Presenter for this section:
Johan Steyn



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Thank You



Adapting to a “NEW NORMAL”

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Thank You

You captains
for this flight



Johan Steyn
Managing Director – Aerosud Aviation
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André Tustin
Supply chain synchronisation and Continuous Improvement
johan@aerosud.co.za
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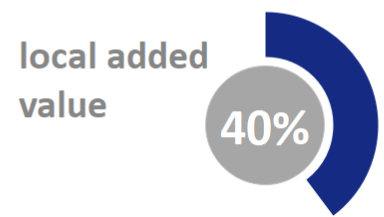
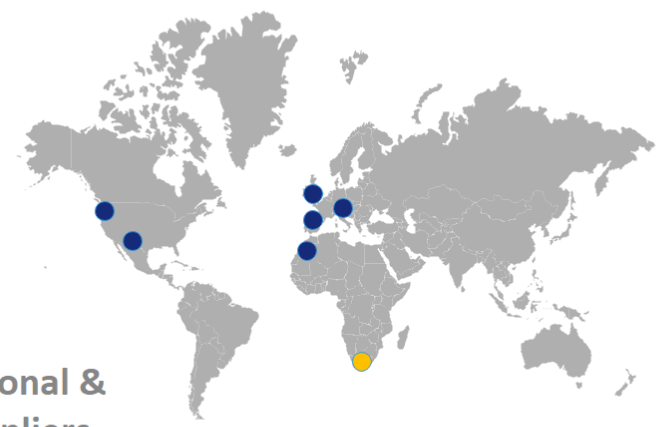


Jeff Esterhuizen
Operations System Manager
j.estерhuizen@aerosud.co.za
www.aerosud.co.za

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Key Characteristics



- 2016** - DTI Manufacturer of the year
- 2017** - DTI Exporter of the year
- 2018** - SADC Quality Award

AIRBUS

 **BOEING®**

 **AIRBUS**
DEFENCE & SPACE

 **SAFRAN**

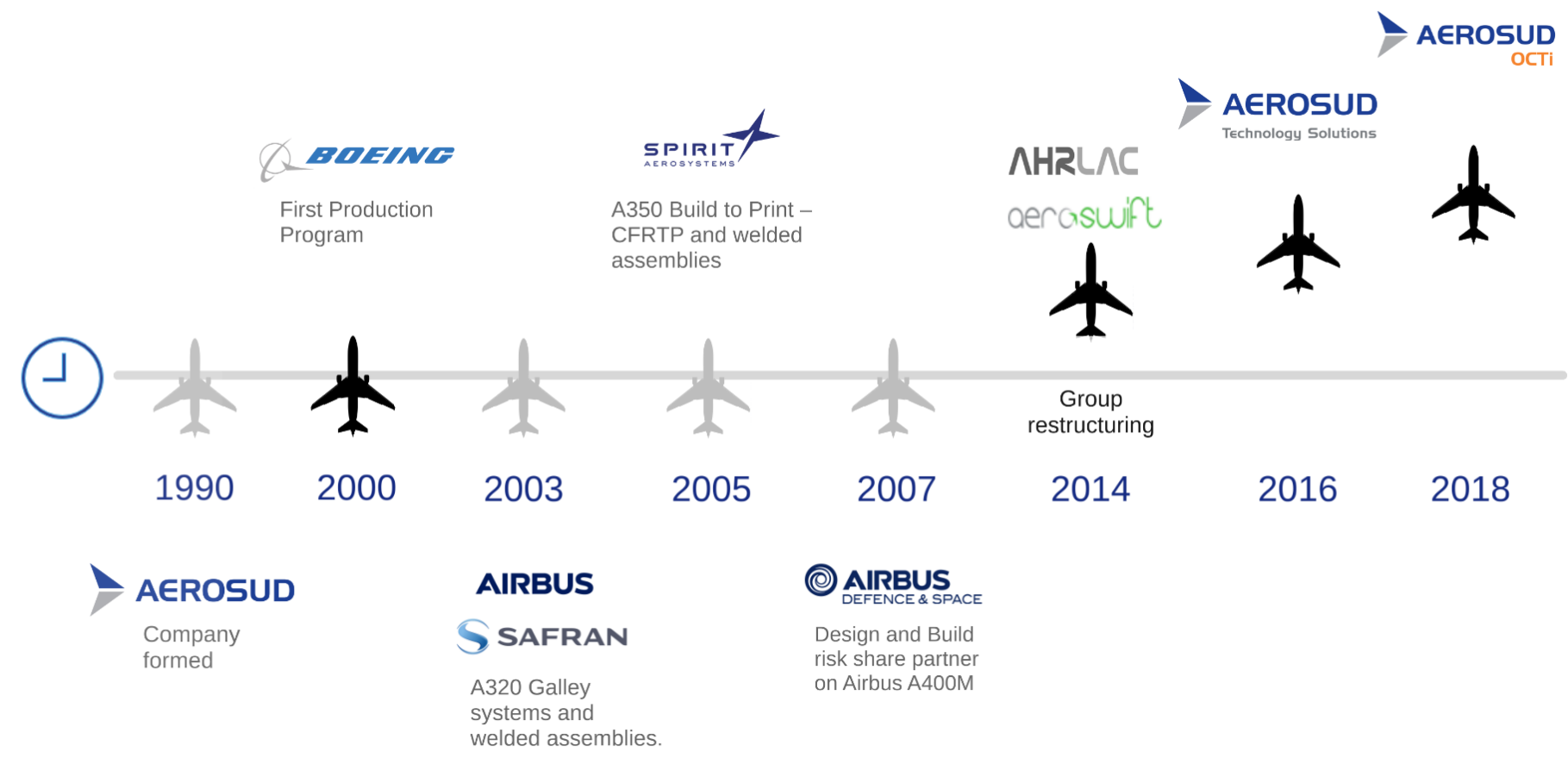
 **SPIRIT**
AEROSYSTEMS™



Content

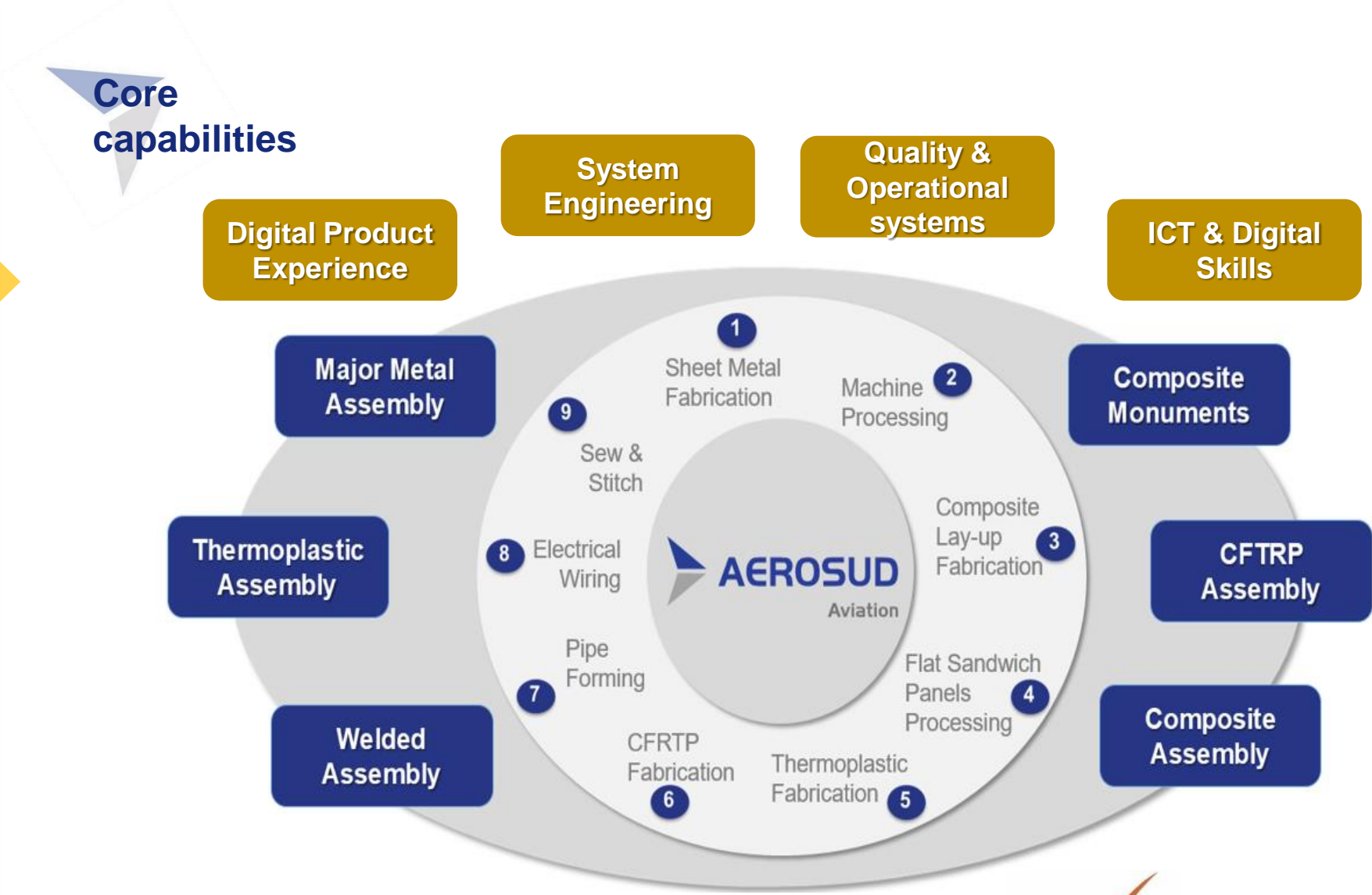
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The Road We travelled



