



**A European infrastructure  
for farmed animal genotype to phenotype research**

**Deliverable 4.2  
Set of biobanking access rules for future TNA for  
input in WP2**

**Grant agreement no°: 101094718**

Due submission date

**2023-December-31**

Actual submission date

**2023-December-31**

Responsible author(s):

INRAE: Mrs Temitope Ige, [temitope-oluwafisayo.ige@inrae.fr](mailto:temitope-oluwafisayo.ige@inrae.fr)

INRAE: Dr Michèle Tixier-Boichard, [michele.tixier-boichard@inrae.fr](mailto:michele.tixier-boichard@inrae.fr)

INRAE: Dr Elisabetta Giuffra, [elisabetta.giuffra@inrae.fr](mailto:elisabetta.giuffra@inrae.fr)

**Other contributors: FBN and UEDIN**

**Confidential: No**

## DOCUMENT CONTROL SHEET

Deliverable name	Set of biobanking access rules for future TNA for input in WP2
Deliverable number	D4.2
Partners providing input to this Deliverable	
Draft final version circulated by lead party to: On date	Dec 22, 2023
Approved by FBN (on date)	Jan 02, 2024
Work package no	WP4
Dissemination level	PU

## REVISION HISTORY

Version number	Version date	Document name	Lead partner
Vs1	2023/12/22	D4.2 draft	INRAE
Vs2	2023/12/28	D4.2_EuroFAANG_v2	INRAE
Vs3			
Vs4			
Vs5			

### Changes with respect to the DoA (Description of Action)

None

### Dissemination and uptake

This is a public deliverable

## Table of Contents

<b>Executive Summary .....</b>	<b>4</b>
<b>RI's PORTAL REVIEW FOR SAMPLE REQUEST PROCEDURES .....</b>	<b>5</b>
<b>RI's PORTAL REVIEW FOR TNA APPLICATION PROCEDURES .....</b>	<b>13</b>
<b>CRB-Anim PORTAL, AS A PROTOTYPE FOR SAMPLE REQUEST PROCEDURES. ....</b>	<b>18</b>
<b>SAMPLE REQUEST PROCEDURES PROTOTYPE FOR EuroFAANG.....</b>	<b>21</b>
<b>TNA APPLICATION PROTOTYPE FOR EuroFAANG .....</b>	<b>22</b>

## Executive Summary

<p><b>Background</b></p>	<p>EuroFAANG must demonstrate its added value compared to existing research infrastructures (Ris) in the ESFRI Roadmap as well as to on-going INFRAIA projects that are potential future Ris. Furthermore, EuroFAANG can take advantage of on-going RIA projects in the field of animal genomics and phenomics to prepare its user policy (WP2) and address the expectations of the scientific community. Added value and reciprocal benefits can be sought at different levels: sharing samples, tools, protocols, and data; developing complementary services; rganizing joint training; fostering cross domain research connections.</p>
<p><b>Objectives</b></p>	<p>Compare user interface of biobanking infrastructures of the partners and in Europe, including all steps to be followed by the user and by the biobank with joint agreement established by a Material Transfer Agreement (MTA). The aim would be to derive a prototype that would manage access to biobank collections in EuroFAANG.</p>
<p><b>Methods</b></p>	<p>CRB-Anim portal was used as a prototype. The analysis of four RIs European portals was also done to derive an ‘optimal’ prototype for EuroFAANG. The infrastructures analysed are those that are well established and distribute biological resources or biological models. They include:</p> <ul style="list-style-type: none"> <li>• BBMRI</li> <li>• EMBRC</li> <li>• MIRRI</li> <li>• INFRAFRONTIER</li> </ul> <p>The steps to request samples and process request were identified from the portal of each RI and a possible prototype for EuroFAANG was derived from the findings.</p>
<p><b>Results &amp; implications</b></p>	<p>The results summarize the following information from CRB-Anim portal and each of the RIs portal.</p> <ul style="list-style-type: none"> <li>- Steps to be followed by users based on : <ul style="list-style-type: none"> <li>• Identification</li> <li>• Request for information</li> <li>• Searching samples (on the basis of standard metadata)</li> <li>• Purpose and Initiation of request ; sample order or deposit requests</li> </ul> </li> <li>- Steps to be followed by the biobank to process request with joint agreement established by a MTA based on : <ul style="list-style-type: none"> <li>• Assessment of request</li> <li>• Validation of request, including IP issues</li> <li>• Implementation of request</li> </ul> </li> <li>- Possible prototype for EuroFAANG</li> </ul>

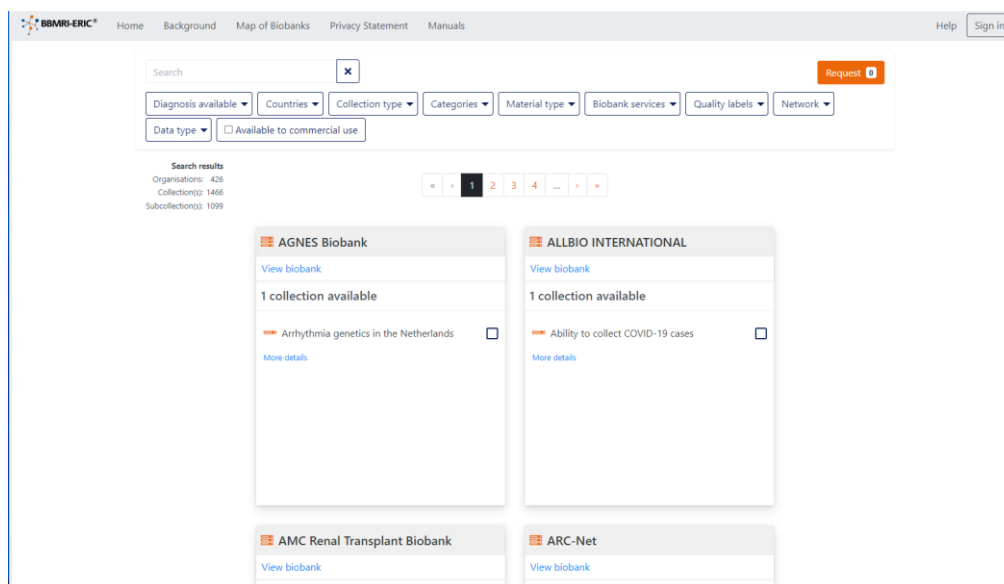
# RIS PORTAL REVIEW FOR SAMPLE REQUEST PROCEDURES

## BBMRI

Derived from <https://directory.bbmri-eric.eu/#/catalogue>

The basic framework governing the request procedure for accessing samples/data via the BBMRI-ERIC IT services comprises the following steps: explore 3 tools

