The Organisation As A System

The Performance Organiser

An information management framework

Third Transition – Fact Generation

Third Transition – Fact Generation

- Clear Line of Sight
- Centralised control v delegated responsibility
- The ability to “burrow”
- Any point entry
- Evidence based decision support
- Portal Everywhere
- Structured and unstructured data
- Management and control of data location

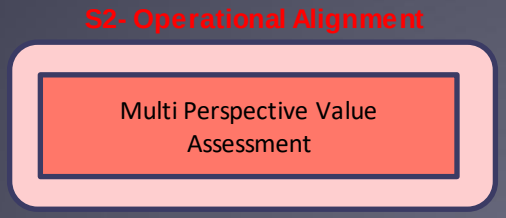
The Third Transition –Fact Generation

The training pack:

- Index – Operating Concepts
- 1. Data Capture and validation
- 2. Operational Alignment
- 4. Structured and unstructured data alignment
- 5. Pattern recognition et al
- 6. The organisation boundary

The Third Transition –Fact Generation

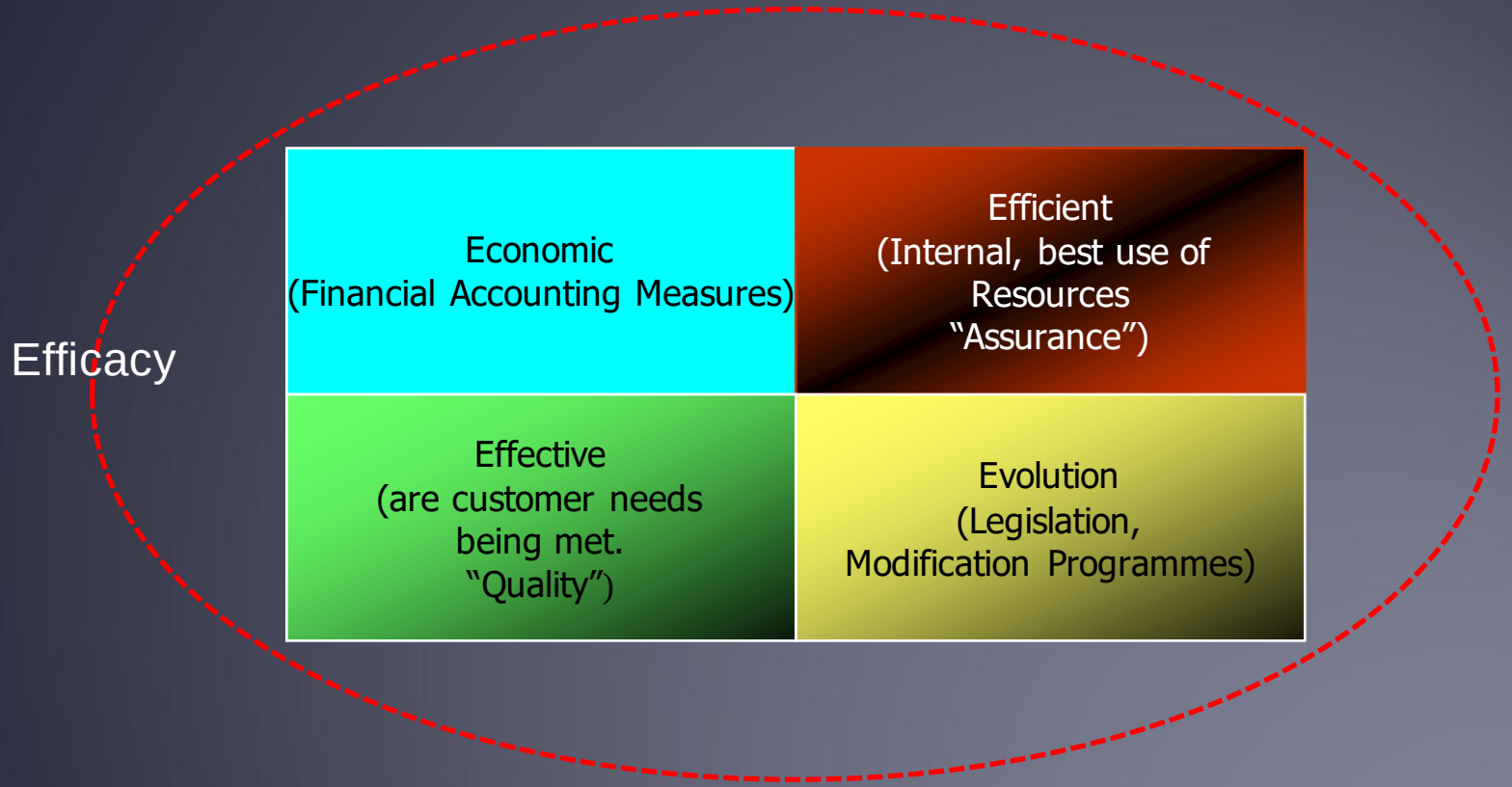
The previous deck:



Operational alignment. The third transition is an architectural information maturity exercise from it. There is therefore a dependency.