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Typical Products Manufactured



A320
Track Can



A400M
4th occupant seat



A320
VU Cockpit unit



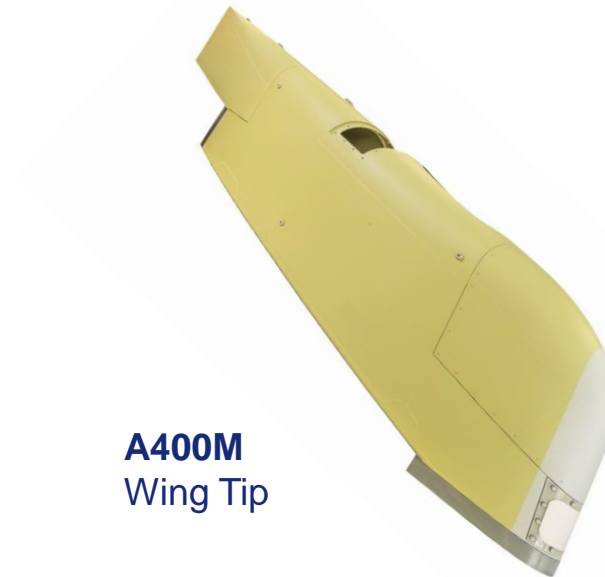
A400M
Cockpit Linings



A350
Track Can



A400M
Galley



A400M
Wing Tip

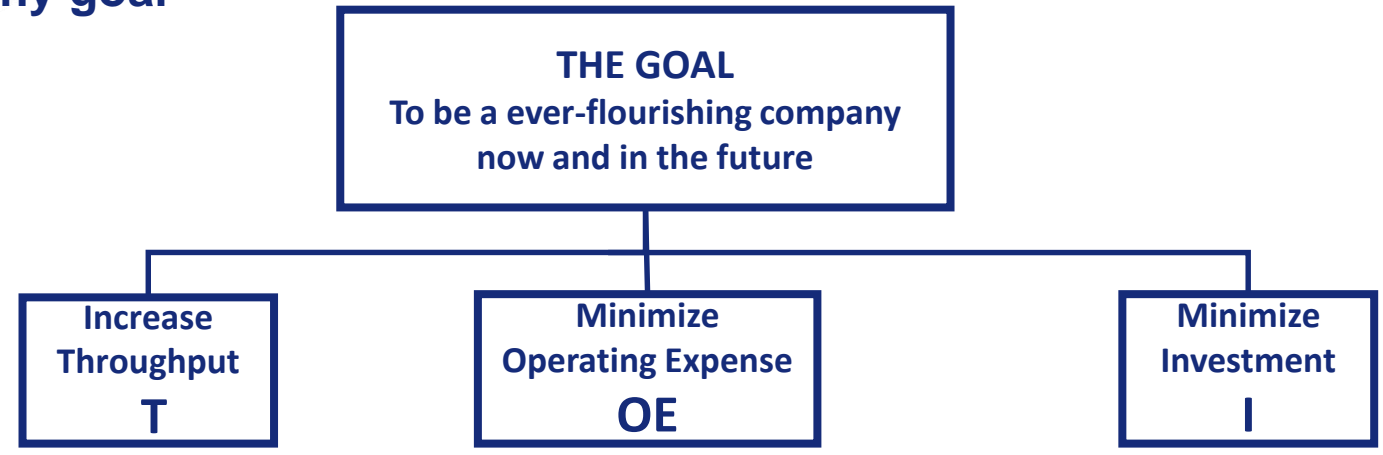


B737
Drip Trays

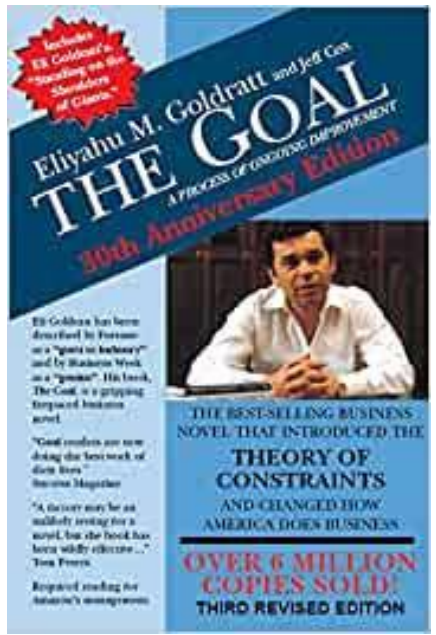
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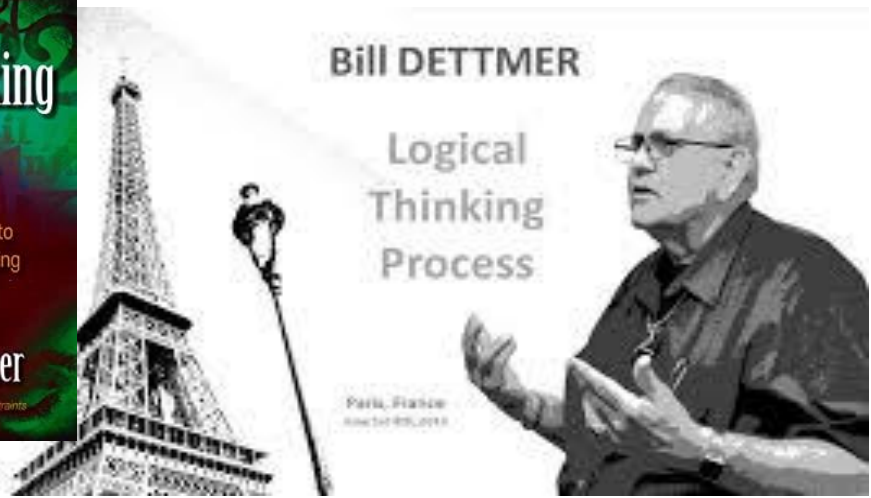
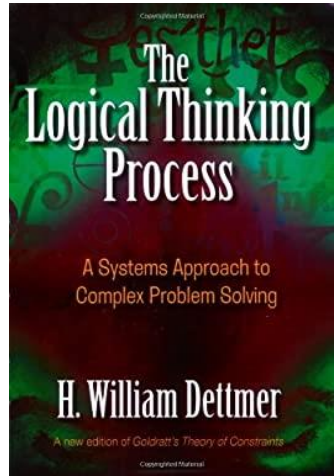
Setting our
Company goal



