Global Gateway

Unlocking Global Gateway investments in nature and the green economy

Brussels, July 7-10

Global Gateway

Bioeconomy policies

EU and G20

Nick Goetschalckx INTPA F2

EU policy developments

- 2012 European Bioeconomy Strategy, updated in 2018
  - + national and regional bioeconomy strategies
  - From innovation to commercialization?

- 2025 Updated Bioeconomy Strategy
  - Objective: enable investments in technologies, sectors, products and materials that can help scaling up the bioeconomy.
  - Update: “Drafting cell”, adoption Q4.
  - Relevance: Global Gateway + policy coherence

- [Note: EU Bioeconomy Monitoring System]

Note: e.g., bioeconomy's interplay with other policy areas

Updated bioeconomy strategy

European Green Deal

Clean Industrial Deal

90% emission-reduction target for 2040

Clean Industrial Deal

European Water Resilience Strategy

Circular Economy Act

Common Fisheries Policy

European Biotech Act

Common Agricultural Policy

European Oceans Pact

Actions to prevent and reduce food waste

Single Market for CO2

Sustainable Development Goals

Vision for Agriculture and Food

European Climate Adaptation Plan

New European Bauhaus

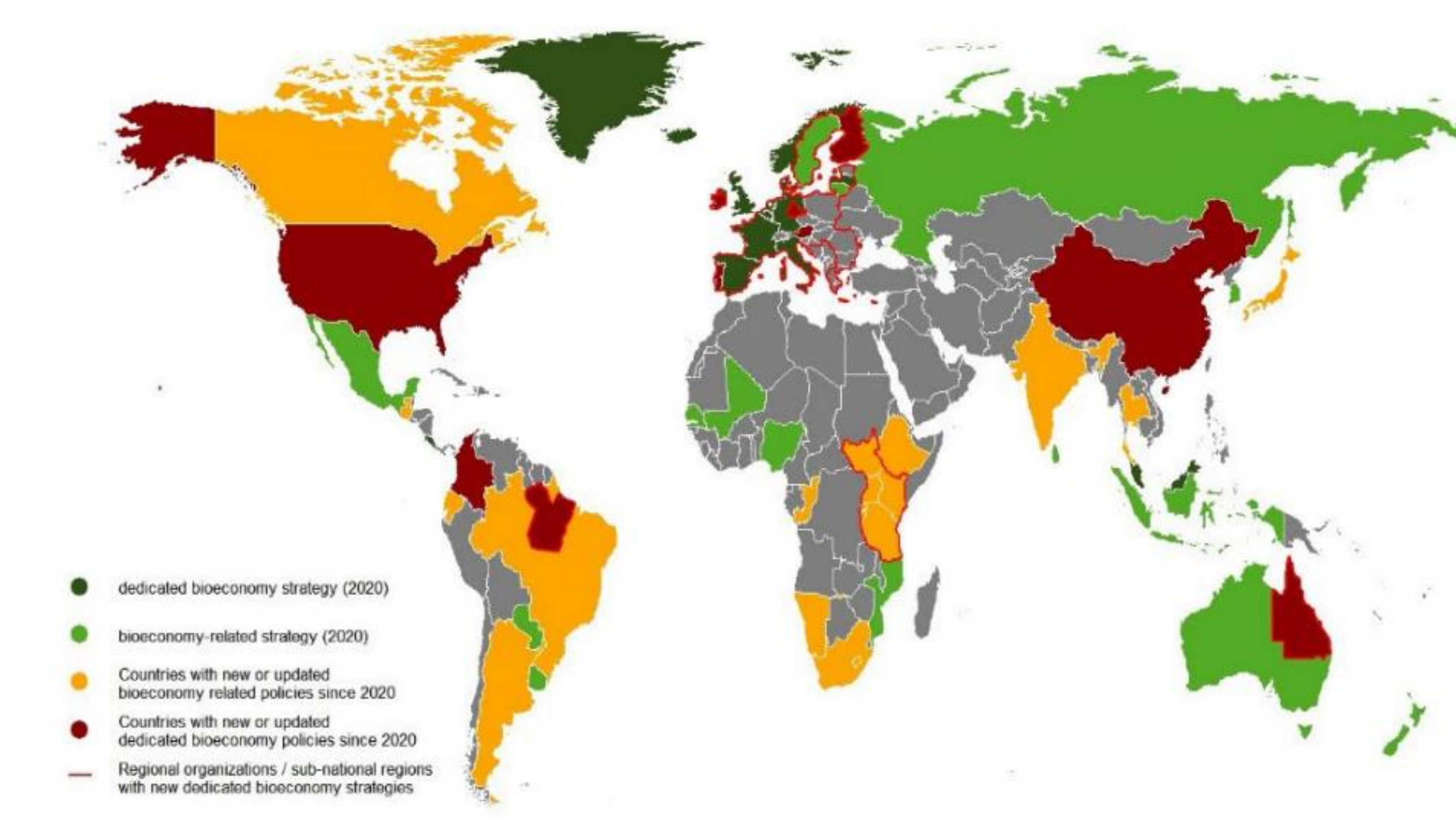
Competitive and sustainable blue economy

