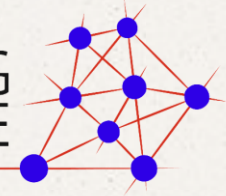


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Hamburg Clusters Annual Review 2020

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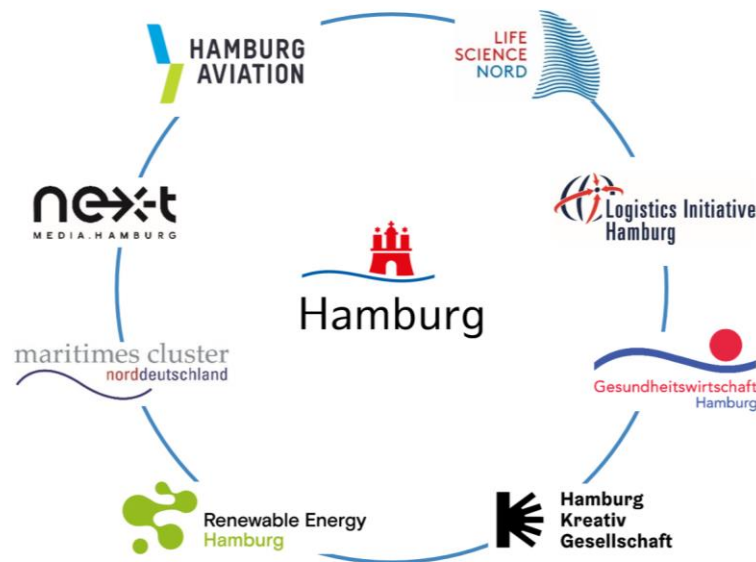


Behörde für Wirtschaft
und Innovation

HAMBURG'S CLUSTERS AND NETWORKS

Hamburg's innovation and cluster policy

Eight successful clusters and additional innovative networks shape Hamburg's economic future: Erneuerbare Energien Hamburg, Gesundheitswirtschaft Hamburg, Hamburg Aviation, Hamburg Kreativ Gesellschaft, Life Science Nord, Logistik-Initiative Hamburg, Maritimes Cluster Norddeutschland and nextMedia.Hamburg. Awarded as one of six European model demonstrator regions for modern cluster policy in 2014, Hamburg's cluster policy permanently strives to improve and promote interorganizational cooperation in the interest of competitiveness.



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Hamburg has 15 universities and colleges and is an important innovation incubator. More than 50 science and research institutes have settled in various fields. The universities in the cluster location are the starting point for a large number of innovative start-ups – for example, through business plan competitions and scientific cooperation between companies and research institutions in the region.

The research infrastructure is constantly developing. Innovation parks are being created throughout Hamburg. Hamburg combines different competencies and is a melting pot for new technologies, such as artificial intelligence, economic use of drones in urban areas, virtual reality, nanotechnology, 3-D laser technology, material sciences, medical technology, blockchain, optical technologies and grids/grid integration.

The Senate's innovation policy is based on the InnovationAlliance for Hamburg, which was developed and is operated jointly with the business and science community. Therefore, Hamburg's modern innovation policy is developed, aligned and implemented in alliance with all innovation players from the region. Within this policy, the clusters act as strategic specialization fields in the sense of a "Smart Specialization Strategy". "Smart Specialization" is a location-strategic concept with the goal of promoting structural change, towards knowledge- and innovation-led growth. Regional development priorities are to be set where existing knowledge and technologies promise success. Hamburg takes up this impulse with its cluster policy and thus makes a considerable contribution to increasing the competence of European regions. Cluster policy is an instrument of modern, efficient economic policy in certain innovative sectors.

As in many other federal states, the Regional Innovation Strategy in Hamburg was updated in a two-year participatory process. A successful innovation strategy should be flexible and dynamic and adopt a stakeholder orientation. The recent experience with the Corona crisis illustrates how important it is to focus on future-oriented topics and, as a business and science location, to react agilely to unexpected changes instead of relying on past successes.

In order to achieve the vision of "Working together with innovations for a livable city", the strategy aims to establish a courageous culture of innovation that make us look forward to new things, change and creative design. Moreover, it sets the

goal the stakeholders shall think big when it comes to innovation – both in terms of content and space – and network in a vivid innovation structure.

The basis for successful clusters lies in a close, well-functioning network of companies, science, politics and civil society (quadruple helix). The city of Hamburg is an integral part of each cluster. Together with stakeholders from business, science and society, the city implements its stakeholder-specific goals within the clusters and makes a stakeholder-adapted contribution to a joint further development.

A number of conferences and meetings on industry, innovation and entrepreneurship are held every year in the Hamburg clusters, bringing together representatives from business, science and the public sector as well as education. These include, among others, the Aircraft Interiors Expo (AIX), where the Crystal Cabin Award is presented, WindEnergy Hamburg, the Sustainable Shipping Congress, the Online Marketing Rockstars (OMR) or the newTV Congress of the media industry. In addition, major overarching events on crucial future topics are held annually, such as the Hamburg Innovation Summit, a platform for new technologies and innovations that brings together visionaries, founders and shapers of the future, or the Hamburg Gründertag (Hamburg Founders' Day), where experts, entrepreneurs and successful founders share their knowledge on the establishment of a business. In 2021, Hamburg will host the ITS World Congress.

Erneuerbare Energien Hamburg

Within ten years, Erneuerbare Energien Hamburg has established itself as the central regional industry network for renewable energy in the metropolitan region. It was founded in 2010 by the Free and Hanseatic City of Hamburg and the Registered Association for the promotion of the Cluster Erneuerbare Energien Hamburg. Erneuerbare Energien Hamburg plays a significant role in the prominent project Norddeutsche EnergieWende 4.0 (NEW4.0) that demonstrates the increasingly important interaction between Hamburg as a centre of private and industrial energy consumption and the extensive renewable power supply of the region of Schleswig-Holstein. In more than 100 individual projects, various central aspects of load management were analyzed and provided with sustainable solutions.



Gesundheitswirtschaft Hamburg

Gesundheitswirtschaft Hamburg GmbH was founded in 2009 as a subsidiary of the Free and Hanseatic City of Hamburg and the Hamburg Chamber of Commerce as a cluster agency for the health economy. The objective of the Gesundheitswirtschaft Hamburg is to establish and maintain a sustainable network across all areas of the health economy and to promote Hamburg as a business location in order to create synergies and innovation.

