

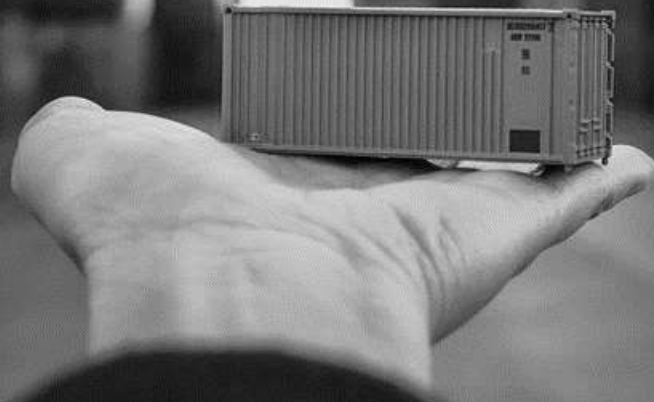
Digital Revolution: using information to boost terminal performance

PORT & TERMINAL Technology, *Gaillard Convention Center Charleston, USA*

17th April 2018 - Session 2 11:00-11:25

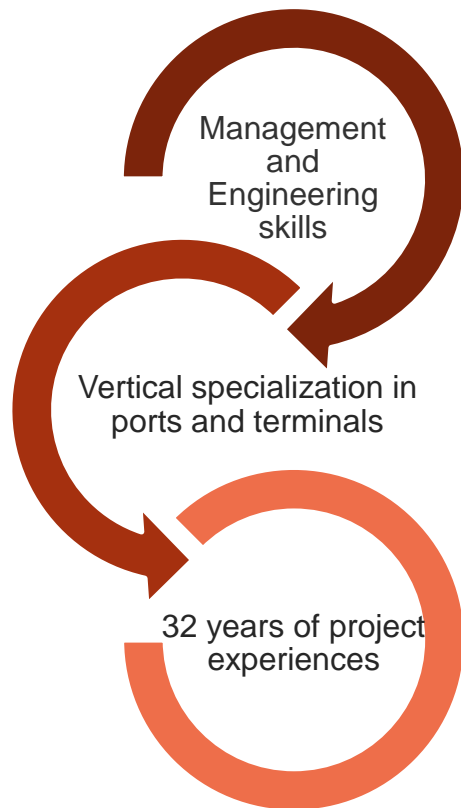


Marco Fehmer
DSP CEO



Nice to meet you

from Switzerland with competence



Confidentiality and Discretion are key words for DSP

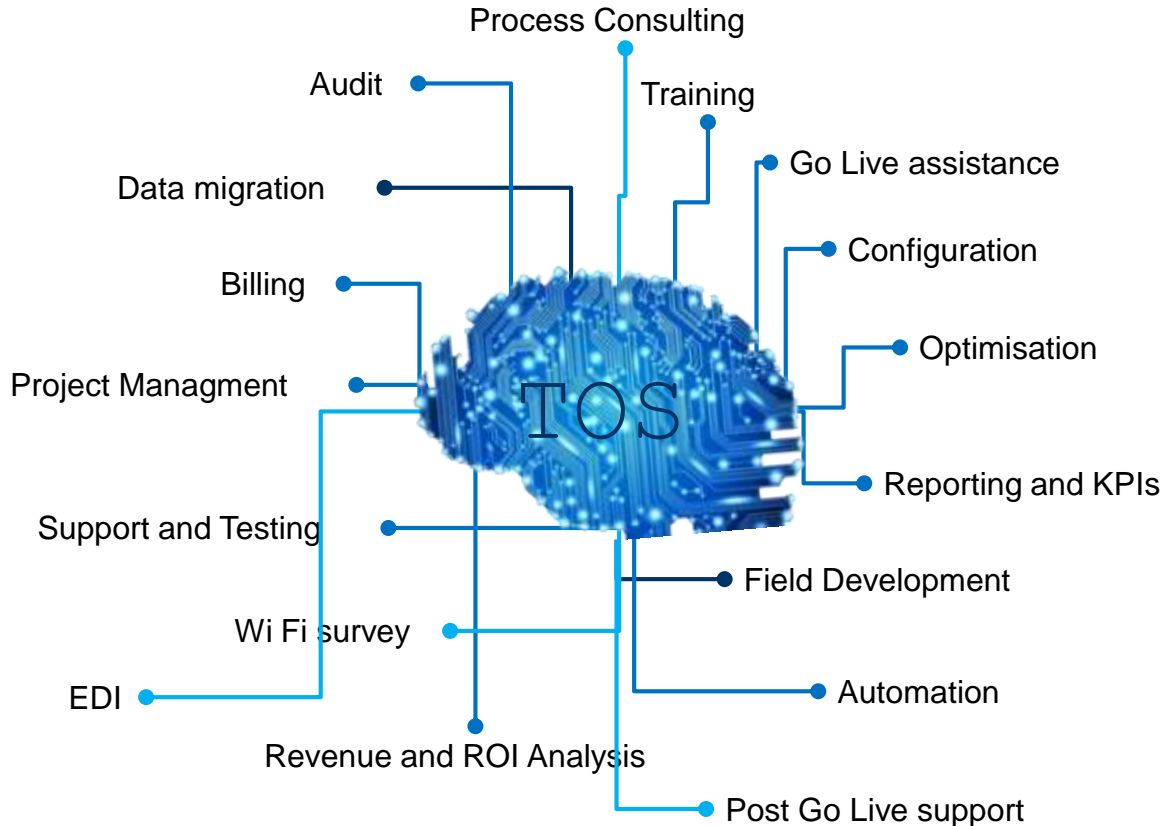
30 industry experts, over 75 projects worldwide



