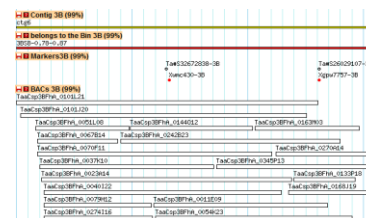
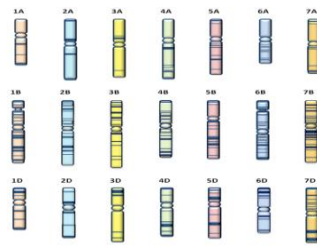


WheatIS: Progress report

Michael Alaux



WheatIS data submission



DSpace

- **Beta-version** to test:
<http://urgi.versailles.inra.fr/xmlui/>
- At the moment, available submission formats:
 - Genotyping
 - Phenotyping
 - SNP discovery
- An account has been send to each EWG members:
 - You can test -> the data will be deleted
 - Please give feedback:
michael.alaux@versailles.inra.fr

DSpace

- To do:
 - Developments based on feedbacks
 - Add new formats

DSpace



[DSpace Home](#)

DSpace Repository

DSpace is a digital service that collects, preserves, and distributes digital material. Repositories are important tools for preserving an organization's legacy; they facilitate digital preservation and scholarly communication.

Communities in DSpace

Select a community to browse its collections.

- [Wheat Community](#)

Recently Added

[Test SNP Disco Vitis 2](#)

Unknown author

[View more](#)

Search DSpace

[Advanced Search](#)




Browse

All of DSpace
[Communities & Collections](#)
[By Issue Date](#)
[Authors](#)
[Titles](#)
[Subjects](#)

My Account

[Login](#)
[Register](#)

RSS Feeds

 [RSS 1.0](#)
 [RSS 2.0](#)
 [Atom](#)

DSPACE

[DSpace Home](#) → [Wheat Community](#) → [Phenotyping](#) → [Item submission](#)

Item submission

[General Information](#)



[Trial](#)



[Variable](#)



[Plant Material](#)



[Treatment](#)



[Upload](#)



[Review](#)



[License](#)



[Complete](#)

Describe Item

Title*:

Enter the main title of the item.

Principal Contact:

Enter principal contact informations of this item below.

Last name*

First name*

Email*

DSpace

- Phenotyping data submission demo by Thomas:
<http://urgi.versailles.inra.fr/xmlui/>

WheatIS distributed search tool



SolR search

- **Beta-version** to test:
<https://urgi.versailles.inra.fr/wheatis>
- Rely on the transPLANT model
- Data types queried at the moment:
 - Sequences
 - Markers
 - Accession
 - Experiment
 - QTL
 - Genetic maps


SolR search

- Nodes queried at the moment:
 - URGI
 - GnpIS
 - EBI
 - Ensembl Plants
 - IPK
 - CR-EST
 - GEBIS
 - MetaCrop

SolR search

- To do:
 - Add more nodes and data types
 - Please give feedback:
michael.alaux@versailles.inra.fr

SolR search

Triticum aestivum 

More restrictions

Show 10 entries Filter:

ID	Source	Type	Taxon	Description
#ID	Ensembl Plants	-	Triticum aestivum	Traes_4DS_D3D974286

[#ID](#) **Gene: Traes_4DS_D3D974286**


[#ID](#) **Location** [Scaffold IWGSC CSS 4DS scaff 2322117: 3,099-7,813 reverse strand.](#)

[#ID](#) **Transcripts** This gene has 1 transcript (splice variant) [Show transcript table](#)




[#ID](#) **Summary** ⓘ

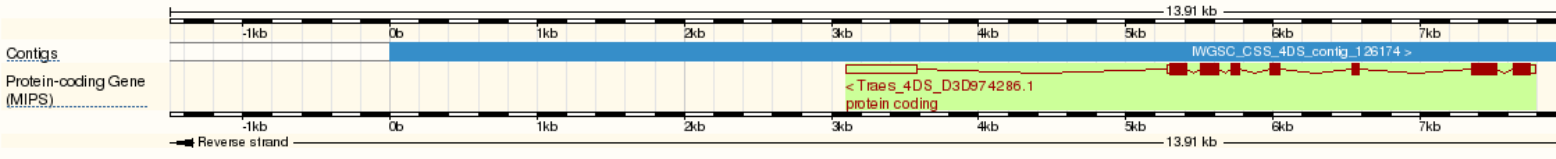
[#ID](#) **Gene type** Protein coding

[#ID](#) **Prediction Method** *Triticum aestivum* genes annotated by [MIPS](#)