We read the Goal in 2008



We used a Goal Tree to
create and formalise our company goal on a single page



Content

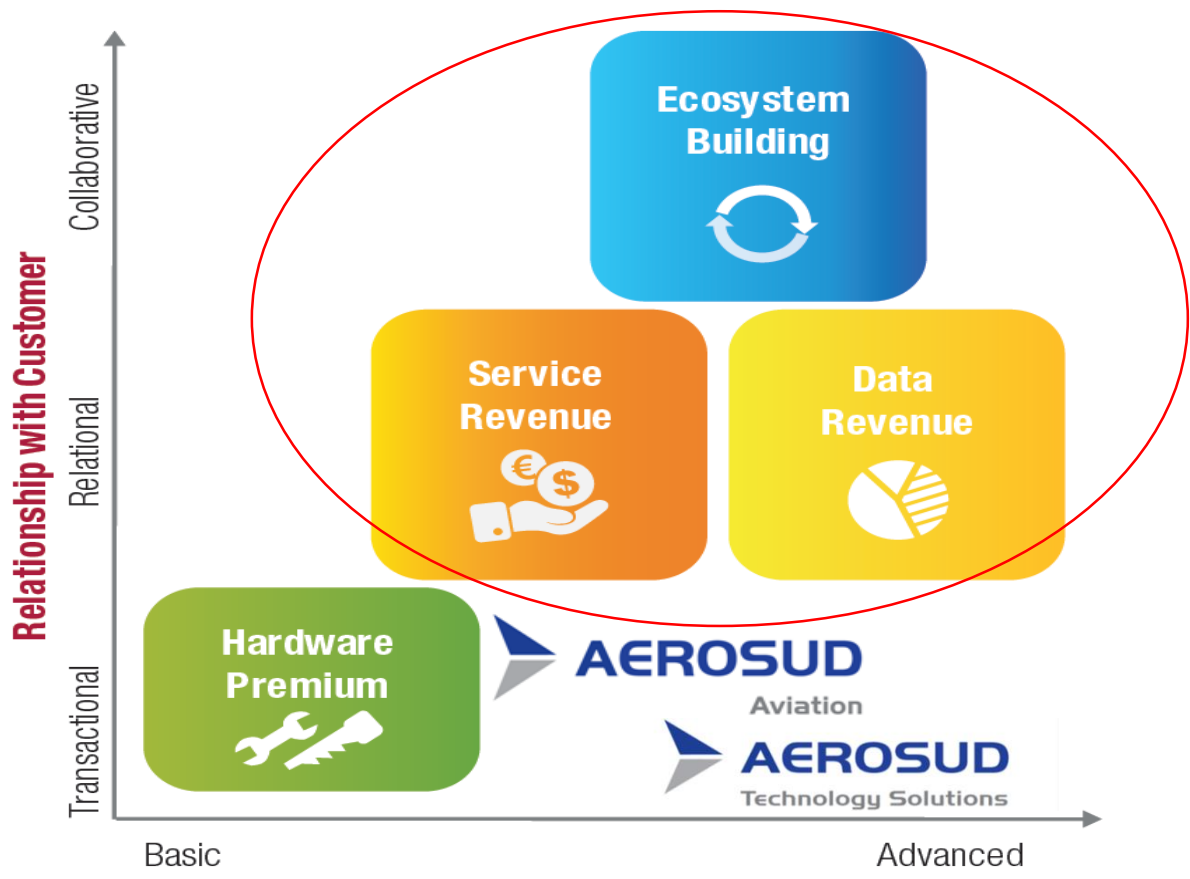
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Build & Capitalise

2018 Goal Tree review

In-depth Business Review

Accelerating Digital offering



Complexity of IoT Monetization Model

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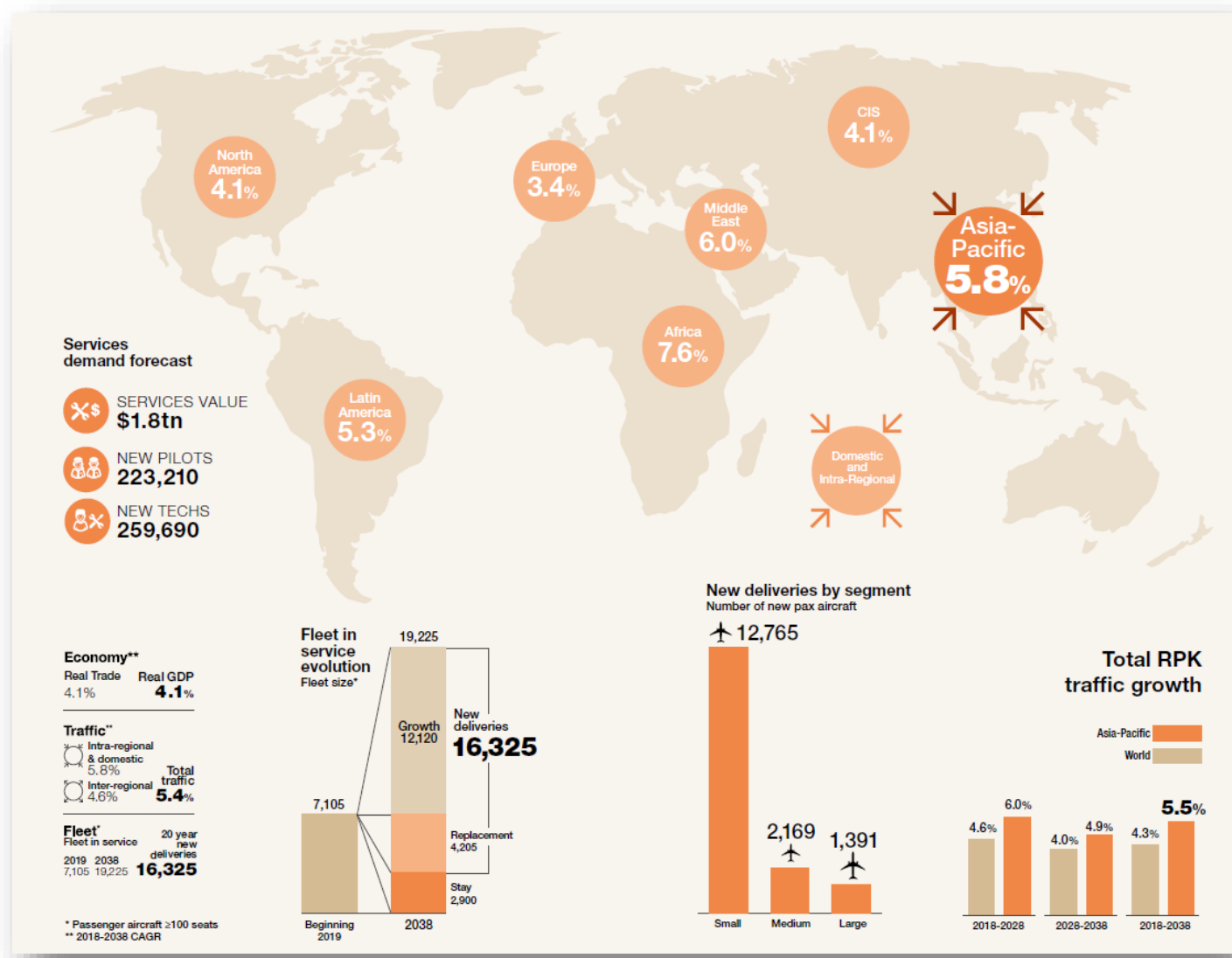
Presenter for this section:
André Tustin

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Market Reality (Pre COVID-19)

- 40% Rate Increase
- 20% Cost Reduction drive
- Global Collaboration
- Innovation



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**To survive and thrive
in this market ...**

Critical Success Factors for Aircraft Manufacturers are:



- Produce more (increase throughput)
- Reduce WIP for speed and \$\$\$
- Improve efficiency to reduce cost

The Theory of Constraints has a great track record of rapidly:



- Increasing Throughput
- Reducing Investment and WIP
- Improving flow
- Improving efficiency
(Throughput / Operating Expense)



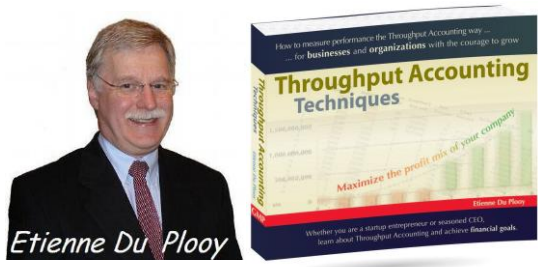
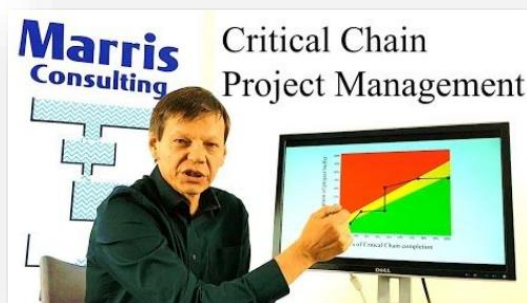
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We partner with the best
Global TOC consultants

Note:

We are not "TOC purists". We apply and practice TOC principles in combination with other business principles to meet our business needs.



