

1 **What needs to be done to better integrate research and**  
2 **knowledge on biodiversity and ecosystem services from the**  
3 **global to the European level, and vice versa?**

4 **A report of the EKLIPSE project**

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## 29 **What needs to be done to better integrate research and knowledge on** 30 **biodiversity and ecosystem services from the global to the European level,** 31 **and vice versa?**

### 32 **1. Introduction**

33 During the second Call for Requests launched by EKLIPSE in July 2017, a request entitled "What needs to be  
34 done to better integrate research and knowledge on biodiversity and ecosystem services from the global to  
35 the European level, and vice versa?" was put forward by the European Commission, DG R&I.

36 The request is based on the need to translate the outcomes of global science-policy processes on  
37 biodiversity and ecosystem services into action at the European scale and, vice versa, to ensure that  
38 European science-policy processes contribute to the global debate and action.

39 To date, no strategic analysis has been made to understand:

- 40 - How global processes and outcomes dedicated on research and knowledge on biodiversity and  
41 ecosystem services (e.g. from the SDGs, CBD, IPBES or IPCC), could concretely be translated into  
42 European research and innovation policy (Horizon 2020 and FP9); or
- 43 - How best European research and innovation policy processes and deliveries (projects, knowledge,  
44 scientific capacity) could strategically feed into global processes.

45 At the global intergovernmental level, decisions from the Convention on Biological Diversity (based on  
46 SBSTTA recommendations) and publications (such as the Global Biodiversity Outlook), and assessments and  
47 processes of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES),  
48 all recommend to further work on knowledge for biodiversity and ecosystem services, to undertake  
49 research, and to invest in tools and capacity building.

50 Interactions between European and global level take place at the level of scientists, projects, (joint)  
51 programming, assessment review and adoption, or decision making by Parties, but a more strategic  
52 approach could further improve processes and results.

#### 53 **1.1 Method**

54 Following up on the Call for Knowledge for this request, which did not result in any contributions on the  
55 KNOCK Forum (the interactive online forum EKLIPSE uses for wider discussion on topics selected), EKLIPSE  
56 developed a questionnaire which was more broadly publicized with the help of the requester, and resulted  
57 in EKLIPSE contacting selected representatives from key organisations to share their knowledge on this  
58 issue and suggest recommendations. The collected feedback was then used as input for a workshop on this  
59 topic, organized by DG R&I, with EKLIPSE leading its design and facilitation.

60 It is difficult to know why there were no comments resulting from this Call for Knowledge, unlike other  
61 calls, and one can only guess this was due to the complexity of the issue and the formulation (wording) of  
62 the question, which might have dissuaded visitors from feeling that the question was relatable to their  
63 experience.



64 The questionnaire developed for this activity (See Annex 3) was used to interview 10 selected experts. For  
65 an overview of answers received, please refer to Annex 4.

66 The analysis of answers received on the questionnaire helped to identify the following points:

- 67 - From Global to EU and vice versa only considers two of the many levels. To understand how these  
68 levels interact and influence each other, it is also important to look at the other levels (local,  
69 national, etc).
- 70 - There are a number of advantages, challenges and opportunities for the global to EU and vice versa  
71 interface. These were discussed and further elaborated during the workshop (see below).
- 72 - There are/have been some mechanisms/initiatives which have tried to address at least some  
73 elements of the Global to EU and vice versa interphase (see below).

74 For a full overview of questionnaire results, see Annex 4.

75 The workshop, which took place on June 1<sup>st</sup> 2018, aimed at understanding and improving the links between  
76 European and global science and policy on biodiversity and ecosystem services, by looking at the  
77 methodologies used by others to interpret the international assessments into prioritisation for their own  
78 needs, and how to help facilitate a process with relevant players on the steps forward in better linking  
79 European and Global science and policy on biodiversity and ecosystem services.

80 Structured discussions took place on both developing a strategic research agenda, and on how to organise  
81 the science-policy process, using the world cafes approach.

## 82 2. Workshop event

83 The workshop took place at the facilities of DG R&I in Brussels and was attended by over 30 experts  
84 from government, civil society and international organizations. See Annex 1 for List of Participants.

85 The event was opened by Birgit de Boissezon (DG R&I), who welcomed participants and reminded the  
86 audience that this was not an academic exercise but that DG R&I has high expectations and wanted the  
87 outcomes of the workshop to be operational, in order to improve the links between science and policy for  
88 biodiversity and ecosystem services in Europe.

89  
90 Ms. de Boissezon stressed the timing and relevance of this meeting, for providing input to CBD SBSSTA,  
91 coming up in June, the review of the SDGs in July, and the preparations for the next EC Framework  
92 Programme. In this sense, this workshop is the beginning of a journey, as DG R&I plans to take forward the  
93 recommendations from this workshop to help improve the global/EU interface.

94  
95 The next speaker was Allan Watt (NERC-CEH/EKLIPSE), who presented the EKLIPSE project, the call for  
96 knowledge on this request, and the outcomes of the consultation, which included advantages, challenges,  
97 and opportunities.

98  
99 Figure 1: Advantages, Challenges and Opportunities resulting from the consultation  
100

| <b>Advantages</b>         | <b>Challenges</b>               | <b>Opportunities</b> |
|---------------------------|---------------------------------|----------------------|
| The EU as a global player | There isn't a one size fits all | Leading by example   |

|  |  |  |
|--|--|--|
| Availability of funds and data   | Some argue that data-science requires an interphase in the same way that science-policy does   | Potential to shed light on European impacts elsewhere in the world                         |
| A “common” research agenda   | A perception that the global scale has little additional to offer                              | Embedding the outcomes of the IPBES assessments in EU policy                               |
| Formal mechanisms (Directives) vs Informal mechanisms (Global Assessments) | Institutional Knowledge (“grey literature”) versus Nominated Experts (“science and academics”) | Global comparability, particularly important under the 2030 Sustainable Development Agenda |

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The first session consisted of presentations on experiences with different concrete approaches for translating the outcomes of global science-policy processes on biodiversity and ecosystem services into action at the European scale and vice versa. See Annex 2 for the Workshop Programme.