[#ID](#)  **Go to Region in Detail for more tracks and navigation options (e.g. zooming)**

[#ID](#) [View genomic alignments of all homoeologues](#)

[#ID](#)   

[#ID](#) 

[#ID](#) **Contigs** [IWGSC_CSS_4DS_contig_126174 >](#)

[#ID](#) **Protein-coding Gene (MIPS)** [< Traes_4DS_D3D974286.1 protein coding](#)

Showing 1

Gene Legend

- Import / Other
- protein coding

SolR search

Triticum aestivum



▼ More restrictions

- entry_type: SEQUENCE FEATURE (618028)
- entry_type: Sequence feature (109017)
- entry_type: expressed sequence tags (33497)
- entry_type: genbank_passport_data (12968)
- entry_type: MARKER (10541)
- entry_type: ACCESSION (6320)
- entry_type: EXPERIMENT (1864)
- entry_type: QTL (484)
- entry_type: Biochemical Reaction (291)
- entry_type: GENETIC MAP (24)
- species: Triticum aestivum (739716)
- species: Hordeum vulgare (32105)
- species: Triticum aestivum aestivum (7421)
- species: Triticum aestivum L. var. lutescens (Alef.) Mansf (2997)
- species: Triticum aestivum L. var. aestivum (2758)
- species: Triticum aestivum L. var. ferrugineum (Alef.) Mansf (1367)
- species: Triticum aestivum L. var. milturum (Alef.) Mansf (1019)
- species: Aegilops tauschii (793)
- species: Triticum aestivum L. var. aureum (Link) Mansf (532)
- species: Triticum aestivum L. var. graecum (Körn.) Mansf (488)
- database_name: GnpIS (637261)
- database_name: Ensembl Plants (109017)
- database_name: CR-EST (33497)
- database_name: GEBIS (12968)
- database_name: MetaCrop (291)

Filter by data type

Filter by wheat species

Filter by database « nodes »



