Delivering Business Strategy through IT transformation … A CIO perspective of requirements management

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Version 2

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Are Agile development practices…
the silver bullet for requirements capture?

peru consulting

Clear atomic requirements with **user stories**

Show and tells enable regular **feedback**

Iterative approach delivers **incremental** benefits and regular requirements capture

Tools support integrated with development workflow management

BENEFITS

Closer user/business **engagement** throughout lifecycle

Flexibility as requirements are not 'closed off' after major exercise and quality gate

Improved **quality** as non-functionals are defined up front – especially with DevOps culture

So why isn't it that simple?

Business users are 'too busy' to fully engage

The 'right' business users are not available so the requirements are delegated… and then vetoed

Multiple legacy systems or businesses can drive conflicting requirements

Supply partners mandate waterfall for successful delivery

Legacy environments and strategic systems may not fully lend themselves to agile.

Your technology team may not understand or be sufficiently skilled to practice agile in all cases

A real world experience...

A business strategy to build one fully integrated business supported by a single set of business processes and a single systems stack
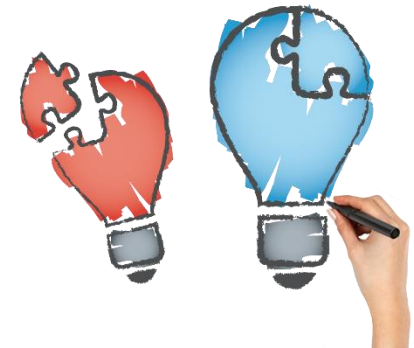
1 MD & 1 CIO
1 target business & system stack

But with …

4 CEO's & 4 CIO's for 4 trading businesses
7 Brands
20 underlying acquisitions
and systems stacks

A simply target architecture and a common business process

Sales: BT.COM Account Teams

CRM: Salesforce

CPQ: Oracle Big Machines

ERP : Microsoft Dynamics AX

Service : Remedy

A lot of underlying complexity

35 systems and 45 interfaces

Complex redside /greenside networks
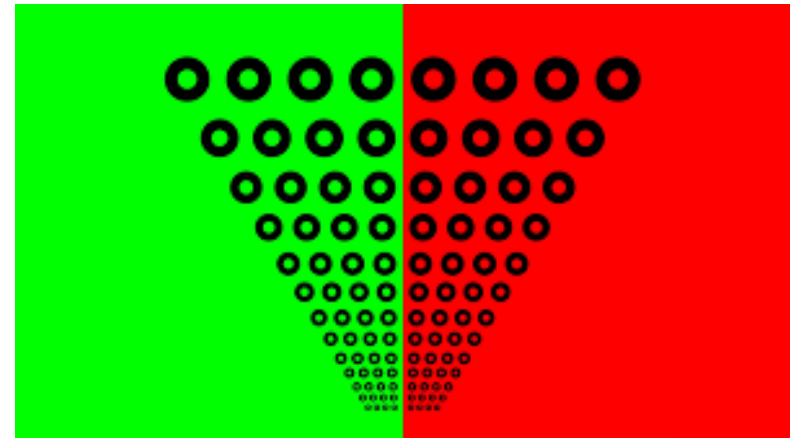
People, skills, RACI & culture change

