

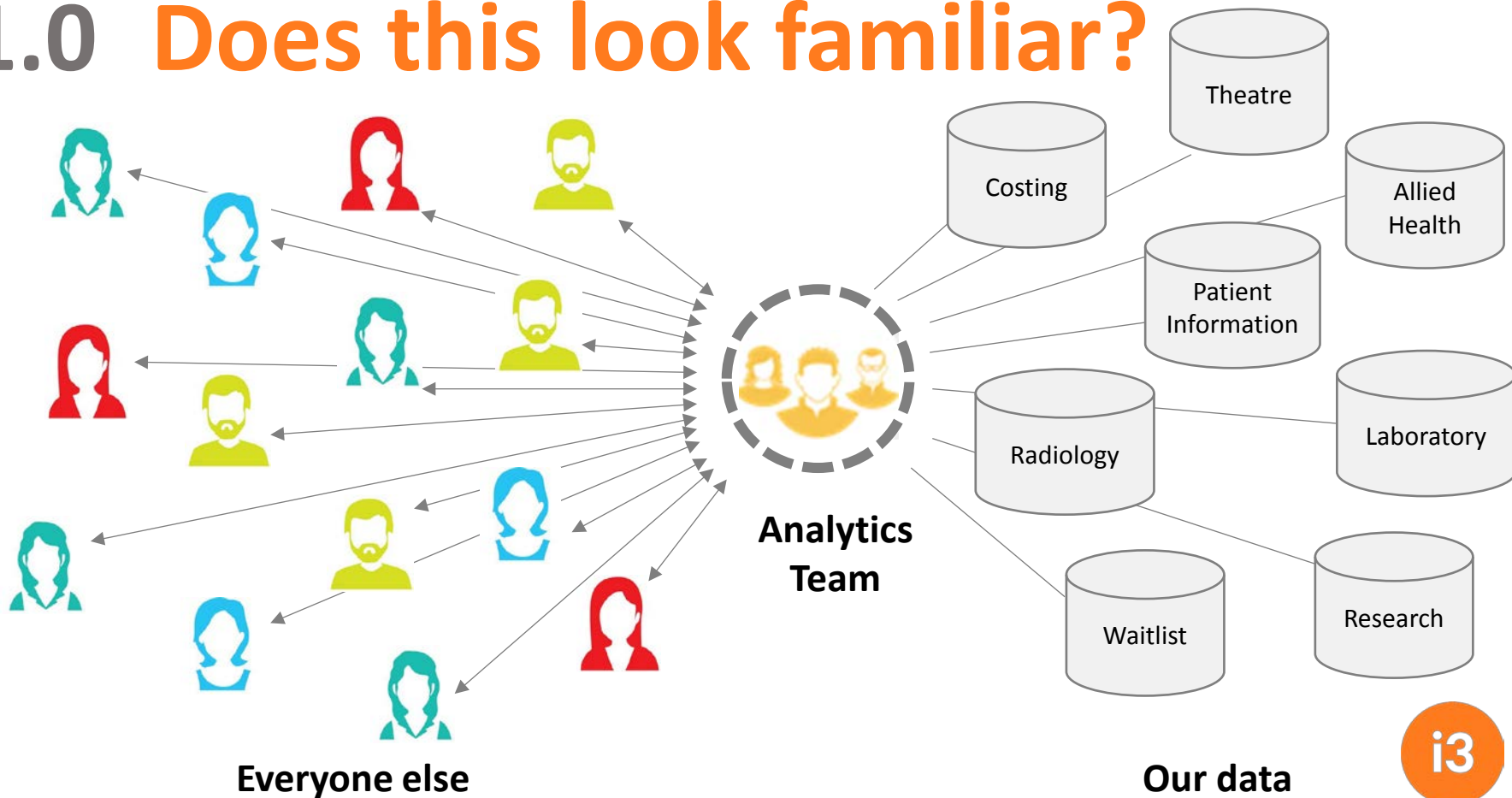
Using Qlik Sense for Care Redesign

Health Informatics New Zealand Conference

RENEE KONG - PROJECT MANAGER



1.0 Does this look familiar?



