

explore. act. grow.



Agile in the Portfolio Mix

The End of Clarity?

Graham Pink, Karl Forbes, Robert Garbett

Agenda



Introduction

Solving late projects

Case Study 1. Governance, what tools do you use

Agile in the Mix

Application in other sectors

Case Study 2: ISO Projects for Drones

Conclusion

ORBITIL Business Intelligence



Project Orb

Delivering Successful
Projects



Agile Orb

Harmonising the
Power of Agile



Resource Orb

Making the most of
your Teams



Quality Orb

Raising Company
Excellence



Risk Orb

Managing
the Future



Product Orb

A Winning Growth
Strategy



Gov Orb

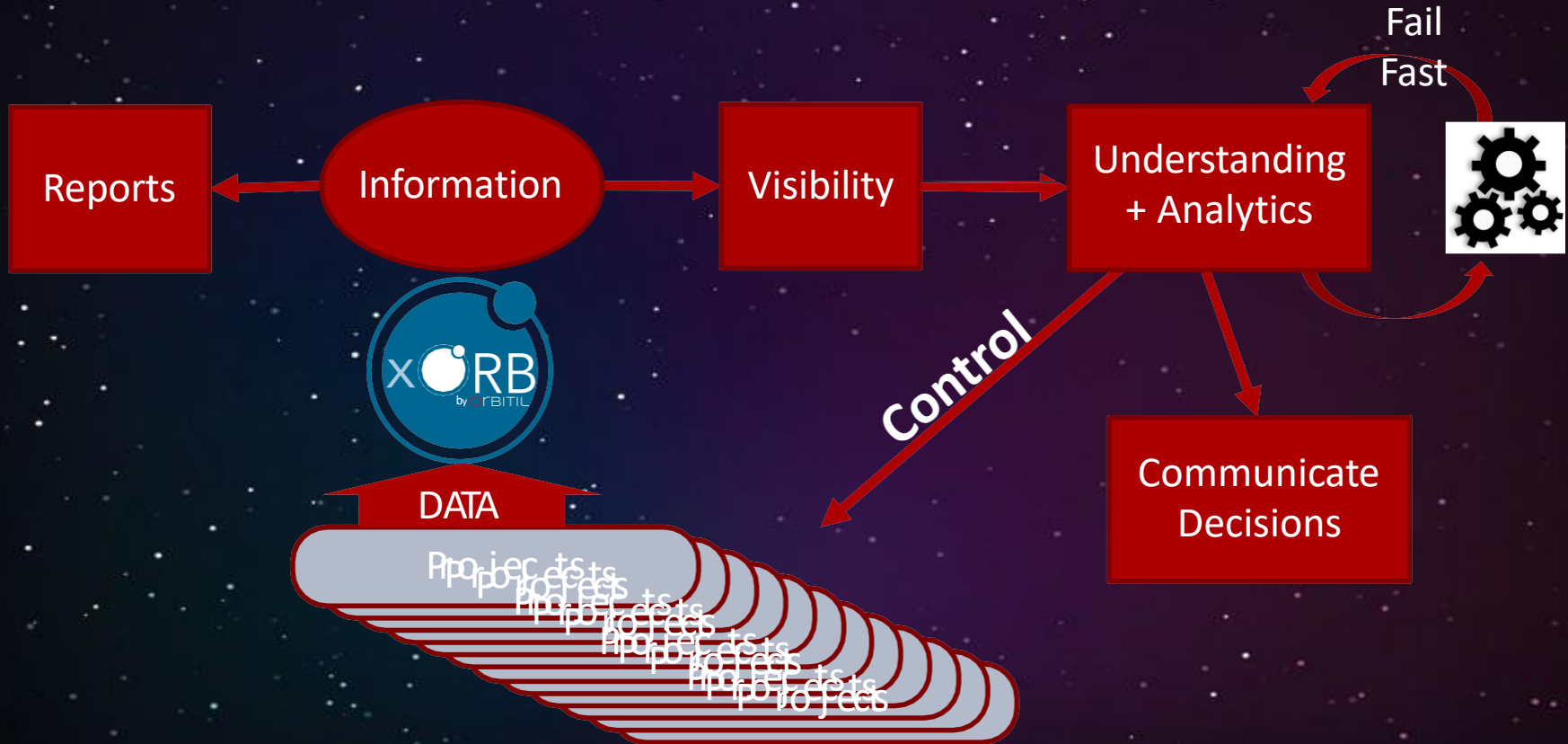
Productivity &
Impact

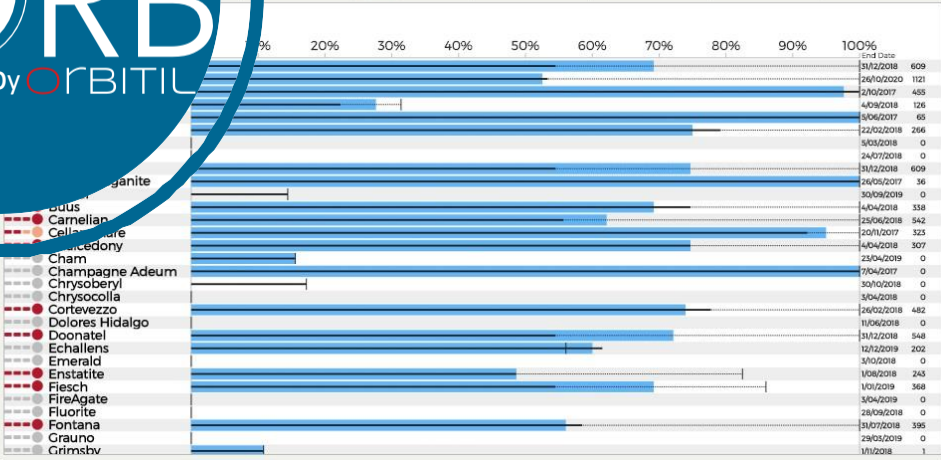
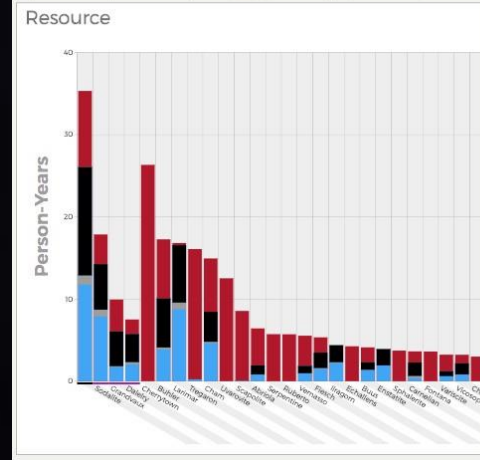
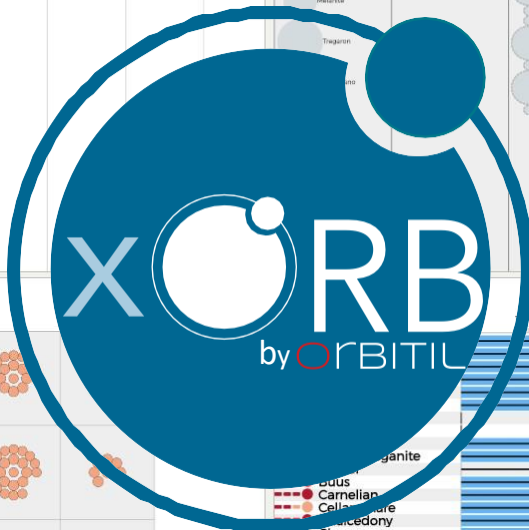
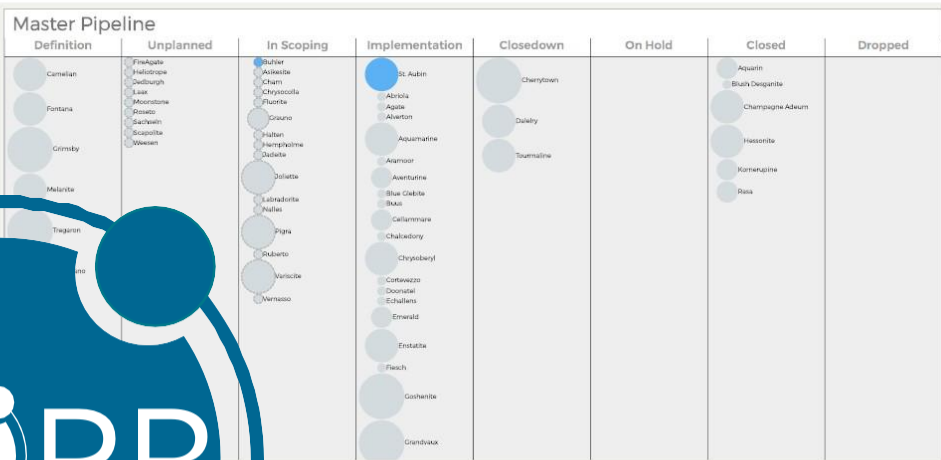
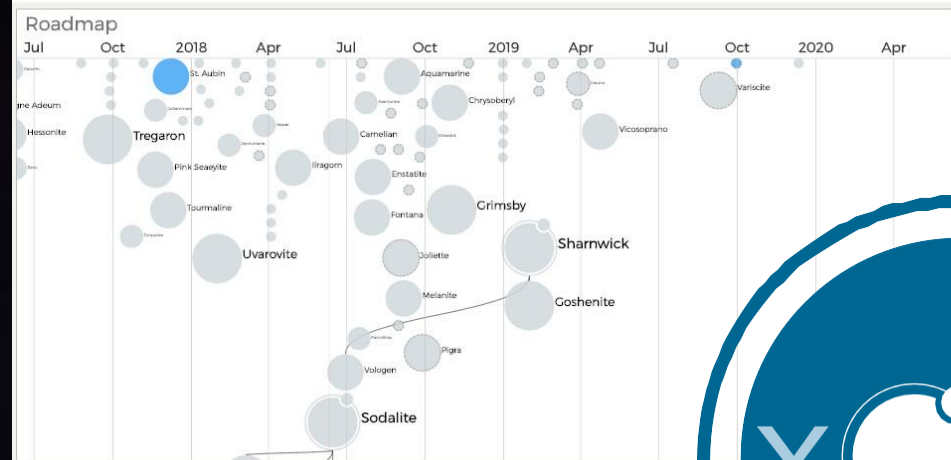
Problem we address: - projects being late

