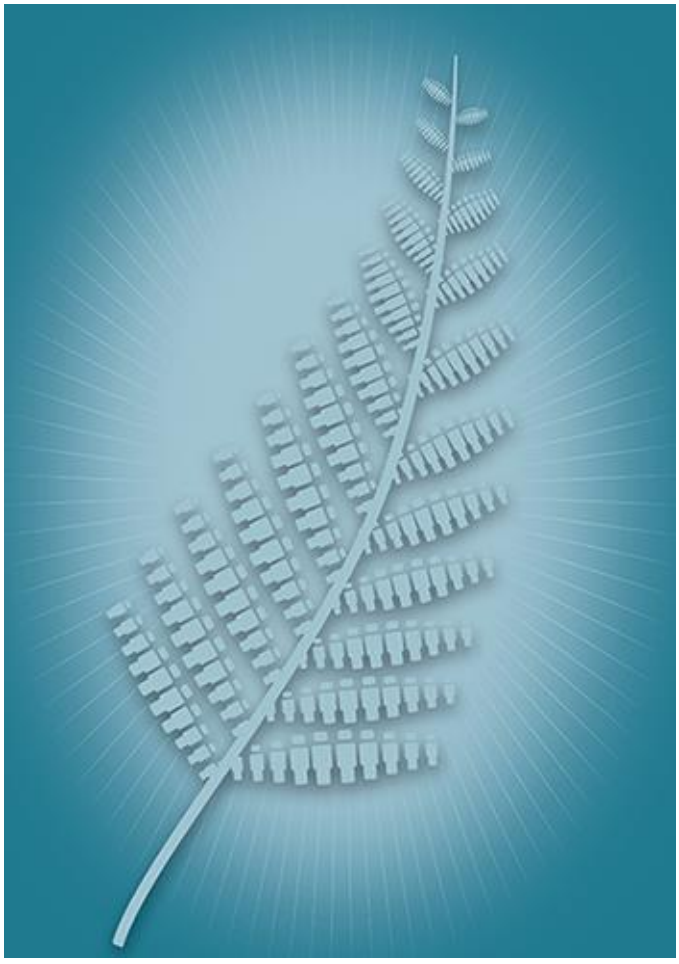
CWP better code sharing workshop

Information collected from participants
October 2014



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Introduction

One of the benefits of CWP is that agencies can share code they develop, thereby reducing cost to Government as a whole. Some progress has been made towards realising this benefit, but more is needed.

Currently all agencies use the same code repository. Each website is a 'project'. An agency can give another agency online access to reuse code they have developed. Recent conversations with ESR, MPI and IR highlighted:

- Code is not always developed in a modular way suitable for sharing
- Agencies have concerns over security and how the code is maintained by others
- There is no easy way to know what code exists

The aim of the workshop was to explore these, and other issues, and imagine what successful collaboration and code sharing will look like in the future. The ideas generated from the workshop will inform a plan to create the principles, guidelines and technical enhancements to improve the discoverability and reusability of code developed by Government on CWP.

Department of Internal Affairs invited participants from the CWP participating agencies to attend the workshop. The participants included the agencies development partners, where they used external suppliers for their development work.

18 participants attended the workshop, representing 8 agencies and 3 development companies.

Outcomes

1. Principles identified – Government wide approach to code sharing
2. Issues with code sharing identified
3. Future state identified

Activity 1 – principles

A straw-man was provided with 3 principles as an example. In groups participants came up with a list of five principles. Teams wrote up the principles on large paper and presented back. The papers were put up on a wall, and then each participant put 3 sticky dots on the principles that best resonated with them.

Some principles as a straw man:

As an agency…

1. As part of planning a website project, we will identify any reusable components.
2. When reusing code we will retest it, and if we find issues we will let other agencies using CWP know
3. Before we develop a complex module, we will talk to other agencies to see if they want to collaborate and share the cost.

