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In this booklet, we have collected all short texts of our CLIB 15 campaign from summer 2023.

Follow the QR code to read all full posts and see the videos.



15 years of CLIB



#1 15 years of CLIB – 15 years of transformation

CLIB celebrates its 15th anniversary this year. Hardly anyone expected at the beginning that our network would be active for so long. This was also reflected in the name **CLIB2021** chosen at the time. While in 2008 this still seemed to be a long way in the future, today this date is already two years in the past and CLIB has, with 110 members, more members than ever before. The number 2021 was not chosen at random: it had been inspired by the name of the BMBF funding programme which had triggered the first cluster concept and the founding of the association: BioIndustry 2021.

Those involved and familiar with the process back then will of course rightly object that the actual founding of the association took place in 2007. Strictly speaking, we are already in our 16th year since the founding. However, the establishment of the office and the work in the initial project "Cluster Management of the Industrial Biotechnology Cluster CLIB2021" began in 2008 – and with it the actual activity as a network.

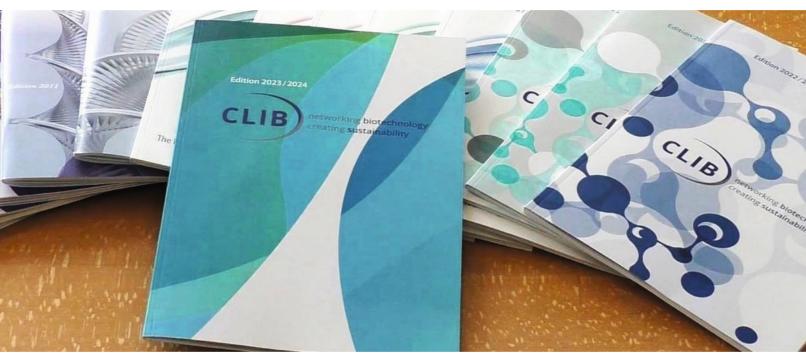
The then CEO and cluster manager Manfred Kircher (from Degussa, now Evonik Industries) received the funding decision for this project in April 2008. It was the reward for one and a half years of work which had gone into the application in the two-stage BioIndustry 2021 competition and the preparation of more than 30 project outlines presenting the cluster's projected project portfolio. These provided the basis for the 26 collaborative projects carried out in the following years, which included a funding volume of more than 20 million euros. These projects and their actors in turn formed the cluster core, from which further projects and activities emerged over the years.

Let's look back together on a manifold 15-year development that is far from over. Like our members, **CLIB** has constantly evolved during this time and will continue to do so. In 2007, 37 organisations joined forces to form an association with the idea of "**making an important contribution to the transformation of the chemical industry**" through industrial biotechnology. This ambition has lost none of its relevance 15 years later and is arguably even more urgent today.



CLIB
2 0 2 1
CLUSTER
INDUSTRIELLE
BIOTECHNOLOGIE

#2 The CLIB Brochure - The annual CLIB overview



The annual brochure is being published by CLIB since 2008 and is an important part of CLIB's public representation. Usually available at all our in-person events, the best occasion to get a fresh copy is our CLIB International Conference.

The brochure gives a comprehensive overview of the current CLIB members, the cluster's strategy, and its structured networking process. Readers can also find detailed information about the current projects and activities, as well as recent highlights and developments. Additionally, we list the members of our boards and of our team.

We cherish the design period of our brochure, since it always results in a great product that we gladly share with our partners, members, and everyone else that is interested in the activities of our cluster.

Would you like to browse through our CLIB brochure? Pick up a printed copy at one of our upcoming events or follow the QR code to read more about the brochure and download your digital copy.



#2 CLIB brochure

#3 The technology-driven approach



CLIB has always striven to put technology, not ideology, at the forefront of its work. Over the years, CLIB has closely analysed new technology trends and upcoming ideas in the biotech community. In the process, we witnessed some serious setbacks as well as some true triumphs of biotechnology. From our point of view, a decisive factor for our continued success has been that we have always evaluated and supported technologies based on their application potential.

A prominent example of this approach was the collaboration with several academic partners in four technology platforms (ExpressO, RedoxCell, PolyOmics, and Downstream Processing). In 2018, this technology-driven approach resulted in the CKB – CLIB Kompetenzzentrum Biotechnologie where more than 30 working groups addressed challenges for the three megatrends resource efficiency, raw materials, and health to develop innovations into applications.

As the transformation to a circular bioeconomy requires numerous new technologies, it goes without saying that CLIB continues accelerate the technology development and transfer as described in our respective strategic pillar.

