

# BE FBI 10 avril 2024

## COMPTE RENDU REUNION DU BUREAU EXECUTIF DE FBI

10 avril 2024, 14:00 – 16:00

*Visio-conférence*

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**Participants** : David Perrais, Charles Kervrann, Jean-Yves Tinevez, Marc Tramier, Emmanuel Beaurepaire, Sandrine Lecart, Daniel Stockholm, Pierre-François Lenne, René Marc Mège, Nathalie Aulner, Cécile Pouzet, Olivier Gadai, Bertrand Vernay, Patrick Lemaire, Ludovic Galas, Isabelle Bardou, Olivier Destaing, Jacques Brocard, Aurélien Dauphin, Emmanuel Faure, Nicolas Brouilly, Etienne Henry, Cyril Favard, Artemis Kosta, Jean Salamero, Samy Al-Bourgol, Alexandre Philips, Edouard Bertrand

**Excusés** : Yves Mely, Caroline Thiriet, Fabrice Cordelières, Perrine Paul-Gilloteaux, Didier Marguet, Jacky Goetz, Emmanuel Margeat, Jacques Rouquette, Audrey Salles, Cédric Matthews, Christine Terryn, Lydia Danglot, Laurent Heliot, Fabrice Schmitt, Martin Belle

# BE FBI 10 Avril 2024

14:00-14:05 **Accueil des nouveaux Noeuds Normandie** (Ludovic Galas & Isabelle Bardou) et **Alpes** (Olivier Destaing & Jaques Brocard)

## BIENVENUE !

14:05-14h25 **Présentation du projet du Noeud IPDM** (Charles Kervrann & Jean-Yves Tinevez)

Voir présentation en annexe

14:25-14h30 **Intégration des nouvelles équipes R&D des Noeuds Bordeaux et Montpellier**

- Rémi Fronzes Nœud Bordeaux
- Delphine Muriaux/Cyril Favard Nœud Montpellier
- Benoît Charlot Nœud Montpellier
- Giacomo Cavalli Nœud Montpellier
- Julie Perroy Nœud Montpellier

14h30-14h45 **Référents locaux pour le projet FBI.DATA et leurs missions** (Emmanuel Faure)

Voir présentation en annexe avec définition des missions des référents

14h45-14h50 **Création du WG5 'Mechanobiology'** (Alexandre Philips)

Responsables du WG5 : Maud Hertzog (maud.hertzog@univ-tlse3.fr)

Renaud Poincloux ([renaud.poincloux@ipbs.fr](mailto:renaud.poincloux@ipbs.fr))

Une réunion/séminaire va être organisée prochainement pour identifier les personnes souhaitant participer à ce WG.

14h50-15h45 **Budget 2024 ANR et PLF172** (Edouard)

Budget et propositions de dépenses sont adoptées à l'unanimité par le BE.

## BE FBI 10 Avril 2024

### 15:45-15:50 **Demandes de subventions pour des évènements scientifiques (Alexandre Philips)**

3rd Biennale of the CENN on Smart Microscopy for Biology (31/05/2024, Nantes, 100 participants attendus). Demande de Perrine Paul-Gilloteaux, budget de 12 k€ avec demande à FBI de 2 000€.

-> Subvention de 2000 € votée avec en conditions : apposition du logo FBI sur programme et présentation de l'IR

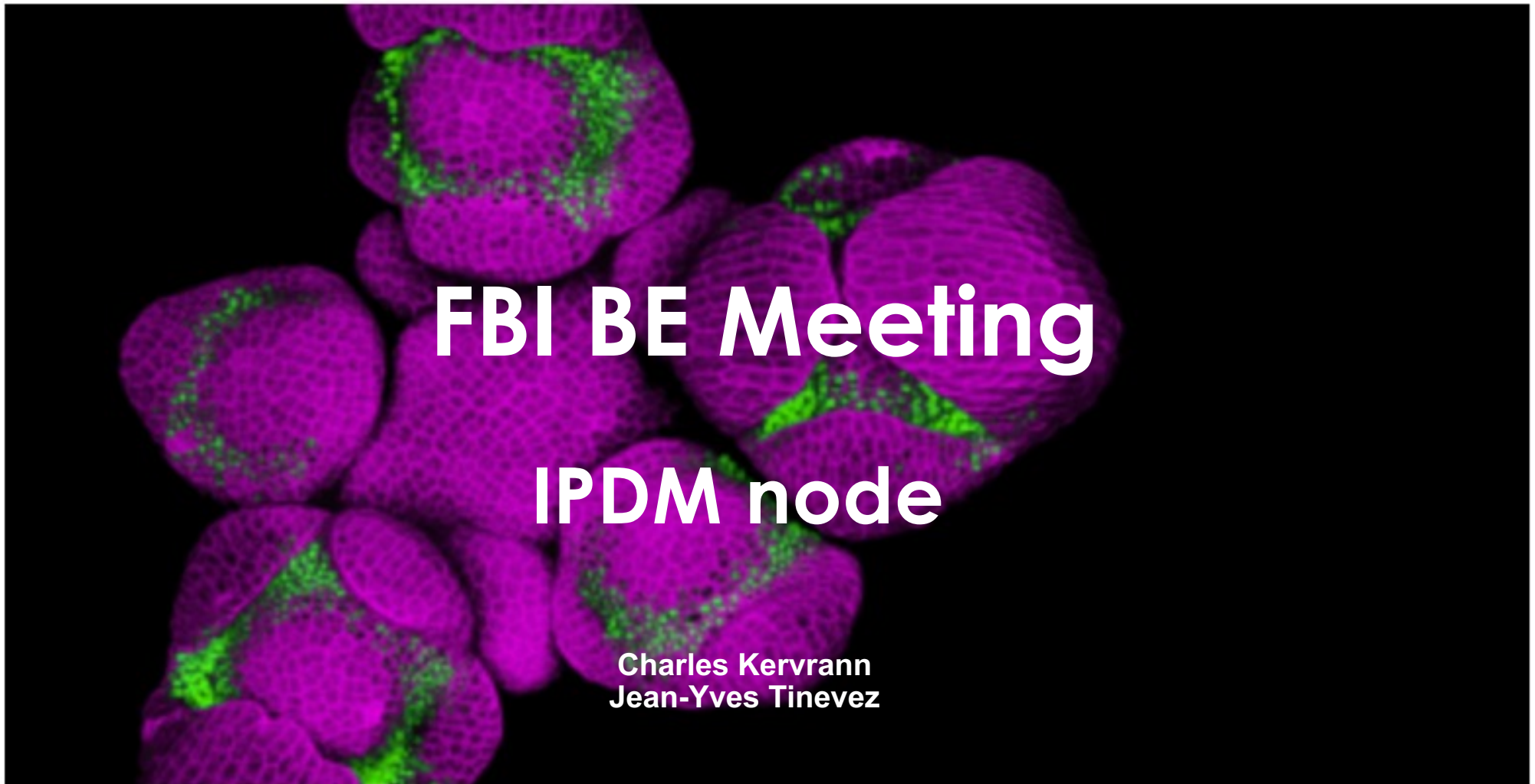
Cell Dev 2024 « From cell to organism” (16-19/10/2024, Paris, 250-350 participants attendus). Demande de René-Marc Mège, budget de 140 k€ avec demande à FBI de 2 000 €.