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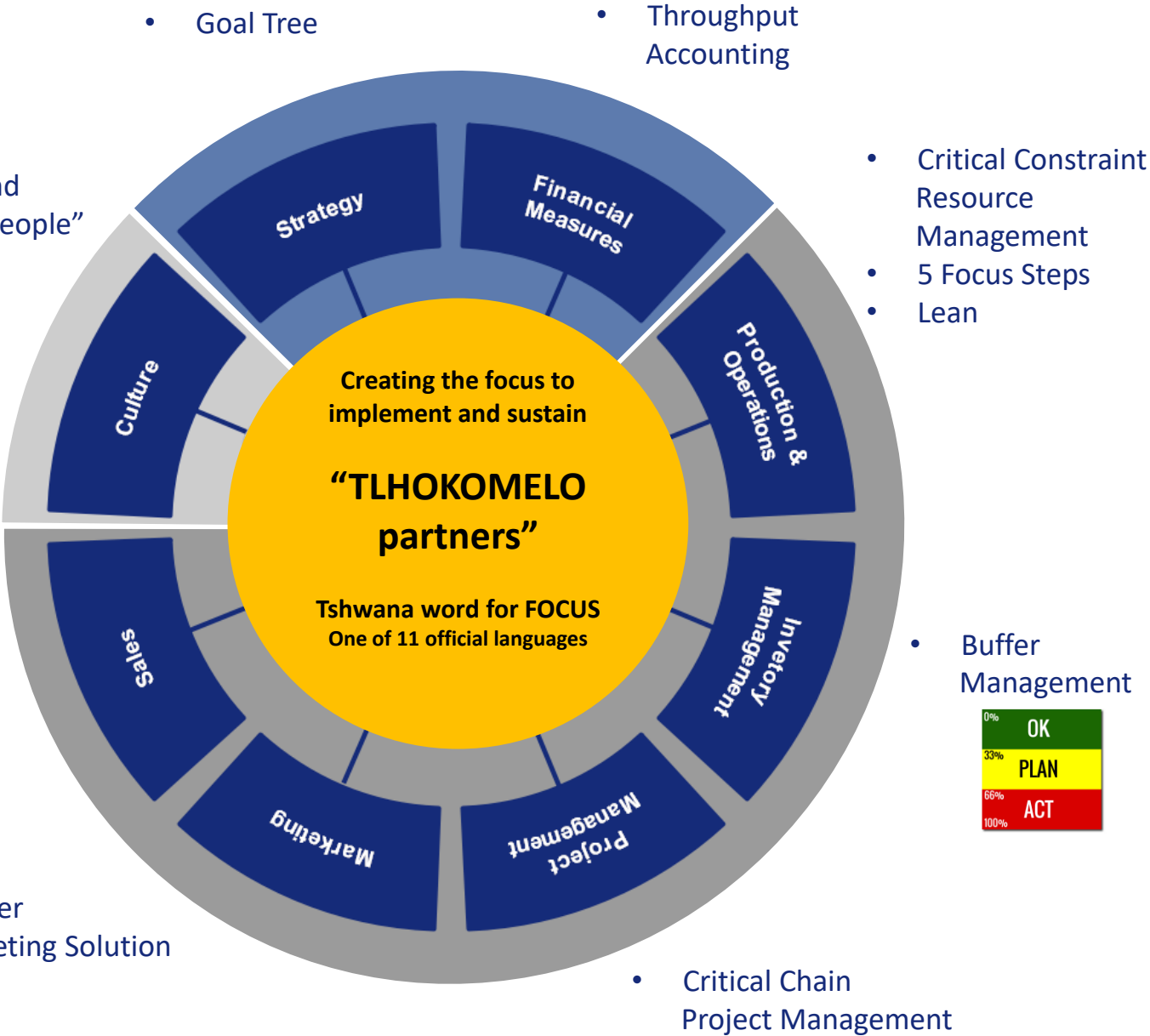
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Using TOC in Strategy-, Operations- and Culture development



- S & T Tree
“Inspiring and Managing people”
- Unrefusable offer
- Sales and Marketing Solution



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Results from our TOC Journey



- **Internal Production lead-time reduction from 50 days to 17 days.**
- **High reliability** in completion date - reduction in expedite and interventions
- **Reduce Inventory** throughout the value chain by **\$US 5 Mil**
 - Constraint focus management (5 focus steps) to improve flow through the factory.
 - Buffer management to reduce dependency and variability.
- **Improve on-time delivery 92% > 98%**
 - By buffering for variability on long and unreliable raw material lead times
- **Reduction in delayed raw materials from 8% to 1.5%**
 - Using buffer management on Inbound supply chain
- **20% increase work volume** from customer
 - As a result of on time delivery
- **New product Industrialization lead time from 120 days to 80 days.**
 - Use of critical chain project management

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Results from our TOC Journey



- **Clear strategy** and goal setting
 - Using the Logical thinking tools of Bill Dettmer
 - We constructed a goal tree that is easy to read and communicate the company goal.
 - Helping people to understand how they can contribute to achieve the goal.
- **Risk management** at departmental level (Risk of not achieving the goal)



- **Happy, cohesive and adaptable workforce** with a strong problem solving culture.
- Employees adopting "Soundest culture"

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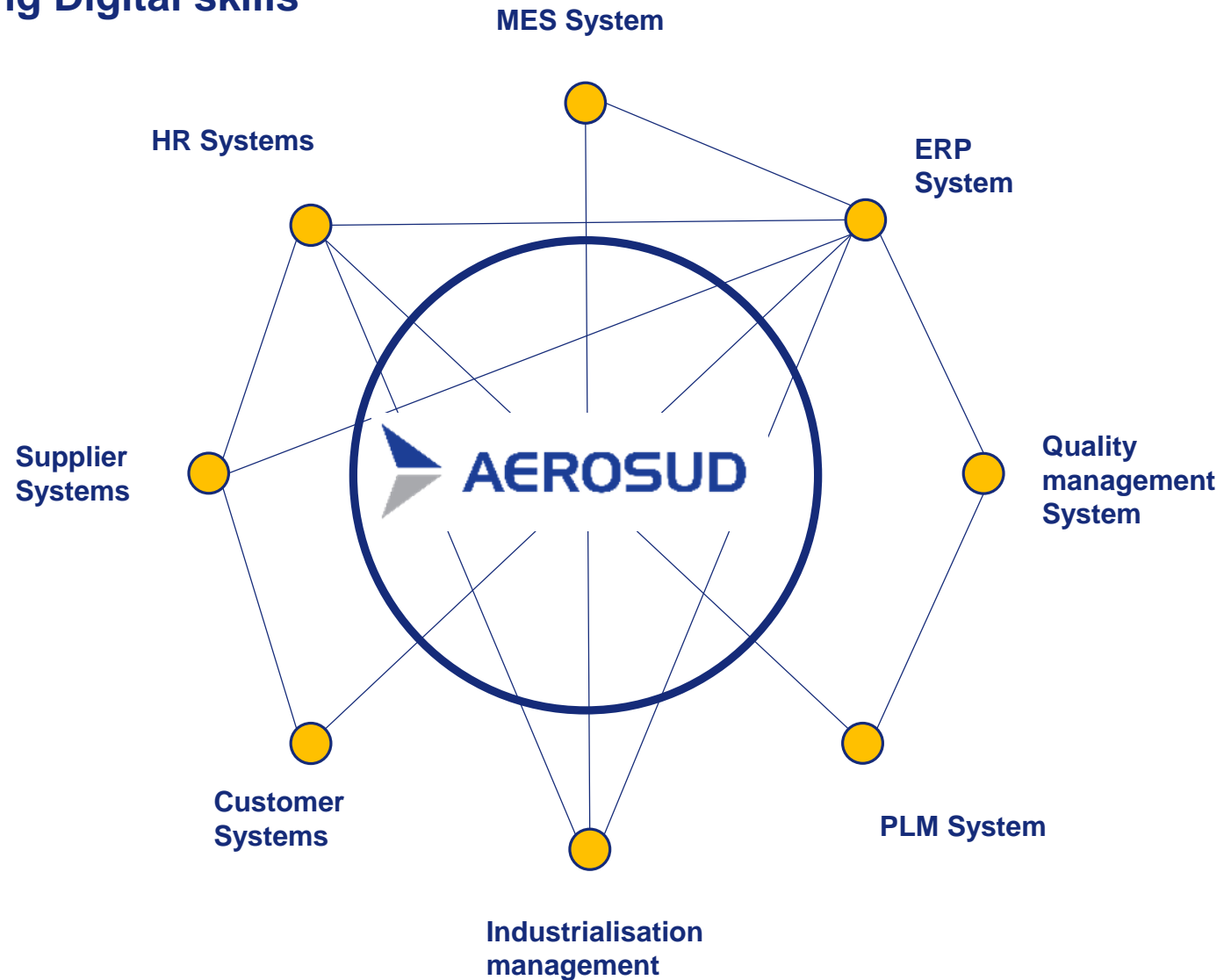
Built for Results