Third Transition – Fact Generation

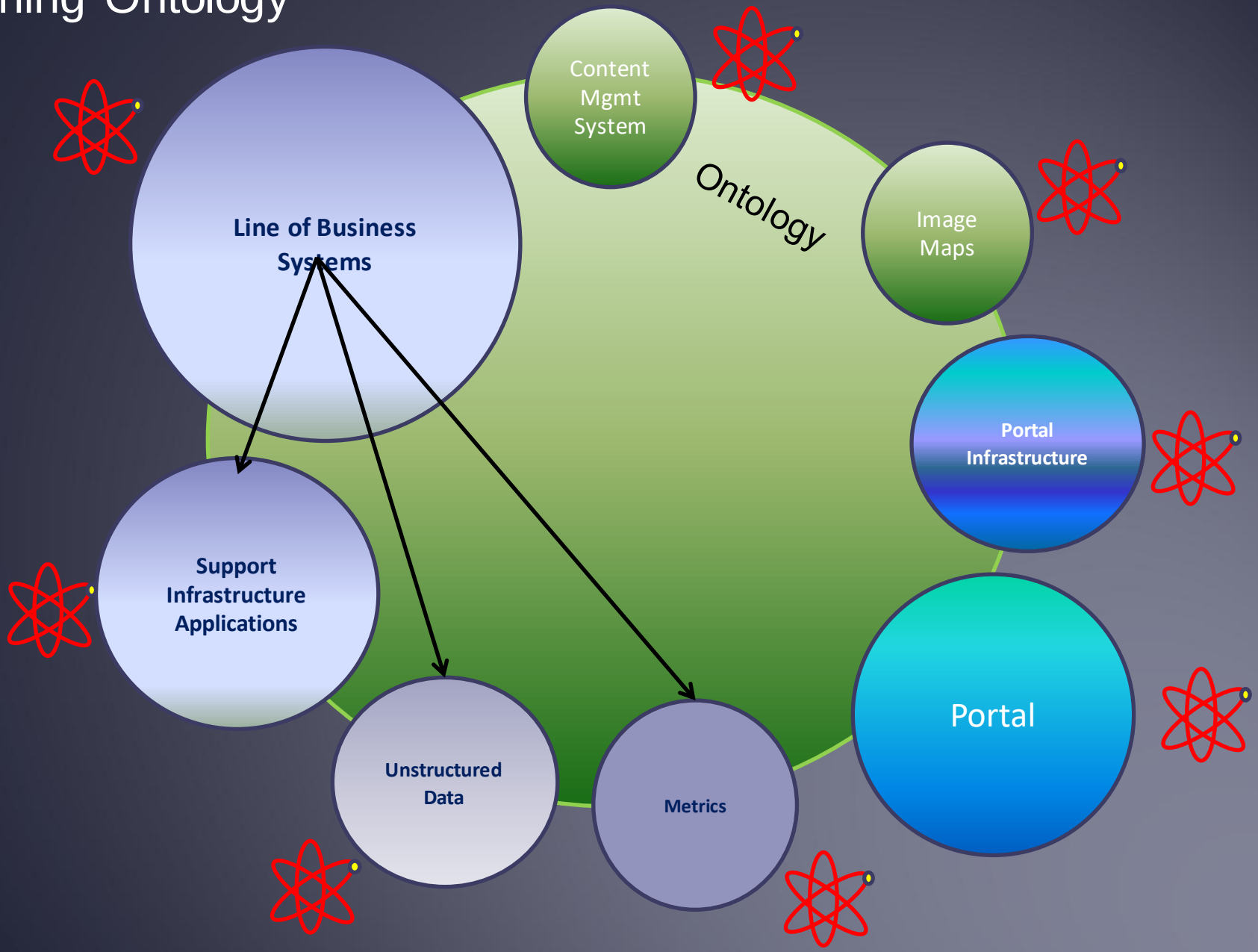
New Perspectives



All influenced or constrained by time.

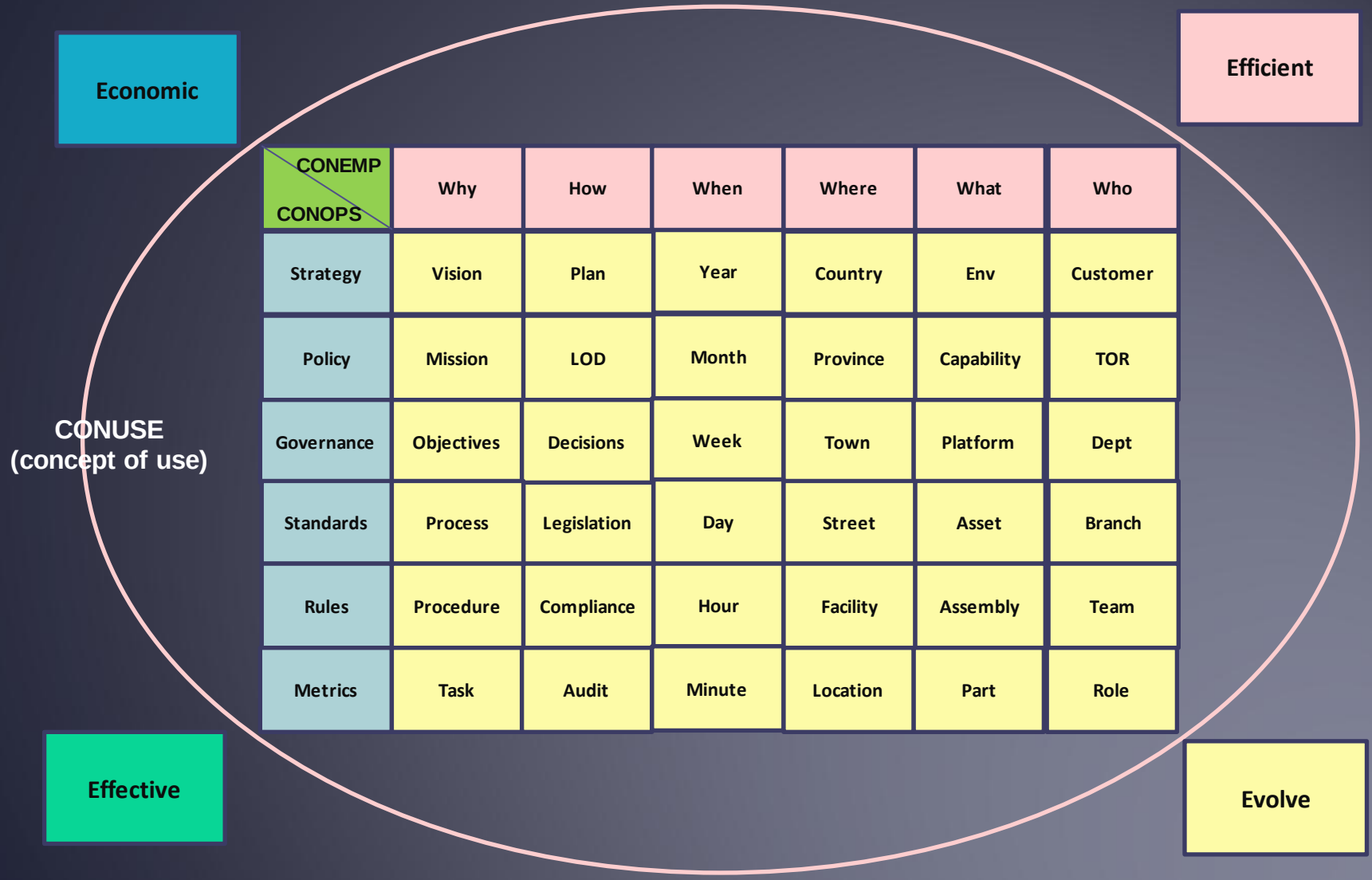
Third Transition – Fact Generation

Refining Ontology



Third Transition – Fact Generation

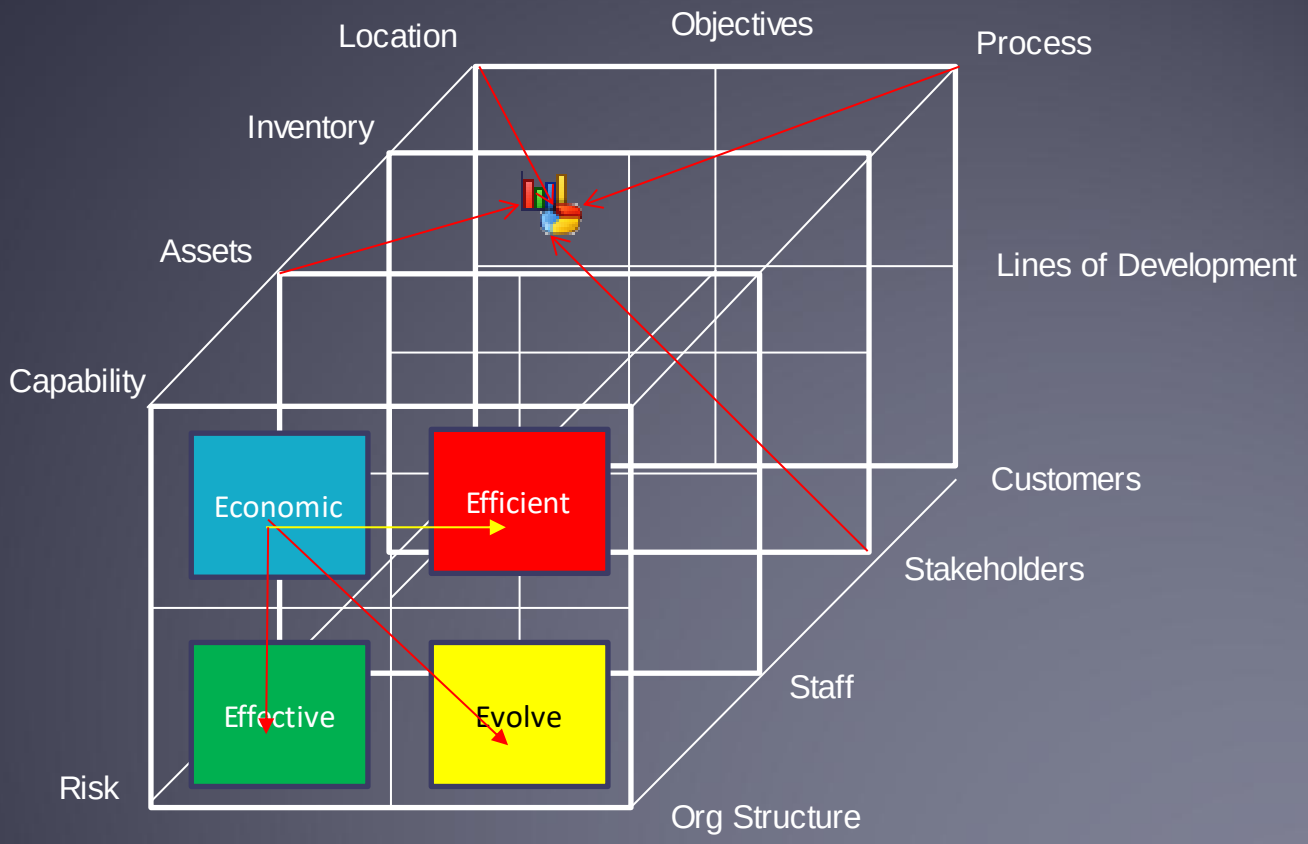
As a basis for gateways into the dataverse



