


European Regional Focal Point for Animal Genetic Resources



WORKING GROUP EX SITU CONSERVATION. REPORT OF ACTIVITIES 2018-2019.

Ghent, Belgium. 24th August 2019.

Fernando Tejerina Ampudia, PhD. Chair of the WG Ex Situ Conservation.




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1. WG OBJECTIVES AND MEMBERS

- ✓ To exchange experiences and knowledge between European countries on Ex Situ conservation.
- ✓ To support the establishment, further development, efficiency and effectiveness of national gene banks for AnGR.
- ✓ To develop the European Gene Bank Network for AnGR (EUGENA).

30 members (see report).



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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- DEVELOPMENT OF THE EUGENA NETWORK.
- ANNUAL MEETING OF THE WG EX SITU, 22 MAY, MADRID.
- DEVELOPMENT OF MTA/MAA PROPOSALS IN COLLABORATION WITH ABS TF.



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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- DEVELOPMENT OF THE EUGENA NETWORK.
 - New countries (end of 2018) signing MoU:



 - Previous countries:







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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- DEVELOPMENT OF THE EUGENA NETWORK.
 - New Gene Banks (+ 327.047 samples):
 - Agricultural Research and Education Centre Raumberg-Gumpenstein. Austria.
 - Public enterprise Livestock-veterinary center for reproduction and artificial insemination "Velika Plana". Serbia
 - Cattle breeder veterinary center Krnjaca-Belgrade. Serbia.
 - Temerin. Serbia
 - National Research Institute of Animal Production. Poland (not data in EUGENA website, yet)
 - Banco Nacional de Germoplasma Animal. Spain

2018

WELCOME

on the Web portal of EUGENA,
the European Genebank Network for Animal
Genetic Resources

EUGENA brings together gene banks under the umbrella of the European
Regional Focal Point for Animal Genetic Resources with the objective to
support the ex situ conservation and sustainable use of the livestock in Europe

2 Countries
2 Gene Banks
470985 Samples


2019

WELCOME


on the Web portal of EUGENA,
the European Genebank Network for Animal
Genetic Resources

EUGENA brings together gene banks under the umbrella of the European
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5 Countries
7 Gene Banks
798032 Samples



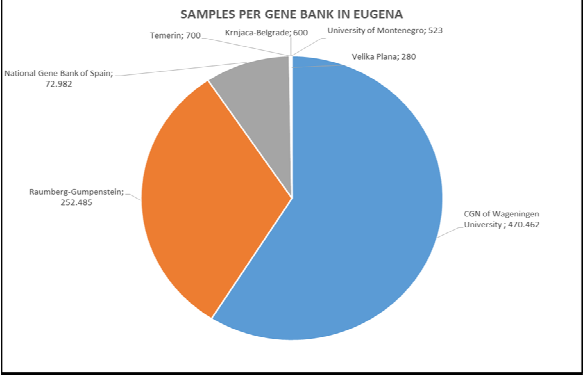
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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- DEVELOPMENT OF THE EUGENA NETWORK.