#4 Minds of the future

Innovations, implementation, and maintaining of new processes and products in industrial biotechnology and bioeconomy all depend on young people and the next generation of biotech experts.

CLIB and its members realised this early on and acted in one of the first projects at CLIB: the CLIB Graduate Cluster Industrial Biotechnology, started in 2009. This doctoral programme of three CLIB member universities Bielefeld University, TU Dortmund University, and Heinrich-Heine-University of Düsseldorf, also expanded to the Research Centre Jülich (Forschungszentrum Jülich) and saw 135 students receive scholarships and extra training to become the next generation of interdisciplinary industrial biotechnology experts. Its alumni nowadays work in a variety of functions and industries, and we are still proud to see them progress in their careers.

Over the years, we have accompanied several other education projects and broadened our scope of activities and competences. One example is the MOOC "Biobased Products for a Sustainable (Bio)economy". In the MSC-ITNs ConCO2rde and BiodeCCodiNNg, we are responsible for developing and providing trainings for the PhD students in career development and entrepreneurship.

We want to continue to use our competences to support our members in training young experts in the vast field of bioeconomy – from biology to engineering and from chemistry to computer science, not forgetting research on technology evaluation and social and economic impacts of circular and bioeconomy innovation.













Ministry of Innovation, Science and Research of the German State of North Rhine-Westphalia





#5 Material streams in the region

If you want to drive the bioeconomy, you have to understand the flow and potentials of (biogenic) feedstocks. With this goal in mind, CLIB has implemented several projects and developed a strong network of partners in the process.

Within the project "Model Region for Innovative and Sustainable Material Flow" (RIN Stoffströme), started in 2014, CLIB analysed the potential of available biomass and biogenic side streams in North Rhine-Westphalia. Within the project, it became evident that more innovative value can be gained by an international perspective, leading to a biomass potential analysis of the German-Netherlands region. Based on this connection, we intensified the relation with our direct neighbours in follow up projects, such as CIRCULAR-Bio, which connected more stakeholders from the agricultural sector, municipalities, academia, and others to combine their innovative strength.

With the project Realise-Bio we recently embarked on a new journey with our trusted partners from the Netherlands and Germany. By applying the collective expertise of our consortium and the support of innovative start-ups and SMEs, we support cross -border tech transfer for the transformation to a circular bioeconomy in the border region.



Material streams in the region





2019-2022



2014-2018



#6 Starting each year with a bang – the CIC



CLIB Is Cool - The CIC!

If you ever wondered what **CIC** stands for: it is obviously not a medium-quality advertising slogan but THE event of the CLIB year: The **C**LIB International **C**onference. Since 2010, CLIB gathers the brightest minds, best ideas for innovations, and the most progressive R&D departments from industry once a year. At the CIC, CLIB not only welcomes its members, but also opens up to industry, academia, investors, and policy makers outside the network. This 2-day get-together and exchange has driven key developments in the field of biotechnology, bioeconomy, circular economy, and green thinking over the last decade. And it will continue to do so in future, providing a platform for the participants to exchange with other stakeholders and decision makers. Register directly for the next CIC, 21 to 22 February 2024, in Düsseldorf, Germany: CLIB International Conference CIC2024. Follow the QR code and look back on 15 years of talks, discussions, and memories of CIC!



#7 Trilateral cooperation

BioInnovation Growth mega-Cluster



Flanders - The Netherlands - NRW

Even though we as CLIB are an international cluster bringing together stakeholders from all over the world, collaboration with our neighbours next door was and is still of particular importance.

It is no coincidence that the CLIB office is located within the biggest chemical cluster in Europe – the Antwerp-Rotterdam-Rhine-Ruhr-Area, which covers Flanders, the Netherlands and NRW. Together with other clusters of the trilateral region, CLIB established the initiative **BIG-Cluster** in 2013 to support the transition of the chemical industry towards bio-based feedstocks, circularity, and sustainability.

As one of the leading partners, we were not only able to establish long-standing and trusting connections to other clusters in the region, to network our members and extended network with relevant partners across the borders, but also to start joint research and innovation projects on several topics. We thank the chairpersons of the different clusters at the time: Manfred Kircher, Ludo Diels, Luuk van der Wielen, and Willem Sederel, for starting this initiative.

In the meantime, our work on supporting the chemical industry in its transformation continues – regionally, nationally, as well as with our neighbours next door and abroad.



