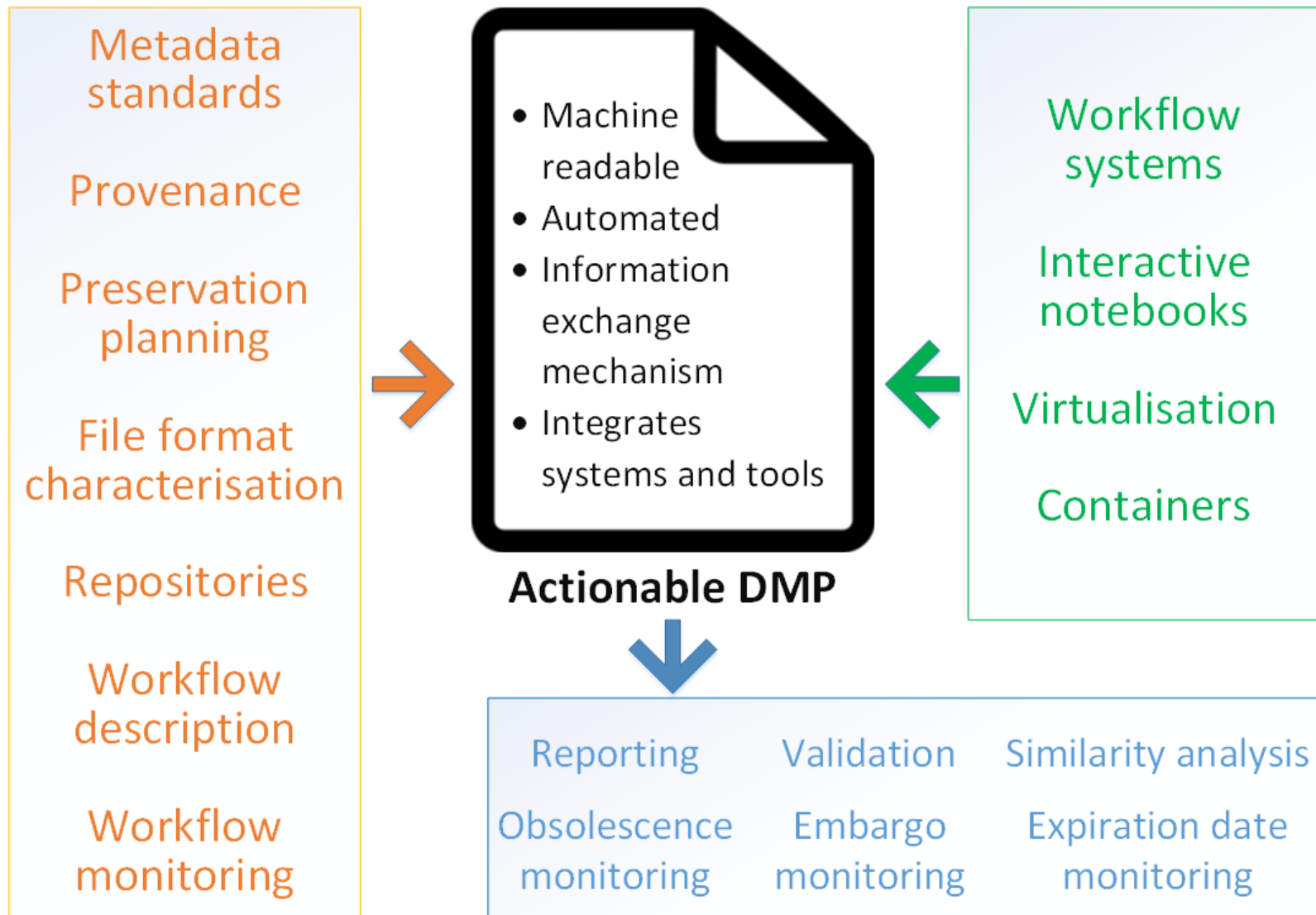# Information integration through