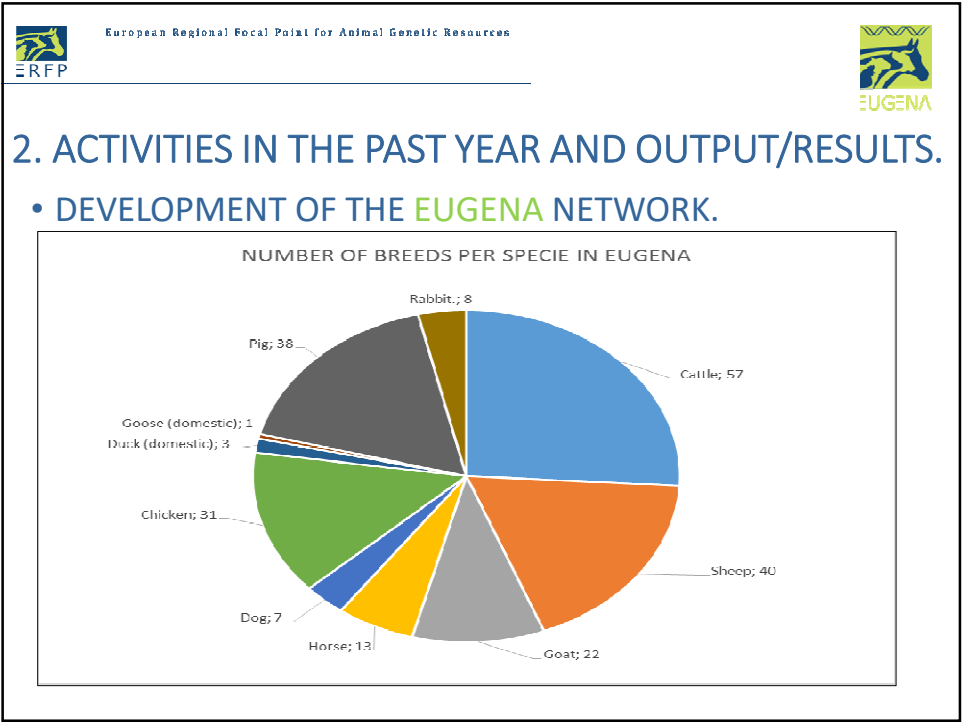
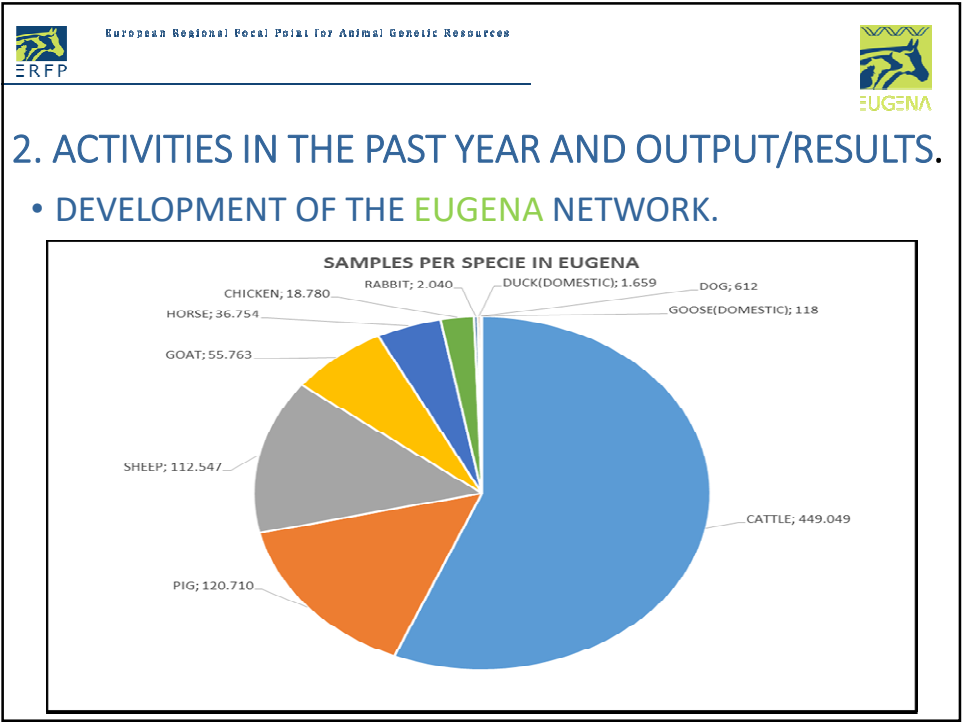
SAMPLES PER GENE BANK IN EUGENA

