TECHNOLOGY & TRANSFORMATION SUMMIT 2022

December 8, 2022

1

Innovation Spotlight

Demystifying the Digital Twin for Financial Processes

Chris Radich – Celonis
Vice President, Solution Engineering

Lisa Vaughan – U.S. Navy
Deputy, DASN Financial Management

December 8, 2022

2

Our Special Guest, Ms. Lisa Vaughan, SES

Curriculum Vitae

- Deputy, DASN Financial Management Systems, Financial Systems Consolidation Command Office of the Assistant Secretary of the Navy (Financial Management and Comptroller)

- Responsible for the consolidation of the Navy's remaining legacy financial accounting systems into Navy ERP

Previous Experience

- Highly Qualified Expert (HQE) for Financial Management Systems
- Deloitte Consulting and Accenture
- L3 Communications Mechanical Engineer
- Bachelor of Science in Mechanical Engineering, Southern Methodist University

3

Agenda

1	Level Setting - Digital Twin 101
2	The Navy FMS Digital Twin Story
3	Chat with an Innovator - Ms. Lisa Vaughan

4

Government has a process understanding problem like medicine in 1895

Prior to X-Ray Technology

01 | Physical examinations (sight & feel)

02 | Doctor's best guess

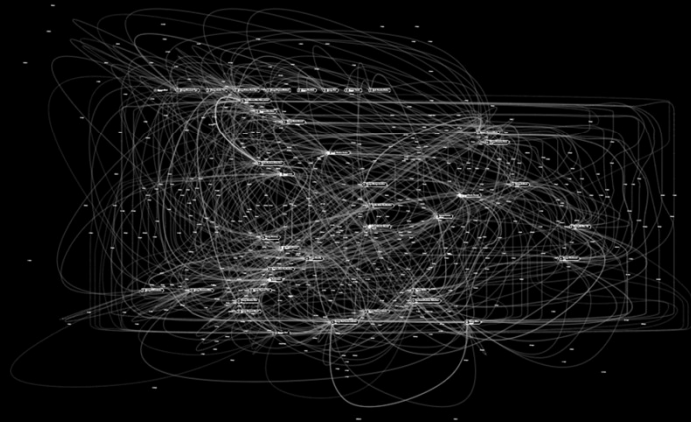**03** | Subjective diagnosis

04 | Poor results

5

(what it is)

Digital Twin

A digital representation of a real-world entity or system.

A model that mirrors a unique process or other abstraction.

Source: Gartner

6

Process Mining

(how we achieve it)

A technique designed to discover, monitor and improve real processes by extracting readily available knowledge from the event logs of information systems.

Source: Gartner

7

Process mining leverages existing ERP data

IT based work + event data = process graph

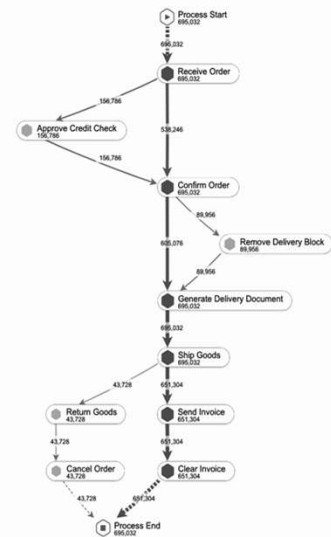**Sources** — **The data behind the scenes** — **The Process Graph**

SAP

ORACLE

CGI

workday.

•••

Case ID	Activity	Resource	Timestamp	Product	Price
...	...	...	...	...	
6350	place order	Aiden	2018/02/13 14:29:45.000	APPLE iPhone 6 16 GB	639,00 €
6283	pay	Lily	2018/02/13 14:39:25.000	SAMSUNG Galaxy S6 32 GB	543.99 €
6253	prepare delivery	Sophia	2018/02/13 15:01:33.000	APPLE iPhone 6 16 GB	639,00 €
6257	prepare delivery	Aiden	2018/02/13 15:03:43.000	SAMSUNG Galaxy S6 32 GB	543.99 €
6185	confirm payment	Emily	2018/02/13 15:05:36.000		329,00 €
6218	confirm payment	Emily	2018/02/13 15:08:11.000	APPLE iPhone 6s Plus 64 GB	969,00 €
6245	make delivery	Michael	2018/02/13 15:14:04.000		9,00 €
6272	pay	Emily	2018/02/13 15:20:36.000	APPLE iPhone 6 16 GB	639,00 €
6269	pay	Charlotte	2018/02/13 15:25:21.000	SUNG Galaxy S4	329,00 €
6212	prepare delivery	Sophia	2018/02/13 15:43:39.000		695,032
6323	send invoice	Alexander	2018/02/13 15:46:08.000	APPLE iPhone 6 16 GB	639,00 €
6246	confirm payment	Jack	2018/02/13 15:56:03.000	•SUNG Galaxy S4	329,00 €
6347	send invoice	Jack	2018/02/13 15:57:42.000	SAMSUNG Galaxy S4	329,00 €
6351	place order	Zoe	2018/02/13 16:17:37.000	APPLE iPhone 5s 16 GB	449,00 €
6265	confirm payment	Lily	2018/02/13 16:55:55.000	SAMSUNG Galaxy S4	329,00 €
...	...	...	...	...	