Methodologies:
Agile in-house development, Waterfall prime developer, Gated & hierarchical financial sign off
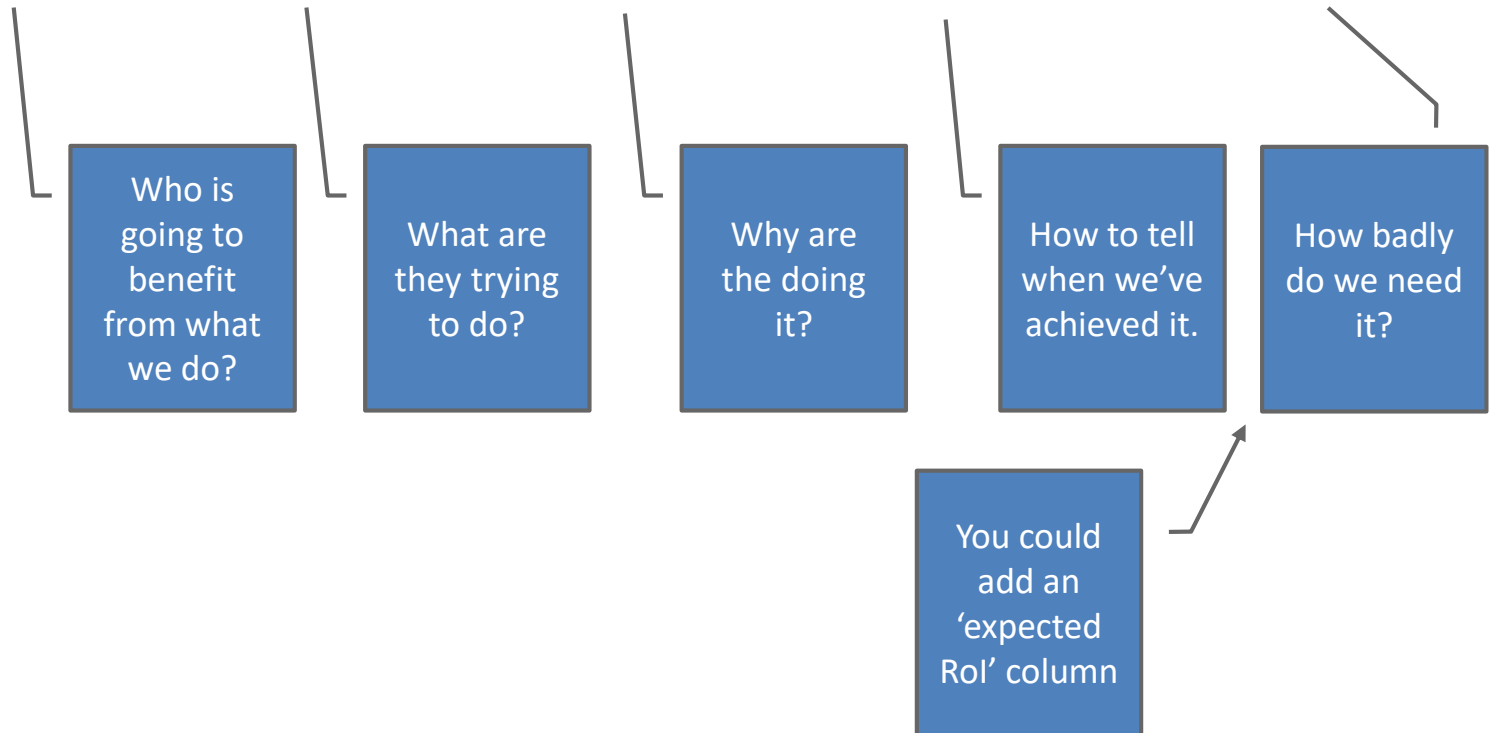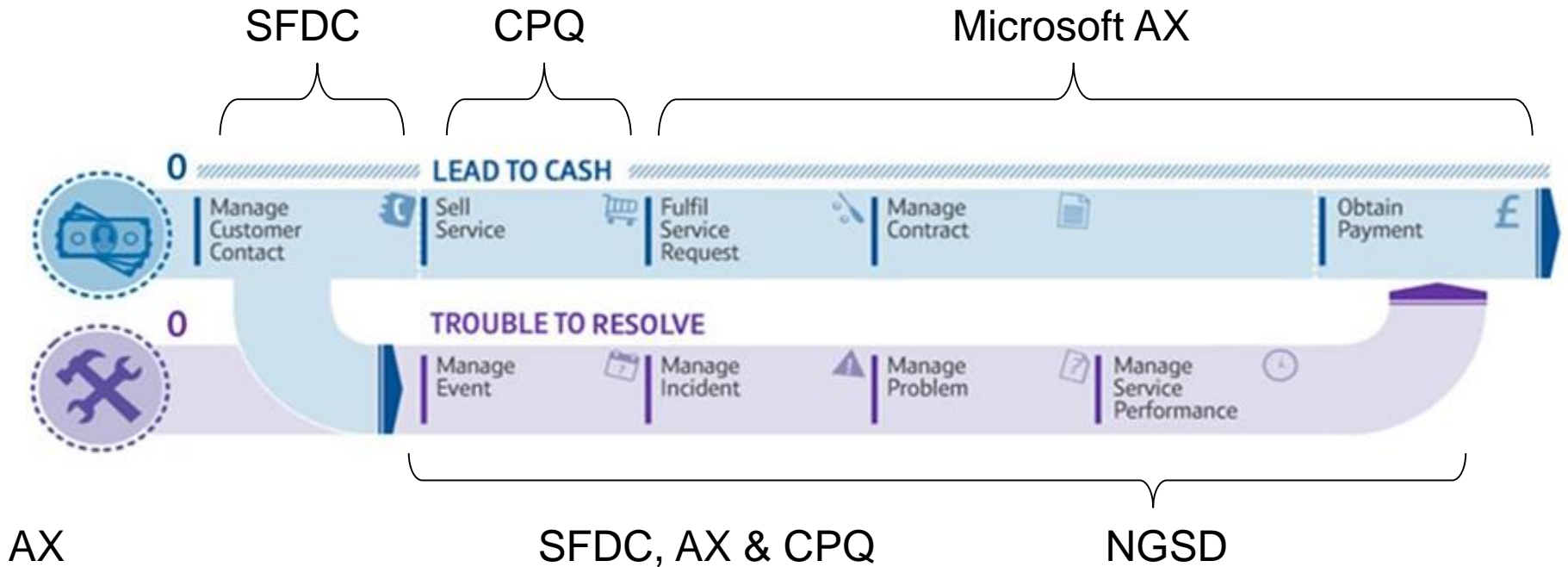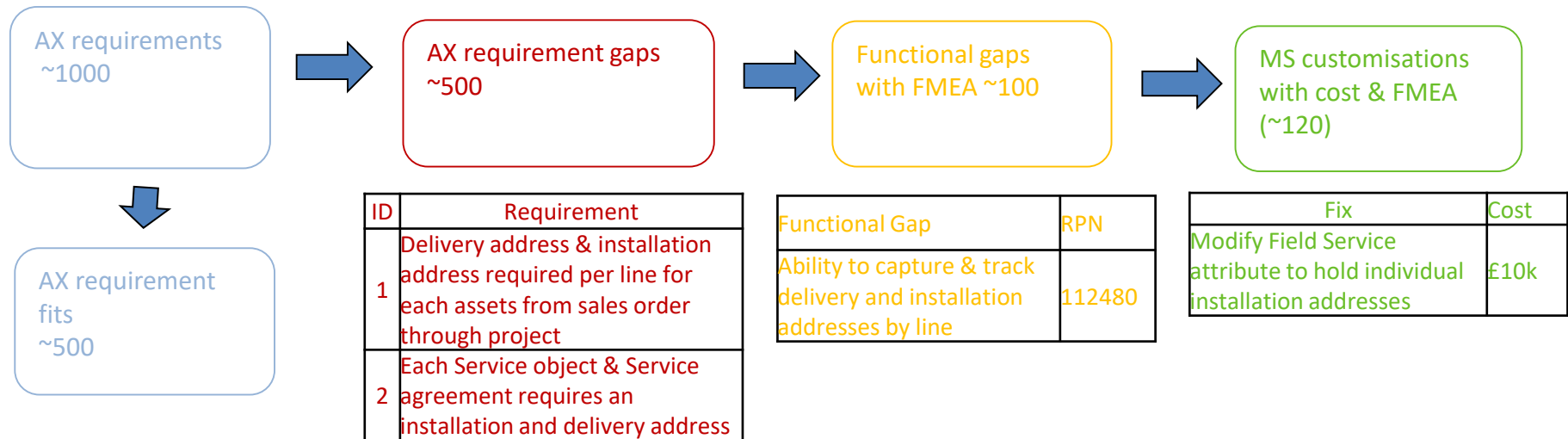
What we did...

