# CESB25

September 16–19, 2025, Prague

# Central Europe towards Sustainable Building 2025

## Proceedings of Technical Papers

# An Active Rescue of Immovable Industrial Heritage in the Form of a New Use

**Lenka Popelová[1*], Tomáš Šenberger[1], Nikolay Brankov[1], Jan Pustějovský[1], Karel Hájek[1], Ashtar Nalja[1] and Klára Ciesarová[1]**

[1] Department of Architecture, Faculty of Civil Engineering at CTU in Prague, Czech Republic

[*]E-mail: lenka.popelova@fsv.cvut.cz

**Abstract.** The paper presents the results of the first phase of the ministerial research, NAKI III ("The immovable industrial heritage, the physical evidence of the industrial era, cultural heritage and national identity"), which is focused on mapping cultural and creative industries as a new function of former industrial buildings. The result of the mapping, evaluation criteria and statistics will be presented, which show the nature of these interventions. It is perceived to be the base of further possible consideration of the types of interventions in abandoned industrial buildings. This type of non-traditional functions (circus, climbing walls, temporary cultural activities, coworking), and proven functions as well (theatres, galleries, offices), helps often to preserve the buildings themselves without the need for monument protection. They also help to develop local communities and support the sustainability of industrial heritage in the locality. The NAKI project sees the adaptability of the building and its compatibility with the new function as the main criterion, so that the future use is truly sustainable.

## 1. Annotation

The text summarizes the ongoing research findings of the programmatic project "Active Preservation of Immovable Industrial Heritage through New Uses," funded by the Ministry of Culture of the Czech Republic under the NAKI III program (2023–2027) and conducted at the Faculty of Civil Engineering at the Czech Technical University in Prague. In the first phase (2023-2025) of the project, the focus is on the mapping reuse of cultural and creative industries within the neglected industrial buildings of the Czech Republic.

The aim of this filed of research is to portray as much diversity in cultural and creative undertakings as possible that are provided re-purposed industrial buildings. A total 350 former industrial structures have been catalogued based on their transformation processes, present activities, architectural alterations, proprietorship, and legal status. Results have been analyzed using statistical methods and will be further explored.

The aim of the project is to explore the role of implementing creative activities and cultural programs in derelict industrial structures in preserving industrial heritage while also offering opportunities for these activities to take place where there is a lack of suitable buildings for such purposes.

## 2. Introduction

*2.1 Subject of investigation*

The current tendency around the world is to create an economy that is built on creativity, innovation, a high level of qualified workforce, and business. The so-called cultural creative industries (hereinafter referred to as CCI) encompass those industries which are founded on cultural values of arts and other forms of individual or collective innovations. We take CCI definition in its general form as provided by Bilík-Nétek (Bilík, Nétek, TAČR, 2020) and subdivide it into three basic domains namely: the domain of traditional art (more publicly funded), the domain of cultural industries, and the domain of creative industries. Original creation which forms the core of CCI includes performing arts, music, visual arts, crafts, design, fashion, architecture, advertising, software, gaming, film and audiovisual, television and radio, new media, information technology services, publishing, education in the field of culture, and all culture producing innovations. Our analysis, however, goes beyond this boundary and includes, for instance, culinary art and, to some extent, sports, if they possess a cultural-communitarian dimension.

Several research projects and programs have been active for the past 15 years in describing, analyzing and assessing the impact of creative industries in Europe (see Creative Europe, New Bauhaus, etc.). The same applies for the Czech Republic (Creative Česko, CzechInvest), where the works of M. Cikánek's (Cikánek, 2013; Žáková, 2015) and Bilík-Nétek (Bilík, Nétek, TAČR, 2020) are relevant because they point out the still vague conceptualization of the CCI terms. The focus of the motifs has shifted from simply attempting to define the problem to one where there is a structured strategy to provide support towards establishing and sustaining this sector. This was seen in 2020 with the launch of the Creative Czech Republic platform by CzechInvest Agency, which aims at supporting creative cities, and regions. Despite these changes, there is a deficit in the thorough mapping of these locally oriented activities.