#8 Filling the trilateral cooperation with life

Prove your expertise! The interactive ABC quiz on CLIB's trilateral strategy

As mentioned overleaf, the **BIG-Cluster Initiative** has led to three CLIB-coordinated projects which addressed different topics and aspects in trilateral collaborations. Under the acronym ABC Projects, these three projects worked on innovative technical practices, interactive learning formats, and the integration of entrepreneurship in education to accelerate the creation of a sustainable and circular bioeconomy in the trilateral region.

How familiar are you with CLIB's activities in the BIG-Cluster Initiative and ABC projects? Are you a newcomer to trilateral cooperation or an expert?

Test your knowledge in the interactive quiz here!



#8 ABC - quiz





#9 Start-up support

From university to the market: Founding made easy(er)

Supporting entrepreneurs in starting a business and scaling their innovation has been one of CLIB strategic focuses for more than half a decade now. In 2017, our first international business plan competition, the **G-BiB**, was launched with partners from the Netherlands and Brazil. CLIB hosted four editions of the competition with various partners in six countries with more than 30 teams participating. In 2022, the last edition of the G-BiB reached a conclusion during the CIC, but fostering entrepreneurship continues to be an important part of our work.

In the EU-project MPowerBIO, we were able to support more than 280 SMEs in increasing their investment readiness level, and the number is rising as you can still benefit from the online courses developed in this project. We started a new event series within the MPowerBIO project and are continuing it after the project end: The **SME & Start-up Pitching Event @CLIB**. The edition in August 2023 brought together 12 SMEs and more than 30 experts from industry and investors. Not only at this event, but also through information on funding opportunities and our strong investor and support network, we help start-ups and SMEs grow and make an impact.



#10 CLIB design over time

Always in sight and yet rarely in focus: The CLIB design

Let's take a step back, focus on the background, and take a closer look at the colours and shapes there. In the past 15 years, CLIB has constantly evolved and so has its design. But what is good design anyway, if it literally works in the background?

Well, of course it should look chic and contemporary, offer recognition value "at a glance", emphasise the actual message, but never disturb or irritate... no easy task! So here are a few insights into the evolution of the CLIB design.





#11 In the heart of Europe



With our headquarters in Düsseldorf, Germany, we are located in the midst of Europe – and from its beginning, CLIB has connected with stakeholders in bioeconomy across the EU.

Neither feedstock streams, nor research and innovation, nor products or markets stop at borders. Several of our founding cluster members are international corporations or internationally renowned academic institutes and were clear in their goal to make CLIB an international open innovation cluster.

We partner with clusters across Europe to enrich our network with new ideas and partnerships. We also reach out to each other when our members need a partner beyond our direct network.

We are a founding member of the Bio-based Industries Consortium (BIC), the private partner in the Circular Bio-based Europe partnership, CBE JU. As a cluster member, we represent our SMEs in this PPP and keep their interests in industrial biotech as a key element of bioeconomy in focus – and in the annual work programmes.

We are actively involved in EU-funded projects, which are excellent opportunities to accompany innovations or to help build a supportive ecosystem for bioeconomy innovation and financing..



#12 CLIB anchored in NRW

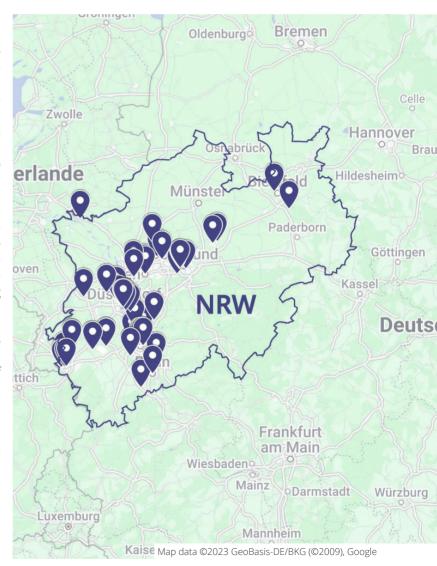
From NRW into the world

CLIB's cluster core is located in the German federal state with the largest economic output – North-Rhine West-phalia. Fifty percent of our members are located here. The cluster management is also closely linked to the important players in NRW – be they academic, economic, supportive, or political stakeholders. Over the last 15 years numerous projects and collaborations have been coordinated, supported, and accompanied by CLIB to promote the local ecosystem in growing, expanding, and making a difference on a larger scale.

The CLIB-Graduate Cluster trained 135 PhDs at 4 academic institutions in NRW, and the CLIB-Competence Centre Biotechnology (CKB) built an integrated infrastructure for the bioeconomy between those four institutions a few years later. Both projects received funding from the Ministry of Research in NRW.