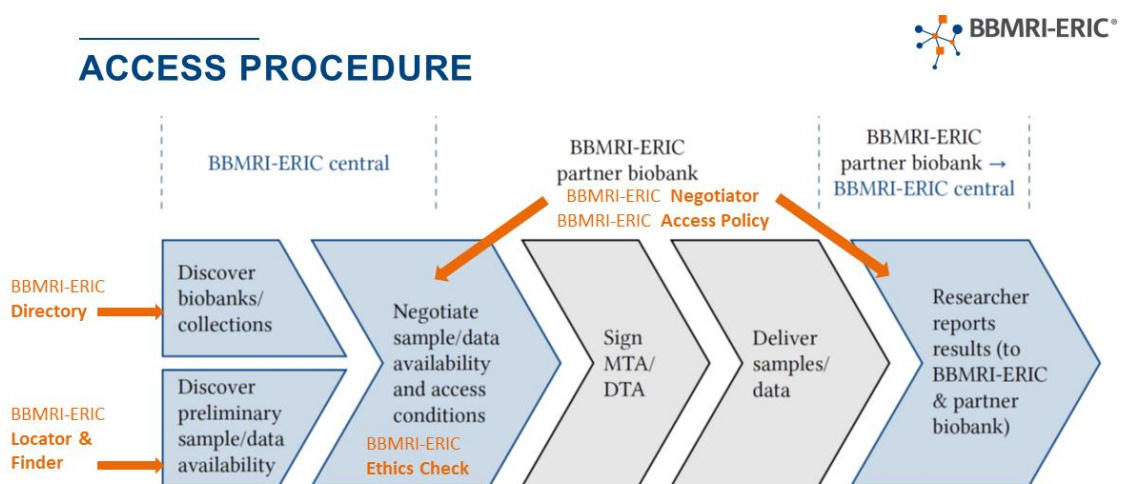
- Identification using the **Directory**: this tool allow researchers to discover biobanks and biomolecular resources based on their metadata, including aggregate information about donors, available data and samples. **The Directory** is a broad catalogue of the RI biobanks with aggregated information on their collections. The user can browse and filter by country, sample type, quality marks and more. Users must register using an institutional email address and account. Registration will then allow users to login in order to learn where and how many samples are available from how many donors.
- Searching of samples using **Federated platform**, which displays collections of all biobanks members of BBMRI: The first step in the search for biological samples and data is a **feasibility query**. All researchers are able to perform such queries. **The Sample Locator** then shows how many samples meeting the requested search criteria are available in the biobanks. Therefore, the sample locator allows researchers to search for human biological samples and associated data



- Initiation of request using the **Negotiator** : BBMRI-ERIC provides its Negotiator platform to support researchers and biobankers to solve the complexity of **request for samples**. Request for samples is possible if user is registered. Once registration is done, user can then select the desired biobanks and will automatically be transferred to Negotiator from the Sample Locator. Negotiator is a communication platform that allows researchers to

communicate effectively with several biobanks at the same time and biobanks to share information on the availability of samples/data confidentially.

- Assessment of request and Signing of MTA/DTA : After receiving adequate Availability Information, **the requester follows up directly with the provider (biobank)** in order to provide any additional information needed to assess whether access can be granted. As part of this process, the provider must comply with the regulatory and ethical conditions (e.g., data protection regulations, assessment of compliance of informed consent with the approved/proposed project, checking whether the amount of deployable/extraditable samples required is scientifically justified) and transfer liability to the requester by using MTAs/DTAs as deemed appropriate. **The provider has to decide whether samples/data are released for the project requested.** Similarly, access to deliverable/extraditable samples may be subject to prioritisation.
- Validation of request and delivery of samples/data: For approved requests, the MTA/DTA will need to be executed and access charges paid before samples/data are released to the requester. In the case that BBMRI-ERIC is the data controller, special provisions have to be defined and agreed on a case by case basis and made available to the requesters.
- Implementation of request: Return of results by researcher to BBMRI-ERIC and partner biobank. Providers need to collect reports on project outcomes for accountability purposes regarding the utilisation of the BBMRI-ERIC infrastructure. Providers are encouraged to require the return of derived data from the requester (see Access Criteria above) and integrate this requirement into their biobank policy and the respective MTA/DTA.



The portal developed by BBMRI is managing distribution of samples but not acquisition of samples by the biobanks.

### MIRRI

Derived from [https://catalog.mirri.org/page/Strains\\_catalog\\_query](https://catalog.mirri.org/page/Strains_catalog_query)

## Example of the distribution process for a national node of MIRRI:

BCCM – Belgian Coordinated Collections of Microorganisms – MIRRI partner collections

### Steps to request for strains distribution

- **Identification:** create a user account using a company's or institute's e-mail account and log in
- **Searching of samples:** search and select the BCCM collection based on the material type and add to **shopping cart**

The screenshot shows the BCCM website interface. At the top, there is a navigation bar with links for 'About BCCM', 'Prices', 'Forms', 'News', 'Legal', and 'Contact us'. Below this is the BCCM logo and a banner with the slogan 'GREAT AT SMALL THINGS'. A row of colored buttons provides navigation: 'Search catalogues', 'Order material', 'Deposit material', 'Services', 'Trainings', and 'Knowledge center'. The main content area is titled 'BCCM catalogues of biological material' and includes a prompt: 'Please select the BCCM collection that is specialised in your material type:'. Below this, a grid of circular icons represents different collection types: BCCM/LMG (Bacteria), BCCM/IHEM (Fungi Human & Animal Health), BCCM/GeneCorner (Plasmids, plasmid hosts & DNA libraries), BCCM/ITM (Mycobacteria), BCCM/DCG (Diatoms), BCCM/MUCL (Agro-food & Environmental Fungi), and BCCM/JULC (Cyanobacteria). The footer contains an LRQA certification logo, a search bar, and social media links for Newsletter, Search, FAQ, Disclaimer & Data Protection, and Twitter, along with the belspo logo.

- **Initiating a request:** to order from public collection, request can either be done online or by sending a complete sample request form. To order from patented collection, written approval of the depositor or an IP office is required. IP offices may insist on using their own forms <https://bccm.belspo.be/documents/files/deposit/lmgbp12.doc>. The signed form should be provided to BCCM/LMG along with a Purchase Order. For safe collection order, written approval of the depositor is required before contacting BCCM/LMG.
- **Assessment of request:** The release and the use of biological material from the public BCCM collection are subject to the terms of the BCCM Material Transfer Agreement (MTA), and may be subject to extra restrictions, which you will find in the catalogue description of the particular material, more specifically in the field 'Restrictions'
- **Validation of requests and delivery of samples:**

The BCCM collections are approved as International Depository Authority and operate under the Budapest Treaty to make patent materials available. Shipment of biological material is foreseen within 4 weeks. Different arrangements are possible in consultation with the collection in particular for large batches of strains or for specific delivery dates. An invoice containing all details

for payment will be issued after the strains have been sent. Payment can be made by bank transfer or credit card. You will then receive an e-mail from [payment@ugent.be](mailto:payment@ugent.be) with a link for payment by credit card. Via the link you will be able to make an online payment.

### Steps to request for strains deposit

For **public deposit**, start your deposit by filling in the deposit form [https://bccm.belspo.be/files/documents/LMG\\_F108I\\_PublicDeposit.docx](https://bccm.belspo.be/files/documents/LMG_F108I_PublicDeposit.docx). Public deposit of bacteria at BCCM/LMG is free of charge. BCCM/LMG should be contacted before shipping your strains.

In order to make a **safe deposit**, a contract needs to be signed by both parties. This contract ([https://bccm.belspo.be/files/documents/LMG\\_F405J\\_SafeContract.docx](https://bccm.belspo.be/files/documents/LMG_F405J_SafeContract.docx)) includes all relevant scientific information about the bacterial strain. Safe deposit includes yearly quality control but not free. Here is the link to the price list <https://bccm.belspo.be/pricelists/lmg-pricelist#safe>. The contract should be completed, signed and provided in duplicate to BCCM/LMG.