CONEMP / CONOPS	Why	How	When	Where	What	Who
Strategy	Vision	Plan	Year	Country	Env	Customer
Policy	Mission	LOD	Month	Province	Capability	TOR
Governance	Objectives	Decisions	Week	Town	Platform	Dept
Standards	Process	Legislation	Day	Street	Asset	Branch
Rules	Procedure	Compliance	Hour	Facility	Assembly	Team
Metrics	Task	Audit	Minute	Location	Part	Role

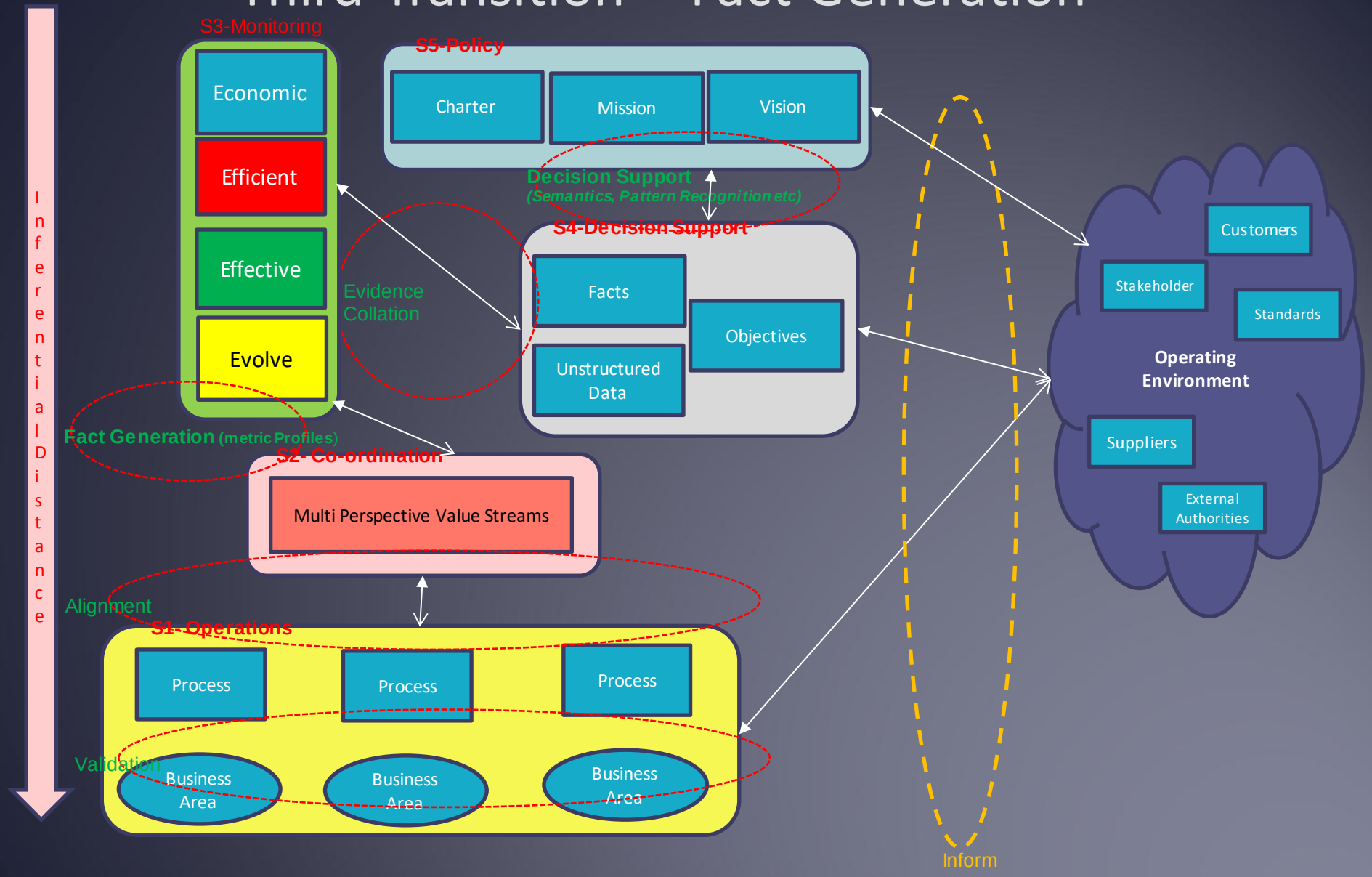
Third Transition – Fact Generation

Which gives the means to target information n a cartesian basis



Dimensions are relative to each other in time and space

Third Transition – Fact Generation

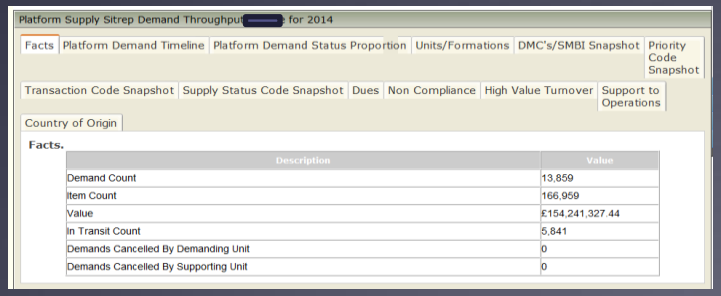


Third Transition – Fact Generation

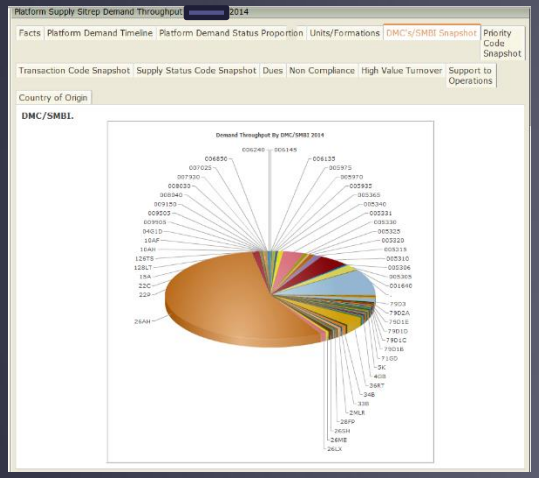
More Nuanced Reporting

Third Transition – Fact Generation

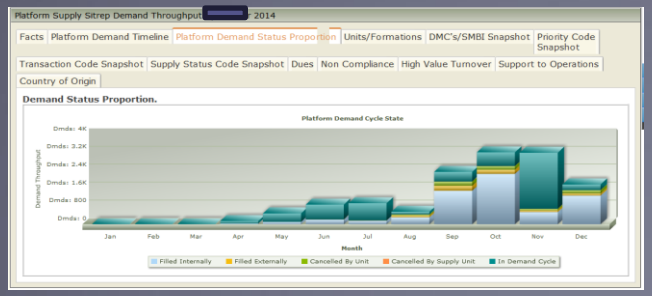
What the user sees (ideally)..



