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Certification process of small grain cereals BRC in France

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The small grain cereals Biological Resources Centre (BRC) is connected to INRA Auvergne-Rhône-Alpes and is a part of the Joint research unit UMR 1095 Genetics, Diversity and Ecophysiology of Cereals.

2 axis is developed by BRC:

- Management, at national level, of collections of wheat, barley, oat, rye, triticale and wild related species,
- Enhancement of collections in research programs at national and international level.

Why going thought a certification process?

With the increase of the collection (currently 27 000 accessions) and associated data, the evolution of genetic resources regulation and new notion of collection of references, traceability requirement need to be reinforced. The development of quality system management was the occasion to redefine BRC's organization, taking into account of these news notions. Small grain cereals BRC obtained in June 2015 certification under **NF S 96-900** standard, French standard specific to BRC management, for these activities of receipt, preparation, propagation, preservation and provision of biological resources.

How we did it?

Project was funding through French biological, health and agronomy infrastructure (IBiSA) for 2 years with recruitment of a quality engineer for a non-permanent period of 15 months.

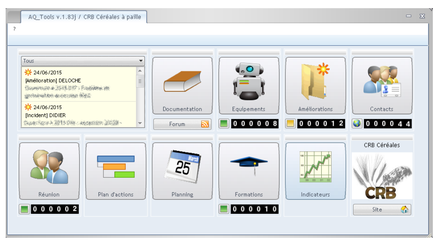
Small grain cereals BRC's members involved in certified activities were training to quality and responsibility of process was shared out each individual.

Collaborations / tools

Strong interactions with French plant BRC network,

Exchanges on problematic and documentation with others certified French BRC,

Implementation of AQ-Tools, developed by R. Cottin (CIRAD) to manage our quality system.