With a focus on …

ERP : Microsoft Dynamics AX

User Stories to capture requirements with MoSCoW classificaton

EPIC	User story			Acceptance Criteria	MoSCoW
	As a …	I need to…	so that…		
Data: Accurate and Consistent Data.	CFO	Be able to rely on data that is timely, accurate and consistent across the organisation.	I can produce reports and forecasts that reflect reality	• Data is no more than 1 day old • Data has <5% errors • …	Must

Who is going to benefit from what we do?

What are they trying to do?

Why are the doing it?

How to tell when we've achieved it.

How badly do we need it?

You could add an 'expected RoI' column

E2E Process design activity – 40 top level processes which needed to be allocated to specific systems (as multiple systems could support some requirements)
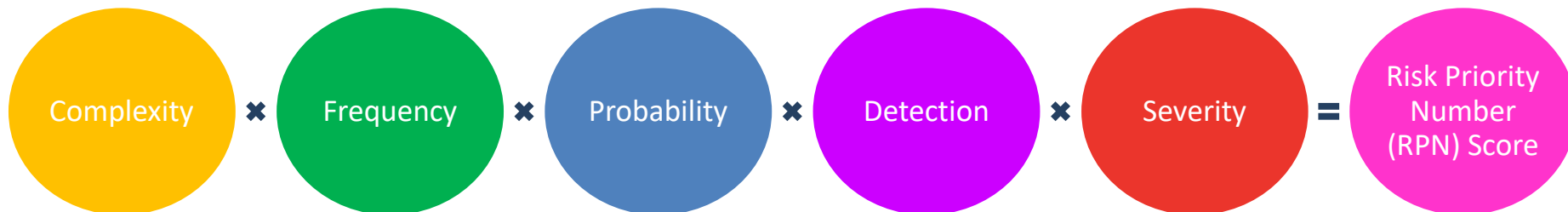
Overview of requirements supported by MS Dynamics AX
A 'gap disposition workshop' was held to prioritise gaps and plan for iterations

AX requirements ~1000 → AX requirement gaps ~500 → Functional gaps with FMEA ~100 → MS customisations with cost & FMEA (~120)

AX requirement fits ~500

ID	Requirement
1	Delivery address & installation address required per line for each assets from sales order through project
2	Each Service object & Service agreement requires an installation and delivery address

Functional Gap	RPN
Ability to capture & track delivery and installation addresses by line	112480

Fix	Cost
Modify Field Service attribute to hold individual installation addresses	£10k

- A strong mandate from the leadership team to use 'out of the box' functionality where possible… a reluctance from the expert users to use standard / lose existing functionality
- Requirements assessed as 'Fits' to AX standard functionality or 'Gaps' requiring customisation
- Every interface and much of the data validation required customisation. i.e. a 'gap'

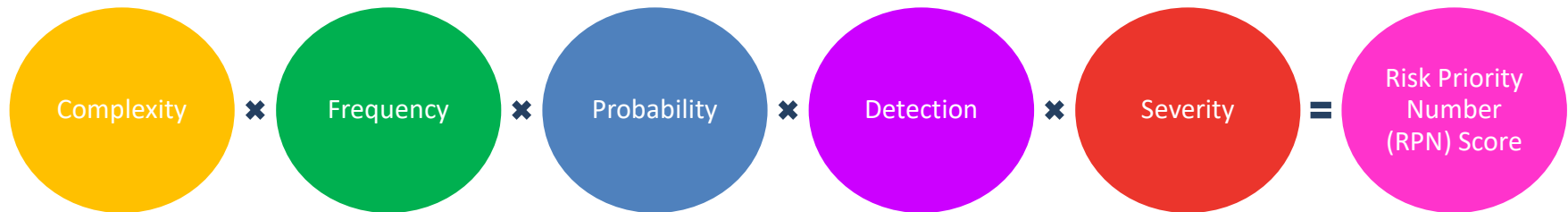# What are the options to prioritise requirements?

'Fits' and 'Gaps' given an RPN score to enable prioritisation
FMEA provide a more objective prioritisation of requirements

Workstream	Fit	Gap	Undetermined	Blank	Grand Total
Contract Management	12	27	0	0	39
Finance	126	35	18	0	179
Logistics	86	51	0	0	137
Product Catalogue	53	105	1	0	159
Professional Services (L2C)	33	31	1	0	65
Professional Services (T2R)	11	82	0	0	93
Purchasing	61	35	0	0	96
Sales (including CPQ)	38	91	0	1	130
Grand Total	420	457	20	1	898

Complexity ✖ Frequency ✖ Probability ✖ Detection ✖ Severity = Risk Priority Number (RPN) Score

Gap customisation decided in a workshop based upon FMEA RPN & costed options analysis

GAP	Score	Supporting Req	FIX Options	MS Cost K	Fit	Impact customisation	Oracle View	Decision	Priority
Ability to capture delivery and installation addresses by line item	112480	2	Option 1	£500	Full	Unsupportable	No impact	Discard	
			Option 2	£5	Partial	Supportable		Keep	Must
			Option 3	£10	Partial	Supportable		Defer	Should

