

Impact Assessment of the Renewable Energy Policy Network for the 21st Century

for
Renewable Energy
Policy Network for the 21st Century
(REN21)

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Impact Assessment and Future Directions for REN21

The Renewable Energy Policy Network for the 21st Century (REN21) has supported the development of renewable energy for the last decade. An assessment of the quality and utilization of REN21 products and events as well as the importance of REN21 products and events, in comparison to similar activities of other organisations, is an important basis for determining what the next decade of REN21 should look like. Based on the perception of REN21's stakeholders, the study at hand, analyses the results and impacts of REN21's activities. It also identifies options for the future role of REN21.

To that end, stakeholders were consulted in two ways: (1) REN21 sent out an online survey to its network of contributors. Of the 2000 recipients, 166 respondents gave their input. (2) 16 members of the REN21 Steering Committee (SC) were consulted in semi-structured telephone interviews regarding their views on the value added by REN21 in the institutional landscape.

REN21 products

Online survey participants were asked to rate the REN21 products according to their importance for the participants' work and SC interviewees commented on REN21 products. Both interviewees and survey respondents expressed high appreciation for the REN21 products and stressed the value added. The flagship product, the annual Global Status Report (GSR) received the highest score, followed by the Regional Status Reports, the website, the Global Futures Report (GFR), the RE Interactive Map (incl. the Regional Dashboards), the Biannual International Renewable Energy Conferences (IRECs), the Renewables Academy and the newsletter. REN21's uniqueness was confirmed when the majority of the respondents did not identify overlaps with 16 information products on the renewable realm coming from other institutions. The single highest overlap to REN21 products of 28 % was identified with the IEA / IRENA Renewable Energy Policy and Measures Database. This overlap is probably identified with the REN21 Interactive Maps.

When asked about the purpose for which survey participants used REN21 products, 76 % of respondents declared that they used REN21 for background information and general reading. More than 50 % used it for guidance and advice on renewable energy policy. The vast majority of respondents (69 %) uses REN21 products in the form of digital brochures. Infographics (used by 4%), Webinars (used by 3%) and data maps (used by 1%) play a minor role so far which might be linked to the fact that these products are comparatively lesser known. For example, even though the survey participants can be considered actively interested in REN21 – for example by contributing to its products in the past – 28 % of the survey recipients did not know that the interactive maps existed.

REN21 mission, character and role

Online respondents and interview partners had a very positive image of REN21's past performance and thought that the network was fulfilling its mission statement. Online respondents gave the maximum rating regarding the *data and knowledge exchange* function of REN21. On average respondents slightly agreed with the statements that REN21 *assists in policy decision making*, and in *facilitating knowledge exchange*.

The interview partners stressed the unique character as a multistakeholder network and pointed out that the role of REN21 remained to spearhead the promotion of renewables. The fact that other organisations

have emerged or gotten engaged in the field, was perceived to be merely an expression of how important the fight for renewables is. Interviewees encouraged REN21 to not feel intimidated by the broadening of the field. Rather it should take it as an incentive to sharpen its profile as an idea hub, coalition of the willing or as a pioneer. This self-confidence should also be the spirit when cooperating with the other institutions and organisations in the field.

Future areas of work

Asked for suggestions on product improvements, their preferences regarding future areas of work, trends and technologies, a few survey participants and SC interview partners first suggested to advertise REN21 products more. As one SC member pointed out, this would also be a task for SC members to help with.

Regarding thematic opportunities, respondents of the online survey considered (1) *100 % Renewables* and the (2) *energy transition*, followed by (3) *RE finance*, (4) *low carbon energy access in developing countries*, (5) *sustainable energy in cities* and (6) *co-benefits of RE* as the most important themes.

Most feedback, from both the online survey and the SC interviews, was zooming in on the theme of 100 % Renewables. SC members elaborated extensively on the question of a future role of REN21. They too emphasized elements that pertain to the spectrum of 100 % Renewables, such as including sustainable transport, (industrial) heating, cooling or system integration questions. This converges with the survey respondents suggestion on technology to include energy storage (76 %), grids (62 %), transport (61 %) and heating and cooling (50 %).

Municipalities and cities, which combine all energy issues, were also very important to SC members. Energy efficiency was advocated by some SC members as the most important issue today and one SC member suggested that REN21 replicate its flagship product and add a *Global Status Report Energy Efficiency*. But this notion is neither shared by other SC members nor by the online survey respondents of whom only 37 % and 21 % suggested to focus on building efficiency and appliance efficiency respectively.

Expansion of the network

Survey participants were asked through which communities the REN21 network can and should be expanded. Of six options offered, the majority of respondents chose the climate change community followed by the community around development and poverty alleviation and then conventional energy players. Many of the SC members suggested to get more private sector actors (energy utilities, finance, energy consumers) involved. The suggestion to involve cities and municipalities was brought up frequently as well.

Recommendations

Contributors and the Steering Committee displayed great enthusiasm for REN21 and its products. Especially the GSR, which is universally known and is considered as essential for participants' work. Potential overlaps with the IEA / IRENA Renewable Energy Policy and Measures Database should be carefully observed. The Interactive Maps, the IRECs, and the Webinars might benefit from increased marketing to make them more widely known. Online respondents suggested to make this a priority over refining additional digital formats for presenting the GSR as a digital brochure.

Instead of being discouraged by the increased population in the field, SC interview partners encouraged REN21 to continue its crucial role in speeding up the deployment of renewables. They see the multi-stakeholder network's role in acting as a check and as a thought leader for other organisations. With the

success of renewable energy globally, drastic cost reductions which make new renewables least cost options in many cases, the international stage becoming more crowded and the RE data monopoly lifted, several SC interviewees perceived it as necessary to make changes in the current model. These changes should - from our point of view - include a work stream, e.g. throughout a Renewables Academy, or along the meetings of the IRECs or the SC meetings.

The findings of the survey and the interviews suggest that REN21 should broaden its focus to 100 % Renewables. This means including more energy aspects like system integration, the energy and technology needs of transport and heating & cooling, including in industry, more explicitly into the scope of work. Interview partners suggested to incorporate new private actors of these fields, including interested industrial-sized prosumers. Ideas for such prosumers might be Google, Microsoft or Tesla as well as stakeholders from finance, such as HSBC, and the transport sector. This should also include additional relevant partners from NGOs and Science.

In this context, it was also considered important to include cities and municipalities. They are important testing grounds for 100 % Renewables. If REN21 was to engage further in energy efficiency, it should do so in close collaboration with IEA (as proposed by the IEA SC member), IPEEC but possibly also with specialized NGOs such as CLASP.

A more active linking with the climate change community could be mutually beneficial. The Paris Agreement and the beginning operationalization of the Green Climate Fund has provided new momentum and countries are formulating Nationally Determined Contributions. Climate Change Focal points in the countries (often Ministries for the Environment) and the national planning institutions might not be aware of the recent cost reduction in renewable energy and might underestimate the cost effectiveness of the associated GHG saving opportunities. Here, updated lessons from the past 20 years of renewable energy policy would be very helpful to encourage ambitious target setting and policies.

SC members were concerned with the financial stability of REN21 and made a series of suggestions to diversify the money by providing services as a policy advisory, collecting money from private sponsoring, government or international organisations. Stakeholders converged on the view that REN21 and its initiatives should continue to be supported with adequate funding levels from member governments.

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1 Introduction

The objective of this assessment of the Renewable Energy Policy Network for the 21st Century (REN21) is to understand better the results of REN21's activities, and the perception of its role and its target group. It also serves to give pointers for the future role of REN21. Since its founding, the institutional landscape has changed and REN21 needs to make decisions regarding its future activities. An assessment of the quality and utilisation of REN21 products and events and the importance of REN21 products and events in comparison to similar activities of other organisations are an important basis for these considerations.

To that end, stakeholders were consulted in two ways: REN21 sent out an online survey to its network of contributors. The online survey questionnaire can be found in Annex II of this report. Of the 2000 email recipients, 166 respondents from science & academia (25 %), NGOs (15 %), international organisations (14 %), national governments/public sector (13 %) and consultancies (11 %) gave their input. 65 % of respondents had contributed to REN21 in the past.

The members of the REN21 Steering Committee (SC) were consulted in semi-structured interviews regarding their views on the value added by REN21 in the institutional landscape. Interview questions can be found in Annex III.

2 REN21 products

This section addresses the quality and utilisation of REN21 products and events as well as the importance of REN21 products and events in comparison to similar activities of other organisations. Participants in the online survey were asked (1) to rate REN21 products according to their importance for their work, (2) to identify potential duplications with products of other organisations, (3) to tell us for which purposes they used the information and (4) in which format they used it.

This assessment focusses on the following REN21 products (cf. Table 1): the Global Status Report (GSR), International Renewable Energy Conference (IRECs), the Regional Status Report (RSRs), the REN21 Global Futures Report (GFR), the REN21 Interactive Map, the REN21 website and the REN21 newsletter.

Table 1: Description of REN21's key products

REN21 products		
Global Status Report (GSR)		REN21 is publishing the GSR. It was first released in 2005. It provides a global overview of renewable energy markets, industry, investment and policy developments. The GSR grew out of an effort to portray the status of renewable energy after the Bonn conference 2004. Over the past decade, the GSR has grown in scope and depth.
International Renewable Energy Conference (IRECs)		The IRECs is a high-level political conference series in the tradition of the Renewables 2004 Conference. It is dedicated to renewable energy policy worldwide.

REN21 products		
The Regional Status Reports (RSRs)		The RSRs provides a comprehensive overview of the status of renewable energy and energy efficiency of specific regional markets, industry, policy and regulatory frameworks, and investment activities. Among the RSRs is the East African Community Renewable Energy and Energy Efficiency Status Report and the SADC Renewable Energy and Energy Efficiency Status Report.
REN21 Global Futures Report (GFR)		The GFR deals with credible possibilities for the future of renewables within particular thematic areas.
REN21 Interactive Map		The Interactive Map is providing an overview on RE worldwide, with respect to RE targets, fiscal incentives, regulatory policies, and public financing. Information on the Map is sourced directly from the GSR and the organisations vast network of contributors. By clicking on a country, the user may choose a topic or subtopic (e.g. policies), technology or a sector in order to make an overview of policy matrix more precise. There is also a possibility to download country profiles as an XLS or to contribute by submission of data.
REN21 website		The REN21 website http://www.ren21.net lists all REN21 products and provides information of the REN21 structure and membership.
REN21 newsletter		REN21 circulates a quarterly newsletter (February, June, September, December) to its contributors.
Renewables Academy		In 2014 REN21 held its first Renewables Academy dedicated exclusively to REN21's contributor community. The Academy's program focused on key policy drivers needed to advance a global energy transition.

Source: own table

2.1 Online survey responses - Product importance

In the online survey, the broader REN21 network was requested to rate REN21 products (the GSR, the GFR, the RE Interactive Map incl. Regional Dashboards, the RSRs, the IRECs, the Renewables Academy, the quarterly newsletter, and the REN21 website) with respect to the product's importance for their work.

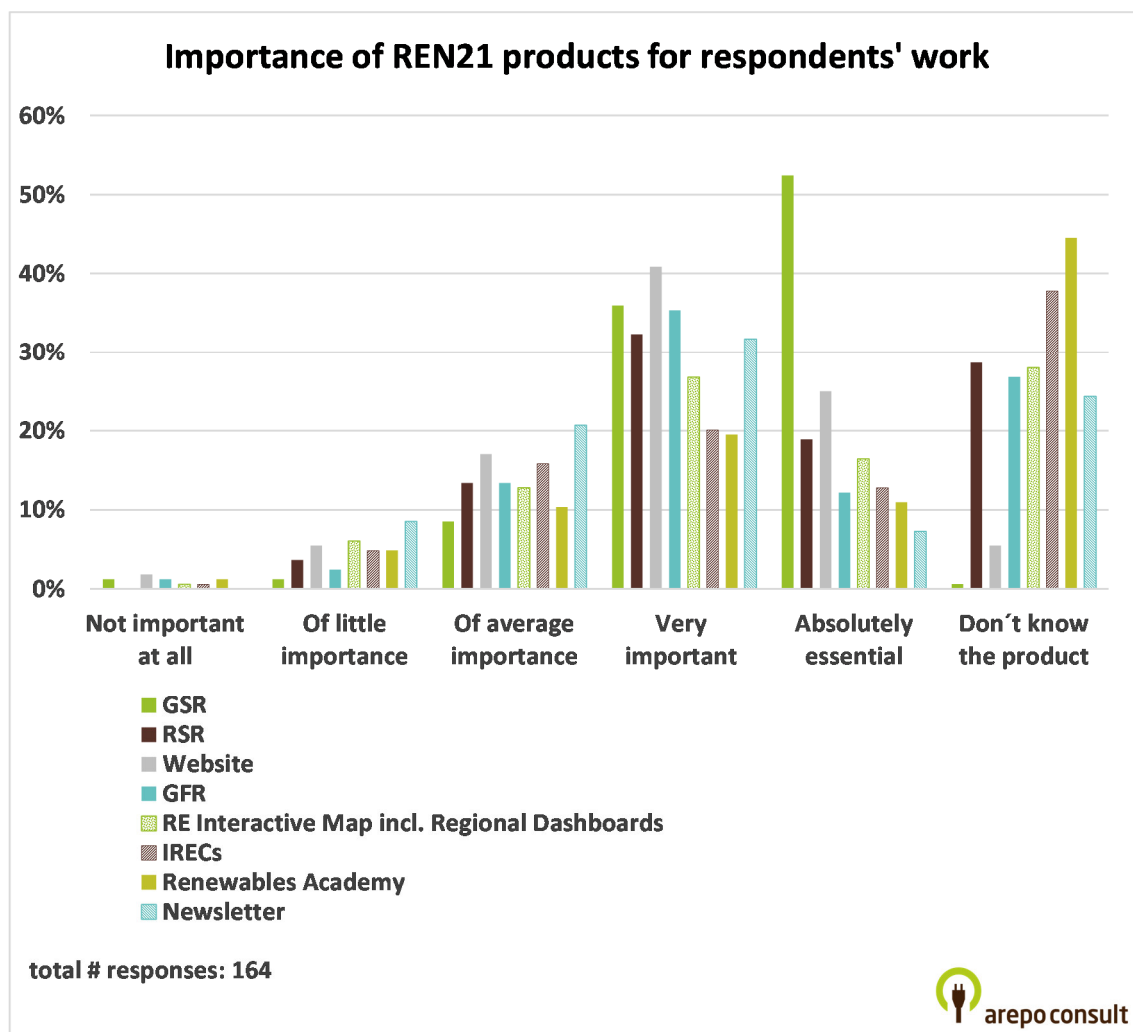
Respondents could rate the products between 4 - absolutely essential, 3 - very important, 2 - of average importance, 1 - of little importance, 0 - not important at all and don't know the product.