It also supports the establishment of cooperation structures among the providers and players involved in the health economy; the cluster also acts as initiator and sponsor of projects on important future topics such as digitalization, healthy and self-determined life of the elderly, and securing skilled workers. The guiding principle is "Bundle competencies, strengthen the located health economy!". Gesundheitswirtschaft Hamburg is also supported by the association Gesundheitswirtschaft Hamburg e. V.



Hamburg Aviation

Hamburg Aviation is the aviation cluster of the Hamburg Metropolitan Region: Airbus, Lufthansa Technik, Hamburg Airport and more than 300 other companies with a total of over 40,000 highly qualified employees work at one of the world's most important locations for the civil aviation industry. Together, they cover the entire life cycle of an aircraft and the complete aviation value chain. Since 2016, the Aviation Cluster of the Hamburg Metropolitan Region has been one of the 100 award winners of the 2016 "Excellent Landmarks in the Land of Ideas" competition. Under the motto "NachbarschaftInnovation – Gemeinschaft als Erfolgsmodell" (Neighborhood Innovation – Community as a Model for Success), Hamburg Aviation is being honored for its successful networking activities.



Hamburg Kreativ Gesellschaft

Hamburg Kreativ Gesellschaft is Hamburg's innovative business development agency for creative professionals. As an intermediary and driving force, it supports the creative industries in tapping into their potential and meeting challenges in order to make the location more attractive and Hamburg fit for the future. In addition to workshops, lectures and networking events, the cluster offers individual consultations, coachings, crowdfunding as well as help with financing and finding suitable workspaces. Hamburg Kreativ Gesellschaft opens up and promotes specific innovation potentials of the creative industries. Submarket-focused programs such as the Music WorX Accelerator, as well as a whole range of cross-sectoral funding offers, support the quality of creatives to bring new, useful ideas into the world – on an ongoing basis as a matter of course. Under the umbrella of the Cross Innovation Hub, the Hamburg Kreativ Gesellschaft continuously develops and promotes innovation potential through bringing together creatives and representatives of other sectors on a cross-sectoral/ cross-discipline level, cooperating in different formats such as the Cross Innovation Lab, the Cross Innovation Class or the Pop-up Office.



Life Science Nord

Life Science Nord strengthens value creation in the region and has established itself as one of the leading life science networks in Europe. Around 500 players from industry and research are part of the biotechnology, pharmaceutical and medical technology sector in the cluster region of Schleswig-Holstein and Hamburg. In 2018, the cluster management received the GOLD Label of the European Cluster Excellence Initiative (ECEI) for the second time. With a complete value chain from basic and applied research to clinical trials and market-ready end products, the Life Science Nord offers a unique infrastructure: hands-on researchers and clinicians cooperate closely with industry partners to help innovative products and technologies achieve a breakthrough.



Logistik-Initiative Hamburg

Logistik-Initiative Hamburg Management GmbH is Hamburg's cluster for logistics supported by the Ministry of Economics and Innovation of the Free and Hanseatic City of Hamburg and Logistik-Initiative Hamburg e.V. The aim of this public-private partnership is to further expand the role of the Hamburg metropolitan region as Europe's leading innovative logistics metropolis and to link logistics-related companies and institutions. It operates under the guiding themes of "Innovation and Value Creation" and "Network and Cooperation" in the fields of action "Intelligent Infrastructure", "Human Resources" and "Sustainability". Together with its partners, the Logistik-Initiative Hamburg is the first point of contact for companies, institutions and the general public in the Hamburg metropolitan region on all issues relating to the logistics-related economy. The network has been awarded the GOLD label for "Cluster Management Excellence" by the European Cluster Excellence Initiative (ECEI).



Maritimes Cluster Norddeutschland

Five north German federal states – one maritime cluster: Shipbuilding, suppliers, marine technology, shipping, offshore and more: The maritime sector has many facets – and an enormous future potential. The Maritimes Cluster Norddeutschland bundles the wide-ranging competencies of business, science and politics. It also creates platforms for dialog among the players and thus promotes interfaces with other industries. The aim is to strengthen and promote cooperation in the Northern German maritime sector. Founded in 2011 the Maritimes Cluster Norddeutschland has now about 350 members.



nextMedia.Hamburg

nextMedia.Hamburg is the regional initiative for Hamburg's media and digital scene. It is supported by the Free and Hanseatic City of Hamburg as well as by committed companies and innovative players. nextMedia.Hamburg has been part of Hamburg Kreativ Gesellschaft since 2018. As a hub within Hamburg's media ecosystem, nextMedia's mission is to support the innovation-driven collaboration between media and digital companies, universities, their students,



and local movers and makers. The goal is to further strengthen and expand Hamburg's top position as a media city. nextMedia.Hamburg is the largest and most diverse network of its kind in Europe.

Finanzplatz Hamburg

A cross-industry network, exchange at the highest level and an environment for creative ideas: This is what Finanzplatz Hamburg e. V. stands for. Finanzplatz Hamburg is the first point of contact for financial management in Hamburg. Its declared aim is to strengthen the market participants in the financial sector, to make the financial centre of Hamburg more competitive internationally, and to give the location a distinctive image and to communicate it. The focus lies on close networking with politics and administration, as well as with education and science. To achieve this goal, companies from the financial sector took the initiative in 2007 and founded Finanzplatz Hamburg e. V. to strengthen their region. The association has now around 120 members, including companies, associations, institutions and committed individuals.



foodactive

foodactive is the official food network of the Free and Hanseatic City of Hamburg and an association of more than 100 companies from the food industry. It is the first port of call for questions related to the food industry with its well-established connections to the industry, to experts, politics and administration.



Hamburg Cruise Net

Hamburg Cruise Net e.V. is the cruise shipping initiative for Hamburg. The public-private partnership manages an overarching network of private and public companies that represents the metropolitan region's combined cruise shipping expertise. Members of the association include cruise lines, port agents, tourism operators, hotel operators, and municipal organizations and authorities. They all work together under the umbrella of Hamburg Cruise Net to further enhance Hamburg's attractiveness as an international cruise destination, to secure jobs,



increase value creation and to shape the future of cruise shipping with pioneering technologies and service offerings.

Hamburg@work | DigitalCluster.Hamburg

Hamburg@work is Germany's largest cross-sector network dealing with topics related to digitalisation. As a pioneer and expert in the fields of digitalisation and innovation, Hamburg@work offers all companies that actively implement or want to implement digital transformation a platform to exchange and discuss experiences, objectives and problems in the digitalisation of core business processes. Experts from all sectors come together and share their ideas online and onsite at inspiring events. Hamburg@work uses this collective thought leadership of its members for extensive knowledge transfer. In this way, the network offers its members clear orientation and tangible benefits for their entrepreneurial activities in the context of digitalization. Since the European Cluster Excellence Initiative (ECEI) recognised Hamburg@work's outstanding achievements in the field of digitalisation with the Gold Label in 2019.



