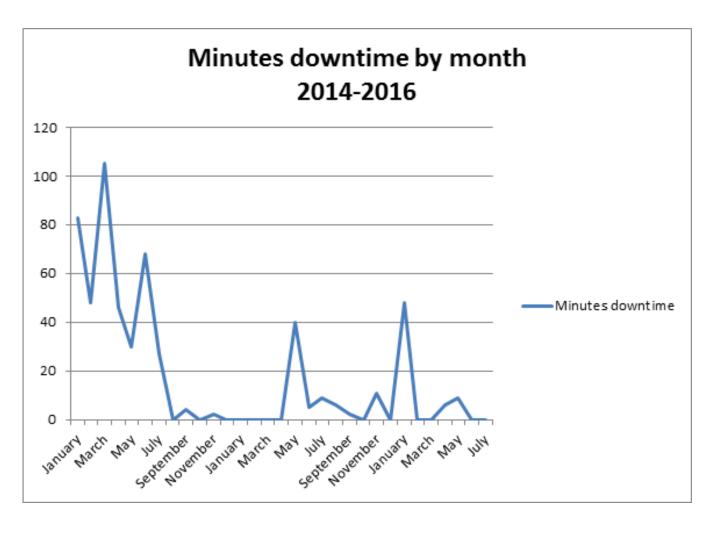
Small Data: Big Results...

David Smith

Head of Product Solutions – The IET.



Two Birds – One Stone

- There was this 'discussion' between two business functions over how a product was doing...
- My team was fielding (and umpiring)
- At the same time I wanted us to improve our development approaches...

