

Launch Webinar | GBS Open source

Release of the open source and open data version
of the Global Biodiversity Score

April 11th, 2024



CDC BIODIVERSITÉ



Agenda for the webinar

15:45 – 16:00 *Waiting room for participants*

16:00 – 16:05 Introduction – Evolution of the GBS: Transparency, scientific rigour and global accessibility for biodiversity assessment

Marianne Louradour,
CDC Biodiversité Chairwoman

16:05 – 16:15 Open tools for accelerating biodiversity impact analysis and applying European frameworks

Humberto Delgado Rosa,
DG Environment, European Commission

16:15 – 16:35 Synergies between the GBS and reporting frameworks

Emma Godefroy, **CDC Biodiversité**

16:35 – 16:50 GBS open: features and practical applications

Patricia Zhang and Valentin Ract,
CDC Biodiversité

16:50 – 17:00 Q/A and closing words

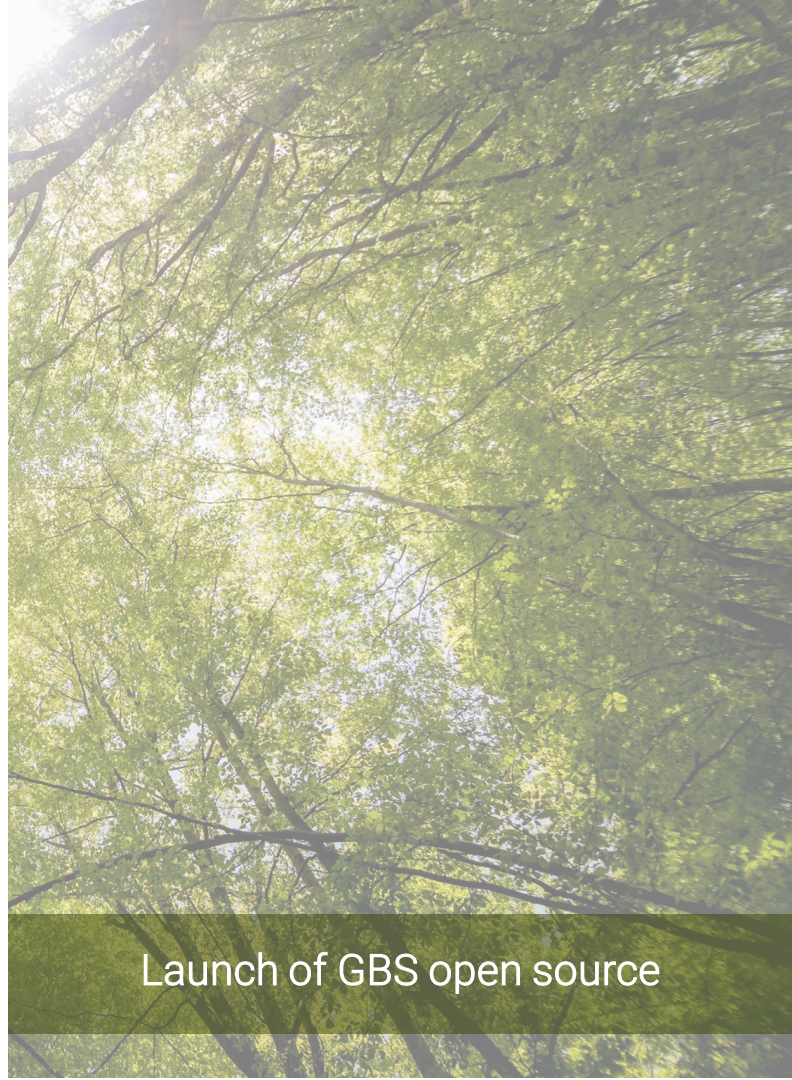
Welcoming words



Marianne Louradour
Chairwoman
CDC Biodiversité

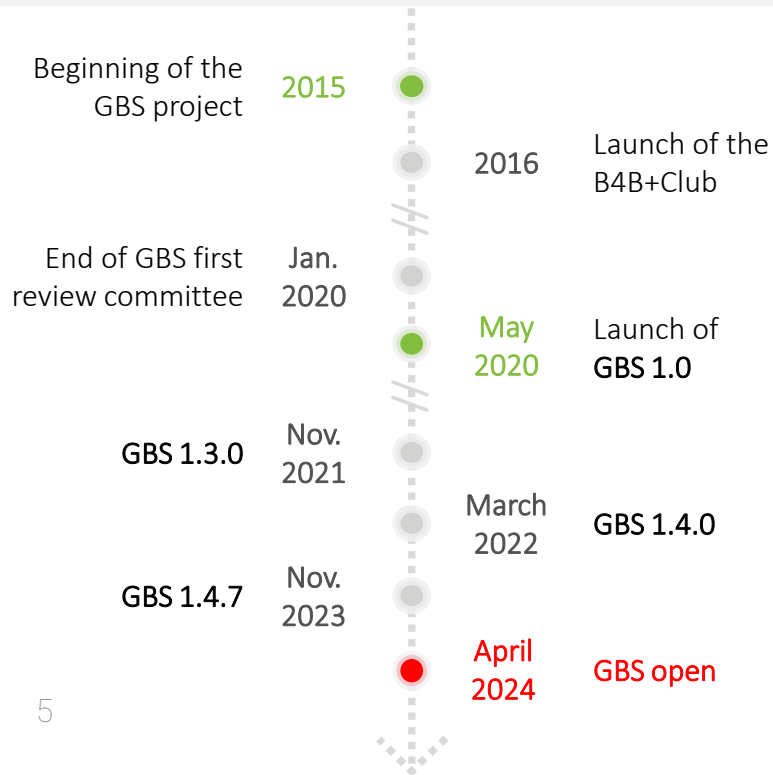


Launch of GBS open source



Transparency and global accessibility for biodiversity assessment with the GBS

A brief history of the GBS



Transparency and scientific robustness

A transparent, peer-reviewed and published methodology