Estelle Balian (FEAL) presented the European Platform for Biodiversity Research Strategy’s (EPBRS) experience in knowledge translation. The EPBRS was an informal forum setup by DG R&I (DG RTD at that time), with the objectives of: 1) acting as an interface between science and policy; 2) identifying knowledge gaps and research needs, and 3) promoting networking between National Biodiversity Platforms and raising awareness.

Ms. Balian believes that by promoting interdisciplinarity and providing a place for policy makers and researchers from across disciplines to meet, EPBRS led to many current initiatives (e.g. ALTER-Net, BiodivERsA, SPIRAL, EKLIPSE), particularly when EPBRS was much more active, holding biannual meetings under each EU Presidency.

EPBRS worked because it had a mandate and legitimacy derived from the appointment of delegates through DG R&I’s Programme Committee. It was anchored at the national level, yet flexible, with links established with e.g. CBD, GBIF, BiodivERsA, DIVERSITAS and on-going EC research projects. Its weaknesses included having the same delegates at meetings with sometimes not enough relevant experts to address the particular issues being discussed; and was thus perceived as a “private club” by some outsiders. The e-conferences preceding each meeting did, however, overcome this problem by ensuring the input of large numbers of experts. Overall, EPBRS demonstrated the means whereby a place for exchange and capacity building could be created, involving a range of actors from across Europe, DG ENV and DG R&I and relevant international initiatives.

Ms. Hilde Eggermont (RBINS/BiodivERsA Vice-Chair) introduced BiodivERsA, a Pan-European network of national and regional organisations programming and funding pan-European research on biodiversity and ecosystem services, offering innovative opportunities for the conservation and sustainable management of biodiversity. It currently counts 35 partners from 23 countries, both from the mainland and the overseas.

Ms. Eggermont talked about the BiodivERsA – IPBES interface as a 2-way road from European to Global, by providing information for the IPBES Assessment of Europe and Central Asia (ECA), and by using the knowledge gaps and methodological requirements (e.g. for scenario development) identified by the IPBES to fill knowledge gaps through transnational actions. Other outputs of BiodivERsA include its database (on research projects, programmes and funding across Europe), mapping the research landscape, promoting stakeholder engagement, knowledge brokerage and transfer; based on funded projects’ results.



139 Lastly, Ms. Eggermont indicated that a lot of resources are required to be able to reach this goal,  
140 highlighting the experience of BiodivERsA, for which national members and the EC contribute (80% and  
141 20% respectively) to a common fund available to support biodiversity research in Europe.

142  
143 Thomas Koetz (IPBES Secretariat) spoke about IPBES Knowledge Generation, which is part of the IPBES  
144 mandate, as part of identifying knowledge gaps and generating new knowledge through engaging with  
145 partners, rather than IPBES directly undertaking research.

146 The three steps to implement IPBES mandate (in a more strategic way than before) consist of:

- 147 - Identification of gaps in knowledge, information and data in the IPBES work programme, and in  
148 completed assessments
- 149 - Consultations on these gaps and formulation of priority areas for knowledge generation with the  
150 scientific community
- 151 - Promoting the generation of knowledge by tailoring these priority research areas to potential research  
152 funding institutions, mainly by means of bilateral meetings with these funding organisations

153 Axel Paulsch (Institute for Biodiversity Network), presented a project and its follow up on the extraction of  
154 all formulations indicating direct or indirect research needs originating from CBD decisions, resulting in 29  
155 tables on specific issues, which allows the user to check research needs under a certain CBD topic.  
156 (<http://biodiv.de/en/biodiversitaet-infos/forschungsbedarf-der-cbd.html>)

157 Michael Mirtl, from the Austrian Environment Agency, spoke about ELTER/LTER-Europe to ILTER. ELTER is a  
158 H2020 project in 22 countries to help advance the development of European Long-Term Ecosystem  
159 Research infrastructures, building on scientific and institutional capacity.

160 Its global counterpart is the International Long-Term Ecological Research Network (ILTER), a network of  
161 networks, encompassing hundreds of research sites located in a wide array of ecosystems that can help  
162 understand environmental change across the globe. ILTER's focus is on long-term, site-based research and  
163 monitoring.

164 This session was closed by a presentation by Christos Fragakis (DG R&I), who presented the organization of  
165 current EC biodiversity and knowledge generation, in particular in the context of Horizon2020, the  
166 objectives of the Strategic Programming, and how is it aligned to the international agenda.

167  
168 The Q&A session focused on the need to adequately integrate research and knowledge on biodiversity and  
169 ecosystem services from the global to the European level, and vice versa, and the importance to distinguish  
170 two different functions:

- 171 1) Identification of knowledge gaps and emerging issues
- 172 2) Definition of research priorities to be used for implementing new research

173  
174 An important distinction was made by participants on the roles of national/local programmers and funders  
175 of research and how it should be fully recognized: they have specific skills, constraints and opportunities to  
176 fill knowledge gaps which are key, and therefore they should be included in discussions from the beginning,  
177 instead of only perceiving them as a source of money.

## 178 **2.1 World cafes (three rounds)**

179 During the second session of the workshop participants could join three or more of the four tables dealing  
180 with specific topics, namely:

- 181 - Table 1: **What works well, what doesn't work so well and why** in translating the outcomes of global
- 182 science-policy processes on biodiversity and ecosystem services into action *at the European scale*?
- 183 - Table 2: **What works well, what doesn't work so well and why** in translating the outcomes of
- 184 European science-policy processes on biodiversity and ecosystem services into action *at the global*
- 185 *scale*?
- 186 - Table 3: **How could processes be adapted to better fit the needs at the EU scale?**
- 187 - Table 4: **What are the priority knowledge or research needs that should be addressed at the EU scale?**

## 188 2.1.1 What works well, what doesn't work so well and why? (Global to EU)

189 This table was facilitated by Allan Watt, with Estelle Balian as the rapporteur.

190 The main points raised were:

- 191 - Connections at different levels are often made by people (individuals): Success is often linked to the
- 192 right person being at the right spot;
- 193 - Within the EU, there is a culture of collaborative working, facilitated by the institutionalised
- 194 architecture, where actors already work well and institutions exist to support their collaboration;
- 195 - The IPBES Pollinator Assessment and the CBD Aichi targets (although disputed) were used as examples
- 196 of global products that were taken up at European level. Likewise, the IPBES identification of
- 197 knowledge needs on scenarios has been taken up at EU level by BiodivERsA, in collaboration with the
- 198 Belmont forum and EC.

