Land Cover to Land Use
Development of a New International Meta-Language on Land Use : 19144-3

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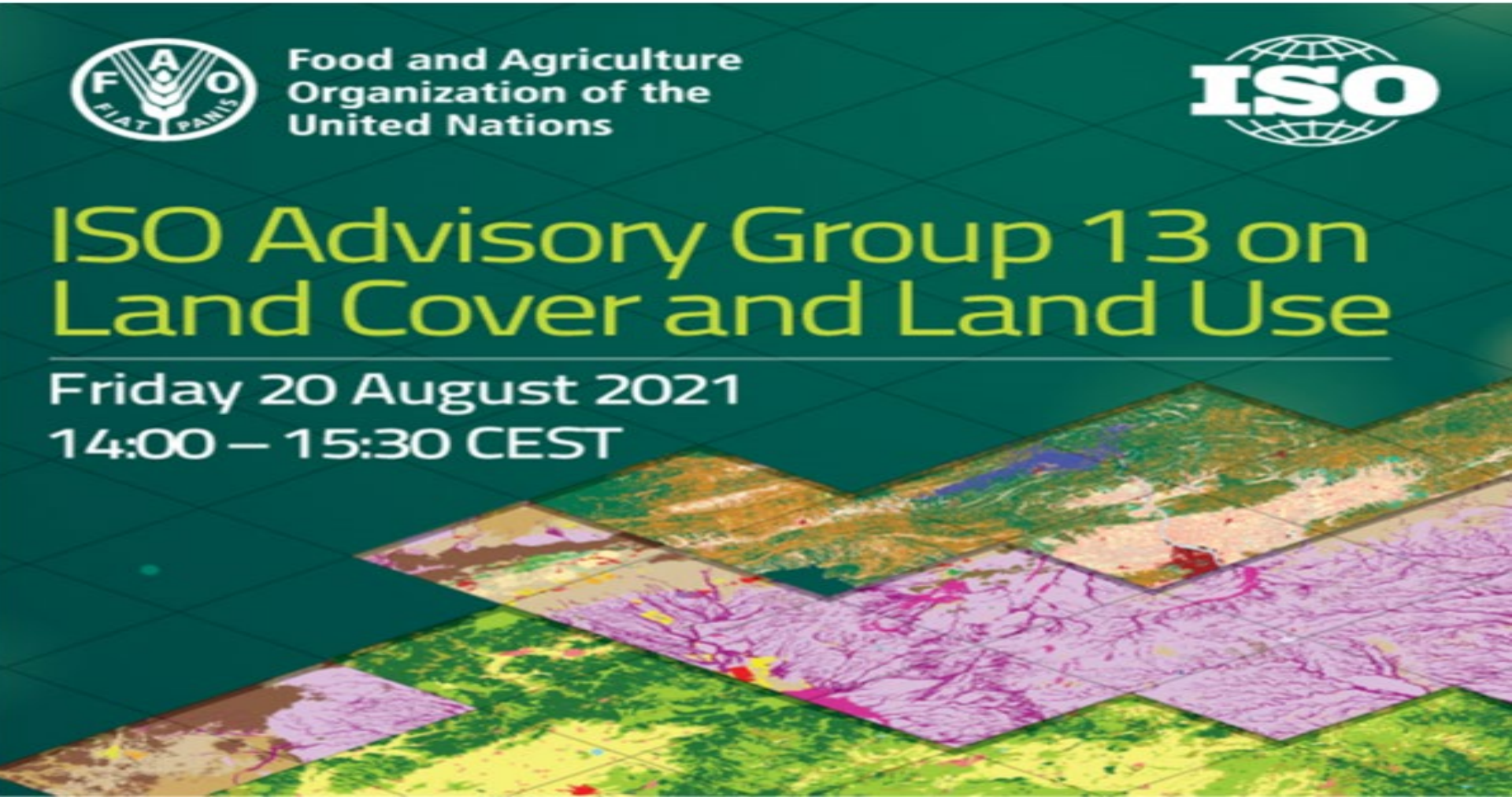


