SWISS WIND ENERGY
R&D NETWORK

The Swiss Wind Energy R&D Network Annual Report 2021

Authored by the Management Board

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Contents

SWISS WIND ENERGY
R&D NETWORK

1. Introduction

The Swiss Wind R&D Network was founded with the founding meeting on 06.02.2020. The Articles of Association can be found attached. We currently have a total of 168 members, 50 of whom are abroad.

The current members of the Management Board are: Sarah Barber, OST (president); Imad Abdallah, ETHZ; Ruth Schmitt, FHNW; Ursula Dubois, Sociolution GmbH; Georg Traxler-Samek, FHNW; Anastasios Vassilopoulos, EPFL; Karen Mulleners, EPFL; Bernhard Brodbeck, Winji AG; Alexander Oudalov, Hitachi Power Grids; Stefano Grassi, Gilytics AG. The current members of the Advisory Board are: Henrik Nordborg, OST; Andrew Clifton, enviConnect.

The activities of the Management Board are split into seven different working groups, and the achievements within each of these working groups in 2021 is described in the next section.

2. Working groups

The activities of the association are split into the following working groups (coordinators in brackets):

- WG1: Administration and coordination (lead: Sarah Barber).
- WG2: Events (lead: Karen Mulleners).
- WG3: Projects (lead: Sarah Barber).
- WG4: Teaching (lead: Georg Traxler-Samek).
- WG5: Fund-raising (lead: Sarah Barber).
- WG6: Accounts (lead: Ursula Dubois).
- WG7: Diversity, Equity and Inclusion (lead: Sarah Barber).

The achievements of each of these groups in 2021 is shown in the following sections. The work we are planning for 2022 is summarised in the separate document *Network_Plan_2022.pdf*, along with the planned budget.

2.1 WG1: Administration and coordination

This working group involves general administration and coordination of the network. The following achievements were made in 2021:

- **May 2021:** Launch of WeDoWind space including members' directory.
- **June 2021:** Action Plan defined.
- **October 2021:** Website updated.
- **November 2021:** Focus topics defined.

- **December 2021:** Draft "market entry guidelines" developed.
- **December 2021:** 168 members gained in total.

WeDoWind space

As part of the WeDoWind project (see Section 2.3), a space for the members of The Swiss Wind Energy R&D Network to collaborate with each other was created. The members' directory was moved into this space. In order to get access to the space, the members have to sign up to the WeDoWind platform. Currently, 74 of our 168 are signed up. Members can sign up by clicking on the button "Sign up for the WeDoWind ecosystem" here: https://www.wedowind.ch/wedowind-ecosystem. Further work is required to communicate the added value of the space to the members.

The space contains various "posts" such as "challenges" and "requests" as shown in Figure 1 (left) as well as the members' directory (right). Recent activity in the space includes:

- A lively discussion about "How do you do Early Site Assessment, layout configuration and costing for offshore wind farms?"
- A list of useful open datasets for wind energy science.
- Two new job openings in wind energy research in Switzerland.
- A collaboration request in the area of rotor aerodynamics and design.
- A request from The Swiss Wind Energy R&D Network looking for partners for a Pilot & Demonstration project proposal "The Swiss sustainable hybrid renewable energy open innovation test site".
- A request from EMPA looking for applications of metal additive manufacturing in wind turbines.
- Several requests for student projects and students.