In order to make a **Storage of Third Party's biological Material (STPM) deposit**, a contract needs to be signed by both parties. BCCM requires a list [https://bccm.belspo.be/files/documents/LMG\\_F412\\_STPMAnnex.xlsx](https://bccm.belspo.be/files/documents/LMG_F412_STPMAnnex.xlsx) with basic information on your samples. STPM deposit is neither free nor include quality control.

In case of a patent, a contract (DBT1) [https://bccm.belspo.be/files/documents/LMG\\_DBT1.doc](https://bccm.belspo.be/files/documents/LMG_DBT1.doc) needs to be completed and signed. It should be provided in duplicate to BCCM/LMG, along with a single copy of the deposit form (BP/1) [https://bccm.belspo.be/files/documents/LMG\\_BP1.doc](https://bccm.belspo.be/files/documents/LMG_BP1.doc).

## EMBRC

### Example of the distribution process for a national node of EMBRC:

Derived from <https://roscoff-culture-collection.org/strains/catalog>

The Roscoff Culture Collection (RCC) maintains thousands of microalgae strains of bacteria, viruses, each identified by a unique code RCC. This collection is managed by EMBRC France.

### Steps to request for strain distribution

- **Registering for Identification** : Register for a new RCC account or sign in to an existing account. Creation of an RCC account is totally free.
- **Searching and Selecting the strains and placing the order on the web site**: Every distributable strains can be added to your order using the "**Add to Cart**" button on the strain page. Some of the strains listed as "non-distributed" can potentially be distributed under certain circumstances. When you have added all of the strains you require to the



cart, review your cart to check your order. Add other services (culture medium / cryopreservation / identification) if required.

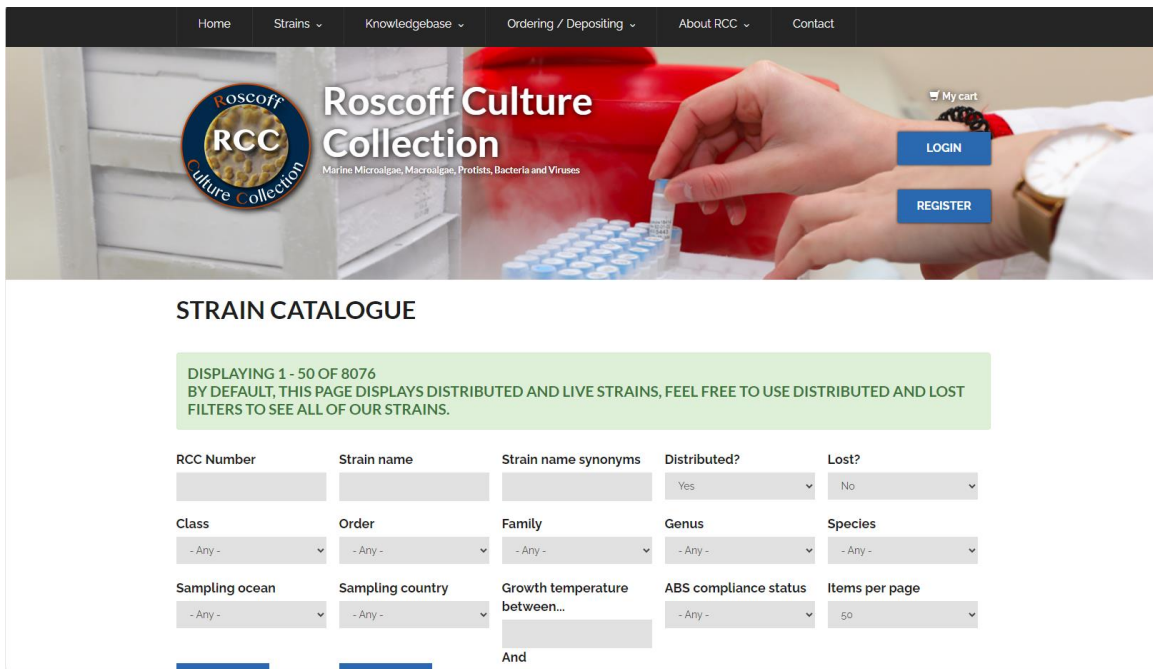
Once you have added strains/services to your cart you can proceed to checkout. Click the checkout button.

Enter the requested information (billing/shipping address, intended use of strains, etc..).

Accept the terms and conditions (MTAs)

Proceed to the next page to add shipping fees.

On the next page verify that all of the information concerning your order is correct and then proceed to payment.



The screenshot shows the Roscoff Culture Collection website. The header includes navigation links: Home, Strains, Knowledgebase, Ordering / Depositing, About RCC, and Contact. The main banner features the Roscoff RCC logo and the text "Roscoff Culture Collection" with a subtitle "Marine Microalgae, Macroalgae, Protists, Bacteria and Viruses". There are buttons for "My cart", "LOGIN", and "REGISTER". Below the banner is the "STRAIN CATALOGUE" section, which displays "DISPLAYING 1 - 50 OF 8076" and a note: "BY DEFAULT, THIS PAGE DISPLAYS DISTRIBUTED AND LIVE STRAINS, FEEL FREE TO USE DISTRIBUTED AND LOST FILTERS TO SEE ALL OF OUR STRAINS." The catalogue has several filter options: RCC Number, Strain name, Strain name synonyms, Distributed? (Yes/No), Lost? (No), Class, Order, Family, Genus, Species, Sampling ocean, Sampling country, Growth temperature between..., ABS compliance status, and Items per page (50). There are also "And" buttons for combining filters.

- **On-line credit card payment :** In order to pay for your order you will be redirected to the external Paybox secure payment site. Follow the instructions on the Paybox site to provide payment details. Once the payment is completed you will receive a receipt from the Paybox site and then be redirected to the RCC site. Please note that Paybox is an established, fully secure e-commerce site that accepts payment via most major credit cards. All encrypted transaction data remains exclusively on the external Paybox site and is not shared with the RCC.
- **Request processing by RCC staff and shipping of cultures**

An RCC Curator will contact you by e-mail to confirm your order and to arrange shipment. It takes in general 1-2 weeks to prepare the cultures from our stocks (or sometimes longer for 1L cultures). If the culture is only kept as a cryopreserved stock, culture preparation (thawing/regrowth) will take 3 to 5 weeks. On the web site we indicate alternative strains (same species, same or similar sampling location) for strains that are only cryopreserved.

We will send a proforma invoice with the shipment to facilitate passage through customs in your country. This proforma invoice is the only document that we can supply. If cultures are blocked or delayed in customs, we will not resend the cultures free of charge since it is your responsibility to arrange transfer through customs. Please note that we will not ship the cultures until we have received confirmation of on-line payment.

### Steps to request for strain deposit

**Step 1:** Please first contact the RCC with information on the deposit that you wish to make.

**Step 2:** Once you have received confirmation that the deposit will be accepted, please fill in the following documents available at the bottom of the page:

**The Deposit agreement form** detailing the conditions of deposit - this document needs to be filled in and signed by you.

**Roscoff Culture Collection Strain deposit contract**

Depositor's family name (in capitals):  
 Depositor's first name:  
 Depositor's position:  
 Depositor's institute name:  
 Depositor's institute full address:  
 Depositor's Tel.:  
 Depositor's E-mail:

Date:

I hereby wish to deposit \_\_\_ (specify number) culture strains in the Roscoff Culture Collection.

