



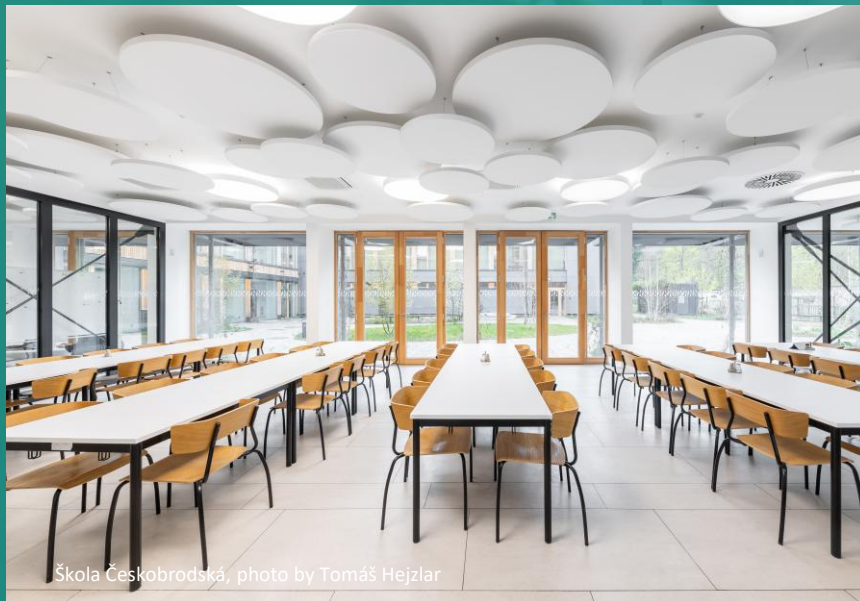
LIFE ClimArchiBase

Towards Sustainable Buildings and Cities

How can we turn sustainability from theory into real-world buildings?

This is exactly what the **LIFE ClimArchiBase project** set out to address. Its aim was to make it easier to create buildings and cities that are more environmentally friendly, use energy and resources more efficiently, and are better prepared for climate change.

The project therefore brought together **expert knowledge and practical experience** and created a range of resources for everyone involved in shaping our buildings and cities. These include an online platform with practical information and examples of good practice, educational programmes, and expert consultations for specific projects. The project also developed **recommendations for public authorities and policymakers**, highlighting what needs to change to make sustainable construction common practice.



Škola Českobrodská, photo by Tomáš Hejzlár



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What Has the Project Achieved?

The construction sector has a significant impact on both the climate and the environment. **Buildings consume large amounts of energy, water, materials and other natural resources, while their construction and operation generate greenhouse gas emissions.** As the energy consumption of new buildings decreases, the importance of building materials and the emissions associated with their production is growing. The way we build also affects water management, urban greenery, biodiversity and overheating in cities.

LIFE ClimArchiBase therefore helped **connect sustainability knowledge with real-world construction practice.** Architects, designers, investors, cities and municipalities gained access to information, education and expert support, helping them better address energy performance, carbon footprint, materials, water, greenery and climate adaptation when planning buildings and public spaces. Putting this knowledge into practice is one of the main ways in which the project contributes to positive environmental impacts.

But the project went beyond simply sharing information. **It influenced specific buildings, renovation projects and public spaces already at the planning stage.** Expert consultations helped identify better solutions, compare different options and highlight potential risks early on. Topics included energy performance and building systems, renewable energy, material selection, rainwater management, greenery, biodiversity and protection against overheating. The resulting recommendations could then be incorporated into the further development of designs and project documentation, as well as into decision-making by investors and public authorities.

More sustainable projects mean lower consumption of energy and natural resources, fewer greenhouse gas emissions, less construction waste, more responsible water management, and more greenery and

biodiversity in cities. Sustainable construction is therefore also linked to better air quality, reduced emissions of air pollutants and public health. People spend a large part of their lives in buildings and the built environment, which can have a significant impact on both their health and well-being.