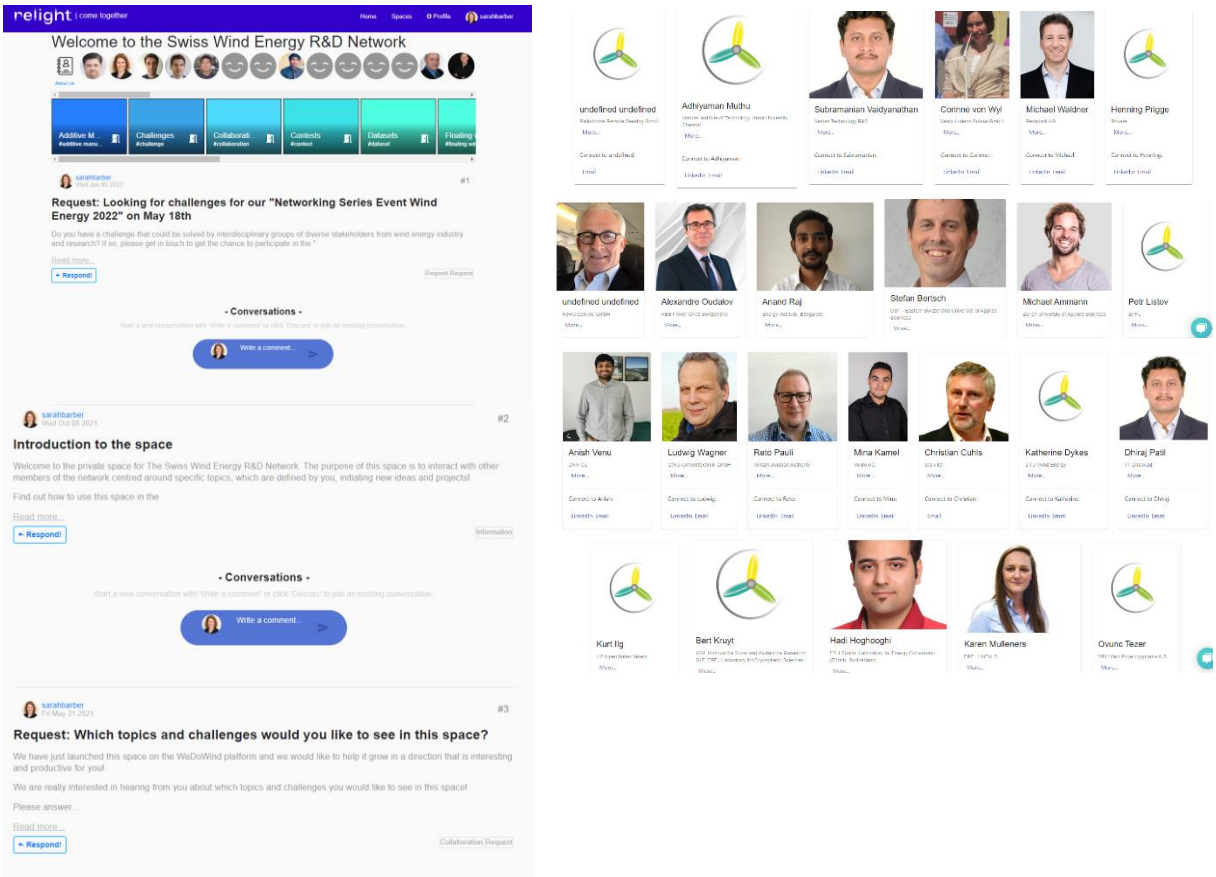


Figure 1. The space for members on the WeDoWind platform (left), members' directory (right).

Action Plan

Before defining the Action Plan, we first defined our strategy and goals as shown in

Figure 2. We want to develop more innovative solutions for the global wind energy market, explore and grow competencies for co-creation and open innovation, and advance innovation capabilities of existing companies and / or grow new companies by:

1) Increasing the size and effectiveness of the existing Swiss Wind Energy R&D Network;
2) Bringing Swiss SMEs and research groups involved in wind energy together with customers and other stakeholders find new solutions to challenges;
3) Attracting Swiss SMEs and research groups involved in technologies that are relevant but have not yet been applied to wind energy;
4) Attracting customers and other stakeholders from abroad by offering them an open innovation environment with world-class research groups and SMEs.

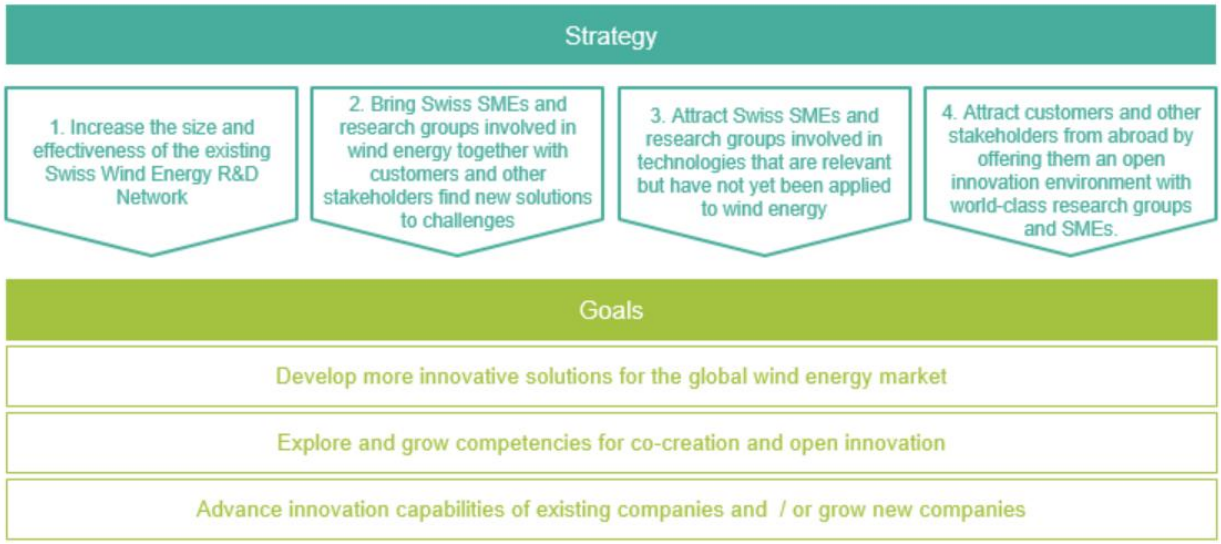


Figure 2. Strategy and goals 2021.

The Action Plan was developed out of these four points as shown in Figure 3. It is further discussed in the plan for 2022 (*Network_Plan_2022.pdf*).