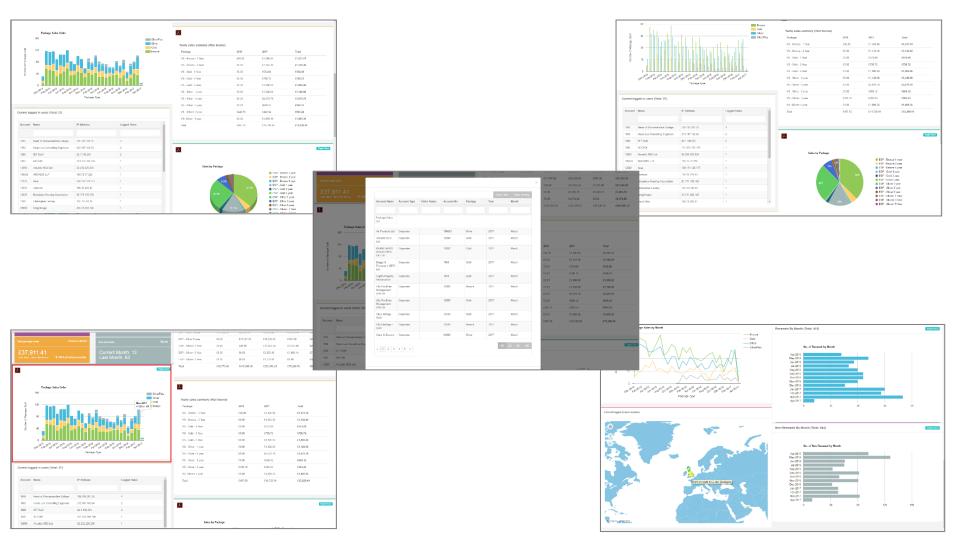


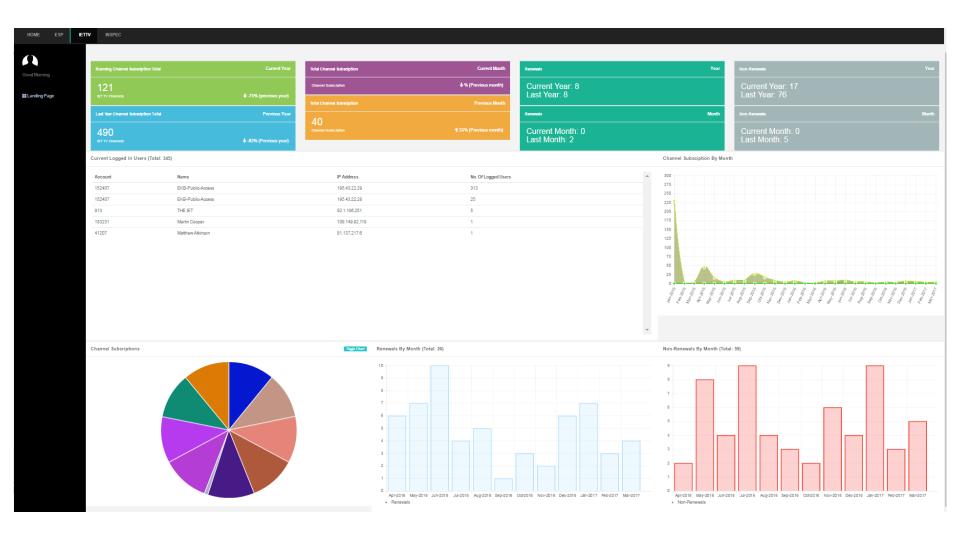
ESP **!!!** Landing Page Content Type Utilities **I** Reports 👛 Splash Page

Renewals Current Year: 149 Last Year: 262 Month Renewals **Current Month: 6** Last Month: 55 Gold, Silver, Silver Plus, Bronze **Current Month** Total package sales Last Year: 886 Gold, Silver, Silver Plus, Bronze **↓** -95% (Previous month) Gold, Silver, , Silver Plus Bronze 109% (Previous month) L Toggle Chart



Package	2014	2015	2016	2017	Total
ESP - Bronze 1 year	£				
ESP - Bronze 3 year	£!				
ESP - Bronze 5 year	£(
ESP - Gold 1 year	£				
ESP - Gold 3 year	£				
ESP - Gold 5 year	£(
ESP - Silver 1 year	£				
ESP - Silver 3 year	£				
ESP - Silver 5 year	£(
ESP - Silver+ 1 Year	£(
ESP - Silver+ 3 Year	£(
ESP - Silver+ 5 Year	£(









Data for the dashboard obtained from Service Centre (Requests), Jira (Issues), and Service Centre (Changes). There is all an output from the Incident logs for recorded events in 2016.



Compl	eted Day	/					
1	5	9	13	17	21	25	29
2	6	10	14	18	22	26	30
3	7	11	15	19	23	27	31
4	8	12	16	20	24	28	

Completed Month		
Jan	May	Sep
Feb	Jun	Oct
Mar	Jul	Nov
Apr	Aug	Dec

Quarter			
Q1	Q2	Q3	Q4
Comp Year			
			2016



"Issues" in Jira in 2016 for BAU workstreams

Issues that were created "updated" in 2016. BAU workstreames include all BAU boards, security, and inspec. It does not include projects. These charts show that not all of the development work carried out by IT is being captured in JIRA (There are four teams but only three appear).

Current Selections

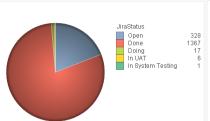
1	5	9	13	17	21	25	29
2	6	10	14	18	22	26	30
3	7	11	15	19	23	27	31
4	8	12	16	20	24	28	
Completed Month							

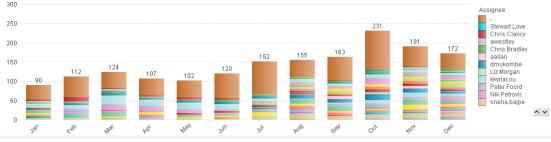
Completed Month		
Jan	May	Sep
Feb	Jun	Oct
Mar	Jul	Nov
Apr	Aug	Dec

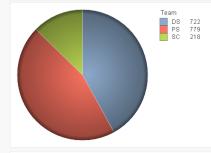
Quarter			٩
Q1	Q2	Q3	Q4
Comp Year			
			2016