The project's results will continue to have an impact in the future. The knowledge and experience gained through the project will help shape new construction and renovation projects. Professionals, investors, cities and municipalities can continue to draw on the educational programmes, expert consultations and the ClimArchiBase platform. **The changes the project has brought to specific projects and decision-making processes can therefore gradually influence other buildings and cities, helping to reduce their environmental impact in the long term.**

The LIFE ClimArchiBase project **reached thousands of people and helped put sustainability into practice.** Educational events recorded nearly **7,000 attendances**, with thousands more online views, while almost **500 consultations and 88 consultation packages** supported a wide range of projects. The **ClimArchiBase platform** attracted hundreds of visitors and the project also developed **recommendations for public authorities and policymakers** to support a more sustainable, lower-carbon construction sector in the Czech Republic.



ČSOB, photo by Vojtěch Herout

What Stands in the Way of More Sustainable Construction?

The Czech construction sector is changing, and **sustainability is playing an increasingly important role**. Energy efficiency, emission reductions and more environmentally responsible approaches are increasingly reflected in regulations and investor requirements. Architects, designers and municipalities therefore need **new knowledge and, above all, practical information** on how to put these changes into practice.

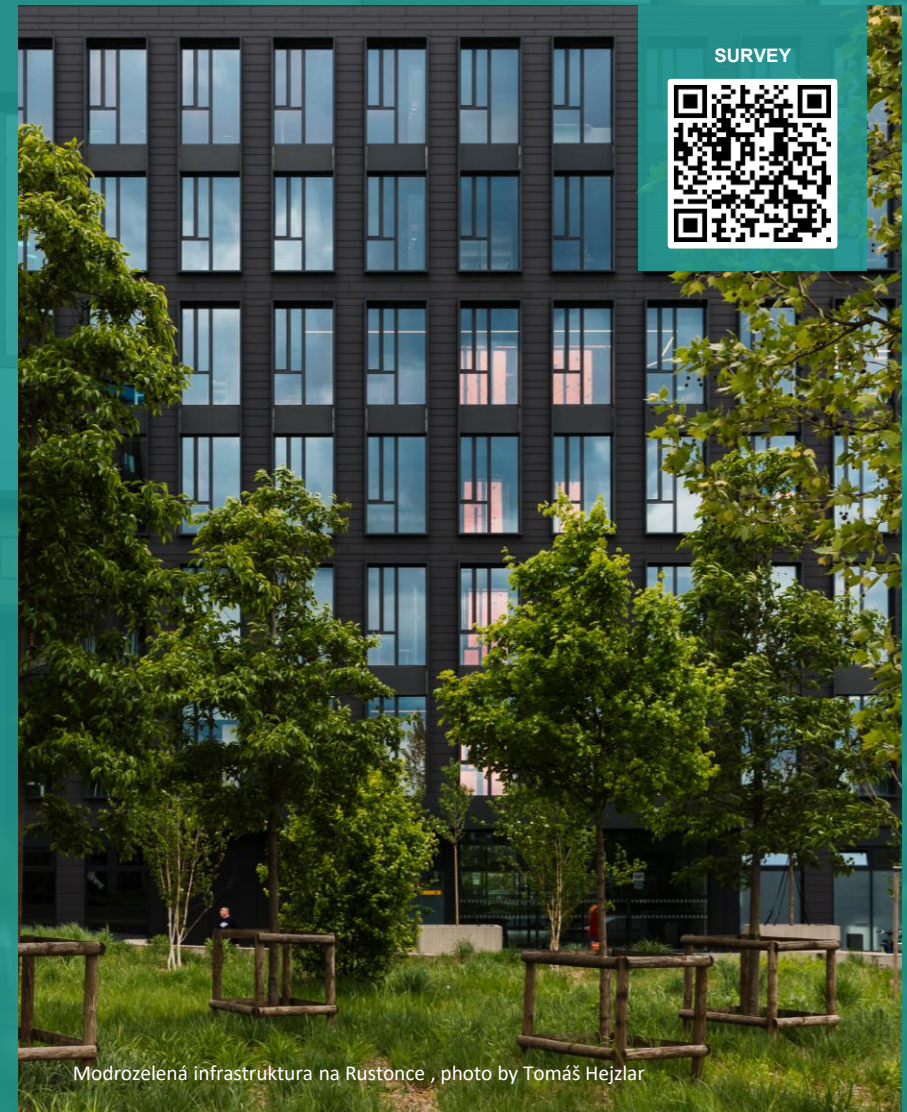
One of **the main barriers is the lack of clear, reliable information and examples of good practice**. Opportunities for further education for architects and designers are also limited, and systematic lifelong learning in this field is not yet a standard part of professional practice.