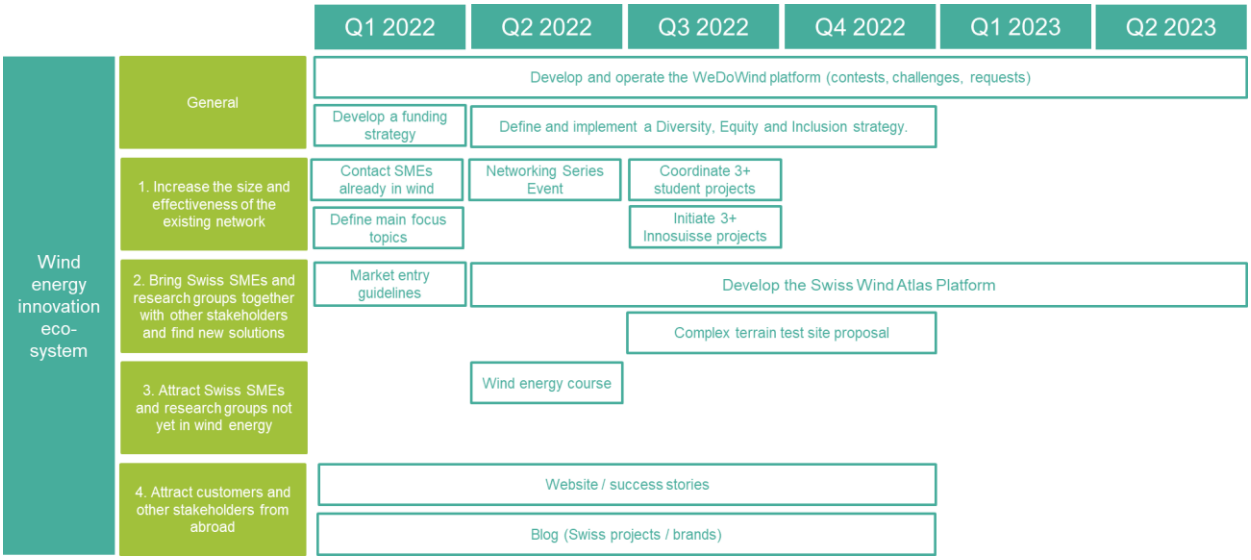


Figure 3. Action Plan 2022.

Website

In 2021, the website was simplified and divided into the following sections:

- **Homepage:** including the mission statement and a summary of what we offer.
- **About us:** list of the Management and Advisory Board members, a counter with the number of members and a display of all the available logos of the members.

- **WeDoWind Ecosystem:** description of the WeDoWind project and registration links (see Section 2.3).
- **Events & Networking:** list and descriptions with registration links for our events (the AGM and the Networking Series Events).
- **Our projects:** List of projects that we are involved in or have initiated.
- **Diversity:** including our "Women in Wind" interviews as well as our efforts to improve diversity in wind energy research together with the European Academy of Wind Energy.
- **Join us:** registration form.
- **Blog:** links to all new and previous blog articles.

Focus topics

In November, slightly earlier than planned, we defined the topics that we want to focus on. We agreed to focus on "sustainable and inclusive wind energy digitalisation and integration with a focus on complex terrain", covering the separate topics of "Sustainability" (Biomaterials for blades, oil, towers; Wood for towers; Reducing rare earth metals), "Inclusion" (Improving innovation; Increasing diversity; Exploiting the interdisciplinary nature of wind energy), "Digitalisation" (Monitoring and maintenance; Wind turbine and farm design and optimisation; Digital manufacturing), "Integration" (Grids and storage; Acceptance and stakeholder management) and "Complex terrain" (Reduction of planning uncertainties; Improved operation), as shown in Figure 4.

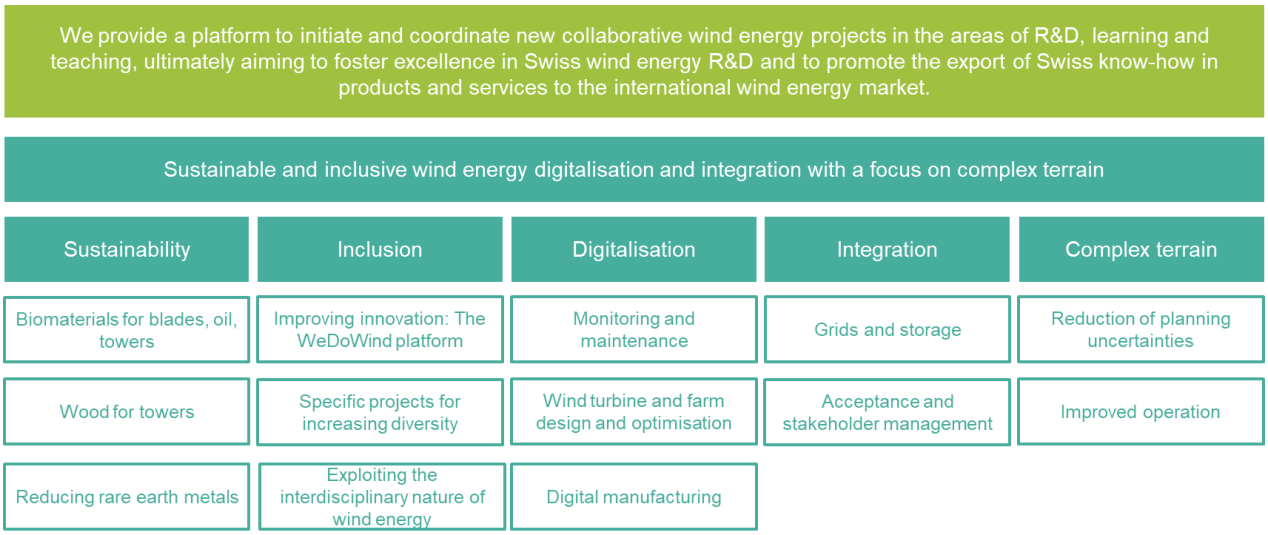


Figure 4. Focus topics.