Gateways



Top level summaries

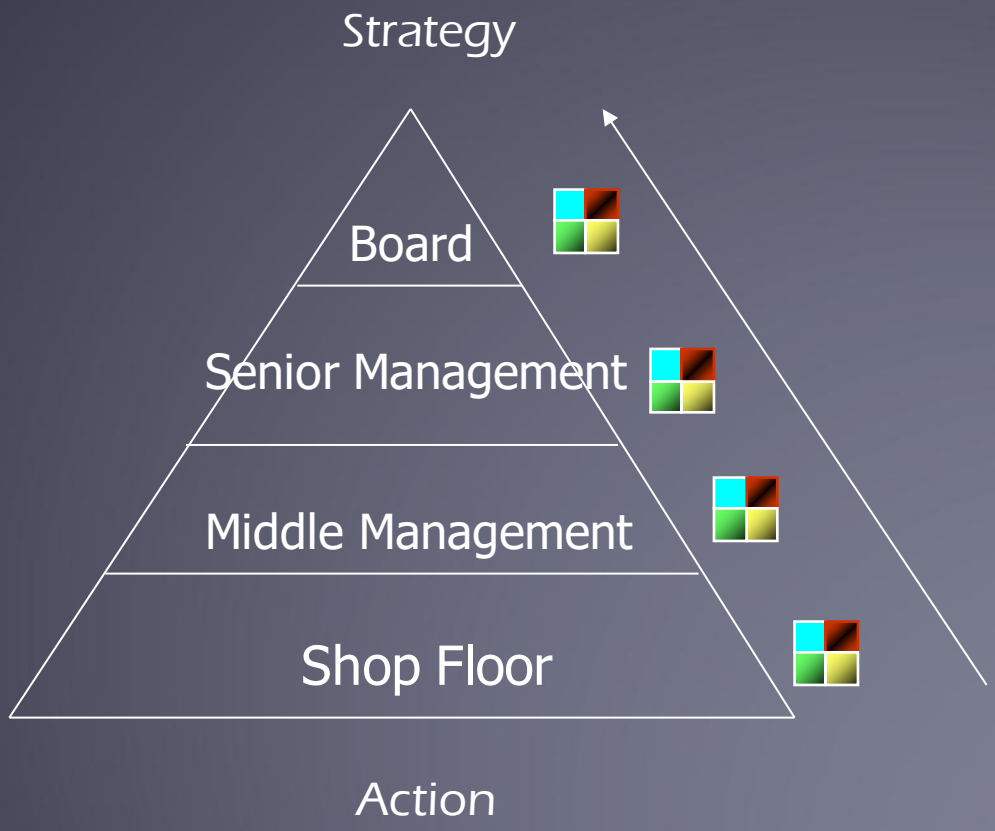


Timelined detail

With each chart section or data point providing a gateway into operational alignment and/or raw data