DSP - The Brain of Logistics



All around TOS with our partner network



SUPSI

Scuola Universitaria Professionale
della Svizzera Italiana

Digital Revolution: using information to boost terminal performance

Terminal operators face several challenges, striving to achieve higher productivity while reducing operational costs.

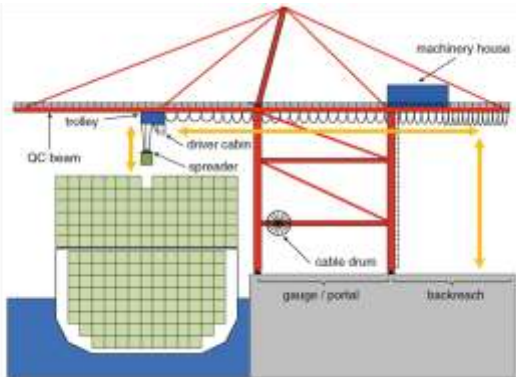
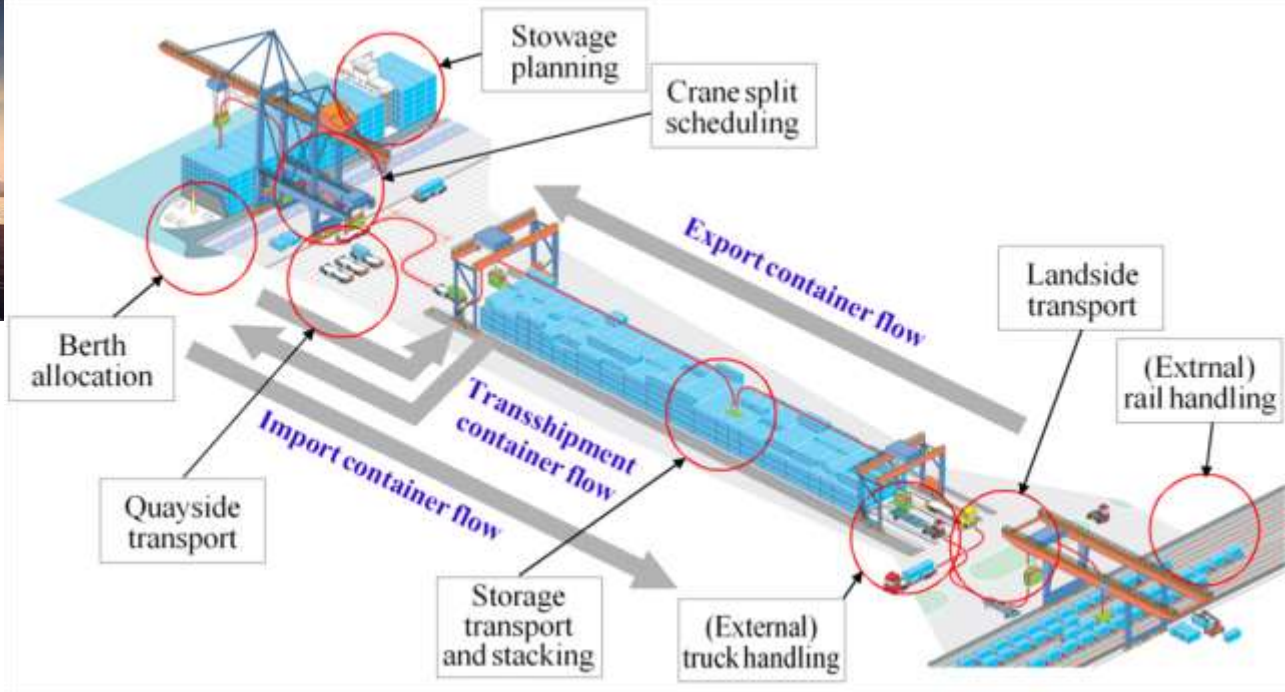
Technology enables to measure performance indicators but they shall not focus on productivity only, but look at the cost needed to obtain such level of service and the actual revenue that terminal will obtain from the delivery of its operations.