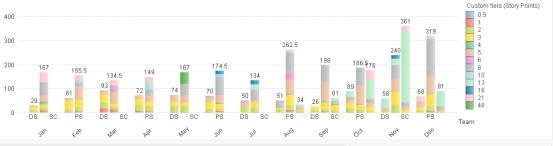
No. of Jira issues

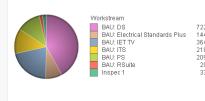
Total count	1719



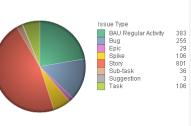








Sprint	∨ Team	Project name	
Sprint 25 (5th Dec - 15th Dec)	SC	BAU: ITS	
Sprint 11 - PSTV20151109	PS	BAU: IET TV	
BAU: Sprint 23	PS	BAU: RSuite	
INS1 - Sprint 25	PS	Inspec 1	
BAU Sprint 05 (27 Feb 10 Mar)	SC	BAU: ITS	
ET Sprint 17	DS	BAU: DS	
Sprint 16 - IN3	PS	Inspec 1	
Sprint 15 - IN1	PS	Inspec 1	
PSCF20160801 (Sprint 15)	PS	BAU: PS	
Sprint 14 - PSESP20160704	PS	BAU: Electrical Standards Plus	
Sprint 13 - IN1	PS	Inspec 1	
Sprint 8 27Oct-5Nov 2015	DS	BAU: DS	
Sprint 10 23Nov-4Dec 2015	DS	BAU: DS	
PSCF20151207 (Sprint 12)	PS	BAU: PS	
BAU Sprint 04 (13 - 24 Feb)	SC	BAU: ITS	





"Labels" in Jira in 2016 for BAU workstreams

One of the challenges set by the CAB is to report on Security items. An available is to use the label facility. Here are the labels used in 2016 that illustrates the challenge in getting a unflorm approach so that security items can be reported on.

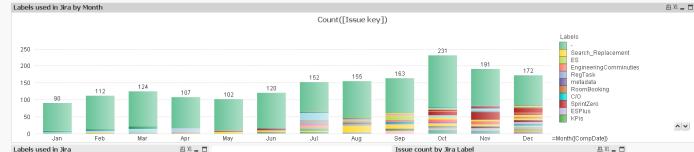


Completed Day							
1	5	9	13	17	21	25	29
2	6	10	14	18	22	26	30
3	7	11	15	19	23	27	31
4	8	12	16	20	24	28	

П	Completed Month		
	Jan	May	Sep
	Feb	Jun	Oct
	Mar	Jul	Nov
	Apr	Aug	Dec

Quarter			ز
Q1	Q2	Q3	Q4
Comp Year			

No. of Jira issues Total count



Labels

500

600

1_Smal_(<_2_Week)