Windrove

The Windrove Network promotes the commercial use of drones in the Hamburg metropolitan region. Since 2017, Windrove has been bringing together users, designers, and suppliers of drone-based services and products. One area of focus is the analysis and shaping of the operating framework. The goal of Windrove is to achieve acceptance and safe integration of automated flight in urban airspace. With various formats, the network offers an open and neutral platform across organizational and industry boundaries to the UAM community and all interested parties. This gives rise to joint projects and activities which increase the exchange of ideas and the visibility of the field on both national and international levels, for example with the Deutsches Zentrum für Luft- und Raumfahrt (German Aerospace Center) projects "City-ATM" (Demonstration of Traffic Management in Urban Airspace) or "Medifly Hamburg". The Free and Hanseatic City of Hamburg will support the network's activities within the Windrove 2.0 project until the end of 2022.



SELECTED HAMBURG CLUSTER HIGHLIGHTS



9th German Renewables Awards – for the first time as livestream!

With the German Renewables Award, the Cluster Renewable Energy Hamburg honors outstanding innovations and personal commitment to renewable energies. For the ninth time, the independent jury awarded in 2020 the prize in the four categories: Product Innovation of the Year, Project of the Year, Student Work of the Year and Lifetime Achievement. In addition, the Journalist Award was presented as a separate category. With 40 participants on site and 300 viewers watching the livestream, the award ceremony attracted the highest level of attention of all award ceremony of the cluster to date.



Copyright: Erneuerbare Energien Hamburg



Erneuerbare Energien Hamburg e.V. donates for climate protection

The corona-induced reduction of the sales tax from 19% to 16% led to a retroactive reduction of the membership fee for 2020 and thereby to many credit notes. In order to reduce the bureaucracy, the Erneuerbare Energien Hamburg office suggested a meaningful use of the surplus by donating the credit balance to the Gut Karlshöhe, a project of the Hamburg Climate Protection Foundation. In the children's Researchers' Workshop at Gut Karlshöhe students can experiment extensively on the subject of renewable energies. In Workshops on the sustainable production and use of energy, the grades 3-6, for example, have conducted a variety of experiments. In addition to wind and water wheels, sundials, and solar cells, there are also solar cells at the students' disposal, as well as devices for measuring the power consumption of common household appliances. In this way, the students learn how to establish a relationship with their everyday life.



Virtual COVID-19 idea pitch

The virtual COVID-19 idea platform of Gesundheitswirtschaft Hamburg eHealth network provides a forum for stakeholders in Hamburg's health economy to exchange ideas and solutions to address the current situation during the coronavirus pandemic. To push the use of the existing idea potential, Gesundheitswirtschaft Hamburg organized a virtual COVID-19 idea pitch in May 2020. In the webinar, entrepreneurs presented the status of their projects, envisaged development steps and solicited cooperation partners. Support options for the elderly, telephone sponsorships for cheering up in everyday life as well as hygiene and infection protection were presented.



Start-up consulting day for the healthcare industry

Gesundheitswirtschaft Hamburg has been offering the Start-up Advice Day for one and a half years. Here, start-ups and those interested in founding a company can inform themselves in confidential discussions with experts about important

steps for setting up a company. Since 2019, new and established Hamburg-based start-ups from the health economy have had the opportunity to arrange individual appointments with experts on varying topics on the first Thursday of every month. By now, the consulting offer has established itself as a highly demanded format in the Hamburg start-up ecosystem. In 2020, eleven start-up consulting days took place. Due to Corona, nine start-up consulting days took place as "Call the expert" via video or telephone instead of the previous "Meet the expert". Four different topic areas were offered at each start-up consulting day, in total and as a great result, experts provided information on 44 topic slots and a total of 177 individual meetings have taken place with 50 people interested in founding a company.



Copyright: Gesundheitswirtschaft Hamburg

HAMBURG AVIATION Aviation Award for Young Talent: Prizes for "green" ideas

Christopher Victor Werthmann from the Hamburg University of Applied Sciences and Patrick Sieb from the Technical University of Munich received the Hamburg Aviation Young Talent Award 2020 for the best thesis on an aviation-related topic. Beside the universities, the supervising companies Airbus and Lufthansa Technik were also pleased with the award. In addition, a new, forward-looking special prize was awarded for the first time: 1st place in the category "Green

Flying" was shared by Sabine Derboven from HAW Hamburg and Awista Nasiri from TU Hamburg. The young talent awards was presented during the digital Hamburg Aviation Forum. The winners of the Hamburg Aviation Young Talent Award can look forward to prize money of €1,500 each as well as free participation in next year's Hamburg Aviation Forums. The Barsbüttel-based plastics company Krüger Aviation initiated the special category and sponsored, in addition to the €800 prize money, once again all trophies for the young talent award winners.



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HAMBURG AVIATION Future of the aviation location: Task force launched

The consequences of the Corona pandemic are hitting Hamburg as an aviation location with great force. That is why Hamburg Aviation, with the support of the Free and Hanseatic City of Hamburg, has set up a task force, that will discuss future strategies and possible ways of cross-stakeholder cooperation in the coming months. The Hamburg Aviation Task Force was officially launched with a kick-off workshop on August 31. Participants included high-ranking representatives of the cluster's Executive Board, the founding members, the Free

and Hanseatic City of Hamburg, and institutions as the Bundesagentur für Arbeit (Federal Employment Agency). In various thematic working groups, short-, medium- and long-term measures are to be worked out in the coming months, so that Hamburg can react to the economic consequences of the Corona pandemic and at the same time prepare itself for the future of aviation. The working groups are composed of Hamburg Aviation members from industry, research, education and politics. Some of the defined workstreams are qualification, urban air mobility, aircraft cabins and hydrogen.

Hamburg's Crowdfunding Campaign Funding for Creatives

The Corona pandemic has had particularly far-reaching consequences for many players in culture and the creative industries. In order to support them and other crowdfunders from various sectors in their realization of new projects, Hamburg Kreativ Gesellschaft and the Ministry of Culture and Media have launched the Hamburg Crowdfunding Campaign Funding. Hamburg project starters received funding of up to 5,000 euros to professionalize and successfully implement their crowdfunding campaigns. With this grant, creative services in Hamburg could be commissioned as part of the campaign creation, for example graphic design, photo or video production, text or advertising services. 53 applications were approved and funded with a total of €225,000 from the Corona aid package for culture. As part of the crowdfunding process, they have collectively raised more than €1 million in private support. In order to continue the successful crowdfunding campaign support, the Ministry of Culture and Media made another €100,000 euros available for further projects in December 2020. The program has a double positive effect for the local creative industry. Hamburg companies, institutions and associations are encouraged and supported to resort to crowdfunding as an alternative financing instrument in the challenging times of the Corona crisis. On the other hand, this funding strengthens the local cultural and creative industries.