Complexity ✖ Frequency ✖ Probability ✖ Detection ✖ Severity = Risk Priority Number (RPN) Score

Note: The initial workshop failed because options where not costed

Complexity and FMEA matrix used to reduce effort of review and costing

Row Labels	(blank)	Very Simple	Simple	Medium	Complex	Very Complex	Grand Total
Contract Management	16		9	4			29
Finance	16		8	10	4		38
Logistics	1		9	28	15	7	60
Product Catalogue	3	43	31	27	9	1	114
Professional Services (L2C)	7	3	4	17	9		40
Professional Services (T2R)	3		2	8	11	61	85
Purchasing	1	2	16	17	5	2	43
Sales (including CPQ)	22	1	32	51	2		108
Services	2						2
Grand Total	71	49	111	162	55	71	519

	FMEA: Low	FMEA: Medium	FMEA: High
Complexity: Low	Review	Review	Accept gap, cost-benefit is strong, no point reviewing.
Complexity: Medium	Review	Review	Review
Complexity: High	Reject gap, cost-benefit is too weak, no point reviewing.	Review	Review

# Lessons Learned
and final thoughts ...

Many, many lessons across the whole programme distilled into a few key points relating to requirements

1. The requirements management process itself was rigorous and structured

2. Continued business engagement was challenging in a climate of continued rationalisation with legacy business/systems knowledge not always available

3. The clash of methodologies between our in-house development team (agile) and the implementation partner (waterfall) was a challenge