- Do we have data?
- How to use the data?
- Where shall we put our efforts?
- What if we run a new business?

The Terminal Ecosystem



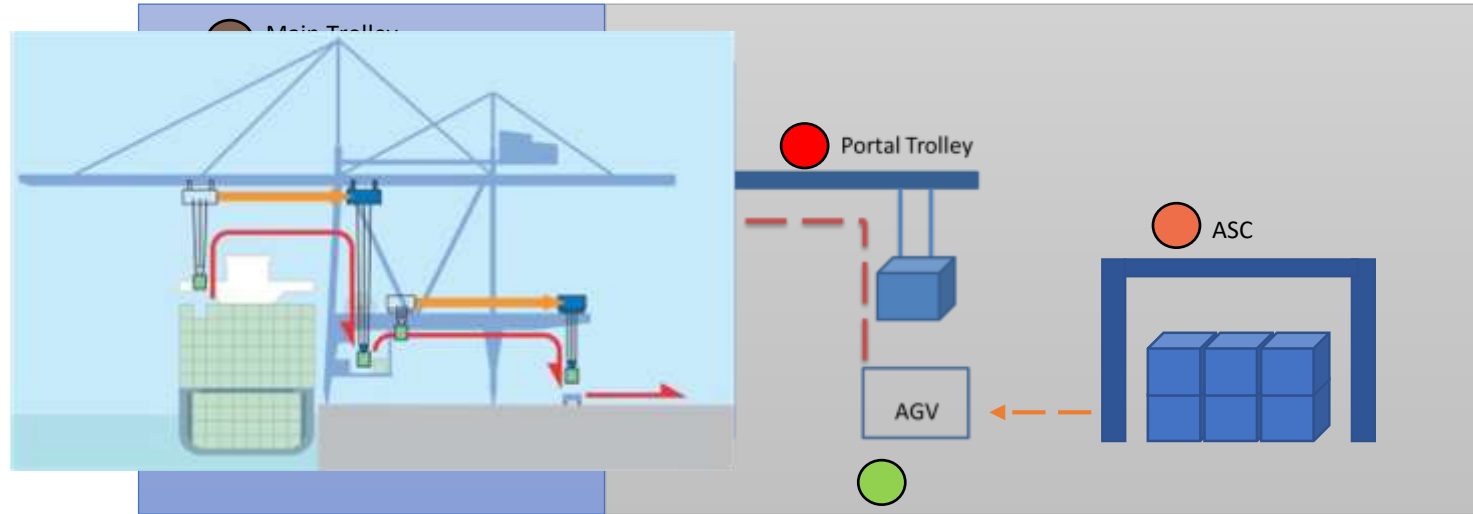
Do we have data?



Operations flow breakdown



Each step is measurable and generates KPIs



● Vessel Productivity / Delays

● Cranes Status Main Trolley

● Cranes Status Portal trolley

● Crane Productivity
Units Count
Breakdown
Waiting times

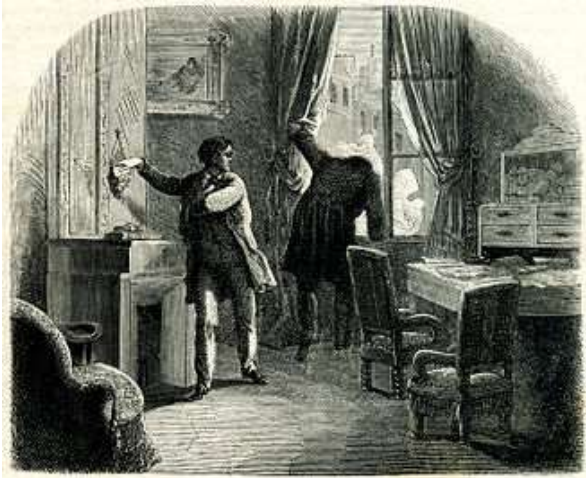
● AGV Unit count / Delays
AGV Distance
Refuel
Waiting times / queieng

● ASC Non Productive moves
ASC waiting times
ASC Unit Count / Delays

Will we be able to find the root cause?



