Mark Parsons's closing remarks at the FAIR for Instruments and Facilities Workshop
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One could argue that human civilization is built around the cataloging of things. It's why and how writing was invented. It enables us to manage all the assets--food, building materials, people--that create our society.

Tracking things in registries is what societies do, and we've been doing it for millennia. So you think we'd know how to do it.

I came into this workshop thinking identifying physical objects was largely a solved problem.
(my computer example—model# serial# MAC address UAH label, part #s etc.)
We just needed to make it digital and machine actionable.

I was wrong.

It's more complicated that I thought. Probably more complicated than data, definitely more complicated than articles or people
many players with very different interests and hence different use cases
researchers, lab managers, institutions, manufacturers, …
different scales. needs and requirements differ in small labs and big infrastructures
differ across disciplines
bespoke instruments vs generic instruments

probably a good first step is to formally write down which use cases this project is going to address (P. Fox model) — KISS and try to keep it generic like Kristina requested. Maybe build from the PIDinst use cases

Then there is the question of **definitions**.

I suggest this project come up with a working definition and just start using it in the simplest way possible.

An initial suggestion:
facilities have people and the location may be important (especially if moving)
platforms have multiple instruments
instruments (or sensors) make and record measurements or observations (IADOPT or PIDinst have definitions?)
Instruments have configurations or settings which may be different things (Again look at the use case)

Incentives
I totally underestimated this at the beginning
Is more complex than data PIDs
depends on roles (which may also need to be defined)

Need to incentivize applying the PID in the first place and its subsequent use.
Enforcement comes from more than publishers who were the major motivators for article DOIs, data DOIs, and ORCIDs,
Awareness campaign — teach in high school. PIDs are fundamental to science in a computational era.
Nelson memo — SOS PID WG may be a vehicle

where do we actually need (resolvable) **identification vs. metadata**
When can we simply say these data were produced by a spectrometer with these basic specs vs. these data came from this specific spectrometer
Do we need pids for configurations/settings or just metadata
use cases and definitions will help here as will Linked data like David said
build David's forest and Ted's PID graph

separate concerns -- what do humans need to do, what can automation do
in this workshop it seemed to boil dow to two big issues: credit (not citation per se) and traceability (for reproducibility, understanding, and trust). Reproducibility is a goal but transparency is how we get there. Let's work on that.
automate where you can (e.g. handling diff metadata schema) but don't bother where it doesn't make sense (e.g. credit)— transparency

start simple (MVP—good goal for this project) then add services or services first?

Back to Matt's original question of whether we need to **expand or modify the current PID world**. I don't think we need a new one or only one

Yes, we need different IDs for diff kinda things, but I think we have enough, especially since we want them to interoperate.
Because the question is less about which ID than *when* to apply it to what. Naming something has consequence.
Furthermore the issue may not be about the PID per se , but rather what metadata is associated with it.
DOIs allow/require typing which you can disagree with but it doesn't really matter because it doesn't change the metadata. Maybe we need a schema like PIDinst but maybe we just need another identifier pointing to machine readable metadata defined by the discipline. This may be where ARKs could be useful or B2Inst?

I'm intrigued by RRIDs and am struck at how much further ahead the life sciences (or maybe its the experimental sciences) are ahead of other disciplines, especially observational sciences.

Ultimately we don't need a new id. We need the processes and incentives (and I guess governance) that make that part of routine scientific practice. As David said, that involves linking people together.

So this has been a great start!