

# CLIMATE COMPASS 2021



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Sustainability plays an important role in the laboratories of the future and we work purposefully to create the optimal framework for the industry.

Labflex design, produce and install solutions to laboratories around the world, which is why we are responsible for developing and taking the laboratories in a sustainable direction - we take this responsibility very seriously.

We continuously work on implementing new initiatives within sustainability and digitisation. We call this development Labflex 4.0.

At Labflex, we are positive about the future work with Labflex 4.0, which will ensure that we can deliver laboratories of tomorrow in the finest quality and according to the customer's needs.

Stig Blicher CEO, Labflex A/S

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## **ENVIRONMENTAL REPORTING**

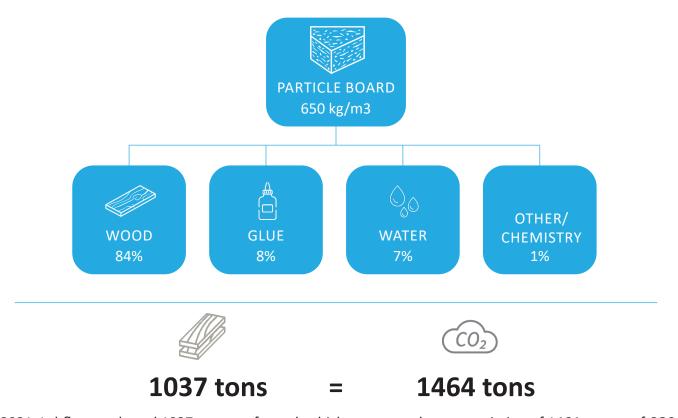
Labflex's carbon footprint is based on emission factors developed by the Danish Business Authority and is calculated through their guidance program: Climate Compass.

Through the Climate Compass, it is possible to calculate a CO2 footprint using the GHG protocol, which includes six greenhouse gases (CO2, CH, N2O, HFCs, PFCs, and SF6) and converts them into CO2 equivalents (CO2e). CO2e is a common denominator used to express the total climate effect of a given gas in relation to the amount of CO2 that would have a similar effect. This allows a company's climate impact to be expressed as a single number, even though it consists of several gas types.

The carbon footprint includes calculations of the activities within Labflex related to the production of laboratory furniture. This includes our consumption of electricity and heat, purchase of materials for production, transportation to the company and customer, waste and recycling, and the impact of the fume hood's life cycle costs.

Labflex collected data on energy consumption through invoices and the purchasing register, using quantities and numbers. To calculate the carbon footprint for the purchase of raw materials for production, the materials have been converted to weight. For each purchased material, Labflex has used the supplier's data, the material's average density, and our own weighings.

If a product consists of multiple materials, the total weight of the purchase is determined and proportionally allocated to the material groups according to the supplier's instructions; see the example below.



In 2021, Labflex purchased 1037 tonnes of wood, which corresponds to an emission of 1464 tonnes of CO2e.

## WE WANT TO MAKE THE LABORATORIES MORE SUSTAINABLE

The sustainable agenda has manifested itself in recent years within all industries. This is also the case when it comes to the traditionally conservative laboratory industry.

The increasing focus on sustainable solutions presents a task and opportunity that Labflex welcomes. A central part of embracing the sustainable agenda should be realised through a two-pronged approach: digital development as well as energy and resource optimisation of production.

These initiatives encapsulate the concept of Labflex 4.0 and are intended to be a driving force for the digital transformation in laboratories. A development that should provide tangible benefits for laboratory technicians and other stakeholders, as well as complement Labflex's core values:

- Design
- Functionality
- Efficiency
- Safety
- Sustainability

This report provides an indication of Labflex's current impact on the climate and is intended to serve as a compass for Labflex's future actions within sustainable initiatives.

Laboratories have traditionally been known for very high energy consumption. The reason is the great need for safety when working with hazardous substances.

Labflex is dedicated to developing new solutions in laboratories that will change this perception of the industry. The purpose is to create a new reality in laboratories that both reduces climate impact while maintaining uncompromised safety.