Actionable Data Management Plans
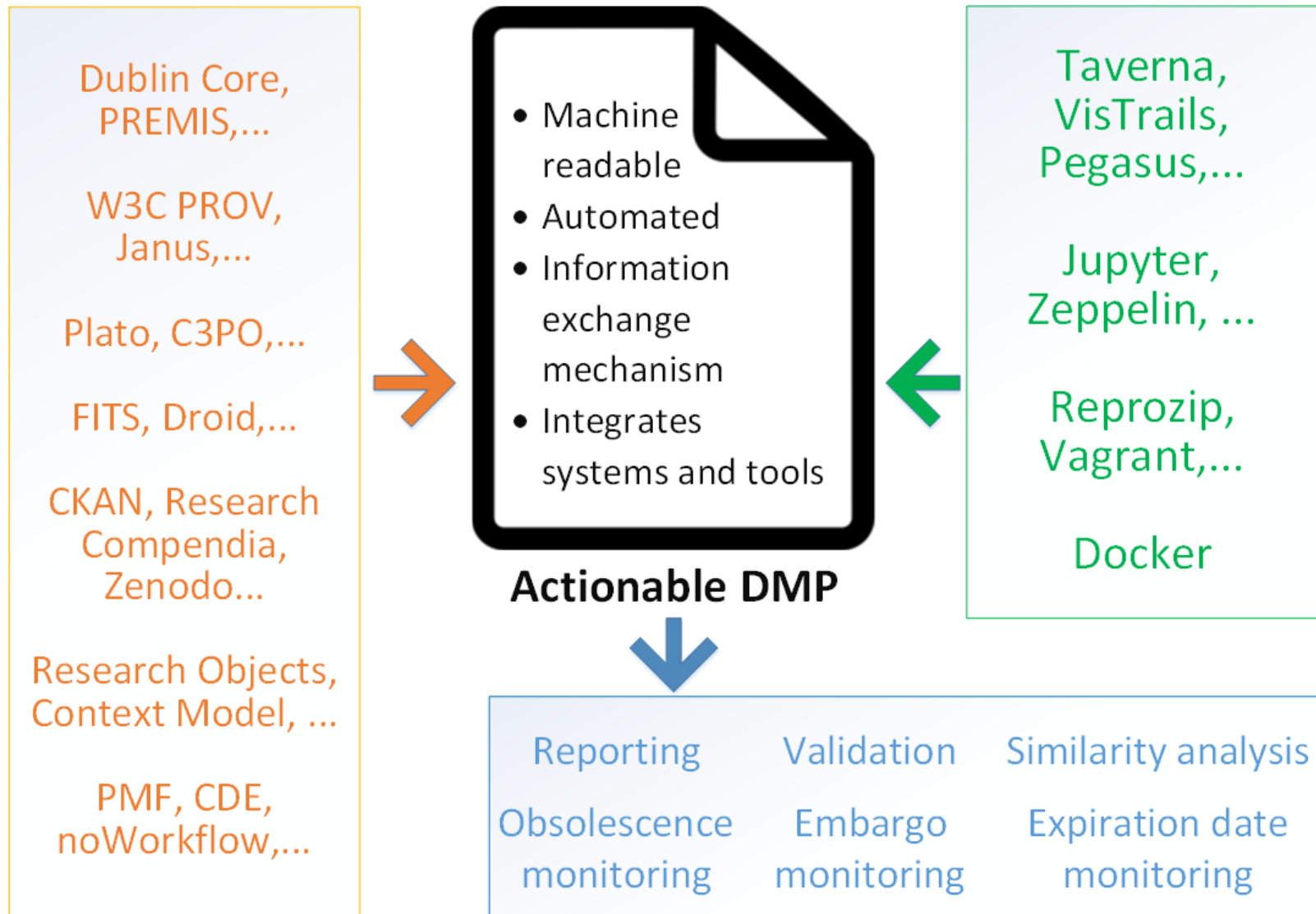
Tomasz Miksa