2 New Work Items were recommended by the St 0 Report in 2019

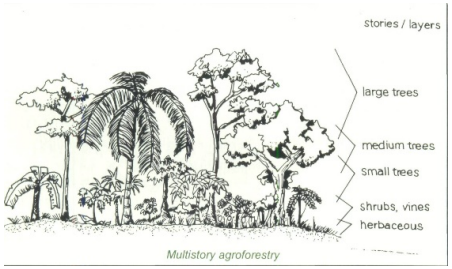
- A NWIP for the **Revision of ISO 19144-2 LCML, which after bre consultation was** submitted to ISO for ballot together with a Working Draft document that incorporated all of the revisions proposed during the reaffirmation ballot and recorded in the Resolution of Comments document.
  - Proposer: UN FAO (as a joint standard – as is the existing 19144-2)
  - Proposed Project Leader : John Latham Visiting Progressor, GeoData Institute, University Southampton UK
  - Proposed Editors: Antonio Di Gregorio and Doug O'brien

- A NWIP for the development of **ISO 19144-3 LUML Land Use Meta Language was** submitted to ISO for ballot together with a substantive outline document.
  - Proposer/Lead : British Standards Institute (UK)
  - Project Leader : John Latham Visiting Progressor, GeoData Institute, University Southampton UK
  - Techncial Editors: Antonio Di Gregorio and Doug O'brien

Both NWIP are undergoing development within the Project Team

L.C. and L.U. DEFINITIONS – DIFFERENCES - CONNECTIONS

Land Cover vs. Land Use



Land Cover – the observed (bio-) physical cover on the earth's surface,

Land use – the intentional activities undertaken by humans in a certain area to change, or maintain it for some purpose

Complex relations and feedbacks between land use and land cover

- Internal drivers (intentions, actions, and practices, technical/physical limitations)
- External drivers (culture, agriculture policies, legal frameworks, natural events/hazards)

Discussion

Plan for 19144-3 LUML

1. Development of a Metalanguage approach: as per Land Cover 19144-2

2. Linkage between LC : 19144-2 and LU: 19144-3

3. Development of Academic Literature : Univ. of Southampton, CNR Italy Topic areas raised in last Project Team meeting from presentation from UN FAO / CNR (Italy) / U Southampton on Land Characterization.

Reference : ***The Land Characterization Meta-Language***

A new approach to define the primary aspects of the land through the functional relationship of its biophysical and socio-economic characteristics : **by Antonio Di Gregorio and Doug O'brien.**

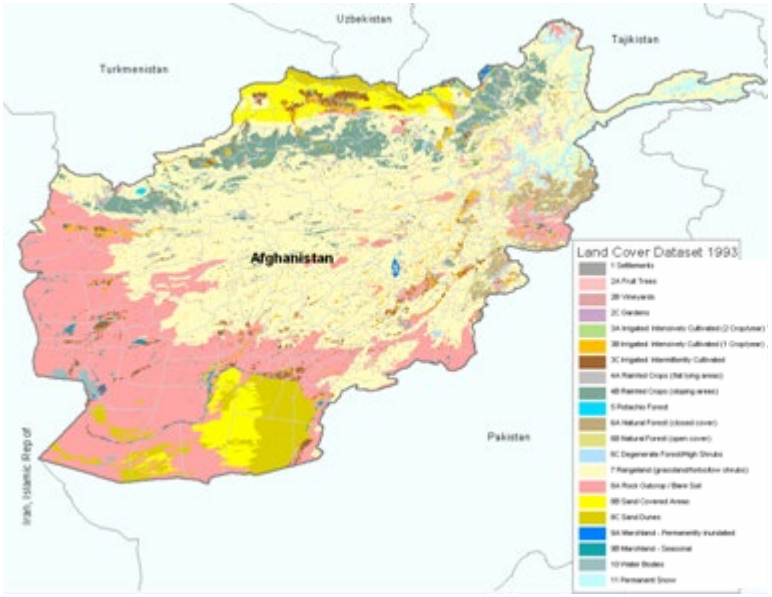
Land Cover Meta Language ISO 19144-2

To Recall: In 2003 the UN FAO presented a plan to the ISO for the standardization of Land Cover based on the approach used in the FAO Land Cover Classification System.

- The first standard developed was ISO 19144-1 that addresses the basics of all classification systems.
- The second was ISO 19144-2 which addresses Land Cover.

- There exist many land cover systems used world-wide produced by different nations.

- The intent of ISO 19144-2 was to build a metalanguage that allows all legends to be described in a consistent way so that data may be integrated at the international level.