Respondents ascribed a very high importance to all REN21 products with the GSR receiving a median of *absolutely essential* (4) and the other products (RSRs, GFR, IRECs, RE interactive Map, Website, Renewables Academy and the Newsletter) receiving a median of *very important* (3).

Products received the following average importance-ratings: GSR: 3.38, RSR: 2.97, the website: 2.91, GFR: 2.85, RE Interactive Map incl. Regional Dashboards: 2.83, IRECs: 2.73, the Renewables Academy: 2.73 and the newsletter: 2.55. The results are presented in Figure 1.

99 % and 95 % of respondents knew the GSR and the REN21 website. More than 70 % of respondents knew the newsletter, the GFR, the RSRs and the RE Interactive Map incl. Regional Dashboards. 62 % knew the IRECs and 55 % the Renewables Academy.¹

Figure 1: Online survey: Importance of REN21 products for respondents' work



Source: REN21 contributor survey: Question 5. If you know any of the following REN21 products, please rate them according to the importance for your work.

¹ Share of respondents, not knowing a product: GSR: 1 %, Website: 5 %, Newsletter: 24 %, GFR: 27 %, Interactive maps: 28 %, RSR: 29 %, IRECs: 38 %, Renewables Academy: 45 %.

2.2 SC interviews - Product quality

In the interviews with the Steering Committee, they were not explicitly asked for comments or criticism of current REN21 products, but in the course of the interview many participants made positive remarks about certain REN21 products. The Steering Committee members identified strongly with the GSR as REN21's flagship product, and it was described as *a major benchmark* [I 3], *a reference* [I 3, I 5, I 13, I 14], *most comprehensive* [I 4, I 14], *offering perspective and analysis* [I 7], *faster* [I 7], *a must-read in the community* [I 11], *comes close to the World Energy Outlook* [I 11], *power of persuasion through simple, large numbers* [I 16]. The notion was to “keep it for a while longer” [12], “there is nothing to replace the GSR” [I 3] and “it will remain the flagship product” [I 8].


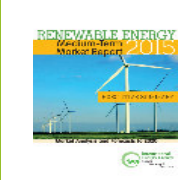

Only one interview partner was making the point that with renewables entering the mainstream the GSR was losing its excitement and fascination [I 5].

Most Steering Committee interview partners were also very positive about the IRECs. Two participants expressed disappointment about the decreasing presence of political representation at the IRECs [I 4 & I 10], while another interviewee argued that decreasing public involvement was part of a natural process of an increasingly mature RE sector dominated by private actors [I 8].




2.3 Online survey responses - Potential product overlaps

In the online survey, REN21 contributors were asked to compare REN21 products with the 16 products of other organisations (listed in Table 2), which were considered to show a certain similarity with REN21 products.

Table 2: Publications of other organisations

Title	Description
1. IEA/IRENA: RE Policy and Measures Database	 This database addresses climate change, global RE, energy efficiency as well as building energy efficiency policies and measures, providing data on energy-related policies and measures being taken or planned.
2. IEA: Medium-term RE Market Report	 The RE Market Report assesses trends in the electricity, transport and heat sectors, identifying drivers and challenges to deployment, and making projections through 2020. The mid-term report series has been published since 2012.
3. IRENA: Roadmap For a Renewable Energy Future	 REmap shows how the world can double the share of renewable energy in the energy mix by 2030. The review offers best practices how it can be done.
4. FS -UNEP Centre: Global Trends in Renewable Energy Investment	 The Global Trends in Renewable Energy Investment Report (GTR) is a sister publication to GSR. The GTR assesses global investment trends in renewable energy.

Title		Description
5. IPCC: Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN)		The IPCC SRREN report covers the context for RE and climate change. It provides information on six RE technologies, among others on levelised costs of electricity and issues of system integration. The report was first published in 2011.
6. IEA: Energy Efficiency Market Report (EEMR)		The EEMR evaluates the impact of energy efficiency in the energy system and assesses the scale and outlook for further energy efficiency investment using detailed country-by-country energy efficiency indicator data.
7. IEA World Energy Outlook (WEO)		The WEO goes back as far as 1994. WEO 2016 covers projections for different scenarios to 2040 with a focus on renewables but traditionally also addressing coal, oil, natural gas and nuclear.
8. IRENA Rethinking Energy		IRENA's flagship report looks at how the transition to renewables could help limit global warming.
9. International Science Panel on Renewable Energies (ISPRES) reports (2009)		In December 2009 ISPRES published two reports on biomass, and photovoltaic and wind energy as part of ISPRES's goal to provide analysis and strategic guidance for renewable energy research and development worldwide. ISPRES was co-sponsored by ICSU, the International Council of Academies of Engineering and Technological Sciences (CAETS) and REN21. The initiative has been discontinued.
10. OECD Green Growth Studies Energy		The OECD and IEA have released the joint report Green Growth Studies Energy, which looks at the implications for the energy sector in moving towards a green growth model and the policies to facilitate the transition.
11. WWF 100 % Renewables Report ^[1]		The WWF report answers the question, whether it is possible to achieve 100 % Renewable energy supplies nationally/ globally by 2050. It presents scenarios which demonstrate the technical possibilities.
12. WRI Assessing the Post-2020 Clean Energy Landscape		WRI addresses the issue of "clean energy" and how to increase its use in order to tackle the problem of climate change.
13. IRENA Renewable energy cost analysis		IRENA's costing work is built around the <i>IRENA Renewable Cost Database</i> . The database contains data from over 9,000 utility-scale renewable energy projects.

Title		Description
14. IRENA Renewable energy and jobs		Renewable Energy and Jobs – Annual Review presents the status of renewable energy employment, both by technology and in selected countries
15. Greenpeace, Solar Power Europe, GWEC: Energy [r]evolution a Sustainable, World Energy Outlook 2015		The Energy [r]evolution Scenario was first published for Europe in 2005. The global editions were published in 2007, 2008, 2010, 2012 and 2015. The Energy [r]evolution is a projection for future renewable energy markets and meant to function as an alternative to the IEA’s World Energy Outlook and to complement REN21’s Renewables Global Status Report. The report includes forewords by REN21 and IRENA.
16. Worldwatch Environmental reports		The Worldwatch Institute issues a series of reports dedicated to the question of energy sustainability in different countries.

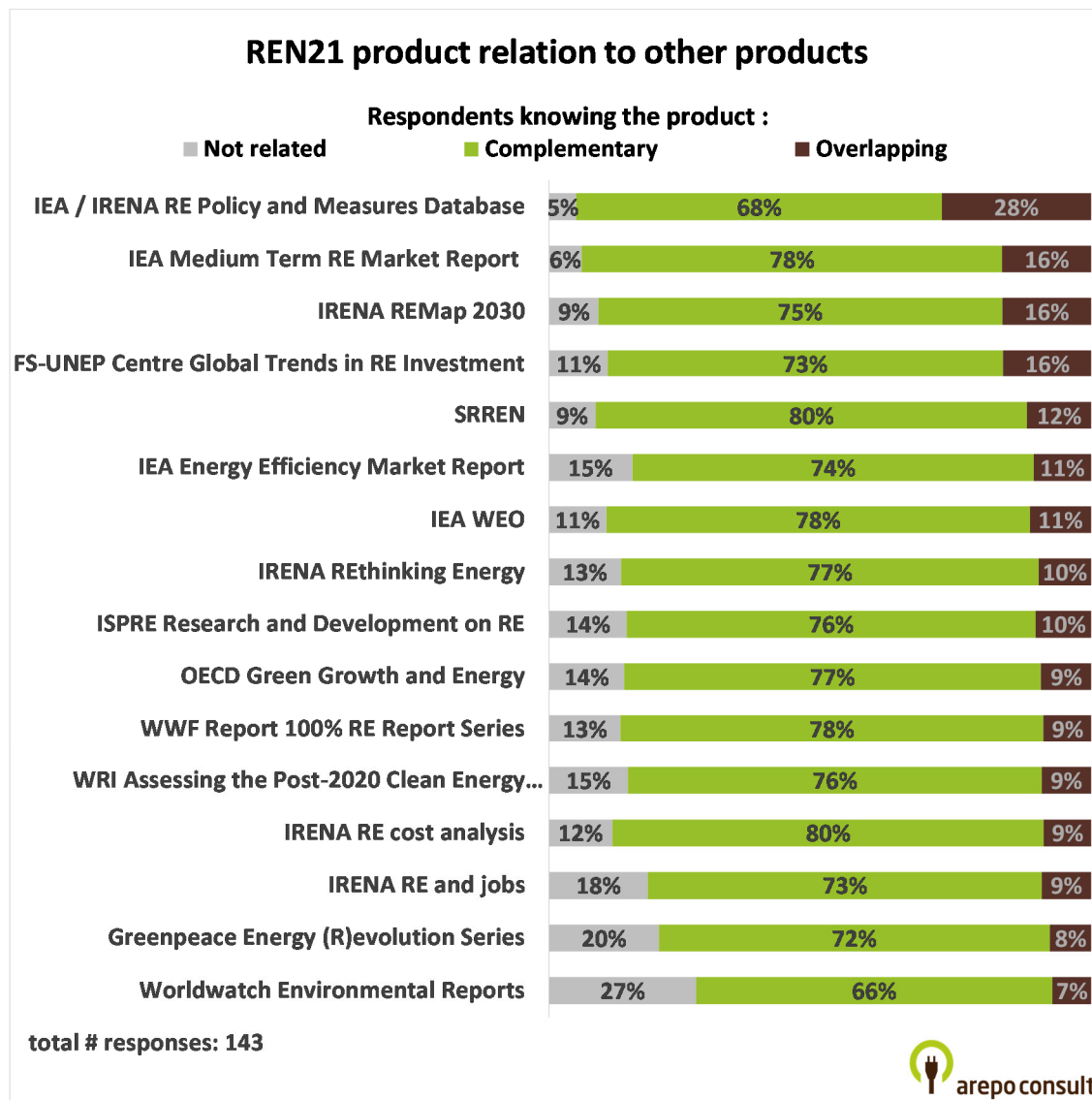
^[1] WWF International, ECOFYS, OMA AMO (2011) The Energy Report 100 % Renewable Energy By 2050, WWF (2013) Putting the EU on Track for 100 % Renewable Energy, WWF -India & teri (2013)The Energy Report– India 100 % Renewable Energy By 2050 (also available for the regions Kerala, Mandla, Moradabad, Palakkad), WWF-Australia (2015) Australia can Cut Emissions Deeply and the Cost is Low

Source: Own table

As shown in Figure 2, the majority of respondents (66 % - 80 % depending on the product) did not identify overlaps, but perceived products to be complimentary.

A minority of respondents identified product overlaps. The most prevalent among those was the IEA / IRENA Renewable Energy Policy and Measures Database for which 28 % of respondents (who knew the product) identified some overlap with REN21 products. 16 % of respondents (who knew the respective product) identified overlaps with the IEA Medium Term Renewable Energy Market Report, the IRENA REMap 2030 and the FS-UNEP Centre Global Trends in Renewable Energy Investment.

Figure 2: Online survey: REN21 product relation to other products



Source: REN21 contributor survey: Question 8. Do you perceive the following products as not related, complementary or overlapping with REN21 products?

2.4 SC interviews - potential product overlaps

SC interview partners were convinced that GSR was still relevant today and without direct “competition” [I 16]. Also the IRECs were described as “unique” [I 4]. One interview partner identified overlaps between the REN21 website (including the Interactive Maps) and the IRENA website [I 16].

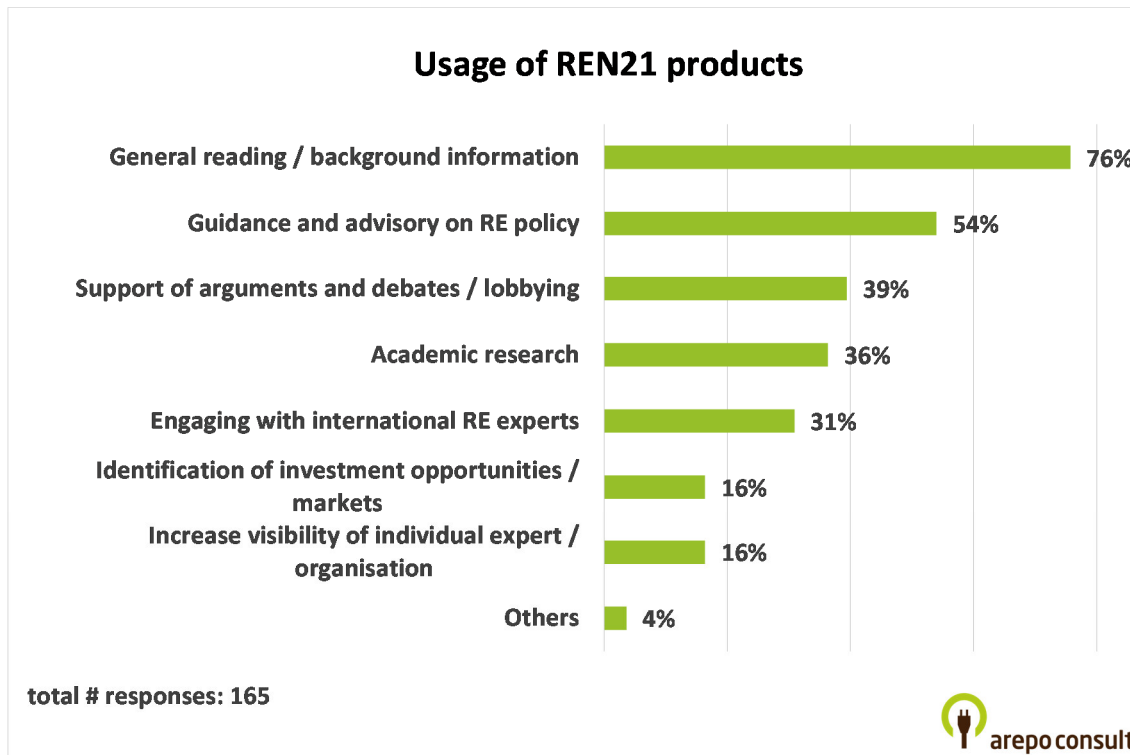
2.5 Online survey responses - REN21 products use and format

Asked, for which purpose the experts used the REN21 publications, 75 % of online respondents declared to use REN21 for “background information and general reading” and more than 50 % used it for “guidance

and advisory on renewable energy policy” (Figure 3). About one third used it for “lobbying”, “academic research” or “engaging with international RE experts”.