TOC, Way of life

Built to last

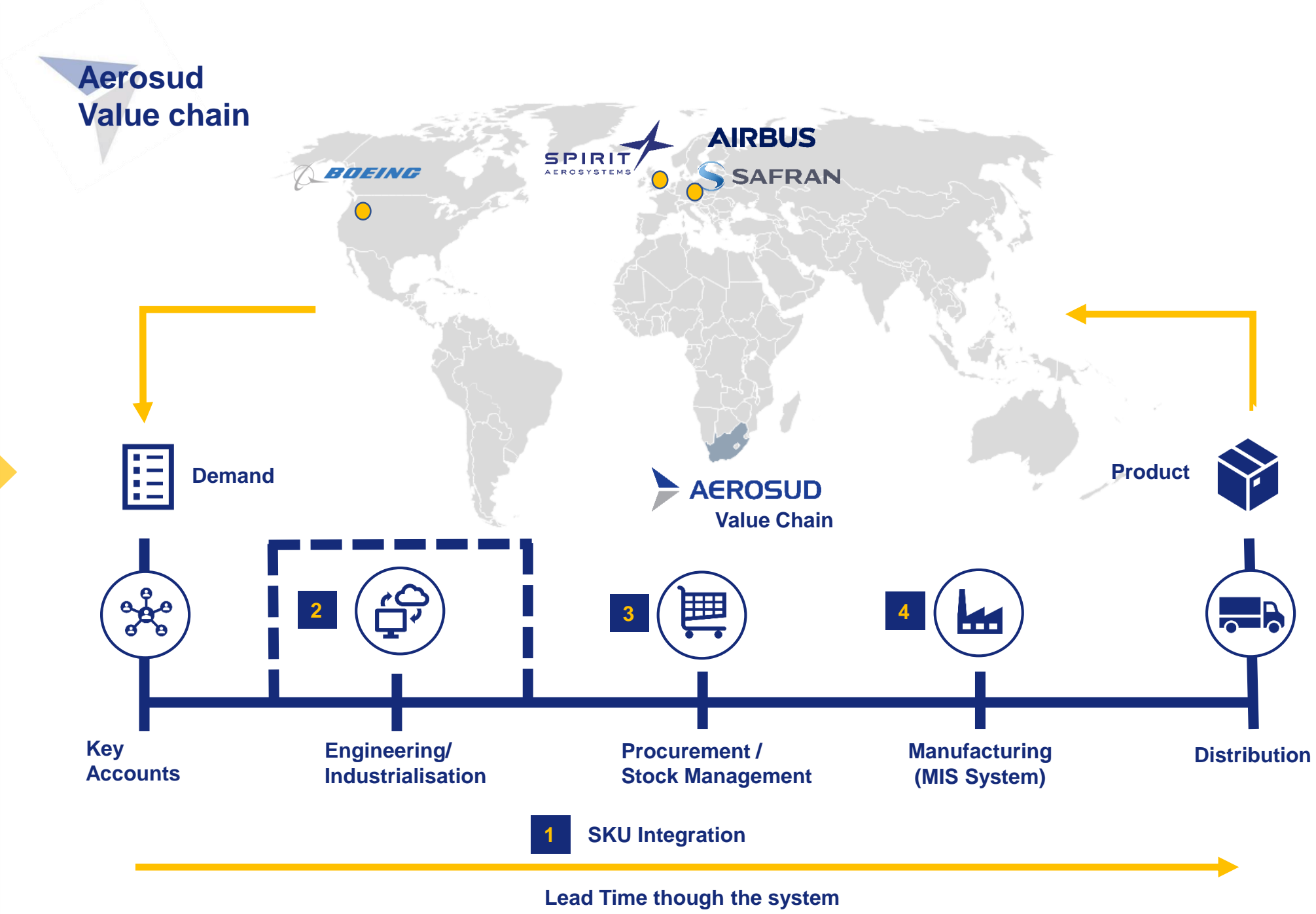
Thank You

**Integrating TOC
with strong Digital skills**



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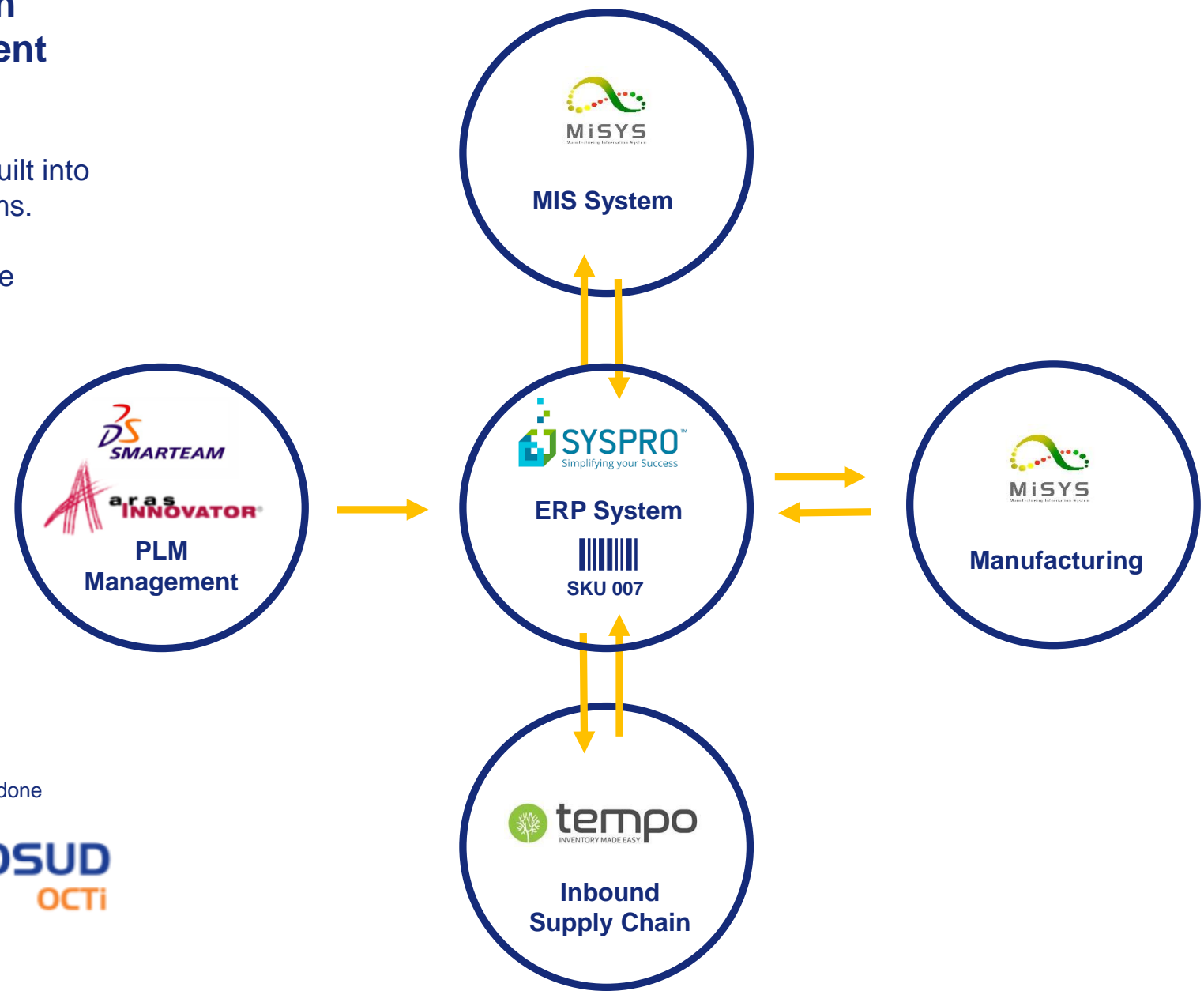
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SKU integration And management

TOC principles are built into
our integrated systems.

TOC thus became the
Aerosud way of life.



Integration development done
by:

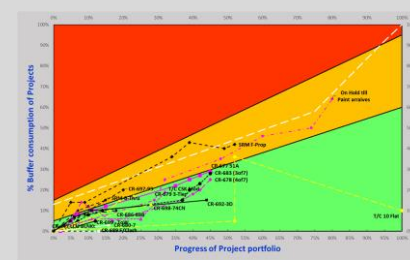
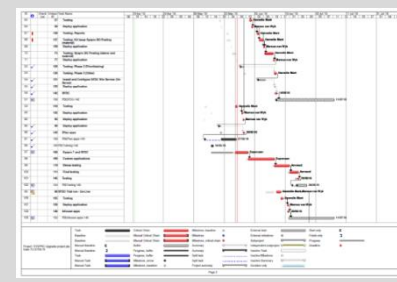


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Industrialisation and Project Management

Planning



Execution



kanbanize

2021 Engine

DBM per stock code (Matrix)

50%

New subtask...

Activity Category: Continuous L.

Activity Type: Project

Activity Planned: Yes

Customer / Progr.: Aerosud

Cell / Area: Procurement

Function: CI

21/07 bernadette

ANNUAL REVIEW: MASTER PRODUCTION SCHEDULING

29 Mar 18d

EDRAIN / WORD FILES

New subtask...

Activity Category: Continuous L.



Activity Type: Task

Activity Planned: Yes

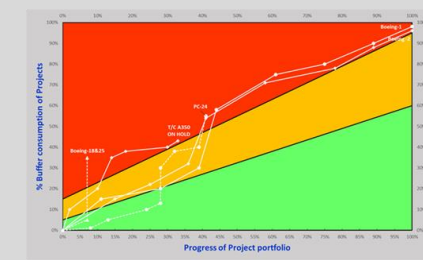
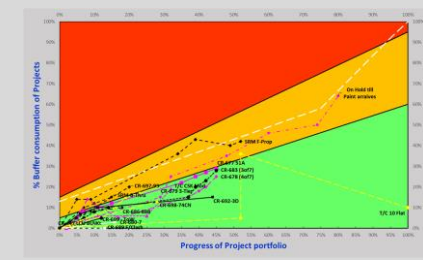
Customer / Progr.: Aerosud

Cell / Area: MASTER PRODUCT...