Simultaneously, those activities help to form a cultural and cultivated environment (Gehl, 2012), which shapes the behavior of society and life in the settlements, including the nurturing of urbanism (Kašpar, 2024). It is well documented that they substantially contribute to HDP formation (check Czechinvest statistics). However, the goal of our research was not the CCI theoretical essence scoping discussion, but rather mapping and describing creative activities that have crystallized over the last few years within the neglected industrial landscape. During a decline and demolition phase of former industrial sites, such activities seem to promise a vibrant future for industrial heritage by giving the neglected structures temporary protective uses, or even permanent new lives.

## 2. How does CCI relate with Industrial heritage?

**Industrial structures**, which include but are not limited to the extraction and processing of raw materials, construction, and storage, have emerged during the latter half of the 19th century and the early parts of the 20th century. It loosely includes railway structures, urban infrastructure as well as warehouses. (TICCIH Charter 2003, Doet, 2013, Matěj-Ryšková, 2018). Currently, there is a tendency to classify decayed structures from the second half of the 20th century as heritage sites, such as heating plants and transformer stations among other things. (Popelová, Šenberger, 2021). From a typological perspective, industrial buildings encompass all principal types of structures, whether it is generic, multi-purpose, multi-story ‘towers and halls’, unique single-

purpose chemical plants, or combined breweries, boiler rooms, transformer stations and railway stations.

How can “industrial heritage” be connected to a contrary concept such as “cultural and creative industries”? The combination of social change, concern for the environment, emerging technology, and the substantial energy crisis that plagued Europe due to the transition from the “second industrial revolution” (defined as 2-0) to the “third industrial revolution” (3-0) during the beginning of the second half of the 20th century were major factors in transforming the continent’s technology and, therefore, the decline of Western heavy industry and any related sectors between the late 1960s and early 1970s. By this time, industries in the UK had already declined close to 70%.

The investigation into striking industrial architecture from the late 1960s led to the formation of TICCIH in 1973, recognizing industrial heritage as cultural heritage. Since the 1970s, many industrial buildings in the West have been repurposed with varying success in meeting modern urban needs. This was embraced by 'creative' efforts mainly from artists of various kinds who began to occupy these vacant spaces. This is where the two entities are still interrelated today. The new users of these spaces also come into play, which American theorist Richard Florida (Florida 2003, 2019) has dubbed ‘the creative class.’ He foresaw their emergence and growth as being vital to future innovation, increased GDP contribution, and the birth of a novel cultural and business scene. Realizing the significance of these activities, non-profit entities, and later public administrations, offered various forms of subsidies, especially to non-commercial entities. The spontaneous use of empty structures was also logical specially for creative work. It was, often, with no or little funding. These vacant structures addressed the shortfall but posed various challenges. Similar initiatives started in the West and had different socio-cultural foundations than the Czech Republic where it was influenced by illegal squatting, varying acceptance of leftist movements, and independent cultural and artistic life.

According to the findings of our research, little improvement has been observed until now, these activities are still largely directed to abandoned buildings. It is now evident that some artistic domains have fully integrated into the industrial space such as performing arts in the renowned Rondhouse in London as theatres are symbols of innovation. Theoretician J. Strong (Strong, 2010) defines the meaning of “industrial theatres” as spaces within industrial sites that have been repurposed into performance spaces (Poláček, Pokorný, 2015; Lapšanský, Popelová, 2016). Art studios, galleries, and artist residences now integrate into industrial spaces like Leipziger Baumwollspinnerei, Tate Modern, and Humpolcká 8MIČKA etc. Dance studios and schools, such as the Prague Dance Centre in the Branický brewery, are also part of this trend, especially in the West and the Czech Republic. It is now common for industrial spaces to be converted into photography studios, coworking spaces, and bars that make use of industrial chic as part of their branding (Poláček, Pokorný, 2015).