3_Large_(>_4_Weeks) 05_Asia_Offices

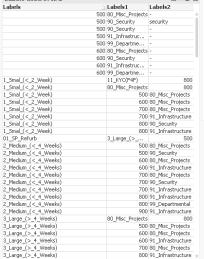
01_SP_Refurb

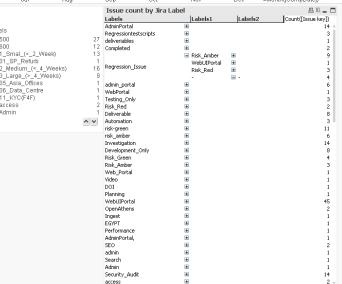
06 Data Centre

11 KYC(F4F)

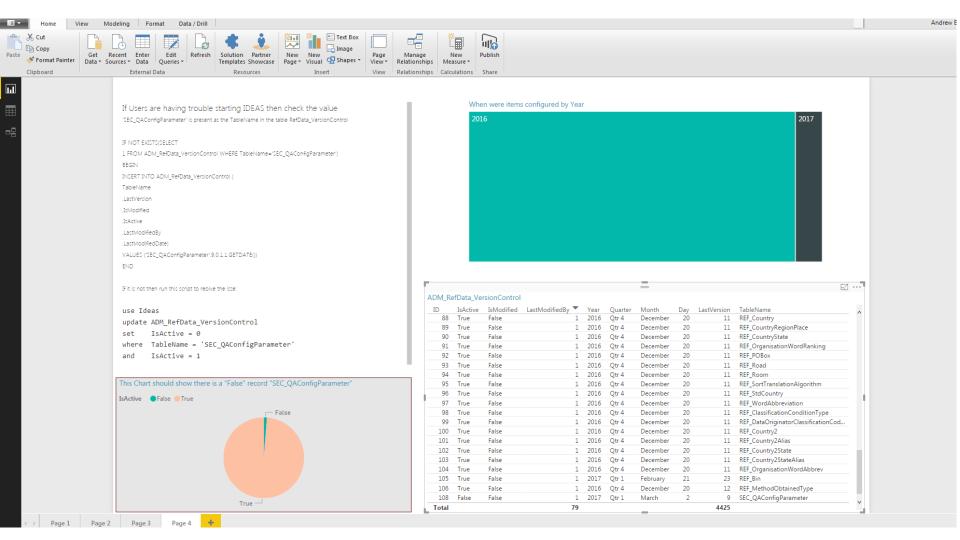
access

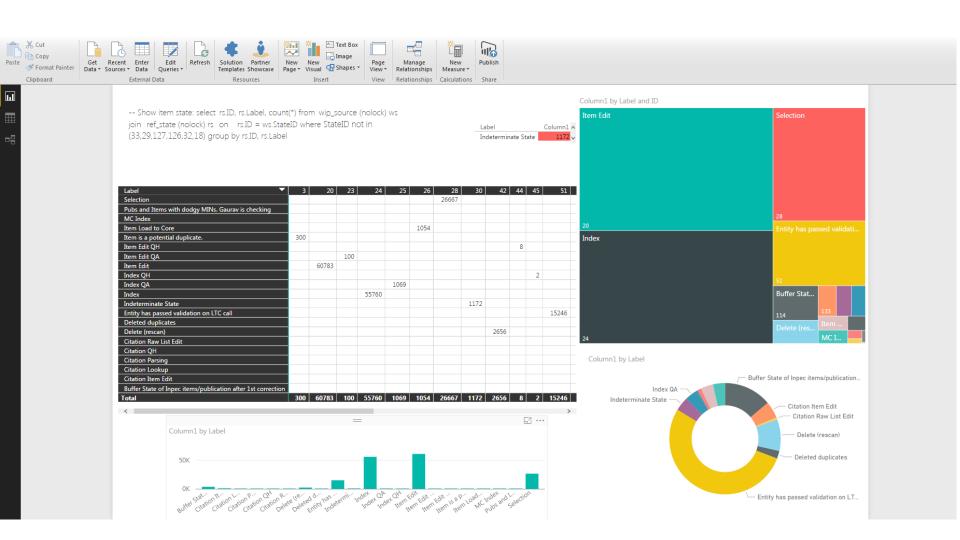
Admin











To Infinity and Beyond...



The Inspec Knowledge Graph Dr C Marker

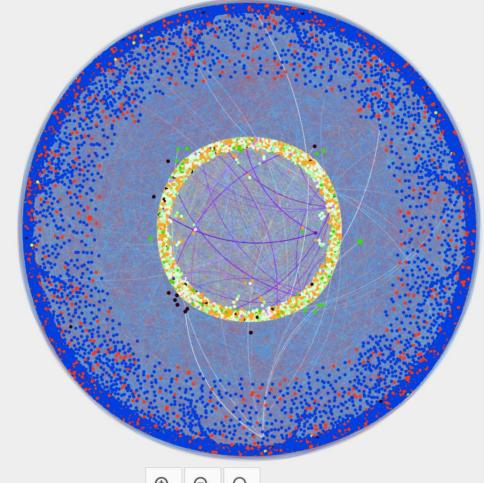
Visualisation of some of the entities and relationships in the Inspec knowledge graph. Search for KTH or power inverters to see results of search on these entities. Edges and nodes sized by number of papers on database. Graph contains additional information on piezoelectricity, rocket engines, internet of things, journal of aerospace power

i More about this visualisation

Legend:

 Blue = Controlled Term, Red = Classification, Orange = Source/Journals, Black = Author, Green = organisation, pale green = ISSN, light green = CODEN, light res = e-mail, light purple = city, purple = country, yellow = title, pink = department