Mandate from the Chief Executive

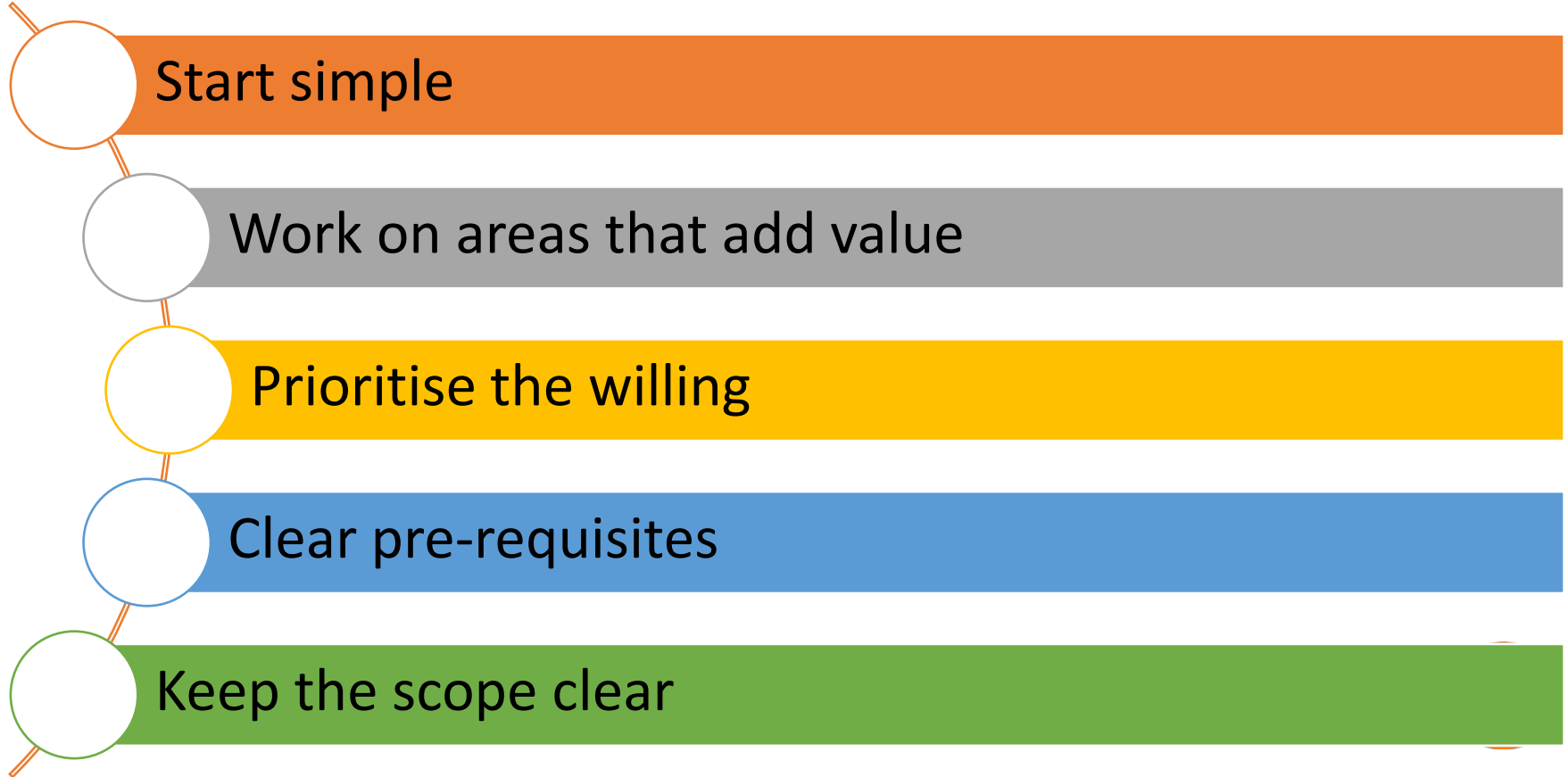
The tool must benefit
clinicians wanting to
improve patient outcomes
and experience