The options “identification of investment opportunities / markets” and “increase visibility of individual expert / organisation” were not a priority for many of the respondents (16 %). Six respondents offered alternative uses, such as material for keynote speeches, lectures and the dialogue with policy makers.²

Figure 3: Online survey: For which purposes do you use REN21 products and services?

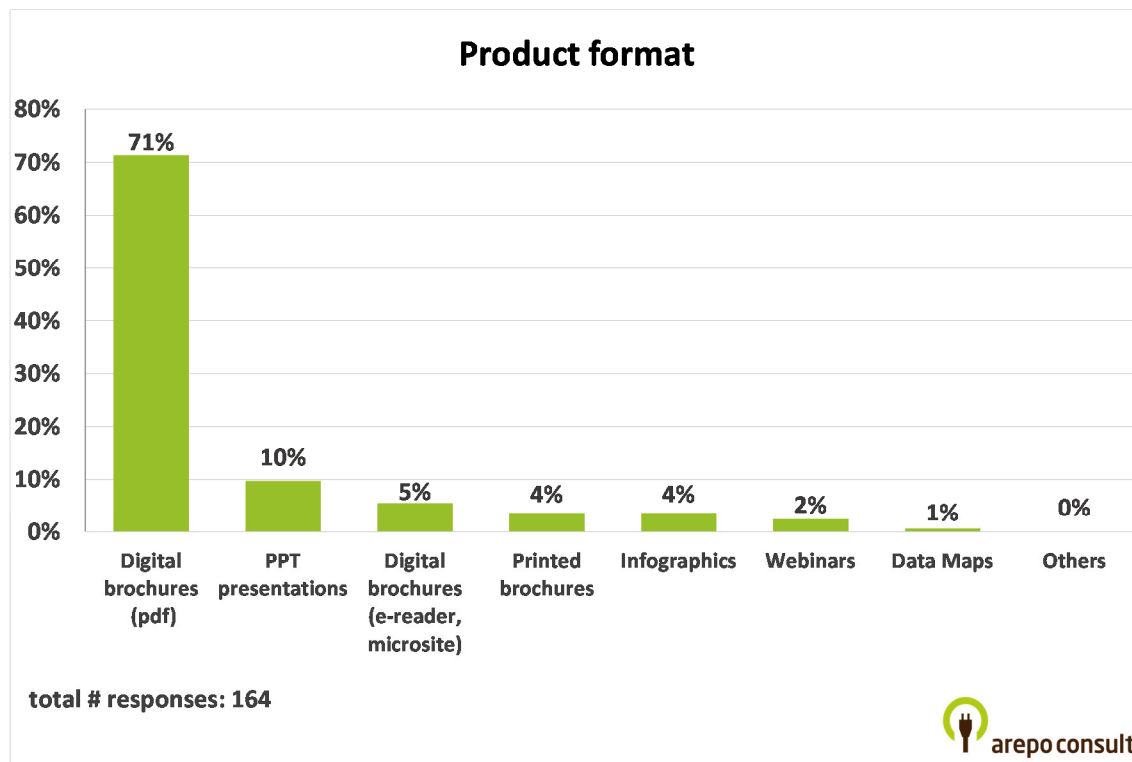


Source: REN21 contributor survey: Question 4. For which purposes do you use REN21 products and services?

In Question 6 of the online survey, participants were asked in which format they were using REN21 products. A clear majority of respondents (69 %) uses REN21 products as digital publication in pdf-format. Few respondents (9 %) use the powerpoints provided. All other formats were used by 5 % or less. Figure 4 shows the full results for this question.

² Answers given in the open-ended section of Q4, uses of REN21 products, were: (1) *REN21 overview of international RE trends valuable in dialogue with national and state policymakers*, (2) *lectures*, (3) *excellent source material for keynote speeches*, (4) *Increase visibility for certain topics/arguments*, (5) *I also use REN21 resources for research and data gathering, but I am not in academia*, (6) *annual report on renewables*.

Figure 4: Online survey: Product format



Source: REN21 contributor survey Question 6. In what format do you currently use REN21 material?

2.6 Summary - REN21 products

SC interviewees and survey respondents rated REN21 products as of very high quality and very important to their work. The GSR received the highest score followed by the RSRs, the website, the GFR, the RE Interactive Map incl. Regional Dashboards, the IRECs, the Renewables Academy and the newsletter. It should be noted that this feed-back comes from the (wider) REN21 network, but does not represent an outside perspective. Having this in mind, when looking at how many respondents did not know certain REN21 products, it should be noted that one third of the respondents to the online survey did not know key REN21 reports and the Interactive Maps. The fact that even the REN21 contributors/affiliates do not know key REN21 products, could suggest that these products could be marketed and promoted more widely. As one SC member pointed out, promoting the products could be communicated more strongly as a task for SC members, among others.

The majority of the respondents did not identify overlaps with products of other organisations. This shows that respondents perceived REN21 products as unique value to the renewable energy community. The single highest overlap of 28 % was identified between REN21 activities and the IEA / IRENA Renewable Energy Policy and Measures Database. The potential competition with IEA/IRENA Policy databases could form a threat to the Interactive Maps in the future and should be addressed by the Secretariat, e.g. by increasing the advertisement of the Maps, embedding/sharing it with other organisations' websites or improving its layout and functionality. 75 % of online respondents used REN21 for background information and general reading. More than 50 % used it for guidance and advisory on renewable energy policy. The vast majority of respondents (69 %) uses REN21 products as digital publications in pdf format.

If keeping up the other services such as offering the GSR as a digital brochure (e-reader/ microsite) or print document consumes a significant amount of resources, this should be considered as a room for cost savings. The fact that users do not access services like Infographics (used by 4%), Webinars (used by 3 %) and Data Maps (used by 1%) might also be linked to the before-mentioned point that respondents did frequently not know about these kinds of products (28 % of users did not know the data maps exist). Therefore making these products more widely known should be a key task for future work programs.

3 REN21 mission and character

This section addresses the character, work and role of REN21. Respondents of the online survey were asked to what degree they saw REN21 fulfilling its mission statement (survey questions 3). SC interviewees were asked to describe the current role of REN21 in the institutional landscape and to compare it to other organisations. Interview respondents were also commenting on the key factors for REN21's impact.

3.1 Online survey responses - REN21 mission and character

In the online survey, participants were asked to rate aspects of the mission statement of REN21 according to their perception of it (see Figure 5).³ Respondents could rate the statement between 0 and 4. Rating options were 4 - completely agree, 3 - slightly agree, 2 - undecided, 1- slightly disagree, 0 - completely disagree and don't know.⁴

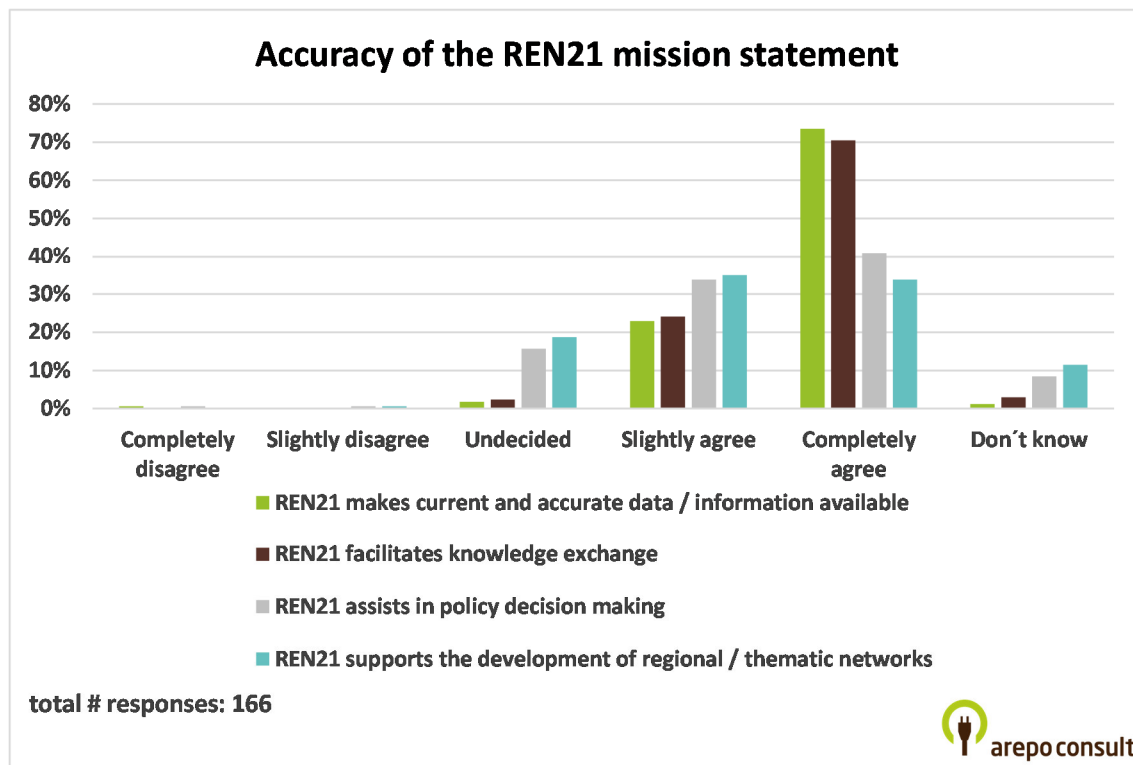
Only very few participants disagreed with any of the statements but there are gradations: The majority of respondents completely agreed with statement 1) "*REN21 makes current and accurate data / information available*" and statement 2) "*REN21 facilitates knowledge exchange.*" Statements 3) "*REN21 assists in policy decision making*" and 4) "*REN21 supports the development of regional / thematic networks*" were rated slightly lower, receiving a median rating of „slightly agree“ (3).

“REN21 making current and accurate data/ information available” and *“Facilitating knowledge exchange”* were given average ratings of *“completely agree”* (3.7). *“REN21 assists in policy decision making”* and *“Supporting the development of regional / thematic networks”* reached an average of *slightly agree* (3.2).

³ Question 3. Please rate how the following statements describe your perception of REN21's work.

⁴ The survey questionnaire can be found in Annex II.

Figure 5: Online survey: Accuracy of the REN21 mission statement



Source: REN21 contributor survey: Question 3. Please rate how the following statements describe your perception of REN21's work.

3.2 SC interviews - REN21 mission and character

In the SC interviews, members were asked to describe the current character of REN21. Properties highlighted were that REN21 is *independent* [I 3], *bottom-up* [I 11], *progressive* [I 11] *agile* [I 12], *flexible and fast and as delivering transparency* [I 13]. Interviewees compared REN21 to *an idea shop* [I 2], *a mediator* [I 3], *a coalition of the willing* [I 5 & I 9 & I 13], *a thought leader* [I 10], *a pioneer, exploring new frontiers* [I 13] but also slightly ironically as *a home for renewable energy lovers* [I 15].

One interviewee criticised that REN21 was starting to lose some of its distinguishing traits as other organisations are assuming more and more RE-friendly positions. Another interview partner perceived that REN21's importance diminished due to RE installations becoming an economic rationale and no longer a socio-political project. This implies the conclusion that the role of REN21 in their view is the promotion of more ambitious renewable energy objectives, more specifically, more ambitious than the intergovernmental organisations would be able to promote.

3.3 SC interviews – Key factors for REN21 impact

REN21 is governed by a Steering Committee with 50 members, made up of representatives of national governments, science & academia, international organisations, industry associations, NGOs and members at large. SC interviewees identified this multistakeholder character as the key strength of REN21 [I 2, I 3,

I 4, I 5, I 6, I 12, I 13, I 14]. This character is what makes REN21 “unique” [I2] and why it is a “key asset” [I 13]. One interview partner described REN21 as the “the only real multistakeholder platform that I find useful” [I 3]. The SC members also mentioned that having committed individuals within the network is decisive [I 2, I 14], another that the personal commitment of all Steering Committee members is needed [I 3].

3.4 SC interviews - REN21’s role in comparison to other actors

Since the founding of REN21 in 2004, many new actors have stepped on the global renewables’ stage. SC interviewees were invited to present their perception of the role of REN21 in the changed institutional landscape and to compare this role to

- intergovernmental organisations like IRENA and the IEA,
- global NGOs like Greenpeace or WWF,
- renewable energy business and industry associations, or
- commercial data providers like Bloomberg New Energy Finance.

Most interview partners focussed on comparing REN21 with international organisations like IRENA and the IEA but perceived its character as very different. IRENA and the IEA were described as “intergovernmental” [I2, I 3, I 4], “being on a high international institutional level [without] contact with society” [I 1], and also as “slowed down by its most reluctant members” [I 9, I 11, I 5] and “prone to political tinkering” [I 11]. One interviewee dismissed the attempt of “comparing a treaty-based [institution] with parliamentary processes to join with an NGO” like REN21 as “comparing apples and oranges” [I 15].