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Actionable DMPs integrate domains and tools
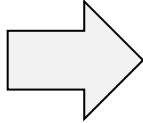

Metadata standards

Provenance

Preservation planning

File format characterisation

Repositories

Workflow description

Workflow monitoring

- Machine readable
- Automated
- Information exchange mechanism
- Integrates systems and tools

Actionable DMP

Workflow systems

Interactive notebooks

Virtualisation

Containers

Reporting   Validation   Similarity analysis

Obsolescence monitoring   Embargo monitoring   Expiration date monitoring

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Actionable DMPs integrate domains and tools

Dublin Core, PREMIS,...

W3C PROV, Janus,...

Plato, C3PO,...

FITS, Droid,...

CKAN, Research Compendia, Zenodo...

Research Objects, Context Model, ...

PMF, CDE, noWorkflow,...

- Machine readable
- Automated
- Information exchange mechanism
- Integrates systems and tools

Actionable DMP

Taverna, VisTrails, Pegasus,...

Jupyter, Zeppelin, ...

Reprozip, Vagrant,...

Docker

Reporting   Validation   Similarity analysis

Obsolescence monitoring   Embargo monitoring   Expiration date monitoring
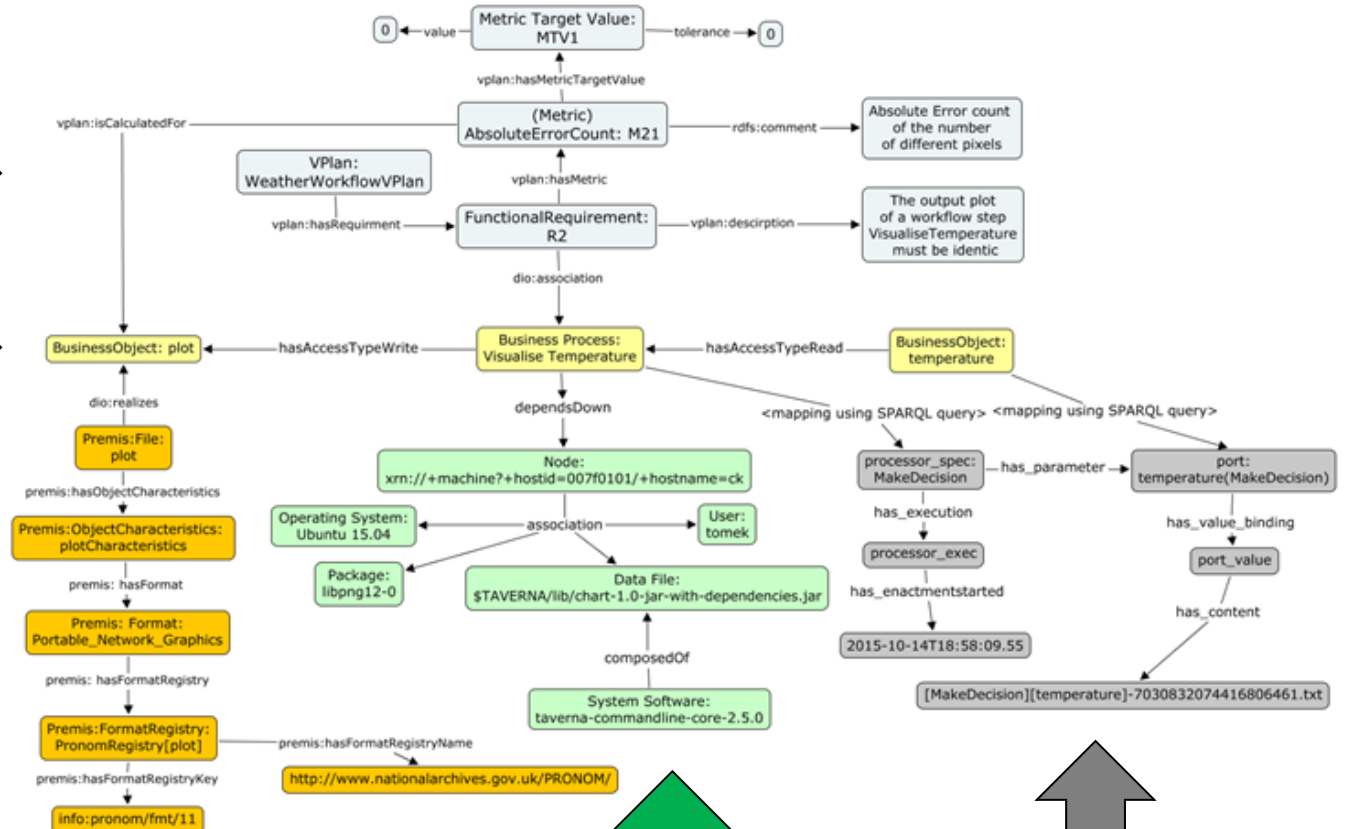
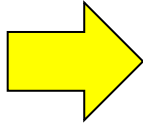*Tomasz Miksa*   *tmiksa@sba-research.org*

Actionable DMPs are feasible!
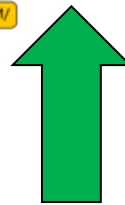

Validation metrics
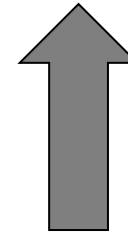
Workflow definition

File formats

Software dependencies

Provenance

Next steps

- Map existing solutions to DMP sections

- Define actionable DMP data model

- Define DMP file format

  - standalone document, not an SQL table within a tool

  - e.g. Research Objects can be extended

- Integrate with existing tools

  - APIs

  - import/export functionality

There will be no single solution, but combination of tools that talk to each other using the same language – Actionable DMPs!

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