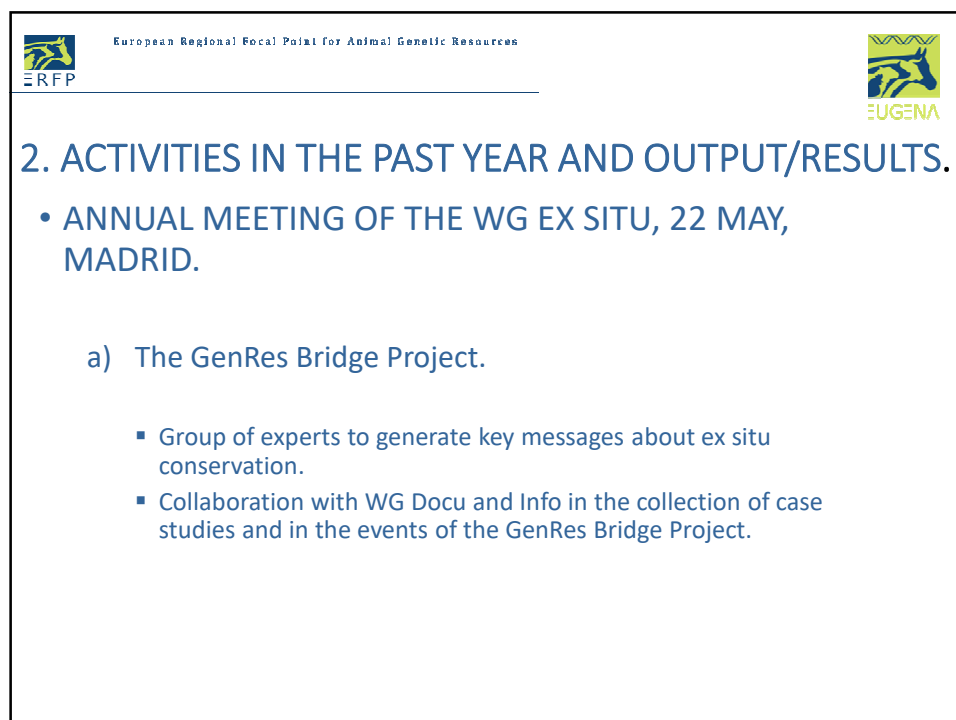
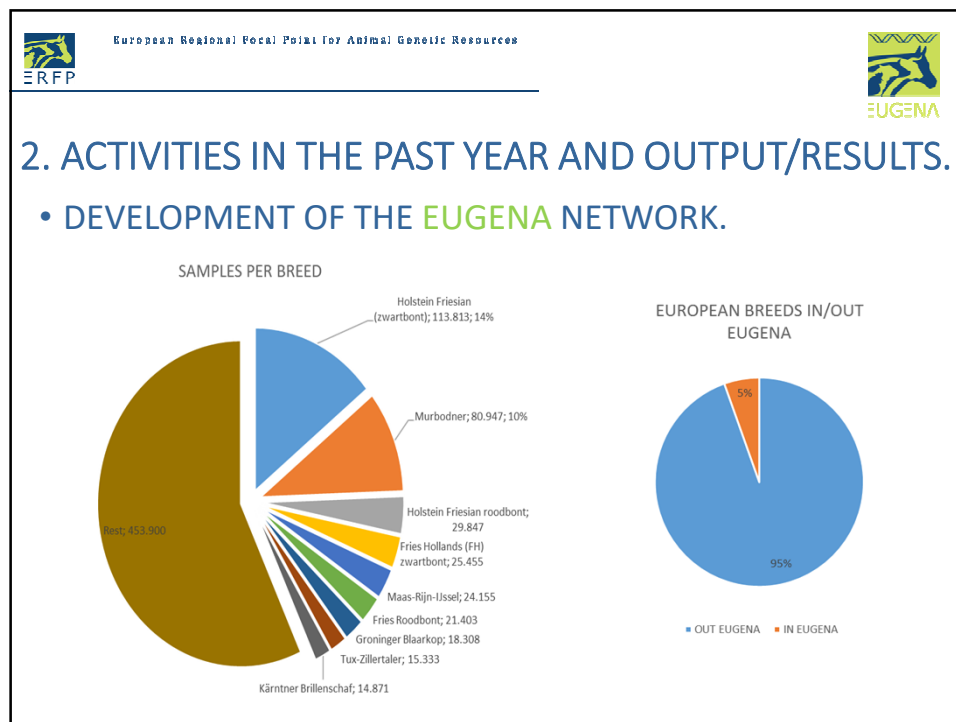