Interview partners identified different mandates of REN21 as compared to the international institutions or global NGOs. The understanding of IRENA’s mandate was to carry out advocacy towards its member governments. Still, eight interviewees mentioned tensions between REN21 and IRENA. Most of these expressed the desire to establish a respectful cooperation while acting in a self-confident manner and being aware of REN21’s value and achievements.

Greenpeace and WWF were understood as environmental advocacy organisations, not having renewables as their core mission. The involvement of industry partners was understood as a core difference to Greenpeace/WWF, and the fact that REN21 was not involved in scenario work [I 5].

Bloomberg New Energy Finance (BNEF) was perceived as a serious competitor by at least four interview partners [I 5, I 7 I 12, I 16]. One interviewee described the situation as “the data monopoly is gone” and pointed out that BNEF published high-quality data even earlier than the GSR [I 5]. The difference to BNEF was perceived that they were lacking the convincing interpretation of the data [I 7] and that their data was costly [I 12].

3.5 Findings - REN21 mission and character

Online respondents and interview partners had a very positive image of REN21’s past performance and thought that the network is fulfilling its mission statement. While online respondents gave the maximum rating regarding the “data and knowledge exchange character” of REN21, ratings for “assisting in policy decision making” and “facilitating knowledge exchange” were slightly lower.

The interview partners stressed the uniqueness of the multistakeholder character and pointed out that the role of REN21 remained to spearhead the promotion of renewables. The fact that so many other organisations have emerged, was perceived to be merely an expression of how important the fight for renewables is. Interviewees encouraged REN21 to not feel intimidated by this increase, but rather take it as an incentive to sharpen its character as an idea hub, coalition of the willing or pioneer. This notion was also transported in terms of how to deal with conflicts with other organisations.

4 Future work

This section presents the answers on questions addressing future areas of REN21's work. REN21 survey participants were asked to (1) suggest product improvements to existing REN21 products, express their preferences for REN21 future work emphasis in respect to (2) technologies, (3) areas of work, (4) trends, and (5) future products. SC members were asked in the telephone interviews to describe a future role and areas for future development of REN21.

4.1 Online survey responses - Product improvements

Survey participants were asked to suggest improvements to REN21 products. Only 36 of the 166 respondents made suggestions in the survey. Respondents suggested improvements in the fields of:

- Communication and outreach (10): requesting general increase in marketing of the products as well as specific changes to improve the outreach, such as “regional workshop before the final publication”.
- Data presentation (6): asking particularly for downloadable data sheets.
- Content (6): requesting more case studies, an expanded finance chapter or more emphasis on energy access.
- Strengthened regional focus (4): by presenting data of the Interactive Map for regions rather than states, or increased emphasis on a specific world region (e.g. MENA, West Africa, Europe).
- Quality (4): asking e.g. of improvements of the Data Map.
- Networking opportunities (4): expressing interest in more regional, online or face-to-face meetings.

The original answers of respondents are listed in Table 3.

Table 3: Online survey: Suggestions how to improve REN21 products

Topic	Statements from online survey (open-ended question)
Communication and outreach	10 suggestions: “Kindly market your products a bit more or better.”, “The website should be more friendly for users.”, “To make it more visible.”, “To enlarge its distribution in key countries.”, “Should be wider known.”, “Regional workshop before final publication.”, “Translate abstract in French.”, “Send products to the contributors, specially to those of Africa.”, “There is a lack of clarity as to what it is - and how its components fit together. Clarifying the marketing/messaging to fix this would be good.”

Topic	Statements from online survey (open-ended question)
Content	6 suggestions: <i>"More emphasis on learning rates (compound annual change rate of cost or prices) at the project level in both \$/W and c/kwh", "Increase scope and accuracy of energy access component that tracks off-grid decentralized renewables.", "In case of exist please use always the official information instead information provided by third part.", "GSR should reflect, that RE is not any more the attacking newcomer, but an essential integrated part of the energy system.", "Expanded finance chapter", "More case studies"</i>
Regional focus	4 suggestions: <i>"Try to focus more on the MENA region", "Would love to see overlay of interactive map at regional scale, as such a lot of forward momentum is occurring at the sub-national scale - eg South Australia, California etc", "REN21 needs to be more active in West Africa and in francophone countries", "More info on European policies"</i>
Data presentation	2 suggestions: <i>"Make a clearer index, by technology, then showing information for the world and specific regions. It is a lot of information, so, the most important is to have a good index and use keywords.", "Less text, more data and figures"</i>
Data presentation/ access	1 suggestion: <i>"Gradual move towards standardised databases across all technologies"</i>
Data presentation/ XLS	3 suggestions: <i>"More data accessible in spreadsheet form for further processing", "In our Association it would be useful to have the REN21's Data in Excel file.", "Suggest publishing .CSV or .XLSX data tables along with Infographics for academics/ researchers to use data for other purposes"</i>
Qualitative aspects	3 suggestions: <i>"You need more qualitative researchers", "Improvement of data map", "Consistency and more of expert engagement in the works"</i>
Timeliness	2 suggestions: <i>"Sometimes given information are backdated.", "More timeliness"</i>
Network expansion	1 suggestion: <i>"To link with various companies in solar."</i>
Networking opportunities	4 suggestions: <i>"To increase information about opportunity (any), regional meetings/seminars as well as newsletters", "Organize regional interactions to facilitate face-to-face knowledge exchange in partnership with some regional/local actors such as WWF and national governments", "More Webinars and groups to facilitate collaboration", "It would be great to have more in-person opportunities to meet other network members, such as Renewables Academy."</i>
Impact studies	1 suggestion: <i>"Currently I am unaware of how the GSR or other products have impacted real decisions. Further case studies would be great."</i>

Source: REN21 contributor survey: Question 7. "Do you have any suggestions how to improve REN21 products?"

4.2 SC interviews – Product improvements

Several Steering Committee members suggested to improve communication and increase the visibility of REN21 to maintain a certain media attention throughout the year [I 9, I 10, I 11, I 14] and inform contributors better of products, Webinars or events [I 11]. Interviewees were aware of the limited resources and the trade-off between communication and academic research, but hoped that more

outreach could be made possible [I 11]. Interviewees suggested explicitly to try out new innovative and interactive exchange formats such as to design “thinking workshops” [I 11] or to use Webinars for outreach [I 10, I 14].

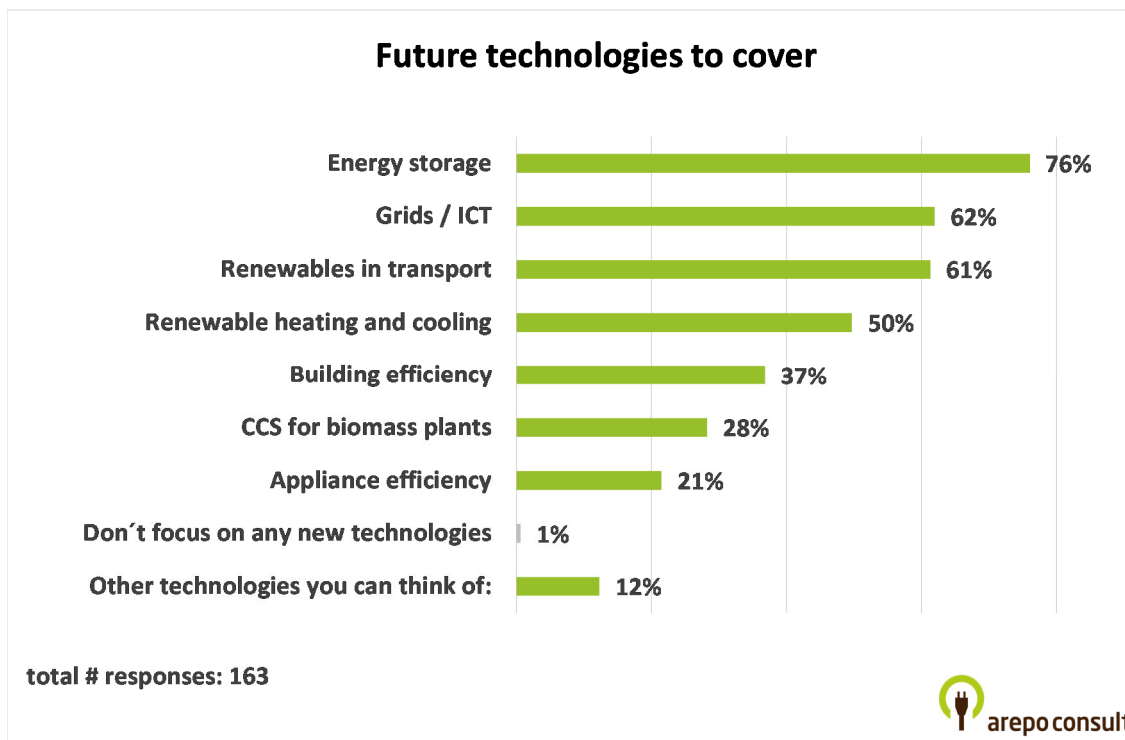
Two Steering Committee members suggested improvements to the IRECs, particularly to involve more of IRENA into the IRECs [I 10, I 16]. One interviewee suggested to create more of a legacy of each IREC and to combine it with a rotating Renewables Academy [I 10].

4.3 Online survey responses - Future areas of work

In another question, survey respondents were asked for their opinion regarding technologies that should be covered by REN21 in the future. Respondents were offered seven technology options⁵ as well as “don’t focus on any new technologies.” Participants could check all boxes and add their own suggestions. Three quarters of survey respondents (76 %) wanted to include energy storage into the REN21 focus, followed by transmission / distribution / smart grids / mini grids / Information and Communication Technology (ICT) (62 %) and renewables in transport (electric mobility, biofuels, etc.) (61 %). Detailed results are shown in Figure 6.

⁵ Technologies options offered were: (1) energy storage, (2) transmission / distribution / smart grids / mini grids / Information Communication Technology (ICT), (3) renewables in transport (electric mobility, biofuels, etc.), (4) Carbon Capture and Storage (CCS) for biomass plants (negative emissions), (5) renewable heating and cooling, (6) building efficiency and (7) appliance efficiency.

Figure 6: Online survey: Future technologies to cover



Source: REN21 contributor survey: Question 9. Please choose one or more technologies, which REN21 should include in the future.

20 respondents gave suggestions for additional technologies in the free text field. The suggestions addressed specific renewable technologies (9 suggestions), aspects of grid integration (3 suggestions), RE fuels (3 suggestions), efficiency (2 suggestions), RE costs and R&D (1 suggestion), RE in developing countries (1 suggestion) and RE acceptance (1 suggestion). All 20 additional answers are listed in Table 4.

Table 4: Online survey: Other technologies respondents mentioned for survey question 9

Suggestions by respondents (open-ended question)	
Renewable technologies	9 suggestions: "Solar thermal, water pumping", "Small hydro", "Pico PV - entry-level solar", "Concentrated solar power, for electricity and heat generation. Also CSP for water desalination", "Large-scale RE deployment trends - eg solar thermal with storage", "Low-emissions geothermal (geothermal GHG emissions can be high depending on the geology)", "Technology conversion of Biomass", "Waste and Wastewater renewable treatment solutions", "Biomass life cycle assessment approach"
Grid integration	3 suggestions: "Optimization software", "Integration of VRE into power grid; regional power grid connectivity", "Local energy management systems"
Fuels	3 suggestions: "Bio refining (when energy related)", "Fuel cell", "Power-to-gas/chemicals"

Suggestions by respondents (open-ended question)	
Efficiency	2 suggestions: <i>“We need a REN for efficiency but either need to change the name REN or create a new product line otherwise efficiency will be obscured”, “Would urge NOT to focus on non RE technologies, as it would dilute RENs core”</i>
Costs, R&D	1 suggestion: <i>“Renewables cost reduction, renewables R&D”</i>
Development	1 suggestion: <i>“Appropriate technology”</i>
Acceptance	1 suggestion: <i>“Knowledge base on acceptance of REN21”</i>

Source: REN21 contributor survey: Question 9. Please choose one or more technologies, which REN21 should include in the future.