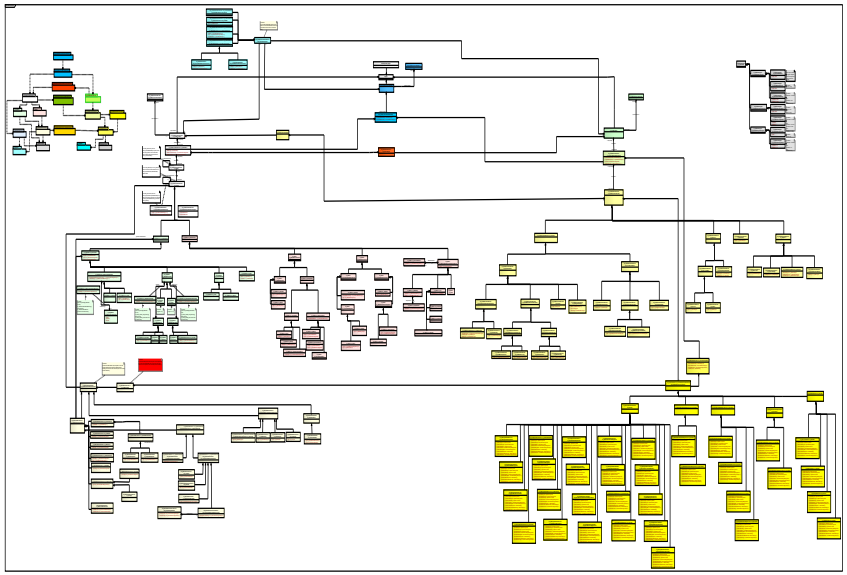


19144-2 LCML as a Metalanguage

- To recall : LCML is a **metalanguage** which may be used to describe a wide variety of land cover classification systems.
- The LCML operates by describing each class in a land cover classification system in terms of **a set of basic elements that when combined describe each aspect of the land cover classification system** class.
- Any particular land cover classification system class can be described as a combination of a set of LC_Element subtype A+B+Q+Y etc.
- Two different land cover classification system classes can be compared by examining the subtypes of which it is composed.
- If one class is composed of subtype **A+B+Q+Y** and another of subtype **A+B+Y** then one can determine that the difference is the "**Q**" element.
- Comparing land cover classes in this detailed manner is important for establishing mappings so that data sets can be generated by the fusion of data from different sources.
- It is proposed and the work of the Project team on Land Use (LUML) is proceeding on the same basis.

Approach of ISO 19144-2 LCML

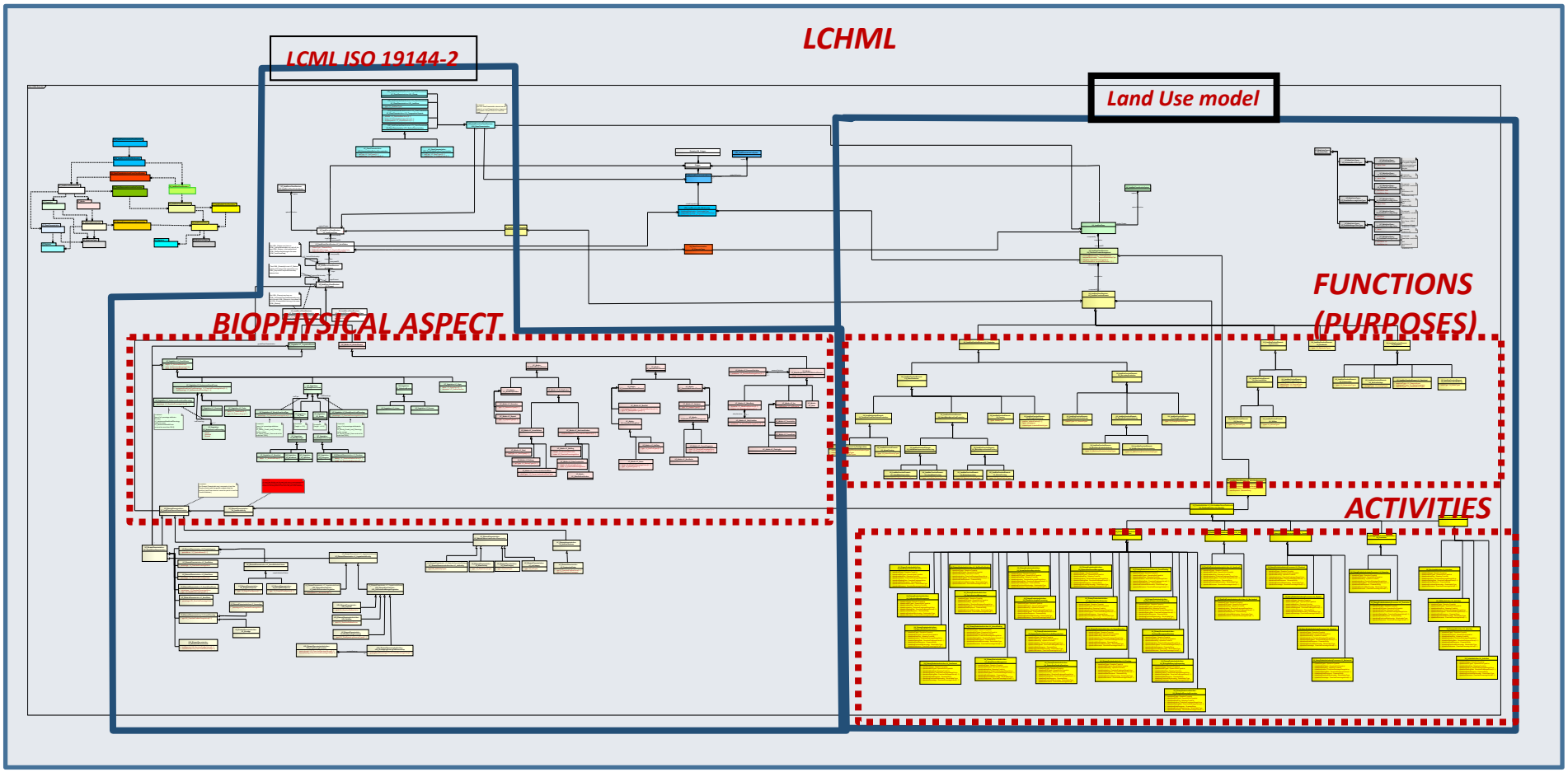
The ISO 19144-2 standard was published in 2012 as an ISO standard and jointly as a UN FAO specification.