Market entry guidelines

Together with Andy Clifton at enviConnect (a member of the Advisory Board), we are in the process of developing some "market entry guidelines", which aim to help academics, job seekers and entrepreneurs in Switzerland get started in wind energy.

The guide will help academics to get started in wind energy science and research by answering questions such as "What are the big themes in this area?", "How can I find collaborators?", "Where can I get data?", "Where can I try out my ideas?" and "Who funds R&D?".

It will help job seekers get a job in wind energy as a recent graduate or academic by answering questions such as "How can I find out what jobs are available in the wind energy industry?", "Who are the major employers?", "What kinds of skills do I need?", "What training, courses, or study programmes are available for new entrants or people changing employers?" and "What will make me more attractive to potential employers?"

It will help entrepreneurs convert an idea into a business in the wind energy industry by exploring topics such as "Failure mode: what are the major drivers/reasons behind a failure? What are the lessons learnt from others?", "Understanding major pain points and market needs --> identification/definition of a product", "Major entry market barriers", "Top 3 priorities to focus on", "Characteristics of local market: corporate strategy, digitization process/view", "Supply chain and distribution model", "Political drivers and framework", "Gate keepers in the TRL ladder/classification".

The guide will be presented at the Networking Event Series on June 7th 2022.

2.2 WG2: Events

This working group coordinates events. The following achievements were made in 2021:

- **May 2021:** Networking Series Event Part 1
- **September 2021:** Networking Series Event Part 2

In 2021 we carried out the Innosuisse-funded Networking Event Series for the first time. Due to the COVID-19 pandemic, we carried out the event online in May 2021. Even though this event was successful, it did not attract as many attendees as hoped, and we therefore organised a second, smaller, event in person in September 2021.

Networking Event Part 1

This event was based on high-quality key-note presentations combined with panel discussions and break-out groups as shown in the picture in Figure 5. The topic of the event was "Open Innovation and Cooperative Competition“.

Figure 5. Programme of Networking Event Part 1.

In the break-out groups, the participants answered some pre-defined questions and gave their inputs directly into a Google Form, which we were able to access and summarise in time for the plenary session at the end. This allowed us to directly present the results of all the group discussions. The results were a list of technical, social and political barriers to data sharing developed by the speakers and the particpants. Parallel to the event, the Swiss Wind Energy R&D Network space was launched on the digital platform of the WeDoWind ecosystem. This provided participants with the opportunity to continue discussing the topics after the event (see https://www.wedowind.ch/wedowind-ecosystem for more information). The event went very well, even though we couldn't attract as many participants as expected (34 registrations). The participants are divided into researchers/students, industry and "other" (e.g. associations, governmental organisations) from both Switzerland and worldwide in Table 1. It can be seen that we could quite a good national coverage and also quite a large proportion of attendees (mainly students) from abroad. This included attendees from our international network in Germany, the US, India and Brazil.

Table 1. Participants of Networking Event Part 1.

Event 1	Total	CH			World		
		Research	Industry	Other	Research	Industry	Other
Number	34	10 (ZH, AG, TI, BE, VD, SG)	6 (ZH, BE, VD)	3 (ZH, BE, VD)	12	3	0

The event report can be found in our blog here: https://www.wedowind.ch/blog/talk-about-collaboration. In this report, the main findings of the break-out discussions are summarised, and links to sign up for the WeDoWind platform are provided. On this platform, videos of the key-note talks are displayed together with discussion possibilities regarding the individual topics raised in the talks.

The feedback using our online feedback form was very good. The overall impression was very positive, the content was perceived interesting and relevant, and the participants especially enjoyed the introduction, the key-note talks and the break-out rooms. Response to the question "What would you like to see at the next event" included:

- "People in person";
- "Be live there";
- "Opportunities to follow-up on the discussions we started";
- "Define the topics by asking the participants in advance".

These ideas are being considered in the planning of the next event.

Networking Event Part 2

Due to the relatively low number of participants compared to the expected number, we decided to complement the first event with a second live event. We wanted to use the opportunity presented by a reduced number of COVID-19 cases to finally get people to meet again in person. The event was therefore kept very simple and we provided the participants with many networking and discussion opportunities. It involved the following half-day programme at Impact Hub Bern:

- Key-note talk “Opportunities and challenges of using digital tools in early stage financing of wind energy projects“, Jan Dabrowski and Sudheesh Sureshkumar from the company XVentum in Germany.
- One-minute presentations and speed meet-ups.
- Presentation by Sarah Barber "Collaboration within The Swiss Wind Energy R&D Network within the WeDoWind ecosystem".
- Coffee and networking.