A research and innovation spirit in close relations with the research community

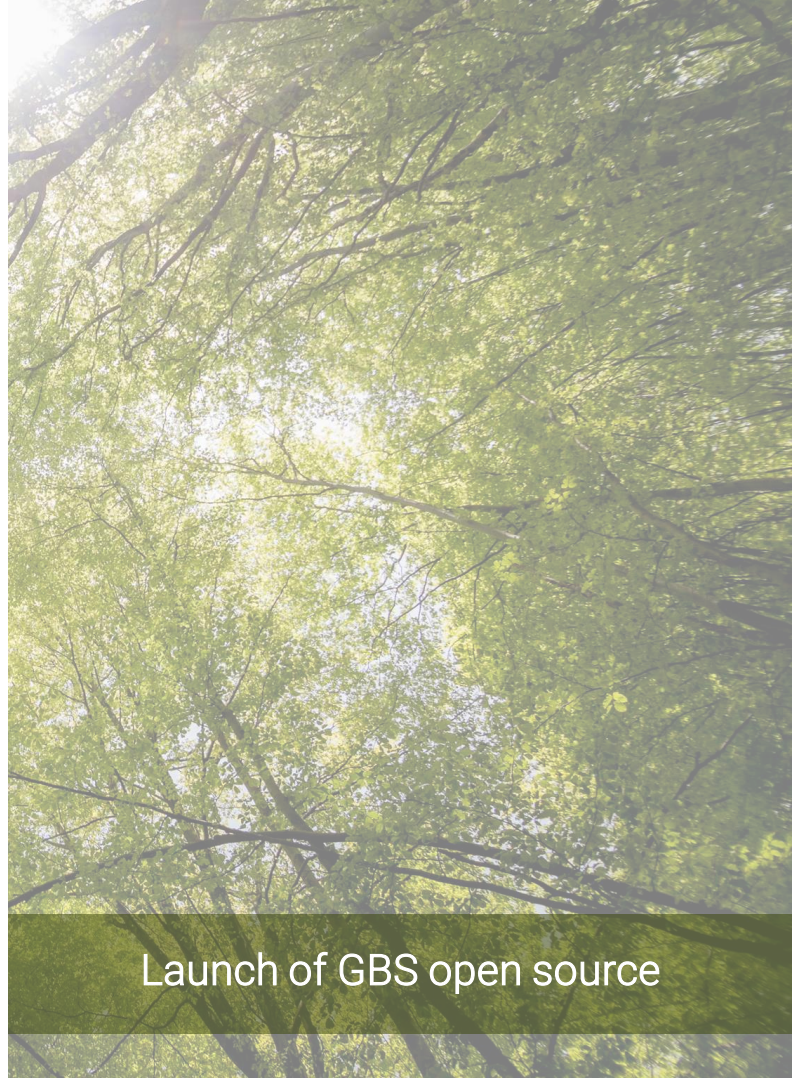
Driven by openness and general interest

Strong support from our shareholder, the Caisse des Dépôts, the largest public financial institution in France

Foreword



Humberto Delgado Rosa
Director for Biodiversity
DG Environment, European
Commission



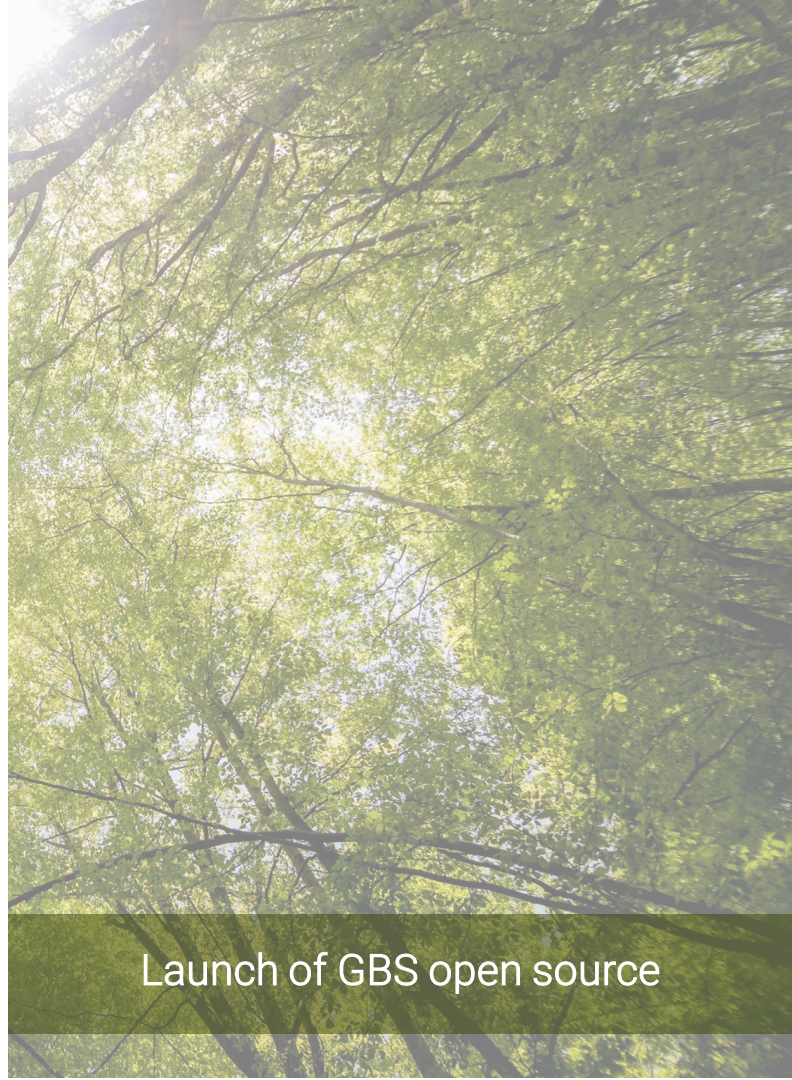
Presentation of the Global Biodiversity Score and synergies with reporting frameworks



Emma Godefroy
Research officer, CDC
Biodiversité



Launch of GBS open source



Presentation of the Global Biodiversity Score



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What is the Global Biodiversity Score?

A tool that follows the **double materiality** approach by assessing **impacts** on biodiversity & **dependencies** on ecosystem services

A **transparent**, peer-reviewed and published **methodology**



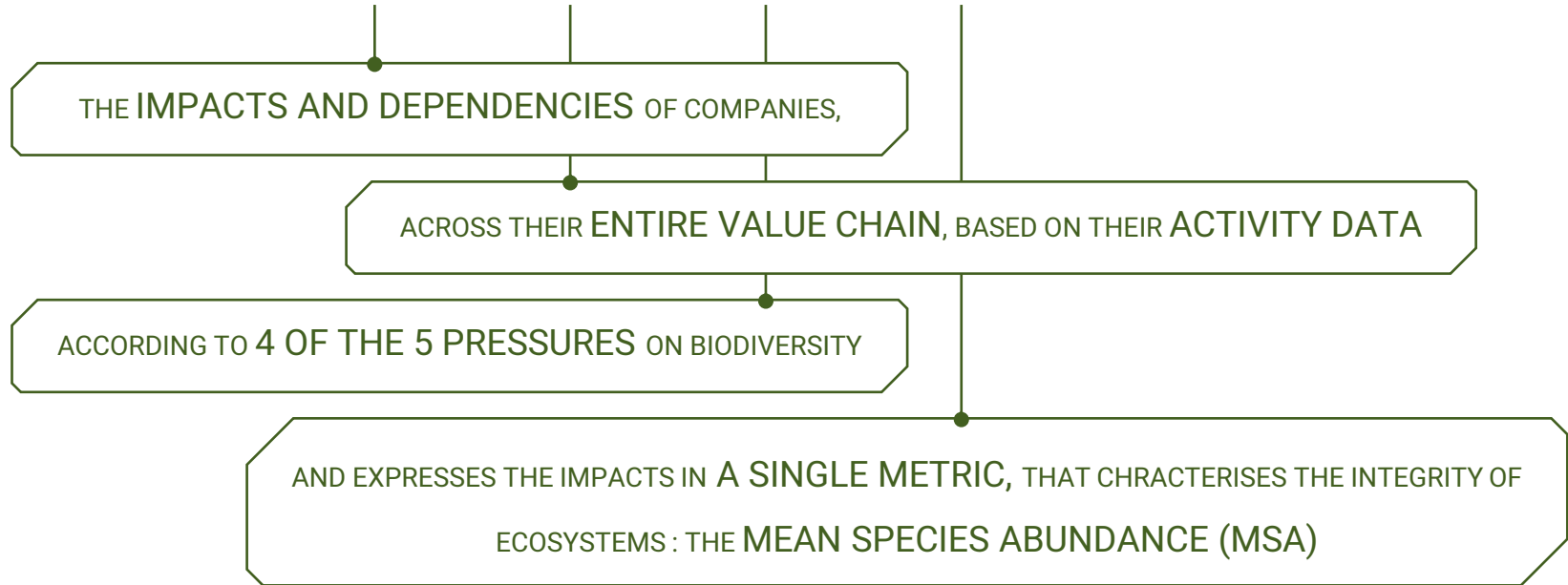
A strong **scientific foundation** based on models from leading institutions

A growing community of 20+ **trained assessors** committed to deploying the tool

Developed by a team involved in **national and international communities** such as SBTN, Align, TNFD etc.