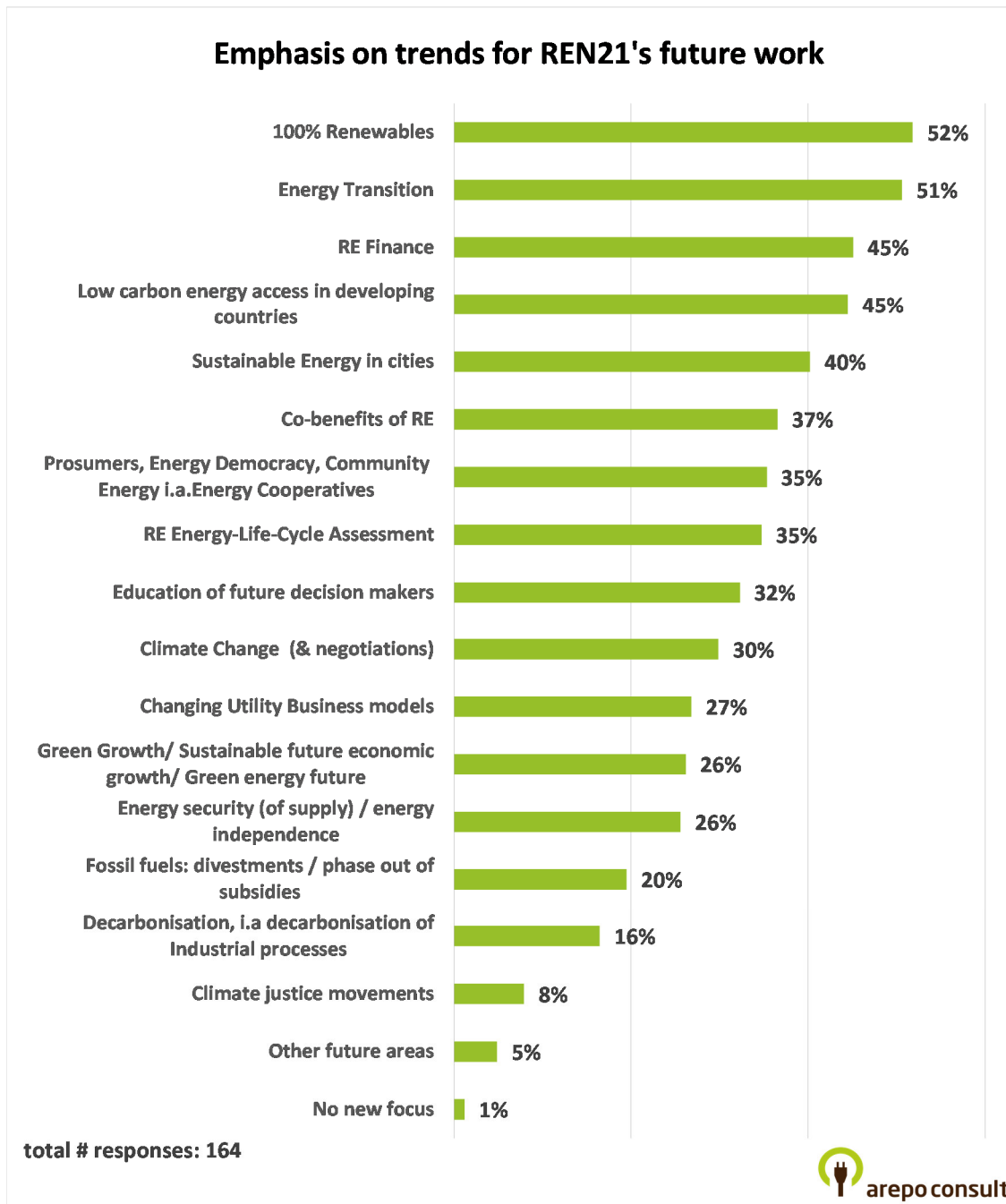
4.4 Online survey results – Future areas of work

In Question 10, survey participants were asked to identify areas of future work (Figure 7). Respondents were offered 16 different trends⁶, could choose “no new focus” or add their own suggestions. Multiple responses were permitted. The respondents considered 100 % Renewables and the Energy transition as the most important topics (52 % / 51 %), followed by RE finance (45 %), low carbon energy access in developing countries (45 %), sustainable energy in cities (40 %) and co-benefits of RE (37 %). All results are shown in Figure 7.

In addition to the 16 predefined trend topics, respondents suggested the following ideas: *“Transportation - low carbon fuels standards, Renewable energy managers in developing countries”, “Nexus water and climate”, “Innovation in all areas (technology, policy, business models, grid integration and management, etc.)”, “Holistic integrated system-level planning for transformation”, “Grid integration with renewables, commercial and cooperative”, “Corporate purchases of renewable energy” and “Co-benefits: jobs”.*

⁶ Trends offered to survey participants choose from: (1) Low carbon energy access in developing countries, (2) 100 % Renewables, (3) Prosumers, Energy Democracy, Community Energy i.a. Energy Cooperatives, (4) Energy Transition, (5) Education of future decision makers, (6) Sustainable Energy in cities, (7) Changing Utility Business models, (8) Renewable Finance, (9) Energy security (of supply) / energy independence, (10) Co-benefits of renewables, i.a. air quality improvements, (11) Fossil fuels: divestments / phase out of subsidies, (12) Renewable Energy-Life-Cycle Assessment, (13) Decarbonisation, i.a. decarbonisation of Industrial processes, (14) Green Growth / Sustainable future economic growth / Green Energy Futures, (15) Climate Change / Climate change negotiations, and (16) Climate justice movements.

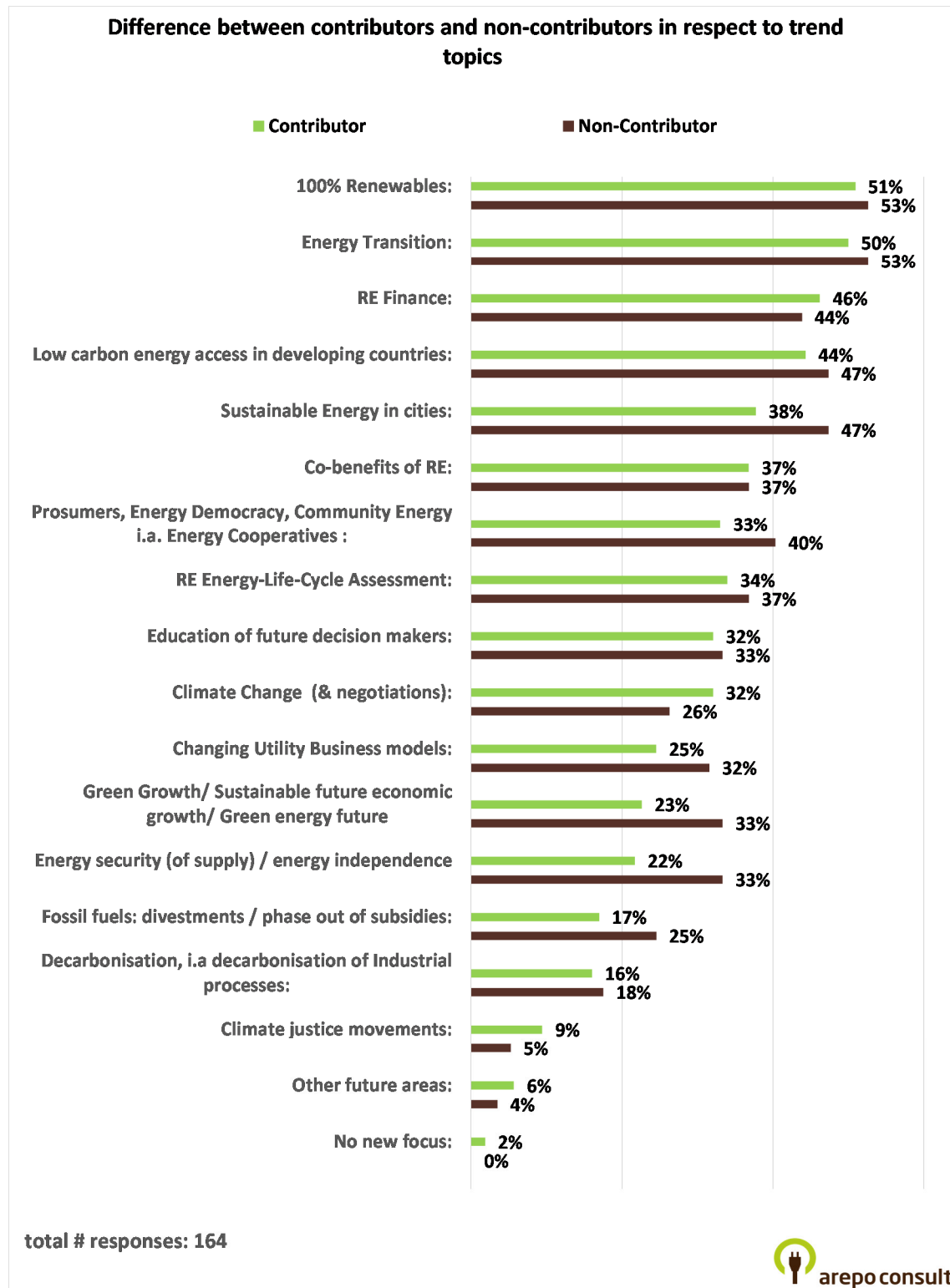
Figure 7: Online survey: Trend topics to get involved in



Source: REN21 contributor survey: Question 10. Which trends should be emphasised for REN21's future work?

65 % of respondents had contributed to REN21 in the past whilst almost one third had not yet contributed. Differences in the responses to question 10, between these two groups are presented in Figure 8. They turned out to be minor: non-contributors were more enthusiastic regarding sustainable energy in cities: 47 % of the non-contributors picked this trend, compared to only 38 % of the contributors. Energy democracy was also slightly more popular among non-contributors (40 % vs 33%). Whether or not these results are significant or reflect a systematic deviation is hard to say.

Figure 8: Online survey: Trend topics – comparison of contributors and non-contributors



Source: REN21 contributor survey: Question 10. Which trend should be emphasised for REN21’s future work?

4.5 Online survey – Future products

The online survey contained an open-ended question regarding what other products - apart from the existing - REN21 should develop in the future. Of 166 participants, only 29 suggested to introduce specific new products, 4 respondents suggested not to introduce new products (Table 5).

The suggestions that the participants gave fall into several different groups: (i.) report(s) (14 suggestions), (ii.) networking opportunities (6 suggestions), (iii.) databases (5 suggestions), (iv.) No new product (4 remarks), (v.) models (2 suggestions), (vi.) maps (1 suggestion), (vii.) capacity building (1 suggestion).

Table 5: Online survey: Suggestions for new products

Product type	Suggestions for new products by online survey respondents (open-ended question)
i. Report(s)	14 suggestions: <i>"An "Innovation Compass" outlining cutting-edge innovation in various areas needed to accelerate RE deployment", "regular updates of regional status reports", "more networking/exchange opportunities for members", "Base load myths", "Best practise case studies", "Co-benefits of renewables, i.e. Air quality improvements will justify further investments in renewables", "Deep Analysis by Key Countries", "Efficiency (as above)", "Focus on Africa", "Life cycle assessments by main regions", "Quarterly on renewable finance", "RE integration report; as a chapter in the GSR", "Renewable energy market.", "Renewable Energy Policy in Asian countries", "Rural electrification", "State of the art-thematic issue papers"</i>
ii. Networking opportunities	6 suggestion: <i>"It would be great to have more in-person meeting opportunities.", "Periodic regional gathering of sustainable energy practitioners.", "Regional workshops", "Regulatory conventions in Africa", "Renewable Academy", "Workshops bringing Technology experts together (e.g. Meetings), as an input for the GSR"</i>
iii. Databases	5 suggestions: <i>"A real cost database - IEA is wrong, IRENA is wrong, most probably due to political influence", "Funding assistance", "GIS assessment of renewable energy potential in developing countries; providing hourly series for solar and wind resources in more points within developing countries.", "Liberating data/greater transparency within existing products for other researchers (high ROI relative to creation of actual new products)", "Open database"</i>
iv. No new products	4 remarks: <i>"Products are yesterday's answer", "I am yet to exhaust the products offered", "None", "There is enough product already."</i>
v. Models	2 suggestions: <i>"Holistic cost development model re-fossil", "Models for bioenergy crops and ccs"</i>
vi. Maps	1 suggestion: <i>"SDG map, Policy map, competence map"</i>
vii. Capacity building	1 suggestion: <i>"Trainings and capacity building"</i>

Product type	Suggestions for new products by online survey respondents (open-ended question)
viii. Unspecific	3 answers: “Nil”, “Shs” [Arepo: Solar Home Systems (SHS)?], “Technology specific products.”

Source: REN21 contributor survey: Question 12. Apart from the existing products, what other products could REN21 develop in the future?

4.6 SC interview responses - Changing role of REN21

Seven interview partners called for a stronger political voice for renewables through REN21 [I 1, I 2, I 4, I 6, I 10, I 11, I 14, I 15]. Interviewees wished REN21 not be an advocacy organisation, but they expressed the desire for REN21 to “*build solid messages*” [I 1], move from being a “*bystander to carrying out analysis which policies were actually effective and which didn’t work*” [I 4, I 11], to “*deliver more case specific advice*” [I 6]. One interview partner clearly expressed the wish to embrace a position like 100 % Renewables. In his/her view, making the point that a target e.g. 100 % RE by 20XX (TBD) in power generation would give REN21 more credibility [I 10].

Two interview partners seemed slightly more cautious with respect to analysing policies in greater detail. One interviewee suggested that a global policy advice was impractical as individual country situations differed and that offering data was sufficient to motivate policy makers to go look for advice themselves [I 9]. Another interviewee shared this viewpoint arguing that the GSR was by definition a product to provide a factual overview [I 16].

Four respondents suggested a stronger advisory role of REN21 suggesting specifically for REN21 to be adopted as an advisory body to IRENA [I 10], change into more of a CTCN [Climate Technology Centre & Network] or the Clean Energy Solution Center [I 6, I 15] or to become an advisor to the UN Energy Global Partnership or a reporting agency to Sustainable Energy for All [I 14].

4.7 SC interview responses - Future areas of work

SC members were asked to elaborate on the future areas of work for REN21, particularly with respect to scope, technological focus, geographic focus, structure and approach. Four of the 16 interview partners were explicit that some reorientation of the REN21 work was needed, since providing data was not enough anymore [I 6], the data monopoly had disappeared [I 11] or because the RE development had to be communicated more widely among society as a whole [I 1, I 8].

Many SC interviewees presented specific ideas they would like REN21 to address:

- Nine interview partners mentioned new areas of specific energy aspects:
 - 100 % Renewables (including transport, heating, cooling) [I 4, I 5, I 9, I 8].
 - RE neighbouring areas [I 2].
 - Electrification of the energy system [I 3, I 16].

- Energy transition [I 1, I 7]. Two other interview partners dismissed “energy transition” as too broad [I 2, I 4].
- Financing of renewables [I 13, I 14].
- Industry applications: process heat and cooling [I 14].
- Transport transition [I 13, I 8].
- Off-grid [I 8]/ energy access [I 9].
- Digitalisation, storage technologies, etc. [I 13].
- Linking REN21 work to SDGs [I 14] or, more specifically, tracking of Goal 7 of the Sustainable Development Goals⁷ [I 13].
- System cost comparisons between conventional (including fossil fuels subsidies, health and environmental costs) and renewable energy systems [I 3].
- Implementation of (I)NDCs in the energy sector [I 13].
- Linking renewables to water, food security and health (NEXUS-program) [I 14].
- Municipalities and cities were mentioned by six interview partners [I 1, I 8, I 9, I 12, I 13, I 14]. One of them suggested to cooperate with ICLEI as well as to include one major progressive city of each continent into REN21 [I 12]. Another interview partner strongly opposed the city topic arguing that ICLEI already had the monopoly on cities [I 15].
- Energy efficiency was suggested by four interview partners [I 9, I 11, I 12, I 15]
 - Both, the IEA and the IRENA representative, strongly advised on moving towards energy efficiency with the IEA suggesting to work in collaboration with IPEEC on the topic.
 - A government representative advised the network not to pursue the goal of a “GSR energy efficiency” informing the interviewer that other players, particularly IPEEC, were better placed to address this topic [I 16].
 - Another interview partners noted that energy efficiency was only to be addressed in relationship to renewables, but not outside of it, because the data and measurements were too difficult [I 7]
- Two SC members suggested that REN21 should focus more on the regional aspects of renewables [I 8, I 9]. The respondents combined this notion with strengthened regional cooperations and expansions of the REN21 network to a more regional level.
 - Landlocked countries and LDCs [I 9]. Another interviewee argued against specifically focussing on LDCs but including them in regional perspectives.
 - Focussing on countries in transition with high emissions [I 13].