The Purloined Letter (E. A. Poe)

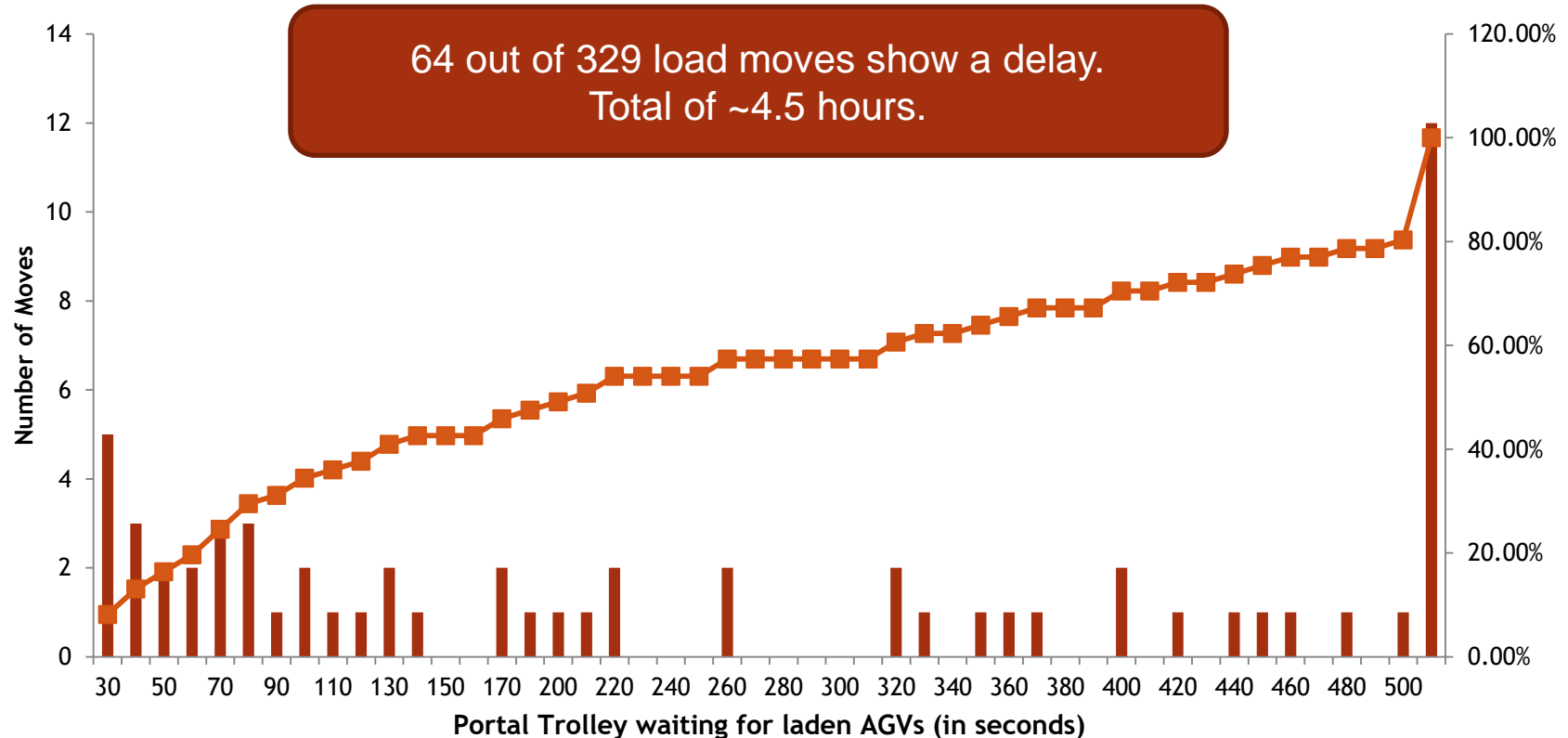


- Big problems are not hidden in the data
- Experienced eyes can give the direction in which to investigate deeper
- Human factors influence anyhow automated process

When did my Main Trolley Wait for AGV to arrive?