Competitiveness, resilience and sustainability of the food and farming sector

European Commission

Global policy developments

- **G20 initiative on bioeconomy (GIB)**
  - **IN:** doc “Circular Bioeconomy and SDGs: proposals for the G20”
  - **BR:** adoption of High-Level Principles on Bioeconomy
  - **ZA:** permanent G20 Bioeconomy Working Group? Bioeconomy Financing Hub? a Global Bioeconomy Partnership/Platform?
- **FAO**
  - Committee on Agriculture (COAG) and the Committee on Forestry (COFO)
- **[Links to Nagoya Protocol]**


dedicated bioeconomy strategy (2020)
bioeconomy-related strategy (2020)
Countries with new or updated bioeconomy related policies since 2020
Countries with new or updated dedicated bioeconomy policies since 2020
Regional organizations / sub-national regions with new dedicated bioeconomy strategies

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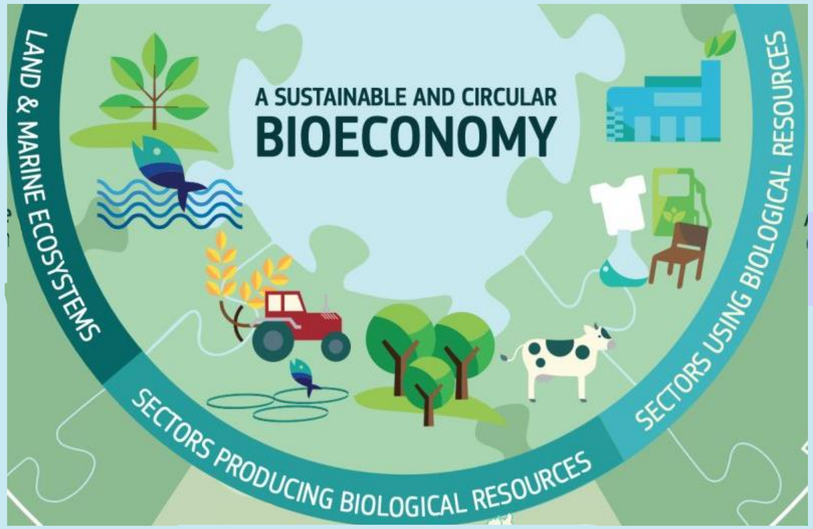
How does bioeconomy links to Access to Genetic Resources and fair Benefit Sharing (ABS)?

Geraldo Carreiro
B4Life facility

Bio-economy in a nutshell



- Reduced environmental pressure and impact
- Climate benefits

Process

Research / Bio-innovation

- Process / energy / material efficiency
- Chemical control
- Mix /improve existing industrial processes

Feedback / circularity

Food / feed

- Efficient feed
- Nutrients
- Nutraceuticals

Food, extracts, additives

- Food & nutrition security
- Competitiveness & jobs

Chemicals and Materials

- Molecules e.g. anticancer treatments, cosmetics, industrial enzymes, …
- Fibers, building materials, …

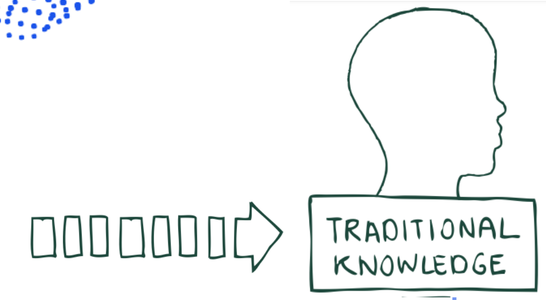
Ingredients

Energy / fuels

Plastics, textile, other bio-based

Can be found in:

- ecosystems and natural habitats
- commercial/private collections, repositories or databases (DSI)
- public / university collections (e.g. seedbanks, botanical gardens).



- Communities
- States (sovereign rights over GR)

PRIOR INFORMED CONSENT (PIC)

MUTUALLY AGREED TERMS (MAT)

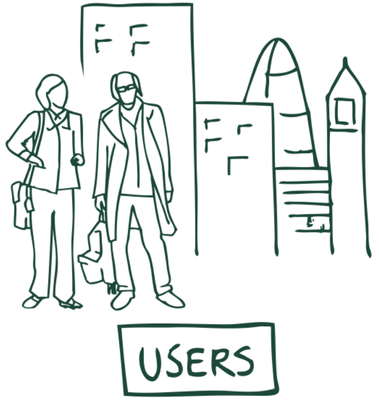
Monetary compensation
(Joint) property rights

R&D
Training, education
Technology transfer

BENEFITS

Commercial uses:

- Cosmetics
- Food/agri
- Pharmaceuticals
- Biotechnology…



- Researchers
- Universities

- Industries
- Distributors

Source: CBD

Would ABS apply?

Yes, when it implies the utilisation of genetic resources

No, when it’s used as a commodity

Used definitions

- Objective of the **Nagoya Protocol**: the fair and equitable sharing of benefits arising from the utilisation of genetic resources, including by appropriate access to genetic resources and appropriate transfer of technologies, taking into account all rights over those resources and to technologies and by appropriate funding, thereby contributing to the conservation of biological diversity and the sustainable use of its components. Adopted in 2014.
- **Genetic Resources** (GR): genetic material from plants, animals and microorganisms that could be potentially useful to humans. The Nagoya Protocol does *not* apply to human genetic resources.
- **Utilisation of GR**: to conduct research and development on the genetic and/or biochemical composition of genetic resources, including through the application of biotechnology.
- **Biotechnology**: any technological application that uses biological systems, biodiversity, living organisms or derivatives thereof, to make, modify products or processes for specific use.
- **Access and Benefit Sharing** (ABS): the way in which genetic resources may be accessed, and how the benefits that result from their use are shared between the people or countries using the resources (users) and the people or countries that provide them (providers).
- **Traditional Knowledge:** In ABS, traditional knowledge refers to the knowledge, innovations and practices of indigenous and local communities related to genetic resources. It is used as a lead to Research and Development.
- EU bioeconomy strategy (2018, to be updated in 2025) – and EU Bioeconomy Strategy progress report of 2022