-> Subvention de 2000 € votée avec en conditions : apposition du logo FBI sur programme et présentation de l'IR

### 15:50 **Comité restreint**



FRANCE-BIOIMAGING



# FBI BE Meeting

## IPDM node

Charles Kervrann  
Jean-Yves Tinevez

**NODE**

# BioImage Informatics

FBI BE Meeting

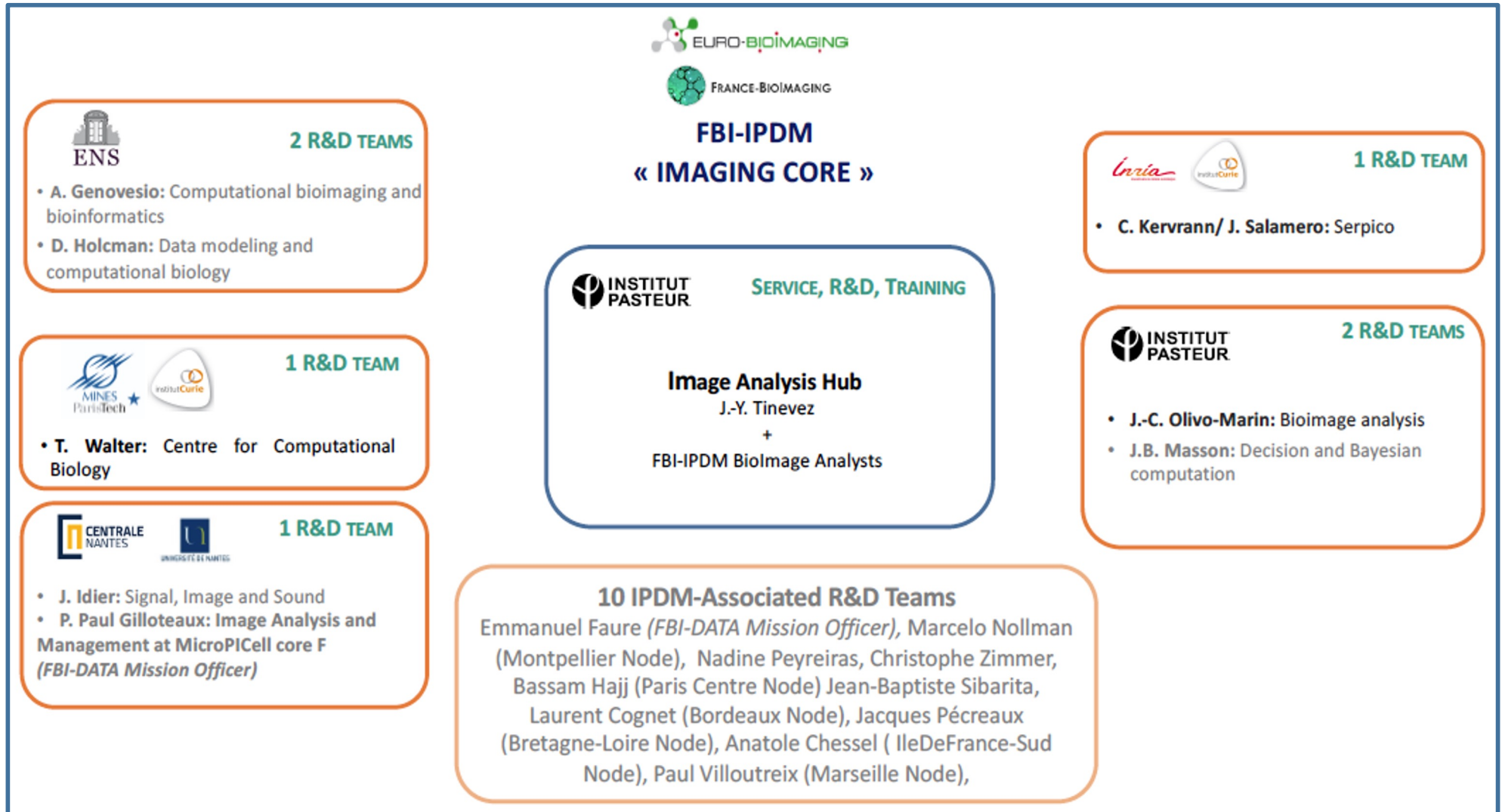
April the 10<sup>th</sup> 2024



# Current Node Composition

## Node organisation chart

### PRESENTATION IN 2020



RE-DEFINITION IN 2024 !



## Image Processing and Data Management

*Leading transversal initiatives to bring integrated solutions to the challenges of image analysis & data management.*

### **Challenges in Image Analysis**

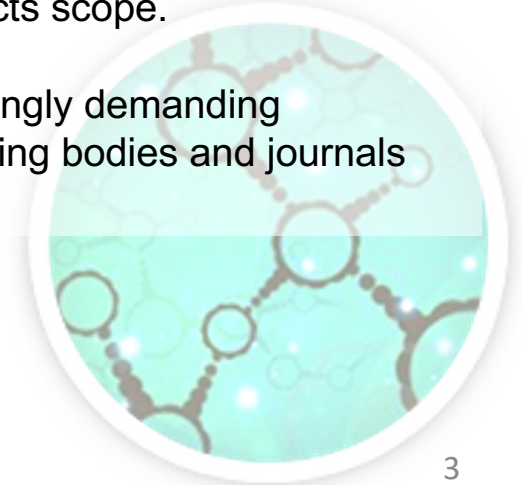
Accessing to image analysis technology and techniques for the scientists that need it.

Dissemination of novel image processing and analysis methods and algorithms developed in research teams towards cell imaging and biology teams.

### **Challenges in Data Management**

Harnessing the data deluge in microscopy, in multi-users, multi-projects scope.

Addressing the increasingly demanding requirements from funding bodies and journals on data availability.





# The need for accessing image processing and data management technologies

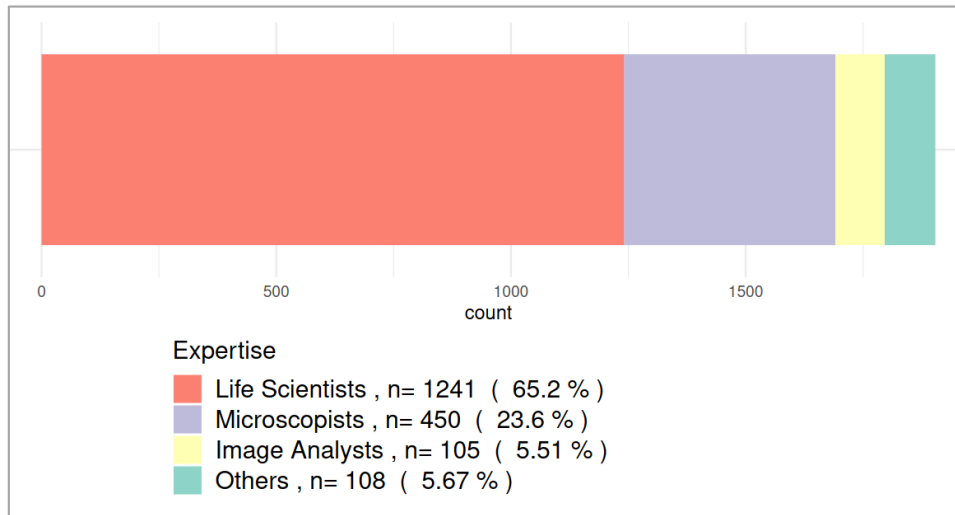
Almost 10 years ago...