Estimate Root Cause of the Delay

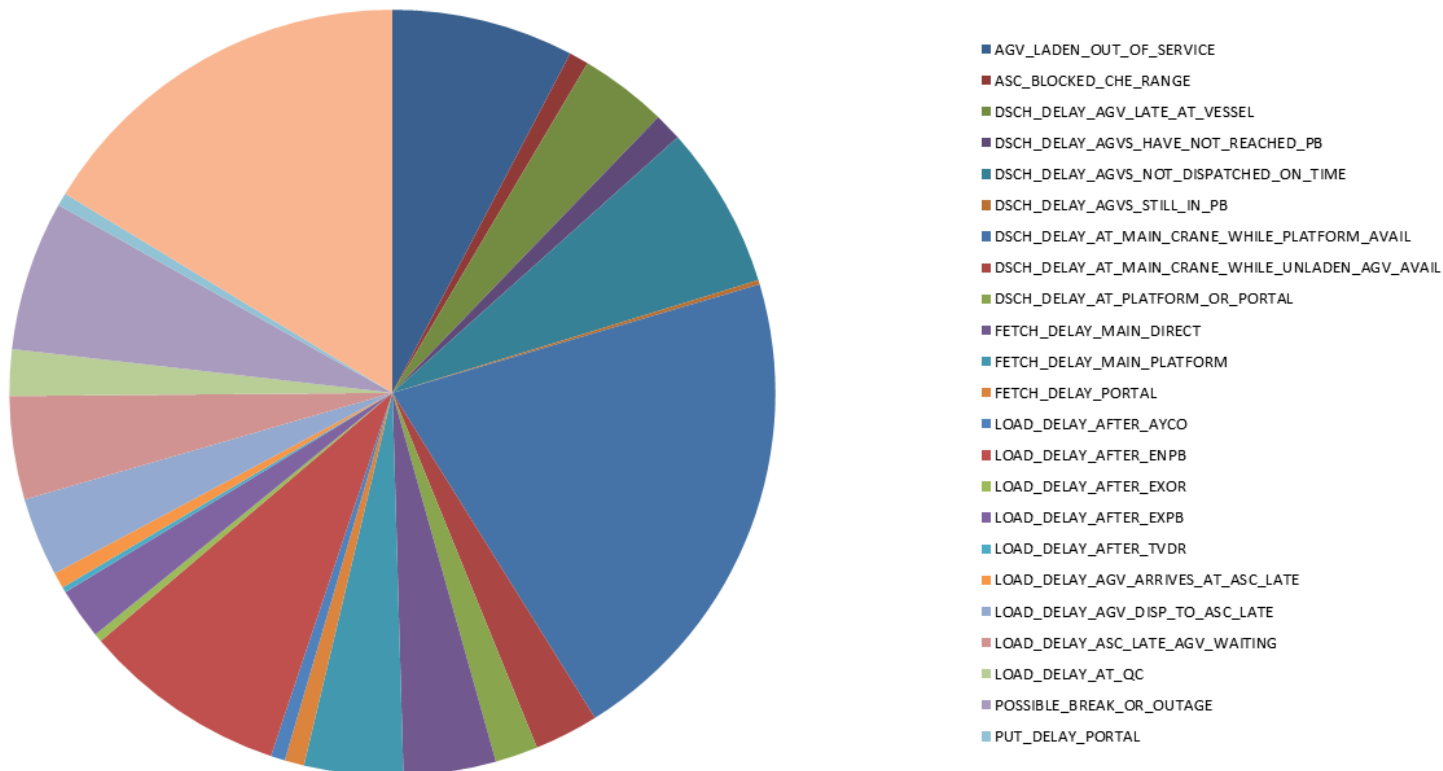


Estimate Root Cause of the Delay



Where to focus our attention

Summary of Delay time



The Terminal Ecosystem



Where shall we put our efforts?



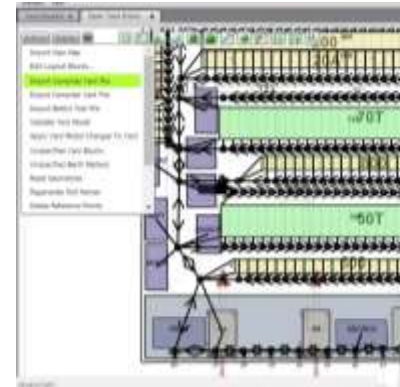
Maximise Revenue: Analysis and What if



Focus on ROI

- Which are the most profitable services of our business?
- Where shall I address my efforts in the negotiation?
- Where shall I put my effort in terminal optimisation?