From the perspective of industrial heritage conservation, tourism related to the preservation of industrial heritage is gaining greater significance today with the aid of many networks such as ERIH, Technotrasa, Go to Brno, and others, including those of cross-border significance. Other networks unite professional circles such as ANTENA, Trans Europa Halls/TEH and others, and theorize their work (TEH, 2024).

The focus extends beyond individual initiatives to encompass entire locations, including creative clusters and creative cities. This has been studied in the Western world before, for example the Working Heritage Project (VCPD 2004), attempted to study and analyze the most advanced transforming areas in Birmingham, Roubeix, Schio, and even Prague. Currently, we

include cities like Leipzig, Milan (Fossa, 2015), Łódź, Linz, Barcelona (Duarte, 2018), Košice, etc. Today, this phenomenon expands to include European Capitals of Culture (hereinafter referred to as ECoC). For the Western region, large-scale regeneration of previous industrial zones is quite common, as it is seen in the Silesia or Ruhr regions (IBA). In our region, rather smaller creative clusters are known, for instance, smaller ones like in Pražské Holešovice, creative cities like Pilsen 2015, and from large-scale interventions the Lower Vítkovice Area (DOV) in Ostrava, the reconfiguration of Zlín or the attempts for landscape interventions in the Most region. These phenomena require huge resources to be invested, to name a few, PLATO Ostrava and Automatické mlýny in Pardubice. (Merta et al., 2024). However, as our research shows, many CCIs in the industrial sector are far simpler, they are smaller, often low-cost projects and in the sense of Cikánek's words (Cikánek, 2013, p. 138), it is often socially engaged individuals who lead these transformation initiatives.

## 3. Concepts

Building upon the generally stated list of creative activities of cultural and creative industries, the research established basic categories in which the nature of the activity is primarily monitored in relation to spatial (typological) requirements, dominant period of use, and requirements for public contact or visitors. After evaluation, we selected two primary types of sectors: First, production, which is an activity in which outputs of a tangible nature that can be marketed are produced deemed by the creativity of the makers (creative industries). Second, presentation, which thanks to a more flexible definition includes Cultural Sector – an activity in which artistic performances, works of art, different collections, as well as books or archives are presented (cultural industry). The last element covers education as a fundamental type of cultural activity and one form of access to the above industrial building.

The phrase ‘re-use/conversion’ is used in regard with the level of structural intervention as well as the scope of adaptability (Šenberger, 2023). The conversion is viewed as maintaining the structural substance of the original industrial building by inserting a new function (TICCIH, 2003; Matěj, Ryšková, 2018,). The degree of intervention to the original structure relies on the adaptability of the converted structure, type of new program, and even the creativity of the architect.

## 4. Results and preliminary interpretation of the research - selected statistical items

A total of 350 industrial sites were assessed in the study, with statistical data collected as of December 31, 2024. The evaluation focused on key attributes and specific characteristics of each site, including: location (categorized by region and settlement type), locality (urban center, suburban area, rural setting), building type, and current function (classified into primary and secondary uses, as well as monofunctional or multifunctional spaces). Additionally, the study examined the anticipated duration of use (temporary or permanent), the type of cultural institution (independent, established, or hybrid), and the extent of intervention (minor, moderate, or major). Further factors included ownership structure (private, public, or mixed), project initiation (led by private entities, public entities, or a combination), and heritage protection status (protected or unprotected). Finally, the research recorded data on grant funding, overall costs, and financial support mechanisms associated with each project.