SolR search

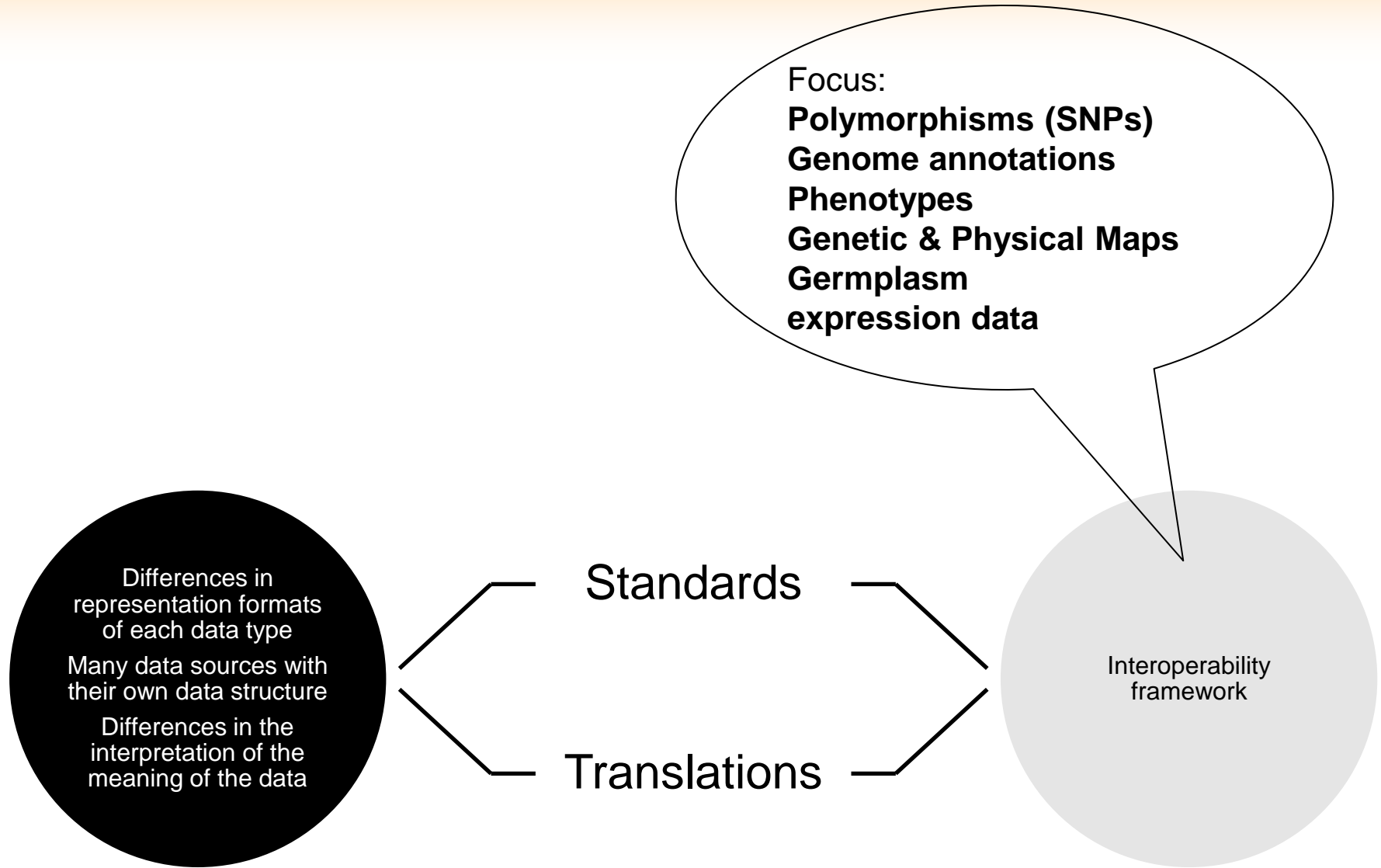
- Demo:

<https://urgi.versailles.inra.fr/wheatis>

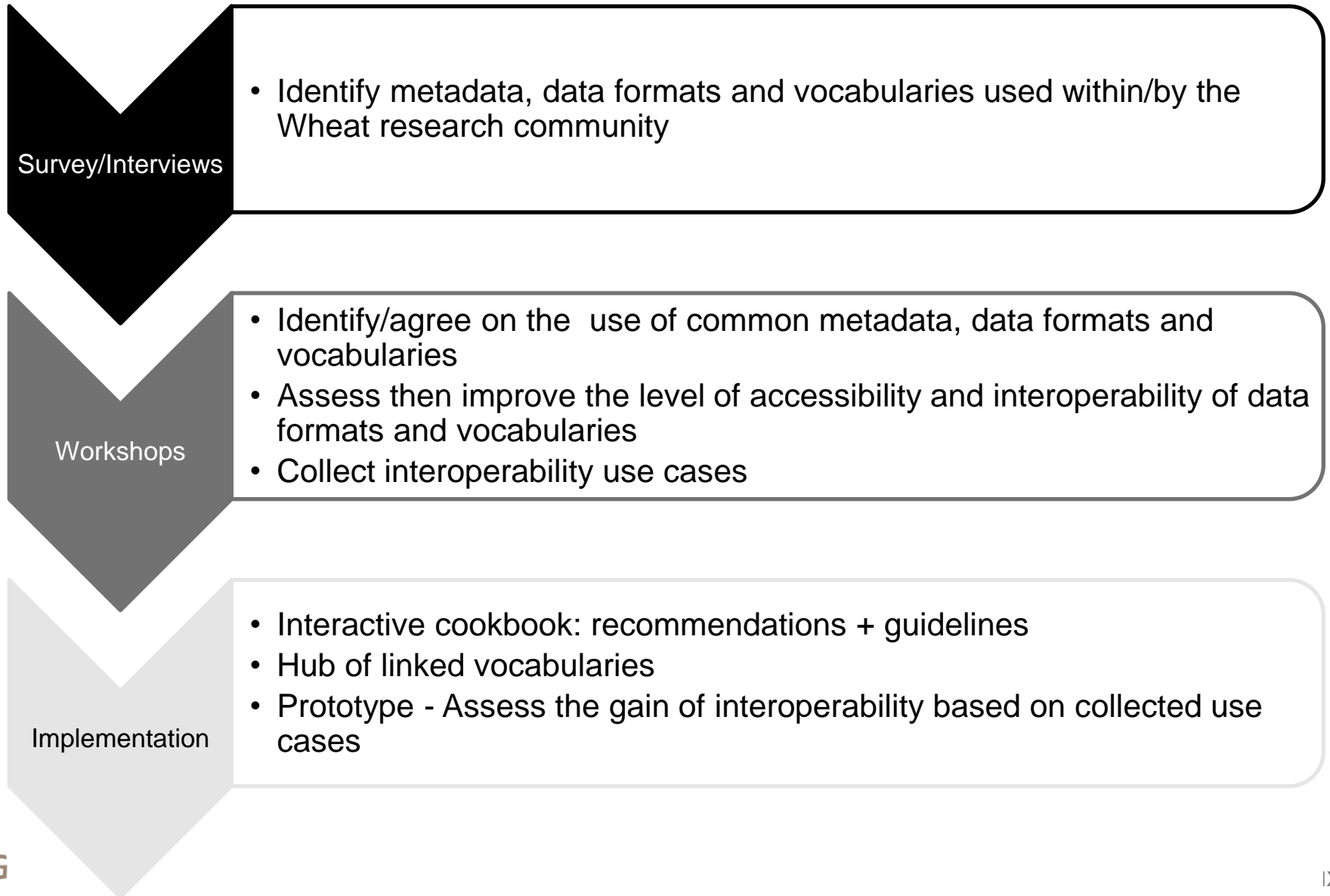
Report of the RDA wheat group



RDA group main objectives



Workflow



Where we are

Survey/Interviews

- A survey launched in April 2014
- Answers from more than 200 respondents

Workshops

- 1-2 October 2014
- List of recommended data formats and vocabularies for each data type
- List of follow up actions for each data type (standardization e.g for traits, minimal set of metadata e.g for SNP files provenance or for markers, QTL and map handling, check for existing mapping tools, etc..)
- List of interoperability use cases

Standards summary

	Recommendations	Follow up actions
SNPs	Use of VCF data format	Look at a metadata set to contextualize the provenance of SNP files
genome annotations	Use of GFF3 data format Use of ontologies to fill « Attributes » column (a list of feature attributes in the format tag=value), column 9	Provide description guidelines for filling in content for column 9
Germplasms	Use of MPCD and Darwin Core Germplasm formats	Check how to integrate with tool specific formats (Grin Global, Genesys) Provide a table like human readable format for DWC Germplasm
Gene expression	Follow existing format standards laid out by repositories (NCBI GEO, EBI Array Express)	Check for mapping and conversion tools
Physical maps	Same as for genome annotations	Same as for genome annotations
Genetic maps	Data formats depend on tools that are used, rather concentrate on metadata harmonization	Look at a minimal metadata set to handle markers, QTL, maps Obtain details for linking requirements
Phenotypes	Use of isa-tab data format	Standardize the traits metadata Improve the reference to ontologies used for traits

Next steps

- In progress:
 - ◆ A first version of the « cookbook » will be available on a website: <http://ist.blogs.inra.fr/wdi/>
- Work with experts to meet the identified needs
 - ◆ Metadata harmonization, minimal metadata sets
 - ◆ Mapping among metadata, formats and ontologies
 - ◆ Survey on wheat ontologies

https://docs.google.com/forms/d/1YozHjRWVInQSVx0e2983C9shnd8E0skHxekJ_zK5T00/viewform?pli=1&edit_requested=true

- Two workshops in 2015
 - ◆ Refine the cookbook
 - ◆ Collect more interoperability use cases

Acknowledgments



Questions

DSpace test:

<http://urgi.versailles.inra.fr/xmlui>

SoIR test:

<https://urgi.versailles.inra.fr/wheatis>

Contact me at michael.alaux@versailles.inra.fr