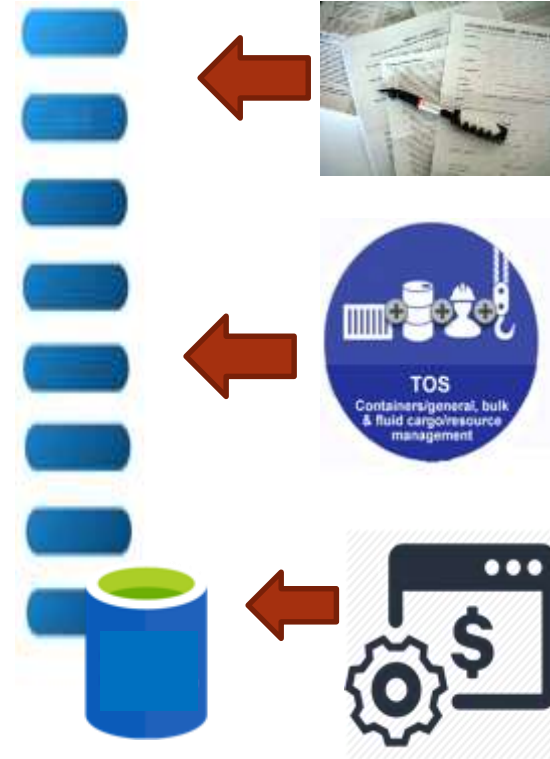
- A matter of tariff
- A matter of volumes
- A matter of operations



Nice to have



An integrated solution



Dashboard

Live Costs and Profit



☆ Preferiti >

🕒 Recenti >

📱 App

👤 Condividi con l'utente co...

📁 Aree di lavoro >

MA Management ^

DASHBOARD
schema

REPORT
Costs ...