## A Survey on Bioimage Analysis Needs, 2015

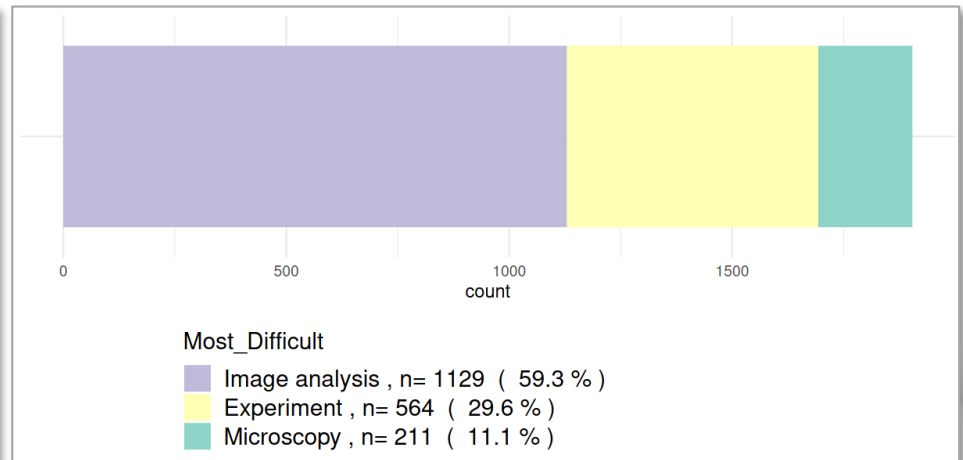
Kota Miura<sup>1,2,✉</sup>

<sup>1</sup>Nikon Imaging Center, University of Heidelberg, Germany  
<sup>2</sup>EMBL Heidelberg, Germany

Who answered?

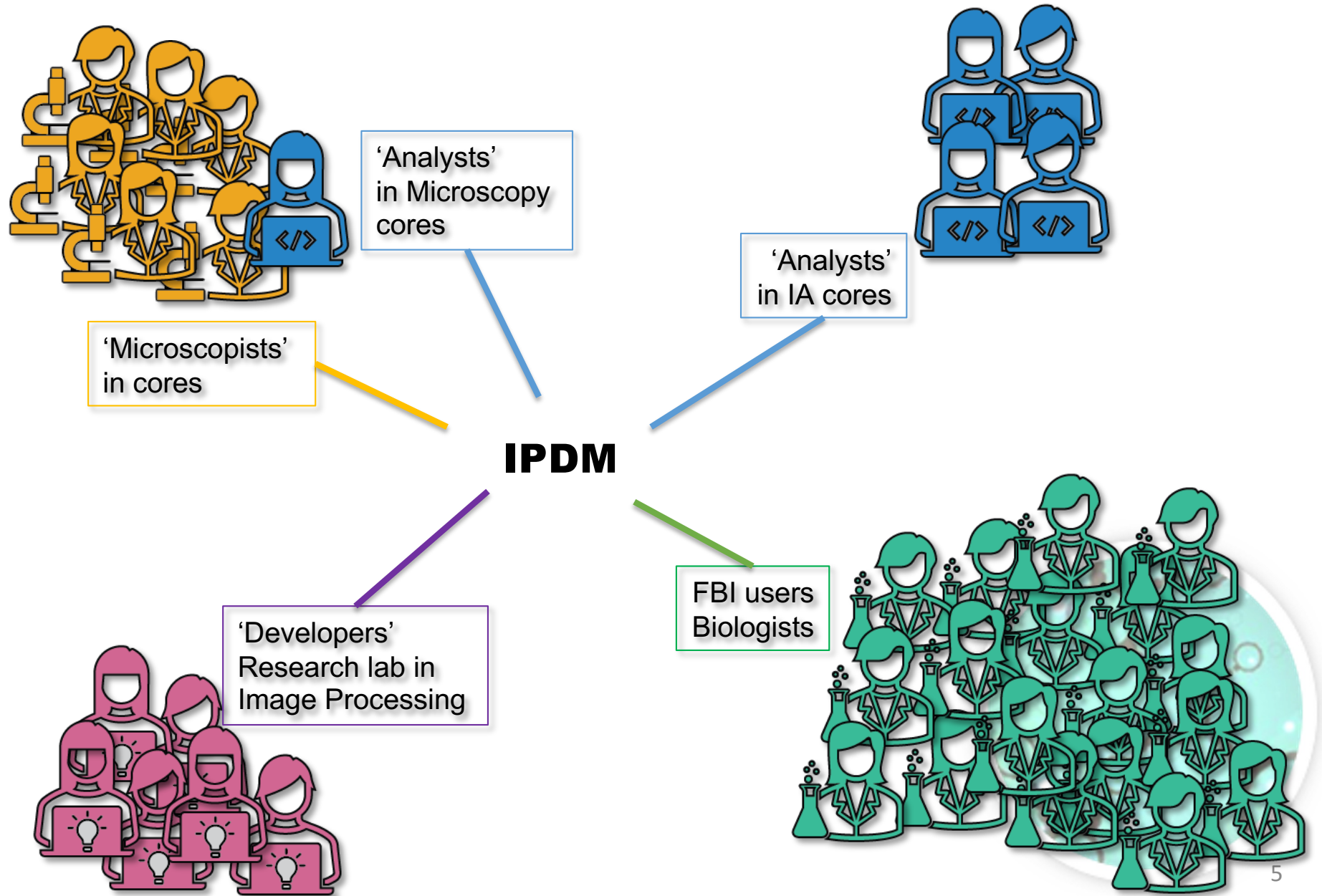


The bottleneck in their research?





# Scientific communities in IPDM







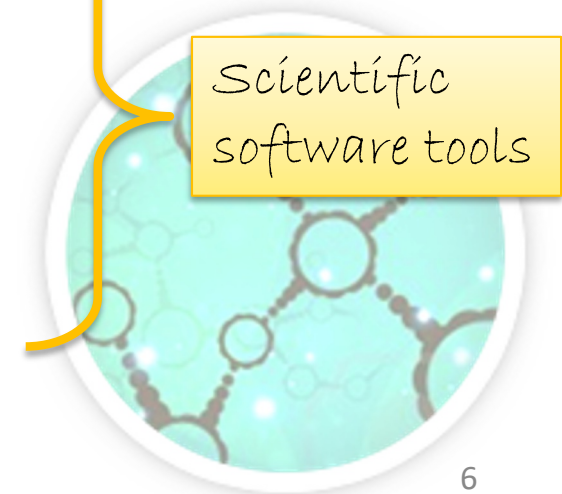
# A roadmap articulated around 4 flagship projects

Connects to  
all the  
communities  
within IPDM

- Scientific image Data management: the **FBI.Data** project.
- Towards a nationwide, remotely-operation core facility for Bioimage analysis: **the F-BIAS project**.
- Facilitating the development of large-scale image analysis pipelines: the **BioImageIT** software project.
- Enabling biologist end-users with Bioimage analysis: the **Icy** software project.