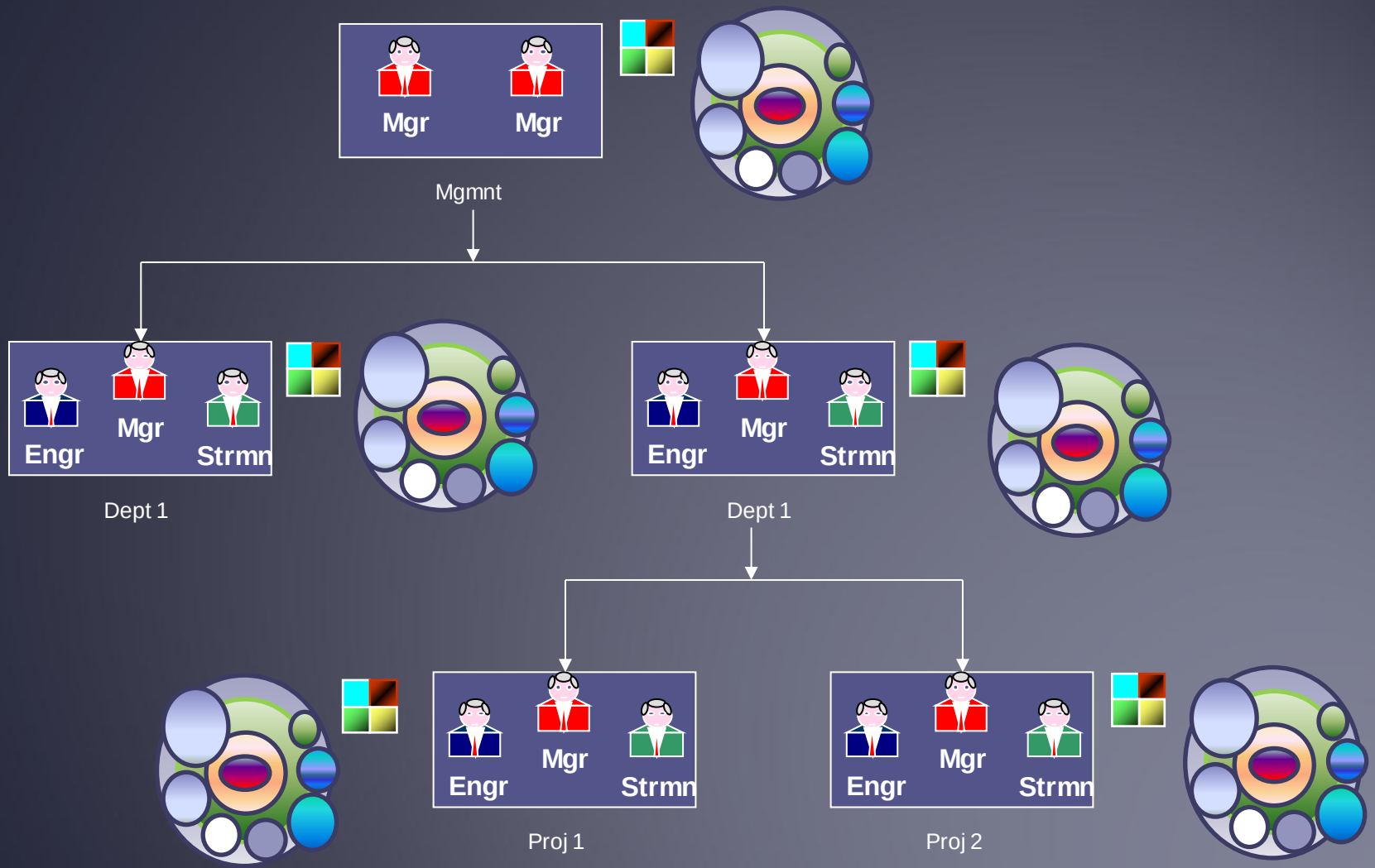
Third Transition – Fact Generation

Contextually sound reporting



Third Transition – Fact Generation

That reflects organisation form, function and purpose

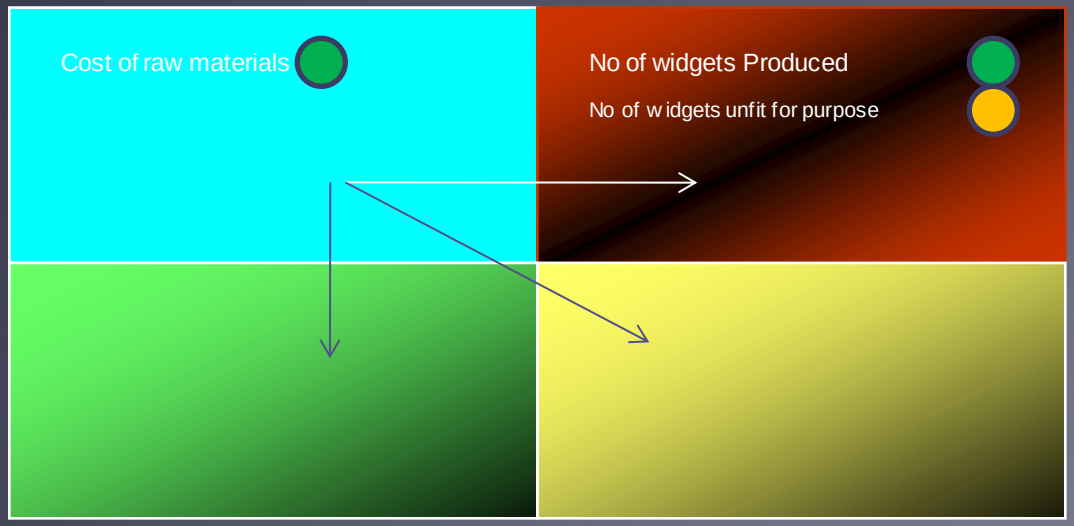


Third Transition – Fact Generation

Qualitative and Quantitative pairs

Specify KPI's so that they support a single perspective

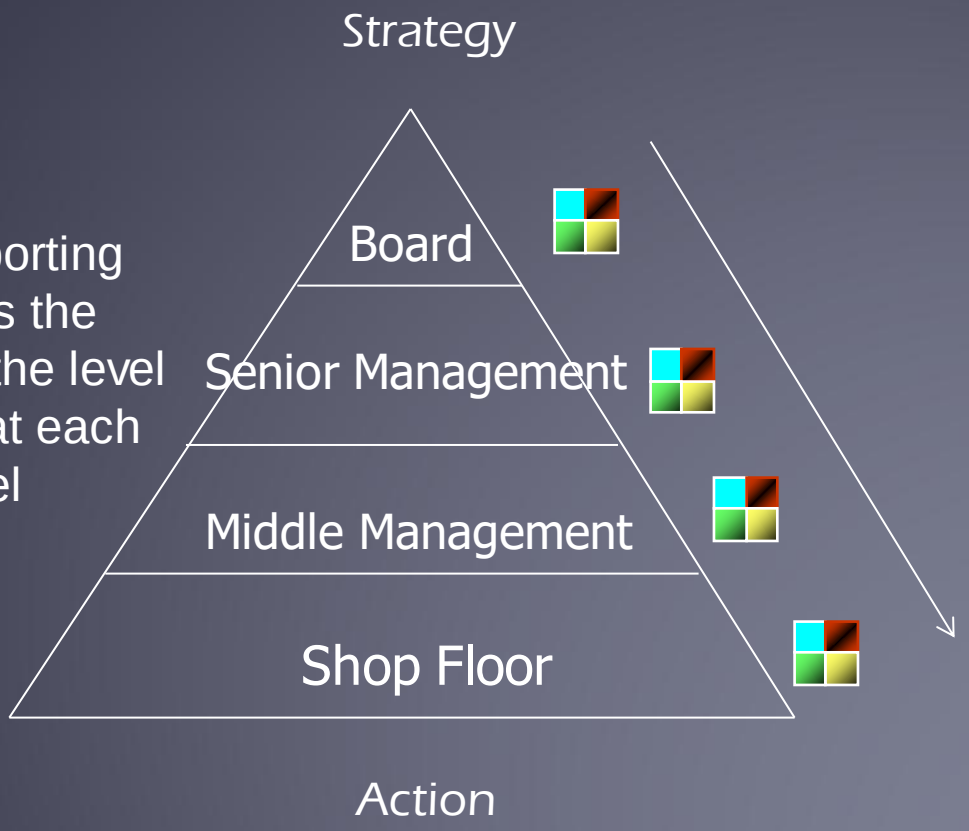
Third Transition – Fact Generation



Identify Cross Perspective Links (supportive or dependent)

Third Transition – Fact Generation

Identify top down composition of reporting needs which gives the means to identify the level of detail required at each organisational level



Third Transition – Fact Generation

Maths – An Overview

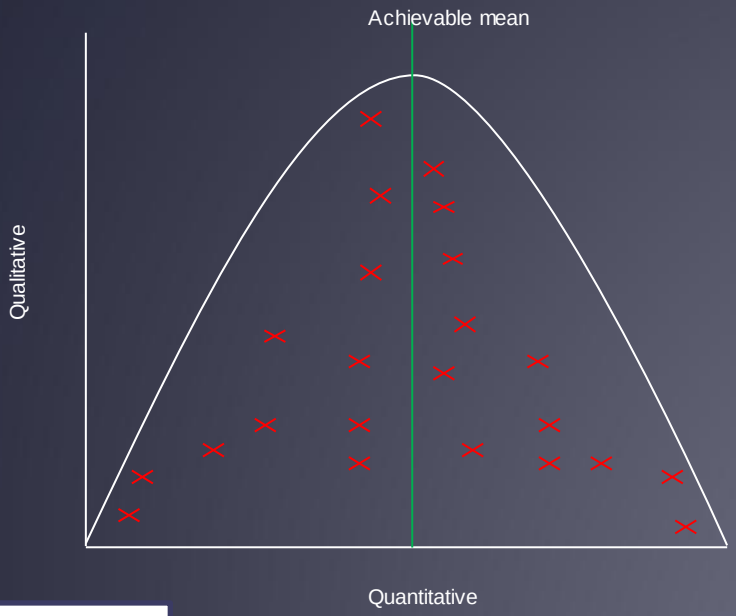
Third Transition – Fact Generation

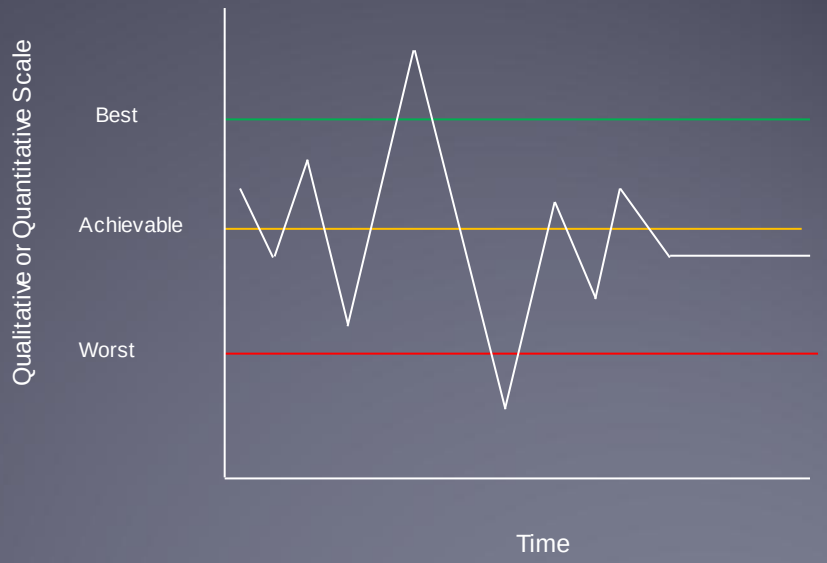
For each dashboard, provide comprehensive navigation support

"Top Down", "Bottom Up" and "Laterally"