199 What does not work so well included:

200 Data

- 201 - While the EU funding strategies have stimulated translation of research, there is more need for data
- 202 mobilisation;
- 203 - At EU level, data is collected but fragmented, data needs are not consolidated at EU level;
- 204 - Need for a change of mindset about openly sharing evidence and data.

205 Communication

- 206 - Need for less ad-hoc and better coherency for channels of communication;
- 207 - Reaching out to other sectors, including by mainstreaming. There is a need for better communication
- 208 channels especially to the media and non-academic communities, in order to achieve behavioural and
- 209 societal changes;
- 210 - Disconnection between the focus of the public and the issues: the role of social sciences in behavioural
- 211 changes.

212 Institutional arrangements

- 213 - The above-mentioned institutionalized architecture also facilitates a sectoral disconnect, with the
- 214 Ministry of Environment negotiating at global processes, but the Ministry of Research deciding on
- 215 funding at the national level. Initiatives like BiodivERsA are helping to bridge this gap in an efficient
- 216 way;
- 217 - Need for more and better synthesizing, monitoring and following up on what comes out of the MEAs;



- 218 - Need to have a better recognition of the need to engage programmers and funders, as part of a more  
219 structured process. The inherent role of funders & programmers is to start from the identified  
220 knowledge gaps and emerging issues for defining their priorities and shape their implementation  
221 programs.

### 222 **2.1.1.1 What works well, what doesn't work so well and why? (EU to Global)**

223 This table was facilitated by Jorge Ventocilla, with Jonathan Porter as the rapporteur.

224 The main points raised were:

- 225 - The EU by its very existence helps to transmit from national level up to global level – partly due of the  
226 greater mass of the union, but also the inter-national dialogue that has happened between Member  
227 States before translating from EU to global.
- 228 - The EU is considered as a landmark in some areas (e.g. Restoration ecology). The EU can influence  
229 global processes with knowledge produced by the EU, yet there is a need for a platform to streamline  
230 this knowledge.
- 231 - It was suggested that the pollinator assessment of IPBES was strongly influenced by FP7 projects (such  
232 as STEP); in turn the IPBES pollinator assessment increased awareness of the issue at the EU level.
- 233 - Because the EU funds research, it has the opportunity to steer the type and nature of the research. In  
234 this sense, the Joint Programming Initiatives (on Oceans, Climate Change, etc.) and the BiodivERsA  
235 Partnership which has the functionalities of a Joint Programme Initiative, are an effective structure in  
236 which Members (both EU MS and non-EU MS) agree on a common strategy and support concrete  
237 research projects. A key success factor is that the science-policy interface is built within the JPI – so that  
238 the Ministry dealing with sectorial policy and the Ministry dealing with research policy can start  
239 interacting strongly from early on, at the national level.
- 240 - There seems to be a relationship between the existence of International structures and their link to  
241 their national counterparts, in the interface from national to EU to global. From an IPBES perspective  
242 where there is an active national science-policy platform (e.g. NEFO, JNCC, FRB, Belgian Biodiversity  
243 Platform) there is often a stronger response to IPBES consultations.
- 244 - Structures do not always need to be formal(ized). The Vilm meetings were often used as a platform  
245 that later fed into CBD SBSTTA meeting and the COP.
- 246 - Other suggestions to address this Global/EU interface were the inclusion of a research-related element  
247 in the Common Implementation Framework for Biodiversity (building on the work of the CIS Water  
248 Framework Directive), or a joint advisory technical group (with representatives of both MS and the EC).
- 249 - The role of trade, and the role of the EU in global trade, should not be underestimated. EU banned  
250 Grey Parrot trade into EU, initially because of bird flu, yet it had an effect on the global trade in Grey  
251 Parrot, as there was a global uptake of the ban. Likewise, for the European-wide certification schemes  
252 of sustainable palm oil –now affecting global trade.

253 What doesn't work so well included:

254 Sectoral cooperation

- 255 - Need for more joint calls between European Institutions and other institutions e.g. BiodivERsA.
- 256 - Need for more inter-sectoral activities e.g. joint work streams between different DGs such as ENV &  
257 AGRI, or a shared report between IPCC and IPBES.

258 - The strength of the EU in the form of consultation before going into global processes, yet there is  
259 better integration across levels than sectors.

#### 260 Institutional arrangements

- 261 - At present there is not a structure at the EU level to feed into IPBES. WPIE is for policy makers, need to  
262 have scientists involved, in a scientific board. Potential for Eclipse-like project to play, by identifying the  
263 best science.
- 264 - IPBES challenges the existing structures (national, regional) as it is in between political and scientific,  
265 thus the difficulty to absorb.
- 266 - Need for more coordination between researchers at the scientific level. This issue is linked to the need  
267 for a change of mindset about openly sharing evidence and data, mentioned above.
- 268 - Need for strong SPI institutions with a long-term remit and national and international levels to maintain  
269 the dialogue. Policy cycles vs. Research cycles.