Cross Innovation Conference broadcasted as a livestream

From Dec. 01 to Dec. 04, the Hamburg Kreativ Gesellschaft brought together creative industry institutions from across Europe. With a series of professionally led online workshops, it was possible to discuss and learn together how to work in cross innovation processes. With several hundred participants, the conference was the largest of its kind in Europe. Nowhere else is there a comparable initiative that brings together and interconnects all European representatives from the creative industries in such a sustainable manner and on such a scale. The four-day program with numerous renowned international speakers was made available via Zoom and broadcasted as a livestream.

Facing the challenge: COVID-19

Life Science Nord has also occupied a key role during the COVID-19 pandemic: several actors from the region have already developed ideas and solutions to current challenges and contributed to the fight against the pandemic. Entitled "Facing the Challenge: COVID-19", the conference presented individual actors, their competencies and approaches to solutions in the context of the Corona crisis. Because of a lack of materials, raw materials or products to combat the Corona pandemic, many companies in the life sciences sector have been currently expanding or transforming their production. One example is F&F Lasertechnik GmbH, whose core business is originally industrial metal processing for the medical technology, mechanical engineering and defense technology. In order to produce around 150,000 filtering facepiece respirators per month from mid/late April, the technology company set up certified production of FFP3 / FFP2 PPE masks in accordance with EN149. By working together across a wide range of sectors and industries, it was possible not only to secure supply but also to increase innovation. Information on current requests (e.g. suppliers of isopropanol or cooperation partners for the production of surgical masks) is published on the Life Science Nord website.



Life Science Nord develops online qualification program in AI

Together with the Lübeck Institute for Learning Services and the continuing education provider on campus, Life Science Nord has developed an online qualification program in the field of artificial intelligence, which companies from Schleswig-Holstein were able to test free of charge for one year as part of a test phase. "KI#CK – Künstliche Intelligenz: Chancen erkennen, Kompetenzen entwickeln" (KI#CK – Artificial Intelligence: Recognizing Opportunities, Developing Competencies) is the name of the project, which addresses primarily small and medium-sized companies from the life science and medical technology industries. Over the past year, experts from the industry have developed around 17 online modules on this topic. They range from an introduction to the topic of artificial intelligence to specialized modules such as "Introduction to imaging processes (AI in practice)." Some of the learning units were presented for the first time on February 27 at the event "KI#CK: KMU meet KI – Weiterbilden in SH". KI#CK will run until the end of 2020 and is funded by the Schleswig-Holstein State Employment Program with approximately 500,000 euros from the European Social Fund.



Students develop AI-based prototypes together with partner companies

A music prediction machine, a filter against fraudulent and inappropriate advertising, and an intelligent recipe database – these are the results of nextMedia.Hamburg's second Prototyping Lab, which students from the University of Hamburg, FH Wedel University of Applied Sciences, and Hamburg Media School developed in collaboration with the Hamburg media companies N-JOY, SPIEGEL MEDIA, and Bauer Media Group. The prototypes were presented at the Prototyping Lab Reveal, which brought together project participants and guests at the designxport Hamburg. The event marked the end of three labor-intensive months in which the interdisciplinary student teams tackled the challenges of their partner companies.



How fast movers strengthen journalism in the crisis

Scarcity of resources, information overload and the fight against fake news are just some of the topics currently dominating the discourse in media. To maintain

an overview and ensure a reliable supply of information even in the turbulent COVID-19 times, there is a greater need than ever for a functioning digital infrastructure that enables new types of journalism, and for innovative content formats that can respond to current circumstances. In order to meet this need and to strengthen journalism in this difficult situation, nextMedia.Hamburg, inspired by the Digital Hub Logistics, launched the Fast Mover funding program at short notice, for which more than 30 promising projects applied within just one week. From all the applications, the jury, made up of supporters from SPIEGEL, Greenhouse Innovation Lab, Rudolf Augstein Stiftung, next media accelerator, Hamburg Media School and Jung von Matt/TECH, selected the four most promising solutions. For the "Content & Formats" track, the start-up THE DISTRIQT, which resonated with its edutainment format "In Times of" and responded to an increased demand for so-called "Conscious Content", became accepted, as well as Flip, the movement for a better economy, which is based on journalistic research and presents visionary ideas and sustainable products in its newsletter. For the "Infrastructure" track, Hostwriter and Remote Journalism prevailed: Hostwriter has created a "COVID-19 Collaboration Exchange" that enables editors to easily find freelancers from 154 countries and hire them for research. Remote Journalism offers a variety of hardware and software solutions for journalists to produce high-quality content from home.



Project VevoTras project enables a more efficient and environmentally friendly logistics chain

The optimization of planning processes and the efficient use of resources through the intelligent networking of free environmental, mobility and traffic data with data from transport management systems of service providers in the logistics and transport sector as well as loading companies is the goal of the project VevoTras – Networking of Transport Systems, which is funded by the Federal Ministry for Digital and Transport. Based on software-supported interfaces and a matching module, selected information is brought to a level of transparency that enables transport service providers and loading companies to make more intelligent decisions in the design of scheduling, transport and storage processes and thus achieve more efficient and environmentally friendly logistics. In addition to direct economic effects, a contribution is made to reducing congestion and waiting times as well as noise and pollutant emissions, and thus the general improvement of the traffic situation and quality of life in and around the Free and Hanseatic City of Hamburg. The project is part of the

immediate program "Clean Air 2017-2020" – Digitization of Municipal Transport Systems of the Federal Ministry of Transport and Digital Infrastructure and runs from March 2020 - February 2022.



Logistik-Initiative Hamburg organizes first virtual trainee speed dating

As part of the nationwide "Logistics Day" campaign, the first virtual trainee speed dating event within the logistics sector took place in April 2020. Since all schools were closed and job fairs cancelled due to the Corona virus, it was difficult for applicants and companies to get in touch with each other. Companies and young people were able to get to know each other via web conference at the first virtual apprentice speed dating. This online format was organized by the Logistik-Initiative Hamburg, which supports its member companies with the youth brand "Logistik Lernen Hamburg" (Logistics Learning Hamburg) supports its member companies from the logistics industry with a variety of activities in career orientation and the recruitment of young people. The format is an example of how digital tools can be successfully deployed and used in the recruitment of future trainees.