Reason for deposit:

Conditions for strain deposit:

- The RCC will not be charged by the depositor for depositing the strain.
- The depositor agrees to submit accurate strain data to the RCC by filling in the accompanying strain information file (obligatory fields marked in colour). This file includes information concerning the origin, identification, history and culture conditions for the strain(s).

In addition, if the strain(s) was/were isolated after October 2014 and if the country of origin of the strain(s) is a signatory of the Nagoya Protocol of the Convention for Biological Diversity (see ABS clearing house website at <https://absch.cbd.int/>), the depositor must provide either an Internationally Recognized Certificate of Compliance (IRCC) proving that access was granted by the country of origin or a copy of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) from the country of origin. Digital copies of these documents must be submitted along with this form. The RCC may refuse strain deposits if these documents are not provided.

- The transfer of intellectual property to the RCC is included in the agreement (N.B. private deposit without transfer of intellectual property is offered by the RCC as a paying service). The depositor confirms that the strain(s) is/are free from any legal and/or contractual restriction for its distribution and use. The RCC may maintain the strain(s) and distribute it/them (and/or products of it/them) to users at its sole discretion. The RCC may charge users costs for provision of the strain(s) in order to partially or fully cover costs incurred for maintenance, preparation and shipment.
- An embargo period during which the strain is not distributed can be requested by the depositor (for example awaiting publication of a paper concerning the strain), but we hereby inform the depositor that this condition will under no circumstances last any longer than 1 year from the date of deposit. N.B. If the depositor does not specify any conditions, then the strain will be open for distribution immediately after integration into the RCC catalogue.
- The RCC shall bear no responsibility for any change or loss of the strain(s) during maintenance.
- The RCC may at any time and for any reason unilaterally decide to discontinue the maintenance and/or distribution of the strain(s). The RCC will attempt to inform the depositor of any such action, but has no legal or contractual obligation to do so.

The RCC (the Collection) and the depositor make two copies of the agreement, the Collection and the depositor each hold a copy signed by both parties.

We, the RCC (the Collection) and the depositor, accept the above conditions in order to transfer the strain(s).

Depositor: \_\_\_\_\_ For the Collection: \_\_\_\_\_  
 Name: \_\_\_\_\_ Name: \_\_\_\_\_  
 Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

**The Excel deposit worksheet.** You need to enter detailed information concerning the strains you will deposit (taxonomy, name of strain, origin, culture conditions, etc...).

rcc_id	date_entered	key_strain	distributed	strain_name	species	purification_b	purification_method	transformed	transformed_by	transformed_method
1										
2						varchar	varchar	True=1/False=0	varchar	longtext
						Who purified	e.g. plating, single cell sorting	Is the culture transformed	Who transformed the culture	Detail transformation method

\* Some fields are constrained (e.g. just for numbers etc...) just for numbers, other dates, other True=1/False=0  
 \* Fields in yellow are the most important to fill in  
 \* For RCC staff, it is not necessary to enter from domain to genus, just enter the species

This number will be given by the RCC staff

For RCC use only

For RCC use only

Do you allow RCC to freely distribute your strains

The name you gave for the strain

Taxonomy

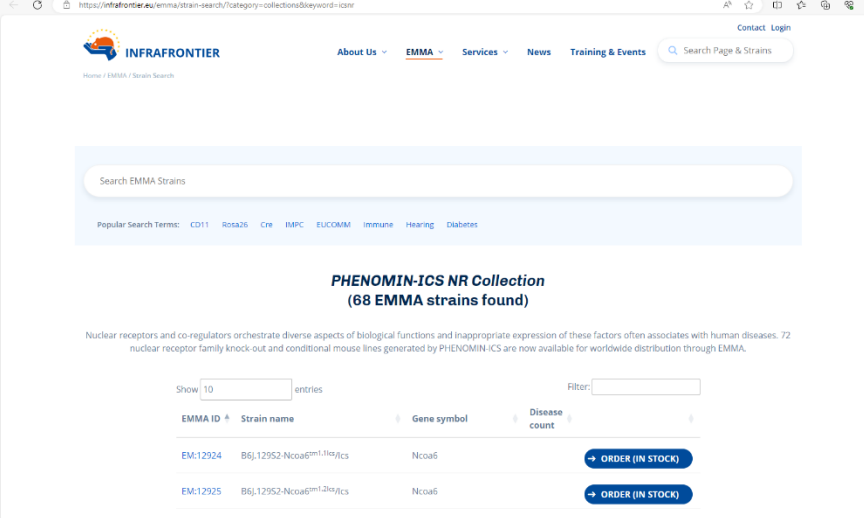
**Step 3:** Email both documents to the RCC prior to sending the strains.

## INFRAFRONTIER

### Example of the distribution process for a national node of INFRAFRONTIER:

Derived from <https://www.infrafrontier.eu/emma/strain-search/>

- **Identification/Registration:** Create a user account
- **Searching of samples:** To search for mouse strains, visit the EMMA strain list, find your strain of interest, open the strain details by using the '+' toggle



The screenshot shows the INFRAFRONTIER website's EMMA strain search interface. At the top, there is a navigation bar with 'About Us', 'EMMA', 'Services', 'News', and 'Training & Events'. A search bar is located in the top right corner. Below the navigation bar, there is a search input field labeled 'Search EMMA Strains'. Underneath the search bar, there are 'Popular Search Terms' including CD11, Rosa26, Cre, IMPC, EUCOMM, Immune, Hearing, and Diabetes. The main content area features a heading for the 'PHENOMIN-ICS NR Collection' with '(68 EMMA strains found)'. A brief description follows: 'Nuclear receptors and co-regulators orchestrate diverse aspects of biological functions and inappropriate expression of these factors often associates with human diseases. 72 nuclear receptor family knock-out and conditional mouse lines generated by PHENOMIN-ICS are now available for worldwide distribution through EMMA.' Below this, there is a table with columns for 'EMMA ID', 'Strain name', 'Gene symbol', and 'Disease count'. The table lists two entries, both with 'ORDER (IN STOCK)' buttons.

EMMA ID	Strain name	Gene symbol	Disease count
EM:12924	B6j.129S2-Ncoa6 <sup>tm1.119/1CS</sup>	Ncoa6	
EM:12925	B6j.129S2-Ncoa6 <sup>tm1.209/1CS</sup>	Ncoa6	

- **Request for sample :**

When clicking on the 'search and order' button for the appropriate strain you will be guided to an online request form which you can quickly fill in and send to EMMA through the website. The request form will ask you for contact information and which type of material you would like to receive from EMMA. After receipt of your request, EMMA will contact you within two weeks.

**INFRAFRONTIER**  
Modelling human diseases

## EMMA Mutant Request Form

Dear Scientist

Please use the following form to request the mouse strain of your interest archived by EMMA.

Please complete all fields. Mandatory information is marked by a \*

Thank you very much for your interest in the European Mouse Mutant Archive.

Please note that this form is only a temporary way for requesting strains from EMMA until the online request form on our webpage is active again.

\* Obligatoire

1. Requested strain (EMMA ID/Strain name)

Entrez votre réponse

2. Requested material

\* In addition, users have to cover all the shipping costs (including the cost for returning dry-shippers, where applicable).

Requesting frozen sperm or embryos is generally advisable wherever possible, in order to minimise the shipment of live mice.