2.0 Aim

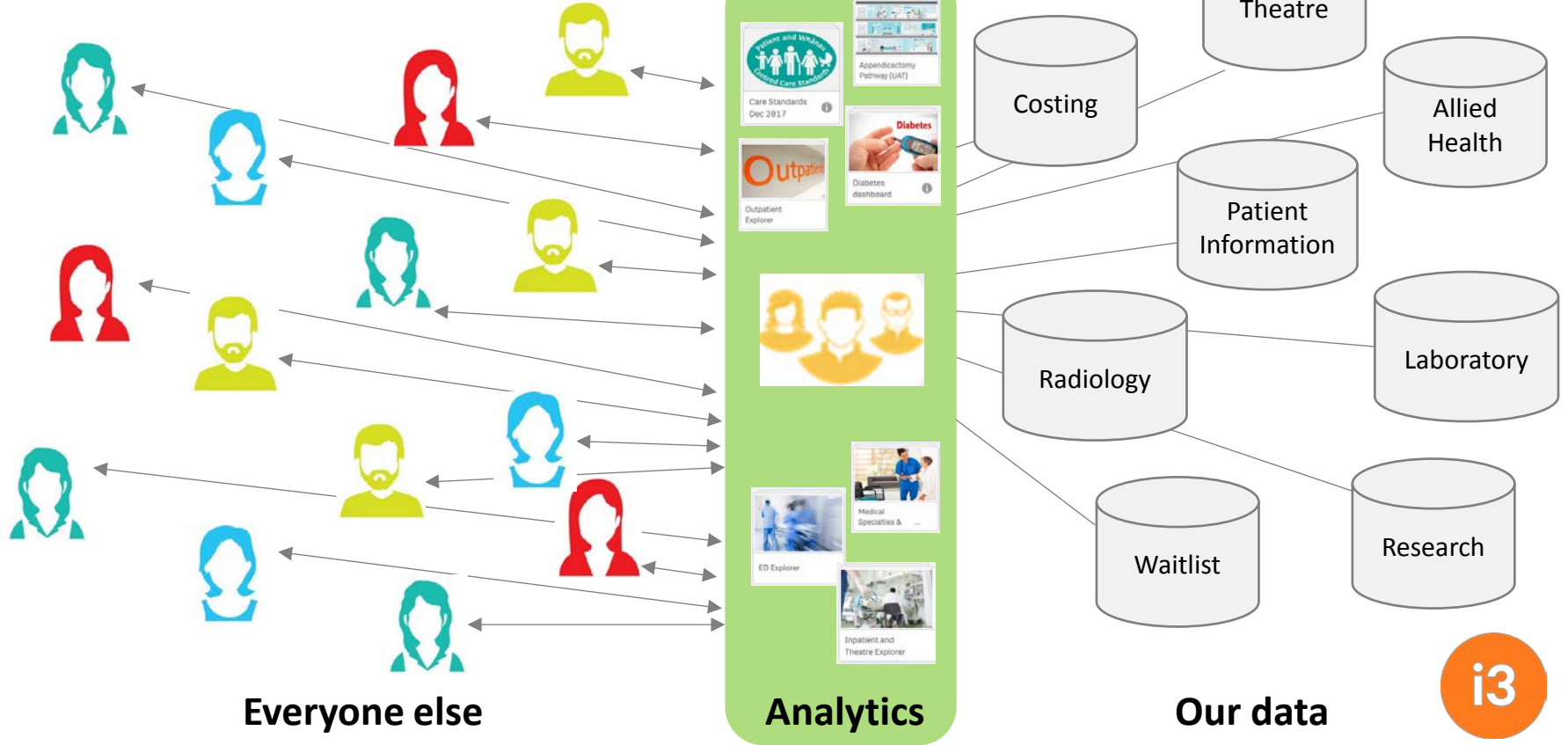
- Implement across all clinical services
- Clinical focus
- Enable service improvement
- Clinician developer community
- 1000 users in 2 years



Approach



The picture now



Prototype

Appendicectomy Pathway - Microsoft Excel

PivotTable Tools: Options, Design

S25 fx 1

Appendicitis Dashboard

Appendicitis Patients: **711**

Appendicectomy Procedures: **608**

Patient Stats	
Patients LOS (avg)	3.3
Pts Return to Theatre Post-Op	1
% Unplanned Return to theatre Post-Op	0.2%
Pts Readmit within 28 days	58
% Readmit within 28 days	8.2%

Diagnostic & Medication Stats		
Pts with Rad. Pre-op	409	66%
Pts with ABS Pre-Op	429	70%
Pts with Lab Tests Pre-Op	555	90%
Pts with FBC Pre-Op	546	88%
Pts with Gen Chem Pre-Op	542	88%
Pts with -ve histology	29	5%