event = case + activity + timestamp

8

Navy FMS is committed to knowing their busi[ness] and supporting warfighter outcomes

9

The Navy FMS story proves that innovation projects can scale quickly

~$60B

(~4.3M Active ERP Purchase Orders Analyzed)

- Started as documentation project to drive user compliance
- Quickly evolved into BPR and audit readiness focus
- 6 end-to-end ERP processes via 3 month sprints

Navy FM Strategy Objective 2

"Standardize DON business processes and strengthen internal controls to improve accountability"
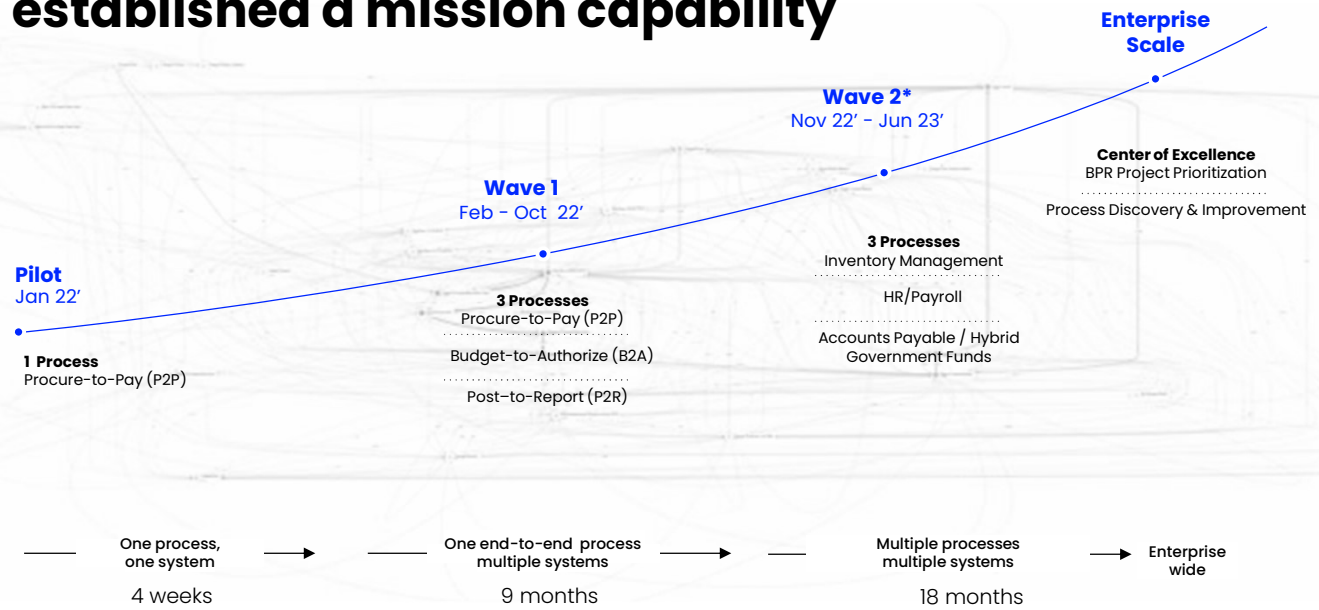
Source System

SAP

Process Understanding Objectives

- Adherence to documented procedures
- Exposure to audit risk
- Automation rates

10

FMS' digital twin innovation has established a mission capability

Enterprise Scale

Wave 2*
Nov 22' - Jun 23'

Center of Excellence
BPR Project Prioritization

Process Discovery & Improvement

Wave 1
Feb - Oct 22'

3 Processes
Inventory Management

HR/Payroll

Accounts Payable / Hybrid
Government Funds

3 Processes
Procure-to-Pay (P2P)

Budget-to-Authorize (B2A)

Post–to-Report (P2R)

Pilot
Jan 22'

1 Process
Procure-to-Pay (P2P)

One process, one system	One end-to-end process multiple systems	Multiple processes multiple systems	Enterprise wide
4 weeks	9 months	18 months	

*Subject to further prioritization

11

Fireside Chat - 5 Pillars of the Digital Twin

Solve a mission challenge
Identify a mission event focused on improved financial, procurement, or supply chain performance.

Find a process excellence champion
Identify a Process Excellence initiative owner and SES level executive sponsor.

Build a process backlog
Establish a process framework for your agency to prioritize process transformation use cases.

Establish a process excellence CoE
Determine whether CoE will be embedded within existing Financial Management, IT, or ERP Program

Staff data experts
Decide on staffing strategy and contracting approach for data analyst and engineer roles across Celonis, Systems Integrators, and Gov't.

12

Thank You!

Q&A

AGA

#TTS22

13