Third Transition – Fact Generation

Single KPI Dashboard





J	F	M	A	M	J	J	A	S	O	N	D
12	36	12	48	23	12	11	36	12	88	23	12
		16	32	27	27	15	19	19	45	41	41

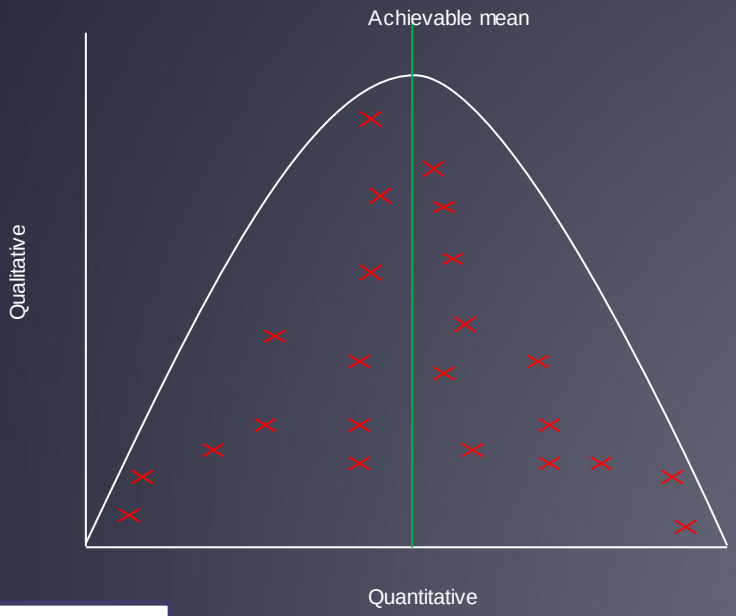
For each indicator provide additional documentary evidence

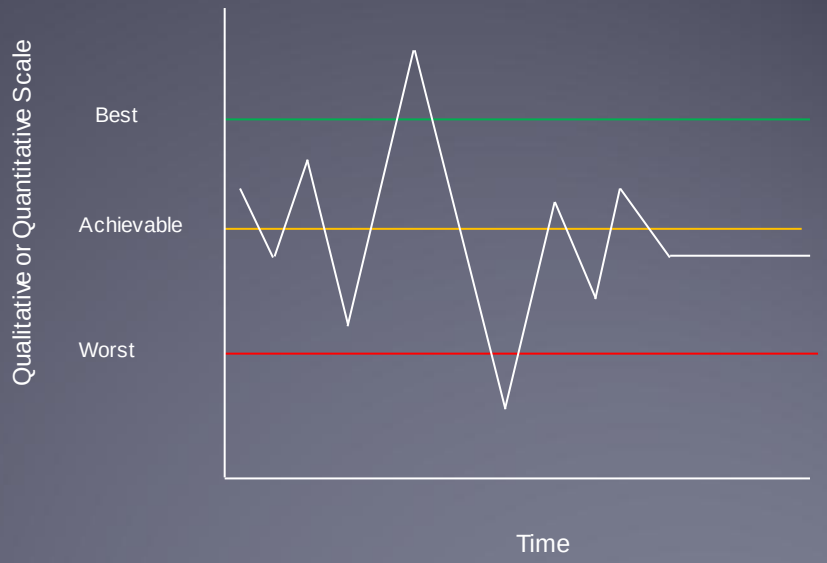
Current achievable mean = 22
Achievable mean = 28
Flag state = RED

The Performance Organiser

Third Transition – Fact Generation

To optimise the process, the achievable mean can be moved toward the upper tolerance limit and the lower tolerance can be raised too





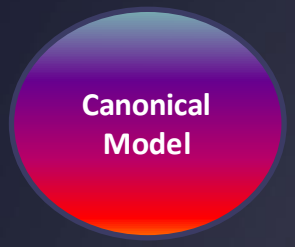
J	F	M	A	M	J	J	A	S	O	N	D
12	36	12	48	23	12	11	36	12	88	23	12
		16	32	27	27	15	19	19	45	41	41

For each indicator provide additional documentary evidence

Third Transition – Fact Generation

Change In Data Form – “Relational” to “Fact” to “Related Facts”

Third Transition – Fact Generation



A data dictionary should contain the descriptive attributes of “thing”.

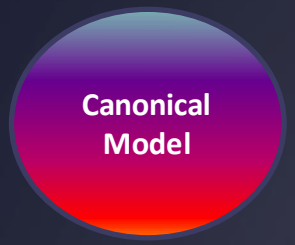
But “thing” has context. “Things” do not usually exist in isolation in the world and the same principle applies in respect of “data”

“Thing” will form relationships, permanent and temporary with other “things”

“Things” will have a life cycle and will change state over it. Things will have measurable attributes related to fitness for purpose, population and size

Measureable attributes will have methods of calculation applied which will lend themselves to deterministic statistical analysis

Third Transition – Fact Generation



Change in data form – fact tables

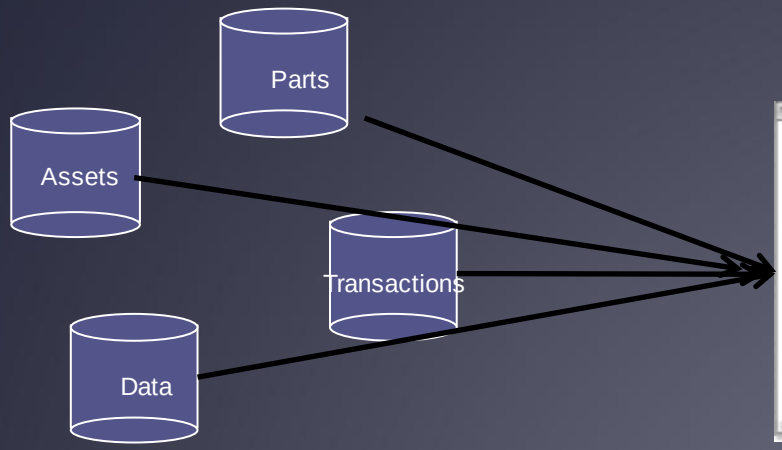
If one of the primary responsibilities of information technologists is to ensure that any dataset is as complete as possible and properly validated…..

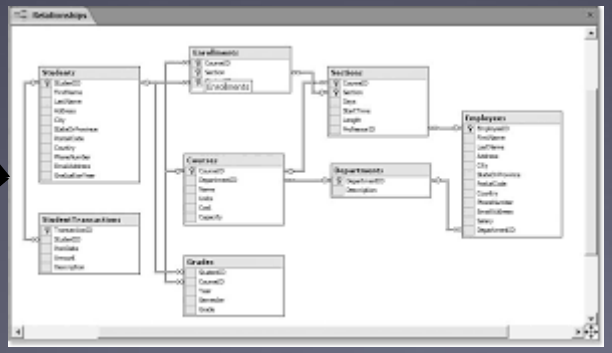
Then one of the primary responsibilities is for the business to specify, as part of a requirement set, the nature of methods of calculation to that are applied to which data attributes and how frequently measurements will be taken and where from in process life cycles.