A completely new approach to the design and use of laboratories is necessary, which is why Labflex is implementing new initiatives in digitalisation and sustainability.

At Labflex, we are aware that sustainability is a central part of the future and our existence. We will deliver green solutions for laboratories and help create the laboratories of the future. In the long term, our ambitions are to deliver a detailed ESG-report, where we can continuously improve ourselves as a workplace, supplier, and partner.

## **LABORATORIES OF TOMORROW**

Drawing on more than 60 years of industry experience, Labflex has established itself as a global leader in laboratory solutions. As the industry continues to evolve, we remain dedicated to not only keeping pace with new developments, but also driving innovation through intelligent solutions and new initiatives.

The laboratory industry, like many others, is experiencing a technological revolution that is transforming operations worldwide. As digitalisation of products, solutions, and companies becomes an increasingly integral part of the future, it is essential for laboratories to embrace these changes and adapt to new technologies

At Labflex, we facilitate the implementation of digital technologies that create a new and changing reality for the entire laboratory industry - a transformation we have chosen to call Labflex 4.0.

Future laboratories will increasingly consist of digital solutions where data is used to optimise processes. We are working towards new innovative concepts where digitalisation and data processing will be at the center.

## WHEN LABORATORIES MEET LABFLEX 4.0





#### **DESIGN**

At Labflex, we know that aesthetics in the laboratory are essential for a good working environment. The laboratory should be pleasing to the eye, which is a motivating factor for the laboratory technician. The design of the laboratories should, along with the aesthetic focus, also complement Labflex's values by being functional, efficient, ergonomic, safe, and sustainable.

Labflex has a unique know-how in the design of laboratory solutions, which has been refined through many years of development of Building Information Modeling (BIM). This process ensures a range of benefits that improve the design of the laboratories and ensure a good process from design to delivery of the laboratory.



#### **FUNCTIONALITY**

Labflex values functionality very highly. The laboratories must function as intended, and our solutions reflect this focus.

Ensuring an optimal working environment is essential to the functionality of our solutions. At Labflex, we achieve this through high levels of flexibility and cleaning-friendly constructions, ensuring that our solutions are functional to meet the needs of any laboratory

Labflex's flexible solutions contribute to optimal ergonomics and a functional workflow.



#### **EFFICIENCY**

To ensure an efficient workflow for the individual laboratory technician, it is important to understand the user's needs, which is why Labflex identifies and designs the optimal layout through research of needs and desires.

Labflex delivers solutions that create the most efficient flow by designing the laboratory according to specific needs and solutions that can organise the laboratory's equipment and supplies.



#### **SAFETY**

The cornerstone of Labflex's innovation process is that safety always has the highest priority. In all solutions that Labflex delivers, there will always be a focus on creating or maintaining optimal safety.

Safety installations must protect users from harmful chemicals and thus ensure an optimal working environment. Labflex qualifies laboratories according to relevant standards such as GMO and ATEX.

Safety is maintained for many years through cleaning-friendly solutions and Labflex's service concept, which ensures that the laboratory is in the correct and functional condition.



#### **SUSTAINABILITY**

Labflex has a vision of reducing  $CO_2$  emissions in connection with laboratories. We take a holistic approach to this agenda, which is why we focus on sustainable initiatives both internally in Labflex and externally in the laboratories.

In order to measure the impact Labflex has on the environment, as well as the effect of the company's sustainable initiatives, the following segments are divided below. The division makes it possible to identify the biggest culprits in terms of CO2 emissions. At the same time, the sustainable and improving initiatives that will mitigate emissions from the biggest culprits are specified.



The number of tree seeds grown and matured for 10 years to capture the same amount of CO2.



Number of homes whose energy consumption emits the equivalent amount of CO2.

## **PROCUREMENT**

Procurement plays a central role in Labflex's journey towards a sustainable future. As a manufacturer, we use large quantities of raw materials, mainly wood, glass, steel, and chemicals.





53.805

410

#### **ENERGY**

In relation to the production of laboratory furniture, energy is used for lighting, heating, and operation of machines in the production facilities. At the same time, office buildings for administration, project management, and sales also consume energy.