### 270 **2.1.1.2 How could processes be adapted to better fit the needs at the EU scale?**

271 This table was facilitated by Heidi Wittmer, with Nerea Aizpurua as the rapporteur.

272 The main points raised were:

- 273 - Many different institutions and organisations are involved in the processes doing similar yet not exactly  
274 the same things. This makes it difficult particularly for actors (both researchers, policy makers or  
275 funding institutions) not centrally involved to get an overview and understand this rather complex  
276 landscape<sup>1</sup>
  - 277 ○ Suggestions to improve this included a more co-ordinated approach, between different  
278 research funders, maybe even agreeing on a common agenda, where each funding institution  
279 could then prioritize certain topics to ensure complementarity. This was, however, not  
280 consensus as some participants emphasized the need for different funders to address different  
281 priorities and possibly work on different agendas as well. There was agreement that it would be  
282 useful to simplify information on research needs and priorities as well as funding conditions so  
283 that especially researchers but also policy makers can get a better overview of ongoing and  
284 upcoming research.
  - 285 ○ Particularly researchers highlighted the need for a better overview, simpler application  
286 procedures for research funding and more incentives to do policy-relevant work.
- 287 - A main challenge identified is to make research more relevant for policy and thus “implementable”,  
288 including:
  - 289 ○ the need for timely research outputs, sometimes at a very short notice, here a suggestion was  
290 to scrutinize debates of parliaments where upcoming issues are flagged early on; and
  - 291 ○ the need for policy makers as well as researchers to be involved in research prioritization and  
292 formulation of research questions from the beginning. Funders could help setting up such  
293 dialogue early on in the process. This could be done in a first instance when finalizing calls for  
294 research funding by inviting scientists and policy makers to jointly identify specific issues and  
295 knowledge gaps, to be considered during the development of the research proposals. A further  
296 opportunity would be to facilitate the involvement of key policy makers during the kick-off

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<sup>1</sup> An exception is for national and local programmers and funders of research which are coordinating well their activities and programmes through BiodivERsA.



297 phase of the research projects, so that they can better integrate policy needs when formulating  
298 research questions and methodologies

299 Most importantly some participants flagged a shift over the past years and decades from “evidence-  
300 based” policy to the provision of “actionable knowledge” and this shift is particularly relevant for any  
301 issue involving biodiversity and ecosystem services. It entails a corresponding shift from ‘decision  
302 making’ to ‘policy making’. This means that rather than being able to rely on clear evidence to take a  
303 decision, policy makers need knowledge (both from research but also from all other stakeholders) to be  
304 able to devise policies that lay out procedures and useful next steps that are then taken in collaboration  
305 with stakeholders. This implies a different role for science including the need to be able to help all  
306 actors involved to measure impacts (monitoring) of policies including changes on the ground and to  
307 understand why and how they come about, i.e. the underlying causalities.

308 To this end, the data and information infrastructures and networks (i.e. ILTER and ELTER) have an  
309 important role to play. The importance of having this data accessible would mean that funding is  
310 required to be able to make and maintain data and information accessible and useable both from these  
311 sites, but also from other relevant research projects, for different policy processes. Networks could  
312 then also play an even stronger role in integrating and making research data and information from  
313 other projects accessible to policy making.

- 314 - In conclusion participants saw a role for more strategic planning of research funding, particularly with  
315 regard to policy needs. Requirements to enable this included:
- 316 ○ The need for a one stop shop regarding information and overview, where existing mechanisms  
317 such as OPPLA could play an important role;
  - 318 ○ A good co-ordination between well-established initiatives performing complementary  
319 functions: in particular the EC, particularly DG R&I with its links to all other policy DGs;
  - 320 ○ BiodivERsA (identification of research priorities across national and local programmers and  
321 funders; joint programming and knowledge brokerage); LifeWatch, LTER (development and  
322 implementation of research infrastructures) and EKLIPSE (knowledge synthesis, identification of  
323 knowledge gaps and emerging issues, facilitation of processes across scales).

#### 324 **2.1.4 What are the priority research needs that should be addressed at the EU scale?**

325 This table was facilitated by Josefina Enfedaque (DG R&I), with Hilde Eggermont as the rapporteur.

326 The main points raised were:

- 327 - Biodiversity will fall under the FP9 cluster “Environment & Agriculture” (terminology used therein:  
328 biodiversity, ecosystem services, nature-based solutions, natural capital). In addition to the clusters,  
329 there will also be Missions. The latter are not yet defined – need for actionable science.
  - 330 - Concerning the societal challenge, it would be important that biodiversity still appears strongly in the  
331 future ‘agriculture-natural resources’ pole.
  - 332 - Concerning the missions, participants discussed whether biodiversity should appear as a stand-alone  
333 mission, and/or whether it should be transversal across other missions. Most agreed it should be a  
334 stand-alone mission. It will require some further thinking and discussion to develop the ‘biodiversity  
335 mission’.
- 336

### 337 3. Conclusions and recommendations

338 When trying to identify what needs to be done to better integrate research and knowledge on  
339 biodiversity and ecosystem services from the global to the European level, and vice versa, it is important to  
340 first understand the different levels and elements involved. Against this background, suggestions to  
341 improve the interaction between EU and Global will involve different issues, steps and levels and therefore  
342 different players in order to identify enabling actions to put in place.

#### 343 3.1 Elements to consider when coordinating science and policy

344 **Identifying knowledge needs** is at the beginning of this process, and it is based on the research gaps. Due  
345 to their complexity and interactions, the current state of knowledge about biodiversity and ecosystem  
346 services is incomplete. Having a better understanding would allow to put in place better practices, policies  
347 and approaches to the management of natural resources. At the global level, bodies like IPBES have shed  
348 some light on what the research needs at the European level are, through its most recent assessment for  
349 Europe (and Central Asia). At the European level, a few initiatives exist, such as the RIO Country report<sup>2</sup>,  
350 which serves as a reference and key source of information for European and national policy makers in the  
351 field of R&I policy. It delivers analysis, insights, statistical data and best practices on designing,  
352 implementing and evaluating research and innovation policy at EU and national levels.

353 **Identifying research priorities and programming research** is a completely different step from identifying  
354 research needs, as it does not rely exclusively on the missing knowledge, but also includes societal and  
355 policy priorities/concerns and implies capacity to develop (pan-)European research programming, so that  
356 the resulting knowledge can be used to address these concerns. Research priorities are more relevant at  
357 the regional level (as compared to the global level), considering that a region is more likely to share similar  
358 ecosystems, economies and governance structures as is the case for the European Union. Key supra-  
359 national bodies actually fulfil this role at the (Pan-)European level, in particular several relevant DGs from  
360 the European Commission and BiodivERsA, which facilitate transnational, joint research programming and  
361 funding across Europe.

362 In addition, this also entails bringing to the attention of policy makers recent research outputs (which were  
363 not part of the research priorities); for this a dedicated and possibly different process might be required.