Please indicate below what you would like to receive. The local repository manager will inform you whether your preferred material is available.

Frozen sperm/embryos. Delivered in 4 weeks (after paperwork in place), Euro 1740.00\*

Rederivation of mice from frozen stock. Available upon request, Euro 3880.00\*

Allele conversion service. Delivery time and service fee available upon request. Please indicate the allele you would like to obtain (e.g. tm1b, tm1c, tm1d).

Suivant

Page 1 sur 4

Ne communiquez jamais votre mot de passe. [Signaler un abus](#)

Microsoft 365

Ce contenu est créé par le propriétaire du formulaire. Les données que vous soumettez sont envoyées au propriétaire du formulaire. Microsoft n'est pas responsable des pratiques de confidentialité ou de sécurité de ses clients, y compris celles de ce propriétaire de formulaire. Ne donnez jamais votre mot de passe.  
Microsoft Forms | Enquêtes, questionnaires et sondages basés sur l'intelligence artificielle. [Créer mon propre formulaire](#)  
Le propriétaire de ce formulaire n'a pas fourni de déclaration de confidentialité quant à la façon dont il utilisera vos données de réponse. Ne fournissez pas d'informations personnelles ou sensibles. | [Conditions d'utilisation](#) | [Accessibilité](#)

- **Assessment of the request by signing of the MTA**

All EMMA requests are subject to the legally binding EMMA Conditions of use and all users need to accept them in the request process. In addition, if the producer of the material requires the signing of a material transfer agreement (MTA), this can be downloaded from the respective strain description page and will be provided to the recipient upon request.

Although EMMA mainly distributes to non-commercial recipients, if commercial users are interested in an EMMA strain, we will put them in contact with the strain producer and will only send the strains when an agreement is in place between the requestor and the producer.

When an MTA is needed for distribution of a strain, this can be downloaded from the respective strain details page and will be sent to the recipient in the request confirmation email.

In general, requests should be submitted before working on an MTA, where applicable. The request ID serves as tracking number for the distributing EMMA node during the process of MTA execution. A submitted request will not be processed until a fully executed MTA has been received (where applicable) and either a billing address or a purchase order number has been provided by the user. Therefore, the MTA needs to be filled, signed and sent to the strain owner for countersignature (or to the EMMA node if countersignature not needed) once the request confirmation is received.

- **Confirmation and shipment**

The EMMA node will make the material ready for shipping. The user has to cover all the shipping costs (including the cost for sending empty dry-shippers, where applicable) and will usually task a courier agent with picking up the material from the EMMA node and delivering it safely. The recommended EMMA service fees for shipments of frozen material and rederived live animals are €1740 and €3880, respectively.

## **RIS PORTAL REVIEW FOR TNA APPLICATION PROCEDURES**

---

### **MIRRI**

#### **TNA application process.**

##### **Step 1. Initial contact with the Access officer**

Applicants should consult the TNA catalogue and identify the offer of interest. Afterwards, they should contact the Access Officer before the submission of the proposal. The Access Officer will guide the applicants throughout the process and interact with Liaison Officer to verify the feasibility of the project.

##### **Step 2. Identification/Registration and Proposal submission**

Before submitting a project proposal, users must first register in the TNA portal. Once registered, applicants must follow the specifications:

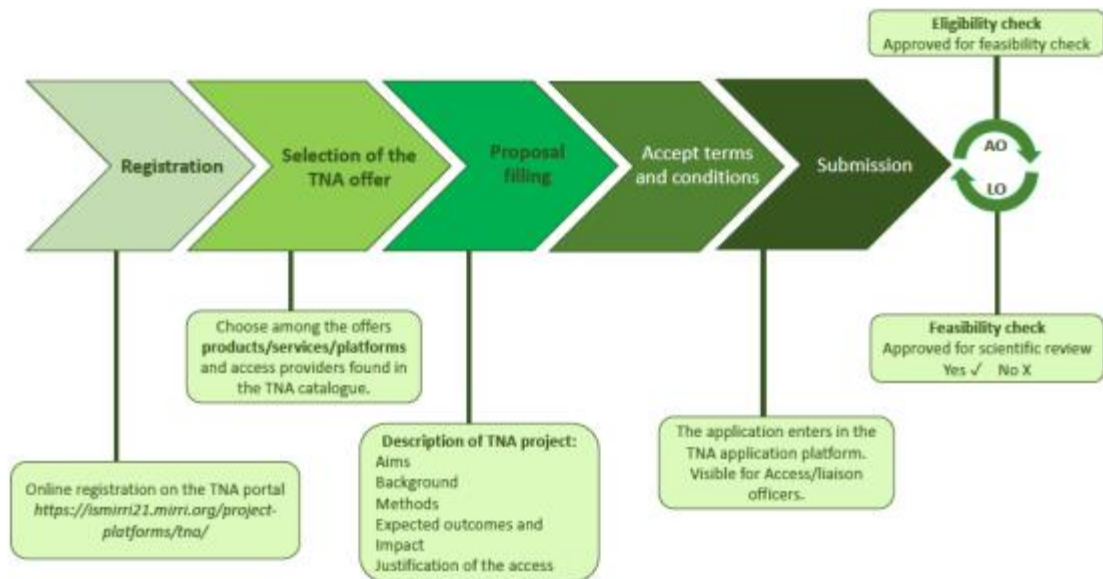
- Choose the offer of interest
- Fill out the forms
- Upload the documents requested
- Accept the terms and conditions
- Submit the proposal

The applicants should draft a research proposal according to the parameters described in the application form. They should complete the **application online** and upload the requested documents.

##### **Step 3. Evaluation procedure**

The evaluation of proposals will be carried out considering:

- **Eligibility check:** The Access Officer will select only the proposals that fulfill all requirements enlisted in the eligibility section to continue with the evaluation process. Incomplete proposals will not be considered.
- **Feasibility check:** Liaison Officers determine the feasibility of the projects regarding technical/logistical aspects and its coherence with the TNA offer. This is done prior to the scientific review.
- **Scientific review:** Selection of proposals is based on peer review evaluation with excellence as the main criterion. The scientific review uses a panel-based system called User Selection Panel (USP). This panel of external high-level scientist and scholars scores the research projects, and the highest ranked proposals are selected to receive funded access to the research infrastructures/offers.



#### Step 4. Publication of awarded proposals

Applicants will be notified of the final decision via email and selected proposals will be publicly announced through the webpage of MIRRI and other communication channels.

#### Step 5. User Access Contract and/or Material Transfer Agreement

The physical access should be carried out under the terms of a contract signed by the Access Provider and the users' host institution. This is a legally binding document in which rights, obligations and technical and logistical details of the TNA visit/project are specified. The shipping of biological material, if necessary, during the physical or remote access, should be carried out under the Material Transfer Agreement (MTA) terms. In case of accessing virtual services, the user should accept/read the Terms of Use established by the Access Provider.

#### Step 6. Access

The user develops the research project awarded.