⁷ Sustainable Development Goal 7: Ensure access to affordable, reliable, sustainable and modern energy for all (<http://www.un.org/sustainabledevelopment/energy/>)

Some interview partners were suggesting a work process to the select new areas. Among those was to look at a paper from the Bureau [I 6] or the 1st Global Futures Report by Eric Martinot [I 16] for inspiration. Another suggestion was to start a structured process to identify future activities. This process was supposed to be allocated at a sufficiently senior level and not only on the working-level [I 13].

4.8 Summary - Future work

In order to sharpen its profile and improve the awareness for its products, a number of future areas of work, trends and technologies have been identified in the assessment. In line with the high agreements with the statements “REN21 assists in policy decision making” and “REN21 supports the development of regional / thematic networks” the online respondents emphasize to increase opportunities for networking (e.g. face-to-face exchange, Webinars etc.) and some SC members suggest to strengthen the analysis-based policy recommendations.

Respondents of the online survey considered *100 % Renewables* and the *Energy transition*, followed by *RE finance*, *low carbon energy access in developing countries*, *sustainable energy in cities* and *co-benefits of RE* as the most important areas of future work. In respect to new technologies, survey respondents wanted to include energy storage, issues of energy grids (transmission, distribution, smart grids, ICT) and renewables in transport.

This corresponds well with the responses from the SC members who were very happy to elaborate extensively on the future role of REN21. SC members also emphasized the questions associated with the idea of “100 % Renewables”, including sustainable transport, heating, cooling or overall system questions. Municipalities and cities – platform and intersection for almost all energy issues as well as important players in renewables policy making and implementation - were also very important to SC members. While energy efficiency was highlighted by four SC members as the most important issue today, this notion is neither shared by the other SC members nor by the online survey respondents: Only 37% and 21% of online survey respondents suggested to focus on building efficiency and appliance efficiency respectively, much less than for issues like 100 % Renewables.

5 Future network expansion

The questionnaire included a question of participants, which – if any – new communities they wanted REN21 to include. Interviews with SC members largely focussed on areas of future development, thereby touching upon the question of a network expansion.

5.1 Online survey – New communities to involve

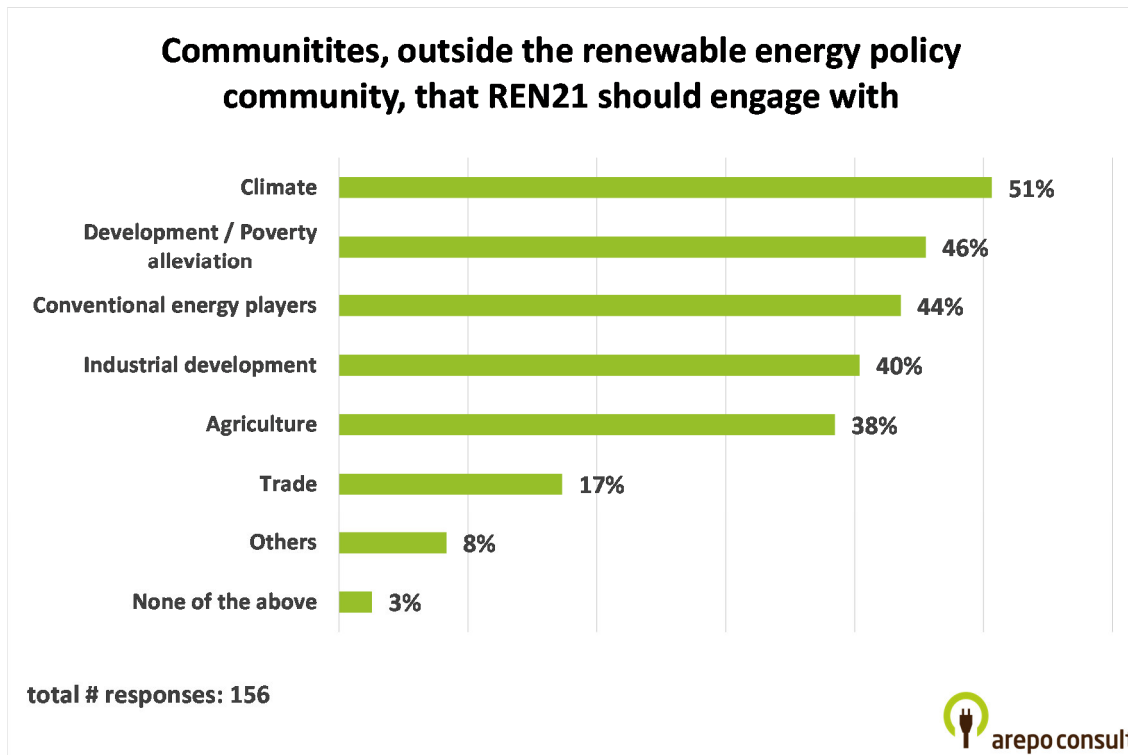
Online survey participants were asked to pick new communities REN21 should open up to. They were offered six communities⁸ to choose from, to make their own suggestion or to dismiss any of the suggested

⁸ Communities to choose from: (1) Conventional energy players, (2) Agriculture, (3) Trade, (4) Industrial development, (5) Climate, or (6) Development / Poverty alleviation.

communities. The majority of respondents wanted to include the climate community (51 %), followed by the community working on development and poverty alleviation (46 %) and by conventional energy players (44 %). See Figure 9 for the complete results.

13 respondents provided suggestions for other communities, ranging from the nuclear community to indigenous and climate justice movements.⁹

Figure 9: Online survey: Communities to engage with



Source: REN21 contributor survey: Question 11. Which community, outside the renewable energy policy community, should REN21 engage with, if any?

5.2 SC interviews – Expansion of the network

When asked in which direction the network should develop, interviewees typically suggested involving specific target groups rather than topical communities. Several interviewees suggested to involve more private sector actors [I 2, I 8, I 13, I 12, I 14] like financial institutions [I 13], energy utilities [I 9] but also progressive, large energy consumers like Google [I 12] being mentioned explicitly. One interviewee

⁹ Respondents further on suggested the following 13 communities to engage with: (1) "Cattle raising", (2) "Forests and related industries", (3) "Water", (4) "Nuclear community", (5) "Ecological NGOs", (6) "Education", (7) "Government to change energy dev. Policies", (8) "I think there's a need to more aggressively engage the financial market so as to realize RE projects", (9) "Information and communications technology (ICT)", (10) "Indigenous and climate justice movements are leading regional and global initiatives to shift from fossil fuels to clean renewable energy", (11) "Transport, grid operators and regulators, tech companies", (12) "Transport: public and private", (13) "Women, youth, persons with disabilities".

suggested to involve the Green Climate Fund (GCF) and specifically to involve its Executive Director [I 8], another to involve UNIDO and UNDP [I 9] who are already members of the Steering Committee but have global networks of country offices. Two interview partners suggested to involve more governments [I 4] or considered continued government involvement as crucial [I 7]. One interviewee suggested including individual members and changing REN21 into more of a professional network but also to tie in more universities and think tanks as the way forward [I 2].

Two interviewees suggested expanding REN21 to the regional level [I 9] or even starting local / national networks [I 8]. But when confronted with the idea of expanded regional networks or even regional subnetworks, other members were cautious and noted that the funding for such an expansion was not available [I 9, I 10, I 14, I 12]. If funding could be clarified some SC members were generally open to the idea of REN21 coordinating regional networks or giving them a framework [I 10].

One interviewee suggested using the network ability more to target the people, the citizens and particularly modern day prosumers [I 1]. The interviewee claimed that REN21 should bridge the gap between RE experts and society and translate the message of the energy transition for “normal” users. As part of this process, REN21 should in particular address municipalities as multipliers, instead of focussing too much on high-level actors and people within the close-knitted renewables community [I 1].

5.3 Summary – Expansion of the network

Currently REN21 covers 16 NGOs, 13 members from industry associations, 5 members from science and academia, 9 government members and 10 international organisations (see 3.9).

Survey participants were asked which communities to include in the REN21 network. Of six options offered, the majority of respondents wanted to include the climate community, followed by development/poverty alleviation and conventional energy players.

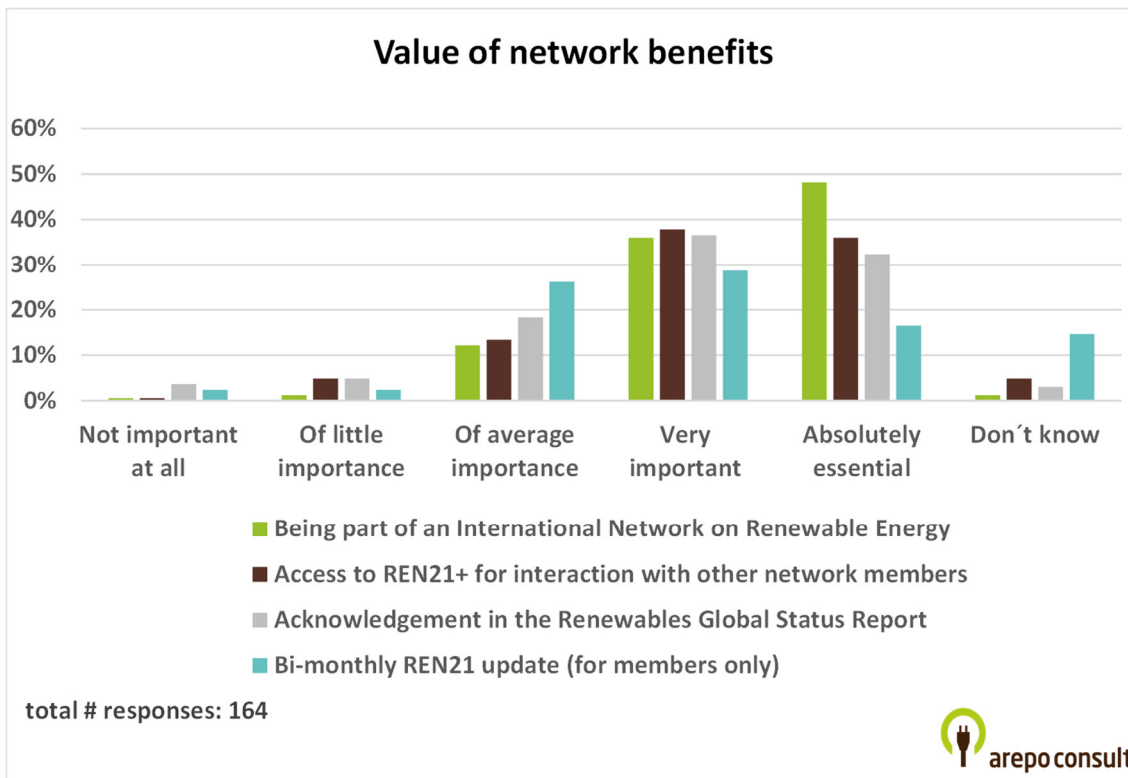
Many of the SC members suggested to get more private sector actors (energy utilities, finance, energy consumers) involved. The suggestion of involving cities and municipalities was brought up frequently as well. Other suggestions were to involve the GCF, UNIDO, UNDP, more governments and think tanks and universities.

6 Value of the network to contributors and future contributions

In an additional question online survey participants were asked to rate the value of the following network benefits for them: (1) *Being part of an International Network on Renewable Energy*, (2) *Access to REN21 for interaction with other network members*, (3) *Acknowledgement in the Renewables Global Status Report*, and (4) *Bi-monthly REN21 update (for members only)*. Answers were possible on a scale from 0 (not important at all) to 4 (absolutely essential).