- Too many projects
- Wrong projects being backed:
 - by the person who SHOUTS LOUDEST
 - not the project with the biggest BANG
- Problems: make the situation worse, absorbing contingency
- Reporting: time consuming stitching diverse systems, error prone overhead

- Result:
- Just going through the motions, demoralised team, quality suffers
- Overspend, overruns, lost opportunities
- Business impact reduced

Generating information from data





Case Study 1

Governance – what tool do you use?

Karl Forbes

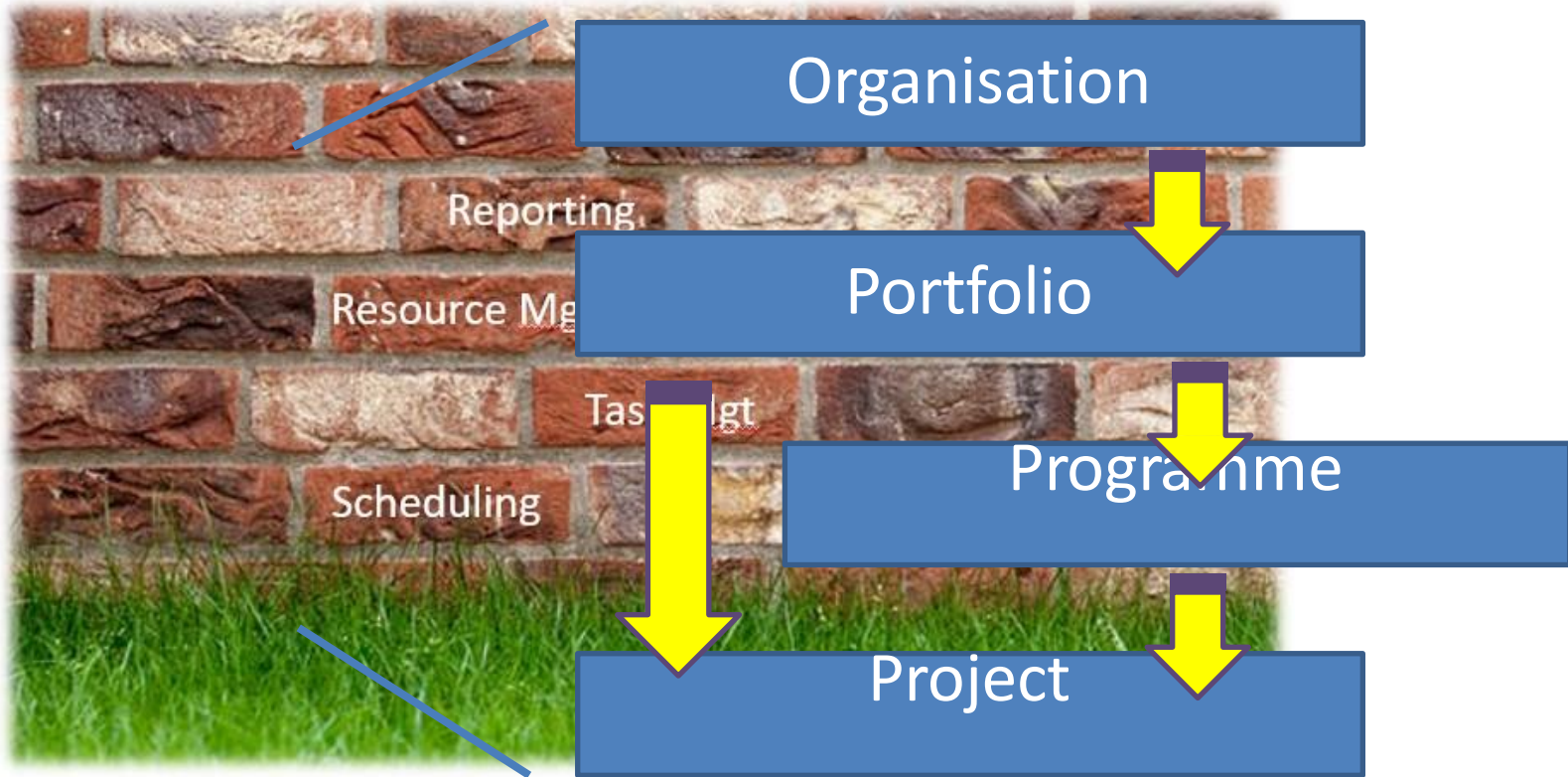
R&D Projects Director

Inca Digital Printers

PM building blocks



PM building blocks – complexity mapping



sepura

a Hytera company



~€200M revenue

150 R&D personnel

Portfolio of 15 NPDs

SW, HW, Mech



PM building blocks - tools



General

Specialist



HR.net



Project Reporting – let's get useful

- **Weekly** – short term, task focussed. Highly specific. Simple.
- **Phase Gates** – very tailored, data plus opinion. Discussions & subjective.
- **Monthly** – Very predictable format - contract based. Very data rich. Used across all our projects every month – worth investing in to get right.
 - Schedule
 - Costs
 - Issues
 - Risks



Monthly reporting - The Status Quo

Updated list of live Projects
+
Updated schedules
+
Updated Milestones
+
Actual progress
+
Latest cost forecast
+
Cost actuals (nightmare)
+
Technical Status (if possible)
+
Risk status (if possible)

=



Monthly reporting - The Status Quo

- *Inconsistencies*
- *Errors*
- *Missing info (but not presented so difficult to spot)*
- *Factual or opinion?*
- *Time consuming to compile*
- *30 minute dive-in vs. 30 second snapshot*
- *“Can you please include....”*
- *“Can you please remove...”*

Insightful???



Project Governance - Toolset

- *Which projects are approved?*
- *Who is managing each one?*
- *Where are they in the lifecycle?*
- *What is the budget situation at a Portfolio level?*



- *Minimal disruption to our existing tools or practices*
- *Low overhead*
- *Customisable*
- *Levels*
- *Insightful!*

Code	Name	Manager	End Date	Budget	Progress (End Date)	Progress (Key Date)	2014	2015	2016	2017	2018	2019	2020	2021
64	Project 0065	Kay Spencer	1/06/2018	€4,041,787	96%	100%								
86	Project 0069	Isis Robel	18/04/2018	€1,753,929	100%	100%								
72	Project 0072	Isis Robel	21/12/2018	€169,373	75%	100%								

Cloud based so available anywhere

Live data

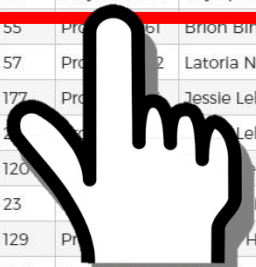
Customisable, sortable, filterable!

Visually rich – easy to digest, spot outliers, interesting.