#### Step 7. Reporting

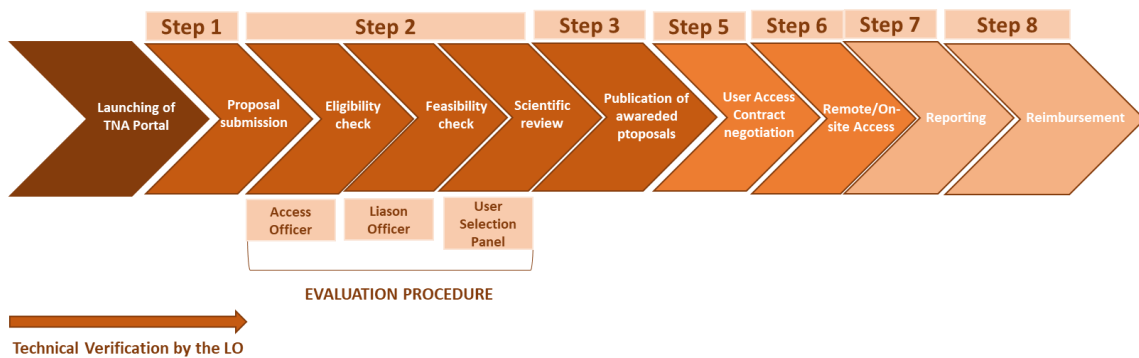
Within 3 weeks after the TNA access is completed, users from both physical and remote access are required to:

- Sign a "Confirmation of Access" form
- Deliver an "Activity Report"
- Answer an "User questionnaire"
- Submit a survey about the TNA experience

These documents are necessary to start the reimbursement of expenses incurred by the Users during the TNA.

#### Step 8. Reimbursement

The reimbursement of travel and subsistence costs will be done according to the Access Provider's national laws and procedures. It is expected to be completed within the first month after finishing the access.



## EMBRC

See <https://www.embrc.eu/newsroom/calls/first-call-transnational-access-eu-project-agroserv-open>

TNA application process for EMBRC services is described in the frame of AGROSERV project.

### Step 1. Expression of interest/pre-proposal submission

Applicants should consult the TNA catalogue and select the proposal of interest using the filters. In each filter, you can select more than one proposal. You'll then get a list of services that have these elements. If you use several different filters simultaneously, you'll get a list of services that have both the elements of each filter.

### Step 2. Full/ final proposal submission

Applicants will prepare their full proposals with the support of the service providers to ensure technically feasible and interdisciplinary proposals. Access can only be granted when the full/final proposal is submitted. Once access is granted, experiments could start.

### Step 3. Evaluation of proposal and implementation of access

All proposals will be reviewed by a panel of independent experts. Access will be granted to selected proposals that meet the criteria of the AgroServ TNA programme. Once proposals are accepted, the successful applicants (users/user groups) and the platform scientists (access/service providers) will directly negotiate the final detail of the access implementation. To launch this step, the successful applicants will have to contact the host institution(s) of the services to enquire about the implementation procedure for organising and implementing access (dates of visits, travel and accommodation, etc.).

Once submitted, the final/ full proposals will be evaluated as follows

- Eligibility check: The proposal will be checked for eligibility by the access management team.
- Feasibility check: The panel of experts will evaluate the feasibility of the proposals to know if the description of the feasibility is convincing, if the scientist in charge of the selected installation or service was contacted and if feasibility was discussed with scientists of the installations/services in the preparation of the proposal

- Scientific review: Anonymised proposals will be reviewed and evaluated by a panel of external independent reviewers through an independent peer reviewing process.

#### **Step 4. User Access Contract and/or Material Transfer Agreement**

For the full application (after the approval of the pre-proposals) the applicants will need to obtain legal and ethical consent regarding their research, transfer of biological material, and their data management approaches.

#### **Step 5. Access**

Based on the recommendations of the reviewers, proposals will be ranked according to their scientific merit and compliance with the agroecology framework of research and selected for transnational access. Access is granted to the project proposals selected.

#### **Step 6. Funding and expenses**

Access to the AgroServ research services and installations is free of charge for all scientists wishing to apply (scientists from EU member states, EU associated states and other international research groups). Scientists are granted logistical, technological and scientific support and the specific training required to successfully complete the approved transnational access projects. Therefore, selected proposals obtain full support to perform the proposed experiments including:

- Free access for eligible groups to research installations
- Support for travel and accommodation
- On-site logistic support by the infrastructure staff
- Access to the knowledge and the know-how necessary to complete the proposed experimental work

#### **Step 7. Reporting**

Once the access is granted, the research conducted and the project completed, each research group leader is requested to provide a project report to the AgroServ management office within one month following the completion of the access using an online reporting portal.

Additionally, an on-line AgroServ internal questionnaire must be filled by the research group leader to evaluate and improve the quality of access.

It is also possible to provide a short video report on the Transnational Access. The video report should be short and concise and no longer than 2-3 minutes. If the access granted to the project selected exceeds six months, a mid-term report is requested and needs to be submitted on the reporting platform (the link will be shared with the scientists).

#### **Step 8. Publication**

Scientists should acknowledge the funding from AgroServ to access the services provided by the Research Infrastructures affiliated with the project in any publications or presentations that include data produced under the transnational access programme (TNA). By default, researchers are expected to publish their results within a reasonable time. Researchers agree that any publication resulting from work or activities carried out under the AgroServ Transnational Access programme must acknowledge the support of AgroServ.



# INFRAFRONTIER

## TNA Application process

Trans-national Access (TA) activity of the INFRAFRONTIER2020 project is a free of charge specialised immune phenotyping service.

- **Access:** Main objective of this INFRAFRONTIER2020 Trans-national Access call is to facilitate access for the wider biomedical research community to the unique infrastructure and scientific expertise of the PHENOMIN-CIPHE mouse clinic (PHENOMIN-CIPHE / <http://ciphe.marseille.inserm.fr/en/>, <http://www.phenomin.fr/> The Centre d'Immunophenomics (CIPHE), where mouse mutant lines can be analysed through specialized functional immune-phenotyping by mass cytometry.
- **Application:** Service requests for the INFRAFRONTIER2020 specialised phenotyping service can be made via this **application form**. Applications for the Trans-national Access activity must include a short description of the research plans for utilising the phenotyped mouse model that is being characterised by the INFRAFRONTIER2020 TA service.

The image displays two pages of the application form. The left page contains the following sections:

- Application Form - INFRAFRONTIER2020 specialised phenotyping**  
Rolling deadline - collecting applications at the 1st of every month  
The evaluation process will start directly after the deadline for applications has passed
- Contact details of applicant**

First name	
Family name	
Email	
Phone	
Fax	
Institution	
Address	
Town	
Postcode	
Country	
Link to lab website	
Link to publication list	
- The following data is required by the EC for statistical purposes  
Applications can only be considered if all data are provided
- Personal information**

Gender	
Birth year	
Nationality	
Researcher status (e.g. Prof, Postdoc)	
Scientific background	
- I have read, understood and agree to the [INFRAFRONTIER data privacy policy](#)
- Description of proposed project**

The right page shows the **Gene of interest** section, which is a large empty text box for describing the research project.

- **Eligibility :** The INFRAFRONTIER2020 Trans-national Access call is open and proposals can be submitted from applicants around the world.
- **Cost :** The access to the INFRAFRONTIER2020 phenotyping service is free of charge. However, the shipment cost of mouse mutant lines to the CIPHE mouse clinic must be borne by the applicants
- **Selection procedure**

Proposals from eligible customers for free of charge access to the INFRAFRONTIER2020 specialised phenotyping service will be subject to a review procedure. The review will be based

on short descriptions of the projects involving the mouse mutants that will be phenotyped by the TA service. A mixed panel of members of INFRAFRONTIER and of an external Evaluation Committee will assess service requests supported by the TA activity. In addition to scientific merit of applicants, relevance and quality of preliminary data, soundness of the proposal and research plans, and the project objectives and prospects for exploitation of phenotype data will be assessed.