Function: DPP



Control



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Critical chain management.....

Easy and effective TOC management tool to reduce you project lead time 20-30%



How long will it take to complete the projects ?



4 Months
(Local Optimisation)



On average how long will it take to complete the projects if you **only focus** on this task.

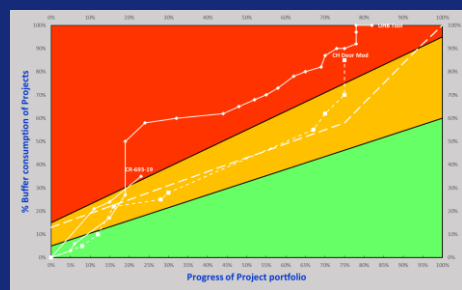


2 Months + 1/3 Buffer for safety

Determine the critical chain based on resource and Task dependencies.



Execute project and manage project though simple Time buffer management



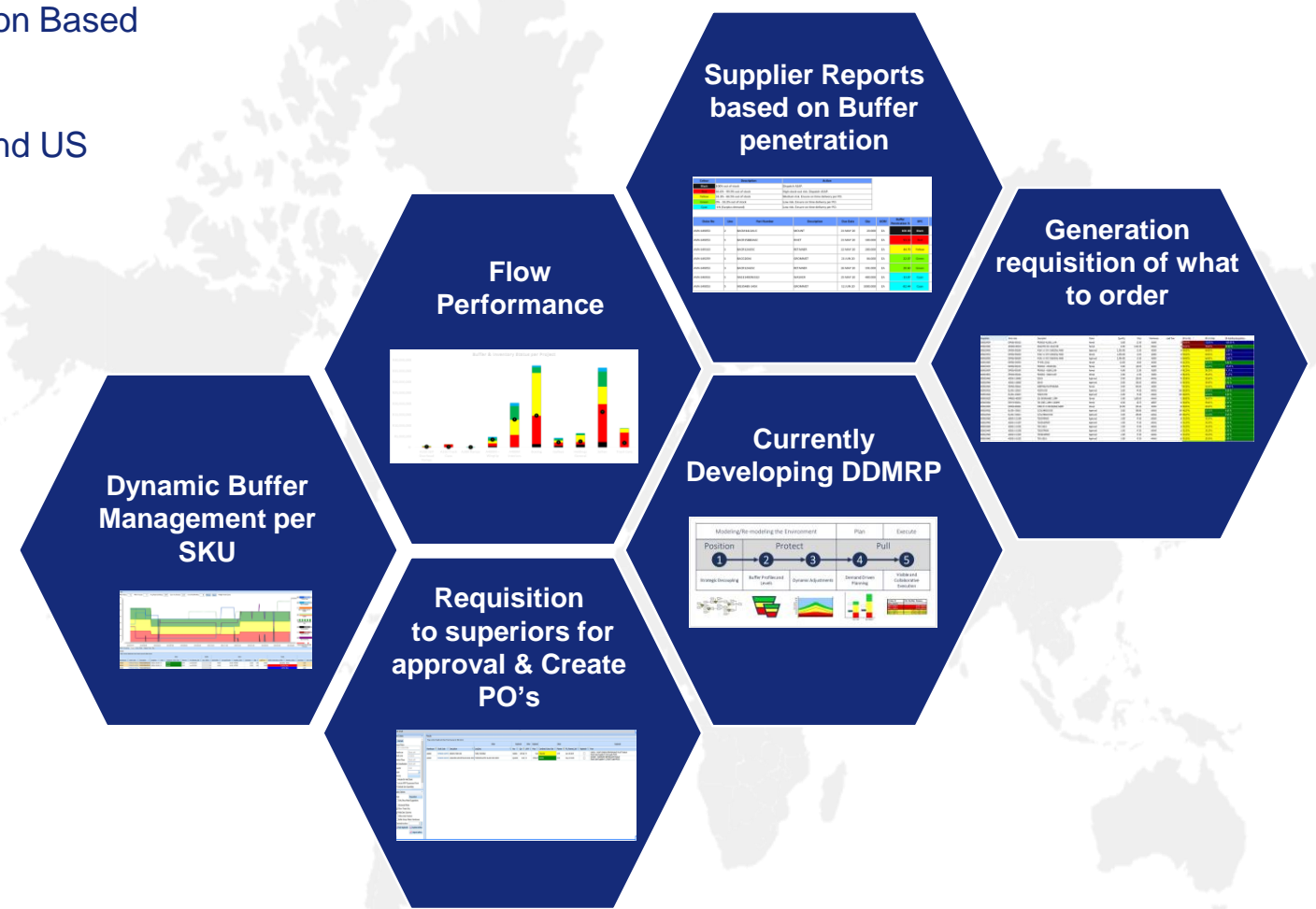
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Inbound Supply Chain

Managing 3 000 bought-out SKU's
Move from MRP to Consumption Based Replenishment

- 300 + Suppliers over Europe and US
- 85% on Syspro Tempo (Buffer)
- 14% on VMI
- 1% on MRP
- Lead Times 30 - 220 days



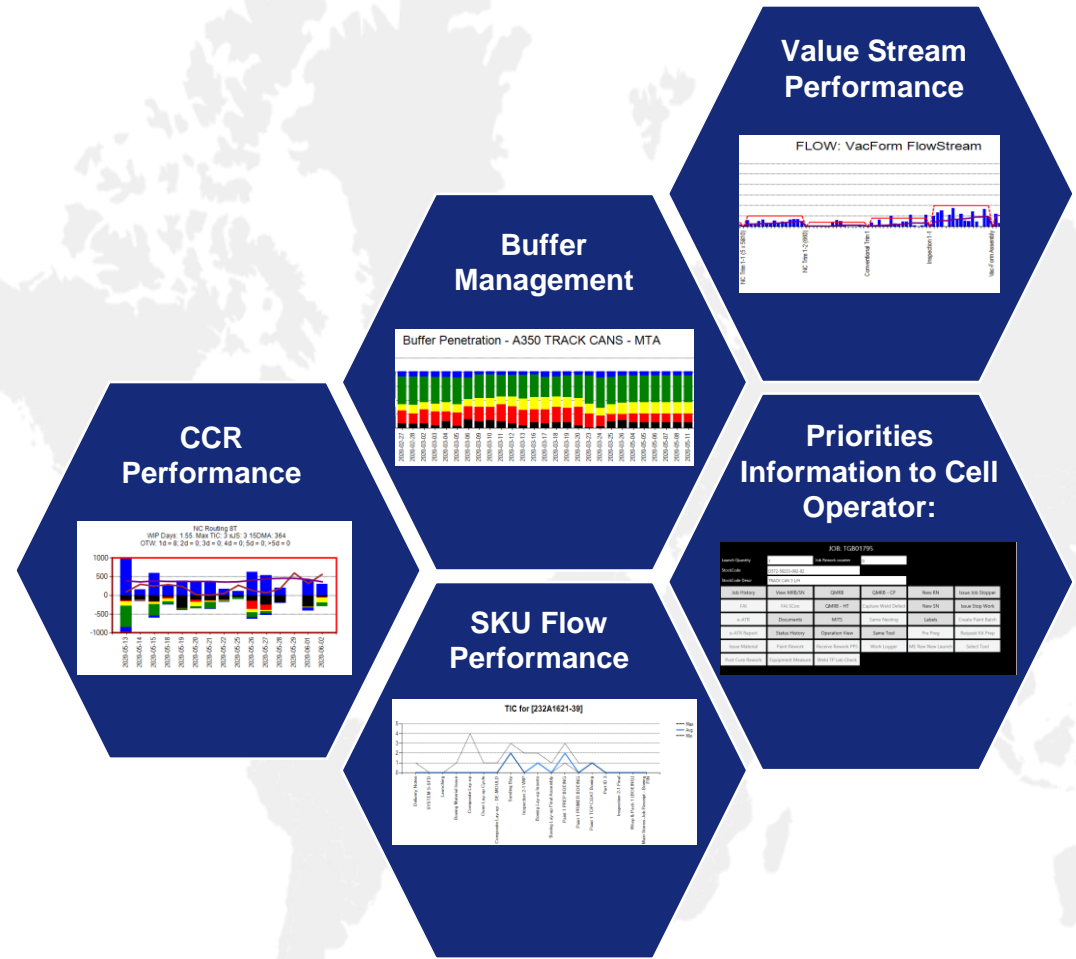
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Management Execution System

Managing 6 800 SKU's - "Made in's" or "WIP"

- MTA - 4 500 SKU's
- MTO - 2 300 SKU's
- 15 Flow Streams with CCR's
- Fully Integrated with ERP System



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...and now COVID-19 tests our TOC foundation