Cities and municipalities also have an important role to play. As public investors, they make decisions about buildings that will serve communities for decades. In addition to the initial investment, it is therefore important to **consider future operating costs**, impacts on the surrounding environment and benefits for residents. Municipal architects and energy and climate managers can help support better decision-making.

Reducing the carbon footprint of the construction sector is another major challenge. It is not only about how much energy a building uses, but also what it is made of and how it is built. More sustainable materials, renovation of existing buildings and the reuse of construction materials therefore all have an important role to play.

The survey also highlighted **urban planning, transport, water management and the impact of construction on the landscape**, as well as urban expansion into the surrounding countryside. These issues have a long-term influence on the shape of our cities and municipalities and on residents' quality of life.

The findings show that **sustainable construction is not just about energy-efficient technologies**. Buildings, energy, water, materials and their surroundings need to be considered as one interconnected whole.



Modrozelená infrastruktura na Rustonce , photo by Tomáš Hejzlár

Where Can You Find Information and Inspiration for More Sustainable Buildings and Cities?

Designing sustainable buildings today requires navigating legislation, methodologies, certification systems and the latest knowledge. However, the information needed is often scattered across many different sources, making it time-consuming to find.

This is why the **ClimArchiBase platform** was created, bringing together knowledge, tools and inspiration for sustainable architecture and urban development in one place. It is designed for architects, designers, urban planners, developers, public investors, cities and municipalities, as well as others involved in the planning, construction and renovation of buildings and public spaces.

The platform offers **educational events, publications, methodologies, legislative documents, strategies and certification systems**. It also provides information on expert consultations and **examples of good practice** from the Czech Republic and abroad, giving users easy access to both practical information and inspiration for their projects.

An important part of the platform is the **Interactive Design Manual**, which helps users incorporate sustainability principles from the earliest stages of a project. Based on the type and stage of the project, it highlights relevant topics and criteria and links them to methodologies and systems such as BREEAM, LEED, WELL, Level(s) and the EU Taxonomy.

ClimArchiBase is therefore more than just a database of information – it is a practical tool for more sustainable decision-making. It helps turn expert knowledge into practice and supports the development of buildings and cities with a lower environmental impact, greater energy efficiency and increased resilience to climate change.



Otevřená zahrada, photo by Tomáš Hejzlar

How Can We Design Buildings That Are Environmentally Friendly and Work Well in Practice?

New technologies and stricter regulations are not enough on their own. For sustainability to become part of everyday construction practice, the people who design, build and manage our buildings and cities also need **up-to-date knowledge, practical experience** and opportunities to learn from others. This is why education became an important part of the LIFE ClimArchiBase project.

The educational activities were developed based on a survey of professionals and other practitioners, which identified what information they were missing, which topics interested them most and what could help them apply sustainability principles in their everyday work.

The result is **a diverse range of educational programmes and activities**, from comprehensive courses to shorter seminars, workshops, lectures, excursions and expert discussions. Some take place in person, others online, while some combine both formats. This allows participants to choose activities that best suit their professional focus, needs and available time.

The range of topics is equally broad. The programmes cover **energy-efficient buildings and renovations, reducing carbon footprints, sustainable materials and responsible use of resources**. They also address water management, nature-based solutions and ways to better prepare buildings, public spaces and cities for climate change. Economic, legislative and social aspects are also covered, as these can determine whether a good design is successfully put into practice.

But education is not just about theory. **Experience from real-world projects, examples of good practice and working together to find solutions to specific challenges all play an important role**. The activities also bring different professions together, creating opportunities for

architects, designers, energy specialists, investors, developers, representatives of cities and municipalities, academics and students – the next generation of professionals – to share their knowledge and experience.

The **educational programmes will continue beyond the LIFE ClimArchiBase project**. They will continue to evolve and respond to new technologies, changes in legislation and the needs of the construction sector. This is particularly important in a rapidly changing field. **The knowledge gained today can therefore help make sustainability an increasingly common part of how buildings and cities are designed, constructed, renovated and managed in the Czech Republic.**



How Can We Put Sustainability Principles into Practice in a Specific Project?