Gene Bank	Samples
CSN of Wageningen University	470,462
Raumberg-Gumpenstein	252,485
National Gene Bank of Spain	72,982
Krnjaca-Belgrade	600
Temerin	700
Velika Plana	280
University of Montenegro	523

MATERIAL TYPE	SAMPLES
Blood	1198
Embryos	413
Hair	48
Semen	798373
TOTAL	798032


MATERIAL TYPE	MALE DONOR	FEMALE DONOR
Blood	350	453
Embryos	44	82
Hair	3	45
Semen	9.655	0
Maximum	10.052	580







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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- ANNUAL MEETING OF THE WG EX SITU, 22 MAY, MADRID.

a) The impacts of new regulation on movements within the Union/imports of germinal product on the ex-situ conservation (in special on transboundary endangered breeds)

- Design recommendations to develop the regulation to authorised gene banks for germinal products movement between MMSS.
- Inform to MMSS that the previous authorisation could be use as LoA to enrol the gene banks in EUGENA.
- Inform MMSS and EU Commission about gene banks in EUGENA could move germinal products to others MMSS gene banks without ulterior authorisation.
- Promote the use of EUGENA as the reference data base for the authorities in the MMSS of EU.
- Design recommendations to help MMSS in the procedures for the movement of germinal products between gene banks.
- Develop recommendations for the implement of national regulation about animal health requirements for the collection of germinal products whose destination is a gene bank.
- Develop recommendations for the development of Breeding Programmes by Breeders Associations of endangered transboundary breeds (Collaboration with In-situ WG and Docu and Info WG).



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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- ANNUAL MEETING OF THE WG EX SITU, 22 MAY, MADRID.

c) Outputs from the IMAGE project.

d) Acquisition and Transfer policies in European gene banks.

Representatives of 10 countries (Bulgaria, Croatia, The Netherlands, France, Germany, Italy, Norway, Portugal, Spain and Sweden) presented the situation of their national gene banks in relation with the acquisition and transfer of germinal products. The main conclusions were:

- The acquisition policies of the gene banks are very diverse, and it is developed in function of the objectives and structure of each gene bank.
- The transfer policies of the gene banks are also very diverse between the gene banks.
- In some cases, gene banks have not stablished an acquisition/transfer policy, yet.
- In some cases, gene banks do not regulate the acquisition of the material by a MAA, the storage is made without any legal document.
- In some cases, gene banks do not regulate the transfer of the material by a MTA, the use is developed without any legal document.
- The arrangements between providers/gene banks are very diverse, in function of the different type of providers in each country (individual breeders, breeders association, companies). The ownership rights of the storage material are also very diverse between countries.
- In several countries, the role of the breeder associations is highly relevant, they collaborate in the development of the acquisition/transfer policies and procedures. In that cases is frequent the constitution of a council/committee (breeders associations, gene banks and/or government) to manage the acquisition and use of the material.
- At national level there are specific regulations which define the general elements of the Agreements for the acquisition and transfer of the material.



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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- ANNUAL MEETING OF THE WG EX SITU, 22 MAY, MADRID.
 - e) Develop of MTA/MAA proposal.
 - f) Updating EUGENA state.
 - g) Ad Hoc Action for the development of specifications for a modern gene bank documentation software.
 - h) Proposal of Workplan for 2019-2020.




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2. ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULTS.

- DEVELOPMENT OF MTA/MAA IN COLLABORATION WITH ABS TF.
 - Consultation process of the proposal of MTA/MAA previous to the Madrid meeting.
 - New versions of the proposal MTA/MAA were analysed and agreed in the WG meeting.
 - A MAA was developed in the Joint Meeting Ex- Situ WG with ABS Task and the Chairs of the TF and WG still working on MTA guidelines development and in the editing of MAA (versions for a final consultation was finalised last week).



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3. PLANS AND PRIORITIES FOR THE NEXT YEAR (to be formally approved by Assembly) .