0	
Search:	
)
Group Selector:	
Select Group	₩

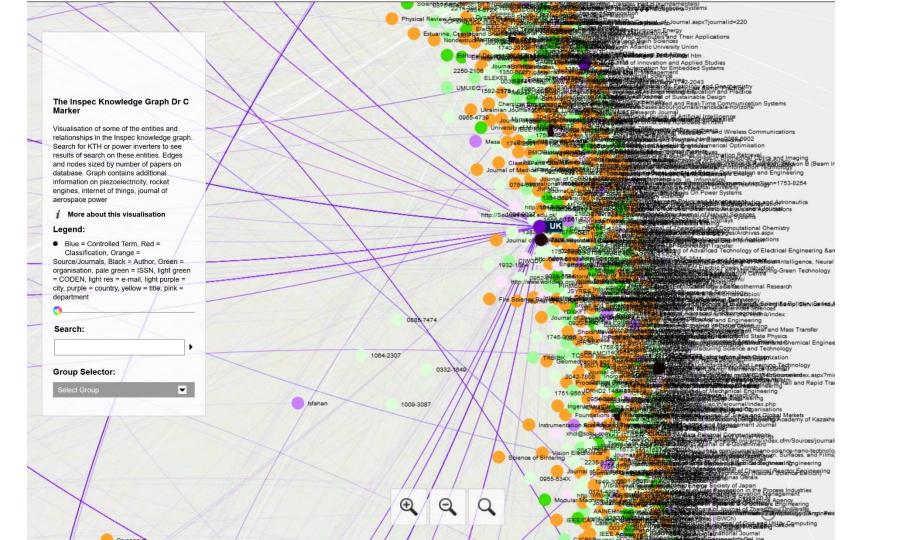












The Inspec Knowledge Graph Dr C Marker

Visualisation of some of the entities and relationships in the Inspec knowledge graph. Search for KTH or power inverters to see results of search on these entities. Edges and nodes sized by number of papers on database. Graph contains additional information on piezoelectricity, rocket engines, internet of things, journal of aerospace power

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organisation, pale green = ISSN, light green
= CODEN, light res = e-mail, light purple =
clty, purple = country, yellow = title, pink =
department

Search:

Internet of things

Search Results:

IEEE Internet of Things Journal Internet of Things IoT (Internet of Things)

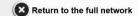
Group Selector:

Select Group



×





Information Pane

Internet of Things

type: Controlled Term

map: Countries producing most work in

Connections:

Mututal (12)