Every project raises different questions, and there is no single sustainable solution that works equally well everywhere. This is why LIFE ClimArchiBase introduced expert consultations and consultation packages to help find solutions tailored to specific projects.

They are available to architects, designers and other professionals, as well as developers, investors, cities and municipalities. **Sometimes a short consultation on a specific question is enough, while at other times the project needs to be considered as a whole.** More comprehensive consultation packages therefore make it possible to address several interconnected topics with experts throughout the project preparation process.

The consultations cover **energy performance, carbon footprint, renewable energy, materials and circular construction**, as well as legislation and certification. **Climate adaptation** is another important area, including rainwater management, greenery and trees, water retention and protection against overheating. The support is not limited to buildings, but also covers parks, streets, squares and other public spaces.

The consultations help **ask the right questions at the right time**, identify potential risks and compare different options. A key advantage is their **comprehensive approach**, bringing together architecture, energy, technical solutions and environmental impacts.

The results go beyond recommendations on paper. Many are incorporated directly into the further development of projects, project documentation or decision-making by investors and public authorities. In this way, the consultations help turn sustainability principles into practical solutions for buildings and public spaces.



Family house Hovorčovice, photo by Tomáš Hejzlár

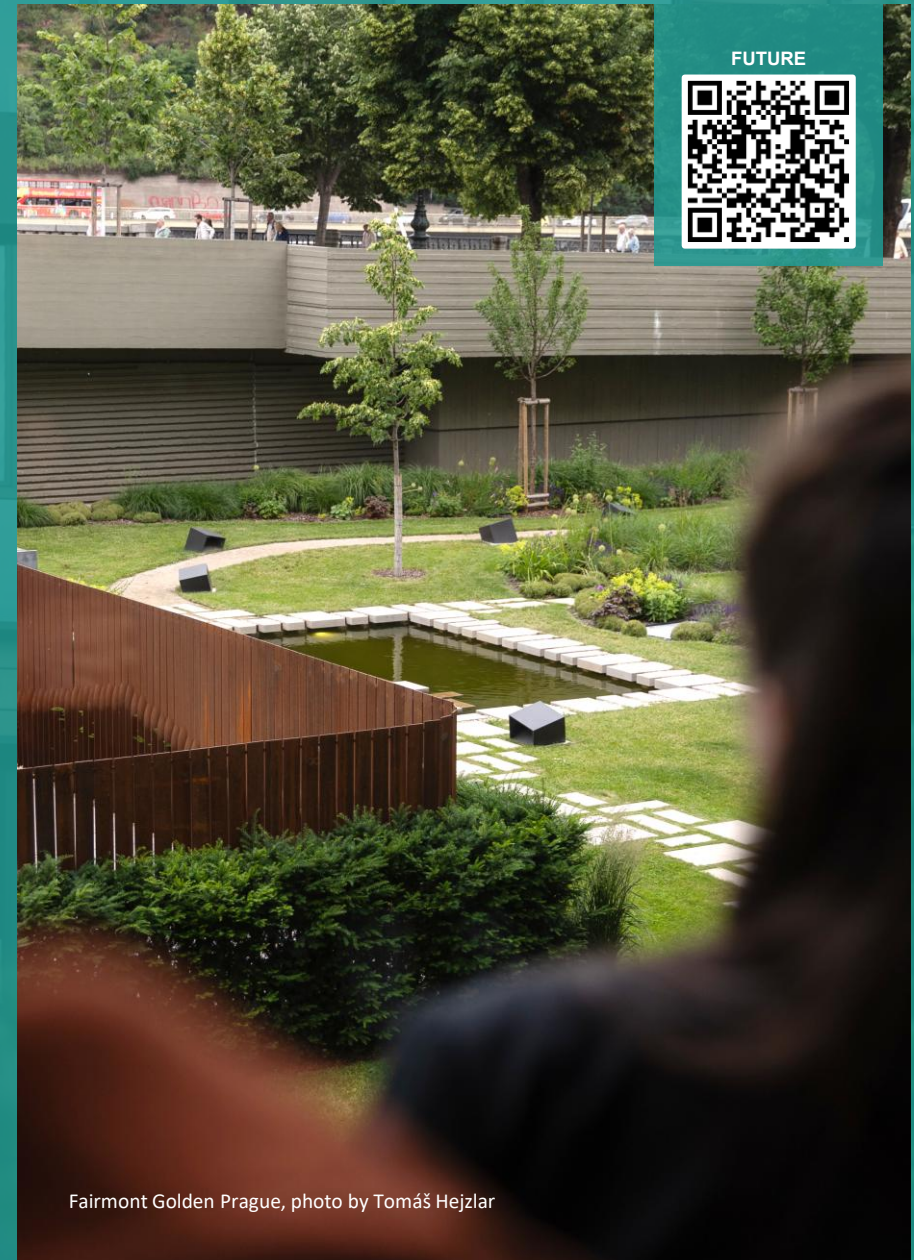
What's Next for the Czech Construction Sector?