The median rating was 3 (very important) for all statements, with the argument of “Being part of an International Network on Renewable Energy” being the strongest and “Access to REN21+” for interaction with other network members the second strongest argument on average.¹⁰

Figure 10: Online survey: Rating of network benefits

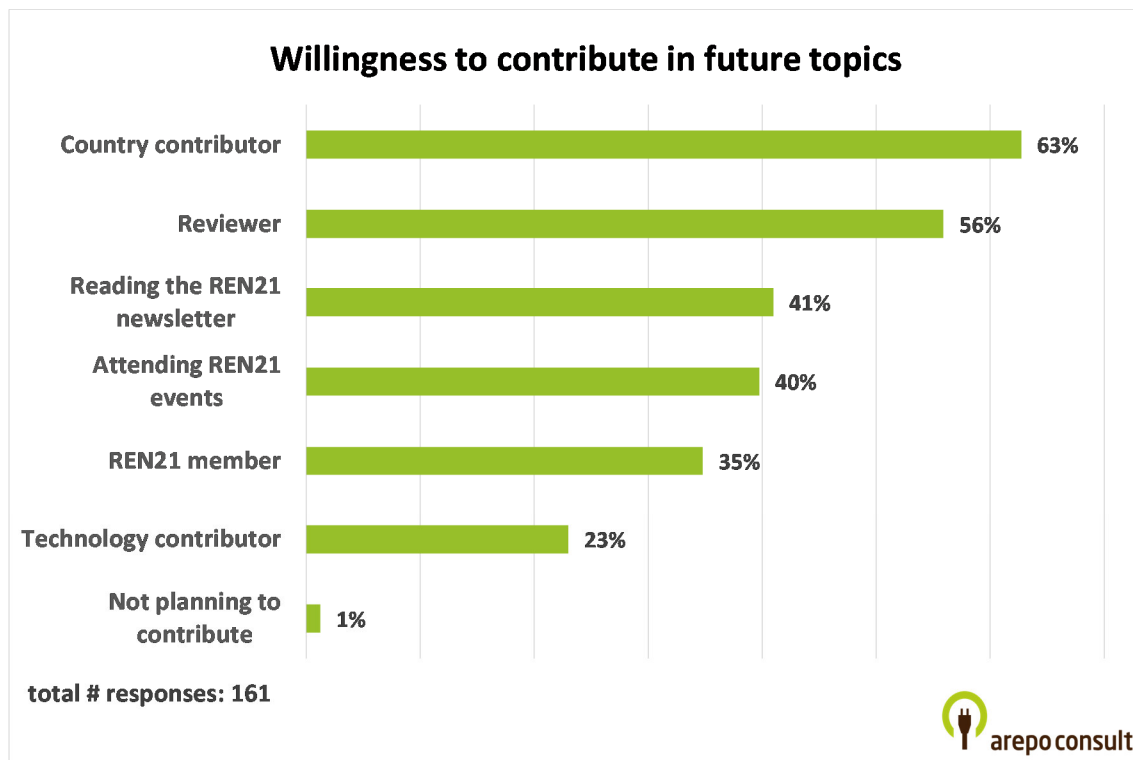


Source: REN21 contributor survey: Question 14. How would you rate the value of the following network benefits for you?

In a final question, we asked participants whether they could imagine to contribute to new REN21 products and if yes, in which fields. The fields offered were as (a) *country contributor*, (b) *reviewer*, (c) *reading the REN21 newsletter*, (d) *attending REN21 events*, (e) *a member of REN21*, or as (f) *technology contributor*. See the results in Figure 11. Survey participants were most enthusiastic to be contributors (63 %), reviewers (56 %), reading the REN21 newsletter (41 %) and attending REN21 events (40 %). Respondents who had already contributed to REN21 in the past (105 respondents) and non-contributors (57 respondents) did not differ significantly in their answers, except for the willingness to be a reviewer. Past contributors were more willing (63 %) than non-contributors to be a reviewer (44 %).

¹⁰ The network benefits of „being part of an international network on renewable energy” has an average of 3.3, “access to REN21 for interaction with other network members ” has 3.1, “acknowledgement in the renewable Global Status Report” has 2.9 and “bi-monthly updates” have an average of 2.7.

Figure 11: Online survey: Willingness to contribute to future topics



Source: REN21 contributor survey: Question 13. Could you imagine contributing to new REN21 products? If yes, in which fields?

6.1 Summary - Value of the network

The services provided by the network were considered to be very important to respondents. Overall they also showed a high willingness to contribute to future products, particularly as country contributors.

7 Alternative funding opportunities

The consulted members of the SC saw funding as a major aspect of addressing future areas of work. Diversification of funding was at the heart of the discussion with interviewees. The Steering Committee members suggested the following options to increase the funding base of REN21 and to reduce the dependency on the German government: (1) membership fees, (2) industry sponsoring, (3) other sources of public/ foundation money and (4) offering of services.

In terms of the approach, one interview partner stressed that to collect a series of small contributions would add up to stabilizing REN21. In this context, the interviewee suggested to make certain non-core activities depend on this additionally collected funding.

- (1) Membership fees were dismissed by most respondents. One interview partner suggested two membership tiers where certain members, like institutions and industry, contribute more than others, like NGOs or developing countries [I 10].
- (2) Industry sponsoring was viewed as a way forward by seven SC members as long as conflicts of interest could be contained [I 1, I 7, I 8, I 9, I 10, I 13, I 16]. One interview partner considered it

“tricky” to contain private interests and pointed out that the UN had run into a lot of problems to safeguard their impartiality [I 9].

- (3) Additional funds from governments, foundations, but also from climate finance institutions like the GCF were considered easier to obtain [I 8, I 16].
- (4) Other ideas were to make REN21 more of a service provider. Paid for its services such as tracking SDGs for international climate finance institutions, being paid for advisory services and providing experts [I 6, I 10, I 14] like CTCN or the Clean Energy Solution Center. Potential clients, according to the suggestions of the SC members, could be IRENA, SE4All or UN organisations.

One interview partner viewed the task of collecting funds, particularly from other government, to lie with the SC. But they would need documents and proposals from the Secretariat to do so [I 16].

7.1 Summary - Funding of REN21

SC members were concerned with the financial stability of REN21 and made a series of suggestions to diversify the money by providing services as a policy advisory, collecting money from private sponsoring, government or international organisations.

8 Recommendations

8.1 Role of REN21

SC interview partners considered the role of REN21 as crucial to speed up the deployment of renewables and to act as checks and a pioneer to other organisations. With the success of renewable energy globally, the international stage becoming more crowded and the RE data monopoly gone, several SC interviewees perceived it as necessary to make changes to the current model. These changes should from our viewpoint include a systematic approach on a senior level to decide on a future work plan.

8.2 Products

In the course of the assessment we found great enthusiasm for REN21 products among its contributor network and the Steering Committee. Particularly the GSR was almost universally known and considered as absolutely essential for participants’ work. Some products, particularly the IRECs, the data maps and the Webinars might benefit from increased marketing to make them more widely known. Particularly future overlaps with the IEA / IRENA Renewable Energy Policy and Measures Database should be observed.

For the new themes and scopes to cover, the online survey and SC interviewees also provided a clear recommendation: They were largely grouped around the theme of “100 % Renewables”. This offers a variety of interesting aspects, including energy storage and grids, but also how renewables can provide energy for non-electricity energy services like transportation, heating and cooling including in industrial applications.

8.3 Expansion of the network

In line with the expansion of the topics, the network should also be expanded. A focus on 100 % Renewables requires to look into other energy forms, i.e. new technologies (conversion, transmission and consumption), stakeholders and contributors. The network's expansion should be guided by these underlying thoughts, and consider including policy makers, industry representatives, researchers and potentially competence on the demand side as well.

Looking at the representation of these themes on a global level, some thinking and choosing is to be done. Not all of these fields have globally acting networks, association or representation that could function as focal point. Interview partners who suggested to expand the network to the private sector including energy users, individual industry members, finances and energy utilities. REN21 currently only has industry association members. In this dimension, the network could expand to include progressive industrial-sized prosumers and energy consumer associations. It should also strive to include representatives from the grid management and regulation sectors.

To keep the balance the range of NGOs and Science and Academia organisation should also be expanded, by those that provide neutral advice and proactive research in the fields related to 100 % Renewables. This does not only refer to scenario modelling but also to the policy fields of heat, buildings, cities, and clean transportation.

It should be considered to expand the representation of cities and sub-national governments as well. As described above, sub-national policy makers are often tasked to provide the local framework conditions for renewables deployment, but are often even more constrained in their options and capacity as well as financial means. In addition, there is a gap of relevant policy research and advice for the subnational level.

Last but not least, a more active linkage with the climate change community can leverage the new momentum in that community for mutual benefits. Lessons from 20 years of renewable energy policy need to be updated in light of the new cost effectiveness of renewable energy, and actively disseminated in that community as countries start considering how to formulate and implement Nationally Determined Contributions (NDCs). The existing success stories in the renewable energy policy field can inform these governments' Climate Change Focal points (i.e. mostly the Ministries for Environment) as well as the Ministries for Finance and Planning and encourage more ambitious renewable targets and action.

8.4 Funding

New frontiers require new funds. The Secretariat and Steering Committee should take this opportunity of a substantive reorientation to also reconsider new sources of funding. The internal discussion has pointed to government funding from OECD governments as the most neutral and relevant funding source.

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Annex I: Specific proposals on potential network expansion

Large prosumers that were mentioned in the interviews were Google, Microsoft¹¹ or Tesla.¹² The logic could be expanded to large heat consumers and should also be expanded to prosumers from outside of the US, including but not limited to Europe, China and India.

In terms of the finance industry REN21 could work together with actors grouped around the Green Bond Principles or actors committed to divestment such as HSBC (who is also committed to carbon neutrality in all its operations).¹³

Box 2: Green Bond Principles

The Green Bond Principles aim at standardising practices for issuers and investors and improving transparency in the Green Bond Market. Large investors, bond issuers and intermediaries including Bank of America Merrill Lynch, Citibank, Credit Agricole, JP Morgan Chase, Goldman Sachs, HSBC and SEB are supporting these principles. The International Capital Markets Association (ICMA) is serving as the Secretariat for the Green Bond Principles.

REN21 already has one NGO member solely dedicated to sustainable transport (Partnership on Sustainable Low Carbon Transport-SLoCat). Most other partners are active only on a regional level, and on a project basis.

The area or cities/ municipalities was mentioned by six interview partners and by 40 % of survey respondents. Cities and municipalities were considered to be important, since they are a testing ground for 100 % Renewables. However they should only be addressed by REN21 in relationship to the energy context. In the area of urban development and progressive cities, REN21 could build a partnership with ICLEI which in turn is closely connected to the Covenant of Mayors.

With respect to the notion of entering the field of energy efficiency, brought up by four SC members. We share the notion that though cooperation with organisations such as IPEEC could be possible, a field like energy efficiency would need to be addressed by an equivalent of REN21 in the energy efficiency field. The initiative and the funding for such an Energy Efficiency Network of the 21st century would probably need to come from government actors.

If REN21 was to engage further in energy efficiency, it should take up offers made by the IEA representative to collaborate with the IEA and IPEEC but possibly also with NGOs such as CLASP. The initiative and the adequate funding for a Global Status Report Energy Efficiency or an Energy Efficiency Network of the 21st century would in our view need to come from government donors.

Online users suggested to include more organisations of the climate community to engage with could be the UNFCCC, IPPC or the Potsdam Institute. The most important actors in the field of development and

¹¹ Microsoft has been 100% powered by renewable energy since 2014 (<http://there100.org/microsoft>) .

¹² The Tesla battery factory in Nevada is aiming at achieving carbon neutral operations. <http://www.treehugger.com/renewable-energy/teslas-gigafactory-will-produce-much-renewable-energy-it-uses-net-zero-energy.html>

¹³ See for example the 2015 HSBC Report on divestment: <https://www.research.hsbc.com/midas/Res/RDV?p=pdf&key=l6wwwvBhH8M&n=448964.PDF>

poverty alleviation are SE4All and UNDP, with whom REN21 is already in contact or organisations such as Global Network on Energy for Sustainable Development (GNESD), Lighting Africa or African Renewable Energy Alliance (AREA). Among energy utilities, the most progressive ones would naturally serve best to engage with within REN21. Energy Intelligence regularly published the Top 100 Green Utilities.¹⁴

¹⁴ EI NEW ENERGY (2015) EI New Energy Top 100 Green Utilities.

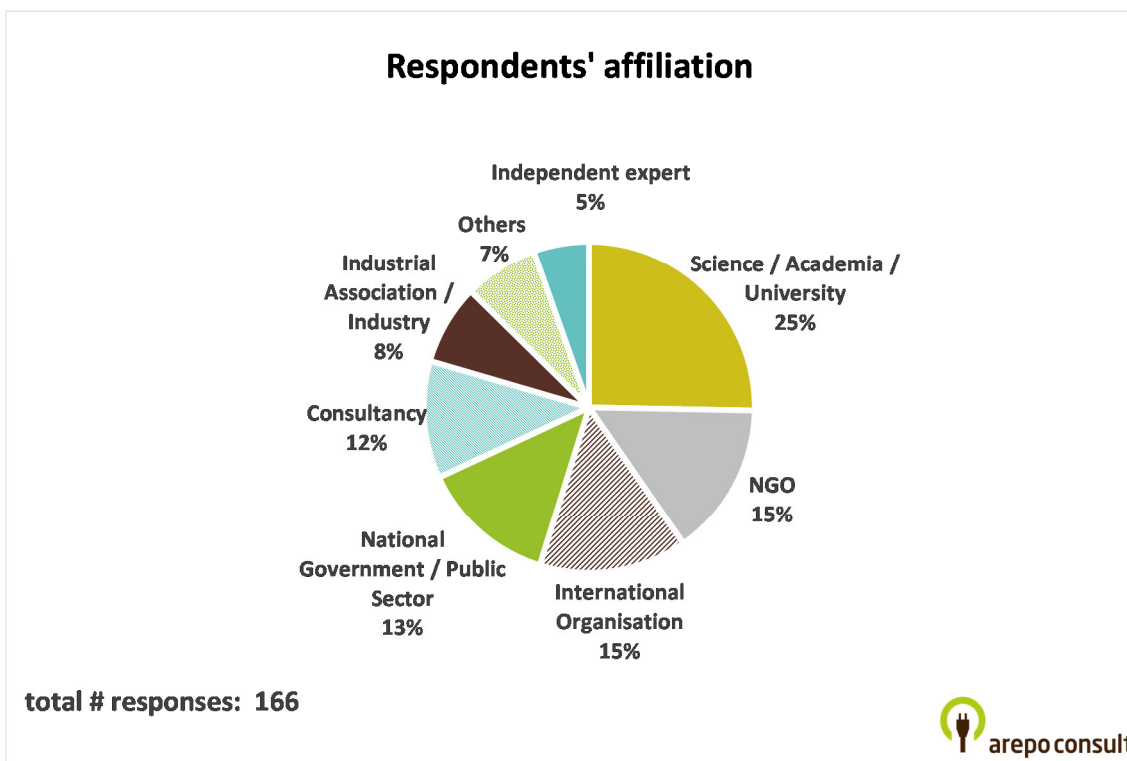
Annex II- Methodology

Survey among REN21 contributors

In September 2016, REN21 sent out an online survey to its network and contributors (about 2000 recipients) of which 166 completed an online survey with 14 questions (please find the questionnaire in Annex II).