Agility and New Work for maritime companies

How does my company counter the increasing shortage of skilled workers? What is behind concepts such as new work and agility, and which opportunities and risks are associated with these concepts? Questions like these were discussed by around 70 entrepreneurs, managers, HR managers and experts in the Hamburg Chamber of Crafts on February 18, where Maritimes Cluster Norddeutschland had invited to a full-day workshop "Agility and New Work for Maritime Companies". In four workshops, participants had the opportunity to learn about the latest trends, practice methods in a playful way and exchange ideas intensively. The clusters Logistik-Initiative Hamburg and Renewable Energy Hamburg supported the kick-off event as partners.



Copyright: Maritimes Cluster Norddeutschland e.V. / Silke Heyer Photographie



New board for Maritimes Cluster Norddeutschland

The members of Maritimes Cluster Norddeutschland have elected a new board of directors. Due to the Corona-related restrictions, this year's election took place by postal vote following the virtual general meeting. The updated strategy of the cluster for the period until 2025 was also approved by the general meeting. Around 100 participants were informed about the activities and results of the past year. Even in times of the Corona pandemic, Maritimes Cluster Norddeutschland has proven to be extremely helpful as a networking platform. It became apparent that there is a great desire for members to exchange information with each other so that they can draw on the experience and

adaptive measures of other companies during the crisis. In this context, pressing issues, such as new sales channels, customer support, and expert activities on board were addressed in webinars.



Food donations for the Hamburg food banks

In the past, the rule for cruise ships in Hamburg was that food that was no longer needed had to be disposed and could not be donated. This was due to customs and import regulations, as the cruise ships were considered "third countries". To change this, the city of Hamburg successfully lobbied at the federal level to adapt the framework conditions. In addition to the Tafel (food bank) and Hamburg Cruise Net, Hamburg Customs and the Veterinary and Import Office were also involved in the project. In October, the first donation (from TUI Cruises) was finally handed over to the Tafel in the presence of Senator Anna Gallina. So far, the Hamburg Cruise Net members TUI Cruises and AIDA Cruises have signed the corresponding framework agreement. Under the new guidelines, food of non-animal origin may now be donated – for example, long-life products such as pasta, rice, fruit juices or cereal bars.



Copyright: Hamburg Cruise Net



Hamburg Cruise Nets cross-cutting projects during Corona

Although most of 2020 was dominated by the Corona pandemic, the cruise industry initiated a wide range of projects trying to take advantage of the downtime and prepare for the post-pandemic period. In the summer, for example, the Baakenhöft terminal was opened. The Cruise Center is intended to relieve the future terminal in the southern Überseequartier as an alternative location and can handle up to 1,500 passengers per call. In mid-September, the first member event onsite since the beginning of the pandemic – under Corona-appropriate conditions, of course – took place. At the end of the year, Hamburg Cruise Net was able to donate 3,000 euros to the Seafarer's Lounge thanks to the support of its members. In the context of the VAT reduction, some member companies waived the refund of the difference of the contribution payments already made for the year 2020. The excess payments were collected and donated to the Seafarer's Lounge. The Seafarer's Lounge is a non-profit enterprise and a facility for seafarers from cruise ships at the three Hamburg Cruise Terminals. Crews can obtain daily necessities here during ship arrivals. Many full-time and volunteer employees look after the ship's crews in Hamburg and try to offer them a "temporary home" here.



Finanzplatz Hamburg

Corona crisis: Hamburg acts and helps – Hamburg's financial sector joins in!


The Hamburger Sparkasse, the Hamburger Volksbank, the Investitions- und Förderbank, the Bankenverband Hamburg and Finanzplatz Hamburg as well as the Hamburg Finance Authority have agreed to work closely together to implement Hamburg's protective shield for Corona-affected companies and institutions. This shows that Hamburg's financial sector ensures that Hamburg comes through the crisis as well as possible.

 Finanzplatz Hamburg **Finance Compass 2020 awarded**

On November 30, the Finance Compass was awarded. With this award and the prize money of €3,000, Finanzplatz Hamburg e. V. honored the research work of Marwin Mönkemeyer, whose master's thesis addressed the topic "Social norms and ethical biases in institutional investor portfolios". The Finance Compass 2020 for the best PhD has been awarded to Dr. Henrik Gildehaus. His work addresses the devastating effects that the financial crisis had on the stability of the economic and financial system.



Copyright: Jan Korte

 **First joint parliamentary evening of foodactive and LI Food**

More than 90 guests, among them many representatives from the cabinet and the state parliament as well as company representatives, accepted the invitation of foodactive and LI Food to the Parliamentary Evening in Hanover. Megatrends in the food industry were discussed in a panel with scientific representatives and politicians.

 **Food session and workshop 'Nutri-Score'**

During a workshop, foodactive dealt with the topic Nutri-Score, provided legal and scientific background information on the scoring method and shows the effects of the seal on consumer behavior. The companies involved calculated the Nutri-Score for selected products and analyzed the possibilities of reductions, enrichment and replacement of nutrients and ingredients, considering the background of quality assurance and reliability specifications.

 **Medicine is taking off: successful Medifly test flights**

The Medifly project, funded by the Federal Ministry for Economic Affairs and Energy, has successfully demonstrated the use of unmanned aircraft for the acute transport of medical samples in Hamburg. For this purpose, the transport drone completed a total of six flights between two hospitals situated at a distance of approximately 5km. The findings form the basis for the trial operation, which will last several months. Since the drone flights took place over urban areas and also within the control zone of Hamburg airport, extensive security measures had to be taken. The project partners had to prove the automated flights could be carried out safely and reliably at all times in this complex environment and over busy traffic routes. The flights were preceded by several months of planning and coordination with the relevant authorities. The result was worthwhile: With the first approved flight beyond visual range over populated areas, Hamburg has strengthened its role as a model city for urban aviation.

windrove **Successful ITS anchor projects**

The ITS World Congress will be held in Hamburg from Oct. 11-15, 2021. Up to now, urban air mobility has not been a main topic of the past congresses. This will change with the 2021 hosting by the UAM Model City Hamburg. As a field sponsor for Urban Air Mobility, Windrove accompanies all relevant projects in Hamburg and supports the ITS organizers in their technical preparation. The following six significant drone projects received ITS anchor project status: The FALKE drone defense system, the Drone Control Center of HHLA Sky, the integrative joint project i-LUM, the AI inspection drone, Medifly Hamburg and the UDVeO traffic management project.