The Czech construction sector will face major changes in the coming years. Building more energy-efficient buildings alone will not be enough. To truly reduce the impact of construction on the climate and the environment, **we also need to change the way buildings are planned, renovated, financed, procured and managed**. This is the focus of the Policy Recommendations developed as part of the LIFE ClimArchiBase project. They provide **recommendations for national and local authorities** and identify practical tools that can help put them into practice.

The recommendations draw on **expert discussions and the experience of practitioners** and focus on several key areas. These include better coordination and long-term planning, improved access to data on buildings and materials, systematic renovation, more responsible public procurement and greater use of circular economy principles. Strengthening the professional capacity of cities and municipalities is also important, ensuring they have the knowledge and support needed to develop high-quality projects.

The way decisions about buildings are made also needs to change. **Alongside initial costs, greater consideration should be given to long-term operating costs, carbon footprint, materials and impacts throughout the entire life cycle**. Renovations should be planned according to the actual condition and needs of buildings, while new projects should focus on the responsible use of resources and opportunities to reuse materials.

The common goal is to **move from individual measures towards a long-term, systematic approach**. Better planning, high-quality data, well-planned renovations, responsible public procurement and accessible expert support can help reduce the environmental impact of the construction sector while creating better buildings that will serve people well for many years.



Fairmont Golden Prague, photo by Tomáš Hejzlar

Four organisations, each approaching sustainability from a different perspective, collaborated on the LIFE ClimArchiBase project: **Centrum pasivního domu (CPD)**, **Nadace Partnerství (CEPF)**, **Rethink Architecture Institute (RAIN)** and **Česká rada pro šetrné budovy (CZGBC)**. Together, they brought expertise in sustainable architecture, energy-efficient construction, education, and cooperation with cities, municipalities and the wider professional community.

Centrum pasivního domu (CPD), the project's lead coordinator, is a non-profit expert organisation that has been supporting high-quality, energy-efficient and sustainable construction in the Czech Republic for more than 20 years. Its activities include education for professionals and the general public, conferences, seminars and excursions, expert information and examples of good practice. Through cooperation with architects, designers, construction companies, public authorities and academia, it contributes to the development of healthy, comfortable and energy-efficient buildings and supports the adoption of innovative solutions in construction practice.

Rethink Architecture Institute (RAIN) is an educational non-profit organisation promoting sustainable architecture and a high-quality built environment. Through educational activities, lectures, seminars, courses and professional events, as well as cooperation with architects, designers, investors and public authorities, it supports innovative approaches to designing buildings and cities that take environmental, economic and social aspects into account.

Nadace Partnerství (CEPF) is the largest environmental foundation in the Czech Republic and has a long history of supporting nature conservation, sustainable development and climate adaptation. Through grant programmes, expert advice, education and cooperation with municipalities, schools and communities, it helps create better and more resilient places to live. Its work also includes promoting sustainable landscape management, blue-green infrastructure and public involvement in environmental stewardship.

Česká rada pro šetrné budovy (CZGBC) brings together companies and institutions working in the field of sustainable construction. Through education, knowledge sharing, collaboration, the development of methodologies and expert recommendations, and awareness-raising activities, it supports the construction and renovation of energy-efficient buildings with minimal environmental impact. Active in the Czech Republic since 2009, its work contributes to its Vision Zero, which aims for buildings with zero environmental impact throughout their entire life cycle.