“Active”

203	Project 0188	Jes												
155	Project 0105	Jes												
130	Project 0071	Lat												
156	Project 0097	Isis												
200	Project 0192	Fel												
272	Project 0021	Kay Spencer	28/05/2019	€1,121,000	11%	16%								
251	Project 0190	Talia Leuschke	7/05/2019	€156,110	2%	2%								

Code	Name	Manager	End Date	Budget	Progress (End Date)	Progress (Key Date)	2014	2015	2016	2017	2018	2019	2020	2021	:
64	Project 0065	Kay Spencer	1/06/2018	€4,041,787	96%	100%									
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72	Project 0072	Isis Robel	21/12/2018	€169,373	75%	100%									
259	Project 0005	Fronla White	5/04/2018	€114,300	100%	100%									
68	Project 0044	Isis Robel	31/08/2018	€2,751,000	83%	100%									
84	Project 0068	Isis Robel	21/12/2018	€220,000	30%	100%									
119	Project 0066	Kay Spencer	4/06/2018	€603,000	89%	100%									
55	Project 0061	Brian Bins	2/08/2018	€102,967	90%	100%									
57	Project 0062	Latoria Nader	11/06/2018	€230,523	94%	100%									
177	Project 0063	Jessie Lehner	12/07/2018	€175,274	85%	85%									
204	Project 0064	Jessie Lehner	9/08/2018	€89,300	70%	85%									
120	Project 0065	Jessie Lehner	31/05/2018	€725,272	84%	84%									
23	Project 0066	Jessie Lehner	31/01/2019	€1,366,436	83%	83%									
129	Project 0067	Fellicity Haley	17/07/2018	€328,000	81%	81%									
204	Project 0068	Jessie Lehner	30/01/2019	€1,533,804	49%	74%									
233	Project 0070	Zalden Schinner	4/12/2018	€67,270	51%	72%									
151	Project 0059	Jessie Lehner	1/11/2018	€186,250	57%	69%									
239	Project 0012	Kay Spencer	12/02/2019	€124,000	42%	66%									
257	Project 0003	Isis Robel	1/06/2018	€251,370	59%	60%									
199	Project 0114	Kay Spencer	24/01/2019	€84,500	40%	53%									
203	Project 0188	Jessie Lehner	31/12/2018	€91,179	32%	52%									
155	Project 0105	Jessie Lehner	12/04/2022	€424,000	17%	50%									
130	Project 0071	Latoria Nader	30/04/2019	€416,000	39%	41%									
156	Project 0097	Isis Robel	28/03/2020	€2,415,789	31%	32%									
200	Project 0192	Fellicity Haley	30/11/2018	€101,473	18%	31%									
272	Project 0021	Kay Spencer	28/05/2019	€1,121,000	11%	16%									
251	Project 0190	Talia Leuschke	7/05/2019	€156,110	2%	2%									



Project 0066 - Dashboard



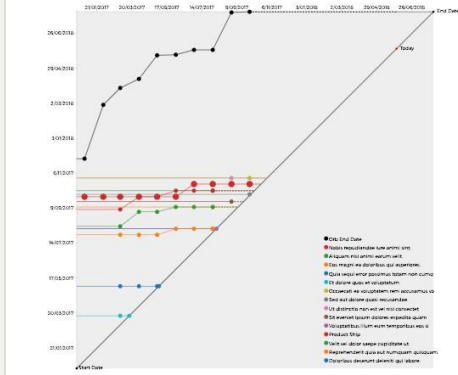
Schedule



KPIs

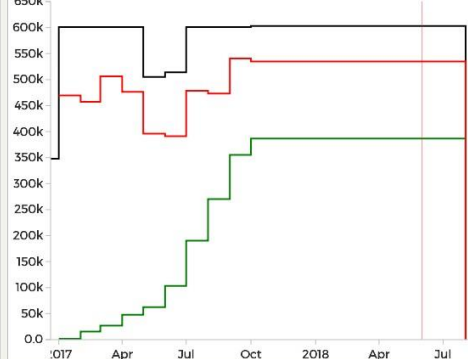
Code	KPI	Band
KPI1	Data Quality	▲
KPI1	Risk	●
PMC1	PM Confidence Schedule	■
PMC2	PM Confidence Project Cost	■
PMC3	PM Confidence Product Cost	■
PMC4	PM Confidence Scope Compliance	■

Progress Chart

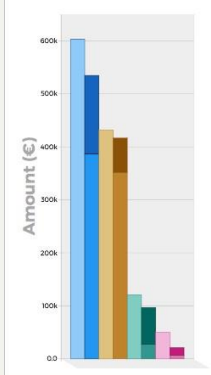


Budget Timeline

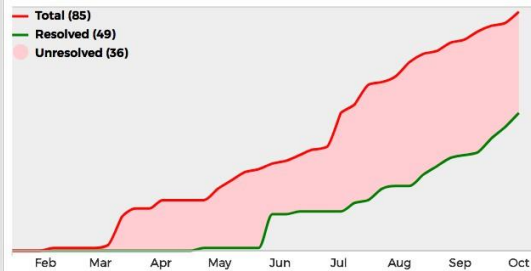
Budget: €603k, Spend: €387k, Forecast: €148k, Spend+Forecast: €535k, Variance: -11.3%