364 **Curating research data and monitoring** relates to the importance of having the data available, in a  
365 compatible format, but also in a state in which it can be used and accessed. It is also related to institutions.  
366 Discussions during the workshop hinted to the challenge of data mobilization in Europe, which meant that  
367 outcomes from initiatives such as the IPBES assessment, are not as complete as they could be. As the  
368 availability of data, and the monitoring of trends relates very much to capacity and the institutional  
369 arrangements, this seems a challenge to be addressed at the level of Member States, with the support of  
370 the European Commission in providing common frameworks and capacity building, to facilitate the  
371 collection, exchange and transition of data, building on the work already being done, for Member States to  
372 report on European targets, to the EEA, and the data centres organized by DG ENV, JRC and EEA, for  
373 example.

374 **Translating research into policy** relates to feeding the outcomes of the research priorities addressing  
375 knowledge gaps, so that a more complete picture is available for policy makers, in order to understand the

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<sup>2</sup> <https://rio.jrc.ec.europa.eu/en>



376 trends, drivers and scenarios, as well as consequences of action or inaction. This element has a global and a  
377 regional perspective, as policy-relevant research is carried out at both levels. However, regional policy-  
378 relevant research can be specific, due to the common geographical, economic and governance structures  
379 found in Europe. EKLIPSE is partly playing this role, by scaling up biodiversity and ecosystem questions of  
380 policy and societal relevance to the European Union level, and synthesising this knowledge, so that it is  
381 available for policy makers at all scales.

382 Regarding all elements above a **shift from ‘decision-making’ to ‘policy-making’** needs to be considered.  
383 Rather than being able to rely on clear evidence to take a decision, policy makers need knowledge (both  
384 from research but also from all other stakeholders) to be able to devise policies that lay out procedures and  
385 useful next steps that are then taken in collaboration with stakeholders. This implies a different role for  
386 science, and possibly the need for additional funding, to be able to help all actors involved to measure  
387 impacts of policies, including changes on the ground and to understand why and how they come about, i.e.  
388 the underlying causalities.

### 389 **3.2 Enabling actions to improve the interaction EU to Global and vice versa**

390 The EU to Global and vice versa process is complex and often non-linear. The EU is likely to continue to play  
391 an important role at the global level, because of extensive funding for biodiversity research, elaborate  
392 infrastructures and important role in ensuring data availability and accessibility, including for monitoring of  
393 the status and trends. A potential to increase the EU contribution could consist in **improving the capacity  
394 to mobilise data for global assessments and research needs.**

395 One complexity arises from the fact that the EU is a partnership comprising 28 voices, with the EC not being  
396 the single spokesperson. This implies a **need for a more formalized coordination and consensus at the EU  
397 level** before engaging with the global level in international negotiations. Multiple realms are affected by  
398 biodiversity and ecosystem services, national competences vs EU competences, and the different types of  
399 formats and fora. **Approaches should be tailored towards the needs of specific actors and levels** within  
400 this context. For example, EC takes the lead when drafting proposals such as FP9 and European research  
401 infrastructures, whereas Member States and Associated Members have a key role when it comes to joint  
402 programming which requires a partnership between national programmers and the EC.

403 Improvements in the interaction with the global level will require a **strong co-ordination between well-  
404 established initiatives** already performing complementary functions, such as:

- 405 - The EC, particularly DG R&I with its links to all other policy DGs
- 406 - BiodivERsA (identification of research priorities across national and local programmers and funders;  
407 joint programming and knowledge brokerage);
- 408 - LifeWatch, LTER (development and implementation of research infrastructures) and,
- 409 - EKLIPSE (knowledge synthesis, identification of knowledge gaps and emerging issues, facilitation of  
410 processes across scales).

411 Wherever national or EU level counterparts exist in the current global governance structures for  
412 biodiversity, such as national biodiversity platforms or IPBES coordination offices, interaction with the  
413 global level is facilitated. **Opportunities should be sought to build on the existing governance structures  
414 and to more explicitly involve different sectors** relevant for biodiversity and ecosystem services,  
415 (agriculture, fisheries, transport etc.) not currently part of the global governance structures.

416 Participants of the workshop **recognized the importance of having a structure** helping to facilitate and  
417 ensure a more strategic approach to translating the outcomes of global science-policy processes on  
418 biodiversity and ecosystem services into action at the European scale and, vice versa, to ensure that  
419 European science-policy processes contribute to the global debate and action. The example of EPBRS, at  
420 the EU scale alone, has shown until recently the benefits of providing a place for policy-makers and  
421 researchers to meet and promote interdisciplinarity. At present there is no structure that would fulfil this  
422 role. There is however a role for an EKLIPSE-like approach that can identify the best science, streamline  
423 knowledge and bring national coordination bodies together to facilitate exchange and capacity building  
424 amongst members.

425 Learning from previous experiences, such a structure would require a mandate, legitimacy and resources,  
426 as well as a link to DG R&I's Programme Committee. This "new" regional structure could be composed of  
427 Member States representatives and the Commission, who would advise and take advantage of the  
428 opportunities at the National/Regional/Global interface and allow for a more strategic approach, which in  
429 turn could further improve processes and results.

430 Lessons can be learnt from previous and ongoing initiatives, particularly BiodivERsA (efficient collaboration  
431 is needed when it comes to research prioritization and programming), EPBRS (which played a key role in  
432 identification of knowledge gaps and research needs, and in promoting networking between National  
433 Biodiversity Platforms). Lessons should also be learnt from the processes already established by EKLIPSE to  
434 improve evidence-based decision making, in a robust and transparent way. Indeed, a major aim of EKLIPSE  
435 is to establish a mechanism that supports the science-policy interface at, and between, different scales.