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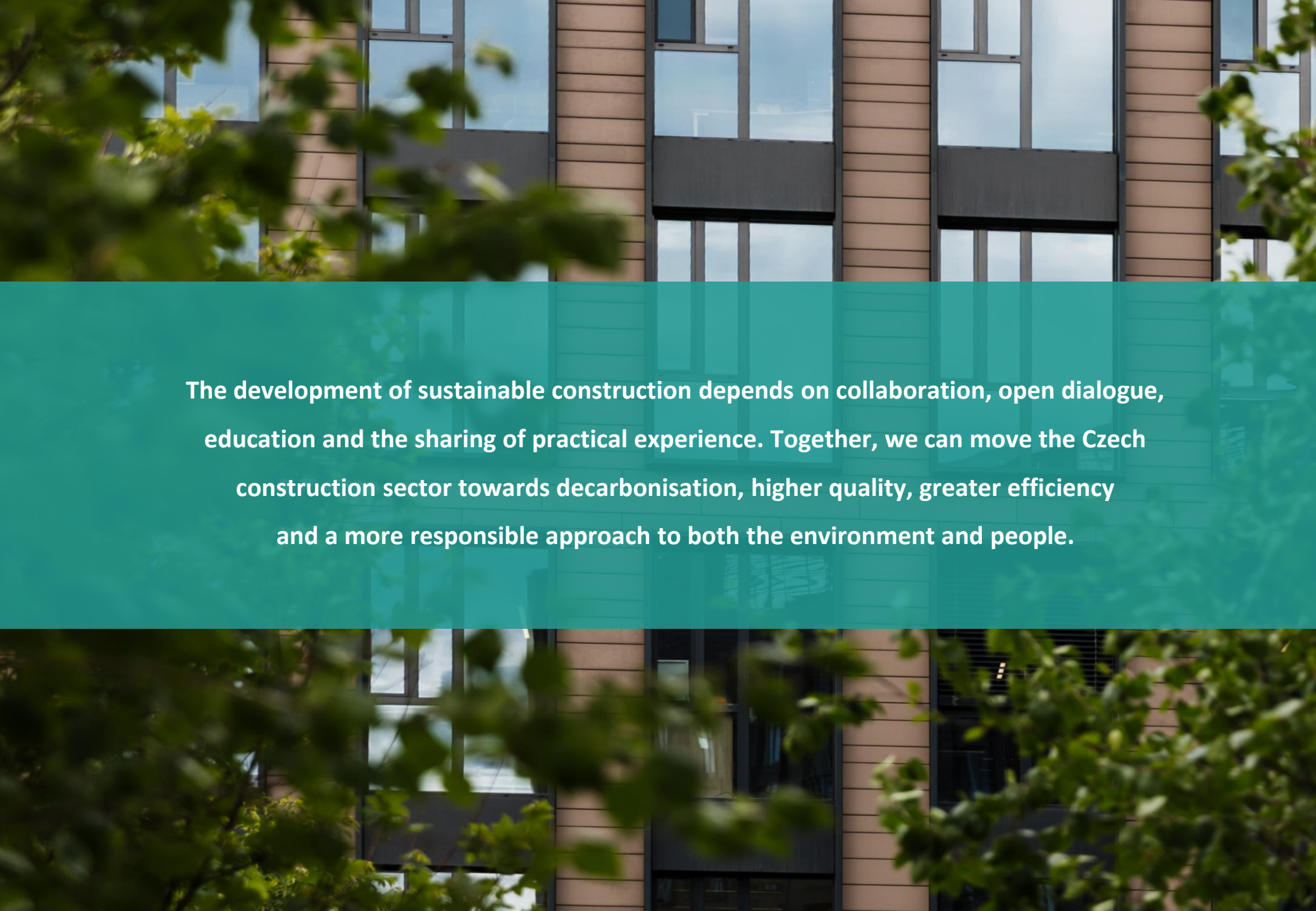
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The development of sustainable construction depends on collaboration, open dialogue, education and the sharing of practical experience. Together, we can move the Czech construction sector towards decarbonisation, higher quality, greater efficiency and a more responsible approach to both the environment and people.