4. There was too much simultaneous change across business, people, processes and technology

5. We were sometimes torn between wanting to listen and engage with end users from multiple businesses in multiple locations and the need to roll out one new business process underpinned by one new system
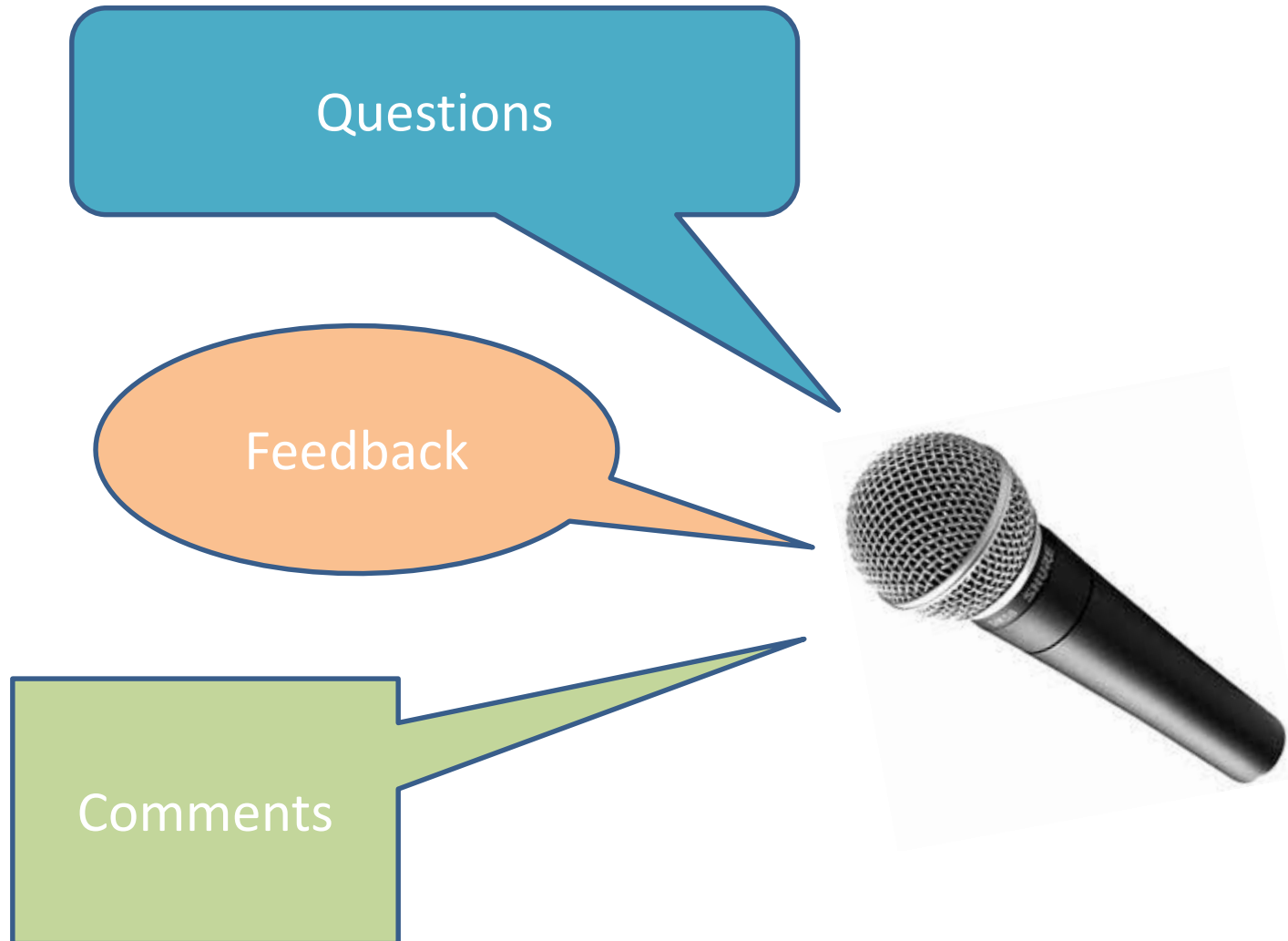
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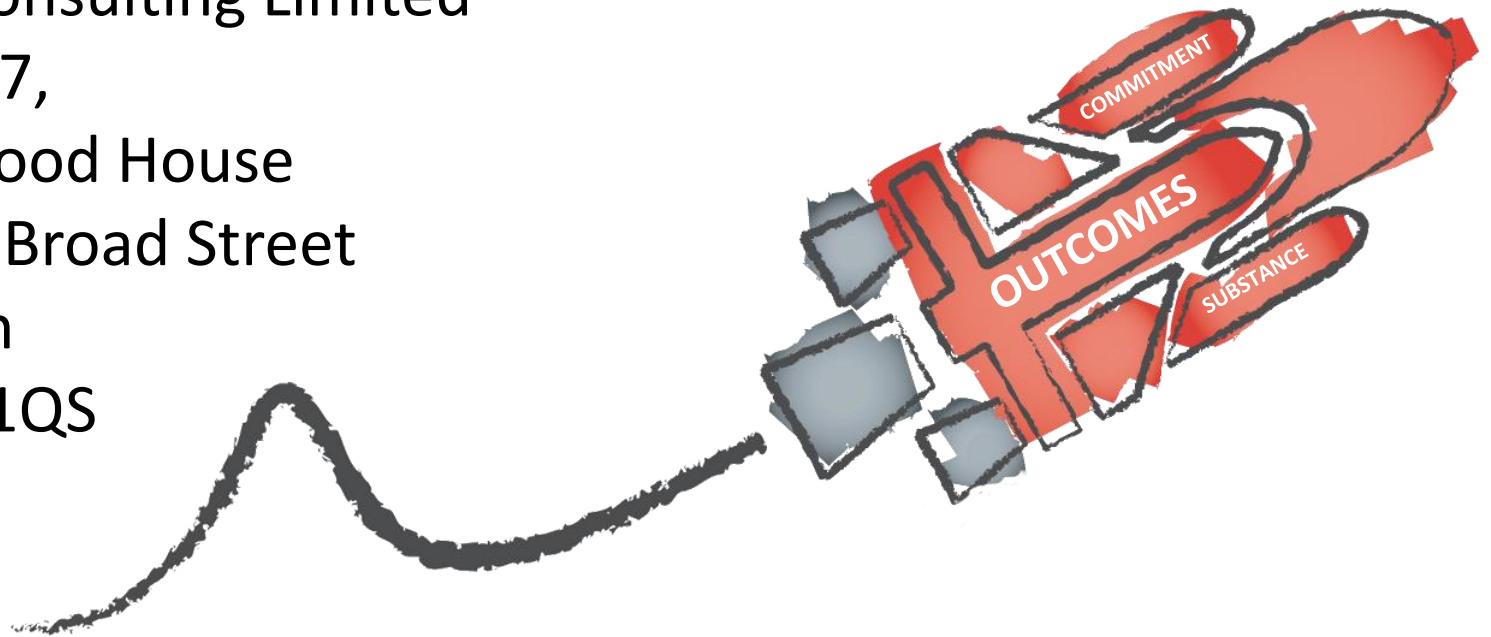
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