What does the GBS allow to measure?

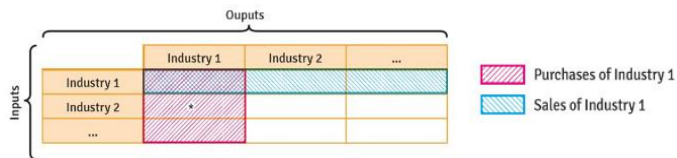
THE GLOBAL BIODIVERSITY SCORE ALLOWS TO CALCULATE



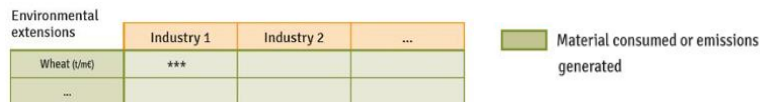
A tool based on models and data from leading institutions

EXIOBASE, environmentally extended input-output model provides monetary flows, extraction of raw materials and emissions for 163 industries in 49 regions

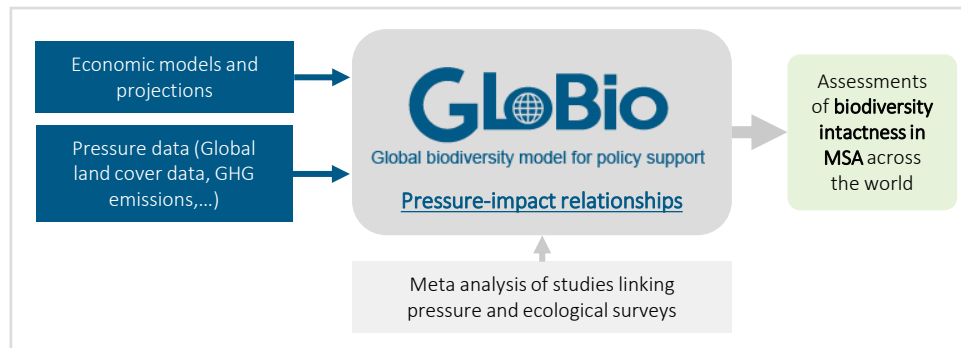
The input-output table provides **purchases** per million EUR of production



The extensions provide quantities of **materials and emissions** per million EUR of production



GLOBIO, a modelling framework of interactions between humans and nature using the MSA metric



and others



Food and Agriculture Organization of the United Nations



WORLD RESOURCES INSTITUTE



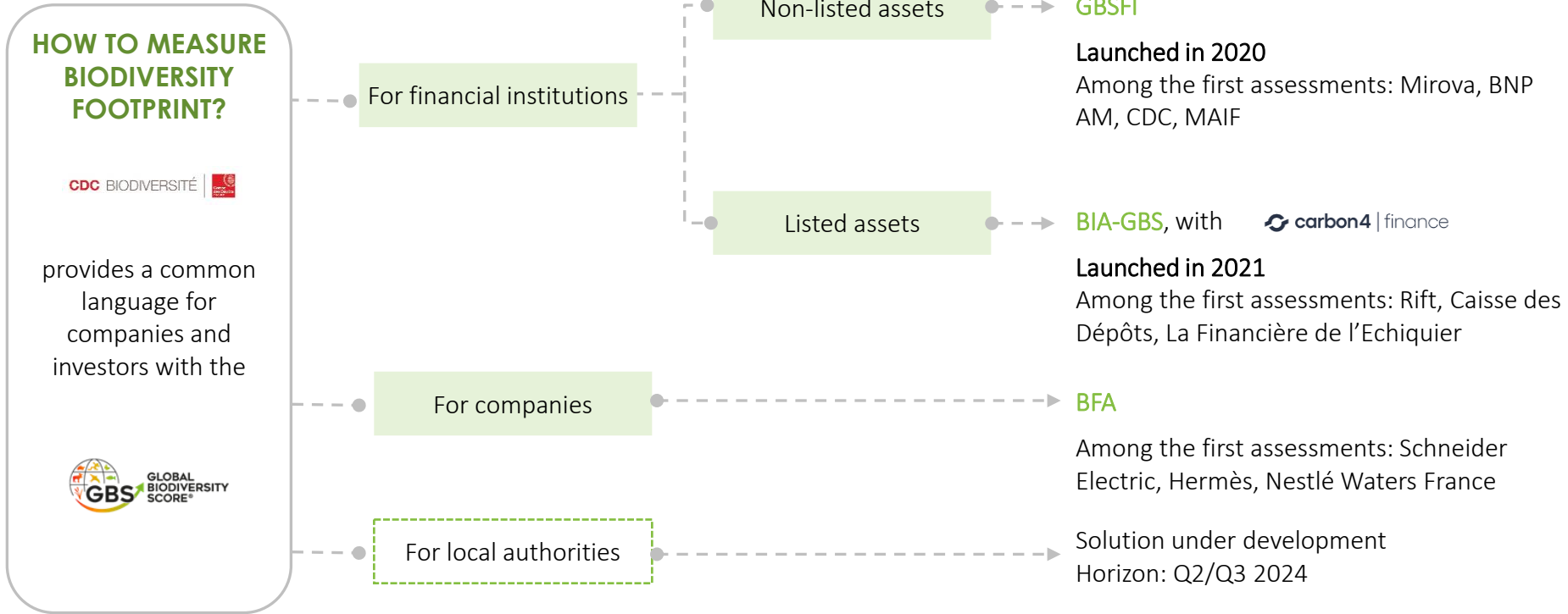
AQUEDUCT
Measuring and Mapping Water Risk