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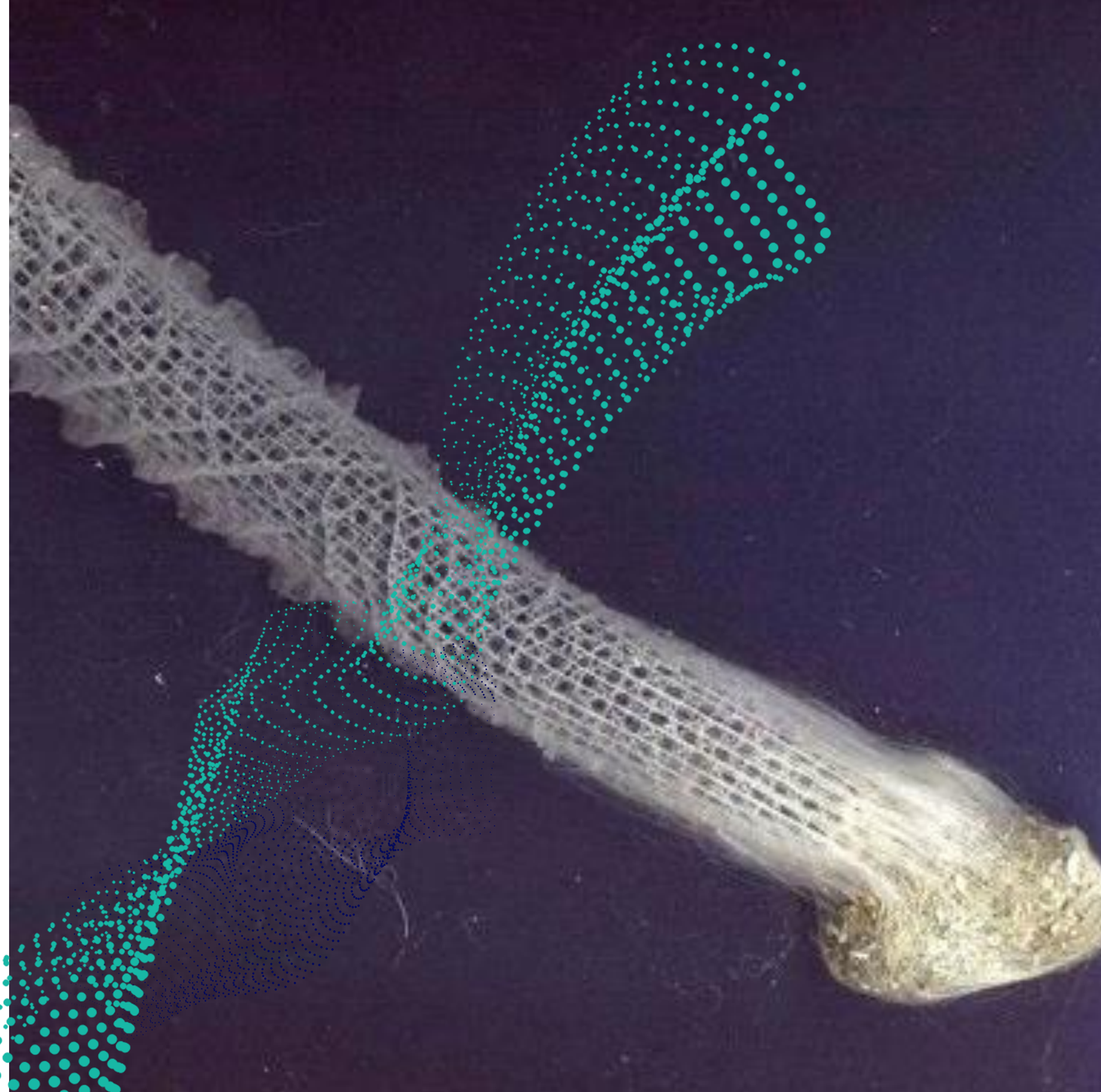
Bioeconomy : Engaging with the Private Sector

Julien Chupin
Expert in valorisation and value chain

From biodiversity to bioeconomy

Glass at room temperature

“A diatom builds glass at room temperature, in water, without a furnace or pollution. Nature shows us we can do more, with less.”
inspired by Janine Benyus, Biomimicry (1997)



The economic potential of genetic resources

- Genetic resources : lever for value creation, employment, and resilience.
- Europe : bioeconomy represents 17 million jobs (17% of employment).
- Africa : up to 70% of jobs in agriculture and forest value chains.
- Partnerships (e.g., Firmenich in Madagascar) show how ABS can drive local development.