- LCML uses a set of consistent classifiers to fully describe the elements in a Land Cover legend based on the observed (bio)-physical cover of the earth's surface.
- These classifiers, together with a set of defined attributes and characteristics may be combined to create or describe a classification system.
- A set of registers (yet to be deployed) allow the list of attributes and characteristics to be extended.

The LCHML Model an Overview

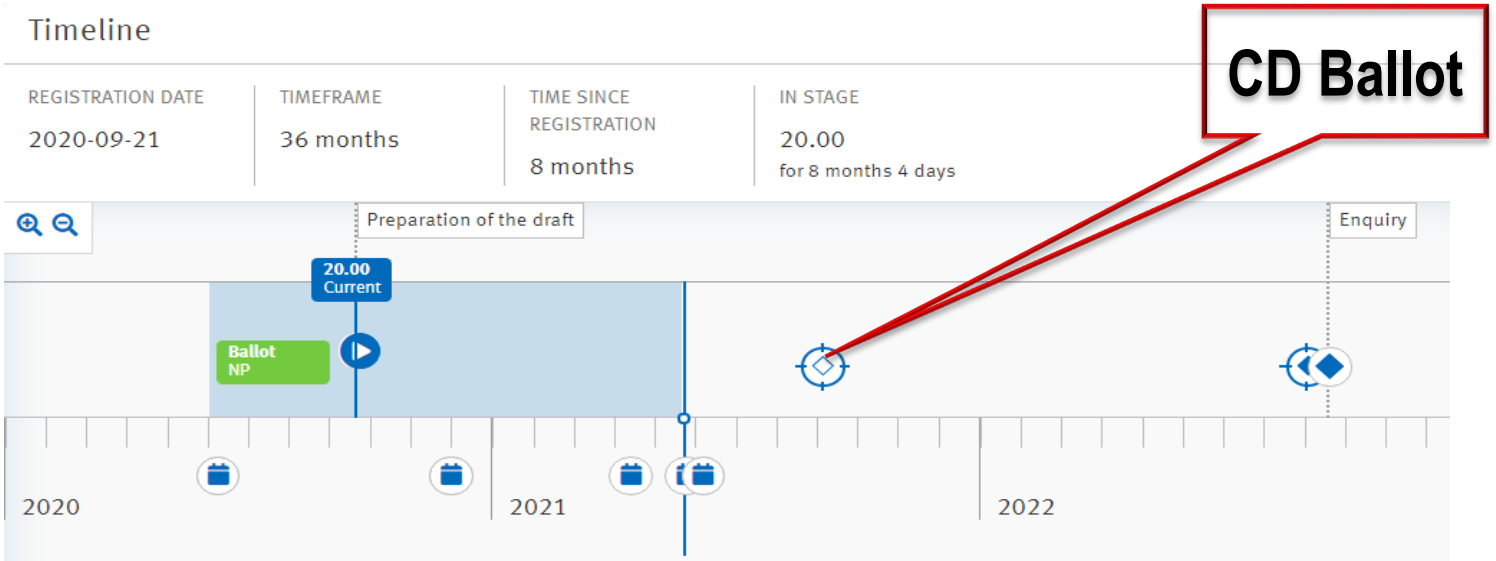
Land Characterization Meta – Language a functional correlation of the major aspect of the land