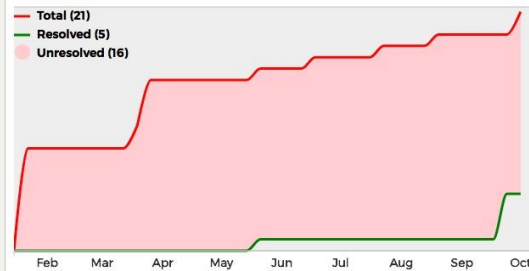
Budget



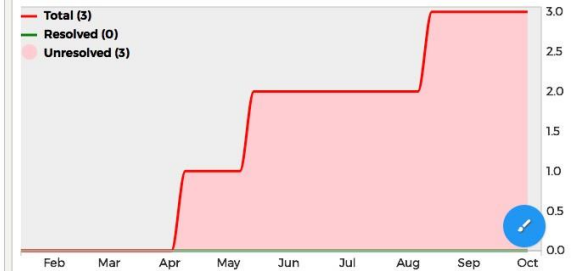
Fault Close Rate



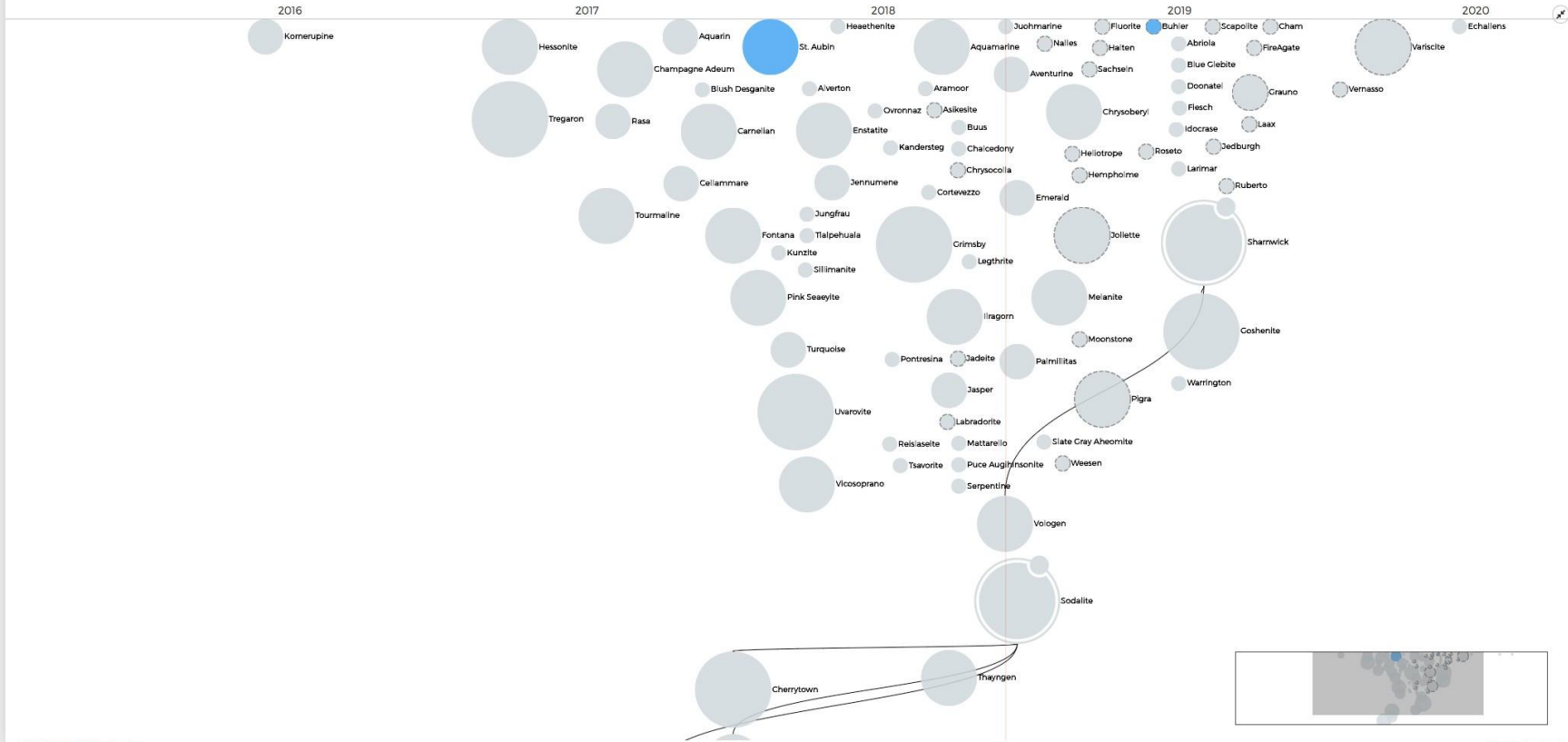
Risk Close Rate



Action Close Rate



Roadmap



So why?

- Reporting

- Live data – “no effort” reporting
- Tailored yet consistent
- No missing fields!
- Helicopter vs. Deep Dive

- Governance

- See where projects are in the process and what they plan next
- Allows for easy Governance reviewing
- Keeping the Projects to process – easier to spot the rogues
- Early warning signs - “incoming”. Phase Reviews will be too late.



Karl's two penneth

- ✓ Get an online tool that connects to your **existing** sources.
- ✓ Allow your team to **own the data** – it's more likely to be correct and more efficient to enter.
- ✓ Define a reporting template but accept that others will have **different needs**.
- ✓ Make it interesting!! **Dashboards**, colours, pictures. Minimise words.
- ✓ **Review** regularly and adapt often.

Life in an Agile World



Agile Manifesto

Individuals and interactions

over processes and tools

Working software

over comprehensive documentation

Customer collaboration

over contract negotiation

Responding to change

over following a plan

Agile Manifesto 2001



12 Principles

- 1 Our highest priority is to satisfy the customer through early and continuous delivery of valuable software.
- 2 Welcome changing requirements, even late in development. Agile processes harness change for the customer's competitive advantage.
- 3 Deliver working software frequently, from a couple of weeks to a couple of months, with a preference to the shorter timescale.
- 4 Business people and developers must work together daily throughout the project.
- 5 Build projects around motivated individuals. Give them the environment and support they need, and trust them to get the job done.
- 6 The most efficient and effective method of conveying information to and within a development team is face-to-face conversation.
- 7 Working software is the primary measure of progress.
- 8 Agile processes promote sustainable development. The sponsors, developers, and users should be able to maintain a constant pace indefinitely.
- 9 Continuous attention to technical excellence and good design enhances agility.
- 10 Simplicity—the art of maximizing the amount of work not done—is essential.
- 11 The best architectures, requirements, and designs emerge from self-organizing teams.
- 12 At regular intervals, the team reflects on how to become more effective, then tunes and adjusts its behavior accordingly.

 [AgileAlliance.org](https://www.agilealliance.org)

Manifesto Authors

Kent Beck
Mike Beedle
Arie van Bennekom

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Martin Fowler

Steve Mellor
Dave Thomas
James Greening
Jim Highsmith

Andrew Hunt
Ron Jeffries

Jon Kern
Brian Marick

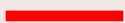


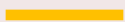


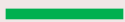
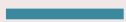
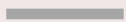
Ken Schwaber
Jeff Sutherland

© 2001, the Agile Manifesto authors

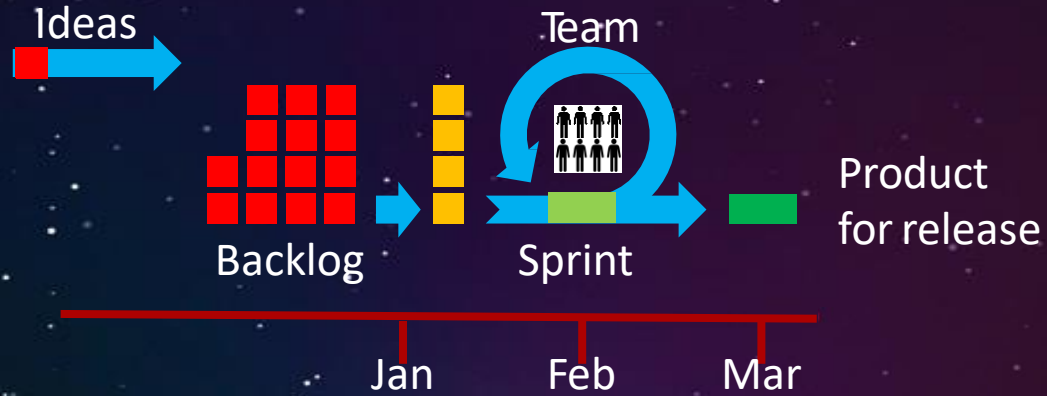
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Agile umbrella: tribes & areas



	Scrum		Teams		Extreme Programming
	Lean		Design		Product Management
	Devops		Testing		Fundamentals

Benefits of Agile development



Life in an Agile World

Team Waterfall



Detailed Plans
Resource Profile
Cost Profile



Projects take longer
Cost more
Clash with other projects



Visible (slow) progress
Exactly how late
Forecast (always moving)

Team Agile



Fixed Release schedule
Fixed Team
Prioritised list of work



Releases never late
Fixed costs
Allocated team



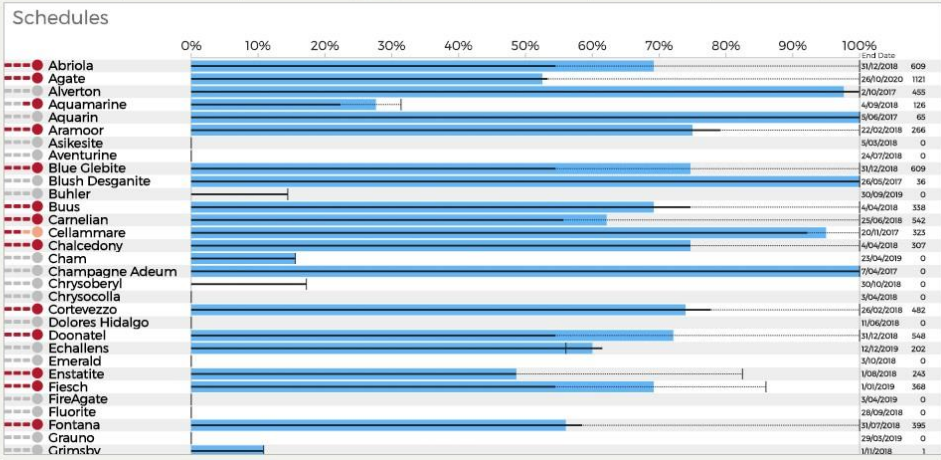
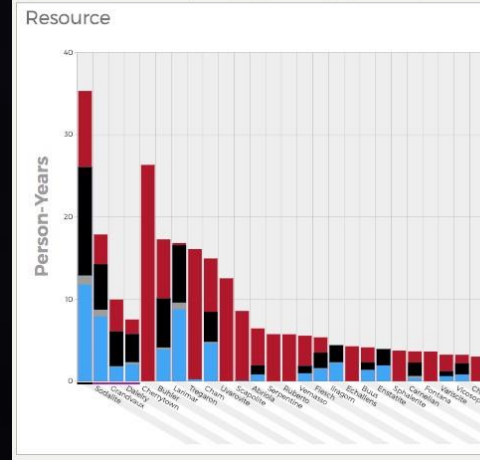
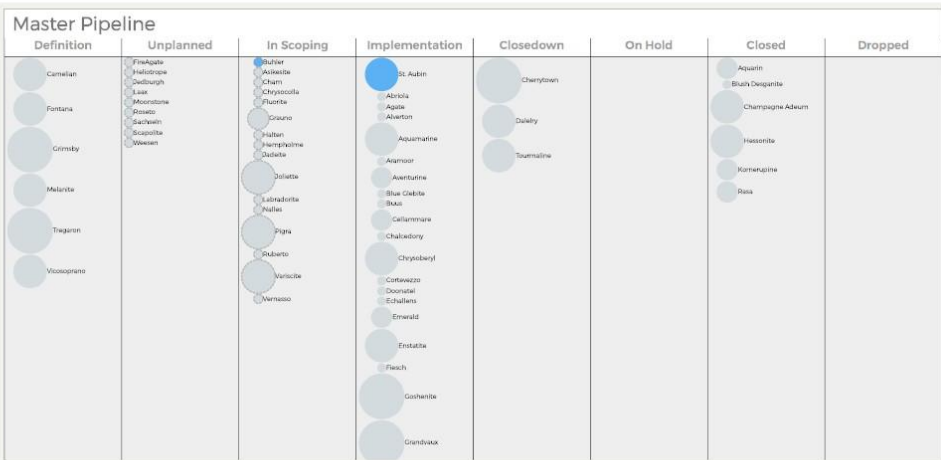
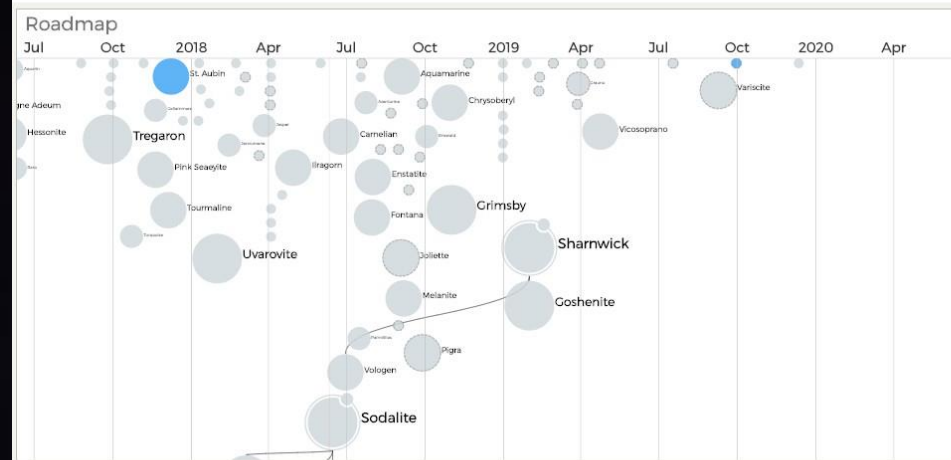
Easy to add features
Feature timing unclear
Project end unclear