THE ABS CAPACITY DEVELOPMENT INITIATIVE

L'INITIATIVE DE RENFORCEMENT DES CAPACITES POUR L'APA

Case study: enzyme in Cameroon

- Focus on country challenges
- Local researcher discovers plant-stimulating enzyme
- Need for **industrial pilot** and **benefit-sharing mechanism**
- **Stalled for 8 years** – highlights need for support

Bridging the gap : mutual understanding

European Companies

- Lack of visibility on **available knowledge**
- Difficulty identifying competent authorities
- Limited understanding of local governance

Actors in the Global South

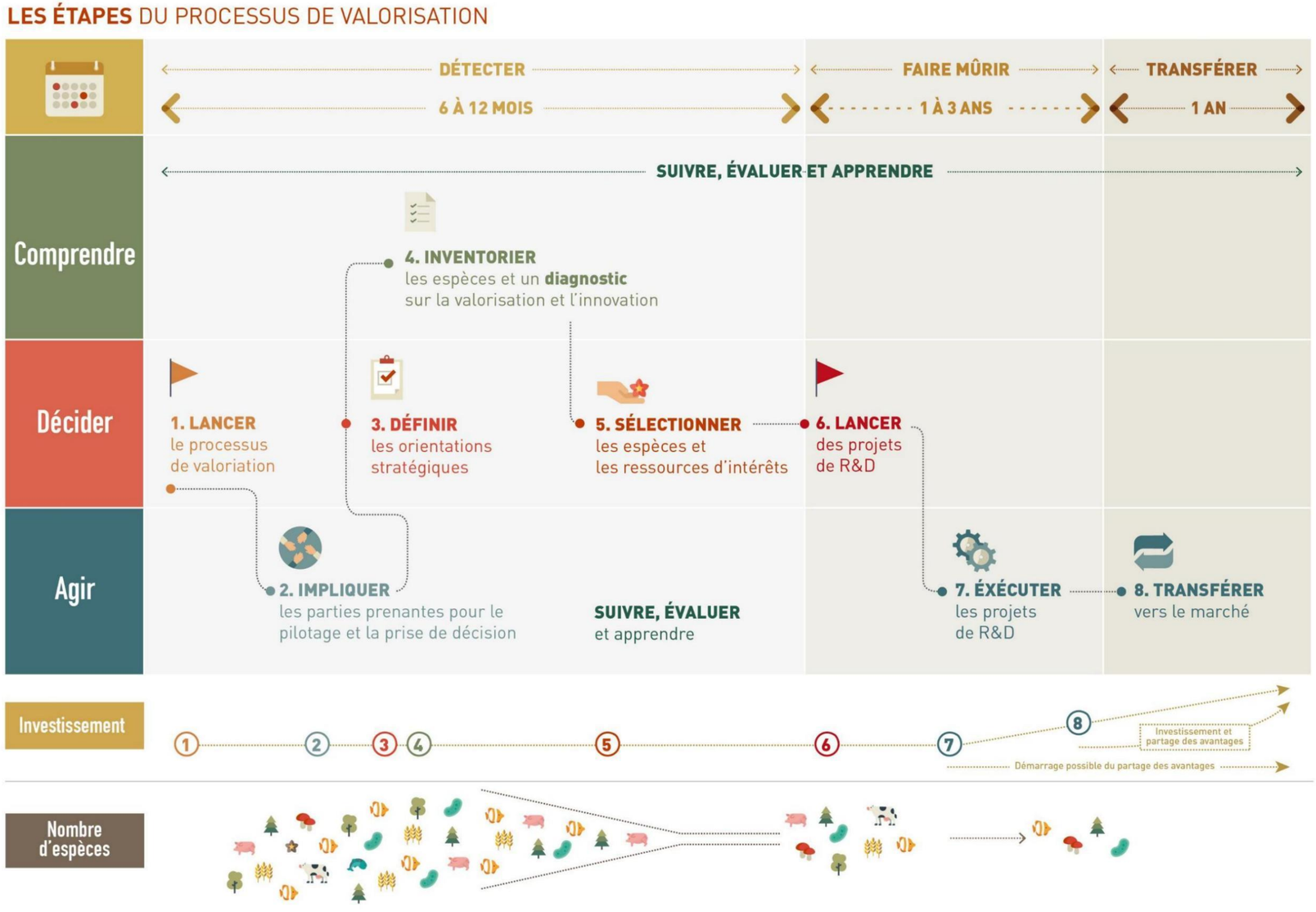
- Limited understanding of **companies R&D goals**
- Lack of exposure to industrial R&D practices and IP frameworks
- Weak access to finance & innovation platforms

Producers

Project

Partners

Value chains : who does what?



3 phases with many go/no go:

- Detect
- Grow
- Transfer

Actors:

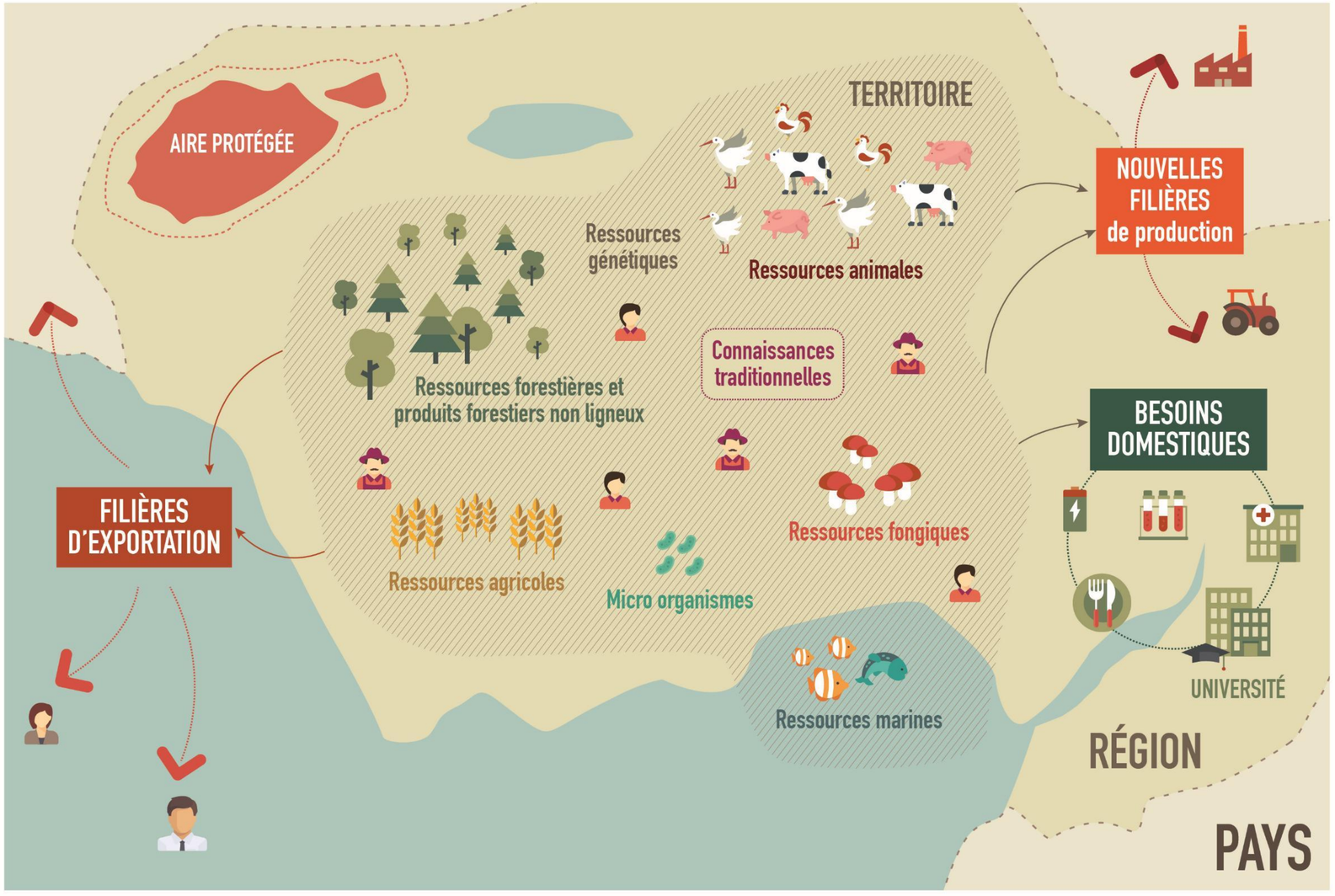
researchers, companies, communities, authorities

Exponential investment

Challenges:

- Legal complexity
- Long timelines
- Intellectual property

Expectations



Public sector

Look for concrete solutions, (aligned with European priorities), capable of catalyzing investment and generating measurable impact.

Private Companies

Expect a secure and transparent environment to invest

- Traceability & credible partners
- Legal certainty
- Transparency on benefit sharing

Global south Stakeholders

Seek recognition and structural support

- Capacity to valorize knowledge
- Non-monetary benefits : training, equipment
- Jobs & conservation

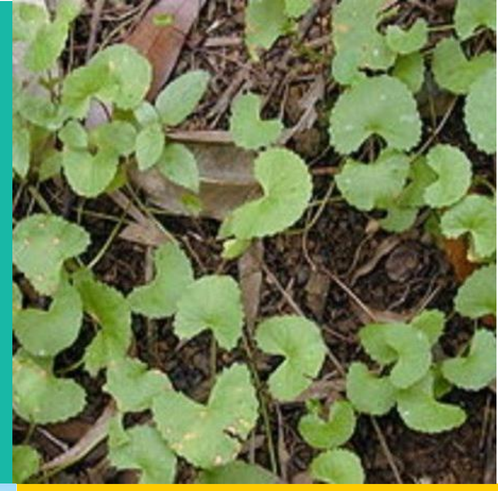
Bioeconomy & global gateway: an other economy

- Bioeconomy is building local, traceable, equitable value chains
- Current situation : Centella asiatica in Madagascar – 20,000 women 1€/day
- With ABS : 20,000 women out of poverty

It is not green or blue gold.

It is a societal project: it values life, creates jobs, and strengthens biodiversity conservation.