From the items analyzed so far, we select:

**Region**

The number of conversions of industrial buildings relies heavily on the concentration of the creative cultural class in economically powerful areas. Prague, with 62 creative cultural sites which accounts to 18.1% of the total industrial fabric, and the Central Bohemian region, with 48 sites (14.0%), account for the highest share of recorded conversions because this is where cultural and economic activity is centered. A second key factor is the ethnographic allocation of industry in the Czech Republic, with some regions having a strong industrial legacy, leading to higher rates of adaptive reuse. The Moravian-Silesian Region, with 35 sites (10.2%), ranks third benefiting from its industrial heritage and strong local support for large-scale conversions, particularly in Ostrava. Other historically industrial regions, such as Ústí nad Labem, with 29 sites (8.5%), Liberec, Zlín, and Pilsen, with equal number of sites at 23 each (6.7%), also exhibit conversion activity, though at significantly lower levels. Pilsen, for instance, has received support through initiatives like the European Capital of Culture 2015. On the other hand, agricultural regions like South Moravian and Karlovy Vary with 18 sites (5.3%) each, as well as Hradec Králové with 17 sites (5.0%), have recorded minimal CCI-related conversions, which indicates a minimum demand and less available industrial structures to be utilized. South Bohemian Region recorded 16 sites (4.7%), while Olomouc Region recorded 12 sites (3.5%). On the lower end of the spectrum, the Pardubice Region has 9 sites (2.6%), while, appearing to have much lower volumes of engagement, Vysočina Region has only 8 sites (2.3%).

**Location (urban center, suburban area, rural setting)**

The positioning of industrial structures greatly affects their potential adaptability to a new purpose as well as the choice of the purpose itself. The activities in question are quite often directly associated with a sufficient number of “users” which is directly connected to the site of the building. 56.7% (194 buildings) of the CCI mapped projects are found in the central area of the settlements which once again pays back to support that CC are in more central areas of the cities where the demand and supply is highest. Nonetheless, the number of buildings that could be repurposed as CCI are constrained and restricted by many factors (scale, temporal range of use, land value, etc.). In central locations, there is often the phenomenon of temporary use of buildings, which are ready for demolition, for more commercial use of the land.

Moreover, 37.7% (129 buildings) of the sample studied reside within the boundaries of the suburban areas of the settlements where industry was historically situated - and this area possesses great benefits (dispersal zones, integrating with the natural environment, greater spatial scale) but also has some downsides (commuting problems, barriers to the city – fortification walls, watercourses, etc.). Only 4.7% (16 buildings) are found in rural areas, where they are often repurposed for tourism, recreation, or specialized cultural uses. A small portion, 0.9% (3 buildings), remains unclassified.

**Buildings types**

In the first part of the research, we examine general groups (in the subsequent phase, specific industries). Usually, only a portion is utilized of the mixed-use structures, which are the most common and offer the afore mentioned diversity of use. The new users here tend to encounter problems of variety and particularity of different spaces within the premises which may pose challenges to a project’s effectiveness and sustainability if the goals are unspecified. (e.g. breweries). Based on the typology of the 350 repurposed industrial buildings characterized in this study, the most common were combined-use buildings (18.1%), followed closely by halls

(17.3%), which is rather an astonishing finding if we perceive multi-storey buildings as being more difficult to convert due to having greater cubic capacity, need to interconnect several levels, etc. Multi-story industrial buildings come third with (16.7%), offering flexible spaces for reuse. Special buildings are also converted as expected, (16.1%), but once more they pose a greater range of challenges, as do larger building complexes (9.9%), such as mining areas. Railway stations with (8.8%), and smaller industrial buildings with also (8.8%) were transformed into CCI use as well. A small portion fell under other categories (3.8%), and 0.6% unspecified. What is particularly interesting here is the phenomenon, which we know for instance from Kulturbanhof network in Germany, of repurposing neglected railway infrastructure that also came to Czechia. (Šenberger, Popelová et al., Hájek, 2018).