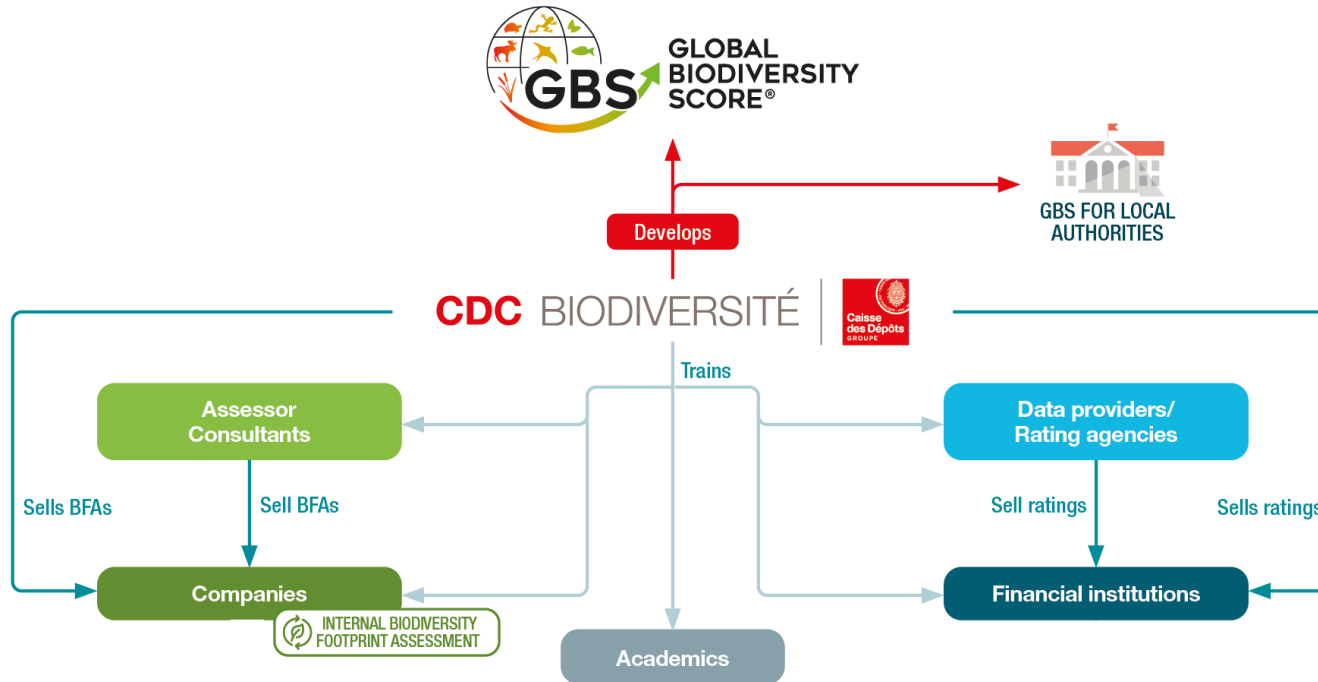
ENCORE



The GBS allows a wide range of stakeholders to assess their biodiversity footprint



The GBS can be used by various stakeholders from this ecosystem



An increasing number of companies and financial institutions used the GBS to inform their commitments and action plans

A community of
20+ assessors

40+ companies
have already trusted the GBS

60+ assessments and case
studies
Conducted with the GBS

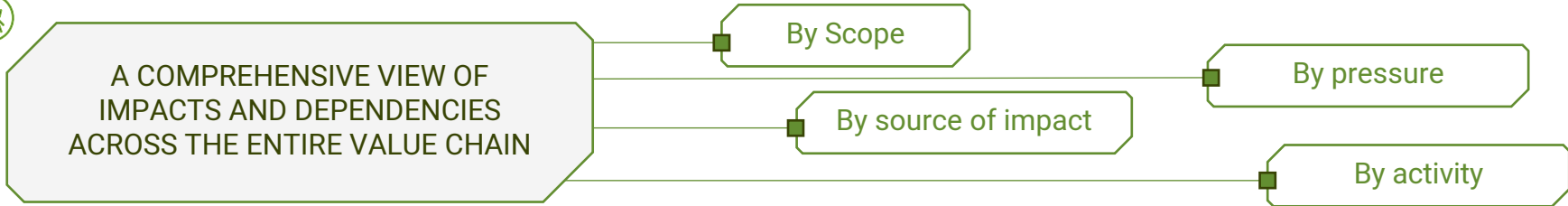
Corporates



Financial institutions



Examples of GBS applications: Evaluate the biodiversity footprint



Illustration

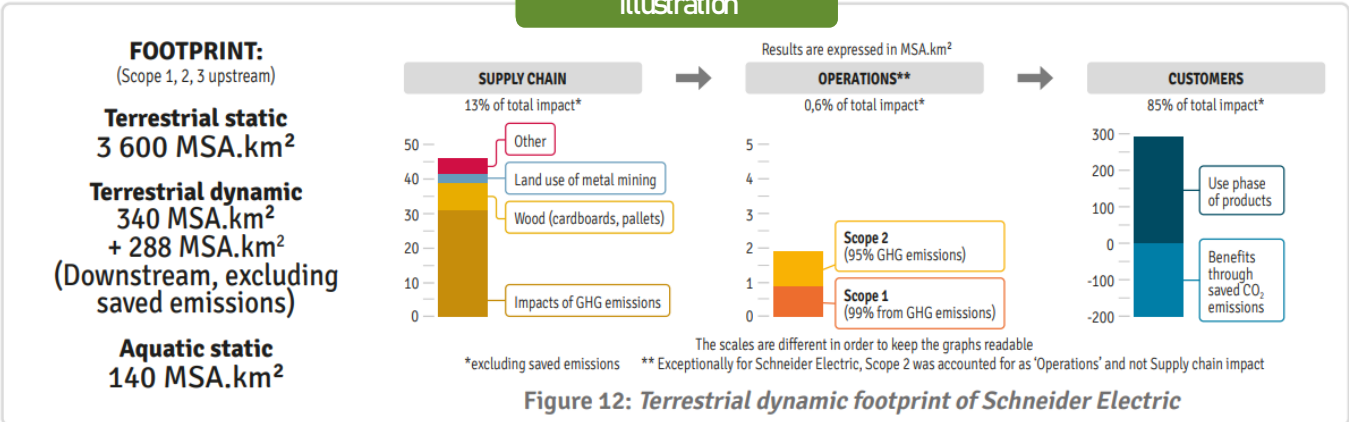


Figure 12: Terrestrial dynamic footprint of Schneider Electric

Examples of GBS applications: Act and monitor the progress of action plans



A METHODOICAL MONITORING OF COMMITMENTS TO ENSURE TARGETS ARE MET

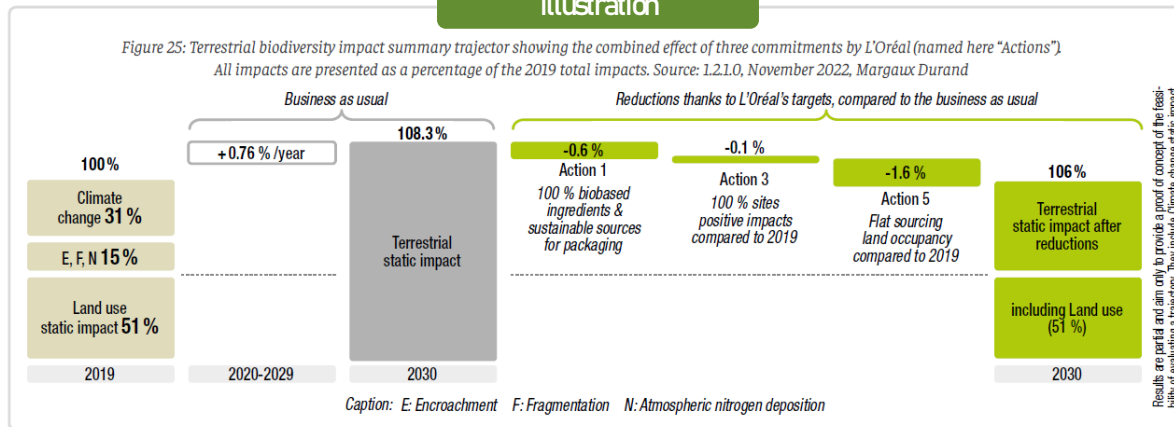
Estimation of trajectories

Assessment of progress

Valorisation of the approach

Illustration

Figure 25: Terrestrial biodiversity impact summary trajectory showing the combined effect of three commitments by L'Oréal (named here "Actions")
All impacts are presented as a percentage of the 2019 total impacts. Source: I.2.1.0, November 2022, Margaux Durand