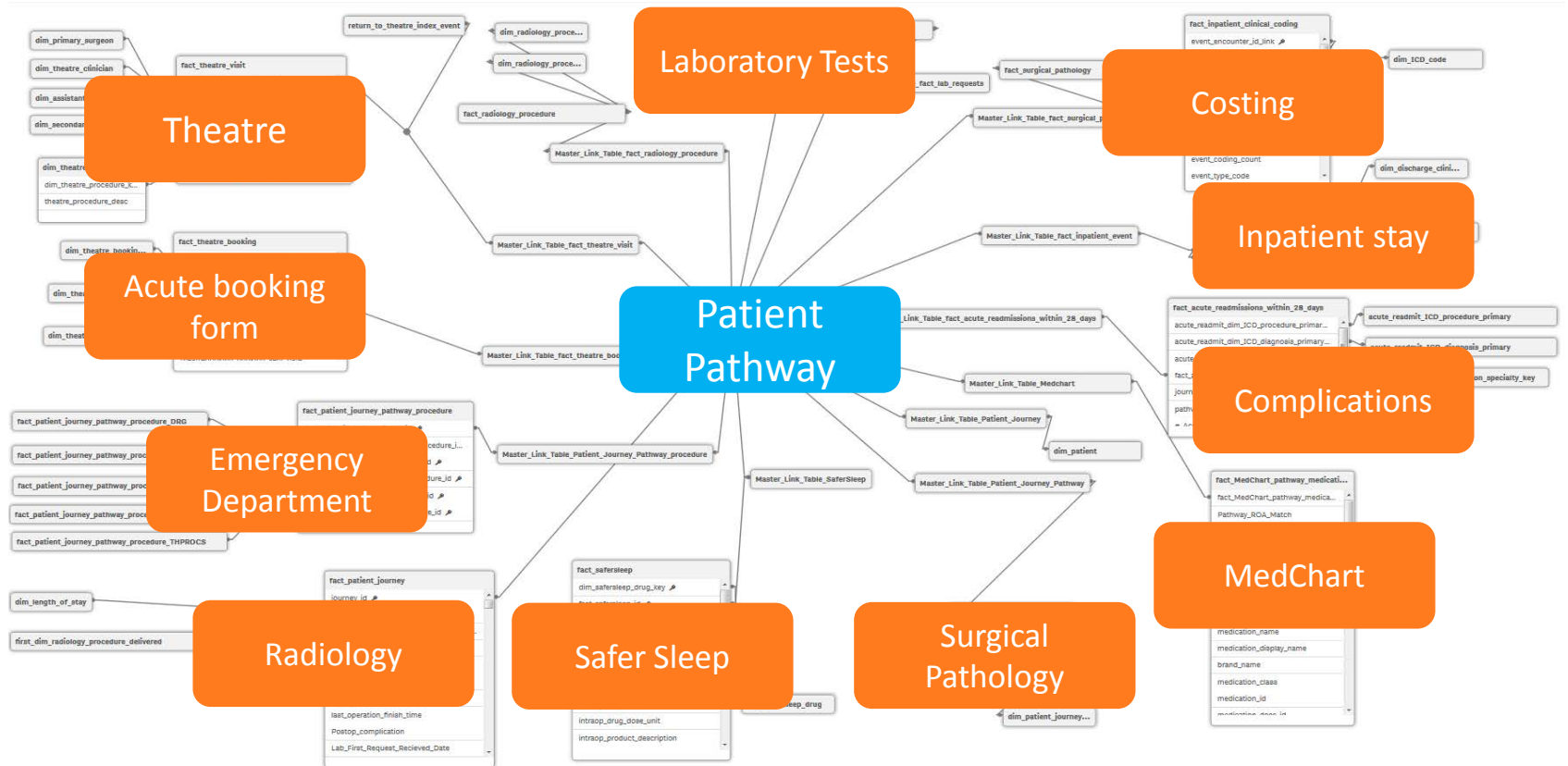
Time to Theatre Stats	
Pts TTT <24 Hrs (from Acute Bkg)	506
24 hrs (from Acute Bkg)	84.1%
Booking (avg)	13.0
Admission (avg)	24.3