Centella asiatica



Production area in Madagascar

Leaf picker, 13 years old

Challenges for win-win partnerships

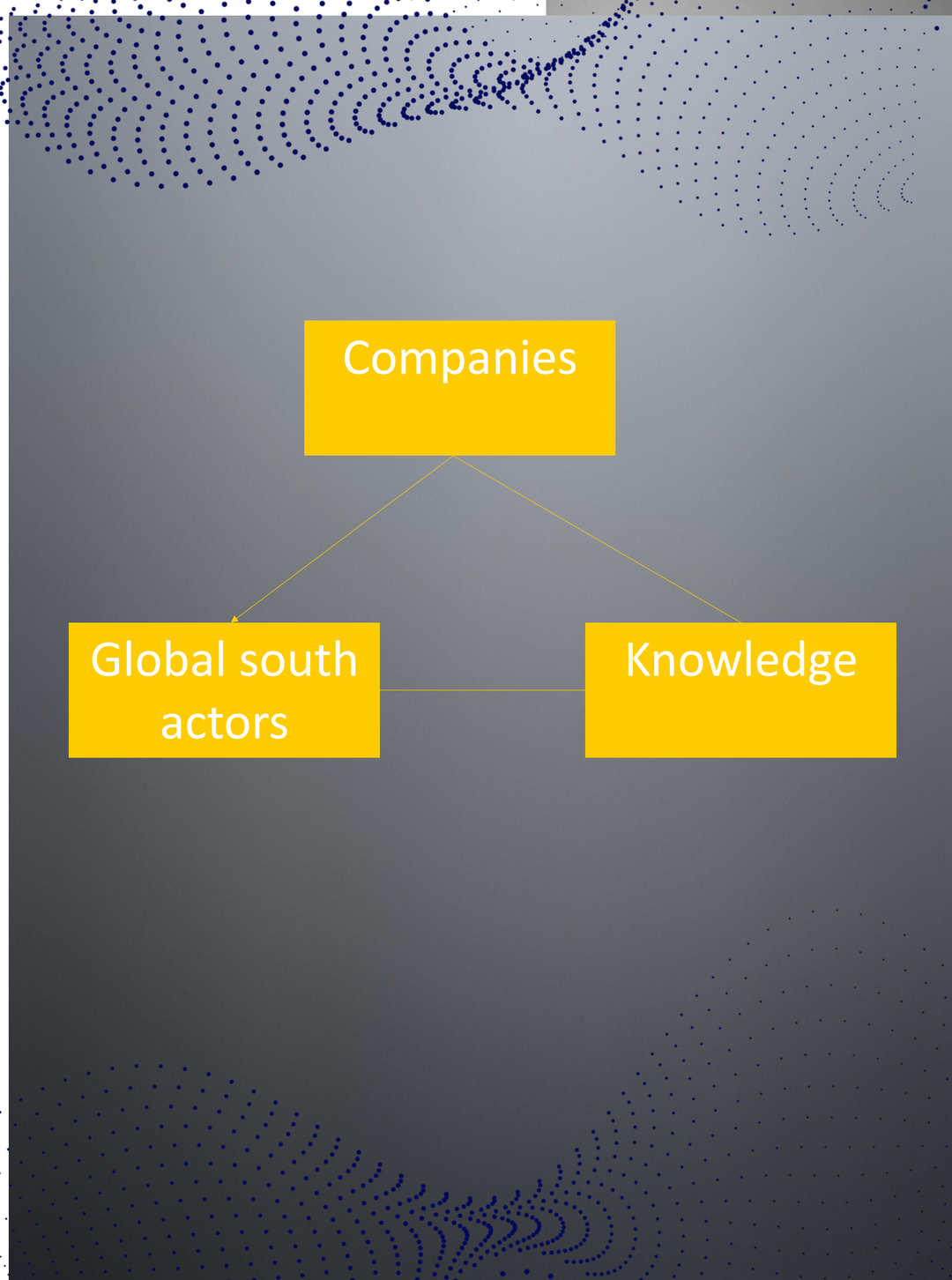
European companies	Common challenges	Global south actors
EU **compliance** : seek keep transfer	Navigating fragmented and evolving **ABS laws**	Legal and negotiation capacity
Reputational **risk** from perceived unfair benefit-sharing	Difficulty negotiating **PIC/MAT agreements**	Community **representation** and benefit
Strategic risk : denial delays due to unclear access conditions	**Transaction cost** : time-consuming administrative procedures and delays	Weaker bargaining power in contract negotiations
Limited **local presence** in provider countries	**Scientific and technical** challenges (e.g., DSI tracking)	Insufficient **infrastructure** for R&D and biotechnology
Image : consumer scrutiny	Lack of well-documented **success stories** or templates	Historical **mistrust** due to biopiracy and extractive practices

Building trust and collaboration across regions

- Facilitate **matchmaking** and partnerships
- Mobilize appropriate **funding** (EFSD+, Horizon Europe, biodiversity funds)
- **Build case that makes sens** : document best practices and success stories
- **Train** actors to practical **tools** (guides, model contracts, checklists)
- Promote **hybrid benefit-sharing models**
- Strengthen **understanding of the ABS framework** (PIC, MAT, DSI, TK)

EU companies - key actions

- Create sector matchmaking platforms
- Ensure traceability and EU compliance
- Share lessons learned through professional networks
- Train R&D, legal, and compliance teams
- Experiment with co-ownership or open licensing models



Actors in the Global South – Local Empowerment

- Support local hubs and innovation incubators – first target : local markets
- Address biopiracy legacies and promote transparency
- Improve access to national and international funding
- Train national authorities and local communities
- Support biocultural protocols and community research agreements
- Produce local and regional case studies

Matchmaking : building trust

- Not just linking actors –
  responding to real needs
- ‘No-go' countries –
  build credibility and fairness
- **Facilitation, legal clarity,**
  and cultural understanding