Synergies with the emerging biodiversity regulations

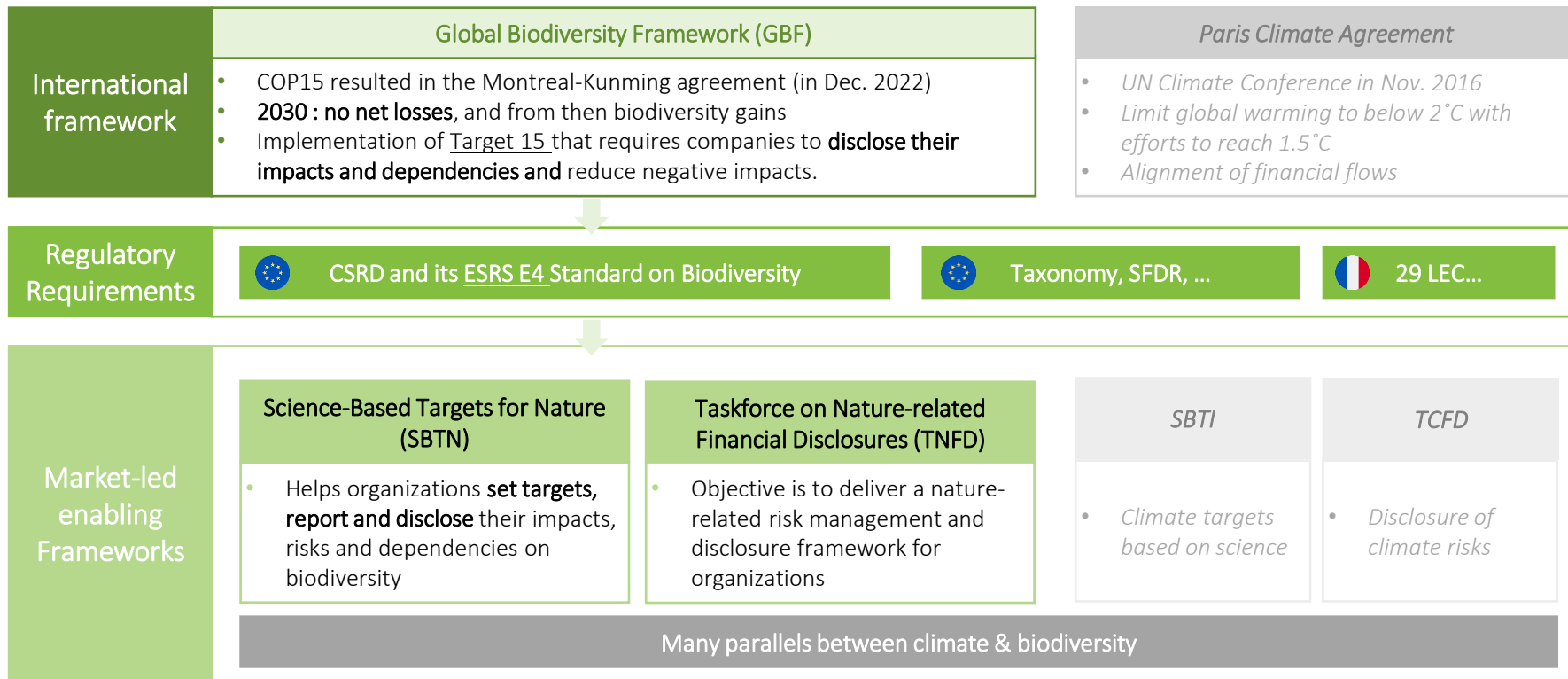


GLOBAL
BIODIVERSITY
SCORE®

CDC BIODIVERSITÉ



Biodiversity rising in the international agenda



The GBS fits into the global biodiversity framework ...



KUNMING-MONTREAL GLOBAL GOALS FOR 2050

GOAL A: Ecosystems, species and genetic diversity

GOAL B : Nature's contributions to people

GOAL C : Access and benefit sharing

GOAL D : Means of implementation



KUNMING-MONTREAL 2030 GLOBAL TARGETS

REDUCING THREATS TO BIODIVERSITY

- ... TARGET 1: Land and sea-use planning
- ... TARGET 7: Reduce pollution
- ... TARGET 8: Minimize the impact of climate change

MEETING PEOPLE'S NEEDS

TOOLS AND SOLUTIONS

- ... TARGET 15: Disclose impacts and dependencies, reduce impacts

GBS supports target 15 of the GBF, allowing businesses to:

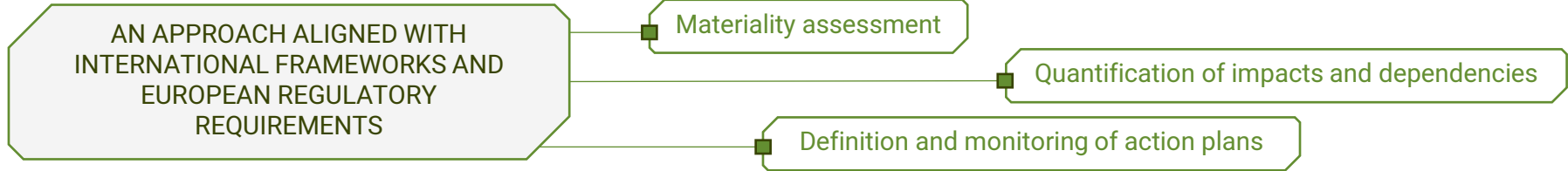
- Measure and report their impacts and dependencies on biodiversity;
- Receive recommendations on how to reduce these negative impacts and increase positive impacts;
- Monitor the impacts of actions undertaken.

Monitor, assess, and disclose their **risks, dependencies** and **impacts** on biodiversity

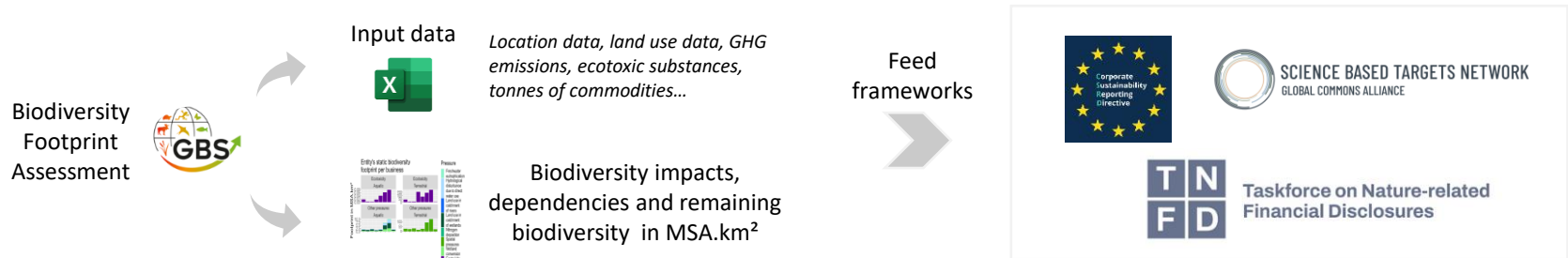
Reduce **negative impacts** on biodiversity, **increase positive impacts**, reduce biodiversity-related **risks**