The HiPerIn projects and since January 2023 the Triple-S project, all funded by the Ministry for Economics in NRW, extended our network to new sectors over the course of several years and allowed us to support innovations.

CLIB wants to build a strong bioeconomy in NRW and transfer the learnings from a local to a global perspective. This is also why we are strongly engaged in the structural change programme in the Rhenish lignite mining area here in NRW.





#13 The CLIB team over time

The CLIB Team over time

The CLIB journey began 15 years ago with a small team around the then cluster manager Manfred Kircher. He was initially supported by Sylvia Hannig and Uwe Wäckers, who were seconded by VCI NRW on a prorata basis to set up the cluster. BIO.NRW was joined by Jens Klabunde, who was also seconded to CLIB on a pro rata basis.

Tatjana Schwabe-Marković became the first project manager in the second year after the association was founded. She was followed by Dennis Herzberg (initially as an intern) and Sabine Dues. This team formed the CLIB office for some time, before the team began to expand with the expiry of the first BMBF funding and increasing diversification.

In the meantime, several much appreciated people have supported CLIB for longer or shorter periods of time and have since moved on to other stations in their careers: Jens Klabunde, Sabine Dues, Ellen Knorr, Xiao Chen, Uwe Wäckers, Carolin Lange, Anna Schmidt, Anna Hagemann, Freedanz Ferdinanz, Sabine Piontek, Juri Bach, Cornelia Bähr, Vera Haye, Lena Kröninger, Sylvia Hannig, and Annika Thamm.

Many thanks for this! We are happy that we stayed in touch with so many of you!

CLIB Team





... some former team members

#14 CND - Meeting the CLIB family

The CLIB Networking Day

When you enter the CLIB network, you might feel like participating at "Married at First Sight". You enter a family you do not know very well yet, and vice versa.

To get and keep you connected to other members, ongoing activities and new developments, we organise an annual family meeting since 2019, the CLIB Networking Day. Often organised at one of our member's sites, the event provides the possibility for new members to briefly present their activities and their need for cooperation partners. In extended networking breaks, we provide you the possibility to exchange directly and face-to-face with old friends and new, promising business contacts.

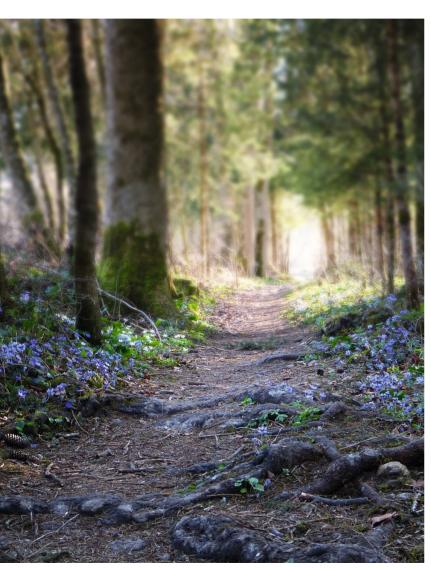
Beside the CLIB International Conference, the CLIB Networking Day is the second largest fixed point in the course of the CLIB year. Follow the QR code to see how the CND developed over the last years!





#14 CND video

#15 Here's to the next 15 years!



Looking at the pictures of the previous pages, the past 15 years seem like a long time. Looking at the topics, which have lost little of their relevance, they seem to have flown past. So, what could we say about the next 15 years? To be honest, most forecasts about the future are rather embarrassing for the maker once future has become the present.

Therefore, we would like to keep it with Antoine de Saint-Exupery: "As for the future, your task is not to foresee it, but to enable it."

In view of the current news, many people find it difficult to develop or even to maintain a positive vision of the future. Sometimes this worry is so deep-seated that they can envision no future at all. But inevitably, there will be a future. It is therefore up to us not only to explore, invent, and realise a path to a tomorrow worth living, but also to outline this path. We advocate biotechnology not purely as a problem solver for impending disasters, but as a key tool to enable a better future. In the next 15 years, biotechnology will make products better, people healthier, and our economy more circular. Circular bioeconomy is not a band-aid for past generations' mistakes, but a hopeful promise to future generations.

Of course, we should always keep in mind that this more hopeful future will not happen on its own: every individual is needed, but also political will and cooperative collaboration. Consequently – although we cannot predict the future – we are convinced the central CLIB values will still be important in 15 years: trustworthy partners, a lot of innovative spirit, and the necessary courage to change!

Here's to the next 15 years!



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