Producers

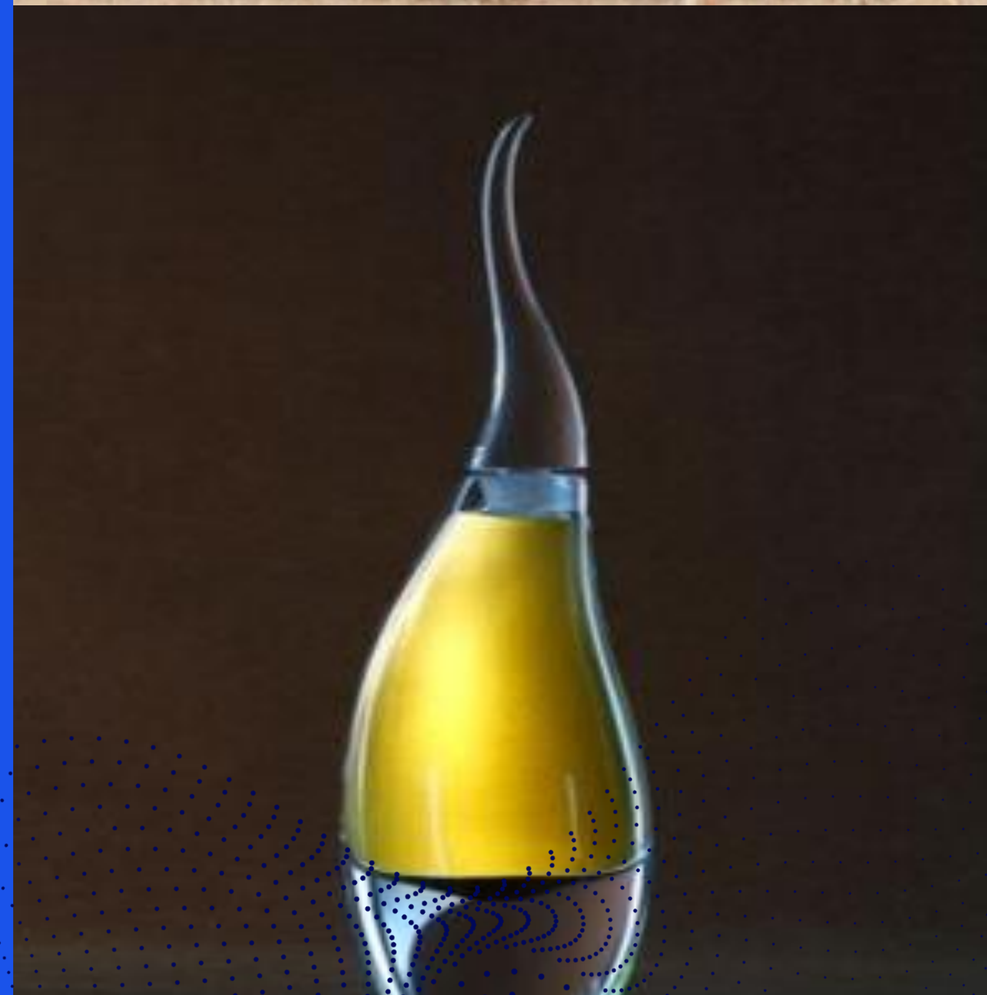
Project

Partners

Action kit supporting win win partnerships

Facilitate mutual understanding and collaboration between European companies and actors in the Global South

1. ***Organize bilateral workshops to clarify expectations.***
2. ***Update sector briefs on what companies seek.***
3. ***Disseminate mapping on research institutions in provider countries.***
4. ***Organize fairs, matchmaking platforms and pilot partnerships.***
5. ***Provide access to finance and innovation platforms for providers.***
6. ***Promote the use of community research agreements.***
7. ***Provide legal and negotiation support tools for both sides.***
8. ***Document and communicate success stories and lessons learned.***



A Living value chain

- **Bioeconomy** = strategy for people and planet
- **ABS enables fair,** sustainable partnerships
- **To make it operational : bridge the gap**

Zoom in on one example:

INVESTMENT OPPORTUNITIES IN FOREST VALUE CHAINS IN SUB-SAHARAN AFRICA - GABON

Okoumé essential oils
Moabi oil
Iboga powder

Héloïse Dubois, INTPA F2

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GABON

FEASIBILITY STUDY OF THE VALUE CHAIN OF FOREST INGREDIENTS FOR HEALTH PRODUCTS

Preliminary findings

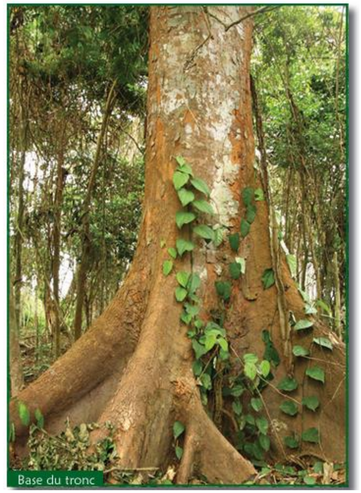


Photo credits: Doucet et al, Bracke

Okoumé essential oils

- **Abundant supply: Dominant tree and wood in Gabon**, used for plywood and joinery industry
- **Resin -> Essential oils:** used in perfumery, food processing, aromatherapy and hygiene; traditionally for torches and water purification
- **Global market of essential oils in aromatherapy** : USD 1.4 billion (2024), with 9% Annual Growth Rate

Gabonese actors:

- Companies (e.g. N'kira Cosmetic) develop Okoumé resin, combining innovation and respect for local traditions
- **Gabonese – EU start-up joint ventures** (Tropicalthèque and Biokoume) develop active ingredients and molecules

European actors:

- **French ‘Cosmetic Valley’** (L’Oreál, Christian Dior) supporting research and product development in Gabon

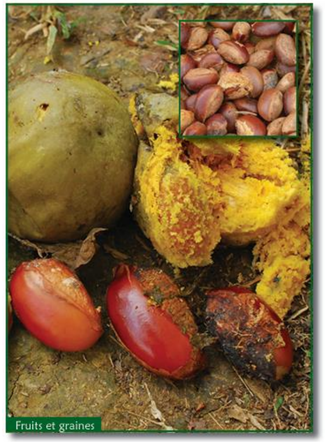


Photo credits: Doucet et al, Bracke

Moabi oil

- **Majestic tree** of the Gabonese forest: fruits and seeds consumed by humans and elephants
- **High quality seed oil** used in cosmetics and cooking
- **Uses:** Skin - hair care, aches, pains, burns, wounds, itching, rheumatism

Gabonese actors:

- Cosmetic Cluster Gabon companies **formalising value chain actors**
- Need to upgrade **traditional processing techniques**

European actors:

- **French** (‘Cosmetic Valley’) supporting programme to upgrade the industry

Iboga powder

- **Very common shrub** in Gabonese forests and Central Africa
- **Ibogaine (active ingredient)** from root powder: **traditionally used** during religious & initiation rituals (Bwiti community)
- For **treatment of:** drug addiction, post-traumatic stress disorder, and neurodegenerative diseases
- **Toxic in high doses** (respiratory arrest) -> banned in many countries

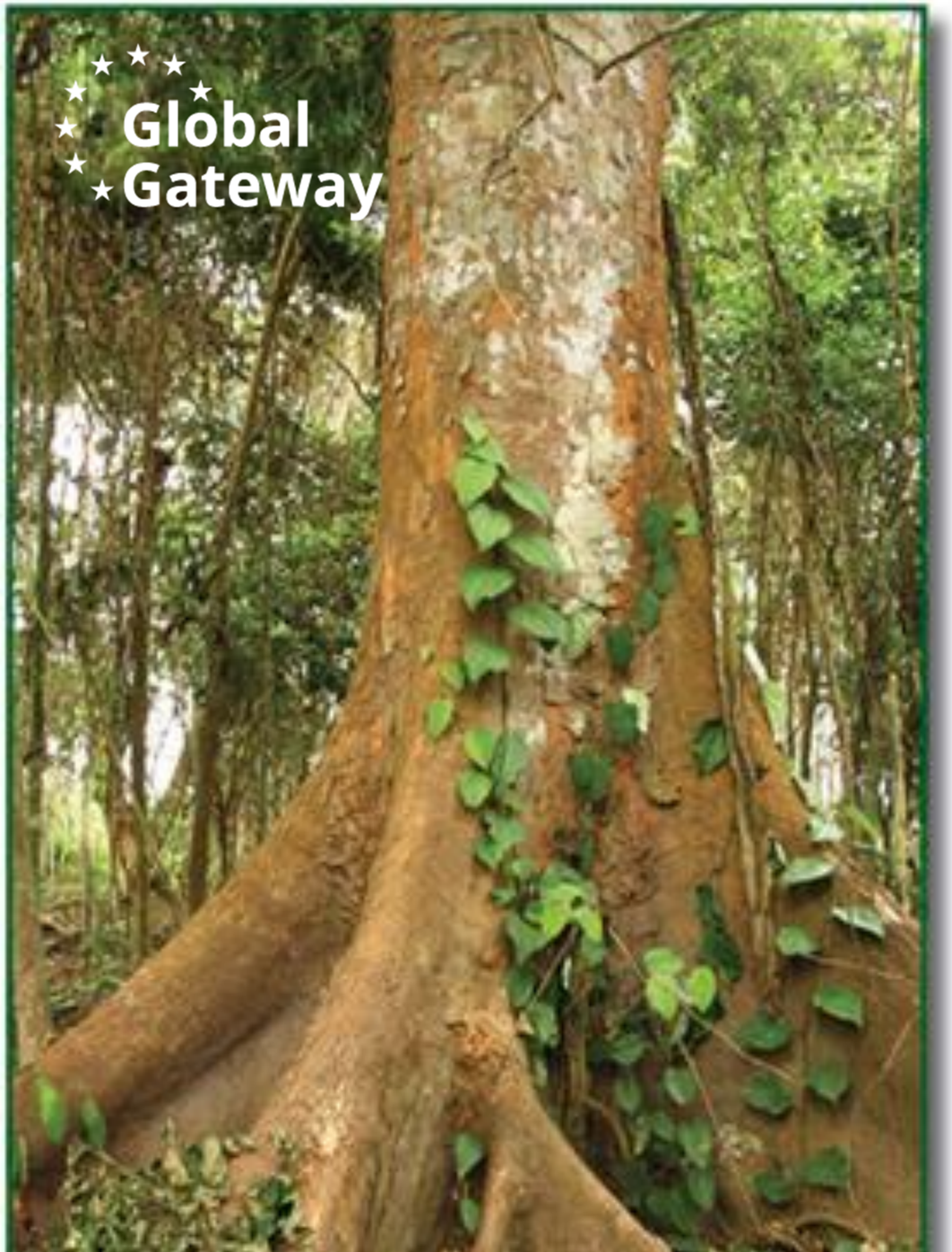
Gabonese actors:

- Dr. Mboussou (promotor)
- Blessings of the forest enterprise
- International Development Research Centre (IRDC) Africa : planting

European & other actors :

- Growing interest **EU pharmaceutical industry**
- **State of Texas will** invest USD 50 M to test ibogaine as medical drug

Photo credits: Wikipedia, BOTF



Initial findings (1)

Potential:

- **Dynamic Gabonese SMEs** investing in product development and innovation
- **European interest and support** (Cosmetic Valley companies L'Oréal, Christian Dior; pharmaceutical companies)
- These **NWFPs** are **priority for stakeholders** (private, government)
- **High prices** and good margins

Initial findings (2)

Challenges:

- Lack of structured sector (stakeholders not organised)
- Need to improve: quality, traceability, supply, logistics
- Fair and equitable sharing of benefits from use of genetic resources (Nagoya Protocol)
- Research and development, technology transfer, and mechanisation of processing
- Lack of standards

Preliminary solutions :

- Support mapping, linking and strengthening value chain actors, e.g. through *National Chamber of Gabonese Crafts*
- Develop regulatory framework for the Nagoya Protocol and of entities to use the Protocol
- Develop pipeline of processing SMEs' bankable proposals and strategic investment plan for the 3 value chains

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Thank you for your attention !

Q&A