It also means that “the business” has a structured approach to statistical analysis in mind that can direct the transition from determinism to the kind of predictive capability that will be required as data volumes inevitably grow

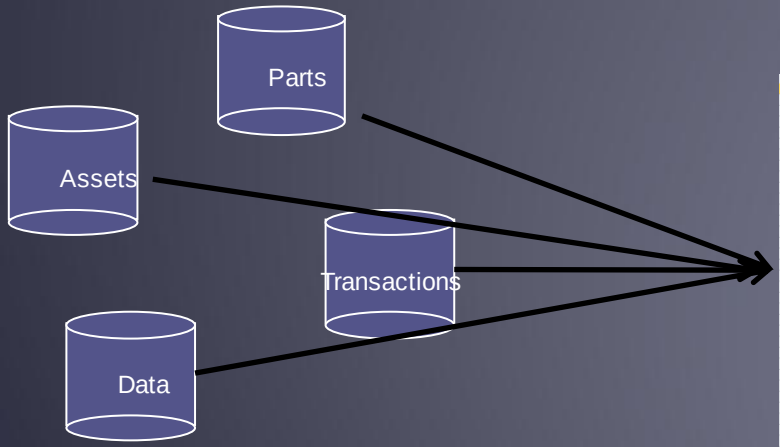
Third Transition – Fact Generation

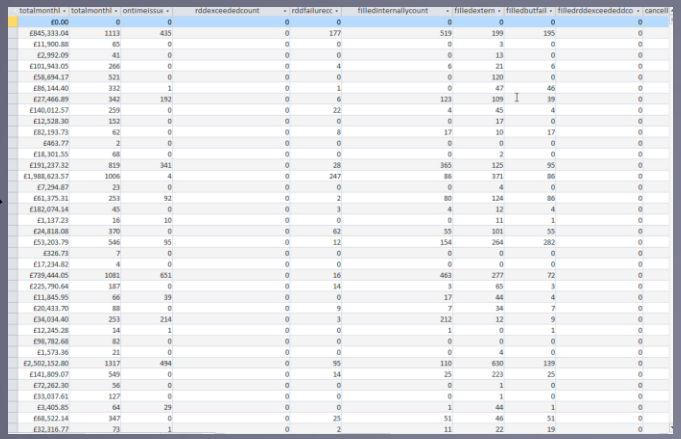
Fact tables





Extract





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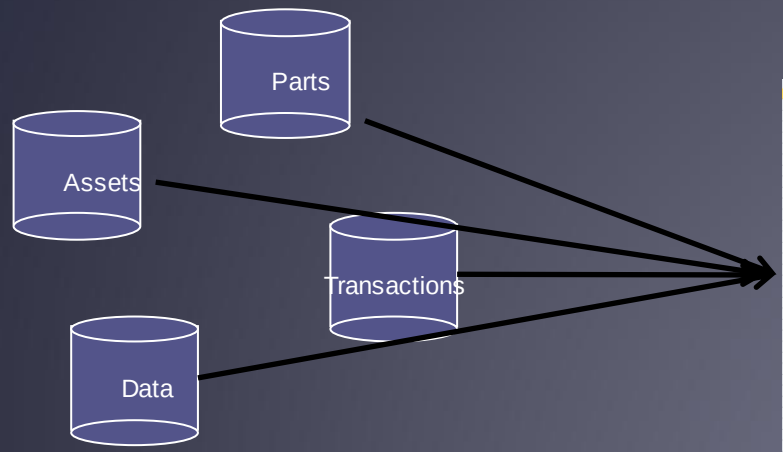
£845,333.04	1113	435	0	177	519	199	195	0	
£11,900.88	65	0	0	0	0	3	0	0	
£2,992.09	41	0	0	0	0	13	0	0	
£101,943.05	266	0	0	4	6	21	6	0	
£58,694.17	521	0	0	0	0	120	0	0	
£86,144.40	332	1	0	1	0	47	46	0	
£27,466.89	342	192	0	6	123	109	39	0	
£140,012.57	259	0	0	22	4	45	4	0	
£12,528.30	152	0	0	0	0	17	0	0	
£82,193.73	62	0	0	8	17	10	17	0	
£461.77	2	0	0	0	0	0	0	0	
£18,301.55	68	0	0	0	0	2	0	0	
£191,237.32	819	341	0	28	365	125	95	0	
£1,988,623.57	1006	4	0	247	86	371	86	0	
£7,294.87	23	0	0	0	0	4	0	0	
£61,375.31	253	92	0	2	80	124	86	0	
£182,674.14	45	0	0	3	4	12	4	0	
£1,137.23	16	10	0	0	0	11	1	0	
£24,818.08	370	0	0	62	55	101	55	0	
£53,203.79	546	95	0	12	154	264	282	0	
£326.73	7	0	0	0	0	0	0	0	
£17,234.82	4	0	0	0	0	0	0	0	
£739,444.05	1081	651	0	16	463	277	72	0	
£225,790.64	187	0	0	14	3	65	3	0	
£11,845.95	66	39	0	0	17	44	4	0	
£20,433.70	88	0	0	9	7	34	7	0	
£34,034.40	253	214	0	3	212	12	9	0	
£12,245.28	14	1	0	0	1	0	1	0	
£98,782.68	82	0	0	0	0	0	0	0	
£1,573.36	21	0	0	0	0	4	0	0	
£2,502,152.80	1317	494	0	95	110	630	139	0	
£141,809.07	549	0	0	14	25	223	25	0	
£72,262.30	56	0	0	0	0	1	0	0	
£33,037.61	127	0	0	0	0	1	0	0	
£3,405.85	64	29	0	0	1	44	1	0	
£68,522.14	347	0	0	25	51	46	51	0	
£32,316.77	73	1	0	2	11	22	19	0	

Transform

Third Transition – Fact Generation

Introduce Gateways As Keys



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£12,528.30	152	0	0	0	0	17	0	0	
£82,193.73	62	0	0	8	17	10	17	0	
£463.77	2	0	0	0	0	0	0	0	
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£1,988,623.57	1006	4	0	247	86	371	86	0	
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£182,074.14	45	0	0	3	4	12	4	0	
£1,137.23	16	10	0	0	0	11	1	0	
£24,818.08	370	0	0	62	55	101	55	0	
£53,203.79	546	95	0	12	154	264	282	0	
£326.73	7	0	0	0	0	0	0	0	
£17,234.82	4	0	0	0	0	0	0	0	
£739,444.05	1081	651	0	16	463	277	72	0	
£225,790.64	187	0	0	14	3	65	3	0	
£11,845.95	66	39	0	0	17	44	4	0	
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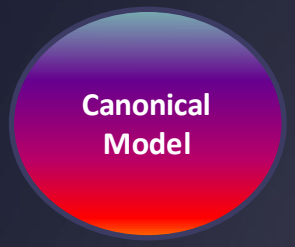
£32,316.77	73	1	0	2	11	22	19	0	