Managing in an Agile World

Difficult Questions?

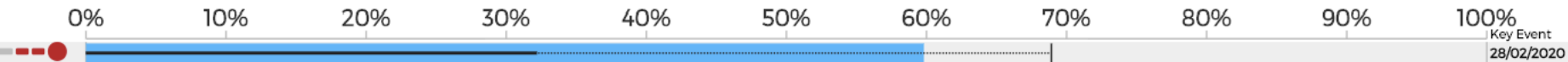
- How are we doing?
- How late are we?
- How does this affect other projects?
- When can we launch the product?
- Can I see the plan?
- Would it help to add more engineers, and which team gets them?

We need to understand Agile projects to manage them



Project Basics

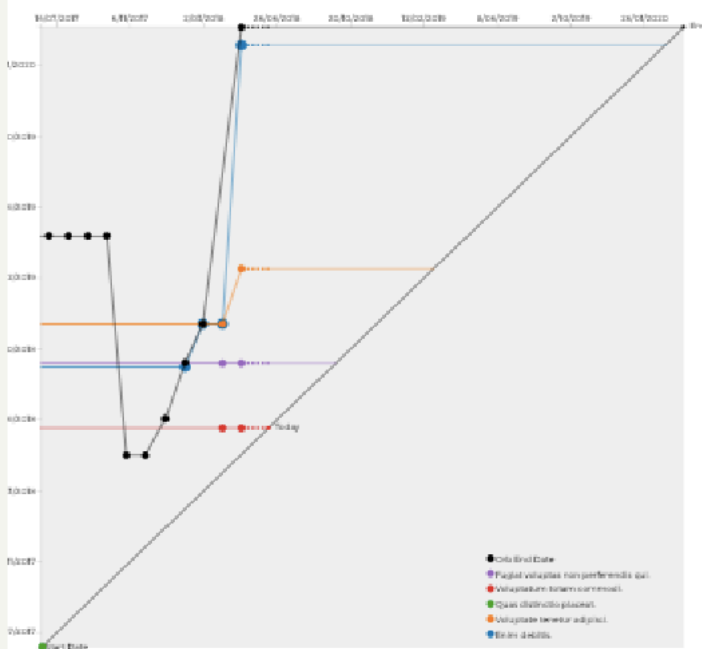
Schedule



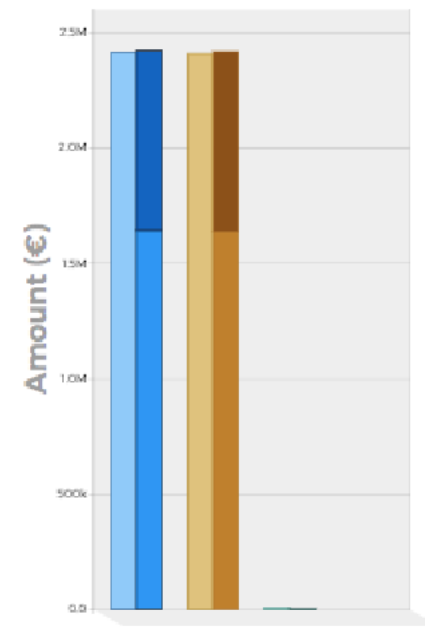
KPIs

Code	KPI	Band
	Data Quality	
KPI 0001	KPI 0001	
KPI 0002	KPI 0002	
KPI 0003	KPI 0003	
KPI 0004	KPI 0004	
KPI 0005	KPI 0005	