Services for  
FBI users

Scientific  
software tools



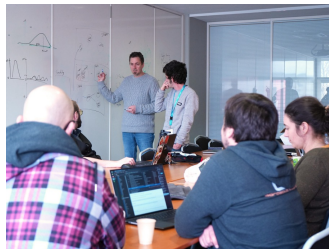


# FBI.Data

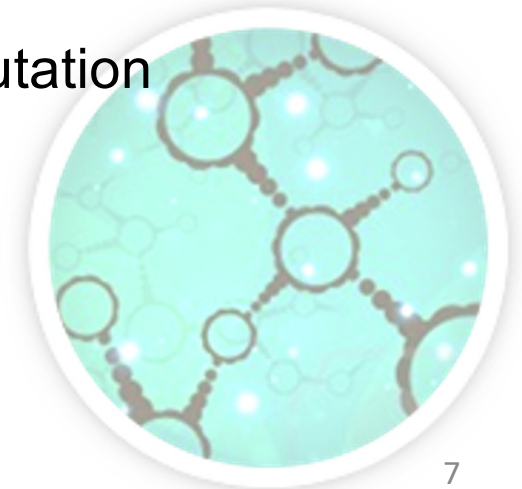
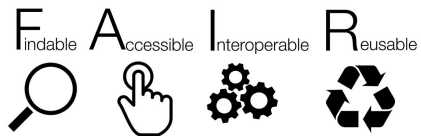
## Towards a National Mutualisation Of Data Management

All activities focuses on addressing issues  
with scientific image data management:

*Coordinators: E. Faure, P. Paul-Gilloteaux*



- **Axis 1:** Community role
- **Axis 2:** DMP recommendation and Template
- **Axis 3:** Data storage
- **Axis 4:** High performance computation





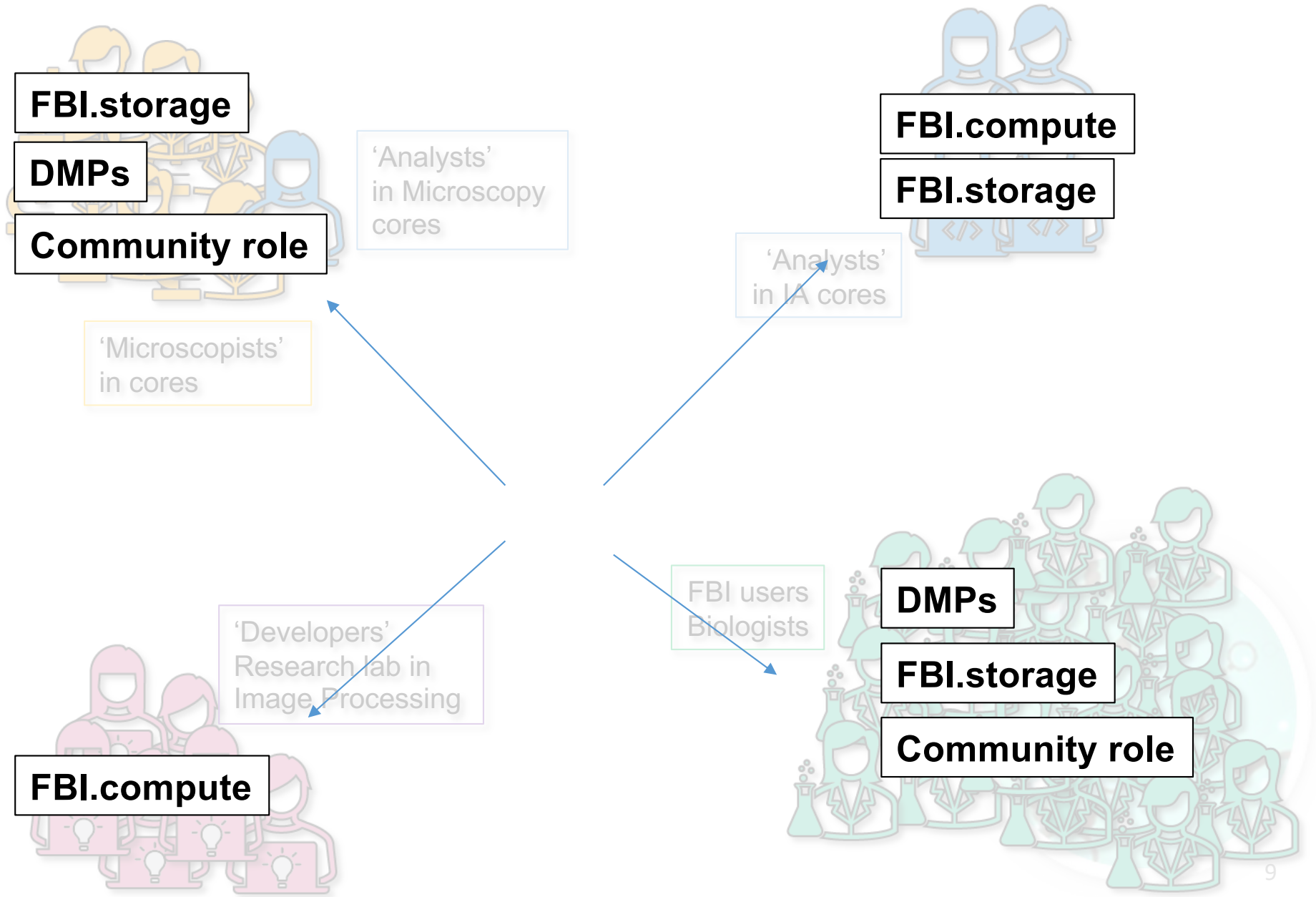
## FBI.Data team

- [Perrine Paul-Gilloteaux](#) : Mission Officer
- [Emmanuel Faure](#) : Mission Officer
- **Guillaume Gay** : Architect and Metadata
- **Marc Mongy** : Omero Batteries included
- **Jean-François Guillaume** : Systems Engineer
- **Théo Barnouin** : Systems Engineer
- **Guillaume Maucort** : User Support and Training
- **Raphaël Braud-Mussi** : Interoperability
- **Thierry Pecot** : Image Processing
- **Dorian Kauffmann** : Challenge