1. The first priority of the WG is the development of EUGENA, and then:


2. Development of specifications for a modern gene bank documentation software (Ad Hoc Action).
3. Supporting the development of national regulation about germinal products collection intended to be kept in gene banks
4. Identification and recognition of gene banks at national level on the basis of the results of the Ad hoc action to develop EUGENA.
5. Collaboration with the IMAGE Project and follow up of its main outputs.
6. Sharing knowledge and expertise through the ERFP website
7. Collaboration with GenRes Bridge Project.
8. Finalizing the model of MTA/MAA for use of gene bank material in breeding, conservation and research in cooperation with Task Force ABS
9. Supporting the application of the new regulation of germinal products in relation with the procedure for germinal products moved to gene banks in another Member State.
10. Ex situ strategies for transboundary breeds in coordination with the initiatives of WG Docu and/or WG In Situ
11. Review of definitions relevant for EUGENA.

Eleven countries (Serbia, Poland, Czech Republic, Greece, Germany, Sweden, Slovenia, Spain, The Netherlands, France and Latvia) send their prioritization of the tasks.

The next year the meeting of the WG will focus in task 1, 2, 3, 4 and 5.



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Ad hoc action to support the development of EUGENA, to identify candidate EUGENA gene banks, and improve the information about the gene banks in Europe.


The main objective of the Ad Hoc Action is to increase the number of member countries and gene banks enrolled in EUGENA, through a better knowledge of EUGENA between the actors involved in the management of the AnGR (Breed societies, reproduction centres, competent authorities, researchers) in the European Region.

In parallel, the activities of the Ad Hoc Action must collect the information about the facilities where the gene banks are hosted, and this information should be registered by the ERFP in a file.

The Ad Hoc Action will continue the work done within the IMAGE project “Inventory and mapping of European animal genetic collections”



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Ad hoc action to support the development of EUGENA, to identify candidate EUGENA gene banks, and improve the information about the gene banks in Europe.


The activities of the Ad Hoc Action will be developed from October of 2019 to July 2020.

Planned activities:

1. Increase the knowledge about EUGENA, by (in cooperation with communication activities contracted with Alcandora):
 - The design of an electronic flyer with information about the ERFP, EUGENA, the procedure of participation in EUGENA, and the reasons to join the net.
 - Elaboration of material for the communication activities contracted with Alcandora.



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Ad hoc action to support the development of EUGENA, to identify candidate EUGENA gene banks, and improve the information about the gene banks in Europe.


Planned activities:

2. Dissemination of the information about EUGENA (flyer) by mail to all the stakeholders in relation with the Animal Genetic Resources management in the European Region. An **e-mail list** must be elaborated with the following recipients:
 - National coordinators of the ERFP.
 - Members of the ERFP WGs.
 - Semen collection and storage centres, embryo collection and production teams approved by the MMSS of the EU and third countries in the European Region (the e-mails for this recipients should be written in their native language)
 - Breeder's societies approved by the MMSS and third countries in the European Region (the e-mail for this should be written in their native language).
 - Animal Breeding Industry: EFFAB and FABRE (for the dissemination to their members).
 - NGOs in relation with conservation and sustainable use on AnGR : SAVE, RARE BREED...(for the dissemination to their members)
 - Researchers: ESDAR, EAAP and AETE (for the disseminations to their members).
 - Competent authorities in the zootechnical field of the MMSS, and to the European Commission.
 - Participants in previous projects, as: List of Gene Banks of ERFP, Preparatory Action of the Commission, IMAGE Project, or others.

The location of the gene bank facility and the contact data of the manager of the gene bank will be asked for, and also the consent to incorporate this information in a register managed by ERFP.



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***Ad hoc action** to support the development of **EUGENA**, to identify candidate **EUGENA** gene banks, and improve the information about the gene banks in Europe.*


Planned activities:

3. Collection of information from the previous mailing to build a **register** of candidates gene bank to **EUGENA**.
4. Design of a certificate of participation in **EUGENA** for the Gene Banks enrolled in **EUGENA**.