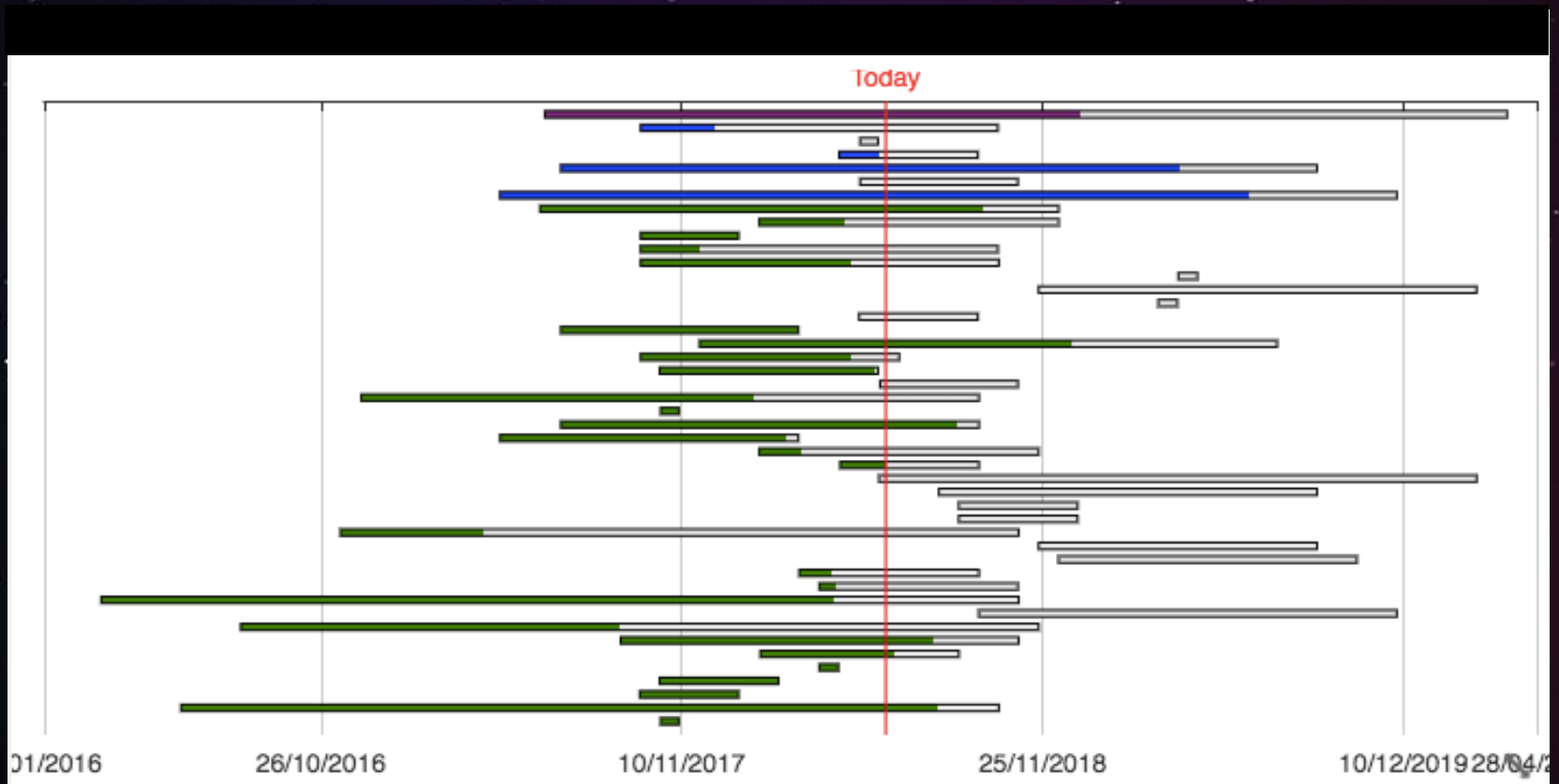
Progress Chart



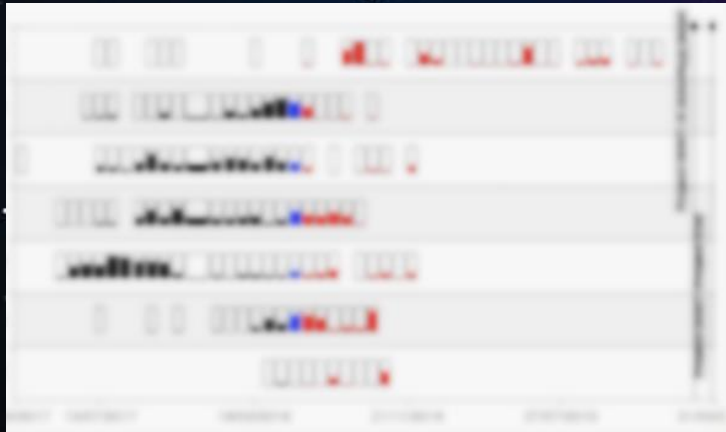
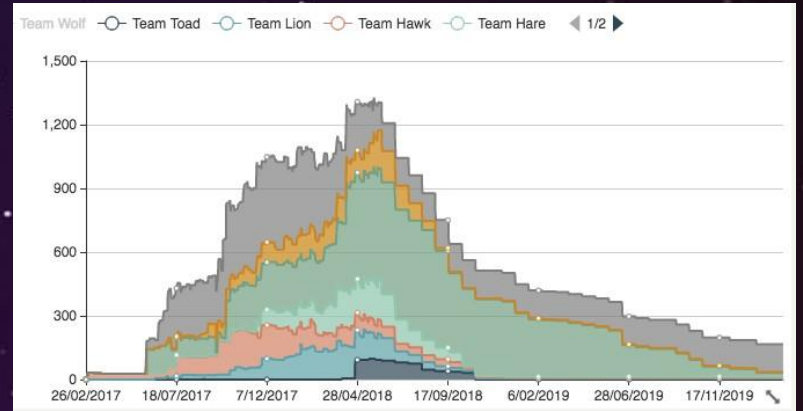
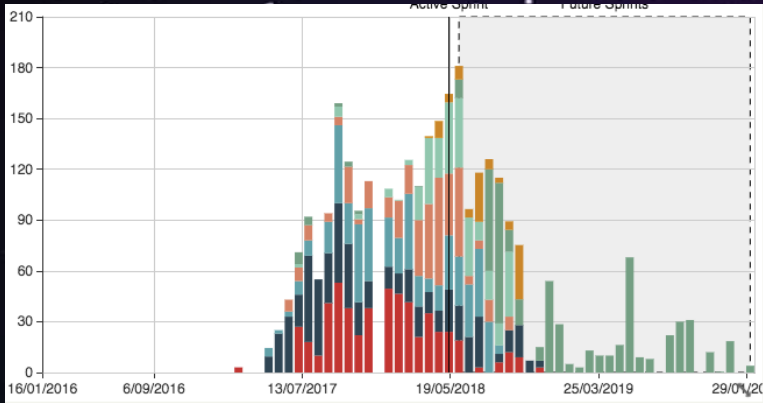
Budget



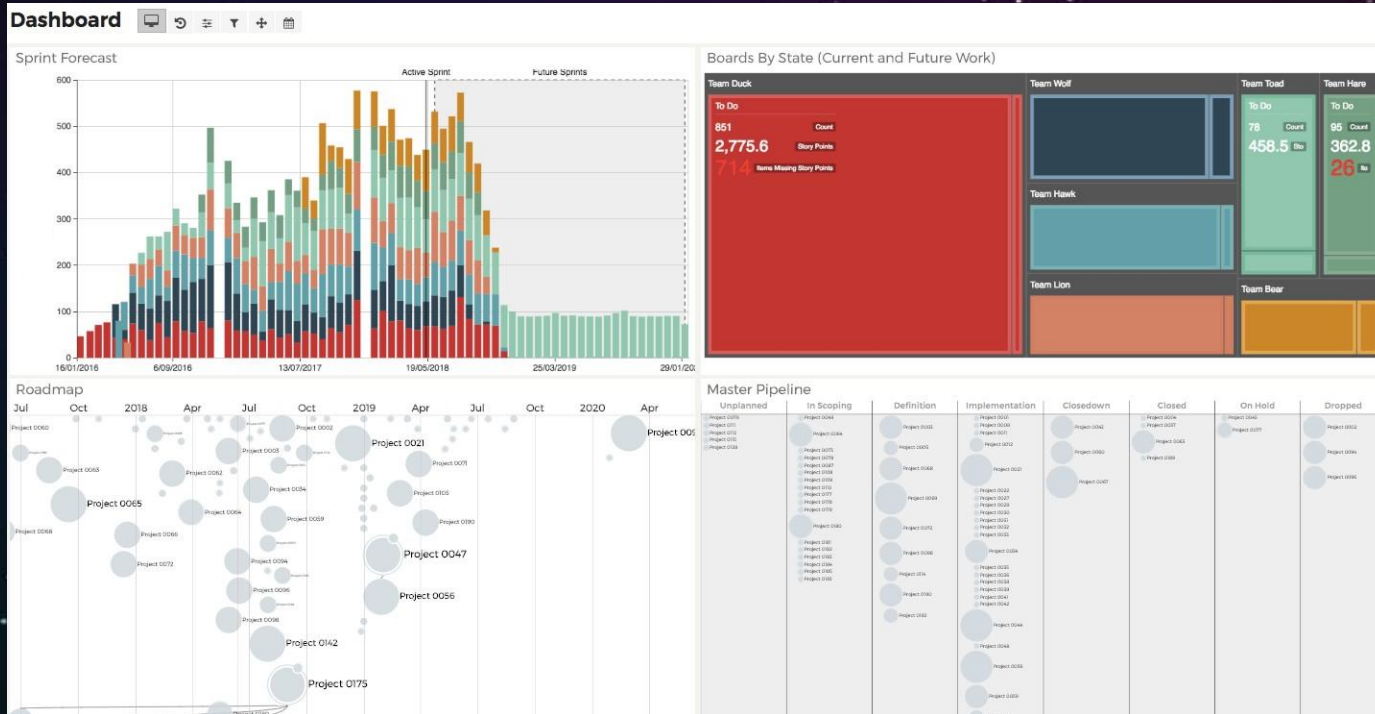
Project Plan



Project Performance



Agile Portfolio Dashboard



Agile Conclusion

- Agile need not be the end of clarity
- With the right tools you can shine light into the Agile world
- Now its visible
- Now you can understand:
 - report, explain, discuss, resolve
- Now you can control
 - direct effort to maximise returns or impact

Its different here!

Software
Transport
Consultancy
Airline, Rail
Accountant
LEP
Government
Construction
Banking
Standards
Product
Council
Police
NHS
Catapult
Electronics
Oil & Gas

Case Study 2

The Drone Case Study

Robert Garbett
Chief Executive
Drone Major Group





THE GLOBAL COMMERCIAL TRADE ORGANISATION FOR THE DRONE INDUSTRY

Drone Major Group is the world's first global commercial organisation dedicated to connecting, supporting and trading with all stakeholders in the drone industry at every level and across every environment (surface, underwater, air & space).