Admission	Theatre Date	Conversion from lap to open	Discharge clinic	Age_Group
Jun-16	2015-09-06	No	ABAAB	0-4 Years
Jul-16	2015-09-07	Yes	ALAAM	10-14 Years
Aug-16	2015-09-09	No	AMINE	15-19 Years
Sep-16	2015-09-10	No	ATAMO	20-24 Years
Oct-16	2015-09-11	No	BOOTH	25-29 Years
Nov-16	2015-09-12	No	CLEAG	30-34 Years
Dec-16	2015-09-14	No	COOLKE	35-39 Years
Jan-17	2015-09-15	No	DALZA	40-44 Years
Feb-17	2015-09-16	No	DEJOG	45-49 Years
Mar-17	2015-09-17	No	DEVMA	50-54 Years
Apr-17	2015-09-20	No	FILRH	55-59 Years
May-17	2015-09-22	No	GALKA	5-9 Years
Jun-17	2015-09-23	No	GERRS	60-64 Years
	2015-09-25	No	GLETI	65-69 Years
	2015-09-26	No	HAMMH	70-74 Years
	2015-09-27	No	HARMR	75-79 Years
	2015-09-28	Other	HENDP	80-84 Years

Threatre Procedures	Acute Booking Form	Clinical Audit Diag	Clinical Audit Proc	Clinical Coding	Clinical Coding
608	575	507	548	585	597

Admission Month	MHI	Theatre Date	Clinician	Age_Group	# Pts	Appex. Theatre Proc	Acute Booking Form	Clinical Audit Diag	Clinical Audit Proc	Clinical Coding Diag	Clinical Coding Proc	TTT from Acute Bkg (hrs)	TTT from Admit (hrs)	Theatre Proc - Lap	Theatre Proc - Open	Convert Lap to Open	Radiology Pre-Op	Lab Tests Pre-Op	FBC Pre-Op	Intra Op ABz	Pre or to Readmit	al Surg Path	Avg Cost
Jun-16					57	48	45	45	46	50	50	15.8	28	43	5	2	31	41	41	37	1	3	\$7,245
		2016-06-20		45-49 Years	1	1	1	1	1	1	1	12.1	21	1									\$6,171
		(blank)		35-39 Years	1																		\$1,511
		2016-06-11		65-69 Years	1	1	1	1	1	1	1	11.2	15		1	1	1	1	1	1	1	1	\$17,005
		2016-06-13		65-69 Years	1	1	1	1	1	1	1	2.4	29	1			1	1	1	1	2	1	\$18,346
		(blank)		30-34 Years	1			1															\$6,156
		(blank)		65-69 Years	1			1															\$5,170
		2016-06-27		40-44 Years	1	1	1	1	1	1	1	8.1	11	1			1	1	1	1	1	1	\$4,465
		2016-06-27		30-34 Years	1	1	1	1	1	1	1	21.9	62	1			1	1	1	1	1	1	\$10,806
		2016-06-18		45-49 Years	1	1	1	1	1	1	1	31.5	38	1			1	1	1	1	1	1	\$9,668
		2016-06-27		40-44 Years	1	1	1	1	1	1	1	35.8	42	1			1	1	1	1	1	1	\$8,543

Challenge: Join disparate datasets



Pathway Explorer



4.0 Quality Improvement

- Increase adherence to protocol
- Identify focus areas to reduce length of stay for “healthy uncomplicated”, improving **patient experience** and **outcomes**



VTE Prophylaxis <= 6 hrs (admit) [⚡]	Labs <= 2 hrs (admit) [⚡]
45%	83%
Ptn with CT/US scan(s) [⚡]	Radiology <= 6 hrs (admit) [⚡]
69%	53%
Acute Bkg to Theatre <= 24 hrs [⚡]	% Lap > Open Conversion [⚡]
84%	3%
Antibiotics given	Pre-op CRP >= 100 to theatre 24hrs [⚡]
91%	78%
% Post-op complications [⚡]	Re-operation / return to theatre [⚡]
4%	1%
Discharged <= 6 hrs (theatre) [⚡]	Acute readmissions* [⚡]
1%	6%

4.0 Next steps

“This enables me to answer questions I didn’t even know to ask!”

ED SMO





“

Without data you're just another person with an opinion.

W. EDWARDS DEMING