436



## 4. Annex 1: List of Participants

|   |               |                 |
|---|---------------|-----------------|
| BiodivERsA  | Xavier        | Le Roux         |
| BiodivERsA  | Hilde         | Eggermont       |
| EEA   | Ronan         | Uhel            |
| FEAL  | Estelle       | Balian          |
| GBIF  | Tim           | Hirsch          |
| IUBS  | Nathalie      | Fomproix        |
| UNEP-WCMC   | Claire        | Brown           |
| UNEP-WCMC   | Neil          | Burgess         |
| EKLIPSE   | Jorge         | Ventocilla      |
| EKLIPSE   | Heidi         | Wittmer         |
| EKLIPSE   | Allan D.      | Watt            |
| Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) | Thomas        | Koetz           |
| OPPLA   | Jonathan      | Porter          |
| EC DG ENV   | Karin         | Zaunberger      |
| IUCN  | Alberto       | Arroyo Schnell  |
| IUBS/CIMA   | Lili          | Rodriguez       |
| Swedish EPA   | Neda          | Farahbakhshazad |
| Cimar – Centre for Marine and Environmental Research                      | Isabel        | Sousa Pinto     |
| IUCN  | Marta         | Calix           |
| European Commission DG RTD/I.3  | Birgit        | de Boissezon    |
| European Commission DG RTD/I.3  | Josefina      | Enfedaque       |
| European Commission DG RTD/I.3  | Jean-François | Hulot           |
| JPIs Water  | Dominique     | Darmendrail     |

|   |              |                    |
|---|--------------|--------------------|
| Representing Spain                                    | Lydia        | González Fernández |
| FutureEarth   | Hannah       | Moersberger        |
| Fondation Biodiversité/FR                             | Frédéric     | Lemaître           |
| European Commission RTD/F.4                           | Ana Teresa   | Caetano            |
| FACCE   | Rob          | Swart              |
| JPIs Climate  | Alexandre F. | Fernandes          |
| Lithuanian RDI Liaison office in Brussels             | Brigita      | Serafinaviciute    |
| Ministry of Agriculture, Nature and Food Quality - NL | Rob          | Hendriks           |
| Institut fuer Biodiversitaet - Netzwerk e.V.          | Axel         | Paulsch            |
| EHF   | van Diggelen | Rudy               |
| GBIF - Belgian Biodiversity Platform                  | Heughebaert  | André              |
| LTER  | Mirtl        | Michael            |
| European Commission DG JRC                            | Sienkiewicz  | Marta              |
| University of A Coruña                                | Dumitru      | Adina              |

438



## 439 5. Annex 2: Workshop Programme

- 440 **09:30 – 10:00** Registration and refreshments
- 441 **10:00 – 10:15** Welcome and aims of the meeting – *Birgit de Boissezon* (DG R&I)
- 442 **10:15 – 10:30** Lessons learned on current practices for cross-scale translation of knowledge on  
443 biodiversity and ecosystem services from the EKLIPSE Call for Knowledge – *Allan Watt* (NERC-CEH)
- 444 **10:30 – 11:15** Quick presentations of different models working on translating the outcomes of global  
445 science-policy processes on biodiversity and ecosystem services into action at the European scale and vice  
446 versa:
- 447 - Knowledge translation in the European Platform for Biodiversity Research Strategy  
448 (EPBRS) - *Estelle Balian* (FEAL)
  - 449 - BiodivERSA process of assessing priorities - *Hilde Eggermont*  
450 (RBINS)
  - 451 - IPBES Knowledge Generation - *Thomas Koetz* (IPBES Secretariat)
- 452 **11:15 – 11:30** **Coffee break**
- 453 **11:30 – 12:30** - BfN analysis of CBD decisions, and its follow-up – *Axel Paulsch* (Institute for  
454 Biodiversity Network (ibn))
- 455 - Interplay of the European (eLTER) & global LTER (ILTER) in response to biodiversity &  
456 ecosystem services research requirements – *Michael Mirtl* (Austrian Environment  
457 Agency and UFZ)
  - 458 - Organisation of current EC biodiversity research and knowledge generation - *Josefina*  
459 *Enfedaque* (DG R&I)
- 460 **12:30 – 13:20** Lunch
- 461 **13:20 – 13:30** Introduction to the world cafes approach – *Heidi Wittmer* (UFZ)
- 462 **13:30 – 15:00** World cafes on:
- 463 - **What works well, what doesn't work so well and why** in translating the outcomes of  
464 global science-policy processes on biodiversity and ecosystem services into action at  
465 the European scale?
  - 466 - **What works well, what doesn't work so well and why** in translating the outcomes of  
467 European science-policy processes on biodiversity and ecosystem services into action  
468 at the global scale?
  - 469 - **How could processes be adapted to better fit the needs at the EU scale?**
  - 470 - **What are the priority knowledge or research needs that should be addressed at the EU**  
471 **scale?**
- 472 **15:00 – 16:00** Presentations from rapporteurs and final plenary
- 473 **16:00** Wrap up and end of meeting – *Birgit de Boissezon* (DG R&I)
- 474
- 475

476 **6. Annex 3: Questionnaire**

477 **Call for Knowledge (March 2018)**

478 A request, entitled "What needs to be done to better integrate research and knowledge on biodiversity and  
479 ecosystem services from the global to the European level, and vice versa?" was put to EKLIPSE by the  
480 European Commission DG R&I in the second Call for Requests.

481 The request is based on the need to translate the outcomes of global science-policy processes on  
482 biodiversity and ecosystem services into action at the European scale and, vice versa, to ensure that  
483 European science-policy processes contribute to the global debate.

484 However, no strategic analysis has been made to understand:

485 - How global processes and outcomes dedicated on research and knowledge on biodiversity and ecosystem  
486 services (e.g. from the SDGs, CBD, IPBES or IPCC), could concretely be translated into European research  
487 and innovation policy (Horizon 2020 and FP9); or

488 - How best European research and innovation policy processes and deliveries (projects, knowledge,  
489 scientific capacity) could strategically feed into global processes.

490 As part of the scoping phase, and to inform a workshop organised by DG R&I in June 2018, we are inviting  
491 representatives from key organisations to share their knowledge of this issue, and suggest  
492 recommendations for the workshop and its outcomes.

493 We invite you to complete this form by the 29th March. The results of this exercise will be collated,  
494 synthesized and communicated to DG R&I to inform the organisation of the workshop in June 2018.