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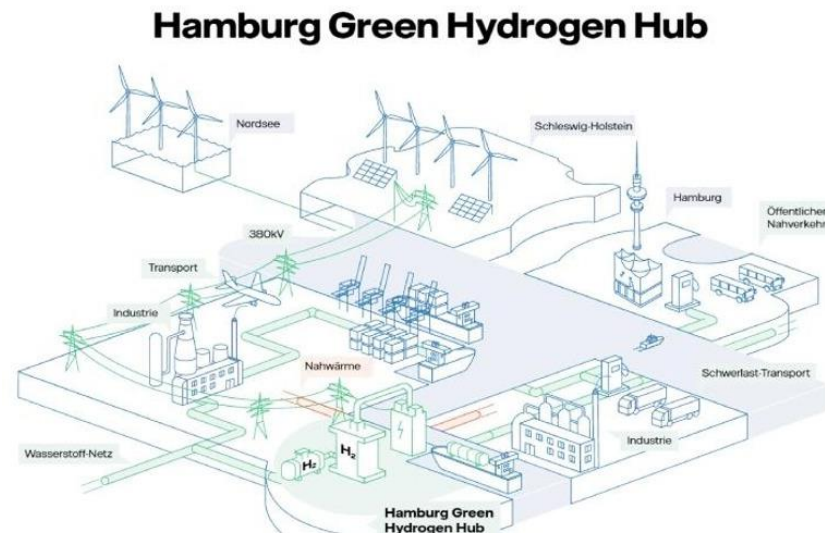
Establishing the hydrogen economy in Hamburg

2020 was dominated by the implementation of the joint hydrogen strategy that Bremen, Hamburg, Mecklenburg-Western Pomerania, Lower Saxony and Schleswig-Holstein adopted at the beginning of November 2019. Green hydrogen, i.e. hydrogen produced from renewable energy sources such as wind or solar radiation, forms the strategic energy source of the future. In close cooperation with other North Sea and Baltic Sea countries, the declared goal is to become the leading European green hydrogen region. Agreed strategic milestones of the North German hydrogen strategy until 2025 include the

development of hydrogen electrolysis capacities of at least 500 megawatts. At least five gigawatts are targeted in Northern Germany by 2030. By 2035, it should be possible to meet the complete demand with green hydrogen. The core element of Hamburg's hydrogen strategy is a scalable 100+ megawatt electrolyzer, whose construction at the Moorburg site was already decided at the end of 2019. The Hanseatic City of Hamburg offers the best prerequisites for building a hydrogen economy along the entire value chain from the producers, through transport and distribution, to the customers in the various industries and thus plays a central role in the North German hydrogen strategy.

Institutionalization of hydrogen economy at cluster level

At the beginning of 2020, the Authority for Economic Affairs and Innovation decided in close consultation with the partners from the hydrogen network, to institutionalize the topic of hydrogen economy at cluster level because of its importance.



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SELECTED INNOVATION SUCCESSES



Mobile runway

Until the end of 2020, Hamburg Aviation coordinated the six-partner consortium of medium-sized companies and universities (which included Hanseatic Aviation Solutions, mb+partner, Nordwig Werkzeugbau, RWTH Aachen University and TU Hamburg with the institutes for aircraft systems engineering and air transport systems), which developed a mobile, automatable and rail-supported runway system for UAVs.



Cross Innovation Lab

The Cross Innovation Lab, the Cross Innovation Hub brings together creatives with actors and companies from non-creative industries. The Cross Innovation Lab is an experimental space in which local companies that do not belong to the creative industries work together with creative professionals in an open innovation process. Together, they tackle the companies' innovation projects and challenges: for example a new business idea, a process optimization or a product innovation.



Content foresight 2020

"Content Foresight" is a joint format of nextMedia.Hamburg and the Cross Innovation Hub of Hamburg Kreativ Gesellschaft. Companies from different industries work together here to find answers to the questions of the future. To do this, they develop scenarios using foresight methods. Foresight is a form of future research that deals with the scientific development of images of the future. With the help of interdisciplinary collaborations, innovations can be initiated: Companies from different industries work together, combine their expertise and thus develop innovative business models, concepts or prototypes at the interface of technologies and content.



HANSEBLOC unleashes the Blockchain for logistics SMEs

A cargo of vital medicines has to be transported well cooled from Bremen to Paris. How can it be ensured that the cold chain is not interrupted even once on this route and during the transfer to various trucks? With the blockchain technology of the northern German research network HANSEBLOC such a transport could become easier and more reliable in the future. Ten partners from a broad network of freight forwarders, IT experts and researchers have participated in the two-and-a-half-year HANSEBLOC research project, which is coordinated by the Logistik-Initiative Hamburg.



Start of ePIcenter Project - enabling resilient, efficient and greener supply chains

The ePIcenter project unites 36 partners (port authorities, logistic service providers, manufacturers, academic institutions, technology partners, ...) throughout Europe and beyond, to develop and test AI driven logistic software solutions, new transport technologies and supporting methodologies to increase the efficiency of global supply chains and reduce their environmental impact. By working closely with industry partners, dealing with real life situations, the project delivers relevant applications, that can easily be transferred to other end-users. Taking into account emerging technologies (e.g. hyperloop, automated vehicles) and trade routes (Silk route, Arctic route) in the simulation modules, the project also prepares for the future and challenges ahead. Ultimately the project will contribute to a more efficient and sustainable multimodal freight transport system and logistics. The project is co-funded by the European Union from the Horizon 2020 program.



Innovative approach to cure HIV

Researchers in Hamburg want to use a new gene and cell method to improve the treatment of HIV patients in the future. Under the umbrella of the Hamburg biotech start-up and Life Science Nord member PROVIREX, a new therapeutic approach is being developed that uses so-called gene scissors to cut out the blueprint of the AIDS pathogen HIV from the genetic material of the infected cell and to eliminate the virus.



Hamburg-based company launches detection system for the coronavirus

Hamburg-based altona Diagnostics GmbH has become one of the first medical diagnostics providers to complete the development of a commercially available test system for the detection of SARS-CoV-2 and has been marketing the final product since mid-February 2020.



SARS-CoV-2 testing from medac

Support in the fight against the coronavirus: medac Gesellschaft für klinische Spezialpräparate mbH has been offering a proven antibody test for SARS-CoV-2 in the DACH region since May 2020, as well as a rapid and particularly easy-to-use PCR test for direct detection of the virus.