Principles from the workshop:

Principle	Votes
As an agency we will share a list of features/components we need to build	7
As an agency we will proactively inform our developers of a desire to share code and discuss implications – cost, time	2
As an agency we will aspire to build/fund re-usable code	0
We recognise that Govt agencies will have similar requirements and design and build to support that	0
It's OK to release and share code that's not finished	1
We start small and iterate – release early – share widely	3
Agencies will invest in making CWP better for all agencies	1
Code sharing is about long term benefit and returns, not specific to single projects	5
Where there is a shared issue there should be shared investment in its resolution	2
Sharing should be the default	4
We will commit people time to contribute to CWP sharing	1
We will grow supplier capability in CWP	2
We will have an agency champion (involved in CWP community)	2
We will actively advocate the use of CWP in everything we do	3
We will utilise the framework and sponsors in place for CWP	0
We will gain internal buy-in to AoG sharing of potential plans (pre-approval)	
We will plan and share early across agencies	0
We will agree if features are customisation/module & bespoke/shareable	3

Activity 2 – issues

Participants were asked to write down every issue they could think of onto 'Post-its'. Around the room were large papers with headings on them. Participants were asked to stick their issues under the best heading that is the best fit.

Intellectual property

- Who shares and when?
- Who maintains common codes (aka share codes)
- Module ongoing support
- Who upgrades modules? Who notifies that upgrades are needed/available?
- What's the incentive for developers if they don't retain IP
- Access isn't copyright license, BSD isn't applicable "in govt only"
- External developers ownership issues
- Modules aren't just code – strategy, UX, BA… what is being warranted?
- Ownership of sharing is unclear
- Module ownership

Discovery

- How to enable business people to understand GIT
- Rich feature catalogue non-tech (for biz sponsors)
- Awareness of other requirements
- Awareness of other projects
- Share proto-plans with enough time to form alliances to build things together (dev pool is slow)
- All care no responsibility still requires a level of testing
- How do we register code snippets, WIP and full blown modules? "Make things findable"
- CWP communities of practice? How do we find each other?
- Agencies don't know what tools already exist for sharing

Technical

- Quality of code principles need to be developed
- Avoid bloat – how do we keep code nimble and focused but still generalisable?
- CWP platform won't let us automate to servers, so we have to do some weird workarounds
- Single task module Vs complex module trying to do multiple things

- Technical capability varies considerably – not everyone will be able to contribute to shared module at same quality
- Managing documentation/releases/updates of shared modules
- Code maintenance? Updates?
- More you share less you innovate
- GIT shared repo that works for all

Attitudes and behaviours

- Do you really want to share?
- Project mentality minimise scope regardless of benefit
- Vendor competition
- Expectations around testing, support, bug fixes
- Cross ministry competition? (Don't want to reveal competitive advantage)
- Egos?
- Adding another 'nice-to-have' to a stressed work programme
- It's not life and death (sponsors will prioritise things over sharing)
- Different ideas of what counts as "good code"
- What is my incentive to share codes?
- Riding on goodwill
- Silo mentality in agencies
- Lazy development
- Fear of sharing (+1)
- It'll be hard to change attitudes towards sharing
- Currently no reward for sharing
- Internal barriers in agencies e.g. current approach is risk averse = no sharing
- Ensuring everyone is doing their part when they can
- Could bake sharing into process, but that needs process change

Communication

- Silo's of development cause waste
- How to make it a continuous process? People leave and join
- Locked into a solution before consideration of long term
- Easy for all levels to understand what's available
- Sharing takes time
- Who manages code sharing process
- Who joins the dots? Agency – Vendor – Code – Modules
- How to gain business buy-in to early releases

- Communicate what's available – scoping whether there's re-usable code should be simpler
- Although no real responsibility for the creator, is there a chance they may be called upon to explain anything further down the track?
- Vendors need to know what to ask/do with CWP principles
- Sharing isn't collaboration – how do you ensure one codebase with multiple product owners
- How does sharing code relate to sharing best practice on other things (content management, RealMe, anything CWP)
- What is our forum for sharing ideas, solutions etc…
- Turnover in agency staff – need very clear centrally communicated (DIA) principles and policy repeated
- Easy to find out what others are doing
- Interagency governance adds: - time, cost + may not return benefits at level that justifies investment
- Who helps guide agencies as to CWP Best practice?

Commercial

- Where is the mandate to spend on AoG sharing
- Procurement rules do not support the CWP model
- AoG procurement rules – mandate?
- Constrained by policy/funding
- All-of-Govt funding model
- Making it a standard to include reusability in scope
- Procurement – flexibility of scope to accommodate module sizing
- Perceptions of ownership – it's crown copyright or open source
- Getting buy-in from above to sign-off extra costs
- Release of untested code may result in: - reputational risk or – expectation that initiator will pay to fix
- If multiple agencies are funding same feature but value differently how to resolve non-equal splits?
- Group finance requirement
- Simplicity of cross agency pooling
- Scale of shared funding
- Head time for budgets
- Suppliers are used to competing (not sharing)
- Purchasing/procurement: how do we develop and use models where we share? - club – lead agency – development pool
- More agencies means more features means higher maintenance

- Not everything is for free – we need to recognise commercial sector role and encourage growth
- Shared code = shared fund?
- Should we contribute more via co-funding
- Un-even impact on community experts need to invest time disproportionally to newbies
- Is the co-funded pool enough?
- Does sharing code cause legal liability?
- ROI
- If code is to be added to core, who pays?