495 **\*Required**

496 Email address \*

497

498 Name \*

499

500 Would you rather fill out this form, or be contacted for a phone interview? \*

501  Fill in the form

502  Request an interview

503

504 **(Only applicable if you choose a phone interview:** You are requesting a phone interview. Please continue  
505 to the next section and submit this form and we will email you shortly to arrange a convenient time.

506 Note that once a time has been set, we will send a consent form for you to sign prior to the interview,  
507 detailing the aims of this data collection, data storage and anonymity.



508 Many thanks for completing this form. We will be in touch with you shortly if you have requested an  
509 interview. The results of this exercise will be compiled, synthesized and presented to DG R&I in preparation  
510 of the workshop in June.)

511 Do you know any strategic analysis (projects, papers, reports, grey literature) on the inter-linkages (going  
512 both ways) between relevant global processes and European funded research, knowledge and/or policy  
513 recommendations or developments? \*

514  Yes

515  No

516

517 If you do know of such existing or forthcoming analyses, please provide details here

518

519 What are your experiences of processes that have tried to better integrate research, knowledge, or policy  
520 recommendations on biodiversity and ecosystem services from the European to the global level, and vice  
521 versa? \*

522

523 Were these experiences positive or negative? What made them useful or not? \*

524

525 Do you have any suggestions on how to better integrate research, knowledge, policy recommendations on  
526 biodiversity and ecosystem services from the European to the global level, and vice versa? \*

527

528 DG R&I will organise a workshop to address the issue. Who from your organisation should be present?

529 Please provide their name, function, contribution to the workshop, and email address. \*

530

531 Which key organisations do you think should be invited to the workshop? Organisations we are inviting  
532 include IPCC, Future Earth, IPBES, CBD, IUCN, GBIF, GEO-Bon, Belmont Forum, BiodivERSA. \*

533

534 What recommendations would you have for the format of the workshop? For example, would you like  
535 participatory sessions, plenary discussions, information sessions, focus on specific issues/aims? \*

536

537 What outputs and outcomes of the workshop would be most useful for you and your organisation? \*

538

539 Many thanks for completing this form. We will be in touch with you shortly if you have requested an  
540 interview. The results of this exercise will be compiled, synthesized and presented to DG R&I in preparation  
541 of the workshop in June.

542 Please specify whether you would like the information used in this form to be anonymised

543  Yes

544  No

545

546 A copy of your responses will be emailed to the address you provided



547 **7. Annex 4: Overview of answers to the questionnaire**

| Participant | What worked well in the global to EU translation (or vice versa)  | What worked less well   | How it could be adapted to fit the needs of the EC   | What were the remaining knowledge or research needs from the process that could be addressed at the EU level |
|-------------|---|---|--|--|
| A           | <p>The Vilm meetings helped to bring regional to global, as there is no existing mechanism to do so at IPBES.</p> <p>Europe has the advantage of having the funds &amp; data (assessments, trends, etc.), which is then used by other countries (outside the EU).</p> <p>When going from Global to Regional, it is important to identify what is relevant and what is not (e.g. ECA Assessment on Ecosystem Services)</p> |   | <p>The EU is better equipped than other regions to fund activities outside the EU.</p> <p>EU-BON: Observations at Global level, funded in part by EU funds.</p> <p>Organize workshops/working groups at the European level, but opening to knowledge holders from other countries to do tailored integration of research, knowledge and if requested, policy recommendations and have the results of this work be presented at the international fora. It works in the CBD (Vilm meetings) and could work also in IPBES. My experience is that assessments done in the relevant subjects and timings will be used by the author teams.</p> | <p>Recognize EU's place as a global player.</p>  |
| B           | <p>The IPBES Assessment on Pollinators, and its coalition of the willing. An example where a Global/Thematic Assessment was translated.</p>   | <p>There are many assessments produced, and thus a need for better synergies.</p> | <p>Some questions need answers quickly (as addressed by the Canoe Project), other need answers that will get the info at the right timescale and relatively fast (Oppla and Eklipse projects)</p>  | <p>Models at the moment do not take well into account the connections between ecosystems.</p>                |
| C           | <p>There are formal and informal mechanisms. Formal mechanisms are well defined from the beginning, as</p>  |   | <p>Do not treat this as a tech transfer issue, which is inefficient.</p>   | <p>Possible useful outcomes: In 10 years' time, what do we need to</p>                                       |

| Participant | What worked well in the global to EU translation (or vice versa)   | What worked less well                               | How it could be adapted to fit the needs of the EC  | What were the remaining knowledge or research needs from the process that could be addressed at the EU level   |
|-------------|--|---|---|--|
|             | <p>is the case with regulations. Informal mechanisms are done in one part, and copied in the other, as with the Millennium Ecosystem Assessment, and the UK ES Assessment, which followed.</p> <p>BiodivERsA as a real opportunity to solved Regional/Global challenges, by having a common research agenda and common funding pot.</p>                  |   | <p>Adopt a 2 way approach society/science, and fine tune to circumstances and ownership.</p> <p>The EU needs to “connect” within itself before being able to have an effect at Global level.</p> <p>There isn’t a one size fits all, despite the EU Directives, there is a need for more flexibility: Nature does not stick to rules, which are good for trade but not for nature management.</p>   | <p>make the interphase between data/science/policy?</p> <p>Don’t come up with a manual, but allow participants to understand the problem, network and explore what are the impediments to success.</p> |
| D           | <p>EPBRS would be the main experience I had on integrating EU research already to influence EU policy level and also have impact at global level. EPBRS delegates being involved in SBSTTA and other Global consultation processes, they would directly influence discourses on some topics making use of what had been discussed in EPBRS meetings.</p> | <p>Initiatives without a mandate or legitimacy.</p> | <p>One of the most important aspect is that there is some community at EU level that ensures a continuous dialogue and exchange between european researchers (from all disciplines) and national policy makers who are the ones acting in the consultation/working groups at Global level.</p> <p>DG ENV maintains some Ad hoc working groups on different topics where there is this space for dialogue but it is ad hoc.</p> <p>There is a need to have regular meetings to build this community to ensure there is a continuous passing of knowledge to the ones who can influence global processes and to build capacity of</p> |  |