Presenter for this section:
Jeff Esterhuizen

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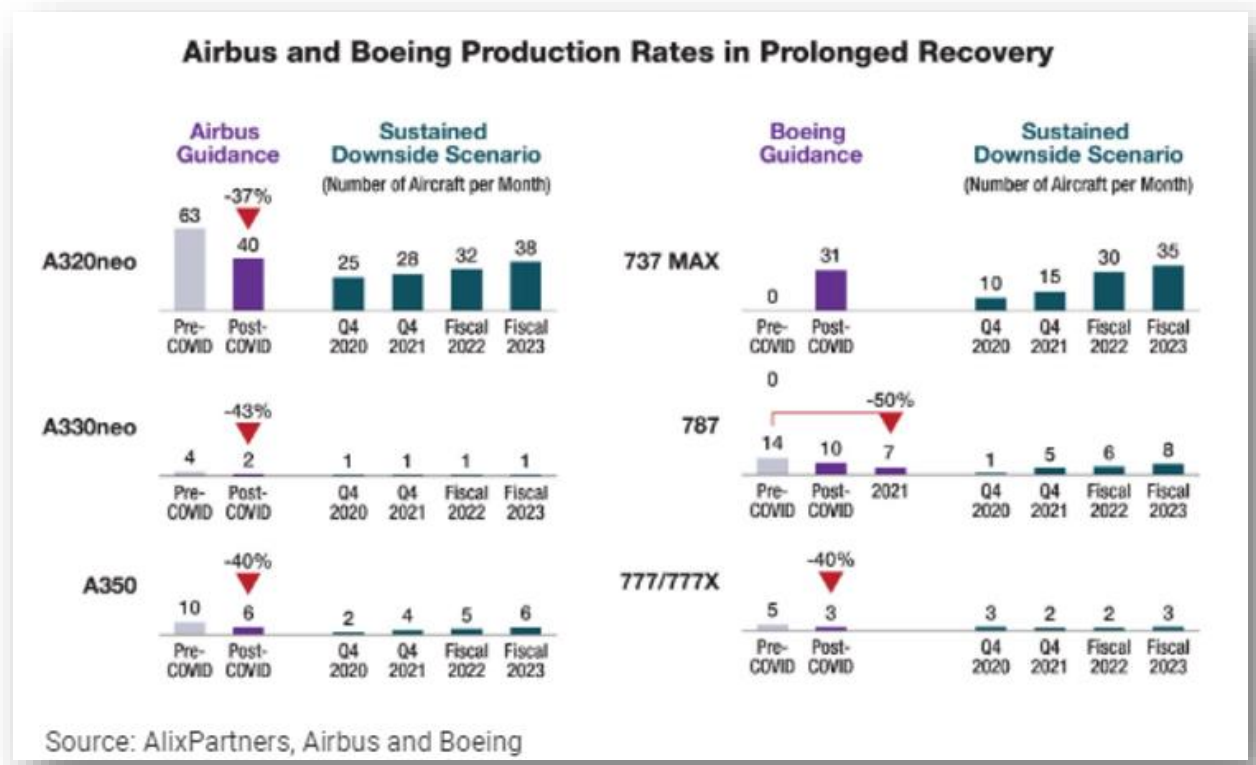


40% Rate Reduction

20% Supply Chain cost increase
Made-In preferred to Bought-Out
Global supply chain disruptions

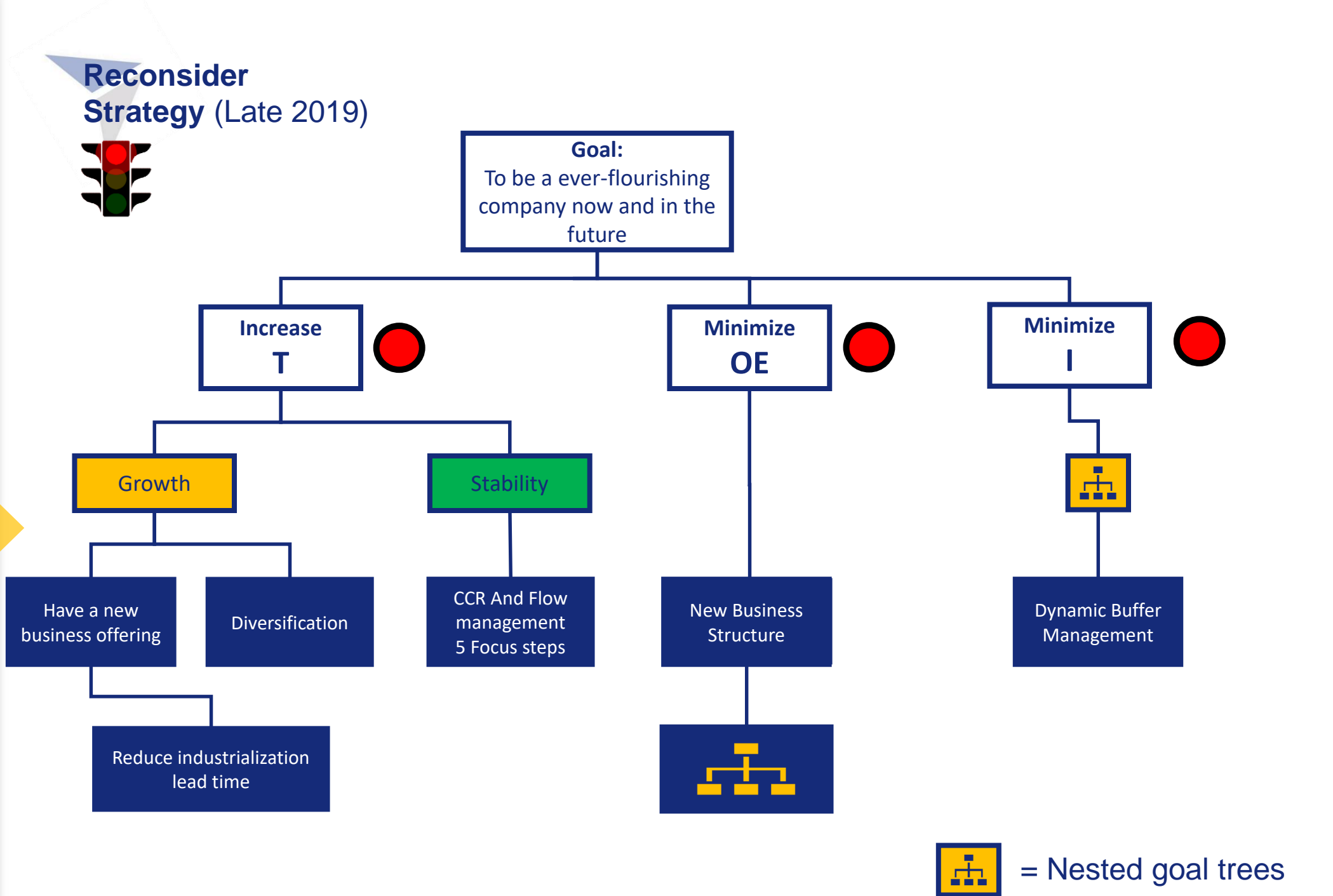


Resulting Conflict Stability vs Growth



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Have a new business offering

- Digital Life Cycle and Design for Certification
- Practical experience in ToC Automation in Aerosud
- Inherent affinity for Digitalization of business processes



agile & disruptive...
do not settle for the norm



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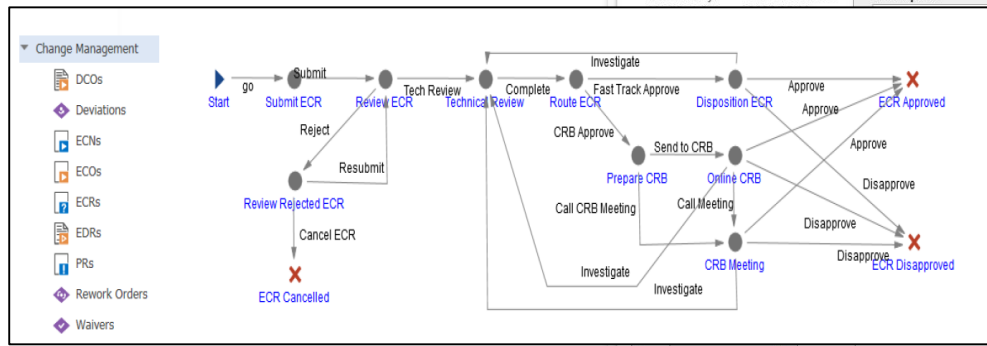
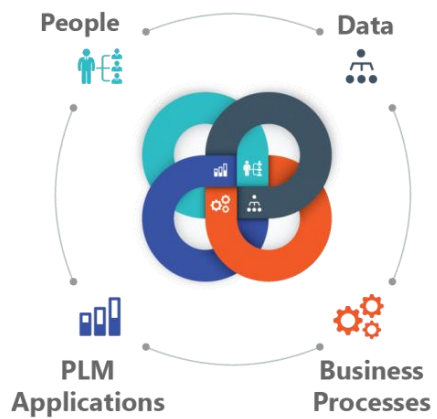
Built to last