WHAT IS POSSIBLE - WHERE TO BUY IT - HOW TO IMPLEMENT SAFELY AND EFFECTIVELY

Launched Sept 2017 | £100M + Opportunities | 1 Billion readers | Over 50,000 Subscribers



Drone Standards

Drone Major Group are at the forefront of the development of standards for the drone industry in the UK, Europe and Internationally

- We hold the Chair of the BSI ACE 20 Committee – National Drone Standards
- Members at ASD-Stan D5 WG8 – Drone CE Standards
- Convenorship of ISO TC20/SC16 WG3 – ***Operations***
- Membership of ISO TC20/SC16 WG2 – ***Manufacturing***
- Membership of ISO TC20/SC16 WG4 – ***Unmanned Traffic Management (UTM)***
- Lead on the development of the ISO Roadmap for the development of drone standards

The ISO Roadmap Project

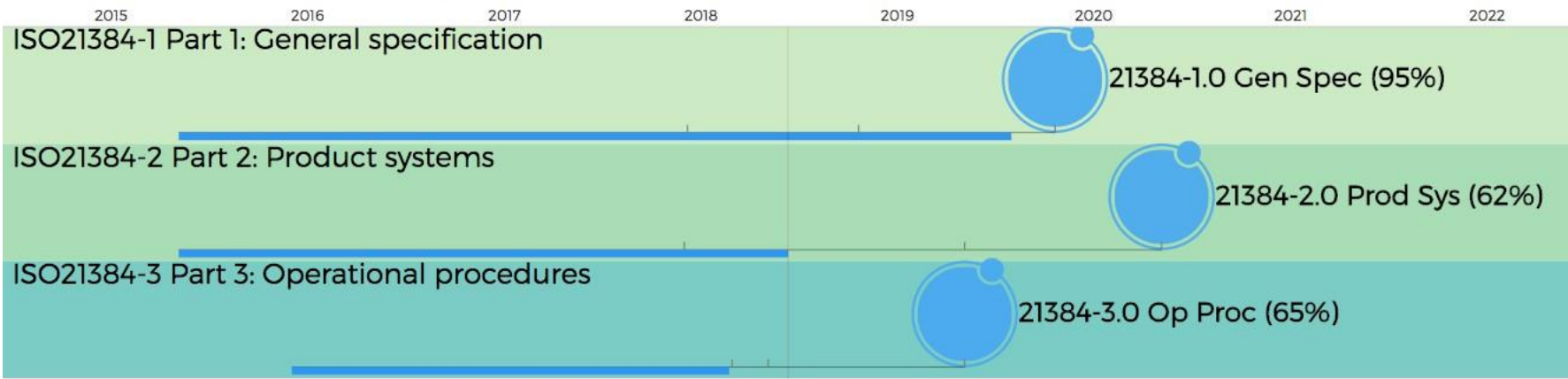
The roadmap for ISO TC20/SC16 UAS Standards project requires:

- Mapping out work done and progress
- Planning of future work items
- Development of projects
- Management of teams

Important that any system used is powerful but simple.