Renormalise

Third Transition – Fact Generation



The third component – methods of calculation

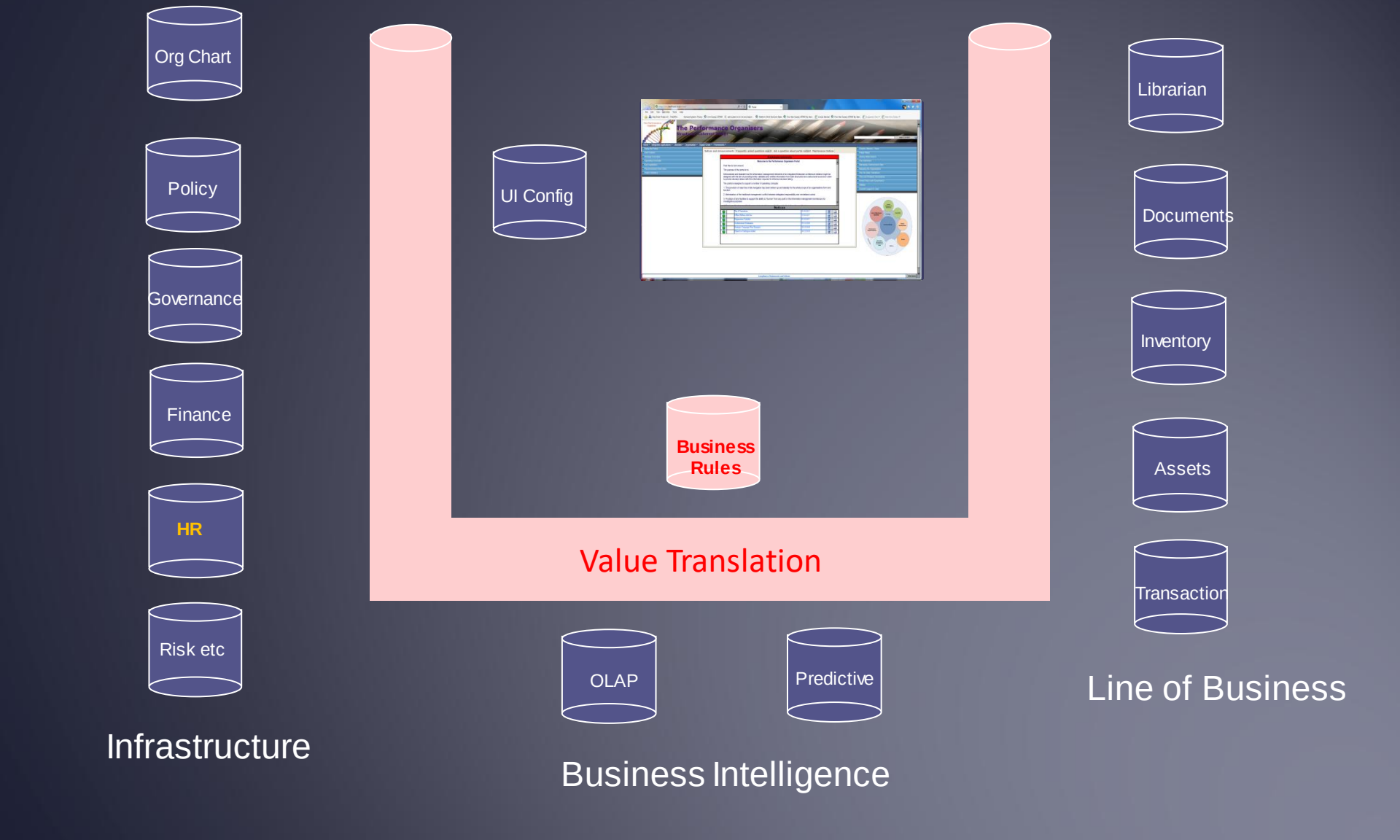
Once fact tables are built and identified, it is more than likely that there will be exploitable relationships across table boundaries against which normalisation techniques may be applied.

In terms of storage, the “footprint” reduction that fact based summaries might bring about, is, in some cases, in the order of 90%

Which in turn means that query execution is significantly faster compared to, say, SQL inner and outer joins across large data sets.

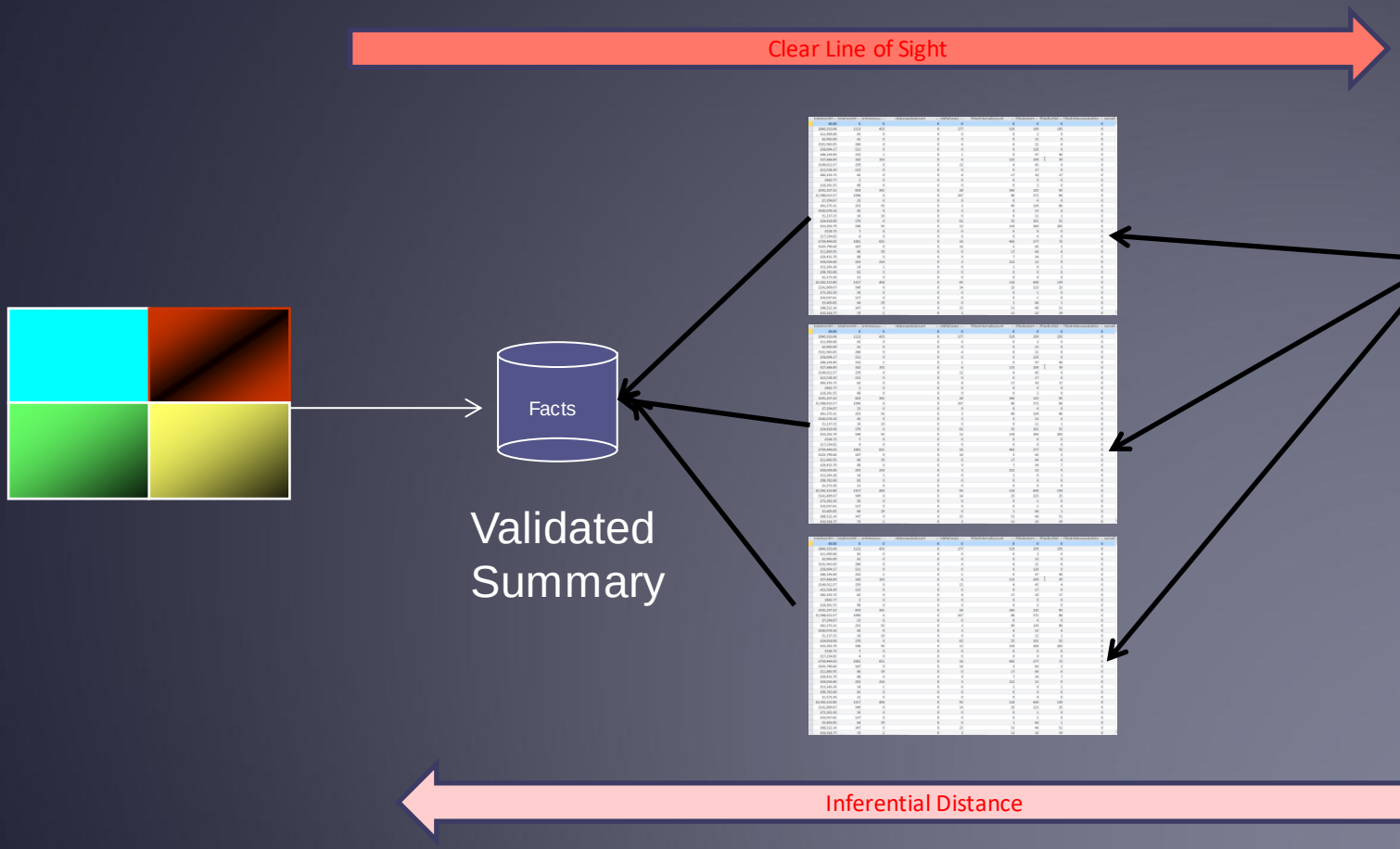
Operating Principles – Canonical Modelling

Introduce Fact Tables Into the Data Architecture



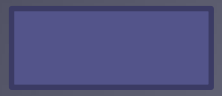
Third Transition – Fact Generation

Dashboards as Gateways that support investigation



Third Transition – Fact Generation

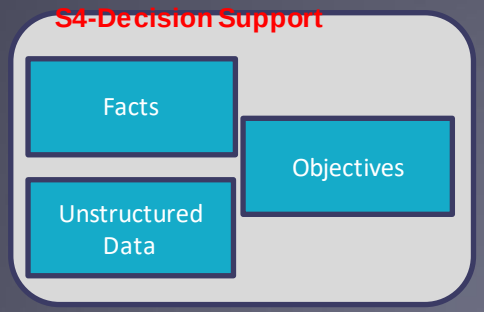
Demonstration



The Desktop

Third Transition – Fact Generation

Next deck – Transition 4, align structured and unstructured data



Third Transition – Fact Generation

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