Despite the on-going planning uncertainties of the COVID-19 pandemic as well as the certificate restrictions, we managed to attract a small but diverse and motivated group of 20 people from industry and research. Again, we used the opportunity to encourage participants to continue discussions using our new digital platform, WeDoWind.

The participants were all from Switzerland, except for the two key-note speakers from the company XVentum in Germany. The division into researchers/students, industry and "other" (e.g. associations, governmental organisations) is shown in Table 2. These was an equal split between industry and research.

Table 2. Participants of Networking Event Part 2.

Event 2	Total	CH			World		
		Research	Industry	Other	Research	Industry	Other
Number	20	9 (AG, SG, ZH)	9 (AG, VD, BE, ZH)			2	

The event report can be found here: https://www.wedowind.ch/blog/networking-event-series-2021-part-2. A summary of the feedback from our printed feedback forms is shown in Figure 6. This shows that the impression was very positive. The only "disagree" answers actually came from people wishing that the event had been longer, which we will take account of in the planning of the next events.

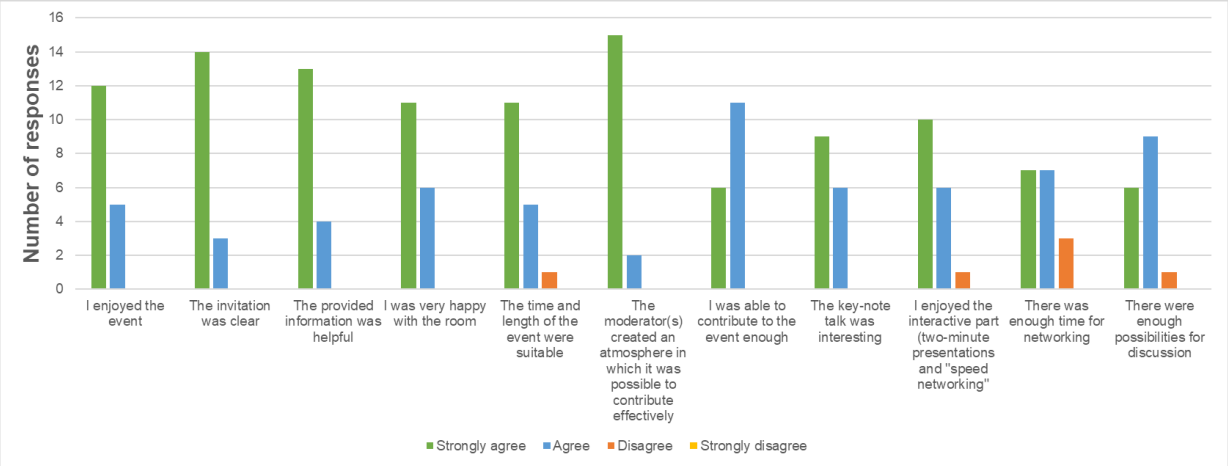


Figure 6. Summary of feedback on Networking Event 2.

2.3 WG3: Projects

In this working group, we aim to actively coordinate Swiss R&D projects related to wind energy, in order to demonstrate the benefits of the network. The following achievements were made in 2021:

- **January 2021:** SFOE[1] project "The Swiss Wind Energy Machine Learning Collaboration Platform Concept" completed.
- **March 2021:** SFOE project "The Swiss Wind Atlas Platform Concept" completed.
- **March 2021:** Launch of the WeDoWind Ecosystem.

[1] Swiss Federal Office of Energy

The Swiss Wind Energy Machine Learning Collaboration Platform Concept

In this project, a concept was developed for "The Swiss Wind Energy Machine Learning Collaboration Platform". In this work, a very large interest in and high demand for a self-sustaining platform that provides a central location for wind energy industry and research to share and collaborate on reproducible workflows, data and code whilst respecting confidentiality requirements was identified. The concept is the first central collaboration platform in the wind energy industry that provides real incentives for participation. It is a Wiki- and cloud-based platform with threaded discussions and searchable labels, allowing users to post requests, challenges and contests on one hand (data-owners), and answers, solutions and submissions on the other hand (algorithm/method-owners) on key wind energy topics, as well as datasets, lectures, information, standards, data standards, and more. The platform is divided into separate "open" and "private" sections, allowing users to share and showcase information on their own terms. It contains an optional docker environment for running and reproducing entire workflows in a standardised manner. The platform does not seek to replace any existing platforms; its power is in providing a central location for solving the most important wind energy industry challenges through sharing and exchanging selected information. For example, the datasets do not have to be stored on the platform (even though they can be), but a link or API to an existing platform can be provided, code can be either uploaded directly or provided via links to existing GitHub repositories, existing videos can be embedded, etc.. As this platform will provide users with a real incentive for participation, it will be able to sustain itself long-term by generating revenue from user membership fees, advertising, and fees for particular features. We have changed the name of the platform to the wedowind.com platform, with a slogan "Accelerating innovation through knowledge sharing".