Expected output and contribution to the goals of ERFP.

The expected outputs are:

- Better knowledge of **EUGENA** between all the stakeholders involved in the conservation and sustainable use of the Animal Genetic Resources.
- Increase the number countries and gene Banks enrolled in **EUGENA**.
- A register with information from the gene Banks candidates to **EUGENA**.
- Promotion of the network in the ERFP and with other organisations.



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***Ad hoc action** to support the development of **EUGENA**, to identify candidate **EUGENA** gene banks, and improve the information about the gene banks in Europe.*


TOTAL BUDGET

The estimation of cost:


Electronic flyer design	500 €
Administrative work to make the mail list and the register	2.500 €
E-mail translation	2.500 €
Total	5.500 €

Members of the Ad hoc action

- Coralie Danchin
- Delphin Duclos,
- Oscar Cortes,
- Sipke Hiemstra
- Zhivko Ducheve,
- Manuel Luque
- Fernando Tejerina



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Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)

Ghent, Belgium. 24th August.



The aim of this Ad hoc action is to:

1. *Review the current status of documentation of the national gene banks across Europe*
2. *Identify the information needs of the various countries in this regard*
3. *Prepare functional specifications for an up-to-date documentation software.*


Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
ERFP Assembly, Ghent, 24th August.




Group of experts developing the Ad Hoc Action:

Ad hoc action members	
The Netherlands	Anouk Schurink
Sweden	Eva-Marie Stålhammar
Poland	Ewa Sosin-Bzducha
France	Delphine Duclos
Spain	Francisco Javier Cuevas Gozalo
Ukraine	Nataliia Reznikova
Spain (Chair of the Ex Situ WG)	Fernando Tejerina Ampudia
Bulgaria (Coordinator of the Ad Hoc Action)	Zhivko Ducheve

Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
ERFP WGs meeting Madrid, 21-23 May 2019

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Stage 1: (Month 1-2) Preparation of a questionnaire for the countries.

The group will prepare a questionnaire, consisting of 3 parts:

1. The setup of the national gene bank and the collected information
2. The functionality the currently used software
3. Needed features, not present in the currently used software

Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
ERFP Assembly, Ghent, 24th August.


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Stage 2: (Month 3-6) Collecting and summarizing the responses.

In Month 6 a one day meeting of the ad hoc team with external experts (e.g. EMBRAPA) will be organized in order to discuss the results of the questionnaire and exchange experience aiming for preparation of functional specifications for modern gene bank software


Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
ERFP Assembly, Ghent, 24th August.


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Stage 3: (Month 7-8) Preparation of functional specifications for gene bank documentation software.

Based on the results of the questionnaire and the outcomes of the meeting, the team will prepare a document, containing the common functional specifications of up-to-date uniform gene bank documentation software.

The document will be presented to the Ex situ WG



Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
 ERFP Assembly, Ghent, 24th August.


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ACTIVITIES IN THE PAST YEAR AND OUTPUT/RESULT

The coordinator of the Ad Hoc Action developed a first draft of a questionnaire for the countries, consisting of 3 parts:

- a common part for each country containing questions about the setup of the national gene bank and the collected information
- a software specific part containing questions about the functionality the respective software used
- a “wish list” part for the features needed, but not present in the current software

This first draft was circulated to the Ad Hoc Action members to collect their comments and suggestions of improvement. The consultation process ended the 17 July.

A second draft version, including the suggestions from the group was disseminated to the Ad hoc members for final comments, before development of web survey.

Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
 ERFP Assembly, Ghent, 24th August.



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PLANS AND PRIORITIES FOR THE NEXT YEAR.

- The ad-hoc action will be completed in 2020.
- The questionnaire will be sent to the countries, and after collecting and summarizing the responses the one day meeting with external experts will be organized.
- The final outcome of the Ad Hoc Action will be a functional specifications for gene bank documentation software.

Ad hoc action: Development of specifications for a modern gene bank documentation software (CryoWEB 2.0)
ERFP WGs meeting Madrid, 21-23 May 2019

THANK YOU

FTejerina@mapa.es