CD Ballot

Submission of the Working Draft document for CD ballot on LC.

- The deadline for submission for CD ballot is 4 September 2021



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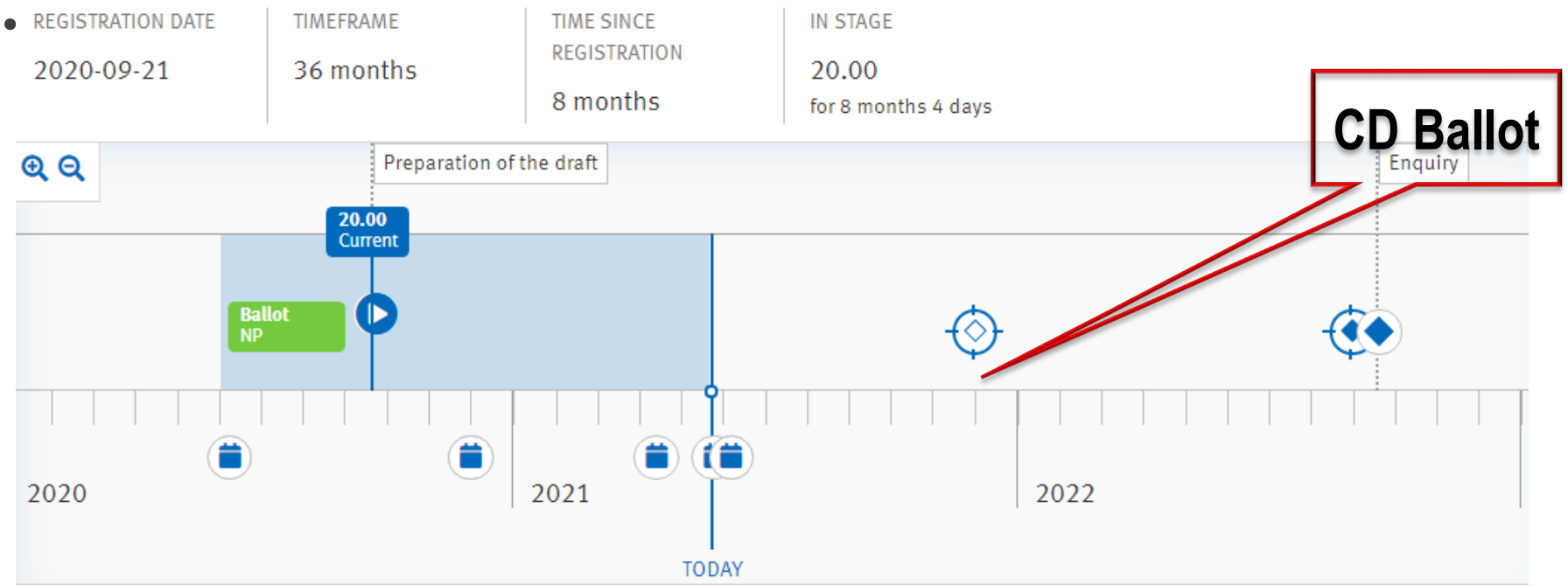
Preparation of Working Draft

A series of Project Team meetings are required to write a Working Draft on LU is Nov 2021.



By late next year we should have a well evolved set of new draft standards on LC and LU.

Masters Research Project : Support to AG 13

What is the relationship of Land Use data to the Sustainable Development Goals & Climate Change agenda?

Project Goals

- Identify opportunities and challenges for Land use data in Climate & SDG measurement, monitoring and action
- Understand how Land Use data is used & accessed
- Gather evidence for Land use meta language development

Data collection

- Interviews with Land use users
- Open web based survey between 6th September and 24th September 2021 that will also directly support the objectives of AG13.

For further details or to be interviewed please contact Denise McKenzie – denise@denise-mckenzie.com

Thank You