Thank You

Integrated Digital Platform

Creating and maintaining ONE version of the truth

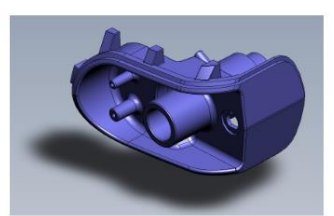
Digital Life Cycle and Design for Certification



Part

Part Number: PRT-000078
Revision: A
State: Preliminary
OEM Number: 10079556
OEM Rev:
Name: Aerosud
Type: Assembly
Created By: Rlaan Havenga
Created On: 2020/05/07
Modified By: Innovator Admin

Intended Manuf process
Make / Buy
Make
Cost
Unit



Download files

CAD Documents

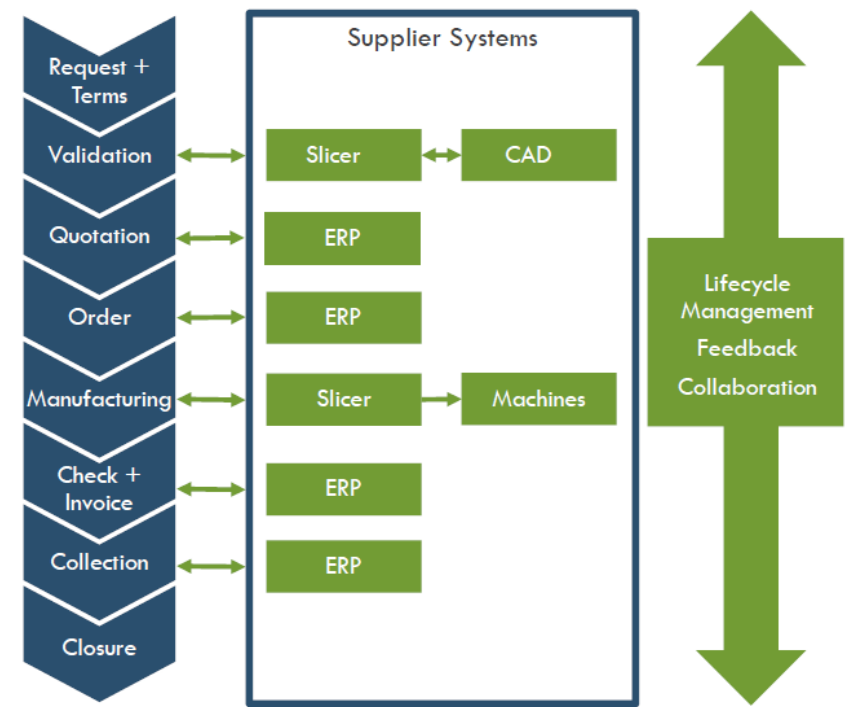
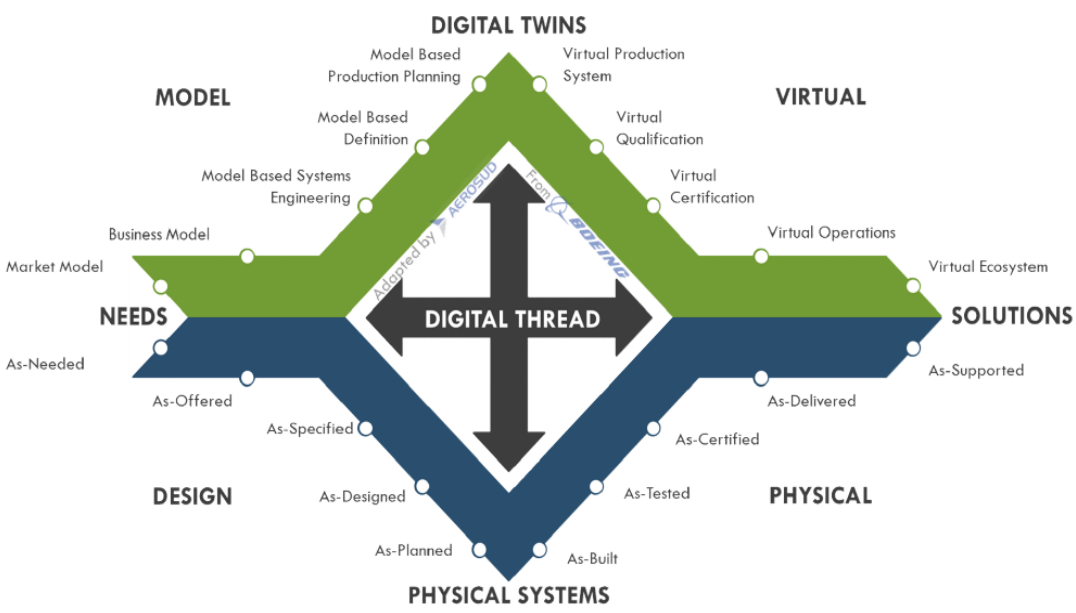
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CAD-000114	A	10079556	B	Conical fitting inspiratory module...	Mechanical/Drawing Preliminary	10079556.SLDRW 10079556B00.PDI

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Collaborative Digital Manufacturing platform

- Creating and maintaining ONE version of the truth
- Idea was born out of Additive Manufacturing (3D-printing) skills
- Connecting Customers with Suppliers in a secure workspace



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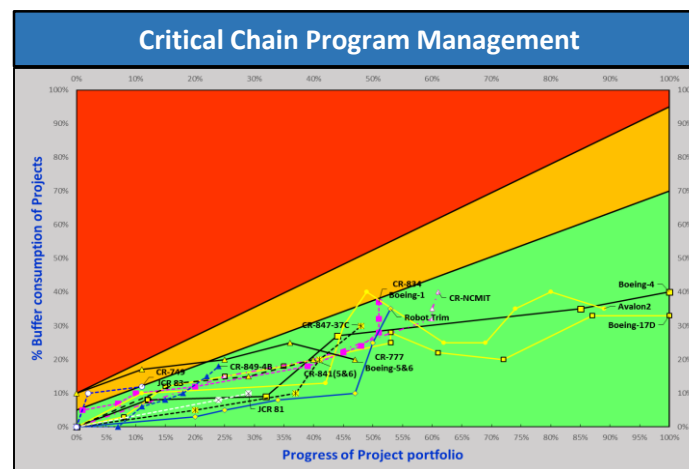
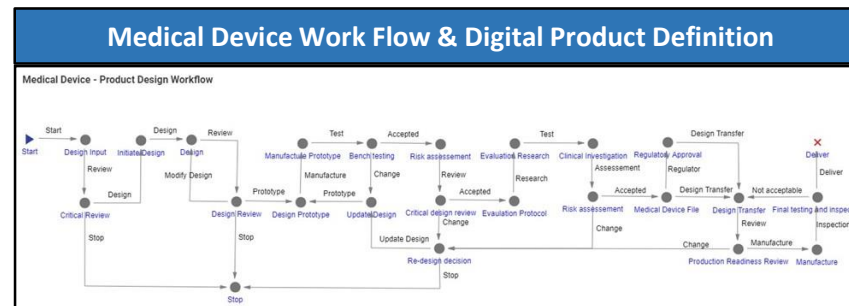
Thank You

Covid-19 Agile Support Team

Industry coordination group - Medical Devices

Digital Platform with Workflow

CCPM





COVID - 19 AGILE SOLUTIONS TEAM

COVID-19 Corona Virus South African Resource Portal
www.sasacovid19.co.za

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 Support
 Products
 Proposal Submission
 Additional Resources



SUPPORT

We want to optimally assist in resolving your specific COVID-19 requirement

What type of support do you need

- Regulations
- Industrialisation
- Manufacturing and Supply Chains
- Funding, Investments and Financial
- Supply
- Distribution

Company Quality Management System:

- ISO 9001
- ISO 14001
- FDA
- Documented QMS
- Documented QMS
- Other

Query



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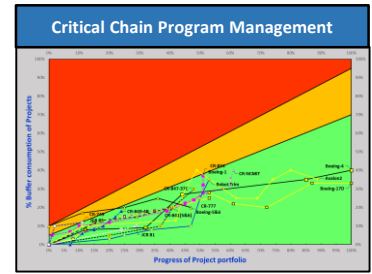


We are **building to last** on a solid foundation of ...

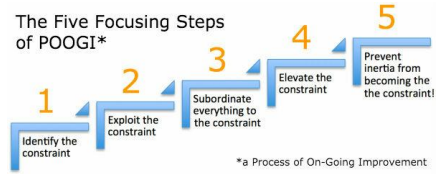
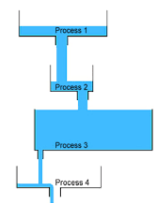
Word-class Digital Platform



Critical Chain Program Management



Entrenched TOC Principles



An agreed-to goal



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