# FBI.Data outreach





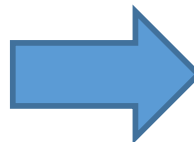
# F-BIAS

## Towards a nationwide, remotely-operating, core facility for bioimage analysis

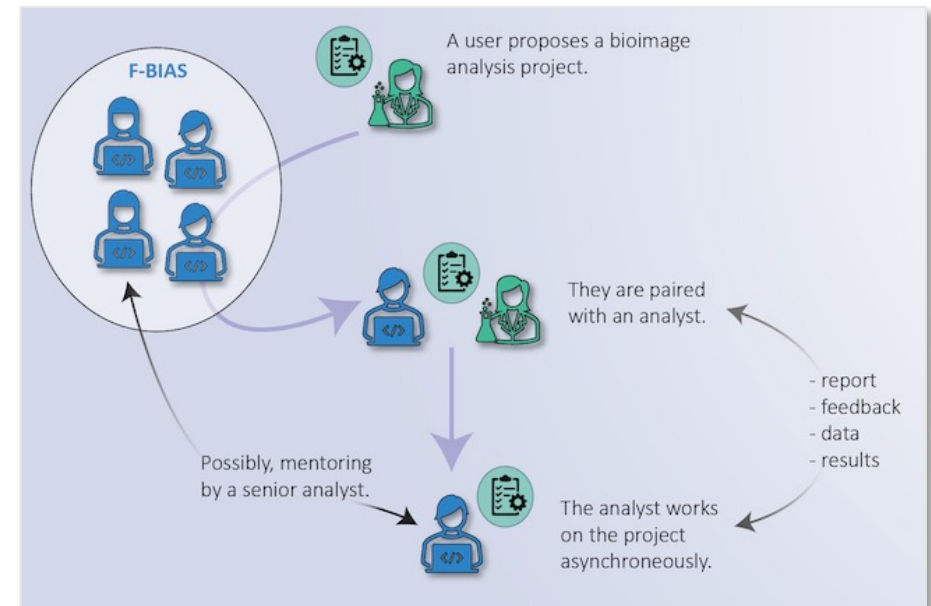
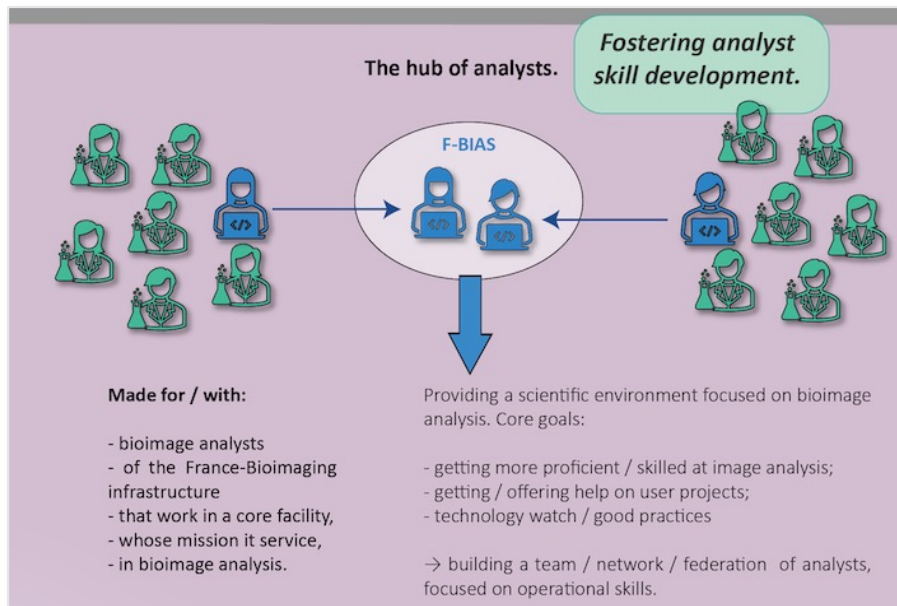
Coordinators: A.S.Macé, J.-Y. Tinevez

F-BIAS specifically targets the community of *analysts*: research engineer working in core facility, whose mission is to support the research of infrastructure users.

From phase #1  
(federation focused on improving the skills of its members)

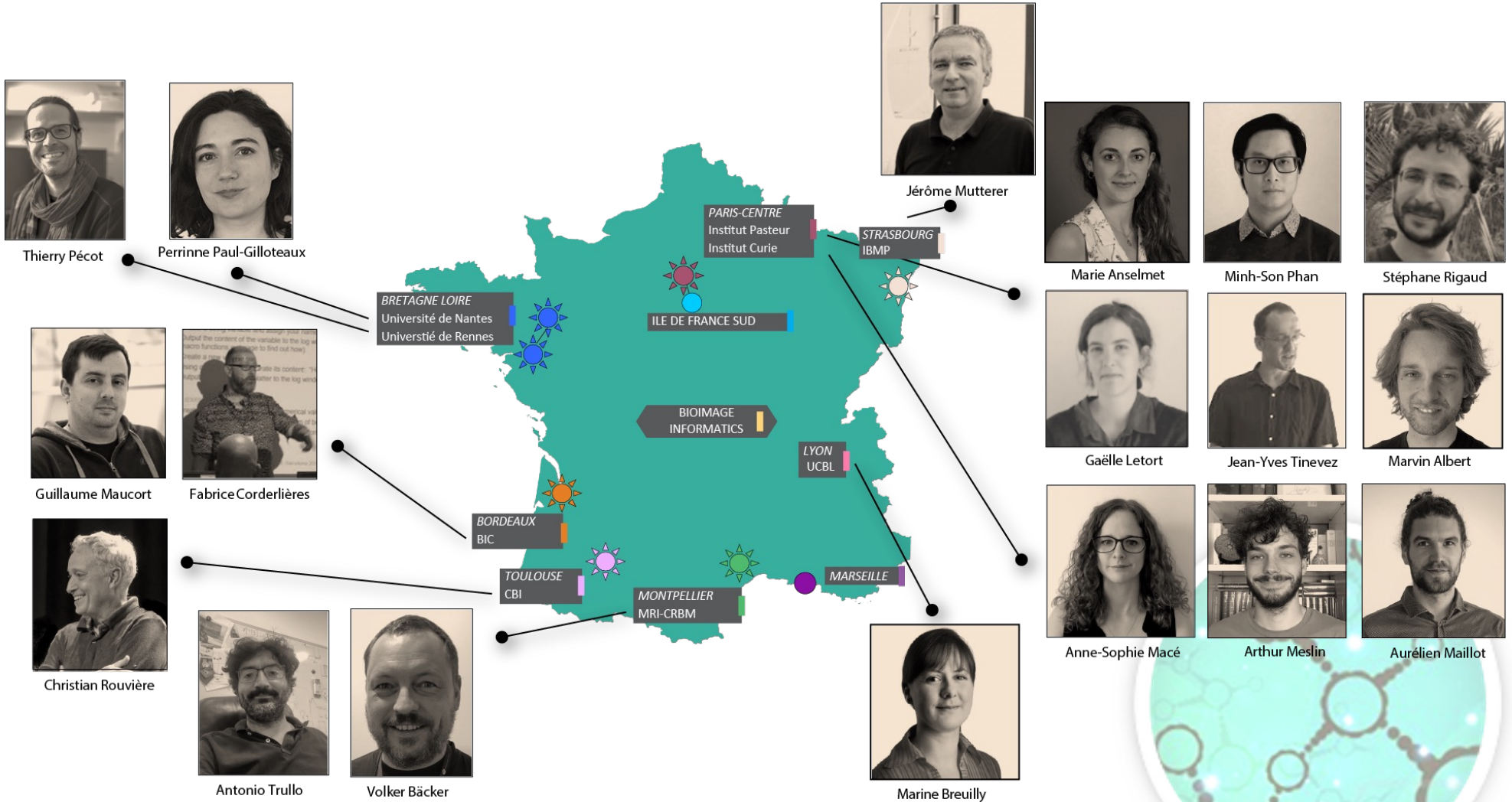


To phase #2 & #3  
(a group with dedicated resources to support research nationwide)