Respondents were affiliates to science & academia (25 %), NGOs (15 %), international organisations (14 %), national government/ public sector (13 %) and consultancies (11 %) (see Figure 12).

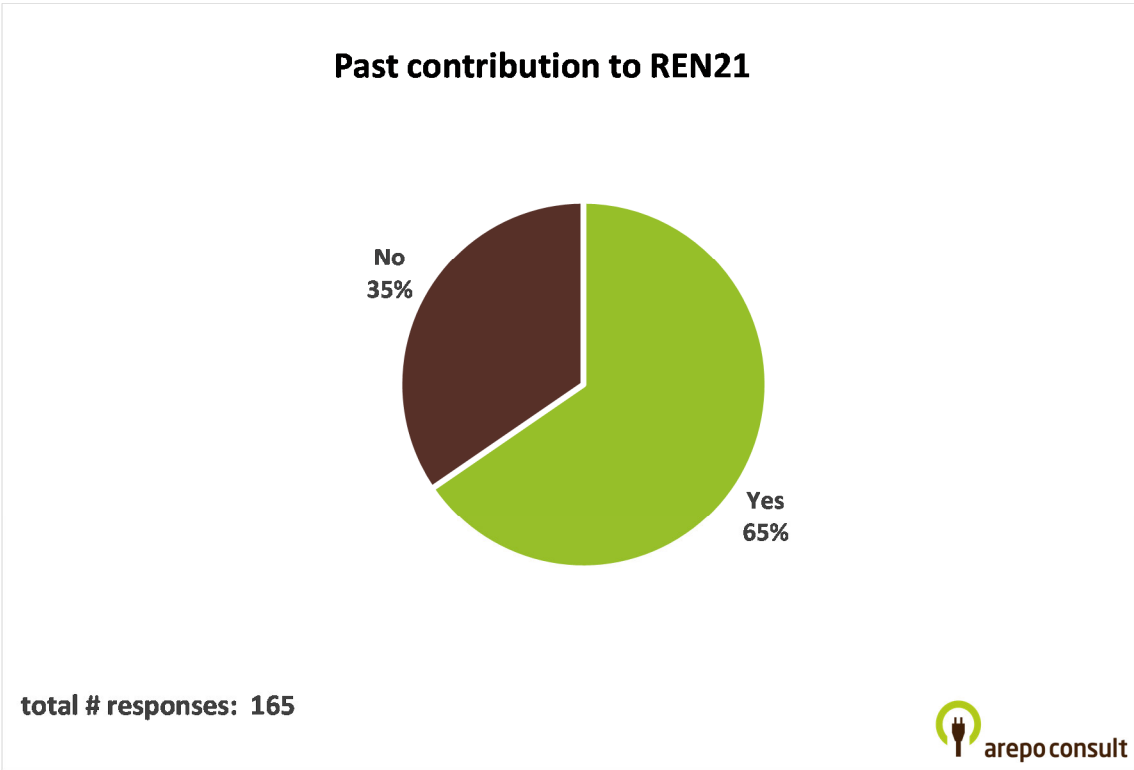
Figure 12: Online survey: Respondents' affiliation



Source: REN21 contributor survey: Question 1. Which of the following groups best describes your affiliation?

As a sorting question, we asked recipients whether they had previously contributed to REN21 publications. 65 % of respondents had contributed to REN21 in the past whilst almost one third had not yet contributed (see Figure 13).

Figure 13: Online survey: Share of contributors among respondents



Source: REN21 contributor survey: Question 2. Have you contributed to REN21 publications in the past?

Interviews with REN21 Steering Committee members

At the beginning of September 2016, 16 interviews were carried out among selected members of the REN21 Steering Committee. These semi-structured interviews (see Table 6) addressed the participants' views on the value added by REN21 in the institutional landscape now and in the future.

Key areas of the interviews were:

- Role/ Added value of REN21 in institutional landscape and its complementarity with industrial associations/ NGOs/ other stakeholders
- Future areas of activity for REN21
- Funding options for REN21

Interviewees were asked different sets of questions to limit the interview time to 30-45 minutes.

Table 6: Interview questions for the Steering Committee members

Interview questions (semi-structured)	
How would you describe the current role of REN21 in the institutional landscape?	
	○ As compared to intergovernmental organisations like IRENA and the IEA?
	○ As compared to global business associations/ commercial data providers like Bloomberg New Energy Finance?
	○ As compared to global NGOs like Greenpeace or WWF?
What is the added value of REN21 for your association / institution / stakeholder group?	
What was the impact of REN21 in the past?	
	○ Which REN21 products have the highest impact?
	○ How can its products be improved?
What can be a future role?	
	○ What are REN21's strengths?
	○ And weaknesses?
What are areas for future development? In terms of...	
	○ Scope?
	○ Technological focus?
	○ Geographic focus?
	○ Should REN21 change structurally?
	○ In the REN21 approach/ products?

Source: own table

Affiliation of the interview partners of the Steering Committee

- [I 1] NGOs
- [I 2] Business / Industry Associations
- [I 3] Business / Industry Associations
- [I 4] Business / Industry Associations
- [I 5] Members At Large
- [I 6] International Organisations
- [I 7] Science and Academia
- [I 8] Members At large
- [I 9] Governments / Policy Makers
- [I 10] Governments / Policy Makers
- [I 11] NGOs
- [I 12] International Organisations
- [I 13] Governments / Policy Makers
- [I 14] International Organisations
- [I 15] International Organisations
- [I 16] Governments / Policy Makers

Interview Summaries

When time allowed we were able to collect a summary of the interviewees' position at the end of each interview. The following table contains the collected summary statements.

Table 7: Summary of Steering Committee interviews

Interview summaries	
Interview 3	REN21 is still the only real multistakeholder platform that I find useful: we have governments, we have industry, we have NGOs and some academics, and that's unique and highly valuable as a network and to give a more independent perspective on the RE status.
Interview 4	The basic structure is in the right direction with the exception of a lack of a government role. More impact with policy analysis and policy recommendations. REN21 should not only be a silent bystander to RE development, but should formulate research-based policy recommendations.
Interview 5	The uniqueness of REN21 which we don't find in any other organisation is that it's a multistakeholder organisation with great flexibility differing from government institutions and different from NGO-organisations. This has been an asset in the past and will be in the future.
Interview 7	Use the mixed membership to outcompete the other organisations.
Interview 8	I would like to see REN21 build upon this trend of the last decade and to expand further into the future to continue to be a major player in the RE field particularly in relation to climate change and sustainable development.
Interview 9	I think the focus should be on the Least Developed Countries (LDCs) in particular on land locked countries. And it should be on big infrastructure projects that are now under way, most importantly the silk road initiative, that infrastructure should be put in place in such a way that it is promoting the transition to a low carbon energy systems. The second direction should be young people. In terms of substance it should be more energy efficiency and a focus on the urban context.
Inteerview 10	The notion of sub-networks would be supported from my side if there were meaningful outputs and funding for a few years attached to this. Maybe we could host the Renewables Academy in one of the regions and maybe as an output of that we could maybe find 5 candidates in an MBA after that at e.g. Beuth. IRECs should be supported by a legacy in that region. For developing countries it would help if REN21 acted as an incubator from a policy point of view. The introduction of the feed-in tariffs in developing countries should be pushed.

Interview summaries	
Interview 11	I believe REN21 is filling an important gap with the GSR but times change and it needs to adapt. REN21 should strengthen its communication and outreach work, work more on energy efficiency as the other side of the coin, should work based on science and analysis on policies, particularly those that have failed compared to those that worked, it should continue working on regional reports, they should strengthen their communication, without sliding into advocacy, but providing analysis of other people's work like on projections or costs.
Interview 13	Currently, REN21 is not competing with other organisations. At least for the next ten years, REN21 has an important role.
Interview 14	The biggest value of REN21 lies in providing high quality information, analysis, contributing to the global debate (renewable markets and technology). Highlighting best practices and facilitating learning. REN21 should remain focused to remain relevant.
Interview 15	We need to acknowledge the great contribution that REN21 has made in the last 10 years for renewables. For the future the model has to change. It's different times with different needs. REN21's biggest wealth is its amazing network with committed individuals. REN21 has to reach out to its network to see how to reinvent itself.
Interview 16	<p>The strength of REN21 is its network, which should be maintained and increased. And it should think about connecting its network to others. Maybe REN21 could offer IRENA something as their coalition of action does not seem to be too promising. There is an industry advisory board by the IEA that could be connected with.</p> <p>2. Products: It seems sensible to move away from pure generation to system considerations. This would need to be discussed. The GSR is convincing due to its simple, large amounts of data. It should stick to the current format. I would advise against extending the report to 300 pages and to dilute it. If you dig deeper, at some point you are at the WEO.</p> <p>3. Regarding the question of finance Germany is financing 80-90 %. This makes REN21 prone to a shortfall in payment on the side of Germany. The diversification of the basis would be important to increase security.</p>

Annex III: REN 21 Survey among network and contributors



REN21 Impact Assessment

Dear REN21 Contributors,

REN21 has contracted Arepo Consult to carry out a survey among REN21 contributors to receive feed-back on REN21 past and possible future activities. Your input would be highly appreciated.

Feel free to approach us with questions at ren21@arepo-consult.com.

Thank you very much for your support!

1. Which of the following groups best describes your affiliation?

- National Government / Public Sector
- Parliament
- International Organisation
- Industrial Association / Industry
- NGO
- Science / Academia / University
- Journalism
- Consultancy
- Independent expert
- Others (please specify)

2. Have you contributed to any REN21 publications in the past?

- Yes
- No

3. Please rate how the following statements describe your perception of REN21’s work:

	Completely agree	Slightly agree	Undecided	Slightly disagree	Completely disagree	Don’t know
REN21 makes current and accurate data / information available	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REN21 facilitates knowledge exchange	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REN21 assists in policy decision making	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REN21 supports the development of regional / thematic networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

4. For which purposes do you use REN21 products and services?

- General reading / background information
- Academic research
- Identification of investment opportunities / markets
- Engaging with international renewable energy experts
- Support of arguments and debates / lobbying
- Guidance and advisory on renewable energy policy
- Increase visibility of individual expert / organisation

Others (please specify)

5. If you know any of the following REN21 products, please rate them according to the importance for your work.

	Absolutely essential	Very important	Of average importance	Of little importance	Not important at all	Don’t know the product
Renewables Global Status Report (GSR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Renewables Global Futures Report (GFR)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Renewables Interactive Map incl. Regional Dashboards	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Absolutely essential	Very important	Of average importance	Of little importance	Not important at all	Don't know the product
Regional Status Reports	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Biennial International Renewable Energy Conference (IREC)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Renewables Academy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REN21's Quarterly Newsletter	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
REN21 Website	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

6. In what format do you currently use REN21 material?

- Printed brochures
- Digital brochures (in pdf format)
- Digital brochures (e-reader, microsite)
- Data Maps
- Infographics
- PowerPoint presentations
- Webinars
- Others (please specify)

7. Do you have any suggestions how to improve REN21 products?

8. Do you perceive the following products as not related, complementary or overlapping with REN21 products?

	Not related	Complementary	Overlapping	Don't know the product
IEA Medium Term Renewable Energy Market Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	Not related	Complementary	Overlapping	Don't know the product
IEA World Energy Outlook <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IEA Energy Efficiency Market Report <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IEA / IRENA Renewable Energy Policy and Measures Database <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IRENA REMap 2030 <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IRENA REthinking Energy <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IRENA Renewable energy and jobs <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IRENA Renewable energy cost analysis <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
OECD Green Growth and Energy <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
FS-UNEP Centre Global Trends in Renewable Energy Investment <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Worldwatch Environmental Reports <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WRI Assessing the Post-2020 Clean Energy Landscape <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
International Science Panel on Renewable Energy (ISPRES) Research and Development on Renewable Energy <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
IPCC Special Report on Renewable Energy Sources and Climate Change Mitigation (SRREN) <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
WWF Report 100% Renewable Energy Report Series <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Greenpeace Energy (R)evolution Series <input type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

9. Please choose one or more technologies, which REN21 should include in the future.

- Energy storage
- Transmission / Distribution / Smart Grids / Mini Grids / Information Communication Technology (ICT)
- Renewables in transport (electric mobility, biofuels, etc.)
- Carbon Capture and Storage (CCS) for biomass plants (negative emissions)
- Renewable heating and cooling
- Building efficiency
- Appliance efficiency
- Don't focus on any new technologies
- Other technologies you can think of:

10. Which trends should be emphasised for REN21's future work? Please choose one or more topics.

- Low carbon energy access in developing countries
- 100% Renewables
- Prosumers, Energy Democracy, Community Energy i.a. Energy Cooperatives
- Energy Transition
- Education of future decision makers
- Sustainable Energy in cities
- Changing Utility Business models
- Renewable Finance
- Energy security (of supply) / energy independence
- Co-benefits of renewables, i.a. air quality improvements
- Fossil fuels: divestments / phase out of subsidies
- Renewable Energy-Life-Cycle Assessment
- Decarbonisation, i.a. decarbonisation of Industrial processes
- Green Growth / Sustainable future economic growth / Green Energy Futures

- Climate Change / Climate change negotiations
- Climate justice movements
- No new focus

Other future areas you can think of:

11. Which community, outside the renewable energy policy community, should REN21 engage with, if any?

- Conventional energy players
- Agriculture
- Trade
- Industrial development
- Climate
- Development / Poverty alleviation
- None of the above
- Others (please specify)

12. Apart from the existing products what other products could REN21 develop in the future?

13. Are you planning to continue to contribute to REN21 products and activities? If yes, in which role?

- Reviewer
- Country contributor
- Technology contributor
- Attending REN21 events
- Reading the REN21 newsletter
- I am interested in becoming a member of REN21
- Not planning to contribute

14. How would you rate the value of the following network benefits for you?

	Absolutely essential	Very important	Of average importance	Of little importance	Not important at all	Don't know
Being part of an International Network on Renewable Energy	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Access to REN21+ for interaction with other network members	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Acknowledgement in the Renewables Global Status Report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bi-monthly REN21 update (for members only)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Others (please specify)	<input type="text"/>					