Privacy

- Sharing code may lead to accidentally sharing confidential or controlled data
- Can code be only visible to CWP users (and not all public)
- Lack of identifying what 'is' shareable

Security

- Overly precious "security" reviews and restrictions
- Help make it easy and cheap(ish) to assess security impact of changes/modules
- Code is safe – who can share?
- Have someone (security) keeping an eye on whether newly found bugs affect CWP modules – and helping patch
- Multiple contributors outside an agency means inability to audit access or vet for security

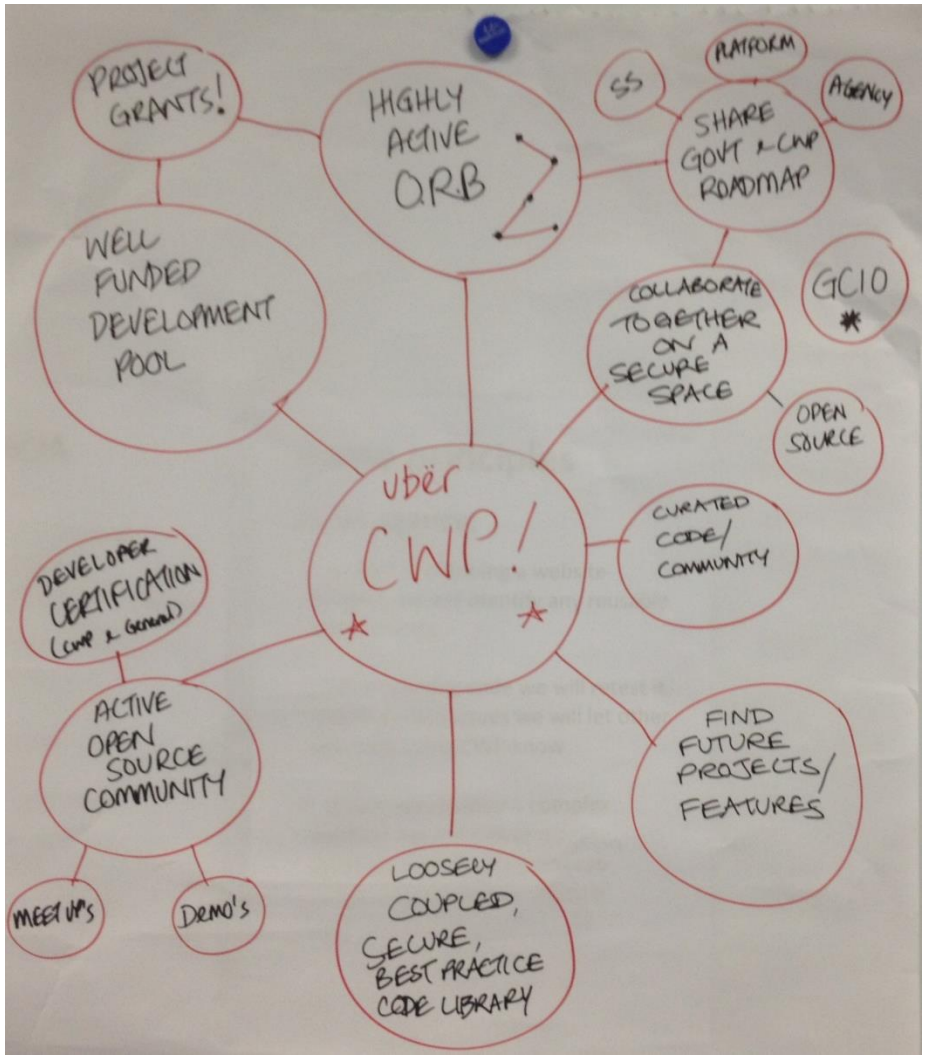
Miscellaneous

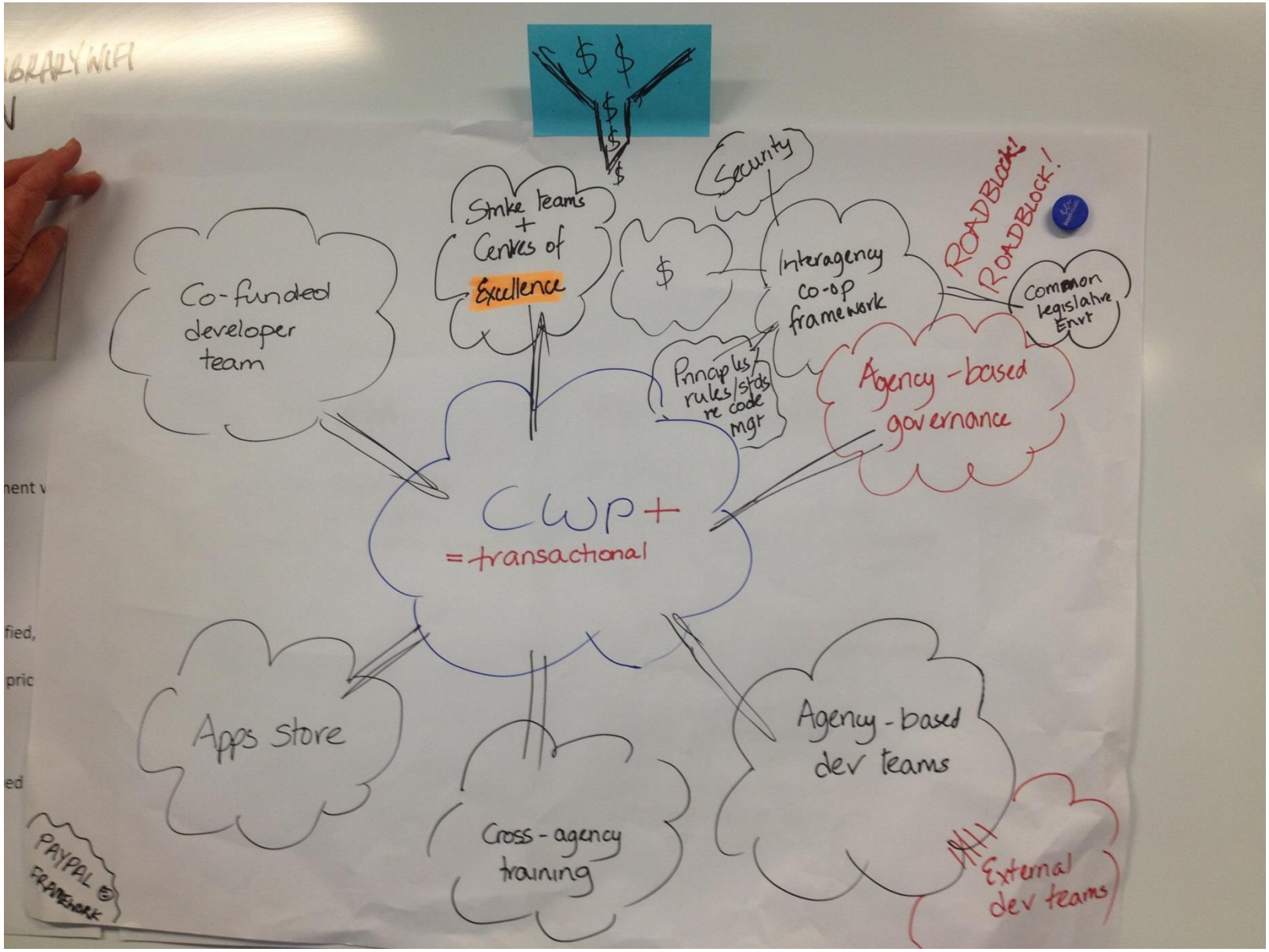
- Govt web managers need more support for breadth – understanding effects of decisions
- Being able to plan far enough in advance to share – realities of govt projects
- Delivery if agile/flexible requirements in waterfall approval process
- Framework for module support
- Lack of clarity about who owns code and implications
- Not all of our work is slow enough to involve others (unless we already have reins and tools in place)
- Lack of case studies where sharing was awesome
- Shared doesn't mean fit-for-purpose
- Identification of code that has been created and shared, within a library.
- There's not enough solid functionality available off-the-shelf

- Stifles innovation
- Getting started – have some good experiences (put goodwill in the bank)

Activity 3 – Future State

In groups, participants discussed what a future ‘utopic’ state could look like. Teams created a picture or diagram that depicts that future state. Each team elected a speaker to present presented the concept back to the group.