| Participant | What worked well in the global to EU translation (or vice versa)   | What worked less well  | How it could be adapted to fit the needs of the EC   | What were the remaining knowledge or research needs from the process that could be addressed at the EU level   |
|-------------|--|--|--|--|
|             |  |  | young professionals to ensure researchers and policy makers develop common understanding throughout their carrier.   |  |
| E           | <p>IPBES ECA assessment -especially knowledge gaps box from the SPM. Also there have been some reports looking at gaps and actions needed to deliver the SDGs (<a href="http://www.nerc.ac.uk/press/releases/2017/16-global/">http://www.nerc.ac.uk/press/releases/2017/16-global/</a>) will also need to look GBO and GEO;</p> <p>And possibly lessons in the climate change and land use community</p>   |  | Better understanding of what is policy relevant research is as well as how the international mechanisms operate would probably help researchers and mechanisms which allow people negotiating global level to understand the research that is available.                             | It is handy to have an understanding the direction of European research on biodiversity and ecosystem services and how people think it links into the international agenda and then at UNEP-WCMC we can understand how we can help support the process |
| F           | The overall BiodivERsA approach aims at linking research, knowledge and policy needs on biodiversity, ecosystem services and Nature-based solutions, and it increasingly promotes the internationalisation of its activities. Example of experience: Linkage between BiodivERsA & IPBES (vice-versa), see separate information sheet. Need dedicated resources (people) to fully understand the global processes, to allow for timely follow-up and to monitor the uptake of research. | <p>Positive experience: increased visibility &amp; both academic and policy impacts</p> <p>But more heavy that strictly pan-European approach.</p> | <ul style="list-style-type: none"> <li>- Improved communication on opportunities for researchers to engage in global processes, and on outcomes of political fora</li> <li>- Joint outreach events</li> <li>- Better use the MOU/Strategic partnerships offered by IPBES.</li> </ul> |  |
| G           |  | The dissemination of recommendations   | “Test” first the global integration (through small workshops) with some extra-European participants to understand potential implementation and challenges abroad.  |  |
| H           |  | There has been considerable willing from   | We need better dialogue between the Commission and the   | Why not, for example after the last IPBES plenary organise a facilitated,  |

| Participant | What worked well in the global to EU translation (or vice versa) | What worked less well  | How it could be adapted to fit the needs of the EC  | What were the remaining knowledge or research needs from the process that could be addressed at the EU level   |
|-------------|--|--|---|--|
|             |  | <p>the science communities to engage with decision-makers, but not the same level of willingness from the decision-making communities to engage. I have been involved in several workshops in Brussels, where participation from the EU has been very low, in spite of initial interest being expressed in the events. This is a major barrier to knowledge exchange. The initiative probably needs to come from the EU for this, in engaging with knowledge holders (projects) and researchers engaged in global processes such as IPBES and CBD.</p> | <p>researchers. This has to be led by the EC, and professionally facilitated, but involve researchers who make major contributions to this field: EU funded project partners, and authors to IPBES reports. It would also be useful to hold smaller, focused meetings between key the EC and IPBES authors.</p> | <p>exchange meeting between the EC DGs and the IPBES assessment authors?</p> <p>Better embedding the outcomes of the IPBES assessments in EU policy. Better understanding the EU policy process and barriers to policy implementation.</p> |
| I           |  |  | <p>A possible way could be to be present in the different international/global fora/organizations with a position representing the EU as a whole.</p>   |  |
| J           |  | <p>Both negative and positive: the place / role given to European institutional knowledge ('grey literature')</p>  | <p>IPBES -which follows the experience of IPCC- is a good model (assuming EU gets better status to secure participatory</p>   |  |



| Participant | What worked well in the global to EU translation (or vice versa) | What worked less well  | How it could be adapted to fit the needs of the EC   | What were the remaining knowledge or research needs from the process that could be addressed at the EU level                    |
|-------------|--|--|--|---|
|             |  | vs. nominated experts (science and academics); huge variability in influence / use of European institutional knowledge depending the organisation status & processes | contributions). Would also be useful to cooperate further with CBD Secretariat in their efforts to coordinate CBD - UNFCCC - CCD logic and domains of intervention.  |   |
| K           |  |  | Upscaling, downscaling, and integration across scales are always a challenge, especially for regions like Europe where capacity and data availability are high and so there's often a perception that the global scale has little additional to offer. However in addition to the obvious benefits of global comparability (particularly important under the 2030 Sustainable Development Agenda), other advantages include the potential to shed light on European impacts elsewhere in the world (and vice versa), capacity building and technology transfer, and motivation to other regional processes through "leading by example". |   |
| L           |  |  | Although maybe not 100% relevant to this inquiry, I would draw attention to the Global Biodiversity Informatics Outlook  | A better understanding of the role of data mobilisation, including standardisation and open access policies, and the associated |

| Participant | What worked well in the global to EU translation (or vice versa) | What worked less well | How it could be adapted to fit the needs of the EC   | What were the remaining knowledge or research needs from the process that could be addressed at the EU level   |
|-------------|--|-----------------------|--|--|
|             |  |                       | <p>(www.biodiversityinformatics.org) compiled as an outcome of the 2012 Global Biodiversity Informatics Conference in Copenhagen, aimed at developing a strategic framework for the required components of a globally-connected knowledgebase on biodiversity, from the foundational conditions required for free and open exchange of data, through the mobilisation of data from key sources, through integration of data as useable evidence, to analysis and modelling to inform policy. This framework is due to be revisited at a follow up conference in July 2018, with a view to developing mechanisms to coordinate required actions to make significant progress in key components, perhaps through a shared project office with light governance to guide investment and effort.</p> | <p>investment required, in the overall research and policy agenda is a prerequisite to progress in this area.</p> <p>Taking the GBIO process as an example, the framework itself has been a useful tool to organise thinking around the key components that must be addressed in order to realise the full potential of the data &gt; evidence &gt; knowledge &gt; policy chain, at different scales. However, lack of an overriding mechanism to hook up disparate infrastructures and projects has been a handicap for sustained progress.</p> |