The Swiss Wind Atlas Platform Concept

The current Swiss Wind Atlas has been reported to under-predict the wind resource at some potential wind energy sites, if it is compared to the New European Wind Atlas or to various wind measurements. Suisse Eole therefore asked The Swiss Wind Energy R&D Network to develop a concept for a new version. The resulting concept, the Swiss Wind Atlas Platform (SWAP), is based on a digital platform that allows (1) all existing measurement data and simulation results to be collected and assimilated into a single wind atlas that indicates (a) wind energy potential, (b) the confidence of the wind potential, and (c) technical feasibil-ity of the location, (2) any new data, simulations and assimilation algorithms to be added to the platform in order to continuously increase its quality, and (3) effective communication with and between both end-users (people using the wind atlas) and developers (people helping to improve the wind atlas), thanks to its access control and sharing functions. This utilizes the WeDoWind project as described in the next section.

To develop the concept, the requirements were first defined by reviewing existing wind measurement data, wind maps of Switzerland as well as the needs of the end-users of SWAP. The new SWAP should take into account the wide range of available measurement data and simulations, as well as utilise existing assimilation methods to use the most appropriate. It should be possible for the new SWAP to be updated as more measurements and simulations become available, without having to re-create the atlas from new with different people every

time. It will be primarily used by governmental organisations (confederation and cantons) as a help guide for the planning of wind energy projects, but will also be accessible by inter-est groups and the general public, who could use it to form opinions. For governmental organisations, the new SWAP should define the potential energy production and the technical feasibility in Switzerland to better identify the areas with high potential. For the public, it should include explanations of how the wind atlas is made, and why there are differences from specific project planning results. The collaboration plat-form would allow the end-users to communicate with the developers. To clearly understand the output of the new Swiss Wind Atlas, the SWAP will calculate and display five different scores: (1) the wind potential score to evaluate the average wind speed, (2) the energy produc-tion potential score to evaluate the potential annual energy production, (3) the simulation confidence score to estimate how confident the developers are with the results of the wind simulations, (4) the variability score to indicate if the annual average wind speed is sufficient or if more dynamic simulations are required to evaluate the potential annual energy production, and (5) the technical feasibility score to indicate areas where it is possible to install wind turbines (close to grid, roads and on not too steep terrain). The tech-nical feasibility score will help to define crucial areas where the technical feasibility score is high (possible to install wind turbines) and also where the wind potential score is high (high average wind speed) but the simulation confidence score is low (low precision of the wind simulations).

In this concept, we suggest development of SWAP in the following three distinct phases:

- Phase 1: Development of SWAP, based on the wedowind.com platform, which will be divided in five modules. A clear communication strategy will be developed during phase 1.
- Phase 2: Improvement of the SWAP in crucial areas defined in Phase 1.
- Phase 3: Improvement of the SWAP by gathering different labs from the Swiss universities to improve the methods for wind modelling in complex terrain and implement these methods in the SWAP.

The requested funding for implementing these phases is still under discussion with SFOE.

WeDoWind Ecosystem

Since the submission of the concept "The Swiss Wind Energy Machine Learning Collaboration Platform" as described above, the project has been further developed with the support of the Eastern Switzerland University of Applied Sciences into the "WeDoWind Ecosystem". This is a centralised ecosystem for accelerating innovation and learning through inclusive knowledge sharing based around real wind energy industry-specific challenges as shown in Figure 7. It brings together people, data and algorithms / apps from all over the world and aims to shift wind energy to a collaborative mindset.

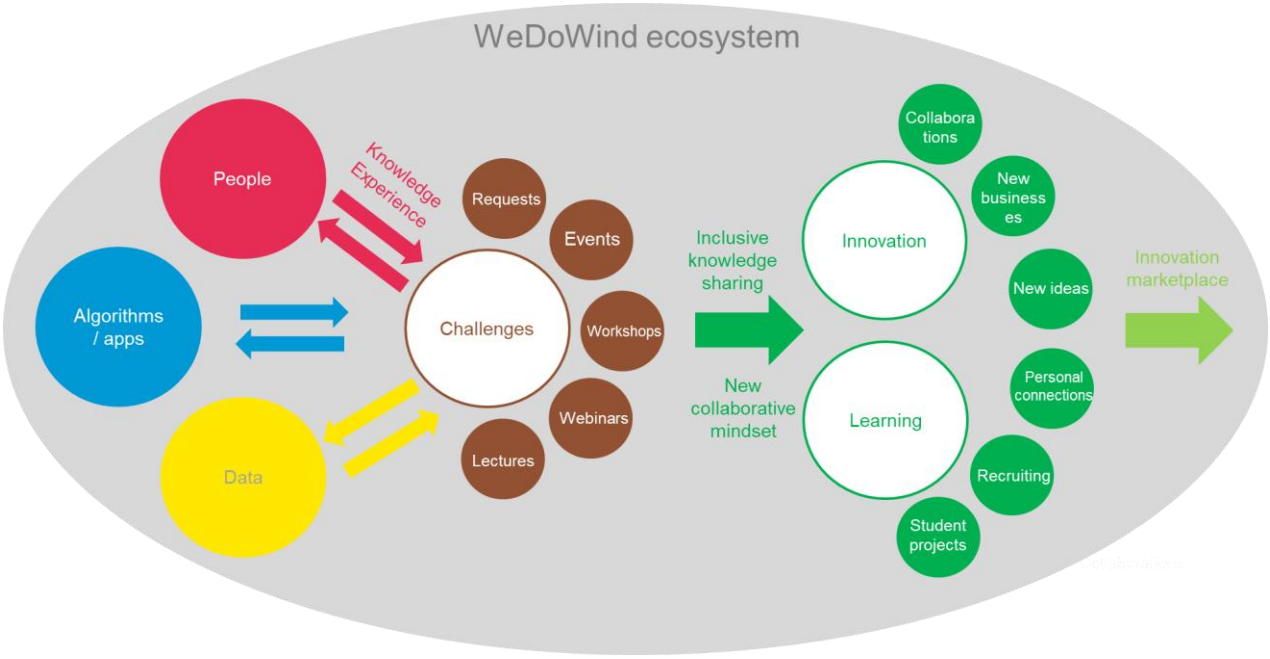
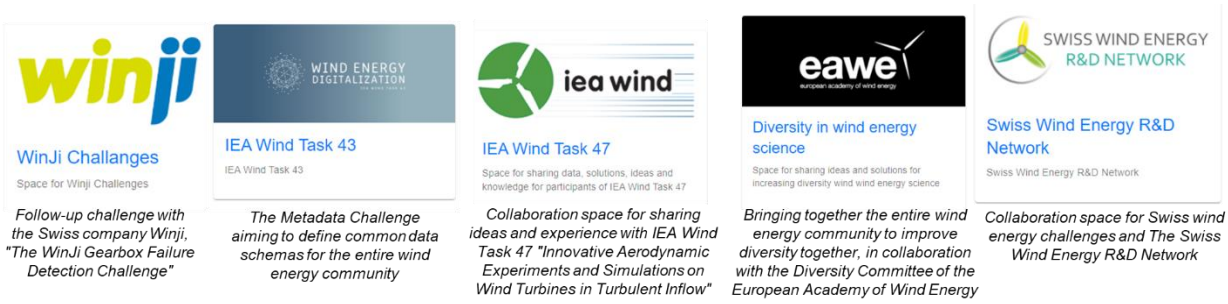