8.945

68,1

### **TRANSPORT**

Carbon emissions related to the transportation of goods to and from Labflex, as well as all company-related travel fall under this category.





10.455

79,6

#### WASTE

This category consists of waste generated during production, such as waste that is sent for incineration, landfill, or recycling.





-3.1

3

#### **FUME CUPBOARDS**

This category shows the total lifetime costs of the fume cupboards after Labflex has delivered them to the customer.





259.469

1.977

**ENERGY** 

541

TON CO<sub>2</sub>E

**PROCUREMENT** 

3.254

TON CO<sub>2</sub>E

WASTE

-25
TON CO,E

FUME CUPBOARDS

15.692

TON CO<sub>2</sub>E

**TRANSPORT** 

632

TON CO<sub>2</sub>E

## RESPONSIBLE PROCUREMENT



At Labflex, we purchase hundreds of thousands of different components - ranging from heavy deliveries of melamine-coated chipboards to a batch of 100 stainless steel screws. The wide range of components also entails that we cannot accurately map our total CO2 emissions by 100% due to the lack of emissions data from our subcontractors. In the current year, we have mapped more than 70% of the CO2 emissions from all of our purchased items - a process that doesn't stop here.

The purchase of raw materials reflects many requirements for safety, functionality, efficiency, and economics. Labflex is committed to offering sustainable materials to both our customers and partners.



#### **RESPONSIBLE CHOICE OF MATERIALS**

At Labflex, we are committed to utilising responsible raw materials in our production processes. As part of our ongoing efforts, we regularly assess our materials and proactively seek out more eco-friendly alternatives.

Our range includes recycled materials as well as PEFC and FSC certified materials.

90% of the chipboard used in the production of laboratory equipment comes from recycled wood. The purchase of certified wood\* for Labflex amounted to 85.4% of the total amount of purchased wood in 2021.



#### **REUSE OF FURNITURE**

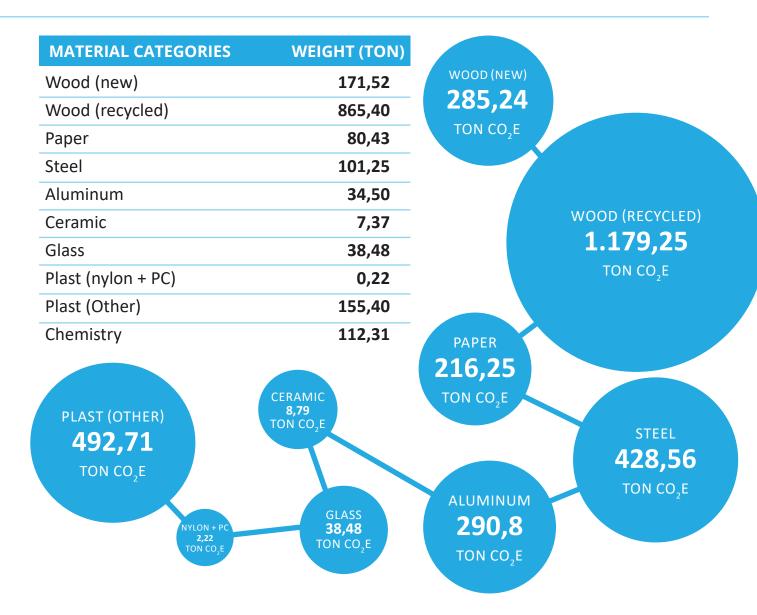
Labflex has entered into an agreement for the reuse and restoration of used laboratory furniture that cannot be used where it is for various reasons.



#### SUSTAINABLE WORKTOPS

Labflex has signed up to be a supplier of new, innovative, and sustainable worktops made of compressed cardboard. The worktops are expected to be ready in 2023.





## **ENERGY OPTIMISATION WITHIN LABFLEX**



Labflex strives to minimise the energy consumption for the production of laboratory furniture.

There are several options for reducing energy consumption in furniture production. Labflex focuses, among other things, on optimising lighting and heating solutions, as well as streamlining work and production processes.