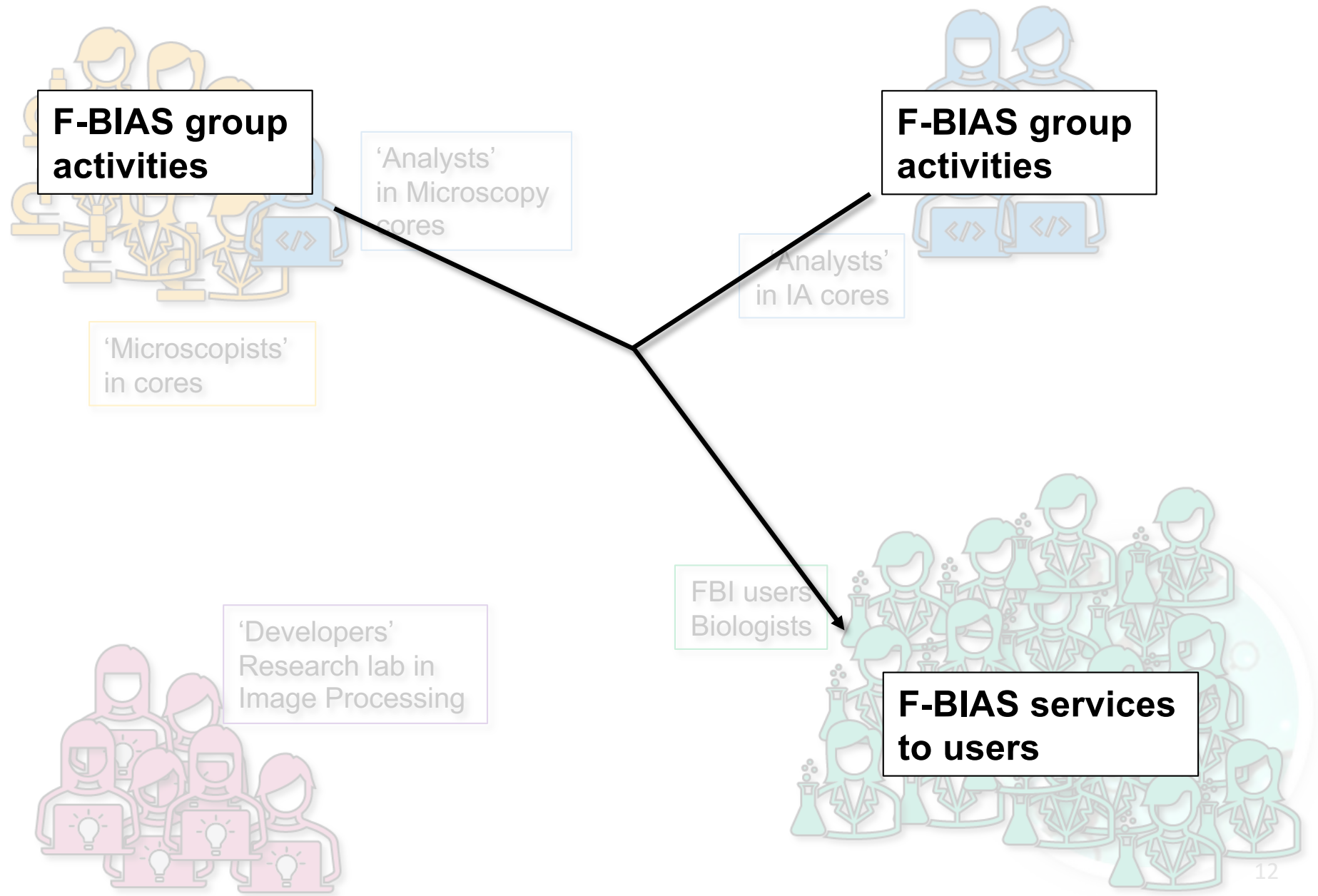


# F-BIAS team





# F-BIAS outreach





# BioImageT

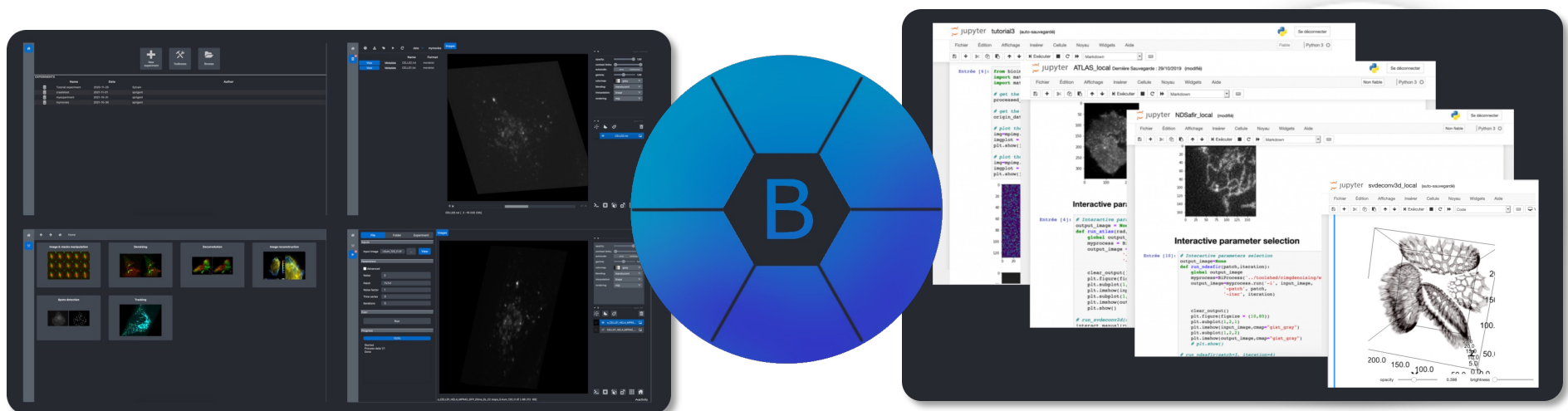
Build a software to develop and deploy large scale image analysis pipelines

Coordinators: C. Kervrann, A. Masson

Image analysis pipelines can call very *heterogenous components* (Python, Java, strange outputs). How to include then in a pipeline that runs in one go?

Analysis projects can request the building of pipelines to run on many images, possibly requiring *external computing resources* (e.g., computing facilities, GPUs) and *FAIR data management*.

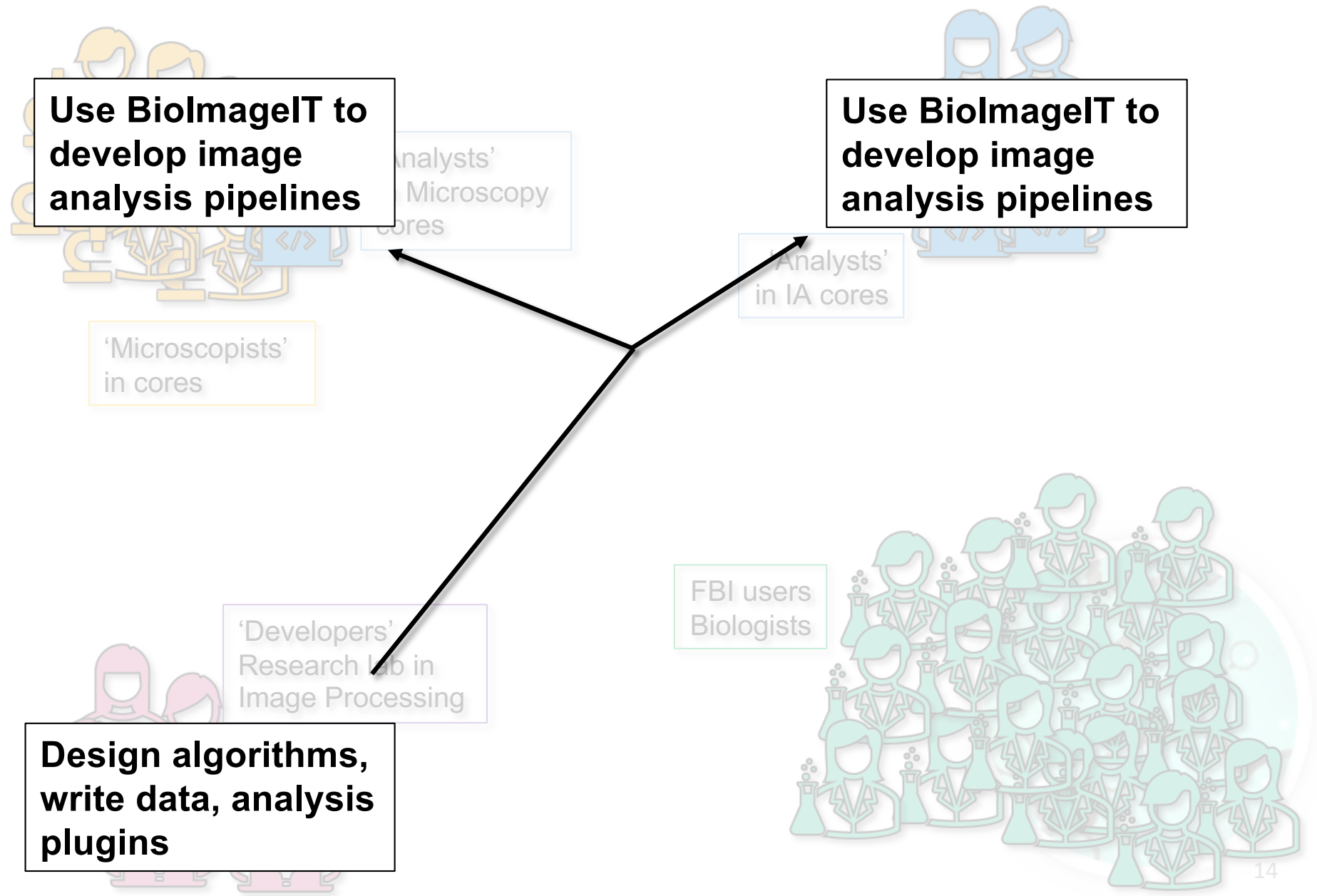
How to connect 'developers' *new algorithms* to a community of users (bio-image analysts, biologists, physicists,...), with as little hassle as possible, with a mutual benefit ?