Early stage predicting of osteoporosis and renal insufficiency

The new method for predicting osteoporosis developed by the Kiel-based start-up and Life Science Nord member osteolabs is a world first because the test does not require radiation exposure. Instead, the OsteoTest identifies even the slightest changes in bone structure in blood or urine and thus complements existing X-ray procedures. Patients benefit from the new procedure because, according to a recent study, it has been shown to predict fractures caused by bone loss at an earlier stage.



Dynamic Biofilm Protection

Fouling as a result of biofilm causes problems such as corrosion or deterioration of heat transfer. Antifouling coatings containing biocides and heavy metals can slow down this effect, but never stop it completely. Maritimes Cluster Norddeutschland member HASYTEC Electronics has developed the ultrasonic-based technology "Dynamic Biofilm Protection", which prevents the creation of biofilm on all liquid-bearing surfaces.



Cooperation network MN3D

The Maritimes Cluster Norddeutschland, which pursues digitalization and especially 3D printing as a strategic focus topic, has already been cooperating with its members in the field of additive manufacturing for several years. The Maritimes Cluster Norddeutschland would like to further support the innovation potential of SMEs and foster their international competitiveness. Emerging from Maritimes Cluster Norddeutschland workshops, various maritime players have come together and founded the MN3D cooperation network, which is now researching and working on the further development of these forward-looking trends.



musicube searches for and finds the right music with artificial intelligence

Since participating in nextMedia.Hamburg's Media Lift incubator, B2B music start-up musicube has gained a lot of attention and generated plenty of press coverage with its innovative idea. musicube always searches for and finds the right music – for every taste and every situation. With its artificial intelligence-based technology, the start-up breaks the filter bubble in which most people who regularly stream music find themselves. The start-up's algorithm analyzes and sorts music down to the last detail, allowing users to search for a specific voice, instruments and music that fits every occasion and taste.

Hamburg@work DigitalCluster.Hamburg **Hamburg@work launches new hybrid talk show format**

The CXO onlineTalk is a hybrid talk show format that Hamburg@work has set up in the face of the Corona pandemic. It offers top-class experts a platform to exchange views on a current topic from the context of digitalisation and helps to generate new insights together with the audience. The moderated discussion takes place in a TV studio and is broadcasted via livestream. Thus, the CXO onlineTalk is a smart, digital solution in a world which becomes more and more reliant on location-independent exchange of experiences. With this concept, which is part of the Disrupt Now! event series, Hamburg@work establishes a New Work perspective in the current event industry.



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CROSS-CLUSTER INITIATIVES

Co-Learning Space für Hamburger Cluster

Since the end of 2016, the project Co-Learning Space for Hamburg Clusters has been developing and designing the space that enables Hamburg's clusters to engage in a productive exchange, identify common fields of action, use cross-cluster strategies to exploit common opportunities and meet common challenges. Synergy effects are being created at the level of operational cluster management and opens up new learning and development potential. In addition, industry experts are brought into a professional dialog about the future of their sectors. In this way, topics and developments that require interdisciplinary approaches to certain problems and challenges can be identified. The project aims to inspire cross-industry action through the purposeful development and design of cluster bridges in order to meet future technological and social challenges. Hamburg's cluster managements and networks are engaged in the Co-Learning Space. The COVID-19 pandemic recently illustrated that the Co-Learning Space is an important tool for the cluster economy, as well as crisis management. The Co-Learning Space is funded by the European Regional Development Fund the Free and Hanseatic City of Hamburg.



Cross Innovation Hub of Hamburg Kreativ Gesellschaft

In search of new impulses for products, processes and workflows, companies, the self-employed and people interested in setting up their own businesses are increasingly looking beyond their own domain to other sectors and markets. In so-called cross-innovation processes, it is especially the confrontation with new work cultures and solution approaches, such as those found frequently in the creative industries, that promises opportunities for changed process designs, new products, services and business ideas. In its Cross Innovation Hub, Hamburg Kreativ Gesellschaft makes use of this approach to promote innovation at an early stage with a continuous flow of new offerings. The Cross Innovation Hub is a project of Hamburg Kreativ Gesellschaft and is co-financed over a period of five years with funds from the European Regional Development Fund.



Cross-Cluster Projects in the areas of Hygiene, Infection & Health and eHealth

As part of the Hamburg Cluster Bridges initiative, the cluster organizations Life Science Nord Management GmbH and Gesundheitswirtschaft Hamburg GmbH are jointly working on two thematic areas under one roof: Hygiene, Infection & Health and eHealth. The project is funded by the European Regional Development Fund and the City of Hamburg.

Hygiene, Infection & Health

The sub-project Hygiene, Infection & Health (HI Heal) aims to establish a cross-cluster network in the areas of hygiene, infection & health along a joint value chain between the cluster agencies Gesundheitswirtschaft Hamburg and Life Science Nord Management. HI Heal interconnects players, including companies, scientific institutions and clinics in Hamburg. In addition to new "emerging diseases" such as Ebola, EHEC and MERS, the range of topics includes, also nosocomial infections (hospital-acquired infections) as well as antibiotic resistance and hygiene measures.



eHealth

In the field of eHealth, there is a continuing demand for new solutions for the primary and secondary healthcare market due to demographic change, increasing cost pressure in healthcare, and changes in citizens' health awareness. Digitalization offers support for this in many areas, but also confronts the players with many new challenges. Gesundheitswirtschaft Hamburg GmbH has established an open-access cross-cluster network, the eHealth Network Hamburg, as part of the cluster bridge project on the topic of eHealth. With its activities, the eHealth Network connects players from the fields of business, science, healthcare and politics in order to identify trends, recognize opportunities and drive innovative developments for the healthcare market. The eHealth Network involves not only members of the Gesundheitswirtschaft Hamburg and Life Science Nord associations, but also members from the digital and creative industries clusters, companies from adjoining industries, and other Hamburg stakeholders. The eHealth Network Hamburg is funded by the European Regional Development Fund and the Free and Hanseatic City of Hamburg; the project started in April 2016 and concludes in December 2021.



CROSS-CLUSTER ACTIVITIES

Gesundheitswirtschaft Hamburg and Life Science Nord organize joint cross-cluster event

More than 65 guests came to the Virtual Reality Headquarters on February 10, 2020, to learn about current trends in infection prevention, to assess the new corona virus and to discuss the role of digitalization.