Figure 7. Overview of the WeDoWind ecosystem.

The ecosystem was launched with the "EDP Wind Turbine Failure Detection Challenge in March 2021". The company EDPR from Portugal provided operating data for participants to use in order to identify the failures in five of the major wind turbine components and advise an intervention to the wind farm operators in order to reduce corrective maintenance costs. The Swiss Wind Energy R&D Network moderated this challenge by providing access, organizing workshops, summarizing the content on the platform and writing weekly update emails to the participants. By the submission deadline at the end of September 2021, we received nine solutions from a total of 80 participants from 26 different countries. We are currently working on a collaborative paper that demonstrates the benefit of the collaboration to EDPR.

Since then, we have also launched five other collaboration spaces as shown in Figure 8, which includes 200+ active participants from all over the world. We are in the process of creating "Wind energy in Brazil" space, bringing together Brazilian students with real industry challenges, in collaboration with the GWEC Women in Wind Global Leadership Programme.



Follow-up challenge with the Swiss company Winji, "The WinJi Gearbox Failure Detection Challenge"

The Metadata Challenge aiming to define common data schemas for the entire wind energy community

Collaboration space for sharing ideas and experience with IEA Wind Task 47 "Innovative Aerodynamic Experiments and Simulations on Wind Turbines in Turbulent Inflow"

Bringing together the entire wind energy community to improve diversity together, in collaboration with the Diversity Committee of the European Academy of Wind Energy

Collaboration space for Swiss wind energy challenges and The Swiss Wind Energy R&D Network

Figure 8. Five other WeDoWind collaboration spaces.

The key lessons learned so far are:

- People are drawn to a challenge. We can use challenges to bring people together. We have learned that moderated challenges with accompanying workshops are the key to driving engagement within communities.
- We can solve the hardest problems, together. We can make the business model of clean energy more attractive to investors, together. By solving the turbine gearbox failure challenge, we can came the asset class more attractive as a whole.
- We can create an inclusive collaborative culture. This provides concrete benefits to challenge providers, solution providers and funding bodies. A small amount of light can pierce a lot of darkness.
- We can use asynchronous collaboration tools to enable all voices to be heard and participate. A combination of moderated workshops, tagged documentation and a digital platform can provide everyone with access at any time.
- We can help lift up and raise up leaders like Sarah who want to bring together a community of problem solvers around a given issue. We need "Sarahs" running communities around every problem.
- We can help restore gender equity in the global south. Networks create access. We have people joining from Jordan and from Brazil. People who wouldn't otherwise have access are getting access.
- We contribute to the SDGs 4, 5, 7, 8, 9 and 10 by providing access to clean energy innovation for everyone without bias and especially focusing on under-represented groups. This is necessary for long-term, sustainable, systemic change.

We are currently applying for funding in order to expand and grow the WeDoWind ecosystem. Please get in touch on our website[2] if you are interested in getting involved.

[2] https://www.wedowind.ch/wedowind-ecosystem

2.4 WG4: Teaching

The aim of this working group is to coordinate student activities in order to demonstrate the benefit of the network. In 2021, no further progress was made beyond the definition of the process that was done in 2020. We are hoping to dedicate more resources to this topic in 2022.