... and aligns with major reporting and convergence frameworks

CDC Biodiversité and the GBS are aligned and involved in the major reporting and convergence frameworks



Input data and outputs from the GBS can be used to partially answer existing frameworks such as LEAP from TNFD or the 5 steps of SBTN, report to CSRD/ ESRs from the EU





1) The Corporate Sustainability Reporting Directive (CSRD)

ESRS E4 SMB-3 & IRO-1

MATERIALITY
ASSESSMENT

- **Double materiality** analysis to identify the stakes and gain perspective on activities and value chains
- In-depth impact studies on specific value chains

ESRS E4-1

TRANSITION
PLAN

- Understanding where impacts come from
- Identifying **impact-reduction scenarios**

ESRS E4-2 & E4-3

POLICIES AND
ACTION

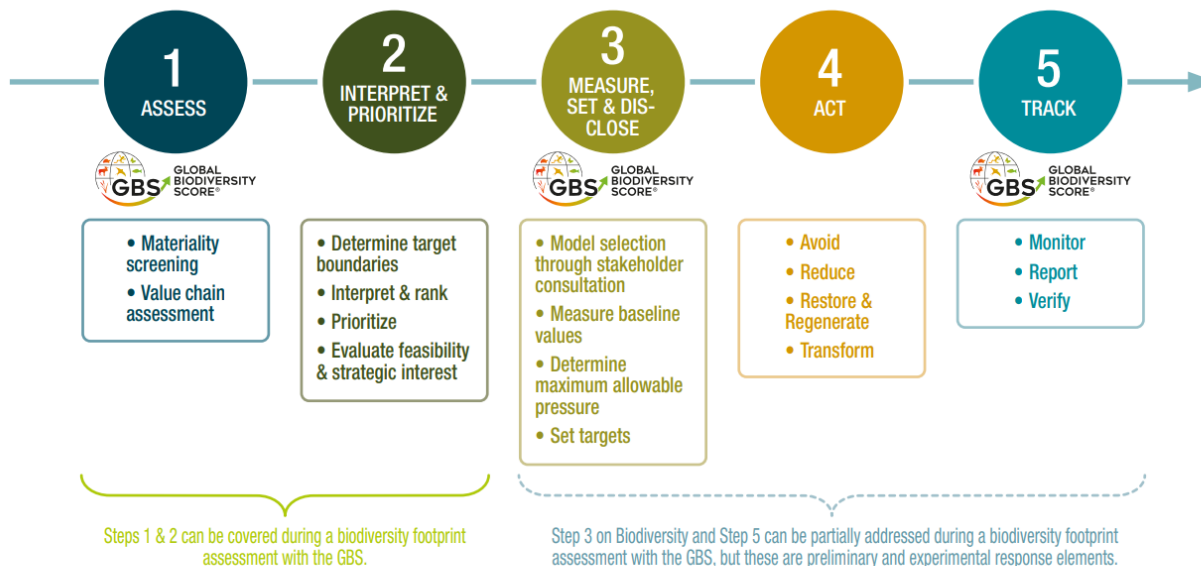
- Identification of quantified actions to **reduce risks and impacts** on biodiversity
- Demonstration of rigorous **traceability of products and raw materials**

ESRS E4-4 & E4-5

TARGETS AND
METRICS

- Applying verifiable, robust and science-based methods to **quantify impacts**
- Setting **precise and quantified targets** through a detailed breakdown of impact assessment results
- **Monitoring the progress** of the defined action plan thanks to a periodic evaluation

2) Framework from the Science Based Targets Network (SBTN)



Linkages of the GBS with the SBTN framework according to CDC Biodiversité - Source: SBTN Guide for Readers

3) The Taskforce on Nature-related Financial Disclosures (TNFD)'s framework

Locate The interface with nature

The GBS allows to conduct a **screening of both dependencies and impacts** across the value chain and direct operations

Pressure data collected at the site level to feed the GBS can be used to assess ecosystem integrity. The global **MSA layer for the Land use pressure** about to be published can also be used to screen the ecological integrity ecosystems at each location.

Evaluate Dependencies & impacts

The GBS assesses the **impacts on ecosystem integrity** of a company on the entire value chain, in **MSA.km²**. The results allow to both **identify and analyse the company's impacts**.

The GBS assesses the **dependencies of a company on 21 ecosystem services** for direct operations and the supply chain. The score ranges from 0% (no known dependency) to 100% (very high dependency on ecosystem services).

Assess Risks & opportunities

Impacts and dependencies results, computed with the GBS, can feed into the identification and materiality assessment of the **company's nature-related risks and opportunities**

Prepare To respond & report

An assessment using the GBS usually includes the establishment of **impact reduction targets**, together with key performance indicators to measure progress against those targets.

The impacts assessed with the GBS can be used to feed **the Ecosystem condition core disclosure metrics** and data fed into the GBS can be used to report against **impact driver core disclosure metrics**.

Presentation of the open source version of the Global Biodiversity Score



Patricia Zhang

Head of development &
methodology, CDC Biodiversité

Valentin Ract

Developer - Development &
methodology, CDC Biodiversité



Launch of GBS open source

What is GBS open ?



GBS open is an **opensource and open data version of the GBS**, available for **non-commercial use**, with a **delayed version** compared to the current GBS.

Why releasing GBS open?

- This release contributes to make biodiversity footprint tools **more transparent**, enabling **more research** on the topic & possible improvement of the tool, and **empowering more economic actors** to measure their biodiversity footprint.
- This release will make the GBS more **widely used and known**, which **enhances the visibility of our community**, notably **among frameworks and standards setters** that are referencing mostly opensource tools.

In which context GBS open can be used?



Research

GBS open can be used to **assess biodiversity footprints and dependencies** of corporations, financial institutions, economic sectors, which can be useful for your **research on linkage between business & biodiversity**

Methodology and code behind GBS open are **transparent** and opened to your **contributions**



Biodiversity footprint self-assessment

Get started in your **biodiversity footprint journey** with GBS open by computing your biodiversity footprint and dependencies

Prepare for **compliance** with **emerging reporting standards** and **international frameworks** (GBF, CSRD, TNFD, SBTN...)

Join a **community of active users** and **provide feedbacks** to the team who continuously develop and improve the tool

What are the different GBS plans & accessible tools?

Plan		B4B+ Club membership	Standalone GBS licence	Free plan
Tool accessible		GBS	GBS	GBS open
Tool features	Impacts on biodiversity	✓	✓	✓
	Dependencies on biodiversity	✓	✓	✓
	Latest version of the tool	✓	✓	✗ ¹
Support	GBS documentation	✓	✓	✓
	5h of technical support and technical support webinars	✓	✗	✗
Licence		Software, data and trademark: proprietary		Software: AGPL v3 Data: CC-BY-SA-NC 4.0 Trademark: proprietary
Commercial use		✓ ²	✗	✗
Fees		B4B+ Club membership ³	GBS licence fees ³	Free
Results communication		It is mandatory to mention whether the assessment is made by a certified GBS assessor holding a training level 2 certification.		

¹ Please refer to the following slides

² Holding a GBS level 2 certification is mandatory to use the GBS commercially. See <https://cdc-biodiversite.riseup.ai/Account/signup> for more details on trainings.