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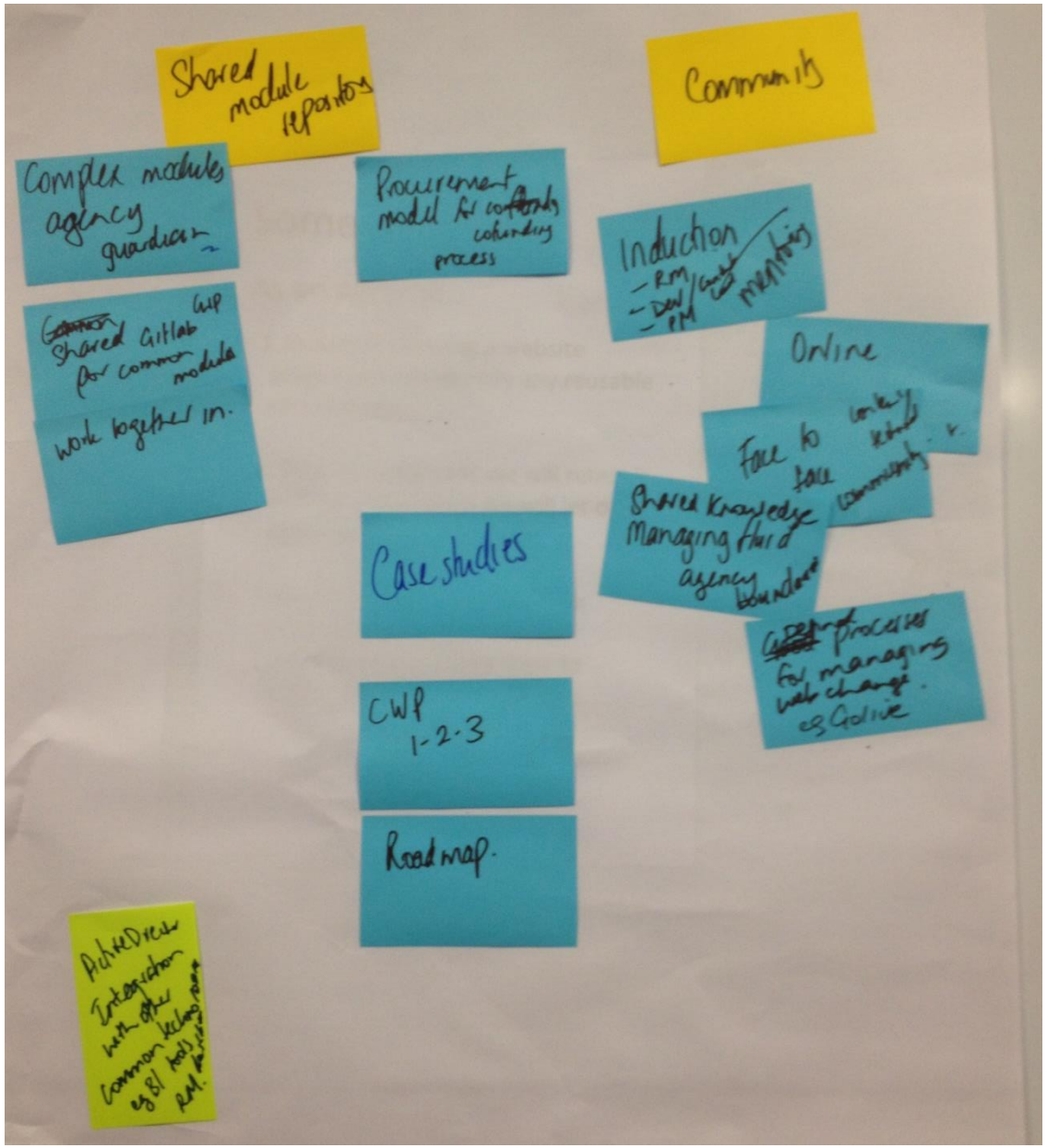
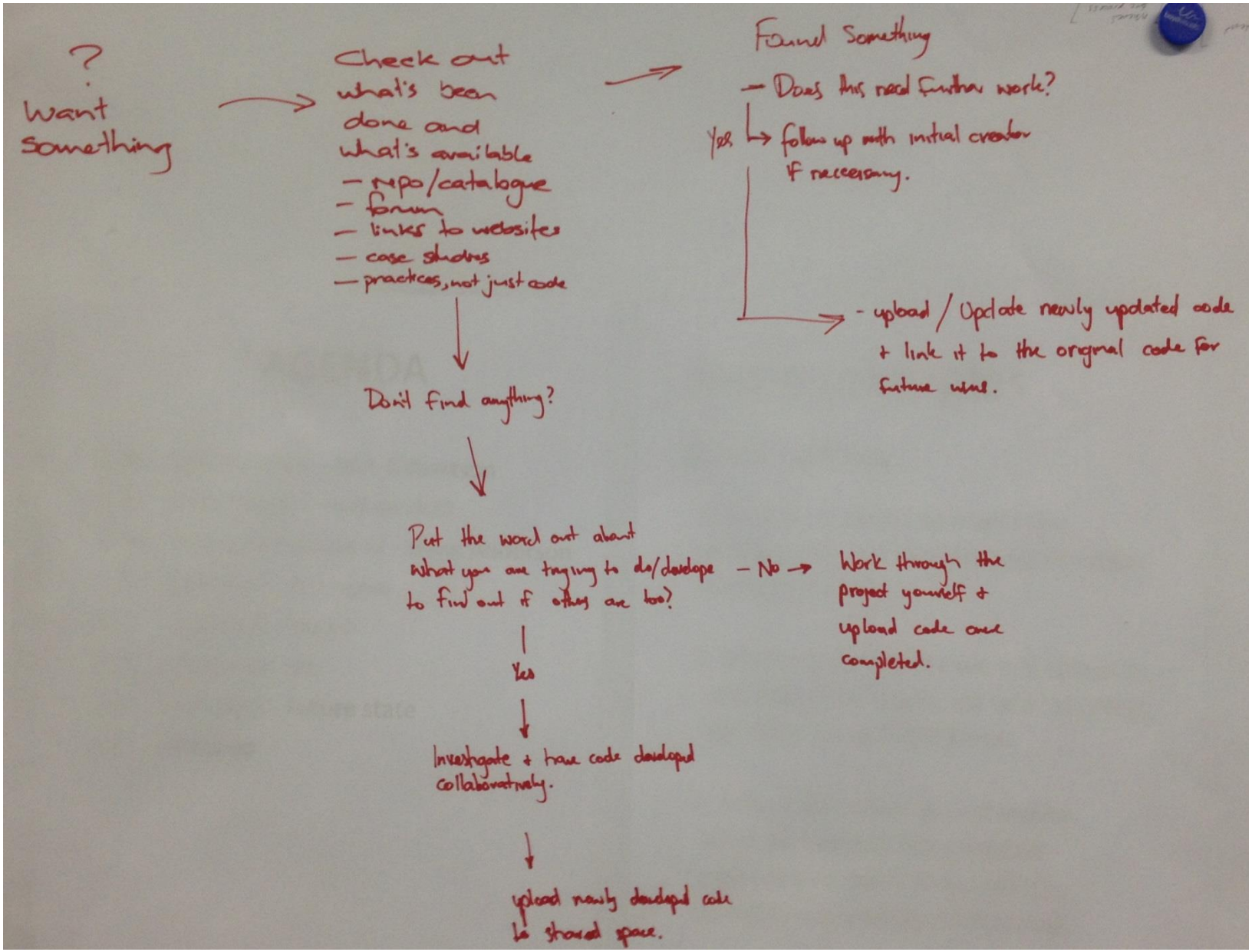
Strike teams + Centres of Excellence
Security
ROADBLOCK!
ROADBLOCK!
Co-funded developer team
$
Interagency co-op framework
Common legislative Envt
Principles rules/stds re code mgr
Agency-based governance
CWP+
=transactional
Apps store
Cross-agency training
Agency-based dev teams
External dev teams
PAYPAL FRAMEWORK


Shared module repository
Community
Complex modules agency guardian
Procurement model for contracts
Induction
Online
Face to face
Shared Knowledge Managing third agency
Case studies
CWP 1-2-3
Roadmap.


?
Want something
Check out what's been done and what's available
– repo/catalogue
– forum
– links to websites
– case studies
– practices, not just code
Found Something
– Does this need further work?
Yes → follow up with initial creator if necessary.
– upload / Update newly updated code + link it to the original code for future use.
Don't find anything?
Put the word out about what you are trying to do/develope to find out if others are too?
– No → Work through the project yourself & upload code once completed.
Yes
Investigate & have code developed collaboratively.
upload newly developed code to shared space.