#### REPLACEMENT OF LIGHTING AND HEATING SOLUTIONS

To reduce the CO2 footprint related to the production of laboratory solutions, Labflex has switched to LED solutions and heat panels, which have halved the energy consumption for lighting.



#### **EFFICIENCY OF PROCESSES**

In collaboration with Force Technology, Labflex has begun mapping the workflows and processes in production, with the goal of optimising our resource and energy consumption. The aim is to improve efficiency without compromising the flexibility of production or the quality of our products.

## **ELECTRICITY**

877.160 kWh 398,47 ton CO<sub>2</sub>e

74%

**GAS** 63.896 m<sup>3</sup> 142,17 ton CO<sub>2</sub>e

26%

## **REASONABLE TRANSPORT**



The emission calculations are based on a weighted average of the number of kilometers our goods and resources have been transported. The weighted average is calculated based on the percentage of turnover from suppliers and customers, which is used to estimate the average number of kilometers per shipment.

At Labflex, we have approximately 20 outgoing shipments and 20 incoming shipments per week throughout the year. This corresponds to almost 500.000 kilometers in connection with the transport of goods and products to and from Labflex.

Our installers use company cars, which are also part of the statistic. We continuously optimise the logistics part, where we strive to reduce the number of shipments and kilometers driven.



#### **OPTIMISATION OF SERVICE CONCEPT**

Labflex is currently developing a new service concept that will optimise the efficiency of our service through data. Data collection from fume hoods will provide indications of the condition of the fume hood, thereby ensuring that service and maintenance are only performed as needed.



#### TRANSPORT OF GOODS

Labflex primarily uses two external freight companies for shipping laboratory equipment. Both companies have developed an ambitious climate policy, which for example includes a reduction of scope 1 and 2 emissions by 40% between 2019 and 2030.

## TRANSPORT OF GOODS

498.264 km 532,17 ton CO<sub>2</sub>e

## **OWN VEHICLES**

414.968 km 100,11 ton CO<sub>2</sub>e

84%

16%

## **WASTE HANDLING**



Labflex processes various materials in production, which ultimately become part of our furniture systems. After processing, there will be scraps and pieces that are discarded. Labflex sorts the waste and ensures that as much as possible is recycled or disposed properly.



#### **RECYCLING MATERIALS**

Labflex aims to recycle as much as possible, thereby reducing waste of materials such as wood and steel. This includes proper sorting of waste, where chipboard, clean wood, steel, and cardboard are separated and sorted accordingly.



## **ENERGY CONSUMPTION IN FUME CUPBOARDS**



Labflex's fume cupboards are produced in accordance with the applicable norms and help create an optimal working environment in laboratories by providing the necessary safety factor when working with hazardous substances and other chemicals.

The safety of laboratory users is of the highest priority, which is reflected in the quality of our fume cupboards.

Fume cupboards generally have a high energy consumption, equivalent to the consumption in a single-family home. Therefore, we also have a responsibility to investigate how we can mitigate the high energy consumption

Emissions from the fume cupboards are calculated based on their total lifespan. The energy consumption of the fume cupboards is high due to the need for safety, which is why fume cupboards are the worst sinner of CO2 emissions in laboratories.



#### **DIGITALISATION OF FUME CUPBOARDS**

Labflex is testing new digital solutions developed to collect and process data related to fume hoods and other devices in the laboratory. Labflex expects to significantly reduce energy consumption in laboratories with these new solutions.



#### **VALUABLE PARTNERSHIPS**

In relation to the digitisation of fume cupboards, data collection and utilisation of data, Labflex has entered into a commercial partnership with the company Inniti.

## **CLIMATE COMPASS PROVIDES DIRECTION**

The primary function of the Climate Compass is to visualise the future path for Labflex. Through a thorough and detailed analysis of the organisation's consumption of everything from raw materials, energy, transportation, and waste management to the total lifetime costs of fume cupboards, the Climate Compass highlights the most important areas of focus for Labflex.

Therefore, the upcoming climate reports will stem from the direction that the Climate Compass has set in 2021 based on the collected empirical data. We aim to continue our work in exploring improvement initiatives that will help Labflex's sustainable journey and ensure that we cross the green finish line.