**New predominate function**

The study analyzed the primary functions of repurposed industrial buildings, highlighting their transformation into spaces for production and presentation activities. Cultural and heritage collections (27.5%) represent the most common reuse, followed by exhibition spaces (20.8%) and performance venues (14.9%), which accounts to 63.5% of the sample analyzed as presentation functions. The level of private collection activities, and also public institutions, such as traditional museums, is surprising for research and demonstrates a great interest in preserving traditional values through providing accessibility to neglected industrial structures. The trend of contemporary independent galleries, and collections is also astounding. Meanwhile, other functions like gastronomy are usually affiliated. Performing arts use that is set within this environment follows, such as theatres, stages in general, new circus, recording studios or other cultural halls, dance halls, disco clubs and cultural centers, which also reflect the emerging social trend of the time. Office spaces, artist studios (13.2%) come third along with gastronomy-related uses (13.2%), and workshops and creative studios with (9.1%), which account to approximately one third of the sample representing production. The most common functions are gastronomy, offices, creative workshops, studios, and the very trendy nowadays coworking spaces that focus on innovation, for instance, the TechTower in Plzen and Robota Zlin. Hence, the assumption that abandoned industrial buildings are more important centers for technological innovation has not been fulfilled. On the other hand, (1.5%) remains unclassified.

**Figure 1.** Karlovy Vary Heating Plant - an example of community use. Photo: Dyzajnpark archive.
**Figure 2.** The new Phoenix sports hall in the former station check-in hall of the Havířov railway station. Multifunctional use. Photo: Aleš Luzar.

**Single-Multi use**

Looking at the analysis results regarding the single-multi use of repurposed buildings, over half of the structures (56.7% i.e. 194 buildings) are of multiple use and multifunctional in nature with culture, commerce or community activities constructively woven together in one space. According to Mírek and Lényi (Mírek, 2019; Lényi, 2014), multifunctional is better as it contributes to the stability and life of projects. Often, projects that were centered on a single function at genesis tend to broaden their scope over time or even change it flexibly, and this is also related to the professionalization of operations which tend to start at an amateur level (Mírek, 2019). On the other hand, only 42.7% of the buildings (146 structures) can be classified as monofunctional or single purpose buildings, usually food services or something like exhibitions. Unclassified structures only make up a tiny percentage of this figure, precisely 0.6% (2 buildings). This diversity is beneficial for the given communities and is often the result of their collective discourse of the projects (Kašpar, 2024).

## 5. Conclusion

The relationship between IH and CCI is rather tenuous. If it is not directly speaking about museum's functions, it has to do with the decline of the latter and the absence of appropriate structures and spaces for CCI. Currently, there is not enough construction taking place that reflects the demands of the given communities and individuals who are looking for a space for their activities. CCI employees are not predominantly motivated by the will to conserve industrial heritage as it is. In some cases it could be secondary or a side effect, or even unintended side effect. Preliminary results suggest that over half of the structures are started and held by private individuals in some kind of partnership with the public sphere to a limited extent. Future consideration of support in this direction is appropriate. (Plevoets, Van Cleempoel, 2019; Sidorová, 2020). We can restate that the monitored CCIs functions have fostered employment even during economic crises, excluding the impact of Covid, when, for example cultural facilities were closed, they repeatedly tend to employ youth, display a high dependence on welfare grants, and are to a lesser degree impacted by the outsourcing of labor or the introduction of intelligence automation. Having regard to the fact that they account for 4.5 percent of the EU GDP (Kreativní Česko, n.d), they have ample reasons to be properly funded.

Clearly, the interrelationship between the adaptability of an industrial building and the demands of the new use is one of the most important factors of success in the conversion. The extent and nature of the necessary interventions, triggered by the need for adaptation for new functions, especially for listed industrial buildings, must be a topic of discussion between creators (architects) and conservationists (monuments), owners, and the community. With very low levels of investment, CCIs are able to facilitate the reuse and possible safeguarding of abandoned buildings by providing access to them, which can create the basis for more permanent use in the future.

This article was funded by the Program for the Support of Applied Research in the Field of National and Cultural Identity for the Years 2023 to 2027 (NAKI III) of the Ministry of Culture of the Czech Republic within the framework of the project Active Preservation of Immovable Industrial Heritage through New Use (DH23P03OVV025).

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