Driver Report

Gate Operations

Live Gate

Live Quay

Live Rail

Live Revenues

Train Monitoring

Vessel Monitoring

Vessel Revenues

Yard Monitoring

CARTELLE DI LAVORO

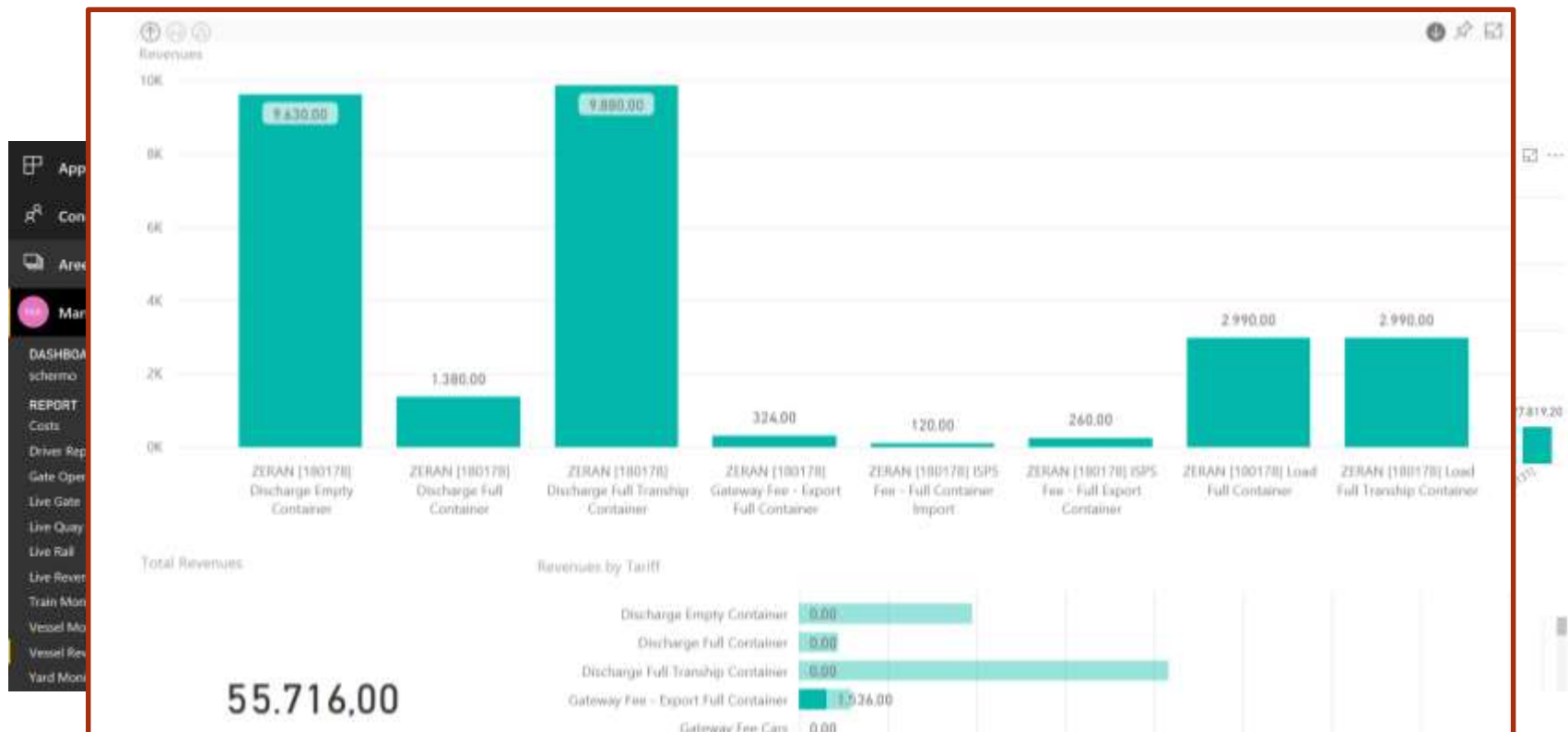
Costs

Phase	Vessel [Voyage]	Work Date	Shift	Vessel Productivity	Direct cost	Indirect Cost	Maintenance Cost	Costs Conv Unit	Revenues Conv Unit	Moves	Conv Units	Profit
DEPARTED	HOLANDIA [160718]	02/01/2017	II	5,55	0,73	38,30	31,96	71,00	70,39	48	64,80	-0,61
	HOLANDIA [160718]	02/01/2017	III	6,76	7,76	20,52	20,42	48,70	93,02	99	101,40	44,32
	HOLANDIA [160718]	02/01/2017	IV	6,92	0,79	30,42	23,01	54,22	95,09	90	90,00	40,87
	HOLANDIA [160718]	03/01/2017	I	6,65	4,07	26,71	25,26	56,03	98,50	82	82,00	42,47
	VENTO DI TRAMONTANA [TAR901]	03/01/2017	III	7,93	1,20	25,76	17,40	44,37	72,06	95	119,00	27,69
	VENTO DI TRAMONTANA [TAR901]	03/01/2017	IV	2,73	0,00	80,25	41,40	121,65	88,34	47	50,03	-33,30
2016	Neuburg [NEU023]	04/01/2017	II	1,96	27,98	69,03	90,04	187,05	97,83	23	23,00	-89,23
	Neuburg [NEU023]	04/01/2017	III	4,25	6,31	41,87	40,61	88,78	90,06	51	51,00	1,27
	Neuburg [NEU023]	04/01/2017	IV	4,50	9,35	34,35	40,61	84,31	84,08	51	51,00	-0,23
	MACAO STRAIT [MAC018]	05/01/2017	I	26,10	0,68	7,34	39,67	47,70	63,33	45	52,20	15,63
	MACAO STRAIT [MAC018]	05/01/2017	II	3,81	12,89	37,70	33,95	84,54	112,76	61	61,00	28,22
	MACAO STRAIT [MAC018]	05/01/2017	III	3,02	8,41	59,58	60,91	128,90	126,50	34	34,00	-2,40
2017	ZERAN [170003]	07/01/2017	II	6,39	4,33	27,65	26,15	58,13	83,30	79	79,21	25,17
	ZERAN [170003]	07/01/2017	III	7,93	6,22	18,09	18,01	42,32	93,00	115	115,00	50,68
	ZERAN [170003]	07/01/2017	IV	5,76	3,68	32,41	13,33	49,42	84,06	153	155,40	34,64
	Kreta [170017]	08/01/2017	III	10,59	0,00	20,68	18,93	39,62	92,91	107	109,40	53,29
	Kreta [170017]	09/01/2017	I	6,73	0,00	32,55	27,99	60,54	94,31	74	74,00	33,77
	Kreta [170017]	09/01/2017	II	0,47	111,23	292,00	345,17	748,40	98,50	6	6,00	-649,90
2018	TITTER [TIT005]	10/01/2017	II	4,69	7,03	35,90	33,95	76,89	93,52	61	61,00	16,64
	TITTER [TIT005]	10/01/2017	III	4,82	1,56	43,08	33,95	78,60	95,00	61	61,00	16,40
	TITTER [TIT005]	10/01/2017	IV	5,17	1,54	40,03	33,40	74,97	87,58	62	62,00	12,61
	TITTER [TIT005]	11/01/2017	I	2,74	3,86	73,99	55,97	133,82	85,81	37	37,00	-48,01
	Chedziez [CHC016]	11/01/2017	II	1,03	93,64	69,86	139,09	302,59	124,01	13	14,89	-178,57
	TITTER [TIT005]	11/01/2017	II	4,26	5,11	43,58	42,27	90,95	81,90	49	49,00	-9,05
Month	TITTER [TIT005]	11/01/2017	III	0,34	271,70	219,00	414,20	904,90	75,00	5	5,00	-829,90
	AS PALATIA [WAS02517]	11/01/2017	IV	3,00	12,62	53,68	40,61	106,90	105,73	51	51,00	-1,18
	Miro [160693]	11/01/2017	IV	0,82	25,54	226,82	147,93	400,29	85,14	14	14,00	-315,14
	AS PALATIA [WAS02517]	12/01/2017	I	5,84	1,96	34,50	28,37	64,83	113,97	73	73,00	49,14
	Miro [160693]	12/01/2017	I	9,48	1,12	21,39	16,18	38,68	72,24	116	128,00	33,56
	AS PALATIA [WAS02517]	12/01/2017	II	3,73	2,66	46,01	36,08	84,53	80,11	55	55,00	-1,45
Week	AS PALATIA [WAS02517]	12/01/2017	I	5,84	1,96	34,50	28,37	64,83	113,97	73	73,00	49,14
	Miro [160693]	12/01/2017	I	9,48	1,12	21,39	16,18	38,68	72,24	116	128,00	33,56