# BiomagelT outreach

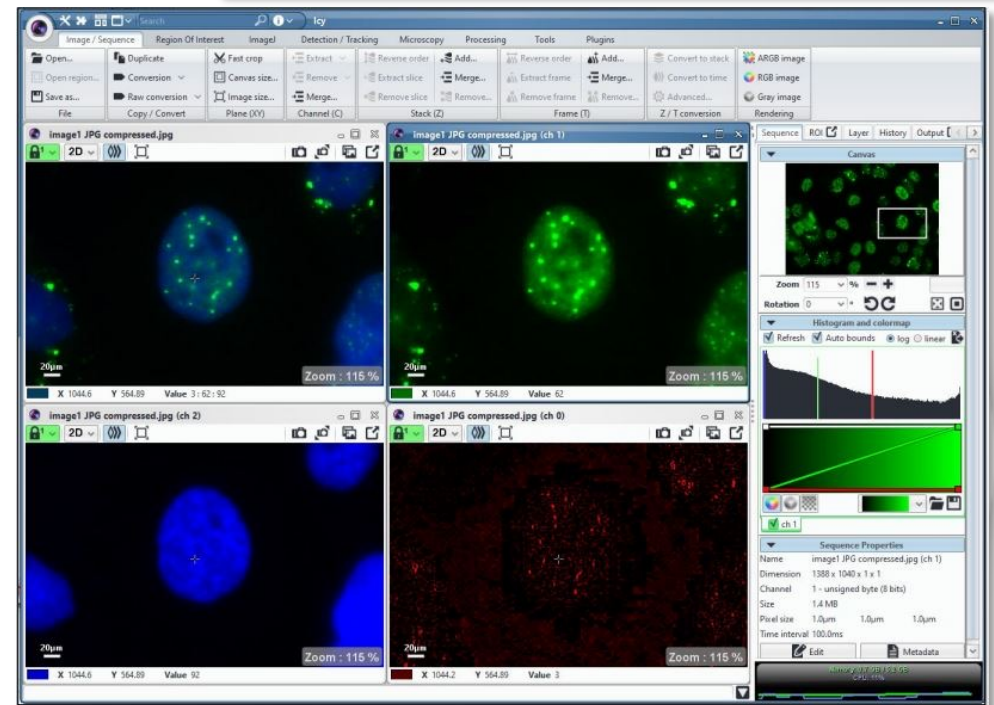
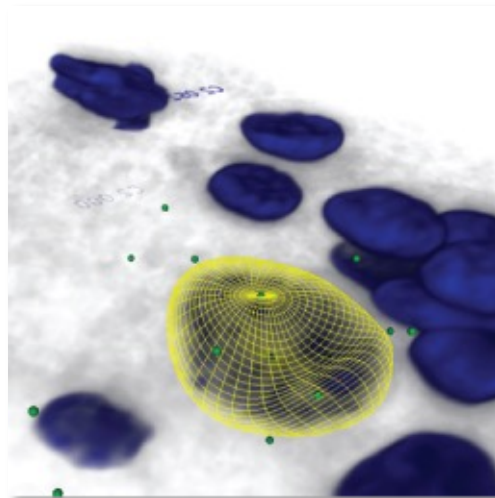
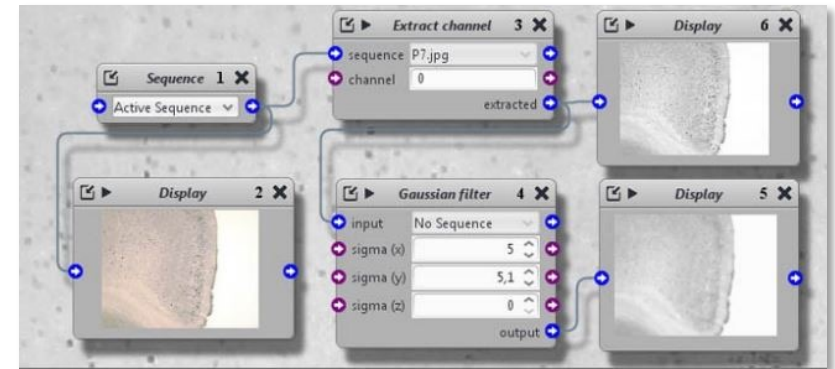