In a further step, experts of the mouse clinics will assess the technical feasibility of projects. The technical evaluation of projects may require the provision of additional data such as:

- Information on the genetic modification of your mutant mouse line if applicable (e.g. affected gene, MGI ID of the gene, type of mutation, ES-cell line used, genetic background (e.g. number of backcross generations))
- Description of DNA modification (vector, remaining non-recipient DNA, donor organism)
- Mutant phenotype(s), special housing or care requirements
- Current sanitary status
- Intellectual property rights (who generated and who owns the mouse line)
- **Publication** : Applicants will be informed on the outcome of the evaluation within 4 weeks after the end of the call for which the TA application was submitted. All applications will be handled with strict confidentiality.
- **Reporting** :Please do acknowledge any support under this scheme in all resulting publications with 'Part of this work has been funded by the European Union Research and Innovation programme Horizon 2020 (Grant Agreement Number 730879)'. The participating infrastructure, which provided the service, should be specifically mentioned in any publication resulting from the service.

## CRB-Anim PORTAL, AS A PROTOTYPE FOR SAMPLE REQUEST PROCEDURES.

---

CRB-Anim is the animal pillar of the French Research Infrastructure for biological resources used in agriculture research (<https://agrobrc-rare.org>). The CRB-Anim web portal was opened in 2017 to manage entry into collection and distribution of samples from all biobanks dealing with domestic animal species, farm and companion animals, in France and possibly abroad. Collections from any biobank can be integrated into this portal provided that they provide the required standard descriptors and upload their data following an 'extract-transform-load' procedure jointly developed by the biobank and the administrator of the portal.

### **Steps to request for sample distribution**

Derived from <https://crb-anim.fr/access-to-collection>

- **Identification/Registration** : you need to create a user account on the collections access portal. You will be asked for your full affiliation and the name of your MTA delegate, i.e. the person in your entity who is authorized to sign material transfer agreements.
- **Searching of samples**

To search for samples, go to: <https://crb-anim.fr/access-to-collection>. You can freely search for main descriptors: species, breed, type of sample. To get more information on the samples you need to connect through your user account.

Once you have found samples of interest, you need to select them and add them to **your cryocart**

59 Sample matching your criteria

	Breed	Sample type	Species	
<input type="checkbox"/>	Add a filter...	Add a filter...	Add a filter...	
<input type="checkbox"/>	Charolaise	blood	Bos taurus	<a href="#">Infos.</a>
<input type="checkbox"/>	Charolaise	blood	Bos taurus	<a href="#">Infos.</a>
<input type="checkbox"/>	Charolaise	blood	Bos taurus	<a href="#">Infos.</a>

- **Initiation of request**

After authenticating yourself you must complete the initial request by filling in the sections:

- Name of the biobank concerned
- Number of samples
- Reason for requesting access to samples (planned use of the samples)
- Associated research project, was it previously evaluated by a research funding agency?

Then, you can fill in the request, validate the cryocart and submit the request.

- **Evaluation by the BRC**

Once you have submitted your request, you will enter into dialogue with the relevant biobank via the portal. The biobank will assess technical feasibility, may consult the initial provider of the samples (i.e. the depositor) in case conditions apply to the distribution of these samples, may ask you for further information, may consult the CRB-Anim 'species groups' for an additional scientific assessment. To facilitate this step, a 'positive list' has been set to handle the case of requests which have already been assessed by a research funding agency or which are the continuation of a previous request already approved.

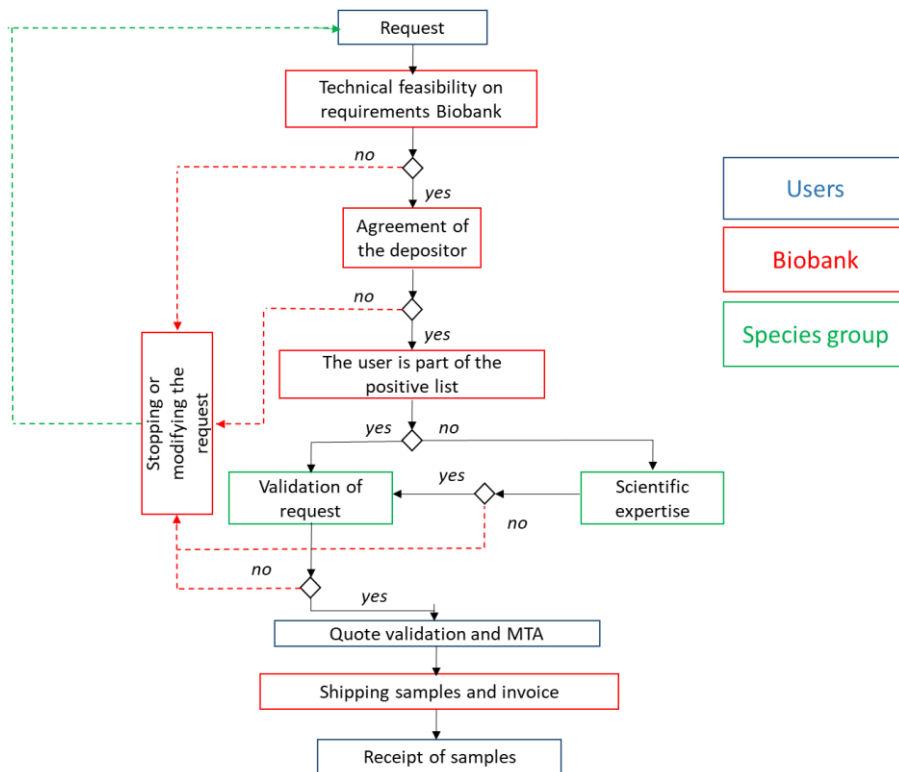
Then the biobank will validate the list of samples to be distributed and upload a **quotation**.

An e-mail exchange zone is provided to enable you to ask any questions you may have.

- **Validation of request by signing of the MTA:**

Once the request has been accepted by the biobank and the user has accepted the quotation, a Material Transfer Agreement (MTA) will be filled in with administrative information and information on the samples to be distributed. The biobank MTA authority will sign it and upload it on the portal so that you (the user) can complete it, have it signed by its MTA delegate and upload the signed MTA onto the portal.

### Flowchart for processing sample distribution request from CRB-Anim infrastructure



- **Confirmation and shipment**

The final step is to send the invoice, samples and confirmation of receipt. The invoice will be paid directly to the biobank, not via the portal.

**The seven steps of a completed request for samples as available to the user and to the biobank on the CRB-Anim Portal**

Identifier	Date	Enquirer	Number of samples	BRC	Species Committee(s)	Status
DS2021-0004	2/5/21 3:28 PM	[Redacted]	4774	CRB @BRIDGE	Ruminants	Completed

**List of files**

Cost assessment

signed MTA

#1 Initial request

#2 Evaluation by the BRC

#3 Evaluation by species committees

#4 MTA

#5 Confirmation

#6 Shipment

#7 Reception

**Reception**

Date of reception:

Comment:

How do you assess the response of the BRC to your need ?