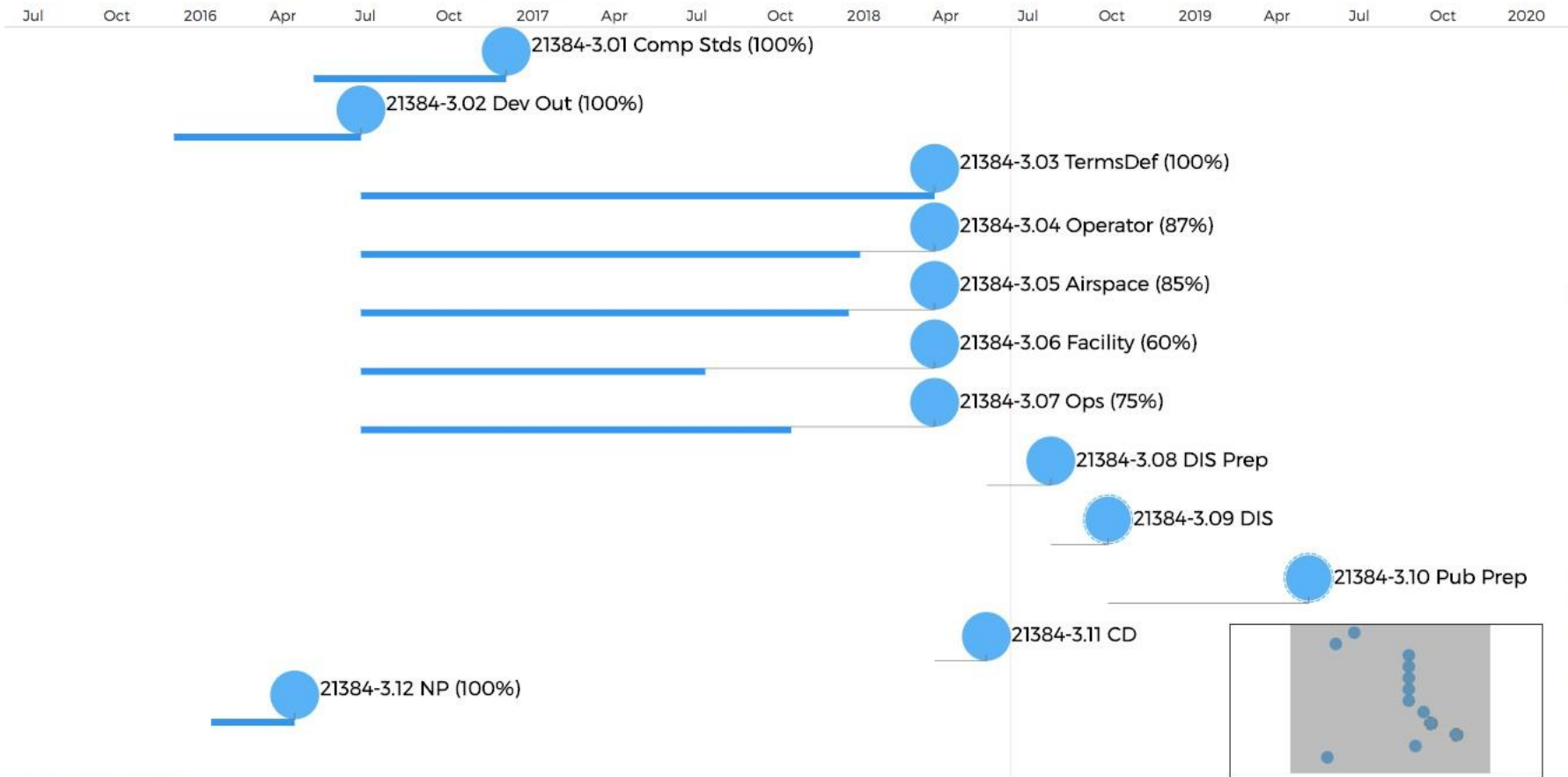


Roadmap



About Contact

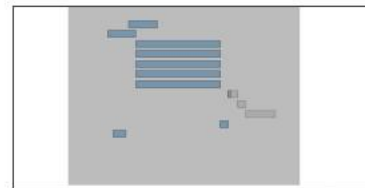
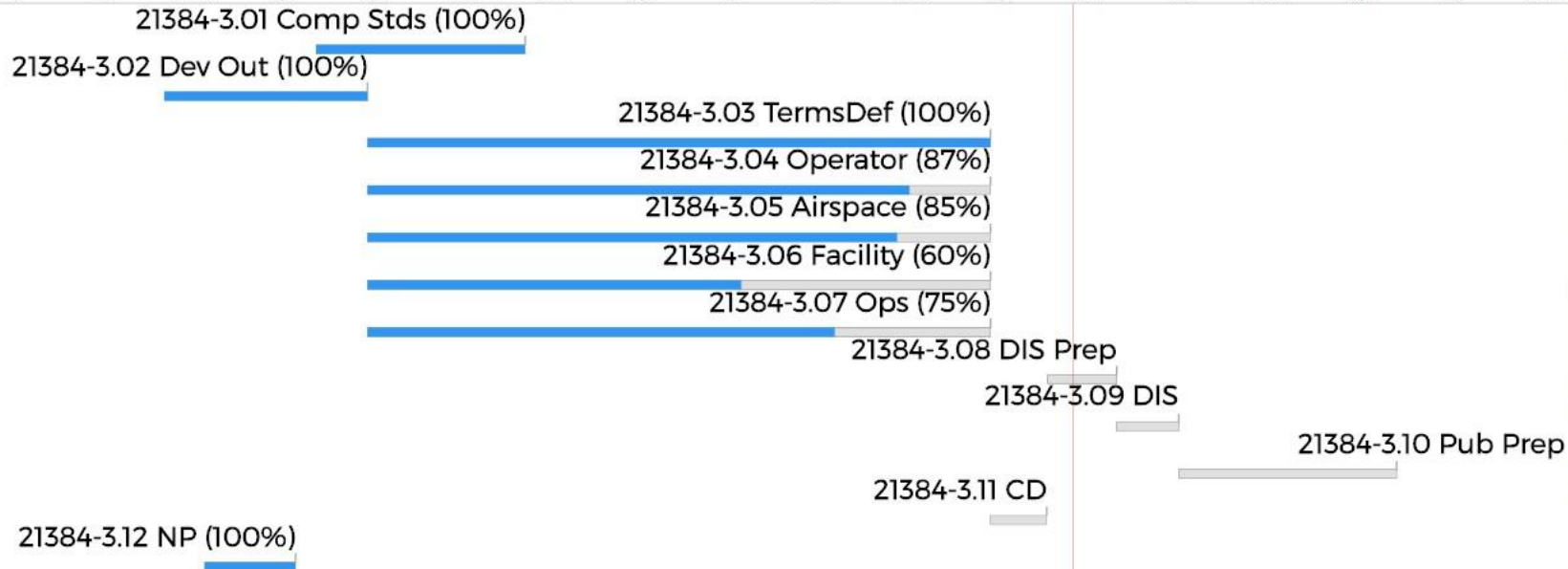
Roadmap



Roadmap



Apr Jul Oct 2016 Apr Jul Oct 2017 Apr Jul Oct 2018 Apr Jul Oct 2019 Apr Jul Oct

[About](#) [Contact](#)

Summary Report



Name	Progress (End)	Sponsor	Pipeline Stage	Start Date	End Date	2016	2017	2018	2019	Update
ISO21384-1.1 Research into Complimentary Standards/Regulations	100%	Dr. Frank Fuchs	Complete	7/05/2015	3/2/2015					
ISO21384-1.2 Development of Outline Structure	100%	Dr. Frank Fuchs	Complete	3/2/2015	26/06/2016					
ISO21384-1.3 Terms and definitions	100%	Dr. Frank Fuchs	In Review	27/06/2016	6/12/2017					
ISO21384-1.4 Rectification and Preparation for Draft Phase	45%	Dr. Frank Fuchs	Not Started	21/02/2018	21/10/2018					
ISO21384-1.5 DIS Ballot	0%	Dr. Frank Fuchs	Not Started	21/10/2018	21/12/2018					
ISO21384-1.6 Rectification and Preparation for Publication	0%	Dr. Frank Fuchs	Not Started	22/12/2018	21/10/2019					
ISO21384-1.7 Committee Draft Ballot	100%	Dr. Frank Fuchs	Complete	6/12/2017	2/02/2018					
ISO21384-1.8 New Project Ballot	100%	Dr. Frank Fuchs	Complete	6/01/2016	7/04/2016					
ISO21384-2.01 Research into Complimentary Standards/Regulations	100%	Lance King	Complete	7/05/2015	3/2/2015					
ISO21384-2.02 Development of Outline Structure	100%	Lance King	Complete	3/2/2015	8/03/2017					
ISO21384-2.03 Terms and definitions	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.04 Airframe	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.05 Propulsion	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.06 Electrical system	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.07 Flight control and avionics	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.08 Control station and data links	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.09 Computer systems and software	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.10 Automation	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.11 Payload	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.12 System airworthiness	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.13 UAS traffic management (UTM)	95%	Lance King	In Progress	8/03/2017	28/06/2018					
ISO21384-2.14 Rectification and Preparation for Draft Phase	0%	Lance King	Not Started	2/10/2018	6/05/2019					
ISO21384-2.15 DIS Ballot	0%	Lance King	Not Started	6/05/2019	6/07/2019					
ISO21384-2.16 Rectification and Preparation for Publication	0%	Lance King	Not Started	6/07/2019	6/05/2020					
ISO21384-2.17 Committee Draft Ballot	0%	Lance King	Not Started	1/07/2018	1/10/2018					
ISO21384-2.18 New Project Ballot	100%	Lance King	Complete	9/01/2016	10/04/2016					
ISO21384-3.01 Research into Complimentary Standards/Regulations	100%	Robert Garbett	Complete	5/05/2016	3/2/2016					
ISO21384-3.02 Development of Outline Structure	100%	Robert Garbett	Complete	3/2/2015	26/06/2016					
ISO21384-3.03 Terms and definitions	100%	Robert Garbett	In Review	26/06/2016	20/03/2018					
ISO21384-3.04 Operator	100%	Robert Garbett	In Review	26/06/2016	20/03/2018					
ISO21384-3.05 Airspace	100%	Robert Garbett	In Review	26/06/2016	20/03/2018					
ISO21384-3.06 Facility and equipment	100%	Robert Garbett	In Review	26/06/2016	20/03/2018					
ISO21384-3.07 Operations	100%	Robert Garbett	In Review	26/06/2016	20/03/2018					
ISO21384-3.08 Rectification and Preparation for Draft Phase	28%	Robert Garbett	In Progress	17/05/2018	26/07/2018					
ISO21384-3.09 DIS Ballot	0%	Robert Garbett	Not Started	26/07/2018	27/09/2018					
ISO21384-3.10 Rectification and Preparation for Publication	0%	Robert Garbett	Not Started	27/09/2018	6/05/2019					
ISO21384-3.11 Committee Draft Ballot	100%	Robert Garbett	Complete	20/03/2018	16/05/2018					
ISO21384-3.12 New Project Ballot	100%	Robert Garbett	Complete	13/01/2016	14/04/2016					
ISO21895.1 Research into Complimentary Standards/Regulations	100%	Dr. Frank Fuchs	Complete	9/05/2015	30/11/2015					
ISO21895.2 Development of Outline Structure	100%	Dr. Frank Fuchs	Complete	8/03/2017	14/03/2017					

Project Management Driving Progress

Drone Major provides services to Buyers and established Suppliers of drones and drone related equipment throughout the world, including advice and strategic consultancy which enables Buyers to:

- Navigate the widening applications for drone technology
- Advising on what is possible
- Where to buy it
- How to implement it safely and effectively.



Our Key Work Packages are aligned to the Drone Lifecycle and grouped according to competency

Drone Lifecycle				
Strategic Guidance	<ul style="list-style-type: none"> • Develop business requirements • Engage Senior Stakeholders 	<ul style="list-style-type: none"> • Manage procurement channels • Secure buy-in from senior stakeholders 		<ul style="list-style-type: none"> • Provide benchmarked overview of market • Host and run supplier / buyer conferences
Operational Execution	<ul style="list-style-type: none"> • Develop operational and functional requirements • Develop capability model and identify gaps • Review market best practice delivery models 	<ul style="list-style-type: none"> • Pilots / proofs of concept / demonstrations • Ensure alignment of operational and functional requirements • Provide best practice blueprint for operationalisation 	<ul style="list-style-type: none"> • QA for key implementation of drone facilities 	<ul style="list-style-type: none"> • Ongoing QA & Best Practice blueprint
Commercial Support	<ul style="list-style-type: none"> • High level business case • Understand key regulatory requirements • Understand financing • Identify potential suppliers • Understand market opportunities 	<ul style="list-style-type: none"> • Release and manage RFP • Manage down select process • Execute contact 	<ul style="list-style-type: none"> • Ensure supplier commitments are fulfilled • Ensure regulatory sign-off 	<ul style="list-style-type: none"> • Ongoing review against Ts and Cs • Manage warranties and other commercial mechanism • Ongoing review of regulatory changes

THANK YOU ORBITIL



Summary

- PMOs whatever their organisation need good tools
 - Reporting, explaining
 - Analysis, problem solving
 - Planning
- Agile projects present numerous development benefits
 - Progress can be opaque
 - Managing difficult
- The right tools can shine light into this murky world,
 - bring back understanding
- Whatever development strategy, analytics allow you to fail fast.
 - Better in a simulator than reality

Visible

Understand

Control

Fail
Fast

Thank you

Tools to aid decisions are essential

To maximise

- Productivity,
- Benefits
- Impact

Whatever your business or organisation

Agile governance needs analytics and
visualisation

Thanks to:

- Karl Forbes, Inca Digital
- Sepura
- Robert Garbett, DroneMajor

Graham Pink

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Stand 7