2.5 WG5: Fund-raising

In this working group, funds are raised for the activities of the network. The following tasks related to fund-raising were carried out in 2021:

- The three projects for which funding was raised in 2020 were carried out as described in the previous sections:
    - Innosuisse Event Series (runs from 2021-2024).
    - SFOE funding for a concept of the "The Swiss Wind Energy Machine Learning Collaboration Platform" (project finished).
    - SFOE funding for the concept "The Swiss Wind Atlas Platform" (project finished).
- It was decided to raise funds in direct connection with the further planned steps of the WeDoWind Ecosystem. This is the main goal of the Network in 2020, as described in the document *Network_Plan_2022.pdf*.

2.6 WG6: Accounts

In this working group, the finances are monitored and the accounts are kept. The accounts summary for 2021 is shown in Table 3.

Table 3. Summary of accounts for 2021.

BILANZ

AKTIVEN

	31.12.2021
Kontokorrent	5'882.21
Umlaufvermögen	**5'882.21**
TOTAL AKTIVEN	**5'882.21**

PASSIVEN

	31.12.2021
Gewinn	5'882.21
Eigenkapital	**5'882.21**
TOTAL PASSIVEN	**5'882.21**

ERFOLGSRECHNUNG

ERTRAG

	2021
Ertrag aus Veranstaltungen	600.00
Projektunterstützungen	106'450.00
TOTAL ERTRAG	**107'050.00**

AUFWAND

	2021
Leistungen Dritter	98'830.79
Personalaufwand	**98'830.79**
Mietzins und Mieten	1'194.00
Sachversicherungen, Abgaben, Gebühren, Bewilligungen	22.50
Informatikaufwand inkl. Leasing	69.00
Werbung	1'044.00
Bankspesen	7.50
Sonstiger Betriebsaufwand	**2'337.00**
TOTAL AUFWAND	**101'167.79**
Gewinn	**5'882.21**

KOSTEN- UND PROFITSTELLEN

	2021
Projekte	
Innosuisse Event Series	51'037.24
The Swiss Wind Atlas Platform	29'675.55
The Swiss Wind Energy Machine Learning Platform	20'425.00
Total Projekte	**101'137.79**

The planned budget for 2022 can be found in *Network_Plan_2022.pdf*.

2.7 WG7: Diversity, Equity and Inclusion

This working group coordinates the network's activities related to Diversity, Equity and Inclusion. At The Swiss Wind Energy R&D Network, we believe that every single one of us can contribute to increasing diversity, equity and inclusion. The following achievements related to this were made in 2021:

- **February 2021:** Sarah Barber voted in as Chair of the newly-formed Diversity Committee of the European Academy of Wind Energy (EAWE).
- **May 2021:** Launch of "Diversity in wind energy" space in the WeDoWind ecosystem.

- **November 2021:** Formation of the EAWE Diversity Committee.

The EAWE Diversity Committee

Sarah Barber was involved in the founding of the EAWE Diversity Committee in 2020 and 2021, following her moderation of the "Diversity in wind energy science" panel discussion at the EAWE conference "TORQUE 2020". She was voted in as Chair of the Diversity Committee in February 2021 and formed a committee of six representatives of the international community in November 2021. The launch meeting was held in November 2021. The goal of the Diversity Committee is to improve diversity in both EAWE and in wind energy science in general. The tasks and activities are still being defined.

WeDoWind "Diversity in wind energy" space

Parallel to this, a "Diversity in wind energy" space was launched in the WeDoWind ecosystem in May 2021. The idea of this space is to receive inputs from the entire wind energy community by running monthly workshops and discussions on the WeDoWind platform. So far we have held four workshops and have defined the goals of the group as:

- Use the webinars and platform for exchange a wide range of ideas from people from different backgrounds and countries.
- Create a database of existing DEI activities and identify the gaps.
- Feed results into EAWE and other organisations developing recommendations and policies.

The topics of the first five webinars planned for 2022 are:

- **Webinar challenge 1 "Benefits of diversity"** - What are your experiences of the benefits of diversity? How can we use this to improve diversity
- **Webinar challenge 2 "Your experience of unconscious bias"** - What does mean and what impact can it have? Your experience? How to implement successfully?
- **Webinar challenge 3 "Measures of success"** - How to make measures of success more fair for under-represented people?
- **Webinar challenge 4 "Diversity in your organisation"** - Discussing existing DEI activities in your organisation
- **Webinar challenge 5 "Actions for improving diversity in wind energy"** - How can wind organisations identify specific actions they can take to help them drive desired progress around their DEI initiatives?

Connection to the activities of The Swiss Wind Energy R&D Network

We plan to use the inputs from both groups described above to define a new DEI strategy in 2022 (see *Network_Plan_2022.pdf*).

3. Summary and outlook

Thanks to financial support from Innossuise and SFOE for the projects "The Swiss Wind Energy Machine Learning Collaboration Platform Concept" (SFOE), "The Swiss Wind Atlas Platform Concept" (SFOE) and "Networking Event Series" (Innosuisse) we were able to carry out some exciting work as part of The Swiss Wind Energy R&D Network. We are particularly excited about our continued participation in the "Networking Event Series", which enjoy funding until 2024, and the "WeDoWind Ecosystem", for which we are currently looking for funding. Further details about our plans for 2022 can be found in the document *Network_Plan_2022.pdf*.