1  
  2  
  3  
  4  
  5

## Steps to request for sample deposit

To make a request in order to deposit samples in a biobank, you must also authenticate yourself. The steps from the initial request to the reception of samples are similar to those for a distribution (see above); there is no need to search for samples on the portal but you need to provide sufficient information on the samples:

- Possible link with an existing storage project (you are adding to your collection);
- The link between your storage project and a research project, if so which one, and whether it has been evaluated by a research agency or not;
- Descriptors relating to the animal donating the samples following a recommended format
- Descriptors related to the samples following a recommended format

You can fill in your request in several stages. At the end, you are invited to submit a file containing the characteristics of your samples and any other files you consider useful, such as your animal experiment permit, the permit obtained for importing samples if they originally came from a country other than France (Access and Benefit Sharing, Nagoya protocol), a health certificate, any document related to Intellectual Property rights etc.

When all steps have been validated and the signed MTA uploaded, then the samples can be sent by the user and integrated into the biobank after verification of technical quality upon reception.

## SAMPLE REQUEST PROCEDURES PROTOTYPE FOR EuroFAANG

---

We have seen that the steps to request distribution or deposit of samples are very similar for existing European Research Infrastructures for biobanking. However, the source code and the management of the central database associated to the web interface are not available at this stage. We have considered the CRB-Anim example, which follows the same steps, because the source code and the uploading procedure of biobank catalogues to the central database are available to us.

We can now propose a Sample Request Prototype for EuroFAANG biobanking services.

### Steps for sample distribution request

- **Identification/Registration on the EuroFAANG**

Create a user account using a company's or institute's e-mail account and log in.

- **Searching of samples**

The user can make a Simple Search using any word related to the desired samples (tissue, species, breed, project name), or make an Advanced Search using filters based upon the minimum data set pre-defined by the biobanking infrastructure.

In the case of EuroFAANG, the minimum data set may include the quality control criteria of the cell line, the protocol used to derive the cellular model... These are still to be developed with the think-tanks of experts set up in WP4 and WP5 as well as with stakeholders.

- **Initiation of requests**

Select your desired samples and prepare the request by using **Add to Cart** button. When you have added all of the samples you require to the cart, review your cart to check your order. Update the content of your cart, fill in the request to validate your cart and submit the request.

- **Evaluation by the Biobank**

Upon receipt of your sample requirements, the contacted Biobank will revert to you to handle your request via EuroFAANG portal. The Biobank may ask you for further information before sending an MTA agreement. It may also consult EuroFAANG expert groups (to be set up from the think tanks currently established in WP4 and WP5) and send you a quote. These expert groups will play the role of the CRB-Anim 'species groups'. An email exchange zone is provided to enable you to ask any questions you may have.

- **Validation and implementation of requests.**

Orders will only be validated by the Biobank after the completed and signed MTA has been received in duplicate, along with a signed purchase order if relevant. Indeed, if the request is covered by the TNA budget of EuroFAANG, the quote will be null.

- **Confirmation and shipping**

The next step is for the biobank to send the invoice, samples and confirmation of receipt. The invoice will be paid directly to the Biobank, not via the portal.

It remains to be decided whether the payment will be made to the central hub of EuroFAANG or to the national node hosting the biobank which is distributing the samples.

### **Steps for sample entry request**

To make a sample entry request, the user must also authenticate itself and follow the steps on the portal, as for a distribution request. It is possible to save an unfinished request if more time is needed to collect the requested information. In particular, biological material can enter an EuroFAANG biobank only if it complies with the minimum data set.

At the end, the user is invited to submit a file containing the characteristics of the samples and any other files considered to be useful, such as the animal experiment permit, the protocol used to derive the cellular model, any permit related to Access and Benefit Sharing (Nagoya protocol), any document related to Intellectual Property, a sanitary certificate, etc.

## **TNA APPLICATION PROTOTYPE FOR EuroFAANG**

---

Applications for TNA should be made based on the steps listed below

- **Step 1: Expression of interest and Registration**

Applicants should consult the TNA catalogue and select the proposal of interest using the filters. In each filter, you can select more than one proposal. Users must first register in the TNA portal.

Once registered, application should be completed using the TNA online tool available on the project website.

- **Step 2: Pre-proposal submission**

Applicants are requested to submit a pre-proposal , mainly providing information about:

- The rational: This describes the context in which the project fits, indicate the overall objective and assess the expected impact on the subject matter.
- The scientific quality: present the state of art, define clear scientific question to which the project should provide an answer, formulate the appropriate hypothesis and briefly explain the approach to be followed.
- The valorisation strategy: explains what the data will be used for, such as open data policy, scientific publication, patent or registration procedure.

- **Step 3: Full proposal submission**

Selected pre-proposals will be invited to submit a full proposal, which should be prepared in close collaboration with the Access Officer of EuroFAANG. Full proposal should provide information about:

- The scientific and ethical soundness: resume the final scientific question, describe the design of the trial.
- Practical and financial feasibility including number of units of access, necessary approvals from ethical committee or other authorities, information on visit and /or participation of the applicants, and an overview of potential risks.

If participation by the TNA applicant is required during the experiment, it should be ensured that the person participating has the appropriate training and licenses.

- **Step 4: Evaluation of proposal and implementation of access**

Applications should be reviewed by the User Selection Panel (USP), which should be composed of members of the EuroFAANG consortium together with experts from the think tanks set up in WP4 and WP5. The applicant should be able to follow the selection process through the online TNA tool. Selection should be done in 2 stages. For first stage selection, the main criteria will be based on relevance, possible impact, scientific questioning, degree of innovation and valorisation potential. The main criteria for the second stage selection will include the scientific and ethical soundness of the proposal together with the practical and financial feasibility. In addition, the USP will assess the responsible use of experimental animals and the TNA provider will attest the feasibility of the proposed work. Applicants will be notified of the outcome of each selection stage process after the submission deadline. Provisional approval will be granted pending possible approval of other authorities (for example ethical committee). In the event of a positive outcome, TNA applicants need to contact the Access Officer of EuroFAANG to apply for this additional approval. Without the approval of authorisation bodies, the experiment will not be able to start. Official documents regarding the approval by the ethical committee must be delivered to the Access Officer.

- **Step 5: Reporting**

To monitor and guide TNA projects, TNA users are expected to deliver concise reports at the start mid-way and upon termination of the TNA project. Reports should be submitted using the online TNA tool available on EuroFAANG website and approved by the Access Officer. In addition, to further improve TNA programme, a mandatory follow-up questionnaire will be sent to all TNA users. This questionnaire is expected to be submitted together with the final report.

- **Step 6: Valorisation**

TNA users have owners' rights on the data obtained, but they are expected to valorise their result as soon as feasible (pending protection of intellectual property), preferable in Open Access publications, with due acknowledgement to EuroFAANG.

- **Step 7: Reimbursement**

In the case of hosting services, EuroFAANG can subsidize travel and subsistence costs of the TNA users. Either the TNA user or the infrastructure can make the bookings. It is expected to choose the most cost effective form of travel and accommodation. In case TNA user makes the booking, the Access Officer of EuroFAANG must be contacted to approve the travel budget. Costs that exceed the agreed travel budgets cannot be reimbursed. In addition, without the submission of the final report, follow-up questionnaire, cost cannot be reimbursed. Boarding passes, travel agency invoices, original tickets, e-tickets must be submitted along the reimbursement claim form.