Dashboard



Vessel Revenues



Measure the Effort

What if we run a new business?



New RoRo traffic calling the terminal!

- Design trailer spots in the yard
- Open a dedicated gate
- Rent new RoRo trucks
- Hire more people
- Add yard clerk
- Add ramp clerk

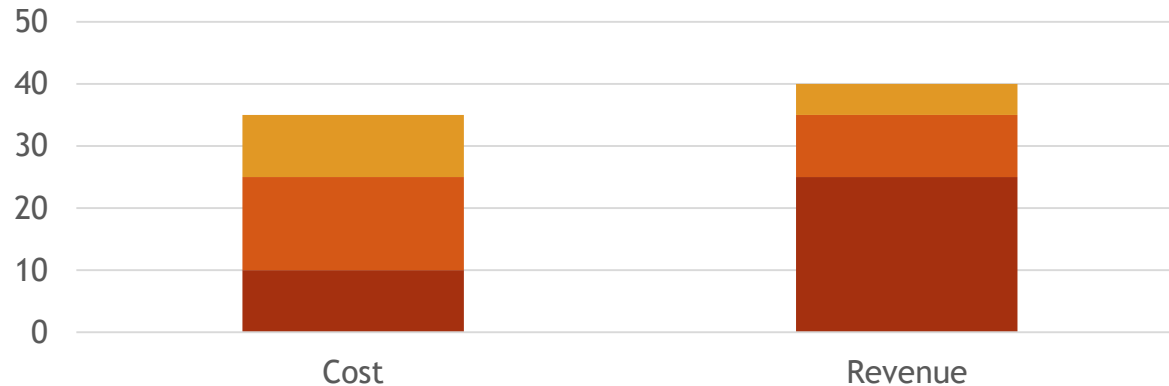
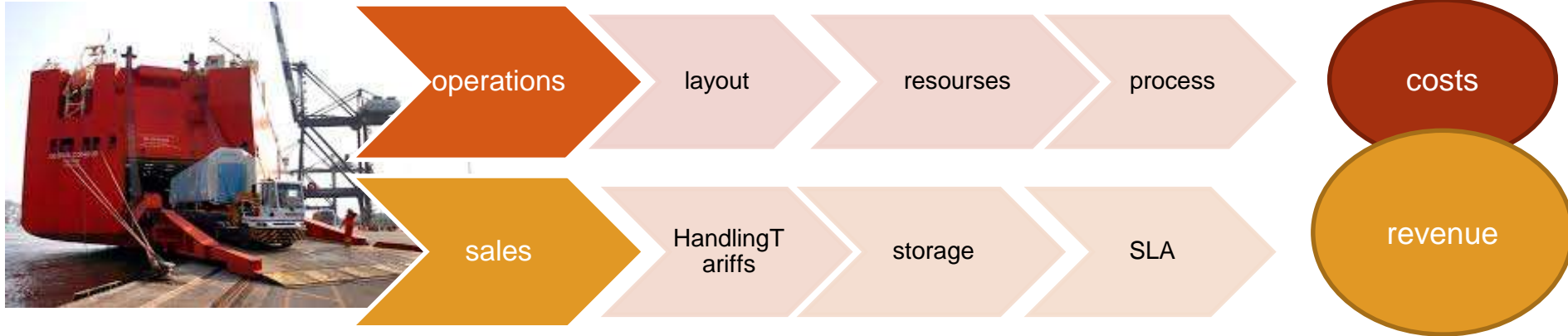
Housekeeping of RoRo LoLo traffic

- Tuning TOS, EDI, Reporting, Billing
- WiFi coverage in new area
- Training the people
- Manage the project

Ready for new business



Adding Ro-Ro Traffic



Conclusions



Takeaways

- Do we have data?
- How to use the data?
- Where shall we put our efforts?
- What if we run a new business?

Yes

To monitor key processes

Where we are paid to deliver

Use the data