³ See https://www.cdc-biodiversite.fr/wp-content/uploads/2023/04/B4B-Club_Brochure_EN.pdf for more information on the B4B+ Club membership fee. You can contact b4bclub@cdc-biodiversite.fr for any question on the B4B+ Club.



What are the detailed GBS open licenses?



Software licence:
AGPL v3

It is a **copyleft** licence, meaning that the code of the package GBS open can be integrated in another project, but the latter should also be licensed under the AGPL v3.



Data licence:
CC-BY-NC-SA 4.0

Data (especially impact factors) may **not** be used for **commercial purposes**.

It is a **copyleft licence**, meaning that if data is adapted and shared with others, it must be under the same licence.



GBS trademark
licence

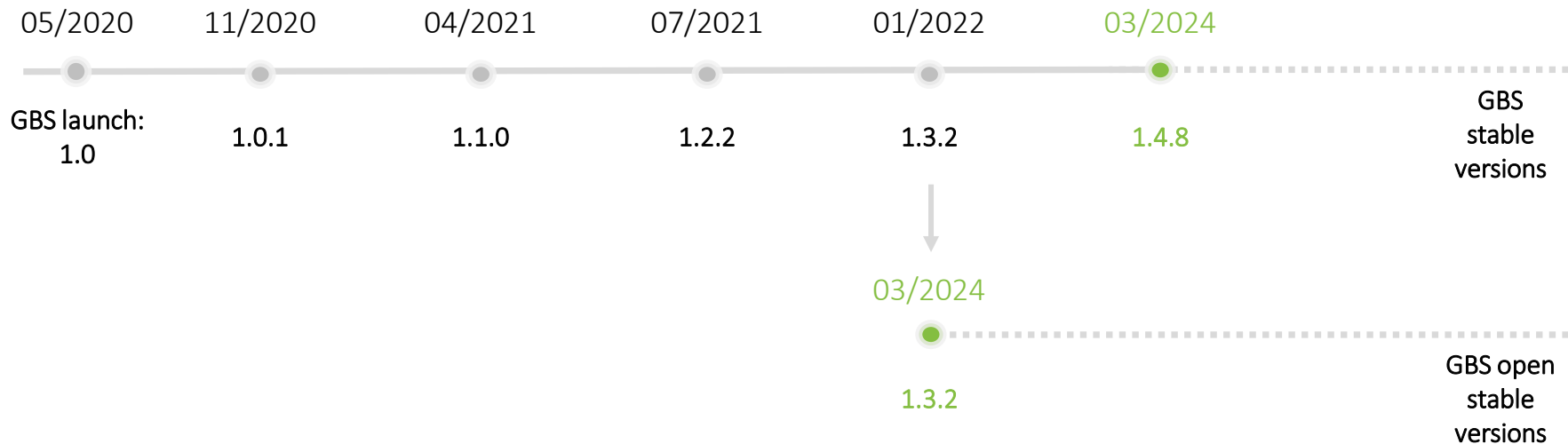
The use of GBS open shall follow the **GBS trademark guidelines**.

There will not be supplementary fees to use the GBS trademark.

What are the differences between the versions of GBS and GBS open?

GBS open has at least a **delay of 1 version** compared to the latest stable version of the GBS.

The **current GBS is at the version 1.4.8**, **GBS open** is available at the latest maintenance fix of 1.3.x., which historically was **1.3.2**.

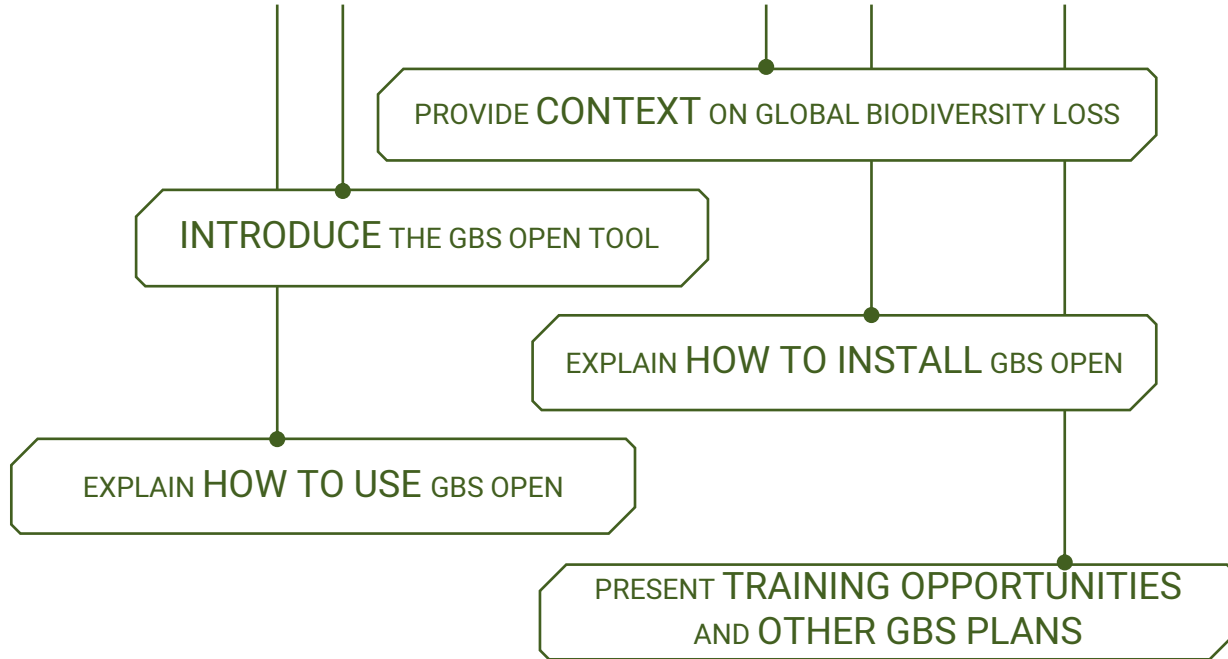


Notes:

- For simplification, only the latest maintenance fixes of each version are represented here.
- GBS is at version x.y.z means that x = release of major changes; y = version; z = maintenance fix