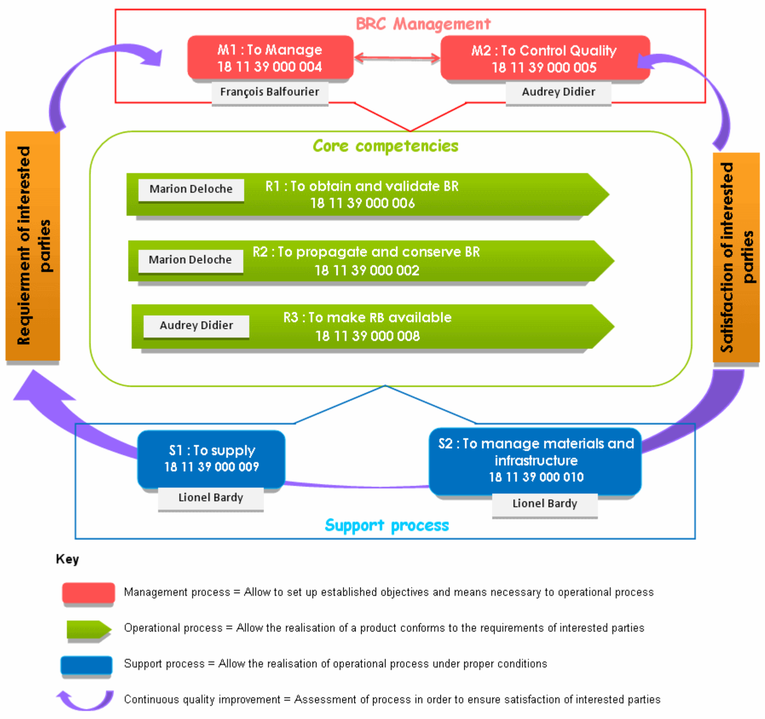


Fig. 1: Process mapping

Mains improvements

Development of a process approach

Activities are managed annually by an action plan

Definitions of objectives and priorities in **quality policy**

System's presentation in **quality manual**

Redaction of **BRC's Terms and conditions**

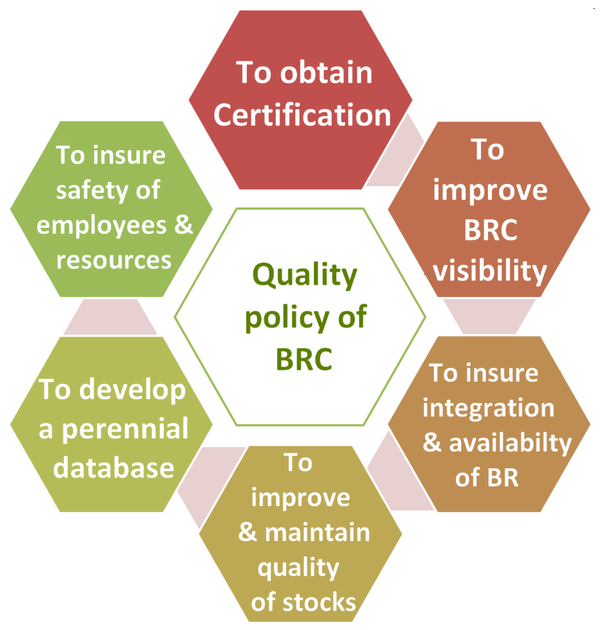


Fig. 2: Quality policy

Acquisition

New form to integrate accession with required informations ie. regulation status

Regeneration and conservation

Reviewing and regular control of storage's conditions

- Active collection: Cold room 100m^3 ; at +4°C and 30% relative humidity
- Base collection: Freezer ; at -20°C as secure storage

Humidity tests after harvest were also setting up to insure that seeds introduced in cold room are between 11% and 12% of relative humidity.

Sample's viability is evaluated after multiplication by random sampling of 200 accessions and when distributed up to 400 accessions.

Distribution of sample

New order request form was produced with required informations ie. intended use of genetic resources. The objectives are to get feed back on project using our genetic resources and on data produced. With certification, we have reinforced traceability of action from request to distribution.

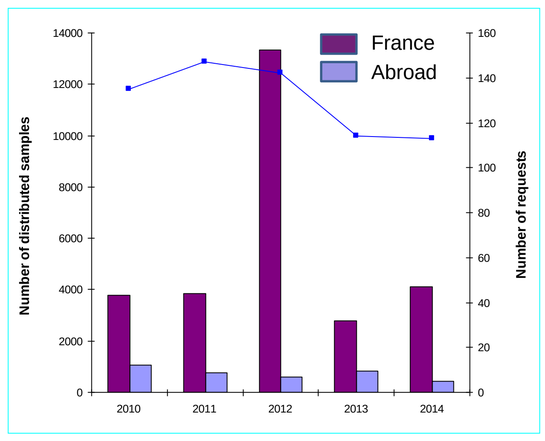


Fig. 3: Number of requests and samples sent between 2010 and 2014

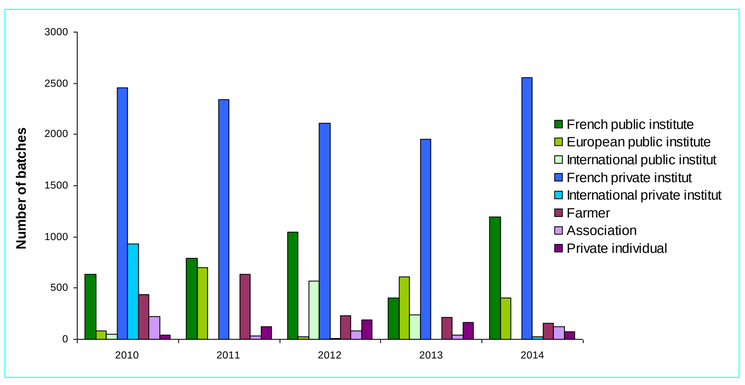


Fig. 4: Distribution by type of requesters between 2010 and 2014

To better understand the expectation of genetic resource's users, we carried out a **satisfaction survey** to genetics resources requester between September 2013 to August 2014. 43% of questionnaire was returned with a global satisfaction of 92%. Improvement suggestions from users were taking into account and introduce in our action plan or informations were provided in our documentary (quality manual, BRC's Terms and conditions).

To improve access to a list of resources and associated data available in our collection, an online database is updated regularly - **SIReGal** www.urgi.versailles.inra.fr/siregal

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