HIHeal provides graphics

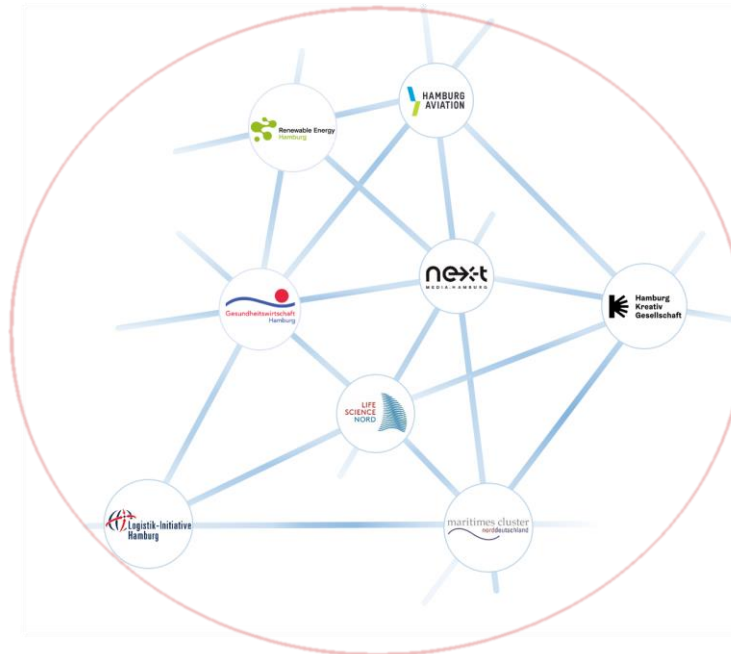
The innovation network HIHeal of the cluster Life Science Nord has published a graphic on the correct handling of masks and made it available to all Hamburg clusters. Furthermore, graphics on "General hygiene rules", "Washing your hands properly", and "Cough and sneeze etiquette" were shared.

Support during the Corona pandemic

The Hamburg clusters are relying on strong partnerships and cross-cluster exchange: In 2020, the media cooperation of the Hamburg clusters intensified. By mutually communicating and advertising their events, they have achieved a greater coverage, which is beneficial for all involved. Life Science Nord publishes current search queries from cluster actors on production, capacity and supply bottlenecks in connection with the coronavirus pandemic. The Hamburg cluster share requests from their member companies among themselves. The clusters have also made available helpful links and information e.g. on assistance programs for their members.

Online-Plattform "Fachkräfte für Hamburg" ("Skilled workers for Hamburg") enables personnel partnerships during the Corona pandemic

At the suggestion of Maritimes Cluster Norddeutschland and Logistik-Initiative Hamburg, Hamburg's social services department established a platform, where companies can enter into personnel partnerships through a kind of job exchange. In the wake of the Corona pandemic, many companies in Hamburg had to scale back their operations. Many applied for short-time allowances to bridge this period. On the other hand there are several enterprises, which are desperately looking for employees. The platform offers the possibility to advertise temporary personnel availabilities and requirements for the time of the Corona pandemic and to exchange employees with other enterprises. The aim of the platform is to bring two parties with complementary labour surpluses and demands together quickly and unbureaucratically. The aim of the platform is intended to help secure skilled workers and to maintain jobs and productivity.



Health in Aviation

Distancing, respiratory protection, failures. No one could get past these buzzwords in early summer 2020. The consequences of COVID-19 were visible in almost every industry. Aviation, however, was among the hardest hit by the pandemic. In the webinar "Health in Aviation", a cooperation of ZAL GmbH, Hamburg Aviation e.V., and Gesundheitswirtschaft Hamburg GmbH, two experts from different industries discussed the requirements that the crisis has necessitated.

Logistik-Initiative Hamburg and ITEC continue to promote "Tradeinfo" from open.innovation

With "Tradeinfo", the second idea from the logistics barcamp "open.innovation" from February 2020 could already be extended. This time with the active support of the IT-Executive Club (from Hamburg@work) and the know-how of Senacor Technologies. In four hours, representatives from logistics, IT, science and the export industry worked out an in-depth use case for export-oriented logistics companies in a design sprint. In a first step, the Logistik Initiative Hamburg already examined which start-ups could support the realization of the idea. In the future, both clusters want to further sharpen the use case and transfer it to other logistics challenges.

Aviation meets the Healthcare in joint bar camp: ideas for safe flying

How can healthcare and aviation industry benefit from each other, and what cross-industry value creation potentials arise from the possibilities of digitalization? These questions are of enormous importance, as COVID-19 has confronted both aviation and healthcare industry with significant challenges. The aviation industry in particular needs new approaches to enable regulated flight operations in compliance with infection control. This was the starting point for the fourth cross-cluster workshop, which was organized by the Digital Health Hub Hamburg together with Hamburg Aviation e.V. in July 2020. The 29 participants from the aviation, health and digital industries discussed innovative ideas that could contribute to infection control in air travel. The focus was on the remote accompaniment of persons before the start of the flight and infection protection within the aircraft.

Online-Conference alternative drives

The Hamburg Chamber of Commerce, the Logistik-Initiative Hamburg, the Verein Hamburger Spediteure (Association of Hamburg Forwarders) and the Verband Straßengüterverkehr und Logistik Hamburg (Association of Road Freight Transport and Logistics Hamburg) organized the online conference Alternative Drives in September 2020 together with the Cluster Erneuerbare Energien Hamburg and the Wasserstoff-Gesellschaft Hamburg (Hydrogen Society Hamburg). The aim of the conference was to present the state of knowledge

about the competing alternative drive technologies as well as global and local strategies and climate policy requirements for companies in the road freight sector in an action-oriented manner. In addition to a panel discussion with representatives from politics and industry, funding opportunities and best practices from the use of alternative drive technologies were highlighted.

Erneuerbare Energien Hamburg and Maritimes Cluster Norddeutschland organize joint international web workshop

Erneuerbare Energien Hamburg, Maritimes Cluster Norddeutschland, AHK Norway, and GCE Ocean Technology organized an international web workshop in November on the topics of "Low Carbon Offshore Energy", "Clean Maritime Solutions", and "Digitalization and Digital Twins".

IMPRINT

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EDITOR & GRAPHIC DESIGN

**Helmut-Schmidt-University/
University of the Federal Armed Forces Hamburg**

Chair of Business Administration,
esp. Organization Theory
Project Co-Learning Space for Hamburg Clusters Univ.-
Prof. Dr. Stephan Duschek

Holstenhofweg 85
22043 Hamburg
Germany

www.co-learningspace.de
info@co-learningspace.de

PHOTOS & ILLUSTRATIONS

See image references