## Bioimage analysis for everyone

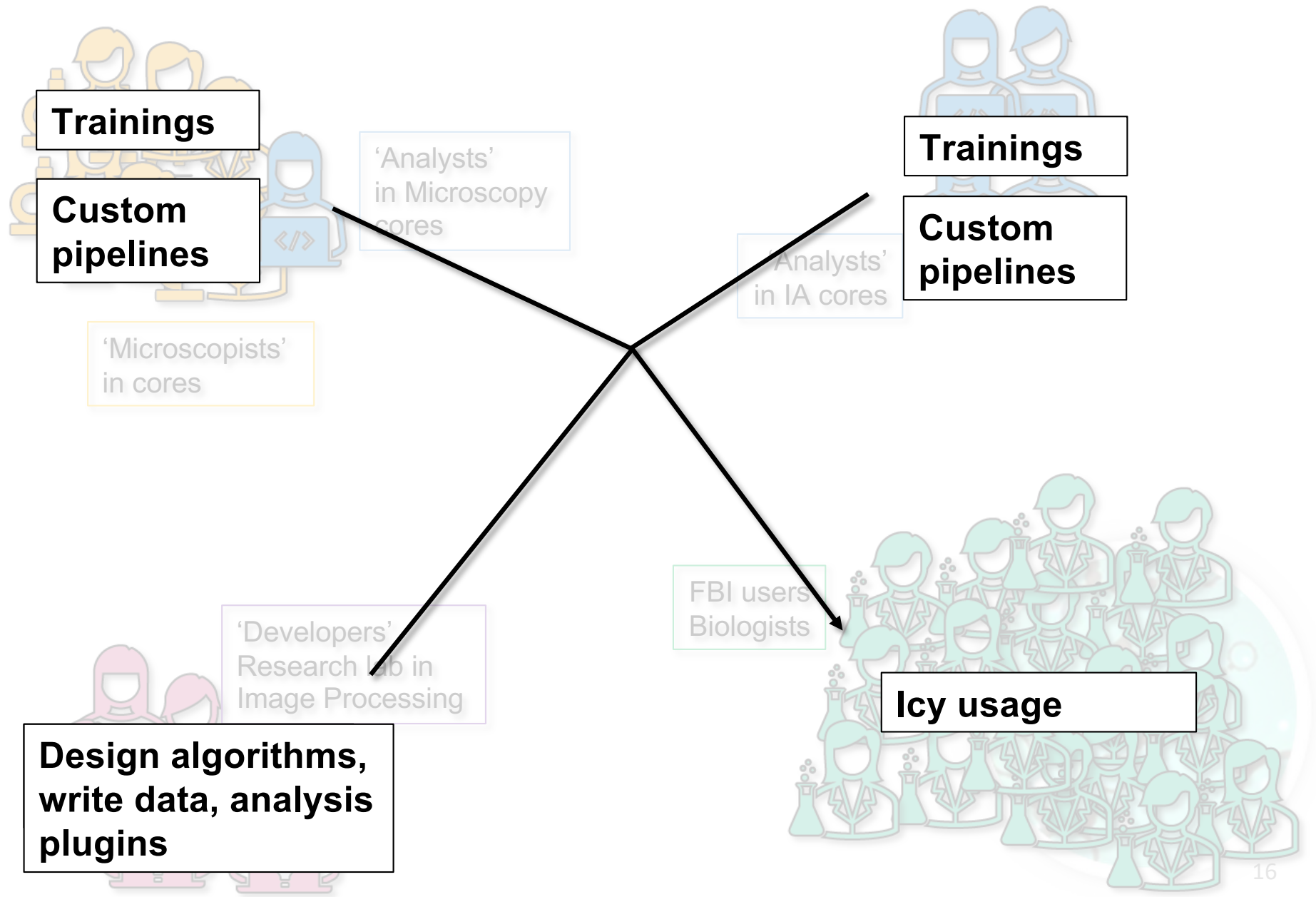
Develop a user-friendly tool that

- can be used by everyone,
- can be used to develop image analysis pipelines,
- allows implementing novel algorithms conveniently





# F-BIAS outreach





# Agenda, actions in 2024

A higher integration of stakeholder results

**Improve communication, interaction, and dissemination to improve expertise and method sharing and performance**

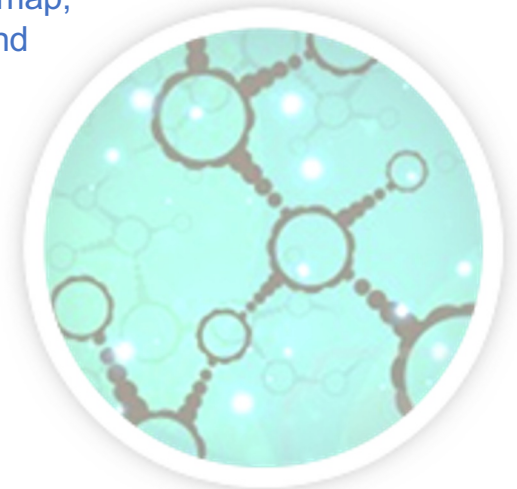
## Planned meetings

- **IPDM-Head/F-BIAS/FBI.data visio-conference** (March 4<sup>th</sup>, 2024) : global objectives, organization, actions
- **F-BIAS/FBI.data meeting** in Bordeaux (22-26 April, 2024): development and information sharing

## Forthcoming meetings

- **'Developer' community** meeting in September 2024: Roadmap, organization,..., and identification of the best “home-made” algorithm/software developed by each team to be shared with all nodes > “The best for all”, ...
- **Global IPDM meeting** (e.g., next annual FBI Meeting, end of 2024) : Roadmap, needs of stakeholders, identification of BIG challenges in data processing and management, ...
- **FBI.data meeting ?**

**IPDM needs you ! ... your motivation, your involvement, your contributions, ..., to make IPDM a performant and unprecedented 'research instrument' for a mutual benefit for all stakeholders ?**



# FBI DATA Référent locaux

Dans le cadre des développements nous menons au sein du groupe FBI DATA, nous sommes en train de constituer un groupe de référents locaux au sein de chacun des noeuds.

## Les missions des référents consistent en :

- faire le lien entre le noeud (la tête du noeud + les plateformes + les utilisateurs ) et le groupe FBI-DATA. Faire remonter les besoins locaux et tenir les acteurs locaux au courant des développements de FBI DATA.
- animer localement un groupe de travail sur la donnée (+ traitement d'images) qui vise essentiellement à identifier les besoins afin de pouvoir proposer des solutions cloud appropriées au meso
- identifier les interlocuteurs locaux aux meso centres ( et éventuellement à la DSI des plateformes )
- suivre les achats locaux en cours dans le cadre du projet Mudis4LS de l'IFB afin qu'ils correspondent bien aux besoins (Principalement achat de stockage au meso)
- identifier les besoins pour l'installation d'éventuelles solutions buffers au sein de chacune des plateformes.
- participer à la constitution d'une documentation et de la formation pour les utilisateurs.

## **Bordeaux:**

Guillaume Maucort : [guillaume.maucort@u-bordeaux.fr](mailto:guillaume.maucort@u-bordeaux.fr)

## **Toulouse:**

Mathieu Vigneau : [mathieu.vigneau@cnrs.fr](mailto:mathieu.vigneau@cnrs.fr)

## **Marseille:**

Cédric Matthews : [cedric.mathews@univ-amu.fr](mailto:cedric.mathews@univ-amu.fr)

Patrick Dru : [patrick.dru@univ-amu.fr](mailto:patrick.dru@univ-amu.fr)

## **Alsace:**

Bertrand Vernay : [vernayb@igbmc.fr](mailto:vernayb@igbmc.fr)

Jérôme Mutterer : [mutterer@unistra.fr](mailto:mutterer@unistra.fr)

## **Bretagne-Loire:**

Rennes: Thierry Pécot : [thierry.pecot@univ-rennes.fr](mailto:thierry.pecot@univ-rennes.fr)

Nantes : Perrine Paul-Gilloteaux : [perrine.paul-gilloteaux@france-bioimaging.org](mailto:perrine.paul-gilloteaux@france-bioimaging.org)

## **Montpellier:**

Julio Mateos Lengerak : [julio.mateos-langerak@igh.cnrs.fr](mailto:julio.mateos-langerak@igh.cnrs.fr)

Guillaume Gay : [guillaume.gay@lirmm.fr](mailto:guillaume.gay@lirmm.fr)

## **IDF Sud:**

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## **Paris:**

Raphaël Braud-Mussi : [raphael.braud-mussi@ijm.fr](mailto:raphael.braud-mussi@ijm.fr)

En attente de René-Marc Mège de 2 autres personnes

## **Normandie :**

Alexis Lebon : [alexis.lebon@univ-rouen.fr](mailto:alexis.lebon@univ-rouen.fr)

## **Rhone Alpes :**

en cours d'identification