ambient intelligence

bar codes

ir codes

cloud computing embedded systems

Internet

middleware

open systems

protocols

radiofrequency identification

smart cities

standards

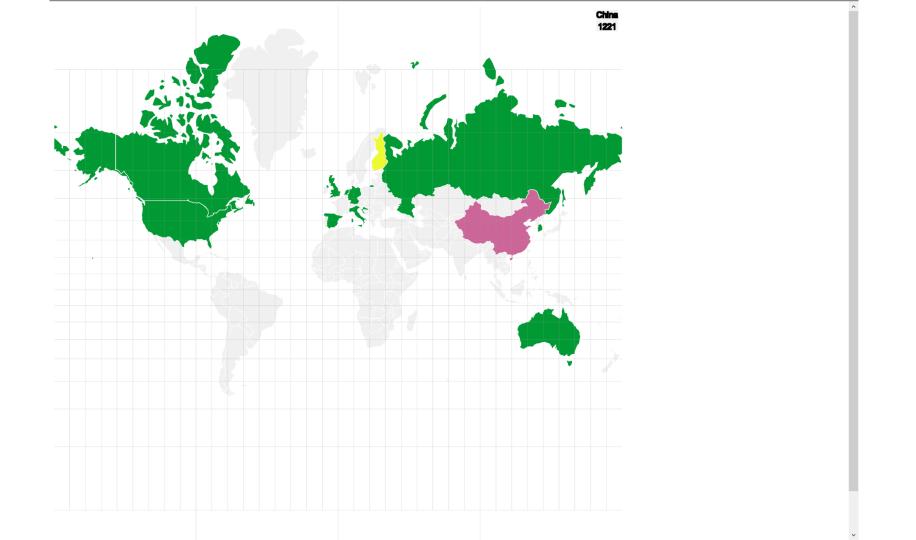
wireless sensor networks

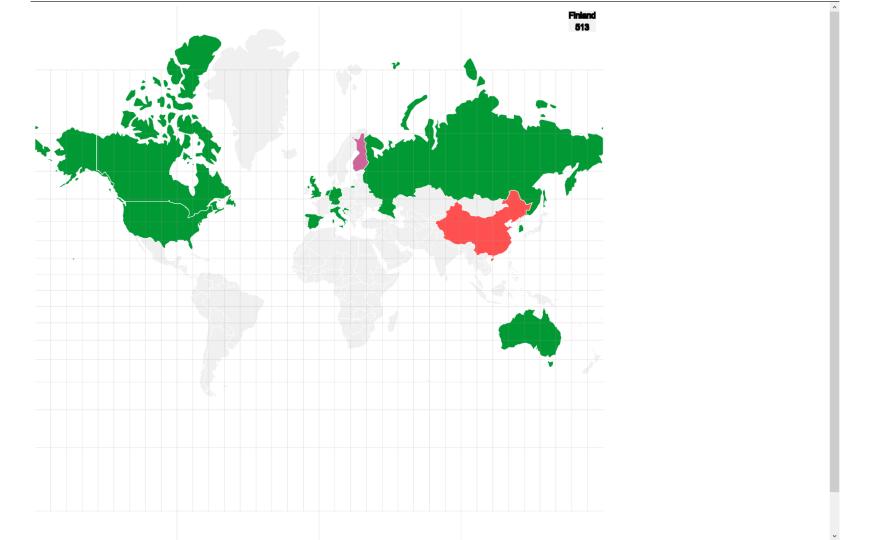
Incoming (1)

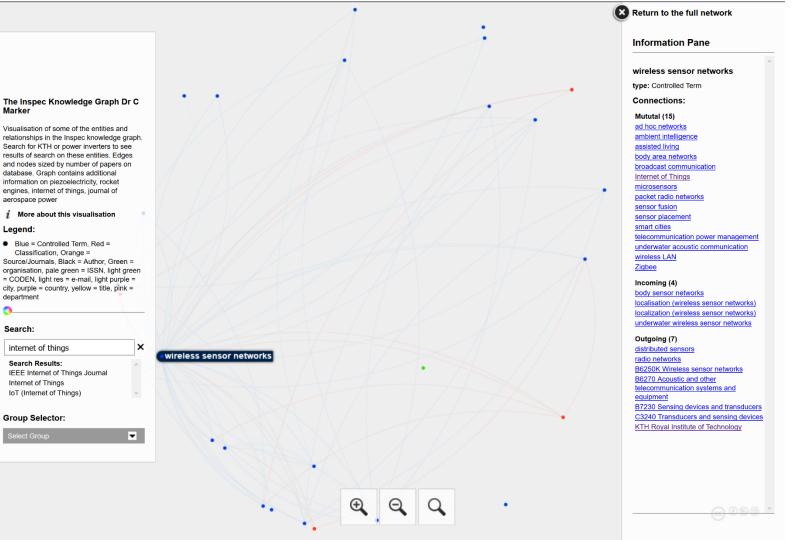
IoT (Internet of Things)

Outgoing (1)

ubiquitous computing







Marker

aerospace power

Classification, Orange =

Legend:

department

Search:

internet of things

Search Results:

Internet of Things

Group Selector:

IoT (Internet of Things)

The Inspec Knowledge Graph Dr C Marker Visualisation of some of the entities and relationships in the Inspec knowledge graph. Search for KTH or power inverters to see results of search on these entities. Edges and nodes sized by number of papers on database. Graph contains additional information on piezoelectricity, rocket engines, internet of things, journal of aerospace power i More about this visualisation Legend: Blue = Controlled Term, Red = Classification, Orange = Source/Journals, Black = Author, Green = organisation, pale green = ISSN, light green = CODEN, light res = e-mail, light purple = city, purple = country, yellow = title, pink = department Search: internet of things Search Results: KTH Royal Institute of Technology IEEE Internet of Things Journal Internet of Things IoT (Internet of Things) **Group Selector:** ₹



Information Pane

wireless sensor networks

type: Controlled Term

Connections:

Mututal (15)

ad hoc networks

ambient intelligence

assisted living

body area networks

broadcast communication

Internet of Things

microsensors

packet radio networks

sensor fusion

sensor placement

smart cities

telecommunication power management

underwater acoustic communication

wireless LAN

<u>Zigbee</u>

Incoming (4)

body sensor networks

localisation (wireless sensor networks)

localization (wireless sensor networks)

underwater wireless sensor networks

Outgoing (7)

distributed sensors

radio networks

B6250K Wireless sensor networks

B6270 Acoustic and other

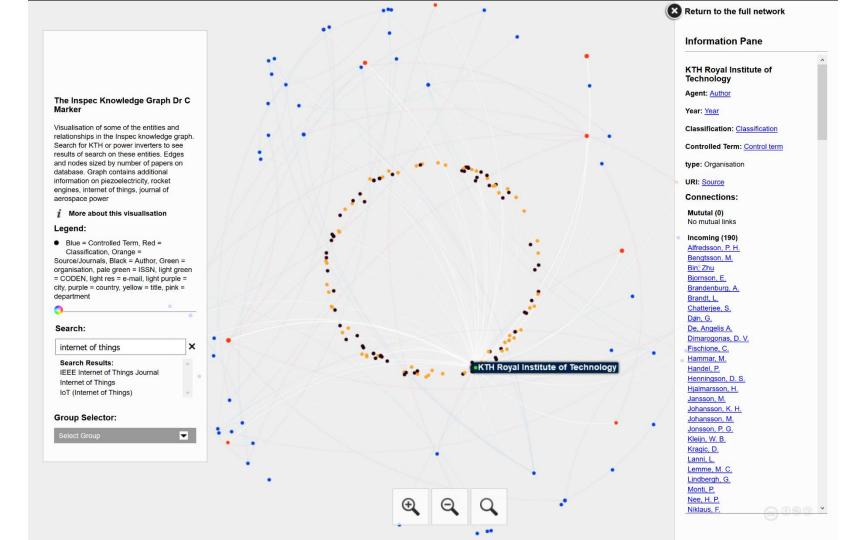
telecommunication systems and

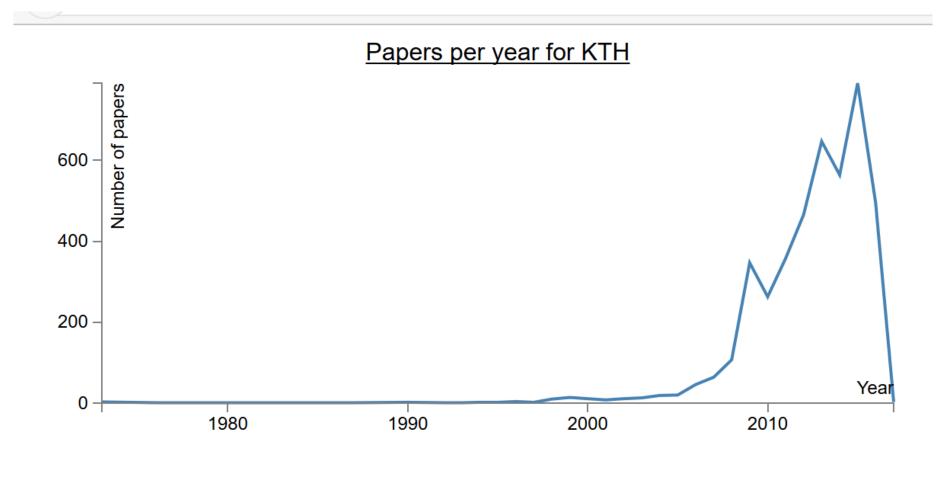
equipment

B7230 Sensing devices and transducers

C3240 Transducers and sensing devices

KTH Royal Institute of Technology





Conclusions and Next Steps

- Don't overthink the end state you want to achieve dip a toe in the water and start to learn by looking at the data you have – the direction will reveal itself pretty quickly I think.
- Iterate, Iterate!
- Show! Show! Show!
- There are many free to cheap tools out there to get views on your data – certainly to start with.
- Understanding your data model(s) as a business is probably the biggest cultural challenge; Your biggest Change challenge as well.
- Be prepared for what sunlight on your data might bring... (see change / see culture / see maturity)

What's our biggest next challenge?

- With our cloud journey comes the realisation that we have to learn a whole bunch of new data monitoring and analysis...
- Price monitoring and improvement (we pay for every CPU cycle and GB of RAM
- Scaling and performance monitoring
- Who does that?
- All on the list to be figured out next.