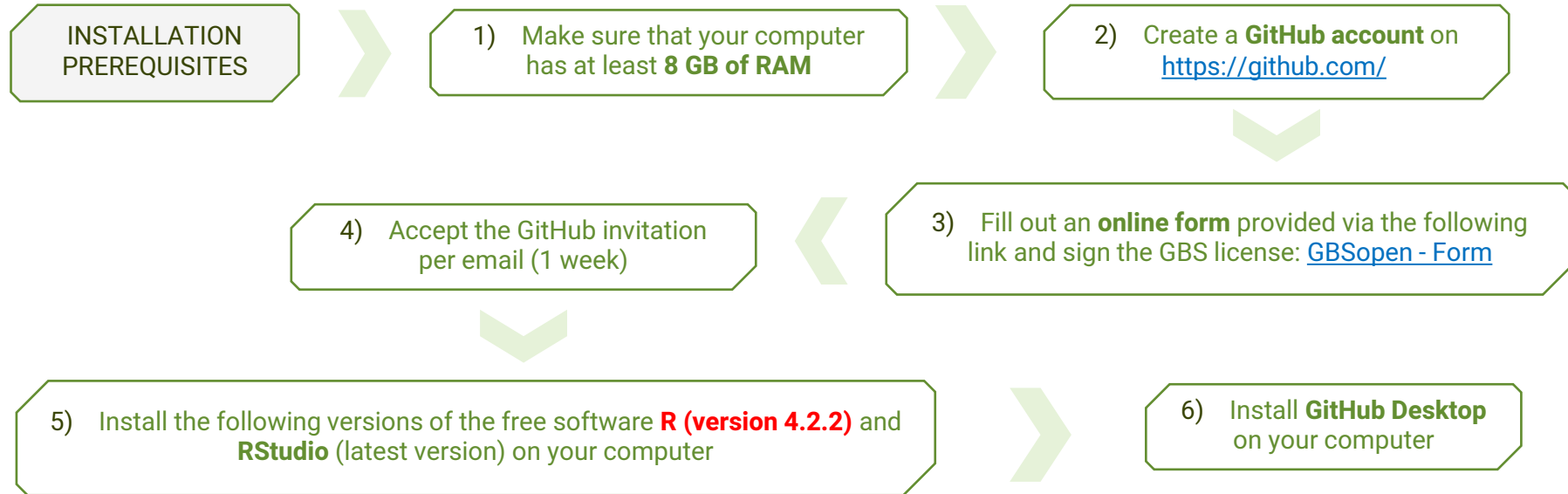
How do I access the GBS? (1/2)

FOLLOW THE LINK PROVIDED TO ACCESS ITS WEBPAGE: [GBS OPEN - WIKI](#). THIS WEBPAGE AIMS TO:



How do I access the GBS? (2/2)

Technically, GBS open will be shared as a **R package** to install locally on your computer, shared with **GitHub**.



→ Finally, refer to the **step-by-step videos** on the webpage's "How-To" sections for guidance on [installing](#) and [running](#) the GBS.

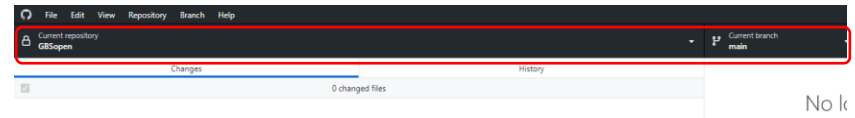
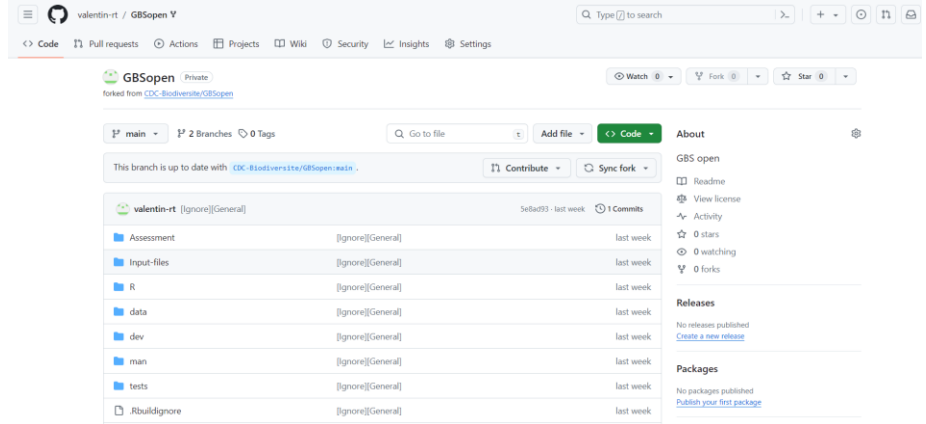
GBS open overview and how to contribute

Two branches will be available on GBS open:

- "**main**": This is the official branch. It will evolve with the release of GBS versions as developed by the CDC Biodiversity teams.

- "**collaborative-1.3.2**": This branch is dedicated to **participatory development**. It is intended to receive proposals for improvements to existing code or additions of new features from users.

→ For more information on how to collaborate on GBS open development, a specific section will be added very soon in the [GBS open - wiki](#).



Where to find help ?

In the
online documentation

By following **trainings**
provided by
CDC Biodiversité

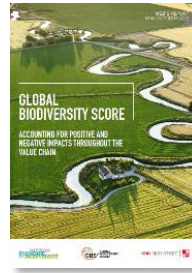
[GBS open – Wiki](#)

[GBS
documentation](#)

[Our latest
publications](#)



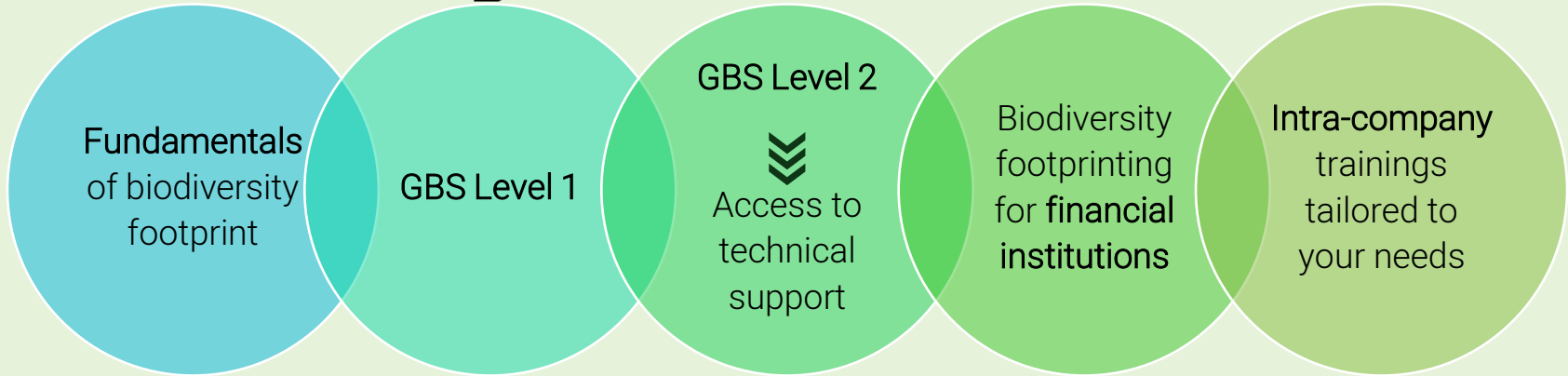
GBS open - Wiki



For remaining questions: gbs-open@cdc-biodiversite.fr

You want to better understand biodiversity footprint & use the GBS?

👉 Get trained with CDC Biodiversité



[PRE-REGISTER !](#)

For more information, contact us at gbs@cdc-biodiversite.fr

Join the B4B+ Club to discuss about your biodiversity challenges!

Get support & exchange around...

Biodiversity footprinting

Biodiversity strategy

Regulations & reporting requirements



Your membership will include...

Access to the Club's working groups, ecosystem & expertise

A GBS licence

Literature review

Technical support

Priority access to training

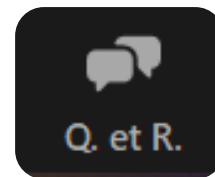


Book a slot to meet the team and ask us your questions!



Or contact us at
b4bclub@cdc-biodiversite.fr

Time for questions



Ask us your
questions on the
Zoom Q&A function!



Thank you for your participation!

Find all available information and access the open-source version of the Global Biodiversity Score [here](#)



Stay tuned!



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Welcome to the Jungle: [CDC Biodiversité](#)